

### Application for the publication of

# dumping and/or countervailing duty notices

# APPLICATION UNDER SECTION 269TB OF THE CUSTOMS ACT 1901 FOR THE PUBLICATION OF DUMPING AND/OR COUNTERVAILING DUTY NOTICES

#### **DECLARATION**

I request, in accordance with Section 269TB of the Customs Act 1901, that the Minister publish in respect of goods the subject of this application:

a dumping duty notice, or

a countervailing duty notice, or

a dumping and a countervailing duty notice

This application is made on behalf of the Australian industry producing like goods to the imported goods the subject of this application. The application is supported by Australian producers whose collective output comprises:

- 25% or more of the total Australian production of the like goods; and
- more than 50% of the total production of like goods by those Australian producers that have expressed either support for, or opposition to, this application.

I believe that the information contained in this application:

- provides reasonable grounds for the publication of the notice(s) requested; and
- is complete and correct.

Signature:

Name: Matt Condon

Position: Manager Trade Development Company: OneSteel Manufacturing

ABN: 42 004 651 325

Date: 19<sup>th</sup> August 2013

#### IMPORTANT INFORMATION

### Signature requirements

Where the application is made:

By a company - the application must be signed by a director, servant or agent acting with the authority of the body corporate.

By a joint venture - a director, servant, agent of each joint venturer must sign the application. Where a joint venturer is not a company, the principal of that joint venturer must sign the application form.

On behalf of a trust - a trustee of the trust must sign the application.

By a sole trader - the sole trader must sign the application.

*In any other case* - contact the Commission's Client support section for advice.

# Assistance with the application

The Anti-Dumping Commission has published guidelines to assist applicants with the completion of this application. Please refer to the following guidelines for additional information on completing this application:

- Instructions and Guidelines for applicants: Application for the publication of dumping and or countervailing duty notices
- Instructions and Guidelines for applicants: Examination of a formally lodged application

The Commission's client support section can provide information about dumping and countervailing procedures and the information required by the application form. Contact the team on:

**Phone**: 1300 884 159 **Fax**: 1300 882 506

Email: clientsupport@adcommission.gov.au

Other information is available from the Commission's website at <a href="https://www.adcommission.gov.au">www.adcommission.gov.au</a>.

Small and medium enterprises (i.e., those with up to 200 employees) may obtain assistance, at no charge, from the International Trade Remedies Adviser, employed by Australian Industry Group and funded by the Australian government. To access this service, visit <a href="www.aigroup.com.au/traderemedies">www.aigroup.com.au/traderemedies</a> or telephone (03) 9867 0267.

### Important information

To initiate an investigation into dumping and/or subsidisation, the Commission must comply with Australia's international obligations and statutory standards. This form provides an applicant industry with a framework to present its case and will be used by the Commission to establish whether there are reasonable grounds to initiate an investigation. To assist consideration of the application it is therefore important that:

- all relevant questions (particularly in Parts A and B) are answered; and
- information that is reasonably available be supplied.

The Commission does not require conclusive evidence to initiate an investigation, but any claims made should be reasonably based. An application will be improved by including supporting evidence and where the sources of evidence are identified. Simple assertion is inadequate to substantiate an application.

To facilitate compilation and analysis, the application form is structured in 3 parts:

- Part A seeks information about the Australian industry. This data is used to assess claims of material injury due to dumping/subsidisation. Where an Australian industry comprises more than one company, each should separately prepare a response to Part A to protect commercial confidentiality.
- 2. Part B relates to evidence of dumping.
- 3. **Part C** is for supplementary information that may not be appropriate to all applications. However some questions in Part C may be essential for an application, for example, if action is sought against subsidisation.

All questions in Parts A and B must be answered, even if the answer is 'Not applicable' or 'None'. Where appropriate, applicants should provide a short explanation about why the requested data is not applicable. This will avoid the need for follow up questions by the Commission.

The application form requests data over several periods  $(P^1, P^2....P^n)$  to evaluate industry trends and to correlate injury with dumped imports. The labels  $P^1...P^n$  are used for convenience in this application form. Lodged applications should identify the period relevant to the data. This form does not specify a minimum period for data provision. However, sufficient data must be provided to substantiate the claims made. If yearly data is provided, this would typically comprise a period of at least four years (for example the current financial year in addition to three prior years). Where information is supplied for a shorter period, applicants may consider the use of quarterly data. Data must also be sufficiently recent to demonstrate that the claims made are current.

When an investigation is initiated, the Commission will verify the claims made in the application. A verification visit to the Australian industry usually takes several days.

Applicant companies should be prepared to substantiate all Australian industry financial and commercial information submitted in the application. Any worksheets used in preparing the application should therefore be retained to facilitate verification.

During the verification visit, the Commission will examine company records and obtain copies of documents relating to the manufacture and sale of the goods.

#### Appendices

Some questions require attachments to be provided. The attachment numbering sequence should refer to the question answered. For example, question A2.2 requests a copy of an organisation chart. To facilitate reference, the chart should be labelled <u>Attachment A2.2</u>. If a second organisation chart is provided in response to the same question, it should be labelled <u>Attachment A2.2.2</u> (the first would be labelled <u>Attachment A2.2.1</u>).

### Provision of data

Industry financial data must, wherever possible, be submitted in an electronic format.

- The data should be submitted on a media format compatible with Microsoft Windows.
- Microsoft Excel, or an Excel compatible format, is required.
- If the data cannot be presented electronically please contact the Commission's client support section for advice.

# Lodgement of the application

This application, together with the supporting evidence, should be lodged with:

The National Manager - Operations Anti-Dumping Commission Customs House 1010 Latrobe St Docklands VIC 3008

or

Sent by facsimile to 1300 882 506

#### Public Record

During an investigation all interested parties are given the opportunity to defend their interests, by making a submission. The Commission maintains a public record of these submissions. The public record is available on the Commission's website at <a href="https://www.adcommission.gov.au">www.adcommission.gov.au</a>.

At the time of making the application both a confidential version (for official use only) and non-confidential version (public record) of the application <u>must</u> be submitted. Please ensure each page of the application is clearly marked "FOR OFFICIAL USE ONLY" or "PUBLIC RECORD". The non-confidential application should enable a reasonable understanding of the substance of the information submitted in confidence, clearly showing the reasons for seeking the conduct of a dumping and/or subsidy investigation, or, if those reasons cannot be summarised, a statement of reasons why summarisation is not possible. If you cannot provide a non-confidential version, contact the Commission's client support section for advice.

### PART A

### **INJURY**

### TO AN AUSTRALIAN INDUSTRY

#### **IMPORTANT**

All questions in Part A should be answered even if the answer is 'Not applicable' or 'None'. If an Australian industry comprises more than one company/entity, each should separately complete Part A.

For advice about completing this part please contact the Commission's client support section on:

**Phone**: 1300 884 159 **Fax:** 1300 882 506

Email: clientsupport@adcommission.gov.au

#### A-1 Identity and communication.

#### Please nominate a person in your company for contact about the application:

Contact Name: Mr Matt Condon

Company and position: Manager Trade Development, OneSteel Manufacturing Pty

Ltd

Address: Level 6, 205 Pacific highway, St Leonards, NSW 2065

Telephone: (02) 8424 9880 Facsimile: (02) 8424 9885

E-mail address: CondonM@OneSteel.com

ABN: 42 004 651 325

#### Alternative contact

Name: Mr Daniel Coghlan

Position in the company: Market Manager Structurals and Merchant Bar

Address: Ingall St Mayfield NSW 2304

Telephone: (02) 4935 5539 Facsimile: (02) 4935 4410 E-mail address: coghland@onesteel.com

If you have appointed a representative to assist with your application, provide the following details and complete Appendix A8 (Representation).

Name: Mr John O'Connor

Representative's business name: John O'Connor & Associates Pty Ltd Address: P.O. Box 329, Coorparoo Qld 4151

Telephone: (07) 3342 1921 Facsimile: (07) 3342 1931

E-mail address: jmoconnor@optusnet.com.au

ABN: 39 098 650 241

#### A-2 Company information.

1. State the legal name of your business and its type (eg. company, partnership, sole trader, joint venture). Please provide details of any other business names you use to manufacture/produce/sell the goods that are the subject of your application.

This application involves Hot Rolled Structural shapes ("HRS") exported from Korea, Thailand, Taiwan and Japan. The name of the applicant company requesting the imposition of anti-dumping measures is:

OneSteel Manufacturing Pty Ltd (ABN 42 004 651 325)

OneSteel Manufacturing Pty Ltd (Hereafter referred to as ("OneSteel") is a wholly owned subsidiary of Arrium Limited (formerly OneSteel Limited).

2. Provide your company's internal organisation chart. Describe the functions performed by each group within the organisation.

An internal organisation chart for OneSteel Manufacturing is enclosed at Confidential Attachment A-2.2.

3. List the major shareholders of your company. Provide the shareholding percentages for joint owners and/or major shareholders.

Arrium Limited is a publicly listed company.

Major shareholders within the Arrium Limited Group of companies are disclosed in the company's annual report.

4. If your company is a subsidiary of another company list the major shareholders of that company.

As indicated, OneSteel is a wholly-owned subsidiary of Arrium Limited, which is a publicly listed company on the Australian Stock Exchange.

5. If your parent company is a subsidiary of another company, list the major shareholders of that company.

Arrium Limited is not a subsidiary of any other company.

6. Provide an outline diagram showing major associated or affiliated companies and your company's place within that structure (include the ABNs of each company).

A diagram identifying associated companies to OneSteel is included at Confidential Attachment A-2.6.

7. Are any management fees/corporate allocations charged to your company by your parent or related company?

Corporate allocations are made to OneSteel by Arrium Limited in the form of corporate charges (for shared services, etc). The allocations have been included in OneSteel's Confidential Appendix A6.1 and Appendix A6.2 data.

8. Identify and provide details of any relationship you have with an exporter to Australia or Australian importer of the goods.

OneSteel is not related to any Korean, Thai, Taiwanese or Japanese exporter of the goods the subject of this application.

9. Provide a copy of all annual reports applicable to the data supplied in Appendix A3 (Sales Turnover). Any relevant brochures or pamphlets on your business activities should also be supplied.

Arrium Limited's annual report for 2012 is included at Non-Confidential Attachment A-2.9. Copies of earlier annual reports are available from the company's website at <a href="https://www.onesteel.com">www.onesteel.com</a>.

10. Provide details of any relevant industry association.

Arrium is a member of the Australian Industry Group ("AiGroup"), the Australian Steel Institute, and the Bureau of Steel Manufacturers of Australia ("BOSMA"), South East Asian Iron & Steel Institute ("SEAISI")

#### A-3 The imported and locally produced goods.

- 1. Fully describe the imported product(s) the subject of your application:
  - Include physical, technical or other properties.
  - Where the application covers a range of products, list this information for each make and model in the range.
  - Supply technical documentation where appropriate.

#### **Goods Description**

The goods that are the subject of this application (the goods) are Hot Rolled Structural (HRS) steel sections in the following shapes and sizes, whether or not containing alloys.

- universal beams (I sections), of a height greater than 130mm and less than 650mm;
- universal columns and universal bearing piles (H sections), of a height greater than 130mm and less than 650mm;
- channels (U sections and C sections) of a height greater than 130mm and less than 400mm;
- equal and unequal angles (L sections), with a combined leg length of greater than 200mm.

Sections and/or shapes in the dimensions described above, that have minimal processing, such as cutting, drilling or painting do not exclude the goods from coverage of the application.

Goods excluded from this application are:

- hot rolled 'T' shaped sections, sheet pile sections and hot rolled merchant bar shaped sections, such as rounds, squares, flats, hexagons, sleepers and rails; and
- sections manufactured from welded plate (e.g. welded beams and welded columns).

#### **Additional Information**

In Australia the goods are commonly known as universal beams, universal columns, universal bearing piles, parallel flange channels and both equal and unequal angles. Universal columns typically have their web lengths similar to their flange lengths, whereas universal beams typically have longer webs than flanges. In some other countries the term "H beams" applies to both universal beams and universal columns and the term "I beams" denotes tapered flange beams. The application nominates different heights for I and H beams to align with the products that are manufactured at Whyalla.

The common grades of steel that the goods subject to this application are sold to are grade 300 and grade 350. The minimal yield stress of grade 300 is 300 Mega Pascals (MPa) and the minimal yield stress for grade 350 is 350 MPa.

The type of alloys that may be incorporated into the HRS steel sections include, but are not limited to boron and Chromium (typically with a boron amount above 0.0008 per cent or chromium above 0.3%). For clarity, the inclusion of alloy(s) is limited to the shapes and sizes identified above.

The majority of the goods that are subject to this application are manufactured to comply with or exceed the requirements set out in AS/NZS 3679.1:2010 Structural steel Part 1: Hot-rolled bars and sections. Imported goods are mostly quoted to AS/NZS 3679.1, but if not will generally be quoted to an international standard that stipulates nominal yield strength of 300MPa or greater.

The sections that OneSteel markets as part of its standard range are listed in the table below. These products come in a range of standard lengths from 9m to 20m.

With the exception of the channels, the other sections are commonly available in multiple thicknesses that are expressed as metre weights for each size. It should be noted that a channel may have the shape of either a U or a C depending on its orientation, for clarity both shapes are included in this application.

Universal Beams (I sections)	Universal Columns (H sections)	Channels ( C or U sections)	Equal and Unequal Angles (L Sections)
Height (mm)	Height (mm)	Height (mm)	Height (mm)
150	150	150	125x125
180	200	180	150 x 90
200	250	200	150x100
250	310	230	150x150
310		250	200x200
360		300	
410		380	
460			
530			
610			

#### 2. What is the tariff classification and statistical code of the imported goods.

The goods are classified under the following tariff classifications and statistical codes:

- 7216.31.00 (statistical code 30);
- 7216.32.00 (statistical code 31);
- 7216.33.00 (statistical code 32)
- 7216.40.00 (statistical code 33)

However it may be possible that goods could be misclassified as

• 7216.50.00 (statistical code 56)

OneSteel considers that hot rolled other alloy steels steel in I, H, U and L shapes are also like goods. These products are likely to be imported using the following tariff classification:

• 7228.70.00 (statistical code 56)

Korea and Taiwan are designated as DCS countries. Goods exported to Australia from Korea and Taiwan are entered duty free. Thailand has a Free Trade agreement with Australian and as such goods exported from Thailand are duty free. Imports from Japan are subject to a 5 per cent rate of duty.

Please refer to Non-Confidential Attachment A-3.2 for an extract from the Customs Tariff Schedule 3.

- 3. Fully describe your product(s) that are 'like' to the imported product:
  - Include physical, technical or other properties.
  - Where the application covers a range of products, list this information for each make and model in the range.
  - Supply technical documentation where appropriate.
  - Indicate which of your product types or models are comparable to each of the imported product types or models. If appropriate, the comparison can be done in a table.

OneSteel is the only Australian producer of Hot Rolled Structural sections and manufactures equivalent goods to the imported Hot Rolled Structural sections.

OneSteel manufactures the Hot Rolled Structural sections that are the subject of this application in a range of shapes, grades, thicknesses and lengths at its manufacturing facility in Whyalla South Australia. The physical dimensions of these products are based on imperial measures although they are referred to a metric equivalent.

Copies of OneSteel product brochures are included in Non-Confidential Attachment A-3.3.

OneSteel also manufactures hot rolled "U" and "L" at other facilities, but these are not the subject of the application as they fall below the size ranges indicated. OneSteel also manufactures other hot rolled shapes know as merchant bar sections but these have different shape profiles to the description of the goods that are subject to this application.

Exporting mills generally have the capability to manufacturer the range of goods that are subject to the application but generally offer only part of the range as summarized below.

- Tung Ho Steel Enterprise of Taiwan regularly offers the full range of Universal beams (I shape), Universal Columns (H shape) and full range of parallel flange channels (U shape) but doesn't publish offers for Angles (L shape)
- Siam Yamato Steel Co., Ltd of Thailand published offers normally refer to UB/UC and channels without providing details on the sizes and don't offer angles.
- Hyundai Steel of Korea offers the full range of UBs except for 180UB, the full range of UCs and part of the range of channels but doesn't publish offers angles.
- JFE Steel of Japan offers normally only offers angles and a small range of channels, but will sometimes offer universal beams.

### 4. Describe the ways in which the essential characteristics of the imported goods are alike to the goods produced by the Australian industry.

OneSteel considers that the essential characteristics of imported HRS are the same, or similar, to locally produced HRS. The essential characteristics include:

#### i. <u>Physical likeness</u>:

OneSteel manufactures a range of HRS in multiple shapes, sizes, grades, thicknesses and lengths that are alike in physical appearance to the imported goods.

#### ii. Commercial likeness:

OneSteel's locally produced HRS competes directly with imported HRS in the Australian market.

#### iii <u>Functional likeness</u>

Both imported and Australian produced HRS are used interchangeably in the same or comparable end-uses.

#### iv Production likeness

The Australian industry produced HRS sections are manufactured in a similar manner to the imported goods. Molten steel is poured into a caster to produce a semi-finished feed product that is either a slab, bloom or billet.

This semi-finished feed product is then hot rolled into structural shapes and sections in a rolling mill.

OneSteel submits that the HRS manufactured by it physically resembles the imported HRS in size, weight, grade, shape and appearance, and is functionally the same. Both the locally produced HRS and imported goods are sold extensively into the same markets and compete with each other. OneSteel is of the view that the locally produced HRS is a like good to the imported HRS that is the subject of this application.

### 5. What is the Australian and New Zealand Standard Industrial Classification Code (ANZSIC) applicable to your product.

The ANZSIC code applicable to HRS is category 2110 for Iron Smelting and Steel Manufacturing.

#### 6. Provide a summary and a diagram of your production process.

Arrium (formerly OneSteel) mines its own iron ore from the Middleback Ranges in South Australia and produces coke at the steelworks from coking coal. OneSteel manufactures steel slab, blooms and billet at its Whyalla steelworks. Approximately XX per cent of the steel is produced in bloom form for the production of HRS.

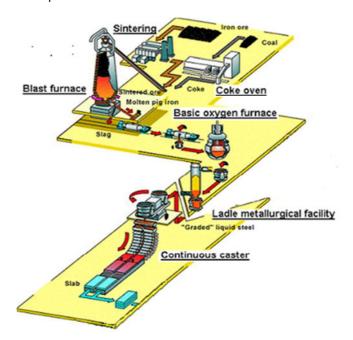
A summary of the HRS manufacturing process follows.

#### Iron Making

Molten pig iron is made in a blast furnace from pellets of iron ore and coking coal.

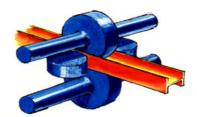
#### Steel Making

- The molten pig iron is transferred to Steel Making where scrap and alloys are added in the Basic Oxygen Furnace to produce molten steel;
- The molten steel is poured into a combi-caster which produces slabs, blooms or billets in various lengths, widths and heights;
- Blooms are the feed for the Hot Rolling Structural mill and are stored in the bloom yard until required.



#### Structural Mill

- Prior to rolling in the Structural mill, the blooms are heated in the re heat furnace to the required temperature.
- Blooms are extracted from the reheat furnace, descaled and transferred to the rolling stands.
- The stands contain a combination of horizontal and/or vertical rolls that are used to shape the products. Stand rolls are unique for each section.



#### **Shapes finishing End**

- After exiting the final stand, the shapes are cut with the hot saw into long lengths and transferred to the cooling beds. Samples for testing are taken at the hot saw.
- After cooling, the shapes are straightened, inspected, cut to customer length, bundled, stenciled and labeled. The label contains information on shape, size, and grade and metre weight.

#### Material handling and dispatch

 The products are then stored in Whyalla prior to being sent to the Distributor's warehouse or directly to their customer's facility.

Please refer to OneSteel Confidential Attachment A-3.6 for a HRS production process schematic.

- 7. If your product is manufactured from both Australian and imported inputs:
  - · describe the use of the imported inputs; and
  - identify that at least one substantial process of manufacture occurs in Australia (for example by reference to the value added, complexity of process, or investment in capital).

The OneSteel structural mill sources its feed blooms from its upstream steel making facilities at Whyalla and hot rolls the blooms into structural sections.

8. If your product is a processed agricultural good, you may need to complete Part C.3 (close processed agricultural goods).

HRS is not a close processed agricultural product.

9. Supply a list of the names and contact details of all other Australian producers of the product.

As indicated above OneSteel is the only Australian producer of HRS.

#### A-4 The Australian market.

#### 1. Describe the end uses of both your product and the imported goods.

The key product groups include Universal Beams (I Beams), Universal Columns (H Beams), Parallel Flange Channels (U or C shapes) and Structural Angles (L) as either Equal Angles or Unequal Angles.

Hot Rolled Structural sections (OST and imported) are used primarily in the structural steel fabrication market to provide the structural framework in construction and engineering projects. Universal Columns are generally used in vertical support applications; whereas Universal Beams and Channels are used mostly in horizontal applications. Structural angles are generally used horizontally or diagonally for bracing applications.

Whilst most HRS sections generally undergo some form of fabrication such as cutting, drilling, welding, painting or galvanising, they may also be used in a non-fabricated application such as piling.

The goods covered by this application includes alloyed HRS in the shapes identified. However, OneSteel notes that there has been an absence in demand for alloyed HRS, in the shapes identified, on the Australian market up to the present time.

- 2. Generally describe the Australian market for the Australian and imported product and the conditions of competition within the overall market. Your description could include information about:
  - sources of product demand;
  - marketing and distribution arrangements;
  - typical customers/users/consumers of the product;
  - the presence of market segmentation, such as geographic or product segmentation;
  - causes of demand variability, such as seasonal fluctuations, factors contributing to overall market growth or decline, government regulation, and developments in technology affecting either demand or production;
  - the way in which the imported and Australian product compete; and
  - any other factors influencing the market.

#### Sources of demand

Key market segments for Hot Rolled Structural sections include: commercial construction; mining and resource construction, engineering fabrication and to a lesser degree residential construction, manufacturing and piling.

The relative strengths and weaknesses of these markets segments drive the overall market size.

#### Marketing and distribution

Steel distributors purchase Australian made HRS sections in bundles from OneSteel or purchase imported HRS sections in bundles either via a trading house or directly from an overseas mill. Steel distributors generally purchase and supply a wide range of structural steel as well as other steel products.

OneSteel sells its HRS products to a national Steel distributor network of related and non-related entities that provides for an expansive national coverage. Approximately XX% of the volume sold is held in stock by OneSteel and is available to the distributors on a XX week lead-time from placement of order, this product is part of the Rapid Range group of sections. The other XX% of the volume sold is referred to as Ex Rolling and customers order based on published production cycles that vary between X -X weeks. National distributors are able to order ex rolling sections for delivery straight to their specific outlet or have them stored at Whyalla for despatch at a later date.

Imported products are generally offered to distributors once a month, either directly from a mill or more commonly via traders. The lead-time for imports to Australia is generally 10-12 weeks but can be longer.

National Distributors of OneSteel structural products are; Confidential - Customer information

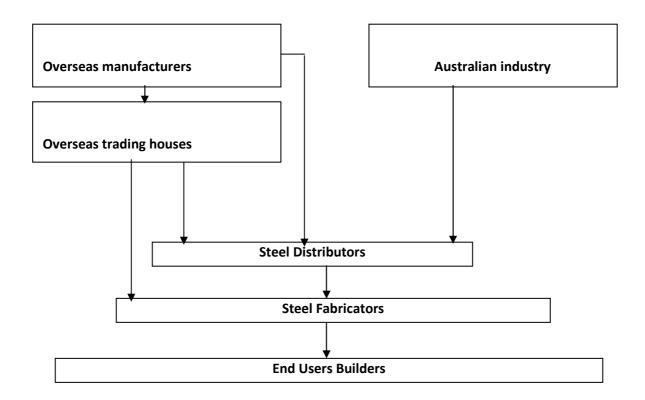
]. Regional distributors of OneSteel structural products are.; Confidential - Customer information

Distributors of imported structural products include Confidential - Customer information

Distributors use the price of imported structural steel to negotiate lower prices from OneSteel. Dumped prices therefore lower the base upon which OneSteel is able to sell its locally produced HRS.

#### Marketing and distribution

The Australian HRS market comprises a local manufacturer, overseas manufacturers/exporters, importers, wholesalers, distributors, resellers, and end-users. The following Table depicts the supply arrangements on the Australian market:



#### Typical customers/users/consumers/of HRS

Typical end-users of HRS are reflected in the various end-use segments identified in Section A-4.1 above.

#### The presence of market segmentation, such as geographic or product segmentation

The goods under consideration are supplied to a range of market sectors as identified in Section A-4.1 above.

In terms of geographic segmentation the applicants sell and distribute across Australia. Similarly, imported HRS is sold and distributed across Australia.

The Australian market for sales of HRS is concentrated in the state capital cities or large regional centres such as Newcastle and Wollongong as this is where the larger fabricators are generally based. The steel sections once fabricated may be transported to regional locations for erection on site.

#### Causes of demand variability

There are a number of causes of demand variability for HRS in the Australian market.

The underlying cause of demand variability is driven by the relative investment in the key market segments of non-residential construction, engineering construction, mining and resources infrastructure, manufacturing and non-residential construction.

Other causes of demand variability include seasonal fluctuations in relation to the construction sectors traditional holiday period in December and January of each year. There is widespread opinion in the industry that the months of December and January each year effectively aggregate to one normal month of sales given that the traditional construction industry holiday period falls at this time.

#### The way in which the imported and Australian product compete

Imported HRS sections are sold extensively to the same end users via similar competing supply chains. OneSteel determines its prices to distributors based on a premium over landed imported sections that reflect key attributes of its market offer that importers don't offer. Prices generally fluctuate on a monthly basis.

Distributors use the lower dumped import prices to leverage lower price outcomes from OneSteel. OneSteel can either choose to lower its prices closer to those of landed dumped imports or risk losing substantial volumes.

### 3. Identify if there are any commercially significant market substitutes for the Australian and imported product.

Reinforced concrete and imported fabricated steel components are substitutable products in some market construction and engineering markets.

4. Complete <u>appendix A1</u> (Australian production). This data is used to support your declaration at the beginning of this application.

OneSteel has completed Confidential Appendix A1 for the goods the subject of this application.

#### 5. Complete appendix A2 (Australian market).

OneSteel has completed Confidential Appendix A2 for the Australian HRS market.

#### 6. Use the data from appendix A2 (Australian market) to complete this table:

Indexed table of sales quantities\*

Period	(a) Your Sales	(b) Other Aust <sup>n</sup> Sales	(c) Total Aust <sup>n</sup> Sales (a+b)	(d) <b>Dumped Imports</b>	(e) Other Imports	(f) Total Imports	(g) Total Market (c+f)
2010	100	n/a	100	100	100	100	100
2011	99.0	n/a	99.0	96.7	107.1	97.3	98.4
2012	102.6	n/a	102.6	82.0	96.9	82.8	95.6
2013	99.2	n/a	99.2	77.0	95.4	78.1	91.8

#### Notes:

- 1. Years are 1 July to 30 June.
- 2. All import data sourced from ISSB Limited export statistics as ABS import data by country is suppressed.

OneSteel has maintained volumes by increasing its distribution base in order to sustain minimum capacity utilization. Whilst in a declining market cycle this has led to an increase in market share, the impact of dumped imports prices in the market has reduced the OneSteel's profitability significantly.

#### A-5 Applicant's sales.

#### 1. Complete appendix A3 (sales turnover).

OneSteel has completed Confidential Appendix A3 for "All Products" and "Like Goods".

#### 2. Use the data from appendix A3 (sales turnover) to complete these tables.

Indexed table of Applicant's sales quantities\*

Quantity	2010	2011	2012	2013
All products				
Australian - All	100	95.5	120.6	115.7
Export - All	100	49.2	88.3	160.0
Total - all	100	93.3	119.0	117.8
Like Goods				
Australian - LG	100	99.0	102.6	99.2
Export - LG	100	97 .1	139 .4	155.9
Total - LG	100	98.9	105.1	103.8

#### **Notes**

Indexed table of Applicant's sales values\*

Values	2010	2011	2012	2013
All products				
Australian market	100	104.4	129.9	121.5
Export market	100	188.9	318.6	469.2
Total	100	105.6	132.7	126.6
Like goods				
Australian market	100	102.9	107.8	95.9
Export market	100	102.2	144.8	175.3
Total	100	102.9	110.2	101.2

#### Notes:

1. Included in the all Australian products are semi-finished products such as billet, slab hot rolled structurals and rail products.

#### 3. Complete appendix A5 (sales of other production) if you have made any:

- · internal transfers; or
- domestic sales of like goods that you have not produced, for example if you have imported the product or on-sold purchases from another Australian manufacturer.

Confidential Appendix A5 has been completed by OneSteel.

#### 4. Complete appendix A4 (domestic sales).

OneSteel has completed Confidential Appendix A4 for the twelve months to 30 June 2013. Please refer to confidential sales data provided by OneSteel.

<sup>1.</sup> Included in all Australian products are semi-finished products such as billet, slab hot rolled structurals and rail products.

5. If any of the customers listed at <u>appendix A4</u> (domestic sales) are associated with your business, provide details of the association. Describe the price effect of the association.

OneSteel sells HRS through its related distribution business OneSteel Metalcentre (formally known as OneSteel Steel and Tube and OneSteel Metaland). These sales are readily identifiable in Confidential Appendix A4.

OneSteel sells to Metalcentre at prices that are based on the monthly agreed import parity prices established with its eternal customers. For this reason sales to its own downstream business are impacted by the price of dumped Structurals.

6. Attach a copy of distributor or agency agreements/contracts.

OneSteel has supply agreements with many of its domestic customers. Copies of the documents are in Confidential Attachment A-5.6.

7. Provide copies of any price lists.

Copies of OneSteel price lists for distributors dated [period] are included at Confidential Attachment A-5.7.

The published price list is used as the starting reference point from which either discounts or rebates are applied to achieve a monthly net agreed price with the Customer. The agreed net monthly price is negotiated with customers based on import offers for the like goods that are known at the time. The agreed prices may apply to the customer's [ Confidential pricing ] depending on the arrangement with the particular customer.

On some occasions a XXXXX price is given for a specific quote or order that doesn't reference the price list in anyway.

- 8. If any price reductions (for example commissions, discounts, rebates, allowances and credit notes) have been made on your Australian sales of like goods provide a description and explain the terms and conditions that must be met by the customer to qualify.
  - Where the reduction is not identified on the sales invoice, explain how you calculated the amounts shown in appendix A4 (domestic sales).
  - If you have issued credit notes (directly or indirectly) provide details if the credited amount has not been reported appendix A4 (domestic sales) as a discount or rebate.

Rebates and discounts are included in sales included in Confidential Appendix A4 for OneSteel.

9. Select two domestic sales in each quarter of the data supplied in <u>appendix A4</u> (domestic sales). Provide a complete set of commercial documentation for these sales. Include, for example, purchase order, order acceptance, commercial invoice, discounts or rebates applicable, credit/debit notes, long or short term contract of sale, inland freight contract, and bank documentation showing proof of payment.

OneSteel has included two complete sets of commercial documentation for two customers in each of the four quarters to 30 June 2013. Please refer to Confidential Attachment A-5.9 for OneSteel commercial documentation.

#### A-6 General accounting/administration information.

1. Specify your accounting period.

OneSteel's financial year is 1 July to 30 June.

2. Provide details of the address(es) where your financial records are held.

The financial records for OneSteel are located at the premises nominated at Section A-1 above.

- 3. To the extent relevant to the application, please provide the following financial documents for the two most recently completed financial years plus any subsequent statements:
  - chart of accounts:
  - audited consolidated and unconsolidated financial statements (including all footnotes and the auditor's opinion);
  - internal financial statements, income statements (profit and loss reports), or management accounts, that are prepared and maintained in the normal course of business for the goods.

These documents should relate to:

- 1. the division or section/s of your business responsible for the production and sale of the goods covered by the application, and
- 2. the company overall.

The Chart of Accounts for OneSteel have been included electronically with this application.

Annual Reports for Arrium's 2012 year is included at Non-Confidential Attachment A-2.9.

Internal management reports for OneSteel have been included at Confidential Attachment A-6.3.

4. If your accounts are not audited, provide the unaudited financial statements for the two most recently completed financial years, together with your taxation returns. Any subsequent monthly, quarterly or half yearly statements should also be provided.

The accounts of Arrium Ltd (the parent company of OneSteel) are audited annually. This question is therefore not applicable.

5. If your accounting practices, or aspects of your practices, differ from Australian generally accepted accounting principles, provide details.

The accounting practices of OneSteel are maintained in accordance with Australia's generally accepted accounting practices.

- 6. Describe your accounting methodology, where applicable, for:
  - The recognition/timing of income, and the impact of discounts, rebates, sales returns warranty claims and intercompany transfers;

Income from the sale of goods is recognised when the consolidated entity has passed control of the goods to the buyer.

provisions for bad or doubtful debts;

Trade debtors are reviewed on an ongoing basis. Debts which are known to be uncollectible are written off. A provision for doubtful debts is raised when some doubt as to collection exists.

 the accounting treatment of general expenses and/or interest and the extent to which these are allocated to the cost of goods;

Cost is comprised of materials, labour and an appropriate proportion of fixed and variable overheads, on an absorption cost basis.

 costing methods (eg by tonnes, units, revenue, activity, direct costs etc) and allocation of costs shared with other goods or processes;

Costing methodology is by production/sales tonnes.

 the method of valuation for inventories of raw material, work-in-process, and finished goods (eg FIFO, weighted average cost);

Raw materials, stores, work in progress and manufactured stocks are valued at the lower of cost and net realisable value. The methods used to assign costs to inventories are actual invoiced cost or standard costs.

valuation methods for scrap, by-products, or joint products;

Lower of cost and net realisable value.

 valuation methods for damaged or sub-standard goods generated at the various stages of production;

Lower of cost and net realisable value.

valuation and revaluation of fixed assets;

Subsequent to initial recognition, assets are valued at fair value. Revaluations are made with sufficient regularity to ensure carrying amounts do not differ dramatically from fair value.

 average useful life for each class of production equipment, the depreciation method and depreciation rate used for each;

Buildings 10-40 years Plant and equipment 3-20 years Equipment under finance lease 3-5 years

 treatment of foreign exchange gains and losses arising from transactions and from the translation of balance sheet items; and

Foreign exchange gains and losses are brought to account using the rate of exchange applicable at the date of the transaction.

 restructuring costs, costs of plant closure, expenses for idle equipment and/or plant shutdowns.

Provisions for restructuring represents best estimate of the costs directly and necessarily incurred for the restructuring and not associated with ongoing activities.

7. If the accounting methods used by your company have changed over the period covered by your application please provide an explanation of the changes, the date of change, and the reasons.

Accounting methods have not altered over the periods for which financial data has been prepared for this application, unless required to by the relevant accounting standard.

#### A-7 Cost information

#### 1. Complete appendices A6.1 and A6.2 (cost to make and sell) for domestic and export sales.

OneSteel has completed Confidential Attachment A-6.1 and A-6.2 for domestic and export sales, respectively.

All OneSteel indices data for Section A-8 below has been sourced from Confidential Appendix A6.1 and A6.2 schedules.

#### A-8 Injury

#### Estimate the date when the material injury from dumped imports commenced.

The applicant has experienced injury from the dumped exports of HRS to Australia for a number of years. In the financial year 2013, the dumping has had an increased impact on OneSteel's profit and profitability as the company has reduced its selling prices to compete with the selling prices for imported HRS that have undercut the Australian industry's selling prices (resulting in an erosion of margin).

OneSteel submits that it commenced to experience increased material injury from the dumping of HRS exported from Japan, Korea, Taiwan and Thailand during its 2013 financial year.

### 2. Using the data from <u>appendix A6</u> (cost to make and sell), complete the following tables for each model and grade of your production.

Index of production variations (metric tonnes)

Period	2010	2011	2012	2013
Index	100	98.9	107.0	104.7

#### Notes:

- Production reflects both domestic and export from Confidential Appendices A6.1 A6.2.
- 2. Years are July to June.

OneSteel's production of HRS was stable in 2010 and 2011, increased in 2012 and has tapered off in 2013 (even though there has been an increase in exports of HRS).

Index of cost variations (A\$ per metric tonnes)

Period	2010	2011	2012	2013
Index	100	103.9	107.4	103.6

#### Note:

Cost variations reflects unit CTM&S sourced from Confidential Appendix A6.1.

The Australian industry's cost-to-make-and-sell ("CTM&S") HRS increased across the period from 2010 to 2012, with a decline in 2013..

Index of price variations (model, type, grade of goods)

Period	2010	2011	2012	2013
Index	100	103.9	105.0	97.0

#### Note:

1. Price variations reflects unit selling price sourced from Confidential Appendix A6.1.

Average selling prices for HRS by the Australian industry increased in 2011 and 2012. In 2013, the Australian industry experienced a decline in selling prices for HRS of approximately 8 per cent.

Index of profit variations (model, type, grade of goods)

Period	2010	2011	2012	2013
Index	100	96.1	64.6	18.2

#### Note:

1. Profit variation is based upon the Australian industry's unit profit from Confidential Appendix A6.1.

OneSteel's profit deteriorated in 2012 and further again in 2013 as the company's margin over costs was eroded. Significantly, the approximate 8 per cent decline in average HRS selling prices in 2013 contrasted with a reduction in unit costs of approximately 3.6 per cent was the cause of the rapid profit deterioration.

Index of Profitability variations (model, type, grade of goods)

Period	2010	2011	2012	2013
Index	100	100	70.1	12.6

#### Note:

1. Profitability variation is based upon OneSteel's unit profit as a percentage of selling price (refer Confidential Appendix A6.1).

OneSteel's deterioration in unit profit was also reflected in the company's profitability for HRS (based upon unit profit as a percentage of selling price). The greater decline in OneSteel's average selling price for HRS when contrasted with unit costs for HRS was the key influence in the profitability deterioration for HRS.

#### 3. Complete appendix A7 (other economic factors).

OneSteel has completed Confidential Appendix A7 for all other economic factors. The following indices demonstrate a deterioration in the relevant economic indicator.

Index of Revenue variations (model, type, grade of goods)

Period	2010	2011	2012	2013
Index	100	102.9	107.8	96.2

#### Note:

 Revenue variation is based upon OneSteel's domestic revenue for HRS (refer Confidential Appendix A6.1).

The index of revenue deterioration highlights the impact of a reduction in selling prices in 2013 that far exceed the reduction in costs in 2013.

Index of Capacity Utilisation variations (model, type, grade of goods)

Period	2010	2011	2012	2013
Index	100	83.9	77.1	75.4

#### Note:

 Capacity utilization variation is based upon OneSteel's production versus budgeted capacity to produce HRS (refer Confidential Appendix A7).

OneSteel has encountered a reduction in its budgeted capacity utilization since 2010. The reduction in 2013 has been limited due to the increased production of HRS for export sales (refer Confidential Appendix A6.2).

#### Index of Employment variations (model, type, grade of goods)

Period	2010	2011	2012	2013
Index	100	108.0	106.6	94.4

#### Note:

1. Employment variation is based upon OneSteel's employees engaged in the manufacture of like goods (refer Confidential Appendix A7).

In 2013 OneSteel has reduced its number of employees involved in the manufacture of HRS in orders to reduce its CTM&S in response to decreasing margins as a result of dumped import prices.

#### A-9 Link between injury and dumped imports.

To establish grounds to initiate an investigation there must be evidence of a relationship between the injury and the alleged dumping. This section provides for an applicant to analyze the data provided in the application to establish this link. It is not necessary that injury be shown for each economic indicator.

1. Identify from the data at <u>appendix A2</u> (Australian market) the influence of the volume of dumped imports on your quarterly sales volume and market share.

During 2010 and 2011 the Australian market partially recovered from the sharp decline brought on by the global economic downturn. Market inventory levels gradually recovered underpinned by the government's investment in school buildings as part of its stimulus program.

This was followed in 2012 by a contraction in the market as the stimulus programs reduced and the supply chain inventory rebuild had finished.

Confidential Appendix A2 reflects the relative stability in the Australian market in 2010 and 2011, followed by a contraction in 2012 and again in 2013, with the decline in 2013 greater than 2012. In a declining market the market shares of for the dumped imports have remained consistent in 2012 and 2013 (as has the share of the Australian industry).

The lost sales volumes of the Australian industry in 2013 are similar in percentage terms to those of the dumped imports.

The applicant would highlight that the impact of dumped imports in a contracting market is greater than in an expanding market, particularly where the local producer (i.e. OneSteel) is reliant on maintaining sales volumes to achieve minimum capacity utilisation levels.

 Use the data at appendix A2 (Australian market) to show the influence of the price of dumped imports on your quarterly prices, profits and profitability provided at appendix A6.1 (costs to make and sell). If appropriate, refer to any price undercutting and price depression evident in the market.

Confidential Appendix A2 – Australian Market evidences a stable market share for the Australian industry in 2013, even though the industry is competing against dumped imports that undercut local selling prices. It has been indicated that OneSteel is a volume sensitive supplier on the Australian market and hence it seeks to maintain its market share (and sales volumes).

The selling price indices (at Section A-8.2 above) demonstrate that OneSteel's domestic selling price has declined by approximately 8 per cent in 2013. The decline in average selling prices can be attributed to OneSteel responding to selling price offers for dumped HRS from Japan, Korea, Taiwan and Thailand. OneSteel has included market offers from importers supplying HRS from the nominated countries at prices that undercut the Australian industry's selling prices.

The following examples highlight the price undercutting evident from the dumped imports of HRS.

#### Example 1

Hyundai offer for HRS in October 2012 (for Jan/Feb arrival) average \$XXX delivered. OneSteel' average price for Jan-Mar quarter 2013 was \$XXX, confirming price undercutting of approximately X per cent.

#### Example 2

SYS (Thailand) offers at similar time to Hyundai (offer above) was at \$XXX per metric tonne. Price undercutting of approximately X per cent evident.

#### Example 3

Tung Ho's (Taiwan) offer for supply for arrival in Oct to Dec quarter of 2012 was at \$XXX to \$XXX per metric tonne. The offers by Tung Ho are consistent with the price levels for SYS, where price undercutting margins of approximately X per cent is also evident.

#### Example 4

CMC offer of 24 January 2013 for the supply of angles in the 120-150mm range for arrival in April/May 2013 was offered at \$XXX/tonne FIS (product ex JFE of Japan). Price offers are below OneSteel prices for the April to June 2013 quarter of approximately \$XXX per tonne by about X per cent.

OneSteel has included copies of offers for sale of HRS from Japan, Korea, Taiwan and Thailand in support of its price undercutting claims at Confidential Attachment A-9.2.

The price undercutting outlined in the above examples has contributed to OneSteel reducing its selling prices in 2013, resulting in price depression and price suppression (when contrasted with 2012). The rapid decline in OneSteel's selling prices in 2013 has impacted OneSteel's profit and profitability, with increased losses incurred of approximately \$X million on domestic sales.

In order to secure long term commitments for levels of volume OneSteel has based its pricing on agreed premiums above a monthly import parity price. Therefore as prices move down as a direct result of price undercutting so to do the prices that OneSteel is able to achieve in the market.

Typically import offers for each of the exporting mills arrive within a week of each other. This allows OneSteel's customers to choose the lowest import offers to negotiate an import parity price for each of the relevant product groupings. Confidential Attachment 9.2 shows that the lowest price offer (often final price may be lower again) is used to establish the import parity price for each product group. Import offers for universal beams and columns whilst differing between exporters are commonly priced at the same price per tonne by each importer.

Anti-dumping measures to remove the dumped component of the imported pricing will remove the material injury that results from dumping. To put this in context a \$XX/t average dumping margin will lower the net return to OneSteel by approximately \$XXX.

3. Compare the data at <u>appendix A2</u> (Australian market) to identify the influence of dumped imports on your quarterly costs to make and sell at <u>appendix A6.1</u> (for example refer to changes in unit fixed costs or the ability to raise prices in response to material cost increases).

The dumped imports from Japan, Korea, Taiwan and Thailand have contributed to the price depression experienced by the Australian industry during 2013 (approximately 8 per cent). Meanwhile, the Australian industry's costs over this period declined by approximately 3.6 per cent, resulting in price suppression and lost profit and profitability (due to the far greater decline in average selling prices). The dumping has been the influencing factor for the decline in prices in 2013 as the Australian industry seeks to maintain sales volumes and market share (and production throughput). Had OneSteel not reduced its prices in response to those for the dumped imports, OneSteel would have incurred higher losses brought about by further reduced capacity utilization.

OneSteel's selling prices have been led down by the dumped imports that have been the catalyst

for the deterioration of OneSteel's profit and profitability in 2013.

4. The quantity and prices of dumped imported goods may affect various economic factors relevant to an Australian industry. These include, amongst other things, the return on investment in an industry, cash flow, the number of persons employed and their wages, the ability to raise capital, and the level of investment in the industry. Describe, as appropriate, the effect of dumped imports on these factors and where applicable use references to the data you have provided at appendix A7 (other economic factors). If factors other than those listed at appendix A7 (other economic factors) are relevant, include discussion of those in response to this question.

An examination of OneSteel's Confidential Appendix A7 demonstrates that it has experienced injury in the form of the following indicators during 2013:

- reduced domestic revenues:
- reduced capacity utilization;
- reduced employment:
- reduced attractiveness to re-invest.

The trends for domestic revenues, production capacity utilization, and employment, are reflected in the indices at Section A-8.3 above. All indices deteriorated in 2013. The increased losses for OneSteel's domestic sales of HRS in 2013 will limit the business' ability to raise capital for reinvestment in future years.

5. Describe how the injury factors caused by dumping and suffered by the Australian industry are considered to be 'material'.

The loss incurred in 2013 on OneSteel's domestic sales of HRS represents a XX per cent increase on the level of 2012, and a XX per cent increase on 2011. OneSteel has submitted that the injury from dumping has occurred over a number of years, and the deterioration in profit and profitability since 2011 has been as a consequence of the price undercutting by dumped imports and erosion of margin that has occurred in 2012 and 2013.

The injury experienced in 2013 from the dumped imports of HRS from Japan, Korea, Taiwan and Thailand is considered "material" as the XX per cent decrease in profit and profitability represents a sharp decline in the business' annual performance. Additionally, the profit decline severely impedes the business' ability to attract funds for re-investment to assist in further lowering production costs.

6. Discuss factors other than dumped imports that may have caused injury to the industry. This may be relevant to the application in that an industry weakened by other events may be more susceptible to injury from dumping.

In April 2010 and June 2010 there were separate incidents at Whyalla that impacted the production of steel making and as a consequence the production of HRS. In response to the incidents OneSteel choose to import limited quantities of HRS in order to supplement its supply position whilst production fully recovered. The XXXX tonnes of imports (approx 1 month sales) arrived in the months of June to August 2010. For the purposes of assessing injury the costs associated with the repairs have been backed out of the production costs. The fact that OneSteel's market share has not deteriorated since this period highlights that these incidents are not exacerbating injury caused by dumping.

OneSteel has not made any importation of HRS products that are the subject of the application since August 2010.

OneSteel has commented on the reduced demand for HRS in the Australian market since 2011. However, the market share held by the dumped imports (at xx per cent in 2013 is substantial and cannot be discounted as the key influential factor on movements in the Australian industry's selling prices and sales volumes. In the absence of dumping, OneSteel would likely sell increased volumes of HRS domestically (up to an additional XXXXX to XXXXX tonnes) and would benefit through reduced production costs brought about improved production utilization rates.

7. This question is not mandatory, but may support your application. Where trends are evident in your estimate of the volume and prices of dumped imports, forecast their impact on your industry's economic condition. Use the data at <u>appendix A2</u> (Australian market), <u>appendix A6</u> (cost to make and sell), and <u>appendix A7</u> (other economic factors) to support your analysis.

OneSteel is seeking the imposition of anti-dumping measures on dumped exports of HRS to Australia from Japan, Korea, Taiwan and Thailand. This application demonstrates that HRS exports from the nominated countries have caused material injury to OneSteel during the financial year 2013. The injury experienced by OneSteel has been in the following forms:

- price depression:
- price suppression;
- reduced profits and profitability;
- reduced domestic revenues;
- reduced production capacity utilization;
- reduced employment;
- reduced attractiveness for reinvestment.

Additionally, OneSteel has incurred increased losses on sales of HRS that could have been sold domestically had the imports not been at dumped prices (instead of directing increased volumes for export sale).

OneSteel further submits that the injurious effects of the dumping have had a greater impact in a contracting market, as was experienced in the 2013 financial year. In a market of declining prices, the dumped exports have maintained market share, despite OneSteel reducing its prices to maintain sales volumes. The dumped exports have undercut OneSteel's domestic selling prices by up to 8 per cent, and have been the catalyst for OneSteel reducing its prices in 2013. OneSteel has sought to maintain sales volumes to ensure that production utilization rates are not adversely affected (where possible). Falling production utilization rates contribute to higher per unit overhead costs, thereby resulting in further injurious impacts on profit and profitability.

This application demonstrates that the HRS exports from Japan, Korea, Taiwan and Thailand have been at dumped prices. It is further demonstrated that the injury experienced by the Australian industry in 2013 is material. The undercutting by the dumped exports of the Australian industry's selling prices supports OneSteel's position that there exists a causal link between the dumping and the material injury from HRS exports from Japan, Korea, Taiwan and Thailand.

OneSteel requests the Anti-Dumping Commission to initiate a formal investigation into the dumping of HRS exported from Japan, Korea, Taiwan and Thailand. OneSteel is also seeking the imposition of provisional measures from Day 60 to minimize the injurious effects of further dumping.

OneSteel looks forward to assisting the Anti-Dumping Commission with its inquiries into this application.

### **PART B**

### **DUMPING**

#### **IMPORTANT**

All questions in Part B should be answered even if the answer is 'Not applicable' or 'None' (unless the application is for countervailing duty only: refer Part C). If an Australian industry comprises more than one company/entity, Part B need only be completed once.

For advice about completing this part please contact the Customs Dumping Liaison Unit on:

**(02)** 6275-6066 Fax (02) 6275-6990

#### B-1 Source of exports.

1. Identify the country(ies) of export of the dumped goods.

The goods the subject of this application are exported from Japan, Korea, Taiwan and Thailand.

2. Identify whether each country is also the country of origin of the imported goods. If not, provide details.

It is OneSteel's understanding that the country of export is also the country of origin of the goods.

- 3. If the source of the exports is a non market economy, or an 'economy in transition' refer to Part C.4 and Part C.5 of the application.
- 4. Where possible, provide the names, addresses and contact details of:
  - producers of the goods exported to Australia;

#### Korea

The producers of the goods exported to Australia include:

#### Hyundai INI Steel

231 Yangjae-Dong Seocho-gu Seoul South Korea Tel; 82-2-3464-6114 Fax 82-2-3463- 6090

#### Thailand

#### Siam Yamato Steel

Siam Cement Road, Bangsue, Bangkok 10800, Thailand Tel: (66 2) 586-2783-4, 586-5563, 586-2371-2

Fax: (66 2) 586-2687, 910-3123

#### <u>Taiwan</u>

#### **Tung Ho Steel Enterprise**

6F, No. 9, Section 1 Chang An East Road Jhongshan District TAIPEI,104
Taiwan
Tol: 1886-2-25511100

Tel: +886-2-25511100 Fax: +886-2-25681663

#### <u>Japan</u>

#### JFE Bar and Shapes

c/o JFE Steel Corporation 2-2-3 Uchisaiwaicho Chiyoda-ku, Tokyo Tel: +81 3 3597 3111

#### exporters to Australia; and

OneSteel understands the producers are also the exporters of the goods under consideration to Australia.

#### importers in Australia.

The following companies are understood to be importers of HRS:

 CMC (Australia) Pty Ltd Level 6, 697 Burke road Camberwell Victoria 3124
 Tal: (02) 0805 0400

Tel: (03) 9805 0400 Fax: (03) 9805 0455

 Sanwa Pty Ltd Suite 201, 2<sup>nd</sup> Floor 100 New South Head Road Edgcliffe NSW 2027 Tel: (02) 9362 4088

 Toyota Tsusho Australasia Pty Ltd 231-233 Boundary Road Laverton North, Vic

Tel: +61 3 8368 7960 Fax: +61 3 8368 7999

Fax: (02) 9362 3622

 ThyssenKrupp Steelcom Pty Ltd Suite 3/17 Myrtle Street North Sydney NSW 2060 Tel: (02) 9954 9166

Fax: (02) 9955 4298

 Stemcor Australia Pty Ltd Level 13/15 Blue Street North Sydney NSW 2059

Tel: (02) 9458 8528 Fax: (02) 9925 0844

# 5. If the import volume from each nominated country at Appendix A.2 (Australian Market) does not exceed 3% of all imports of the product into Australia refer to Part C.6 of the application.

Australian Bureau of Statistics ("ABS") import data for HRS is the subject of country suppression orders and is not available to identify imports from the countries nominated in this application.

OneSteel has obtained export data from ISSB Limited to identify export volumes to Australia from the nominated countries during the financial periods July 2009 to June 2013. In order to better align with ABS the export data has been offset by one month to reflect a transit period.

The following Table indicates export volumes (metric tonnes) to Australia for HRS.

Table B-1.5 – Export volumes of HRS from the nominated countries to Australia

Source Country	2010	2011	2012	2013	% of total import 2013 ytd
Korea	54171	42055	36443	38,923	36%
Taiwan	40730	31555	37538	27,713	25%
Thailand	26234	44872	27853	29,058	27%
Japan	10321	8617	5919	7,699	7%
Other	7806	8363	7561	6,077	6%
Total	139,262	135,462	115,314	109,470	100%

#### Notes:

1. Export data includes universal beams & columns, channels and angles.

- 2. Tonnes that OneSteel imported as a result of its blast furnace incident in FY10 have been excluded from the data.
- 3. Tonnes that have an FOB price in AUD <\$500/t and >\$1800/t have been filtered out as products that are likely to be have been misclassified.
- 4. Export volume data for channels and angles has a reducing factor applied to account for the structural shapes that are above 80mm but smaller than the goods that are the subject of this application. The factor as based on OneSteel's domestic sales splits. No adjustment to price has been made on the import prices as the sections above 80mm and below the GUC are on balance similar.<sup>1</sup>
- 5. The tonnes do not include imports using an alloy tariff classification as the tonnes were minimal in FY13 (~275t) and are understood to be different shapes such as hexagon, square or rounds for engineering purposes.

The export data for the goods under consideration ("GUC") indicates that in the 2013 year the goods the subject of this application accounted for more than 90 per cent of the total volume of imported goods into Australia.

6. In the case of an application for countervailing measures against exports from a developing country, if the import volume from each nominated country at <u>Appendix A.2</u> (Australian Market) does not exceed 4% of all imports of the product into Australia refer to Part C.6 of the application.

This application does not involve a request for the imposition of countervailing measures.

#### **B-2** Export price

1. Indicate the FOB export price(s) of the imported goods. Where there are different grades, levels of trade, models or types involved, an export price should be supplied for each.

Australian Bureau of Statistics ("ABS") import data is the subject of suppression and cannot be used for evidencing FOB export prices from the countries nominated in this application. OneSteel has obtained export price information from ISSB Limited, a well-known and established organization that specializes in the supply of import and export trade statistical data. The export data available from ISSB Limited provides monthly FOB prices separately for universal beams & columns and channels & angles. Due to ISSB prices being based on the month of export, they have been offset one month to allow better alignment with the ABS month of arrival import statistics, ie ISSB exports in June 12 are treated as imports arriving in July 12.

OneSteel has aggregated the export prices for universal beams & columns with the data for channels & angles, to arrive at total exports of the goods under consideration from each of Japan, Korea, Taiwan and Thailand. OneSteel considers that the cost differential between universal beams & columns and channels & angles is relatively immaterial and hence aggregation is reasonable.

2. Specify the terms and conditions of the sale, where known.

ISSB Limited data for the goods exported to Australia is at the FOB level.

3. If you consider published export prices are inadequate, or do not appropriately reflect actual prices, please calculate a deductive export price for the goods. <u>Appendix B1</u> (Deductive Export Price) can be used to assist your estimation.

OneSteel considers the ISSB Limited export data to be adequate for the purposes of comparison with *prima facie* normal values to determine relevant dumping margins.

4. It is important that the application be supported by evidence to show how export price(s) have been calculated or estimated. The evidence should identify the source(s) of data.

<sup>&</sup>lt;sup>1</sup> Refer to Confidential XXXX Offer Dec 2012

Please refer to ISSB Limited Data used for export price confirmation (provided on a confidential basis in electronic form – reference is Confidential Attachment B-1.4).

#### B-3 Selling price (normal value) in the exporter's domestic market.

### 1. State the selling price for each grade, model or type of like goods sold by the exporter, or other sellers, on the domestic market of the country of export.

OneSteel has obtained domestic pricing information for HRS sections from the industry newsletter [Confidential Publication] and sold in Japan, Korea and Taiwan. The quoted monthly domestic prices are provided in the domestic currency of the exporting country and relate to medium sections and beams (i.e. 240mm x 240mm).

Prices are quoted on a "High" and "Low" basis. OneSteel has used an average of the quoted price range for each month as the basis for normal values.

The prices are provided on a low and high basis to reflect the range of prices on the domestic market between major and minor customers.

Table B-3.1 below summarizes domestic selling prices for HRS sold in each of Japan, Korea and Taiwan over the period July 2012 to June 2013.

OneSteel has been unable to obtain domestic selling prices for HRS sold in Thailand. Please refer to Section B-4.1 below for prima facie normal values based upon a constructed selling price methodology for Thailand.

Table B-3.1 – Domestic selling prices for HRS sold in Japan, Korea and Taiwan – July 2012 to June 2013

Period	Japan	Korea	Taiwan
	('000 Yen per tonne)	('000 KRW per tonne)	('000 \$NT per tonne)
July 2012	66.5	855	26.1
August 2012	66.5	855	26.1
September 2012	66.5	855	25.6
October 2012	66.5	855	25.6
November 2012	66.5	845	25.6
December 2012	66.5	845	25.6
January 2013	66.5	835	24.4
February 2013	71.5	835	24.4
March 2013	73.5	835	24.9
April 2013	73.5	825	24.9
May 2013	73.5	785	24.9
June 2013	73.5	805	24.1

Source: [Confidential data source] .

#### 2. Specify the terms and conditions of the sale, where known.

The prices quoted in [ Confidential data source] are those paid by consumers and stock holders for prime product. The prices reflect regular business transactions between customers and their local mills, negotiated during the specified month for delivery at a future date. The prices include all extras for the lowest price grade of steel for the HRS grade size nominated (i.e. 240 mm x 240 mm) that are sold ex-mill.

Delivery charges and local taxes are not included in the identified domestic prices.

The prices do not include sales of imported goods – these are specifically excluded from the domestic prices identified.

#### 3. Provide supporting documentary evidence.

Please refer to Confidential Attachment B-3.3 for domestic prices for each of Japan, Korea and Taiwan over the period July 2012 to June 2013.

4. List the names and contact details of other known sellers of like goods in the domestic market of the exporting country.

OneSteel has identified the exporters of the goods exported to Australia at Section B-1.4 above. Additional producers in the nominated countries are as follows:

#### <u>Japan</u>

Nippon Steel & Sumitomo Metal Corporation 2-6-1 Marunouchi, Chiyoda-Ku, Tokyo 100-8071, Japan

#### Korea

Dongkuk Steel Group Ferrum Tower, # 66 Suha-dong, Jung-gu, Seoul, Korea

Tel: +82 2 317 1114 Fax: +82 2 317 1391

#### **Taiwan**

Dragon Steel Corporation No. 100, Lung Chang Road, Li Shui Village, Lung Ching Town Taichung Hsien 434, Taiwan Tel: +886 4 2630 6088

Fax: +886 4 2630 6066

#### **Thailand**

There are no other known producers of HRS in Thailand.

#### B-4 Estimate of normal value using another method.

1. Indicate the normal value of the like goods in the country of export using another method (if applicable, use <u>appendix B2</u> Constructed Normal Value).

OneSteel has been unable to obtain domestic selling prices for HRS sold in Thailand. In the absence of available information on domestic selling prices in Thailand, OneSteel has constructed selling prices based upon traded slab prices (specifically, East Asia import price, CFR per metric tonne). The reason for this is that there is no published data for internationally traded blooms which are the typical intermediate feed material for a structural mill.

Slab was considered to be a reasonable starting point for a constructed selling price as it is an internationally traded intermediate feed material, that in itself is likely to be influenced by dumping. As blooms are in between a billet and a slab in size, OneSteel could have also used an average of the two as a starting point. In FY 13 SBB East Asian slab prices averaged USD70/t lower than billet.

Fixed costs (including overhead) have been sourced from OneSteel's 2013 HRS production costs (refer Confidential Appendix A6.1). OneSteel's fixed costs are considered reasonable for use in a Thai constructed cost as its plant has been operating at high efficiency rates during 2013 (hence overhead costs are at efficient rates). Conversion costs are included in worksheet "Slab & Scrap Feed Impact" in file "HRS Data FY13". For selling and general administration, OneSteel has applied an expense based upon OneSteel's 2013 S,G&A expense that excludes domestic freight.

An amount for profit has been applied at xx per cent of total constructed costs. OneSteel recognizes that the xx per cent profit margin is less than an adequate return on investment and less than the current cost of capital. The use of the xx per cent margin in the constructed selling price methodology does not limit OneSteel from seeking a higher profit margin during a formal investigation.

The constructed selling prices for HRS in Thailand during the July 2012 to June 2013 twelve months are reflected in Table B-4.1 below (in the range A\$ 775-1001 per metric tonne).

Table B-4.1 - Constructed HRS selling prices - Thailand

Period	Thai Constructed Selling Price US\$/MT	
July 2012	\$xxxx	
August 2012	\$xxxx	
September 2012	\$xxxx	
October 2012	\$xxxx	
November 2012	\$xxxx	
December 2012	\$xxxx	
January 2013	\$xxxx	
February 2013	\$xxxx	
March 2013	\$xxxx	
April 2013	\$xxxx	
May 2013	\$xxxx	
June 2013	\$xxxx	

**Source**: Refer Confidential Attachment B-6 (Thai Constructed Domestic Price Worksheet).

#### 2. Provide supporting documentary evidence.

Refer to Confidential Attachment B-6 (Thai Constructed Domestic Price Worksheet).

#### B-5 Adjustments.

1. Provide details of any known differences between the export price and the normal value. Include supporting information, including the basis of estimates.

The domestic selling prices for HRS sold in Japan, Korea and Taiwan are at the ex-works level, Similarly, the constructed selling price for HRS in Thailand is also at the ex-works level.

The ISSB Limited export prices are at the Free-On-Board ("FOB") level, and include inland freight from factory to wharf. It is estimated that the cost of inland freight to wharf in the exporting countries is approximately A\$15-20 per metric tonne.

An upward adjustment to normal value is required to allow for the cost of internal freight that is included in the export prices (and not in the normal values).

OneSteel has not made an adjustment to normal values for internal freight for HRS exports from the nominated countries. Such an adjustment would result in higher dumping margins than those reflected at Section B-6 below.

In order to comply with the Australian standard for structural steel (AS/NZS3679.1) the Australian market requires a higher quality grade to that which is commonly sold in either Japan, Thailand, Korea or Taiwan. The minimum grade required in Australia is a Grade 300 which has minimum yield strength of 300Mpa. The most common grade sold in the countries nominated is a grade

SS400 which has a minimum yield strength of 235Mpa. A more appropriate comparison is to the next higher grade SS490, which has a minimum yield strength of 355Mpa.

With the exception of Korean normal values, OneSteel has not adjusted the normal values in these countries to reflect a higher quality grade of HRS that is exported to Australia (to comply with relevant Australian Standards). For Korea, OneSteel has been able to obtain independent information (ex-SBB) confirming a price differential between Korean domestic grade SS400 HRS and other grades sold in Korea. This premium is similar to the difference in grade premiums for HRS sold in Australia, i.e. \$XX/t

OneSteel is identifying this issue with grades sold domestically in the exporting countries versus the higher quality grades exported to Australia so that the Anti-Dumping Commission can take account of the grade differences during exporter verification visits

2. State the amount of adjustment required for each and apply the adjustments to the domestic prices to calculate normal values. Include supporting information, including the basis of estimates.

Please refer to Section B-5.1 above.

#### B-6 Dumping margin.

1. Subtract the export price from the normal value for each grade, model or type of the goods (after adjusting for any differences affecting price comparability).

The calculated dumping margins for HRS exported from the nominated countries are shown below.

#### 1. Japan

Month	Domestic Price US\$/MT	Export Price US\$/MT	Dumping Margin US\$/MT	Dumping Margin As % of export price
June 2012	908	784	124	15.8%
July 2012	876	803	73	9.1%
Aug 2012	850	827	23	2.8%
Sep 2012	848	824	24	2.9%
Oct 2012	859	805	54	6.7%
Nov 2012	835	802	33	4.1%
Dec 2012	807	726	81	11.2%
Jan 2013	772	729	43	5.9%
Feb 2013	754	-	-	-
Mar 2013	775	720	55	7.6%
Apr 2013	781	742	39	5.3%
May 2013	752	753	-1	-0.1%

#### Note:

- 1. In Feb 2013 there were no exports of HRS to Australia from Japan.
- 2. June 2012 is included above to allow for one-month lag for exports to arrive in Australia (i.e. July 2012 arrival).

Refer to Confidential Attachment B-6 "Japan Dumping Margins" worksheet for weighted average dumping margin calculations. For 2012/13, the weighted-average dumping margin for HRS exported from Japan to Australia was US\$55 per metric tonne, or 7.21 per cent of the export price.

#### 2. Korea

Month	Domestic Price US\$/MT	Export Price US\$/MT	Dumping Margin US\$/MT	Dumping Margin As % of export price
June 2012	812	828	-16	-2.0%
July 2012	843	796	47	5.6%
Aug 2012	844	786	58	7.3%
Sep 2012	842	784	58	7.3%
Oct 2012	857	770	87	11.3%
Nov 2012	872	809	63	7.8%
Dec 2012	868	748	120	16.1%
Jan 2013	880	730	150	20.6%
Feb 2013	854	737	117	15.8%
Mar 2013	878	740	138	18.7%
Apr 2013	837	737	100	13.5%
May 2013	837	738	101	13.4%

Refer to Confidential Attachment B-6 "Korea Dumping Margins" worksheet for weighted average dumping margin calculations. For 2012/13, the weighted-average dumping margin for HRS exported from Japan to Australia was US\$81 per metric tonne, or 10.6 per cent of the export price.

#### 3. **Taiwan**

Month	Domestic Price US\$/MT	Export Price US\$/MT	Dumping Margin US\$/MT	Dumping Margin As % of export price
June 2012	875	811	64	7.9%
July 2012	874	741	123	18.0%
Aug 2012	869	794	75	9.5%
Sep 2012	872	791	81	10.2%
Oct 2012	873	783	90	11.5%
Nov 2012	876	768	108	14.1%
Dec 2012	880	760	120	15.7%
Jan 2013	881	750	131	17.4%
Feb 2013	825	741	84	11.4%
Mar 2013	825	742	81	10.9%
Apr 2013	823	754	78	10.3%
May 2013	804	752	93	12.4%

Refer to Confidential Attachment B-6 "Taiwan Dumping Margins" worksheet for weighted average dumping margin calculations. For 2012/13, the weighted-average dumping margin for HRS exported from Japan to Australia was US\$89 per metric tonne, or 11.6 per cent of the export price.

#### 4. Thailand

Month	Domestic Price US\$/MT	Export Price US\$/MT	Dumping Margin US\$/MT	Dumping Margin As % of export price
June 2012	Xxxx	Xxxx	Xxx	xxx%
July 2012	Xxxx	Xxxx	Xxx	Xxx%
Aug 2012	Xxxx	Xxxx	Xxx	Xxx%
Sep 2012	Xxxx	Xxxx	Xxx	Xxx%
Oct 2012	Xxxx	Xxxx	Xxx	xxx%
Nov 2012	Xxxx	Xxxx	Xxx	Xxx%
Dec 2012	Xxxx	Xxxx	Xxx	Xxx%
Jan 2013	Xxxx	Xxxx	Xxx	Xxx%
Feb 2013	Xxxx	Xxxx	Xxx	Xxx%
Mar 2013	Xxxx	Xxxx	Xxx	Xxx%
Apr 2013	Xxxx	Xxxx	Xxx	Xxx%
May 2013	Xxxx	XXXX	xxx	xxx%

#### Notes:

1. Please note that Thai dumping margins are in A\$/MT.

There were no tonnes exported from Thailand to Australia in September 2012.

Refer to Confidential Attachment B-6 "Thai Dumping Margins" worksheet for weighted average dumping margin calculations. For 2012/13, the weighted-average dumping margin for HRS exported from Japan to Australia was US\$172 per metric tonne, or 23.9 per cent of the export price.

#### 2. Show dumping margins as a percentage of the export price.

Calculated dumping margins as a percentage of export price are included in Section B-6.1 above.

# **PART C**

# SUPPLEMENTARY SECTION

#### **IMPORTANT**

Replies to questions in Part C are not mandatory in all instances, but may be essential for certain applications.

You should contact the Customs Dumping Liaison Unit before answering any question in this part:

**(02)** 6275-6066 Fax (02) 6275-6990

#### C-1 Subsidy

- 1. Identify the subsidy paid in the country of export or origin. Provide supporting evidence including details of:
  - (i) the nature and title of the subsidy;
  - (ii) the government agency responsible for administering the subsidy;
  - (iii) the recipients of the subsidy; and
  - (iv) the amount of the subsidy.

This application does not involve an application for countervailing measures. Therefore this question does not apply to this application.

#### C-2. Threat of material injury

Address this section if the application relies <u>solely</u> on threat of material injury (ie where material injury to an Australian industry is not yet evident).

- 1. Identify the change in circumstances that has created a situation where threat of material injury to an Australian industry from dumping/subsidization is foreseeable and imminent, for example by having regard to:
  - 1. the rate of increase of dumped/subsidized imports;
  - 2. changes to the available capacity of the exporter(s);
  - 3. the prices of imports that will have a significant depressing or suppressing effect on domestic prices and lead to further imports;
  - 4. inventories of the product to be investigated; or
  - 5. any other relevant factor(s).

OneSteel's application for anti-dumping measures outlines how the Australian industry has experienced material injury from the dumped exports of HRS from Japan, Korea, Taiwan and Thailand. The injury is "material" as it has contributed to a decline in the Australian industry's profit and profitability in 2012/13 that is substantial in the context of the annual turnover for the goods sold domestically in Australia.

It is relevant to highlight that the price undercutting evident from the dumped imports will have further price suppression impacts in the absence of anti-dumping measures.

2. If appropriate, include an analysis of trends (or a projection of trends) and market conditions illustrating that the threat is both foreseeable and imminent.

Material injury as a result of dumped imports has been identified. If it is not addressed now it will continue to cause significant financial damage to the Australian industry producing like goods.

#### C-3. Close processed agricultural goods

Where it is established that the like (processed) goods are closely related to the locally produced (unprocessed) raw agricultural goods, then – for the purposes of injury assessment – the producers of the raw agricultural goods may form part of the Australian industry. This section is to be completed only where processed agricultural goods are the subject of the application. Applicants are advised to contact the Dumping Liaison Unit before completing this section (02) 6275-6066 Fax (02) 6275-6990.

1. Fully describe the locally produced raw agricultural goods.

HRS is not a processed agricultural good.

2. Provide details showing that the raw agricultural goods are devoted substantially or completely to the processed agricultural goods.

This question is not applicable to HRS.

3. Provide details showing that the processed agricultural goods are derived substantially or completely from the raw agricultural goods.

This question is not applicable to HRS.

- 4. Provide information to establish either:
  - a close relationship between the price of the raw agricultural goods and the processed agricultural goods; or
  - that the cost of the raw agricultural goods is a significant part of the production cost of the processed agricultural goods.

This question is not applicable to HRS.

#### C-4. Exports from a non-market economy

1. Provide evidence the country of export is a non-market economy. A non-market economy exists where the government has a monopoly, or a substantial monopoly, of trade in the country of export and determines (or substantially influences) the domestic price of like goods in that country.

The countries the subject of this application are not considered 'non-market economy' countries under Australia's Anti-Dumping provisions.

2. Nominate a comparable market economy to establish selling prices.

This question is not applicable.

Explain the basis for selection of the comparable market economy country.

This question is not applicable.

4. Indicate the selling price (or the cost to make and sell) for each grade, model or type of the goods sold in the comparable market economy country. Provide supporting evidence.

This question is not applicable.

#### C-5 Exports from an 'economy in transition'

1. Provide information establishing that the country of export is an 'economy in transition'.

The countries the subject of this application are not considered "economies-in-transition" countries under Australia's Anti-Dumping provisions.

2. A price control situation exists where the price of the goods is controlled or substantially controlled by a government in the country of export. Provide evidence that a price control situation exists in the country of export in respect of like goods.

This question is not applicable.

3. Provide information (reasonably available to you) that raw material inputs used in manufacturing/producing the exported goods are supplied by an enterprise wholly owned by a government, at any level, of the country of export.

This question is not applicable.

4. Estimate a 'normal value' for the goods in the country of export for comparison with export price. Provide evidence to support your estimate.

This question is not applicable.

#### C-6 Aggregation of Volumes of dumped goods

Only answer this question if required by question B.1.5 of the application and action is sought against countries that individually account for less than 3% of total imports from all countries (or 4% in the case of subsidised goods from developing countries). To be included in an investigation, they must collectively account for more than 7% of the total (or 9% in the case of subsidised goods from developing countries).

	Quantity	%	Value	%
All imports into Australia		100%		100%
Total				

The import volumes from each of Japan, Korea, Taiwan and Thailand independently exceed 3 per cent of the total import volume into Australia during 2012/13. This question is therefore not applicable to imports from the exporting countries nominated in this application.

APPENDICES	
Appendix A1	Australian Production
Appendix A2	Australian Market
Appendix A3	Sales Turnover
Appendix A4	Domestic Sales
Appendix A5	Sales of Other Production (Not Applicable)
Appendix A6.1	Cost to Make and Sell (& profit) Domestic Sales
Appendix A6.2	Cost to Make and Sell (& profit) Export Sales
Appendix A7	Other Injury Factors

Authority to Deal With Representative

Appendix A8

# List of Attachments – Hot Rolled Structural Sections ("HRS") exported from Japan, Korea, Taiwan and Thailand

The following Table identifies the attachments included in OneSteel's application for measures on HRS exported from Japan, Korea, Taiwan and Thailand, and indicates whether the attachment is Confidential or Non-Confidential in nature.

Attachment No.	Description	Confidential/Non- Confidential
A-2.2	Internal Organisation Chart	Confidential
A-2.6	Affiliated/associated companies	Confidential
A-2.9	2012 Annual Report	Non-Confidential
A-3.2	Customs Tariff Extract	Non-Confidential
A-3.3	OneSteel HRS Product Brochures	Non-Confidential
A-3.6	Manufacturing Production flow diagram	Confidential
A-5.6	OneSteel HRS Distributor Agreements	Confidential
A-5.7	OneSteel HRS Pricing List to Distributors	Confidential
A-5.9	Commercial documentation – two sets per quarter, July 2012 to June 2013	Confidential
A-6.3	OneSteel HRS Internal Management Reports	Confidential
A-9.2	OneSteel Price Undercutting examples – market quotations for imported HRS ex Japan, Korea, Taiwan and Thailand	Confidential
B-1.4	ISSB Export data for HRS ex Japan, Korea, Taiwan and Thailand	Confidential
B-3.3	Domestic selling price information for HRS sold in Japan, Korea and Taiwan during 2012/13 on a monthly basis	Confidential
B-6	Thai Constructed normal values for HRS and dumping margin calculations for HRS exports to Australia from Japan, Korea, Taiwan and Thailand	Confidential
Financial Appendices		
A1	Australian Production - HRS	Confidential
A2	Australian Market - HRS	Confidential
A3	OneSteel Sales – All steel products and Like Goods	Confidential
A4	OneSteel HRS sales – 1 July 2012 to 30 June 2013	Confidential
A5	OneSteel HRS internal transfers and sales of imported HRS 2010 to 2013	Confidential
A6.1	OneSteel HRS Domestic Cost to Make and Sell 2010 to 2013	Confidential
A6.2	OneSteel HRS Export Cost to Make and Sell 2010 to 2013	Confidential
A7	OneSteel - Other economic factors	Confidential
A8	Authority to Represent	Confidential

# Non-Confidential Attachment A-3.2

**Customs Tariff Schedule 3 Extract** 

#### **CUSTOMS TARIFF SCHEDULE 3**

**R.2** 

Section 15 Chapter 72/15

				R.2	Chapter 72/15
	Reference Number		istical e/Unit	Goods	Rate #
	7215.50			- Other, not further worked than cold-formed or cold-finished:	
	7215.50.10	53	t	''Flattened circles'' and ''modified rectangles'' as defined in Note 1(m) to Chapter 72	5% DCS:Free
	7215.50.90	54	t	Other	5% DCS:4% DCT:5%
	7215.90.00	55	t	- Other	5% DCS:Free
	7216			ANGLES, SHAPES AND SECTIONS OF IRON OR NON-ALLOY STEEL:	
	7216.10.00	27	t	<ul> <li>U, I or H sections, not further worked than hot-rolled, hot-drawn or extruded, of a height of less than 80 mm</li> </ul>	5% DCS:Free
	7216.2			<ul> <li>L or T sections, not further worked than hot-rolled, hot-drawn or extruded, of a height of less than 80 mm:</li> </ul>	
	7216.21.00	28	t	L sections	5% DCS:Free
	7216.22.00	29	t	T sections	5% DCS:Free
	7216.3			<ul> <li>U, I or H sections, not further worked than hot-rolled, hot-drawn or extruded, of a height of 80 mm or more:</li> </ul>	
¥.	7216.31.00	30	t	U sections	5% DCS:Free
*	7216.32.00	31	t	I sections	5% DCS:Free
*	7216.33.00	32	t	H sections	5% DCS:Free
*	7216.40.00	33	t	<ul> <li>L or T sections, not further worked than hot-rolled, hot-drawn or extruded, of a height of 80 mm or more</li> </ul>	5% DCS:Free
*	7216.50.00	56	t	<ul> <li>Other angles, shapes and sections, not further worked than hot-rolled, hot-drawn or extruded</li> </ul>	5% DCS:Free
	7216.6			<ul> <li>Angles, shapes and sections, not further worked than cold-formed or cold-finished:</li> </ul>	
	7216.61.00	57	t	Obtained from flat-rolled products	5% DCS:Free
	7216.69.00	58	t	Other	5% DCS:Free

<sup>#</sup> Unless otherwise indicated NZ, PG, FI, DC, LDC and SG rates are Free.

Unless otherwise indicated general rate applies for CA.

Unless indicated in Schedules 5, 6, 7 or 8 rates for US, Thai, Chilean and AANZ originating goods, respectively, are Free.

DCS denotes the rate for countries and places listed in Part 4 of Schedule 1 to this Act.

DCT denotes the rate for HK, KR, SG and TW.

If no DCT rate shown, DCS rate applies. If no DCT or DCS rate shown, general rate applies.

#### **CUSTOMS TARIFF SCHEDULE 3**

Section 15 Chapter 72/22

Reference Number		istical e/Unit	Goods	Rate #
7227			BARS AND RODS, HOT-ROLLED, IN IRREGULARLY WOUND COILS, OF OTHER ALLOY STEEL:	
7227.10.00	37	t	- Of high speed steel	Free
7227.20			- Of silico-manganese steel:	
7227.20.10	38	t	"Flattened circles" and "modified rectangles" as defined in Note 1(I) to Chapter 72	5% DCS:4% DCT:5%
7227.20.20	39	t	Goods, NSA, as follows: (a) containing less than 0.35% of carbon; (b) containing more than 1.2% of manganese	5% DCS:Free
7227.20.90	40	t	Other	5% DCS:4% DCT:5%
7227.90			- Other:	
7227.90.10	69	t	<ul> <li>Goods, as follows:</li> <li>(a) of high alloy steel;</li> <li>(b) "flattened circles" and "modified rectangles" as defined in Note 1(l) to Chapter 72</li> </ul>	5% DCS:4% DCT:5%
7227.90.90	42	ţ	Other	5% DCS:Free
7228			OTHER BARS AND RODS OF OTHER ALLOY STEEL; ANGLES, SHAPES AND SECTIONS, OF OTHER ALLOY STEEL; HOLLOW DRILL BARS AND RODS, OF ALLOY OR NON-ALLOY STEEL:	
7228.10.00	43	t .	-Bars and rods, of high speed steel	5% DCS:4% DCT:5%
7228.20			-Bars and rods, of silico-manganese steel:	
7228.20.10	44	t	"Flattened circles" and "modified rectangles" as defined in Note 1(m) to Chapter 72	5% DCS:4% DCT:5%
7228.20.2			Goods, NSA, as follows: (a) containing less than 0.35% of carbon; (b) containing more than 1.2% of manganese:	
7228.20.21	45	t	Not further worked than cold-formed or cold- finished	5% DCS:4% DCT:5%
7228.20.29	46	t	Other	5% DCS:Free
7228.20.90	47	t	Other	5% DCS:4% DCT:5%

1/1/12

Unless indicated in Schedules 5, 6, 7 or 8 rates for US, Thai, Chilean and AANZ originating goods, respectively, are Free. DCS denotes the rate for countries and places listed in Part 4 of Schedule 1 to this Act.

<sup>#</sup> Unless otherwise indicated NZ, PG, FI, DC, LDC and SG rates are Free.
Unless otherwise indicated general rate applies for CA.

DCT denotes the rate for HK, KR, SG and TW.

If no DCT rate shown, DCS rate applies. If no DCT or DCS rate shown, general rate applies.

ļ	(Chapter 73 follor			R.5	Chapter 72/
	Reference Number		istical e/Unit	Goods	Rate #
	7228.30			<ul> <li>Other bars and rods, not further worked than hot- rolled, hot-drawn or extruded:</li> </ul>	
	7228.30.10	70	t	<ul> <li>Goods, as follows:</li> <li>(a) of high alloy steel;</li> <li>(b) "flattened circles" and "modified rectangles" as defined in Note 1(m) to Chapter 72</li> </ul>	5% DCS:4% DCT:5%
	7228.30.90	49	t	Other	5% DCS:Free
	7228.40			- Other bars and rods, not further worked than forged:	
	7228.40.10	71	t	<ul> <li>Goods, as follows:</li> <li>(a) of high alloy steel;</li> <li>(b) "flattened circles" and "modified rectangles" as defined in Note 1(m) to Chapter 72</li> </ul>	5% DCS:4% DCT:5%
	7228.40.90	51	t	Other	5% DCS:Free
t	7228.50.00	54	t	<ul> <li>Other bars and rods, not further worked than cold- formed or cold-finished</li> </ul>	5% DCS:4% DCT:5%
	7228.60			- Other bars and rods:	
	7228.60.10	72	t	<ul> <li>Goods, as follows:</li> <li>(a) of high alloy steel;</li> <li>(b) "flattened circles" and "modified rectangles" as defined in Note 1(m) to Chapter 72</li> </ul>	5% DCS:4% DCT:5%
	7228.60.90	55	t	Other	5% DCS:Free
	7228.70.00	56	t	- Angles, shapes and sections	5% DCS:4% DCT:5%
	7228.80.00	23	t	-Hollow drill bars and rods	5% DCS:4% DCT:5%
	7229			WIRE OF OTHER ALLOY STEEL:	
	7229.20.00	57	t	- Of silico-manganese steel	5% DCS:4% DCT:5%
	7229.90			-Other:	
	7229.90.10	58	t	Of high speed steel	Free
	7229.90.90	59	t	Other	5% DCS;4% DCT;5%

<sup>#</sup> Unless otherwise indicated NZ, PG, FI, DC, LDC and SG rates are Free. \*\* S Operative 1/1/12 Unless otherwise indicated general rate applies for CA.
Unless indicated in Schedules 5, 6, 7 or 8 rates for US, Thai, Chilean and AANZ originating goods, respectively, are Free.
DCS denotes the rate for countries and places listed in Part 4 of Schedule 1 to this Act.
DCT denotes the rate for HK, KR, SG and TW.
If no DCT rate shown, DCS rate applies. If no DCT or DCS rate shown, general rate applies.

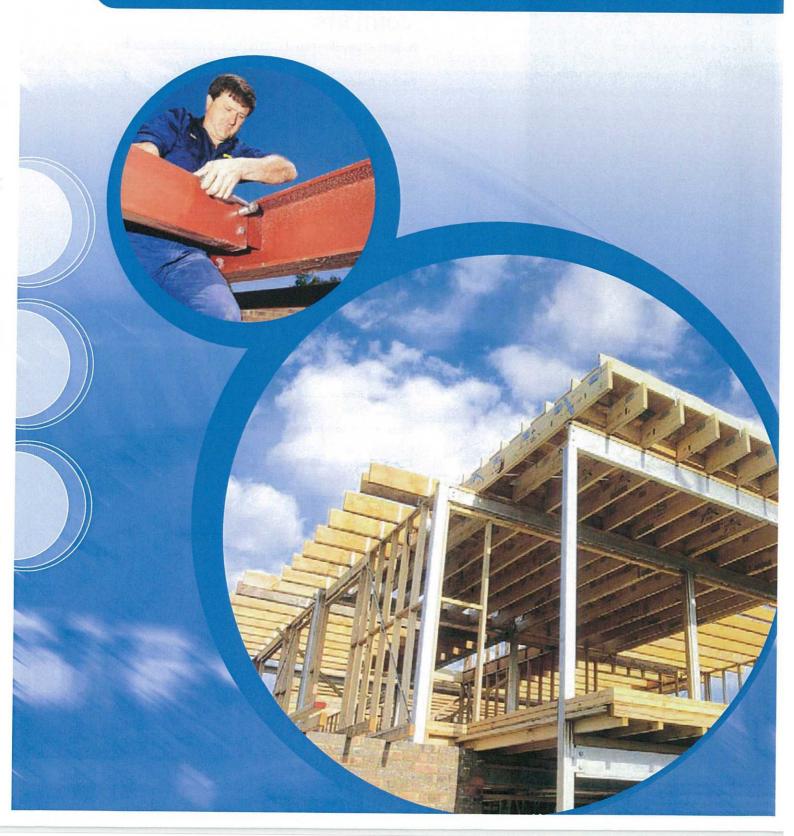
Non-Confidential Attachment A-3.3

**OneSteel HRS Product Brochures** 





# STRUCTURAL STEEL IN HOUSING - THIRD EDITION



Structural steel is playing an increasingly important role in traditional and medium density housing with its versatility, strength and competitive price.

OneSteel produces a unique range of steel beams, columns, channels and angles which are suitable for use in domestic housing as floor bearers, joists, roof strutting beams, lintels, piling and other applications.

This booklet has been compiled to assist builders, draftspersons and designers to specify and use OneSteel's range of structural steel. It contains span tables, surface treatment specifications and installation details on the use of OneSteel's structural steel products in various residential building applications.

### **CONTENTS**

Benefits of Structural Steel	1
Product Description and Range	2
Span Table Design Data	4
Letter of Certification	5
Bearers	6
Strutting Beams	8
Strutting/Hanging Beams	
Lintels Supporting Roof	
Lintels Supporting Roof and Floor	
Lintels Supporting Strutting Beam	
Verandah Beams	
Steel Sheet Roofs in High Wind Areas	
Lintels Supporting Masonry	
Connection Examples	
Surface Treatment	
Other Publications	

## Benefits of OneSteel's Structural Steels

Steel's inherent strength and consistent properties provides builders and home owners with many benefits. They include:

Steel beam depths are around half that of timber beams offering greater usable space and lower costs of other materials

OneSteel's unique range of lightweight 'Lean Beam' sections in 300PLUS® grade offers efficient and cost effective design solutions

Superior spanning capabilities means fewer columns and more usable space

Steel does not warp, bow or twist due to shrinkage ensuring no long term movement problems with the steelwork

Unlike timber, steel does not creep and long term deflection is minimal

Consistent quality and dimensions ensuring ease of use and long life





OneSteel's range of structural steel is available from hundreds of outlets Australia-wide.

Most suppliers offer cut to length and delivery services.

Many offer other services such as drilling, welding, installation and design advice.

For an up-to-date list of suppliers please call:

OneSteel Direct Toll Free on 1800 1 STEEL (1800 1 78335)

or visit our website at www.onesteel.com



## PRODUCT DESCRIPTION & RANGE

OneSteel produces a large range of structural steel sections. The following sections and sizes are particularly useful for housing applications. All sections are produced in OneSteel's unique 300PLUS® steel grade offering high strength and lightweight design solutions. For information on OneSteel's full range of structural steel sections, refer to the OneSteel Product Catalogue - Structural Steel.

#### PRODUCT DESCRIPTION

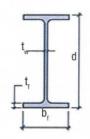
#### **UNIVERSAL BEAMS (UB)**

Universal Beams are 'l' shaped members (refer diagram) designed to carry high loads over long spans. The thick flanges and thinner web efficiently proportions material to resist the high bending loads from beam applications.

A Universal Beam is designated as follows:

180	UB	18.1
Nominal	Universal	mass/length
depth.d	Beam	kg/m

The 180 UB18.1 for example is 175mm deep (d), 90mm wide (b<sub>i</sub>) with 8mm flange (t<sub>i</sub>) and 5mm web (t<sub>.</sub>).



#### TAPER FLANGE BEAMS (TFB)

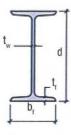
Taper Flange Beams are similar in shape to Universal Beams except that they have tapered flanges.

A Taper Flange Beam is designated as follows:

125	TFB
depth, d	Taper Flange Beam

The 125 TFB for example is 125 mm deep (d), 65 mm wide (b<sub>i</sub>) with 8.5 mm flange (t) and

5 mm web (t\_).

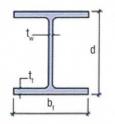


#### **UNIVERSAL COLUMNS (UC)**

Universal Columns are stockier, wider 'I' section members designed to carry high axial loads, for applications such as columns and piles etc. These members are generally heavier than other steel sections and are useful as supports for retaining walls and the like. They can also be used as beam sections where headroom is of concern.

A Universal Column is designated as follows:

150	UC	37.2
Nominal	Universal	mass/length
depth,d	Column	kg/m



The 150 UC 37.2 for example is 162mm deep (d), 154mm wide (b<sub>i</sub>) with 18mm flange ( $t_i$ ) and 8mm web ( $t_w$ ).

#### PARALLEL FLANGE CHANNELS (PFC)

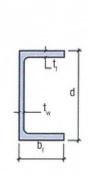
Parallel Flange Channels are a general purpose hot rolled 'C' section member useful in beam applications. PFC's provide excellent deflection resistance and strength characteristics. They are narrower than a UB of similar depth and provide a flat, flush back surface for mating with other building materials.

A Parallel Flange Channel is designated as follows:

180	PFC
depth, d	Parallel Flange Channel

example, is 180mm deep (d), 75mm wide (b<sub>i</sub>) with 11mm flange (t<sub>i</sub>) and 6mm web (t<sub>w</sub>).

The 180 PFC for



#### **UNEQUAL ANGLES (UA) AND**

#### **EQUAL ANGLES (EA)**

Angles are 'L' shaped sections and are ideal for use as lintels. One leg rests under the brickwork while the other resists the bending load over the window/door opening.

An angle is designated as follows:

1	50 x 90	UA(or EA)	
leg length	leg length	thickness,t	Unequal Angle (or Equal Angle)
b <sub>1</sub>	b <sub>2</sub>		
The 15	50x90x8	BUA *	
for exa	ample h	as	
leg ler	ngths of	b,	1-
150mi	m (b <sub>1</sub> ) a	nd	
90mm	(b <sub>2</sub> ) an	d	
8mm t	thicknes	ss (t).	b <sub>a</sub>

#### PRODUCT RANGE

Section Designation	Mass per Metre kg/m	Depth of Section d mm	Flange Width b, mm	Flange Thickness t, mm	Web Thickness t
		UNIVERS	AL BEAMS		
150UB14.0	14.0	150	75	7.0	5.
150UB18.0	18.0	155	75	9.5	6.
180UB16.1	16.1	173	90	7.0	4.
180UB18.1	18.1	175	90	8.0	5.
180UB22.2	22.2	179	90	10.0	6.
200UB18.2	18.2	198	99	7.0	4.
200UB22.3	22.3	202	133	7.0	5.
200UB25.4	25.4	203	133	7.8	5.
200UB29.8	29.8	207	134	9.6	6.
250UB25.7	25.7	248	124	8.0	5.
250UB31.4	31.4	252	146	8.6	6.
250UB37.3	37.3	256	146	10.9	6.
310UB32.0	32.0	298	149	8.0	5.
310UB40.4	40.4	304	165	10.2	6.
310UB46.2	46.2	307	166	11.8	6.
0100010.2	10.2		NGE BEAMS	11.0	
100 TFB	7.20	100	45	6.0	4.
125 TFB	13.1	125	65	8.5	5.
120 11 0	10.1		L COLUMNS	0.0	
100UC14.8	14.8	97	99	7.0	5.
150UC23.4	23.4	152	152	6.8	6.
150UC30.0	30.0	158	153	9.4	6.
150UC37.2	37.2	162	154	11.5	8.
200UC46.2	46.2	203	203	11.0	7.
2000010.2	10.2	V(T)1050	NGE CHANNELS		
75 PFC	5.92	75	40	6.1	3.
100 PFC	8.33	100	50	6.7	4.
125 PFC	11.9	125	65	7.5	4.
150 PFC	17.7	150	75	9.5	6.
180 PFC	20.9	180	75	11.0	6.
200 PFC	22.9	200	75	12.0	6.
230 PFC	25.1	230	75	12.0	6.
250 PFC	35.5	250	90	15.0	8.
300 PFC	40.1	300	90	16.0	8.

Section Designation	Mass per metre kg/m	Leg-Length b <sub>1</sub> x b <sub>2</sub> mm mm		b <sub>2</sub>	Nominal Thickness	
	AN					
75 x 75 x 6EA	6.81	75	Х	75	6	
90 x 90 x 6EA	8.22	90	X	90	6	
90 x 90 x 8EA	10.6	90	X	90	8	
100 x 100 x 6EA	9.16	100	X	100	6	
100 x 100 x 8EA	11.8	100	X	100	8	
100 x 75 x 6UA	7.98	100	X	75	6	
100 x 75 x 8UA	10.3	100	X	75	8	
125 x 75 x 6UA	9.16	125	X	75	6	
125 x 75 x 8UA	11.8	125	X	75	8	
150 x 90 x 8UA	14.3	150	X	90	8	
150 x 100 x 10UA	18.0	150	X	100	10	

All structural steel sections in this manual are designed to be 300PLUS® grade steel.



### SPAN TABLE DESIGN DATA

#### SPAN TABLE DESIGN DATA

In compiling the span tables in this publication all requirements of the relevant standards and codes have been adopted along with established practices for Domestic Housing Structures.

- In particular, the following Australian Standards have been applied:
- AS1170 Parts 1 & 2-1989 SAA Loading Code and AS4055-1992 Wind Loads for Housing.
- AS4100-1998 Steel Structures.
   Other assumptions used in compiling the tables are as follows:
- All structural sections are 300PLUS® grade steel.
- Applied loads are evenly distributed along the span of the member with the exception of Strutting Beams and Lintels supporting Strutting Beams where a mid-span point load is assumed.
- Applied loads for each table are shown above the layout diagram All roof structure tables conform to wind classifications of either category N3 or N5/C2 as shown.
- Deflection limits for each table are shown above the layout diagram.
   Maximum deflections are for mid-span.

- All loads are static and are applied vertically.
- All members are simply supported single spans except for the continuous span floor bearer table.
- End support bearing distance for single spans is assumed to be at least that of the width of the member. For continuous spans, internal support bearing is to be at least 2 times the width of the member.
- Assumed restraint from lateral movement or buckling of the beams varies with application. The assumed conditions are given in the notes below the layout diagrams.
- The Lintels Supporting Masonry tables were compiled by BHP Research
   Melhourne Loberstories before their
  - Melbourne Laboratories before their closure in May 1998.

Applications not complying with the above conditions are outside the scope of this publication and advice should be sought from a structural engineer.

OneSteel Ingall Street MAYFIELD NSW 2304

20 September 2002

Dear Sir

#### DESIGN CERTIFICATION OF STEEL SECTION SPAN TABLES

The span tables on pages 7 to 21 presented in Edition 3 of "Structural Steel in Housing" have been prepared for the loads and restraint conditions specified in the tables.

The span tables have been calculated in accordance with the principles of structural mechanics using the following standards:

- a) Dead and live laods in accordance with AS1170-1 1989 (Loading Code).
- b) Wind loads in accordance with AS1170-2 1989. The classification from AS4055 Table 1 has been adopted in refering to wind classification.
- c) Member sizing in accordance with AS4100-1998 (Steel Structures)

The gravity loads adopted are accepted in normal practice. The live loads are those specified by AS1170-1.

Wind laods are derived from AS1170-2. The wind pressures are suitable for domestic structures in Regions A and B (AS1170-2) for maximum gust wind speeds of 41m/s in non-cyclonic areas with wind classification up to N3 (AS4055) or 60m/s for high wind areas with wind classification up to N5 or 50m/s for cyclone areas with wind classification C2. The tables do not apply to circumstances where exceptional exposure occurs due to hilly topography or lack of shelter by other buildings.

AS4100 gives suggestions on deflection limits for beams (Appendix B) but are not mandatory. In these tables the deflection limits for bearers and lintels are span/240 or 15mm for G+0.7Q and span/360 or 10mm for 0.7Q. The deflection limits for strutting beams are span/180 or 20mm for G+0.7Q and span/240 or 15mm for 0.7Q. These values have been generally used in the industry for many years. The values originated from the Australian Domestic Construction Manual. Users of the tables should ensure that deflections are suitable for their application. Deflection criteria has not been applied to wind loads.

