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23 May 2012

Mr Geoffrey Gleeson
Director, Operations 3
International Trade Remedies Branch
Australian Customs and Border Protection Service
Customs House
5 Constitution Avenue
CANBERRA ACT 2601

Dear Mr Gleeson

Public File

ATM Correspondence 2012/18 - HSS exported from China, Korea, Malaysia, Taiwan and Thailand - Investigation No. 177 - Like Goods

A recent submission by the ASA has suggested that certain Hot Dipped Galvanized ("HDG") HSS is not available for supply in Australia from local production. In particular it is suggested that air-blown and straightened HDG should be excluded from proposed measures as recommended in SEF No. 177.

OneSteel ATM takes this opportunity to address these assertions.

It is OneSteel ATM's view that any examination of 'like goods' must be based on fundamental product criteria that directly affects the substitutability of the goods. It has been claimed that HDG that cannot be "air-blown" or "straightened" cannot be supplied from local production.

As Customs and Border Protection ("C&BP") is aware, OneSteel ATM continues to offer and supply HDG CHS from local supply, with the galvanizing function outsourced to external providers. This is not unique and it is noted that Alpine (Malaysia) and Pacific (Thailand) similarly outsource HDG functions.

Product Straightness

OneSteel ATM continues to supply HDG CHS product to AS1163 and both AS1074 and AS1163 in Medium/Heavy gauges. Only AS1163 specification carries a straightness tolerance (1 in 500) for CHS sections.

Imported HDG CHS product more often than not is quoted as being compliant with BS1387 (an obsolete British Standard). As C&BP is aware, BS 1387 was identical to AS 1074 and does not have a tolerance for straightness. Refer Non-Confidential Attachment 1.

OneSteel ATM continues to have product straightening equipment on the Acacia Ridge site should it be necessary to re-straighten HDG CHS post-Galvanizing.

Galvanizing thickness/corrosion performance

Based on the attached standards and specifications from Industrial Galvanizers (Refer Non-Confidential Attachment 2) the average thickness of Zinc applicable for ATM HDG CHS product Galvanized externally ranges from 390gm/m² to 500gm/m² average Zinc thickness (depending on wall thickness).

OneSteel ATM HDG CHS has historically (pre-Acacia Ridge mothballing) and continues to be promoted as a product with a minimum zinc thickness of 300gm². This continues to be achieved through externally sub-contracted galvanizing.

OneSteel ATM's previous testing of imported HDG has revealed a wide range of zinc thicknesses historically. The attached table contains xx test results over an extended period of time with zinc thicknesses ranging from 213 gm/m² to 1260 gm/m². Average internal coating thicknesses on samples measured was xxxgm/m². Refer Confidential Attachment 3

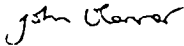
Prior to OneSteel ATM mothballing its galvanizing facility at Acacia Ridge it had been common practice for OneSteel ATM to have pipe Galvanized externally at both Newcastle and Brisbane as required.

Conclusion

OneSteel ATM considers that locally produced HSS is a like good to imported HSS and that C&BP should disregard claims for the exclusion from measures of certain HDG (i.e. air-blown and straightened HSS).

If you have any questions concerning this