All members have been sized for the restraint conditions specified in the tables. Users ensure that the constructions in their application achieves that restraint.

halluth

Yours faithfully

LES MIETHKE Director

McWilliam Consulting Engineers RPEQ Company Number 7



Address

41 Fortescue Street, Spring Hill Qld 4000 PO Box 304 Spring Hill Qld 4004 Australia

Telephone

Office

n e

Brisba

+61 7 3831 3533

Facsimile

+61 7 3832 3835

Email

bris@mcwilliam.com.au

Visit Our Web Site www.mcwilliam.com.au

Ken Bourke Gerald Croucher Mike Gould Les Miethke David Norris Brian Wooldridge

Michael Blakeney Greg Clowes Geoff Curtis Drew Gordon Peter Melloy Bryan Munns

ssociate

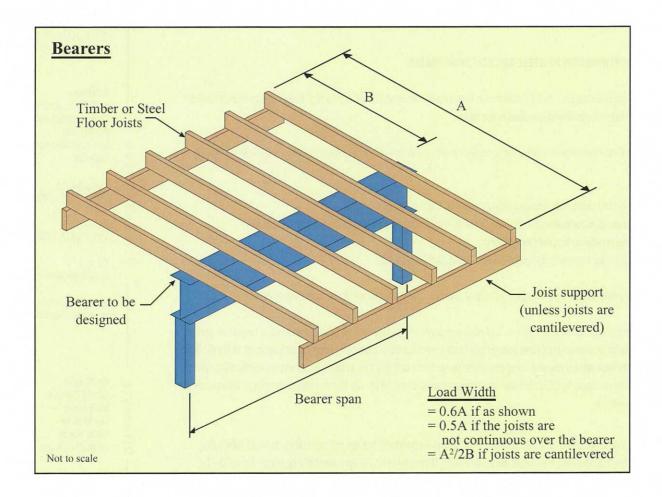




QUALITY ASSURED COMPANY AS/NZS ISO 9002:1994 REGION NO 128

McWilliam & Partners Pty Ltd ACN 009 862 702 ABN 85 009 862 702 Trading As McWilliam Consulting Engineers

	Load	I (kg/m²)	<b>Deflection Limit (mm)</b>		
	Dead Load	Live Load	Dead & Live Load	Live Load	
Bearers supporting a timber floor & non load-bearing wall	90	150 (or 180kg point load)	span/240 to 15	span/360 to 10	



#### Notes:

- 1. Allowance has been made in the table for a non-load bearing stud wall (not shown) within the floor area supported by the Bearer
- 2. The single span Bearer case is shown. For continuous Bearers over multiple spans, the variation in span between supports should not be more than 10%
- 3. The top flange of the bearer is assumed to be continuously laterally supported by floor joists spaced at 450mm centres

#### BEARER SUPPORTING A TIMBER FLOOR AND NON LOAD BEARING STUD WALL - SINGLE SPAN

Section			1	oad Width (				
Designation	1.2	1.8	2.4	3.0	3.6	4.2	4.8	
			MAXIMUM SPAN OF BEARER (m)					
100TFB	3.0	3.0	2.7	2.5	2.4	2.2	2.1	Example:
125TFB	4.4	4.1	3.8	3.6	3.4	3.2	3.1	Refer to Fig. page 6
150UB14.0	4.9	4.5	4.2	4.0	3.8	3.7	3.6	Joists continuous over bearer
• 150UB18.0	5.3	4.8	4.6	4.3	4.1	4.0	3.8	Span of bearer=5.0m
180UB16.1	5.5	5.1	4.7	4.5	4.3	4.1	4.0	A=7.6m
180UB18.1	5.7	5.2	4.9	4.6	4.4	4.3	4.1	B=3.6m
• 180UB22.2	6.0	5.5	5.2	4.9	4.7	4.5	4.4	Load width =0.6A
200UB18.2	6.1	5.6	5.2	5.0	4.7	4.6	4.4	=0.6x7.6
200UB22.3	6.4	5.9	5.6	5.3	5.1	4.9	4.7	=4.6m Use a load width of 4.8 in the adjacent table: a 250UB25.7 will span 5.4m
200UB25.4	6.6	6.1	5.7	5.5	5.2	5.0	4.9	
<ul> <li>200UB29.8</li> </ul>	6.9	6.4	6.0	5.7	5.5	5.3	5.1	
250UB25.7	7.3	6.7	6.3	6.0	5.8	5.6	5.4	
250UB31.4	7.6	7.0	6.6	6.3	6.1	5.9	5.7	This is lighter than a 200UB29.8
<ul> <li>250UB37.3</li> </ul>	7.9	7.4	7.0	6.7	6.4	6.2	6.0	
310UB32.0	8.3	7.7	7.3	6.9	6.7	6.4	6.2	
310UB40.4	8.8	8.2	7.7	7.4	7.1	6.9	6.7	
310UB46.2	9.0	8.4	8.0	7.6	7.4	7.1	6.9	
75PFC	2.4	2.3	2.1	1.9	1.8	1.7	1.7	
100PFC	3.2	3.1	2.9	2.7	2.5	2.4	2.3	
125PFC	4.2	4.0	3.7	3.5	3.3	3.1	3.0	
150PFC	5.2	4.8	4.5	4.2	4.0	3.9	3.8	
180PFC	5.9	5.4	5.1	4.8	4.6	4.4	4.3	
200PFC	6.3	5.8	5.4	5.2	5.0	4.8	4.6	
230PFC	6.8	6.3	5.9	5.6	5.4	5.2	5.0	
250PFC	7.6	7.0	6.6	6.3	6.1	5.9	5.7	
300PFC	8.4	7.9	7.4	7.1	6.8	6.6	6.4	

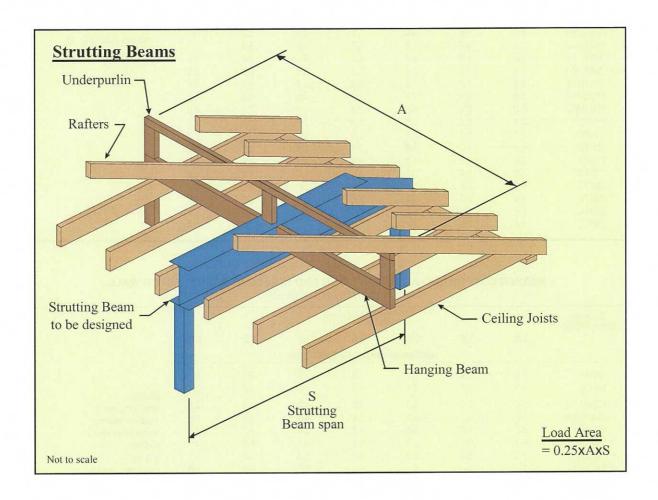
# BEARER SUPPORTING A TIMBER FLOOR AND NON LOAD BEARING STUD WALL - CONTINUOUS SPAN

Section Designation								
Doorgination	1.2	1.8	2.4	3.0	3.6	4.2	4.8	
			MAXIMUM	SPAN OF BE	ARER (m)			
100TFB	3.4	3.4	3.1	2.8	2.5	2.3	2.2 3.4	
125TFB	4.9	4.7	4.4	4.2	3.9	3.6		Example:
150UB14.0	5.6	5.2	4.9	4.6	4.4	4.0	3.8	Refer to Fig. page 6
• 150UB18.0	6.2	5.7	5.3	5.0	4.8	4.6	4.4	Joists cantilevered
180UB16.1	6.5	5.9	5.5	5.2	5.0	4.7	4.4	Span of bearer=5.0m
180UB18.1	6.7	6.1	5.7	5.4	5.1	4.9	4.7	A=5.6m
• 180UB22.2	7.1	6.4	6.0	5.7	5.4	5.2	5.1	B=3.4m
200UB18.2	7.2	6.5	6.1	5.7	5.5	5.3	5.0	Load width =A2/2B
200UB22.3	7.7	7.0	6.5	6.2	5.9	5.7	5.5	$=5.6^{2}/(2x3.4)$
200UB25.4	7.8	7.2	6.7	6.3	6.1	5.8	5.6	=4.6m
<ul> <li>200UB29.8</li> </ul>	8.2	7.5	7.0	6.7	6.4	6.1	5.9	Use a load width of 4.8
250UB25.7	8.7	7.9	7.4	7.0	6.7	6.5	6.2	in the adjacent table:
250UB31.4	9.0	8.4	7.8	7.4	7.1	6.8	6.6	a 200UB18.2 will span 5.0m
<ul> <li>250UB37.3</li> </ul>	9.4	8.8	8.2	7.8	7.5	7.2	7.0	71
310UB32.0	9.9	9.1	8.5	8.1	7.7	7.5	7.2	This is lighter than a 180UB22.2
310UB40.4	10.5	9.7	9.2	8.7	8.3	8.0	7.8	
310UB46.2	10.7	10.0	9.5	9.0	8.6	8.3	8.1	
75PFC	2.6	2.6	2.5	2.2	2.0	1.9	1.7	
100PFC	3.6	3.6	3.4	3.0	2.8	2.6	2.4	
125PFC	4.7	4.6	4.3	4.0	3.7	3.4	3.2	
150PFC	6.1	5.5	5.2	4.9	4.7	4.5	4.3	
180PFC	6.9	6.3	5.9	5.6	5.3	5.1	4.9	
200PFC	7.5	6.8	6.3	6.0	5.7	5.5	5.4	
230PFC	8.1	7.4	6.9	6.5	6.3	6.0	5.8	
250PFC	9.0	8.4	7.8	7.4	7.1	6.8	6.6	
300PFC	10.0	9.3	8.8	8.3	8.0	7.7	7.5	

- 1. The tables apply for 300PLUS® steel only. For details of your nearest 300PLUS® structural steel supplier, call OneSteel Direct toll free on 1800 1 STEEL (1800 1 78335), or visit our website at www.onesteel.com
- 2. For sections marked '•' the next largest size may be more economical.

# **STRUTTING BEAMS**

	Load	i (kg/m²)	<b>Deflection Limit (mm)</b>		
	Dead Load	Live Load	Dead & Live Load	Live Load	
Struting Beam supporting a steel sheet roof & ceiling	40	25 (or ≥ 180/Area + 12)	span/180 to 20	span/240 to 15	
Strutting Beam supporting a tiled roof & ceiling	90	25 (or ≥ 180/Area + 12)	span/180 to 20	span/240 to 15	



#### Notes

- 1. The length of the Rafters and Ceiling Joists are assumed to be within 15% of the Strutting Beam span.
- 2. Both flanges of the Strutting Beam are assumed to be fully restrained at mid-span.

#### STRUTTING BEAM SUPPORTING A STEEL SHEET ROOF AND CEILING - NORMAL WIND N3

Section				Load Area (n	12)			
Designation	7	10	13	16	19	22	25	
100TFB	3.4	2.7*	2.2*	1.8*	1.5*	1.3*	1.2*	Example:
125TFB	5.4	5.0*	4.7*	4.2*	3.6*	3.1*	2.8*	Refer to Fig. page 8
150UB14.0	6.2	5.7*	5.2*	4.6*	4.2*	3.9*	3.6*	Span S=6.1m
• 150UB18.0		6.3*	5.9*	5.6*	5.3*	4.9*	4.6*	A=7.0m
180UB16.1		6.7*	6.2*	5.7*	5.2*	4.8*	4.5*	Load area =0.25xAxS
180UB18.1		6.9*	6.5*	6.1*	5.8*	5.3*	5.0*	=0.25x7.0x6.1
• 180UB22.2		7.4*	7.0*	6.6*	6.2*	6.0*	5.8*	=10.7m <sup>2</sup>
200UB18.2		7.5*	7.1*	6.7*	6.1*	5.7*	5.4*	Use a load area of 13 sq metres in the adjacent table
200UB22.3			7.7*	7.3*	6.9*	6.6*	6.4*	
200UB25.4				7.5*	7.2*	6.9*	6.7*	a 180UB16.1 will span 6.2m
<ul> <li>200UB29.8</li> </ul>				8.0*	7.6*	7.3*	7.1*	and requires a M10 anchor rod
250UB25.7				8.6*	8.2*	7.8*	7.6*	
250UB31.4					8.7*	8.4*	8.1*	
• 250UB37.3						8.9*	8.7*	
310UB32.0						9.4*	9.1*	
310UB40.4								
75PFC	2.6	1.8*	1.4*	1.1*				
100PFC	4.0	3.5*	2.6*	2.1*	1.8*	1.5*	1.4*	
125PFC	5.3	4.9*	4.5*	3.9*	3.3*	2.8*	2.5*	
150PFC		6.1*	5.8*	5.4*	5.1*	4.9*	4.5*	
180PFC			6.8*	6.4*	6.1*	5.8*	5.6*	
200PFC			7.5*	7.1*	6.7*	6.4*	6.2*	
230PFC				7.9*	7.5*	7.2*	6.9*	
250PFC						8.4*	8.1*	

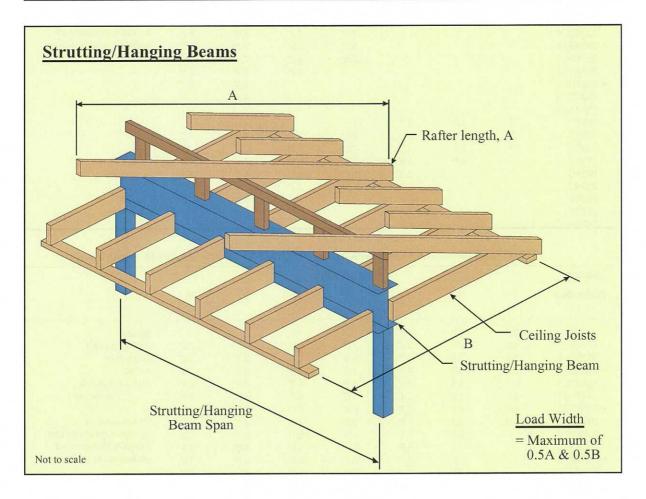
#### STRUTTING BEAM SUPPORTING A TILED ROOF AND CEILING - NORMAL WIND N3

Section								
Designation	7	10	13	16	19	22	25	
100TFB	2.7	2.0	1.6*	1.3*	1.1*			Example:
125TFB	4.6	4.1	3.7*	3.0*	2.5*	2.2*	2.0*	Refer to Fig. page 8
150UB14.0	5.2	4.8	4.2*	3.8*	3.2*	2.8*	2.3*	Span S=6.1m
• 150UB18.0	5.8	5.2	4.9*	4.6*	4.3*	3.7*	3.3*	A=7.0m
180UB16.1	6.1	5.5	5.1*	4.7*	4.3*	3.8*	3.4*	Load area=0.25xAxS
180UB18.1	6.4	5.8	5.4*	5.0*	4.7*	4.3*	3.8*	=0.25x7.0x6.1
• 180UB22.2	6.8	6.2	5.8*	5.4*	5.1*	4.9*	4.7*	=10.7m <sup>2</sup>
200UB18.2	6.9	6.3	5.9*	5.5*	5.0*	4.7*	4.4*	Use load area of 13
200UB22.3		6.9	6.4*	6.0*	5.7*	5.4*	5.3*	sq metres in the adjacent table
200UB25.4		7.1	6.6*	6.2*	5.9*	5.6*	5.5*	a 200UB22.3 will span 6.4m
<ul> <li>200UB29.8</li> </ul>		7.6	7.1*	6.7*	6.3*	6.0*	5.8*	and requires a M10 anchor rod
250UB25.7		8.1	7.6*	7.1*	6.8*	6.5*	6.2*	
250UB31.4			8.1*	7.7*	7.3*	6.9*	6.7*	
<ul> <li>250UB37.3</li> </ul>				8.2*	7.8*	7.4*	7.2*	
310UB32.0				8.6*	8.1*	7.8*	7.5*	
310UB40.4					9.0*	8.6*	8.3*	
310UB46.2						9.0*	8.7*	
75PFC	1.8	1.3	1.0*					
100PFC	3.3	2.4	1.8*	1.5*	1.3*	1.1*		
125PFC	4.4	4.0	3.4*	2.7*	2.3*	2.0*	1.8*	
150PFC	5.6	5.1	4.7*	4.4*	4.1*	3.5*	3.1*	
180PFC	6.6	6.1	5.6*	5.3*	5.0*	4.6*	4.1*	
200PFC		6.7	6.2*	5.8*	5.5*	5.3*	5.0*	
230PFC		7.4	6.9*	6.5*	6.2*	5.9*	5.7*	
250PFC				7.7*	7.3*	7.0*	6.7*	
300PFC					8.5*	8.1*	7.8*	

- 1. The tables apply for 300PLUS® steel only. For details of your nearest 300PLUS® structural steel supplier, call OneSteel Direct toll free on 1800 1 STEEL (1800 1 78335), or visit our website at www.onesteel.com
- 2. For sections marked '•' the next largest size may be more economical.
- 3. No symbol next to the span indicates that only nominal holding down is required (uplift is less than 5 kN). A "\*" indicates a M10 holding down rod is required (uplift is between 5 and 19 kN).
- 4. For a steel sheet roof in high wind load areas refer to the table on page 20.

# STRUTTING/HANGING BEAMS

	Load	d (kg/m²)	<b>Deflection Limit (mm)</b>		
	Dead Load	Live Load	Dead & Live Load	Live Load	
Strutting/Hanging Beam supporting a steel sheet roof & ceiling	40	25 (or ≥ 180/Area + 12)	span/180 to 20	span/240 to 15	
Strutting/Hanging Beam supporting a tiled roof & ceiling	90	25 (or ≥ 180/Area + 12)	span/180 to 20	span/240 to 15	



#### Notes:

- 1. The roof load is assumed to be evenly distributed along the Strutting/Hanging Beam.
- 2. The bottom flange of the Strutting/Hanging Beam is assumed to be continuously laterally supported by ceiling joists at 600mm maximum centres.

#### STRUTTING/HANGING BEAM SUPPORTING A STEEL SHEET ROOF AND CEILING - NORMAL WIND N3

Section			L	oad Width (n				
Designation	1.2	1.8	2.4	3.0	3.6	4.2	4.8	
100TFB	3.1	2.8	2.6	2.4	2.2*	2.1*	2.0*	Example:
125TFB	5.0	4.4*	4.0*	3.7*	3.5*	3.3*	3.2*	Refer to Fig. page 10
150UB14.0	5.0	4.5*	4.1*	3.8*	3.6*	3.4*	3.2*	Required beam span=4.0m
• 150UB18.0	6.0	5.3*	4.8*	4.5*	4.2*	4.0*	3.8*	A=7.8m, B=6.0m
180UB16.1	5.6	5.0*	4.6*	4.2*	4.0*	3.8*	3.7*	Load width= Maximum of
180UB18.1		5.4*	4.9*	4.6*	4.3*	4.1*	3.9*	=0.5A & 0.5B
• 180UB22.2		6.1*	5.6*	5.2*	4.9*	4.7*	4.5*	=0.5x7.8
200UB18.2		5.4*	5.0*	4.6*	4.4*	4.2*	4.0*	= 3.9m
200UB22.3		6.4*	5.9*	5.5*	5.2*	5.0*	4.8*	Use a load width of 4.2
200UB25.4		6.9*	6.3*	5.9*	5.6*	5.3*	5.1*	in the adjacent table
<ul> <li>200UB29.8</li> </ul>		7.7*	7.0*	6.6*	6.2*	5.9*	5.7*	a 150UB18.0 will span 4.0m
250UB25.7		6.8*	6.2*	5.8*	5.5*	5.3*	5.0*	and requires a M10 anchor rod
250UB31.4			7.1*	6.7*	6.3*	6.0*	5.8*	
<ul> <li>250UB37.3</li> </ul>			8.0*	7.5*	7.4*	6.8*	6.5+	
310UB32.0			7.1*	6.7*	6.4*	6.1*	5.8*	
310UB40.4				8.0*	7.5*	7.2+	6.9+	
310UB46.2					8.2*	7.8+	7.5+	
75PFC	3.1	2.8	2.5	2.3	2.2*	2.1*	2.0*	
100PFC	4.0	3.5	3.2*	2.9*	2.8*	2.6*	2.5*	
125PFC	5.1	4.5*	4.1*	3.8*	3.6*	3.4*	3.2*	
150PFC		5.7*	5.2*	4.9*	4.6*	4.4*	4.2*	
180PFC		6.3*	5.7*	5.3*	5.0*	4.8*	4.6*	
200PFC		6.6*	6.1*	5.6*	5.3*	5.1*	4.8*	
230PFC		6.8*	6.2*	5.8*	5.5*	5.2*	5.0*	
250PFC				7.4*	7.0*	6.6*	6.3+	
300PFC				7.7*	7.3*	7.0*	6.7+	

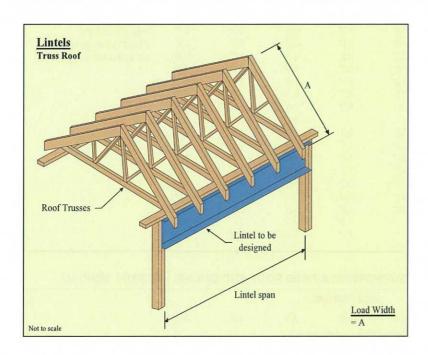
#### STRUTTING/HANGING BEAM SUPPORTING A TILED ROOF AND CEILING - NORMAL WIND N3

Section			L	oad Width (n	n)			
Designation	1.2	1.8	2.4	3.0	3.6	4.2	4.8	
100TFB	2.7	2.4	2.2	2.1	1.9	1.8	1.7	Example:
125TFB	4.4	3.8	3.5	3.2	3.0*	2.9*	2.7*	Refer to Fig. page 10
150UB14.0	4.5	3.9	3.6	3.3	3.1*	3.0*	2.8*	Required beam span=4.5m
• 150UB18.0	5.3	4.6	4.2	3.9*	3.7*	3.5*	3.3*	A=7.6m
180UB16.1	5.0	4.4	4.0	3.7*	3.5*	3.3*	3.2*	B=7.4m
180UB18.1	5.4	4.7	4.3	4.0*	3.8*	3.6*	3.4*	Load width=0.5A
• 180UB22.2	6.1	5.4	4.9*	4.6*	4.3*	4.1*	3.9*	=0.5x7.6
200UB18.2	5.4	4.8	4.4	4.1*	3.8*	3.7*	3.5*	=3.8m
200UB22.3	6.4	5.7	5.2*	4.9*	4.6*	4.4*	4.2*	Use a load width of 4.2
200UB25.4	6.9	6.1	5.6*	5.2*	4.9*	4.7*	4.5*	in the adjacent table
• 200UB29.8	7.7	6.8	6.2*	5.8*	5.5*	5.2*	5.0*	a 200UB25.4 will span 4.7m
250UB25.7	6.8	6.0	5.5*	5.1*	4.9*	4.6*	4.4*	and requires a M10 anchor rod.
250UB31.4		6.9	6.3*	5.9*	5.6*	5.3*	5.1*	
• 250UB37.3		7.7*	7.1*	6.6*	6.3*	6.0*	5.7*	
310UB32.0		6.9	6.4*	5.9*	5.6*	5.4*	5.2*	
310UB40.4			7.5*	7.1*	6.7*	6.4*	6.1*	
310UB46.2			8.2*	7.6*	7.2*	6.9*	6.6*	
75PFC	2.7	2.4	2.2	2.0	1.9	1.8	1.7	
100PFC	3.5	3.0	2.8	2.5	2.4	2.3	2.2	
125PFC	4.5	3.9	3.6	3.3	3.1*	2.9*	2.8*	
150PFC	5.7	5.0	4.6	4.3*	4.0*	3.8*	3.6*	
180PFC	6.3	5.5	5.0*	4.7*	4.4*	4.2*	4.0*	
200PFC	6.6	5.8	5.3*	4.9*	4.6*	4.4*	4.2*	
230PFC	6.8	6.0	5.5*	5.1*	4.8*	4.6*	4.4*	
250PFC		7.6*	7.0*	6.5*	6.1*	5.8*	5.6*	
300PFC			7.3*	6.8*	6.5*	6.1*	5.9*	

- 1. The tables apply for 300PLUS® steel only. For details of your nearest 300PLUS® structural steel supplier, call OneSteel Direct toll free on 1800 1 STEEL (1800 1 78335), or visit our website at www.onesteel.com
- 2. For sections marked '  $\bullet$  ' the next largest size may be more economical.
- 3. No symbol next to the span indicates that only nominal holding down is required (uplift is less than 5 kN). A "\*" indicates a M10 holding down rod is required (uplift is between 5 and 19 kN). A "+" indicates a M12 holding down bolt is required (uplift is between 19 & 27 kN).
- 4. For a steel sheet roof in high wind load areas refer to the table on page 20.

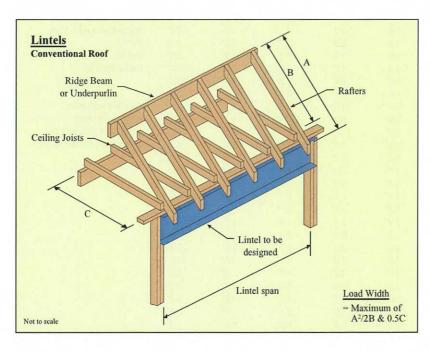
# **LINTELS SUPPORTING ROOF**

	Load	l (kg/m²)	<b>Deflection Limit (mm)</b>		
	Dead Load	Live Load	Dead & Live Load	Live Load	
Lintel supporting a steel sheet roof & ceiling	40	25 (or ≥ 180/Area + 12)	span/240 to 15	span/360 to 10	
Lintel supporting tiled roof & ceiling	90	25 (or ≥ 180/Area + 12)	span/240 to 15	span/360 to 10	



#### Notes:

- Attention should be given to the load carrying capacity of the timber studs or steel columns that support the Lintel.
- The top flange of Lintel is assumed to be continuously laterally supported by trusses spaced at 900mm maximum centres.
   Angles must also be prevented from twisting.



#### Notes:

- If A is much greater than C or vice versa, then the Lintel selection from the table will be conservative.
- Attention should be given to the load carrying capacity of the timber studs or steel columns that support the Lintel.
- The top flange of the
   Lintel is assumed to be continuously laterally supported by joists and rafters spaced at 900mm maximum centres. Angles must also be prevented from twisting.

#### LINTEL SUPPORTING A STEEL SHEET ROOF AND CEILING - NORMAL WIND N3

Section			L	oad Width (n	1)		, 1 6	
Designation	1.2	1.8	2.4	3.0	3.6	4.8	6.0	
			MAXIMUM S	SPAN OF LIN	TEL (m)			
100TFB	3.7	3.2	2.9	2.7*	2.5*	2.3*	2.1*	Example:
125TFB	5.7	5.1*	4.6*	4.2*	4.0*	3.6*	3.3*	Refer to Fig. page 12
150UB14.0	6.1	5.2*	4.7*	4.4*	4.1*	3.7*	3.4*	Lintel Span=4.6m, trussed roof
• 150UB18.0	6.8	6.2	5.6*	5.2*	4.9*	4.4*	4.0*	A=4.7m
180UB16.1	6.8*	5.9*	5.4*	5.0*	4.7*	4.2*	3.9*	Load width=A
180UB18.1		6.4*	5.8*	5.3*	5.0*	4.5*	4.2*	=4.7m
• 180UB22.2		7.2*	6.6*	6.1*	5.7*	5.1*	4.7*	Use a load width of 4.8 in
200UB18.2		6.5*	5.9*	5.4*	5.1*	4.6*	4.3*	the adjacent table a 200UB18.2
200UB22.3		7.8*	7.1*	6.5*	6.1*	5.6*	5.2+	will span 4.6m and requires a
200UB25.4		8.0*	7.5*	7.0*	6.5*	5.9*	5.5+	M10 anchor rod.
<ul> <li>200UB29.8</li> </ul>		8.4*	7.9*	7.5*	7.2*	6.6+	6.1+	
250UB25.7		8.3*	7.5*	6.9*	6.5*	5.9*	5.5+	
250UB31.4			8.7*	8.0*	7.5*	6.8+	6.3+	
250UB37.3			9.2*	8.8*	8.5+	7.7+		
75PFC	3.5	3.1	2.8	2.6*	2.4*	2.2*	2.0*	
100PFC	4.5	4.0	3.6*	3.3*	3.1*	2.8*	2.5*	
125PFC	5.6	5.2*	4.7*	4.3*	4.0*	3.6*	3.3*	
150PFC		6.2*	5.9*	5.6*	5.2*	4.7*	4.3*	
180PFC		7.1*	6.7*	6.2*	5.8*	5.2*	4.8+	
200PFC		7.6*	7.1*	6.6*	6.2*	5.5*	5.1+	
230PFC		8.2*	7.4*	6.8*	6.4*	5.8*	5.3+	
250PFC				8.4*	8.0*	7.4+	6.8+	
75 x 75 x 5EA	2.8	2.5	2.3	2.1	1.9	1.6		
90 x 90 x 6EA	3.7	3.4	3.2	2.9*	2.6*	2.3*		
100 x 75 x 6UA	3.9	3.7	3.4*	3.0*	2.7*	2.4*		
100 x 100 x 6EA	4.0	3.8	3.5*	3.2*	2.9*	2.5*		
125 x 75 x 6UA	4.6	4.3*	4.0*	3.1*	3.2*	2.8*		
150 x 90 x 8UA	5.7	5.3*	5.0*	3.6*	4.6*	3.9*		
150 x 100 x 10UA	6.0	5.6*	5.3*	5.0*	4.9*	4.5*		

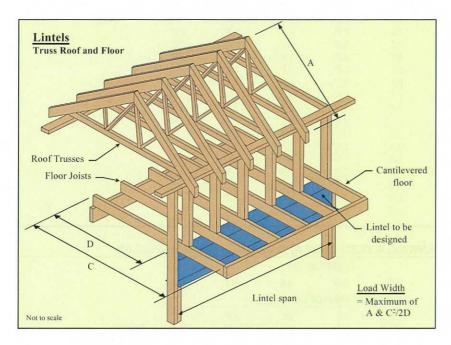
LINTEL SUPPORTING A T	TILED ROOF AND C	EILING - NORMAL	WIND N3
-----------------------	------------------	-----------------	---------

Designation				<b>Load Wid</b>	lth (m)											
	1.2	1.8	2.4	3.0	3.6	4.8	6.0									
	MAXIMUM SPAN OF LINTEL (m)					MAXIMUM SPAN OF LINTEL (m)						MAXIMUM SPAN OF LINTEL (m)				
100TFB	3.8	3.4	3.2	3.0	2.8	2.4*	2.2*									
125TFB	5.0	4.6	4.3	4.1*	3.9*	3.7*	3.4*	Example:								
150UB14.0	5.6	5.1	4.8*	4.6*	4.4*	4.1*	3.9*	Refer to Fig. page 12								
• 150UB18.0	6.0	5.5	5.2*	4.9*	4.7*	4.4*	4.2*	Lintel Span=4.6m,								
180UB16.1	6.3	5.8	5.4*	5.1*	4.9*	4.6*	4.3*	conventional roof								
180UB18.1	6.5	5.9	5.6*	5.3*	5.1*	4.7*	4.5*	A=3.9m								
• 180UB22.2	6.8	6.3	5.9*	5.6*	5.4*	5.0*	4.7*	B=3.0m, C=4.5m								
200UB18.2	6.9	6.4	6.0*	5.7*	5.4*	5.1*	4.8*	Load width=A2/(2B)								
200UB22.3	7.4	6.8*	6.4*	6.1*	5.8*	5.4*	5.1*	$=3.9^{2}/(2x3.0)$								
200UB25.4	7.6	7.0*	6.6*	6.2*	6.0*	5.6*	5.3 <sup>*</sup>	=2.5m								
• 200UB29.8	8.0	7.4*	6.9*	6.6*	6.3*	5.9*	5.6*	Use a load width of 3.0								
250UB25.7	8.4	7.8*	7.3*	6.9*	6.6*	6.2*	5.9*	in the adjacent table a 150UB14.0								
250UB31.4		8.2*	7.7*	7.3*	7.0*	6.5*	6.2*	will span 4.6m and requires a								
250UB37.3		8.6*	8.1*	7.7*	7.4*	6.9*	6.5*	M10 anchor rod.								
75PFC	2.9	2.6	2.4	2.3	2.1	2.0	1.8*									
100PFC	3.9	3.6	3.4	3.1	3.0	2.7*	2.5*									
125PFC	4.9	4.5	4.2	4.0*	3.8*	3.6*	3.3*									
150PFC	5.9	5.4	5.1*	4.8*	4.6*	4.3*	4.1*									
180PFC	6.7	6.2	5.8*	5.5*	5.3*	4.9*	4.7*									
200PFC	7.2	6.6*	6.2*	5.9*	5.7*	5.3*	5.0*									
230PFC	7.8	7.2*	6.8*	6.4*	6.2*	5.8*	5.5*									
250PFC		8.2*	7.7*	7.3*	7.0*	6.5*	6.2*									
75 x 75 x 5EA	2.3	2.1	1.9	1.7	1.6	1.4										
90 x 90 x 6EA	3.1	2.8	2.6	2.4	2.2	1.9										
100 x 75 x 6UA	3.4	3.1	2.8	2.5	2.3	2.0										
100 x 100 x 6EA	3.5	3.2	2.9	2.7	2.4	2.1										
125 x 75 x 6UA	4.1	3.8	3.5	3.2	2.8	2.5*										
150 x 90 x 8UA	5.0	4.6	4.3	4.1*	4.0*	3.5*										
150 x 100 x 10UA	5.3	4.8	4.6	4.3*	4.2*	3.9*										

- 1. The tables apply for 300PLUS' steel only. For details of your nearest 300PLUS' structural steel supplier, call OneSteel Direct toll free on 1800 1 STEEL (1800 1 78335), or vist our website www.onesteel.com
- 2. For angle lintels, the first dimension corresponds to the vertical lintel leg, eg for 100x75x6UA, 100mm leg is vertical.
- 3. For sections marked '•' the next largest size may be more economical.
- No symbol next to the span indicates that only nominal holding down is required (uplift is less than 5 kN).
   A "\*" indicates a M10 holding down rod is required (uplift is between 5 and 19 kN).
  - A "+" indicates a M12 holding down bolt is required (uplift is between 19 and 27 kN).
- 5. For a steel sheet roof in high wind load areas refer to the table on page 21.

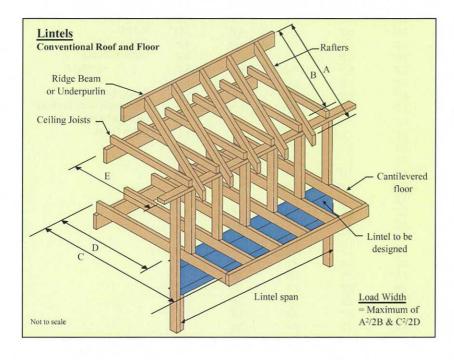
### LINTELS SUPPORTING ROOF AND FLOOR

	Load (I	kg/m²)	<b>Deflection Limit (mm)</b>			
	Dead Load	Live Load	Dead & Live Load	Live Load		
Lintel supporting timber floor, steel sheet roof & ceiling	130	175	span/240 to 15	span/360 to 10		
Lintel supporting timber floor, tiled roof & ceiling	130	175	span/240 to 15	span/360 to 10		



#### Notes:

- If A is much greater than C or vice versa, then the Lintel selection from the table will be conservative.
- 2. If there is no cantilevered floor then set C=D in the calculation of Load Width.
- Attention should be given to the load carrying capacity of the timber studs or steel columns that support the Lintel.
- The top flange of the Lintel is assumed to be continuously laterally supported by floor joists spaced at 450mm centres.



#### Notes:

- If A<sup>2</sup>/2B is much greater than C<sup>2</sup>/2D or vice versa, then the Lintel selection from the table will be conservative.
- 2. E is to be no more than 10% greater than A.
- If there is no cantilevered floor then set C=D in the calculation of Load Width.
- Attention should be given to the load carrying capacity of the timber studs or steel columns that support the Lintel.
- The top flange of the Lintel is assumed to be continuously laterally supported by Floor Joists spaced at 450mm centres.

LINTEL SUPPORTING A TIMBER FLOOR, STEEL SHEET ROOF AND CEILING - NORMAL WIND N3

Section				Load Width	n (m)			
Designation	1.2	1.8	2.4	3.0	3.6	4.2	4.8	
			MAXI	MUM SPAN	OF LINTEL (	m)		
100TFB	2.9	2.6	2.4	2.2	2.0	1.9	1.8	Example:
125TFB	4.0	3.7	3.4	3.2	3.0	2.9	2.7	Refer to Fig. page 14
150UB14.0	4.4	4.1	3.8	3.6	3.5	3.3	3.2	Lintel Span=4.6m, trussed roof
• 150UB18.0	4.8	4.4	4.1	3.9	3.8	3.6	3.5	A=3.8m
180UB16.1	5.0	4.6	4.3	4.1	3.9	3.8	3.7	C=3.0m D=1.5m
180UB18.1	5.2	4.7	4.4	4.2	4.0	3.9	3.8	Load width is the max of
• 180UB22.2	5.5	5.0	4.7	4.5	4.3	4.1	4.0	=A or C <sup>2</sup> /2D
200UB18.2	5.5	5.1	4.8	4.5	4.3	4.2	4.0	=3.8 or 3.0 <sup>2</sup> /(2x1.5)
200UB22.3	5.9	5.4	5.1	4.8	4.7	4.5	4.3	=3.8m
200UB25.4	6.1	5.6	5.2	5.0	4.8	4.6	4.5*	Use a load width of 4.2
<ul> <li>200UB29.8</li> </ul>	6.4	5.9	5.5	5.3	5.0	4.9	4.7*	in the adjacent table
250UB25.7	6.7	6.2	5.8	5.5	5.3	5.1	5.0*	a 200UB25.4 will span 4.6m.
250UB31.4	7.1	6.5	6.1	5.8	5.6	5.4*	5.2*	No anchor rod is required.
250UB37.3	7.5	6.9	6.5	6.2	5.9	5.7*	5.5*	
310UB32.0	7.7	7.1	6.7	6.4	6.1	5.9*	5.7*	
310UB40.4	8.3	7.7	7.2	6.9	6.6	6.4*	6.2*	
310UB46.2	8.6	8.0	7.5	7.1	6.9	6.6*	6.4*	
75PFC	2.2	2.0	1.8	1.7	1.6	1.5	1.4	
100PFC	3.1	2.7	2.5	2.3	2.2	2.1	2.0	
125PFC	3.9	3.6	3.3	3.1	2.9	2.8	2.7	
150PFC	4.7	4.3	4.0	3.8	3.7	3.6	3.4	
180PFC	5.3	4.9	4.6	4.4	4.2	4.1	3.9	
200PFC	5.8	5.3	5.0	4.7	4.5	4.4	4.2	
230PFC	6.3	5.8	5.4	5.2	4.9	4.8	4.6*	
250PFC	7.1	6.5	6.2	5.9	5.6	5.4	5.3*	
300PFC	8.0	7.4	6.9	6.6	6.3	6.1*	5.9*	

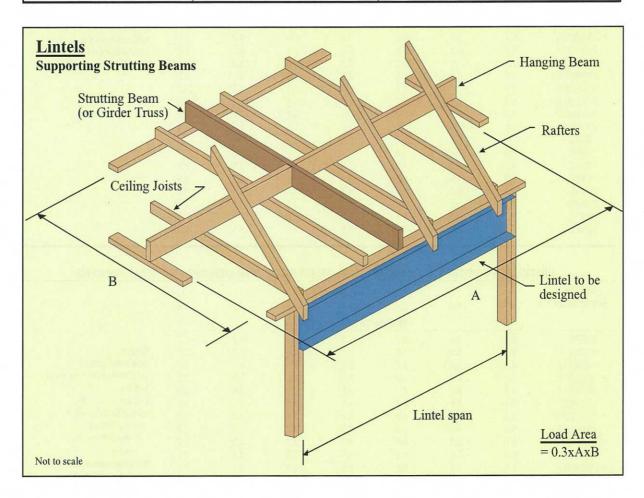
LINTEL	SUPPORTING A	TIMBER FLOOR	TILED BOOF AND	CEILING - NORMA	I WIND N3
	SOLL OHILING	THE LOCK	HILLD HOOF AND	OLILING HOMINA	T AAIIAD IAO

Section				Load Wid	th (m)			
Designation	1.2	1.8	2.4	3.0	3.6	4.2	4.8	
100TFB	2.7	2.4	2.2	2.1	1.9	1.8	1.7	
125TFB	3.8	3.5	3.2	3.0	2.8	2.7	2.6	Example:
150UB14.0	4.3	3.9	3.7	3.5	3.3	3.1	3.0	Refer to Fig. page 14
• 150UB18.0	4.6	4.2	4.0	3.8	3.6	3.5	3.3	Lintel Span=4.6m, trussed roof
180UB16.1	4.8	4.4	4.1	3.9	3.8	3.6	3.5	A=3.8m
180UB18.1	5.0	4.6	4.3	4.1	3.9	3.7	3.6	C=3.0m D=1.0m
• 180UB22.2	5.3	4.8	4.5	4.3	4.1	4.0	3.8	Load width is the max of
200UB18.2	5.3	4.9	4.6	4.3	4.2	4.0	3.9	$=A \text{ or } (C^2/2D)$
200UB22.3	5.7	5.2	4.9	4.7	4.5	4.3	4.2	$=3.8 \text{ or } 3^2/(2x1.0)$
200UB25.4	5.9	5.4	5.0	4.8	4.6	4.4	4.3	=4.5m
<ul> <li>200UB29.8</li> </ul>	6.2	5.7	5.3	5.0	4.8	4.7	4.5	Use a load width of 4.8
250UB25.7	6.5	5.9	5.6	5.3	5.1	4.9	4.7	in the adjacent table
250UB31.4	6.8	6.3	5.9	5.6	5.4	5.2	5.0	a 200UB25.7 will span 4.7m.
250UB37.3	7.2	6.6	6.2	5.9	5.7	5.5	5.3	No anchor rod is required.
310UB32.0	7.5	6.9	6.4	6.1	5.9	5.7	5.5	
310UB40.4	8.0	7.4	7.0	6.6	6.3	6.1	5.9	
310UB46.2	8.3	7.7	7.2	6.9	6.6	6.3	6.2	
75PFC	2.1	1.9	1.7	1.6	1.5	1.4	1.3	
100PFC	2.9	2.6	2.4	2.2	2.1	2.0	1.9	
125PFC	3.8	3.4	3.1	2.9	2.7	2.6	2.5	
150PFC	4.5	4.1	3.9	3.7	3.5	3.4	3.2	
180PFC	5.2	4.7	4.4	4.2	4.0	3.9	3.8	
200PFC	5.6	5.1	4.8	4.5	4.4	4.2	4.1	
230PFC	6.0	5.5	5.2	4.9	4.7	4.6	4.4	
250PFC	6.9	6.3	5.9	5.6	5.4	5.2	5.0	
300PFC	7.7	7.1	6.7	6.3	6.1	5.9	5.7	

- 1. The tables apply for 300PLUS® steel only. For details of your nearest 300PLUS® structural steel supplier, call OneSteel Direct toll free on 1800 1 STEEL (1800 1 78335), or visit our website at www.onesteel.com
- 2. For angle lintels, the first dimension corresponds to the vertical lintel leg, eg for 100x75x6UA, 100mm leg is vertical.
- 3. For sections marked '•' the next largest size may be more economical.
- 4. No symbol next to the span indicates that only nominal holding down is required (uplift is less than 5 kN). A "\*" indicates a M10 holding down rod is required (uplift is between 5 and 19 kN).

# LINTELS SUPPORTING STRUTTING BEAM (or Girder Truss)

	Load	d (kg/m²)	<b>Deflection Limit (mm)</b>		
	Dead Load	Live Load	Dead & Live Load	Live Load	
Lintel supporting strutting beam, steel sheet roof and ceiling	40	25 (or ≥ 180/Area + 12)	span/240 to 15	span/360 to 10	
Lintel supporting strutting beam, tiled roof and ceiling	90	25 (or ≥ 180/Area + 12)	span/240 to 15	span/360 to 10	



#### Notes:

- 1. The length of the rafters are assumed to be within 15% of the Strutting Beam span (B).
- 2. The Strutting Beam is assumed to be supported by the Lintel at mid-span.
- 3. The top flange of the Lintel is assumed to be laterally supported at mid-span.

LINTEL SUPPORTING A STRUTTING BEAM, STEEL SHEET ROOF AND CEILING - NORMAL WIND N3

Section			L	oad Area (m	2)			
Designation	7	10	13	16	19	22	25	
			MAXIMUM S	SPAN OF LIN	TEL (m)	2.6		
100TFB	2.2	1.8*	1.5*	1.3*	1.2*	1.1*	1.0*	Example:
125TFB	4.5	3.6*	3.1*	2.8*	2.5*	2.3*	2.1*	Refer to Fig. page 16
150UB14.0	4.7	3.8*	3.3*	3.0*	2.7*	2.5*	2.4*	Span=6.1m
• 150UB18.0	6.1	5.0*	4.3*	3.8*	3.5*	3.2*	3.0*	A=8.4m
180UB16.1	5.6	4.7*	4.1*	3.7*	3.3*	3.1*	2.9*	B=7.0
180UB18.1		5.2*	4.5*	4.1*	3.7*	3.4*	3.2*	Load area =0.3xAxB
• 180UB22.2		6.4*	5.5*	4.9*	4.5*	4.1*	3.9*	=0.3x8.4x7.0
200UB18.2		5.4*	4.7*	4.2*	3.9*	3.6*	3.4*	=17.6m <sup>2</sup>
200UB22.3			6.2*	5.6*	5.1*	4.8*	4.5*	Use a load area of 19
200UB25.4			6.8*	6.1*	5.6*	5.2*	4.9*	sq metres in the adjacent table
<ul> <li>200UB29.8</li> </ul>			7.7*	7.3*	6.6*	6.1*	5.8*	a 200UB29.8 will span 6.6m
250UB25.7			6.8*	6.1*	5.6*	5.2*	4.9*	and requires a M10 anchor rod.
250UB31.4					6.9*	6.5*	6.1*	
250UB37.3					8.3*	7.7*	7.2*	
310UB32.0					7.1*	6.6*	6.3*	
310UB40.4							8.1*	
75PFC	2.0	1.6*	1.3*	1.1*				
100PFC	3.0	2.4*	2.1*	1.8*	1.6*	1.4*	1.4*	
125PFC	4.6	3.7*	3.2*	2.8*	2.5*	2.3*	2.2*	
150PFC		5.6*	4.8*	4.3*	3.9*	3.5*	3.3*	
180PFC		6.6*	5.7*	5.0*	4.6*	4.2*	3.9*	
200PFC			6.2*	5.5*	5.0*	4.6*	4.3*	
230PFC			6.6*	5.9*	5.3*	4.9*	4.6*	
250PFC					7.9*	7.2*	6.8*	
300PFC						2007	7.5*	

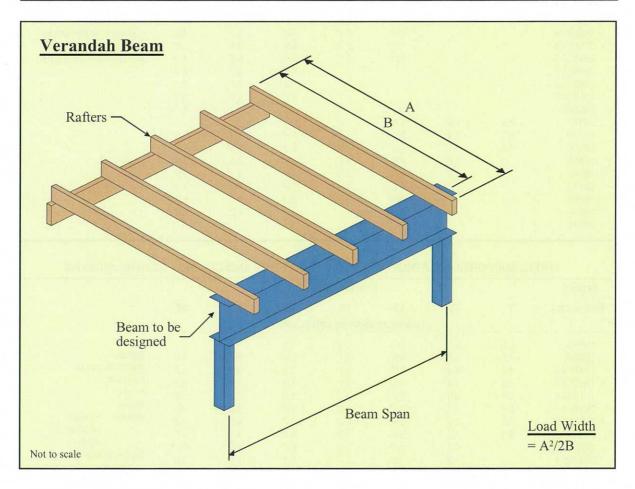
#### LINTEL SUPPORTING A STRUTTING BEAM, TILED ROOF AND CEILING - NORMAL WIND N3

Section			L	oad Area (m	2)			
Designation	7	10	13	16	19	22	25	
			MAXIMUM S	SPAN OF LIN	ITEL (m)			
100TFB	2.7	2.1	1.6*	1.3*	1.1*			Eventules
125TFB	4.1	3.7	3.5*	3.1*	2.5*	2.2*	2.0*	Example:
150UB14.0	4.8	4.3	3.9*	3.7*	3.3*	2.7* 2.5*	Refer to Fig. page 16	
• 150UB18.0	5.3	4.8	4.4*	4.1*	4.0*	3.7*	3.3*	Span=6.1m
180UB16.1	5.5	5.0	4.7*	4.2*	4.1*	3.8*	3.4*	A=8.4m
180UB18.1	5.8	5.3	4.9*	4.6*	4.4*	4.2*	3.8*	B=7.0m
• 180UB22.2	6.2	5.7	5.3*	4.9*	4.7*	4.5*	4.3*	Load area =0.3xAxS
200UB18.2	6.3	5.7	5.3*	4.9*	4.7*	4.1*	4.1*	=0.3x8.4x7.0
200UB22.3		6.3	5.8*	5.5*	5.2*	4.9*	4.8*	=17.6m <sup>2</sup>
200UB25.4		6.5	6.0*	5.7*	5.4*	5.1*	5.0*	Use a load area of 19
<ul> <li>200UB29.8</li> </ul>		6.9	6.5*	6.1*	5.7*	5.5*	5.3*	sq metres in the adjacent table
250UB25.7		7.4	6.9*	6.5*	6.1*	5.9*	5.7*	a 250UB25.7 will span 6.1m
250UB31.4			7.4*	7.0*	6.6*	6.3*	6.1*	and requires a M10 anchor rod.
250UB37.3			7.9*	7.5*	7.1*	6.8*	6.6*	
310UB32.0			8.3*	7.8*	7.4*	7.1*	6.9*	
310UB40.4					8.2*	7.8*	7.6*	
310UB46.2					8.5*	8.2*	7.9*	
75PFC	1.8	1.3	1.0*					
100PFC	2.8	2.4	1.8*	1.5*	1.3*	1.1*		
125PFC	4.0	3.6	3.3*	2.7*	2.3*	2.0*	1.8*	
150PFC	5.1	4.6	4.3*	4.0*	3.8*	3.5*	3.1*	
180PFC	6.1	5.5*	5.1*	4.8*	4.5*	4.3*	4.1*	
200PFC		6.1*	5.6*	5.3*	5.0*	4.8*	4.6*	
230PFC		6.8*	6.3*	5.9*	5.6*	5.4*	5.2*	
250PFC			7.4*	7.0*	6.6*	6.3*	6.1*	
300PFC				8.1*	7.7*	7.4*	7.1*	

- 1. The tables apply for 300PLUS® steel only. For details of your nearest 300PLUS® structural steel supplier, call OneSteel Direct toll free on 1800 1 STEEL (1800 1 78335), or visit our website at www.onesteel.com
- 2. For sections marked '•' the next largest size may be more economical.
- 3. No symbol next to the span indicates that only nominal holding down is required (uplift is less than 5 kN). A "\*" indicates a M10 holding down rod is required (uplift is between 5 and 19 kN).

# **VERANDAH BEAMS**

	Load	d (kg/m²)	<b>Deflection Limit (mm)</b>		
	Dead Load	Live Load	Dead & Live Load	Live Load	
Beams supporting a steel sheet	40	25	span/240	span/360	
verandah roof or carport		(or ≥ 180/Area + 12)	to 15	to 10	
Beams supporting a tiled	90	25	span/240	span/360	
verandah roof or carport		(or ≥ 180/Area + 12)	to 15	to 10	



#### Notes

1. The top flange of the Beam is assumed to be continuously laterally supported by rafters at 900mm maximum centres.

#### BEAM SUPPORTING A STEEL SHEET VERANDAH OR CARPORT ROOF - NORMAL WIND N3

Section			L	oad Width (n	1)			
Designation	1.2	1.8	2.4	3.0	3.6	4.2	4.8	
	.1		MAXIMUM S	SPAN OF BEA	AM (m)			140
100TFB	3.2	2.8*	2.5*	2.3*	2.1*	2.0*	1.9*	Example:
125TFB	5.0*	4.3*	3.9*	3.6*	3.4*	3.2*	3.0*	Refer to Fig. page 18
150UB14.0	5.2*	4.5*	4.0*	3.7*	3.5*	3.3*	3.2*	Span=6.1m
• 150UB18.0	6.1*	5.3*	4.8*	4.4*	4.1*	3.9*	3.7*	A=7.0m, B=6.1m
180UB16.1	5.8*	5.1*	4.6*	4.2*	4.0*	3.8*	3.6*	Load width=A <sup>2</sup> /2B
180UB18.1		5.5*	4.9*	4.6*	4.3*	4.1*	3.9+	=7.0 <sup>2</sup> /(2x6.1)
• 180UB22.2		6.2*	5.6*	5.2*	4.8*	4.6+	4.4+	=4.0m
200UB18.2		5.6*	5.0*	4.7*	4.4*	4.2*	4.0+	Use a load width of 4.2
200UB22.3		6.7*	6.1*	5.6*	5.3+	5.0+	4.8+	in the adjacent table
200UB25.4		7.1*	6.5*	6.0*	5.6+	5.3+	5.1+	a 250UB31.4 will span 6.2m
<ul> <li>200UB29.8</li> </ul>		8.0*	7.2*	6.7+	6.3+	5.9+	5.6^	and requires a M12 anchor rod.
250UB25.7		7.1*	6.4*	6.0*	5.6+	5.3+	5.1+	
250UB31.4			7.4*	6.9+	6.5+	6.2+	5.9^	
<ul> <li>250UB37.3</li> </ul>			8.4+	7.7+	7.3+	6.9^	6.6^	
310UB32.0			7.5*	7.0+	6.6+	6.3+	6.0^	
310UB40.4				8.3+	7.9^	7.5^	7.1^	
310UB46.2					8.5^	8.0^	7.7^	
75PFC	3.1	2.6	2.4*	2.2*	2.0*	1.9*	1.8*	
100PFC	3.9	3.4*	3.0*	2.8*	2.6*	2.5*	2.3*	
125PFC	5.1*	4.4*	4.0*	3.7*	3.4*	3.2*	3.1*	
150PFC		5.7*	5.2*	4.8*	4.4*	4.2*	4.0+	
180PFC		6.4*	5.7*	5.3*	4.9*	4.7+	4.4+	
200PFC		6.7*	6.1*	5.6*	5.2+	4.9+	4.7+	
230PFC		7.0*	6.3*	5.8*	5.4+	5.1+	4.9+	
250PFC				7.5+	7.0+	6.6^	6.3^	
300PFC				8.0+	7.4+	7.0^	6.7^	

#### BEAM SUPPORTING A TILED VERANDAH OR CARPORT ROOF - NORMAL WIND N3

Section									
Designation	1.2	1.8	2.4	3.0	3.6	4.2	4.8		
			MAXIMUM S	SPAN OF BE	AM (m)				
100TFB	3.8	3.4	3.2	3.0	2.8	2.6*	2.4*	Example:	
125TFB	5.0	4.6	4.3	4.1*	3.9*	3.8*	3.7*	Refer to Fig. page 18	
150UB14.0	5.6	5.1	4.8*	4.6*	4.4*	4.2*	4.1*	Required beam span=4.0m	
• 150UB18.0	6.0	5.5	5.2*	4.9*	4.7*	4.5*	4.4*	A=6.0m	
180UB16.1	6.3	5.8	5.4*	5.1*	4.9*	4.7*	4.6*	B=5.1m	
180UB18.1	6.5	5.9	5.6*	5.3*	5.1*	4.9*	4.7*	Load width=A <sup>2</sup> /2B	
• 180UB22.2	6.8	6.3	5.9*	5.6*	5.4*	5.2*	5.0*	$=6.0^{2}/(2x5.1)$	
200UB18.2	6.9	6.4	6.0*	5.7*	5.4*	5.2*	5.1*	=3.5m	
200UB22.3	7.4	6.8*	6.4*	6.1*	5.8*	5.6*	5.4*	Use a load width of 3.6	
200UB25.4 • 200UB29.8	7.6 8.0	7.6	7.0*	6.6*	6.2*	6.0*	5.8*	5.6*	in the adjacent table
		7.4*	6.9*	6.6*	6.3*	6.1*	5.9*	a 150UB14.0 will span 4.4m	
250UB25.7	8.4	7.8*	7.3*	6.9*	6.6*	6.4*	6.2*	and requires a M10 anchor rod.	
250UB31.4		8.2*	7.7*	7.3*	7.0*	6.7*	6.5*		
• 250UB37.3		8.6*	8.1*	7.7*	7.4*	7.1*	6.9*		
310UB32.0		8.9*	8.4*	8.0*	7.6*	7.4*	7.1*		
310UB40.4			9.0*	8.6*	8.2*	7.9*	7.7*		
310UB46.2			9.3*	8.8*	8.5*	8.2*	8.0*		
75PFC	2.9	2.6	2.4	2.3	2.1	2.0	2.0		
100PFC	3.9	3.6	3.4	3.1	3.0	2.8*	2.7*		
125PFC	4.9	4.5	4.2	4.0*	3.8*	3.7*	3.6*		
150PFC	5.9	5.4	5.1*	4.8*	4.6*	4.4*	4.3*		
180PFC	6.7	6.2	5.8*	5.5*	5.3*	5.1*	4.9*		
200PFC	7.2	6.6*	6.2*	5.9*	5.7*	5.5*	5.3*		
230PFC	7.8	7.2*	6.8*	6.4*	6.2*	6.0*	5.8*		
250PFC	0.100	8.2*	7.7*	7.3*	7.0*	6.7*	6.5*		
300PFC			8.6*	8.2*	7.9*	7.6*	7.4*		

- 1. The Tables apply for 300PLUS® steel only. For details of your nearest 300PLUS® structural steel supplier, call OneSteel Direct toll free on 1800 1 STEEL (1800 1 78335),or visit our website at www.onesteel.com
- 2. For sections marked 'e' the next largest size may be more economical.
- 3. No symbol next to the span indicates that only nominal holding down is required (uplift is less than 5 kN). A "\*" indicates a M10 holding down rod is required (uplift is between 5 and 19 kN). A "+" indicates a M12 holding down bolt is required (uplift is between 19 & 27 kN). A "^" indicates a M16 holding down bolt is required (uplift is between 27 and 50 kN).
- 4. For a steel sheet roof in high wind load areas refer to table on page 21.

# STEEL SHEET ROOFS IN HIGH WIND AREAS

#### STRUTTING BEAM SUPPORTING A STEEL SHEET ROOF AND CEILING - HIGH WIND N5/C2

Section Designation			Refer to page 8 for					
	7	10	13	16	19	22	25	the layout diagram
			The state of the s					
100TFB	1.7*	1.1*						Example:
125TFB	4.0*	2.8*	2.1+	1.7+	1.4^	1.2^	1.1^	Refer to Fig. page 8
150UB14.0	4.4*	3.6*	2.7+	2.2+	1.8^	1.6^	1.4^	Span S=6.1m
• 150UB18.0	5.6*	4.6*	3.6+	2.9+	2.5^	2.1^	1.9^	A=7.0m
180UB16.1	5.5*	4.5*	3.7+	3.0+	2.5^	2.2^	1.9^	Load area=0.25xAxS
180UB18.1	6.1*	5.0*	4.2+	3.4+	2.9^	2.5^	2.2^	=0.25x7.0x6.1
<ul> <li>180UB22.2</li> </ul>	7.3*	6.0*	5.1+	4.3+	3.6^	3.1^	2.7^	=10.7m <sup>2</sup>
200UB18.2	6.4*	5.3*	4.6+	3.9+	3.3^	2.8^	2.5^	Use a load area of 13
200UB22.3		7.1*	6.1+	5.0+	4.2^	3.6^	3.2^	sg metres in the adjacent table
200UB25.4		7.7*	6.6+	5.7+	4.8^	4.1^	3.7^	a 200UB22.3 will span 6.1m
<ul> <li>200UB29.8</li> </ul>		8.9*	7.7+	6.9^	5.9^	5.0^	4.5^	and requires a M12 anchor rod
250UB25.7		7.9*	6.9+	6.2+	5.6^	5.1^	4.5^	that the called <b>gr</b> ound by a second control of the
250UB31.4			8.5+	7.6+	6.9^	6.3^	5.6^	
<ul> <li>250UB37.3</li> </ul>			9.9+	8.9+	8.1^	7.4^	6.9^	
310UB32.0			8.9+	8.0+	7.4^	6.8^	6.5^	
310UB40.4					9.4^	8.7^	8.2^	
310UB46.2						9.5^	8.9^	
75PFC	1.0							
100PFC	2.0*	1.4*	1.0+					
125PFC	3.6*	2.5*	1.9+	1.6+	1.3^	1.1^	1.0^	
150PFC	6.2*	4.5*	3.5+	2.8+	2.3^	2.0^	1.8^	
180PFC	7.4*	6.0*	4.6+	3.7+	3.1^	2.7^	2.4^	
200PFC		6.6*	5.6+	4.5+	3.8^	3.3^	2.9^	
230PFC		7.2*	6.2+	5.4+	4.7^	4.0^	3.6^	
250PFC			9.0+	7.9+	7.1^	6.8^	5.6^	
300PFC				9.0+	8.2^	7.5^	7.0^	

#### STRUTTING/HANGING BEAM SUPPORTING A STEEL SHEET ROOF AND CEILING - HIGH WIND N5/C2

Section Designation		Refer to page 10 fo						
	1.2	1.8	2.4	3.0	3.6	4.2	4.8	the layout diagram
100TFB	2.7*	2.3*	2.1*	2.0*	1.8*	1.7*	1.7*	
125TFB	4.2*	3.7*	3.3*	3.1*	2.9*	2.7+	2.6+	Example:
150UB14.0	4.3*	3.7*	3.4*	3.2*	3.0*	2.8+	2.7+	Refer to Fig. page 10
• 150UB18.0	5.0*	4.4*	4.0*	3.7*	3.5+	3.3+	3.2+	Span=4.6m
180UB16.1	4.8*	4.2*	3.8*	3.6*	3.4+	3.2+	3.1+	A=3.0m
180UB18.1	5.1*	4.5*	4.1*	3.8*	3.6+	3.4+	3.3+	B=2.9m
• 180UB22.2	5.8*	5.1*	4.7*	4.4+	4.1+	3.9+	3.7^	Load width=0.5A
200UB18.2	5.2*	4.6*	4.2*	3.9+	3.7+	3.5+	3.3+	=0.5x3.0
200UB22.3	6.2*	5.5*	5.0+	4.7+	4.4+	4.2^	4.0^	=1.5
200UB25.4	6.6*	5.8*	5.3+	5.0+	4.7^	4.5^	4.3^	Use a load width of 1.8
<ul> <li>200UB29.8</li> </ul>	7.4*	6.5*	6.0+	5.5+	5.2^	5.0^	4.8^	in the adjacent table
250UB25.7	6.5*	5.8*	5.3+	4.9+	4.7^	4.4^	4.3^	a 200UB18.2 will span 4.6m
250UB31.4		6.6*	6.1+	5.7^	5.3^	5.1^	4.9^	and requires a M10 anchor rod
<ul> <li>250UB37.3</li> </ul>		7.4+	6.8+	6.4^	6.0^	5.7^	5.5^	
310UB32.0		6.6*	6.1+	5.7^	5.4^	5.2^	5.0^	
310UB40.4		7.9+	7.3^	6.8^	6.4^	6.1^	5.9^	
310UB46.2			7.8^	7.3^	6.9^	6.6^	6.3^	
75PFC	2.7*	2.3*	2.1*	1.9*	1.8*	1.7*	1.6*	
100PFC	3.3*	2.9*	2.6*	2.4*	2.3*	2.1*	2.0*	
125PFC	4.3*	3.7*	3.4*	3.1*	2.9*	2.8+	2.7+	
150PFC	5.5*	4.8*	4.4*	4.1+	3.8+	3.6+	3.4^	
180PFC	6.0*	5.3*	4.8*	4.5+	4.2+	4.0^	3.8^	
200PFC	6.3*	5.6*	5.1+	4.7+	4.4+	4.2^	4.0^	
230PFC	6.5*	5.7*	5.2+	4.9+	4.6+	4.3^	4.2^	
250PFC		7.3+	6.7+	6.2^	5.8^	5.6^	5.3^	
300PFC		7.7+	7.0+	6.6^	6.2^	5.9^	5.6^	

#### LINTEL SUPPORTING A STEEL SHEET ROOF AND CEILING - HIGH WIND N5/C2

Section			D-6t					
Designation	1.2	1.8	2.4	2.4 3.0		3.6 4.8	6.0	Refer to page 12 for the layout diagram
100TFB	2.7*	2.3*	2.1*	1.9*	1.8*	1.6*	1.5*	
125TFB	4.3*	3.7*	3.3*	3.0*	2.8*	2.5+	2.3+	
150UB14.0	4.4*	3.8*	3.4*	3.2*	3.0*	2.7+	2.5+	
• 150UB18.0	5.2*	4.5*	4.1*	3.7*	3.5+	3.1+	2.9^	Example:
180UB16.1	5.0*	4.3*	3.9*	3.6*	3.4+	3.1+	2.9^	Refer to Fig. page 12
180UB18.1	5.4*	4.7*	4.2*	3.9+	3.6+	3.3+	3.0^	Lintel Span=4.6m, trussed roof
• 180UB22.2	6.1*	5.3*	4.8*	4.4+	4.1+	3.7^	3.4^	A=3.8m
200UB18.2	5.5*	4.8*	4.3*	4.0+	3.8+	3.4^	3.2^	Load width=A
200UB22.3	6.6*	5.7*	5.2+	4.8+	4.5+	4.1^	3.8^	=3.8m
200UB25.4	7.0*	6.1*	5.5+	5.1+	4.8^	4.3^	4.0^	Use a load width of 4.8
<ul> <li>200UB29.8</li> </ul>	7.9*	6.8+	6.1+	5.7^	5.3^	4.8^	4.4^	in the adjacent table
250UB25.7	7.0*	6.1*	5.5+	5.1+	4.8^	4.4^	4.1^	a 250UB29.8 will span 4.8m
250UB31.4		7.0+	6.4+	5.9^	5.6^	5.1^	4.7^	and requires a M16 anchor rod
<ul> <li>250UB37.3</li> </ul>		7.9+	7.1^	6.6^	6.2^	5.6^	5.2^	
75PFC	2.6*	2.2*	2.0*	1.8*	1.7*	1.5*	1.4*	
100PFC	3.3*	2.9*	2.6*	2.3*	2.2*	2.0*	1.8*	
125PFC	4.3*	3.7*	3.3*	3.1*	2.9*	2.6+	2.4+	
150PFC	5.6*	4.9*	4.4*	4.0+	3.7+	3.4+	3.1^	
180PFC	6.2*	5.4*	4.8*	4.5+	4.2+	3.7^	3.4^	
200PFC	6.6*	5.7*	5.1+	4.7+	4.4+	4.0^	3.7^	
230PFC	6.8*	5.9*	5.3+	4.9+	4.6^	4.2^	3.8^	
250PFC		7.6+	6.8+	6.3^	5.9^	5.3^	4.9^	

#### BEAM SUPPORTING A STEEL SHEET VERANDAH OR CARPORT ROOF - HIGH WIND N5/C2

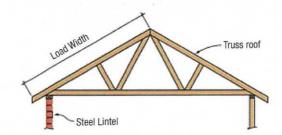
Section Designation		D-6						
	1.2	1.8	1.8 2.4 3.0 3.6 4.2		4.2	4.8	Refer to page 18 for the layout diagram	
			MAXIMUM S	SPAN OF BEA	AM (m)			
100TFB 125TFB	2.7* 4.3*	2.3* 3.7*	2.1* 3.3*	1.9* 3.0*	1.8* 2.8*	1.7* 2.7*	1.6* 2.5+	Example: Refer to Fig. page 18
150UB14.0 • 150UB18.0	4.4* 5.2*	3.8* 4.5*	3.4* 4.1*	3.2* 3.7*	3.0* 3.5+	2.8+ 3.3+	2.7+ 3.1+	Span=4.6m A=3.8m B=3.0m
180UB16.1 180UB18.1	5.0* 5.4*	4.3* 4.7*	3.9* 4.2*	3.6* 3.9+	3.4+ 3.6+	3.2+ 3.5+	3.1+ 3.3+ 3.7^	Load width $=A^2/2B$ =3.8 $^2/(2x3.0)$
<ul> <li>180UB22.2</li> <li>200UB18.2</li> <li>200UB22.3</li> </ul>	6.1* 5.5* 6.6*	5.3* 4.8* 5.7*	4.8* 4.3* 5.2+	4.4+ 4.0+ 4.8+	4.1+ 3.8+ 4.5+	3.9+ 3.6+ 4.3^	3.4^ 4.1^	=2.4m Use a load width of 2.4
200UB25.4 • 200UB29.8	7.0* 7.9*	6.1* 6.8+	5.5+ 6.1+	5.1+ 5.7^	4.8^ 5.3^	4.5^ 5.0^	4.3^ 4.8^	in the adjacent table a 180UB22.2 will span 4.8m
250UB25.7 250UB31.4	7.0*	6.1* 7.0+	5.5+ 6.4+	5.1+ 5.9^	4.8^ 5.6^	4.6^ 5.3^	4.4^ 5.1^	and requires a M10 anchor rod.
<ul> <li>250UB37.3</li> <li>310UB32.0</li> <li>310UB40.4</li> </ul>		7.9+ 7.1+ 8.5+	7.1^ 6.5+ 7.7^	6.6^ 6.0^ 7.2^	6.2^ 5.7^ 6.7^	5.9^ 5.4^ 6.4^	5.6^ 5.2^ 6.1^	
310UB46.2 75PFC 100PFC	2.6* 3.3*	2.2* 2.9*	8.3^ 2.0* 2.6*	7.7^ 1.8* 2.3*	7.2^ 1.7* 2.2*	6.9^ 1.6* 2.1*	1.5* 2.0*	
125PFC 150PFC	4.3* 5.6*	3.7* 4.9*	3.3* 4.4*	3.1* 4.0+	2.9* 3.7+	2.7* 3.5+	2.6+ 3.4+	
180PFC 200PFC 230PFC	6.2* 6.6* 6.8*	5.4* 5.7* 5.9*	4.8* 5.1+ 5.3+	4.5+ 4.7+ 4.9+	4.2+ 4.4+ 4.6^	3.9^ 4.2^ 4.4^	3.7^ 4.0^ 4.2^	
250PFC 300PFC	0.0	7.6+ 8.1+	6.8+ 7.3^	6.3^ 6.8^	5.9^ 6.3^	5.6^ 6.0^	5.3^ 5.7^	

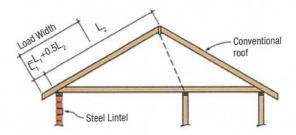
- 1. The tables apply for 300PLUS® steel only. For details of your nearest 300PLUS® structural steel supplier, call OneSteel Direct toll free on 1800 1 STEEL (1800 1 78335), or visit our website at www.onesteel.com
- 2. For angle lintels, the first dimension corresponds to the vertical lintel leg. eg for 100x75x6UA, 100mm leg is vertical.
- 3. For sections marked '•' the next largest size may be more economical.
- 4. No symbol next to the span indicates that only nominal holding down is required (uplift is less than 5 kN).
  - A "\*" indicates a M10 holding down rod is required (uplift is between 5 and 19 kN).
  - A "+" indicates a M12 holding down bolt is required (uplift is between 19 and 27 kN).
  - A "^" indicates a M16 holding down bolt is required (uplift is between 27 and 50 kN).

# **LINTELS SUPPORTING MASONRY**

These span tables provide details for building houses using standard practices and traditional materials.

- Point loads are not covered by these tables.
- These tables cover normal loads (roof, ceiling and floors), which must be uniformly distributed,
  - on the masonry over an opening.
- A minimum of three courses of brickwork are required over the opening for load bearing walls.
- For lintels to be used in a lower floor of two storey construction refer to a structural engineer.





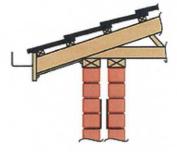
#### **CONSTRUCTION TYPES**

Illustrations of construction types A, B, C and D refer to the maximum clear span loading on the tables opposite.



#### **Construction Type A:**

Typical brick veneer construction with non load bearing brickwork and roof supported on internal timber or steel timber.



#### Construction Type B:

Cavity wall construction with timber or steel truss tiled roof supported equally on both leaves of brickwork.



#### **Construction Type C:**

Light weight metal sheet roof supported on single leaf of brickwork.



#### **Construction Type D:**

Tiled roof with timber or steel truss and sheet ceiling supported on single leaf of brickwork.

#### LINTEL SUPPORTING MASONRY - LOAD WIDTH UP TO 2400mm

Steel	Mass		Constru	ction type	
Lintel	(kg/m)	A	В	C	D
		MAXIMUN	CLEAR SPAN C	F LINTEL (mm)	
75 x 75 x 6EA	6.81	2650	1930	1930	1570
# 75 x 100 x 6UA	7.98	2770	2050	2050	1690
# 75 x 100 x 8UA	10.3	2770	2170	2170	1810
90 x 90 x 6EA	8.22	3010	2410	2410	1930
100 x 75 x 6UA	7.98	3010	2530	2530	2170
90 x 90 x 8EA	10.6	3010	2530	2530	2170
100 x 100 x 6EA	9.16	3130	2530	2650	2170
100 x 100 x 8EA	11.8	3370	2770	2770	2410
125 x 75 x 6UA	9.16	3610	3010	3010	2650
125 x 75 x 8UA	11.8	3730	3130	3250	2770
150 x 90 x 8UA	14.3	4210	3610	3730	3250
150 x 100 x 10UA	18.0	4330	3850	3850	3490
Square Edge Flats					
75 x 8SEF		490	250		
75 x 10SEF		610	370	250	250

#### LINTEL SUPPORTING MASONRY - LOAD WIDTH FROM 2400mm TO 4800mm

Steel	Mass		Constru	ction type			
Lintel	(kg/m)	Α	В	C	D		
	MAXIMUM CLEAR SPAN OF LINTEL (mm)						
75 x 75 x 6EA	6.81	2650	1690	1690	1330		
# 75 x 100 x 6UA	7.98	2770	1690	1690	1330		
# 75 x 100 x 8UA	10.3	2770	1810	1810	1450		
90 x 90 x 6EA	8.22	3010	2050	2050	1570		
100 x 75 x 6UA	7.98	3010	2170	2170	1690		
90 x 90 x 8EA	10.6	3010	2170	2170	1810		
100 x 100 x 6EA	9.16	3130	2290	2290	1810		
100 x 100 x 8EA	11.8	3370	2410	2410	1930		
125 x 75 x 6UA	9.16	3610	2530	2650	2050		
125 x 75 x 8UA	11.8	3730	2770	2890	2410		
150 x 90 x 8UA	14.3	4210	3370	3370	2770		
150 x 100 x 10UA	8.0	4330	3490	3610	3010		
Square Edge Flats							
75 x 8SEF		490	250				
75 x 10SEF		610	250	250	250		

<sup>#</sup> Section with short leg vertical for wide base support of brickwork.

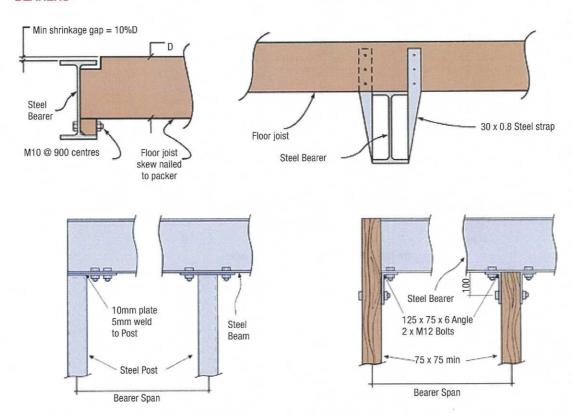
#### Notes on Tables:

- 1. The tables apply for 300PLUS® steel only. For details of your nearest 300PLUS® structural steel supplier, call OneSteel Direct toll free on 1800 1 STEEL (1800 1 78335), or visit our website at www,onesteel.com
- 2. For Clear span ≤ 1000mm, Min Bearing Length = 100mm, ie. Min Lintel Length = Clear Span + 200mm. For Clear span > 1000mm, Min Bearing Length = 150mm, ie. Min Lintel Length = Clear Span + 300mm.
- 3. All lintels should be propped during brickwork construction to ensure level alignment.
- 4. The maximum rafter spacing should not be greater than 600mm.
- 5. There must be at least three courses of brickwork over clear span opening for all load bearing walls.
- 6. All loads are uniformly distributed (point loads are not allowed).
- 7. First dimension corresponds to the vertical lintel leg, eg. 75x100x6 lintel, 75mm leg vertical.

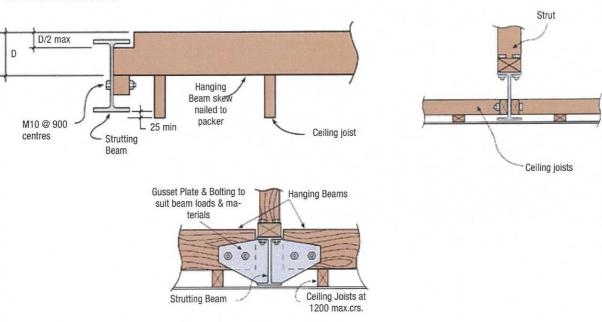
# **CONNECTION EXAMPLES**

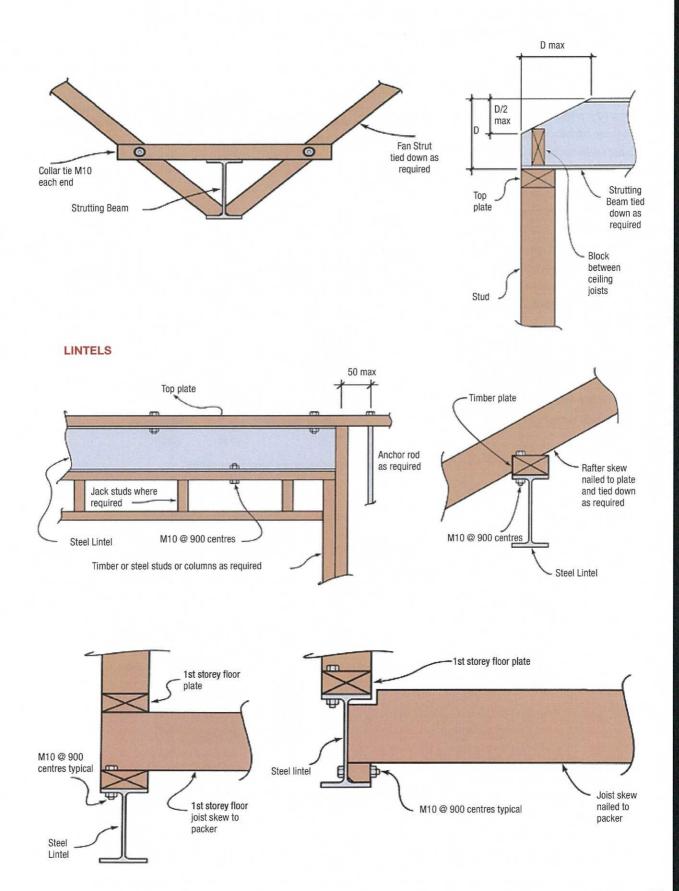
The following diagrams provide some example arrangements for common connections using structural steel members. Please note that it is the reader's responsibility to ensure that all connections, including tie downs, are sufficient for the application.

#### **BEARERS**



#### STRUTTING BEAMS





# **SURFACE TREATMENT**

The requirements for surface treatment vary with the location of the house and the degree of enclosure around the supporting steelwork.

pending on whether the house is in an exposed or protected position, a level of corrosion potential may be established based on the distance of the house from the source of corrosion Figure 1, Table 1. The degree of enclosure of the supporting steelwork must then be considered. If it is enclosed by masonry walls (which include provision for sub-floor ventilation) with a maximum size/area of openings as shown in Figure 2, it is deemed to be

For three sources of corrosion, and de-

The required surface treatment for each level of corrosion potential and for 'enclosed' or 'unenclosed' steelwork can then be determined from Table 2. Finally, the required treatment can be determined from Table 3.

'enclosed'. Otherwise it is deemed to be

'unenclosed'.

TABLE 1	LEVELS OF SURFACE	TREATMENT
	House Site in:	
Distance From Source of Corrosion:	<b>Protected Position*</b>	<b>Exposed Position</b>
Ocean OR Heavy industrial area		
Over 3 km	Level 1	Level 1
1.5–3 km	Level 1	Level 2
0.75-1.5 km	Level 2	Level 3
Within 0.75 km	Level 3	Level 3
Salt-water bay		
Over 1.5 km	Level 1	Level 1
0.75-1.5 km	Level 1	Level 2
Within 0.75 km	Level 2	Level 2

<sup>\*</sup>A protected position is one that is more than 0.5 km from the nearest location that is in line of sight of the source of corrosion Figure 1.

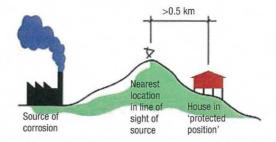


Figure 1 Definition of a 'protected position'

TABLE 2	SURFACE TREATMENT TYPE					
	Level of corrosi	on potential				
Degree of Enclosure	Level 1	Level 2	Level 3			
Enclosed	Α	В	C			
Unenclosed	В	C	D_			

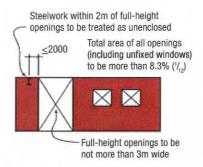


Figure 2 Maximum extent of openings in masonry walls for steelwork to be deemed to be 'enclosed'

TABLE 3	TREATMENTS REQUIRED TO ACHIEVE REQUIRED SURFACE TREATMENT TYPE					
Surface Treatment Type	Black Steel	Galvanised Steel				
A	No protection required.	No additional protection required.				
В	Remove loose scale by hand or power wire brushing. Paint with one coat of a rust inhibitive alkyd primer or equivalent.	No additional protection required.				
С	Prepare surface by power wire brushing or abrasive grit blasting. Apply one coat of a rust inhibitive alkyd primer, followed by one finish coat of all-weather gloss acrylic paint.	No additional protection required.				
D	Prepare surface by abrasive grit blasting or pickling (class 2 1/2) followed by one of the following:  • Apply one coat of an inorganic zinc silicate, followed by one coat of all-weather gloss acrylic with UV protector.  • Hot dip galvanising.  • Epoxy high corrosion-resistant system or equivalent.	Apply primer coat followed by a finish coat, both of zinc dust or zinc oxide type. Both coats may either be brushed or sprayed. In the case of decking, the treatment should be applied to the underside before installation.				

<sup>\*</sup>Note: For lintels supporting masonry some building authorities may require a higher level of surface treatment.



# OTHER PUBLICATIONS

OneSteel produces a number of publications. Others related to residential construction include:



DuraGal Flooring System® Brochure



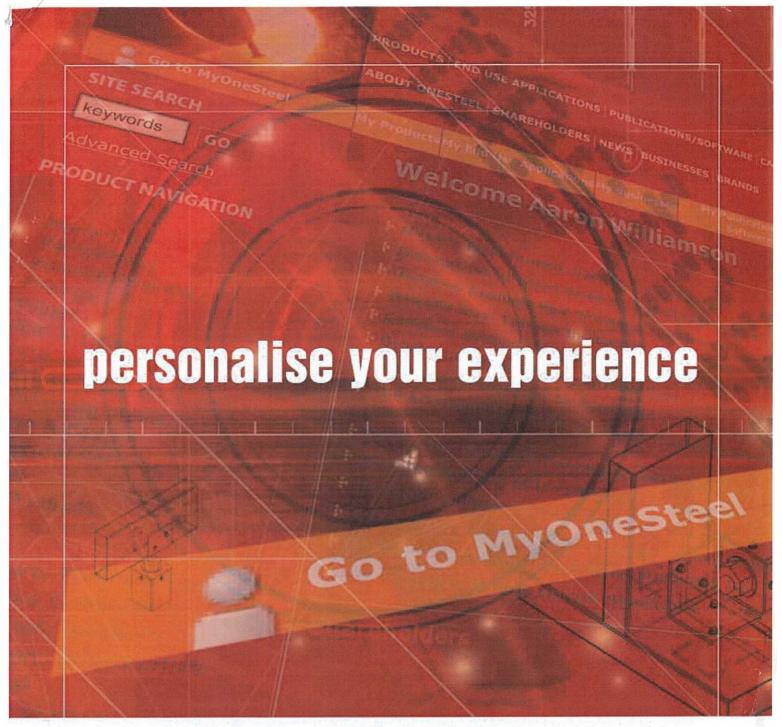
DuraGal® Construction
Manual



DuraGal® Verandah

Beam Spanning Tables

For more information on these publications contact OneSteel Direct toll free on 1800 1 STEEL (1800 1 78335) in Australia or visit our website at www.onesteel.com



# My Needs. My Solutions. MyOneSteel.

#### STEEL ADVICE AROUND THE CLOCK

If you're looking for advice on steel, then at OneSteel's website you'll find everything from A to Z, covering the largest range of steel products and services, technical information, design aids, case studies, shareholder information, where your steel suppliers are, and much more, it's your 24 Hour reference.

#### **FULLY PERSONALISED FOR YOUR NEEDS**

MyOneSteel is one of the latest enhancements to the OneSteel website. The new design allows for each user to register and then personalise a homepage to suit their interests. This allows faster access to the information you want, without the things you don't need by selecting your products, your news – everything that matters to you and for your business.

FREECALL 1800 178 335 WEBSITE www.onesteel.com EMAIL onesteeldirect@onesteel.com



www.onesteel.com





#### **ONESTEEL DIRECT**

Freecall 1800 178 335

Website www.onesteel.com

Freefax 1800 101 141

Email onesteeldirect@onesteel.com

Postal address

Locked Bag 8825 Wollongong DC NSW 2500 Australia

This publication has been prepared by OneSteel Market Mills which OneSteel Manufacturing Pty Limited ABN 42 004 651 325 is a part. Please note that any specifications or technical data referred to in this publication are subject to change and/or variation or improvement without notice and no warranty as to their suitability for any use is made. Users of this publication – to ensure accuracy and adequacy for their purposes – are requested to check the information provided in this publication to satisfy themselves as to its appropriateness and not to rely on the information without first doing so. Unless required by law, the company cannot accept any responsibility for any loss, damage or consequence resulting from the use of this publication. This publication is not an offer to trade and shall not form any part of the trading terms in any transaction. © Copyright 2003-2006. Issue 6. Printed March 2006. BC0379. Registered Trademarks of OneSteel Manufacturing Pty Limited ABN 42 004 651 325: 300PLUS¹.

DISTRIBUTED BY



# Design Note No. D3

November 2005



# **Span Tables for Simply Supported Composite Beams**

By Anthony Ng & Gary Yum – OneSteel Market Mills

#### 1. Introduction

This design note contains span tables covering various primary and secondary beam spans with common design floor loadings. It is intended that these tables will be used by Engineers to assist in the preliminary design of a composite steel and concrete floor system. The solutions provided may be conservative, but can be refined during the final design process.

2. Design Criteria

These Tables were generated using COMPBEAM™ version 2.0 Software. This software assists in the design of simply supported beams in accordance with Australian Standard AS2327.1: 2003.

2.1 Design Variables

The following factors represent the variables in the design charts

- Design Loads
  - Standard offices
  - Premium offices
  - Standard retail
  - Premium retail
  - Plant rooms
  - o Compactus areas
  - Carparking
- Secondary Beam Spans from 8 to 17m
- Primary Beam Spans from 8 to 12m

#### 2.2 Fixed Design Variables

The design variables that have been fixed in these tables are:

- 300PLUS® Grade beams as these are widely recognised as being the most economical
- Re-entrant profiled steel decking as trapezoidal decks are not permitted by AS2327.1: 2003
- 1.0mm decking as this is commonly available and generally result in more economical floor system than 0.75mm thick decking
- 2.8m secondary beam spacing common span for 1.0mm re-entrant decking
- Slab thickness the slab thickness tabulated for each load condition is considered the most economical for that particular design load
- Deflection criteria the criteria adopted is that commonly required in practice for the design loading. Eg a premium retail has incremental deflection criteria of span/500 while a standard retail has an incremental deflection criteria of span/300.
- Incremental Deflection is the sum of the creep and In-service shrinkage based on 300μ strain and the short term live load (γ<sub>s</sub>,Q).

- Maximum Camber of 50mm The camber is determined by summing the deflection due to self weight of the wet concrete, ponding and steel beam and rounding down to the nearest 5mm
- No Propping to maximise speed of construction

These criteria will suit preliminary design for most applications. However should the design variables be significantly different from those available in the tables the preliminary design should be produced from first principles using AS2327.1 and design tools such as CompPanel™[1] and COMPBEAM™[2].

#### 3. Design Charts

The design information provided by the charts in Table 1 to Table 4 include the following:

- · Secondary & Primary beam sizes
- No of 19mm diameter shear studs
- Beam camber
- Slab thickness
- · Concrete strength
- · Natural frequency of the beam

These values will enable a designer to develop a preliminary design suitable for costing typical bays.

#### 4. Supporting Design Aids and Tools

Numerous design aids and tools are available to support these charts including CompPanel™ COMPBEAM™ and CompSelector™ which are available from OneSteel Market Mills.

#### 4.1 CompPanel™ and COMPBEAM™

CompPanel™ and COMPBEAM™ are analysis software that have the capacity to check other design options not covered by these tables including, edge beams, non prismatic sections, varying slab widths, propped construction and load combinations.

#### 4.2 CompSelector™

Spreadsheet software that reads these tables and selects the beams for preliminary design.

#### 4.3 Floor Vibrations

While these tables provide a value for natural frequency of the secondary beam and the secondary/primary beam combination, a check on acceptability is still required. Users of this technical note are directed to the ASI Publication on "Floor Vibrations in Composite Steel Office Buildings" [3] for guidance on how this may be done and software contained in CompPanel™

Table 1 - Office Floors

			Standard Offic		N-4 =-	- Dr	Premium Offic		NI-4 F
Span (m)	Spacing (m)	Beam 300PLUS®	Camber (mm)	Nos studs per beam	Nat. Fn Hz	Beam 300PLUS®	Camber (mm)	Nos studs per beam	Nat. Fr Hz
econdary		300FL036	(11111)	per beam	112	0001 2008	(11111)	per beam	112
8	2.8	310UB40.4	30	21	6.4	310UB40.4	30	21	6.4
9	2.8	360UB44.7	35	23	5.8	360UB44.7	35	23	5.8
10	2.8	360UB50.7	45	26	5.0	360UB56.7	35	26	5.2
11	2.8	410UB53.7	45	28	4.6	410UB53.7	45	28	4.6
12	2.8	460UB67.1	45	32	4.7	460UB67.1	45	32	4.7
13	2.8	460UB82.1	50	34	4.3	460UB82.1	50	34	4.3
14	2.8	530UB82.0	50	36	4.2	530UB82.0	50	36	4.2
15	2.8	610UB101	45	39	4.4	610UB101	45	39	4.4
16	2.8	610UB113	50	41	4.1	610UB113	50	41	4.1
17	2.8	700WB115	45	44	4.1	700WB115	45	44	4.1
imary Be	eams 8	460UB74.6	20	34	4.8	460UB82	20	38	4.9
8	9	530UB82.0	0	38	4.8	530UB82.0	0	38	4.8
8	10	530UB92.4	0	42	4.3	530UB92.4	0	42	4.7
8	11	530UB92.4	0	42	4.2	610UB101	0	46	4.3
8	12	610UB101	0	46	4.2	610UB101	0	46	4.2
8	13	610UB101	0	46	4.2	610UB101	0	46	4.2
8	14	610UB101	0	46	3.9	610UB113	0	48	4.0
8	15	610UB113	0	48	3.9	610UB125	0	54	4.0
8	16	610UB125	0	54	3.8	700WB115	0	52	3.9
8	17	700WB115	13	52	3.7	700WB115	0	52	3.7
8.4	8	460UB82.0	25	38	4.7	530UB82.1	0	38	4.9
8.4	9	530UB82.0	20	38	4.6	530UB92.4	0	42	4.7
8.4	10	610UB101	0	46	4.3	610UB101	0	46	4.3
8.4	11	610UB101	0	46	4.2	610UB101	0	46	4.2
8.4	12	610UB101	0	46	4.0	610UB101	0	46	4.0
8.4	13	610UB101	20	46	4.1	610UB113	0	48	4.2
8.4	14	610UB113	0	48	3.9	610UB125	0	54	3.9
8.4	15	610UB125	0	54	3.9	700WB115	0	52	3.9
8.4	16	700WB115	0	52	3.8	700WB115	0	52	3.8
8.4	17	700WB115	0	52	3.7	700WB130	0	60	3.7 4.7
9	8	530UB82.0	25	38	4.6 4.4	530UB92.4 610UB101	0	42	4.6
9	9	530UB92.4	25 20	42 46	4.4	610UB101	20	46	4.4
9	10	610UB101 610UB101	20	46	4.0	610UB113	20	48	4.1
9	12	610UB125	0	54	4.0	610UB125	0	54	4.0
9	13	610UB125	20	54	4.0	700WB115	0	52	4.1
9	14	700WB115	0	52	3.8	700WB130	0	60	3.9
9	15	700WB130	0	60	3.9	700WB130	0	60	3.9
9	16	700WB130	0	60	3.7	700WB130	0	60	3.7
9	17	700WB130	20	60	3.6	700WB150	0	64	3.6
10	8	610UB101	20	46	4.4	610UB101	20	46	4.4
10	9	610UB101	25	46	4.1	610UB113	20	48	4.3
10	10	610UB125	20	54	4.2	610UB125	20	54	4.2
10	11	610UB125	25	54	3.8	700WB115	20	52	3.9
10	12	700WB115	20	52	3.8	700WB130	20	60	3.9
10	13	700WB130	20	60	3.9	700WB130	20	60	3.9
10	14	700WB130	20	60	3.6	700WB150	0	64	3.7
10	15	700WB150	0	64	3.7	700WB150	20	64	3.7
10	16	800WB146	0	62	3.6	800WB146	0	62	3.6
10	17	800WB146	20	62	3.5	700WB173	20	66	3.5
11	8	610UB113	30	48	4.1	610UB125 700WB115	25 25	54 52	4.2
11	9	700WB115	25	52	4.0 3.7	700VB115 700WB130	0	60	3.9
11	10	700WB115 700WB130	25 25	52 60	3.7	700VB130 700WB130	25	60	3.7
11	12	700WB130	25	60	3.5	700WB150	0	64	3.7
11	13	700WB150	25	64	3.7	700WB150	25	64	3.7
11	14	800WB146	20	62	3.5	800WB146	20	62	3.5
11	15	800WB146	25	62	3.5	800WB168	0	66	3.6
11	16	800WB168	0	66	3.5	800WB168	0	85	3.5
11	17	900WB175	0	66	3.5	900WB175	20	66	3.5
12	8	700WB130	25	60	4.1	700WB130	25	60	4.1
12	9	700WB130	30	60	3.8	700WB150	25	64	4.0
12	10	700WB150	25	64	3.6	700WB150	25	64	3.6
12	11	800WB146	25	62	3.6	800WB146	25	62	3.6
12	12	800WB146	25	62	3.5	800WB146	25	62	3.5
12	13	800WB146	30	62	3.5	700WB173	30	70	3.5
12	14	700WB173	30	66	3.2	900WB175	20	66	3.5
12	15	900WB175	25	66	3.5	900WB175	25	66	3.5
12	16	900WB218	0	68	3.5	900WB218	0	68	3.5
12	17	900WB218	0	68	3.4	900WB218	0	68	3.4

120mm Slab, F'c =25 MPa, 2400 kg/m2 on decking with pan width 200mm, Incremental Defl limit < Span / 300, Total Defl limit < Span / 250 sdl + live for frequency calc = 0.54 kPa,

Table 2 - Retail Floors

Span	Spacing	Beam	Camber	+ 1, non reduc	Nat. Fn	Beam	Camber	+ 2.5, non redu Nos studs	Nat. F
(m)	(m)	300PLUS®	(mm)	per beam	Hz	300PLUS®	(mm)	per beam	Hz
condary	ASSESSMENT OF THE PARTY OF THE		()						
8	2.8	310UB40.4	30	21	6.4	360UB44.7	20	22	6.5
9	2.8	360UB44.7	35	24	5.8	410UB53.7	20	26	6.2
10	2.8	410UB53.7	30	26	5.6	460UB67.1	20	32	6.0
11	2.8	410UB59.7	40	34	4.9	460UB82	25	36	5.4
12	2.8	460UB67.1	45	35	4.7	530UB82.0	25	36	5.1
13	2.8	460UB82.1	50	36	4.3	610UB101	25	36	5.3
14	2.8	530UB82.0	50	39	4.2	610UB113	30	36	4.8
15	2.8	610UB101	45	39	4.4	700WB115	30	39	4.7
16	2.8	610UB113	50	41	4.1	700WB130	30	41	4.4
17 	2.8	700WB115	45	44	4.1	800WB122	35	44	4.2
mary Be		FOOLIDOO O	_	10 1	5.0	610UB101	0	46	5.3
8	8	530UB92.0 610UB101	0	42 46	5.2 5.0	610UB101	0	48	5.1
8	10	610UB101	0	46	4.8	610UB113	0	67	4.9
8	11	610UB101	0	69	4.3	610UB125	0	75	4.5
8	12	610UB125	0	54	4.3	700WB115	0	75	4.5
8	13	610UB125	0	105	4.3	700WB130	0	60	4.6
8	14	700WB115	0	95	4.1	700WB150	0	60	4.3
8	15	700WB130	0	60	4.1	700WB150	0	103	4.2
8	16	700WB150	0	60	4.0	800WB146	0	103	3.9
8	17	800WB146	0	60	3.7	800WB168	0	60	3.9
8.4	8	610UB101	0	46	5.3	610UB113	0	48	5.2
8.4	9	610UB101	0	46	4.9	610UB125	0	54	5.0
8.4	10	610UB101	0	63	4.7	700WB115	0	52 75	4.9
8.4	11 12	610UB125 610UB125	0	54 103	4.2	700WB115 700WB130	0	75 60	4.4 4.4
8.4	13	700WB130	0	60	4.1	700WB150	0	62	4.6
8.4	14	700WB130	0	69	4.0	800WB146	0	62	4.3
8.4	15	800WB146	0	62	4.0	800WB168	0	62	4.3
8.4	16	800WB146	0	62	4.0	800WB168	0	91	4.0
8.4	17	800WB146	0	123	3.8	800WB192	0	62	3.9
9	8	610UB101	0	46	5.0	700WB115	0	52	5.1
9	9	610UB113	0	49	4.7	700WB115	0	52	4.8
9	10	610UB125	0	57	4.6	700WB130	0	60	4.8
9	11	700WB115	0	63	4.2	700WB130	0	79	4.4
9	12	700WB130	0	60	4.1	700WB150	0	71	4.3
9	13	700WB130	0	115	4.2	800WB146	0	89	4.5
9	14	700WB150	0	101	4.0	700WB173	0	119 66	4.5
9	15 16	800WB146	0	107 69	4.0 3.9	800WB192 800WB192	0	79	4.2
9	17	800WB168 900WB175	0	66	3.7	900WB175	0	66	3.8
10	8	610UB125	0	54	4.7	700WB130	0	60	4.8
10	9	610UB125	20	103	4.3	800WB122	0	59	4.6
10	10	700WB130	0	60	4.4	800WB146	0	62	4.6
10	11	700WB130	0	117	4.0	800WB146	0	93	4.2
10	12	700WB150	0	123	3.9	800WB168	0	81	4.2
10	13	700WB173	0	71	4.1	800WB192	0	66	4.3
10	14	800WB168	0	117	3.9	900WB175	0	66	3.9
10	15	900WB175	0	66	3.9	900WB175	0	87	3.8
10	16	900WB175	0	66	3.8	900WB218	0	68	3.7
10	17	900WB175	0	81	3.6	900WB218	0	68	3.7
11	8	700WB130	0	60	4.5	800WB146 800WB146	0	62 62	4.7
11	9	700WB130 700WB150	0	63 77	4.2	800VVB146 800WB168	0	66	4.4
11	10 11	800WB146	0	109	3.9	900WB175	0	66	4.1
11	12	800WB192	0	66	3.9	900WB175	0	66	4.0
11	13	900WB175	0	66	4.0	900WB175	0	91	4.0
11	14	900WB175	0	66	3.8	900WB218	0	68	3.8
11	15	900WB175	0	113	3.7	9000WB218	0	68	3.8
11	16	900WB218	0	68	3.7	1000WB215	0	68	3.5
11	17	900WB218	0	68	3.7	1000WB215	0	117	3.5
12	8	800WB146	0	62	4.5	900WB175	0	66	4.7
12	9	800WB146	0	66	4.2	900WB175	0	66	4.5
12	10	900WB175	0	66	4.3	900WB218	0	68	4.5
12	11	900WB175	0	66	3.9	900WB218	0	68	4.2
12	12	900WB175	0	66	3.7	900WB218	0	68	3.9
12	13	900WB218	0	68	3.9	900WB218	0	86	3.9
12	14	900WB218	0	68	3.7 3.6	900WB257 900WB257	0	70 80	3.8
12 12	15 16	900WB218 1000WB215	0	110 94	3.5	1000WB257	0	80	3.6
12	17	1200WB249	0	66	3.6	1200WB249	0	68	3.6
14						Un-propped, 12.			0.0

Premium Grade Retail:

Incremental Defl limit < Span / 300, Total Defl limit < Span / 250 sdl + live for frequency calc = 0.54 kPa Incremental Defl limit < Span / 500, Total Defl limit < Span / 300, sdl + live for frequency calc = 1.5 kPa

Table 3 - Plant Room & Compactus Floors

Span (m) econdary	Spacing (m)	Beam	Camber	Nos studs					
		300PLUS®	(mm)	per beam	Nat. Fn Hz	Beam 300PLUS®	Camber (mm)	Nos studs per beam	Nat. Fi
condary		3001 2036	(11111)	per beam	112	0001 2000	()	per beam	17111111111
8	2.8	360UB50.7	20	22	7.6	410UB53.7	20	26	8.0
9	2.8	410UB53.7	25	26	6.7	410UB67.1	20	30	7.6
10	2.8	460UB67.1	25	30	6.4	460UB74.6	20	34	6.4
11	2.8	460UB82	30	36	5.8	530UB82.0	20	36	6.1
12	2.8	530UB92.0	25	40	5.7	610UB101	20	44	6.2
13	2.8	610UB101	30	44	5.6	610UB101	30	44	5.3
14	2.8	610UB113	35	46	5.1	700WB115	25	50	5.5
15	2.8	610UB125	40	52	4.6	700WB130	25	56	5.0
16	2.8	700WB130	35	56	4.6	800WB122	30	72	4.7
17	2.8	700WB130	45	56	4.1	700WB150	40	90	4.2
imary Be	ams	January Land	5 - 4 - 10 - 3-	The second second					
8	8	610UB113	0	46	6.2	700WB115	0	50	6.5
8	9	610UB125	0	52	5.7	700WB130	0	56	6.3
8	10	700WB130	0	56	5.7	700WB130	0	73	5.6
8	11	700WB130	0	56	5.2	800WB146	0	60	5.5
8	12	700WB150	0	62	5.2	700WB173	0	70	5.5
8	13	800WB146	0	60	5.1	800WB168	0	89	4.9
8	14	800WB168	0	66	4.7	900WB175	0	76	5.0
8	15	800WB168	0	66	4.4	900WB175	0	76	4.7
8	16	900WB175	0	76	4.4	900WB218	0	90 90	4.5
8	17 8	900WB175	0	76 52	3.9 6.0	900WB218 700WB130	0	90 56	6.4
8.4	9	610UB125 700WB115	0	50	5.6	700VB130 700WB130	0	65	6.1
8.4	10	700VB115 700WB130	0	56	5.5	700VB130	0	75	5.5
8.4	11	700WB130	0	62	5.2	700VB130	0	70	5.4
8.4	12	800WB146	0	60	5.1	800WB168	0	95	5.5
8.4	13	800WB168	0	66	5.1	900WB175	0	76	4.9
8.4	14	800WB168	0	69	4.7	900WB175	0	76	4.9
8.4	15	900WB175	0	76	4.3	900WB218	0	90	4.7
8.4	16	900WB175	0	76	4.3	900WB218	0	90	4.5
8.4	17	900WB175	0	76	3.9	900WB218	0	90	4.0
9	8	700WB115	0	50	5.8	700WB130	0	65	6.0
9	9	700WB130	0	56	5.4	700WB173	0	70	6.0
9	10	700WB150	0	62	5.4	700WB173	0	73	5.4
9	11	800WB146	0	60	5.1	800WB192	0	74	5.4
9	12	800WB168	0	66	5.0	800WB192	0	93	5.3
9	13	800WB192	0	74	5.0	900WB175	0	77	4.8
9	14	900WB175	0	76	4.6	900WB218	0	90	4.9
9	15	900WB175	0	76	4.3	900WB218	0	90	4.6
9	16	900WB218	0	90	4.3	1000WB215	0	90	4.4
9	17	900WB218 700WB130	0	90 57	3.9 5.3	900WB257 800WB146	0	102 73	4.0 5.7
10	9	800WB146	0	60	5.3	800WB148	0	91	5.6
10	10	800WB168	0	66	5.2	900WB175	0	76	5.2
10	11	800WB192	0	74	4.9	900WB175	0	79	5.0
10	12	900WB175	0	76	4.8	900WB218	0	90	5.2
10	13	900WB218	0	90	4.8	900WB218	0	90	4.6
10	14	900WB218	0	90	4.5	1000WB215	0	90	4.7
10	15	900WB218	0	90	4.2	1000WB258	0	104	4.5
10	16	1000WB215	0	90	4.2	1200WB249	0	102	4.3
10	17	1000WB258	0	104	3.8	1200WB249	0	102	3.9
11	8	800WB146	0	60	5.2	800WB168	0	110	5.4
11	9	800WB168	0	66	4.9	900WB175	0	76	5.3
11	10	900WB175	0	76	4.9	900WB175	0	123	4.8
11	11	900WB175	0	76	4.6	1000WB215	0	90	4.9
11	12	900WB218	0	90	4.7	1000WB215	0	90	4.9
11	13	900WB218	0	90	4.5	1000WB258	0	104	4.5
11	14	1000WB258	0	104	4.4	1200WB249	0	102	4.6
11	15	1000WB258	0	104	4.1	1200WB249	0	102	4.4
11	16	1200WB249	0	102 102	4.1 3.8	1200WB278 1200WB278	0	114	4.2 3.8
11	17 8	1200WB249	0	90	5.5	900WB175	0	80	5.2
12 12	9	900WB218 900WB218	0	90	5.5	900WB175 900WB218	0	90	5.2
12	10	900WB218	0	104	4.9	1000WB215	0	90	4.7
12	11	900WB237 900WB218	0	90	4.4	1200WB278	0	114	5.0
12	12	1000WB216	0	120	4.7	1200WB278	0	114	5.0
12	13	1000WB296	0	120	4.5	1200WB317	0	126	4.5
12	14	1200WB278	0	114	4.3	1200WB317	0	126	4.5
12	15	1200WB270	0	126	4.1	1200WB342	0	126	4.3
12	16	1200WB317	0	126	4.1	1200WB342	0	126	4.1
12	17	1200WB317	0	126	3.7	1200WB392	0	130	3.8
sumptions:						, Un-propped, 12.			
	Plant Room					limit < Span / 250			
				quency calc = 0					

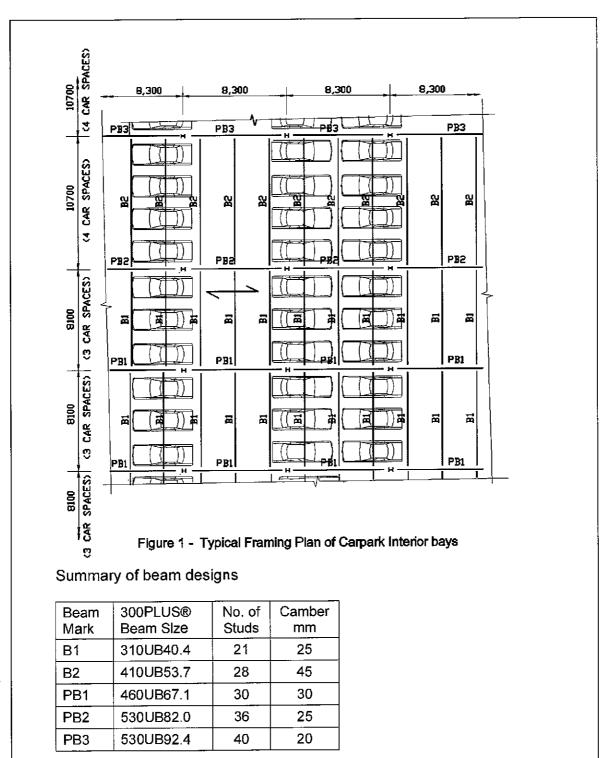
Table 4 - Carparks

Span	Spacing	Beam	Camber	0 = 2.5 + 0.1 Nos studs	Nat. Fn	Example Refer to pages 6
(m)	(m)	300PLUS	(mm)	per beam	Hz	Relei to pages o
ondary	The second live and the					
8	2.8	310UB40.4	25	21	6.7	Select for B1
9	2.8	360UB44.7	30	23	6.0	
10	2.8	360UB50.7	40	26	5.2	
11	2.8	410UB53.7	45	28	4.8	Select for B2
12	2.8	460UB67.1	40	31	4.9	
13	2.8	460UB82.1	45	36	4.5	
14	2.8	530UB82.0	50	36	4.4 4.6	
15 16	2.8	610UB101 610UB113	40 45	44 46	4.0	
17	2.8	610UB125	55	52	3.9	
mary Be	Name and Address of the Owner, where	01000120		02	0.0	
8	8	460UB67.1	20	30	5.0	
8	9	460UB67.1	25	30	4.6	
8	10	460UB82.1	0	36	4.3	
8	11	460UB82.1	25	36	4.1	
8	12	530UB82.0	20	36	4.2	
8	13	530UB92.4	20	40	4.0	
8	14	610UB101	0	44	4.1	
8	15 16	610UB101 610UB101	0	44	4.1 3.9	
8	17	610UB101	0	44	3.8	
8.4	8	460UB67.1	25	30	4.7	Select for PB1
8.4	9	460UB82.1	20	36	4.6	COLOCTION
8.4	10	530UB82.0	20	36	4.3	Select for PB2
8.4	11	530UB92.4	20	40	4.1	Select for PB3
8.4	12	530UB92.4	20	40	4.1	M
8.4	13	610UB101	20	44	3.8	
8.4	14	610UB101	20	44	4.0	
8.4	15	610UB101	20	44	4.0	
8.4	16	610UB113	20 0	46	3.9	
9.4	17 8	610UB125 460UB82.1	30	52 36	3.8 4.6	
9	9	530UB82.0	25	36	4.5	
9	10	530UB92.4	25	40	4.2	
9	11	610UB101	20	44	4.1	
9	12	610UB101	20	44	4.1	
9	13	610UB113	20	46	3.9	
9	14	610UB113	25	46	3.9	
9	15	610UB125	20	52	3.9	
9	16	700WB115	20	50	3.8	
10	17 8	700V/B130 530UB82.0	35	56 36	3.7 4.2	
10	9	530UB92.4	35	40	4.1	
10	10	610UB101	30	44	4.0	
10	11	610UB113	25	46	3.8	
10	12	610UB125	25	52	3.9	
10	13	700WB115	25	50	3.7	
10	14	700WB115	25	50	3.7	
10	15	700WB130	25	56	3.8	
10	16	700WB130	25	56	3.7	
10	17	700WB150	20	62	3.6 4.1	
11	8	610UB101 610UB101	30 35	44	3.9	
11	10	610UB125	30	52	3.8	
11	11	610UB125	35	52	3.6	
11	12	700WB115	30	50	3.6	
11	13	700WB130	30	56	3.5	
11	14	700WB130	30	56	3.5	
11	15	700WB150	25	62	3.6	
11	16	800WB146	25	60	3.6	
11	17	800WB146	25	72	3.4	
12	8	610UB125	35	52	4.0	
12 12	9	700WB115 700WB130	35 30	50 56	3.8 3.6	
12	11	700V/B130	35	56	3.5	
12	12	700WB150	30	62	3.5	
12	13	700WB150	35	62	3.3	
12	14	800WB146	30	60	3.4	
12	15	700WB173	35	70	3.3	
12	16	800WB168	30	72	3.4	
12	17	900WB175	25	76	3.4	
umptions:						
120mm Sla	b, F'c =40MPa	, 2400 kg/m2 on o	lecking with p	an width 200mm,		
	d, 8 mm pondin					

#### 5. Example

The following example illustrates how the preceding tables can be used for preliminary designs.

Consider the carpark layout below, using Table 4 determine preliminary beam sizing for both the primary and secondary beams



#### 5.1 Selecting the beams

Determine the most appropriate table for the floor usage/loading. In this case it is obviously Table 4. Beam sizes can be determined by reading directly off the span and spacing. Interpolation and engineering judgment should be exercised to obtain the appropriate preliminary design.

#### Secondary Beams:

**B1**: Span = 8.1m, spacing = 2.8 m Therefore read for 8m span – **310 UB 40.4** with 21 studs and 25mm camber.

**B2**: Span = 10.7m, spacing = 2.8 m Therefore read for 11m span – **410 UB 53.7** with 28 studs and 45mm camber.

#### **Primary Beams:**

**PB1**: Span = 8.3m, spacing = 8.1 m Therefore read for 8.4m span & 8 m spacing **460 UB 67.1** with 30 studs and 30mm camber.

**PB2**: Span = 8.3m

Spacing = 
$$\frac{8.1+10.7}{2}$$
 = 9.4m say 10m

Therefore read for 8.4m span & 10m spacing

530 UB 82.1 with 36 studs and 25mm camber.

**PB3**: Span = 8.3m, spacing = 10.7 m Therefore read for 8.4m span & 11 m spacing

530 UB 92.1 with 40 studs and 20mm camber.

#### 5.2 Comments

#### 5.2.1 Primary beams

The primary beam sizes have been determined by applying the point loads from the secondary such that they are symmetrical about the center-line. In most cases this will give a conservative result which can be refined in the final design.

#### 5.2.2 Secondary Edge beams

The design of secondary edge beams where decking is perpendicular to the beam, is usually more economical as a non-composite beam.

The use of a non-composite beam eliminates shrinkage and creep deflection in consideration of the more onerous Total deflection limit of - Span/500 and also avoids the additional transverse reinforcement required to prevent type 4 shear failure. The savings in shear studs and additional reinforcement usually outweighs the cost of the heavier beam required.

#### 5.2.3 Primary Edge beams

Primary edge beams where the decking is parallel to the beam are usually designed as composite edge beams, with reduced effective width of the concrete flange.

These beams have not been included in these tables because of the varying façade load due to many different systems and materials.

Design tools such as CompPanel™ and COMPBEAM™ can readily check such beams with point and uniformly distributed loads.

#### 5.2.4 Moment Capacity

The bare steel section moment capacity  $\Phi M_s$  has been used for the strength check during this construction stage. It is the responsibility of the user to ensure that lateral restraint is available to allow the beam under consideration to achieve this value or that the member capacity  $\odot M_b$  is not exceeded.

#### 5.2.5 Natural Frequency

While these tables provide a value for natural frequency of the secondary beam and the secondary/primary beam panel, a check on acceptability is still required depending on the panels location relative to other items such as a concrete core or floor edge. The frequencies tabulated are based on the equivalent point loads uniformly distributed on the primary beams.

#### 6. References

- [1] CompPanel™ Software OneSteel Market Mills
- [2] COMPBEAM™ Software OneSteel Market Mills
- [3] CompSelector™ Software OneSteel Market Mills
- [3] Floor Vibrations in Composite Steel Office Buildings. Steel Construction, Journal of the Australian Institute of Steel Institute Vol. 39 No. 1 March 2005.

#### Disclaimer:

This publication has been prepared by OneSteel Market Mills an operating business group of which OneSteel Manufacturing Pty Limited ABN 42 004 651 325 is a part. Please note that any specifications or technical data referred to in this publication are subject to change and/or variation or improvement without notice and no warranty as to their suitability for any use is made. Users of this publication - to ensure accuracy and adequacy for their purposes - are requested to check the information provided in this publication to satisfy themselves as to its appropriateness and not to rely on the information without first doing so. Unless required by law, the company cannot accept any responsibility for any loss, damage or consequence resulting from the use of this publication. Diagrams shown are representative only of typical applications, current at Sept 2005. This design note is not an offer to trade and shall not form any part of the trading terms in any transaction. ©Copyright 2005. OneSteel Manufacturing Pty Limited ABN 42 004 651 325: 300Pius®, COMPBEAM™, CompSelector™.



**ONESTEEL DIRECT** 

Freecall 1800 178 355

Website www.onesteel.com

Freefax 1800 101 141

Email onesteeldirect@onesteel.com

Postal address

Locked Bag 8825

Wollongong DC

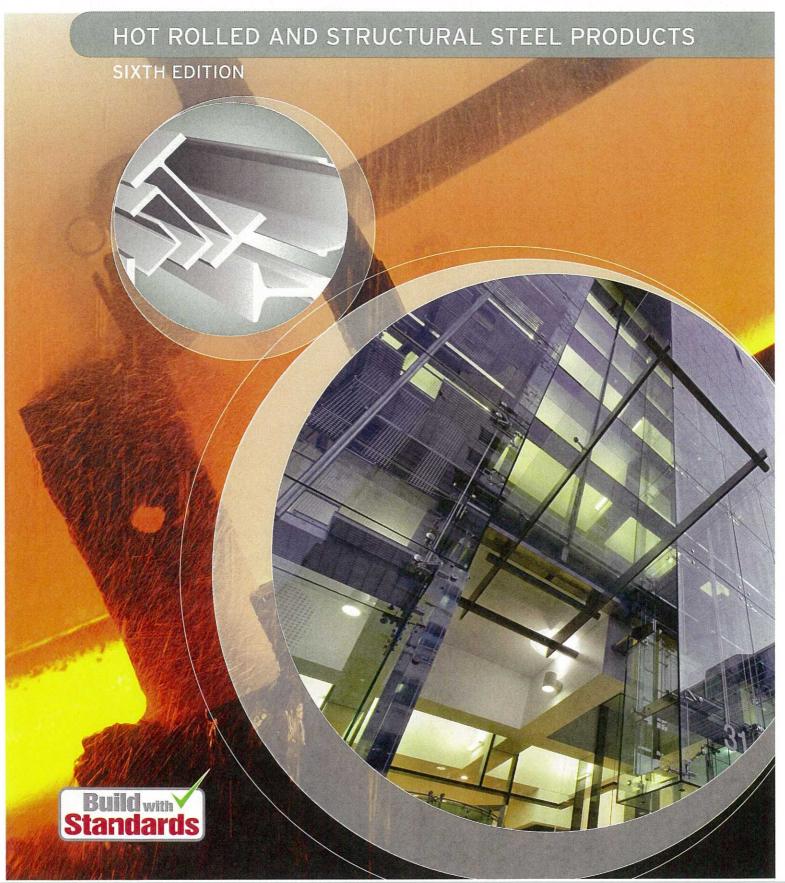
NSW 2500 Australia













# HOT ROLLED AND STRUCTURAL STEEL PRODUCTS

CONTENTS	
Introduction	1
Availability	
Structural Steel Sections	3
Merchant Bar Sections	5
Dimensions and Design Information	
Welded Beams	8
Welded Columns	10
Universal Beams	12
Universal Columns	14
Tapered Flange Beams	16
Parallel Flange Channels	17
Universal Bearing Piles	18
Equal Angles	19
Unequal Angles	22
Standard Specifications	
Structural Steel Sections	25
Merchant Bar Sections	27
Customer Technical Service	28



OneSteel is Australia's premier manufacturer of steel long products. The company manufactures and distributes a wide range of steel products including structural sections, rail, rod, bar, wire and pipe and tube products.

OneSteel's major manufacturing facilities for hot rolled products are located in Whyalla, South Australia; Melbourne, Victoria and in Newcastle and Western Sydney, New South Wales.

As part of OneSteel's ongoing commitment to the Australian construction and manufacturing industry, this booklet is produced by OneSteel Manufacturing and is intended to provide general information on a range of hot rolled and structural steel products.

Furthermore, this booklet will give you guidance on how OneSteel supports the quality and reputation of its products through initiatives such as our Build With Standards website and our EzyCommerce service.

(N.B. for the sake of simplicity, the following text will refer to OneSteel Manufacturing as OneSteel.)

## ONESTEEL COMMITMENT TO QUALITY AND SUSTAINABILITY

OneSteel supplies products that are compliant to the relevant Australian Standards or OneSteel's own high quality standards. OneSteel's aim is to supply a consistent high quality product which delivers benefits to our customers by minimising variation and reducing waste.

The quality of products is constantly checked in NATA endorsed testing laboratories, by skilled technical staff using proven equipment. Strict metallurgical control is maintained, from receipt of raw materials to despatch of the finished product.

Products are rigorously tested and certified, with Test Certificates and Certificates of Compliance providing assurance that OneSteel sections meet all required specifications and are made available free of charge via our EzyCommerce® website.

At its manufacturing sites OneSteel has third party accreditation to Quality Management System ISO 9001 and Environmental Management System ISO 14001.

Furthermore, through initiatives such as Build With Standards and ACRS, OneSteel is clearly committed to the ongoing supply of quality product to the Australian and New Zealand marketplace.

#### Test Certificates / Certificates of Compliance - EzyCommerce

NATA endorsed test certificates are available for all AS/NZS 3679.1 product, for welded product material supplied under AS/NZS 3679.2 certificates of compliance are available. The Steel Structures Design Standard - AS4100, acknowledges that these certificates provide designers and certifiers with sufficient evidence that they are acceptable steels for use in designs to AS4100.

Fabricators can ensure they receive a copy of the relevant certificate covering the steel ordered and delivered by requesting them at the time of order. The certificates can be provided manually, electronically or customers can access these via the OneSteel's EzyCommerce® website at https://ezycommerce.onesteel.com

All distributors of OneSteel AS/NZS 3679.1 & AS/NZS 3679.2 products have access to certificates via EzyCommerce® – this is a free service that offers the flexibility to access and retrieve this information at anytime of the day.

Access to EzyCommerce® Online is free to approved customers of OneSteel Manufacturing - all you need is a login name and password - please refer to:http://ezycommerce.onesteel.com/about.aspx for more information on obtaining access to the website.

#### **Build With Standards**

The Build With Standards campaign is an initiative undertaken by OneSteel, its aim is to improve compliance and generate increased confidence in structural steel quality in all end-use applications.

Changes to Australian Standards for structural steel have been introduced to address industry concerns regarding product quality, identification, certification and traceability.

These revised Australian/New Zealand Standards help ensure the quality of the structural steel specified and paid for is supplied.

With the revised Standards and mandatory requirements around markings and test certificates, industry stakeholders can readily check if the steel used was produced to Australian/ New Zealand Standards and the specifications called up in the design.

Visit OneSteel's Build With Standards website for more information on the initiative and how OneSteel meets the Standards (www.buildwithstandards.com.au). In addition you will find valuable information regarding the Green Star® Rating System as well as information regarding OneSteel's environmental management systems and membership of the WorldSteel Association Climate Action group.

#### ACRS - Third Party Certification

In addition to our quality systems and NATA endorsed laboratories, OneSteel's range of AS/NZS 3679.1 hot rolled products are all produced at mills with ACRS certification. ACRS is an expert, industry based, third party product certifier of reinforcing, prestressing and structural steels to Australian/New Zealand Standards. This certification gives designers and asset owners additional confidence that they are getting AS/NZS 3679.1 steels on which their structural design has been based.

Copies of our ACRS accreditation can be viewed at the ACRS website - www.steelcertification.com - or via the Build With Standards website.







#### For more information:

Build with Standards: www.buildwithstandards.com.au Ezycommerce: https://ezycommerce.onesteel.com ACRS: www.steelcertification.com

## Test Certificate sample

# onestee

#### TEST CERTIFICATE

Certificate No.: W803485 Transmission Date: 15/08/12

Customer: SAMPLE Supplier:

OneSteel Manufacturing Pty Limited Whyalla, SA - 5600, Australia

A.B.N. 42 004 651 325

Ship To:

Sales Order No: Printed on:

B1093 15/08/2012



This document is issued in accordance with NATA's accreditation requirements. Accredited for compliance with ISO/IEC 17025. This document shall not be reproduced except in full.

Sampling undertaken by OneSteel Whyalla 15352 Approved Signatory - M. Bubicich Chemical results as identified are from Amdel Ltd, Whyalla 0834 Approved Signatory - K. Barsby Mechanical results as identified are from Amdel Ltd, Whyalla 0794

Approved Signatory - I. Harrison

STEELMAKING SPECIFICATION:

INSPECTION: Supplier CERTIFICATION: Supplier

PRODUCT:

Basic Oxygen - Slab Cast AS/NZS3679.1-300 410UB59.7

#### ITEMS COVERED BY THIS TEST CERTIFICATE

Item No	Heat No	Customer Order	Length
1606C	- 517049	7503247532	18.000
1606C	517050	7503247532	18.000
1606C	518504	7503247532	18.000

#### CHEMICAL ANALYSIS

Percentage of element by mass	(L=Cast, P=Product,	<ul><li>-S=Soluble, -T=Total,</li></ul>	CF=Chemical Formul	la, n=Min, x=Max)

Item No	Heat / . Unit No	NATA Lab	UP	С	Р	Mn	Si	S	Ni	Cr	Mo	Cu	Sn	Al
1606C	517049	0834	L	.196	.010	1.36	.160	.004	.006	.020	.001	.020	.006	.020
1606C	517050	0834	L	.200	.015	1.34	.150	.002	.013	.027	.002	.026	.007	.020
1606C	518504	0834	L	.150	.016	1.46	.150	.012	.008	.027	.001	.018	.001	.026

Item No	Heat / Unit No	NATA Lab	LIP	Nb	Ti	В	V	N	Ca	Zr	CF1
1606C	517049	0834	L	.001	.001	.0003	.001	.0077	.0004	.001	.43
1606C	517050	0834	L	.001	.001	.0003	.001	.0062	.0003	.001	.43
1606C	518504	0834	L	.001	,001	.0003	.001	.0084	.0001	.002	.40

CF1=C+Mn/6 + (Cr+Mo+V)/5 + (Ni+Cu)/15

#### MECHANICAL TESTING

#### Tensile

Item No	-Heat No	Tested Unit	NATA Lab	Test Report	ReH MPa	Rm MPa	ELONGN %
1606C	517049	517049	0794	51643	375	530	35
1606C	517049	517049	0794	51643	360	530	34
1606C	517050	517050	0794	51643	365	530	36
1606C	517050	517050	0794	51643	370	530	36
1606C	-518504	518504	0794	51781	365	510	36
1606C	518504	518504	0794	51781	365	500	34

Yield Strength - determined in accordance with requirements of nominated product standard

#### COMMENTS

OneSteel Whyalla is quality endorsed to AS/NZS ISO9001 under SAI GLOBAL Lic. No. - QEC0351. This document shall not be reproduced except in full.

I certify that the above information is in accordance with the records of the company and conforms to the specification(s) stated.

M.Bubicich OneSteel Whyalla



#### Structural Steel Sections

#### Hot Rolled Products

Hot Rolled Structural Steel sections produced by OneSteel are manufactured in accordance with the requirements of Australian Standard AS/NZS 3679.1:2010 Structural Steel - Hot Rolled Bars and Sections.

#### **Grade Availability**

300PLUS® Steel is the standard grade manufactured by OneSteel for hot rolled Structural Steel Sections for Australia.

300PLUS® Steel for hot rolled products is produced to exceed the minimum requirements of AS/NZS 3679.1:2010 grade 300.

In New Zealand, 300PLUS®SO is the standard grade for the range of universal beams and columns shown in Table 1.

Table 1 Standard 300PLUS®SO Grade sections in New Zealand

<b>Universal Beams</b>	<b>Universal Columns</b>
610UB125	310UC158
610UB113	310UC137
610UB101	310UC118
530UB92.4	310UC96.8
530UB82.0	250UC89.5
460UB82.1	250UC72.9
460UB74.6	200UC59.5
460UB67.1	200UC52.2
410UB59.7	200UC46.2
410UB53.7	
360UB56.7	
360UB50.7	
360UB44.7	

Other grades including 300PLUSLO, AS/NZS 3679.1-350 and AS/NZS 3679.1-350LO may also be available depending on the section and quantity required.

For further information contact your nearest OneSteel Sales Office (contact details on page 28).

#### Length Availability

The majority of Structural Steel Sections produced by OneSteel are available in standard length and bundle configurations.

We would recommend that attention be given to the standard lengths produced by OneSteel as they are more readily available than other lengths. Table 2 (page 4) indicates the standard lengths produced by OneSteel in Structural Steel Sections. For other lengths (including those in excess of 18 metres) please contact your nearest OneSteel Sales Office for further details (contact details on page 28).

#### Welded Products

OneSteel Manufacturing also markets a range of large Welded Product Structural Steel sections. These sections are welded from plate and are manufactured in accordance with Australian Standard AS/NZS 3679.2:2010 Structural Steel - Welded I Sections.

#### **Grade Availability**

300PLUS® Steel is the standard grade manufactured for Welded Products. 300PLUS® welded products are produced to exceed the minimum requirements of AS/NZS 3679.2:2010 grade 300.

A higher grade option of AS/NZS 3679.2:2010 grade 400 is also available.

Other grades are subject to enquiry and this should be directed to your nearest OneSteel Sales Office.

#### Length Availability

Lengths are available from a minimum of six metres to a maximum of 30 metres. Table 2 indicates the standard lengths produced.



9.0

10.5

Length (m)

13.5 15.0

16.5

18.0

20.0\*

Section

**Welded Sections** 

1200 WB, 1000 WB, 900 WB, 800 WB, 700 WB	•	•	•	•	•	•	•	
500 WC, 400 WC, 350 WC	•	•	•	•	•	•	•	
Universal Beams								
610 UB, 530 UB, 460 UB, 410 UB, 360 UB	•	•	•	•	•	•	•	•
310 UB 46.2, 40.4	•	•	•	•	•	•	•	•
310 UB 32.0	•	•	•	•	•		•	
250 UB	•	•	•	•	•	•	•	
200 UB 29.8, 25.4, 22.3	•	•	•	•	•	•	•	
200 UB 18.2	•	•	•	•	•			
180 UB, 150 UB	•	•	•	•	•	•		
Universal Columns								
310 UC 158, 137, 118	•	•	•	•	•	•	•	
310 UC 96.8	•	•	•	•	•	•	•	•
250 UC	•	•	•	•	•	•	•	•
200 UC, 150 UC	•	•	•	•	•	•	•	
100 UC	•		•		•			
Taper Flange Beams								
125 TFB, 100 TFB	•		•					
Parallel Flange Channels								
380 PFC, 300 PFC	•	•	•	•	•	•	•	
250 PFC	•	•	•	•	•	•	•	
230 PFC, 200 PFC, 180 PFC, 150 PFC	•	•		•	•	•	•	
125 PFC, 100 PFC, 75 PFC	•		•					
Universal Bearing Piles								
310 UBP 149, 110 <sup>+</sup>								
310 UBP 78.8		•	•	•	•	•	•	•
200 UBP 122	•			•				
Equal Angles								
200 EA, 150 EA, 125 EA	•	•	•	•	•			
100 EA, 90 EA, 75 EA	•		•					
65 EA, 55 EA, 50 EA, 45 EA, 40 EA **	•							
30 EA, 25 EA •								
Unequal Angles								
150 x 100 UA, 150 x 90 UA	•	•	•	•	•			
125 x 75 UA, 100 x 75 UA	•		•					
75 x 50 UA	•							
65 x 50 UA	•							

<sup>\*</sup> By enquiry - delivery to capital cities only

<sup>\*\*</sup> Certain thicknesses may not be available in both lengths. Confirm availability with a OneSteel Manufacturing Sales Office.

By enquiry

#### Merchant Bar Sections

#### Rounds, Squares and Flats

#### Availability

Merchant bar rounds, squares and flats are available in a variety of steel grades and sizes.

Due to process limitations not all grades are available in all sizes. For new applications we recommend you confirm product availability with a OneSteel Sales Office at an early stage of design. Other specifications and sizes may also be available on enquiry.

#### **Specifications**

Merchant bar sections are available in the following standards:

- · 300PLUS® and AS/NZS 3679.1 Structural Steel Hot Rolled Bars and Sections.
- · AS 1442 Carbon Steels and Carbon Manganese Steels Hot Rolled Bars and Semifinished Products.
- AS 1444 Wrought Alloy Steels Standard, Hardenability (H) Series and Hardened and Tempered to Designated Mechanical Properties.
- · AS 1447 Hot-Rolled Spring Steels.
- · OneSteel grades (based on AISI-SAE nomenclature).

Table 3 Rounds - Size Availability and Mass

Diameter (mm)	Mass (kg/m)
10	0.616
12	0.887
13	1.04
14	1.21
15	1.39
16	1.58
17	1.78
18	1.99
19	2.23
20	2.46
22	2.98
24	3.55
27	4.49
30	5.55
33	6.71
36	7.99
39	9.38
42	10.9
45	12.5
48	14.2
50	15.4
56	19.3
60	22.2
65	26.0
75	34.7
90	49.9

Standard Length: 6 Metres

Table 4 Squares - Size Availability and Mass

Thickness (mm)	Mass (kg/m)
10*	0.790
12	1.13
16	2.01
20	3.14
25	4.91
40	12.5

Standard Length: 6 Metres



<sup>\*</sup> Confirm availability with sales office.

				Thickne	ss (mm)			
Width (mm)	5	6	8	10	12	16	20	25
20				1.57				
25	0.981	1.18	1.57	1.96	2.36			
32	1.26	1.51	2.01	2.51	3.01			
40	1.57	1.88	2.51	3.14	3.77	5.02	6.28	
50	1.96	2.36	3.14	3.93	4.71	6.28	7.85	9.81
65	2.55	3.06	4.08	5.10	6.12	8.16	10.2	
75	2.94	3.53	4.71	5.89	7.07	9.42	11.8	14.7
90		4.24	5.65	7.07	8.48			
100	3.93	4.71	6.28	7.85	9.42	12.6	15.7	19.6
110		5.18	6.91	8.64	10.4			
130	5.10	6.12	8.16	10.2	12.2	16.3	20.4	25.5
150	5.89	7.07	9.42	11.8	14.1	18.8	23.6	29.4
180		8.48		14.1	17.0			
200		9.42	12.6	15.7	18.8			
250		11.8	15.7	19.6	23.6			
300		14.1	18.8	23.6	28.3			

Standard Length: 6 Metres



Steel Type	Standard	Grades Available
Structural Steels	OneSteel	300PLUS
	AS/NZS 3679.1	350
Carbon and Carbon-Manganese Steels	AS 1442	1016
nasikana natah tangan sebagai natah 2012-ang Perandanan Sebagai Ang Perandanan Sebagai natah Sebagai		1022
		1045
Spring Steels	AS 1447	XK5160S
. ,		XK9258S
		XK9261S
OneSteel Grades	OneSteel	1015
		X4K92M61S

#### Note

Grade availability can vary with section.

#### **Rods and Light Billets**

Rods and light billets are available in a wide range of OneSteel grades, and selected grades from AS 1442, AS 1444 and AS 1447 specifications.

These sections are not available in structural grades 300PLUS® or 350.

Due to process limitations not all grades are available in all sizes. Confirm product availability with a OneSteel Sales Office at an early stage of design.

#### Table 7 Rods Size Availability

Dia	mete	er (n	nm)										
5.5	6.5	7.0	8.0	9.0	10.0	11.2	12.5	13.0	14.0	15.0	16.0	17.0	18.0

#### Table 8 Light Billets Size Availability

Sizes Available mm x mm	
45 x 45	
50 x 50	
63 x 63	
75 x 75	









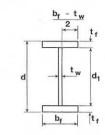


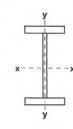












# **Welded Beams**

Table 9 Welded Beams - Dimensions and Properties

Designation	Depth of	FI	ange	Web	Depth			Gross Area		About	x-axis			Abou	t y-axis		Torsion	Warping	Designation
	Section	Width	Thickness	Thickness	Between Flanges	d,	(b <sub>f</sub> -t <sub>w</sub> )	of Cross Section									Constant	Constant	
	d	b <sub>t</sub>	t,	$t_w$	d <sub>1</sub>	t <sub>w</sub>	2t,	$A_g$	l <sub>x</sub>	$Z_x$	$S_x$	$\Gamma_{\mathbf{x}}$	l <sub>y</sub>	$Z_{\nu}$	$S_y$	$r_{y}$	J	l <sub>w</sub>	
kg/m	mm	mm	mm	mm	mm			mm <sup>2</sup>	106mm4	10 <sup>3</sup> mm <sup>3</sup>	10 <sup>3</sup> mm <sup>3</sup>	mm	106mm4	10 <sup>3</sup> mm <sup>3</sup>	10 <sup>3</sup> mm <sup>3</sup>	mm	10 <sup>3</sup> mm <sup>4</sup>	109mm6	
1200 WB 455	1200	500	40	16	1120	70.0	6.05	57900	15300	25600	28200	515	834	3330	5070	120	22000	280000	1200 WB 45
423	1192	500	36	16	1120	70.0	6.72	53900	13900	23300	25800	508	750	3000	4570	118	16500	251000	42
392	1184	500	32	16	1120	70.0	7.56	49900	12500	21100	23400	500	667	2670	4070	116	12100	221000	392
342	1184	400	32	16	1120	70.0	6.00	43500	10400	17500	19800	488	342	1710	2630	88.6	9960	113000	342
317	1176	400	28	16	1120	70.0	6.86	40300	9250	15700	17900	479	299	1500	2310	86.1	7230	98500	31
278	1170	350	25	16	1120	70.0	6.68	35400	7610	13000	15000	464	179	1020	1600	71.1	5090	58700	278
249	1170	275	25	16	1120	70.0	5.18	31700	6380	10900	12900	449	87.0	633	1020	52.4	4310	28500	249
1000 WB 322	1024	400	32	16	960	60.0	6.00	41000	7480	14600	16400	427	342	1710	2620	91.3	9740	84100	1000 WB 322
296	1016	400	28	16	960	60.0	6.86	37800	6650	13100	14800	420	299	1490	2300	89.0	7010	73000	296
258	1010	350	25	16	960	60.0	6.68	32900	5430	10700	12300	406	179	1020	1590	73.8	4870	43400	258
215	1000	300	20	16	960	60.0	7.10	27400	4060	8120	9570	385	90.3	602	961	57.5	2890	21700	215
900 WB 282	924	400	32	12	860	71.7	6.06	35900	5730	12400	13600	399	341	1710	2590	97.5	8870	67900	900 WB 282
257	916	400	28	12	860	71.7	6.93	32700	5050	11000	12200	393	299	1490	2270	95.6	6150	58900	257
218	910	350	25	12	860	71.7	6.76	27800	4060	8930	9960	382	179	1020	1560	80.2	4020	35000	218
175	900	300	20	12	860	71.7	7.20	22300	2960	6580	7500	364	90.1	601	931	63.5	2060	17400	175
800 WB 192	816	300	28	10	760	76.0	5.18	24400	2970	7290	8060	349	126	840	1280	71.9	4420	19600	800 WB 192
168	810	275	25	10	760	76.0	5.30	21400	2480	6140	6840	341	86.7	631	964	63.7	2990	13400	168
146	800	275	20	10	760	76.0	6.63	18600	2040	5100	5730	331	69.4	505	775	61.1	1670	10600	140
122	792	250	16	10	760	76.0	7.50	15600	1570	3970	4550	317	41.7	334	519	51.7	921	6280	123
700 WB 173	716	275	28	10	660	66.0	4.73	22000	2060	5760	6390	306	97.1	706	1080	66.4	4020	11500	700 WB 17
150	710	250	25	10	660	66.0	4.80	19100	1710	4810	5370	299	65.2	521	798	58.4	2690	7640	15
130	700	250	20	10	660	66.0	6.00	16600	1400	3990	4490	290	52.1	417	642	56.0	1510	6030	13
115	692	250	16	10	660	66.0	7.50	14600	1150	3330	3790	281	41.7	334	516	53.5	888	4770	115

#### Notes

- 1. All welds to AS/NZS 1554.1 Category SP (deep penetration).
  2. Web to flange joints develop the minimum tensile strength of the web.
  3. Flame cut surfaces not incorporated in welds have a minimum surface roughness of class 2, as defined in WTIA Technical Note 5.

## Welded Beams

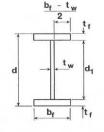
Table 10 Welded Beams - Properties for Assessing Section Capacity

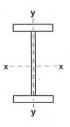
Designation	Yield S	Stress	Form Factor	About	c-axis	About	r-axis	Yield S	Stress	Form Factor	About	x-axis	About y	-axis	Designatio
	Flange	Web		Compactness		Compactness		Flange	Web		Compactness		Compactness		
	f <sub>y</sub>	f <sub>y</sub>	k,		$Z_{ex}$		$Z_{e\gamma}$	f <sub>y</sub>	f <sub>y</sub>	k,		$Z_{\rm ex}$		$Z_{ey}$	
	MPa	MPa	W		10 <sup>3</sup> mm <sup>3</sup>		10 <sup>3</sup> mm <sup>3</sup>	MPa	MPa			10 <sup>3</sup> mm <sup>3</sup>		10 <sup>3</sup> mm <sup>3</sup>	
			300PLU	S® *							AS/NZS	3679.2-400			
1200 WB 455	280	300	0.837	C	28200	С	5000	360	380	0.820	N	28100	С	5000	1200 WB 45
423	280	300	0.825	С	25800	С	4500	360	380	0.806	N	25700	N	4500	42
392	280	300	0.811	С	23400	N	4000	360	380	0.791	N	23300	N	3900	39
342	280	300	0.783	С	19800	С	2560	360	380	0.760	N	19600	С	2560	34
317	280	300	0.766	С	17900	C	2240	360	380	0.741	N	17700	N	2230	3
278	280	300	0.733	C	15000	С	1530	360	380	0.705	N	14900	N	1530	2
249	280	300	0.701	С	12900	С	949	360	380	0.670	N	12800	C	949	2
000 WB 322	280	300	0.832	С	16400	С	2560	360	380	0.807	С	16400	С	2560	1000 WB 3
296	280	300	0.817	С	14800	С	2240	360	380	0.791	C	14800	N	2230	2
258	280	300	0.790	С	12300	С	1530	360	380	0.760	С	12300	N	1530	2
215	300	300	0.738	С	9570	С	903	380	380	0.704	С	9570	N	887	2
900 WB 282	280	310	0.845	С	13600	С	2560	360	400	0.830	N	13500	С	2560	900 WB 2
257	280	310	0.830	С	12200	С	2240	360	400	0.813	N	12000	N	2220	2
218	280	310	0.800	С	9960	С	1530	360	400	0.780	N	9840	N	1530	2
175	300	310	0.744	С	7500	С	901	380	400	0.721	N	7320	N	882	1
800 WB 192	280	310	0.824	С	8060	C	1260	360	400	0.808	N	7850	С	1260	800 WB 1
168	280	310	0.799	С	6840	С	946	360	400	0.781	N	6640	С	946	1
146	300	310	0.763	N	5710	С	757	380	400	0.744	N	5510	N	754	1
122	300	310	0.718	N	4530	N	498	380	400	0.695	N	4340	N	486	1
700 WB 173	280	310	0.850	С	6390	С	1060	360	400	0.833	С	6390	С	1060	700 WB 1
150	280	310	0.828	С	5370	С	782	360	400	0.807	С	5370	С	782	1
130	300	310	0.795	С	4490	C	626	380	400	0.773	C	4490	С	626	
115	300	310	0.767	С	3790	N	498	380	400	0.742	С	3790	N	486	

<sup>\* 300</sup>PLUS® welded sections are produced to exceed the minimum requirements of AS/NZS 3679.2-300.

- **Notes**1. For 300PLUS® sections the tensile strength  $(f_u)$  is 430 MPa.
  2. For Grade 400 sections the tensile strength  $(f_u)$  is 480 MPa.
  3. C: Compact Section; N: Non-compact Section; S: Slender Section.









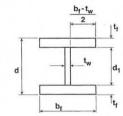


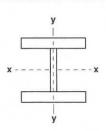
HRSSP 6th Ed. August 2012











# **Welded Columns**

Table 11 Wolded Columns - Dimensions and Properties

Designation	Depth of Section	FI	ange	Web Thickness	Depth Between			Gross Area of Cross		Abou	t x-axis			Abou	t y-axis		Torsion Constant	Warping Constant	Designation
		Width	Thickness		Flanges	d,	(b <sub>1</sub> -t <sub>w</sub> )	Section											
	d	$b_{r}$	t,	t <sub>w</sub>	d,	t <sub>w</sub>	2t,	$A_{g}$	l <sub>x</sub>	$Z_{x}$	S <sub>x</sub>	Γ <sub>x</sub>	l <sub>y</sub>	$Z_y$	$S_{\gamma}$	Γ <sub>γ</sub>	J	l <sub>w</sub>	
kg/m	mm	mm	mm	mm	mm			mm²	106mm⁴	10 <sup>3</sup> mm <sup>3</sup>	10 <sup>3</sup> mm <sup>3</sup>	mm	106mm⁴	10 <sup>3</sup> mm <sup>3</sup>	10 <sup>3</sup> mm <sup>3</sup>	mm	10 <sup>3</sup> mm <sup>4</sup>	109mm6	
500 WC 440	480	500	40	40	400	10.0	5.75	56000	2150	8980	10400	196	835	3340	5160	122	30100	40400	500 WC 440
414	480	500	40	32	400	12.5	5.85	52800	2110	8800	10100	200	834	3340	5100	126	25400	40400	414
383	472	500	36	32	400	12.5	6.50	48800	1890	7990	9130	197	751	3000	4600	124	19900	35700	383
340	514	500	32	25	450	18.0	7.42	43200	2050	7980	8980	218	667	2670	4070	124	13100	38800	340
290	506	500	28	20	450	22.5	8.57	37000	1750	6930	7700	218	584	2330	3540	126	8420	33300	290
267	500	500	25	20	450	22.5	9.60	34000	1560	6250	6950	214	521	2080	3170	124	6370	29400	267
228	490	500	20	20	450	22.5	12.0	29000	1260	5130	5710	208	417	1670	2540	120	3880	23000	228
400 WC 361	430	400	40	40	350	8.75	4.50	46000	1360	6340	7460	172	429	2140	3340	96.5	24800	16300	400 WC 361
328	430	400	40	28	350	12.5	4.65	41800	1320	6140	7100	178	427	2140	3270	101	19200	16200	328
303	422	400	36	28	350	12.5	5.17	38600	1180	5570	6420	175	385	1920	2950	99.8	14800	14300	303
270	414	400	32	25	350	14.0	5.86	34400	1030	4950	5660	173	342	1710	2610	99.8	10400	12500	270
212	400	400	25	20	350	17.5	7.60	27000	776	3880	4360	169	267	1330	2040	99.4	5060	9380	212
181	390	400	20	20	350	17.5	9.50	23000	620	3180	3570	164	214	1070	1640	96.4	3080	7310	181
144	382	400	16	16	350	21.9	12.0	18400	486	2550	2830	163	171	854	1300	96.3	1580	5720	144
350 WC 280	355	350	40	28	275	9.82	4.03	35700	747	4210	4940	145	286	1640	2500	89.6	16500	7100	350 WC 280
258	347	350	36	28	275	9.82	4.47	32900	661	3810	4450	142	258	1470	2260	88.5	12700	6230	258
230	339	350	32	25	275	11.0	5.08	29300	573	3380	3910	140	229	1310	2000	88.4	8960	5400	230
197	331	350	28	20	275	13.8	5.89	25100	486	2940	3350	139	200	1140	1740	89.3	5750	4600	197

#### Notes

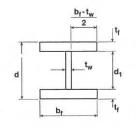
- 1. All welds to AS/NZS 1554.1 Category SP (deep penetration).
  2. Web to flange joints develop the minimum tensile strength of a 16mm web only.
  3. Flame cut surfaces not incorporated in welds have a minimum surface roughness of class 2, as defined in WTIA Technical Note 5.

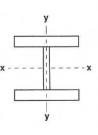
Designation	Yield	d Stress	Form Factor	About	x-axis	About	y-axis	Yield S	Stress	Form Factor	About	x-axis	About y	r-axis	Designation
	Flange	Web		Compactness		Compactness		Flange	Web		Compactness		Compactness	=	
	f <sub>y</sub>	. f <sub>y</sub>	k,		$Z_{ex}$		$Z_{ey}$	f <sub>y</sub>	f <sub>y</sub>	$k_{t}$		$Z_{ex}$		$Z_{ey}$	
	MPa	MPa			10 <sup>3</sup> mm <sup>3</sup>		10 <sup>3</sup> mm <sup>3</sup>	MPa	MPa			10 <sup>3</sup> mm <sup>3</sup>		10 <sup>3</sup> mm <sup>3</sup>	
			300PLU	S <sup>®</sup> *							AS/NZS	3679.2-400			
500 WC 440	280	280	1.00	С	10400	С	5010	360	360	1.00	C	10400	C	5010	500 WC 440
414	280	280	1.00	C	10100	С	5010	360	360	1.00	C	10100	C	5010	414
383	280	280	1.00	C	9130	C	4510	360	360	1.00	C	9130	С	4510	383
340	280	280	1.00	C	8980	С	4000	360	360	1.00	N	8830	N	3920	340
290	280	300	1.00	N	7570	N	3410	360	380	1.00	N	7410	N	3310	290
267	280	300	1.00	N	6700	N	2970	360	380	1.00	N	6540	N	2860	26
228	300	300	1.00	N	5210	N	2200	380	380	0.964	S	4860	N	2100	228
400 WC 361	280	280	1.00	С	7470	С	3210	360	360	1.00	С	7470	С	3210	400 WC 36
328	280	280	1.00	С	7100	C	3200	360	360	1.00	С	7100	C	3200	32
303	280	280	1.00	С	6420	C	2880	360	360	1.00	C	6420	C	2880	30
270	280	280	1.00	С	5660	С	2560	360	360	1.00	C	5660	С	2560	270
212	280	300	1.00	N	4360	N	2000	360	380	1.00	N	4270	N	1950	21
181	300	300	1.00	N	3410	N	1510	380	380	1.00	N	3330	N	1460	18
144	300	300	1.00	N	2590	N	1120	380	380	0.964	S	2410	N	1070	14
350 WC 280	280	280	1.00	С	4940	С	2450	360	360	1.00	С	4940	С	2450	350 WC 28
258	280	280	1.00	C	4450	C	2210	360	360	1.00	C	4450	С	2210	25
230	280	280	1.00	С	3910	C	1960	360	360	1.00	C	3910	C	1960	23
197	280	300	1.00	С	3350	С	1720	360	380	1.00	С	3350	С	1720	19

<sup>\* 300</sup>PLUS® welded sections are produced to exceed the minimum requirements of AS/NZS 3679.2-300.

Notes
1. For 300PLUS® sections the tensile strength (f<sub>u</sub>) is 430 MPa.
2. For Grade 400 sections the tensile strength (f<sub>u</sub>) is 480 MPa.
3. C: Compact Section; N: Non-compact Section; S: Slender Section.





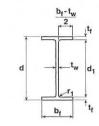


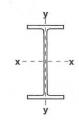












# **Universal Beams**

Table 13 Universal Beams - Dimensions and Properties

Designation		Flá	ange	Web	Root	Depth			Gross		Abou	t x-axis			Abou	t y-axis		Torsion	Warping	Designatio
	Section	Width	Thickness	Thickness	Radius	Between Flanges	d <sub>1</sub>	(b <sub>f</sub> -t <sub>w</sub> )	Area of Cross Section									Constant	Constant	
	d	$b_{f}$	t,	t <sub>w</sub>	r <sub>1</sub>	d <sub>1</sub>	t <sub>w</sub>	2t,	$A_{g}$	I <sub>x</sub>	$Z_x$	S <sub>x</sub>	$r_{x}$	l <sub>y</sub>	Z <sub>y</sub>	S <sub>y</sub>	r <sub>y</sub>	J	l <sub>w</sub>	
kg/m	mm	mm	mm	mm	mm	mm			mm²	106mm⁴	10 <sup>3</sup> mm <sup>3</sup>	10 <sup>3</sup> mm <sup>3</sup>	mm	106mm4	10 <sup>3</sup> mm <sup>3</sup>	10 <sup>3</sup> mm <sup>3</sup>	mm	103mm4	10 <sup>9</sup> mm <sup>6</sup>	
610 UB 125	612	229	19.6	11.9	14.0	572	48.1	5.54	16000	986	3230	3680	249	39.3	343	536	49.6	1560	3450	610 UB 12
113	607	228	17.3	11.2	14.0	572	51.1	6.27	14500	875	2880	3290	246	34.3	300	469	48.7	1140	2980	11
101	602	228	14.8	10.6	14.0	572	54.0	7.34	13000	761	2530	2900	242	29.3	257	402	47.5	790	2530	10
530 UB 92.4	533	209	15.6	10.2	14.0	502	49.2	6.37	11800	554	2080	2370	217	23.8	228	355	44.9	775	1590	530 UB 92.
82.0	528	209	13.2	9.6	14.0	502	52.3	7.55	10500	477	1810	2070	213	20.1	193	301	43.8	526	1330	82.
460 UB 82.1	460	191	16.0	9.9	11.4	428	43.3	5.66	10500	372	1610	1840	188	18.6	195	303	42.2	701	919	460 UB 82
74.6	457	190	14.5	9.1	11.4	428	47.1	6.24	9520	335	1460	1660	188	16.6	175	271	41.8	530	815	74.
67.1	454	190	12.7	8.5	11.4	428	50.4	7.15	8580	296	1300	1480	186	14.5	153	238	41.2	378	708	67
410 UB 59.7	406	178	12.8	7.8	11.4	381	48.8	6.65	7640	216	1060	1200	168	12.1	135	209	39.7	337	467	410 UB 59.
53.7	403	178	10.9	7.6	11.4	381	50.1	7.82	6890	188	933	1060	165	10.3	115	179	38.6	234	394	53
360 UB 56.7	359	172	13.0	8.0	11.4	333	41.6	6.31	7240	161	899	1010	149	11.0	128	198	39.0	338	330	360 UB 56
50.7	356	171	11.5	7.3	11.4	333	45.6	7.12	6470	142	798	897	148	9.60	112	173	38.5	241	284	50.
44.7	352	171	9.7	6.9	11.4	333	48.2	8.46	5720	121	689	777	146	8.10	94.7	146	37.6	161	237	44
310 UB 46.2	307	166	11.8	6.7	11.4	284	42.3	6.75	5930	100	654	729	130	9.01	109	166	39.0	233	197	310 UB 46.
40.4	304	165	10.2	6.1	11.4	284	46.5	7.79	5210	86.4	569	633	129	7.65	92.7	142	38.3	157	165	40.
32.0	298	149	8.0	5.5	13.0	282	51.3	8.97	4080	63.2	424	475	124	4.42	59.3	91.8	32.9	86.5	92.9	32.
250 UB 37.3	256	146	10.9	6.4	8.9	234	36.6	6.40	4750	55.7	435	486	108	5.66	77.5	119	34.5	158	85.2	250 UB 37.
31.4	252	146	8.6	6.1	8.9	234	38.4	8.13	4010	44.5	354	397	105	4.47	61.2	94.2	33.4	89.3	65.9	31.
25.7	248	124	8.0	5.0	12.0	232	46.4	7.44	3270	35.4	285	319	104	2.55	41.1	63.6	27.9	67.4	36.7	25
200 UB 29.8	207	134	9.6	6.3	8.9	188	29.8	6.65	3820	29.1	281	316	87.3	3.86	57.5	88.4	31.8	105	37.6	200 UB 29
25.4	203	133	7.8	5.8	8.9	188	32.3	8.15	3230	23.6	232	260	85.4	3.06	46.1	70.9	30.8	62.7	29.2	25
22.3	202	133	7.0	5.0	8.9	188	37.5	9.14	2870	21.0	208	231	85.5	2.75	41.3	63.4	31.0	45.0	26.0	22
18.2	198	99	7.0	4.5	11.0	184	40.9	6.75	2320	15.8	160	180	82.6	1.14	23.0	35.7	22.1	38.6	10.4	18
180 UB 22.2	179	90	10.0	6.0	8.9	159	26.5	4.20	2820	15.3	171	195	73.6	1.22	27.1	42.3	20.8	81.6	8.71	180 UB 22
18.1	175	90	8.0	5.0	8.9	159	31.8	5.31	2300	12.1	139	157	72.6	0.975	21.7	33.7	20.6	44.8	6.80	18
16.1	173	90	7.0	4.5	8.9	159	35.3	6.11	2040	10.6	123	138	72.0	0.853	19.0	29.4	20.4	31.5	5.88	16
150 UB 18.0	155	75	9.5	6.0	8.0	136	22.7	3.63	2300	9.05	117	135	62.8	0.672	17.9	28.2	17.1	60.5	3.56	150 UB 18
14.0	150	75	7.0	5.0	8.0	136	27.2	5.00	1780	6.66	88.8	102	61.1	0.495	13.2	20.8	16.6	28.1	2.53	14

## **Universal Beams**

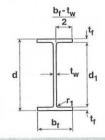
Table 14 Universal Beams - Properties for Assessing Section Capacity

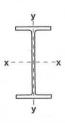
Designation	Yield S	Stress	Form Factor	About x	-axis	About	r-axis	Yield S	Stress	Form Factor	About x	axis	About y	-axis	Designation
	Flange	Web		Compactness		Compactness		Flange	Web		Compactness		Compactness		
	f <sub>v</sub>	f <sub>y</sub>	k <sub>r</sub>		$Z_{ex}$		$Z_{ey}$	f <sub>y</sub>	f <sub>y</sub>	$k_t$		$Z_{ex}$		$Z_{ey}$	
	MPa	MPa			10 <sup>3</sup> mm <sup>3</sup>		10³mm³	MPa	MPa			10³mm³		10 <sup>3</sup> mm <sup>3</sup>	,
			300PLU	IS® *							AS/NZS	3679.1-350			
610 UB 125	280	300	0.950	С	3680	С	515	340	340	0.916	C	3680	C	515	610 UB 12
113	280	300	0.926	С	3290	C	451	340	340	0.891	C	3290	С	451	1
101	300	320	0.888	С	2900	С	386	340	360	0.867	C	2900	_ C	386	10
530 UB 92.4	300	320	0.928	С	2370	С	342	340	360	0.907	С	2370	С	342	530 UB 92
82.0	300	320	0.902	С	2070	С	289	340	360	0880	C	2070	С	289	82.
460 UB 82.1	300	320	0.979	С	1840	С	292	340	360	0.956	С	1840	С	292	460 UB 82
74.6	300	320	0.948	С	1660	С	262	340	360	0.926	C	1660	C	262	74
67.1	300	320	0.922	С	1480	С	230	340	360	0.901	C	1480	C	230	6
410 UB 59.7	300	320	0.938	С	1200	С	203	340	360	0.918	С	1200	С	203	410 UB 59
53.7	320	320	0.913	С	1060	С	173	360	360	0.894	N	1050	N	172	53
360 UB 56.7	300	320	0.996	С	1010	С	193	340	360	0.974	С	1010	С	193	360 UB 56
50.7	300	320	0,963	С	897	С	168	340	360	0.943	C	897	С	168	50
44.7	320	320	0.930	N	770	N	140	360	360	0.911	N	762	N	139	44
310 UB 46.2	300	320	0.991	С	729	С	163	340	360	0.972	С	729	С	163	310 UB 46
40.4	320	320	0.952	С	633	С	139	360	360	0.936	N	629	N	138	40
32.0	320	320	0.915	N	467	N	86.9	360	360	0.898	N	462	N	85.7	32
250 UB 37.3	320	320	1.00	С	486	С	116	360	360	1.00	С	486	С	116	250 UB 37
31.4	320	320	1.00	N	395	N	91.4	360	360	0.991	N	392	N	90.3	3
25.7	320	320	0.949	С	319	С	61.7	360	360	0.932	С	319	C	61.7	25
200 UB 29.8	320	320	1.00	С	316	С	86.3	360	360	1.00	С	316	С	86.3	200 UB 29
25.4	320	320	1.00	N	259	N	68.8	360	360	1.00	N	257	N	68.0	25
22.3	320	320	1.00	N	227	N	60.3	360	360	1.00	N	225	N	59.4	22
18.2	320	320	0.990	С	180	С	34.4	360	360	0.970	С	180	С	34.4	1
180 UB 22.2	320	320	1.00	С	195	С	40.7	360	360	1.00	С	195	С	40.7	180 UB 2
18.1	320	320	1.00	С	157	С	32.5	360	360	1.00	С	157	C	32.5	1
16.1	320	320	1.00	С	138	С	28.4	360	360	1.00	С	138	С	28.4	1
150 UB 18.0	320	320	1.00	C	135	С	26.9	360	360	1.00	С	135	С	26.9	150 UB 1
14.0	320	320	1.00	C	102	C	19.8	360	360	1.00	С	102	С	19.8	14

 <sup>300</sup>PLUS® replaced Grade 250 as the base grade for these sections in 1994.
 300PLUS® hot rolled sections are produced to exceed the minimum requirements of AS/NZS 3679.1-300.

- 1. For 300PLUS® sections the tensile strength (f.) is 440 MPa.
  2. For Grade 350 sections the tensile strength (f.) is 480 MPa.
  3. C: Compact Section; N: Non-compact Section; S: Slender Section.







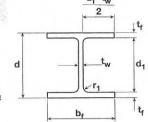


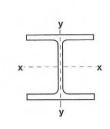












# **Universal Columns**

Table 15 Universal Columns - Dimensions and Properties

Designation	Depth of	Fl	ange	Web	Root	Depth			Gross		Abou	ıt x-axis			Abou	it y-axis		Torsion Constant	Warping Constant	Designation
	Section	Width	Thickness	Thickness	Radius	Between Flanges	d,	(b <sub>f</sub> -t <sub>w</sub> )	Area of Cross Section									oonstant	Odistant	
	d	$b_{f}$	t,	$t_w$	$\Gamma_{t}$	d <sub>1</sub>	$t_w$	2t <sub>f</sub>	$A_g$	l <sub>x</sub>	$Z_x$	$S_x$	r <sub>x</sub>	l <sub>y</sub> -	Z <sub>γ</sub>	$S_y$	r <sub>y</sub>	J	w	
kg/m	mm	mm	mm	mm	mm	mm			mm²	106mm4	10 <sup>3</sup> mm <sup>3</sup>	10 <sup>3</sup> mm <sup>3</sup>	mm	10 <sup>6</sup> mm <sup>4</sup>	10 <sup>3</sup> mm <sup>3</sup>	10 <sup>3</sup> mm <sup>3</sup>	mm	10³mm⁴	10 <sup>9</sup> mm <sup>6</sup>	
310 UC 158	327	311	25.0	15.7	16.5	277	17.7	5.91	20100	388	2370	2680	139	125	807	1230	78.9	3810	2860	310 UC 158
137	321	309	21.7	13.8	16.5	277	20.1	6.80	17500	329	2050	2300	137	107	691	1050	78.2	2520	2390	137
118	315	307	18.7	11.9	16.5	277	23.3	7.89	15000	277	1760	1960	136	90.2	588	893	77.5	1630	1980	118
96.8	308	305	15.4	9.9	16.5	277	28.0	9.58	12400	223	1450	1600	134	72.9	478	725	76.7	928	1560	96.8
250 UC 89.5	260	256	17.3	10.5	14.0	225	21.5	7.10	11400	143	1100	1230	112	48.4	378	575	65.2	1040	713	250 UC 89.
72.9	254	254	14.2	8.6	14.0	225	26.2	8.64	9320	114	897	992	111	38.8	306	463	64.5	586	557	72.9
200 UC 59.5	210	205	14.2	9.3	11.4	181	19.5	6.89	7620	61.3	584	656	89.7	20.4	199	303	51.7	477	195	200 UC 59.5
52.2	206	204	12.5	8.0	11.4	181	22.7	7.84	6660	52.8	512	570	89.1	17.7	174	264	51.5	325	166	52.
46.2	203	203	11.0	7.3	11.4	181	24.8	8.90	5900	45.9	451	500	88.2	15.3	151	230	51.0	228	142	46.
150 UC 37.2	162	154	11.5	8.1	8.9	139	17.1	6.34	4730	22.2	274	310	68.4	7.01	91.0	139	38.5	197	39.6	150 UC 37.
30.0	158	153	9.4	6.6	8.9	139	21.0	7.79	3860	17.6	223	250	67.5	5.62	73.4	112	38.1	109	30.8	30.
23.4	152	152	6.8	6.1	8.9	139	22.8	10.7	2980	12.6	166	184	65.1	3.98	52.4	80.2	36.6	50.2	21.1	23.
100 UC 14.8	97	99	7.0	5.0	10.0	83.0	16.6	6.71	1890	3.18	65.6	74.4	41.1	1.14	22.9	35.2	24.5	34.9	2.30	100 UC 14.

## **Universal Columns**

Table 16 Universal Columns - Properties for Assessing Section Capacity

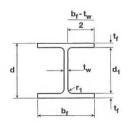
Designation	-axis	About	-axis	About x	Form Factor	tress	Yield St	r-axis	About	-axis	About x	Form Factor	tress	Yield S	Designation
		Compactness		Compactness		Web	Flange		Compactness		Compactness		Web	Flange	
	$Z_{ey}$		$Z_{ex}$		$k_t$	$f_{v}$	$f_y$	Z <sub>ey</sub>		$Z_{\rm ex}$		$k_{\rm f}$	f <sub>y</sub>	f <sub>y</sub>	
	10 <sup>3</sup> mm <sup>3</sup>		10 <sup>3</sup> mm <sup>3</sup>			MPa	MPa	10 <sup>3</sup> mm <sup>3</sup>		10 <sup>3</sup> mm <sup>3</sup>			MPa	MPa	
			3679.1-350	AS/NZS							S® *	300PLU			
310 UC 158	1210	C	2680	C	1.00	340	340	1210	С	2680	С	1.00	300	280	310 UC 158
137	1040	C	2300	C	1.00	340	340	1040	C	2300	C	1.00	300	280	137
118	878	N	1950	N	1.00	340	340	882	С	1960	С	1.00	300	280	118
96.8	684	N	1550	N	1.00	360	340	694	N	1560	N	1.00	320	300	96.8
250 UC 89.5	567	С	1230	С	1.00	360	340	567	С	1230	С	1.00	320	280	250 UC 89.5
72.9	448	N	977	N	1.00	360	340	454	N	986	N -	1.00	320	300	72.9
200 UC 59.5	299	С	656	С	1.00	360	340	299	С	656	С	1.00	320	300	200 UC 59.5
52.2	260	N	569	N	1.00	360	340	260	С	570	С	1.00	320	300	52.2
46.2	219	N	490	N	1.00	360	340	223	N	494	N	1.00	320	300	46.2
150 UC 37.2	137	С	310	С	1.00	360	340	137	С	310	С	1.00	320	300	150 UC 37.2
30.0	109	N	248	N	1.00	360	360	110	С	250	С	1.00	320	320	30.0
23.4	72.3	N	174	N	1.00	360	360	73.5	N	176	N	1.00	320	320	23.4
100 UC 14.8	34.4	С	74.4	С	1.00	360	360	34.4	С	74.4	С	1.00	320	320	100 UC 14.8

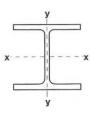
300PLUS® replaced Grade 250 as the base grade for these sections in 1994.
 300PLUS® hot rolled sections are produced to exceed the minimum requirements of AS/NZS 3679.1-300.

#### Notes

1. For 300PLUS® sections the tensile strength (f ) is 440 MPa.
2. For Grade 350 sections the tensile strength (f ) is 480 MPa.
3. C: Compact Section; N: Non-compact Section; S: Slender Section.

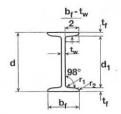


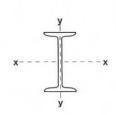












# **Tapered Flange Beams**

Table 17 Tapered Flange Beams - Dimensions and Properties

Designation	Mass per metre	Depth of Section	Fla	inge	Web Thickness	Rac	dii -	Depth Between			Gross Area of		Abou	t x-axis		-	About	y-axis		Torsion Constant	Warping Constant	Designation
			Width	Thickness		Root	Toe	Flanges	d,	(b <sub>f</sub> -t <sub>w</sub> )	Cross Section											
		d	$b_{f}$	t,	$t_w$	r	$r_2$	d <sub>1</sub>	t <sub>w</sub>	2t,	$A_{g}$	l <sub>x</sub>	$Z_{x}$	$S_x$	r <sub>x</sub>	l <sub>y</sub>	$Z_{y}$	$S_{y}$	$r_{y}$	J	I <sub>w</sub>	
	kg/m	mm	mm	mm	mm	mm	mm	mm			mm²	106mm4	10 <sup>3</sup> mm <sup>3</sup>	10 <sup>3</sup> mm <sup>3</sup>	mm	106mm4	10 <sup>3</sup> mm <sup>3</sup>	10 <sup>3</sup> mm <sup>3</sup>	mm	103mm4	10 <sup>9</sup> mm <sup>6</sup>	
125 TFB	13.1	125	65.0	8.5	5.0	8.0	4.0	108	21.6	3.53	1670	4.34	69.4	80.3	50.9	0.337	10.4	17.2	14.2	40.2	1.14	125 TFB
100 TFB	7.20	100	45.0	6.0	4.0	7.0	3.0	88	22.0	3.42	917	1.46	29.2	34.1	39.9	0.0795	3.53	6.00	9.31	11.6	0.176	100 TFB

Table 18 Tapered Flange Beams - Properties for Assessing Section Capacity

Designation	Yield S	tress	Form Factor	About x	r-axis	About y	-axis	Yield S	Stress	Form Factor	About	x-axis	About	/-axis	Designation
	Flange	Web		Compactness		Compactness		Flange	Web		Compactness		Compactness		
	f <sub>y</sub>	f <sub>y</sub>	k,		$Z_{ex}$		$Z_{e\gamma}$	f <sub>y</sub>	f <sub>y</sub>	$k_{\rm f}$		$Z_{\rm ex}$		$Z_{ey}$	
	MPa	MPa			10 <sup>3</sup> mm <sup>3</sup>		10 <sup>3</sup> mm <sup>3</sup>	MPa	MPa			10 <sup>3</sup> mm <sup>3</sup>		10 <sup>3</sup> mm <sup>3</sup>	
			300PLU	S* *							AS/NZS	3679.1-350			
125 TFB	320	320	1.00	С	80.3	С	15.6	360	360	1.00	C	80.3	С	15.6	125 TFB
100 TFB	320	320	1.00	С	34.1	С	5.30	360	360	1.00	C	34.1	С	5.30	100 TFB

<sup>\* 300</sup>PLUS® replaced Grade 250 as the base grade for these sections in 1997.
300PLUS® hot rolled sections are produced to exceed the minimum requirements of AS/NZS 3679.1-300.

1. For 300PLUS® sections the tensile strength (f<sub>v</sub>) is 430 MPa.
2. For Grade 350 sections the tensile strength (f<sub>v</sub>) is 480 MPa.
3. C: Compact Section; N: Non-compact Section; S: Slender Section.

# Parallel Flange Channels

Table 19 Parallel Flange Channels - Dimensions and Properties

Designation	Mass per	Depth of Section	FI	ange	Web Thickness	Root Radius	Depth Between			Gross Area of	Coordinate of	Coordinate of Shear		About	x-axis			A	bout y-ax	is		Torsion Constant	Warping Constant	Designation
	metre		Width	Thickness			Flanges	d <sub>1</sub>	(b,-tw)	Cross Section	Centroid	Centre												
		d	$b_{r}$	t,	t <sub>w</sub>	Γ,	d <sub>1</sub>	t <sub>w</sub>	t,	$A_g$	$X_L$	X <sub>o</sub>	l <sub>x</sub>	$Z_x$	$S_x$	r <sub>x</sub>	l <sub>y</sub>	$Z_{yR}$	$Z_{yL}$	$S_y$	r <sub>y</sub>	J	l <sub>w</sub>	
	kg/m	mm	mm	mm	mm	mm	mm			mm²	mm	mm	106mm4	$10^3 \text{mm}^3$	10 <sup>3</sup> mm <sup>3</sup>	mm	106mm4	10 <sup>3</sup> mm <sup>3</sup>	10 <sup>3</sup> mm <sup>3</sup>	10 <sup>3</sup> mm <sup>3</sup>	mm	10 <sup>3</sup> mm <sup>4</sup>	10 <sup>9</sup> mm <sup>6</sup>	
380 PFC	55.2	380	100	17.5	10.0	14.0	345	34.5	5.14	7030	27.5	56.7	152	798	946	147	6.48	89.4	236	161	30.4	472	151	380 PF0
300 PFC	40.1	300	90	16.0	8.0	14.0	268	33.5	5.13	5110	27.2	56.1	72.4	483	564	119	4.04	64.4	148	117	28.1	290	58.2	300 PF0
250 PFC	35.5	250	90	15.0	8.0	12.0	220	27.5	5.47	4520	28.6	58.5	45.1	361	421	99.9	3.64	59.3	127	107	28.4	238	35.9	250 PF0
230 PFC	25.1	230	75	12.0	6.5	12.0	206	31.7	5.71	3200	22.6	46.7	26.8	233	271	91.4	1.76	33.6	77.8	61.0	23.5	108	15.0	230 PF0
200 PFC	22.9	200	75	12.0	6.0	12.0	176	29.3	5.75	2920	24.4	50.5	19.1	191	221	80.9	1.65	32.7	67.8	58.9	23.8	101	10.6	200 PF0
180 PFC	20.9	180	75	11.0	6.0	12.0	158	26.3	6.27	2660	24.5	50.3	14.1	157	182	72.9	1.51	29.9	61.5	53.8	23.8	81.4	7.82	180 PF0
150 PFC	17.7	150	75	9.5	6.0	10.0	131	21.8	7.26	2250	24.9	51.0	8.34	111	129	60.8	1.29	25.7	51.6	46.0	23.9	54.9	4.59	150 PF(
125 PFC	11.9	125	65	7.5	4.7	8.0	110	23.4	8.04	1520	21.8	45.0	3.97	63.5	73.0	51.1	0.658	15.2	30.2	27.2	20.8	23.1	1.64	125 PF0
100 PFC	8.33	100	50	6.7	4.2	8.0	86.6	20.6	6.84	1060	16.7	33.9	1.74	34.7	40.3	40.4	0.267	8.01	16.0	14.4	15.9	13.2	0.424	100 PF

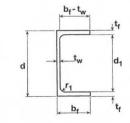
Table 20 Parallel Flange Channels - Properties for Assessing Section Capacity

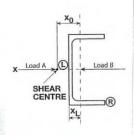
Designation	Yield S	Stress	Form Factor	About x-axis	About	y-axis	Yield S	Stress	Form Factor	About x-axis	About	y-axis	Designation
	Flange	Web			Load A	Load B	Flange	Web			Load A	Load B	
	f <sub>v</sub>	f <sub>v</sub>	k,	$Z_{ex}$	Z <sub>ev</sub>	$Z_{ey}$	f <sub>y</sub>	f <sub>y</sub>	k,	$Z_{ex}$	$Z_{ey}$	$Z_{ey}$	
	MPa	MPa		10 <sup>3</sup> mm <sup>3</sup>	10 <sup>3</sup> mm <sup>3</sup>	10 <sup>3</sup> mm <sup>3</sup>	MPa	MPa		10 <sup>3</sup> mm <sup>3</sup>	10 <sup>3</sup> mm <sup>3</sup>	10³mm³	
		, par 42	300PLUS® *							AS/NZS 3679.1-3	350		
380 PFC	280	320	1.00	946	115	134	340	360	1.00	946	104	134	380 PFC
300 PFC	300	320	1.00	564	82.3	96.6	340	360	1.00	564	77.2	96.6	300 PFC
250 PFC	300	320	1.00	421	88.7	89.0	340	360	1.00	421	84.9	89.0	250 PFC
230 PFC	300	320	1.00	271	45.1	50.4	340	360	1.00	271	42.6	50.4	230 PFC
200 PFC	300	320	1.00	221	46.7	49.1	340	360	1.00	221	44.5	49.1	200 PFC
180 PFC	300	320	1.00	182	44.9	44.8	340	360	1.00	182	44.1	44.8	180 PFC
150 PFC	320	320	1.00	129	38.5	38.5	360	360	1.00	129	38.5	38.5	150 PFC
125 PFC	320	320	1.00	72.8	22.8	22.8	360	360	1.00	72.0	22.5	22.8	125 PFC
100 PFC	320	320	1.00	40.3	12.0	12.0	360	360	1.00	40.3	12.0	12.0	100 PFC
75 PFC	320	320	1.00	21.4	6.84	6.84	360	360	1.00	21.4	6.84	6.84	75 PFC

<sup>\* 300</sup>PLUS® replaced Grade 250 as the base grade for these sections in 1994.
300PLUS® hot rolled sections are produced to exceed the minimum requirements of AS/NZS 3679.1-300.

- 1. For 300PLUS® sections the tensile strength (f<sub>u</sub>) is 440 MPa.
  2. For Grade 350 sections the tensile strength (f<sub>u</sub>) is 480 MPa.
  3. C: Compact Section; N: Non-compact Section; S: Slender Section. 3







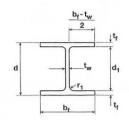


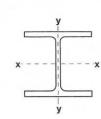












# Universal Bearing Piles (refer Note 4)

Table 21 Universal Rearing Piles - Dimensions and Properties

Designation	Depth of	Fla	ange	Web	Root Radius	Depth			Gross Area of		About	x-axis		1	About	y-axis		Torsion Constant	Warping Constant	Designation
	Section	Width	Thickness	Thickness	Kaulus	Between Flanges	d <sub>1</sub>	(b <sub>f</sub> -t <sub>w</sub> )	Cross Section									Constant	constant	
	d	$b_{f}$	t,	$t_w$	$r_i$	d,	$t_w$	2t <sub>f</sub>	$A_g$	$l_x$	$Z_{x}$	$S_x$	$r_{x}$	l <sub>y</sub>	$Z_{y}$	$S_{y}$	r <sub>y</sub>	J	l <sub>w</sub>	
kg/m	mm	mm	mm	mm	mm	mm			mm²	106mm⁴	10 <sup>3</sup> mm <sup>3</sup>	10 <sup>3</sup> mm <sup>3</sup>	mm	106mm4	10 <sup>3</sup> mm <sup>3</sup>	10 <sup>3</sup> mm <sup>3</sup>	mm	10 <sup>3</sup> mm <sup>4</sup>	10 <sup>9</sup> mm <sup>6</sup>	
310 UBP 149	318	316	20.6	20.5	16.5	277	13.5	7.14	19000	330	2080	2370	132	109	691	1070	75.8	2970	2410	310 UBP 149
110	308	311	15.4	15.3	16.5	277	18.1	9.57	14000	236	1530	1720	130	76.6	494	759	73.9	1240	1640	110
78.8	299	306	11.1	11.1	16.5	277	24.9	13.3	10100	165	1100	1220	128	53.1	347	530	72.5	484	1100	78.8
200 UBP 122	230	220	25.0	25.0	11.4	180	7.20	3.90	15600	129	1120	1340	91.0	44.6	406	635	53.5	3540	469	200 UBP 122

Table 22 Universal Bearing Piles - Properties for Assessing Section Capacity

Designation	Yield Stress		Form Factor	About x-axis		About y-axis		Yield Stress		Form Factor	About x-axis		About y-axis		Designation
	Flange f <sub>y</sub>	Web f <sub>y</sub>	k,	Compactness	Z <sub>ex</sub>	Compactness	Z <sub>ey</sub>	Flange f <sub>y</sub>	Web f <sub>y</sub>	k,	Compactness	$Z_{ex}$	Compactness	Z <sub>ey</sub>	
	MPa	MPa			10 <sup>3</sup> mm <sup>3</sup>		10 <sup>3</sup> mm <sup>3</sup>	MPa	MPa			10 <sup>3</sup> mm <sup>3</sup>		10 <sup>3</sup> mm <sup>3</sup>	
	300PLUS <sup>®</sup> *							AS/NZS 3679.1-350							
310 UBP 149	280	280	1.00	C	2370	C	1040	340	340	1.00	C	2370	C	1040	310 UBP 149
110	300	300	1.00	N	1680	N	718	340	340	1.00	N	1660	N	708	110
78.8	300	300	1.00	N	1130	N	460	340	340	1.00	N	1110	N	450	78.8
200 UBP 122	280	280	1.00	С	1340	С	609	340	340	1.00	С	1340	C	609	200 UBP 122

<sup>\* 300</sup>PLUS® hot rolled sections are produced to exceed the minimum requirements of AS/NZS 3679.1-300.

#### Notes

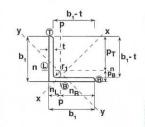
- 1. For 300PLUS® sections the tensile strength (f<sub>w</sub>) is 440 MPa.
  2. For Grade 350 sections the tensile strength (f<sub>w</sub>) is 480 MPa.
  3. C: Compact Section; N: Non-compact Section; S: Slender Section.
  4. These sections are generally not stocked and are available for project orders only subject to enquiry from your nearest OneSteel Sales Office.

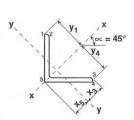
Table 23 Equal Angles - x-axis and y-axis - Dimensions and Properties

\_\_,\_\_\_

Designation Nominal			Ra	adii		Gross	Coordin	ate of Centroid		1	About x-ax	is					About y	-axis			Torsion	Designation
Thickness Leg-size	metre	Thickness	Root	Toe	(b <sub>1</sub> -t)	Area of Cross Section	n <sub>L</sub> =	n <sub>R</sub> =		y <sub>1</sub> =	Z <sub>xl</sub> =										Constant	
b <sub>1</sub> x b <sub>1</sub>		t	r,	r <sub>z</sub>	t	A <sub>g</sub>	$p_{g}$	p <sub>T</sub>	I <sub>x</sub>	у4	$Z_{x4}$	S <sub>x</sub>	r <sub>x</sub>	l <sub>y</sub>	$X_3$	$Z_{y3}$	$X_5$	$Z_{y5}$	S <sub>y</sub>	Γ <sub>y</sub>	J	
mm mm mm	kg/m	mm	mm	mm		mm²	mm	mm	106mm4	mm	10 <sup>3</sup> mm <sup>3</sup>	10 <sup>3</sup> mm <sup>3</sup>	mm	106mm4	mm	10 <sup>3</sup> mm <sup>3</sup>	mm	10 <sup>3</sup> mm <sup>3</sup>	10 <sup>3</sup> mm <sup>3</sup>	mm	10³mm⁴	
200 x 200 x 26 EA	76.8	26.0	18.0	5.0	6.69	9780	59.3	141	56.8	141	402	643	76.2	14.9	73.9	202	83.8	178	329	39.0	2250	200 x 200 x 26 E
20 EA	60.1	20.0	18.0	5.0	9.00	7660	57.0	143	45.7	141	323	511	77.2	11.8	72.9	162	80.6	147	260	39.3	1060	20 E
18 EA	54.4	18.0	18.0	5.0	10.1	6930	56.2	144	41.7	141	295	464	77.6	10.8	72.6	149	79.5	136	236	39.4	778	18 E
16 EA	48.7	16.0	18.0	5.0	11.5	6200	55.4	145	37.6	141	266	417	77.9	9.72	72.3	135	78.4	124	212	39.6	554	16 E
13 EA	40.0	13.0	18.0	5.0	14.4	5090	54.2	146	31.2	141	221	344	78.3	8.08	71.9	112	76.6	105	176	39.8	304	13 E
150 x 150 x 19 EA	42.1	19.0	13.0	5.0	6.89	5360	44.2	106	17.6	106	166	265	57.2	4.60	54.9	83.8	62.6	73.5	135	29.3	657	150 x 150 x 19 E
16 EA 12 EA	35.4	15.8	13.0	5.0	8.49	4520	43.0	107	15.1	106	142	225	57.8	3.91	54.3	71.9	60.8	64.2	115	29.4	386	16 E
10 EA	27.3 21.9	12.0 9.5	13.0 13.0	5.0 5.0	11.5 14.8	3480 2790	41.5 40.5	108 109	11.9 - 9.61	106 106	112	175	58.4 58.7	3.06	53.7	56.9	58.7	52.1	89.3	29.6	174	12 E
125 x 125 x 16 EA	29.1	15.8	10.0	5.0	6.91	3710	36.8	88.2	8.43	88.4	90.6 95.4	141	47.7	2.48	53.4 45.4	46.4 48.5	57.3 52.1	43.3	72.0 77.8	29.8 24.4	88.9 313	10 E 125 x 125 x 16 E
12 EA	22.5	12.0	10.0	5.0	9.42	2870	35.4	89.6	6.69	88.4	75.7	120	48.3	1.73	44.7	38.6	50.1	34.5	60.8	24.4	141	125 X 125 X 16 E
10 EA	18.0	9.5	10.0	5.0	12.2	2300	34.4	90.6	5.44	88.4	61.6	96.5	48.7	1.40	44.4	31.5	48.7	28.8	49.0	24.5	71.9	10 E
8 EA	14.9	7.8	10.0	5.0	15.0	1900	33.7	91.3	4.55	88.4	51.5	80.2	48.9	1.17	44.2	26.5	47.7	24.5	40.8	24.8	40.6	8 E
100 x 100 x 12 EA	17.7	12.0	8.0	5.0	7.33	2260	29.2	70.8	3.29	70.7	46.6	74.5	38.2	0.857	35.8	23.9	41.3	20.8	37.9	19.5	110	100 x 100 x 12 E
10 EA	14.2	9.5	8.0	5.0	9.53	1810	28.2	71.8	2.70	70.7	38.2	60.4	38.6	0.695	35.4	19.6	39.9	17.4	30.7	19.6	56.2	10 E
8 EA	11.8	7.8	8.0	5.0	11.8	1500	27.5	72.5	2.27	70.7	32.0	50.3	38.8	0.582	35.2	16.5	38.9	14.9	25.6	19.7	31.7	8 E
6 EA	9.16	6.0	8.0	5.0	15.7	1170	26.8	73.2	1.78	70.7	25.2	39.3	39.1	0.458	35.0	13.1	37.9	12.1	20.0	19.8	14.8	6 E
90 x 90 x 10 EA	12.7	9.5	8.0	5.0	8.47	1620	25.7	64.3	1.93	63.6	30.4	48.3	34.5	0.500	31.9	15.7	36.4	13.8	24.6	17.6	50.5	90 x 90 x 10 E
8 EA	10.6	7.8	8.0	5.0	10.5	1350	25.0	65.0	1.63	63.6	25.6	40.4	34.8	0.419	31.7	13.2	35.4	11.8	20.5	17.6	28.6	8 E
6 EA	8.22	6.0	8.0	5.0	14.0	1050	24.3	65.7	1.28	63.6	20.1	31.6	35.0	0.330	31.5	10.5	34.3	9.62	16.1	17.8	13.4	6 E
75 x 75 x 10 EA	10.5	9.5	8.0	5.0	6.89	1340	22.0	53.0	1.08	53.0	20.4	32.8	28.4	0.282	26.6	10.6	31.1	9.09	16.8	14.5	41.9	75 x 75 x 10 E
8 EA	8.73	7.8	8.0	5.0	8.62	1110	21.3	53.7	0.913	53.0	17.2	27.5	28.7	0.237	26.4	8.99	30.1	7.87	14.0	14.6	23.8	8 E
6 EA	6.81	6.0	8.0	5.0	11.5	867	20.5	54.5	0.722	53.0	13.6	21.6	28.9	0.187	26.2	7.15	29.0	6.44	11.0	14.7	11.2	6 E
5 EA	5.27	4.6	8.0	5.0	15.3	672	19.9	55.1	0.563	53.0	10.6	16.7	29.0	0.147	26.1	5.62	28.1	5.22	8.61	14.8	5.28	5 E
65 x 65 x 10 EA	9.02	9.5	6.0	3.0	5.84	1150	19.6	45.4	0.691	46.0	15.0	24.3	24.5	0.183	23.7	7.71	27.7	6.60	12.5	12.6	35.1	65 x 65 x 10 E
8 EA	7.51	7.8	6.0	3.0	7.33	957	19.0	46.0	0.589	46.0	12.8	20.5	24.8	0.154	23.4	6.56	26.8	5.73	10.5	12.7	20.0	8 E
6 EA	5.87	6.0	6.0	3.0	9.83	748	18.3	46.7	0.471	46.0	10.2	16.2	25.1	0.122	23.1	5.26	25.8	4.71	8.25	12.8	9.37	6 E
5 EA	4.56	4.6	6.0	3.0	13.1	581	17.7	47.3	0.371	46.0	8.08	12.7	25.3	0.0959	23.0	4.18	25.0	3.83	6.46	12.9	4.36	5 E
55 x 55 x 6 EA	4.93	6.0	6.0	3.0	8.17	628	15.8	39.2	0.278	38.9	7.14	11.4	21.0	0.0723	19.6	3.69	22.3	3.24	5.82	10.7	7.93	55 x 55 x 6 E
5 EA	3.84	4.6	6.0	3.0	11.0	489	15.2	39.8	0.220	38.9	5.66	8.93	21.2	0.0571	19.4	2.94	21.5	2.66	4.57	10.8	3.71	5 E
50 x 50 x 8 EA	5.68	7.8	6.0	3.0	5.41	723	15.2	34.8	0.253	35.4	7.16	11.7	18.7	0.0675	18.1	3.73	21.5	3.14	6.00	9.66	15.2	50 x 50 x 8 E
6 EA 5 EA	4.46 3.48	6.0	6.0	3.0	7.33	568	14.5	35.5	0.205	35.4	5.79	9.30	19.0	0.0536	17.8	3.01	20.5	2.61	4.76	9.71	7.21	6 E
3 EA	2.31	4.6 3.0	6.0 6.0	3.0 3.0	9.87	443	13.9	36.1	0.163	35.4	4.61	7.32	19.2	0.0424	17.6	2.40	19.7	2.15	3.75	9.78	3.38	5 E
45 x 45 x 6 EA	3.97	6.0	5.0	3.0	15.7 6.50	295 506	13.2	36.8 31.7	0.110	35.4 31.8	3.11 4.59	4.90 7.41	19.3 17.0	0.0289	17.6	1.65 2.39	18.7	1.55 2.04	2.53 3.79	9.90	1.01	3 E
5 EA	3.10	4.6	5.0	3.0	8.78	394	12.7	32.3	0.140	31.8	3.66	5.84	17.0	0.0303	15.8	1.91	18.0	1.68	2.99	8.71 8.76	6.32 2.96	45 x 45 x 6 E 5 E
3 EA	2.06	3.0	5.0	3.0	14.0	263	12.0	33.0	0.0790	31.8	2.48	3.92	17.3	0.0303	15.7	1.31	17.0	1.21	2.02	8.85	0.875	3 E
40 x 40 x 6 EA	3.50	6.0	5.0	3.0	5.67	446	12.0	28.0	0.0997	28.3	3.53	5.75	15.0	0.0265	14.3	1.86	17.0	1.55	2.95	7.71	5.60	40 x 40 x 6 E
5 EA	2.73	4.6	5.0	3.0	7.70	348	11.5	28.5	0.0801	28.3	2.83	4.55	15.2	0.0209	14.0	1.49	16.2	1.29	2.33	7.75	2.63	5 E
3 EA	1.83	3.0	5.0	3.0	12.3	233	10.8	29.2	0.0545	28.3	1.93	3.06	15.3	0.0142	13.9	1.02	15.3	0.930	1.58	7.82	0.785	3 E
30 x 30 x 6 EA	2.56	6.0	5.0	3.0	4.00	326	9.53	20.5	0.0387	21.2	1.83	3.06	10.9	0.0107	10.7	0.993	13.5	0.790	1.59	5.72	4.16	30 x 30 x 6 E
5 EA	2.01	4.6	5.0	3.0	5.52	256	8.99	21.0	0.0316	21.2	1.49	2.45	11.1	0.00839	10.5	0.799	12.7	0.660	1.26	5.72	1.98	5 E
3 EA	1.35	3.0	5.0	3.0	9.00	173	8.30	21.7	0.0218	21.2	1.03	1.67	11.2	0.00573	10.3	0.554	11.7	0.488	0.862	5.76	0.605	3 E
25 x 25 x 6 EA	2.08	6.0	5.0	3.0	3.17	266	8.28	16.7	0.0210	17.7	1.19	2.03	8.89	0.00600	8.97	0.669	11.7	0.513	1.07	4.75	3.44	25 x 25 x 6 E
5 EA	1.65	4.6	5.0	3.0	4.43	210	7.75	17.3	0.0173	17.7	0.980	1.65	9.07	0.00469	8.73	0.537	11.0	0.428	0.849	4.72	1.66	5 E
3 EA	1.12	3.0	5.0	3.0	7.33	143	7.07	17.9	0.0121	17.7	0.685	1.13	9.22	0.00319	8.56	0.373	9.99	0.319	0.583	4.73	0.515	3 E







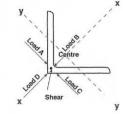












### **Equal Angles**

Designation	Yield Stress	Form Factor	About x-axis	About	y-axis	Yield Stress	Form Factor	About x-axis	About	y-axis	Designation
7-3-03 - 5-4 - 5-5 - 7-3 - 1-0			Load A or C	Load B	Load D			Load A or C	Load B	Load D	
	f <sub>v</sub>	$k_t$	Z <sub>ex</sub>	$Z_{ey}$	$Z_{ey}$	f <sub>y</sub>	k,	Z <sub>ex</sub>	$Z_{ey}$	Z <sub>ey</sub>	
mm mm mm	MPa		10 <sup>3</sup> mm <sup>3</sup>	10 <sup>3</sup> mm <sup>3</sup>	10 <sup>3</sup> mm <sup>3</sup>	MPa		10 <sup>3</sup> mm <sup>3</sup>	10 <sup>3</sup> mm <sup>3</sup>	10 <sup>3</sup> mm <sup>3</sup>	
		PLUS® *							AS/NZS 3679.1-3	350	
200 x 200 x 26 EA	280	1.00	602	267 218	267	340	1.00	602	267	267	200 x 200 x 26 l
20 FA	280	1.00	479	218	220	340	1.00 1.00	469	214	220	201
20 EA 18 EA	280	1.00	427	196	204	340	1.00	417	192	204	18 1
16 EA	300	1.00	369	172	186	340	1.00	362	169 132	186	16
13 EA	300	1.00	285	136	158	340	0.956	278	132	158	13
150 x 150 x 19 EA	280	1.00	248	110	110	340	1.00	248	110	110	150 x 150 x 19 l
16 EA	300	1.00	212	95.7	96.3	340	1.00	209	94.5	96.3	16 1
12 EA	300	1.00	155	72.3	78.1	340	1.00	152	70.9	78.1	12 1
10 EA	320	0.958	114	54.5	649	360	0.906	111	53.1	64.9	10
125 x 125 x 16 EA	300	1.00	143	63.4	63.4	340	1.00	143	63.4	63.4	125 x 125 x 16
12 EA	300	1.00	110	50.3	51.7	340	1.00	109	49.6	51.7	12
10 EA	320	1.00	83.2	38.9	43.1	360	1.00	81.6	38.1	43.1	10
8 EA	320	0.943	64.3	30.7	36.8	360	0.892	62.7	29.9	36.8	8
100 x 100 x 12 EA	300	1.00	69.9	31.1	31.1	340	1.00	69.9	31.1	36.8 31.1	100 x 100 x 12
10 EA	320	1.00	55.1	25.2	26.1	360	1.00	54.4	24.8	26.1	10
8 EA	320	1.00	43.7	20.4	22.4	360	1.00	42.9	20.0	22.4	8
6 EA	320	0.906	30.9	14.8	18.1	360	0.856	30.0	14.4	22.4 18.1	6
90 x 90 x 10 EA	320	1.00	45.0	20.4	20.6	360	1.00	44.5	20.1	20.6	90 x 90 x 10
8 EA	320	1.00	36.0	16.7	17.8	360	1.00	35.4		17.8	8
6 EA	320	1.00	25.9	12.4	14.4	360	0.954	25.3	16.4 12.1	17.8 14.4	6
75 x 75 x 10 EA	320	1.00	30.5	13.6	13.6	360	1.00	30.5	13.6	13.6	75 x 75 x 10
, 8 EA	320	1.00	25.4	11.6	11.8	360	1.00	25.1	11.5	11.8	8
6 EA	320	1.00	18.7	8.85	9.66	360	1.00	18.4	8.70	9.66	6
5 EA	320	0.927	13.2	6.47	7.82	360	0.876	12.8	6.30	7.82	5
65 x 65 x 10 EA	320	1.00	22.5	9.90	9.90	360	1.00	12.8 22.5	9.90	9.90	65 x 65 x 10
8 EA	320	1.00	19.2	8.59	8.59	360	1.00	19.2	8.59	8.59	8
6 EA	320	1.00	14.7	6.76	7.07	360	1.00	14.5	6.66	7.07	6
5 EA	320	1.00	10.6	5.05	5.75	360	1.00	10.4	4.94	5,75	5
55 x 55 x 6 EA	320	1.00	10.7	5.05 4.84	4.86	360 360	1.00	10.5	4.78	4.86	55 x 55 x 6
5 EA	320	1.00	7.88	3.70	3.98	360	1.00	7.75	3.64	3.98	5
50 x 50 x 8 EA	320	1.00	10.7	4.71	4.71	360 360	1.00	7.75 10.7	4.71	4.71	50 x 50 x 8
6 EA	320	1.00	8.69	3.92	3.92	360	1.00	8.69	3.92	3.92	6
5 EA	320	1.00	6.60	3.08	3.22	360	1.00	6.50	3.03	3.22	5
3 EA	320	0.907	3.82	1.90	2.32	360	0.858	3.71	1.85	2.32	3
45 x 45 x 6 EA	320	1.00	6.88	3.06	3.06	360 360	1.00	6.88	3.06	3.06	45 x 45 x 6
5 EA	320	1.00	5.39	2 47	2.52	360	1.00	5.32	2.44	2.52	5
3 EA	320	1.00	3.19	1.55	1.81	360	0.954	3.12	2.44 1.52	2.52 1.81	3
40 x 40 x 6 EA	320	1.00	5.29	1.55 2.33	1.81 2.33	360 360	1.00	3.12 5.29	2.33	2.33	40 x 40 x 6
5 EA	320	1.00	4.25	1.93	1.93	360	1.00	4.22	1.92	1.93	5
3 EA	320	1.00	2.59	1.25	1.40	360	1.00	2.54	1.23	1.40	3
30 x 30 x 6 EA	320	1.00	2.74	1.19	1.19	360 360	1.00	2.54 2.74	1.19	1.19	30 x 30 x 6
5 EA	320	1.00	2.23	0.990	0.990	360	1.00	2.23	0.990	0.990	5
3 EA	320	1.00	2.23 1.50	0.714	0.732	360	1.00	1.48	0.705	0.732	3
25 x 25 x 6 EA	320	1.00	1.78	0.769	0.769	360 360	1.00	1.78	0.769	0.769	25 x 25 x 6
25 X 25 X 6 EA 5 EA	320	1.00	1.47 1.03	0.642	0.642	360	1.00	1.47	0.642	0.642	5
3 EA	320	1.00	1.71	0.479	0.479	360	1.00	1.03	0.479	0.479	3

<sup>\* 300</sup>PLUS® replaced Grade 250 as the base grade for 125 x 125 x 8 equal angles and larger in 1994.
300PLUS® replaced Grade 250 as the base grade for 100 x 100 x 12 equal angles and smaller in 1997.
300PLUS® hot rolled sections are produced to exceed the minimum requirements of AS/NZS 3679.1-300.

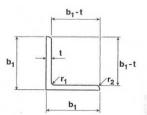


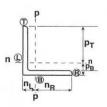
### **Equal Angles**

Table 25 Equal Angles - n-axis and p-axis - Properties

Designation	-			About n-axis and p-ax	is			Product of 2nd Moment of Area	Designation
	$  \mathbf{l}_{\mathbf{n}} =   \mathbf{l}_{\mathbf{p}}$	$n_L = p_B$	$Z_{nB} = Z_{pL}$	$n_R = p_T$	$Z_{nT} = Z_{pR}$	$S_n = S_p$	r <sub>n</sub> =r <sub>p</sub>	1,00	
mm mm mm	10 <sup>6</sup> mm <sup>4</sup>	mm	10 <sup>3</sup> mm <sup>3</sup>	mm	10 <sup>3</sup> mm <sup>3</sup>	10³mm³	mm	106mm⁴	
200 x 200 x 26 EA	35.8	59.3	605	141	255	460	60.5	-20.9	200 x 200 x 26 EA
20 EA	28.8	57.0	505	143	201	363	61.3	-16.9	200 X 200 X 26 EA
18 EA	26.3	56.2	467	144	183	330	61.5	-15.5	18 EA
16 EA	23.7	55.4	427	145	164	296	61.8	-14.0	16 EA
13 EA	19.7	54.2	363	146	135	243	62.2	-11.6	13 EA
150 x 150 x 19 EA	11.1	44.2	250	106	105	189	45.4	-6.48	150 x 150 x 19 EA
16 EA	9.48	43.0	220	107	88.7	160	45.8	-5.58	16 EA
12 EA	7.46	41.5	180	108	68.8	124	46.3	-4.40	12 EA
10 EA	6.04	40.5	149	109	55.2	99.9	46.6	-3.56	10 EA
125 x 125 x 16 EA	5.32	36.8	144	88.2	60.3	109	37.9	-3.11	125 x 125 x 16 EA
12 EA	4.21	35.4	119	89.6	47.0	85.0	38.3	-2.48	12 EA
10 EA	3.42	34.4	99.4	90.6	37.8	68.4	38.6	-2.02	10 EA
8 EA	2.86	33.7	84.9	91.3	31.3	56.8	38.8	-1.69	8 EA
100 x 100 x 12 EA	2.08	29.2	71.1	70.8	29.3	53.2	30.3	-1.22	100 x 100 x 12 EA
10 EA	1.70	28.2	60.1	71.8	23.6	42.9	30.6	-1.00	10 EA
8 EA	1.42	27.5	51.7	72.5	19.6	35.7	30.8	-0.842	8 EA
6 EA	1.12	26.8	41.8	73.2	15.3	27.8	31.0	-0.661	6 EA
90 x 90 x 10 EA	1.22	25.7	47.3	64.3	18.9	34.4	27.4	-0.716	90 x 90 x 10 EA
8 EA	1.02	25.0	40.9	65.0	15.7	28.7	27.6	-0.604	8 EA
6 EA	0.805	24.3	33.2	65.7	12.3	22.4	27.7	-0.475	6 EA
75 x 75 x 10 EA	0.681	22.0	31.0	53.0	12.8	23.4	22.6	-0.399	75 x 75 x 10 EA
8 EA	0.575	21.3	27.0	53.7	10.7	19.6	22.7	-0.338	8 EA
6 EA	0.455	20.5	22.1	54.5	8.35	15.3	22.9	-0.268	6 EA
5 EA	0.355	19.9	17.9	55.1	6.44	11.8	23.0	-0.208 -0.254	5 EA
65 x 65 x 10 EA	0.437	19.6	22.3	45.4	9.62	17.4	19.5	-0.254	65 x 65 x 10 EA
8 EA	0.371	19.0	19.6	46.0	8.07	14.6	19.7	-0.218	8 EA
6 EA	0.296	18.3	16.2	46.7	6.34	11.5	19.9	-0.175	6 EA
5 EA	0.234	17.7	13.2	47.3	4.94	8.97	20.1	-0.138	5 EA
55 x 55 x 6 EA	0.175	15.8	11.1	39.2	4.46	8.11	16.7	-0.103	55 x 55 x 6 EA
5 EA	0,139	15.2	9.12	39.8	3.48	6.34	16.8	-0.0814	5 EA
50 x 50 x 8 EA	0.160	15.2	10.5	34.8	4.61	8.38	14.9	-0.0928	50 x 50 x 8 EA
6 EA 5 EA	0.129	14.5	8.90	35.5	3.64	6.63	15.1	-0.0756	6 EA
3 EA	0.103	13.9	7.36	36.1	2.85	5.19	15.2	-0.0602	5 EA
45 x 45 x 6 EA	0.0694 0.0922	13.2	5.25	36.8	1.89	3.46	15.3	-0.0405	3 EA
45 X 45 X 6 EA 5 EA		13.3	6.93	31.7	2.91	5.30	13.5	-0.0538	45 x 45 x 6 EA
3 EA	0.0734 0.0498	12.7	5.76	32.3	2.28	4.16	13.6	-0.0432	5 EA
40 x 40 x 6 EA	0.0498	12.0	4.14	33.0	1.51	2.77	13.8	-0.0292	3 EA
40 X 40 X 6 EA 5 EA	0.0505	12.0	5.24	28.0	2.26	4.12	11.9	-0.0366	40 x 40 x 6 EA
3 EA	0.0344	11.5 10.8	4.39	28.5	1.77	3.24	12.0	-0.0296	5 EA
30 x 30 x 6 EA	0.0344		3.19	29.2	1.18	2.17	12.2	-0.0201	3 EA
5 EA	0.0247	9.53	2.59	20.5	1.21	2.22	8.71	-0.0140	30 x 30 x 6 EA
3 EA	0.0200	8.99	2.22	21.0	0.951	1.76	8.83	-0.0116	5 EA
25 x 25 x 6 EA	0.0138	8.30	1.66	21.7	0.635	1.18	8.93	-0.00804	3 EA
25 X 25 X 6 EA 5 EA	0.0135	8.28	1.63	16.7	0.807	1.49	7.13	-0.00750	25 x 25 x 6 EA
3 EA		7.75 7.07	1.42 1.08	17.3	0.638	1.19	7.23	-0.00632	5 EA
J LA	0.00765	1.01	1.Uŏ	17.9	0.426	0.802	7.33	-0.00446	3 EA









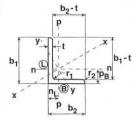


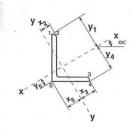






22.8 0.0587 14.8 3.97 23.9 2.46 20.6 2.85





### **Unequal Angles**

signation Nominal Thickness		Actual Thicknes	Rad	dii —			Gross Area of			-			A	bout x-axi	S			-	-			A	bout y-axi	S			_	Torsion Constant		Designation
_eg-size	metre			Toe	(b <sub>1</sub> -t)		Cross Section																							
b <sub>1</sub> x b <sub>2</sub>		t	$r_{i}$	$r_{2}$	t	t	$A_{g}$	p <sub>B</sub>	n <sub>L</sub>	$l_x$	y <sub>1</sub>	$Z_{x1}$	Y <sub>4</sub>	$Z_{x4}$	Y <sub>5</sub>	$Z_{x5}$	$S_x$	r <sub>x</sub>	l <sub>y</sub>	X <sub>2</sub>	Z <sub>y2</sub>	X <sub>3</sub>	$Z_{y3}$	X <sub>5</sub>	$Z_{y5}$	S <sub>y</sub>	ry	J		
mm mm mm	kg/m	mm	mm	mm			mm²	mm	mm 10	06mm⁴	mm	10 <sup>3</sup> mm <sup>3</sup>	mm	10 <sup>3</sup> mm <sup>3</sup>	mm	10 <sup>3</sup> mm <sup>3</sup>	103mm <sup>3</sup>	mm	106mm4	mm	10 <sup>3</sup> mm <sup>3</sup>	mm	10 <sup>3</sup> mm <sup>3</sup>	mm	10 <sup>3</sup> mm <sup>3</sup>	10 <sup>3</sup> mm <sup>3</sup>	mm	10 <sup>3</sup> mm <sup>4</sup>	1	
150 x 100 x 12 UA	22.5	12.0	10.0	5.0	11.5	7.33	2870	49.1	24.3	7.51	102	73.5	75.3	99.7	35.2	213	127	51.2	1.35	27.6	48.8	52.9	25.5	42.0	32.1	51.7	21.7	141	0.438	150 x 100 x 12 L
10 UA	18.0	9.5	10.0	5.0	14.8	9.53	2300	48.1	23.3	6.11	103	59.5	74.9	81.5	34.6	177	102	51.6	1.09	26.9	40.7	53.0	20.6	40.7	26.9	41.8	21.8	71.9	0.441	10 L
150 x 90 x 16 UA	27.9	15.8	10.0	5.0	8.49	4.70	3550	52.5	22.7	8.80	99.5	88.4	71.9	122	41.9	210	154	49.8	1.32	24.6	53.8	49.9	26.5	38.9	34.0	55.9	19.3	300	0.353	150 x 90 x 16 L
12 UA	21.6	12.0	10.0	5.0	11.5	6.50	2750	51.0	21.2	6.97	100	69.4	71.3	97.8	40.8	171	120	50.4	1.04	23.4	44.5	50.1	20.8	37.2	28.0	43.8	19.5	136	0.360	12 L
10 UA	17.3	9.5	10.0	5.0	14.8	8.47	2200	50.0	20.2	5.66	101	56.1	70.7	80.1	40.1	141	96.6	50.7	0.847	22.6	37.4	50.4	16.8	36.1	23.5	35.4	19.6	69.0	0.363	10 U
8 UA	14.3	7.8	10.0	5.0	18.2	10.5	1820	49.2	19.6	4.73	101	46.7	70.3	67.3	39.5	120	80.1	51.0	0.710	22.1	32.2	50.6	14.0	35.2	20.2	29.5	19.7	39.0	0.364	81
125 x 75 x 12 UA	17.7	12.0	8.0	5.0	9.42	5.25	2260	43.3	18.4	3.91	83.2	47.0	59.7	65.5	34.6	113	81.4	41.6	0.585	19.9	29.3	41.4	14.1	31.9	18.4	29.7	16.1	110	0.356	125 x 75 x 12 l
10 UA	14.2	9.5	8.0	5.0	12.2	6.89	1810	42.3	17.5	3.20	83.8	38.2	59.3	53.9	33.9	94.4	65.8	42.0	0.476	19.2	24.9	41.6	11.4	30.7	15.5	24.1	16.2	56.2	0.360	10 L
AU 8	11.8	7.8	8.0	5.0	15.0	8.62	1500	41.5	16.8	2.68	84.2	31.8	58.9	45.5	33.3	80.4	54.6	42.2	0.399	18.6	21.5	41.8	9.55	29.9	13.3	20.1	16.3	31.7	0.363	8 L
6 UA	9.16	6.0	8.0	5.0	19.8	11.5	1170	40.7	16.0	2.10	84.7	24.8	58.5	36.0	32.8	64.1	42.4	42.5	0.315	18.0	17.5	42.1	7.47	29.0	10.8	15.7	16.4	14.8	0.364	6 L
100 x 75 x 10 UA	12.4	9.5	8.0	5.0	9.53	6.89	1580	31.8	19.4	1.89	69.2	27.3	54.5	34.6	18.6	101	46.5	34.6	0.401	22.3	18.0	36.4	11.0	32.2	12.5	21.2	16.0	49.1	0.546	100 x 75 x 10 L
8 UA	10.3	7.8	8.0	5.0	11.8	8.62	1310	31.1	18.7	1.59	69.4	22.9	54.3	29.2	18.2	87.0	38.7	34.8	0.337	21.8	15.4	36.4	9.26	31.3	10.7	17.8	16.0	27.8	0.549	81
6 UA	7.98	6.0	8.0	5.0	15.7	11.5	1020	30.3	17.9	1.25	69.7	17.9	54.0	23.1	17.9	70.0	30.1	35.1	0.265	21.4	12.4	36.5	7.27	30.3	8.75	13.9	16.2	13.0	0.551	61
75 x 50 x 8 UA	7.23	7.8	7.0	3.0	8.62	5.41	921	25.2	12.8	0.586	50.8	11.5	37.8	15.5	18.0	32.5	20.0	25.2	0.106	14.2	7.46	26.4	4.01	21.7	4.88	8.19	10.7	19.5	0.430	75 x 50 x 8 L
6 UA	5.66	6.0	7.0	3.0	11.5	7.33	721	24.4		0.468	51.2	9.15	37.5	12.5	17.6	26.7	15.8	25.5	0.0842	13.6	6.17	26.5	3.18	20.8	4.04	6.48	10.8	9.21	0.435	61
5 UA	4.40	4.6	7.0	3.0	15.3	9.87	560	23.8	11.5	0.370	51.5	7.17	37.2	9.93	17.2	21.5	12.3	25.7	0.0666	13.2	5.03	26.6	2.50	20.1	3.32	5.09	10.9	4.32	0.437	51
65 x 50 x 8 UA	6.59	7.8	6.0	3.0	7.33	5.41	840	21.1	13.6	0.421	44.9	9.37	36.3	11.6	11.6	36.4	16.1	22.4	0.0936	15.6	6.00	23.9	3.91	22.3	4.20	7.49	10.6	17.6	0.570	65 x 50 x 8 l
6 UA	5.16	6.0	6.0	3.0	9.83	7.33	658	20.4	12.9	0.338	45.2	7.48	36.1	9.35	11.2	30.2	12.7	22.7	0.0743	15.1	4.91	23.9	3.11	21.4	3.48	5.93	10.6	8.29	0.575	61

### **Unequal Angles**

Table 27 Unequal Angles - x-axis and y-axis - Properties for Assessing Section Capacity

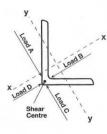
Designation	Yield Stress	Form Factor	Abou	ıt x-axis	About y	/-axis	Yield Stress	Form Factor	Abou	t x-axis	About	y-axis	Designation
			Load A	Load C	Load B	Load D			Load A	Load C	Load B	Load D	
	f <sub>y</sub>	k <sub>r</sub>	$Z_{ex}$	$Z_{ex}$	Z <sub>ey</sub>	$Z_{ey}$	f <sub>y</sub>	k <sub>r</sub>	$Z_{ex}$	Z <sub>ex</sub>	$Z_{e\gamma}$	$Z_{ey}$	
mm mm mm	MPa		10 <sup>3</sup> mm <sup>3</sup>	MPa		10 <sup>3</sup> mm <sup>3</sup>							
		300PL	LUS® *							AS/NZS 3679.1-3			
150 x 100 x 12 UA	300	1.00	102	110	35.3	38.2	340	1.00	100	110	34.7	38.2	150 x 100 x 12 UA
10 UA	320	0.975	74.8	81.7	26.0	30.9	360	0.943	73.0	78.9	25.3	30.9	10 UA
150 x 90 x 16 UA	300	1.00	132	133	39.5	39.8	340	1.00	130	133	39.0	39.8	150 x 90 x 16 UA
12 UA	300	1.00	96.3	104	28.8	31.1	340	1.00	94.6	104	28.3	31.1	12 UA
10 UA	320	0.973	70.6	81.8	21.2	25.2	360	0.940	68.8	79.5	20.6	25.2	10 UA
8 UA	320	0.863	53.1	60.3	15.9	21.0	360	0.836	51.2	57.9	15.4	21.0	8 UA
125 x 75 x 12 UA	300-	1.00	68.6	70.5	20.6	21.2	340	1.00	67.6	70.5	20.3	21.2	125 x 75 x 12 UA
10 UA	320	1.00	51.6	57.2	15.5	17.2	360	1.00	50.6	57.2	15.2	17.2	10 UA
8 UA	320	0.964	39.8	46.0	11.9	14.3	360	0.931	38.8	44.7	11.6	14.3	AU 8
6 UA	320	0.824	26.8	30.1	8.07	11.2	360	0.799	25.8	28.7	7.75	11.2	6 UA
100 x 75 x 10 UA	320	1.00	39.4	40.9	15.9	16.6	360	1.00	38.8	40.9	15.7	16.6	100 x 75 x 10 UA
AU 8	320	1.00	31.2	33.1	12.6	13.9	360	1.00	30.6	32.1	12.4	13.9	AU 8
6 UA	320	0.946	22.0	21.8	8.93	10.9	360	0.917	21.4	20.7	8.68	10.9	6 UA
75 x 50 x 8 UA	320	1.00	17.0	17.3	5.93	6.02	360	1.00	16.8	17.3	5.85	6.02	75 x 50 x 8 UA
6 UA	320	1.00	12.6	13.7	4.37	4.77	360	1.00	12.4	13.7	4.30	4.77	6 UA
5 UA	320	0.956	8.89	9.65	3.10	3.75	360	0.926	8.66	9.30	3.02	3.75	5 U/
65 x 50 x 8 UA	320	1.00	14.1	14.1	5.86	5.86	360	1.00	14.1	14.1	5.86	5.86	65 x 50 x 8 UA
6 UA	320	1.00	10.7	11.2	4.46	4.67	360	1.00	10.6	11.2	4.40	4.67	6 UA
5 UA	320	1.00	7.76	7.92	3.23	3.68	360	1.00	7.59	7.64	3.17	3.68	5 UA

<sup>\* 300</sup>PLUS® replaced Grade 250 as the base grade for 150 x 90 x 8 unequal angles and larger in 1994. 300PLUS® replaced Grade 250 as the base grade for 125 x 75 x 12 unequal angles and smaller in 1997. 300PLUS® hot rolled sections are produced to exceed the minimum requirements of AS/NZS 3679.1-300.

#### Notes

- 1. For 300PLUS® sections the tensile strength (fu) is 440 MPa. 2. For Grade 350 sections the tensile strength (fu) is 480 MPa.







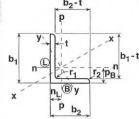


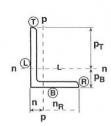
HRSSP 6th Ed. August 2012











## **Unequal Angles**

Table 28 Unequal Angles - n-axis and p-axis - Dimensions and Properties

Designation	Product of 2nd Moment of Area				bout p-axis	Į.		-				About n-axis				Designation
	l <sub>np</sub>	$\Gamma_{\rm p}$	$S_p$	$Z_{pR}$	$n_R$	$Z_{pL}$	n <sub>L</sub>	l <sub>p</sub>	rn	S <sub>n</sub>	$Z_{nf}$	$\mathbf{p}_{_{\mathrm{T}}}$	$Z_{nB}$	$p_{_{B}}$	I <sub>n</sub>	
	106mm⁴	mm	10 <sup>3</sup> mm <sup>3</sup>	10 <sup>3</sup> mm <sup>3</sup>	mm	10 <sup>3</sup> mm <sup>3</sup>	mm	106mm⁴	mm	10 <sup>3</sup> mm <sup>3</sup>	10³mm³	mm	10 <sup>3</sup> mm <sup>3</sup>	mm	106mm⁴	mm mm mm
150 x 100 x 12 UA	-2.27	28.6	56.0	30.9	75.7	96.2	24.3	2.34	47.7	117	64.6	101	133	49.1	6.52	150 x 100 x 12 UA
10 UA	-1.85	28.8	44.7	24.9	76.7	81.9	23.3	1.91	48.0	94.0	51.9	102	110	48.1	5.29	10 UA
150 x 90 x 16 UA	-2.35	24.6	59.5	32.0	67.3	94.9	22.7	2.15	47.4	145	81.7	97.5	152	52.5	7.97	150 x 90 x 16 UA
12 U/	-1.89	25.0	45.7	25.0	68.8	81.0	21.2	1.72	47.8	114	63.5	99.0	123	51.0	6.29	12 UA
10 U/	-1.54	25.3	36.5	20.2	69.8	69.5	20.2	1.41	48.2	91.5	51.0	100	102	50.0	5.10	10 UA
8 U/	-1.29	25.5	30.1	16.8	70.4	60.4	19.6	1.18	48.4	76.0	42.3	101	86.6	49.2	4.26	8 UA
125 x 75 x 12 U	-1.05	20.6	31.4	16.9	56.6	52.0	18.4	0.958	39.6	77.3	43.3	81.7	81.8	43.3	3.54	125 x 75 x 12 UA
10 U	-0.867	20.9	25.1	13.7	57.5	45.2	17.5	0.789	39.9	62.5	34.9	82.7	68.2	42.3	2.88	10 UA
8 U	-0.731	21.0	20.7	11.4	58.2	39.6	16.8	0.664	40.1	52.0	28.9	83.5	58.1	41.5	2.41	8 UA
6 U	-0.575	21.2	16.0	8.89	59.0	32.7	16.0	0.524	40.3	40.6	22.5	84.3	46.5	40.7	1.89	6 UA
100 x 75 x 10 U	-0.625	21.7	24.3	13.4	55.6	38.3	19.4	0.743	31.3	41.3	22.6	68.2	48.6	31.8	1.55	100 x 75 x 10 UA
8 U	-0.528	21.9	20.2	11.1	56.3	33.5	18.7	0.626	31.5	34.4	18.8	68.9	41.8	31.1	1.30	AU 8
6 U	-0.416	22.0	15.7	8.67	57.1	27.5	17.9	0.494	31.7	26.9	14.6	69.7	33.7	30.3	1.02	6 UA
75 x 50 x 8 U	-0.174	14.0	8.96	4.86	37.2	14.1	12.8	0.181	23.6	18.5	10.3	49.8	20.3	25.2	0.511	75 x 50 x 8 UA
6 U	-0.140	14.2	6.98	3.84	37.9	12.0	12.1	0.145	23.8	14.6	8.05	50.6	16.7	24.4	0.407	6 UA
5 U	-0.111	14.3	5.41	3.00	38.5	10.0	11.5	0.115	23.9	11.4	6.27	51.2	13.5	23.8	0.321	5 UA
65 x 50 x 8 U	-0.141	14.4	8.74	4.78	36.4	12.7	13.6	0.174	20.1	14.1	7.75	43.9	16.2	21.1	0.341	65 x 50 x 8 UA
6 U	-0.114	14.6	6.85	3.77	37.1	10.8	12.9	0.140	20.3	11.1	6.10	44.6	13.4	20.4	0.272	6 UA
5 U	-0.0903	14.7	5.32	2.95	37.6	8.96	12.4	0.111	20.5	8.70	4.75	45.2	10.9	19.8	0.215	5 UA

### Structural Steel Sections

### Structural Steel - Welded Sections - Standard: AS/NZS 3679.2:2010

Table 29 Chemical Composition - Welded Sections Base Plate

					Cast or	Product	Analysis	Percent					
Grade (1)	С	Si	Mn	Р	S	Cr (2)	Ni (2)	Cu (2)	Mo (2)	AI (3)	Ti	Micro-alloying Elements	CE (4)
AS/NZS 3678	Max.	Max.	Max.	Max.	Max.	Max.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
300 & 300L15	0.22	0.55	1.70	0.040	0.030	0.30	0.50	0.40	0.10	0.100	0.040	(see Note 5)	0.44
400 & 400L15	0.22	0.55	1.70	0.040	0.030	0.30	0.50	0.40	0.35	0.100	0.040	(see Note 6)	0.48

#### Notes

1. The use of sulphide modification steelmaking techniques for listed grades is permitted.

2. Cr + Ni + Cu + Mo = 1.00% maximum apply.

3. Limits specified are for both acid soluble and total aluminium.

4. Carbon equivalent (CE) is calculated from the equation based on actual cast or product analysis:

 $\mathsf{CE} = \mathsf{C} + \underline{\mathsf{Mn}} + \underline{\mathsf{Cr} + \mathsf{Mo} + \mathsf{V}} + \underline{\mathsf{Ni} + \mathsf{Cu}}$ 

6 5 15

5. Niobium plus vanadium: 0.030% maximum.

6. Vanadium: 0.10% maximum. Niobium plus vanadium plus titanium: 0.15% maximum.

Table 30 Tensile Properties - Welded Sections Base Plate

Property	Grade - AS	S/NZS 3678
	300, 300L15	400, 400L15
Minimum Yield Strength - MPa for thickness of:		
> 8 ≤ 12	310	400
> 12 ≤ 20	300	380
> 20 ≤ 50	280	360
Minimum Tensile Strength - MPa	430	480
Minimum Elongation % of Gauge Length of $5.65\sqrt{S_o}$	21	18

#### Note

1. So is the cross-sectional area of the test piece before testing.

Table 31 Charpy V-Notch Impact Test Requirements - Welded Sections Base Plate

Grade	Test Temperature				orbed Energy, J Test Piece		
AS/NZS 3678		10mm	x 10mm	10mm	x 7.5mm	10mm	x 5mm
	°C	Average of 3 Tests	Individual Test	Average of 3 Tests	Individual Test	Average of 3 Tests	Individual Test
300L15	-15	27	20	22	16	18	13
400L15	-15	27	20	22	16	18	13

#### Table 32 Chemical Composition - Bars and Sections

Grade (see Note 1)			Ca	ast analys	is (max.) %	(See Notes 2 and 3)	
	С	Si	Mn	Р	S	Micro-alloying elements (see Note 4)	CE (see Note 5)
300PLUS®, 300PLUSL0, 300PLUS®S0	0.25	0.50	1.60	0.040	0.040	(see Note 6)	0.44
350, 350L0	0.22	0.50	1.60	0.040	0.040	(see Note 7)	0.45

#### Notes

- 1. The use of sulfide modification steel making techniques for these grades is permitted.
- Grain refining elements, i.e. aluminium and itanium, may be added, provided that the total content does not exceed 0.15%. Limits are for total or soluble aluminium.
- The following elements may be present to the limits stated, subject to a maximum total of 1,00%:
- (a) Copper 0.50% (b) Nickel 0.50% (c) Chromium 0.30%
- (c) Chromium 0.30% (d) Molybdenum 0.10%
- 4. For grade 300PLUS, the following are not considered as micro-alloying elements:
- (a) Titanium
- 0.040% maximum
- (b) Niobium
- 0.020% maximum
- (c) Vanadium
- 0.030% maximum
- (d) Niobium plus vanadium
- 0.030% maximum

- 5. Carbon equivalent (CE) is calculated from the following equation:
- $CE = C + \underline{Mn} + \underline{Cr + Mo + V} + \underline{Ni + Cu}$

6 5 15

- Micro-alloying elements are not permitted in grade 300 except for thicknesses greater than or equal to 15mm, where the following apply:
- (a) the maximum combined micro-alloying element content is 0.15%
- (b) where micro-alloying elements are used, the percentage of each element is to be shown on certificates.
- For grade 350, micro-alloying elements niobium, vanadium and titanium may be added, provided that their total combined content does not exceed 0.15%.

#### Table 33 Tensile Properties - Flat Bars and Sections

Grade		Minimum yield stress, M		Minimum tensile strength, MPa	Minimum elongation on a gauge length of 5.65√S <sub>0</sub> (see Note 2) %
		hickness, mm (see Not	e i)		(See Note 2) %
	< 11	$\geq$ 11 to $\leq$ 17	> 17 to < 40		
300PLUS®, 300PLUSL0	320	300	280	440	22
300PLUS <sup>®</sup> S0	NA	300	280	440	25
350	360	340	340	480	20

### Table 34 Tensile Properties - Round and Square Bars

Grade		Minimum yield stress, MP	a	Minimum tensile strength	Minimum elongation on a gauge length of
		Thickness, mm			5.65√S <sub>0</sub>
	≤ 50	> 50 to < 100	≥100	MPa	%
300PLUS®	300	290	280	440	22
350	340	330	320	480	20

#### Notes (apply to tables 33 and 34)

- 1. For a section, the term 'thickness' refers to the nominal thickness of the part from which the sample is taken.
- 2. SO is the cross-sectional area of the test piece before testing.
- 3. For precise details of properties reference should be made to the latest edition of AS/NZS 3679.1:2010 or the latest OneSteel specification.
- 4. 300PLUS® steel is produced to exceed the latest requirements for grade 300 in AS/NZS 3679.1.

#### Table 35 Charpy V-Notch Impact Test Requirements - Bars and Sections

Grade	Test Temperature	Minimum Absorbed Energy, J Size of Test Piece						
		10mm x 10mm		10mm x 7.5mm		10mm x 5mm		
	°C	Average of 3 Tests	Individual Test	Average of 3 Tests	Individual Test	Average of 3 Tests	Individual Test	
300PLUSL0, 350L0*	0	27	20	22	16	18	13	
300PLUS®S0	0	70	50	NA	NA	NA	NA	

#### Notes

This does not cover impact tested grades for thickness less than 8mm.

<sup>\*</sup>Impact testing is not available for bars and is only available for some sections by enquiry.

### Merchant Bar Sections

Table 36 Chemical Composition - For OneSteel Merchant Bar Sections - Regular Grades - AS 1442

Steel Type	Grade		С	9	Si	N	<b>I</b> n		Р		S
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Carbon and Carbon Manganese Steels	1016	0.13	0.18	0.10	0.35	0.60	0.90	*	0.040	*	0.040
	1022	0.18	0.23	0.10	0.35	0.70	1.00	*	0.040	*	0.040
	1045	0.43	0.50	0.10	0.35	0.60	0.90	*	0.040	*	0.040

Table 37 Chemical Composition - For OneSteel Merchant Bar Sections - Regular Grades - AS 1447

Steel Type	Grade		С		Si	N	1n		Р		S	(	Cr
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Spring Steels	5160	0.55	0.65	0.10	0.35	0.70	1.00	*	0.040	*	0.040	0.70	0.90
	9258	0.50	0.65	1.60	2.20	0.70	1.05	*	0.040	*	0.040	*	*
	9261	0.55	0.65	1.80	2.20	0.70	1.00	*	0.040	*	0.040	0.10	0.25

#### Note

1. Merchant Bar Sections are also available in AS/NZS 3679.1:2010 specification. See Tables 32 to 35. Other grades may be available on enquiry.

Table 38 OneSteel Grades

table 30 Offesteel Oraces															
Steel Type	Grade		С		Si	N	1n		P		S	(	Cr Cr	1	٧
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
OneSteel	1015	0.13	0.18	0.10	0.35	0.30	0.60	*	0.040	*	0.050	*	*	*	*
	X4K92M61S*	0.55	0.65	1.60	1.90	0.70	1.00	*	0.040	*	0.040	0.10	0.25	0.15	0.25

Table 39 Heat Treatment Limitations

Maximum Recommended Cross Section*								
Grade	Rounds	Squares	Flats					
5160	40mm	36mm	28mm					
9261	27mm	25mm	19mm					
9258			16mm					

<sup>\*</sup> The recommendations are based on the criterion that, at the maximum dimensions, a hardness of 50 HRC can be achieved in the centre of the quenched section.

The actual properties obtained are dependent on both grade and heat treatment process control. As OneSteel has no control over the springmakers' heat treatment process, the above recommendations cannot be guaranteed. However, springmakers with efficient heat treatment facilities will be able to achieve a hardness value of 50 HRC as recommended.

### OneSteel Direct - Freecall 1800 1 78335

All customer service enquiries for OneSteel Manufacturing products described in this publication should be directed to the OneSteel Direct free call service on 1800 1 STEEL (1800 1 78335).

OneSteel Direct provides service for customers and users of steel requiring information on OneSteel Manufacturing and its products. It is staffed by experienced personnel who can quickly answer most questions and can coordinate access to specialists in Technical, Production, Sales and Marketing for more complex matters.

OneSteel Direct's services include the following:

- Product and application technical support incorporating a network of expert OneSteel metallurgists, engineers and other specialists.
- · Fast brochure and technical information delivery.
- Immediate referral service to approved OneSteel Manufacturing distributors and service providers in your area.
- · General steel and OneSteel enquiries service.

## OneSteel Direct's services are available Mon-Fri from 8.30am to 5.00pm (AEST)

- Freecall 1800 1 STEEL (1800 178 335)
- · Freefax 1800 101 141
- · E-mail onesteeldirect@onesteel.com
- International Telephone +61 2 4935 5845

### **Head Office**

#### **OneSteel Manufacturing**

PO Box 245C Newcastle NSW 2300 Telephone: (02) 4935 5555 Facsimile: (02) 4935 5490















им арбина гомбана

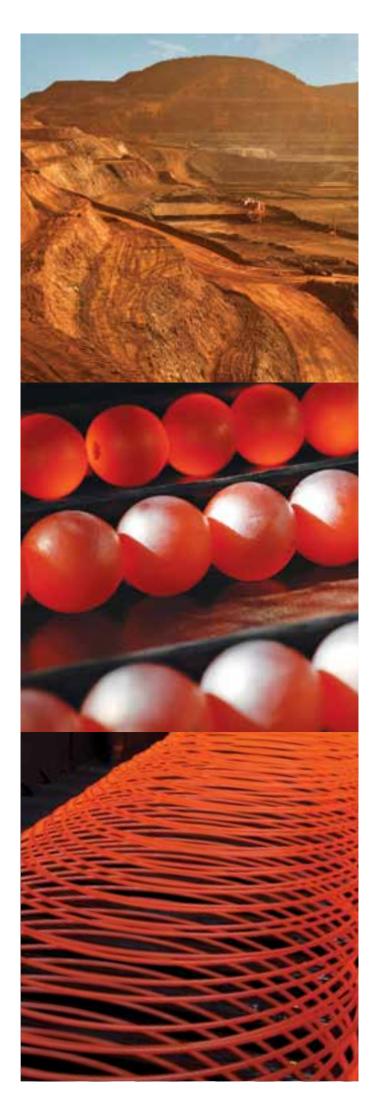
#### ONESTEEL DIRECT

Freecall 1800 178 335
Website www.onesteel.com

This publication has been prepared by OneSteel Manufacturing Pty Limited ASN 42 004 661 325 Please note that any specifications or technical data referred to in this publication are subject to change and/or variation or improvement without notice and no warranty as to their suitability any use is made. Users of this publication to ensure accuracy and adequacy for their purposes are requested to check the information provided in this publication to satisfy themselves as to it appropriateness and not to rely on the information without first doing so. Unless required by law, the company cannot accept any responsibility for any loss, damage or consequence resulting from the use of this publication. Photographs shown are representative only of typical applications, currer at August 2012. This brochure is not an offer to trade and shall not form any part of the trading term in any transaction.

© Copyright 2003-2012 OneSteel Manufacturing Pty Limited, 300PLUS\* is a registered trademark of OneSteel Manufacturing Pty Limited Issue 6, August 2012 S10225. DISTRIBUTED BY





# GROWTH THROUGH MINING & MATERIALS

**ARRIUM LIMITED ANNUAL REPORT 2012** 



# ARRIUM LIMITED

Arrium Limited (previously OneSteel Limited), is an international diversified mining and materials company with three key businesses: Arrium Mining, Arrium Mining Consumables and OneSteel Steel & Recycling.

On 2 July 2012, the company name changed from OneSteel Limited to Arrium Limited following approval by shareholders at an Extraordinary General Meeting held on 8 May 2012. The change of name reflects the company's transformation from a domestic manufacturer of long steel products and distributor of steel products throughout Australia and New Zealand, to what it is today, an international diversified mining and materials company.

**Arrium Mining** is an exporter of hematite iron ore with operations in South Australia. Export sales are expected to be at a run rate of approximately 11 million tonnes per annum by the middle of 2013, a significant increase from the current rate of approximately 6 million tonnes per annum. Arrium Mining also supplies pelletised magnetite iron ore and some hematite lump iron ore to the company's integrated steelworks at Whyalla.

**Arrium Mining Consumables** supplies resource companies with a range of key mining consumables, including grinding media, wire ropes and rail wheels. The business is the largest supplier of grinding media in the world, with leading market positions in South America, North America and Australasia.

**OneSteel Steel & Recycling** comprises OneSteel Manufacturing, Australia's only steel long products manufacturing business; OneSteel Distribution, Australia's largest steel distributor and reinforcing steel supplier; and OneSteel Recycling, a supplier and exporter of scrap metal with operations in Australia, the USA and Asia.

#### **Contents**

- 2 About Arrium
- 4 Financial & Operational Summary
- 6 Chairman's Review
- 8 Managing Director's Review
- 10 Operational Overview
- 12 Key Business Drivers
- 14 Strategic Framework Scorecard
- 16 At a Glance
- 18 Arrium Mining
- 21 Arrium Mining Consumables
- 24 OneSteel Manufacturing
- 26 OneSteel Australian Distribution
- 28 OneSteel Recycling
- 30 Sustainability
- 32 Safety
- 33 Customers
- 34 People
- 35 Community
- 36 Environment
- 38 Risk Management
- 40 Executive Management
- **42 Board of Directors**
- **44** Corporate Governance Statement
- 47 Directors' Report
- 61 Discussion and Analysis of the Financial Statements
- 62 Income Statement
- 63 Statement of Comprehensive Income
- 64 Balance Sheet
- 65 Cash Flow Statement
- 66 Statement of Changes in Equity
- 68 Notes to the Financial Statements
- 122 Directors' Declaration
- 123 Independent Auditor's Report
- 124 Shareholder Information
- 126 Statistical Summary
- 127 Reconciliations
- 129 Reserves and Resources Statement
- 131 Glossarv
- 132 Abbreviations
- 133 Corporate Directory

#### **Annual General Meeting**

Arrium's 2012 Annual General Meeting will be held on Monday 19 November 2012, at the Melbourne Recital Hall, 31 Sturt Street, (Cnr Southbank Boulevard & Sturt Street), Southbank, VIC, commencing at 2.30 pm AEDT.

#### **Arrium Limited**

ABN 63 004 410 833

Arrium listed on the Australian Securities Exchange on 23 October 2000 (ASX:ARI)







## REVENUE FOR THE 2012 FINANCIAL YEAR INCREASED 6% TO \$7.6 BILLION





# ABOUT **ARRIUM**

Our vision is to be a leading mining and materials company which delivers superior returns for our shareholders. We aim to achieve this vision through a portfolio of mining and materials assets that are diversified across commodities, geographies and markets, and by utilising our unique market positions, capabilities and infrastructure, and investing in opportunities which provide the best return on shareholder funds.

#### FY12 performance summary

#### Performance highlights1

- · Strong cash outcome for the year
- Solid sales and earnings performance from Arrium Mining
- Arrium Mining Consumables continues to perform well and grow in line with expectations
- · OneSteel Manufacturing returned to EBITDA positive for the second half
- · Debt and gearing levels reduced in the second half
- · Further improvements in the company's safety performance
- · Final dividend 3 cents per share unfranked (total dividends for year of 6 cents per share unfranked)

#### Progress on strategic initiatives

- · Investment in Arrium Mining for delivery of step change in iron ore sales and doubling of Whyalla Port capacity
- · Arrium Mining on track for first sales of iron ore from expansion in December 2012 quarter, and to be at a run rate of approximately 11 million tonnes per annum by mid 2013
- · Doubled earnings contribution from Arrium Mining Consumables business
- Change of company name to Arrium reflects growth of Mining and Mining Consumables businesses
- Cost and operational improvements in OneSteel Steel & Recycling businesses
  - Significant turnaround of \$57 million1 EBITDA in OneSteel Manufacturing business in the second half
  - Significant leverage to improvement in demand and a lower Australian dollar

#### Investment merits

- Exposure to economic growth in China
- · Significant miner and exporter of iron ore
  - Iron ore expansions currently on time and on budget
  - Unique infrastructure assets in South Australia including wholly owned port
- · Strong Mining Consumables business
  - Solid growth profile
  - Global leader in grinding media
  - Strong and steady margins
- Integrated domestic steel operations
  - Both integrated and electric arc furnace processes
  - Self-sufficient in iron ore
  - Ability for self-sufficiency in scrap steel
- Comprehensive distribution footprint

#### Leading market positions

- #1 globally in grinding media
- · #1 in Australia for rail wheels
- · #1 in general Australian steel distribution
- #1 in Australian reinforcing
- #1 in Australian wire
- #2 in Australian recycling
- #1 globally in dragline rope
- · #1 in New Zealand general distribution

#### Some of our Brands

































### **WE WILL NOT COMPROMISE ON SAFETY WE WILL MEET OUR PROMISE TO CUSTOMERS**

1 Unless otherwise stated, certain financial measures referred to in this Annual Report, including underlying results and ratios based on underlying results are non-statutory financial measures, which have not been audited or reviewed as part of KPMG's audit report on the full year financial statements. However, KPMG has undertaken a set of procedures to agree the financial information in this announcement to underlying information supplied by the Company. The Directors believe that using these non-statutory financial measures appropriately represents the financial performance of the Group's total operations including continuing and discontinued operations. Details of the reconciliation of non-statutory to statutory results can be found on page 127 of this Annual Report.

#### Milestones - 2012 Financial Year

#### July

- · Blast furnace ramp up following repair work
- · 2011 Safety Awards

#### August

- FY11 results announcement
- · Announced Whyalla Port and Mining expansions

#### September

• Mining commenced at Iron Chieftain (Middleback Ranges operation)

#### October

- Moly-Cop named by Newmont as "Supplier of the Year"
- Completion of acquisition of WPG Resources' iron ore assets

#### November

- · 2011 Annual General Meeting
- OneSteel Whyalla announces major sponsorship of Smith Family Learning for Life program

#### December

- · Announced sale of Piping Systems business to MRC
- Inaugural Arrium **Customer Awards**

### 2012

#### January

- Exited LiteSteel<sup>™</sup> Technologies
- Steel Transformation Plan advance received from Australian Government

#### February

- Commissioning of Iron Baron Ore Beneficiation Plant (OBP)
- · 1H12 results announcement

- · Announced exit of Oil & Gas Pipe business
- · Completion of Piping Systems sale

#### April

- Commenced Lima, Peru grinding media expansion
- Mining contract awarded to BGC Contracting in relation to Middlebank Ranges operation

#### Mav

- · Extraordinary General Meeting
- shareholders voted to change company name from OneSteel to Arrium

#### June

- · Arrium and employees raised approximately \$208,000 in FY12 for charity partners through OneCommunity Giving Program
- · Commenced Cilegon, Indonesia grinding media expansion

#### Map of Operations as at 30 June 2012











In addition to our Australian operations, Arrium operates over 40 facilities overseas, with the majority of these including major mining consumables, manufacturing and recycling sites, in North and South America, New Zealand and Asia.

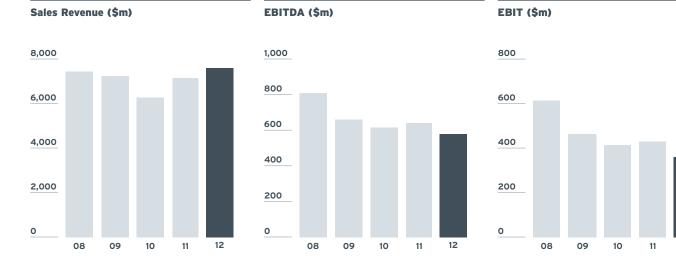
- Key Distribution Sites
- Key Manufacturing Sites
- Key Recycling Sites
- Mining Consumables Sites
- ▲ Iron Ore Mine Sites

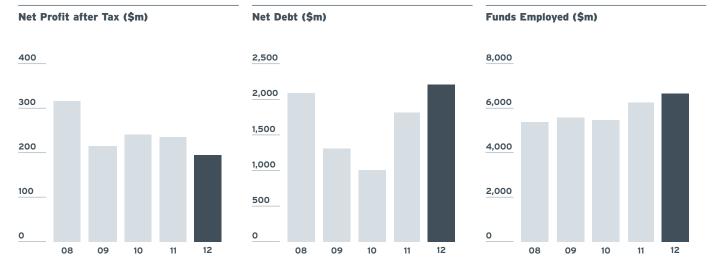
#### Financial overview

- Sales revenue up 6% to \$7,595 million
- Underlying net profit after tax down 17% to \$195 million
- Statutory net profit after tax \$58 million (includes asset write downs of \$125 million)
- · Strong operating cash flow of \$470 million, up 2%
- · Statutory net debt increased 24% to \$2,143 million due to investment in Mining
- · Total dividends for year 6 cents per share (unfranked), down from 10 cents for prior year

#### **Operational overview**

- · Overall performance continued to be impacted by difficult external environment including weak domestic demand and a high Australian dollar
- Strong earnings performance from resource based businesses
- · Arrium Mining achieved iron ore sales volume of  $6.\overline{29}$  million tonnes, up 4%
- Arrium Mining on track to increase sales to run rate of 11Mtpa by mid 2013
- · Arrium Mining Consumables performed well, EBIT of \$135 million, up 107%
- · Good progress on cost and operational improvements in OneSteel Steel & Recycling businesses, delivered increased leverage to improvement in demand or a lower Australian dollar
- OneSteel Manufacturing delivered an EBITDA positive result for the second half - significant turnaround in performance





<sup>1</sup> Unless otherwise stated, segment results referred to throughout this report are underlying results from total operations (includes continuing and discontinued operations) of that segment. A reconciliation of these financial measures to the statutory segment results set out in the 2012 Full Year Financial Report can be found on page 127 of this Annual Report.



Key Financials Year ended 30 June

<b>Key Financials</b> Year ended 30 June			
	<b>FY12</b> <sup>1</sup> (\$m)	<b>FY11</b> <sup>2</sup> (\$m)	CHANGE (%)
Underlying			
Sales revenue	7,595	7,133	6%
Other revenue/income	122	44	176%
Total income	7,716	7,177	8%
Gross profit	1,198	1,485	(19%)
EBITDA	581	642	(10%)
Depreciation, amortisation and impairment	(221)	(214)	3%
EBIT	360	429	(16%)
Finance costs	(121)	(101)	20%
Earnings before tax	238	327	(27%)
Tax expense	(38)	(85)	(56%)
Profit after tax	201	243	(17%)
Non-controlling interests	(6)	(7)	(16%)
Net profit after tax	195	235	(17%)
Net profit after tax - statutory	58	230	(75%)
Total assets	8,931	8,343	7%
Inventory <sup>4</sup>	1,451	1,601	(9%)
Total liabilities	4,431	3,838	15%
Funds employed <sup>4</sup>	6,644	6,234	7%
Total equity	4,501	4,506	0%
Net debt <sup>4</sup>	2,143	1,728	24%
Net debt <sup>3,4</sup> (incl hedging)	2,204	1,814	21%
Number of shares on issue (millions)	1,346	1,338	1%
Operating cash flow	470	463	2%
Free cash flow - underlying	69	212	(67%)
Free cash flow	69	212	(67%)
Capital and investment expenditure	719	1,244	(42%)
Return on assets % - underlying	4.2%	5.6%	-1.4 pts
Return on equity % - underlying	4.4%	5.4%	-1 pts
Return on funds employed % (ROFE) - underlying <sup>4</sup>	5.5%	7.3%	-1.8 pts
Sales margin	4.7%	6.0%	-1.3 pts
Gross profit margin	15.8%	20.8%	-5 pts
Earnings per share (cents) - underlying (weighted ave)	14.6	17.7	(18%)
Dividends per share (cents)	6.0	10.0	-4 cents
Dividend payout ratio - underlying	41.4%	56.8%	-15.4 pts
Dividend payout ratio - statutory	139.9%	58.0%	81.9 pts
Gearing - statutory (net debt/net debt + equity) <sup>4</sup>	32.3%	27.7%	4.6 pts
Gearing - incl hedging (net debt/net debt + equity) <sup>3,4</sup>	32.9%	28.7%	4.2 pts
Interest cover (times EBITDA)	4.8	6.4	-1.6 times
Net tangible assets per share (\$)	1.20	1.39	(14%)
Employees	11,007	11,598	(5%)
Sales per employee (\$000s)	690	615	12%
Raw steel production	2.50	2.31	8%
Steel tonnes despatched	3.65	3.19	14%

<sup>1</sup> FY12 underlying earnings are before the impact of restructuring costs, tax adjustments, impairment, transaction costs and other non-recurring items of \$137.4 million net of tax. Refer to the detailed reconciliation on page 127. These statistics include results relating to the WPG subsidiaries acquired on 6 October 2011.

<sup>2</sup> FY11 underlying results are before the impact of restructuring costs including impairment of plant and equipment, over provision of tax in prior years and direct costs arising from the acquisition of the Moly-Cop Group of \$5.1 million net of tax. Refer to the detailed reconciliation on page 127. These statistics include the results of the Moly-Cop Group from 31 December 2010. These figures have been restated to reflect the final fair value adjustments arising on acquisition of the Moly-Cop Group in December 2010.

<sup>3</sup> Includes the impact of swaps hedging foreign currency denominated debt of \$60.2 million in June 2012 to reflect net debt adjusted for foreign currency exposure.

<sup>4</sup> FY12 comprised of balance sheet items from continuing operations only. Funds employed comprised net assets from total operations and net debt from continuing operations only.

## **CHAIRMAN'S** REVIEW

I am pleased to report that underlying net profit after tax for the year was \$195 million, in line with guidance provided to the investment market, despite the external environment continuing to be challenging, particularly for our domestic steel businesses. Statutory net profit after tax was \$58 million and includes asset write downs of \$125 million.

I am also pleased to report that the year included good progress on effectively executing our strategy for creating shareholder value through growing our resource based businesses, and addressing the performance of our steel businesses.

#### Change of name to Arrium

The year was one of significant change for the company, not least being the change of our company name from OneSteel Limited to Arrium Limited, which became effective on 2 July 2012 following overwhelming support from shareholders at the Extraordinary General Meeting held on 8 May 2012.

Arrium is the product of a remarkable company transformation that commenced 12 years ago at the time of being spun out from BHP as an Australian domestic steel long products producer and steel distributor, to its position today as an international diversified mining and materials company with three key businesses: Arrium Mining, Arrium Mining Consumables and OneSteel Steel & Recycling.

This transformation includes some very significant milestones including the Board deciding in 2005 to enter the export iron ore market through Project Magnet. This was achieved through converting our Whyalla Steelworks to magnetite iron ore feed from our mines at the Middleback Ranges in South Australia, thereby freeing up our more marketable and valuable hematite ore for external sale. The project was completed in 2007, with the investment continuing to provide significant value for shareholders.

Another milestone for the company was our acquisition of Smorgon Steel in 2007. Included in the acquisition were some Mining Consumables businesses, including grinding media businesses in Australia and the United States, which built on our existing position in mining consumables.

The next significant milestone in our transition was the acquisition at the end of 2010 of the Moly-Cop grinding media business in the Americas. This positioned us as the global leader in grinding media with participation in some of the world's largest and most attractive mining consumables' markets.

The latest step in the company's transformation is the decision to expand our Mining business to deliver a step change in iron ore sales. I discuss our progress with this later in my Review.

While OneSteel has been a very good name for us in the past and has provided a clear association to what the company was prior to commencement of our expansion into the resources sector, it no longer reflects what we are today and our strategic growth direction. We believe the name Arrium better reflects our corporate identity as a mining and materials company.

Arrium is now our ASX listed name (ASX: ARI), and has been applied to both our Mining and our Mining Consumables businesses, while our steel businesses have retained their OneSteel branding, which is highly recognised in Australia amongst our customers, suppliers and communities in which we operate for delivering good quality steel and metal products and services. Retaining the OneSteel brand for these businesses has also enabled us to keep the cost of the name change to a minimum.

#### **Delivering on strategy**

As I mentioned earlier, there was a strong focus during the year on effectively executing our strategy for creating shareholder value through growing our resource based businesses, and addressing the performance of our steel husinesses.

In the first half of the financial year the company announced it would be making a step change in its Mining business that would make it one of the largest exporters of iron ore in Australia, outside of the three majors. This involves almost doubling our current level of iron ore sales to over 11 million tonnes per annum, and doubling the capacity of our Whyalla Port to 12 million tonnes per annum. This step change includes the acquisition of the Peculiar Knob iron ore mining project and other South Australian mining tenements from WPG Resources, completing the infrastructure to bring the Peculiar Knob mine into production and expansion of the Whyalla Port.

One of the key value creating benefits of this expansion is the opportunity to generate additional marketable ore for sale through blending high grade ore from Peculiar Knob with ore from our Middleback Ranges operation that we would generally treat as waste or would stockpile for beneficiation. The sale of this additional blended ore is expected to provide a significant revenue contribution towards the overall cost of the Mining expansion, adding to the attractiveness of the investment.

The expansion is progressing very well and tracking in line with our time and cost expectations. We expect first sales of the additional iron ore during the December 2012 guarter and to be at a sales run rate of 11 million tonnes per annum by mid 2013.

In our Mining Consumables business, we have an established global leadership position in arinding media through the acquisition of Moly-Cop at the end of 2010. This business continues to perform well and in line with our growth expectations at the time of acquisition. It is a significant contributor to our total earnings,

and is a strong generator of cash.

Our focus for this business is on capturing expected strong market growth for grinding media in North and South America, and maintaining our strong position in Australasia. The Moly-Cop business currently has approximately 30% of its North and South America capacity available, but in line with our strategy of maintaining production capacity ahead of regional market growth, the Board has approved expansions for the Lima, Peru and Cilegon, Indonesia plants which will add approximately 90 thousand tonnes of capacity. The business has good visibility of new projects and mine expansions and its outlook is positive.

The external environment for our steel businesses has remained difficult with weak demand and the high Australian dollar continuing to affect earnings. The businesses were focused on cash generation during the year and delivering cost and operational improvements. Pleasingly, our Manufacturing business, which had incurred very significant losses in recent periods delivered a strong turnaround in performance for the second half, recording a positive EBITDA result in line with guidance provided at the timing of our first half results, despite very little improvement in the external environment.

#### Performance highlights

Underlying net profit after tax of \$195 million reflects strong contributions from our resource based Mining and Mining Consumables businesses, as well as the significant turnaround in our steel Manufacturing business in the second half, which helped deliver a strong operating cash outcome for the year of \$470 million.

The resource based businesses again performed well, with margins in our Mining business remaining strong and our Mining Consumables business doubling its contribution to earnings.

### The year included a strong focus on effectively executing our strategy for creating shareholder value



**PETER SMEDLEY** Chairman

Results in the Recycling and Distribution businesses reflect the very difficult external environment for these businesses, but they delivered significant cost savings which provide increased leverage to an improvement in market conditions.

Underlying earnings per share were 14.6 cents, compared to 17.7 cents for the prior financial year.

I am pleased to report that the company has again improved its overall safety performance for the year. A key factor in this has been a focus on improving our capability to recognise, assess and manage risk.

#### **Remuneration report**

Commencing on page 49 of the Annual Report is our Remuneration Report. We have reviewed and reformatted this year's report with the aim of making it comprehensive and informative whilst being easier to review our approach and the outcomes applied. It includes a summary Chairman's letter that provides an overview of the key elements of the report. I am sure you will find that it sets out the application of a range of robust and contemporary remuneration practices. Most importantly it describes what the Board clearly

views as a very balanced and measured set of remuneration outcomes that align with the performance of the company and the role and contribution of executives.

#### **Dividend**

I was also pleased to announce on behalf of the Board a final dividend of 3 cents per share unfranked. This brings the total dividends for the year to 6 cents per share unfranked, compared to 10 cents unfranked for the prior financial year.

As an alternative to receiving cash dividends, eligible shareholders may elect to participate in the dividend reinvestment plan (DRP). The DRP enables shareholders to use cash dividends to purchase fully paid ordinary shares. Participation in the DRP is optional. A DRP will operate for the final dividend with no discount applicable.

#### Outlook

In Arrium Mining, we are confident that the fundamentals remain strong for iron ore, and expect that continued strong demand from China will underpin high prices compared to longer-term historical levels. The business expects to see benefits in the second half of FY13 from increased iron ore shipments related to the ramp up of the Southern Iron and Whyalla Port expansions.

In Arrium Mining Consumables, we expect mining consumables markets to remain strong. Further strong growth is expected in the Moly-Cop grinding media business, underpinned by increasing levels of copper and gold production in North and South America.

In OneSteel Steel & Recycling, we expect the challenging external environment to continue through the first half of FY13. The steel businesses are expected to benefit from the full impact of cost and operational improvements made in FY12. However, earnings will continue to be subject to movements in key external factors such as exchange rates, international steel and raw material prices, and levels of domestic growth.

#### Thank you

On behalf of Arrium's Board of Directors, I would like to thank all of our shareholders for their continuing support in a period where the very difficult and volatile international environment has had a major impact on equity markets. I would also like to thank Arrium's Managing Director & CEO, Mr Geoff Plummer, the executive management team and all of our employees for their dedication and performance in a very challenging environment and their commitment to performing their duties safely, ensuring a safe environment for their colleagues and visitors to our sites.

PETER SMEDLEY Chairman



# \$195 MILLION **UNDERLYING NET PROFIT AFTER TAX**

# MANAGING DIRECTOR'S REVIEW

I am pleased to present Arrium's financial results for the year ended 30 June 2012, a vear that included ongoing challenges from the difficult external environment, but also significant change for the company and good progress in the execution of our growth strategy.

Arrium reported an underlying net profit after tax of \$195 million, compared to \$235 million for the prior financial year, in line with guidance provided to the investment market. Statutory net profit for the year was \$58 million compared to \$230 million for the prior financial year and includes the write down of property, plant and equipment and intangible assets of \$125 million, largely related to our exit of the LiteSteel™ Technologies business during the year.

Statutory operating cash flow for the year was strong at \$470 million, up 2% from the prior financial year reflecting a focus on cash generation.

#### **Market conditions**

In our Arrium Mining business, generally strong demand from China underpinned prices well above long-term historical levels. In our Arrium Mining Consumables business, demand for grinding media continued to be strong, underpinned by strong levels of copper and gold mining activity particularly in North and South America as producers continued to maximise output. In our OneSteel Steel & Recycling businesses, the external environment remained difficult including a high Australian dollar, generally weak markets and significant periods of wet weather.

#### **Operational performance**

The profit performance for the year reflects strong contributions from our resource based Mining and Mining Consumables businesses, as well as a significant turnaround in our steel Manufacturing business in the second half.

Arrium Mining continued to perform well achieving iron ore sales of 6.3 million tonnes and contributing \$303 million EBIT for the year, reinforcing the merits of our growth focus in this business.

We are making significant progress to bring the Peculiar Knob project, part of our Southern Iron operation into production and to double the port capacity at Whyalla to 12 million tonnes per annum. The expansion is running on time and on budget, with first sales from Peculiar Knob due in the December 2012 guarter. Iron ore sales will then ramp up to a run rate of 11 million tonnes per annum by mid 2013 as we complete the supply chain infrastructure at our Middleback Ranges operation for blending volumes, and as the Whyalla Port expansion is completed.

Arrium Mining Consumables delivered a strong result as expected, contributing \$135 million of EBIT for the year, up 107% compared to the prior financial year due to the strong contribution from the Moly-Cop businesses, as well as a significant improvement in the performance of the Australian grinding media, rail and ropes businesses. EBIT in the second half was \$70 million, up 8% compared to the previous half and 59% compared to the prior corresponding half. This is a quality international business with reliable earnings and stable margins, and provides a strong platform for growth.



**\$135 MILLION** 

**ARRIUM MINING CONSUMABLES EBIT CONTRIBUTION - UP 107%**  The profit performance for the year reflects strong contributions from our Mining and Mining Consumables businesses, as well as a significant turnaround in our steel manufacturing business in the second half



**GEOFF PLUMMER** Managing Director and CEO

We continue to see a positive outlook for this business, with further strong growth expected from committed new projects and mining expansions, particularly for copper and gold in the Americas.

During the year, the Board approved capacity expansions at the Lima, Peru and Cilegon, Indonesia grinding media facilities. The expansions will add 40 thousand tonnes at Lima, and 50 thousand tonnes at Cilegon. The expansions are tracking in line with our time and cost expectations.

OneSteel Steel & Recycling, our Australian steel businesses, continued to be challenged by the difficult external environment. However, good progress was made on cost and operational performance, particularly in the second half, which was boosted by a small increase in demand from the resource sector and government funded civil works projects, however some of these benefits were offset by significant periods of wet weather early

In addition to cost and operational improvements, the businesses had a strong focus on cash generation. During the year, we sold the

Piping Systems business, closed the Oil and Gas Pipe business and LiteSteel™ Technologies businesses in the USA and Australia, and identified other non integrated businesses for sale or closure. The OneSteel Steel & Recycling businesses reduced Full Time Equivalent (FTE) headcount by a total of 815 during the year resulting in annualised labour cost savings of \$85 million.

Notwithstanding the continued difficult external environment, OneSteel Manufacturing delivered a positive EBITDA result in the second half. which represents a \$57 million turnaround from its first half EBITDA result. In OneSteel Australian Distribution and OneSteel Recycling, significant cost savings were delivered which increase the businesses' leverage to an improvement in market conditions.

#### **Balance sheet initiatives**

We made good progress on balance sheet initiatives, particularly in the second half following our level of debt increasing in the first half as a result of the investment to expand our Mining business.

A strong cash outcome through tight working capital management and \$116 million of proceeds from business and asset sales helped deliver a \$99 million reduction in net debt compared to the first half. Statutory net debt decreased 4% to \$2,143 million and gearing was down 1.5 percentage points to 32.3% compared to the first half.

We also successfully refinanced debt that was due to mature in 2013 and now have no significant debt maturing until the second half of 2014. The refinancing has resulted in the company having over \$1 billion of undrawn committed facilities and an average interest cost for our total facilities of less than 5%.

#### **Commitment to Safety**

Safety is a core value for Arrium, with the company having the highest commitment to the safety of its employees, contractors and customers. I am pleased to report that we have continued our trend of improved safety performance in the 2012 financial year, with Lost Time Injury Frequency Rate and Medical Treatment Injury Frequency Rate both improving to 1.7 and 7.0 respectively, from 1.9 and 7.4 for the prior financial year.

#### Thank vou

I would like to extend my gratitude to all of Arrium's employees for their commitment to conducting their duties safely and keeping the safety of others a priority, while also remaining dedicated to all of our customers and clients.

I would also like make special mention of our employees in the Arrium Mining Consumables business who joined us following the Moly-Cop acquisition for their seamless integration into Arrium, and embracing our two core values of safety and customers.

In our OneSteel Steel & Recycling business, the good progress on cost and operational improvements was the result of significant effort, understanding and flexibility by employees, and I would like to specifically acknowledge this. I would also like to highlight the effort of our Mining employees for delivering sales of over 6 million tonnes for the year, and for their progress on the Southern Iron and Whyalla Port expansions, which they have been able to keep tracking in line with our time and cost expectations.

To my management team, thank you for your tireless dedication over a year where the external environment was again very challenging.

To Arrium's Chairman and Board of Directors. I would like to thank you for your support and guidance over the year.

And finally, I would like to thank Arrium shareholders for your support over a period that has included significant volatility in equity markets.

**GEOFF PLUMMER** Managing Director & CEO



## **OPERATIONAL** OVERVIEW



#### **Operational performance**

The company delivered an underlying net profit after tax of \$195 million for the year, compared to \$235 million for the prior financial year. The resource based businesses performed well, with the Australian steel businesses continuing to be affected by the weak external environment, the high Australian dollar and wet weather during the vear.

Arrium Mining performed well, exceeding its sales target of 6 million tonnes per annum and contributing \$303 million EBIT for the year. Strong demand underpinned high prices early in the year, but the tightening of credit in China, combined with increased global uncertainty, including European debt issues, had a dramatic impact on prices through October. As a result, the business achieved a lower average realised price for the year compared to the previous year.

Expansion plans are running on time and on budget, with first sales from Peculiar Knob expected in the December 2012 quarter, and to then ramp up to an 11 million tonnes per annum run rate by mid-2013. At the Whyalla Port, project construction of rail, services, materials handling, berths and ship loaders is continuing to progress in line with planned completion by mid-2013.

Arrium Mining Consumables delivered a strong result of \$135 million EBIT, a 107% increase on the prior year, primarily due to a full year contribution from the Moly-Cop Group and an improved performance by the Australian businesses. The Moly-Cop grinding media businesses in South America and North America continued to perform well and in line with expectations, underpinned by strong mining activity, particularly in copper and gold.

The expansions in Lima, Peru and Cilegon, Indonesia are tracking in line with time and cost expectations, and further plans are being developed to increase grinding media capacity in response to growing demand in North and South America, as well as other regions, as further mining projects come into production in coming years.

The OneSteel Steel & Recycling businesses continued to be challenged by the difficult external environment, including generally weak markets and the high Australian dollar.

\$470M

STRONG OPERATING CASH FLOW FOR THE YEAR

## ARRIUM MINING PERFORMED WELL, EXCEEDING ITS SALES TARGET OF 6 MILLION TONNES PER ANNUM & **CONTRIBUTING \$303 MILLION EBIT FOR THE YEAR**

The OneSteel Manufacturing business benefited from a small increase in demand from the resource sector and government funded civil works projects. This increase, together with a strong focus on cost and operational improvements helped the business deliver a positive EBITDA result of \$19 million in the second half, excluding the impact of the Steel Transformation Plan advance of \$64 million<sup>1</sup>. This reflects a significant turnaround of \$57 million from the first half underlying EBITDA result.

Underlying EBIT for the year was a loss of \$50 million, compared to a loss of \$185 million for the prior financial year.

The OneSteel Australian Distribution business recorded an underlying EBIT loss of \$10 million for the year, reflecting continued weak volumes and margin pressure from lower average prices as a result of the high Australian dollar. The business continued to focus on cost and operational improvements.

OneSteel Recycling EBIT for the year decreased to \$7 million compared to \$21 million for the previous financial year, largely due to the impact of weaker non ferrous scrap markets and the sharp decline in ferrous prices towards the end of the financial year, partially offset by operational cost improvements.

Operating cash flow for the year was a strong \$470 million, compared to \$463 million for the previous financial year, reflecting tight working capital management. During the year, the business received approximately \$120 million of proceeds from business and asset sales related to the company's steel product portfolio and facilities review.

The OneSteel Steel & Recycling businesses delivered annualised labour cost saving of \$85 million during the year with other parts of the business contributing \$11 million of labour savings on an annualised basis. During the vear, OneSteel Manufacturing exited the LiteSteel™ Technologies business, which had operations in Queensland, Australia and Virginia, USA. OneSteel Distribution sold its Piping Systems business, closed its Oil & Gas Pipe business and 15 Distribution sites. OneSteel Recycling closed two scrap yards and continued to progress work on improving non-ferrous recovery rates.



Refer to page 131 for more information on the Steel Transformation Plan. An advance of \$64 million was provided by the Australian Government in January 2012 against Arrium's expected \$117 million share of the Plan funds.

## **KEY BUSINESS** DRIVERS

The information included in the following charts illustrates trends in some of the major drivers of Arrium's businesses, including iron ore demand, world copper and gold production, key sectors of the Australian economy, domestic steel prices, prices of international steel and key inputs into steelmaking. The strength in the markets of our international and resource focused businesses and the weakness in the markets of our Australian steel businesses are evident in the following charts.

#### Iron ore imports into China January 2008 to June 2012 Million tonnes (LHS) Import unit price (US\$/t) (RHS)

Figure 1



Figure 2

#### Iron ore fines (62% Fe) - Spot prices (cfr N China)

July 2004 to June 2012 Dollars per tonne (cfr)



Source: CRU, Platts

#### Iron ore imports into China

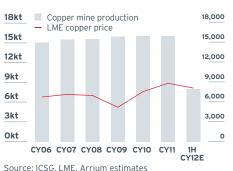
Figure 1 represents the volume of iron ore that was imported by China. China imported 719 million tonnes of iron ore in FY12. This represents an increase of 11.7% compared to FY11 import volumes. China's share of the seaborne iron ore trade has risen from ~40% in 2005 to ~60% in 2011. Demand for iron ore from China has been strong due to their increase in steel production.

Arrium has iron ore reserves in South Australia. In FY12, Arrium exported 6.29 million tonnes of iron ore compared to 6.04 tonnes in FY11.

Figure 2 shows the movement in spot iron ore fines (62% Fe) prices in both US and Australian dollars. Average spot prices in US dollar terms for FY12 decreased by 7.6% compared to FY11. Spot prices at the beginning of FY12 went up to a high of US\$183/t. Spot prices dropped to a low of US\$116.75/t in October.

### Figure 3 World copper mine production and price

January 2006 to June 2012 Thousand tonnes (LHS) LME Copper Price (US\$/t) (RHS)



#### Figure 4

#### World gold mine production and price

January 2006 to June 2012 Thousand tonnes (LHS) Gold price London PM fix (US\$/troy oz) (RHS)



Mining of copper and gold is a key source of demand for grinding media.

#### **World copper production**

Figure 3 shows world copper production and LME prices in US dollars. World copper production in CY11 remained at similar levels to the previous year. The LME copper average price for FY12 was 6% lower than FY11 prices. Copper prices during the year ranged from US\$6,785/t to US\$9,827/t.

#### World gold production

Figure 4 shows world gold production and London PM fixed prices in US dollars. World gold production increased by 3% in CY11 compared to the previous year. The average gold price for FY12 increased by 22% compared to FY11. Gold prices during the year ranged from US\$1,483/troy oz to US\$1.895/trov oz.

#### Figure 5

#### Korean HM1 scrap price (c&f)

July 2004 to June 2012 Dollars per tonne (c&f)



#### Figure 6

#### Long products international prices

July 2004 to June 2012 Australian dollars per tonne (c&f)



Source: CRU (Merchant Bar, Rebar, Wire Rod), SBB (Beams)

#### Scrap prices

Figure 5 shows prices for Korean ferrous scrap in US and Australian dollars. In FY12, OneSteel Recycling sold 1.86 million tonnes of ferrous scrap to internal and external customers, compared to 1.91 million tonnes in FY11. Non ferrous sales in FY12 were flat compared to FY11 at 0.25 million tonnes.

The Korean benchmark average price for HM1 scrap in US dollar terms increased by 5% in FY12 compared to FY11. The prices went to a high of US\$499/t early in FY12 in line with the price rises in iron ore and coking coal. Towards the end of FY12, scrap prices dropped to a low of US\$392/t due to weak demand from Turkey and Asia.

#### Long products international prices

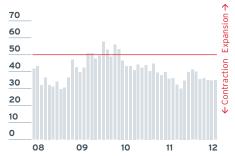
Figure 6 presents the international benchmark prices for structural beams, merchant bar, reinforcing bar and wire rod. Whilst pricing was volatile through the year, average prices for structurals increased by 3%, merchant bar increased by 2% and reinforcing bar and wire rod increased by 1% in FY12 compared to the previous year. Prices have been affected by rising raw material costs, over-supply of steel, as well as weak demand in the Asian region.

#### Figure 7

Source: TEX Report

#### **Australian Performance of Construction Index (PCI)**

July 2008 to June 2012 Diffusion index

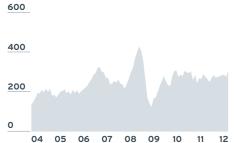


Source: Australian Industry Group

#### Figure 8

#### Steel imports into OneSteel manufactured range of products

July 2004 to June 2012 Thousand tonnes



Source: ABS and OneSteel data 3 month moving totals

#### Australian Performance of Construction Index

Figure 7 shows that the Australian Performance of Construction Index (PCI) has been in the "contraction" zone for the whole of the FY12 period. PCI dropped to a low of 30, a level that last occurred in March 2009. PCI went to a high of 41 which is the only occurrence above 40 during FY12.

#### Import volumes of steel into Australia

Figure 8 shows that the import volumes in the OneSteel product range decreased by 2%. The weak construction sector in Australia has negatively impacted steel imports, despite the strong Australian dollar.

#### Figure 9

#### **Prices for steel residential** construction materials

June quarter 2004 to June quarter 2012 Index 1989 - 1990 = 100



#### Figure 10

Source: RBA

#### Australian versus US dollar (Monthly average)

July 2004 to June 2012 A\$1 buys US\$



#### **Prices for steel residential** construction materials

Figure 9 represents the movement in prices of residential construction materials indexed to 1989/90 prices. The index for reinforcing steel had decreased by 1.2% in the June 2012 quarter compared to the June 2011 quarter.

#### **US** dollar exchange rates

Figure 10 represents the Australian dollar exchange rates against the US dollar. In FY12 the exchange rate ranged from \$0.95 to \$1.10. The average exchange rate during the year averaged \$1.03, an increase of 4% compared to the average FY11 exchange rate. The Australian dollar has been very strong against the US dollar since the GFC due to the weak US economy, high official interest rates in Australia compared to the other major economies, strong commodities prices and the attractiveness of Australia as a 'safe harbour" currency.

# STRATEGIC FRAMEWORK SCORECARD

Our vision is to be a leading mining and materials company which delivers superior returns for our shareholders. We aim to achieve this vision through a portfolio of mining and materials businesses that are diversified across commodities, geographies and markets, and by utilising our unique customer relationships and market positions, capabilities and infrastructure, and investing in opportunities which provide the best return on shareholder funds.

The strategy for our businesses to deliver this vision is currently focused on growing our Arrium Mining and Mining Consumables businesses, and addressing the performance of our OneSteel Steel & Recycling businesses. The strategy and performance scorecard for the year for these businesses are detailed below.

#### **Arrium Mining strategy**

- Growing the volume of our iron ore exports
- Leveraging our unique infrastructure assets in South Australia
- Pursuing exploration and development activities to replace mined reserves and increase reserves and resources to support and grow sales.

#### **Performance**

- Iron ore sales increased to 6.29 million tonnes from 6.04 million tonnes in the prior financial year.
- The company announced a significant expansion of its Mining business that is expected to increase iron ore sales to a run rate of 11 million tonnes per annum and double the capacity of its Whyalla Port to 12 million tonnes per annum by mid 2013.
- The leveraging of our Mining infrastructure is expected to provide additional benefits to this expansion through:
  - Enabling first sales in the December 2012 quarter, around one year from the time of the company's decision to invest in the expansion
  - Completion of the port expansion within around 18 months from the time of the company's decision to invest in the expansion
  - The creation of approximately 8 million tonnes of additional marketable ore through the blending of high grade ore from Peculiar Knob with lower grade ore from the Middleback Ranges.
- The business invested in an ore beneficiation plant at Iron Baron in the Middleback Ranges which is expected to deliver additional high grade ore of approximately 1 million tonnes per annum.
- Exploration and development activities resulted in an additional 7.2 million tonnes of identified hematite reserves (inclusive of reserves depleted during the year), and an increase of 5.4 million tonnes in total identified resource for the Middleback Ranges operation.

#### **Arrium Mining Consumables strategy**

- Building on our position as the leading global supplier of grinding media to the mining industry
- Investing in capacity close to our customers
- Growing our competitive advantage through superior quality, supply assurance and technical support for customers
- Pursuing opportunities to expand into new geographies within current product ranges
- Pursuing opportunities to expand into new products.

#### Performance

- Through Moly-Cop, the business continued to build on its position as the global leader in the supply of grinding media to the mining industry.
- The business doubled its EBIT contribution to \$135 million compared to the prior financial year.
- There was a significant lift in the performance of the Australian Grinding and Rail business during the year through factors including product quality, certainty of supply and technical support, as well as through improved operating efficiencies within the businesses.
- Further investment in the South American business was announced during the year which will add 40 thousand tonnes of capacity to the Lima, Peru production facility to meet growing demand for grinding media.
- Further investment in the Australasian business was announced during the year which will add 50 thousand tonnes of capacity to the Cilegon, Indonesia grinding media facility to meet growing demand in the region.

#### OneSteel Steel & Recycling strategy

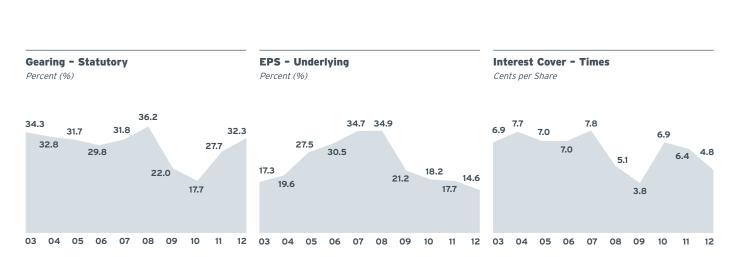
- Focusing on markets in which we have a sustainable competitive advantage
- Building our leading market positions
- Having flexible capacity to meet demand cycles
- Delivering returns throughout the cycle
- Continually reducing our cost to serve to ensure competitiveness of our offer.

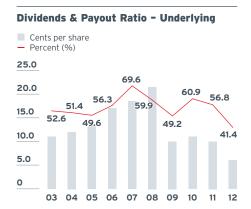
#### **Performance**

- Good progress was made on cost and operational improvements in OneSteel Manufacturing, OneSteel Australian Distribution and OneSteel Recycling.
- A focus on cost and operational improvements was a key factor in delivering an underlying \$19 million EBITDA for OneSteel Manufacturing in the second half, a \$57 million turnaround compared to the first half.
- Cost savings in these businesses included labour savings of \$85 million on an annualised basis.
- A review of our steel product portfolio and facilities footprint during the year, including an assessment of whether certain steel businesses would be of greater value to another owner, led to:
- Closure of the LiteSteel™ Technologies business in the USA and Australia
- Sale of the Piping Systems business and associated property for proceeds of approximately \$100 million
- Closure of the Oil and Gas Pipe business
- Closure of 15 Distribution sites
- Closure of two scrap yards.
- The Whyalla blast furnace significantly lifted its performance levels following the completion of repair work early in the financial year.
- The Manufacturing business continued to utilise and benefit from production flexibility provided by its mix of electric arc furnaces and its integrated operation at Whyalla.









## **OUR VISION IS TO BE LEADING MINING AND MATERIALS COMPAN**

# AT A GLANCE



#### Market conditions

Strong demand continued to underpin high prices early in the year, but the tightening of credit in China combined with increased global uncertainty including European debt issues had a dramatic impact on prices through October. Prices improved by December and were relatively stable through the balance of the year.

#### Performance

The Arrium Mining business achieved sales volumes of 6.29 million tonnes compared to 6.04 million tonnes in the prior financial year. However, lower net realised average prices, a higher Australian dollar and higher operating costs offset the benefits of increased volumes.

The business is progressing well with its Southern Iron and Whyalla Port expansions. The business continues to identify and increase iron ore reserves and resources at the Middleback Ranges as well as focus on work to identify non ferrous opportunities.

#### Outlook

We expect the fundamentals supporting iron ore to continue to be based upon ongoing demand from China which will underpin high prices compared with long term historical levels. The business expects to see benefits in the second half of FY13 from increased iron ore shipments related to the ramp up of our Southern Iron and Whyalla Port expansions.

Year ended 30 June <sup>1</sup>	<b>2012</b> (\$m)	<b>2011</b> (\$m)	Change (%)
Total Revenue/ Income	819.0	948.4	(13.6%)
EBITDA	343.7	554.2	(38.0%)
EBIT	302.9	523.5	(42.1%)
Sales Margin (EBIT)	37.0%	55.2%	-18.2pts
Assets	1,685.9	948.4	77.8%
Funds Employed	1,379.7	776.3	77.7%
Return on Funds Employed (%)	28.1%	70.1%	-42pts
Employees (number)	532	367	45.0%

For more information on Arrium Mining, refer to page 18.



#### Market conditions

Mining activity in our key markets of Australasia, North and South America remained strong as high metal prices continue to drive existing mines to maximise mineral extraction and processing.

#### Performance

The business delivered a strong earnings performance with EBIT up 107% from the previous year to \$135 million. Moly-Cop was awarded Newmont's Global and Regional Supplier of the Year awards.

#### Initiatives

Capacity expansions for grinding media were approved at our Lima and Cilegon facilities, which will add 40 thousand tonnes and 50 thousand tonnes respectively to Moly-Cop's current grinding media capacity of approximately 1.3 million tonnes per annum.

We expect demand for grinding media to remain strong driven by continued solid demand for copper, gold and iron ore. We are continuing to develop plans for further capacity growth over the medium term in response to growing demand for grinding media.

Year ended 30 June <sup>2</sup>	<b>2012</b> (\$m)	<b>2011</b> (\$m)	Change (%)
Total Revenue/ Income	1,540.6	1,079.3	42.7%
EBITDA	171.6	97.7	75.6%
EBIT	135.2	65.3	107.0%
Sales Margin (EBIT)	8.8%	6.1%	2.7pts
Assets	2,310.3	2,286.4	1.0%
Funds Employed	1,947.5	1,944.9	0.1%
Return on Funds Employed (%)	6.9%	4.4%	2.5pts
Employees (number)	1,973	1,864	5.8%

For more information on Arrium Mining Consumables, refer to page 21.

# ONESTEEL STEEL & RECYCLING

#### **OneSteel Manufacturing**

#### Market conditions

Activity levels for many of our key domestic markets continue to be relatively weak, with domestic confidence remaining low. There was a small increase in demand from the resource sector and government funded civil works project, partially offset by significant periods of wet weather.

#### Performance

The segment delivered an underlying EBIT loss of \$50 million compared to a loss of \$185 million for the prior financial year. The business delivered a positive underlying EBITDA result of \$19 million in the second half, largely reflecting a focus on cost reductions and operational improvements.

#### Initiatives

The business delivered significant cost and operational improvements during the year including exiting the LiteSteel™ Technologies business. The Whyalla blast furnace is performing above expectations following repair work to extend its design life beyond 2020.

Year ended 30 June	<b>2012</b> (\$m)	<b>2011</b> (\$m)	Change (%)
Total Revenue/ Income	2,597.6	2,425.9	7.1%
EBITDA	45.1	(86.6)	152.1%
EBIT	(49.9)	(184.6)	73.0%
Sales Margin (EBIT)	(1.9%)	(7.6%)	5.7pts
Assets <sup>3</sup>	2,323.0	2,594.5	(10.5%)
Funds Employed <sup>3</sup>	1,822.4	2,042.1	(10.8%)
Return on Funds Employed (%) <sup>3</sup>	(2.6%)	(9.0%)	6.4pts
Employees (number)	3,106	3,424	(9.3%)

For more information on OneSteel Manufacturing, refer to page 24.

#### **OneSteel Australian Distribution**

#### Market conditions

Despite a strong resource sector, domestic demand was constrained by confidence levels related to the volatility of the global economic environment, credit availability issues, poor weather and weak residential and non residential construction activity.

Earnings decreased compared to the prior financial year due to a lower average selling price and the impact of the stronger Australian dollar, offset by a small increase in sales volumes.

The business focused on cost and operational improvements and cash generation during the year. The Piping Systems business was sold, and the Oil and Gas Pipe business and 15 Distribution sites were closed during the year.

Year ended 30 June	<b>2012</b> (\$m)	<b>2011</b> (\$m)	Change (%)
Total Revenue/ Income	2,435.6	2,438.6	(0.1%)
EBITDA	17.8	39.6	(55.1%)
EBIT	(9.9)	10.2	(197.1%)
Sales Margin (EBIT)	(0.4%)	0.4%	-0.8pts
Assets <sup>3</sup>	1,305.2	1,485.1	(12.1%)
Funds Employed <sup>3</sup>	988.9	1,133.6	(12.8%)
Return on Funds Employed (%) <sup>3</sup>	(0.9%)	0.9%	-1.8pts
Employees (number)	3,058	3,498	(12.6%)

For more information on OneSteel Australian Distribution, refer to page 26.

#### **OneSteel Recycling**

#### Market conditions

The Australian ferrous market remained challenging during the year as weak industrial and construction activity continued to affect the availability of scrap arisings. Non ferrous markets were volatile, with many commodities trading below long term averages towards the end of the financial year.

#### Performance

Earnings were impacted by lower volumes of ferrous scrap, the translation impact of a stronger Australian dollar, as well as a sharp decline in ferrous prices towards the end of the financial year.

#### Initiatives

The business focused on cost and operational improvements during the year. Two scrap yards were closed, and the business continued to work on improving non ferrous recovery rates.

Year ended 30 June	<b>2012</b> (\$m)	<b>2011</b> (\$m)	Change (%)
Total Revenue/ Income	1,589.7	1,507.2	5.5%
EBITDA	24.1	37.6	(35.9%)
EBIT	6.6	20.9	(68.4%)
Sales Margin (EBIT)	0.4%	1.4%	-1pts
Assets	675.3	652.5	3.5%
Funds Employed	567.4	554.3	2.4%
Return on Funds Employed (%)	1.2%	3.6%	-2.4pts
Employees (number)	973	1,033	(5.8%)

For more information on OneSteel Recycling, refer to page 28.

#### OneSteel Steel & Recycling outlook

Earnings are expected to be subject to movements in key external factors such as exchange rates, international steel and raw materials prices, and levels of domestic growth. The business expects to benefit from the full impact of cost and operational improvements made during the year.

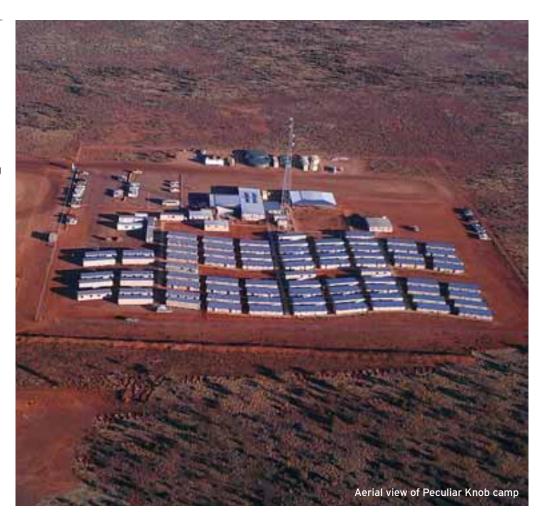
- 1 These statistics include results relating to the WPG subsidiaries acquired on 6 October 2011.
- 2 These statistics include the results of the Moly-Cop Group from 31 December 2010. FY11 assets and liabilities have been restated to reflect the final fair value adjustments arising on acquisition of the Moly-Cop Group in December 2010.
- 3 The FY12 assets and funds employed of the Manufacturing and Australian Distribution segments are comprised of balances of the continuing operations only.

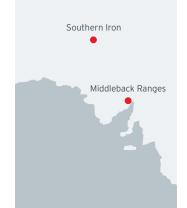
# **ARRIUM MINING**

Arrium's two mining operations are located in South Australia: the Middleback Ranges, approximately 60 kilometers from the Whyalla township, and Southern Iron, which includes the Peculiar Knob tenement, located approximately 90 kilometres from the Coober Pedy township.

The Arrium Mining business is focused on significantly increasing sales volumes to a rate of approximately 11Mtpa by mid 2013. Additionally, the business provides iron ore feed to the Whyalla Steelworks.

The business acquired iron ore assets in 2011 from WPG Resources Ltd (now Southern Iron). These assets comprise the Peculiar Knob high grade DSO hematite project located approximately 90 kilometres from Coober Pedy, and 600 kilometres from the Arrium Mining export port facilities at Whyalla, as well as the Buzzard and Tui DSO hematite and magnetite deposits at Hawks Nest, and selected iron ore exploration assets, all located in northern South Australia.





### **ARRIUM'S TWO MINING OPERATIONS ARE LOCATED IN SOUTH AUSTRALIA:**

- MIDDLEBACK RANGES, APPROXIMATELY 60 KM FROM THE WHYALLA TOWNSHIP
- SOUTHERN IRON, WHICH INCLUDES THE PECULIAR KNOB TENEMENT

The expansion to deliver a step change in iron ore sales to 11Mtpa is proceeding well and in line with time and cost expectations



**GREG WATERS** Chief Executive Arrium Mining



Work in progress, crusher at Wirrida

#### **Operational Performance**

Revenue for the year decreased 14% to \$819 million due to lower iron ore prices reflecting global economic issues and steel pricing and demand from China. Sales volumes increased 4% to 6.29 million tonnes. Lower pellet exports this year enabled rail and outer harbour shipping records for direct shipped ores. Iron ore was sold through a combination of sales to long-term contract customers (approximately 65%) and spot customers (approximately 35%).

During the year, Arrium and BHP Billiton agreed to end the iron ore sales agency that has been in existence since the commencement of Project Magnet. Arrium has directly assumed all agency activity from September 2012.

EBIT for the year was strong at \$303 million, but lower than the prior financial year EBIT of \$524 million due to lower iron ore prices, a stronger Australian dollar and higher mining costs. Prices remained high and stable through the first quarter but collapsed during October due to factors related to debt issues in Europe and fears of slower growth in China. The iron ore price recovered steadily over the following months but remained well short of the previous year's highs. Overall, the performance of Arrium Mining again provided significant net profit and cash generation for the company.

Mining costs for our Middleback Ranges operation increased to \$41 per tonne (wmt, average loaded mining cost excluding royalties and depreciation) due to general industry cost increases and factors related to mining a greater number of pits. Arrium awarded BGC Contractors a five year contract for mining services in the Middleback Ranges operation to commence November 2012.

The businesses' exploration and drilling program focussed on both the Middleback and Southern Iron operations during the year. At Middleback Ranges, an additional 7.2 million tonnes of reserves were identified (including reserves depleted during the year), albeit at a slightly lower overall grade. At Southern Iron, priority rigs were allocated to infill drilling at Peculiar Knob to optimise the pit configuration for commencing sales in the 2013 financial year. No resource/ reserve data was concluded for Southern Iron in the year. Therefore the previous allocated reserve of 16.4 million tonnes for Peculiar Knob has been used in our Reserves and Resources Statement. Overall, hematite resource for Middleback Ranges increased by approximately 5.4 million tonnes year on year predominantly related to work at the Iron Baron mining area. Further information in relation to our reserves and resources for the Middleback Ranges and Southern Iron operations can be found in our Reserves and Resources Statement on page 129.



#### Growth

Key activities through the year included developing our new Southern Iron operation and the Whyalla Port expansion and securing a range of skills and capabilities to support the increase in exports to 11 million tonnes per annum. This included the integration of the WPG Resources team and two construction teams, one to develop the Southern Iron mine and infrastructure, and the other to expand the port capacity to approximately 12Mtpa.

The Southern Iron mine and rail infrastructure is proceeding well and in line with time and cost expectations. The haul road, crusher and rail transfer facilities will all be commissioned for initial exports in the December 2012 quarter. The opportunity to blend the high grade Peculiar Knob ore (~63% Fe) with lower grade ores from the Middleback Ranges lifts the target of additional annual sales post ramp up from less than 4 million tonnes per annum to over 5 million tonnes per annum and underpins the investment in the Whyalla Port expansion.

The Whyalla Port expansion has been designed to allow greater sprint capacity and operational flexibility. Two sheds are being constructed to enable simultaneous receipt and loading of ores and new rail lines (narrow gauge from Middlebank Ranges and standard gauge from Southern Iron) and a larger ship loader, due mid 2013, have been designed to provide optimum delivery performance without disrupting the steelworks operations.

#### Mining - Historical information

	<b>FY12</b> <sup>1</sup> (\$m)	<b>FY11</b> (\$m)	<b>FY10</b> (\$m)	<b>FY09</b> (\$m)	<b>FY08</b> (\$m)
Revenue/income	819.0	948.4	782.3	598.5	561.2
EBITDA	343.7	554.2	361.2	138.0	220.9
EBIT	302.9	523.5	333.4	113.0	212.9
Sales margin %	37.0%	55.2%	42.6%	18.9%	37.9%
Assets	1,685.9	948.4	816.7	769.2	542.0
Funds employed	1,379.7	776.3	717.4	688.9	461.8
ROFE %	28.1%	70.1%	47.4%	19.6%	46.1%
Employees (number)	532	367	339	357	152
Total lump & fines (mt)	6.29	6.04	6.03	5.07	4.46
Pellet & ore by products (mt)	0.44	0.72	0.81	0.69	0.88

<sup>1</sup> These statistics include results relating to the WPG subsidiaries acquired on 6 October 2011.

#### Safety performance

Despite the significant increase in activity, the safety performance for the business was pleasing with an LTIFR of 0.5 and MTIFR of 3.2 for the year, a decrease compared to LTIFR of 1.43 and MTIFR of 5.25 in the 2010 financial year, illustrating steady and consistent improvement over the past two years, driven by strong leadership and risk management programs across the company.

#### **Community and Sustainability**

We continue to build strong relationships with the local communities in Whyalla and Coober Pedy, providing sponsorship to local events and community groups, in addition to significant direct and indirect employment opportunities.

In line with Arrium's Sustainability Principles, the business continues to progress water saving initiatives such as the reuse of tailings water, dust suppressants on roads and other water collection activities. The newly constructed reverse osmosis plant has been very successful in providing process water for the concentrator.

#### Outlook

Looking ahead, we expect the Chinese market to continue to grow, albeit at a slower rate than previous years and iron ore demand to remain solid.

We expect to export approximately 8Mt during FY13 and be at a run rate of 11 million tonnes per annum by mid 2013.

Work will continue on assessing opportunities from both the Middleback Ranges and Southern Iron resources to increase sales above 11 million tonnes per annum.

**KEY ACTIVITIES THROUGH THE YEAR** INCLUDED DEVELOPING OUR NEW SOUTHERN IRON OPERATION AN THE WHYALLA PORT EXPANS TO INCREASE SALES TO 11 MILLION TONNES PER ANNU

## **ARRIUM MINING** CONSUMABLES

**Arrium's Mining Consumables** segment comprises the Moly-Cop grinding media business, Moly-Cop Ropes, Waratah Steel Mill and AltaSteel, with businesses located across North America, South America, Indonesia and Australia.

Through the Moly-Cop business, Arrium Mining Consumables is the leading global supplier of grinding media to mining companies and is ideally positioned to capitalise on mining growth, particularly from copper, gold and iron ore production.

Arrium Mining Consumables employs approximately 1,970 people, positioning Arrium to deliver reliable and high quality mining consumables products to the mining industry from its

11 facilities world-wide. The Mining Consumables businesses produce grinding media, grinding rod, chemicals, wire rope, railway wheels and axles, bar stock (grinding media feed) and rebar.

Sales revenue for the seament increased 43% to \$1,541 million compared to the prior financial year due mainly to the contribution of the Moly-Cop Group acquired at the end of 2010.

EBIT for the segment increased 107% to \$135 million due to a stronger performance and inclusion of a full year of earnings from the Moly-Cop group, and a significant improvement in the performance of the Australian grinding media, rail and ropes businesses.

Arrium's Board has approved capacity expansions for the Lima, Peru and Cilegon, Indonesia grinding media facilities consistent with the company's growth strategy. The expansions will add approximately 40 thousand tonnes of capacity at our Lima, Peru grinding media facility, and approximately 50 thousand tonnes at our Cilegon, Indonesia facility for an expected total combined cost of approximately A\$36 million. These expansions are tracking in line with our time and cost expectations, and we are continuing to develop plans for further capacity growth in response to growing demand for grinding media in North and South America, as well as other regions, as new mining projects come into production in coming years.

Looking ahead, we expect demand for grinding media to remain strong driven by continued solid demand for copper, gold and iron ore. We expect to see continued price pressure for rail products due to the strength of the Australian dollar. Additionally, we expect demand for mining ropes and railway wheels to remain very solid in the short to medium term driven by mining production.



# \$1,541 MILLION

**SALES REVENUE - UP 43%** 





#### Mining Consumables - Historical information

	<b>FY12</b> (\$m)	<b>FY11</b> <sup>2</sup> (\$m)	<b>FY10</b> 1 (\$m)	<b>FY09</b> 1 (\$m)	<b>FY08</b> 1 (\$m)
Revenue/income	1,540.6	1,079.3	680.1	659.8	509.2
EBITDA	171.6	97.7	83.2	41.7	82.0
EBIT	135.2	65.3	62.3	22.8	65.6
Sales margin %	8.8%	6.1%	9.2%	3.5%	12.9%
Assets	2,310.3	2,286.4	1,158.5	1,125.0	1,104.3
Funds employed	1,947.5	1,944.9	1,053.6	1,040.1	1,015.0
ROFE %	6.9%	4.4%	6.0%	2.2%	6.5%
Employees (number)	1,973	1,864	924	910	820
External tonnes despatched (mt)	1.11	0.75	0.39	0.33	0.35
Internal tonnes despatched (mt)	0.09	0.09	0.10	0.05	-
Steel tonnes produced (mt)	0.50	0.40	0.24	0.24	0.27

<sup>1</sup> The FY08-FY10 results have been restated to reflect changes in organisation structure following the formation of the new Mining Consumables segment as a result of the acquisition of the Moly-Cop Group. The Waratah, Newcastle facilities, which include the grinding media and rail wheel businesses, The grinding media businesses in the United States and Indonesia, and the wire ropery business at Newcastle previously reported as part of the Manufacturing segment now form part of the Mining Consumables segment.

#### Moly-Cop

Arrium Mining Consumables continued to execute its long-term growth strategy for creating shareholder value.

Strong demand and favourable prices for copper and gold continued to drive strong demand for grinding media. Moly-Cop is strategically positioned to extract value from these growth markets across the world from its facilities located in North America, South America and Australasia. Moly-Cop has the capacity to produce approximately 1.3 million tonnes per annum of grinding media, including both roll formed and forged grinding media products, in a range of different sizes. The Moly-Cop businesses service their customers around the world from operations in Canada, the USA, Chile, Peru, Mexico, Australia and Indonesia.

Moly-Cop continued to reinforce its reputation as a leading supplier of grinding media, being awarded Newmont's Global and Regional supplier of the year for support of continuous improvement programs, proactive and transparent collaboration and consistently producing high quality products. Nominees are evaluated on their contributions toward creating operating efficiencies, developing strong relationships and embracing Newmont's values in worker safety, environmental protection and social responsibility. Moly-Cop has been a part of Newmont's global alliance of suppliers since 2006.

<sup>2</sup> These statistics include the results of the Moly-Cop Group from 31 December 2010. Assets and liabilities have been restated to reflect the final fair value adjustments arising on acquisition of the Moly-Cop Group in December 2010.

### EBIT performance for the year more than doubled to \$135 million due mainly to the contribution from Moly-Cop



### **Moly-Cop Ropes**

Moly-Cop Ropes produces a range of wire rope products predominantly for dragline and shovel ropes for use in mining, as well as industrial ropes markets. Moly-Cop Ropes has a long and proud history of ropemaking in Australia, with more than 85 years experience as a trusted manufacturer and supplier to the global mining industry.

Moly-Cop Ropes' sales volumes for the year were affected by the impact of rolling strike action at the BMA mines. The business was successful in securing and renewing a number of significant dragline rope contracts during the year.

### **Waratah Steel Mill** (including Rail & Forge)

Waratah Steel Mill is a ferrous scrap based producer of high quality steel products operating in Newcastle, NSW. It is a leading domestic supplier of rail wheels, axles and wheel sets for the mining and rail transport sectors. Annual steelmaking capacity is approximately 300 thousand tonnes. The steel mill processes ferrous scrap metal through the electric arc furnace (EAF), converting the steel into a wide range of products including grinding media bar feed, rail wheels and axles, bar products, cold mill rolls and ingots.

The Waratah Steel Mill includes the Moly-Cop Australia grinding media facilities with capacity to manufacture approximately 250 thousand tonnes of grinding media per annum.

Comsteel Railway Wheels & Forge is a supplier of rail wheel products to the Australian and select international rail markets. Operating for more than 80 years, the business provides a range of wheels, axles and wheel sets predominantly for heavy haul rail systems.

The business operates from its Waratah production facility in Newcastle, Australia, with capacity to produce approximately 105 thousand wheels per annum. and is at the forefront of high hardness heavy haul wheel technology where Comsteel railway wheels are subject to the highest axle loads in some of the world's most demanding environments.

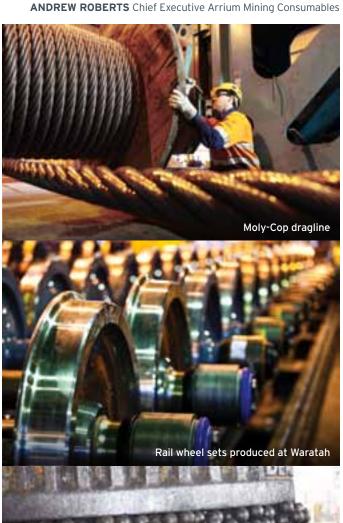
There was a solid improvement in Railway Wheel volumes during the year driven by an increase in capital demand and improved competitiveness compared to the previous year.

### **AltaSteel**

Acquired as part of the Moly-Cop Group, AltaSteel is a leading supplier of heat-treated grinding rod to the Americas' mining industry and grinding media bar feed for the production of forged grinding balls, predominantly to Moly-Cop Canada. AltaSteel has capacity to produce around 350 thousand tonnes of product per annum.

AltaSteel operates from its production facility in Edmonton, Canada. The business provides grinding media bar feed, grinding rod and rebar products to customers in Canada, USA, Mexico and Chile. AltaSteel's facility comprises steelmaking, bar rolling mills and heat treating operations.

AltaSteel's main steelmaking input is scrap, supplied through its recycling businesses, Maple Leaf Metals (100% ownership) and GenAlta (50% joint venture), and through external suppliers located in Edmonton, Canada. During the year, AltaSteel continued to work closely with the Moly-Cop businesses on product development initiatives for next generation grinding media.





# ONESTEL MANUFACTURING

OneSteel's Manufacturing business includes the Whyalla integrated steelworks, two electric arc furnaces, several rolling and wire mills, and pipe and tube mills.

The Whyalla Steelworks produces common and special grade billet as feedstock for the downstream Rod and Bar mills, as well as producing rail and structural steel products for sale, as well as sales of slab to external customers on an opportunistic basis.

Billets produced from Whyalla and the Sydney and Laverton electric arc furnaces are rolled into a wide range of long products that are sold directly to external customers as well as to Arrium's internal customers; the OneSteel Australian Distribution business and the Wire business. The Australian Tube Mills business manufactures and sells Pipe and Tube products. The company exited the LiteSteel™ Technologies business based in both Australia and the USA during the year.

Market conditions remained generally weak during the year. Domestic confidence remained low, influenced by factors including concerns over the European and US economies, the introduction of new domestic taxes, as well as the impact of the high Australian dollar. Domestic demand remained weak, particularly in the residential and commercial construction sectors, although revenue increased 7% compared to the prior year, driven mainly by increased sales volumes off a low base.

Underlying EBITDA for the year excluding the impact of a \$64 million Steel Transformation Advance, was a loss of \$19 million compared to a loss of \$87 million for the prior financial year. There was a significant turnaround in second half performance with the business delivering an underlying EBITDA result of \$19 million, due mainly to cost and operational improvements.

A review of our steel facilities footprint, a re-alignment of our fixed cost base, and an alignment of our operating levels with expected market demand were all carried out during the year. This resulted in the reduction of 407 FTE employees, operational improvements, as well as working capital reductions.

The near term outlook for the OneSteel Manufacturing business remains subdued due to the generally weak domestic market, the impact of the high Australian dollar, and excess capacity in international steel markets.

### Whyalla Steelworks

The Whyalla Steelworks is located at Whyalla, South Australia, approximately 400 kilometres north-west of Adelaide. It is an integrated steelworks typically producing approximately 1.2 million tonnes of steel per annum using iron ore-based feed, sourced from Arrium's iron ore mines in the region. It produces billet for rolling in other OneSteel Manufacturing sites, together with rail and structural steel products.

Steel production from Whyalla in FY12 totalled 1.1 million tonnes. Steel throughput was partly affected by blast furnace repair work, which was completed in July 2011 and then ramped up through August.

### Rod and Bar

The Rod and Bar business produces a wide range of products and services for a diverse range of markets including the construction, rural, mining and manufacturing segments. Products include bar and rod for the reinforcing market, merchant bar, and rod feed for the wire industry.

These products are produced from facilities in Sydney and Newcastle, NSW and Laverton, VIC. The EAF and billet casting facilities at the Laverton and Sydney steel mills have a combined capacity of approximately 1.3 million tonnes per annum. Additionally, approximately 650 thousand tonnes of billet is supplied from the Whyalla Steelworks.

Sales volumes increased compared to the prior year off a low base due to stronger demand for reinforcing products related mainly to large project work.

The Wire business consists of wire mills in Newcastle and Jindera, NSW and Geelong, VIC. The business predominantly services the rural fencing markets through its Waratah and Cyclone brands, domestic reinforcing and manufacturing segments, as well as Arrium's Moly-Cop Ropes business. Rural sales increased compared to the prior year.

### **Australian Tube Mills**

The Australian Tube Mills (ATM) business manufactures structural pipe and tube from facilities at Acacia Ridge, QLD, Newcastle, NSW and Somerton, VIC. The business also manufactures precision tube at manufacturing facilities in Sunshine, VIC and Kwinana, WA. Key market sectors for ATM products include construction, manufacturing and agriculture, while precision tube is supplied to the Australian manufacturing, automotive, fencing and home improvement segments.

Sales volumes were down compared to the prior year due to the business exiting some niche product markets and weaker activity in Pipe/RHS markets.



We achieved a significant turnaround in performance in the second half despite the external environment remaining challenging



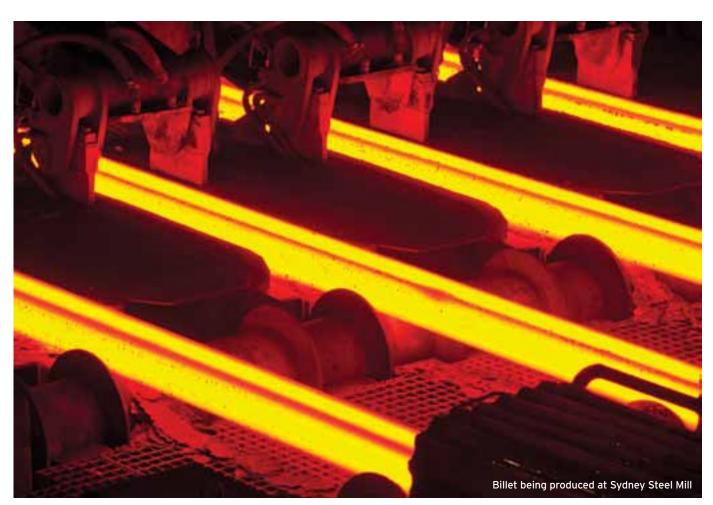
**LEO SELLECK** Chief Executive OneSteel Manufacturing

### **Manufacturing - Historical information**

	<b>FY12</b> <sup>2</sup> (\$m)	<b>FY11</b> (\$m)	FY10¹ (\$m)	<b>FY09</b> <sup>1</sup> (\$m)	<b>FY08</b> 1 (\$m)
Revenue/income	2,597.6	2,425.9	2,472.9	3,100.5	3,128.1
EBITDA	45.1	(86.6)	96.5	282.4	243.5
EBIT	(49.9)	(184.6)	(3.4)	187.5	133.3
Sales margin %	(1.9%)	(7.6%)	(0.1%)	6.0%	4.3%
Assets	2,323.0	2,594.5	2,623.9	2,600.8	2,880.8
Funds employed	1,822.4	2,042.1	2,054.5	2,150.3	2,202.3
ROFE %	(2.6%)	(9.0%)	(0.2%)	8.6%	6.1%
Employees (number)	3,106	3,424	3,394	3,712	4,196
External tonnes despatched (mt)	1.15	1.11	1.05	1.02	1.45
Internal tonnes despatched (mt)	1.12	1.03	1.12	0.97	1.26
Steel tonnes produced (mt)	2.00	1.92	1.92	1.78	2.44

The FY08-FY10 results have been restated to reflect changes in organisation structure following the formation of the new Mining Consumables segment as a result of the acquisition of the Moly-Cop Group. The Waratah, Newcastle facilities, which include the grinding media and rail wheel businesses, The grinding media businesses in the United States and Indonesia, and the wire ropery business at Newcastle previously reported as part of the Manufacturing segment now form part of the Mining Consumables segment.

Pre-2008 historical information can be found on Arrium's website.



<sup>2</sup> Assets and funds employed comprised of balances of continuing operations only.

# ONESTEEL AUSTRALIAN DISTRIBUTION

OneSteel's Australian Distribution business serves the construction, manufacturing and resources markets with a diverse range of steel and metal products including structural steel sections, steel plate, angles, channels, reinforcing steel, carbon and stainless coils and flat products and a range of aluminum products. The business distributes products sourced from OneSteel Manufacturing as well as externally purchased products.

Total revenue was flat at \$2,436 million for the year due to lower average prices as a result of the stronger Australian dollar, offset by a 6% increase in sales volumes related to improved demand from the resources sector and civil works projects. Underlying EBIT decreased to a loss of \$10 million from a profit of \$10 million in the prior financial year due to margin pressure, partly offset by cost savings.

Domestic demand was constrained by confidence levels related to the volatility in the global economic environment, credit availability issues, poor weather and less public and private investment, particularly in construction.

Across the sectors, mining production activity remained strong and there was some improvement in mining investment activity. Residential and non-residential construction activity remained depressed as lower public investment and business and weaker consumer confidence levels continued. In the manufacturing sector. soft demand and the impact of the significantly stronger Australian dollar contributed to a continuation of overall weak activity levels during the year.

### Metaland | Steel & Tube

The Metaland | Steel & Tube business processes and distributes a broad range of structural steel and related steel products and is the leading steel distribution business in Australia.

Metaland | Steel & Tube has 71 outlets, including Midalia in Western Australia. The business services mining projects and non-residential and engineering construction, fabrication, manufacturing and agricultural seaments.

Sales volumes increased compared to the prior financial year due to improved demand from markets exposed to the resource sector in Queensland and Western Australia.

### Reinforcing

Reinforcing steel is used for concrete reinforcement, mining strata control, agriculture and industrial mesh products, as well as reinforcing steel fibers. It is supplied to large and small builders, concreters, form-workers, pre-casters and mining companies.

OneSteel's Reinforcing presence in the construction segments is represented by two separate and competing businesses. OneSteel Reinforcing offers the construction and mining seaments in particular, a range of innovative reinforcing solutions.

ARC (the Australian Reinforcing Company) has leading market positions in most segments complemented by strong customer relationships, flexible offers and a "can do" attitude.

Across the Reinforcing businesses, sales volumes for the period were significantly higher during the year due mainly to a number of large rebar infrastructure projects.

# MINING PRODUCTION ACTIVITY **REMAINED STRONG AND THERE WERE ENCOURAGING SIGNS OF IMPROVEMENT** IN MINING INVESTMENT ACTIVITY



### The benefit of a 6% increase in volumes was offset by lower prices related to the higher Australia dollar



STEVE HAMER Chief Executive OneSteel Australian Distribution

### Australian Distribution - Historical information

	<b>FY12</b> 1 (\$m)	<b>FY11</b> (\$m)	<b>FY10</b> (\$m)	<b>FY09</b> (\$m)	FY08 (\$m)
Revenue/income	2,435.6	2,438.6	2,520.6	3,324.4	3,144.7
EBITDA	17.8	39.6	91.8	217.5	179.8
EBIT	(9.9)	10.2	60.2	184.5	145.9
Sales margin %	(0.4%)	0.4%	2.4%	5.5%	4.6%
Assets	1,305.2	1,485.1	1,509.0	1,524.7	1,756.9
Funds employed	988.9	1,133.6	1,128.5	1,176.2	1,227.5
ROFE %	(0.9%)	0.9%	5.2%	15.4%	11.9%
Employees (number)	3,058	3,498	3,626	3,696	4,015
External tonnes despatched (mt)	1.39	1.33	1.30	1.41	1.73

<sup>1</sup> Assets and funds employed comprised of balances of continuing operations only.

Pre-2008 historical information can be found on Arrium's website.

### Merchandising

The Merchandising portfolio comprises a range of businesses that process and distribute steel and other metal products in Australia. The businesses include OneSteel Sheet and Coil, OneSteel Aluminum, OneSteel Coil Coaters, OneSteel Building Services, OneSteel Stainless and Fagersta. During the year the OneSteel Piping Systems business was sold delivering proceeds of approximately \$100 million including the sale of related property and the release of working capital.

In addition, the Oil & Gas Pipe business was closed due to weak demand and strong competition for domestic projects from offshore mills.

Merchandising consists of approximately 20 sites that source metal and related products from a range of domestic and overseas manufacturers. Merchandising also operates processing services and distributes products, primarily to industrial manufacturing segments through its wide portfolio of businesses.

### **Initiatives**

The Australian Distribution business undertook a fixed cost review to significantly reduce its cost base, which included the sale of OneSteel Piping Systems and the closure of 15 Distribution sites.

### Outlook

Looking ahead, we expect the overall market to remain relatively weak with manufacturing to remain soft and a modest improvement in both residential and non-residential construction. Reflecting the two speed economy, the mining production segment is expected to continue to grow while there will be ongoing strength in mining investment activity.





# ONESTEEL RECYCLING

The OneSteel Recycling business supplies steelmaking raw materials to domestic and international steel mills. as well as non ferrous metals for recycling. The business operates in 11 countries through a combination of physical operations in the form of collection sites and trading offices that supply raw materials to foundries, smelters and steel mills in Australia and globally.

Within Australia, the OneSteel Recycling business now operates from over 33 locations, including five ferrous shredder production facilities. OneSteel Recycling's Asian non ferrous business operates in three countries and carries out the group's global non ferrous trading. Operations in the United States consist of eleven locations throughout the North East and South East, including a ferrous shredder in Tampa, Florida.

Recyclable material is sourced from the rural, mining, demolition and manufacturing industries and the general public. The OneSteel Recycling business also sells raw materials to OneSteel's Manufacturing segment. All sales between the OneSteel Recycling and OneSteel Manufacturing businesses are conducted on commercial terms equivalent to those negotiated with external parties.

### **Market conditions**

During the year, significant price and foreign exchange volatility continued due to factors including European debt issues and increased economic uncertainty in the United States. Ferrous volatility was particularly dramatic with significant fluctuations in both the second and fourth quarters, decreasing 18% in a seven week period, while non ferrous markets weakened throughout the year with only very short-lived upward movements. Nickel and copper LME were down 30% and 23% respectively over the year. Australian economic conditions have been subdued with softening in the manufacturing and construction sectors impacting the level of scrap arisings in some markets. Government policy setting with respect to increasing landfill and waste costs continues to challenge the operating cost profile of domestic shredder operators.

### **Operational performance**

Sales revenue for the year increased 6% to \$1,590 million, reflecting higher average sales prices, partly offset by lower ferrous volumes and the appreciation of the Australian dollar. Sales volumes for the vear were 2.11 million tonnes. 2% lower than the previous year, driven by both lower ferrous and non ferrous volumes. Ferrous volumes were down across both Australia and the USA due to weak economic conditions driving lower scrap arisings. Non ferrous volume performance was a direct outcome of lower demand requirements of key customers. particularly stainless customers. and our efforts to manage margin

EBIT for the year was \$7 million compared to \$21 million for the prior year. This result reflects a weakening in ferrous and non ferrous margins due to weaker market conditions and tight scrap arisings. Ferrous markets were adversely impacted by sharp market corrections, particularly in the fourth quarter. The Australian business produced an improved ferrous result year on year, but overall performance was impacted by weaker non ferrous prices and margins. The Asian business performance was also adversely impacted by the non ferrous market, reflecting reduced stainless scrap sales and margins. The USA business returned a solid result despite the weak economic environment during the year.

### **Initiatives**

The Australian business was restructured during the year aimed at simplifying and standardising business processes and to improve returns. A fixed cost review was undertaken, delivering \$4m of benefits in FY12 with annualised benefits of \$10m, and included an 8% reduction in headcount and the closure of 2 yards. The review is ongoing with further supply chain, footprint and productivity initiatives underway. The business also reviewed the downstream recovery systems of its shredders and has initiated improvements in three of its six shredders.

### Safety

OneSteel Recycling continued to focus safety efforts on the identification and control of high risk workplace activities, achieving sustained improvement in the interaction of mobile equipment and pedestrians, greater employee awareness and identification of risk. This helped reduce its MTIFR 18.5% compared to the previous financial year to 11.3. The business was recognised at the 2012 Steel Logistics Safety, Engineering and Environment Awards, winning four awards, as well as being recognised at Arrium's internal safety awards, winning the Safety Employee of the Year award.



The Australian business produced an improved ferrous result, but segment performance was impacted by weaker non ferrous prices and margins



**GEOFF FEURTADO** Chief Executive OneSteel Recycling

### Outlook

We expect the challenging external environment to continue over the short term.

The Australian business is better positioned to face these conditions, but continues to remain focused on delivering further substantial cost reductions and improving non ferrous downstream recoveries to deliver improved returns.

The Asian business is focused on continuing to broaden its customer and product profile and assessing its network of operations to spread exposure and improve performance across economic cycles.

The USA business remains well positioned to capitalise on any improvement in the regional USA economy through its low cost, customer focused model. The business is also expected to benefit from further improvements of its non ferrous downstream recovery system.

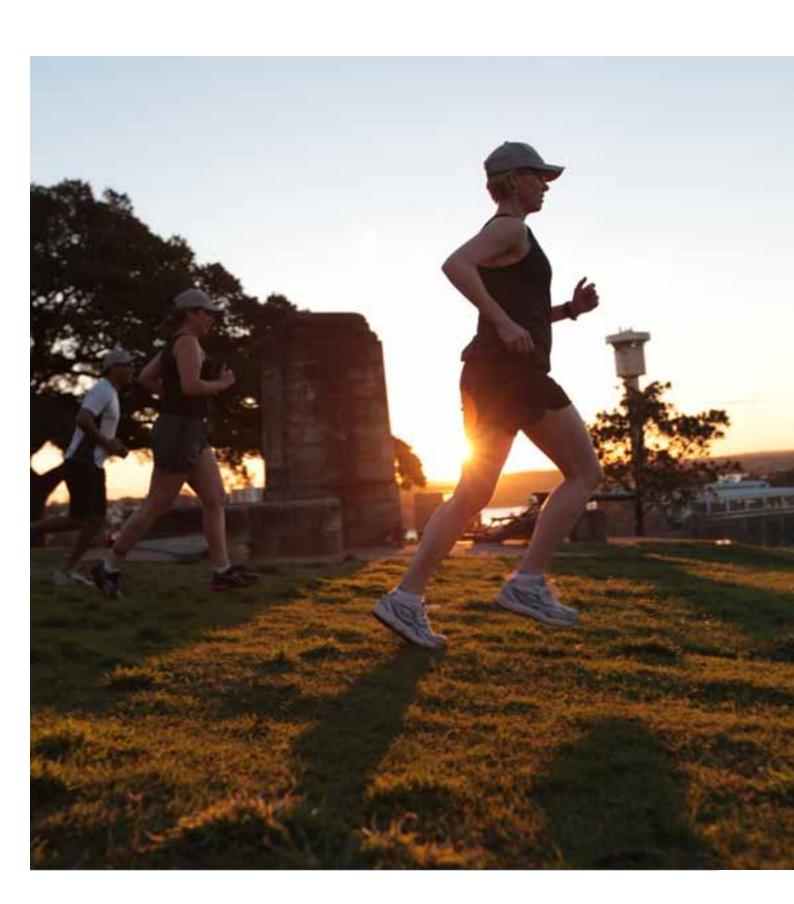
### **Recycling - Historical information**

	<b>FY12</b> (\$m)	<b>FY11</b> (\$m)	<b>FY10</b> (\$m)	<b>FY09</b> (\$m)	FY08 (\$m)
Revenue/income	1,589.7	1,507.2	1,123.7	1,124.0	1,404.1
EBITDA	24.1	37.6	22.9	(21.8)	98.4
EBIT	6.6	20.9	7.7	(38.6)	86.5
Sales margin %	0.4%	1.4%	0.7%	(3.4%)	6.2%
Assets	675.3	652.5	710.7	614.1	741.5
Funds employed	567.4	554.3	618.4	537.7	620.8
ROFE %	1.2%	3.6%	1.3%	(6.7%)	13.9%
Employees (number)	973	1,033	1,019	1,016	1,127
Ferrous tonnes - external (mt)	1.01	0.95	0.75	0.89	0.88
Ferrous tonnes - internal (mt)	0.85	0.96	0.94	0.77	0.83
Non ferrous tonnes (mt)	0.25	0.25	0.19	0.14	0.18

## THE USA BUSINESS CONTINUES TO DELIVER STRONG RESULTS AND IS WELL POSITIONED TO CAPITALISE ON ANY IMPROVEMENT IN THE REGIONAL USA ECONOMY



# SUSTAINABILITY



Arrium continually seeks to improve business sustainability by valuing environmental, social, economic and ethical considerations across all of our operations. The following sustainability section is a summary of Arrium's full 2012 Sustainability Report.

The Report and information on Arrium's Sustainability Principles can be viewed online at www.arrium2012.sustainability-report.com.au from November 2012.



# SAFETY



### Our approach to Safety

Arrium is committed to achieving the highest performance in workplace health and safety. believing that all injuries, occupational illnesses and incidents are preventable. "We will not compromise on safety" is one of only two core values of the organisation, and as such, a focus on the health and safety of employees, contractors, customers and visitors underpins each of Arrium's activities. At Arrium, workplace health and safety is everyone's responsibility.

Our goal is to establish a workplace free from injuries, incidents and illness and there are six Safety Principles which outline the philosophy guiding Arrium's approach:

### **ARRIUM SAFETY PRINCIPLES**

All injuries can be prevented

Working safely is a condition of employment

Employee involvement is essential

Management is accountable for safety

All operating exposures can be safeguarded

Training employees to work safely is essential

The role of management is to provide direction, set the safety standards and drive improvement within the business to encourage all employees, contractors and visitors in working towards the goal of ZERO incidents, injuries and occupational illnesses.

### **Our Safety performance**

The Lost Time Injury Frequency Rate (LTIFR) in the 2012 financial year was 1.7. This represents an 11% reduction on the previous year.

Arrium's Medical Treatment Injury Frequency Rate (MTIFR) in the 2012 financial year was 7.0. This represents a 5% reduction on the previous year.

### Safety plan

A comprehensive Arrium Workplace Health and Safety (WHS) Plan has been cascaded across Arrium business units. The plan recognises that injury prevention programs alone will not prevent significant incidents, and there is a need to continually build the capability and systems in the organisation to enable continuous improvement.

There was a significant focus during the year on building the capability of employees at all levels of the organisation. This is expected to improve our ability to recognise, assess and address significant risk, and to further develop the effectiveness of our incident investigation process to identify opportunities to prevent the recurrence of significant incidents.

### Risk management

During the year, Arrium continued to implement its 14 Codes of Practice. The Codes of Practice represent the minimum standards for the management of significant risks across the organisation. The Arrium Assurance Program reviews compliance with the Codes of Practice. Included in work under the Arrium Work. Health and Safety Plan for the year was the building of capability in hazard identification, risk assessment and risk management.

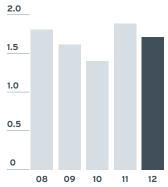
### **Arrium Safety Awards**

The annual Arrium Safety Excellence Awards are an opportunity to recognise and reward those employees, contractors and suppliers who have made an outstanding contribution towards our goal of injury prevention and the reduction of significant incidents. These awards also provide a platform to encourage sharing of best practice across the organisation.

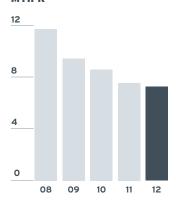
In 2012, the awards received a record total of 145 nominations from across the business. including nominations from the new Arrium Mining Consumables businesses in Chile, USA and Canada. Every winner and highly commended entry received a cash prize that was donated to a charity of their choice. In total, \$14,000 was donated to various charities as a result of the 2012 Safety Excellence Awards.

Arrium sites also enter external health and safety awards programs from time-to-time and last year the ARC Pinkenba business received both the Queensland WorkPlace Health and Safety Award and the national Safe Work Australia annual award for best solution to an identified workplace health and safety issue. Their innovative solutions addressed manual handling, falls and crushing risks.

# LTIFR\*



### MTIFR\*



The FY11 figures have been restated to include the Moly-Cop Group businesses' safety performance as if they were part of Arrium from 1 July 2010.

# **WE WILL NOT COMPROMISE ON SAFET**

# **CUSTOMERS**



We are committed to meeting our promise to customers and dedicated to servicing their requirements today and in the future. 'Customer' as a core value is actively embedded throughout Arrium.

In order to develop sustainable market offerings, Arrium continues to engage in various activities and programs to improve the sustainable production and use of mining, mining consumables and steel products.

### Fostering stewardship from mining to manufacturing

Given Arrium's unique industry position of vertical integration from mining through to manufacture of finished steel products, it is well positioned to benefit from an exciting new initiative currently under development by the Steel Stewardship Forum (SSF). The SSF consists of members from across the Australian steel value chain from mining, steelmaking, steel product manufacturing, galvanising, welding and recycling. It reports annually on the progress of its projects to the APEC Mining Minister's meeting through the Australian Government. Current members of the SSF include Arrium, BHP Billiton, Rio Tinto, BlueScope, various industry associations and Federal and State (NSW and Victoria) Governments.

### **Arrium Mining Consumables**

Arrium Mining Consumables is a leader in the supply of products that are critical to businesses undertaking minerals processing and minerals extraction activities within the global mining industry. Moly-Cop is the key business brand of Arrium Mining Consumables and a mark that is known globally as a market leader in production of durable and reliable mining products. During the year, Moly-Cop was named by Newmont Mining as its supplier of

Moly-Cop recognises that to maintain its leading market position, it must nurture the strong and positive relationships that it has already developed with customers. This is achieved. in part, through the provision of technical seminars for customers and students. Last year such seminars were provided at the University of Atacama in Chile and the University of Utah in the USA, with a particular focus on Moly-Cop Tools. Moly-Cop Tools are a series of guides developed by Moly-Cop, designed to assist customers in achieving the optimum performance from their grinding media and to maximise their grinding mill performance.

In addition, for ten years Moly-Cop has operated a specialist team known as the '+MAS Group' (Manufacturing and Application Support Group). The +MAS Group promote crossfunctional interaction between manufacturing, metallurgy and sales members of all Moly-Cop units around the world to share knowledge, experiences and best practices.

The group gathers regularly to discuss product innovation and other initiatives that promote continuous improvement and superior product quality. Currently the +MAS Group efforts are focused on a new generation of high impact resistance large diameter grinding balls to out-perform competitors and Moly-Cop's own former products.

### The Arrium 'OSCA's'

In 2011, Arrium presented the first OSCAs, or 'Outstanding Service to Customer Awards'. This ongoing program is designed to reinforce Customer as a core value across Arrium.

The OSCAs identified, recognised and rewarded employees and work teams who achieved an improved business outcome through the delivery of an enhanced customer experience. The criteria against which nominations were assessed were as follows:

- · Creating a new customer promise
- · Consistent customer service at an exceptional level
- · Proactively mitigating risk
- · Creating permanent behaviour change within Arrium
- · Development of a competitive advantage or best practice outcome.

There were two categories of customer awards; individuals and work teams, and nominations were open to all employees globally.

### **ARRIUM OSCAS**

	GOLD CUSTOMER AWARD	SILVER CUSTOMER AWARD	BRONZE CUSTOMER AWARD
Work Team Category	<b>Hong Kong Trading Team</b> OneSteel Recycling	<b>Epic Energy</b> OneSteel Distribution Oil & Gas Pipe	<b>Cyclone Gates</b> OneSteel Market Mills
Individual Category	<b>Daniel Coghlan</b> Market Manager Mining & Manufacturing	<b>Mark Bubicich</b> Quality Manager Whyalla	Sam Page Business Development Manager OneSteel Distribution Resources Group

# **WE WILL MEET OUR PROMISE TO CUSTOMERS**

# **PEOPLE**



Arrium employs approximately 11,000 people across Australia, Asia, New Zealand, North America and South America. Of this figure, approximately 8,770 are across more than 270 Australian sites, 1,300 in North and South America and 930 across Asia and New Zealand.

Arrium adopts a decentralised model for delivering Human Resources support and this model features embedded key resources in its various operations to work alongside business leaders and teams to facilitate business improvement and growth initiatives, to help with skills development, as well as assist with implementing workplace change.

Additionally, in Australia, Arrium engages approximately 2,000 full time equivalent positions either under contracts for services with other companies (for example, for the provision of certain maintenance services, and in certain mining operations) or under contracts for labour through labour hire providers.

Whilst the majority of permanent employees are engaged on a full time basis, Arrium has a range of initiatives in place to support flexible work arrangements, allowing full time as well as part-time employees to manage personal and work responsibilities.

Arrium maintains an open and positive approach to employee relations to facilitate ongoing business improvement and constructive workplace relationships.

Across Arrium's Australian operations employee-initiated turnover decreased over the last year from 10.74% to 9.97%.

### **Business improvement** and growth initiatives

There has been continued focus on achieving labour cost efficiencies as well as on effective organisation design and role clarity following the significant changes of the previous year, including the re-deployment of redundant employees into vacant roles.

Arrium has broadened its approach and thinking to reflect its global operations. This has included a review of remuneration, mobility policies and processes, and an assessment of how employees understand and align to the behaviours within the Arrium Code of Conduct.

Significant investment in talent identification has continued. One area where this is particularly evident is our accelerated development programs that target future executives and senior managers. Last year over 100 employees were selected to participate in these programs.

### **Diversity**

Arrium values diversity and has a strong culture of inclusion. As an equal opportunity employer. the company has an extensive policy framework in relation to equality, bullying and harassment, as well as a Code of Conduct. These policies are communicated throughout the onboarding process, referenced in letters of appointment and reinforced through regular refresher training. Key indicators of diversity at Arrium are:

- Age profiles, including by gender
- · Gender profiles by employment category
- · Gender diversity of talent management and development program participants
- · Proportion of female recruits and internal appointments.

### **Driving succession, talent** and development outcomes

Arrium has continued to invest in the development of skills for the future. The company currently employs 88 trade apprentices; 53 cadets (primarily in engineering) and 52 recent university graduates across all disciplines. There has also been investment in a joint engineering scholarship program between the University of South Australia and Arrium in Whyalla, as well as the annual summer vacation program which saw 24 students participate, with many going on to join the graduate program. In addition, over the last year, the company paid study assistance for 30 employees.

With our global operations, there has been an increase in the number of expatriates moving to overseas businesses and accelerating the development of employees through overseas opportunities. Leaders at Arrium continue to focus on ensuring high calibre successors are available for leadership roles in the future. During the year, approximately 90% of senior management roles were filled through internal succession.

### Labour practices human rights and discrimination

Arrium's Code of Conduct is a global document that covers a range of legal and ethical matters, health, safety and environment, human resources, and relationships with external parties amongst other areas. It is further supported by local as well as function-specific policies and guidelines.

Arrium conducts business in all countries with a commitment to compliance with domestic legislation as well as international conventions relating to employee relations, rights of workers, occupational health and safety, non-discrimination and employee welfare. Most of these are broadly espoused in our Code of Conduct, which applies to all employees globally.

# **ARRIUM HAS CONTINUED TO INVEST IN SKILLS FOR THE FUTURE**

# COMMUNITY

### Our approach to community

Arrium recognises that achieving positive sustainable relationships within the communities in which we operate is imperative to doing business. At Arrium, we have fostered a responsible approach to demonstrating social responsibility by promoting values and initiatives such as investment and engagement, that show respect for the people and communities associated with our business.

There are a number of key initiatives and consultation based programs that have been formed or further strengthened to reflect key issues that affect our local communities. In addition, Arrium and its employees pride themselves on physically and/or financially supporting regional and local activities from providing education and training, donations and sponsorships through to charity fundraising events, all of which require personal commitment and the dedication of individuals.

To monitor the ongoing impact of Arrium's operations, we invest, inform, consult and develop relationships with local communities to work towards mutually beneficial outcomes and to continually earn our social licence to operate.

### Community financial support

Arrium and our employees provide community financial support through two key mechanisms; Arrium's workplace giving program 'OneCommunity' and other community investment outside of this program. Last year Arrium and our employees raised and invested over \$390,000 in the community through these programs.

### **OneCommunity**

Arrium's OneCommunity Workplace Giving Program supports 12 charities and is the primary mechanism through which Arrium and its employees contribute to charities. The program was established to provide employees with an easily accessible way to donate to a range of charities and Arrium matches employee contributions up to \$250,000 per annum. The current charities supported through OneCommunity are Alzheimer's Australia, The Cancer Council, CARE Australia, Guide Dogs, Hunter Medical Research Institute, Landcare Australia, Lifeline, Royal Flying Doctor Service, RSPCA, The Smith Family, The Salvation Army and Westpac Rescue Helicopter Service.

Over the past financial year, Arrium and its employees have assisted these charities by donating approximately \$208,000. Arrium is also attempting to facilitate employee volunteering opportunities with our partner charities to provide employees with another avenue to positively engage with their communities and those in need.

Since the Arrium OneCommunity program was established in December 2003, Arrium and its employees have donated over \$1.7 million through the program, and the company wishes to thank all employees who have participated for their support.

### Other community support

Since Arrium's inception, community donations and financial support outside the OneCommunity program have exceeded \$3 million. This year, financial donations and support in addition to the OneCommunity program were \$181,000. This included support through community fundraising events, sponsorships, scholarship programs and other donations mainly within regional Australia.

### Indigenous involvement in South Australia

For more than ten years, Arrium has supported the local Barngarla indigenous community in Whyalla, through direct financial support to the Whyallina Corporation, and in more recent years assisting with the development of a stand-alone indigenous mining enterprise known as Walga Mining.

This has seen Arrium and Walga Mining enter into business contracts for the provision of crushing and screening services over a two-year period, and following the conclusion of this work subsequent support to develop broader mining employment and development in Arrium's South Middleback Ranges mining operations. These activities have enabled the managers of Walga Mining to develop key business skills while providing around 50 indigenous employees with significant and sustained employment opportunities. These employees are currently training and working in Arrium's operations in occupations such as truck drivers and digger operators.

Arrium is also currently working with a newly-established Walga joint venture company (with Ngarda Civil & Mining Pty Ltd) to found a standalone indigenous company directly contracted to work in Arrium's mining operations. When realised, this will be the first of its kind in South Australia.



# ENVIRONMENT

Arrium is committed to pursuing a high standard of environmental management throughout its operations, as outlined in its Environmental Policy, which is available on Arrium's website (www.arrium.com). As an organisation, Arrium strives for continual improvement of environmental performance, the efficient use of resources, and the minimisation or prevention of pollution.

Arrium recognises that its steelmaking business has resource requirements and is emissions intensive. The following section details our performance in environmental areas as the organisation seeks to use energy, fresh water and other resources more efficiently.

### **Emissions**

Approximately 86% of Arrium's global greenhouse gas emissions derive from the steelmaking and hot roll/forging operations in Whyalla in South Australia, Sydney and Newcastle in New South Wales, Laverton in Victoria and Edmonton in Alberta, Canada.

Total global energy consumption for Arrium in the 2012 financial year was 43.00 petajoules. The majority of this energy was consumed at Arrium's steelmaking facilities at Whyalla, Sydney, Waratah and Laverton in Australia and Edmonton in Canada.

Arrium discloses energy and greenhouse gas data under various global, national and regional schemes. At a global level Arrium, (appears as OneSteel in the 2011 financial year), provided energy and greenhouse data to the Carbon Disclosure Project (www.cdproject.net).

At an Australian national level, Arrium submits a detailed National Greenhouse and **Energy Reporting Scheme** (NGERS) Report to the Australian Government on an annual basis.

Until recently all freshwater used at the Whyalla Steelworks and Middleback Ranges mines came from the Murray River, so there has been a concerted effort to improve water efficiency and reduce demand on that source.

Whyalla Steelworks and the Middlebank Ranges operation has reduced its Murray River water consumption by approximately 1,085 million litres since 2008. This was achieved despite the increase in magnetite feed rate to the steelworks and the increase in hematite for export during the same period.

Total global townswater use by Arrium is estimated to be approximately 7975 million litres. Approximately 95% of this is attributed to the top seven manufacturing sites, refer to graph on page 37.

### **Recycled materials**

During the 2012 financial year. Arrium collected almost two million tonnes of scrap metal globally. Steel is infinitely recyclable, and the production of recycled steel uses only about half the energy required to manufacture 'virgin' steel products.

Arrium trades ferrous scrap and also uses it as an input in the manufacture of steel in both the blast furnace and EAF processes.

Approximately 66% of Arrium's global steelmaking is produced from recycled steel, including internal site scrap.

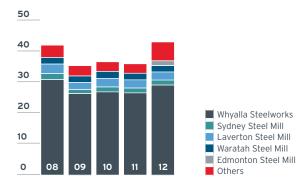
# ARRIUM STRIVES FOR CONTINUAL IMPROVEMENT OF ENVIRONMENTAL PERFORMANCE

### 2012 Direct, indirect and total greenhouse gas emissions

	SCOPE 1 MILLION TONNES CO <sub>2</sub> -E	SCOPE 2 MILLION TONNES CO <sub>2</sub> -E	TOTAL MILLION TONNES CO <sub>2</sub> -E
Whyalla Steelworks	2.43	0.14	2.57
Electric arc furnaces (Sydney, Laverton, Waratah)	0.22	0.82	1.04
Arrium Mining - Australia	0.09	0.08	0.17
Rest of Arrium Australian operations	0.10	0.23	0.33
Arrium total Australian operations	2.84	1.27	4.11
AltaSteel Edmonton Canada	0.07	0.21	0.28
Rest of non-Australian operations	0.06	0.07	0.13
Arrium total non-Australian operations	0.13	0.28	0.41
Total Arrium	2.97	1.55	4.52

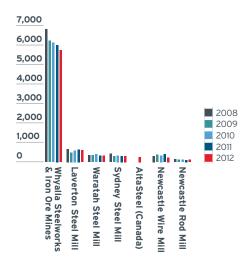


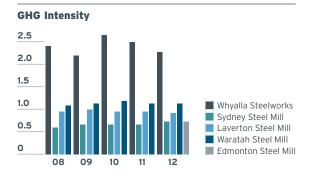
### Total Energy Use\* (Energy PJ - Net)



\* Non Australian site data included from FY12.

### **Townswater Consumption (Million Litres)**





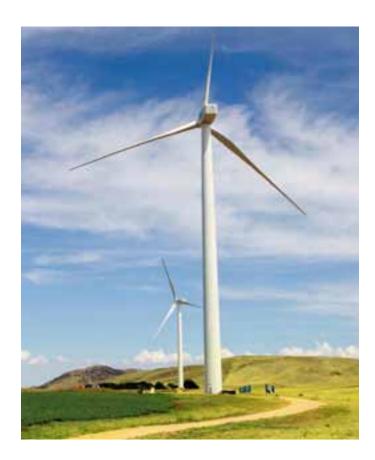
### **Biodiversity**

For Arrium Mining, the protection of biodiversity is a key consideration in the planning, development and operation of new mines. Each new mining development is required to have an approved Program for Environmental Protection & Rehabilitation (PEPR) in place which identifies all relevant environmental, social and economic impacts that may result from the proposed activities and how each of the identified impacts will be managed or avoided. The PEPR sets out an integrated approach to managing all the stages in the life cycle of the mine, including its closure and completion. Typical activities undertaken by Arrium that relate to mining approval include:

- Flora and fauna surveys
- Environmental impact assessment

- Design iterations to minimise impacts to biodiversity
- Environmental impact statement
- · Outcomes, mitigation strategies, controls and measurement criteria being developed and agreed
- Compliance to approved Program for Environmental Protection & Rehabilitation.

In the 2012 financial year, Arrium received three penalty notices and associated fines. The first was for the generation of smoke and odour (\$1,500), the second for spreading mud offsite on truck tyres (\$2,000) and the third for late reporting of a stockpile fire (\$2,000).



# RISK **MANAGEMENT**

Arrium manages its exposure to key financial risks, including interest rate and currency risk, in accordance with its financial risk management policy. The objective of the policy is to support the delivery of the Group's financial targets whilst protecting future financial security.

### **Debt management**

Arrium is committed to maintaining an investmentgrade profile for its debt. The targeted range for debt considered appropriate in normal circumstances is 30% to 40%, on a net debt/net debt plus equity basis, including derivatives. The Board would prefer to be at or below the bottom of this target range given the current difficult external environment. Arrium's statutory gearing level at the end of June 2012 was 32.3%. Arrium's core debt facilities at the end of June 2012 comprised \$2,495 million of syndicated loans provided by a group of banks, with tranches expiring from 2014 to 2016, \$325 million of bilaterals expiring in 2015 to 2016, and \$599 million of US privately placed debt, with tranches expiring from 2013 to 2023. At the end of June 2012, drawn debt was \$2,430 million.

### Interest rate management

Arrium's objective when managing interest rate risk is to minimise interest expense while ensuring that an appropriate level of flexibility exists to accommodate changes in funding requirements. To achieve this, Arrium uses a mix of "fixed" and "floating" interest rate instruments where "fixed" is defined as 12 months or longer. Further information regarding Arrium's interest rate management can be found in Note 32 to the Financial Statements on page 116.

### Foreign exchange exposure

The main sources of foreign exchange risk include:

- · Sale of commodity goods and steel product in export markets (predominantly in US dollars)
- · Inventory purchases in foreign currency
- · Purchase of commodity inputs
- · Capital expenditure purchase of services in foreign currency
- · Translation of earnings.

The Group requires all business units to use forward currency contracts to minimise their currency exposures.

Arrium also has foreign currency exposure arising from its US private debt placement. Some of this debt has been hedged using a series of cross-currency interest rate swaps and foreign exchange swaps. The remaining portion of unswapped debt is used to fund investments in the USA businesses.

Arrium also has exposure to foreign exchange translation risk in relation to New Zealand dollar, US dollar and Canadian dollar denominated assets and liabilities.

These relate to its 50.3% share in Steel & Tube Holdings and investments in offshore businesses including Moly-Cop and AltaSteel. For the USA, Canadian and South American businesses, the Group has considerable natural hedging in place.

### Financial reporting control assurance

The company executes a risk-based process for assessing the effectiveness of internal controls. The control focused financial reporting process

- · Identifying and analysing the key financial processes
- Assessing the inherent and residual risk of each key financial process
- · Identifying key financial controls where a risk gap indicates significant reliance on internal controls

· Performing Control Self Assessment tests of key financial controls and Stewardship reviews on a monthly basis.

This process is based on:

- · ISO 31000/COSO risk-based identification of key financial controls
- The company's internal auditors' verification of the effectiveness of key financial controls
- · Divisional risk owner/ management sign-off to support the Chief Executive Officer and Chief Financial Officer sign-offs.

### Risk management at Arrium

Arrium has an established business risk profiling system for identifying, assessing, monitoring and managing material risk. The system is based on ISO 31000/ COSO, and provides ongoing risk management that is capable of responding promptly to emerging and evolving risks. The company's risk management system includes comprehensive practices that help ensure that:

- · Key risks are identified and mitigating strategies are put in place
- Management systems are monitored and reviewed to achieve high standards of performance and compliance in areas such as safety and environment
- Capital expenditure above a certain threshold obtains prior Board approval
- · Internal control weaknesses are identified and reported monthly through the outstanding audit issues scorecard until they are remediated and closed
- Financial exposures are controlled, including the use of derivatives
- Business transactions are properly authorised and executed.

### Internal and external audit

Arrium's Internal Audit, Control and Risk (IACR) function is headed by a General Manager. with the execution of the internal audit function outsourced. The internal audit program is aimed at providing assurance to management and the Board over the effectiveness of the company's enterprise risk management system comprising business risk management, compliance and control assurance. and the effectiveness of its implementation. Our internal audit function works with the company's external auditor, KPMG, to minimise any duplication of effort and to maximise knowledge sharing between the assurance providers.

### Arrium material business risks

The following key business risks have been identified as having the potential to impact on the company's earnings stream. Arrium is taking the necessary steps to ensure that these risks are appropriately managed.

### Domestic and global economic environment and capital market conditions

Arrium's financial performance and market capitalisation will fluctuate due to movements in capital markets; broker analyst recommendations: interest rates; exchange rates; inflation; economic conditions; changes in Government fiscal, monetary and regulatory policies; commodity prices; construction, mining and manufacturing industry activity levels; scrap metal prices; global geopolitical events and hostilities and acts of terrorism; investor perceptions and other factors that may affect Arrium's financial position and earnings.

### Adverse impact of certain commodity price fluctuations

Arrium is a seller of iron ore and a buyer of various commodities, including coking coal, hot rolled coil and zinc. In addition, supply/demand levels for commodities such as gold, copper etc. could have direct effects on Arrium's Mining Consumables business. Fluctuations in the global prices of these commodities will impact Arrium's profitability and balance sheet.

### Adverse impact of foreign currency exchange rates

Arrium has exposure to foreign exchange translation risk. Fluctuations in foreign currency exchange rates, in particular, volatility of the US dollar against most major currencies and strengthening of the Australian dollar against the US dollar, may have a material adverse impact on the financial position and performance of Arrium.

### Operational risk

Arrium Mining's operational risks relate to the continual operation and successful expansion of its supply chain infrastructure. Natural disasters that took place last year such as the floods in Queensland and Cyclone Yasi have illustrated these risks and their potential knock-on effects.

The production of iron and steel products involves a number of inherent risks relating to the operation of Arrium's manufacturing facilities that involve the use of energy and infrastructure resources, including electricity, gas and water, the production and movement of liquid metal, the hot rolling and cold forming of steel sections and, at times, complicated logistical processes. Operational risks exist with respect to the major units at Whyalla and electric arc furnaces.

The OneSteel Recycling business is also exposed to operational risks relating to its supply chain.

### Cyclical nature of our industries

Arrium's revenues and earnings will be sensitive to the level of activity in the Australian construction, manufacturing, mining, agricultural and automotive industries and will also be sensitive to the level of activity in the global mining and rail industries.

### Competition

Arrium faces import and domestic competition across our product range. A significant increase in competition, including through imports, could materially affect the future financial position and performance of Arrium by putting downward pressure on steel prices or by reducing Arrium's sales volumes. Risk of competition also exists in OneSteel Recycling, where the relatively high operating base of the domestic business puts it at an increasing disadvantage against its competitors.

### Dependence on key customer and supplier relationships

Arrium relies on various key customer and supplier relationships and the loss or impairment of any of these relationships could have a material adverse effect on Arrium's operations, financial condition and prospects.

### Minerals Resource Rent Tax (MRRT)

From 1 July 2012 the MRRT applies to certain profits from iron ore and coal extracted in Australia. The MRRT will apply to Arrium as it is a miner and seller of iron ore and also uses iron ore internally for steel production. However, the extent of the impact will be influenced by fluctuations in a range of variables including volumes of ore sold, iron ore prices, exchange rates and cost inflation. The company currently expects no MRRT liability in FY13 for the Middleback Ranges and Southern Iron operations as any MRRT profit is expected to be offset by starting base depreciation deductions for both the Southern Iron and Middlebank Ranges operations and the Alternative Valuation Method deduction available to the Middleback Ranges operations. In future years, the MRRT may have an adverse impact on the financial performance of Arrium.

### Carbon Tax

From 1 July 2012 the Carbon Tax commenced, applying a fixed carbon price of \$23 per tonne of carbon dioxide equivalent (CO2-e). Arrium had concerns with the Carbon Tax as originally announced, due to the likely adverse implications the tax would have had on the industry's competitive position. Steelmaking technology constraints mean there is little the industry can do to materially reduce emissions from its key manufacturing processes. This means that rather than act as a price signal to reduce emissions, the tax as originally announced would merely have been an additional cost burden not faced by our international competition.

Arrium successfully advocated that the Government take a sectoral approach for the steel industry that takes into account the unique aspects of steelmaking technology and its markets to avoid damaging the competitiveness of the industry. We believe that the sectoral approach implemented by the Australian Government last year for the steel industry, including the provision of assistance via the Jobs & Competitiveness Program and the introduction of the Steel Transformation Plan (STP) is both appropriate and sensible. Our concerns about the adverse impacts of the proposed Carbon Tax on our competitive position have been recognised and substantially addressed, at least over the four-year life of the STP. We also support the Government's recognition of the need for appropriate review mechanisms to be available to address the merits of continued support.

#### Insurance

Arrium will seek to maintain insurance for business interruption, property damage, goods in transit and public and product liability. However, Arrium's insurance will not cover every potential risk associated with its operations and, in some cases, will be subject to large deductibles. The occurrence of a significant adverse event, the risks of which are not fully covered by insurance, could have a material adverse effect on Arrium's financial condition and financial performance.

### Occupational Health and Safety (OHS)

Arrium has been granted self-insurance status for workers' compensation in all eligible states. Arrium's continued safety performance and compliance with OHS systems and practices is a key component to maintaining self-insurance status. If Arrium fails to maintain adequate occupational health and safety systems and practices, Arrium may lose its self-insurance status, which may have a material adverse effect on the financial performance of Arrium.

### Product risk

Arrium maintains an internal risk management process and also follows quality assurance procedures in relation to the manufacture of its products and materials. Arrium's steel mills are accredited to internationally recognised standard ISO9001. However, due to the nature of its operations, it is possible that claims against Arrium could arise from defects in materials or products manufactured and/or supplied by Arrium.

# **EXECUTIVE** MANAGEMENT

### **Peter Smedley**



Chairman

### **Geoff Plummer**



Managing Director & **Chief Executive Officer** 

Age 56. Mr Plummer was appointed Managing Director & Chief Executive Officer on 2 May 2005. Prior to this appointment, Geoff was Deputy Managing Director and also held the role of Executive General Manager Market Mills. Geoff joined Arrium in October 2000 from BHP where he spent 22 years in a variety of roles including President Rod & Bar Products (BHP Steel), General Manager of the joint venture company

Bekaert-BHP Steel Cord, President of Australian Logistics Services in BHP Transport and management positions in BHP wire operations.

### Robert Bakewell



**Chief Financial Officer** 

- · Accounting
- Internal Audit
- · Tax & Risk
- Treasury
- Business Planning
- · Information Technology
- · Strategic Sourcing

Age 48. Mr Bakewell joined Arrium in April 2010, responsible for accounting, internal audit, tax, risk management, treasury, business planning, IT and group procurement. Robert has more than 25 years professional experience in executive financial and commercial roles. Most recently, Mr Bakewell was Group Senior Vice-President, Chief Financial Officer, Power Products division of ABB Limited, the Swiss based power and automation technologies group.

### Geoff Feurtado



Chief Executive Recycling

- · Australian Recycling operations
- International Recycling operations

Age 39. Mr Feurtado joined Arrium in 2002. Geoff has held various Commercial and General Management positions across the Manufacturing and Distribution businesses, prior to his appointment to the Chief Executive Recycling position in 2011. Before joining Arrium, Geoff established his commercial background having worked in the airline industry and Price Waterhouse.

### **Bill Gately**



**Executive General Manager Human Resources and** Occupational Health, Safety & Environment

- Human Resources
- OHS&E

Age 51. Mr Gately has been in this role since Arrium was publicly listed in 2000. Bill joined Arrium from BHP where he had worked since 1979 in a range of human resource and employee relations positions. During that period, he worked for BHP Minerals and in the Newcastle and Port Kembla Steel operations where he played a key role in significant change and business improvement initiatives.

Steve Hamer



### **Chief Executive Australian Distribution**

- **OneSteel Reinforcing**
- Metaland | Steel & Tube
- Merchandising

Age 55. Mr Hamer was appointed Chief Executive Distribution in February 2009 and has spent his career in the Australian steel industry in a range of technical, functional and business management positions. In his previous role, Steve was Executive General Manager for Steel-in-Concrete. In 2011, Steve became a Director of Steel and Tube. New Zealand.

### **Organisational chart**

### **BOARD OF DIRECTORS**

Managing Director & Chief Executive Officer

Arrium Executive Management

### **KEY BUSINESSES**







### Naomi James



### Chief Legal Officer

- Legal
- · Company Secretarial
- Mergers and Acquisitions

Age 34. Ms James joined Arrium in 2005 and has responsibility for legal and company secretarial matters and for Arrium's mergers and acquisitions activity at a group level. Prior to joining Arrium, Naomi worked in private practice at law firms in Australia and the UK, specialising in public and private M&A and capital markets transactions, including four years with international law firm Freshfields Bruckhaus Deringer.

### **Andrew Roberts**



### **Chief Executive** Mining Consumables

- Moly-Cop (Grinding Media)
- Australasia
- North America
- South America
- Moly-Cop Ropes Waratah Steel Mill
- AltaSteel

Age 45. Mr Roberts joined Arrium from BHP Steel, starting in 1989. Prior to his current appointment, Andrew was Chief Executive Market Mills. Andrew has held a number of roles in marketing, sales and general business management across the Manufacturing, Materials/ Iron Ore, Steel-in-Concrete and Distribution businesses.

### Leo Selleck



### **Chief Executive Manufacturing**

- Rod & Bar
- Wire
- · Australian Tube Mills
- Whyalla Steelworks

Age 63. Mr Selleck has had 40 years' experience in the Australian steel industry, joining Arrium from BHP where he had served in a variety of roles since 1972. Leo has significant experience in the integrated steelmaking business. He has also held corporate roles in such fields as safety and environment. Prior to his current position, his previous roles included Executive GM Technology, Safety and Services, Executive GM Electric Arc Furnaces & Technology, Executive GM Project Magnet and Executive GM Whyalla.

### **Greg Waters**



### **Chief Executive Mining**

- · Mining operations
- · Whyalla Port

Age 52. Mr Waters joined Arrium in October 2008 from BlueScope Steel where he held a number of senior roles including President, Western Port Works and President, Greater China. Previously, Greg held a number of General Management roles for BHP and Brambles in Land and Sea Transport and Logistics located in Australia, South East Asia and the United States.

# **BOARD OF** DIRECTORS

### P J (Peter) Smedley



Chairman, Independent **Non-Executive Director** BCom, MBA, FAICD

Age 69. Appointed a Director and Chairman in October 2000. Mr Smedley is Chairman of the Operational Risk Committee and a member of the Governance & Nominations Committee and the Human Resources Committee. He is Chairman of Orygen Youth Health Research Centre and the Colonial Foundation. He is also a Director of The Australian Ballet and the Haven Foundation. His previous roles include Managing Director and Chief Executive Officer of Mayne Group Limited, Managing Director & Chief Executive Officer of the Colonial Group Limited, Chairman of CARE Australia, Spotless Group Limited and the State Bank of New South Wales, Executive Director, Downstream Oil and Chemicals, Executive Director Coal and Metals for Shell Australia Limited, Deputy Chairman of Newcrest Mining Limited and Director of Austen & Butta Limited. Other listed company directorships held during the period 1 July 2009 to 30 June 2012: Spotless Group Limited from 8 December 2006 to 16 August 2012.

### R B (Bryan) Davis



Independent Non-Executive Director

BSc (Tech), FAIMM, MAICD

Age 69. Appointed a Director in December 2004. Mr Davis is Chairman of the Occupational Health, Safety & Environment Committee and a member of the Audit & Compliance Committee and the Operational Risk Committee. He is Chairman of the NSW Coal Competence Board. His previous roles include Non-Executive Director of Coal and Allied Industries Limited, Newcrest Mining Limited, Executive Director of Mining of Pasminco Limited, Director of North Flinders Mine Limited, Chairman of Indophil Resources NL, Bendigo Mining Limited and Terramin Australia Limited, Executive Director of Australian Consolidated Minerals Group, Chairman of the NSW Minerals Council, member of the NSW State Minerals Advisory Council and various senior management positions at CRA Limited. Other listed company directorships held during the period 1 July 2009 to 30 June 2012: Coal and Allied Industries Limited from September 2000 to December 2011.



C R (Colin) Galbraith AM



Independent Non-Executive Director

LLB (Hons), LLM, FAICD

Age 64. Appointed a Director in October 2000. Mr Galbraith is Chairman of the Governance & Nominations Committee and a member of the Audit & Compliance Committee. He is a Special Adviser at Gresham Partners Limited, a Director of Commonwealth Bank of Australia, CARE Australia, the Australian Institute of Company Directors, Chairman of BHP Billiton Community Trust and a Trustee of Royal Melbourne Hospital Neuroscience Foundation. His previous roles include Director of Colonial Group, Azon Limited and GasNet Australia Limited (Group), Other listed company directorships held during the period 1 July 2009 to 30 June 2012: Commonwealth Bank of Australia since June 2000.

P G (Peter) Nankervis



Independent Non-Executive Director

BEc (Hons), FCPA, GAICD

Age 62. Appointed a Director in December 2004. Mr Nankervis is Chairman of the Audit & Compliance Committee and a member of the Operational Risk Committee. He is also a Director of Dairy Australia Limited. His previous roles include Chief Financial Officer of Cadbury Schweppes Asia Pacific, Finance Director of Cadbury Schweppes Australia Limited and a Director of Mitchell Communications Group Limited. Other listed company directorships held during the period 1 July 2009 to 30 June 2012: Mitchell Communication Group Limited from 12 March 2007 to 15 January 2010.

K L (Kara) Nicholls Company Secretary BBus, MLS, FCSA, MAICD

Age 36. With over 14 years experience in equity capital markets, Ms Nicholls brings extensive knowledge of the Australian Securities Exchange listing rules, corporate governance and company administration to the Board. Kara has extensive experience in commercial transactions and compliance matters. Prior to joining Arrium in 2009, Kara gained six years experience with the Macquarie Group and over five years with the Australian Securities Exchange.

### G J (Geoff) Plummer



Managing Director & Chief Executive Officer, **Executive Director** 

Age 56. Appointed a Director in December 2004. Appointed Managing Director & Chief Executive Officer on 2 May 2005. Mr Plummer joined the company in October 2000 from BHP after 22 years with the group. His previous roles with Arrium were Deputy Managing Director and prior to that Executive General Manager Market Mills. His roles at BHP included President Rod & Bar Products (BHP Steel), General Manager of the joint venture company Bekaert/BHP Steel Cord, President of Australian Logistics Services in BHP Transport and various management positions in BHP wire operations. He is a Director of the World Steel Association. Mr Plummer did not hold any other listed company directorships during the period 1 July 2009 to 30 June 2012.

### D A (Dean) Pritchard



Independent Non-Executive Director

BE, FIE Aust, CP Eng, FAICD

Age 67. Appointed a Director in October 2000. Mr Pritchard is a member of the Occupational Health, Safety & Environment Committee, the Human Resources Committee and the Operational Risk Committee. He is Chairman of Steel & Tube Holdings Limited, a New Zealand listed company in which Arrium Limited holds a 50.3% interest. He is also a Director of OZ Minerals Limited. His previous roles include Chief Executive Officer of Baulderstone Hornibrook, Chairman of ICS Global Limited, Director of Eraring Energy, RailCorp, Spotless Group Limited and Zinifex Limited. Other listed company directorships held during the period 1 July 2009 to 30 June 2012: Steel & Tube Holdings Limited since May 2005, Spotless Group Limited from May 2007 to 16 August 2012 and OZ Minerals Limited since June 2008.

### G J (Graham) Smorgon



Independent Non-Executive Director

BJuris LLB

Age 62. Appointed a Director in September 2007. Mr Smorgon became Chairman of the Human Resources Committee in August 2009 and is a member of the Operational Risk Committee and the Occupational Health, Safety & Environment Committee. He is also Chairman of the GBM Group, the Print Mint Group, Smorgon Consolidated Investment and Scental Pacific. He is a Director of Incitec Pivot Limited and a Trustee of The Victorian Arts Centre Trust. His previous roles include Director of Fed Square Pty Ltd, Chairman of the Arts Centre Foundation, Chairman of Smorgon Steel Group Ltd, President of the Carlton Football Club, Deputy Chairman of Melbourne Health, Director of The Walter and Eliza Hall Institute of Medical Research, Chairman of Creative Brands, Chairman of GBM Logic, Member of the Council of Bialik College, Director of Playbox Theatre Company and Playbox Malthouse Limited, Trustee of the Royal Melbourne Hospital Neuroscience Foundation, Chairman of the RMIT Marketing Industry Advisory Working Committee and Partner of law firm Barker Harty & Co. Other listed company directorships held during the period 1 July 2009 to 30 June 2012: Incitec Pivot Limited since December 2008.

### R (Rosemary) Warnock



Independent Non-Executive **Director** 

BA (Media), MAICD

Age 65. Appointed a Director in September 2010. Ms Warnock is a member of the Audit & Compliance Committee and the Occupational Health, Safety & Environment Committee. She is Chair of Arrium's Superannuation Policy Committee. She is a Director of Steel & Tube Holdings Limited, a New Zealand listed company in which Arrium Limited holds a 50.3% interest. She is also Chairman of Thinc Group Holdings Pty Ltd and a Principal of The Adelante Group. Her previous roles include Executive Mentor with Merryck & Co, Expert Panel Member of the Independent Review of the Environment Protection & Biodiversity Conservation Act, Interim Chief Executive of the Clean Energy Council and numerous global senior executive positions within BP. Other listed company directorships held during the period 1 July 2009 to 30 June 2012: Steel & Tube Holdings Limited since September 2010.

### CORPORATE GOVERNANCE STATEMENT

Arrium Limited (formerly OneSteel Limited) has been listed on the Australian Securities Exchange (ASX) since 23 October 2000 (ASX:ARI). This statement outlines the corporate governance practices adopted by the Board or put in place throughout the financial year.

### **Board of Directors**

The Board has adopted a Board Charter & Corporate Governance Guidelines (Guidelines). The Guidelines constitute a reference point for Directors, employees and shareholders in understanding the company's approach to the processes, performance measures, values and ethical standards which govern Directors and employees. The Guidelines are designed to facilitate an evaluation of the company's framework and procedures in the context of ensuring accountability and transparency.

The primary role of the Board is the protection and enhancement of shareholder value. The Board has responsibility for corporate governance. It oversees the business and affairs of the company, establishes the strategies and financial objectives with management and monitors the performance of management directly and indirectly through Board committees.

The Board has established a framework for management of the company, including a system of internal control and business risk management and appropriate ethical standards.

The Board reviews the company's performance and considers other important matters such as strategic issues and plans, major investment and divestment decisions, diversity, human resources matters. governance and compliance matters, and receives regular division and corporate function presentations. Senior management is regularly involved in Board discussions, and Directors have opportunities, such as visits to major operational sites, for contact with a wider group of employees.

The Board embraces the need for, and continued maintenance of, the highest standards of ethical conduct. The company's Code of Conduct formalises the obligation of Directors and employees to act within the law and to act honestly and ethically in all business activities.

For the purposes of the proper performance of their duties relating to the company, Directors are entitled to obtain independent professional advice at the company's expense following pre-approval by the Chairman. This advice is treated as advice to the Board.

### **Board committees**

The Board has established five committees. Each committee has a clear mandate and operating procedures and operates principally in a review or advisory capacity, except in cases where particular powers are specifically conferred on the committee by the Board. Board committees may also be established from time to time to deal with matters arising.

In considering the composition of committees, the Board considers the number of Directors and the skills required to discharge and appropriately share the responsibilities conferred by the Board.

### **Board composition and Non-Executive** Director independence

The Board regularly assesses the independence of each Director. For this purpose, an Independent Director is a Non-Executive Director whom the Board considers to be independent of management and free of any business or other relationship that could materially interfere with the exercise of unfettered and independent judgement.

In addition to being required to conduct themselves in accordance with principles for Directors' conduct and Directors' responsibilities outlined in the Guidelines, Directors must be meticulous in disclosure of any material contract or relationship in accordance with the Corporations Act. Directors must strictly adhere to the constraints on their participation and voting in relation to matters in which they may have an interest in accordance with the Corporations Act and Arrium policies.

Each Director (or interests associated with each Director) may be a shareholder in the company. Each Director may be involved with other companies or professional firms which may, from time to time, have dealings with Arrium, Directors must be meticulous in ensuring that disclosure, as required by law, is made of any dealings and, where requisite, details are set out in the company's Financial Report.

The Board has assessed that each of the Non-Executive Directors of the company is an Independent Director. In reaching that determination, in addition to the matters referred to above, the Board has taken into account:

- Specific disclosures made by each Director
- · Where applicable, the related party dealings of each Director, noting that those dealings are not material under accounting standards
- That no Director is a substantial shareholder or an officer of or otherwise associated with a substantial shareholder
- That no Non-Executive Director has ever been employed by Arrium or any of its subsidiaries, and
- That no Director has a contract with Arrium (other than as a Director), or is associated with, a supplier, professional adviser, consultant to or customer of Arrium that is material under applicable accounting standards.

The Board does not consider that term of service should be considered as a factor affecting the question of independence. The Board considers that a fixed maximum tenure is not in the company's interests. Instead, it considers that a Director should not seek re-election if they or the Board considers it is not appropriate to do so. Matters considered by the Board may include renewal and succession, size, experience and skill mix, diversity and performance.

A key responsibility of the Board's Governance & Nominations Committee (G&NC) is to consider and make recommendations to the Board in relation to Board composition. The aim of the Directors is to create a Board which has the appropriate mix and depth of skills, experience and attributes to discharge its responsibilities to the highest standard and which, in discharging those responsibilities. vigorously and constructively challenges and motivates the company's executives to achieve outstanding performance in the interests of all stakeholders.

In considering the appointment or recommendation for appointment of Directors, attributes and matters which are taken into account include diversity in its widest sense, outstanding career performance, impeccable values, capacity to contribute constructively to a team, willingness and capacity to devote the time and effort required, capacity to contribute strongly to the assessment and oversight of risk and risk management, capacity to contribute to the development and implementation of strategy and the company's policies and a strong appreciation of the responsibilities of the company to its shareholders, employees, the communities in which it operates, its suppliers, customers and other stakeholders. Where the G&NC considers it appropriate, external professional consultants are engaged to assist in identifying suitable candidates for appointment to the Board.

Refer to pages 42 and 43 for the period of office held by each Director and for the experience and qualifications of each Director and the Company Secretary.

### Performance evaluation

In each reporting period, the performance of the Board and each Board committee in meeting shareholder and stakeholder expectations is evaluated under the direction of the Chairman. In addition, the Chairman discusses individual Director contributions with each Director face-to-face annually.

Senior management is subject to an annual performance evaluation process which involves the assessment of performance against specific and measurable qualitative and quantitative performance criteria. An annual performance evaluation for senior management has been undertaken during the reporting period in accordance with this process.

### Remuneration and diversity

The Human Resources Committee reviews and makes recommendations to the Board in respect of remuneration.

Details concerning diversity matters are set out on page 34.

The remuneration of Key Management Personnel is set out in the Remuneration Report on pages 112 to 113.

### Risk management

Arrium is committed to managing risk to protect our people, the environment, company assets and our reputation, as well as to realise opportunities.

Arrium's risk-based system of internal control assists it to operate effectively and efficiently, achieve business objectives, ensure reliable reporting and comply with applicable laws and regulations.

Management implements this by designing and establishing a system for identifying, assessing, monitoring and managing material business risk throughout the company including the company's internal compliance and control systems. Management is expected to:

- · Design and implement a system of ongoing risk reviews capable of responding promptly to new and evolving risks
- · Monitor the effectiveness of the system of risk and internal control management
- · Provide an annual assurance to the Board regarding the extent of its compliance and
- · Regularly report to the Board on the effectiveness of the management of Arrium's material business risks.

A description of the Company's risk management system and the nature of the risks are outlined in the Risk Management section on pages 38 and 39.

The Managing Director & Chief Executive Officer (MD & CEO) and the Chief Financial Officer (CFO) are required to provide and have provided assurance via a written statement to the Board in accordance with s295A of the Corporations Act.

The Board notes that, due to its nature, internal control assurance from the MD & CEO and the CFO can only be reasonable rather than absolute. This is due to factors such as the need for judgement, the use of testing on a sample basis, the inherent limitations in internal control and the fact that much of the evidence available is persuasive rather than conclusive and therefore cannot, and cannot be designed to, reveal all weaknesses in control procedures.

In response to this, sign-offs are provided by key stakeholders in each division and corporate function to support the assurance provided.

#### External audit

KPMG was appointed as the company's external auditor in 2007.

The external auditor attends the Annual General Meeting and is available to answer questions about the conduct of the audit and the preparation and content of the audit report.

The Board conducts discussions and holds meetings with the external auditor without management present. Additional information on the appointment, review, provision of non-audit services, independence and other considerations is set out in the Audit & Compliance Committee Charter.

### Shareholdings of Key **Management Personnel**

The shareholdings of Key Management Personnel are set out in Note 30 of the Financial Report on pages 112 and 113.

### Securities dealing

The company's Securities Dealing Policy requires all Directors, officers and employees (including employees on fixed-term contracts), relevant consultants and contractors retained by the company from time to time (collectively Arrium People and individually an Arrium Person) to comply with the law relating to insider trading and with the rules outlined in the Securities Dealing Policy. The Securities Dealing Policy contains additional responsibilities which apply to Arrium People who are managers at level 3 (General Managers) and above, including Directors and senior executives.

### Continuous disclosure

Arrium's Continuous Disclosure Policy sets out the procedures in place to ensure that shareholders and the market are provided with full and timely information about the company's activities in compliance with its continuous disclosure obligations.

#### Shareholder communications

The methods by which Arrium communicates with shareholders include:

- Releases to ASX
- Annual General Meeting
- www.arrium.com which hosts:
  - Information about Arrium Limited such as an overview, corporate governance documents (refer below), corporate history and strategy
  - Information about our businesses: Mining, Mining Consumables and OneSteel Steel & Recycling
- Arrium's Investor Centre, which includes ASX releases, dividend information including the Dividend Reinvestment Plan Rules, shareholder information, reports and presentations, webcasts, a financial calendar, a financial snapshot and media contacts, and
- Sustainability information including an overview, safety and people, customers and markets, environment, community, economic and sustainability reports.

Shareholders are encouraged to subscribe to e-communications and to attend the AGM or, if they are unable to attend the AGM, to appoint a proxy or vote online.

### Corporate governance documents

Arrium has a range of charters, policies and codes in connection with its governance practices. These documents are available on www.arrium.com and include:

- · Constitution of the Company;
- · Audit & Compliance Committee Charter;
- · Human Resources Committee Charter;
- Occupational Health, Safety & Environment Committee Charter;
- Governance & Nominations Committee Charter;
- Operational Risk Committee Charter;
- Board Charter & Corporate Governance Guidelines;
- · Securities Dealing Policy;
- Continuous Disclosure Policy;
- Shareholder Communications Policy;
- · Risk Policy;
- · Diversity Policy;
- · Code of Conduct; and
- · Annual Report Corporate Governance Statement.

# **FINANCIAL REPORT**

FOR THE YEAR ENDED 30 JUNE 2012

Direc	tors' Report	47
	Auditor's Independence Declaration	48
	ineration Report	49
	ssion and Analysis of the Financial Statements	61
	ne Statement	62
State	ment of Comprehensive Income	63
Balan	ice Sheet	64
Cash	Flow Statement	65
State	ment of Changes in Equity	66
Notes	s to the Financial Statements	68
1.	Summary of Significant Accounting Policies	68
2.	Significant Accounting Estimates and Judgements	76
3.	Segment Information	77
4.	Income Statement Items	80
5.	Income Tax	82
6.	Earnings Per Share	84
7.	Receivables	85
8.	Derivative Financial Instruments	86
9.	Inventories	89
10.	Other Financial Assets	89
11.	Investments Accounted for Using The Equity Method	89
12.	Property, Plant and Equipment	90
13.	Mine Development Expenditure	91
14.	Other Intangibles and Goodwill	92
15.	Other Assets	94
16.	Payables	95
17.	Interest-bearing Liabilities	95
18.	Provisions	96
19.	Retirement Benefit Obligations	96
20.	Contributed Equity	100
21.	Retained Earnings	101
22.	Reserves	101
23.	Dividends  Notes to the Cash Flow Statement	102
<ul><li>24.</li><li>25.</li></ul>	Commitments	103
26.	Contingencies	103 104
27.	Controlled Entities	104
	Related Party Disclosures	109
29.	Employee Benefits	110
30.	Key Management Personnel Disclosures	112
31.	Auditors' Remuneration	114
32.	Financial Risk Management	114
33.	Parent Entity Disclosures	118
34.	Discontinued Operations	119
35.	Business Combinations	121
36.	Events After Balance Sheet Date	121
Direc	tors' Declaration	122
Indep	endent Auditor's Report	123
Share	cholder Information	124
Statis	stical Summary	126
Recor	nciliations	127
Reser	rves and Resources Statement	129
Gloss	•	131
	eviations	132
Corpo	prate Directory	133

OCCUPATIONAL

### **DIRECTORS' REPORT**

Your Directors submit their report on the consolidated entity consisting of Arrium Limited (formerly known as OneSteel Limited) and the entities it controlled at the end of, or during the year ended 30 June 2012 (Arrium Group).

### **DIRECTORS**

The following persons were Directors of Arrium Limited during the whole of the financial year and up to the date of the report unless stated otherwise:

R B Davis

C R Galbraith, AM

P G Nankervis

G J Plummer

D A Pritchard

P J Smedlev

G J Smoraon

R Warnock

Details of the qualifications, experience and responsibilities of the Directors are set out on pages 42 and 43 of the Annual Report.

### **PRINCIPAL ACTIVITIES**

The principal activities of Arrium Limited ("Arrium" or "the Company") are mining and supply of iron ore and other steelmaking raw materials to steel mills internationally and in Australia; the manufacture and supply of mining consumables products with key market positions globally; the manufacture and distribution of steel long products and recycling of ferrous and non-ferrous scrap metal.

Arrium is an international mining and materials company with three key businesses: Mining, Mining Consumables and Steel & Recycling.

Arrium Mining has a valuable iron ore export business based on developing iron ore reserves and low cost infrastructure.

Arrium Mining Consumables is the largest supplier of grinding media in the world, with leading market positions in some of the world's most attractive markets for mining consumables including South America, North America, Australia and Indonesia.

Arrium's integrated OneSteel business comprises OneSteel Manufacturing, Australia's long products steel manufacturing business; OneSteel Distribution, Australia's largest steel distributor and reinforcing steel supplier; and OneSteel Recycling, which includes operations in Australia, Asia and North America.

The Company changed its name from OneSteel Limited to Arrium Limited effective 2 July 2012.

### **REVIEW OF OPERATIONS**

A review of the operations of the Arrium Group during the financial year and the results of those operations forms part of the Annual Report.

Net profit after income tax attributable to members of Arrium Limited as parent entity for the financial year was \$57.7 million (2011: \$230.3 million) with earnings per share of 4.30 cents (2011: 17.26 cents).

### **DIVIDENDS**

Dividends paid or declared by Arrium Limited ("the Company") since the end of the previous financial year were as follows:

	\$m
2012 final dividend 3.0 cents per ordinary share payable on 18 October 2012, on fully paid ordinary shares	40.4
<b>2012 interim dividend</b> 3.0 cents per ordinary share paid on 19 April 2012, on fully paid ordinary shares	40.3
<b>2011 final dividend</b> 4.0 cents per ordinary share paid on 13 October 2011, on fully paid ordinary shares	53.5

### SIGNIFICANT CHANGES IN THE STATE OF AFFAIRS

There were no significant changes in the state of affairs of the Arrium Group that occurred during the financial year. Commentary on the overall state of affairs of the Arrium Group is set out on pages 2 to 39 of the Annual Report.

### **ENVIRONMENTAL REGULATION AND PERFORMANCE**

The Arrium Group is subject to significant environmental regulation in respect of its mining and manufacturing activities. Environmental performance obligations are monitored by management and the Directors and are periodically subjected to internal, independent external and government agency audits and site inspections. The Environment Report is set out on pages 36 and 37 of the Annual Report. Arrium Group's Sustainability Report is available on www.arrium.com.

### **DIRECTORS' MEETINGS**

The number of Directors' meetings held, and number of meetings attended by each of the Directors (excluding invited attendees) during the financial year are listed below. Details of the Committees are set out on pages 44 to 45 of the Annual Report.

DIRECTOR	BOARD	AUDIT & COMPLIANCE COMMITTEE	GOVERNANCE & NOMINATIONS COMMITTEE	HUMAN RESOURCES COMMITTEE	HEALTH, SAFETY & ENVIRONMENT COMMITTEE	OPERATIONAL RISK COMMITTEE
NUMBER OF MEETINGS HELD	13	5	2	2	4	12
R B Davis	13	4	-	-	4	1
CR Galbraith, AM	11	5	2	-	-	-
P G Nankervis	13	5	-	-	-	1
G J Plummer	13	-	_	-	-	-
D A Pritchard	13	-	-	2	4	1
P J Smedley	13	-	2	2	-	1
G J Smorgon	13	-	-	2	4	1
R Warnock	13	5	-	-	4	-

- Excludes sub-committee meetings and all written resolutions and includes 11 scheduled meetings (which all Directors attended) and two out of session meetings. Directors also attended one information/
- 2 Excludes site visits in October 2011 and March 2012 to review key operational risk matters.

### **COMPANY SECRETARY**

Information on the qualifications and experience of the Company Secretary is set out on page 42 of the Annual Report.

### **NO OFFICERS ARE FORMER AUDITORS**

No officer of Arrium has been a partner of an audit firm or a Director of an audit company that is or was an auditor of any entity in the Arrium Group during the year ended 30 June 2012.

### SHARES, RIGHTS AND OPTIONS

During, or since the end of the financial year, there were no options granted over unissued shares. At the date of this report there are no exercisable options over ordinary shares of the Company.

During, or since the end of the financial year, the Company has issued 4,456,594 share rights over ordinary shares to the Executive Directors and Executives. No rights vested during or since the end of the financial year. Refer to Remuneration Report for further details.

### **DIRECTORS' REPORT** CONTINUED

### **DIRECTORS' INTERESTS**

No Director, either directly or indirectly, exercised an option over ordinary shares or was granted ordinary shares during the financial year other than G J Plummer who was granted 1,637,531 rights to ordinary shares under the Arrium Performance Rights Plan. These rights will vest 1 July 2014 subject to performance hurdles. No share rights vested to Mr Plummer during the financial year.

The relevant interests of each Director in the shares, rights, options or other instruments of the Company and related bodies corporate are set out in Note 30 of the Financial Report.

### **MATTERS SUBSEQUENT TO THE END OF THE FINANCIAL YEAR**

TransAlta Utilities Corporation ("TransAlta") and TransCanada Energy Ltd ("TransCanada") are party to a Power Purchase Arrangement (PPA) under which TransAlta supplies all of the power generated by the Sundance A power generation units in Alberta, Canada, to TransCanada. AltaSteel Ltd, a wholly-owned subsidiary of Arrium Limited, is party to an Electrical Sales Agreement (ESA) with TransCanada pursuant to which it agrees to offtake a portion of the power supplied to TransCanada under the PPA. On 4 January 2011, TransAlta issued a force majeure notice in respect of the Sundance A power generation units and subsequently on 8 February 2011 issued a notice of termination of the PPA for destruction. TransCanada disputed both claims.

On 23 July 2012, TransCanada and TransAlta announced the outcome from an independent arbitration panel regarding the dispute over the force majeure and destruction claims. The independent panel has ordered TransAlta to rebuild these units and limited their force maieure claim from 20 November 2011 until a period of time that the units can reasonably be returned to service.

No asset has been recognised by Arrium Limited in the year ended 30 June 2012 in respect of the ESA, as at the date of this report the implications under the ESA of the independent panel's decision and the future value of the FSA remain uncertain.

Except for the matters discussed above, there have been no circumstances arising since 30 June 2012 that have significantly affected or may significantly affect:

- (a) The operations
- (b) The results of those operations, or
- (c) The state of affairs of the Arrium Group in future financial years.

### LIKELY DEVELOPMENTS AND EXPECTED **RESULTS OF OPERATIONS**

Certain likely developments in the operations of the Arrium Group known at the date of this report have been covered generally within the Annual Report.

### **INTERESTS OF NON-EXECUTIVE** DIRECTORS IN CONTRACTS OR PROPOSED CONTRACTS WITH THE COMPANY

Directors of Arrium Limited have declared their interests in contracts or proposed contracts that may result from their directorships of other corporations, as set out on pages 42 and 43 of the Annual Report.

Members of the Arrium Group had normal business transactions with Directors (or Director-related entities) of the parent entity and its controlled entities during the year.

### **LOANS TO DIRECTORS AND KEY** MANAGEMENT PERSONNEL

There were no loans made to or are outstanding with Directors or Key Management Personnel.

### INDEMNIFICATION AND INSURANCE **OF OFFICERS**

The Group has agreements with each of the non-executive Directors of the Company in office at the date of this report, and certain former Directors.

The Directors have not included details of the nature of the liabilities covered or the amount of the premium paid in respect of the Directors' and officers' liability and legal expenses insurance contracts, as disclosure is prohibited.

### **NON-AUDIT SERVICES**

During the year, Arrium Group's auditor, KPMG, provided non-audit services to Arrium Group entities.

Details of the amounts paid or payable to the auditor, KPMG, for the provision of non-audit services during the financial year are set out in Note 31 to the Financial Report.

The Directors are satisfied that the provision of the non-audit services during the year is compatible with the general standard of independence for auditors imposed by the Corporations Act 2001 (Cth). Following a review by the Audit & Compliance Committee, the Directors are satisfied that the nature and scope of each type of nonaudit service provided means that auditor independence was not compromised.

### **ROUNDING OF AMOUNTS**

The Company is of the kind referred to in ASIC Class Order 98/100. In accordance with that Class Order, amounts contained in this report and in the Financial Report have been rounded off to the nearest one hundred thousand dollars or, where the amount is \$50,000 or less, zero, unless specifically stated to be otherwise.



### LEAD AUDITOR'S INDEPENDENCE DECLARATION

UNDER SECTION 307C OF THE CORPORATIONS ACT 2001

### TO THE DIRECTORS OF ARRIUM LIMITED

I declare that, to the best of my knowledge and belief, in relation to the audit for the financial year ended 30 June 2012 there have been:

- (a) No contraventions of the auditor independence requirements as set out in the Corporations Act 2001 in relation to the audit, and
- (b) No contraventions of any applicable code of professional conduct in relation to the audit.

KPMG

David Rogers Partner

KPMG.

Sydney 21 August 2012

### REMUNERATION REPORT

The Directors of Arrium Limited present the Remuneration Report, which forms part of the Directors' Report, for the Arrium Group (Group).

This Remuneration Report has been prepared in accordance with the Corporations Act 2001 (Cth) and the Corporations Regulations 2001 and sections B - F have been audited.

### **CONTENTS OF THE REMUNERATION REPORT**

The Remuneration Report outlines Arrium's remuneration strategy, the components of remuneration for Key Management Personnel (KMP), including Non-Executive Directors and executives, the link between performance and reward and provides details of remuneration paid to Non-Executive Directors and executives during the year ended 30 June 2012. The report is divided into the following sections:

- Chairman's Letter to Shareholders providing an Overview of 2011-2012
- Remuneration Governance at Arrium
- C. Non-Executive Director Remuneration
- D. Executive Remuneration
- Details of Non-Executive Director and Executive Remuneration for the year ended 30 June 2012
- F. Executive Service Agreements

For the purposes of this report:

Kev Management Personnel are those executives with authority and responsibility for planning, directing and controlling the activities of the Arrium Group either directly or indirectly, and all the Directors of Arrium Limited (executive and Non-Executive).

Lead Team refers to members of the senior executive group and comprises the Managing Director & Chief Executive Officer (MD & CEO) and direct reports to the MD & CEO. There are no key management personnel outside the Lead Team, other than the Non-Executive Directors.

### A. CHAIRMAN'S LETTER TO SHAREHOLDERS PROVIDING AN **OVERVIEW OF 2011-2012 (UNAUDITED)**

Dear shareholders.

On behalf of the Arrium Board, I am pleased to provide you with the Remuneration Report for the 2012 financial year. Whilst the report that follows sets out a comprehensive account of executive remuneration at Arrium over the last 12 months, I would like to take the opportunity to provide you with a brief overview of the year.

The remuneration outcomes for the year appropriately reflect a number of factors including the performance of the Company, the changes in roles for some individuals, intense global competition for experienced metals, mining and mining-related executives and the capability and experience of the executive group.

Remuneration adjustments were awarded to those executives moving into new or substantially larger roles to reflect their contribution in the context of both the overall market and Arrium's remuneration policy and framework.

STI payments for executives are below target levels. The Group's profit outcome was below plan and accordingly no payments were made for this significant component of the STI program. Cash results were sound, particularly in the second half of the year, and these resulted in a proportion of the target payment being achieved. Safety performance improved, particularly in relation to the significant risk reduction program. Sound progress was also made on the Company's challenging strategic agenda which included:

- Significantly growing the mining business through the acquisition of the Southern Iron assets and Whyalla Port development.
- Very positive and sustainable financial outcomes for the recently established Mining Consumables business, as well as securing it as a source of future growth.
- Significant improvements in the Steel Manufacturing businesses in the second half.
- Cash and balance sheet outcomes across the Group which were solid and consistent with the Board's expectations.

In view of the above, the STI outcome for Mr Plummer was at 48.5% of target (\$776,000). Additionally, a further payment equivalent of 20% of target (\$320,000) has been deferred and will be contingent on the successful implementation of continuing strategic initiatives to plan during 2013, most significantly the iron ore and port development projects in South Australia. The deferral is in recognition of the importance and significance of the iron ore and port infrastructure development and that implementation will not be able to be fully assessed to plan until 2013. As a result, and subject to the additional payment being awarded, Mr Plummer will have forgone 31.5% of his target STI payment in 2012. Other members of the Lead Team have forgone on average 24% of their target STI, noting some executives, including for Mining Consumables, achieved components of their respective divisional financial targets.

The revised approach to Arrium's Long Term Incentive Plan was implemented from 1 July 2011 with a Performance Rights Plan replacing the former share plan. Plan participants are now issued with Rights rather than Shares with appropriate performance hurdles and vesting requirements, whilst no longer having access to dividends on unvested shares or retesting of performance hurdles. Under this Plan, Mr Plummer will be allocated Performance Rights to the value of \$1.7 million in the 2013 financial year. The 633,141 shares allocated to the MD & CEO under the 2007 Long Term Incentive allocation are to be fully forfeited. Further, no shares have vested as a result of the performance testing of the 2008 allocation.

The current market environment has created competition for talented executives, particularly with skills and experience in the metals and mining sector. In this context, the Board must maintain a stable and capable executive team to deliver best possible overall performance of Arrium in the short-term. Accordingly, a Retention Plan for Arrium's key executives (excluding the MD & CEO) has been put in place. Under this plan, executives were awarded rights which will vest to shares if service hurdles are met over this critical period.

There was no adjustment to Non-Executive Director remuneration given the comprehensive review in 2009 and the implementation of Committee fees in January 2011.

In terms of the outlook from a remuneration perspective, Arrium is not currently contemplating any significant changes to its policy or approach to executive remuneration, given the comprehensive review of its LTI and associated performance hurdles completed last year. The only change the Board has implemented is formalising its approach to the potential clawback of Long Term and Short Term incentives for all plan participants in the event of material financial misstatements.

The Board will continue to actively monitor the approach and application of executive remuneration policy at Arrium to ensure continued alignment with the execution of its strategic plan and delivering shareholder return to our investors.

Thank you for your continued support and I hope you will find the report set out below useful and informative.

Yours faithfully

Peter Smedley Chairman

### **REMUNERATION GOVERNANCE** AT ARRIUM

The Board is responsible for remuneration decisions at Arrium. To assist the Board, governance and oversight of remuneration is delegated to the Human Resources Committee. The Human Resources Committee responsibilities, which can be referenced in more detail on the Company's website, include:

- Reviewing remuneration policies and practices including the setting of fixed remuneration amount and the structure and quantum of awards under the STI and LTI Plans for executives
- The Group's superannuation arrangements for executives, and
- The fees for Non-Executive Directors of the Board (within the total annual aggregate amount approved by shareholders).

The Human Resources Committee comprises three Non-Executive Directors, and has direct access to independent advice and comparative studies on the appropriateness of remuneration arrangements.

The Human Resources Committee makes recommendations to the Board. The Board makes final remuneration decisions in respect of Non-Executive Directors and the Lead Team (see "Definitions" above).

The members of the Human Resources Committee, number of meetings and attendance is presented on page 47 of the Directors' Report.

### REMUNERATION REPORT CONTINUED

For ease of reference, Arrium's key management personnel are listed below;

### Arrium Key Management Personnel 2012

DIRECTORS	NOTES		
R B Davis	Non-Executive Director		
C R Galbraith	Non-Executive Director		
P G Nankervis	Non-Executive Director		
D A Pritchard	Non-Executive Director		
P J Smedley	Board Chairman and Non-Executive Director		
G J Smorgon	Non-Executive Director		
R Warnock	Non-Executive Director		
<b>Executive Director</b>			
G J Plummer	Managing Director & Chief Executive Officer		
Other executives			
R C Bakewell	Chief Financial Officer		
S H Hamer	Chief Executive Distribution		
A G Roberts	Chief Executive Mining Consumables		
L J Selleck	Chief Executive Manufacturing		
G A Waters	Chief Executive Mining		
G Feurtado	Chief Executive Recycling (Appointed October 2011)		
M R Parry	Resigned October 2011		

### Independent advice

The Board engages a number of expert consultants from time to time to provide independent and specialist advice in relation to executive remuneration policy and practice, market analysis and governance and the regulatory environment. This year, the Board has engaged the services of Egan Associates and Hay Group as the primary source of independent advice in relation to the executive group and Godfrey Remuneration Group in relation to Non-Executive Directors. Letters of engagement confirm that any advice provided must be free from undue influence by the member or members of the Key Management Personnel to whom any recommendations relate and sets out the processes to be followed in requesting information from, and providing reports to the Company to ensure these obligations are met. The Board is satisfied that the remuneration outcomes were free from undue influence by any Key Management Personnel on the basis that the processes described above were followed and were designed to ensure such an outcome.

In 2012, the following advisers have been appointed by the Board in this capacity and have generated fees as set out in Table 1:

TΔRI	F1-	INDI	EPENDE	INT A	DVICE

INDEPENDENT CONSULTANT	FEES PAID (INCL GST)	NATURE OF ADVICE
Egan Associates	\$57,981	KMP related advice including reward policy and practice, incorporating executive and Non-Executive Key Management Personnel, retention considerations, conduct of market research, the establishment and implementation of the Performance Rights Plan, updating the Board on matters relevant to KMP reward, including consideration and advice on market practices across industrials, materials and resources companies, to maintain the Board's awareness of contemporary market trends.
	\$15,015	Non-KMP related advice including review of documentation prepared by others regarding employee incentive and share plans, review of shareholder communications documentation and providing the Board with an update on legislative and regulatory matters relevant to the role of the Human Resources Committee.
Godfrey Remuneration Group	\$3,750	Market advice and recommendations in relation to remuneration of Non-Executive Directors. No other advice was provided.
Hay Group	\$18,200	Subscription and fees relating to Hay market database in relation to Arrium salaried employees and the general salary administration and review, i.e. non-KMP related.
	\$6,160	Market advice in relation to remuneration of MD & CEO.

### C. NON-EXECUTIVE DIRECTOR REMUNERATION

The Board, in conjunction with the Human Resources Committee, seeks to establish Non-Executive Director remuneration at a level that enables Arrium to attract and retain Directors of the highest calibre at a cost that is responsible and acceptable to shareholders.

The remuneration arrangements for Non-Executive Directors are benchmarked against related industries with due regard to factors such as total revenue, market capital, assets under management and profit. Such analysis indicates that the structures in place are appropriate and are consistent both with industry practice and principles of good corporate governance.

The key principles that underpin the Board's approach to Non-Executive Director remuneration are:

### Board fees are approved by shareholders

The limit on the current total annual aggregate fee pool for Non-Executive Directors of \$2 million was approved at the 2006 Annual General Meeting as required by Article 9.8 of the Constitution of the Company and under ASX Listing Rule 10.17. The Board will not seek any increase to this fee pool at the 2012 Annual General Meeting.

### Remuneration is designed to preserve independence

The structure of Arrium's Non-Executive Director remuneration is separate and distinct from that applicable to the Lead Team. Non-Executive Directors have not been granted shares under the Group's LTI Share Plan nor Performance Rights under the Performance Rights Plan and do not receive any bonus or other performance-based remuneration.

### No retirement benefits

No additional benefits (other than their current statutory superannuation entitlements) are paid to Non-Executive Directors upon their retirement from the Board.

The retirement benefit scheme in existence until 17 November 2003 was approved by shareholders during Arrium's public listing in 2000. This retirement benefit was an additional and separate arrangement to the payment of Directors' fees.

The retirement benefit scheme was discontinued from 17 November 2003 and the amount of the retirement benefit accrued by each Non-Executive Director was fixed by reference to the length of service up to this date.

For Directors who held office on 17 November 2003, a cash benefit under the discontinued scheme is payable upon the retirement of the Director from the Board.

### Suspension of Non-Executive Director Share Plan

The ability for Non-Executive Directors to acquire shares under the Non-Executive Director Share Plan has been suspended since 2010 as a result of taxation changes affecting the operation of the Plan. Arrangements have now been put in place for Non-Executive Directors to receive fees as cash and superannuation in lieu of the long-term share component that was previously in place. Market practice will continue to be monitored over the coming period regarding the use of equitybased plans for Non-Executive Directors.

### Review of Non-Executive Director remuneration

As shown in Table 2, there has been no adjustment to Non-Executive Director fees this year. A comprehensive review was completed in 2009 and the outcome implemented in January 2011. A review this year confirmed that Non-Executive Directors continue to be paid competitively and appropriately at this time.

### TABLE 2 - NON-EXECUTIVE DIRECTOR REMUNERATION QUANTUM AND STRUCTURE

The quantum and structure of Director fees since 1 January 2011 are:					
BOARD/COMMITTEE	ROLE	ANNUAL FEE SINCE 1 JANUARY 2011			
Board	Chairman	\$495,000			
	Member	\$165,000			
Audit & Compliance Committee	Chairman	\$20,000			
	Member	\$5,000			
Governance & Nominations Committee	Chairman	\$15,000			
	Member	\$5,000			
Human Resources Committee	Chairman	\$15,000			
	Member	\$5,000			
Occupational, Health, Safety & Environment Committee	Chairman	\$15,000			
	Member	\$5,000			
Operational Risk Committee	Chairman	\$15,000			
	Member	\$5,000			

The Chairman of the Board does not receive any Board Committee fees.

### D. EXECUTIVE REMUNERATION

### Strategy and structure

The objective of Arrium's executive remuneration framework is to pay market competitive remuneration, recognising skills and experience and to reward for performance and the achievement of strategic objectives leading to the creation of shareholder value.

Arrium seeks to provide competitive remuneration that will attract, motivate and retain executives.

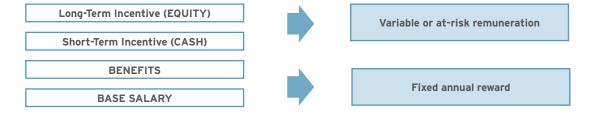
Arrium's remuneration strategy is to align fixed annual reward levels around the median of executives' local salary markets. Executives can be paid above or below the median consistent with their capability and demonstrated value to the business. It is also Arrium's policy to position variable or at-risk remuneration such that total remuneration can be positioned above, at or below the relevant market median dependent on the level of the Company's and the executive's performance.

For the Lead Team, remuneration consists of Fixed Annual Reward (FAR) (incorporating a base salary and other benefits including superannuation, salary sacrifice items, other employment benefits and appropriate tax) and at-risk components.

The at-risk components are:

- Short-Term Incentives (STI), giving executives the opportunity to earn a cash bonus, contingent upon performance against a combination of Group financial and safety targets, and individual key performance indicators, and
- Long-Term Incentives (LTI), giving executives the opportunity to acquire Arrium shares where they succeed in achieving outcomes linked to the creation of long-term sustainable growth for shareholders over a three to five-year period.

The structure of Arrium's executive remuneration arrangements is shown below:



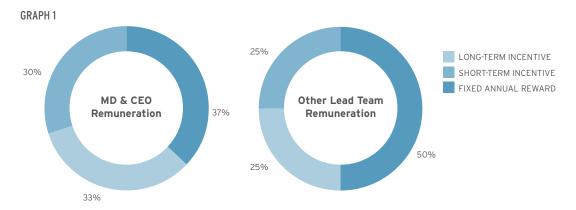
In determining the level and composition of executive remuneration, Arrium draws on independent external advisers to ensure its practices are market competitive, flexible and in keeping with emerging trends and good corporate governance.

Remuneration is reviewed annually towards the end of the financial year and changes are applied from 1 July for the Lead Team. The Human Resources Committee reviews the Lead Team remuneration arrangements, with the Board making final remuneration decisions in respect of any recommendations made. The remuneration structure is designed to ensure that executives have a significant portion of remuneration at risk. Table 3 sets out the target mix of fixed and at-risk pay (as a proportion out of a total 100%) for the MD & CEO and other members of the Lead Team. In 2012, an adjustment was made to the relative weightings of fixed versus variable remuneration for the MD & CEO to reflect market practice in relation to Mr Plummer's peer group. The MD & CEO STI target payment is 80% of FAR but the payment range remains unchanged at 0% to 120%.

### **REMUNERATION REPORT CONTINUED**

### TABLE 3 - REMUNERATION STRUCTURE

	MD & CEO	OTHER MEMBERS OF THE LEAD TEAM
Long-Term Incentive	33%	25%
Short-Term Incentive	30%	25%
Fixed annual reward	37%	50%



### The relationship between Group strategy and reward

A key underlying principle of Arrium's executive remuneration strategy is that remuneration should be strongly linked to Group performance. Each element of an executive's remuneration is linked or aligned with various drivers of shareholder value. This relationship is set out in Table 4.

TABLE 4 - PERFORMANCE LINK WITH REWARD

PERFORMANCE INDICATOR	LINK TO EXECUTIVE REWARD
Net Profit After Tax	Together, NPAT and cash flow targets account for the majority of the STI weighting, though
Generating strong cash flow	the weighting varies by individual to align to the relevant Group or division strategy.
Safety	10% STI weighting on significant safety improvement for all eligible Arrium employees.
Increasing shareholder wealth	LTI performance hurdles are equally weighted between Earnings Per Share (EPS) and relative Total Shareholder Return (TSR).
Execution of key strategic initiatives that drive future value for shareholders	Variable weighting in STI, depending on the role and expected contribution.
Behaving in a manner consistent with our core values of safety and customer	Assessed through the Performance Planning and Management (PPM) process and considered in any FAR adjustment.
Ensuring alignment between employee's and shareholders' interests	Broad Board discretion to reduce or cancel potential STI or LTI awards in a range of circumstances, including in the event of a material financial misstatement.

The Lead Team's STI payments in any year are reviewed by assessment of performance against financial, division, safety and personal targets. Targets are set by the Board in consultation with the MD & CEO at the start of each financial year.

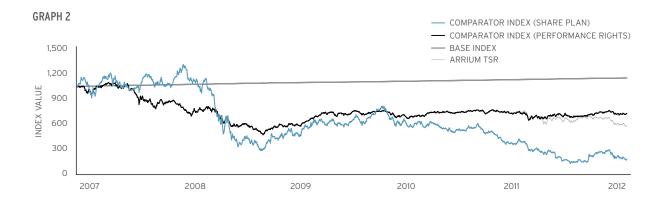
A significant portion (for example 70% in 2012) of payments under the STI Plan and vesting of all grants under the LTI Plan are contingent upon the financial performance of the Group. The Group's financial performance is illustrated in Table 5 which shows underlying NPAT, EPS and dividends per share performance over the last five years, together with the aggregate KMP STI payments.

TABLE 5 - ARRIUM GROUP FINANCIALS

	UNDERLYIN			
YEAR ENDED 30 JUNE	NPAT (\$m)	EPS (CENTS) <sup>1</sup>	DIVIDENDS PER SHARE (CENTS)	KMP STI PAID (\$m)
2012	195.0	14.6	6.0	2.6
2011	235.4	17.7	10.0	1.4
2010	240.6	18.2	11.0	3.8
2009	215.3	21.2	10.0	0.5
2008	315.0	34.9	21.5	2.8

<sup>1</sup> Based on weighted average number of shares outstanding at 30 June.

Graph 2 demonstrates performance against the Arrium LTI performance hurdles over the LTI vesting period. The graph compares the Arrium TSR against the applicable Comparator Index (the S&P/ASX 200 Index excluding banks, media and telecommunications for previous LTI Share Plan grants) and the Base Index (the Australian CPI plus 5% for previous LTI Plan grants).



### **Fixed Annual Reward**

The level of salary is set so as to provide a level of remuneration that is both appropriate to the executive's skills, experience and performance as well as competitive in the market. The review process involves assessment of the Group, division and individual performance, analysis of comparative market and internal remuneration information, and independent external advice on policies and practices. In all cases, independent advice received from Egan Associates and Hay Group is used to determine market movement and to provide input into recommended changes to executives' FAR.

Members of the Lead Team are provided flexibility to receive their FAR in a variety of forms, including cash, superannuation and employment benefits such as motor vehicles.

The STI aims to reward participating employees for the achievement of agreed financial, safety, division and personal goals. It is administered over the financial year. In broad terms, Arrium's STI Plan principles and structures for executives is as follows;

TABLE 6 - STI

ATTRIBUTE	STI PLAN FEATURES
STI opportunity	Payments under the STI Plan are based on a set percentage of FAR for achievement of goals. For the MD & CEO, the STI target was set at 80% of FAR with a payment range of 0% to 120% of FAR potentially available. Other members of the Arrium lead team have a STI target of 50% of FAR with a payment range from 0% to 100% of FAR potentially available. The maximum payment is only paid on outstanding "stretch" outcomes.
Performance gateway	Satisfactory performance is a pre-requisite for participation in the STI. Participation may be suspended or reduced where a participant has fallen short of performance expectations.
	Executives participate in an annual performance review process that assesses performance against key accountabilities, behaviours and job goals. Performance against these accountabilities and goals impacts directly on STI payments. In addition to an annual performance review, regular performance discussions with executives occur during the financial year. The process ensures there is clarity in the communication and understanding of key business drivers and targets. These performance discussions also serve to provide feedback, to plan development initiatives and to aid succession planning.
Performance criteria and weighting	The performance conditions used for the STI Plan are established annually by the Board for the Lead Team and reflect strategic business plans and budgets.
	In 2011-2012 the following performance measures applied:
	Financial targets (70%): In 2011 - 2012, financial targets were to deliver Net Profit After Tax and cash flow outcomes. For the MD & CEO and CFO, the financial targets reflect overall Arrium financial outcomes. Chief Executives have a 20% weighting directed towards divisional financial outcomes with the balance of 50% relating to overall Arrium outcomes.
	Safety targets (10%): All executives have a 10% weighting on safety performance improvement. Performance improvement is assessed against improvement in Medically Treated Injury Frequency Rate (measuring the number of medically treated injuries across the combined employee and contractor workforce per 1,000,000 employee hours) as well as substantive improvement in the identification and management of significant safety risks.
	Personal target (20%): All executives have a weighting of 20% relating to achievement of personal goals aligned with strategic or performance imperatives. In 2012, these included those relating to growth and capital development projects, cost reduction programs, restructuring, and divestment initiatives.
	In all cases, payments are intended to reward continuous improvement and not to reward maintenance of the status quo.
Governance	Lead Team members' actual STI payments are subject to approval by the Board.
	Arrium reserves the right to modify or cancel the STI Plan at any time. This may occur due to unsatisfactory business performance and/or other significant changes in business operating conditions or assumptions.
Cessation of employment	If an executive resigns during the measurement period, they will generally not be entitled to receive an STI payment.

During the year ended 30 June 2011, the Company replaced the existing LTI Share Plan with a new Performance Rights Plan (PRP). The new PRP applied from 1 July 2011, with the previous LTI Share Plan remaining in operation until all unvested awards have either vested or the executive's entitlement lapses. No further awards were granted under the previous LTI Share Plan during the 2012 Financial Year, nor is it intended that further awards will be granted under this Plan in the future.

The objective of the LTI Plan and new PRP is to reward participating executives for the sustained creation of shareholder wealth.

A summary of the key attributes of the previous LTI Share Plan and PRP are set out below in Table 7.

### REMUNERATION REPORT CONTINUED

### TABLE 7 - LTI PLANS

ATTRIBUTE	LTI PERFORMANCE RIGHTS PLAN (NEW SCHEME)	LTI SHARE PLAN (FORMER SCHEME)		
Award	Rights to fully paid Arrium ordinary shares.	Arrium shares held in Trust ("Restricted Shares").		
Participation	Offered to the Lead Team and selected employees who are able to significantly influence Arrium's performance over the long-term and therefore the creation of shareholder wealth.	Offered to the Lead Team and selected employees who are able to significantly influence Arrium's performance over the long-term and therefore the creation of shareholder wealth.		
Performance Period	three years.	three years.		
Access to retesting	No retesting.	Yes, up to five years (see detailed explanation below).		
Performance Hurdles	50% of Rights assessed against Relative Total Shareholder Return, measured against the S&P/ ASX 200 Index (excluding consumer discretionary, consumer staples, financial services, health, information technology and telecommunications services sectors).	50% of shares assessed against Relative Total Shareholder Return, measured against the S&P/ASX 200 Index (excluding banks, media and telecommunications).		
	50% of Rights assessed against compound annual growth in average Earnings Per Share. Target established by the Board for each allocation.	50% of shares assessed against CPI plus 5%.		
Vesting	Rights vest in proportion to the performance hurdles met (see Table 8 below).	Shares vest in proportion to the performance hurdles met (see Table 10 below).		
Dividends	No dividends payable until the Rights vest and shares allotted.	Paid from initial allocation irrespective of whether shares are vested or unvested.		
Voting Rights	No.	Yes.		

### Performance Rights Plan (New Scheme) - Performance Hurdles

As noted in Table 7 above, there are two Performance Hurdles under the PRP with 50% of rights vesting against each hurdle. One hurdle is Arrium's TSR relative to a Comparator Index. The second, which replaces the previous CPI-based hurdle, relates to Arrium's Earnings Per Share (EPS).

These two complementary performance measures have been carefully and specifically determined by the Board so as to provide executives with an incentive to create shareholder wealth over a sustained period.

### Arrium's TSR performance relative to the Comparator Index

TSR measures the growth in the price of Arrium's ordinary shares plus dividends notionally reinvested over the relevant performance period. The relative TSR measure will assess Arrium's TSR performance against entities in the TSR ranking group over the Performance Period. The TSR ranking group will be all of the companies in the S&P/ASX 200 Index, excluding the consumer discretionary, consumer staples, financial services, health, information technology and telecommunications services sectors (approximately 115 companies in total).

The benchmark companies chosen for the PRP for comparing Arrium's TSR are not dissimilar from the index which was adopted by the Company under the former scheme (refer below). Having regard to the nature of Arrium's operations, its customer and supplier base and its international reach, it was considered inappropriate for the Company's relative TSR to be compared with local consumer-focused businesses, those in financial services, healthcare, information technology or telecommunications. In adopting the balance of the S&P/ASX 200 Index, the comparators contain all industrial companies, all materials and resources companies and significant others which, in the Board's judgement, represent a testing group of relevant comparators. For all rights to yest in respect of this performance hurdle, the Company's TSR over the three-year period will have to out perform more than 85 of the 115 relevant companies which the Board believes represents an appropriate stretch performance target.

For the 2012 offer under the New Scheme, the performance period for the relative TSR measure will be the three-year period commencing from 1 July 2012 and ending 30 June 2015 (Performance Period). For the purposes of this measurement, TSR will be calculated using the volume weighted average share price for the Company's shares over a ten consecutive trading day period starting two months prior to the end date of the Performance Period and ending two months after the end date of the Performance Period. The relevant ten consecutive trading day period will be determined by that which gives the highest level of vesting achieved during the Performance Period.

Fifty percent of the total Rights awarded vest to participants at the end of the three-year Performance Period subject to the performance of Arrium's TSR relative to the Comparator Index over the Performance Period according to Table 8:

### TABLE 8 - TSR VESTING PROPORTIONS TO THE COMPARATOR INDEX

TSR PERFORMANCE RELATIVE TO THE COMPARATOR INDEX	PROPORTION OF RIGHTS VESTING AS ARRIUM ORDINARY SHARES
Below the 50 <sup>th</sup> percentile	Nil
At the 50 <sup>th</sup> percentile	50%
Between the 50 <sup>th</sup> percentile and 75 <sup>th</sup> percentile	Pro-rata straight-line between 50% - 100%
At or above the 75 <sup>th</sup> percentile	100%

### Arrium's Earnings Per Share

EPS is the basic EPS disclosed in Arrium's full year Financial Report. The EPS hurdle will measure Arrium's EPS growth (as an annual compound percentage) between the final year of the Performance Period for the EPS hurdle (being the year ending 30 June 2015 for the 2012 offer) and the financial year ending immediately prior to the date of grant of the relevant Rights (being the year ended 30 June 2012 for the 2012 offer). EPS growth is then compared against the EPS targets for Arrium as determined by the Board for the prior corresponding period.

Rights granted and subject to the Arrium EPS performance hurdle for the 2012 offer vest according to Table 9:

### TABLE 9 - EPS VESTING PROPORTIONS

COMPOUND GROWTH IN ARRIUM EPS OVER PERFORMANCE PERIOD	PROPORTION OF RIGHTS VESTING AS ARRIUM SHARES
Less than 5%	Nil
5%	25%
Greater than 5% - 12%	Pro-rata straight-line between 25% - 100%
Greater than 12%	100%

There are no retesting provisions under the PRP if rights fail to vest under either performance measure at the conclusion of the Performance Period under the PRP. Prior to the approval of the vesting of rights and allotment of shares, independent external verification will be sought to confirm that the vesting conditions have been satisfied. If an executive ceases employment with Arrium before the performance condition is tested, then the executive's unvested rights will generally lapse. However, all or some of the rights may vest to an executive on ceasing employment when special circumstances apply at the discretion of the Board including redundancy, death and permanent disability.

### LTI Plan (Former Scheme) - details of Performance Hurdles

The performance conditions of the LTI Share Plan are based on the performance of Arrium's Total Shareholder Return (TSR). TSR measures the percentage growth in a company's share price together with the value of dividends received during the period, assuming that all of those dividends are reinvested into new shares. The performance conditions of the LTI Share Plan have been chosen to directly link executive reward to shareholder returns over a sustained period.

For the shares to vest to executives, the following TSR performance conditions must be achieved:

- For 50% of the shares, vesting will be dependent on Arrium's TSR performance compared with the TSR performance of companies within the S&P/ASX 200 Index (excluding banks, media and telecommunications) (the Comparator Index), and
- For the remaining 50% of the shares, vesting will be dependent on Arrium's TSR performance relative to Australian CPI plus 5% (the Base Index).

### Arrium's TSR performance relative to the Comparator Index

Fifty percent of the total shares awarded vest to participants at the end of the three-year performance period subject to the performance of Arrium's TSR relative to the Comparator Index over the Performance Period according to Table 10.

### TABLE 10 - TSR VESTING PROPORTIONS TO THE COMPARATOR INDEX

TSR PERFORMANCE RELATIVE TO THE COMPARATOR INDEX	PROPORTION OF SHARES VESTING
Below the 50 <sup>th</sup> percentile	Nil
At the 50 <sup>th</sup> percentile	50%
Between the 50 <sup>th</sup> percentile and 75 <sup>th</sup> percentile	Pro-rata straight-line between 50% - 100%
At or above the 75 <sup>th</sup> percentile	100%

### Arrium's TSR performance relative to the Base Index

Fifty percent of the total shares awarded vest to participants at the end of the three-year Performance Period subject to the performance of Arrium's TSR relative to the Base Index.

Shares granted and subject to the Base Index performance hurdle vest according to Table 11.

### TABLE 11 - TSR VESTING PROPORTIONS TO THE BASE INDEX

TSR PERFORMANCE RELATIVE TO THE BASE INDEX	PROPORTION OF SHARES VESTING		
Up to and including 60%	Nil		
61% - 80%	60%		
81% - 99%	80%		
100% and over	100%		

If the shares do not vest immediately under either performance measure at the end of the three-year Performance Period, provisions exist that enable retesting of performance hurdles annually for the current MD & CEO and every six months for other executives over a two-year period except for 2007 share grants which were retested quarterly until the conclusion of the 2012 financial year (these have subsequently been forfeited). Prior to the approval of the vesting of shares, the Board obtains independent external verification that the vesting conditions have been satisfied. If an executive ceases employment with Arrium before the performance condition is tested, then the executive's unvested shares will generally lapse. However, all or some of the shares may vest to an executive on ceasing employment when special circumstances apply at the discretion of the Board including redundancy, death and permanent disability.

Details of equity-based compensation provided to KMP are contained in Section E of this Report.

### Participation in other equity plans

Together with all Australian resident permanent employees of Arrium, executives are eligible to participate in either the Tax Exempt or Tax Deferred Share Plans, Under these plans, employees are able to make salary sacrifice contributions to purchase Arrium ordinary shares on-market on a monthly basis. Details of the Tax Exempt and Tax Deferred Share Plans are set out in Note 29 to the Financial Report.

### REMUNERATION REPORT CONTINUED

### Dealing in Company securities

Directors and relevant executives are precluded from dealing in Arrium securities at any time if they are aware of price sensitive information that has not been made public. Directors and executives must not use any derivatives or enter into margin lending arrangements in relation to

Subject to that overriding rule, Company policy permits Directors and relevant executives to deal in Arrium securities during set trading windows throughout the year.

Current shareholdings of Directors are shown in Note 30 to the Financial Report.

### E. DETAILS OF NON-EXECUTIVE DIRECTOR AND EXECUTIVE REMUNERATION FOR THE YEAR ENDED 30 JUNE 2012

The actual STI payable, the percentage of the total STI payable and the percentage of the STI forfeited by the Lead Team for the outcomes for the year ended 30 June 2012 is set out in Table 12.

### TABLE 12 - STI PAYMENTS

2012	ACTUAL STI PAYABLE	% OF TARGET PAYABLE	% OF TARGET FORFEITED
G J Plummer	\$776,000*	48.5%	51.5%
R C Bakewell	\$329,000	73%	27%
S H Hamer	\$287,000	74%	26%
A G Roberts	\$396,000	102%	0%
L J Selleck	\$287,000	74%	26%
G A Waters	\$287,000	74%	26%
G D A Feurtado	\$185,000	67%	33%

Mr Plummer has an additional deferred component to the value of \$320,000 contingent on achieving personal targets relating to iron ore and port development projects in South Australia in 2013. Should this amount be awarded, the total percentage of target payable for the 2012 financial year will be equivalent to 68.5%, and a forfeiture of 31.5% of STI target.

In a year of considerable external challenge and volatility, overall profitability was less than planned; for this reason, below STI target payments were awarded. Accordingly, Mr Plummer has to date forgone 51.5% of his target STI payment in 2012. On average, the remaining members of the Lead Team have forgone 24% of their target STI payment.

Financial targets (70%): In 2011-2012, financial targets were to deliver Net Profit After Tax and cash flow outcomes. The Group's profit outcome was below plan and accordingly no payments were made for this significant component of the STI program. Cash results were sound, particularly in the second half of the year, and these resulted in a proportion of the target payment being achieved. Some Chief Executives received a payment in recognition of delivering planned cash and earnings outcomes in their respective divisions.

Safety targets (10%): All executives have a 10% weighting on safety performance improvement. Performance improvement was assessed against improvement in Medically Treated Injury Frequency Rate (measuring the number of medically treated injuries across the combined employee and contractor workforce per 1,000,000 employee hours) as well as substantive improvement in the identification and management of significant safety risks. In 2012, safety performance improved, particularly in relation to the significant risk reduction program. On average, an outcome approaching target was achieved.

Personal targets (20%); All executives have a weighting of 20% related to achievement of personal goals aligned with strategic or performance imperatives including those relating to growth and capital development projects, cost reduction programs, restructuring, and divestment initiatives. The Company made sound progress on its challenging strategic program. This included:

- Significantly growing the mining business through the acquisition of the Southern Iron assets and Whyalla Port development.
- Very positive and sustainable financial outcomes for the recently established Mining Consumables business, as well as securing it as a source of future growth.
- Significant improvements in the steel manufacturing businesses in the second half.
- Cash and balance sheet outcomes across the Group which were solid and consistent with the Board's expectations.

These targets were substantially achieved and target payments awarded on average.

The deferral for Geoff Plummer is in recognition of the importance and significance of the iron ore and port infrastructure development and that implementation will not be able to be fully assessed to plan until 2013.

### Long-term Incentives

No LTI awards vested during the 2011-2012 financial year.

### 2011 Special Rights Allocation

In 2011, the Board was concerned that the combination of a challenging global business environment, potential succession considerations and intense competition for talented executives, particularly with skills and experience in the metals, mining and mining-related sector, posed an unacceptable retention risk for the Company and its ability to rapidly improve returns to shareholders. Accordingly, a special allocation of rights to Company shares was approved by the Board which would vest to executives in July 2013 subject to a two-year service hurdle being met. No performance hurdles, other than continued service, apply to the awards. The allocation has been included in Table 16 and incorporated into the data used by the Board's remuneration consultants in completing their evaluation of the market positioning of Arrium executives.

### Actual remuneration outcomes

Table 15 on page 58 provides details of the Lead Team's remuneration as required by the Corporations Act and the Accounting Standards. As the information required to be presented represents the accounting value of, for example, equity awards, the Human Resources Committee is aware it may be difficult for shareholders to interpret the value Lead Team executives actually derived during the 2012 financial year. Table 13 below therefore outlines the value of the total remuneration (fixed annual reward, short-term incentive earned, the value of any long-term incentives awarded in prior years that vested during 2012, and any other payments received in the period) received in the 2012 financial year.

TABLE 13 - REMUNERATION OUTCOMES

NAME	FIXED ANNUAL REWARD <sup>1</sup> \$	SHORT-TERM INCENTIVE EARNED (TO BE PAID IN AUGUST 2012) \$	LONG-TERM INCENTIVE (VALUE VESTED IN 2012) \$	OTHER \$	TOTAL REMUNERATION RECEIVED IN 2012 \$
G J Plummer*	1,997,308	776,000	-		2,773,308
R C Bakewell	898,011	329,000	-	-	1,227,011
S H Hamer	774,629	287,000	-	-	1,061,629
A G Roberts	773,706	396,000	-	-	1,169,706
L J Selleck	754,115	287,000	-	-	1,041,115
G A Waters	750,521	287,000	-	-	1,037,521
G Feurtado	507,310	185,000	-	-	692,310

<sup>1</sup> Includes salary and fees and superannuation.

Details of remuneration paid to Directors and executives meeting the definition of KMP under AASB 124 Related Party Disclosures of the Arrium Group are set out in Tables 14 and 15.

TABLE 14 - REMUNERATION OF NON-EXECUTIVE DIRECTORS

	YEAR	SH	ORT-TERM BENEFIT	S	_	POST- EMPLOYMENT BENEFITS	SHARE-BASED PAYMENTS	TOTAL	PROPORTION PERFORMANCE RELATED
		SALARY & FEES	CASH BONUS	NON-MONETARY BENEFITS <sup>1</sup>	SUBTOTAL	SUPERANNUATION	SHARES & RIGHTS GRANTED		
		\$	\$	\$	\$	\$	\$	\$	%
Non-Executive Directors									
L G Cox	2012	-	-	-	-	-	-	-	-
Non-Executive Director	2011	50,022	_	1,274	51,296	4,502	-	55,798	-
R B Davis	2012	174,312	-	1,315	175,627	15,688	-	191,315	-
Non-Executive Director	2011	178,670	_	1,078	179,748	13,830	-	193,578	-
E J Doyle	2012	-	-	-	-	-	-	-	-
Non-Executive Director	2011	50,022	-	3,211	53,233	4,502	-	57,735	-
C R Galbraith, AM	2012	169,725	-	1,286	171,011	15,275	-	186,286	-
Non-Executive Director	2011	151,376	-	1,109	152,485	13,624	_	166,109	-
P G Nankervis	2012	174,312	-	1,286	175,598	15,688	-	191,286	-
Non-Executive Director	2011	153,670	-	554	154,224	13,830	-	168,054	-
D A Pritchard	2012	165,138	-	3,193	168,331	14,862	-	183,193	-
Non-Executive Director	2011	149,083	-	1,738	150,821	13,417	-	164,238	-
P J Smedley	2012	495,000	-	10,325	505,325	-	-	505,325	-
Non-Executive Chairman	2011	465,000	-	3,617	468,617	-	-	468,617	-
G J Smorgon	2012	174,312	-	1,286	175,598	15,688	-	191,286	-
Non-Executive Director	2011	153,876	-	-	153,876	13,849	-	167,725	-
R Warnock	2012	160,550	-	-	160,550	14,450	-	175,000	-
Non-Executive Director	2011	124,377	-	1,435	125,812	11,194		137,006	
Total	2012	1,513,349	-	18,691	1,532,040	91,651	-	1,623,691	-
	2011	1,476,096	-	14,016	1,490,112	88,748	-	1,578,860	-

<sup>1</sup> Non-monetary benefits include fringe benefits tax paid on benefits provided.

Mr Plummer has an additional deferred component to the value of \$320,000 contingent on achieving personal targets relating to iron ore and port development projects in South Australia in 2013. Should this amount be awarded, the total percentage of target payable for the 2012 financial year will be equivalent to 68.5%, and a forfeiture of 31.5% of STI target.

### **REMUNERATION REPORT CONTINUED**

### TABLE 15 - REMUNERATION OF EXECUTIVE DIRECTOR AND EXECUTIVES

	YEAR	SHORT-TERM BENEFITS			_	POST- EMPLOYMENT BENEFITS	SHARE-BASED PAYMENTS <sup>3,4</sup>	TOTAL	PROPORTION PERFORMANCE RELATED
		SALARY & FEES	CASH BONUS <sup>1</sup>	NON-MONETARY BENEFITS <sup>2</sup>	SUBTOTAL	SUPERANNUATION	SHARES & RIGHTS GRANTED		
		\$	\$	\$	\$	\$	\$	\$	%
<b>Executive Director</b>									
<b>G J Plummer</b> <sup>8</sup> MD & CEO	<b>2012</b> 2011	<b>1,947,308</b> 1,805,039	<b>776,000</b> 388,000	<b>137,409</b> 59,011	<b>2,860,717</b> 2,252,050	<b>50,000</b> 50,000	<b>1,517,716</b> 1,186,528	<b>4,428,433</b> 3,488,578	<b>51.8</b> 45.1
Executives <sup>7</sup>									
R C Bakewell <sup>5</sup> CFO	<b>2012</b> 2011	<b>882,236</b> 809,244	<b>329,000</b> 286,000	<b>11,251</b> 11,862	<b>1,222,487</b> 1,107,106	<b>15,775</b> 15,199	<b>321,227</b> 78,085	<b>1,559,489</b> 1,200,390	<b>41.7</b> 30.3
<b>G D A Feurtado</b> Chief Executive Recycling	<b>2012</b> 2011	461,479 -	185,000	15,190 -	661,669 -	45,831 -	130,281 -	837,781 -	37.6 -
<b>S H Hamer</b> Chief Executive Distribution	<b>2012</b> 2011	<b>724,629</b> 673,040	<b>287,000</b> 145,000	<b>86,868</b> 34,492	<b>1,098,497</b> 852,532	<b>50,000</b> 50,000	<b>396,934</b> 242,784	<b>1,545,431</b> 1,145,316	<b>44.3</b> 33.9
M R Parry <sup>6</sup> Chief Executive Whyalla	<b>2012</b> 2011	<b>590,920</b> 636,017	- 141,000	<b>25,280</b> 68,102	<b>616,200</b> 845,119	<b>8,654</b> 22,361	<b>-</b> 222,402	<b>624,854</b> 1,089,882	33.3
A G Roberts Chief Executive Mining Consumables & Marketing	<b>2012</b> 2011	<b>748,706</b> 677,794	<b>396,000</b> 180,000	<b>42,556</b> 33,789	<b>1,187,262</b> 891,583	<b>25,000</b> 45,943	<b>396,934</b> 242,784	<b>1,609,196</b> 1,180,310	<b>49.3</b> 35.8
L J Selleck Chief Executive Steel Manufacturing	<b>2012</b> 2011	<b>666,375</b> 524,321	<b>287,000</b> 132,000	<b>594</b> 73,316	<b>953,969</b> 729,637	<b>87,740</b> 70,782	<b>317,184</b> 206,476	<b>1,358,893</b> 1,006,895	<b>44.5</b> 33.6
<b>G A Waters</b> Chief Executive Mining	<b>2012</b> 2011	<b>682,917</b> 529,707	<b>287,000</b> 117,000	<b>604</b> 32,500	<b>970,521</b> 679,207	<b>67,604</b> 55,800	<b>363,258</b> 196,110	<b>1,401,383</b> 931,117	<b>46.4</b> 33.6
Total	<b>2012</b> 2011	<b>6,704,570</b> 5,655,162	<b>2,547,000</b> 1,389,000	<b>319,752</b> 313,072	<b>9,571,322</b> 7,357,234	<b>350,604</b> 310,085		<b>13,365,460</b> 10,042,488	-

- Cash bonuses are in respect of short-term incentives.
- Non-monetary benefits include items such as fringe benefits tax paid on benefits provided, rental assistance, living away from home allowance and cost of living allowance.
- Dividends paid to executives on unvested shares under the previous LTI Share Plan are implicitly included in the fair value of the share-based payment expense recognised as remuneration. Dividends paid to the executives on unvested shares under the previous plan held at the end of the year were: G J Plummer \$133,692 (2011: \$229,187); R C Bakewell \$7,224 (2011: \$12,384); L J Selleck \$16,537 (2011: \$28,348); M R Parry \$17,953 (2011: \$30,776); A G Roberts \$19,439 (2011: \$33,324); S H Hamer \$19,439 (2011: \$33,324); G A Waters \$15,977 (2011: \$27,390).
- 4 Share-based payments include performance and service rights allocations.
- R C Bakewell's remuneration is inclusive of the final instalment of the sign-on bonus to the value of \$125,000, in April 2012.
- M R Parry ceased employment 14 October 2011. Salary and fees includes outstanding leave balances paid of \$372,643. Service rights were forfeited on cessation of employment.
- D Taylor, MD & CEO of Steel and Tube Holdings is not considered a KMP under the current definition of this term and has accordingly been excluded from the 2012 Arrium Remuneration Report.
- Mr Plummer has an additional deferred component to the value of \$320,000 contingent on achieving personal targets relating to iron ore and port development projects in South Australia in 2013. Should this amount be awarded, the total percentage of target payable for the 2012 financial year will be equivalent to 68.5%, and a forfeiture of 31.5% of STI target.

### Share-based compensation benefits

For each grant of shares and Rights included in the remuneration of KMP, the percentage of the grant that was paid, or that vested, in the financial year, and the percentage that was forfeited because the KMP did not meet the service and/or performance criteria is set out below. The maximum value of the shares and Rights yet to vest has been determined as the amount of the grant date fair value of the shares and Rights that are yet to be expensed. No shares or Rights will vest if the service and/or performance criteria are not satisfied, hence the minimum value of the share and right grants yet to vest is nil.

TABLE 16 - SHARE-BASED COMPENSATION

					SHARE-BASED CO	OMPENSATION					
	PLAN <sup>1</sup>	DATE OF GRANT <sup>2</sup>	NUMBER OF SHARES	FAIR VALUE OF SHARE AT DATE OF GRANT	AWARD VALUE AT DATE OF GRANT	EXPIRY DATE	FIRST VESTING DATE	LAST VESTING DATE	VESTED	FORFEITED	MAXIMUM TOTAL VALUE OF GRANT YET TO VEST <sup>4</sup>
				\$	\$				%	%	\$
<b>Executive Director</b>											
G J Plummer	SP	7/05/2007	305,461	4.88	1,490,650	7/05/2013	7/05/20103	7/05/2013	-	100	-
	SP	7/09/2007	327,680	4.62	1,513,882	20/08/2012	20/08/20103	20/08/2012	-	100	-
	SP	26/08/2008	65,110	6.01	391,311	1/07/2013	1/07/2011	1/07/2013	-	-	-
	SP	26/08/2009	340,316	2.88	980,110	1/07/2014	1/07/2012	1/07/2014	-	-	-
	SP	25/08/2010	871,322	2.27	1,977,901	1/07/2015	1/07/2013	1/07/2015	-	-	659,300
	PRP	30/08/2011	1,637,531	0.98	1,596,593	1/07/2014	1/07/2014	1/07/2014	-	-	1,064,395
Executives <sup>6</sup>											
R C Bakewell	SP	25/08/2010	103,196	2.27	234,255	1/07/2015	1/07/2013	1/07/2015	-	-	78,085
	PRP	30/08/2011	327,506	0.98	319,318	1/07/2014	1/07/2014	1/07/2014	-	-	212,879
	SR	1/07/2011	160,000	1.71	273,600	1/07/2013	31/08/2013	1/07/2013	-	-	182,400
G D A Feurtado <sup>5</sup>	PRP	30/08/2011	98,251	0.98			1/07/2014		_	_	63,863
	SR	1/09/2011	50,000	1.43	71,500	31/08/2013	31/08/2013	31/08/2013	-	-	47,667
	SR	24/02/2012	50,000	0.93	46,500	4/10/2013	4/10/2013	4/10/2013	-	-	35,004
	PRP	24/02/2012	250,796	0.62	154,240	1/07/2014	1/07/2014	1/07/2014	-	-	102,826
S H Hamer	SP	7/09/2007	57,344	4.62	264,929	7/09/2012	7/09/2010	7/09/2012	_	100	-
	SP	26/08/2008	38,300	6.01	230,183	1/07/2013	1/07/2011	1/07/2013	-	-	-
	SP	26/08/2009	78,861	2.88	227,120	1/07/2014	1/07/2012	1/07/2014	-	-	-
	SP	25/08/2010	103,196	2.27	234,255	1/07/2015	1/07/2013	1/07/2015	-	-	78,086
	PRP	30/08/2011	327,506	0.98	319,318	1/07/2014	1/07/2014	1/07/2014	-	-	212,879
	SR	1/07/2011	160,000	1.71	273,600	1/07/2013	1/07/2013	1/07/2013			182,400
M R Parry	SP	7/09/2007	57,344	4.62	264,929	7/09/2012	7/09/2010	7/09/2012	-	100	-
	SP	26/08/2008	38,300	6.01	230,183	1/07/2013	1/07/2011	1/07/2013	_	100	-
	SP	26/08/2009	57,629	2.88	165,972	1/07/2014	1/07/2012	1/07/2014	_	100	-
		25/08/2010	103,196	2.27			1/07/2013		_	100	-
		1/07/2011	160,000	1.71			1/07/2013		_	100	_
A G Roberts		7/09/2007	57,344	4.62			7/09/2010		_	100	-
	SR	26/08/2008	38,300	6.01			1/07/2011		-	-	-
	SP	26/08/2009	78,861	2.88	227,120	1/07/2014	1/07/2012	1/07/2014	-	-	-
	SP	25/08/2010	103,196	2.27	234,255	1/07/2015	1/07/2013	1/07/2015	-	-	78,085
	PRP	30/08/2011	327,506	0.98	319,318	1/07/2014	1/07/2014	1/07/2014	-	-	212,879
	SR	1/07/2011	160,000	1.71	273,600	1/07/2013	1/07/2013	1/07/2013	-	-	182,400
L J Selleck⁵	SP	7/09/2007	57,344	4.62	264,929	7/09/2012	7/09/2010	7/09/2012	-	100	-
	SP	26/08/2008	38,300	6.01	230,183	1/07/2013	1/07/2011	1/07/2013	-	-	-
	SP	26/08/2009	54,596	2.88	157,236	1/07/2014	1/07/2012	1/07/2014	-	-	-
	SP	25/08/2010	85,977	2.27	195,213	1/07/2015	1/07/2013	1/07/2015	-	-	65,071
	PRP	30/08/2011	266,098	0.98	259,446	1/07/2014	1/07/2014	1/07/2014	-	-	172,964
		1/07/2011	100,000	1.71			1/07/2013		-	-	114,000
		24/02/2012	60,000	0.93			4/10/2013		-	-	42,005
		24/02/2012	34,832	0.62			1/07/2014			_	14,281
G A Waters		16/10/2008	67,421	2.79			16/10/2011		-	-	-
		26/08/2009	57,629	2.88			1/07/2012		-	-	-
		25/08/2010	103,196	2.27			1/07/2013		-	-	78,085
		30/08/2011	286,568	0.98			1/07/2014		-	-	186,269
	SR	1/07/2011	160,000	1.71	273,600	1/07/2013	1/07/2013	1/07/2013	-	-	182,400

<sup>1</sup> SP are shares issued under the former LTI Plan. PRP are Rights issued under the Rights Plan. SR are service rights.

# (c) Shares issued on exercise of compensation options

Nil shares were issued upon exercise of compensation options by KMP for the year ended 30 June 2012 (2011: 108,000). Refer to Note 30 of the financial report.

<sup>2</sup> Share grants in respect of the 7 September 2007 allocation to executives other than G J Plummer are subject to quarterly retesting where the hurdles are not met. All other grants under the SP plans are subject to six-monthly retesting where the hurdles are not met. All G J Plummer's SP grants are subject to annual retesting. All PRP rights are not subject to retesting.

<sup>3</sup> The performance hurdles were not met and no shares were vested to G J Plummer. These shares will be retested in May 2013 in line with retesting arrangements in his Executive Service Agreement.

<sup>4</sup> Unamortised award value based on the fair value of share or Right at date of grant.

<sup>5</sup> Additional allocation of performance rights and service rights were granted to G D A Feurtado and L J Selleck following changes to the executives' roles.

<sup>6</sup> D Taylor, MD & CEO of Steel and Tube Holdings is not considered a KMP under the current definition of this term and has accordingly been excluded from the 2012 Arrium Remuneration Report.

# **REMUNERATION REPORT CONTINUED**

# F. EXECUTIVE SERVICE AGREEMENTS

#### MD & CEO

G J Plummer was appointed MD & CEO on 2 May 2005 for a fixed term of five years. Effective from 20 August 2007, an amendment was made to his Executive Service Agreement such that it will not terminate at the end of the initial five-year period but instead will continue on an ongoing basis until terminated by either Arrium or Mr Plummer in accordance with the termination rights in the original Executive Service Agreement (as described below). A comprehensive summary of the MD & CEO's initial employment contract was lodged with the Australian Securities Exchange on 20 December 2004 and a summary of the amendments was lodged on 20 August 2007. ASX releases are available on Arrium's website. Key features of Mr Plummer's contract are outlined in the table below.

# TABLE 17 - SUMMARY OF MD & CEO SERVICE AGREEMENT

FAR	Mr Plummer was paid a fixed annual reward of \$2,000,000 per annum inclusive of superannuation and novated car leases. This was an increase of \$100,000 to Mr Plummer's FAR for the year ended 30 June 2012.						
STI	The STI target provides for a payment range of 0%-120% of FAR with target at 80%. The maximum possible payment is only paid on outstanding "stretch" outcomes. Targets and actual payments are determined by the Board.						
LTI	During his term as MD & CEO, Mr Plummer has been granted awards of Arrium Limited ordinary shares and rights to Arrium Limited ordinary shares as the long-term component of his remuneration. The shares and rights are held in trust and vest according to the relevant performance hurdles detailed in Section D of this Report. Shares and rights granted to Mr Plummer under the LTI Plan are set out in Section E of this Report.						
	An LTI allocation of performance rights to the value of \$1.7 million will be granted to Mr Plummer with a measurement period commencing 1 July 2012. The volume weighted average price of Arrium ordinary shares in the ten-day period following the Group's full year financial results announcement to ASX will be used to calculate the number of rights to be issued to Mr Plummer. The rights will vest according to the performance hurdles under the PRP.						
Notice of	Termination by the Company: twelve months' notice.						
termination	Termination by the MD & CEO: six months' notice.						
Termination provisions	In accordance with the ASX Corporate Governance Council Principles of Good Corporate Governance and Best Practice Recommendations, Mr Plummer's termination entitlements have been agreed in advance and have been in existence since December 2004. After considering independent advice, the Company is satisfied that Mr Plummer's termination entitlements as set out below are reasonable having regard to current employment practices.						
	Death, illness, incapacity or by appropriate notice by either party:						
	FAR and any accrued untaken statutory leave entitlements calculated to the agreed termination date.						
	Any amount of STI that has accrued from the previous financial year. The Board, in its absolute discretion, will determine the amount of the STI payable for the financial year in which termination occurs, if any.						
	The Board, in its absolute discretion, will determine whether the MD & CEO may withdraw some or all of the shares or rights granted under the LTI Share Plan or Performance Rights Plan which have not vested.						
	In addition, in the event the termination is as a result of 12 months' notice from Arrium, the MD & CEO will also be entitled to a payment in lieu of notice of up to the aggregate FAR paid to him over the previous 12 months.						
	<b>Termination for cause:</b> No further obligations other than the amount of FAR due to him through to his termination date plus any statutory leave entitlements calculated to the termination date.						
Non-compete	Upon termination of the MD & CEO's employment for any reason, the MD & CEO is prohibited from engaging in any activity that would compete with Arrium for a period of 12 months.						

#### Other executive KMP

Outlined below are the key termination entitlements with respect to other executive KMP. These KMP are engaged on permanent employment arrangements with termination entitlements as below.

# TABLE 18 - TERMINATION ENTITLEMENTS

Notice of	Termination by the employee: three months' notice.				
termination	Termination by employer: twelve months notice				
Termination provisions	<b>Termination for any reason other than for cause:</b> For any executives commencing after 1 July 2010, Arrium may pay up to 1.0 times fixed annual reward at the time of termination. For executives commencing before 1 July 2010, Arrium may pay up to 1.0 times fixed annual reward at the time of termination plus the target value of STI.				
	Termination at the end of a fixed term or the end of an extension period, by death, illness, incapacity, by appropriate notice by Arrium or from the individual due to a fundamental change in the business:				
	In addition to the above payments the Board, in its absolute discretion, will determine whether the individual may be able to withdraw some or all of the shares or Rights granted under the LTI Share Plan which have not vested.				
Non-compete	Executives are also bound by non-compete clauses generally restraining them for a period of 12 months from taking up employment or engaging in activities which would be to the detriment of Arrium.				

Signed in accordance with a resolution of the Directors.

Peter Smedley Chairman

Sydney, 21 August 2012 **Geoff Plummer** 

Managing Director & Chief Executive Officer

# **DISCUSSION AND ANALYSIS** OF THE FINANCIAL STATEMENTS

This discussion and analysis is provided to assist readers in understanding the financial report.

Arrium Limited and its controlled entities (together, the "Arrium Group") comprise the consolidated entity.

The principal activities of the Group during the financial year were:

- Mining of iron ore
- Manufacture of grinding media and other mining consumable steel products
- Production of steel
- Manufacture and distribution of steel long products
- Recycling of ferrous and non-ferrous scrap metal.

#### **INCOME STATEMENT**

Sales revenue increased by 8.2% to \$7,455 million, reflecting higher volumes and inclusion of the Moly-Cop Group's full year sales revenues.

Finance costs were \$121.1 million, up from \$101.1 million in 2011 due to higher levels of debt during the year.

Net profit attributable to equity holders of the parent for the financial year was \$57.7 million.

#### **BALANCE SHEET**

Total assets increased by \$588.1 million primarily due to higher property, plant and equipment, mine development expenditures and other intangibles as a result of capital additions and business acquisitions.

Total liabilities increased by \$593.2 million mainly due to higher debt balances, restructuring, restoration and rehabilitation provisions.

Contributed equity increased by \$9.3 million primarily due to shares issued under the Dividend Reinvestment Plan.

#### **CASH FLOW STATEMENT**

Consolidated net cash flow from operating activities increased by \$7.0 million to \$470.1 million mainly due to the inclusion of the Moly-Cop Group's full year operating cash flows, offset by lower operating profit and higher interest costs as a result of higher debt levels.

Consolidated net cash outflow from investing activities was \$603.2 million, reflecting the acquisition of WPG Resources Limited's subsidiaries during the year.

Consolidated net cash inflow from financing activities was \$252.5 million.

The Directors have declared a final dividend for 2012 of 3.0 cents per share payable on 18 October 2012.

# **INCOME STATEMENT**

FOR THE YEAR ENDED 30 JUNE

		CONSOLIDA	TED
	NOTES	2012 \$m	2011 \$m
Sales revenue	4	7,455.0	6,892.4
Cost of sales		(6,244.2)	(5,439.1)
Gross profit		1,210.8	1,453.3
Other revenue	4	102.7	28.3
Other income	4	15.6	15.5
Operating expenses	4	(1,014.4)	(1,080.4)
Finance costs	4	(121.1)	(101.1)
Share of net profit/(loss) of investments accounted for using the equity method		1.0	2.6
Profit from continuing operations before income tax		194.6	318.2
Total income tax benefit/(expense)	5	21.0	(68.4)
Profit from continuing operations after tax		215.6	249.8
Loss from discontinued operations after tax		(152.0)	(12.3)
Net profit for the period		63.6	237.5
Net profit for the period is attributable to:			
Non-controlling interests		5.9	7.2
Equity holders of the parent		57.7	230.3
		63.6	237.5

# STATEMENT OF COMPREHENSIVE INCOME

FOR THE YEAR ENDED 30 JUNE

		CONSOLIDATE	D
	NOTES	2012 \$m	2011 \$m
Profit after tax		63.6	237.5
Other comprehensive income			
Cash flow hedges:			
- net (losses)/gains taken to equity		(13.4)	3.3
- transferred to profit		7.6	(5.4
- transferred to initial carrying amount of hedged items		3.6	4.3
Currency translation differences:			
- net investment hedges		(23.5)	16.6
- exchange fluctuations on overseas net assets		40.5	(94.4
Other comprehensive income/(expense), net of tax		14.8	(75.6
Total comprehensive income		78.4	161.9
Total comprehensive income attributable to:			
Equity holders of the parent		71.2	158.1
Non-controlling interests		7.2	3.8
		78.4	161.9
Earnings per share for profit from continuing operations attributable to the ordinary equity holders of the parent:			
Basic earnings per share (cents per share)	6	15.64	18.18
Diluted earnings per share (cents per share)	6	15.62	18.18
Earnings per share attributable to the ordinary equity holders of the parent:			
Basic earnings per share (cents per share)	6	4.30	17.26
Diluted earnings per share (cents per share)	6	4.30	17.26

# **BALANCE SHEET**

AS AT 30 JUNE

		CONSOLIDA	TED
	NOTES	2012 Sm	20 <sup>-</sup> \$r
ASSETS		***	*
Current Assets			
Cash and cash equivalents	24	268.1	153.
Receivables	7	953.0	924.
Derivative financial instruments	8	16.9	3.
Inventories	9	1,450.9	1,601.
Current tax assets		23.0	,
Other financial assets	10	_	1.
Other current assets	15	11.8	19.
Disposal groups and assets held for sale	34	17.5	
Total Current Assets		2,741.2	2,702.
Non-current Assets		271-12-2	271021
	11	14.0	13.
Investments accounted for using the equity method Derivative financial instruments	11	14.0	
Other financial assets	8	29.9	12.
	10	1.3	
Other non-current assets	15	27.8	14.
Property, plant and equipment	12	2,754.6	2,586.
Mine development expenditures	13	317.9	207.
Other intangibles and goodwill	14	2,822.0	2,644.
Deferred tax assets	5	222.7	163.
Total Non-current Assets		6,190.2	5,640.
TOTAL ASSETS		8,931.4	8,343.
LIABILITIES			
Current Liabilities			
Payables	16	1,054.0	1,022.
Derivative financial instruments	8	23.8	33.
Interest-bearing liabilities	17	57.3	72.
Current tax liabilities		-	25.
Provisions	18	320.1	298.
Disposal groups and liabilities held for sale	34	6.8	
Total Current Liabilities		1,462.0	1,453.
Non-current Liabilities			
Payables	16	0.3	
Derivative financial instruments	8	57.4	72.
Interest-bearing liabilities	17	2,354.1	1,809.
Deferred tax liabilities	5	320.0	293.
Provisions	18	237.0	209.
Total Non-current Liabilities		2,968.8	2,384.
TOTAL LIABILITIES		4,430.8	3,837.
NET ASSETS		4,500.6	4,505.
EQUITY			
Contributed equity	20	3,770.9	3,761.
Retained earnings	21	734.6	770.
Reserves	22	(66.7)	(86.
Parent interests		4,438.8	4,445.
Non-controlling interests		61.8	59.
TOTAL EQUITY		4,500.6	4,505.

# **CASH FLOW STATEMENT**

FOR THE YEAR ENDED 30 JUNE

		CONSOLIDA	ATED
		2012 \$m	2011 \$m
	HOTES	INFLOWS/(OU	· · · · · · · · · · · · · · · · · · ·
Cash flows from operating activities			
Receipts from customers		7,646.4	7,147.8
Payments to suppliers and employees		(7,022.7)	(6,550.3)
Net GST (paid)/received		(9.8)	1.1
Interest received		2.5	2.0
Interest and other finance costs paid		(112.4)	(94.0)
Income taxes paid		(33.9)	(43.5)
Net operating cash flows	24(b)	470.1	463.1
Cash flows from investing activities			
Purchases of property, plant and equipment		(344.6)	(240.0)
Mine development expenditure		(56.1)	(8.3)
Purchase of finite life intangible assets		(0.6)	(3.0)
Purchase of businesses		(0.5)	(1.9)
Purchase of controlled entities, net of cash acquired	35	(273.4)	(854.8)
Purchase of loan receivable	35	(43.8)	(136.2)
Dividend received from associate and jointly controlled entity		-	4.0
Proceeds from sale of property, plant and equipment		33.3	2.4
Proceeds from sale of business	34(e)	82.5	-
Proceeds from sale of associate		-	23.4
Net investing cash flows		(603.2)	(1,214.4)
Cash flows from financing activities			
Proceeds from issues of shares		-	0.2
Purchase of shares under equity-based compensation plans		-	(7.1)
Proceeds from borrowings		3,203.6	3,209.6
Repayment of borrowings		(2,861.4)	(2,217.4)
Repayment of loan from related party		0.3	1.0
Repayment of principal of finance leases		(0.5)	-
Dividends paid		(89.5)	(146.2)
Net financing cash flows		252.5	840.1
Net increase in cash and cash equivalents		119.4	88.8
Cash and cash equivalents at the beginning of the year		153.7	75.3
Effect of exchange rate fluctuations on cash held		(1.4)	(10.4)
Cash and cash equivalents at the end of the year	24(a)	271.7	153.7

# **STATEMENT OF CHANGES IN EQUITY**

FOR THE YEAR ENDED 30 JUNE 2012

		ATTRIBUTABLE TO EQUITY HOLDERS OF THE PARENT						NON- CONTROLLING INTERESTS	TOTAL EQUITY	
				CONTRIBUTE	D EQUITY					
		ISSUED CAPITAL	EMPLOYEE COMPENSATION SHARES	TOTAL CONTRIBUTED EQUITY	RETAINED EARNINGS	TOTAL RESERVES	TOTAL PARENT INTERESTS			
CONSOLIDATED	NOTES	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	
At 1 July 2011		3,787.2	(25.6)	3,761.6	770.7	(86.5)	4,445.8	59.9	4,505.7	
Net profit for the year		-	-	-	57.7	-	57.7	5.9	63.6	
Other comprehensive income		-	-	-	-	13.5	13.5	1.3	14.8	
Total comprehensive income/(expense) for the year, net of tax		-	-	_	57.7	13.5	71.2	7.2	78.4	
Transactions with equity holders:										
Share-based payments expense	22(c)	-	_	_	_	6.3	6.3	-	6.3	
Vested shares	20,22(c)	-	-	-	-	-	-	-	-	
Dividends paid	23	-	-	-	(93.8)	-	(93.8)	(5.0)	(98.8)	
Shares issued, net of transaction costs	20	_	_	-	_	_	-	(0.3)	(0.3)	
Shares issued under dividend reinvestment plan	20	9.3	-	9.3	-	-	9.3	-	9.3	
Total transactions with equity holders		9.3	-	9.3	(93.8)	6.3	(78.2)	(5.3)	(83.5)	
At 30 June 2012		3,796.5	(25.6)	3,770.9	734.6	(66.7)	4,438.8	61.8	4,500.6	

# **STATEMENT OF CHANGES IN EQUITY**

FOR THE YEAR ENDED 30 JUNE 2011

		ATTRIBUTABLE TO EQUITY HOLDERS OF THE PARENT						NON- CONTROLLING INTERESTS	TOTAL EQUITY
	_			CONTRIBUTE	D EQUITY				
	_	ISSUED CAPITAL	EMPLOYEE COMPENSATION SHARES	TOTAL CONTRIBUTED EQUITY	RETAINED EARNINGS	TOTAL RESERVES	TOTAL PARENT INTERESTS	-	
CONSOLIDATED	NOTES	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
At 1 July 2010		3,769.6	(18.5)	3,751.1	700.4	(19.0)	4,432.5	60.2	4,492.7
Net profit for the year		-	-	-	230.3		230.3	7.2	237.5
Other comprehensive income		-	-	-		(72.2)	(72.2)	(3.4)	(75.6)
Total comprehensive income/ expense for the year, net of tax		-	_	_	230.3	(72.2)	158.1	3.8	161.9
Transactions with equity holders:									
Share-based payments expense	22(c)	-	_	-	-	4.7	4.7	-	4.7
Purchase of shares under equity-based compensation plans	20	_	(7.1)	(7.1)		_	(7.1)	_	(7.1)
Dividends paid	23		(7.1)	(1.1)	(160.0)	_	(160.0)	(3.5)	(163.5)
Shares issued, net of transaction costs	20	0.2	_	0.2	(100.0)	_	0.2	(0.6)	(0.4)
Shares issued under dividend reinvestment plan	20	17.4	_	17.4	_	_	17.4	_	17.4
Total transactions with equity holders		17.6	(7.1)	10.5	(160.0)	4.7	(144.8)	(4.1)	(148.9)
At 30 June 2011		3,787.2	(25.6)	3,761.6	770.7	(86.5)	4,445.8	59.9	4,505.7

# NOTES TO THE FINANCIAL STATEMENTS

# 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The principal accounting policies adopted in the preparation of the financial report are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated. The financial report comprises the consolidated entity consisting of Arrium Limited and its subsidiaries.

### (A) BASIS OF PREPARATION

This financial report is a general purpose financial report, which has been prepared in accordance with the requirements of the Corporations Act 2001, and applicable Australian Accounting Standards (including Australian Interpretations). Arrium Limited is a for-profit entity for the purpose of preparing the financial statements.

The financial report of Arrium Limited for the year ended 30 June 2012 was authorised for issue in accordance with a resolution of the Directors on 21 August 2012.

It is recommended that the financial report be considered together with any public announcements made by Arrium Limited and its controlled entities during the year ended 30 June 2012 in accordance with the continuous disclosure obligations of the Corporations Act 2001.

Certain comparative amounts have been reclassified to conform with the current year's presentation.

### Compliance with IFRS

The financial report complies with Australian Accounting Standards and International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB).

#### Early adoption of standards

The Group has not elected to apply any pronouncements before their operative date in the annual reporting period beginning 1 July 2011.

#### Historical cost convention

These financial statements have been prepared under the historical cost convention, except for derivative financial instruments that have been measured at fair value. The carrying values of recognised assets and liabilities that are hedged items in fair value hedges, and are otherwise carried at cost, are adjusted to record changes in the fair values attributable to the risks that are being hedged.

# Critical accounting estimates

The preparation of financial statements requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Group's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed in Note 2.

#### Rounding of amounts

The financial report is prepared in Australian dollars. Amounts in the financial statements have been rounded to the nearest hundred thousand dollars, unless specifically stated to be otherwise under the option available to the Company under ASIC Class Order 98/0100. The Company is an entity to which the class order applies.

#### **(B) PRINCIPLES OF CONSOLIDATION**

The consolidated financial statements incorporate the assets and liabilities of all subsidiaries of Arrium Limited (the parent entity) at balance date and the results of all subsidiaries for the year then ended. Arrium Limited and its subsidiaries together are referred to in this financial report as the Arrium Group, Group or the consolidated entity.

Subsidiaries are all those entities (including special purpose entities) over which the Group has the power to govern the financial and operating policies so as to obtain benefits from their activities. The existence and effect of potential voting rights that are currently exercisable or convertible are considered when assessing whether a group controls

Subsidiaries are fully consolidated from the date on which control is obtained by the Group and cease to be consolidated from the date on which control ceases. All intercompany balances and transactions, including unrealised profits arising from intra-group transactions, have been eliminated in full.

The financial statements of subsidiaries are prepared for the same reporting period as the parent company, using consistent accounting policies.

Non-controlling interests in the results and equity of subsidiaries are shown separately in the consolidated Income Statement, Statement of Comprehensive Income, Statement of Changes in Equity and Balance Sheet respectively.

### Changes in ownership interests

The Group treats transactions with noncontrolling interests that do not result in a loss of control as transactions with equity owners of the Group. A change in ownership interest results in an adjustment between the carrying amounts of the controlling and non-controlling interests to reflect their relative interests in the subsidiary. Any difference between the amount of the adjustment to non-controlling interests and any consideration paid or received is recognised in a separate reserve within equity attributable to owners of Arrium Limited.

When the Group ceases to have control, joint control or significant influence, any retained interest in the entity is remeasured to its fair value with the change in the carrying amount recognised in the Income Statement. The fair value is the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, jointly controlled entity or financial asset. In addition, any amounts previously recognised in other comprehensive income in respect of that entity are accounted for as if the Group had directly disposed of the related assets or liabilities. This may mean that amounts previously recognised in other comprehensive income are reclassified to the Income Statement where appropriate.

If the ownership interest in a jointly controlled entity or associate is reduced but joint control or significant influence is retained, only a proportionate share of the amounts previously recognised in other comprehensive income are reclassified to the Income Statement where appropriate.

#### (C) BUSINESS COMBINATIONS

The acquisition method of accounting is used to account for all business combinations, including business combinations involving entities or businesses under common control, regardless of whether equity instruments or other assets are acquired. The consideration transferred for the acquisition of a subsidiary comprises the fair values of the assets transferred, the liabilities incurred and the equity interest issued by the Group. The consideration transferred also includes the fair value of any contingent consideration arrangement and the fair value of any pre-existing equity interest in the subsidiary. Acquisition related costs are expensed as incurred. Identifiable assets acquired, liabilities and contingent liabilities assumed in a business combination are, with limited exceptions, measured initially at their fair values at the acquisition date. On an acquisition-by-acquisition basis, the Group recognises any non-controlling interest in the acquiree either at fair value or at the non-controlling interest's proportionate share of the acquiree's net identifiable assets.

The excess of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition date fair value of any previous equity interest in the acquiree over the fair value of the Group's share of the net identifiable assets acquired is recorded as goodwill. If those amounts are less than the fair value of the net identifiable assets of the subsidiary acquired and the measurement of all amounts has been reviewed, the difference is recognised directly in the Income Statement as a bargain purchase.

Where settlement of any part of cash consideration is deferred, the amounts payable in the future are discounted to their present value as at the date of exchange. The discount rate used is the entity's incremental borrowing rate, being the rate at which a similar borrowing could be obtained from an independent financier under comparable terms and conditions.

Contingent consideration is classified either as equity or a financial liability. Amounts classified as a financial liability are subsequently remeasured to fair value with changes in fair value recognised in the Income Statement.

#### (D) FOREIGN CURRENCY TRANSLATION

#### Functional and presentation currency

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates ("the functional currency"). The consolidated financial statements are presented in Australian dollars, which is the functional and presentation currency of Arrium Limited.

#### Transactions and balances

Transactions in foreign currencies are translated into the functional currency using exchange rates that approximate those prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at reporting period end exchange rates of monetary assets and liabilities denominated in foreign currencies, are recognised in the Income Statement, except when deferred in Equity as qualifying cash flow hedges and qualifying net investment hedges or are attributable to part of the net investment in a foreign operation.

Translation differences on financial assets and liabilities carried at fair value are reported as part of the fair value gain or loss.

# **Group companies**

The results and financial position of all Group entities (none of which has the currency of a hyperinflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- Assets and liabilities for each balance sheet presented are translated at the closing rate at the date of that balance sheet
- Income and expenses for each income statement and statement of comprehensive income are translated at average exchange rates
- All resulting exchange differences are recognised as a separate component of equity.

On consolidation, exchange differences arising from the translation of any net investment in foreign entities, and of borrowings and other financial instruments designated as hedges of such investments, are taken to equity. When a foreign operation is sold and any borrowings forming part of the net investment are repaid, the cumulative amount in the translation reserve related to the foreign operation is recognised in the Income Statement, as part of the gain or loss on sale where applicable.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the closing rate.

#### (E) REVENUE RECOGNITION

Revenue is recognised and measured at the fair value of the consideration received or receivable, to the extent it is probable that the economic benefits will flow to the Group and the revenue can be reliably measured.

Amounts disclosed as revenue earned from the sale of products or services are net of returns, trade allowances, rebates and amounts collected on behalf of third parties.

Revenue is recognised when the significant risks and rewards of ownership of the goods have passed to the buyer or the service has been delivered and the costs incurred or to be incurred in respect of the transaction can be measured reliably.

Dividend income is recognised when the right to receive payment is established.

Interest income is recognised on a time proportion basis using the effective interest method.

#### (F) INCOME TAXES

The income tax expense or benefit for the period is the tax payable on the current period's taxable income based on the national income tax rate for each jurisdiction adjusted by changes in deferred tax assets and liabilities attributable to temporary differences and to unused tax losses.

The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the end of the reporting period in the countries where the Company's subsidiaries and associates operate and generate taxable income. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. It establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

Deferred tax assets and liabilities are recognised for temporary differences at the balance sheet date between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements.

Deferred income tax is determined using tax rates which are enacted or substantively enacted for each jurisdiction at balance date and are expected to apply when the related deferred tax asset is realised or the deferred income tax liability is settled. An exception is made for certain temporary differences arising from the initial recognition of an asset or liability. No deferred tax asset or liability is recognised in relation to these temporary differences in a transaction, other than a business combination, that at the time of the transaction affects neither accounting profit nor taxable profit and loss.

Deferred tax assets are recognised for deductible temporary differences and unused tax losses only if it is probable that future taxable amounts will be available to utilise those temporary differences.

Deferred tax liabilities and assets are not recognised for temporary differences between the carrying amount and tax bases of investments in controlled entities where the parent entity is able to control the timing of the reversal of the temporary differences and it is probable that the differences will not reverse in the foreseeable future.

Current and deferred tax balances attributable to amounts recognised directly in Equity, are also recognised directly in Equity.

#### Tax consolidation legislation

Arrium Limited and its wholly-owned Australian controlled entities have implemented the tax consolidation legislation.

The head entity, Arrium Limited, and the controlled entities in the tax consolidated group. account for their own current and deferred tax amounts. The Group has applied the standalone taxpayer approach in determining the appropriate amount of current taxes to allocate to members of the tax consolidated group.

Assets or liabilities arising under tax sharing agreements with the tax consolidated entities are recognised as amounts receivable from or payable to the head entity. Details of the tax sharing agreement are disclosed in Note 5.

Any difference between the amounts assumed and amounts receivable or payable under the tax sharing agreements are recognised as a contribution to (or distribution from) whollyowned tax consolidated entities.

#### Minerals Resource Rent Tax

Minerals Resource Rent Tax is accounted for as an income tax, as described above, as the calculation of the amount payable falls within the definition of "taxable profit" in accordance with AASB 112.

#### (G) GOODS AND SERVICES TAX (GST)

Revenues, expenses and assets are recognised net of the amount of GST, except where the amount of GST incurred is not recoverable from the taxation authority. In these circumstances, it is recognised as part of the cost of acquisition of the asset, or as part of the expense.

Receivables and payables in the Balance Sheet are shown inclusive of GST. The net amount of GST recoverable from, or payable to the taxation authority is included with other receivables or payables in the Balance Sheet.

Cash flows are presented on a gross basis. The GST components of cash flows which are recoverable from, or payable to the taxation authority are classified as part of operating cash flows.

# 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES CONTINUED

#### (H) CASH AND CASH EQUIVALENTS

Cash and cash equivalents in the Balance Sheet comprise cash at bank and in hand and short-term deposits with an original maturity of three months or less, that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.

For the purposes of the Cash Flow Statement, cash and cash equivalents consist of cash and cash equivalents as defined above, net of outstanding bank overdrafts. Bank overdrafts are included within current interest-bearing liabilities on the Balance Sheet.

#### (I) TRADE AND OTHER RECEIVABLES

Trade receivables are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method, less an allowance for any uncollectible amounts.

Collectibility of trade receivables is reviewed on an ongoing basis. Debts that are known to be uncollectible are written off when identified. An allowance for doubtful debts is raised when there is objective evidence that the Group will not be able to collect the debt. Significant financial difficulties of the debtor, probability that the debtor will enter bankruptcy or financial reorganisation, and default or delinquency in payments are considered indicators that the trade receivable is impaired.

The amount of doubtful debt provided for is recognised in the Income Statement within operating expenses. When a trade receivable for which an allowance has been recognised becomes uncollectible in a subsequent period, it is written off against the allowance account. Subsequent recoveries of amounts previously written off are credited against operating expenses in the Income Statement.

#### (J) INVENTORIES

Inventories, including raw materials, work in progress and finished goods, are valued at the lower of cost and net realisable value. Cost comprises direct materials, direct labour and an appropriate proportion of variable and fixed overhead expenditure, the latter being allocated on the basis of normal operating capacity. They include the transfer from equity of any gains or losses on qualifying cash flow hedges relating to purchases of raw material. Costs are assigned to individual items of inventory on the basis of weighted average cost. Costs of purchased inventory are determined after deducting rebates and discounts. Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

#### (K) INVESTMENTS AND OTHER FINANCIAL ASSETS

The Group classifies its financial assets in the following categories: financial assets at fair value through profit and loss; loans and receivables: and available for sale financial assets. The classification depends on the purpose for which the investments were acquired. Management determines the classification of its investments at initial recognition and re-evaluates this designation at each reporting date. The Group does not have any held to maturity investments.

#### Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss are financial assets held for trading, and are classified as such if they are acquired for the purpose of selling in the near term. Derivatives are also classified as held for trading unless they are designated as effective hedging instruments. Gains or losses on investments held for trading are recognised in the Income Statement. Assets in this category are classified as current assets.

#### Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. Such assets are carried at amortised cost using the effective interest method. Gains and losses are recognised in the Income Statement when the loans and receivables are derecognised or impaired, as well as through the amortisation process.

#### Available for sale investments

Available for sale investments are those nonderivative financial assets that are designated as available for sale or are not classified in any of the two preceding categories. After initial recognition, available for sale investments are measured at fair value with gains or losses being recognised as a separate component of equity until the investment is derecognised or until the investment is determined to be impaired, at which time the cumulative gain or loss previously reported in Equity is recognised in the Income Statement.

#### **Impairment**

The Group assesses at the end of each reporting period whether there is objective evidence that a financial asset or group of financial assets is impaired. A financial asset or group of financial assets is impaired and impairment losses are incurred only if there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset (a "loss event") and that loss event (or events) has an impact on the estimated future cash flows of the financial assets or group of financial assets that can be reliably estimated. In the case of equity investments classified as available for sale, a significant or prolonged decline in the fair value of the security below its cost is considered an indicator that the assets are impaired.

#### (L) INVESTMENTS ACCOUNTED FOR **USING THE EQUITY METHOD**

Investments in jointly controlled entities and associates are accounted for in the consolidated financial statements by applying the equity method of accounting, after initially being recognised at cost. Under the equity method, investments in jointly controlled entities and associates are carried in the consolidated balance sheet at cost plus post-acquisition changes in the Group's share of net assets of the jointly controlled entity or associate. After application of the equity method, the Group determines whether it is necessary to recognise any impairment loss with respect to the Group's net investment in iointly controlled entities or associates.

The Group's share of the jointly controlled entity's and associate's post-acquisition profits or losses is recognised in the Income Statement and its share of post-acquisition movements in reserves is recognised in reserves. The cumulative post-acquisition movements are adjusted against the carrying amount of the investment. Should the Group's share of losses in a jointly controlled entity or associate equal or exceed its interest in the entity, no further losses are recognised, unless it has incurred obligations or made payments on behalf of the entity.

The jointly controlled entity and associate's accounting policies conform to those used by the Group for like transactions and events in similar circumstances.

#### (M) IMPAIRMENT OF ASSETS

Goodwill and intangible assets that have an indefinite useful life are not subject to amortisation and are tested annually for impairment, or more frequently if events or changes in circumstances indicate that they might be impaired. Other assets are tested for impairment whenever events or circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash inflows which are largely independent of the cash inflows from other assets or groups of assets (cash generating units). Non-financial assets other than goodwill that have suffered an impairment are reviewed for possible reversal of the impairment at each reporting date.

# (N) LEASED ASSETS

Leases of property, plant and equipment where the Group, as lessee, has substantially all of the risks and benefits incidental to ownership of the leased item are classified as finance leases. These are initially recognised at the fair value of the leased asset, or if lower, the present value of the minimum lease payments as determined at the inception of the lease. The corresponding lease obligation, net of finance charges are included in interest-bearing liabilities. Lease payments are apportioned between the finance charges and reduction of the lease liability so as to achieve a constant rate of interest on the remaining balance of the liability. Finance charges are recognised as an expense in the Income Statement.

The property, plant and equipment acquired under finance leases are depreciated over the shorter of the estimated useful life of the assets and the lease term.

Leases in which a significant portion of the risks and rewards of ownership are not transferred to the Group as lessee are classified as operating leases. Operating lease payments are recognised as an expense in the Income Statement on a straight-line basis over the lease term. Lease incentives are recognised in the Income Statement as an integral part of the total lease expense.

# (O) PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment assets are carried at cost less any accumulated depreciation and/or impairment losses. Cost includes expenditure that is directly attributable to the acquisition of the items. Cost may also include transfers from equity of any gains or losses on qualifying cash flow hedges of foreign currency purchases of property, plant and equipment.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognised. All other repairs and maintenance are charged to the Income Statement during the reporting period in which they are incurred.

#### Depreciation of property, plant and equipment.

Land is not depreciated. Depreciation on other assets is calculated on a straight-line basis over the estimated useful life of the specific assets as follows:

Buildings:	20-40 years
Plant and equipment:	3-30 years
Capitalised leased assets:	Up to 30 years or life of lease, whichever

The assets' residual values, useful lives and amortisation methods are reviewed, and adjusted if appropriate, at each reporting date.

# Derecognition

An item of property, plant and equipment is derecognised upon disposal or when no further future economic benefits are expected from its use or disposal. An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount.

Gains and losses on disposals are determined by comparing the proceeds with the carrying amount. These are included in the Income Statement.

#### (P) EXPLORATION AND EVALUATION **EXPENDITURE**

Expenditure on exploration and evaluation is accounted for in accordance with the "area of interest" method. Exploration and evaluation expenditure is capitalised provided the rights to tenure of the area of interest is current and either:

- The exploration and evaluation activities are expected to be recouped through successful development and exploitation of the area of interest, or alternatively, by its sale, or
- Exploration and evaluation activities in the area of interest have not at the reporting date, reached a stage that permits a reasonable assessment of the existence or otherwise of economically recoverable reserves, and active and significant operations in, or relating to, the area of interest are continuing.

When the technical feasibility and commercial viability of extracting a mineral resource have been demonstrated, then any capitalised exploration and evaluation expenditure is reclassified as capitalised mine development. Prior to reclassification, capitalised exploration and evaluation expenditure is assessed for impairment.

#### **Impairment**

The carrying value of capitalised exploration and evaluation expenditure is assessed for impairment at the cash generating unit level whenever facts and circumstances suggest that the carrying amount of the asset may exceed its recoverable amount.

An impairment exists when the carrying amount of an asset or cash generating unit exceeds its estimated recoverable amount. The asset or cash generating unit is then written down to its recoverable amount. Any impairment losses are recognised in the Income Statement.

#### (Q) MINE DEVELOPMENT EXPENDITURE - PRE-PRODUCTION

Pre-production mine development expenditure represents the costs incurred in preparing mines for production, and includes stripping and waste removal costs incurred before production commences. These costs are capitalised to the extent they are expected to be recouped through successful exploitation of the related mining leases. Once production commences, these costs are amortised on a straight-line basis over the estimated useful life of the mine.

#### **Impairment**

The carrying value of pre-production mine development expenditure is assessed for impairment at the cash generating unit level whenever facts and circumstances suggest that the carrying amount of the asset may exceed its recoverable amount.

The recoverable amount of pre-production mine development expenditure is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and risks specific to the asset.

An impairment exists when the carrying amount of an asset or cash generating unit exceeds its estimated recoverable amount. The asset or cash generating unit is then written down to its recoverable amount. Any impairment losses are recognised in the Income Statement.

#### (R) DEFERRED STRIPPING COSTS

In mining operations, it is necessary to remove overburden and other barren waste materials to access ore from which minerals can be economically extracted. The process of mining overburden and waste materials is referred to as stripping. Stripping costs incurred before production commences are included within capitalised mine development expenditure and subsequently amortised. The Group defers stripping costs incurred subsequently during the production stage of operation. Stripping ratios are a function of the quantity of ore mined compared with the quantity of overburden or waste required to be removed. to mine the ore. Deferral of these postproduction costs to the Balance Sheet is made, where appropriate, when actual stripping ratios vary from the average life of mine ratio.

Costs which have previously been deferred to the Balance Sheet are recognised in the Income Statement on a unit of production basis utilising the average stripping ratios. Changes in estimates of average stripping ratios are accounted for prospectively from the date of the change.

As it is not possible to separately identify cash inflows relating to deferred overburden removal costs, such assets are grouped with other assets of a cash generating unit for the purposes of undertaking assessments, where necessary, based on future cash flows for the cash generating unit as a whole.

#### (S) GOODWILL AND OTHER **INTANGIBLE ASSETS**

#### Goodwill

Goodwill represents the excess of the cost of an acquisition over the fair value of the Group's share of the net identifiable net assets of the acquired subsidiary as at the date of acquisition. Goodwill on acquisitions of subsidiaries is included in intangible assets.

Following initial recognition, goodwill is measured at cost less any accumulated impairment losses.

For the purpose of impairment testing, goodwill acquired in a business combination is, from the acquisition date, allocated to each of the Group's cash generating units or groups of cash generating units that are expected to benefit from the synergies of the combination, irrespective of whether other assets or liabilities of the Group are assigned to those units or groups of units.

# 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES CONTINUED.

Impairment losses recognised for goodwill are not subsequently reversed.

Gains and losses on the disposal of an operation include the carrying amount of goodwill relating to the operation sold.

#### System development costs

Costs incurred in developing products or systems and costs incurred in acquiring software and licences that will contribute to future period financial benefits through revenue generation and/or cost reduction are capitalised as system development costs. Costs capitalised include external direct costs of materials and service, direct payroll and payroll related costs of employees' time spent on the project.

System development costs include only those costs directly attributable to the development phase and are only recognised following completion of technical feasibility and where the Group has an intention and ability to use the asset.

#### Other intangible assets

Intangible assets acquired separately or in a business combination are initially measured at cost. The cost of an intangible asset acquired in a business combination is its fair value as at the date of acquisition. Following initial recognition, intangible assets are carried at cost less any

accumulated amortisation and/or impairment losses. Internally generated intangible assets, excluding capitalised development costs, are not capitalised and expenditure is recognised in the Income Statement in the year in which the expenditure is incurred.

The useful lives of intangible assets are assessed to be either finite or indefinite. Intangible assets with finite lives are amortised over the useful life and tested for impairment whenever there is an indication that the intangible asset may be impaired. The amortisation period and the method for an intangible asset with a finite useful life is reviewed at least at each financial year end. Changes in the expected useful life or the expected pattern of consumption of future economic benefits embodied in the asset are accounted for prospectively by changing the amortisation period or method as appropriate, which is a change in accounting estimate. The amortisation expense on intangible assets with finite lives is recognised in the Income Statement in the expense category consistent with the function of the intangible asset.

Intangible assets with indefinite useful lives are tested for impairment annually, either individually or at the cash generating unit level consistent with the methodology outlined for goodwill. Such intangibles are not amortised. The useful life of an intangible asset with an indefinite life is reviewed at each reporting

period to determine whether indefinite life assessment continues to be supported. If not, the change in useful life assessment to finite is accounted for prospectively as a change in accounting estimate.

#### Research and development costs

Research costs are expensed as incurred. Costs incurred on development projects are recognised as intangible assets when it is probable that the project will, after considering its commercial and technical feasibility, be completed and generate future economic benefits and its costs can be measured reliably. The expenditure capitalised comprises all directly attributable costs, including costs of materials, services, direct labour and appropriate proportion of overheads. Other development expenditures that do not meet this criteria are recognised as an expense as incurred. Development costs previously recognised as an expense are not recognised as an asset in a subsequent period. Capitalised development costs are recorded as intangible assets and amortised from the point at which the asset is ready for use on a straight-line basis over its useful life.

A summary of the policies applied to the Group's intangible assets is as follows:

	USEFUL LIFE	AMORTISATION METHOD	INTERNALLY GENERATED OR ACQUIRED
Patented technology	Finite	Straight line over estimated useful life (17 years)	Acquired
Brand names and know how	Indefinite	No amortisation	Acquired
	Finite	Straight line over estimated useful life (2-3 years)	
Customer and supplier contracts	Finite	Timing of projected cash flows of the contracts over 1 to 15 years	Acquired
System development and other capitalised development costs	Finite	Straight line over estimated useful life (5 years)	Internally generated

# (T) TRADE AND OTHER PAYABLES

Trade and other payables are carried at amortised cost. They represent liabilities for goods and services provided to the Group prior to the end of the financial year which are unpaid. These amounts are unsecured except as may arise solely by operation of the Personal Property Securities Act 2009 (Cth).

# (U) PROVISIONS

Provisions are recognised when the Group has a present obligation (either legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the obligation. Provisions are not recognised for future operating losses.

Provisions are measured at the present value of management's best estimate of the expenditure required to settle the present obligation at the balance sheet date. If the effect of the time value of money is material, provisions are discounted using a current pre-tax discount rate that reflects the time value of money and the risks specific to the liability. The increase in the provision resulting from the passage of time is recognised as a finance cost.

#### (V) EMPLOYEE BENEFITS

#### Wages and salaries, annual leave and long service leave

Provision is made for the liability for employee benefits arising from services rendered by employees to balance date. Employee benefits expected to be settled within one year, together with entitlements arising from wages and salaries and annual leave which will be settled after one year, are measured at the amounts expected to be paid when the liability is settled, plus related on-costs. Other employee benefits payable later than one year, are measured at the present value of the estimated future cash outflows to be made for those benefits.

#### Long service leave

The liability for long service leave is recognised in the provision for employee benefits and is measured at the present value of expected future payments to be made in respect of services provided by employees up to the reporting date. Consideration is given to expected future wage and salary levels, experience of employee departures and periods of service. Expected future payments are discounted using market yields at the reporting date on national government bonds with terms to maturity and currencies that match as closely as possible the estimated future cash outflows.

#### Termination benefits

Termination benefits are payable when employment is terminated before the normal retirement date, or when an employee accepts voluntary redundancy in exchange for these benefits. The Group recognises termination benefits when it is demonstrably committed to either terminating the employment of current employees according to a detailed formal plan without possibility of withdrawal or providing termination benefits as a result of an offer made to encourage voluntary redundancy. Benefits falling due more than twelve months after the end of the reporting period are discounted to present value.

### Retirement benefit obligations

A liability or asset in respect of the Group's defined benefit plan is recognised in the Balance Sheet, and is measured as the present value of the defined benefit obligation (using the projected unit credit method) at the reporting date less unrecognised actuarial gains (plus any unrecognised actuarial losses) less the fair value of the plan's assets at that date and any unrecognised past service cost. The present value of the defined benefit obligation is based on expected future payments, which arise from membership of the fund to the reporting date, calculated annually by independent actuaries. Consideration is given to expected future salary levels, experience of employee departures and periods of service.

The "corridor approach" is applied in determining the periodic impact on the Income Statement. Under this approach, cumulative actuarial gains or losses greater than 10% of the present value of the defined benefit obligation or 10% of the fair value of plan assets are recognised through the Income Statement over the average remaining service period of the employees in the plan on a straight-line basis.

Contributions to the defined contribution fund are recognised as an expense as they become payable. Prepaid contributions are recognised as an asset to the extent that a cash refund or reduction in the future payments is available.

#### Equity-based compensation arrangements

The Arrium Group provides benefits to employees (including Directors) in the form of share-based payment transactions, whereby employees render services in exchange for Arrium Limited ordinary shares or rights to ordinary shares (equity-settled transactions). These instruments are held in trust and are subject to certain performance conditions.

The cost of these equity-settled transactions with employees is measured by reference to the fair value of the instruments at the date of the grant. The fair value is determined by an external valuation using either a Monte Carlo Simulation or Black Scholes pricing model. In valuing equity-settled transactions, no account is taken of any performance conditions, other than those conditions that are linked to the price of the ordinary shares of Arrium Limited (market conditions).

The cost of the equity-settled transactions is recognised together with a corresponding increase in Equity, over the period in which the performance conditions are fulfilled. ending on the date on which the relevant employees become fully entitled to the award (the vesting date).

The cumulative expense recognised for equitysettled transactions at each reporting date until vesting date reflects:

- The extent to which the vesting period has expired, and
- The number of equity instruments that are estimated to ultimately vest, based on the best available information at the reporting date.

This valuation is formed based on the best available information at balance date. No adjustment is made for the likelihood of market conditions being met, as the effect of these conditions is included in the determination of fair value at grant date.

The dilutive effect, if any, of outstanding options or unvested shares, is reflected as additional share dilution in the computation of earnings per share.

Arrium Limited ordinary shares acquired on-market and held in trust are classified and disclosed as Employee Compensation Shares and deducted from Equity.

#### (W) RESTORATION AND REHABILITATION

Restoration costs which are expected to be incurred are provided for as part of the cost of the exploration, evaluation, development, construction or production phases that give rise to the need for restoration. The costs include obligations relating to reclamation. waste site closure, plant closure and other costs associated with the restoration of the site. These estimates of the restoration obligations are based on anticipated technology and legal requirements and future costs. In determining the restoration obligations, there is an assumption that no significant changes will occur in the relevant Federal and State legislation in relation to restoration in the future.

The estimated restoration costs for which the entity has a present obligation are discounted to their net present value. To the extent that the activity that creates this obligation relates to the construction of an asset, a corresponding amount is added to the related asset. Otherwise, the amount is recognised in the Income Statement.

Changes in the measurement of the existing provision that result from changes in the estimated timing or amount of cash flows, or a change in the discount rate, are adjusted on a prospective basis against the asset to which the restoration relates. Where the related asset has reached the end of its useful life, all subsequent changes in the provision are recognised in the Income Statement as they occur.

The charge to the Income Statement is a combination of the depreciation of the asset over the estimated mine life and finance cost representing the unwind of the discounting factor.

#### (X) INTEREST-BEARING LIABILITIES

Borrowings are initially recognised at fair value less any transaction costs. Subsequent to initial recognition, borrowings are measured at amortised cost. Any difference between the proceeds (net of the transaction costs) and the redemption amount is recognised in the Income Statement over the period of the borrowings using the effective interest rate method.

Borrowings are classified as current interestbearing liabilities where there is an obligation to settle the liability within twelve months, and as non-current interest-bearing liabilities where the Group has an unconditional right to defer settlement of the liability for at least twelve months after the balance date.

# (Y) FINANCE COSTS

Finance costs include interest, amortisation of discounts or premiums relating to borrowings, amortisation of ancillary costs incurred in connection with arrangement of borrowings and finance leases and net receipt or payment from interest rate swaps. Finance costs are expensed in the Income Statement, except where they relate to the financing of projects under construction, where they are capitalised up to the date of commissioning or sale.

# 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES CONTINUED.

#### (Z) CONTRIBUTED EQUITY

#### Issued capital

Issued and paid-up capital is recognised at the fair value of the consideration received by the Company. Any transaction costs arising on the issue of ordinary shares are recognised directly in Equity as a reduction of the share proceeds received, net of tax.

Ordinary share capital bears no special terms or conditions affecting income or capital entitlements of the Arrium shareholders

Ordinary shares have the right to receive dividends as declared and, in the event of winding up of the Company, to participate in the proceeds from the sale of all surplus assets in proportion to the number of and amounts paid on shares held.

Ordinary shares entitle their holder to one vote, either in person or by proxy, at a meeting of the Company.

# Employee compensation shares

Shares in the Arrium Group purchased for equity-based compensation arrangements are held in Trust and deducted from contributed equity in employee compensation shares. Upon vesting, the shares are transferred from employee compensation shares into the share-based payment reserve.

Shares issued under the former Share Plan carry voting rights and the beneficial holder is entitled to any dividends paid during the vesting period. There are no voting entitlements attached to the rights held in trust, nor are any dividends paid until such time as the rights vest and the shares are allotted.

#### (AA) DERIVATIVE FINANCIAL INSTRUMENTS AND HEDGING **ACTIVITIES**

Derivatives are initially recognised at fair value on the date that a derivative contract is entered into and are subsequently remeasured at fair value. The method of recognising the resulting gain or loss depends on whether the derivative qualifies for hedge accounting, and if so, the nature of the item being hedged. The Arrium Group designates certain derivatives as either:

- Hedges of the fair value of recognised assets or liabilities or firm commitments (fair value hedges)
- Hedges of a particular risk associated with the cash flows of recognised assets and liabilities and highly probable forecast transactions (cash flow hedges)
- Hedges of a net investment in a foreign operation (net investment hedges).

At the inception of a hedge relationship, the Group formally designates and documents the relationship between hedging instruments and hedged items, as well as its risk management objective and strategy for undertaking various hedge transactions. The Group also documents its assessment, both at inception and on an ongoing basis, of whether the hedges have been, and will continue to be, highly effective in offsetting changes in the fair values or the cash flows of hedged items throughout the financial reporting periods for which they were designated.

#### Fair value hedges

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recorded in the Income Statement, together with any changes in the fair value of the hedged asset, liability or firm commitment that are attributable to the hedged risk. The Group discontinues fair value hedge accounting if the hedging instrument expires, or is sold, terminated or exercised, the hedge no longer meets the criteria for hedge accounting or the Group revokes the designation. Any adjustment to the carrying amount of a hedged financial instrument for which the effective interest method is used is amortised to the Income Statement.

#### Cash flow hedges

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognised in Equity as a hedging reserve. The change in fair value relating to the ineffective portion is recognised immediately in the Income Statement.

Amounts accumulated in Equity are transferred to the Income Statement in the periods when the hedged item affects profit or loss such as when hedged income or expenses are recognised or when a forecast sale or purchase occurs. When the hedged item is the cost of a non-financial asset or liability, the amounts taken to equity are transferred to the initial carrying amount of the non-financial asset or liability.

When a hedging instrument expires or is sold or terminated or exercised without replacement or rollover, any amounts recognised in Equity remain in Equity until the forecast transaction occurs. When a forecast transaction is no longer expected to occur, amounts recognised in Equity are immediately transferred to the Income Statement.

# Net investment hedges

Hedges of net investments in foreign operations are accounted for in a similar way to cash flow hedges. Gains or losses on the hedging instrument relating to the effective portion of the hedge are recognised directly in equity while any gains or losses relating to the ineffective portion are recognised in profit or loss. On disposal of the foreign operation, the cumulative value of any such gains or losses recognised directly in equity is transferred to the Income Statement.

# Derivatives that do not qualify for hedge accounting

Certain derivatives instruments do not qualify for hedge accounting and are classified as held for trading financial instruments. Changes in the fair value of any such derivatives are recognised immediately in the Income Statement.

# Fair value estimation

The fair value of financial assets and liabilities must be estimated for recognition and measurement and for disclosure purposes.

The fair value of derivative financial instruments that are not traded in active markets is determined using valuation techniques. The Arrium Group uses a variety of methods and assumptions that are based on market conditions existing at balance date. Quoted market prices or dealer quotes for similar instruments are used for long-term debt instruments held. Other techniques, such as estimated discounted cash flows, are used to determine fair values of the remaining financial instruments. The fair value of interest rate swaps is calculated as the present value of the estimated cash flows. The fair value of forward exchange contracts is determined using forward exchange market rates at balance date.

#### (AB) GOVERNMENT GRANTS

Grants from the government are recognised at their fair value when there is a reasonable assurance that the grant will be received and the Group will comply with all attached conditions

Government grants relating to costs are deferred and recognised in the Income Statement over the period necessary to match them with the costs they are intended to compensate.

# (AC) NON-CURRENT ASSETS (OR DISPOSAL GROUPS) HELD FOR SALE AND DISCONTINUED **OPERATIONS**

Non-current assets (or disposal groups) are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use and a sale is considered highly probable. They are measured at the lower of their carrying amount and fair value less costs to sell, except for assets such as deferred tax assets, assets arising from employee benefits and financial assets, which are specifically exempt from this requirement.

An impairment loss is recognised for any initial or subsequent write down of the asset (or disposal group) to fair value less costs to sell. A gain is recognised for any subsequent increases in fair value less costs to sell of an asset (or disposal group), but not in excess of any cumulative impairment loss previously recognised. A gain or loss not previously recognised by the date of the sale of the non-current asset (or disposal group) is recognised at the date of derecognition.

Non-current assets (including those that are part of a disposal group) are not depreciated or amortised while they are classified as held for sale. Interest and other expenses attributable to the liabilities of a disposal group classified as held for sale continue to be recognised.

Non-current assets classified as held for sale and the assets of a disposal group classified as held for sale are presented separately from the other assets in the balance sheet. The liabilities of a disposal group classified as held for sale are presented separately from other liabilities in the balance sheet.

A discontinued operation is a component of the entity that has been disposed of or is classified as held for sale and that represents a separate major line of business or geographical area of operations, is part of a single co-ordinated plan to dispose of such a line of business or area of operations, or is a subsidiary acquired exclusively with a view to resale. The results of discontinued operations are presented separately in the Income Statement.

#### (AD) CHANGES IN ACCOUNTING POLICY AND DISCLOSURES

The accounting policies adopted are consistent with those of the previous financial year except for the following new and amended Australian Accounting Standards and AASB Interpretations adopted as at 1 July 2011:

#### AASB 124 (Revised) - effective 1 January 2011

The revised AASB 124 Related Party Disclosures (December 2009) simplifies the definition of a related party, clarifying its intended meaning and eliminating inconsistencies from the definition, including:

- (a) The definition now identifies a subsidiary and an associate with the same investor as related parties of each other
- (b) Entities significantly influenced by one person and entities significantly influenced by a close member of the family of that person are no longer related parties of each other
- (c) The definition now identifies that, whenever a person or entity has both joint control over a second entity and joint control or significant influence over a third party, the second and third entities are related to each other.

There was no significant impact on the Group's financial statements.

#### AASB 2009-12 and AASB 2010-5 Amendments to Australian **Accounting Standards**

Makes numerous editorial changes to a range of Australian Accounting Standards and Interpretations. The amendments had no significant impact on the Group's financial statements.

#### AASB 1054 Australian **Additional Disclosures**

This standard, with AASB 2011-1 relocates all Australian specific disclosures from other standards to one place and revises disclosures in the following areas:

- (a) Compliance with Australian Accounting Standards
- (b) The statutory basis or reporting framework for financial statements
- Whether the entity is a for-profit or not-for-profit entity
- (d) Whether the financial statements are general purpose or special purpose
- (e) Audit fees
- (f) Imputation credits.

These changes have been reflected in the Group's financial statements.

#### AASB 2010-6 Amendments to Australian Accounting Standards - Disclosures on Transfers of Financial Assets

The amendments increase the disclosure requirements for transactions involving transfers of financial assets but which are not derecognised and introduce new disclosures for assets that are derecognised but the entity continues to have a continuing exposure to the asset after the sale. There was no change as a result of this amendment to the Group's financial statements.

#### (AE) NEW ACCOUNTING STANDARDS AND INTERPRETATIONS ISSUED **BUT NOT YET EFFECTIVE**

A number of new standards, amendments to standards and interpretations are effective for annual reporting periods beginning after 1 July 2011, and have not been applied in preparing these consolidated financial statements. None of these are expected to have a significant effect on the consolidated financial statements of the Group with the exception of the below:

#### AASB 13 Fair Value Measurement (applicable to annual reporting periods beginning on or after 1 January 2013)

AASB 13 establishes a single source of guidance for determining the fair value of assets and liabilities. AASB 13 does not change when an entity is required to use fair value, but rather, provides guidance on how to determine fair value when fair value is required or permitted. Application of this definition may result in different fair values being determined for the relevant assets.

AASB 13 also expands the disclosure requirements for all assets or liabilities carried at fair value. This includes information about the assumptions made and the qualitative impact of those assumptions on the fair value determined.

The impact on the Group's financial statements as a result of this standard has not vet been determined.

#### AASB 119 Employee Benefits (applicable to annual reporting periods beginning on or after 1 January 2013)

The main change introduced by this standard is to revise the accounting for defined benefit plans. The amendment requires that the liabilities arising from such plans is recognised in full with actuarial gains and losses being recognised in other comprehensive income. It also revised the method of calculating the return on plan assets.

The revised standard also changes the definition of short-term employee benefits. The distinction between short-term and other long-term employee benefits is now based on whether the benefits are expected to be settled wholly within 12 months after the reporting date.

The impact of the new standard on the Group's financial statements on application is expected to have a material impact to the Group's equity balance.

#### Interpretation 20 Stripping Costs in the Production Phase of a Surface Mine (applicable to annual reporting periods beginning on or after 1 January 2013)

This interpretation applies to stripping costs incurred during the production phase of a surface mine. Production stripping costs are to be capitalised as part of an asset, if an entity can demonstrate that it is probable future economic benefits will be realised, the costs can be reliably measured and the entity can identify the component of an ore body for which access has been improved. This asset is to be called the "stripping activity asset".

The stripping activity asset shall be depreciated or amortised on a systematic basis, over the expected useful life of the identified component of the ore body that becomes more accessible as a result of the stripping activity. The units of production method shall be applied unless another method is more appropriate.

The impact of the new standard on the Group's financial statements has not yet been determined.

#### AASB 9 Financial Instruments (applicable to annual reporting periods beginning on or after 1 January 2015)

AASB 9 includes requirements for the classification and measurement of financial assets. It was further amended by AASB 2010-7 to reflect amendments to the accounting for financial liabilities. These requirements improve and simplify the approach for classification and measurement of financial assets compared with the requirements of AASB 139. The main changes are described below.

- (a) Financial assets that are debt instruments will be classified based on (1) the objective of the entity's business model for managing the financial assets; (2) the characteristics of the contractual cash flows.
- (b) Allows an irrevocable election on initial recognition to present gains and losses on investments in equity instruments that are not held for trading in other comprehensive income. Dividends in respect of these investments that are a return on investment can be recognised in profit or loss and there is no impairment or recycling on disposal of the instrument.
- (c) Financial assets can be designated and measured at fair value through profit or loss at initial recognition if doing so eliminates or significantly reduces a measurement or recognition inconsistency that would arise from measuring assets or liabilities, or recognising the gains and losses on them, on different bases.
- Where the fair value option is used for financial liabilities the change in fair value is to be accounted for as follows:
  - The change attributable to changes in credit risk is presented in other comprehensive income (OCI)
  - The remaining change is presented in the Income Statement.

If this approach creates or enlarges an accounting mismatch in the profit or loss, the effect of the changes in credit risk are also presented in profit or loss.

The impact of the new standard on the Group's financial statements has not yet been determined.

# 2. SIGNIFICANT ACCOUNTING ESTIMATES AND JUDGEMENTS

The preparation of the financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts in the financial statements. Management continually evaluates its judgements and estimates in relation to assets, liabilities, contingent liabilities, revenue and expenses based on historical experience and on other various factors it believes to be reasonable under the circumstances. Actual results may differ from the judgements, estimates and assumptions. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

#### SIGNIFICANT ACCOUNTING **JUDGEMENTS**

#### Impairment of non-financial assets other than goodwill and intangibles with indefinite useful lives

The Group assesses impairment of all assets at each reporting date by evaluating conditions specific to the Group and to the particular asset or cash generating unit (CGU) that may lead to impairment. These include business performance, technology, economic and political environments and future business expectations. If an impairment indicator exists, the recoverable amount of the asset is determined. Given the current uncertain economic environment, management considered that the indicators of impairment were significant enough, and as such, these assets have been tested for impairment in this financial period. Based on the recoverable amount estimates, the carrying value of the Group's non-financial assets and groups of assets continues to be supported.

#### **Taxation**

The Group is subject to income taxes in Australia and jurisdictions where it has foreign operations. There are many transactions and calculations undertaken during the ordinary course of business for which the ultimate tax determination is uncertain. Judgement is also required in assessing whether deferred tax assets and certain deferred tax liabilities are recognised on the Balance Sheet and the application of income tax legislation. These judgements are subject to risk and uncertainty, hence there is a possibility that changes in circumstances will alter expectations, which may impact the amount of tax assets and liabilities recognised on the Balance Sheet and the amount of other tax losses and temporary differences not yet recognised. In such circumstances, some or all of the carrying amounts of recognised tax assets and liabilities may require adjustment, resulting in a corresponding credit or charge to the Income Statement.

Deferred tax assets, including those arising from unrecouped tax losses, capital losses and temporary differences (including those relating to MRRT), are recognised only where it is considered more likely than not that they will be recovered, which is dependent on the generation of sufficient future taxable profits.

#### SIGNIFICANT ACCOUNTING ESTIMATES AND ASSUMPTIONS

#### Impairment of goodwill and intangibles with indefinite useful lives

The Group determines whether goodwill and intangibles with indefinite useful lives are impaired on at least an annual basis. This requires an estimation of the recoverable amount of the cash generating units to which the goodwill and intangibles with indefinite useful lives are allocated using a value in use discounted cash flow methodology. The assumptions used in this estimation of recoverable amount and the carrying amount of goodwill and intangibles with indefinite useful lives are detailed in Note 14.

# Provision for restoration and rehabilitation

Restoration and rehabilitation costs are a normal consequence of the Group's operations. The provisions include future cost estimates associated with dismantling, closure and decontamination of various sites. The calculation of the provisions require assumptions such as application of environmental legislation, site closure dates, available technologies and consultant cost estimates.

The ultimate cost of restoration and rehabilitation is uncertain and costs can vary in response to many factors including changes to relevant legal requirements, the emergence of new restoration techniques or experience at other sites. These uncertainties may result in future actual expenditure differing from the amounts currently provided. The provision recognised for each site is periodically reviewed and updated based on the facts and circumstances available at the site. Changes to the estimated future costs for sites are recognised in the Balance Sheet by adjusting both the expense or asset (if applicable) and provision. The assumptions used in the estimation of restoration and rehabilitation provisions are detailed in Note 18.

# Share-based payment transactions

The Group measures the cost of equity-settled transactions with employees by reference to the fair value of the equity instruments at the date of grant. The fair value is determined by an external valuer using either the Monte-Carlo Simulation or the Black Scholes pricing model, using the assumptions detailed in Note 29. The accounting estimates and assumptions relating to equity-settled sharebased payment would have no impact on the carrying amounts of assets and liabilities within the next annual reporting period but may impact expenses and equity.

# Defined benefit plans

Various actuarial assumptions are required when determining the Group's pension schemes and other post-employment benefit obligations. These assumptions and the related carrying amounts are disclosed in Note 19.

#### Estimation of useful lives of assets

The estimation of the useful lives of assets has been based on historical experience as well as manufacturer's warranties. In addition, the condition of the assets is assessed at least annually and considered against the remaining useful life. Adjustments to useful lives are made when considered necessary.

#### Ore reserve and resource estimates

Ore reserves are estimates of the amount of ore that can be economically and legally extracted from the Group's mining properties. The Group estimates its ore reserves based on information compiled by appropriately qualified persons relating to the geological judgements to interpret the data. The estimation of recoverable reserves is based upon factors such as estimates of foreign exchange rates, commodity prices, future capital requirements, and production costs along with geological assumptions and judgements made in estimating the size and grade of the ore body. Changes in the reserve or resource estimates may impact upon the carrying value of exploration and evaluation assets, mine properties, property, plant and equipment, provision for rehabilitation, and depreciation and amortisation charges.

#### Australian Government's proposed carbon pricing mechanism

Following the passing of the Clean Energy Act 2011 by the Senate in November 2011, the introduction of a carbon pricing mechanism is expected to have an impact on the future cash flows of the Group.

The Group has incorporated the potential impact of the carbon pricing mechanism in its impairment testing as at 30 June 2012 based upon its assessment of the Clean Energy Legislative Package and associated regulations, including the benefit of assistance from the Steel Transformation Plan and free unit allocations for Emissions Intensive Trade Exposed facilities

#### Minerals Resource Rent Tax

The Minerals Resource Rent Tax (MRRT) applies to iron ore and coal extraction activities from 1 July 2012. The MRRT applies equally to Arrium's hematite ore export sales and the magnetite ore used in the Steelworks.

In determining the initial deferred tax asset to be recognised in respect of the MRRT, the impact of the MRRT is required to be measured over the relevant life of mine, which in the case of Arrium requires a forecast to 2027 for the Middleback Ranges mines. Arrium typically produces a five-year forecast and has had to extend that in order to measure the impact of the MRRT. Estimates and assumptions out to 2027 are subject to potentially significant change. It is likely that the MRRT deferred tax asset will be subject to restatement annually.

# 3. SEGMENT INFORMATION

2012	MINING <sup>1</sup>	RECYCLING <sup>1</sup>	MANUFACTURING <sup>1</sup>	MINING CONSUMABLES <sup>1</sup>	AUSTRALIAN DISTRIBUTION <sup>1</sup>	NEW ZEALAND DISTRIBUTION <sup>1</sup>	TOTAL CONTINUING OPERATIONS	DISCONTINUED OPERATIONS	TOTAL SEGMENTS
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Segment revenues									
Sales to external customers	814.7	1,202.8	1,429.4	1,442.2	2,250.2	315.7	7,455.0	139.5	7,594.5
Intersegment revenue	-	376.2	1,085.3	86.9	19.9	-	1,568.3	27.1	1,595.4
Other revenue/income from									
external customers	4.3	10.7	74.7	11.5	15.6	1.4	118.2	3.5	121.7
Total segment income	819.0	1,589.7	2,589.4	1,540.6	2,285.7	317.1	9,141.5	170.1	9,311.6
Intersegment eliminations							(1,568.3)	(27.1)	(1,595.4)
Unallocated							0.1		0.1
Consolidated Income							7,573.3	143.0	7,716.3
Segment share of (loss)/profit of investments accounted for using the equity method Unallocated	_	(0.1)	-	0.8	-	_	0.7	-	0.7
Consolidated share of profit/							0.3		0.3
(loss) of equity accounted investments							1.0	-	1.0
Segment earnings before interest, tax, depreciation and amortisation	242.7	24.4	F2 2	474 (	22.4	20.4	645.6	(22.4)	(22.0
Depreciation, amortisation	343.7	24.1	53.2	171.6	32.4	20.6	645.6	(22.6)	623.0
and impairment	(40.8)	(17.5)	(93.2)	(36.4)	(26.3)	(4.8)	(219.0)	(3.1)	(222.1)
Segment earnings before interest and tax	302.9	6.6	(40.0)	135.2	6.1	15.8	426.6	(25.7)	400.9
Restructuring costs	302.9	0.0	(40.0)	133.2	0.1	13.0	(27.5)	(19.5)	(47.0)
Transaction costs							(22.1)	(4.5)	(26.6)
Gain on sale of business							(22.1)	3.1	3.1
Impairment							(4.6)	(134.2)	(138.8)
Other costs							(15.4)	(154.2)	(15.4)
Finance costs							(121.1)	_	(121.1)
Intersegment eliminations							(32.7)	_	(32.7)
Unallocated							(8.6)	_	(8.6)
Consolidated Profit before tax							194.6	(180.8)	13.8
Tax benefit							21.0	28.8	49.8
Consolidated Profit after tax							215.6	(152.0)	63.6
Segment assets	1,685.9	674.1	2,323.0	2,303.1	1,305.2	174.6	8,465.9	14.2	8,480.1
Investments accounted for using the equity method	-	1.2	-	7.2		_	8.4		8.4
Tax assets							245.7	-	245.7
Intersegment eliminations							(159.3)	(0.4)	(159.7)
Unallocated assets							353.2	3.7	356.9
Consolidated assets							8,913.9	17.5	8,931.4
Segment liabilities	306.2	107.9	500.6	362.8	316.0	58.8	1,652.3	6.9	1,659.2
Tax liabilities							320.0	-	320.0
Intersegment eliminations							(160.8)	(0.1)	(160.9)
Unallocated liabilities							2,612.5	-	2,612.5
Consolidated liabilities							4,424.0	6.8	4,430.8
Other segment information									
Capital expenditure	654.0	10.7	40.3	35.2	24.2	3.5	767.9	0.7	768.6
Unallocated capital expenditure							3.1		3.1
Consolidated capital expenditure							771.0	0.7	771.7

<sup>1</sup> Segment results are equivalent to the results from the continuing operations of each segment.

# 3. SEGMENT INFORMATION CONTINUED

2011	MINING <sup>1</sup>	RECYCLING <sup>1</sup>	MANUFACTURING <sup>1,2</sup>	MINING CONSUMABLES <sup>1,3</sup>	AUSTRALIAN DISTRIBUTION <sup>1,2</sup>	NEW ZEALAND DISTRIBUTION <sup>1</sup>	TOTAL CONTINUING OPERATIONS	DISCONTINUED OPERATIONS <sup>2</sup>	TOTAL SEGMENTS
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Seament revenues		·	·			·	·	·	·
Sales to external customers	927.7	1,087.8	1,401.3	1,007.8	2,172.7	295.1	6,892.4	240.6	7,133.0
Intersegment revenue	-	410.5	1,005.7	73.2	15.4	0.1	1,504.9	27.8	1,532.7
Other revenue/income from		11010	1,000.1	10.2	10.1	0.1	1/001.7	21.0	1,002.1
external customers	20.7	8.9	11.2	(1.7)	3.1	1.0	43.2	0.4	43.6
Total segment income	948.4	1,507.2	2,418.2	1,079.3	2,191.2	296.2	8,440.5	268.8	8,709.3
Intersegment eliminations							(1,504.9)	(27.8)	(1,532.7)
Unallocated							0.6	-	0.6
Consolidated Income							6,936.2	241.0	7,177.2
Segment share of (loss)/profit of investments accounted for using the equity method	-	(0.2)	-	2.6	_	-	2.4	_	2.4
Unallocated							0.2	-	0.2
Consolidated share of profit/ (loss) of equity accounted investments							2.6	_	2.6
Segment earnings before									
interest, tax, depreciation and amortisation	554.2	37.6	(75.4)	97.7	38.7	24.7	677.5	(10.3)	667.2
Depreciation, amortisation and impairment	(30.7)	(16.7)	(96.6)	(32.4)	(27.6)	(4.8)	(208.8)	(5.4)	(214.2)
Segment earnings before interest and tax	523.5	20.9	(172.0)	65.3	11.1	19.9	468.7	(15.7)	453.0
Restructuring costs							(8.8)	-	(8.8)
Acquisition costs							(13.9)	-	(13.9)
Finance costs							(101.1)	-	(101.1)
Intersegment eliminations							-	-	-
Unallocated							(26.7)	_	(26.7)
Consolidated Profit before tax							318.2	(15.7)	302.5
Tax (expense)/benefit							(68.4)	3.4	(65.0)
Consolidated Profit after tax							249.8	(12.3)	237.5
Segment assets	948.6	651.1	2,594.5	2,280.0	1,485.1	173.4	8,132.7	-	8,132.7
Investments accounted for using the equity method	_	1.4	_	6.4	_	_	7.8	_	7.8
Tax assets							163.0	_	163.0
Intersegment eliminations							(168.9)	_	(168.9)
Unallocated assets							208.7	-	208.7
Consolidated assets							8,343.3	_	8,343.3
Segment liabilities	172.1	98.2	552.4	341.5	351.5	59.6	1,575.3	_	1,575.3
Tax liabilities		7012	302.7	31213	502.0	57.0	318.7	_	318.7
Intersegment eliminations							(163.9)		(163.9)
Unallocated liabilities							2,107.5	-	2,107.5
Consolidated liabilities							3,837.6	_	3,837.6
Other segment information									
Capital expenditure	78.9	23.4	104.4	960.2	24.2	4.8	1,195.9	1.9	1,197.8
Unallocated capital expenditure							9.2	-	9.2
Consolidated capital expenditure							1,205.1	1.9	1,207.0

<sup>1</sup> Segment results are equivalent to the results from the continuing operations of each segment.

<sup>2</sup> Under AASB 5 Non-current assets held for Sale and Discontinued Operations, comparative assets and liabilities have not been restated as "held for sale".

<sup>3</sup> The June 2011 balances for the Mining Consumables segment have been restated to reflect the impact of the finalisation of allocation of the cost of the acquisition of Moly-Cop Group to the assets and liabilities acquired.

#### **IDENTIFICATION OF REPORTABLE SEGMENTS**

The Group has identified its operating segments based on internal reporting that is reviewed and used by the MD & CEO and the executive management team in assessing performance and in determining the allocation of resources.

The operating segments are identified by management based on the nature of the products provided, with each operating segment representing a strategic business unit that offers different products and serves different markets.

The reportable segments are based on operating segments including those that meet the aggregation criteria as determined by the similarity of the products produced and sold as these are the sources of the Group's major risks and have the most effect on the rates of return.

#### Mining

The Mining segment supplies hematite iron ore to external customers and both hematite iron ore and pelletised iron ore to Arrium's integrated steelworks at Whyalla sourced from Arrium's mines located in the South Middleback Ranges, approximately 60 km from Whyalla, South Australia.

The Mining segment's Southern Iron operations consist of WPG Resources Limited's subsidiary companies acquired on 6 October 2011, that includes the Peculiar Knob iron ore assets in South Australia.

#### Recyclina

The Recycling segment operates in 11 countries through a combination of physical operations and trading offices, supplying steelmaking raw materials and non-ferrous scrap to steel mills and foundries operated in Australia and across the globe.

The OneSteel Manufacturing segment combines the activities of steel production and the product mills. The Whyalla Steelworks produces billet as feedstock for the product mills together with rail products, structural steels and slabs for external sale.

The Sydney and Laverton steel mills produce steel billets for the manufacture of reinforcing and bar products on their own rolling mills as well as steel billet to be used as feed in OneSteel Manufacturing's other rolling facilities.

The segment manufactures products which are used in a range of applications such as manufacturing, construction, mining and automotive industries.

#### Mining Consumables

The Mining Consumables segment services the resources sectors of Australia, Asia and North and South America. The business comprises Moly-Cop Grinding Media, businesses in Australia, Chile, Peru, Mexico, Canada, the United States and Indonesia, and the Wire Ropes and Rail and Forge businesses in Australia.

#### **Australian Distribution**

The OneSteel Australian Distribution segment provides a diverse range of steel and metal products to resellers and end-users including structural steel, steel plate, angles, channels, flat sheet, reinforcing steel, sheet steel and coil and a range of aluminium and stainless products, pipes, fittings and valves. The reinforcing businesses within Australian Distribution manufacture and distribute product throughout Australia for the construction and mining, oil and gas industries.

## **New Zealand Distribution**

This comprises the 50.3% shareholding in Steel & Tube Holdings Limited, a listed company in New Zealand, which processes and distributes a comprehensive range of steel and allied products in the construction, manufacturing and rural industries to the New Zealand market.

The Mining segment sells pelletised iron ore to the Manufacturing segment. The Recycling segment sells raw materials to the Manufacturing segment. The Manufacturing segment sells manufactured products such as structural steel, angles, channels, flats, reinforcing bar and pipe and tube to the Australian Distribution and New Zealand Distribution segments.

All sales between segments are conducted on an arm's length basis, with terms and conditions no more favourable than those which it is reasonable to expect when dealing with an external party, except for the sales of iron ore from the Mining segment to the Manufacturing segment which occurs at cost.

#### **MAJOR CUSTOMERS**

The Group has a number of customers to which it provides products. No single external customer generates 10% or more of the Group's revenue.

#### GEOGRAPHIC INFORMATION

In presenting information on the basis of geographical area, revenue is based on the operation's country of domicile. Non-current assets other than financial instruments and deferred tax assets are based on the geographic location of assets.

2012	AUSTRALIA	OTHER FOREIGN COUNTRIES	DISCONTINUED OPERATIONS
	\$m	\$m	\$m
Revenues from external customers			
Sales to external customers	5,459.1	1,995.9	139.5
Other revenue/income from external customers	93.1	25.2	3.5
Total income	5,552.2	2,021.1	143.0
Non-current assets	4,569.1	1,992.4	-

# 3. SEGMENT INFORMATION CONTINUED

2011	AUSTRALIA	OTHER FOREIGN COUNTRIES	DISCONTINUED OPERATIONS
	\$m	\$m	\$m
Revenues from external customers			
Sales to external customers	5,491.4	1,401.0	240.6
Other revenue/income from external customers	45.5	(1.7)	0.4
Total income	5,536.9	1,399.3	241.0
Non-current assets	4,141.6	1,950.8	_

# **4. INCOME STATEMENT ITEMS**

	CONSOLIDA	TED
	2012 \$m	2011 \$m
(A) SALES REVENUE	VIII	ŲIII
Product sales	7,448.2	6,887.9
Rendering of services	6.8	4.5
Total sales revenue	7,455.0	6,892.4
(B) OTHER REVENUE		
Interest received from unrelated parties	2.5	2.0
Dividends	_	0.2
Rental revenue	4.5	4.6
Other revenue	95.7	21.5
Total other revenue	102.7	28.3
TOTAL REVENUE	7,557.7	6,920.7
(C) OTHER INCOME		
Net gains on disposal of property, plant and equipment	8.9	1.1
Net fair value gains <sup>1</sup>	6.7	14.4
Total other income	15.6	15.5
TOTAL INCOME	7,573.3	6,936.2
1 Comprised of:		
Net fair value (loss)/gain on financial liabilities designated in fair value hedges	(17.3)	17.8
Net fair value gain/(loss) on derivatives designated in fair value hedges	18.4	(22.5)
Net fair value gain/(loss) on derivatives not qualifying as hedges	10.0	(12.8
Net loss on ineffectiveness on hedge of net investments in foreign operations	(0.9)	-
Net (loss)/gain on financial liabilities measured at amortised cost	(3.5)	31.9
	6.7	14.4
(D) OPERATING EXPENSES INCLUDING RESTRUCTURING COSTS		
Manufacturing expenses	112.1	138.1
Distribution expenses	159.7	170.4
Marketing expenses	112.5	134.6
Administrative expenses	630.1	637.3
Total operating expenses including restructuring costs	1,014.4	1,080.4
(E) FINANCE COSTS		
Interest expense related to:		
Bank loans	127.8	99.6
Finance leases	0.6	-
Provision for restoration and rehabilitation discount adjustment	1.3	1.5
	129.7	101.1
Less: Borrowing costs capitalised <sup>1</sup>	(8.6)	-
Total finance costs	121.1	101.1

<sup>1</sup> The weighted average interest rate is 4.48%.

	CONSOLIDAT	ED
	2012 \$m	2011 \$m
(F) PROFIT BEFORE INCOME TAX INCLUDES THE FOLLOWING SPECIFIC EXPENSES:		
Continuing operations:		
Depreciation of property, plant and equipment:		
Buildings	16.8	16.8
Plant and equipment	174.5	173.6
Leased assets	0.7	-
Amortisation of mine development expenditure	9.4	5.0
Amortisation of finite-life intangible assets	17.1	12.7
Impairment of plant and equipment	_	2.2
Impairment of land <sup>1</sup>	3.8	_
Impairment of buildings <sup>1</sup>	0.8	_
Impairment of mine development expenditure	3.4	_
Write down of inventory to net realisable value	21.2	12.9
Minimum operating lease rentals	93.6	100.3
Restructuring costs <sup>3</sup>	27.5	7.9
Research and development costs <sup>4</sup>	124.5	150.0
Discontinued operations:		
Depreciation of property, plant and equipment:		
Buildings	0.1	0.2
Plant and equipment	2.0	4.5
Amortisation of finite-life intangible assets	0.2	0.7
Impairment of plant and equipment <sup>2</sup>	28.8	_
Impairment of land <sup>2</sup>	0.4	_
Impairment of buildings <sup>2</sup>	5.7	_
Impairment of intangible assets <sup>2</sup>	99.3	_
Write down of inventory to net realisable value	11.9	0.2
Minimum operating lease rentals	0.5	0.1
Restructuring costs <sup>3</sup>	7.6	-
Research and development costs <sup>4</sup>	0.8	0.3

<sup>1</sup> Impairment of land and buildings at Acacia Ridge.

<sup>4</sup> Research and development costs largely consists of process and product improvement projects undertaken on the production line as part of the continuous drive for manufacturing efficiency and product advancement. Arrium undertakes many such projects.

	CONSOLIDATE	ED
	2012 \$m	2011 \$m
(G) EMPLOYEE BENEFITS EXPENSE		
Included in employee benefits expense are the following items:		
Continuing operations:		
Defined contribution company contributions	51.5	54.6
Defined benefit plan expense (Note 19)	12.9	10.7
Employee provisions	141.6	122.2
Share-based payments expense	6.3	4.7
Discontinued operations:		
Defined contribution company contributions	-	-
Defined benefit plan expense (Note 19)	-	-
Employee provisions	0.4	0.8
Share-based payments expense	-	-

<sup>2</sup> Impairment relating to LiteSteel Technologies and Oil & Gas Pipeline businesses.

<sup>3</sup> Restructuring costs related to redundancies from organisational changes and other direct expenditure associated with business restructures.

# **5. INCOME TAX**

	CONSOLIDATED	
	2012 \$m	2011 \$m
(A) INCOME STATEMENT	·	
Current income tax charge	0.5	72.8
Over provided in prior years	(18.5)	(20.7)
Deferred tax relating to the origination and reversal of temporary differences	(31.8)	12.9
Income tax (benefit)/expense recognised in the Income Statement	(49.8)	65.0
(B) RECONCILIATION OF INCOME TAX EXPENSE TO PRIMA FACIE TAX PAYABLE		
Profit before tax from continuing operations	194.6	318.2
Loss before tax from discontinued operations	(180.8)	(15.7)
Total profit before income tax	13.8	302.5
Prima facie income tax expense calculated at 30% (2011: 30%)	4.1	90.8
Adjustments in respect of income tax expense of previous years <sup>1</sup>	(18.5)	(20.7)
Share of net loss of investments accounted for using the equity method	_	(0.8)
Research and development allowance	(9.4)	(11.3)
Non-deductible expenses	0.7	0.4
Impairment expenses non-deductible	28.3	_
Other items	(8.3)	2.5
Difference in overseas tax rates	(11.3)	4.1
Income tax impact of MRRT taxation expense	15.2	-
Income tax expense benefit recognised in the Income Statement	0.8	65.0
MRRT related taxation expense	(50.6)	-
Total taxation (benefit)/expense	(49.8)	65.0
Aggregate income tax (benefit)/expense is attributable to:		
Continuing operations	(21.0)	68.4
Discontinued operations	(28.8)	(3.4)
	(49.8)	65.0
Primarily attributable to Research and Development claims not previously recognised.		
	CONSOLIDATE	D
	2012	2011
	\$m	\$m
(C) MOVEMENT IN DEFERRED TAX BALANCES NOT RECOGNISED DIRECTLY IN EQUITY  Deferred tax assets		
Employee benefit provisions (including retirement benefit obligations)	(5.6)	13.9
Other provisions	(19.5)	14.9
Inventory provisions	0.8	0.2
Derivative financial instruments	1.2	(4.9)
Net unrealised foreign exchange gains/losses	(1.9)	5.6
MRRT starting base	50.6	_
Other items .	4.8	2.1
	30.4	31.8
Deferred tax liabilities		
Property, plant and equipment and intangibles	5.5	78.9
Stores and spares	(3.2)	2.6
Deferred charges	3.9	5.9
Share-based payments	(2.0)	0.5
Derivative financial instruments	(5.7)	5.7
Net unrealised foreign exchange gains/losses	-	(1.2)
MRRT income tax impact	15.2	_
Other items	(0.9)	(0.9)
	12.8	91.5

	CONSOLIDATED	
	2012 \$m	2011 \$m
(D) DEFERRED TAX RECOGNISED IN THE BALANCE SHEET		
Deferred tax assets		
Employee benefit provisions (including retirement benefit obligations)	87.1	92.7
Other provisions	39.2	45.9
Inventory provisions	9.2	8.4
Derivative financial instruments	12.4	-
Net unrealised foreign exchange gains/losses	3.7	5.6
MRRT starting base	50.6	-
Other items	20.5	10.4
	222.7	163.0
Deferred tax liabilities		
Property, plant and equipment	235.6	216.1
Stores and spares	22.2	25.4
Deferred charges	42.4	38.5
Share-based payments	0.5	2.6
Derivative financial instruments	-	5.7
MRRT income tax impact	15.2	-
Other items	4.1	5.0
	320.0	293.3
(E) MOVEMENT IN DEFERRED TAX RECOGNISED DIRECTLY IN EQUITY		
Net gain on revaluation of cash flow hedges	11.2	(8.8)
Property, plant and equipment <sup>2</sup>	(14.0)	-
Other provisions <sup>2</sup>	12.8	-
Other items <sup>2</sup>	5.3	-
Share-based payments expense	0.1	0.5
Total deferred tax debited/(credited) to equity	15.4	(8.3)

<sup>2</sup> Relates to tax balances acquired and accounted for in the business combination valuation reserve.

# (F) TAX EFFECT ACCOUNTING BY MEMBERS OF THE TAX CONSOLIDATED GROUP

The head entity Arrium Limited and the controlled entities in the tax consolidated group continue to account for their own current and deferred tax amounts. The Arrium Group has applied the stand-alone taxpayer approach in determining the appropriate amount of current taxes to allocate to members of the tax consolidated group.

In addition to its own current and deferred tax amounts, the head entity also recognises current tax liabilities (or assets) assumed from controlled entities in the tax consolidated group.

The amounts receivable or payable under the tax sharing agreement are due upon receipt of the funding advice from the head entity which is issued as soon as practicable after the end of each financial year. The head entity may also require payment of interim funding amounts to assist with its obligations to pay tax instalments.

#### (G) UNRECOGNISED DEFERRED TAX ASSETS

Deferred tax assets have not been recognised in respect of estimated capital losses amounting to \$65.3 million (2011: \$4.1 million). Deferred tax assets have not been recognised in respect of MRRT amounting to \$540.7 million.

Capital tax losses are subject to continuity of ownership tests and MRRT unrecognised deferred tax assets are subject to future taxable mining profits. Deferred tax assets have not been recognised in respect of these items because it is not probable that future taxable profit or future mining profit will be available against which the consolidated entity can utilise the benefits.

### (H) MINERALS RESOURCE RENT TAX

On 29 March 2012, the Minerals Resource Rent Tax Bill 2011, Minerals Resource Rent Tax (Consequential Amendments and Transitional Provisions) Bill 2011, Minerals Resource Rent Tax (Imposition-General) Bill 2011, Minerals Resource Rent Tax (Imposition-Customs) Bill 2011 and Minerals Resource Rent Tax (Imposition-Excise) Bill 2011 which collectively implemented the Federal Government's Minerals Resource Rent Tax was enacted. This resulted in an increase in deferred tax assets of \$50.6 million and an increase in deferred tax liabilities of \$15.2 million and a corresponding net decrease in income tax expense of \$35.4 million for the year ended 30 June 2012.

# **6. EARNINGS PER SHARE**

The Group presents basic and diluted earnings per share (EPS) for its ordinary shares. Basic EPS is calculated by dividing the profit or loss attributable to ordinary shareholders of the Company by the weighted average number of ordinary shares outstanding during the period, adjusted for shares held by the Company's sponsored employee share plan trust. Diluted EPS is determined by adjusting the profit or loss attributable to ordinary shareholders and the weighted average number of ordinary shares outstanding, adjusted for shares held by the Company's sponsored employee share plan trust, for the effects of all dilutive potential ordinary shares which comprise share options granted to employees.

The following reflects the earnings and share data used in the calculation of basic and diluted earnings per share:

#### (A) EARNINGS

Earnings used in calculating basic and diluted earnings per share from continuing operations attributable to equity holders of the parent	208.8	241.6
Less: Adjustment for employee compensation shares	(0.9)	(1.0)
Profit from continuing operations attributable to equity holders of the parent	209.7	242.6
Less: Non-controlling interests	(5.9)	(7.2)
Net profit for the period attributable to continuing operations	215.6	249.8
Earnings used in calculating basic and diluted earnings per share attributable to equity holders of the parent	57.5	229.3
Add: Adjustment for employee compensation shares	(0.2)	(1.0)
Profit attributable to equity holders of the parent	57.7	230.3
	2012 \$m	2011 \$m

#### **(B) NUMBER OF ORDINARY SHARES**

	NUMBER OF SHARES	
Weighted average number of ordinary shares used in the calculation of basic earnings per share	1,335,544,142	1,328,619,998
Dilutive effect of executive share options and rights <sup>1</sup>	1,208,098	27,782
Weighted average number of ordinary shares used in the calculation of diluted earnings per share	1,336,752,240	1,328,647,780

MILIMPED OF CHAPEC

#### **ISSUES AFTER 30 JUNE 2012**

There have been no other subscriptions for ordinary shares or issues of potential ordinary shares since the reporting date and before the completion of the financial report.

# (C) EARNINGS PER SHARE

Basic earnings per share (cents per share)	4.30	17.26
Diluted earnings per share (cents per share)	4.30	17.26
Earnings per share for profit from continuing operations attributable to the ordinary equity holders of the parent:		
Basic earnings per share (cents per share)	15.64	18.18
Diluted earnings per share (cents per share)	15.62	18.18

Executive share options relate solely to ordinary shares. All potential ordinary shares, being options to acquire ordinary shares, are considered dilutive. There were no outstanding options at 30 June 2012 (2011: nil).

#### 7. RECEIVABLES

	CONSOLI	DATED
	2012 \$m	2011 \$m
Current		
Trade receivables <sup>1</sup>	900.7	892.7
Provision for doubtful debts	(6.5)	(3.7)
	894.2	889.0
Other receivables	58.8	35.0
	953.0	924.0

<sup>\$8.4</sup> million (2011: \$10.8 million) of the trade receivables balance are known as Metalcard in the Australian Distribution segment receivables whereby interest is charged on the outstanding balance at an average interest rate throughout the year of 12.59% (2011: 12.52%).

Trade receivables (excluding Metalcard receivables within the Australian Distribution segment) are non-interest bearing and are generally on 30 to 60 day terms.

#### (A) PROVISION FOR DOUBTFUL DEBTS

A provision for doubtful debt is recognised when there is objective evidence that an individual trade receivable is impaired. Significant financial difficulties of the debtor, probability that the debtor will enter bankruptcy or financial reorganisation or default or delinquency in payments are considered indicators that the trade receivable is impaired.

Movements in the provision for doubtful debts during the year were as follows:

	CONSOLIDATED	
	2012 \$m	2011 \$m
Carrying amount at the beginning of the year	(3.7)	(5.7)
Acquisitions through business combinations	-	(0.9)
Additional amounts provided	(6.9)	(2.2)
Utilised	2.3	3.8
Reversal of utilised amounts	1.7	1.1
Net foreign currency differences on translation of foreign operations	0.1	0.2
Carrying amount at the end of the year	(6.5)	(3.7)

Amounts charged to the provision for doubtful debts are written off when there is no expectation of recovering additional cash. The other classes within trade and other receivables do not contain impaired assets and are not past due. Based on the credit history of these other classes, it is expected that these amounts will be received when due.

The total value of impaired receivables at 30 June 2012 is \$6.5 million (2011: \$3.7 million). These receivables are all greater than 30 days overdue and have been fully provided for.

# **(B) PAST DUE BUT NOT IMPAIRED**

At balance date, receivables of \$74.3 million (2011: \$72.1 million) were past due but not impaired. These relate to a number of independent customers for whom there is no recent history of default.

The aging analysis of these receivables are as follows:

	CONSOLIDA	ΓED
	2012 \$m	2011 \$m
1 to 30 days	50.9	56.3
31 to 60 days	9.6	8.9
61 to 90 days	11.4	6.0
over 90 days	2.4	0.9
	74.3	72.1

# (C) FAIR VALUE AND CREDIT RISK

Due to the short-term nature of these receivables, their carrying values are assumed to approximate their fair values.

The maximum exposure to credit risk at the reporting date is the fair value of each class of receivables mentioned above. The Group does not hold any collateral as security.

# (D) FOREIGN EXCHANGE AND INTEREST RATE RISK

The Group's exposure to foreign exchange and interest rate risk related to trade and other receivables is disclosed in Note 32.

#### 8. DERIVATIVE FINANCIAL INSTRUMENTS

	CONSOLIDATE	D
	2012 \$m	2011 \$m
Current assets		
Forward contracts - cash flow hedges	7.1	0.2
Forward contracts - held for trading	9.1	2.8
Option contracts - cash flow hedges	0.7	-
	16.9	3.0
Non-current assets		
Interest rate swap contracts - fair value hedges	27.5	12.8
Cross-currency interest rate swap contracts - held for trading	2.4	-
	29.9	12.8
Current liabilities		
Forward contracts - cash flow hedges	1.1	3.0
Forward contracts - held for trading	4.0	8.8
Option contracts - cash flow hedges	0.4	-
Interest rate swap contracts - cash flow hedges	2.5	0.3
Cross-currency interest rate swap contracts - cash flow hedges	15.8	19.8
Cross-currency interest rate swap contracts - net investment hedges	-	1.9
	23.8	33.8
Non-current liabilities		
Interest rate swap contracts - cash flow hedges	10.6	6.4
Cross-currency interest rate swap contracts - fair value hedges	34.0	37.6
Cross-currency interest rate swap contracts - cash flow hedges	12.8	28.3
	57.4	72.3

#### INSTRUMENTS USED BY THE GROUP

The Group is party to derivative financial instruments in the normal course of business in order to manage exposure to fluctuations in interest and foreign exchange rates in accordance with the Group's financial risk management policies (refer to Note 32).

#### (a) Interest rate swap contracts - cash flow hedges

It is the Group's policy to hedge part of its variable interest rate loans from exposure to fluctuations in interest rates. Accordingly, the Group has entered into interest rate swap contracts under which it is obliged to receive interest at variable rates and to pay interest at fixed rates. Australian dollar-denominated bank loans of the Group currently bear an average variable interest rate of 5.99% (2011: 6.12%).

Swaps in place cover 53% (2011: 58%) of the variable AUD loan principal outstanding and are timed to expire between three and five years. This is managed on a portfolio basis and assumes that debt facilities are renewed. During the year, the fixed interest rates ranged between 5.90% and 7.51% (2011: 5.89% and 7.51%) and the variable rates settings between 4.18% and 4.90% (2011: 4.78% and 4.93%) compared with three month BBSW which at balance date was 3.49% (2011: 5.03%).

The Group has USD denominated bank loans that currently bear an average variable interest rate of 2.37% (2011: 1.96%). Swaps in place cover 32% (2011: 24%) of the variable USD loan principal outstanding and are timed to expire between three and five years. This is managed on a portfolio basis and assumes that debt facilities are renewed. During the year, the fixed interest rates ranged between 0.93% and 1.74% (2011: 1.25% and 1.74%) and the variable rates settings between 0.25% and 0.56% (2011: 0.28%) compared with three month LIBOR which at balance date was 0.46% (2011: 0.25%).

The Group also has Canadian dollar denominated bank loans that currently bear an average interest rate of 3.31% (2011: nil). Swaps in place cover 38% of the variable Canadian loan principal outstanding and are timed to expire between three and five years. This is managed on a portfolio basis and assumes that debt facilities are renewed. In 2011, the swap was in place to hedge the highly probable forecast issuance of Canadian dollar denominated bank loan and was replaced during the year by a swap hedging the Canadian dollar denominated bank loan issued during the year. During the year, the fixed interest rate was 2.59% (2011: 2.59%) and the variable rate ranged between 1.28% and 1.30% (2011: three month CDOR) compared with three month CDOR which at balance date was 1.31% (2011: 1.29%).

The contracts require settlement of net interest receivable or payable at 90 day intervals. The contracts are settled on a net basis where master netting agreements are in place. The majority of the settlement dates coincide with the dates on which interest is payable on the underlying debt.

The gain or loss from remeasuring the hedging instruments at fair value is deferred in equity in the cash flow hedge reserve to the extent that the hedge is effective. It is reclassified into the Income Statement when the hedged interest expense is recognised. During the year, a net loss of \$5.7 million (2011: loss of \$3.0 million) was reclassified into the Income Statement and included as finance costs. Any ineffective portion is recognised in the Income Statement immediately. There was no material hedge ineffectiveness recognised in the Income Statement in the current or prior year.

#### (b) Interest rate swap contracts - fair value hedges

At 30 June 2012, the Group had a series of interest rate swaps in place with a notional amount of USD230 million (2011: USD230 million) whereby it receives an average fixed interest rate of 3.50% semi-annually (2011: 3.50%) in USD and pays a floating rate of interest equal to USD LIBOR amount quarterly.

Swaps currently in place cover 100% (2011: 100%) of the US Private Placement debt undertaken in August 2007 and June 2008 amounting USD230 million. The swaps are being used to protect the value of USD denominated debt against changes in fair value due to changes in the benchmark interest rate. During the year, the fixed interest rates ranged between 3.00% and 3.89% (2011: 3.00% and 3.89%) and the variable rates between 0.25% and 0.58% (2011: 0.27% and 0.53%) compared with the three month LIBOR which at balance date was 0.46% (2011: 0.25%). Interest payments on the debt are made semi-annually.

#### (c) Cross-currency interest rate swap contracts - fair value hedges

At balance date, the Group had a series of cross-currency interest rate swaps in place with a notional amount of USD60 million (2011: USD60 million) whereby it receives a fixed interest rate of 5.5% semi-annually (2011: 5.5%) and pays a floating rate of interest equal to BBSW in AUD on the notional amount quarterly.

Swaps currently in place cover 100% (2011: 100%) of the loan principal outstanding. The swaps are being used to hedge the exposure to changes in the fair value of its US Private Placement, fixed interest USD denominated senior notes raised in April 2003 (a twelve year tranche of USD60 million expiring in April 2015). The fixed interest rate was 5.55% (2011: 5.55%) and the variable rate was between 5.59% and 6.38% (2011: 6.18% and 6.33%) compared with the three month BBSW which at balance date was 3.49% (2011: 5.03%). Interest payments on the debt are made semi-annually.

The expiration of the cross-currency interest rate swaps is matched to the expiry of the underlying debt.

#### (d) Cross-currency interest rate swaps - cash flow hedges

At balance date, the Group had a series of cross-currency interest rate swaps in place with a notional amount of USD45 million (2011: USD85 million) whereby it receives an average fixed interest rate of 5.9% (2011: 5.8%) in USD and pays an average fixed interest rate of 7.3% (2011: 7.3%) in AUD on the notional amount semi-annually.

Swaps currently in place cover 100% of the designated loan principal outstanding (2011: 100%) and are timed to expire as each loan repayment falls due. The swaps are being used to hedge the exposure to fluctuations in cash flow due to fluctuations to the AUD/USD spot exchange rate on USD denominated senior notes.

The contracts require settlement of interest receivable or payable at 180 day intervals. The contracts are settled on a net basis where master netting agreements are in place. The settlement dates coincide with the dates on which interest is payable on the underlying debt.

The gain or loss from remeasuring the hedging instruments at fair value is deferred in equity in the cash flow hedge reserve, to the extent that the hedge is effective, and reclassified into the Income Statement when the hedged interest expense is recognised. The ineffective portion is recognised in the Income Statement immediately. During the year, a loss of \$2.0 million (2011: loss of \$3.2 million) was reclassified into the Income Statement and included as finance costs. There was no material hedge ineffectiveness recognised in the Income Statement in the current or prior year.

The expiration of the cross-currency interest rate swaps is matched to the expiry of the underlying debt.

#### (e) Forward contracts - cash flow hedges

The Group is exposed to foreign exchange risk through primary financial assets and liabilities and anticipated future transactions modified through derivative financial instruments such as forward exchange contracts.

The Group has a series of forward exchange contracts to hedge highly probable forecast or committed purchases. The contracts are timed to mature when payments for the purchases are scheduled to be made.

The portion of the gain or loss on the forward contract that is determined to be an effective hedge is recognised directly in equity in the cash flow hedge reserve. When the cash flows occur, the amount recognised in equity is adjusted against the asset recognised on the Balance Sheet.

During the year, a gain of \$4.7 million (2011: loss of \$6.2 million) was reclassified into the Income Statement and included in cost of operations. There was no material hedge ineffectiveness recognised in the Income Statement in the current or prior year.

At balance date, the details of outstanding contracts are:

		CONSOLIDATED				
		2012			2011	
	AVERAGE EXCHANGE RATE	BUY	SELL	AVERAGE EXCHANGE RATE	BUY	SELL
		\$m	\$m		\$m	\$m
Currency						
United States Dollar						
Up to 3 months	0.97	10.0	102.9	0.91	26.0	2.2
More than 3 months to 12 months	0.97	6.0	98.0	0.99	16.8	-
Greater than 12 months to 2 years	0.98	-	6.4	-	_	-
		16.0	207.3		42.8	2.2
Japanese Yen						
Up to 3 months	-	-	-	74.77	0.4	-
More than 3 months to 12 months	-	-	-	78.64	1.0	-
		_	_		1.4	-

#### 8. DERIVATIVE FINANCIAL INSTRUMENTS CONTINUED

	CONSOLIDATED					
		2012			2011	
	AVERAGE EXCHANGE RATE	BUY	SELL	AVERAGE EXCHANGE RATE	BUY	SELL
		\$m	\$m		\$m	\$m
Currency						
Euro						
Up to 3 months	0.76	0.8	-	0.75	1.1	-
More than 3 months to 12 months	0.77	2.0	-	-	-	-
		2.8	-		1.1	-
Great British Pound						
Up to 3 months	-	-	-	0.60	1.4	-
		-	-		1.4	_
Indonesian Rupiah						
Up to 3 months	9,530	3.6	-	-	-	-
More than 3 months to 12 months	9,714	5.7	-	-	-	-
		9.3	-		-	_
Chilean Peso						
Up to 3 months	-	-	-	442.0	43.9	20.1
		-	-		43.9	20.1
New Zealand Dollar						
Up to 3 months	1.3	_	1.2	-	-	-
		_	1.2		_	_
Singapore Dollar						
Up to 3 months	1.24	0.3	-	-	-	-
		0.3	-	-	-	

### (f) Option contracts - cash flow hedges

At balance date the Group had a series of foreign currency collars being a combination of written put options and purchased call options with a notional amount of USD60 million.

The options are being used to hedge the exposure to fluctuations in cash flow due to fluctuations to the AUD/USD spot exchange rate on highly probable forecasted sales of iron ore in USD in the ensuing financial year. The contracts are timed to mature when receipt of payment from customers are forecasted to occur. Changes in the intrinsic value of the option is deferred in equity in the cash flow hedge reserve. Changes in the fair value of the option other than intrinsic value are recognised in the Income Statement as they occur.

During the year ended 30 June 2012, a net loss of \$0.6 million (2011: nil) was recognised in the Income Statement. There was no hedge ineffectiveness recognised in the Income Statement in the current year or prior year.

#### (g) Cross-currency interest rate swap contracts - net investment hedges

At balance date the Group had no cross-currency interest rate swap designated as a hedge of net investment of its Canadian subsidiaries (2011: CAD200 million). During the year, CAD200 million debt was designated as a hedge of the Group's net investment in its Canadian subsidiaries (refer to Note 17).

A net loss on the hedge of nil (2011: loss of \$1.2 million) was recognised in equity for the period. There has been no material hedge ineffectiveness recognised in the Income Statement.

# (h) Forward contracts and cross-currency interest rate swap contracts - held for trading

The Group has entered into forward exchange and cross-currency interest rate swap contracts which are economic hedges but do not satisfy the requirements for hedge accounting. These contracts are accounted for as held for trading financial instruments and are subject to the same risk management policies as all other derivative contracts (refer to Note 32).

# 9. INVENTORIES

	CONSOLIDA	ATED
	2012 \$m	2011 \$m
Raw materials		
At cost	283.9	290.2
At net realisable value	32.3	24.0
	316.2	314.2
Work in progress		
At cost	337.9	293.3
At net realisable value	1.9	23.2
	339.8	316.5
Finished goods		
At cost	574.6	711.4
At net realisable value	48.4	76.9
	623.0	788.3
Stores, spares and other		
At cost	166.9	182.0
At net realisable value	5.0	-
	171.9	182.0
Total inventories		
At cost	1,363.3	1,476.9
At net realisable value	87.6	124.1
	1,450.9	1,601.0

# **10. OTHER FINANCIAL ASSETS**

	CONSOLIDATED	
	2012 \$m	2011 \$m
Current		
Loan to jointly controlled entity	-	1.5
	-	1.5
Non-current		
Loan to jointly controlled entity	1.3	-
	1.3	-

# 11. INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD

	CONSOLIDA	ATED
	2012 \$m	2011 \$m
Investment in jointly controlled entity <sup>1</sup>	12.8	11.7
Investment in associate <sup>2</sup>	1.2	1.4
	14.0	13.1

<sup>1</sup> Arrium Limited has a 50% ownership interest and voting power in BOSFA Pty Ltd (2011: 50%) and Genalta Recycling Inc (2011: 50%). BOSFA Pty Ltd is a company incorporated in Australia involved in the distribution of steel wire products with a balance date of 31 December. Genalta Recycling Inc is a company incorporated in Canada involved in the recycling and sale of Scrap Metals and has a balance date of 31 December.

There were no impairment losses relating to investments accounted for using the equity method. There were no commitments or contingencies.

<sup>2</sup> The Group has a 20% interest and voting power in Suntech Metals Company (2011: 20%), a company incorporated in Thailand involved in the collection and sale of non-ferrous scrap metal. Its balance date is 31 December.

# 11. INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD CONTINUED

The following information illustrates summarised financial information relating to the Group's investments accounted for using the equity method:

	CONSOLIDATE	D
	2012 \$m	2011 \$m
Share of jointly controlled entity and associate's income, expenses and results <sup>3</sup>		
Income	28.2	55.2
Expenses	(26.7)	(51.4)
Net profit before income tax	1.5	3.8
Income tax expense	(0.5)	(1.2)
Net profit after income tax	1.0	2.6
Share of jointly controlled entity and associate's assets and liabilities		
Current assets	7.8	8.6
Non-current assets	11.9	11.8
Current liabilities	(3.2)	(5.8)
Non-current liabilities	(2.5)	(1.5)
Net assets	14.0	13.1

<sup>3</sup> In 2011, includes share of income, expenses and results of Donhad Pty Ltd in which Arrium acquired a 40% interest as part of the acquisition of the Moly-Cop Group on 31 December 2010, for the period 1 January 2011 to 24 June 2011. Arrium's 40% interest in Donhad Pty Ltd was sold on 24 June 2011 in accordance with the divestment undertaking given by Arrium to the ACCC.

# 12. PROPERTY, PLANT AND EQUIPMENT

	CONSOLIDATED				
_	LAND	BUILDINGS	PLANT AND EQUIPMENT	LEASED ASSETS	TOTAL
2012	\$m	\$m	\$m	\$m	\$m
Movements in carrying amounts					
Cost					
At the beginning of the year	208.9	546.8	3,382.6	-	4,138.3
Acquisitions through business combinations	-	-	14.3	-	14.3
Additions	1.6	14.3	378.6	14.1	408.6
Disposals	(14.8)	(15.2)	(98.7)	_	(128.7)
Disposal groups and assets held for sale	(3.2)	(9.9)	(29.9)	-	(43.0)
Transfers	(2.0)	12.3	(4.8)	_	5.5
Net foreign currency differences on translation of foreign operations	1.8	1.7	12.4	_	15.9
At the end of the year	192.3	550.0	3,654.5	14.1	4,410.9
Accumulated depreciation and impairment					
At the beginning of the year	-	(178.3)	(1,374.0)	-	(1,552.3)
Depreciation	-	(16.9)	(176.5)	(0.7)	(194.1)
Impairment loss	(4.2)	(6.5)	(28.8)	-	(39.5)
Disposals	0.4	10.4	86.8	_	97.6
Disposal groups and assets held for sale	-	4.7	29.2	_	33.9
Net foreign currency differences on translation of foreign operations	_	(0.7)	(1.2)	_	(1.9)
At the end of the year	(3.8)	(187.3)	(1,464.5)	(0.7)	(1,656.3)
Net carrying amount at 30 June 2012	188.5	362.7	2,190.0	13.4	2,754.6

	CONSOLIDATED			
	LAND	BUILDINGS	PLANT AND EQUIPMENT	TOTAL
2011	\$m	\$m	\$m	\$m
Movements in carrying amounts				
Cost				
At the beginning of the year	185.9	487.0	3,013.0	3,685.9
Acquisitions through business combinations	22.3	56.0	175.0	253.3
Additions	2.3	10.7	249.4	262.4
Disposals	-	(0.3)	(19.7)	(20.0)
Net foreign currency differences on translation of foreign operations	(1.6)	(6.6)	(35.1)	(43.3)
At the end of the year	208.9	546.8	3,382.6	4,138.3
Accumulated depreciation and impairment				
At the beginning of the year	-	(162.2)	(1,221.4)	(1,383.6)
Depreciation	_	(17.0)	(178.1)	(195.1)
Disposals	-	-	(2.2)	(2.2)
Transfers	-	0.3	18.4	18.7
Net foreign currency differences on translation of foreign operations		0.6	9.3	9.9
At the end of the year	-	(178.3)	(1,374.0)	(1,552.3)
Net carrying amount at 30 June 2011	208.9	368.5	2,008.6	2,586.0

# 13. MINE DEVELOPMENT EXPENDITURE

	CONSOLIDATED		
	DEFERRED STRIPPING	PRE-PRODUCTION EXPENDITURE	TOTAL
2012	\$m	\$m	\$m
Movements in carrying amounts			
Cost			
At the beginning of the year	128.2	94.2	222.4
Additions	-	56.1	56.1
Acquisitions through business combinations	_	18.2	18.2
Deferrals	35.4	-	35.4
Net foreign currency differences on translation of foreign operations	-	(0.7)	(0.7)
Other movement	-	36.7	36.7
At the end of the year	163.6	204.5	368.1
Accumulated amortisation and impairment			
At the beginning of the year	_	(15.1)	(15.1)
Amortisation	(22.3)	(9.4)	(31.7)
Impairment loss	-	(3.4)	(3.4)
At the end of the year	(22.3)	(27.9)	(50.2)
Net carrying amount at 30 June 2012	141.3	176.6	317.9
2011			
Movements in carrying amounts			
Cost			
At the beginning of the year	108.6	73.7	182.3
Additions	_	8.3	8.3
Deferrals	26.3	-	26.3
Other movement	-	12.2	12.2
At the end of the year	134.9	94.2	229.1
Accumulated amortisation and impairment			
At the beginning of the year	-	(10.1)	(10.1)
Amortisation	(6.7)	(5.0)	(11.7)
At the end of the year	(6.7)	(15.1)	(21.8)
Net carrying amount at 30 June 2011	128.2	79.1	207.3

# 14. OTHER INTANGIBLES AND GOODWILL

					CONSOLIDATED				
	GOODWILL	SYSTEM DEVELOPMENT COSTS	CUSTOMER RELATIONSHIPS	SUPPLIER CONTRACTS	KNOW-HOW	BRAND NAMES	PATENTS	MINING TENEMENT RIGHTS	TOTAL
2012	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$'m	\$m
Movements in carrying amounts									
Cost									
At the beginning of the year	2,422.2	78.3	104.5	13.8	16.3	122.1	9.7	-	2,766.9
Acquisitions through business combinations	0.3	-	_	_	_	_	_	273.4	273.7
Additions	-	0.3	-	-	-	0.5	-	-	0.8
Disposals	(18.3)	-	_	-	-	-	-	-	(18.3)
Disposal groups and assets held for sale	-	(0.2)	_	_	-	_	-	-	(0.2)
Net foreign currency differences on translation of foreign operations	41.3	0.3	5.0	0.4	0.9	2.4	_	_	50.3
At the end of the year	2,445.5	78.7	109.5	14.2	17.2	125.0	9.7	273.4	3,073.2
Accumulated amortisation and impairment									
At the beginning of the year	-	(68.1)	(34.7)	(2.1)	(2.7)	(6.2)	(9.0)	-	(122.8)
Amortisation	-	(5.6)	(4.5)	(1.4)	(5.7)	-	(0.1)	-	(17.3)
Disposal groups and assets held for sale	-	0.2	_	_	-	_	_	-	0.2
Impairment	(94.2)	-	_	-	-	(4.6)	(0.5)	-	(99.3)
Net foreign currency differences on translation of foreign operations	_	(0.2)	(0.8)	(0.1)	(0.2)	(0.2)	_	(10.5)	(12.0)
At the end of the year	(94.2)	(73.7)	(40.0)	(3.6)	(8.6)	(11.0)	(9.6)	(10.5)	(251.2)
Net carrying amount at 30 June 2012	2,351.3	5.0	69.5	10.6	8.6	114.0	0.1	262.9	2,822.0

				CONSOLIE	ATED			
	GOODWILL	SYSTEM DEVELOPMENT COSTS	CUSTOMER RELATIONSHIPS	SUPPLIER CONTRACTS	KNOW-HOW	BRAND NAMES	PATENTS	TOTAL
2011	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Movements in carrying amounts								
Cost								
At the beginning of the year	1,973.9	76.8	29.8	10.1	-	78.5	9.7	2,178.8
Acquisitions through business combinations	537.0	0.3	76.4	3.9	17.1	45.3	-	680.0
Additions	_	3.0	_	-	-	-	-	3.0
Disposals	_	(2.4)	-	-	-	-	-	(2.4)
Net foreign currency differences on translation of foreign operations	(88.7)	0.6	(1.7)	(0.2)	(0.8)	(1.7)	_	(92.5)
At the end of the year	2,422.2	78.3	104.5	13.8	16.3	122.1	9.7	2,766.9
Accumulated amortisation and impairment								
At the beginning of the year	_	(64.2)	(28.7)	(1.5)	-	(6.2)	(8.2)	(108.8)
Amortisation	_	(5.9)	(4.0)	(0.4)	(2.4)	-	(0.7)	(13.4)
Disposals	_	2.4	_	-	-	-	-	2.4
Net foreign currency differences on translation of foreign operations	-	(0.4)	(2.0)	(0.2)	(0.3)	_	(0.1)	(3.0)
At the end of the year	_	(68.1)	(34.7)	(2.1)	(2.7)	(6.2)	(9.0)	(122.8)
Net carrying amount at 30 June 2011	2,422.2	10.2	69.8	11.7	13.6	115.9	0.7	2,644.1

CONICOLIDATED

279.5

12.2

2,422.2

45.9

115.9

325.4

12.2

2,538.1

#### **DESCRIPTION OF THE GROUP'S INTANGIBLE ASSETS**

#### Goodwill

After initial recognition, goodwill acquired in a business combination is measured at cost less any accumulated impairment losses. Goodwill is not amortised but is subject to impairment testing on an annual basis and whenever there is an indication of impairment.

# System development costs

System development costs are carried at cost less accumulated amortisation and impairment losses. These have been assessed as having a finite life and amortised on a straight-line basis. If an impairment indication arises, the recoverable amount is estimated and an impairment loss is recognised to the extent that the recoverable amount is lower than the carrying amount.

# Customer relationships, supplier contracts, know-how, patents and finite life brand names

These intangibles have been acquired through business combinations and are carried at cost less accumulated amortisation and impairment losses. These intangible assets have been determined to have finite lives. If an impairment indication arises, the recoverable amount is estimated and an impairment loss is recognised to the extent that the recoverable amount is lower than the carrying amount.

#### Indefinite life brand names

Included in Brand Names are indefinite life brand names with a carrying amount of \$114.0 million as at 30 June 2012 (2011: \$115.9 million). These brand names are core to the continuing operations of the Group and accordingly have been assessed as having an indefinite useful life as there is no foreseeable limit to the period over which the assets are expected to generate net cash inflows for the Group. Indefinite life brand names are carried at cost less accumulated impairment losses. These assets are subject to impairment testing on an annual basis and whenever there is an indication of impairment.

#### Mining tenement rights

Australian Distribution

New Zealand Distribution

Mining tenement rights acquired through business combinations are carried at cost less any accumulated impairment losses. These intangible assets are not amortised but are subject to impairment testing on an annual basis or whenever there is an indication of impairment.

Once production commences, the rights are transferred to mine development expenditure and amortisation charged based on the useful life of the mines to which the rights relates.

#### IMPAIRMENT TESTING OF GOODWILL AND INTANGIBLES WITH INDEFINITE USEFUL LIVES

### (a) Carrying amount of goodwill and intangibles with indefinite useful lives allocated to each of the cash generating units (CGUs)

For the purpose of impairment testing, goodwill and/or indefinite life intangibles have been allocated to the Group's CGUs/groups of CGUs which represent the lowest level within the Group at which they are monitored for internal management purposes.

The aggregate carrying value of goodwill and indefinite life brand names according to the operating segments are as follows:

		CONSOLIDATED				
2012	GOODWILL	INDEFINITE LIFE BRAND NAMES	TOTAL			
	\$m	\$m	\$m			
Recycling	333.5	_	333.5			
Manufacturing	533.0	21.8	554.8			
Mining Consumables	1,216.6	46.3	1,262.9			
Australian Distribution	255.8	45.9	301.7			
New Zealand Distribution	12.4	-	12.4			
	2,351.3	114.0	2,465.3			
		CONSOLIDATED				
2011	GOODWILL	INDEFINITE LIFE BRAND NAMES	TOTAL			
	\$m	\$m	\$m			
Recycling	325.2	-	325.2			
Manufacturing	621.8	26.4	648.2			
Mining Consumables	1,183.5	43.6	1,227.1			

# 14. OTHER INTANGIBLES AND GOODWILL CONTINUED

#### (b) Key assumptions used in value in use calculations

The recoverable amount of the CGUs/groups of CGUs to which goodwill and/or indefinite life brand names have been allocated has been determined based on a value in use calculation using the cash flow projections based on the five-year forecast approved by the Board. Cash flows beyond the five-year period are extrapolated using the estimated growth rates stated below.

CGU/GROUP OF CGUS	DISCOUNT RA	DISCOUNT RATE		
	2012 %	2011 %	2012 %	2011
Recycling	9.2	10.8	2.0	2.0
Manufacturing	9.6	11.6	2.0	2.0
Australian Distribution	10.5	14.2	2.0	2.0
Mining Consumables				
North Americas	8.5	8.3	2.0	2.0
South Americas	7.8	8.6	2.0	2.0
Australia	10.1	11.6	2.0	2.0
New Zealand Distribution	10.2	11.9	2.0	2.0

The calculation of value in use is most sensitive to the following assumptions:

- Discount rates
- Gross margins
- Raw materials price inflation
- Market conditions
- Growth rate used to extrapolate cash flows beyond the forecast period.

Discount rates - discount rates reflect management's estimate of the time value of money and the risks specific to each CGU/group of CGUs that are not already reflected in the cash flows. In determining appropriate discount rates for each unit, regard has been given to a weighted average cost of capital of the entity as a whole and adjusted for country and business risk specific to the unit. The Group has applied post-tax discount rates to discount the forecast future attributable post-tax cash flows. The equivalent pre-tax discount rates are disclosed above.

Gross margins - the basis used to determine the value assigned to the margins in the CGUs are the actual margins achieved, adjusted for efficiency improvement as well as movements in input costs and international steel prices in line with external sources of information.

Raw materials price inflation - values assigned to this key assumption are consistent with external sources of information except for Arrium owned mines, where the value assigned is in line with mining contracts and other cost escalators such as oil.

Market conditions - assumptions on key domestic market segment activity including construction, mining, agriculture and manufacturing are consistent with external sources of information. Assumptions including GDP, CPI and wages escalation are consistent with external sources of information. Long-term forecast AUD/USD and NZD exchange rates are used which are consistent with external sources of information.

Growth rate estimates - are based on published industry research and do not exceed the growth rate of the markets or country to which the CGUs/group of CGUs are dedicated.

### **SENSITIVITY TO CHANGES IN ASSUMPTIONS**

With regard to the assessment of the value in use of the CGUs, management believes that no reasonably possible change in any of the above key assumptions would cause the carrying value of the CGUs to exceed their recoverable amount.

# **15. OTHER ASSETS**

	CONSOLIDATED	)
	2012 \$m	2011 \$m
Current		
Other assets	11.8	19.7
	11.8	19.7
Non-current		
Defined benefit asset (Note 19)	27.8	14.1
	27.8	14.1

#### 16. PAYABLES

	CONSOLID	ATED
	2012 \$m	2011 \$m
Current		
Trade payables	907.2	881.5
Other payables	146.8	140.9
	1,054.0	1,022.4
Non-current		
Other payables	0.3	-
	0.3	_

Trade payables are non-interest bearing and are generally settled on 30 to 60 day terms. Other payables are non-interest bearing.

#### **FAIR VALUES**

Due to the short-term nature of these payables, their carrying amounts are assumed to approximate their fair values.

#### **FOREIGN EXCHANGE RISK**

The Group's exposure to foreign exchange risk related to trade and other payables is disclosed in Note 32.

#### 17. INTEREST-BEARING LIABILITIES

	CONSOLIDA	ATED
	2012 \$m	2011 \$m
Current		
Finance Lease (Note 25)	1.0	-
HRC Securitisation facility	-	3.4
Unsecured		
Bank loans	31.4	31.7
US Private placement - at amortised cost <sup>2</sup>	24.9	37.5
	57.3	72.6
Non-current		
Finance Lease (Note 25)	12.7	-
Unsecured		
Bank loans <sup>1</sup>	1,801.7	1,291.4
US Private placement - at fair value <sup>2,4,5</sup>	93.2	74.4
US Private placement - at amortised cost <sup>3,4,5,6</sup>	446.5	443.7
	2,354.1	1,809.5

- 1 Includes USD1.1 billion and CAD200 million debt designated as a hedge of the Group's net investment in its US and Canadian subsidiaries. Gains or losses on the translation of these loans are transferred to equity to offset any gains or losses on translation of the net investments in the subsidiaries. A loss on the hedge of the net investment of \$33.6 million (2011: nil) was recognised in equity for the period, net of tax. Ineffectiveness on the hedge of \$0.9 million (2011: nil) was recognised in the Income Statement during the year.
- 2 US Private Placement undertaken in April 2003 amounting USD60 million at 5.55% payable in April 2015. This has been hedged using a series of cross-currency interest rate swaps and accounted for as a fair value hedge refer to Notes 8 and 32.
- 3 US Private Placement debt recognised on acquisition of Smorgon Steel Group Limited in August 2007. This consists of USD25 million at 5.88% payable in June 2013; USD30 million at 6.08% payable in July 2014 and USD20 million at 6.08% payable in June 2015. USD40 million was repaid in July 2011.

  Of this balance, USD45 million (2011: USD85 million) has been hedged using a series of cross-currency interest rate swaps accounted for as a cash flow hedge refer to Notes 8 and 32
- 4 USD30 million of the US Private Placement recognised on acquisition of Smorgon Steel Group Limited in August 2007 has been designated as a hedge of the Group's net investment in US subsidiaries. Gains or losses on the translation of this debt are transferred to equity to offset any gains or losses on translation of the net investments in the subsidiaries. A gain on the hedge of the net investment of \$1.2 million (2011: loss of \$5.2 million) was recognised in equity for the period, net of tax. There has been no hedge ineffectiveness recognised in the Income Statement on this hedge.
  - For the year ended 30 June 2012, interest rate risk on the USD30 million has been hedged using an interest rate swap to receive a fixed interest rate of 3.0% semi-annually (2011: 3.0%) in USD and pay a floating rate of interest equal to LIBOR in USD on the notional amount quarterly. The underlying debt continues to be carried at amortised cost. The future interest payment cash flows, being the hedged item, are carried at fair value.
- 5 US Private Placement undertaken in July 2008 for USD200 million. This consists of USD50 million at 7.0% payable in July 2015, USD97 million at 7.3% payable in July 2018 and USD53 million at 7.4% payable in July 2020. Interest rate risk on the debt has been hedged using a series of interest rate swaps to receive an average fixed interest rate of 3.5% (2011: 3.5%) in USD and pay a floating rate of interest equal to LIBOR in USD on the notional amount quarterly. The underlying debt continues to be carried at amortised cost. The future interest payment cash flows, being the hedged item, are carried at fair value.
- 6 US Private Placement undertaken in June 2011 for USD200 million. This consists of USD50 million at 4.95% payable in June 2018, USD125 million at 5.61% payable in June 2021 and USD25 million at 5.71% payable in June 2023. In 2012, this debt was carried at amortised cost on the Balance Sheet and accounted as a net investment hedge refer to Notes 8 and 32.

At 30 June 2012, the fair value of US Private Placement debt carried at amortised cost on Balance Sheet is \$471.4 million (2011: \$482.2 million).

#### FAIR VALUES

Unless disclosed above, the carrying amount of the Group's current and non-current borrowings approximate their fair value. The fair values have been calculated by discounting the expected future cash flows at prevailing interest rates.

#### **RISK EXPOSURES**

Details of the Group's exposure to risks arising from current and non-current borrowings are set out in Note 32.

#### 18. PROVISIONS

	CONSOLIDATI	ED
	2012 \$m	2011 \$m
Current		
Employee benefits (Note 29)	277.2	265.3
Restoration and rehabilitation	16.4	11.2
Legal and customer claims	11.6	13.9
Restructuring	14.9	8.4
	320.1	298.8
Non-current		
Employee benefits (Note 29)	49.4	44.3
Defined benefit liability (Note 19)	45.0	43.4
Restoration and rehabilitation	141.0	118.0
Legal and customer claims	1.6	3.4
Restructuring	-	0.4
	237.0	209.5

		CONSOLIDATED			
	LEGAL AND CUSTOMER CLAIMS	RESTORATION AND REHABILITATION	RESTRUCTURING	TOTAL	
2012	\$m	\$m	\$m	\$m	
Movements in carrying amounts					
Carrying amount at the beginning of the year	17.3	129.2	8.8	155.3	
Business combinations	0.4	-	-	0.4	
Discontinued operations	(0.2)	(0.2)	(3.4)	(3.8)	
Additional amounts provided	11.3	37.3	38.0	86.6	
Reversal of unutilised amounts	(10.1)	(3.0)	(2.3)	(15.4)	
Utilised	(4.6)	(6.3)	(26.3)	(37.2)	
Net foreign currency differences on translation of foreign operations	(0.9)	(0.9)	0.1	(1.7)	
Unwinding of discount to present value	-	1.3	_	1.3	
Carrying amount at the end of the year	13.2	157.4	14.9	185.5	

## Provision for restoration and rehabilitation

Provision for restoration and rehabilitation comprise obligations relating to reclamation, site closure and other costs.

#### Provision for legal and customer claims

Provision for legal and customer claims relates to estimates of settlement of legal claims with regulators, customers and others for alleged liability and/or legal costs associated with such claims.

#### Provision for restructuring

Provision for restructuring comprised of obligations relating to redundancies from organisational changes and other direct expenditure associated with business restructures.

# 19. RETIREMENT BENEFIT OBLIGATIONS

The Arrium Group participates in a number of defined benefit and accumulation plans in Australia, New Zealand and Canada. The funds provide benefits either on a defined benefit or cash accumulation basis, for employees on retirement, resignation, disablement, or to their dependants on death.

#### **ACCUMULATION PLANS**

The benefits provided by accumulation funds are based on contributions and income thereon held by the fund on behalf of the member. Contributions are made by the member and the Company based on a percentage of the member's salary, as specified by the fund rules. These contributions are expensed in the period in which they are incurred. Contributions by the Group of 9% of employee's wages and salaries are legally enforceable in Australia.

#### **DEFINED BENEFIT PENSION PLANS**

#### **Australia**

The Group has two superannuation plans in Australia, one of which has defined benefit sections and defined contribution sections. The benefits provided by the defined benefit sections of the plan are based on the length of service of the member and the salary of the member at or near retirement. Member contributions, based on a percentage of salary, are specified by the fund rules. The defined benefit sections have been closed to new members since February 2011.

Employer contributions are made each month to the fund in accordance with the advice of the actuary to the fund, at levels deemed to be adequate to fund benefit payments in accordance with the fund's Trust Deed. These contributions are expensed in the period in which they are incurred.

#### Canada

The pension plans are defined benefit plans funded by employer contributions made in accordance with the most recent actuarial valuations for funding purposes. Of the three defined benefit plans in Canada, one of these representing around 5% (2011: 3%) of the liability is wholly unfunded. Contributions to this unfunded plan are made on a pay-as-you-go basis as benefits are paid.

The Group also operates a number of plans in Canada, which provide employees with post-employment benefits in respect of medical costs. These plans are unfunded. Contributions are made on a pay-as-you-go basis as benefits are paid.

The following tables summarise the components of the net defined benefit expense recognised in the Income Statement and the funded status and amounts recognised in the Balance Sheet for the respective plans.

	DEFINED BENEFIT PENSION PLANS		POST-EMPLOYMENT MEDICAL BENEFITS	
2012	AUSTRALIA \$m	CANADA \$m	CANADA \$m	
Net defined benefit expense				
Current service cost	12.8	2.1	0.7	
Interest cost on benefit obligation	13.6	6.8	1.8	
Expected return on plan assets	(22.2)	(7.4)	_	
Salary sacrifice contributions	3.8	-	_	
Effect of curtailments and settlements	0.9	-	-	
Net defined benefit expense	8.9	1.5	2.5	
Actual return on plan assets	3.3	3.6	_	
Defined benefit asset/(liability) included in the Balance Sheet				
Fair value of plan assets	299.3	112.1	_	
Present value of defined benefit obligation	(356.1)	(140.1)	(37.2)	
Deficit at the end of the year	(56.8)	(28.0)	(37.2)	
Net actuarial losses not yet recognised	84.6	16.2	4.0	
Net defined benefit asset - non-current (refer to Note 15)	27.8	-	_	
Net defined benefit liability - non-current (refer to Note 18)	-	(11.8)	(33.2)	

	DEFINED BENEFIT PENS	SION PLANS	POST-EMPLOYMENT MEDICAL BENEFITS	
2011	AUSTRALIA \$m	CANADA \$m	CANADA \$m	
Net defined benefit expense				
Current service cost	11.6	1.1	0.4	
Interest cost on benefit obligation	12.6	3.4	0.9	
Expected return on plan assets	(19.8)	(3.8)	-	
Salary sacrifice contributions	4.5	-	-	
Net defined benefit expense	8.9	0.7	1.3	
Actual return on plan assets	38.0	2.6		
Defined benefit asset/(liability) included in the Balance Sheet				
Fair value of plan assets	324.3	114.1	-	
Present value of defined benefit obligation	(333.5)	(126.5)	(31.9)	
Deficit at the end of the year	(9.2)	(12.4)	(31.9)	
Net actuarial losses not yet recognised	23.3	0.9	-	
Net defined benefit asset - non-current (refer to Note 15)	14.1	-		
Net defined benefit liability - non-current (refer to Note 18)	-	(11.5)	(31.9)	

The Group has no legal obligation to settle any defined benefit liability with an immediate contribution or additional one-off contributions.

# 19. RETIREMENT BENEFIT OBLIGATIONS CONTINUED

	DEFINED BENEF PENSION PLAN		POST-EMPLOYMENT MEDICAL BENEFITS	
2012	AUSTRALIA \$m	CANADA \$m	CANADA \$m	
Changes in the present value of the defined benefit obligation				
Opening defined benefit obligation	333.5	126.5	31.9	
Interest cost	12.8	6.8	1.8	
Current service cost	13.6	2.1	0.7	
Contributions by plan participants	4.4	-	-	
Benefits paid	(44.3)	(6.3)	(1.1)	
Settlements	(7.2)	-	-	
Actuarial (gains)/losses on obligation	43.3	11.4	4.0	
Net foreign exchange differences	-	(0.4)	(0.1)	
Closing defined benefit obligation	356.1	140.1	37.2	
Changes in the fair value of plan assets				
Opening fair value of plan assets	324.3	114.1	-	
Expected return	22.2	7.4	-	
Contributions by employer	22.6	1.0	1.1	
Contributions by plan participants	0.6	-	-	
Benefits paid	(44.3)	(6.3)	(1.1)	
Settlements	(7.2)	-	-	
Actuarial gains/(losses)	(18.9)	(3.8)	-	
Net foreign exchange differences	_	(0.3)	-	
Fair value of plan assets	299.3	112.1	_	

	DEFINED BENEF PENSION PLAN		POST-EMPLOYMENT MEDICAL BENEFITS	
2011	AUSTRALIA \$m	CANADA \$m	CANADA \$m	
Changes in the present value of the defined benefit obligation				
Opening defined benefit obligation	322.4	_	-	
Interest cost	12.6	3.4	0.9	
Current service cost	11.6	1.1	0.4	
Contributions by plan participants	5.2	-	-	
Benefits paid	(34.1)	(3.0)	(0.5)	
Business combinations	-	127.2	31.7	
Actuarial (gains)/losses on obligation	15.8	-	-	
Net foreign exchange differences	-	(2.2)	(0.6)	
Closing defined benefit obligation	333.5	126.5	31.9	
Changes in the fair value of plan assets				
Opening fair value of plan assets	298.6	_	-	
Expected return	19.8	3.8	-	
Contributions by employer	21.2	3.0	0.5	
Contributions by plan participants	0.6	-	-	
Benefits paid	(34.1)	(3.0)	(0.5)	
Business combinations	-	113.6	-	
Actuarial gains/(losses)	18.2	(1.3)	-	
Net foreign exchange differences	-	(2.0)	-	
Closing fair value of plan assets	324.3	114.1	-	

The major categories of plan assets as a percentage of the fair value of total plan assets are as follows:

	DEFINED BENEFIT PEN:	SION PLANS
2012	AUSTRALIA %	CANADA %
Equity instruments	57.5	63.1
Property	4.5	-
Debt instruments	23.0	35.1
Alternatives	15.0	1.8

	DEFINED BENEFIT PEN	SION PLANS
2011	AUSTRALIA %	CANADA %
Equity instruments	58.0	65.1
Property	6.0	-
Debt instruments	28.0	34.1
Alternatives	8.0	0.8

The expected rate of return on plan assets has been based on historical and future expectations of returns for each of the major categories of asset classes as well as the expected and actual allocation of plan assets to these major categories.

The principal actuarial assumptions used in determining defined benefit obligations for the Group's defined benefit plans are shown below:

2012 PRINCIPAL ACTUARIAL ASSUMPTION	DEFINED BENEFIT PENS	DEFINED BENEFIT PENSION PLANS	
	AUSTRALIA %	CANADA %	CANADA %
Discount rate	2.8	5.4	5.7
Expected rate of return on assets	6.3	6.6	N/A
Future salary increases	3.7	3.3	3.1
CPI inflation	2.2	N/A	N/A
Immediate healthcare trend rate	N/A	N/A	7.3
Ultimate healthcare trend rate	N/A	N/A	4.5

2011 PRINCIPAL ACTUARIAL ASSUMPTION	DEFINED BENE	DEFINED BENEFIT PENSION PLANS	
	AUSTRALI	A CANADA	
Discount rate	5.	L 5.4	5.7
Expected rate of return on assets	7.4	1 6.6	N/A
Future salary increases	4.7	3.3	3.1
CPI inflation	2.	N/A	N/A
Immediate healthcare trend rate	N/	N/A	7.4
Ultimate healthcare trend rate	N/A	N/A	4.5

Assumed healthcare cost trend rates have a significant effect on the amounts recognised in the Income Statement. A one percentage point change in assumed healthcare cost trend rates would have the following effects:

SENSITIVITY TO TREND ASSUMPTIONS	PO:	ST-EMPLOYMENT MEDI	CAL BENEFITS	
	VALUATION TREND	VALUATION TREND + 1% VAL		- 1%
	2012 \$m	2011 \$m	2012 \$m	2011 \$m
Effect on total service cost and interest cost components	0.5	0.3	(0.4)	(0.2)
Effect on post-employment benefit obligation for medical costs	6.6	5.2	(5.2)	(4.2)

## 19. RETIREMENT BENEFIT OBLIGATIONS CONTINUED

DECIMEL	) RENEFIT	DEVICION	DIVVIC

	AUSTRALIA					
	2012 \$m	2011 \$m	2010 \$m	2009 \$m	2008 \$m	2007 \$m
Historic summary						
Defined benefit plan obligation	(356.1)	(333.5)	(322.4)	(376.4)	(361.3)	(356.5)
Plan assets	299.3	324.3	298.6	303.8	348.4	393.7
Surplus/(Deficit)	(56.8)	(9.2)	(23.8)	(72.6)	(12.9)	37.2
Experience adjustments arising on plan liabilities	(14.1)	(17.3)	17.8	(2.5)	(29.6)	(9.3)
Experience adjustments arising on plan assets	18.9	18.2	23.6	(54.7)	(86.3)	33.9

	DEFINED BENEFIT PENS	DEFINED BENEFIT PENSION PLANS  CANADA		POST-EMPLOYMENT MEDICAL BENEFITS  CANADA	
	CANADA				
	2012 \$m	2011 \$m	2012 \$m	2011 \$m	
Historic summary					
Defined benefit plan obligation	(140.1)	(126.5)	(37.2)	(31.9)	
Plan assets	112.1	114.1	-	-	
Surplus/(Deficit)	(28.0)	(12.4)	(37.2)	(31.9)	
Experience adjustments arising on plan liabilities	(1.1)	-	-	-	
Experience adjustments arising on plan assets	-	(1.3)	-	-	

#### Employer contributions - Australia

Excluding salary sacrifice contributions, the Group intends to continue to contribute to the defined benefit sections of the plan at a rate of at least 13.5% (2011: 13.5%) of superannuation salaries, in line with the actuary's latest recommendations.

The Group also intends to contribute the additional "top-up" contributions to the Arrium Superannuation Fund to fund the current funding deficit as instructed by the Fund actuary from time to time.

Total employer contributions excluding any additional "top-up" contributions expected to be paid by the Group in respect of defined benefit sections for the year ending 30 June 2013 are \$8.5 million (2012: \$8.9 million).

#### Employer contributions - Canada

Total employer contributions to pension and post-employment medical plans in Canada expected to be paid for the year ending 30 June 2013 are \$10.9 million (2012: \$2.2 million).

## **20. CONTRIBUTED EQUITY**

	CONSOLIDA	TED
	2012 \$m	2011 \$m
Contributed equity		
Issued capital (a)	3,796.5	3,787.2
Employee compensation shares (b)	(25.6)	(25.6)
Total contributed equity	3,770.9	3,761.6
(a) Issued capital		
Number of ordinary shares: 1,345,665,626 (2011: 1,338,106,652)		
Issued and paid-up	3,796.5	3,787.2
(b) Employee compensation shares		
Number of ordinary shares: 6,283,917 (2011: 6,283,917)		
Shares held in trust under equity-based compensation arrangements	(25.6)	(25.6)

	NUMBER OF ORDINARY SHARES		VALUE OF ORDINARY	SHARES
	2012	2011	2012 \$m	2011 \$m
Movement in issued capital for the period				
On issue at the beginning of the year	1,338,106,652	1,331,583,166	3,787.2	3,769.6
Shares issued on the exercise of options <sup>1</sup>	-	160,500	-	0.2
Shares issued under a dividend reinvestment plan <sup>2</sup>	7,558,974	6,362,986	9.3	17.4
On issue at the end of the year	1,345,665,626	1,338,106,652	3,796.5	3,787.2
Movements in employee compensation shares for the period				
Held in trust at the beginning of the year	(6,283,917)	(3,856,030)	(25.6)	(18.5)
Shares vested and transferred to share-based payments reserve (Note 22)	-	14,579	_	_
Shares purchased on-market	-	(2,442,466)	-	(7.1)
Held in trust at the end of the year	(6,283,917)	(6,283,917)	(25.6)	(25.6)

<sup>1</sup> Issued from the exercise of options under the Long-Term Incentive Plan (refer Note 29).

#### Terms and conditions of contributed equity

Ordinary shares have the right to receive dividends as declared and, in the event of winding up of the Company, to participate in the proceeds from the sale of all surplus assets in proportion to the number of and amounts paid on shares held.

Ordinary shares entitle their holder to one vote, either in person or by proxy, at a meeting of the Company.

# 21. RETAINED EARNINGS

	CONSOLIDATI	ED
	2012 \$m	2011 \$m
At the beginning of the year	770.7	700.4
Net profit	57.7	230.3
Dividends paid (Note 23)	(93.8)	(160.0)
At the end of the year	734.6	770.7

# 22. RESERVES

	CONSOLIDATE	ED
	2012 \$m	2011 \$m
Foreign currency translation reserve	(88.2)	(104.2)
Cash flow hedge reserve	0.4	2.9
Share-based payments reserve	19.3	13.0
Asset revaluation reserve	1.8	1.8
	(66.7)	(86.5)
(A) FOREIGN CURRENCY TRANSLATION RESERVE		
At the beginning of the year	(104.2)	(29.5)
Net investment hedges	(23.5)	16.6
Exchange fluctuations on overseas net assets	39.5	(91.3)
At the end of the year	(88.2)	(104.2)

<sup>2</sup> The dividend reinvestment plan provides shareholders with an opportunity to acquire additional ordinary shares of Arrium Limited in lieu of cash dividends. Shares were issued at \$1.27 (October 2011) and \$1.18 (April 2012).

# 22. RESERVES CONTINUED

	CONSOLIDATE	)
	2012 \$m	2011 \$m
(B) CASH FLOW HEDGE RESERVE		
At the beginning of the year	2.9	0.4
(Losses)/Gains taken to Equity	(13.4)	3.5
Transferred to finance costs	7.6	(5.4)
Transferred to initial carrying amount of hedged items on Balance Sheet	3.3	4.4
At the end of the year	0.4	2.9
(C) SHARE-BASED PAYMENTS RESERVE		
At the beginning of the year	13.0	8.3
Expense recognised	6.3	4.7
Transferred from Employee Compensation Shares (Note 20)	-	-
At the end of the year	19.3	13.0
(D) ASSET REVALUATION RESERVE		
At the beginning of the year	1.8	1.8
At the end of the year	1.8	1.8

#### **NATURE AND PURPOSE OF RESERVES**

#### Foreign currency translation reserve

The foreign currency translation reserve is used to record exchange differences arising from the translation of the financial statements of foreign subsidiaries and the effective portion of the gain or loss on net investment hedges.

#### Cash flow hedge reserve

The cash flow hedge reserve is used to record the effective portion of the gain or loss on hedge instruments and the underlying hedged item in designated cash flow hedges relationships.

#### Share-based payments reserve

The share-based payments reserve is used to record the value of equity-based compensation provided to employees and senior executives as part of their remuneration. Refer to Note 29 for further details of these plans.

#### Asset revaluation reserve

The asset revaluation reserve relates to the revaluation of the pre-acquisition carrying amounts of intangible assets acquired through business combinations, to their fair values.

## 23. DIVIDENDS

The following dividends have been paid, declared or recommended since the end of the preceding financial year:

	ON ORDINARY SHARES	DIVIDEND PER ORDINARY SHARE
	\$m	CENTS
2012		
Interim dividend for 2012, paid 19 April 2012	40.3	3.0
Final dividend for 2011, paid on 13 October 2011	53.5	4.0
	93.8	7.0
2011		
Interim dividend for 2011, paid 14 April 2011	80.1	6.0
Final dividend for 2010, paid on 14 October 2010	79.9	6.0
	160.0	12.0

#### **DIVIDENDS NOT RECOGNISED AT YEAR END**

In addition to the above dividends, since year end the Directors have recommended the payment of a final dividend of 3.0 cents per fully paid ordinary share (2011: 4.0 cents). The aggregate amount of the proposed dividend expected to be paid on 18 October 2012 but not recognised as a liability at year end is \$40.4 million (2011: \$53.5 million).

#### **DIVIDEND FRANKING**

	PARENT	PARENT	
	2012 \$m	2011 \$m	
The amount of franking credits available for the subsequent financial year based on tax rate at 30% (2011: 30%)	-	0.7	

The balance of the franking account at year end has been adjusted for franking credits arising from the payment of provision for income tax and dividends recognised as receivables, franking debits arising from the payment of proposed franked dividends and franking credits that may be prevented from distribution in subsequent financial years.

## 24. NOTES TO THE CASH FLOW STATEMENT

#### (A) RECONCILIATION TO CASH FLOW STATEMENT

Cash at balance date as shown in the Cash Flow Statement is reconciled to the related items in the Balance Sheet as follows:

	CONSOLIDATE	D
	2012 \$m	2011 \$m
Cash and cash equivalents	268.1	153.7
Cash and cash equivalents attributable to discontinued operations (Note 34)	3.6	-
	271.7	153.7
At call bank loan	(2.0)	-
	269.7	153.7
(B) RECONCILIATION OF PROFIT AFTER TAX TO NET CASH FLOWS FROM OPERATING ACTIVITIES:		
Profit after tax	63.6	237.5
Adjusted for non-cash items		
Depreciation and amortisation	220.8	213.5
Impairment of plant and equipment and intangible assets	142.2	2.2
Net gains on disposal of property, plant and equipment	(8.9)	(1.1)
Net gain on disposal of business	(3.1)	-
Share of net profit of investments accounted for using the equity method	(1.0)	(2.6)
Net fair value change on derivative financial instruments	(4.4)	1.0
Unrealised foreign exchange losses/(gains)	19.8	(25.8)
Share-based payment expense	6.5	4.6
Finance costs	8.8	7.1
Changes in assets and liabilities net of effects of purchase and sale of controlled entities and business		
Decrease/(Increase) in receivables	(68.2)	(2.4)
Decrease/(Increase) in inventories	113.4	(44.7)
Decrease/(Increase) in deferred tax balances	(26.1)	12.0
Decrease/(Increase) in other assets	(9.1)	(27.8)
(Decrease)/Increase in tax provisions	(57.7)	9.5
(Decrease)/Increase in payables	47.1	81.7
(Decrease)/Increase in provisions	26.4	(1.6)
Net cash flow from operating activities	470.1	463.1

## (C) NON-CASH INVESTING AND FINANCING ACTIVITIES

During the year, plant and equipment amounting \$14.1 million were acquired by means of finance lease (refer Note 12) and dividends of \$9.3 million (2011: \$17.4 million) were satisfied via the issue of shares under a dividend reinvestment plan (refer Note 20).

#### (D) FAIR VALUES

The carrying amount of the Group's cash and cash equivalents approximate their fair value.

## **25. COMMITMENTS**

## (A) CAPITAL COMMITMENTS

During the year ended 30 June 2012, the Group entered into contracts to purchase property, plant and equipment for \$161.4 million (2011: \$67.3 million).

#### **(B) OPERATING LEASE COMMITMENTS**

The Arrium Group has entered into various non-cancellable operating leases on property, plant and equipment. The leases have varying terms, escalation clauses and renewal rights. On renewal, the terms of the leases are renegotiated.

The Group also leases various plant and machinery under cancellable operating leases.

Future minimum rentals payable under non-cancellable operating leases as at 30 June are follows:

	CONSOLID	CONSOLIDATED	
	2012 \$m	2011 \$m	
Within one year	82.4	74.7	
After one year but not more than five years	173.7	157.8	
Longer than five years	41.3	48.9	
Total operating lease commitments	297.4	281.4	

#### 25. COMMITMENTS CONTINUED

#### (C) FINANCE LEASE COMMITMENTS

The Group has finance leases for plant and machinery.

Commitments in relation to finance leases are payable as follows:

	CONSOLIDATED			
		2012 \$m		2011 \$m
	MINIMUM PAYMENTS	PRESENT VALUE OF PAYMENTS	MINIMUM PAYMENTS	PRESENT VALUE OF PAYMENTS
Within one year	1.9	1.9	_	-
After one year but not more than five years	7.8	6.3	-	-
Longer than five years	9.1	5.5	-	-
Total operating lease commitments	18.8	13.7	_	_
Less: Amounts representing finance charges	(5.1)	-	-	_
Present value of minimum lease repayments	13.7	13.7	-	_

#### **26. CONTINGENCIES**

#### **CONTINGENT LIABILITIES**

Contingent liabilities at the balance date not otherwise provided for in the financial statements are categorised as follows:

	CONS	CONSOLIDATED	
	201 <i>i</i> \$n		
Guarantees and indemnities			
Bank guarantees covering:			
Workers' compensation self-insurance licences <sup>1</sup>	48.9	50.6	
Performance of contracts	46.7	7 45.6	

In Australia, Arrium Limited has given guarantees to various state workers' compensation authorities as a pre-requisite for self-insurance. Of this amount, a total of \$36.2 million (2011: \$32.3 million) has been provided for in the consolidated financial statements as recommended by independent actuarial advice.

#### Third party claims

The Group has been involved from time to time in various claims and lawsuits incidental to the ordinary course of business, including claims for damages and commercial disputes relating to its business, products or services. Based on legal advice obtained, other than amounts already provided for in the accounts, the Directors do not expect any material liability to eventuate.

#### **Taxation**

From time to time, the Company is subject to information requests, reviews, audits and investigations by tax authorities in the various jurisdictions in which the Group operates, including the Australian Taxation Office (ATO). These include a current audit by the ATO in relation to a sale and leaseback transaction entered into in 2004. As at the date of this report, no amended assessments have been issued by the ATO and no liability has been recognised in the Company's financial statements, in relation to this transaction.

## **27. CONTROLLED ENTITIES**

The consolidated financial statements at 30 June 2012 include the following controlled entities:

			% OF SHARES H	HELD
ENTITY	NOTES	COUNTRY OF INCORPORATION	2012	2011
Arrium Limited	(a)	Australia		
A.B. Metal Pty Limited	(d)	Australia	-	100.0
A.C.N. 006 769 035 Pty Ltd		Australia	100.0	100.0
A.C.N. 124 092 173 Pty Ltd	(d)	Australia	-	100.0
A.T. Pty Ltd	(d)	Australia	-	100.0
Akkord Pty Limited		Australia	100.0	100.0
Alta Steel Chile S.A.	(c)	Chile	100.0	100.0
AltaSteel Ltd.	(c)	Canada	100.0	100.0
ANI Australia Pty Limited	(d)	Australia	-	100.0
ANI Construction (W.A.) Pty Ltd		Australia	100.0	100.0
ANI Finance (UK) Ltd		United Kingdom	100.0	100.0
ANI Mineral Processing, LLC		USA	100.0	100.0
ANI Mining Services Pty Ltd	(d)	Australia	-	100.0
ANI Monosteel Pty Limited	(e)	Australia	100.0	100.0
ANI Xatal Pty Ltd	(d)	Australia	-	100.0
Aquila Steel Company Pty Ltd	(d)	Australia	-	100.0
Arnall's Engineering Pty Ltd	(d)	Australia	-	100.0
Arrium Finance Pty. Limited	(b)	Australia	100.0	100.0

			% OF SHARES H	IELD
ENTITY	NOTES	COUNTRY OF INCORPORATION	2012	2011
Arrium Iron Ore Holdings Pty Limited	(b)	Australia	100.0	-
Ashland Investments Pty Ltd	(d)	Australia	-	100.0
Atlas Group Employees Superannuation Fund Pty Ltd		Australia	100.0	100.0
Atlas Group Staff Superannuation Fund Pty Ltd		Australia	100.0	100.0
Atlas Group Superannuation Plan Pty Ltd		Australia	100.0	100.0
Austral Steel Holdings Pty Limited	(d)	Australia	-	100.0
Australian National Industries Pty Ltd		Australia	100.0	100.0
Australian Tube Mills Pty Limited	(b)	Australia	100.0	100.0
Australian Wire Industries Pty Ltd		Australia	100.0	100.0
AWI Holdings Pty Limited		Australia	100.0	100.0
B.G.J. Holdings Proprietary Limited		Australia	100.0	100.0
Banana Coast Recyclers Pty Limited	(d)	Australia	-	100.0
Bradken Consolidated Pty Limited		Australia	100.0	100.0
Central Iron Pty Ltd		Australia	100.0	-
Certified Roofing Specialists Limited	(d)	New Zealand	-	50.3
Cockatoo Dockyard Pty Limited		Australia	100.0	100.0
Commonwealth Steel Company Pty Limited		Australia	100.0	100.0
Comsteel Pty. Limited		Australia	100.0	100.0
Coober Pedy Resources Pty Ltd		Australia	100.0	-
Dane Taylor Holdings Proprietary Limited	(d)	Australia	-	100.0
David Crozier Limited		New Zealand	50.3	50.3
E. & G. Products Pty Limited	(d)	Australia	-	100.0
E. & G. Steel Pty Ltd	(d)	Australia	-	100.0
Eagle & Globe Pty Limited		Australia	100.0	100.0
Email Accumulation Superannuation Pty Ltd		Australia	100.0	100.0
Email Executive Superannuation Pty Ltd		Australia	100.0	100.0
Email Holdings Pty Limited		Australia	100.0	100.0
Email Management Superannuation Pty Ltd		Australia	100.0	100.0
Email Metals Pty Ltd		Australia	100.0	100.0
Email Pty Ltd		Australia	100.0	100.0
Email Superannuation Pty Limited		Australia	100.0	100.0
EMCO Group Limited	(d)	New Zealand	-	50.3
EMCO Group Superannuation Ltd	(d)	New Zealand	-	50.3
Emwest Holdings Pty Ltd		Australia	100.0	100.0
Emwest Properties Pty Limited		Australia	100.0	100.0
Fagersta Australia Pty Ltd	(b)	Australia	100.0	100.0
Fagersta Steels Pty Ltd	(b)	Australia	100.0	100.0
GCG (JB) Sdn Bhd		Malaysia	100.0	100.0
GSF Management Pty Limited	(-)	Australia	100.0	100.0
GST Philippines Inc.	(C)	Philippines	100.0	100.0
Helix Cables International Pty Ltd	(d)	Australia	100.0	100.0
HP Metal Recycling (HK) Limited		Hong Kong	100.0	100.0
HP Metal Recycling Inc.		Philippines	100.0	100.0
HPR Industrial (JB) Sdn Bhd Inversiones Moly-Cop S.A.	(c)	Malaysia Chile	100.0	100.0
Investment Acceptance Pty Ltd	(c)	Australia	100.0	100.0
J Murray-More (Holdings) Pty Ltd	(u)	Australia	100.0	100.0
John McGrath (QP) Pty Limited	(d)	Australia	100.0	100.0 100.0
John McGrath Pty Ltd	(u)	Australia	100.0	100.0
Kelvinator Australia Pty Ltd		Australia	100.0	100.0
Linstar Holdings Sdn Bhd		Malaysia	100.0	100.0
Litesteel Products Pty Ltd		Australia	100.0	100.0
Litesteel Technologies America, LLC		USA	100.0	100.0
Litesteel Technologies Pty Ltd	(b)	Australia	100.0	100.0
M.I. Steel (N.S.W.) Pty Limited	(d)	Australia	-	100.0
M.I. Steel (Qld) Pty. Ltd.	(d)	Australia	_	100.0
M.I. Steel (Sydney) Pty. Limited	(d)	Australia	_	100.0
M.I. Steel (Tas) Pty. Limited	(d)	Australia	_	100.0
	(ω)	,		100.0

# 27. CONTROLLED ENTITIES CONTINUED

			% OF SHARES H	ELD
ENTITY	NOTES	COUNTRY OF INCORPORATION	2012	2011
M.I. Steel (Vic) Pty Limited	(d)	Australia	-	100.0
Maple Leaf Metals (A Partnership)	(c)	Canada	100.0	100.0
M-Asia Enterprise (KL) Sdn Bhd		Malaysia	100.0	100.0
Metals Properties Pty Ltd		Australia	100.0	100.0
Metalstores Pty Limited		Australia	100.0	100.0
Metpol Pty Ltd		Australia	100.0	100.0
Mittagong Engineering Pty Ltd	(d)	Australia	_	100.0
Moly-Cop Adesur S. A.	(c)	Peru	94.1	94.1
Moly-Cop Canada (A Partnership)	(c)	Canada	100.0	100.0
Moly-Cop Chile S. A.	(c)	Chile	100.0	100.0
Moly-Cop Group	(c)	Luxembourg	100.0	100.0
Moly-Cop Mexico S.A de C.V.	(c)	Mexico	100.0	100.0
Moly-Cop Peru S.A.C.	(c)	Peru	100.0	100.0
MolyCop Steel Inc.	(c)	Canada	100.0	100.0
Moly-Cop USA LLC	(c)	United States	100.0	100.0
N.K.S. (Holdings) Proprietary Limited		Australia	100.0	100.0
National Valve and Engineering Company Proprietary Limited	(d)	Australia	_	100.0
Northern Service Supplies Pty Ltd	(d)	Australia	_	100.0
NZMC Limited	(d)	New Zealand	_	50.3
O Dee Gee Co. Pty. Ltd.		Australia	100.0	100.0
OneSteel Americas Holdings Pty Limited	(b)	Australia	100.0	100.0
OneSteel Asia Limited	(-)	Hong Kong	100.0	100.0
OneSteel Australian Tube Mills Pty Limited	(b)	Australia	100.0	100.0
OneSteel Building Supplies Pty Limited	(2)	Australia	100.0	100.0
OneSteel Coil Coaters Pty Ltd	(b)	Australia	100.0	100.0
OneSteel Group (US Holdings) Inc.	(2)	USA	100.0	100.0
OneSteel Insurance Pte Ltd		Singapore	100.0	100.0
OneSteel Investments Pty Limited	(d)	Australia	-	100.0
OneSteel Manufacturing Pty Limited	(b)	Australia	100.0	100.0
OneSteel MBS Pty Limited	(b)	Australia	100.0	100.0
OneSteel NSW Pty Limited	(b)	Australia	100.0	100.0
OneSteel NZ Holdings Limited	(5)	New Zealand	100.0	100.0
OneSteel NZ Limited		New Zealand	100.0	100.0
OneSteel Queensland Pty Limited		Australia	100.0	100.0
OneSteel Recycling (Fiji) Limited		Fiji	100.0	100.0
OneSteel Recycling (PNG) Limited		PNG	100.0	100.0
OneSteel Recycling Asia Limited		Hong Kong	100.0	100.0
OneSteel Recycling Holdings Pty Ltd	(b)	Australia	100.0	100.0
OneSteel Recycling Hong Kong Limited	(b)	Hong Kong	100.0	100.0
OneSteel Recycling NZ Limited		New Zealand	100.0	100.0
OneSteel Recycling Overseas Pty Limited	(b)	Australia	100.0	100.0
OneSteel Recycling Pty Limited	(b)	Australia	100.0	100.0
OneSteel Recycling, Inc.	(b)	USA	100.0	100.0
OneSteel Reinforcing Pty Limited	(b)	Australia	100.0	100.0
OneSteel Technologies Pty Limited	(D)	Australia	100.0	100.0
OneSteel Trading Pty Limited	(b)	Australia	100.0	100.0
OneSteel UK Holdings Limited	(b)	United Kingdom	100.0	100.0
OneSteel US Investments	(c)			
OneSteel US Investments 1 Pty Ltd	(6)	USA	100.0	100.0
•	(b)	Australia	100.0	100.0
OneSteel US Investments 2 Pty Ltd OneSteel Victoria Pty Ltd	(4)	Australia	100.0	100.0
•	(d)	Australia	100.0	100.0
OneSteel Wire Pty Limited	(b)	Australia	100.0	100.0
Overseas Corporation (Australia) Pty Ltd		Australia	100.0	100.0
P & T Tube Mills Pty Ltd	(b)	Australia	100.0	100.0
Palmer Tube Mills (NZ) Limited		New Zealand	100.0	100.0
Palmer Tube Mills Pty Limited	(b)	Australia	100.0	100.0
Pipeline Supplies of Australia Pty Limited		Australia	100.0	100.0
PT Commonwealth Steel Indonesia		Indonesia	100.0	100.0

			% OF SHARES I	HELD
ENTITY	NOTES	COUNTRY OF INCORPORATION	2012	2011
QMR, Inc.		Philippines	100.0	100.0
Reosteel Pty. Ltd.		Australia	100.0	100.0
Roentgen Ray Pty Ltd		Australia	100.0	100.0
Servicios Moly-Cop S.A de C.V.	(c)	Mexico	100.0	100.0
Somerville Rehabilitation Services Pty. Ltd.	(d)	Australia	_	100.0
Southern Iron Pty Ltd	(b)	Australia	100.0	-
SSG Investments Pty Ltd		Australia	100.0	100.0
SSG No.2 Pty Ltd		Australia	100.0	100.0
SSG No.3 Pty Ltd		Australia	100.0	100.0
SSGL Share Plan Nominees Pty Ltd		Australia	100.0	100.0
SSX Acquisitions Pty Limited	(b)	Australia	100.0	100.0
SSX Employees Superannuation Fund Pty Ltd		Australia	100.0	100.0
SSX Holdings Pty Limited		Australia	100.0	100.0
SSX International Pty Limited	(b)	Australia	100.0	100.0
SSX Pty Limited	(b)	Australia	100.0	100.0
SSX Recycling New Zealand Pty Ltd	(d)	Australia	_	100.0
SSX Retirement Fund Pty Ltd		Australia	100.0	100.0
SSX Services Pty Limited	(b)	Australia	100.0	100.0
SSX Singapore Pte. Ltd.	(d)	Singapore	_	100.0
SSX Staff Superannuation Fund Pty Ltd		Australia	100.0	100.0
Steel & Tube Holdings Limited		New Zealand	50.3	50.3
Steel & Tube New Zealand Limited		New Zealand	50.3	50.3
Steelmark Properties Pty Ltd	(d)	Australia	_	100.0
Stube Industries Limited	ν/	New Zealand	50.3	50.3
Tasco Superannuation Management Pty Ltd		Australia	100.0	100.0
Thai Metal Recycling Limited		Thailand	100.0	100.0
The ANI Corporation Pty Limited		Australia	100.0	100.0
The Australian Steel Company (Operations) Pty Ltd	(b)	Australia	100.0	100.0
Titan Mining & Engineering Pty. Ltd.	(d)	Australia	_	100.0
TMR Loha Holdings Limited	(4)	Thailand	100.0	100.0
Tube Estates Pty Ltd		Australia	100.0	100.0
Tube Street Pty Ltd		Australia	100.0	100.0
Tube Technology Pty Ltd		Australia	100.0	100.0
Tubemakers of Australia Pty Limited		Australia	100.0	100.0
Tubemakers Somerton Pty Limited		Australia	100.0	100.0
W.A. Mining Engineering Services Pty Ltd	(d)	Australia	-	100.0
Wembley Insurance Pte Ltd	(u)	Singapore	100.0	100.0
Western Consolidated Industries Pty Ltd		Australia	100.0	100.0
Whyalla Ports Pty Ltd	(b)	Australia	100.0	100.0
X.C.E. Pty Ltd	(b)	Australia	100.0	100.0
X.C.H. Pty Ltd	(d)	Australia	-	100.0
X.D.I.R. Pty. Limited	(d)	Australia	_	100.0
X.M.A.L. Pty. Limited	(d)	Australia	_	100.0
X.P. Pty. Limited	(d)	Australia	_	100.0
XEM (Aust) Pty Limited	(u)	Australia	100.0	100.0
XLA Pty Ltd		Australia	100.0	100.0
XLL Pty Ltd		Australia	100.0	100.0
XMS Holdings Pty Limited	(h)	Australia	100.0	
Zinctek Pty Ltd	(b)	Australia	100.0	100.0
ZINCLEN FLY LLU		Australid	100.0	100.0

<sup>(</sup>a) Arrium Limited (previously OneSteel Limited) is a public company limited by shares, incorporated and domiciled in Australia. The registered office is c/- Company Secretary, Arrium Limited, Level 40, 259 George St, Sydney NSW 2000, Australia.

The financial years of all controlled entities with the exception of Wembley Insurance Pte Ltd (balance date 31 March) and (c) above are the same as that of the parent entity, Arrium Limited.

<sup>(</sup>b) These entities are party to a Deed of Cross Guarantee or Assumption Deed (Deeds) with Arrium Limited pursuant to ASIC Class Order 98/1418 and are, as at the date of execution of the Deeds, eligible for the benefit of the individual class order.

<sup>(</sup>c) Balance date 31 December.

<sup>(</sup>d) These companies are deregistered.

<sup>(</sup>e) These companies are in liquidation.

# 27. CONTROLLED ENTITIES CONTINUED

# **DEED OF CROSS GUARANTEE**

Financial information for the class order closed group:

	CLOSED GR	OUP
	2012 \$m	2011 \$m
Income Statement		
Sales revenue	5,283.4	5,184.7
Cost of sales	(4,322.7)	(3,818.6)
Gross profit	960.7	1,366.1
Other revenue	127.8	26.0
Other income	35.6	38.6
Operating expenses	(904.7)	(1,149.9)
Finance costs	(107.3)	(91.8)
Share of net loss of investments accounted for using the equity method	(0.1)	(0.2)
Profit before income tax	112.0	188.8
Income tax expense/(benefit)	45.7	(50.2)
Profit after tax from continuing operations	157.7	138.6
Net loss from discontinued operations, after tax	(129.8)	(6.9)
Profit after tax	27.9	131.7
Statement of comprehensive income		
Profit after tax	27.9	131.7
Other comprehensive income	21.9	131.1
Cash flow hedges:		
- net (losses)/gains taken to equity	(13.4)	3.9
- transferred to profit	7.6	(5.4)
- transferred to profit - transferred to initial carrying amount of hedged items	3.3	4.4
Currency translation differences:	3.3	4.4
- net investment hedges	(23.5)	16.6
- exchange fluctuations on overseas net assets	26.0	0.1
Other comprehensive income for the year, net of tax		19.6
Total comprehensive income for the year	27.9	151.3
Summary of movements in consolidated retained earnings		
Retained earnings at the beginning of the financial year	307.0	335.3
Net profit	27.9	131.7
Dividends provided for or paid	(93.8)	(160.0)
Retained earnings at the end of the year	241.1	307.0
Balance Sheet		
Current assets		
Cash and cash equivalents	143.6	71.4
Receivables	777.1	704.5
Derivative financial instruments	11.4	2.9
Inventories	1,099.9	1,234.0
Tax assets	18.8	_
Other assets	7.9	10.4
Disposal groups and assets held for sale	16.1	_
Total current assets	2,074.8	2,023.2
Non-current assets	•	<u> </u>
Derivative financial instruments	27.4	12.7
Other financial assets	1,365.9	1,412.6
Property, plant and equipment	2,171.5	1,989.5
Mine development expenditure	317.6	207.3
Other intangibles and goodwill	1,963.2	1,839.5
Deferred tax assets	275.8	157.7
Other assets	27.7	14.0
Total non-current assets	6,149.1	5,633.3
TOTAL ASSETS	8,223.9	7,656.5

Current liabilities Payables Derivative financial instruments Interest-bearing liabilities	2012 \$m 815.4 20.8 421.0	2011 \$m 810.3 30.5 394.8
Payables Derivative financial instruments Interest-bearing liabilities	20.8	30.5
Derivative financial instruments Interest-bearing liabilities	20.8	30.5
Interest-bearing liabilities		
	421.0	30/1 8
		374.0
Tax liabilities	_	32.7
Provisions	281.6	255.7
Disposal groups and liabilities held for sale	3.0	-
Total current liabilities	1,541.8	1,524.0
Non-current liabilities		
Derivative financial instruments	57.1	72.3
Interest-bearing liabilities	2,102.2	1,610.3
Deferred tax liabilities	354.7	257.6
Provisions	108.0	82.3
Total non-current liabilities	2,622.0	2,022.5
TOTAL LIABILITIES	4,163.8	3,546.5
NET ASSETS	4,060.1	4,110.0
Equity		
Contributed equity	3,770.9	3,761.6
Retained earnings	241.1	307.0
Reserves	48.1	41.4
TOTAL EQUITY	4,060.1	4,110.0

# **28. RELATED PARTY DISCLOSURES**

## (A) TRANSACTIONS WITH RELATED PARTIES IN THE WHOLLY-OWNED GROUP

Throughout the year, the parent entity, Arrium Limited, entered into the following transactions with members of the wholly-owned group:

- Loans were received
- Interest was paid
- Dividends were received
- Tax related transactions occurred within the tax consolidated group.

#### (B) TRANSACTIONS WITH JOINTLY CONTROLLED ENTITY

	CONSOLIDATE	)
TRANSACTION TYPE	2012 \$m	2011 \$m
Product sales to jointly controlled entity	2.7	6.0
Product purchases from jointly controlled entity	16.3	0.9
Dividends received from jointly controlled entities	-	0.5
Repayment of loan (from)/loan to jointly controlled entity	0.3	(1.0)
Amounts receivable from jointly controlled entity	0.2	2.4
Amounts payable from jointly controlled entity	2.0	-

These transactions were undertaken on commercial terms and conditions.

#### (C) TRANSACTIONS WITH ASSOCIATE

	CONSOLIDATED	
TRANSACTION TYPE	2012 \$m	2011 \$m
Product sales to associate	9.3	0.4
Product purchases from associate	7.6	-
Amounts receivable from associate	0.7	0.2

#### (D) ULTIMATE CONTROLLING ENTITY

The ultimate controlling entity of the Arrium Group is Arrium Limited.

#### 29. EMPLOYEE BENEFITS

	CONSOLIDA	CONSOLIDATED	
	2012 NUMBER	2011 NUMBER	
Employees as at 30 June	11,007	11,598	
	\$m	\$m	
The aggregate employee benefit liability is comprised of:			
Provisions (current)	277.2	265.3	
Provisions (excluding defined benefit liability) (non-current)	49.4	44.3	
Total employee benefit liabilities	326.6	309.6	

#### (A) SELF-INSURED WORKERS' COMPENSATION PROVISION

Obligations under self-insurance workers' compensation licences included in provision for employee benefits:

	CONSOLIDATE	D
	2012 \$m	2011 \$m
New South Wales	26.4	21.8
Queensland	2.3	2.5
Victoria	4.3	4.9
South Australia	2.6	2.3
Western Australia	0.6	0.9
Total self-insurance workers' compensation provision	36.2	32.4

Arrium provides the following share and right plans for employees:

#### **(B) EMPLOYEE SHARE PLANS**

Arrium has two share plans under which eligible employees may acquire ordinary shares in the Company. The most recent offer under the employee share plan was made in May 2012 to eligible employees as at 1 April 2012. All Australian resident permanent employees (excluding Arrium Directors) are eligible to participate in either, or both, the Tax Exempt or Tax Deferred Share Plans. Both the Tax Exempt and Tax Deferred Plans enable participating employees to make salary sacrifice contributions to purchase shares on-market on a monthly basis. Under both plans, the Company also grants to contributing participants a parcel of fully paid ordinary shares to the value of \$125 (\$375 employee contribution) or \$250 (\$750 employee contribution) per year for employees participating in the Tax Exempt Plan and \$333 per year for employees participating in the Tax Deferred Plan for a minimum \$1,000 employee contribution. The shares must be held in the Plan for a minimum of three years whilst the participant remains an employee of Arrium for both the Tax Exempt Plan and Tax Deferred Plan before they can be withdrawn.

The matching shares granted by the Company are purchased on-market or allocated from surplus shares forfeited under either the employee share plan or the executive share plan. The matching shares are allocated each month at the same time as the employee contributed shares, which are purchased on the 15th of each month. The number of shares allocated to the employee is the offer amount divided by the weighted average price at which the Company's shares are traded on the Australian Securities Exchange on the date of the purchase.

Offers under the scheme are at the discretion of the Company, All Arrium shares acquired under the Tax Exempt and Tax Deferred plans rank equally with all other Arrium shares and carry dividend and voting rights.

All plan management and administration costs relating to the plans are met by the Company.

	2012	2011
Total number purchased by employees during the year ('000s)	4,017	1,444
Weighted average fair value of shares granted during the period (\$)	1.05	2.57

#### (C) LONG-TERM INCENTIVE (LTI) PERFORMANCE RIGHTS PLAN (PRP)

The PRP for senior management provides for Rights to fully paid Arrium Limited ordinary shares. In addition, a special Service Rights allocation in 2011 provides for Rights to fully paid Arrium Limited ordinary shares. Rights are held in trust until vested to the participant. There are no voting entitlements attached to the Rights held in trust, nor are any dividends paid until such time as the Rights vest and the shares are allotted.

Vesting of Performance Rights is subject to the Company achieving specific performance hurdles and a three-year qualifying period. Vesting of the Service Rights is subject to a two-year service condition. There are no retesting provisions if Performance Rights fail to yest at the conclusion of the Performance Period. In addition, all or some of these Rights may vest to an individual on termination when special circumstances apply. At the discretion of the Board these include redundancy, death and permanent disability. There are no cash settlement alternatives. No consideration is required in accepting the Performance Rights.

The Performance Rights have two hurdles including Arrium's EPS growth measured against EPS targets as determined by the Board and Arrium's Total Shareholder Return (TSR) measured against the Comparator Index, the S&P/ASX 200 Index (excluding the consumer discretionary, consumer staples, financial services, health, information technology and telecommunications services sectors). For each instalment, 50% of the rights will vest subject to Arrium's TSR performance to the Base Comparator Index and the remaining 50% of Rights will vest subject to Arrium's EPS growth against set targets.

	201	2012	
	NUMBER '000S	WEIGHTED AVERAGE FAIR VALUE \$	
Outstanding at the beginning of the year	-	-	
Rights issued during the year	9,570	1.09	
Rights vested during the year	_	-	
Outstanding at the end of the year	9,570	1.09	

There were no Rights issued in 2011.

The fair values of the Performance Rights granted is estimated at the grant date using a Monte Carlo Simulation analysis taking into account the terms and conditions upon which the rights were granted. The fair value of the Service Rights is estimated at grant date using the Black Scholes model.

The following table lists the inputs to the models used.

GRANT DATE	PERFORMANCE HURDLE	DIVIDEND YIELD	EXPECTED VOLATILITY	RISK-FREE RATE	EXPECTED LIFE	WEIGHTED AVERAGE SHARE PRICE AT GRANT DATE
01/07/2011	Service	3.59%	_	4.84%	2 years	\$1.84
30/08/2011	TSR	4.66%	40%	3.78%	3 years	\$1.41
30/08/2011	EPS	4.66%	40%	3.78%	3 years	\$1.41
01/09/2011	Service	4.26%	-	3.85%	2 years	\$1.55
24/02/2012	Service	6.24%	-	3.71%	2 years	\$1.03
24/02/2012	TSR	6.24%	60%	3.71%	3 years	\$1.03
24/02/2012	EPS	6.24%	60%	3.71%	3 years	\$1.03

The expected volatility reflects the assumption that the historical volatility is indicative of future trends which may also not necessarily be the

#### (D) LONG-TERM INCENTIVE (LTI) SHARE PLAN

The LTI Share Plan for senior management provides for grants of Arrium Limited ordinary shares. The shares granted are held in trust until vested to the participant. The shares held in trust carry voting rights and the holder is entitled to any dividends paid during the vesting period. During the year the Company replaced the LTI Share Plan with the PRP, accordingly no shares were granted to senior management.

Vesting is subject to the Company achieving specific performance hurdles and a three-year qualifying period. If the shares do not vest immediately at the end of the three-year qualifying period, provisions exist that enable retesting of the performance hurdles. In addition, all or some of these shares may vest to an individual on termination when special circumstances apply. At the discretion of the Board these include redundancy, death and permanent disability. There are no cash settlement alternatives.

The performance hurdles relate to two comparative groups, namely the Australian Consumer Price Index plus 5% (Base Index) and the S&P/ASX 200 Index (excluding banks, media and telecommunications) (Comparator Index) that are measured against Arrium's performance in terms of TSR. For each instalment, 50% of the shares will vest subject to Arrium's TSR performance to the Base Index and the remaining 50% of shares will vest subject to Arrium's performance to the Comparator Index.

	2012		2011	
	NUMBER '000S	EIGHTED AVERAGE FAIR VALUE \$	WE NUMBER '000S	EIGHTED AVERAGE FAIR VALUE \$
Outstanding at the beginning of the year	6,284	3.59	3,856	4.01
Shares vested during the year	_	-	(15)	4.93
Shares purchased during the year	-	-	2,443	2.91
Outstanding at the end of the year	6,284	3.59	6,284	3.59

The fair value of the equity-settled shares granted under the LTI Share Plan is estimated at the grant date using a Monte Carlo Simulation analysis taking into account the terms and conditions upon which the shares were granted. Of the shares purchased during the year, nil were granted (2011: 2,406,000).

The following table lists the inputs to the model used.

	2012	2011
Dividend yield	_	5.32%
Expected volatility	-	40%
Risk-free interest rate	-	4.45%
Expected life	-	3 years
Weighted average share price at grant date	-	\$2.95

The expected volatility reflects the assumption that the historical volatility is indicative of future trends which may also not necessarily be the actual outcome.

#### 29. EMPLOYEE BENEFITS CONTINUED

#### Steel and Tube Holdings Limited

In 2012, 80,000 shares (2011: 181,330) were purchased whilst 57,150 shares (2011: 25,580) were vested in the employee share purchase scheme and 122,652 shares (2011: 223,528) were purchased and 34,307 shares (2011: nil shares) were vested in the executive share plan. Both schemes have a vesting period of a minimum of three years from grant date. The employee share scheme provides financial assistance, to a maximum of \$2,340 in any three-year period, to eligible employees to purchase Company shares. Rights to shares in the executive share scheme vest upon achieving Board approved targets based on total shareholder returns.

## **30. KEY MANAGEMENT PERSONNEL DISCLOSURES**

## (A) DETAILS OF KEY MANAGEMENT PERSONNEL

Compensation of Key Management Personnel

	CONSC	CONSOLIDATED		
	2012	2011		
Short-term benefits	11,103,362	8,847,346		
Post-employment benefits	442,255	398,833		
Share-based payments	3,443,534	2,375,169		
	14,989,151	11,621,348		

The Company has applied the exemption under Corporations Regulation 2M.3.03 which relieves listed companies from providing detailed remuneration disclosures in relation to their key management personnel in their annual financial reports by Accounting Standard AASB 124 Related Party Disclosures. These remuneration disclosures are provided in the Remuneration Report section of the Directors' Report which has been audited.

#### Loans to Key Management Personnel

There were no loans made to or outstanding from Key Management Personnel during the current or prior year.

#### Other transactions and balances with Key Management Personnel

Key Management Personnel of Arrium Limited and its related parties or their related entities, conduct transactions with entities within the Arrium Group that occur within a normal employee, customer or supplier relationship on terms and conditions no more favourable than those with which it is reasonable to expect the entity would have adopted if dealing with the Key Management Personnel or their related entity at an arm's length in similar circumstances. These transactions include the following and have been quantified below where the transactions are considered to be of interest to users of these financial statements.

#### (B) OPTION HOLDINGS OF KEY MANAGEMENT PERSONNEL

No options were issued to the Key Management Personnel under the Executive Option Plan during the year (2011: nil). All outstanding options expired in December 2010. Rights held by Key Management Personnel under the LTI Rights Plan are disclosed in the Remuneration Report.

#### (C) SHAREHOLDINGS OF KEY MANAGEMENT PERSONNEL<sup>1</sup>

2012	HELD AT 1 JULY 2011	GRANTED AS REMUNERATION	ON EXERCISE OF OPTIONS	NET CHANGE OTHER	HELD AT 30 JUNE 2012
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
Directors					
R B Davis	88,995	-	-	100,000	188,995
C R Galbraith, AM	156,056	-	-	43,944	200,000
P G Nankervis	56,890	-	-	60,000	116,890
G J Plummer	3,683,868	-	-	-	3,683,868
D A Pritchard	143,921	-	-	-	143,921
P J Smedley	410,455	-	-	-	410,455
G J Smorgon	15,107	-	-	-	15,107
R Warnock	10,244	-	-	593	10,837
Executives					
R C Bakewell	103,196	-	-	6,058	109,254
G D A Feurtado	51,572	-	-	-	51,572
S H Hamer	315,745	-	-	-	315,745
M R Parry	261,339	-	-	(255,302)	6,037
A G Roberts	339,467	-	-	-	339,467
L J Selleck	572,324	-	-	7,259	579,583
G A Waters	231,535	-	-	191	231,726
Total	6,440,714	-	-	(37,257)	6,403,457

2011	HELD AT 1 JULY 2010	GRANTED AS REMUNERATION <sup>1</sup>	ON EXERCISE OF OPTIONS	NET CHANGE OTHER	HELD AT 30 JUNE 2011
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
Directors					
R B Davis	68,995	-	-	20,000	88,995
C R Galbraith, AM	156,056	-	-	-	156,056
P G Nankervis	56,890	-	-	-	56,890
G J Plummer	2,722,546	871,322	90,000	-	3,683,868
D A Pritchard	143,921	-	-	-	143,921
P J Smedley	410,455	-	-	-	410,455
G J Smorgon	15,107	-	-	-	15,107
R Warnock	-	-	-	10,244	10,244
Executives					
R C Bakewell	-	103,196	-	-	103,196
S H Hamer	194,549	103,196	18,000	-	315,745
M R Parry	269,643	103,196	-	(111,500)	261,339
A G Roberts	236,271	103,196	-	-	339,467
L J Selleck	601,792	85,997	-	(115,465)	572,324
G A Waters	128,198	103,196	-	141	231,535
Total	5,004,423	1,473,299	108,000	(196,580)	6,389,142

<sup>1</sup> Include ordinary shares held directly, indirectly or beneficially including held by their related parties.

The shareholdings of former Key Management Personnel, at the date they ceased to be Key Management Personnel, were as follows:

2012	HELD AT 1 JULY 2011 NUMBER	GRANTED AS REMUNERATION NUMBER	ON EXERCISE OF OPTIONS NUMBER	NET CHANGE OTHER NUMBER	HELD ON CEASING TO BE KMP NUMBER
Executive					
M R Parry	261,339	-	-	(255,302)	6,037

#### (D) RIGHT HOLDINGS OF KEY MANAGEMENT PERSONNEL<sup>1</sup>

2012	HELD AT 1 JULY 2011	GRANTED AS REMUNERATION <sup>1</sup>	NET CHANGE OTHER	HELD AT 30 JUNE 2012
	NUMBER	NUMBER	NUMBER	NUMBER
Directors				
R B Davis	-	-	-	_
C R Galbraith, AM	-	-	-	_
P G Nankervis	-	-	-	_
G J Plummer	-	1,637,531	-	1,637,531
D A Pritchard	-	-	-	_
P J Smedley	-	-	-	-
G J Smorgon	-	-	-	_
R Warnock	-	-	-	_
Executives				
R C Bakewell	-	487,506	-	487,506
G D A Feurtado	-	449,047	-	449,047
S H Hamer	-	487,506	-	487,506
M R Parry	-	-	-	-
A G Roberts	-	487,506	-	487,506
L J Selleck	-	460,930	-	460,930
G A Waters	-	446,568	-	446,568
Total		4,456,594	_	4,456,594

Rights granted as remuneration to the MD & CEO and Executives are held in trust on the participant's behalf during the performance period. Participants are not able to withdraw shares from the trust until shares vest as a result of the performance conditions being achieved.

#### 31. AUDITORS' REMUNERATION

	CONSOLIDATED		
	2012	2011 \$	
Amounts paid or payable to the auditor of Arrium Limited, for:			
An audit or review of the financial report of the entity and any other entity in the consolidated group	1,640,884	1,511,000	
Other services in relation to the entity and any other entity in the consolidated group			
Tax compliance	-	59,691	
Assurance related and due diligence services	496,225	128,702	
	2,137,109	1,699,393	
Amounts paid or payable to other auditors for:			
An audit or review of the financial report of certain controlled entities in the consolidated group	178,836	151,457	
Other services	-	_	
	178,836	151,457	

#### 32. FINANCIAL RISK MANAGEMENT

#### FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES

The Group's principal financial instruments comprise receivables, payables, bank loans and overdrafts, US Private Placements (Senior Notes), finance leases, cash and short-term deposits and derivative financial instruments.

The Group manages its exposure to key financial risks including interest rate and currency risk in accordance with the Group's financial risk management policy. It is, and has been throughout the period under review, the Group's policy that no speculative trading in financial instruments shall be undertaken. The objective of the policy is to support the delivery of the Group's financial targets whilst protecting future financial security.

The Group enters into derivative transactions, principally interest rate swaps, cross-currency interest rate swaps and forward foreign exchange contracts. Derivatives held for trading relating to forward contracts provide economic hedges but do not qualify for hedge accounting and are based on limits set by the Board. The main risks arising from the Group's financial instruments are interest rate risk, foreign currency risk, commodity price risk, credit risk and liquidity risk.

The Group uses different methods to measure and manage different types of risks to which it is exposed. These include monitoring levels of exposure to interest rates and foreign currency risk and assessments of market forecasts for interest rate, foreign exchange and commodity prices. Ageing analyses and monitoring of specific credit allowances are undertaken to manage credit risk. Liquidity risk is monitored through the development of future rolling cash flow forecasts comparing projected debt levels for the next 12 months against total committed facilities.

Primary responsibility for identification and control of financial risks rests with the Treasury Committee under the authority of the Board. The Board reviews and agrees policies for managing each of the risks identified below.

#### (A) INTEREST RATE RISK

The Group's exposure to the risk of changes in market interest rates relates primarily to the Group's long-term debt borrowings. The objective of the Group's policy is to neutralise exposures within levels of tolerance acceptable to the Board, minimising interest expense whilst ensuring that an appropriate level of flexibility exists to accommodate potential changes in funding requirements.

Borrowings issued at variable rates expose the Group to cash flow interest rate risk. Borrowings issued at fixed rates expose the Group to fair value interest rate risk where the borrowings are carried at fair value. The Group's policy is to manage its interest expense using a mix of fixed and floating interest rate debt. The Group's policy is to keep 30% - 70% of the lesser of, the expected usage of borrowings or the committed exposure to a minimum of five years at fixed rates of interest, using interest rate swaps to achieve this when necessary.

The Group analyses its interest rate exposure on a dynamic basis. Within this analysis, consideration is given to potential renewals of existing positions, alternative hedging positions and the mix of fixed and variable interest rates. Based on the various considerations, the Group manages its interest rate risk by using floating to fixed or fixed to floating interest rate swaps. Such swaps have the economic effect of converting borrowings from floating rates to fixed rates or fixed rates to floating rates. Under interest rate swaps, the Group agrees with other parties to exchange at specified intervals, the difference between fixed contract rates and floating rate interest amounts calculated by reference to the agreed notional principal amounts.

At balance date, the Group had the following financial assets and liabilities exposed to interest rate risk:

inancial assets         \$m         \$m           ash and cash equivalents         268.1         153.7           rade receivables         8.4         10.8           inancial liabilities         T         (3.4           RC Securitisation facility         -         (3.4           ank loans <sup>1</sup> (1,801.7)         (1,291.4           S Private Placement - at fair value <sup>1</sup> (93.2)         (74.4           let exposure before hedging         (1,618.4)         (1,204.7           ross-currency and interest rate swaps <sup>2</sup> 381.8         247.0		CONSOLIDA	CONSOLIDATED	
ash and cash equivalents       268.1       153.7         rade receivables       8.4       10.8         inancial liabilities       RC Securitisation facility       -       (3.4         ank loans¹       (1,801.7)       (1,291.4         S Private Placement - at fair value¹       (93.2)       (74.4         let exposure before hedging       (1,618.4)       (1,204.7         ross-currency and interest rate swaps²       381.8       247.0			2011 \$m	
rade receivables 8.4 10.8 inancial liabilities  RC Securitisation facility - (1,801.7) (1,291.4 Serivate Placement - at fair value (93.2) (74.4 let exposure before hedging (1,618.4) (1,204.7 cross-currency and interest rate swaps (1,618.4) (1,204.7	Financial assets			
inancial liabilities  RC Securitisation facility ank loans¹ S Private Placement - at fair value¹ (et exposure before hedging ross-currency and interest rate swaps²  381.8	Cash and cash equivalents	268.1	153.7	
RC Securitisation facility       - (3.4 ank loans)         S Private Placement - at fair value       (1,801.7)       (1,291.4 ank loans)         Set exposure before hedging       (1,618.4)       (1,204.7 ank loans)         ross-currency and interest rate swaps <sup>2</sup> 381.8       247.0 ank loans	Trade receivables	8.4	10.8	
ank loans¹       (1,801.7)       (1,291.4)         S Private Placement - at fair value¹       (93.2)       (74.4)         let exposure before hedging       (1,618.4)       (1,204.7)         ross-currency and interest rate swaps²       381.8       247.0	Financial liabilities			
S Private Placement - at fair value <sup>1</sup> (93.2) (74.4) let exposure before hedging (1,618.4) (1,204.7) ross-currency and interest rate swaps <sup>2</sup> 381.8 247.0	HRC Securitisation facility	-	(3.4)	
ross-currency and interest rate swaps <sup>2</sup> (1,618.4) (1,204.7) (247.6)	Bank loans <sup>1</sup>	(1,801.7)	(1,291.4)	
ross-currency and interest rate swaps <sup>2</sup> 381.8 247.0	US Private Placement - at fair value <sup>1</sup>	(93.2)	(74.4)	
	Net exposure before hedging	(1,618.4)	(1,204.7)	
let exposure to cash flow and fair value interest rate risk (1,236.6) (957.7)	Cross-currency and interest rate swaps <sup>2</sup>	381.8	247.0	
	Net exposure to cash flow and fair value interest rate risk	(1,236.6)	(957.7)	

- All other bank loans and USPP debt have a fixed interest rate and are carried at amortised cost (refer Note 17). They are therefore not subject to interest rate risk.
- 2 Notional principal amounts of cross-currency and interest rate swaps.

#### Sensitivity

If interest rates had increased by 100 or decreased by 100 basis points as at 30 June and with all other variables held constant, post-tax profit for the year would have been \$9.2 million lower/\$14.1 million higher (2011: \$10.2 million lower/\$10.9 million higher), mainly as a result of higher/ lower interest expense resulting on variable rate debt. Other components of equity would have been \$11.0 million higher/\$12.5 million lower (2011: \$8.6 million higher/\$8.6 million lower) as a result of an increase/decrease in the fair value of the cash flow hedges of borrowings.

#### **(B) FOREIGN CURRENCY RISK**

The Group's primary sources of foreign currency risk are sales of product and purchases of inventory by business units in a currency other than the functional currency; purchases of commodity inputs priced in US dollars or with an Australian dollar price determined by a US dollar-based international price; capital expenditure denominated in foreign currency and in its net investment in foreign operations.

It is the Group's policy to use forward exchange contracts to eliminate the currency exposures on any individual transactions in excess of USD0.5 million or equivalent. Committed exposures will be 100% covered when the transaction is contracted, whilst projected exposures (contract underpinning) will be 50% covered where there are ongoing sales or purchases and the transaction is relatively certain. It is the Group's policy to negotiate the terms of the forward exchange contracts to exactly match the terms of the underlying purchase to maximise hedge effectiveness.

#### Net investment hedges

The Group seeks to mitigate its exposure to foreign currency translation risk on the value of the net assets of its North and South American and Hong Kong-based operations by borrowing in US dollars. The first USD1,343.4 million of the Group's net investment in foreign operations is hedged in this manner (refer to Note 17 and Note 8).

As well as its US operations, the Group has foreign currency translation risk on the value of the net assets of its Canadian-based operations. This risk is mitigated through the designation of a CAD200 million syndicated loan as a net investment hedge.

Arrium also has foreign currency exposure arising from its US Private Placements of Senior Notes (refer Note 17). Part of this exposure has been hedged using a series of cross-currency interest rate swaps designed either as fair value or cash flow hedges.

The Group has exposure to foreign currency translation risk in relation to New Zealand dollar denominated net assets of its 50.3% share in Steel & Tube Holdings Limited. The Group does not seek to hedge this exposure, but instead monitors the position so as to ensure that the movement in the foreign currency translation reserve does not impact equity so adversely as to place any financial covenants at risk.

The Group's exposure to foreign currency risk at balance date was as follows (in Australian dollars):

					CONSOLIDATED				
		2012					2011		
	USD \$m	NZD \$m	CAD \$m	OTHER <sup>1</sup> \$m	USD \$m	NZD \$m	CAD \$m	CLP \$m	OTHER <sup>1</sup> \$m
Cash and cash equivalents	46.1	5.2	-	-	28.7	2.6	-	-	0.9
Net investment in foreign operations	1,410.9	54.2	232.3	-	987.1	59.1	252.8	-	-
Trade and other receivables	34.9	0.8	-	0.5	28.5	0.8	-	46.2	0.1
Trade and other payables	(50.7)	(0.1)	-	(6.0)	(66.3)	-	-	(46.4)	(5.8)
Bank loans and US Private Placement Debt <sup>2</sup>	(1,446.9)	-	(192.7)	-	(1,138.3)	_	-	-	-
Net exposure before hedging	(5.7)	60.1	39.6	(5.5)	(160.3)	62.5	252.8	(0.2)	(4.8)
Forward exchange contracts – buy	247.2	1.0	_	29.6	248.8	7.3	-	43.9	23.0
Forward exchange contracts – sell	(389.5)	(10.9)	(15.5)	-	(135.5)	(12.5)	(0.4)	(20.1)	(0.7)
Cross-currency interest rate swaps and US Private Placement debt <sup>2</sup>	204.6	-	(95.9)	-	135.8	-	(193.2)	_	_

- Japanese Yen, Indonesian Rupiah, Pounds Sterling, Canadian Dollars and Euro.
- Notional principal amounts.

#### Sensitivity

Had the Australian dollar weakened/strengthened against the major foreign currencies detailed in the above table by 10% as at 30 June and with all other variables held constant, the Group's post-tax profit for the year would have been \$3.7 million lower/\$3.0 million higher (2011: \$23.4 million lower/\$17.4 million higher), mainly as a result of foreign exchange gains/losses on translation of the above foreign currency denominated financial instruments. Other components of equity would have been \$20.0 million lower/\$16.4 million higher (2011: \$71.2 million higher/\$57.2 million lower) had the Australian dollar weakened /strengthened by 10% against the major foreign currencies detailed in the above table, arising from net investment in foreign operations and forward exchange contracts, interest rate and cross-currency interest rate swaps designated as cash flow hedges. The Group's exposure to other foreign exchange movements is not material.

#### (C) COMMODITY PRICE RISK

The primary sources of commodity risk for the Group are iron ore sales made in US dollars; copper, nickel and zinc purchases in US dollars; aluminium purchases which are made in Australian dollars but with prices set in US dollars; energy purchases made in Australian dollars that can be subject to long-term contracts; scrap purchases made outside the Arrium Group and diesel purchases. Commodity risk is measured by the effect of price movement sensitivities applied to annual usage estimated by the business units.

Commodity price risk is managed by either putting in place fixed price contracts, fixed price swaps or options. The Group's exposure to commodity price risk on financial instruments is not significant.

#### 32. FINANCIAL RISK MANAGEMENT CONTINUED

#### (D) CREDIT RISK

Credit risk arises from the financial assets of the Group, which comprise cash and cash equivalents, trade and other receivables, and derivative instruments. The Group's exposure to credit risk arises from the default of the counterparty, with a maximum exposure equal to the carrying amount of these instruments.

The Group does not hold any credit derivatives to offset its credit exposure. The credit risk of any one counterparty with respect to receivables and derivative financial instruments is not significant.

The Group trades only with recognised, creditworthy third parties. It is the Group's policy that all customers who wish to trade on credit terms are subject to credit verification procedures including an assessment of their independent credit rating, financial position, past experience and industry reputation. Risk limits are set for each individual customer in accordance with parameters set by the Board and are regularly monitored. In addition, receivables are monitored on an ongoing basis with the result that the Group's exposure to bad debt is not significant.

For financial instruments, limits for each counterparty are set primarily on credit rating, adjusted for country rating and the nominal level of shareholders' funds. The Group does not expect any counterparties to fail to meet their obligations given their high credit ratings. For financial assets and liabilities measured at fair value through profit and loss, the amount of change in fair value that is attributable to credit risk is not material.

#### (E) LIQUIDITY RISK

The Group's objective is to maintain a balance between continuity of funding and flexibility through the use of bank overdrafts, bank loans, US Private Placement of Senior Notes and finance leases. In addition to committed facilities, Arrium has 11am money market lines and an overdraft facility that assists with the intra-month cash management. Debt maturities are spread out to limit risk on debt rollover.

The Group manages liquidity risk by continuously monitoring forecast and actual cash flows and matching the maturity profiles of assets and liabilities.

#### Financing arrangements

The Group had access to the following undrawn borrowing facilities at balance date:

	CONSOL	IDATED
	2012 \$m	2011 \$m
Expiring within one year	-	22.4
Expiring beyond one year	1,040.4	1,278.5
	1,040.4	1,300.9

#### Maturity analysis of financial liabilities

The tables below analyse the Group's financial liabilities into relevant maturity groupings based on the remaining period at the balance date to the contractual maturity date. The amounts disclosed in the table reflect all contractually fixed pay-offs for settlement, repayments and interest resulting from recognised financial liabilities. For interest rate swaps, the cash flows have been estimated using forward interest rates applicable at the reporting date.

For all other obligations, the respective undiscounted cash flows are presented. Cash flows for financial liabilities without fixed maturity are based on the conditions existing at balance date.

	LESS THAN 12 MONTHS	1 - 5 YEARS	GREATER THAN 5 YEARS	TOTAL CONTRACTUAL CASH FLOWS
CONSOLIDATED	\$m	\$m	\$m	\$m
2012	·	·		
Financial liabilities				
Trade and other payables	1,052.9	0.3	-	1,053.2
Forward contracts				
- (Inflow)	(379.2)	(6.4)	-	(385.6)
- Outflow	365.4	6.3	-	371.7
Option contracts	0.4	-	-	0.4
Interest rate swaps	17.5	25.9	0.7	44.1
Cross-currency interest rate swaps	100.1	194.5	-	294.6
Bank loans	31.4	1,803.3	-	1,834.7
US Private Placement - Senior Notes	58.0	338.9	313.7	710.6
	1,246.5	2,362.8	314.4	3,923.7
2011				
Financial liabilities				
Trade and other payables	1,022.4	_	-	1,022.4
Forward contracts				
- (Inflow)	(149.5)	_	-	(149.5)
- Outflow	148.9	-	-	148.9
Interest rate swaps	17.7	23.9	0.7	42.3
Cross-currency interest rate swaps	70.7	198.1	-	268.8
Bank loans	31.7	1,131.4	180.8	1,343.9
US Private Placement - Senior Notes	69.9	306.6	413.7	790.2
HRC Securitisation facility	3.4	_	-	3.4
	1,215.2	1,660.0	595.2	3,470.4

#### (F) FAIR VALUE MEASUREMENTS

The fair value of financial assets and financial liabilities must be estimated for recognition and measurement or for disclosure purposes.

The Group uses various methods in estimating the fair value of a financial instrument. These comprise:

Level 1: The fair value is calculated using quoted prices in active markets.

Level 2: The fair value is estimated using inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (as prices) or indirectly (derived from prices).

Level 3: The fair value is estimated using inputs for the asset or liability that are not based on observable market data.

The fair value of the financial instruments as well as the methods used to estimate the fair value are summarised below:

	2012		2011		
	VALUATION TECHNIQUE - MARKET OBSERVABLE INPUTS (LEVEL 2)		/ALUATION TECHNIQUE - EET OBSERVABLE INPUTS (LEVEL 2)	TOTAL	
CONSOLIDATED	\$m	\$m	\$m	\$m	
Financial assets					
Forward contracts	16.2	16.2	3.0	3.0	
Option contracts	0.7	0.7	-	_	
Interest rate swaps	27.5	27.5	12.8	12.8	
Cross-currency interest rate swaps	2.4	2.4	-	-	
	46.8	46.8	15.8	15.8	
Financial liabilities					
Forward contracts	5.1	5.1	11.8	11.8	
Option contracts	0.4	0.4	-	-	
Interest rate swaps	13.1	13.1	6.7	6.7	
Cross-currency interest rate swaps	62.6	62.6	87.6	87.6	
	81.2	81.2	106.1	106.1	

For financial instruments not quoted in active markets, the Group uses valuation techniques such as present value techniques, comparison to similar instruments for which market observable prices exist and other relevant models used by market participants. These valuation techniques use both observable and unobservable market inputs.

Financial instruments that use valuation techniques with only observable market inputs or unobservable inputs that are not significant to the overall valuation include interest rate swaps, cross-currency interest rate swaps and forward exchange contracts not traded on a recognised exchange. These instruments are included in Level 2.

#### Transfer between categories

There were no transfers between categories during the year.

#### (G) CAPITAL RISK MANAGEMENT

The Group's objective when managing capital is to ensure the entity continues as a going concern as well as to maintain optimal returns to shareholders and benefits for other stakeholders. The Board also aims to maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt.

The Group monitors capital on the basis of gearing ratio (net debt to net debt plus equity). The targeted range for debt considered appropriate in the normal circumstances is 30 - 40%. The Board is comfortable with the current level of gearing given the external environment.

The Group is subject to externally imposed capital requirements and has complied with these requirements during the current and prior year. The gearing ratios at the balance date were as follows:

CONSOLIDA	SOLIDATED	
2012 \$m	2011 \$m	
2,411.4	1,882.1	
(268.1)	(153.7)	
2,143.3	1,728.4	
4,500.6	4,505.7	
(61.8)	(59.9)	
4,438.8	4,445.8	
6,582.1	6,174.2	
32.6%	28.0%	
	2012 \$m  2,411.4 (268.1)  2,143.3  4,500.6 (61.8)  4,438.8  6,582.1	

#### **33. PARENT ENTITY DISCLOSURES**

The parent company of the Group, as at and throughout financial year ended 30 June 2012, was Arrium Limited.

Presented below is supplementary information about the parent entity.

	PARENT	Ī
	2012 \$m	2011 \$m
Result of the parent entity		
Profit after tax	206.5	82.7
Other comprehensive income	-	-
Total comprehensive income for the year	206.5	82.7
Financial position of the parent entity at year end		
Current assets	0.5	142.0
Non-current assets	4,942.5	3,731.6
Total assets	4,943.0	3,873.6
Current liabilities	962.5	21.5
Total liabilities	962.5	21.5
Total equity of the parent entity comprising:		
Share capital	3,770.9	3,761.6
Retained earnings	191.8	79.1
Reserves	17.8	11.4
Total Equity	3,980.5	3,852.1

#### GUARANTEES, CONTINGENT LIABILITIES AND CAPITAL COMMITMENTS OF THE PARENT ENTITY

Arrium Limited has given guarantees amounting to \$48.9 million (2011: \$50.6 million) to various state workers' compensation authorities in Australia as a pre-requisite for self-insurance. Refer to Note 26.

#### Parent entity guarantees in respect of debts of its subsidiaries

As explained in Note 27, the Company has entered into a Deed of Cross Guarantee in accordance with a class order issued by the Australian Securities and Investments Commission. Arrium Limited, and all the controlled entities which are party to the deed, have guaranteed the repayment of all current and future creditors in the event that any of these companies are wound up.

The Company is also a guarantor in respect of certain financing arrangements including wholly-owned subsidiaries which are not party to the Deed of Cross Guarantee.

The parent entity does not have any capital commitments for acquisition of property, plant and equipment as at 30 June 2012 (2011: nil).

#### 34. DISCONTINUED OPERATIONS

#### (A) DETAILS OF DISCONTINUED OPERATIONS

On 22 December 2011, Arrium entered into a sale agreement to dispose of its Piping Systems business, which distributes pipes, valves and fittings primarily into the mining, minerals processing, oil and gas and engineering construction segments. The agreement to dispose of the business, which forms part of the Australian Distribution segment, followed a review of the Group's Australian steel business product portfolio and facilities footprint. The sale was completed on 5 March 2012.

The LiteSteel business operations have now closed, with the US business assets having been sold in June 2012. The LiteSteel business sells and markets LiteSteel beams primarily in Australia and the United States and forms part of the Manufacturing segment. The business had been operating in an uncertain economic environment of continued weak residential construction activity.

The Board has decided to exit its Oil and Gas Pipe (OGP) business and on 31 May 2012, the Group ceased manufacturing at its OGP business, based in Kembla Grange NSW. The OGP business manufactures and sells pressure pipe to the oil and gas and steel distribution markets in Australia.

LiteSteel and OGP are disposal groups classified as held for sale which meets the disclosure requirements as discontinued operations. As at 30 June 2012 the OGP, LiteSteel and Piping Systems businesses were classified as discontinued operations.

#### (B) FINANCIAL PERFORMANCE OF THE DISCONTINUED OPERATIONS

The results of the held for sale and discontinued operations for the year until disposal are presented below:

	2012 \$m	2011 \$m
Revenue	139.5	240.6
Expenses	(152.6)	(209.3)
Gross (loss)/profit	(13.1)	31.3
Other revenues	0.4	0.4
Operating expenses	(37.0)	(47.4)
Impairment	(134.2)	-
Gain on sale of the business before income tax	3.1	-
Loss before tax from discontinued operations	(180.8)	(15.7)
Tax benefit	28.8	3.4
Loss for the year from discontinued operations	(152.0)	(12.3)
Earnings per share for profit from discontinued operations attributable to the ordinary equity holders of the parent:		
Basic earnings per share (cents per share)	(11.34)	(0.92)
Diluted earnings per share (cents per share)	(11.34)	(0.92)
(C) ASSETS AND LIABILITIES OF THE HELD FOR SALE OPERATIONS		
The major classes of assets and liabilities of the disposal groups held for sale as at 30 June 2012 are as follows:		
		2012 \$m
Assets		
Cash and cash equivalents		3.6 <sup>1</sup>
Receivables		3.5
Inventory		1.2
Property, plant and equipment		9.1
Other assets		0.1
Disposal groups and assets held for sale		17.5
Liabilities		
Payables		2.4
Provisions		4.4
Disposal groups and liabilities held for sale		6.8
Net assets attributable to disposal groups held for sale		10.7

Bank overdraft subject to master netting arrangements.

Net assets

# **34. DISCONTINUED OPERATIONS CONTINUED**

## (D) CASH FLOW INFORMATION OF THE HELD FOR SALE OPERATIONS

The net cash flows of disposal groups held for sale are as follows:

	2012 \$m	2011 \$m
Operating activities	(8.5)	17.7
Investing activities	6.7	(1.9)
Financing activities	-	-
Net cash (outflow)/inflow	(1.8)	15.8

	2012 \$m
Cash consideration received	82.5
Carrying amount of net assets sold	(79.4)
Gain on sale before income tax	3.1
Income tax expense	-
Gain on sale after income tax	3.1
The carrying amounts of assets and liabilities of the discontinued operations as at the date of the sale we Receivables	ere: 30.4
Inventory	40.5
Property, plant and equipment	6.8
Intangibles	18.3
Deferred tax assets	0.9
Payables	(13.9)
Provisions	(3.6)

79.4

#### 35. BUSINESS COMBINATIONS

#### **ACQUISITION OF WPG SUBSIDIARIES**

On 6 October 2011, Arrium acquired 100% of the issued capital of WPG Resources Limited's subsidiary companies that own iron ore assets in South Australia. The acquisition of the WPG iron ore assets underpins the expansion in mining segment and increase in capacity of Arrium's Whyalla port.

#### (A) ASSETS AND LIABILITIES ACQUIRED

The fair value of the identifiable assets and liabilities as at the date of the business combination were:

	ACQUIREE CARRYING AMOUNT	FAIR VALUE
	\$m	\$m
Receivables	0.3	0.4
Property, plant and equipment	14.1	14.1
Mine development expenditure	18.2	18.2
Intangibles <sup>1</sup>	0.1	273.5
Other assets	11.2	11.3
Payables	(43.8)	(43.8)
Provisions	-	(0.3)
Net Assets	0.1	273.4
Net Identifiable Assets Acquired	0.1	273.4

Includes mining tenement rights.

#### **(B) COST OF COMBINATION**

	\$m
Cash paid	273.4
Total purchase consideration	273.4
Fair value of net identifiable assets	273.4
Goodwill arising on acquisition	-

The initial accounting for the acquisition of WPG subsidiaries has been determined provisionally as at 30 June 2012. In accordance with Accounting Standard AASB 3 Business Combinations, Arrium has 12 months from the date of acquisition to complete the allocation of the cost of the business combinations to the assets, liabilities and contingent liabilities acquired.

There was no significant impact on the Income Statement and Statement of Comprehensive Income for the Group for the year ended 30 June 2012 had the acquisition taken place as at 1 July 2011 as the acquired companies have not yet commenced trading activities.

#### **ACQUISITION OF THE MOLY-COP GROUP**

The initial accounting for the acquisition of the Moly-Cop Group on 31 December 2010 had been determined provisionally as at that date. In accordance with Accounting Standard AASB 3 Business Combinations, the Group had 12 months from the date of acquisition to complete the allocation of the cost of the business combination to the assets, liabilities and contingent liabilities acquired.

The allocation was finalised on 31 December 2011 and accordingly, the 30 June 2011 and 31 December 2010 comparative information has been restated to present the carrying amounts of assets, liabilities and contingent liabilities acquired, as if the initial accounting had been completed from the date of acquisition. This resulted in an increase to goodwill of \$53.4 million from 30 June 2011.

The finalisation of the fair value adjustments had no impact on the Income Statement or total equity for the year ended 30 June 2011 or 31 December 2010.

# **36. EVENTS AFTER BALANCE SHEET DATE**

TransAlta Utilities Corporation ("TransAlta") and TransCanada Energy Ltd ("TransCanada") are party to a Power Purchase Arrangement (PPA) under which TransAlta supplies all of the power generated by the Sundance A power generation units in Alberta, Canada, to TransCanada. AltaSteel Ltd, a wholly-owned subsidiary of Arrium Limited, is party to an Electrical Sales Agreement (ESA) with TransCanada pursuant to which it agrees to offtake a portion of the power supplied to TransCanada under the PPA. On 4 January 2011, TransAlta issued a force majeure notice in respect of the Sundance A power generation units and subsequently on 8 February 2011 issued a notice of termination of the PPA for destruction. TransCanada disputed both claims.

On 23 July 2012, TransCanada and TransAlta announced the outcome from an independent arbitration panel regarding the dispute over the force majeure and destruction claims. The independent panel has ordered TransAlta to rebuild these units and limited their force majeure claim from 20 November, 2011 until a period of time that the units can reasonably be returned to service.

No asset has been recognised by Arrium Limited in the year ended 30 June 2012 in respect of the ESA, as at the date of this report the implication under the ESA of the independent panel's decision and the future value of the ESA remain uncertain.

Except for the matters discussed above, there have been no circumstances arising since 30 June 2012 that have significantly affected or may significantly affect:

- (a) The operations
- (b) The results of those operations, or
- (c) The state of affairs of Arrium Group in future financial years.

# **DIRECTORS' DECLARATION**

In the Directors' opinion:

- (a) the consolidated financial statements and accompanying notes set out on pages 62 to 121 and the Remuneration Report in Sections B to F in the Directors' Report are in accordance with the Corporations Act 2001 (Cth), including:
  - (i) complying with Australian Accounting Standards (including the Australian Accounting Interpretations) and the Corporations Regulations 2001, and
  - (ii) giving a true and fair view of the consolidated group's financial position as at 30 June 2012 and of their performance for the financial year ended on that date, and
- (b) the consolidated financial report also complies with International Financial Reporting Standards as disclosed in Note 1
- (c) that there are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable, and
- (d) at the date of this declaration, there are reasonable grounds to believe that the members of the extended closed group identified in Note 27 will be able to meet any obligations or liabilities to which they are, or may become, subject by virtue of the deed of cross guarantee described in Note 27.

The Directors have been given the declarations by the Chief Executive Officer and Chief Financial Officer required by section 295A of the Corporations Act 2001 (Cth).

This declaration is made in accordance with a resolution of the Directors.

Peter Smedley Chairman

Sydney 21 August 2012 Geoff Plummer

Managing Director & Chief Executive Officer

# **INDEPENDENT AUDITOR'S REPORT**

TO THE MEMBERS OF ARRIUM LIMITED



#### REPORT ON THE FINANCIAL REPORT

We have audited the accompanying financial report of Arrium Limited (the company), which comprises the consolidated balance sheet as at 30 June 2012, and consolidated income statement and consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated cash flow statement for the year ended on that date, notes 1 to 36 comprising a summary of significant accounting policies and other explanatory information and the directors' declaration of the Group comprising Arrium Limited and the entities it controlled at the year's end or from time to time during the financial year.

#### Directors' responsibility for the financial report

The directors of the company are responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards and the Corporations Act 2001 and for such internal control as the directors determine is necessary to enable the preparation of the financial report that is free from material misstatement whether due to fraud or error. In note 1(a), the directors also state, in accordance with Australian Accounting Standard AASB 101 Presentation of Financial Statements, that the financial statements of the Group comply with International Financial Reporting Standards.

#### Auditor's responsibility

Our responsibility is to express an opinion on the financial report based on our audit. We conducted our audit in accordance with Australian Auditing Standards. These Auditing Standards require that we comply with relevant ethical requirements relating to audit engagements and plan and perform the audit to obtain reasonable assurance whether the financial report is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial report. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial report, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation of the financial report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the directors, as well as evaluating the overall presentation of the financial report.

We performed the procedures to assess whether in all material respects the financial report presents fairly, in accordance with the Corporations Act 2001 and Australian Accounting Standards, a true and fair view which is consistent with our understanding of the Group's financial position and of its performance.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### Independence

In conducting our audit, we have complied with the independence requirements of the Corporations Act 2001.

#### **Auditor's Opinion**

In our opinion:

- (a) the financial report of the Group is in accordance with the Corporations Act 2001, including:
  - giving a true and fair view of the Group's financial position as at 30 June 2012 and of its performance for the year ended on that date;
  - (ii) complying with Australian Accounting Standards and the Corporations Regulations 2001.
- (b) the financial report also complies with International Financial Reporting Standards as disclosed in Note 1.

## REPORT ON THE REMUNERATION REPORT

We have audited Sections B to F of the Remuneration Report included in pages 49 to 60 of the Directors' Report for the year ended 30 June 2012. The Directors of the Company are responsible for the preparation and presentation of the Remuneration Report in accordance with Section 300A of the Corporations Act 2001. Our responsibility is to express an opinion on the Remuneration Report, based on our audit conducted in accordance with auditing standards.

#### Auditor's opinion

In our opinion, the remuneration report of Arrium Limited for the year ended 30 June 2012, complies with Section 300A of the Corporations Act 2001.

**David Rogers** Partner

Sydney 21 August 2012

# **SHAREHOLDER INFORMATION**

SHAREHOLDER INFORMATION AS AT 14 SEPTEMBER 2012

Arrium Limited has 95,188 shareholders holding 1,345,665,626 fully paid ordinary shares. The Company's constitution specifies the general terms with respect to issued share capital and variation of rights.

# **RANGE OF HOLDERS**

RANGE	TOTAL HOLDERS	SECURITIES
1 – 1,000	36,706	18,925,726
1,001 – 5,000	38,752	91,325,102
5,001 - 10,000	10,028	74,207,755
10,001 – 100,000	9,199	220,723,453
100,001 and over	503	940,484,590
Total	95,188	1,345,665,626

## **TOP 20 HOLDERS**

RANK	NAME	SECURITIES	% ISSUED CAPITAL
1	HSBC CUSTODY NOMINEES (AUSTRALIA) LIMITED	186,304,645	13.84
2	CITICORP NOMINEES PTY LTD	164,633,280	12.23
3	J P MORGAN NOMINEES AUSTRALIA LIMITED	148,390,985	11.03
4	NATIONAL NOMINEES LIMITED	120,291,943	8.94
5	J P MORGAN NOMINEES AUSTRALIA LIMITED (CASH INCOME A/C)	18,850,313	1.40
6	CITICORP NOMINEES PTY LIMITED <a c="" drp=""></a>	15,333,254	1.14
7	AMP LIFE LIMITED	12,722,906	0.95
8	BNP PARIBAS NOMS PTY LTD <master cust="" drp=""></master>	12,472,946	0.93
9	CPU SHARE PLANS PTY LTD (OST DEF CONTROL A/C)	11,645,835	0.87
10	BRISPOT NOMINEES PTY LTD < HOUSE HEAD NOMINEE NO 1 A/C>	10,257,272	0.76
11	RAYLOU INVESTMENTS PTY LTD <the 2009="" a="" c="" raymund=""></the>	7,753,072	0.58
12	QIC LIMITED	7,750,123	0.58
13	CS FOURTH NOMINEES PTY LTD	7,611,326	0.57
14	BNP PARIBAS NOMS PTY LTD (SMP ACCOUNTS DRP)	6,718,550	0.50
15	AUS-ORE INVESTMENTS PTY LTD	6,366,658	0.47
16	ARGO INVESTMENTS LIMITED	6,079,109	0.45
17	MERRILL LYNCH (AUSTRALIA) NOMINEES PTY LIMITED	5,782,331	0.43
18	HSBC CUSTODY NOMINEES (AUSTRALIA) LIMITED - A/C 2	5,767,939	0.43
19	CPU SHARE PLANS PTY LTD <ost a="" c="" control="" lti=""></ost>	4,960,045	0.37
20	MORGAN STANLEY AUSTRALIA SECURITIES (NOMINEE) PTY LIMITED <no 1="" account=""></no>	4,866,466	0.36
Total t	op 20 holders	764,558,998	56.82
Total r	emaining holders	581,106,628	43.18

#### **HOLDERS OF AN UNMARKETABLE PARCEL**

There were 33,366 holders with less than a marketable parcel of 910 securities.

## **ASX LISTING**

Arrium Limited (formerly OneSteel Limited, ASX:OST) listed on ASX on 23 October 2000. The Company's fully paid ordinary securities are quoted on the Australian Securities Exchange under Issuer Code ARI (formerly OST).

## **SUBSTANTIAL HOLDERS**

Substantial shareholders, as defined by the *Corporations Act 2001* (Cth) as at 24 September 2012 were:

NAME	SECURITIES
Government of Singapore Investment Corporation Pty Ltd	81,539,509
Dimensional Entities	67,519,163

#### SHARE REGISTRY

Shareholders with queries about anything related to their holding should contact Arrium's Share Registry, Computershare Investor Services Pty Limited by telephone 1300 364 787 (toll free within Australia) or +61 3 9415 4026 (for callers outside Australia). Alternatively, shareholders may wish to write to:

Computershare Investor Services Pty Limited GPO Box 2975 Melhourne VIC 3001 Australia

Computershare can also be contacted by email: arriumshareregistry@computershare.com.au.

Details of individual shareholdings can be checked conveniently and simply by visiting www.investorcentre.com.au and select 'Holding Enquiry' from the purple Menu tabs on the right. For security reasons, you will be required to enter your Securityholder Reference Number (SRN) or Holder Identification Number (HIN) and postcode.

#### **DIVIDENDS**

Where considered appropriate by the Board, Arrium expects to pay any dividends declared for the half year ending 31 December in April and for the full year ending 30 June in October by electronic direct deposit. Record, ex-dividend and payment dates are released to the ASX.

# **DIVIDEND REINVESTMENT PLAN**

As an alternative to receiving cash dividends, eligible shareholders may elect to participate in the Dividend Reinvestment Plan (DRP). The DRP enables shareholders to use cash dividends to purchase fully paid ordinary shares. Participation in the DRP is optional.

To view Arrium's Dividend Reinvestment Plan Rules, visit our website, www.arrium.com.

#### TAX FILE NUMBERS

Arrium is required to withhold tax on unfranked components of dividends or interest paid to investors residing in Australia who have not supplied the Company with a Tax File Number (TFN) or exemption form. Shareholders are encouraged to submit a TFN notification to Arrium's Share Registry, Computershare, but are not required by law to provide their TFN.

## **INTERNET ADDRESS**

Go to www.arrium.com.

#### **BUY BACKS**

There are no current on-market buy-backs in operation.

# **PUBLICATIONS** AND SHAREHOLDER **COMMUNICATIONS**

Shareholders wishing to receive Company information electronically are encouraged to register their email address online. Visit www.investorcentre.com/ecomms to register your email address. Please note, you will need your Securityholder Reference Number (SRN) or your Holder Identification Number (HIN) to successfully register your email address against your holding.

## **CHANGE OF ADDRESS**

Issuer sponsored shareholders should notify the Share Registry of any change to their registered address. For added security, shareholders should quote their previous address and Securityholder Reference Number (SRN). CHESS shareholders should advise their sponsoring broker or non-broker participant.

# REMOVAL FROM **MAILING LIST**

Shareholders who do not wish to receive communications should contact the Share Registry.

#### **CHANGE OF NAME**

Shareholders who change their name should notify the Share Registry. A certified copy of your marriage certificate or deed poll will be required.

# **SPINOUT OF ARRIUM LIMITED (FORMERLY ONESTEEL LIMITED) FROM BHP - CAPITAL GAINS TAX COST BASE INFORMATION**

For more information, please visit our website, the ATO website (www.ato.gov.au) or talk to your own financial adviser.

# **SMORGON STEEL GROUP LIMITED SCHEME OF ARRANGEMENT** INFORMATION FOR **FORMER SMORGON** STEEL GROUP LIMITED **SHAREHOLDERS**

For further information, please visit our website, the ATO website (www.ato.gov.au) or talk to your own financial adviser.

# STATISTICAL SUMMARY

											% CHANGE
\$A MILLIONS	FY12 <sup>1</sup>	FY11 <sup>2</sup>	FY10 <sup>3</sup>	FY09 <sup>4</sup>	FY08 <sup>5</sup>	FY07 <sup>6</sup>	FY06 <sup>7</sup>	FY05 <sup>8</sup>	FY04 <sup>9</sup>	FY03	12/11
Group Results					-						
Sales revenue	7,594.5	7,133.0	6,204.6	7,241.5	7,434.3	4,300.6	4,004.6	3,938.5	3,269.2	3,060.6	6.5%
Other revenue/income	121.8	44.2	56.3	66.3	50.5	33.9	39.0	34.6	70.1	39.5	175.6%
Total income	7,716.3	7,177.2	6,260.9	7,307.8	7,484.8	4,334.5	4,043.6	3,973.1	3,339.3	3,100.1	7.5%
Gross profit	1,197.7	1,484.6	1,234.0	1,587.5	1,681.2	837.2	798.7	787.0	642.6	626.2	(19.3%)
EBITDA - underlying	581.0	642.0	617.6	661.2	807.7	436.1	396.7	377.1	324.2	307.6	(9.5%)
Depreciation, amortisation and impairment	(221.4)	(213.5)	(203.9)	(199.5)	(194.9)	(96.2)	(94.0)	(97.5)	(87.1)	(86.5)	3.7%
EBIT - underlying	359.6	428.5	413.7	461.7	612.8	339.9	302.7	279.6	237.1	221.1	(16.1%)
Finance costs	(121.1)	(101.1)	(89.2)	(172.2)	(159.6)	(55.8)	(56.7)	(53.6)	(42.2)	(44.5)	19.8%
Profit before tax - underlying	238.5	327.4	324.5	289.5	453.2	284.1	246.0	226.0	194.9	176.6	(27.2%)
Tax expense - underlying	(37.5)	(84.8)	(81.6)	(64.1)	(128.0)	(74.7)	(60.8)	(55.4)	(53.4)	(53.3)	(55.8%)
Profit after tax - underlying	201.0	242.6	242.9	225.4	325.2	209.4	185.2	170.6	141.5	123.3	(17.1%)
Non-controlling interests	(5.9)	(7.2)	(2.3)	(10.1)	(10.2)	(11.9)	(13.6)	(17.5)	(12.4)	(9.5)	(18.1%)
Net profit after tax - underlying	195.1	235.4	240.6	215.3	315.0	197.5	171.6	153.1	129.1	113.8	(17.1%)
Non-trading items, net of tax	(137.4)	(5.1)	17.8	14.2	(70.1)	9.5	15.9	49.7	(1.2)	(19.8)	2615.0%
Net profit after tax - statutory	57.7	230.3	258.4	229.5	244.9	207.0	187.5	202.8	127.9	94.0	(75.0%)
EBITDA - statutory	497.9	619.3	638.3	597.0	731.2	436.1	396.7	377.1	324.2	307.6	(19.6%)
•											
EBIT - statutory	134.9 13.8	403.6 302.5	423.2	395.3	518.7 359.1	339.9	302.7	279.6	216.1	201.3	(66.6%)
Profit before tax - statutory			334.0	223.1		284.1	246.0	226.0	194.9	176.6	(95.4%)
Profit after tax - statutory	63.6	237.5	260.7	239.6	255.1	218.9	201.1	170.6	120.5	103.5	(73.2%)
Total assets	8,931.4	8,343.3	7,067.7	6,933.1	7,291.5	3,569.5	3,138.8	3,087.1	2,803.2	2,577.0	7.1%
Inventory	1,450.9	1,601.0	1,433.0	1,239.9	1,298.9	836.3	758.9	836.7	704.6	591.0	(9.4%)
Total liabilities	4,430.8	3,837.6	2,575.0	2,596.8	3,862.1	1,919.5	1,637.2	1,698.8	1,429.8	1,292.0	15.5%
Funds employed	6,643.9	6,234.1	5,456.4	5,560.2	5,376.6	2,419.8	2,140.4	2,033.6	2,042.4	1,955.2	6.6%
Total equity	4,500.6	4,505.7	4,492.7	4,336.3	3,429.4	1,650.0	1,501.6	1,388.3	1,373.4	1,285.0	(0.1%)
Net debt <sup>10</sup>	2,143.3	1,728.4	963.7	1,223.9	1,947.2	769.8	638.8	645.3	669.0	670.2	24.0%
Net debt (incl hedging) <sup>11</sup>	2,203.5	1,814.1	1,006.5	1,305.2	2,080.8	840.8	692.4	645.3	669.0	670.2	21.5%
Number of shares on issue (millions)	1,345.7	1,338.1	1,331.6	1,325.8	878.7	575.7	569.3	563.8	554.8	546.9	0.6%
Operating cash flow - statutory	470.1	463.1	602.1	368.0	350.8	276.5	250.8	235.9	188.3	257.7	1.5%
Free cash flow - underlying	68.8	211.8	480.0	183.2	215.3	157.4	203.4	109.0	43.9	156.2	(67.5%)
Free cash flow	68.8	211.8	428.9	180.4	43.9	(81.4)	36.4	109.0	43.9	156.2	(67.5%)
Capital and investment expenditure	719.0	1,244.2	206.8	190.9	2,475.0	360.5	227.6	127.5	151.4	130.9	(42.2%)
Return on assets % <sup>12</sup>	4.2%	5.6%	5.9%	6.5%	8.4%	10.1%	9.7%	9.5%	8.8%	8.6%	-1.4pts
Return on equity %12	4.4%	5.4%	5.5%	5.7%	9.4%	13.4%	12.8%	12.1%	10.2%	9.5%	-1pts
Return on funds employed % (ROFE)12	5.5%	7.3%	7.5%	8.4%	11.3%	15.0%	14.5%	13.5%	11.6%	11.0%	-1.8pts
Sales margin <sup>12</sup>	4.7%	6.0%	6.7%	6.4%	8.2%	7.9%	7.6%	7.1%	7.3%	7.2%	-1.3pts
Gross profit margin	15.8%	20.8%	19.9%	21.9%	22.6%	19.5%	19.9%	20.0%	19.7%	20.5%	-5pts
Earnings per share (cents) - year end <sup>12</sup>	14.5	17.6	18.1	16.2	35.8	34.3	30.1	27.2	23.3	20.8	(17.6%)
Earnings per share (cents) - weighted average <sup>12</sup>	14.6	17.7	18.2	21.2	34.9	34.7	30.5	27.5	19.6	17.3	(17.5%)
Earnings per share (cents) - weighted average - statutory	4.3	17.3	19.5	22.6	27.1	36.3	33.3	36.4	23.2	17.3	(75.1%)
Dividends per share (cents)	6.0	10.0	11.0	10.0	21.5	18.5	17.0	13.5	12.0	11.0	-4 cents
Dividend payout ratio <sup>12</sup>	41.4%	56.8%	60.9%	49.2%	59.9%	69.6%	56.3%	49.6%	51.4%	52.6%	-15.4pts
Dividend payout ratio - statutory	139.9%	58.0%	56.7%	46.2%	77.1%	66.4%	51.5%	37.5%	51.9%	63.7%	81.9pts
Gearing - (incl hedging) (net debt/net debt + equity) <sup>10, 11</sup>	32.9%	28.7%	18.3%	23.1%	37.8%	33.8%	31.6%	31.7%	32.8%	34.3%	4.2pts
Gearing - statutory (net debt/net debt + equity) <sup>10</sup>	32.3%	27.7%	17.7%	22.0%	36.2%	31.8%	29.8%	31.7%	32.8%	34.3%	4.6pts
Interest cover (times EBITDA) <sup>12</sup>	4.8	6.4	6.9	3.8	5.1	7.8	7.0	7.0	7.7		-1.6 times
Interest cover incl capitalised interest (times) <sup>12</sup>	4.5	6.4	6.9	3.8	4.5	6.1	6.5	7.0	7.4		-1.9 times
Net tangible assets per share (\$)	1.20	1.39	1.77	1.66	1.53	2.38	2.15	1.95	1.93	1.77	(13.6%)
Employees	11,007	11,598	10,598	11,104	11,678	7,526	7,527	7,395	7,272	7,054	(5.1%)
Sales per employee (\$000s)	690	615	585	652	637	571	532	533	450	434	12.2%
Raw steel production (mt)	2.50	2.31	2.15	2.03	2.67	1.73	1.63	1.35	1.62	1.62	8.2%
Steel tonnes despatched (mt)	3.65	3.19	2.75	2.76	3.51	2.28	2.28	2.26	2.16	2.22	14.4%
steer termes desputened (mt/)	3.03	3.17	L.IJ	L.10	J.JI	L.LU	L + LU	L + LU	۲.10	L • L L	

- FY12 underlying results are before the impact of restructuring costs, tax adjustments, impairment, transaction costs and other non-recurring items of \$137.4 million net of tax. Refer to the detailed reconciliation on page 127. These statistics include results relating to the WPG subsidiaries acquired on 6 October 2011.
- detailed reconciliation on page 127. These statistics include results relating to the WPG subsidiaries acquired on 6 October 2011.

  FY11 underlying results are before the impact of restructuring costs including impairment of plant and equipment, over provision of tax in prior years and direct costs arising from the acquisition of the Moly-Cop Group of \$5.1 million after tax. Refer to the detailed reconciliation on page 127. These statistics include the results of the Moly-Cop Group from 31 December 2010. These figures have been restated to reflect the final fair value adjustments arising on acquisition of the Moly-Cop Group in December 2010.

  FY10 underlying results are before the impact of legal claims, accelerated depreciation, restructuring costs, tax consolidation and over provision of tax in prior years of \$17.8 million after tax.

- FY09 underlying results are before the impact of restructuring activities, tax consolidation and over provisions of tax in prior years of \$14.2 million after tax.

  FY08 underlying results are before the impact of restructuring costs and impairment of plant and equipment associated with the integration of the Smorgon Steel Group and Australian Tube

  Mills businesses of \$70.1 million after tax. The statistics include the results of the Smorgon Steel Group Limited from 20 August 2007 only.

  FY07 underlying results exclude the impact of the derecognition of deferred tax liabilities of \$9.5 million.
- FY06 underlying results exclude the tax benefit of \$15.9 million arising from adjustments to tax consolidation values. FY05 underlying results exclude the benefit relating to the reversal of impairment loss on transition to IFRS of \$49.7 million after tax.
- FY04 underlying results exclude the tax benefit of \$19.8 million arising from OneSteel's entry into the tax consolidation regime. Net debt under previous AGAAP has been adjusted to include securitisation which was previously classified as off-balance sheet.
- Includes the impact of cross-currency swaps hedging foreign currency denominated debt.

  These ratios are based on non-statutory underlying financial measures. Non-statutory components are used so that the ratio assist the reader to understand the performance of the Company. A reconciliation of non-statutory underlying financial measures to statutory results can be found on page 127.

The financial information presented for the years 2003 and 2004 has been presented under previous AGAAP and have not been restated under International Financial Reporting Standards (IFRS).

- The nature of the main adjustments to make the information comply with IFRS include: recognition of additional provisions relating to rehabilitation and make good and defined benefit obligations;
- restatement of deferred tax balances using the balance sheet method; consolidation of the employee share plan trust; and
- recognition of derivative financial instruments on balance sheet at fair value and application of hedge accounting.

  Note that the underlying earnings presented for the years 2003 and 2004 have been adjusted to exclude goodwill amortisation.

Pre-2003 financial information can be found on Arrium's website.

# **RECONCILIATIONS**

#### RECONCILIATION BETWEEN UNDERLYING AND STATUTORY RESULTS

	Continuing		Total						
	operations	Discontinued operations	Operations Statutory	Transaction costs <sup>1</sup>	Restructuring costs <sup>2</sup>	Impairment <sup>3</sup>	Tax adjustments <sup>4</sup>	Other items <sup>5</sup>	Total Operations Underlying
Sales revenue	7,455.0	139.5	7,594.5	-	-	-	_	-	7,594.5
Other revenue/income	118.3	3.5	121.8	-	-	-	-	-	121.8
Total revenue/income	7,573.3	143.0	7,716.3	-	-	_	_	_	7,716.3
Gross profit/(loss)	1,210.8	(13.1)	1,197.7	-	-	-	-	-	1,197.7
EBITDA	542.2	(44.3)	497.9	26.6	47.0	-	-	9.5	581.0
Depreciation and amortisation	(218.5)	(2.3)	(220.8)	-	-	-	-	2.8	(218.0)
Impairment	(8.0)	(134.2)	(142.2)	-	-	138.8	-	-	(3.4)
EBIT	315.7	(180.8)	134.9	26.6	47.0	138.8	_	12.3	359.6
Finance costs	(121.1)	-	(121.1)	-	-	-	-	-	(121.1)
Earnings before tax	194.6	(180.8)	13.8	26.6	47.0	138.8	-	12.3	238.5
Tax expense/(benefit)	21.0	28.8	49.8	(7.9)	(17.2)	(13.4)	(44.2)	(4.6)	(37.5)
Profit/(loss) after tax	215.6	(152.0)	63.6	18.7	29.8	125.4	(44.2)	7.7	201.0
Non-controlling interests	(5.9)	-	(5.9)	-	-	-	-	-	(5.9)
Net profit/(loss) after tax <sup>6</sup>	209.7	(152.0)	57.7	18.7	29.8	125.4	(44.2)	7.7	195.1

- 1 Direct costs related to the acquisition of WPG Resources Limited subsidiaries in October 2011 and the sale of Piping Systems business.
- 2 Related to redundancies from organisational changes and other direct expenditure associated with business restructures.
- 3 Impairment of property, plant and equipment and intangible assets associated with the Oil and Gas Pipe and LiteSteel™ Technologies businesses and land and buildings at Acacia Ridge.
- 4 Tax adjustments related to prior years and net impact of Minerals Resource Rent Tax.
- 5 Related to gains on disposal of Piping Systems and other non-recurring costs.
- 6 Net Profit/(Loss) After Tax refers to net profit attributable to equity holders of the parent.

#### **RECONCILIATION BETWEEN UNDERLYING AND STATUTORY RESULTS**

YEAR ENDED 30 JUNE 2011	STA	ATUTORY RESULTS			UND	ERLYING RESULT	S	- 7,133.0							
	Continuing operations	Discontinued operations	Total Operations Statutory	Transaction costs <sup>1</sup>	Restructuring costs <sup>2</sup>	Impairment³	Tax adjustments <sup>4</sup>	Operations							
Sales revenue	6,892.4	240.6	7,133.0	-	-	-	-	7,133.0							
Other revenue/income	43.8	0.4	44.2	-	-	-	-	44.2							
Total revenue/income	6,936.2	241.0	7,177.2	-	-	-	-	7,177.2							
Gross profit/(loss)	1,453.3	31.3	1,484.6	-	-	-	-	1,484.6							
EBITDA	629.6	(10.3)	619.3	13.9	8.8	-	-	642.0							
Depreciation and amortisation	(208.1)	(5.4)	(213.5)	-	-	-	-	(213.5)							
Impairment	(2.2)	-	(2.2)	-	-	2.2	-	-							
EBIT	419.3	(15.7)	403.6	13.9	8.8	2.2	-	428.5							
Finance costs	(101.1)	-	(101.1)	-	-	-	-	(101.1)							
Earnings before tax	318.2	(15.7)	302.5	13.9	8.8	2.2	-	327.4							
Tax expense/(benefit)	(68.4)	3.4	(65.0)	-	(2.6)	(0.7)	(16.5)	(84.8)							
Profit/(loss) after tax	249.8	(12.3)	237.5	13.9	6.2	1.5	(16.5)	242.6							
Non-controlling interests	(7.2)	-	(7.2)	-	-	-	-	(7.2)							
Net profit/(loss) after tax <sup>5</sup>	242.6	(12.3)	230.3	13.9	6.2	1.5	(16.5)	235.4							

- 1 Direct costs related to the acquisition of the Moly-Cop Group.
- 2 Restructuring costs related to redundancies from organisational changes and other direct expenditure associated with business restructures.
- 3 Related to impairment of plant and equipment associated with the manufacturing facility closure at Acacia Ridge.
- 4 Tax consolidation adjustments arising on finalisation of reset tax values.
- 5 Net Profit/(Loss) After Tax refers to net profit attributable to equity holders of the parent.

# **RECONCILIATIONS CONTINUED**

Reconciliation of segment underlying results from continuing operations to total underlying consolidated segment results\*

UNDERLYING RESULTS

		2012			2011	
MANUFACTURING	Continuing operations	Discontinued operations	Total segment	Continuing operations	Discontinued operations	Total segment
Total revenue/income	2,589.4	8.2	2,597.6	2,418.2	7.7	2,425.9
EBITDA	53.2	(8.1)	45.1	(75.4)	(11.2)	(86.6)
EBIT	(40.0)	(9.9)	(49.9)	(172.0)	(12.6)	(184.6)
Sales margin (EBIT)	(1.5%)	(120.7%)	(1.9%)	(7.1%)	(163.6%)	(7.6%)
Assets	2,323.0	-	2,323.0	2,594.5	-	2,594.5
Funds employed	1,822.4	-	1,822.4	2,042.1	-	2,042.1
Return on funds employed (%)	(2.1%)	-	(2.6%)	(8.4%)	-	(9.0%)

<sup>\*</sup>Underlying results from other segments are from total operations which are equivalent to the underlying results from the continuing operations of each segment.

UNDERLYING RESULTS

		2012			2011	
AUSTRALIAN DISTRIBUTION	Continuing operations	Discontinued operations	Total segment	Continuing operations	Discontinued operations	Total segment
Total revenue/income	2,285.6	150.0	2,435.6	2,191.2	247.4	2,438.6
EBITDA	32.4	(14.6)	17.8	38.6	1.0	39.6
EBIT	6.1	(16.0)	(9.9)	11.0	(0.8)	10.2
Sales margin (EBIT)	0.3%	(10.7%)	(0.4%)	0.5%	(0.3%)	0.4%
Assets	1,305.2	-	1,305.2	1,485.1	-	1,485.1
Funds employed	989.2	-	989.2	1,133.6	-	1,133.6
Return on funds employed (%)	0.6%	-	(0.9%)	1.0%	-	0.9%

<sup>\*</sup>Underlying results from other segments are from total operations which are equivalent to the underlying results from the continuing operations of each segment.

# RESERVES AND RESOURCES STATEMENT

#### **ORE RESERVES AND MINERAL RESOURCES**

The information in this report that relates to the mineral resources and ore reserves is based on information compiled by Paul Leevers who is a member of the Australasian Institute on Mining and Metallurgy.

Mr Leevers is a full-time employee of OneSteel Manufacturing Pty Ltd (a wholly-owned subsidiary of Arrium Limited) and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Leevers consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### **MIDDLEBACK RANGES**

Hematite reserves have increased by 0.8Mt since 30 June 2011 based on exploration activities carried out and after depletion of 6.4Mt due to mining during the year ended 30 June 2012. Significant tonnages were identified at the Iron Baron and Iron Chieftain Mining Area where exploration continues. Probable reserves includes 7.3Mt from the Iron Princess area mining which is subject to Native Heritage Clearance. This matter is currently under consideration by the relevant State Minister.

Magnetite Reserves have reduced by a further 3.0Mt in addition to depletion of 3.7Mt from mining activities since 30 June 2011 and an improvement in grade from an increase in DTR Mass Recovery of 1%.

Arrium has reviewed all previously mined areas and is furthering exploration activity to establish the potential to further increase hematite reserves. Arrium holds an exploration lease that extends from Iron Knob in the Northern Middleback Ranges to Iron Duke in the Southern Middleback Ranges and covers an area of significant mineralisation. Additional hematite resources were identified during the year primarily at the Iron Baron Mining Area (Cavalier and Queen) where exploration is continuing. Exploration activity is also continuing elsewhere in the Middleback Ranges.

#### **SOUTHERN IRON**

The Southern Iron reserve is represented by the Peculiar Knob Deposit and the Southern Iron resource is represented by the Peculiar Knob and Buzzard Deposits which are wholly-owned by Arrium.

Arrium Limited has acquired a 100% interest in the reserves and resources of Southern Iron Pty Ltd, following the acquisition of this company during the 2012 financial year. The reported reserves and resources as at 30 June 2012 are based on the results of drilling and exploration activities undertaken prior to Arrium Limited's acquisition of an interest. The balance of hematite and magnetite resources (Tui and Kestral Deposits in the Hawks Nest region) which were previously recognised as a Southern Iron resource have not been included in this report based on the extent of data available from drilling undertaken under previous ownership.

Arrium is undertaking further drilling and investigation to fully optimise the extraction of the Peculiar Knob, Buzzard and Tui Resources under Arrium ownership. Exploration activity continues at Peculiar Knob and in the Hawks Nest area where the Buzzard and Tui deposits are located.

All Resource and Reserve figures represent estimates as at 30 June 2012, unless otherwise stated. Rounding of tonnes and grade information may result in small differences presented in the totals.

Magnetite reserves are inclusive of magnetite stockpiles which will be depleted during life of mine.

MIDDLEBACK F	RANGES HEMATITE RES	ERVES							AS A	T 30 JUNE	2012	AS	AT 30 JUNE	2011		
CATEGORY		PROV	'ED ORE RE	SERVE	PROB <i>l</i>	ABLE ORE	RESERVE		TOTA	L ORE RESE	RVES	TOTA	AL ORE RESE	RVES	ARRIUM INTEREST	COMPETENT PERSON
	ORE TYPE	TONNES (m)	Fe GRADE (%)		TONNES (m)	Fe GRAI		P T0 (%)	NNES (m)	Fe GRADE (%)		TONNES (m)	Fe GRADE (%)	P (%)	%	
Total Quantity	Hematite, Goethite, Limonite, Minor magnetite	8.3	59.6	0.09	36.2	59.	5 0	.09 4	4.4	59.5	0.09	43.6	60.5	0.09	100	P Leevers
MIDDLEBACK F	RANGES MAGNETITE RE	ESERVES								AS AT 30	JUNE 2012		AS AT 30 JI	JNE 2011		
CATEGOR	RY		PROVED	ORE RESERVE	P	ROBABLE	ORE RESI	ERVE		TOTAL ORE	RESERVES	ī	OTAL ORE RE	ESERVES	ARRIUM INTEREST	COMPETENT PERSON
	ORE TYPE	T	ONNES (m)	DTR GRADE (%)	TO	NNES (m)	DTR GF	RADE (%)	TON	NES D (m)	TR GRADE (%)	TONN (	ES DTI	R GRADE (%)	%	
Total Quantity	Magnetite	3	33.1	43.5	3.	7.4	42	2.2	70	.5	41.8	77.	.2	40.8	100	P Leevers
SOUTHERN IRO	ON HEMATITE RESERVE	.S										AS AT 30	JUNE 2012			
CATEGORY			PROVED (	ORE RESERVE			PROB	ABLE ORE RE	SERVE			TOTAL OR	E RESERVES		ARRIUM INTEREST	COMPETENT PERSON
	ORE TYPE	TONN (ı	ES Fe	GRADE (%)	P (%)	TO	NNES (m) F	e GRADE (%	)	P (%)	TONN (	ES Fe m)	GRADE (%)	P (%)	%	
Total Quantity	Hematite, Goethite, Limonite, Minor magnetite	0.	0	0.0	0.00	1	6.4	63.1		0.00	16.	4	63.1	0.00	100	P Leevers

#### RESERVES AND RESOURCES STATEMENT CONTINUED

#### **MINERAL RESOURCES**

The table below shows Arrium's in-situ resource base adjacent to existing operations at a cut-off grade of Fe>50% and SiO<sub>2</sub> <20%.

The Total Mineral Resource includes all resources, including those used to derive Ore Reserves.

Mineral Resources that have not been used for estimation of Ore Reserves are shown separately.

MIDDLEBACK F	RANGES HEMATITE R	ESOURCES						AS AT 30	JUNE 2012	AS AT	30 JUNE 2011		
CATEGORY		MEASUREI	) RESOURCES	INDICATE	) RESOURCES	INFERRE	) RESOURCES	TOTAL RESO	URCES 2012	TOTAL RE	SOURCES 2011	ARRIUM INTEREST	COMPETENT PERSON
	TYPE	TONNES (m)	Fe GRADE (%)	TONNES (m)	Fe GRADE (%)	TONNES (m)	Fe GRADE (%)	TONNES (m)	Fe GRADE (%)	TONNES (m)	Fe GRADE (%)	%	
Total Quantity	Hematite, Goethite, Limonite, Minor magnetite	26.0	58.5	76.6	59.0	50.6	56.2	153.2	58.0	147.8	58.9	100	P Leevers
excluded	Hematite, Goethite, Limonite, Minor magnetite	10.8	57.9	36.5	58.1	44.6	55.8	91.9	57.0	83.8	58.1	100	P Leevers
MIDDLEBACK F	RANGES MAGNETITE	RESOURCES						AS AT 30	JUNE 2012	AS AT	30 JUNE 2011		
CATEGORY		MEASUREI	) RESOURCES	INDICATE	) RESOURCES	INFERRE	) RESOURCES	TOTAL RESO	URCES 2012	TOTAL RE	SOURCES 2011	ARRIUM INTEREST	COMPETENT PERSON
	TYPE	TONNES (m)	Fe GRADE (%)	TONNES (m)	Fe GRADE (%)	TONNES (m)	Fe GRADE (%)	TONNES (m)	Fe GRADE (%)	TONNES (m)	Fe GRADE (%)	%	
Total Quantity	Magnetite	36.5	41.2	79.6	39.6	112.1	37.5	228.2	38.8	233.7	38.7	100	P Leevers
Quantity excluded from Ore Reserves		6.8	41.0	35.9	39.6	107.7	39.5	150.4	39.6	150.4	38.0	100	P Leevers
SOUTHERN IRO	ON HEMATITE RESOU	RCES								AS AT 30 J	UNE 2012		
CATEGORY			MEASURED RE	SOURCES	INDICATE	D RESOURCES	INFER	RED RESOURCE	S	TOTAL RESOUR	CES 2012	ARRIUM INTEREST	COMPETENT PERSON
	TYPE	TO	NNES I	Fe GRADE (%)	TONNES (m)	Fe GRADE (%)	TONNES (m)	Fe GRAD		ONNES (m)	Fe GRADE (%)	%	
Total Quantity	Hematite, Goethite, Limonite, Minor magnetite		0.0	0.0	17.2	63.9	15.3	62.3	3	32.5	63.2	100	P Leevers
Quantity excluded from Ore Reserves	Hematite, Goethite, Limonite, Minor magnetite		0.0	0.0	0.6	63.7	15.3	62.3	3 :	15.8	62.4	100	P Leevers

## ARRIUM - IRON BARON AND SOUTH MIDDLEBACK RANGE ORE BENEFICIATION STOCKPILES

These are resources currently held in historically built stockpiles that are intended to be beneficiated to yield usable ore.

Ore Beneficiation commenced in the 2005 financial year at Iron Duke and in the 2012 financial year at Iron Baron drawing feed from the ore beneficiation stockpiles and mining.

Ore suitable for beneficiation is constantly being added to stockpiles at the mining operations due to recovery of ore which is not suitable for direct shipping.

Beneficiation Stockpile tonnes have reduced slightly due to additions to these stockpiles and depletion due to processing by the ore beneficiation operations.

The Ore Beneficiation Stockpiles with a mean estimated grade exceeding 45% Fe that can be beneficiated to meet current export grade specifications comprise the Mineral Resources in the following table.

Tonnes are reported before considering beneficiation yield, and grades are reported uncalcined. The estimates are valid as at 30 June 2012.

ARRIUM ORE B	ENEFICIATION STO	CKPILES						AS	AT 30 JUNE 2012	AS	AT 30 JUNE 2011		
CATEGORY		MEASU	IRED RESOURCES	INDICA	ATED RESOURCES	INFEF	RRED RESOURCES	TOTAL	RESOURCES 2012	TOTAL	RESOURCES 2011	ARRIUM INTEREST	COMPETENT PERSON
	TYPE	TONNES (MT DRY)	Fe GRADE (% UNCALCINED)	%									
Total Quantity	Hematite, Goethite, Limonite, Minor magnetite	3.6	53.6	7.3	53.3	8.4	53.6	19.2	53.5	19.9	53.6	100	P Leevers

# **GLOSSARY**

The company - Arrium Limited and/or its subsidiaries, as the context admits. Also referred to as Arrium.

The group - Arrium Limited and/or its subsidiaries, as the context admits. Also referred to as Arrium.

**The Moly-Cop Group** - the Moly-Cop and AltaSteel businesses acquired by Arrium on 31 December 2010 from Anglo American plc.

Billet - Billet is a section of cast steel approximately 127mm to 175mm square and 12 metres long which is used to produce rod and bar.

**Blast furnace** - Furnace used for converting iron ore into pig iron.

C&F, CFR - Cost and freight, amount includes freight cost.

Corporations Act - Corporations Act 2001 (Cth)

**CRU** - A London based consulting group that provides business information and market analysis in the areas of non-ferrous metals, steel and ferro-alloys and wire and cable.

**Despatches** - Term used for total tonnes sold to end markets.

Electric arc furnace - Furnace used to convert scrap steel into molten steel.

**Grinding media** - Used in the process of extracting minerals from ore.

Hematite - An iron oxide with the chemical formula Fe<sub>2</sub>O<sub>3</sub>,

Integrated steelworks - An integrated steelworks uses blast furnace and basic oxygen steelmaking technology to manufacture steel from iron ore.

**Lost Time Injury Frequency Rate** - A statistical measure of safety performance. A lost time injury is an injury which is attributable to a workplace incident and which results in at least one full shift of work being lost at some time (not necessarily immediately) after the shift during which the injury occurred.

Lost time injury frequency rate is the number of lost time injuries per million hours worked and is calculated as follows: lost time injury frequency rate equals number of lost time injuries per reporting period times one million, divided by hours worked per reporting period.

Magnetite - An iron oxide with the chemical formula Fe<sub>3</sub>O<sub>4</sub>.

Medical Treatment Injury Frequency Rate - A statistical measure of safety performance.

A medical injury is an injury which is attributable to a workplace incident, requires medical treatment (including restricted work) and results in less than a full shift of work being lost. Injuries which result in a least one full shift of work being lost are classified as lost time iniuries (refer above).

The medical treatment injury frequency rate is the number of medical treatment injuries per million hours worked and is calculated as follows: medical treatment injury frequency rate equals number of medical treatment injuries per reporting period times one million, divided by hours worked per reporting period.

Non-CIS - In the context of prices for Asian imports of hot rolled coil. it refers to product not sourced from the region previously know as the Soviet Union.

Ore - Mineral bearing rock.

Ore Reserve - Represents what is currently economically feasible to mine.

Ore Resource - Refers to the total ore body.

Pellet plant - The pellet plant takes iron ore and produces hard balls of iron ore that can be fed into the blast furnace.

Plate - Large flat sections of steel used for the manufacture of tanks, pressure vessels etc.

**Platts** - Global provider of energy and metals information and source of benchmark price assessments in the physical energy markets.

**Production** - Term used to define total tonnes produced in particular product.

Project Magnet - Project commenced in 2005 to convert Arrium's Whyalla Steelworks to magnetite iron ore feed, enabling export sales of hematite iron ore reserves.

Raw steel - Raw steel is produced at the Whyalla Steelworks and the Sydney Steel Mill and is cast in the form of billet, bloom and slab steel.

Reinforcing steel - Used for reinforcing concrete.

Rod and bar - Rod and bar is semi-finished product that can be used for further value-added products such as wire, reinforcing steel, grinding media, posts etc.

SBB - Steel Business Briefing is an independent publisher that provides news and information to the global steel industry.

Scope 1 - Direct emissions generated. Emissions that are the release of greenhouse gases into the atmosphere as a direct result of an activity, or series of activities (including ancillary activities) that constitute the facility.

Scope 2 - Indirect emissions generated. Emissions that are the release of greenhouse gases into the atmosphere as a direct result of one or more activities that generate electricity, hearing, cooling or steam that is consumed by the facility but do not form part of the facility.

Sheet and coil - Sheet and coil is purchased from outside steel producers and processed and distributed by OneSteel or used in the manufacture of pipe and tube.

Slab - Slab is a section of cast steel usually 250mm thick and between 600 and 1800mm wide and 12 metres long.

Steel & Tube NZ - Steel & Tube Holdings Limited and/or its subsidiaries, as the context admits.

Steel Transformation Plan - (STP) is a \$300 million program introduced by the Australian Federal Government operating over six payment years from 2011/12 that aims to encourage investment, innovation and competitiveness in the Australian steel manufacturing industry in order to assist the industry to transform into an efficient and economically sustainable industry in a low carbon economy. The STP aims to support manufacturers of integrated iron and steel and manufacturers of carbon steel from cold ferrous feed that satisfy the eligibility requirements outlined in the Steel Transformation Plan Act 2011. Arrium is a beneficiary of the STP.

Structural steel - Large steel sections used for frames for buildings, factories, bridges and other infrastructure.

**Tex Report** - A daily newspaper published in Japan that reports news on trade in steel products, coal and coke, iron ore, pig iron and ferrous scrap and ferro-allovs.

WPG Resources - WPG Resources Limited and/or its subsidiaries, as the context admits. Also referred to as WPG.

Western Australia, Australia

Queensland, Australia

WA QLD

# ADDDEVIATIONS

ABBREVIATION	NAME
ABS	Australian Bureau of Statistics
ARC	Australian Reinforcing Company
ASIC	Australian Securities and Investments Commission
ASX	Australian Securities Exchange
ATM	Australian Tube Mills
AUD	Australian Dollar
ВМА	BHP Billiton Mitsubishi Alliance
C&F	Cost and Freight, as used in international sales contracts to signify that the seller must pay the cost and freight necessary to bring goods to a port of destination
CO <sub>2</sub>	Carbon Dioxide
CPI	Consumer Price Index
CY	Calendar Year
DMTU	Dry Metric Tonne Unit
DRP	Dividend Reinvestment Plan
DSO	Direct Shipped Ore
EAF	Electric Arc Furnace
EBIT	Earnings Before Interest, Tax, Depreciation and Amortisation
EPA	Environment Protection Authority
ETS	Emissions Trading Scheme
FOB	Free On Board, meaning the seller assumes the cost of having goods packaged and ready for shipment from the agreed designated FOB point. The buyer assumes the costs and risks from the FOB point
FTE	Full time equivalent
FY	Financial Year
GFC	Global Financial Crisis
GHG	Greenhouse Gas
GM	General Manager
GST	Goods and Services Tax
HPI	High potential incident
HRD	Hot rolled coil
ISO 31000:2009	Risk management standard – principles and guidelines prepared by Joint Standards Australia/ Standards New Zealand Committee OB-007 to supersede AS/NZS 4360:2004
ISO 9001/9002	Global quality management standard
JORC Code	The 1999 Australasian Code for Reporting of Mineral Resources and Ore Reserves
Kt	Thousand tonnes
LHS	Left hand side
LME	London Metal Exchange
MRRT	Mineral Resource Rent Tax
Mt	Million tonnes
Mtpa	Million tonnes per annum
, NPAT	Net Profit After Tax and Minorities
NZ	New Zealand
OBP	Ore Beneficiation Plant
OSCAs	Outstanding Service to Customer Awards
OHS	Occupational Health and Safety
OZ	Ounce
RHS	Right hand side
SBB	Steel Business Briefing
SSF	Steel Stewardship Forum
TSR	Total Shareholder Return
Troy ounce	Unit of imperial measure. Most commonly used to gauge the weight of precious metals including gold, silver, platinum and gunpowder.
UK	United Kingdom
USA	United States of America
USD	United States Dollar
VIC	Victoria, Australia
NSW	New South Wales, Australia
IN/A	Western Australia Australia

# CORPORATE DIRECTORY

ACN 004 410 883 ABN 63 004 410 883

#### **DIRECTORS**

Mr Peter J Smedley (Chairman)

Mr R Bryan Davis

Mr Colin R Galbraith, AM

Mr Peter G Nankervis

Mr Geoffrey J Plummer

Mr Dean A Pritchard

Mr Graham J Smorgon

Ms Rosemary Warnock

#### COMPANY SECRETARY

Ms Kara L Nicholls

#### **REGISTERED OFFICE AND PRINCIPAL PLACE OF BUSINESS**

c/- Company Secretary, Arrium Limited

Level 40, 259 George Street Sydney NSW 2000, Australia

Telephone: +61 2 9239 6666 Facsimile: +61 2 9251 3042 Internet: www.arrium.com

#### **SHARE REGISTRY**

Computershare Investor Services Pty Limited

GPO Box 2975

Melbourne VIC 3001 Australia

Telephone: 1300 364 787 or +61 3 9415 4026

Facsimile: +61 3 9473 2500

Email: arriumshareregistry@computershare.com.au

Internet: www.computershare.com

#### **AUDITOR**

**KPMG** 

#### **AUSTRALIAN SECURITIES EXCHANGE**

Effective 2 July 2012, OneSteel Limited (ASX:OST) changed its name to Arrium Limited.

Arrium Limited's ordinary shares are quoted on the Australian

Securities Exchange (ASX:ARI).

#### FINANCIAL CALENDAR (subject to change)

#### 19 November 2012

Annual General Meeting

#### 31 December 2012

End of first half of the financial year

#### 19 February 2013

Half year results and interim dividend announced to ASX

#### 4 March 2013

Interim dividend - ARI securities quoted on an ex basis

#### 8 March 2013

Interim dividend - Record date

Interim dividend - last day to elect to participate in Dividend

Reinvestment Plan

Interim dividend - last day to advise Registry of Tax File Number

#### 18 April 2013 (on or around)

Interim dividend - Payment date

#### 30 June 2013

End of financial year

# 20 August 2013

Full year results and final dividend announced to ASX

#### 9 September 2013

Final dividend - ARI securities quoted on an ex basis

#### 13 September 2013

Final dividend - Record date

Final dividend - last day to elect to participate in Dividend

Reinvestment Plan

Final dividend - last day to advise Registry of Tax File Number

# 17 October 2013 (on or around)

Final dividend - Payment date

Annual Report and Notice of Annual General Meeting dispatched

#### 18 November 2013

Annual General Meeting

# ATERIALS ARRIUM LIMI

Ē

3

REPORT

2012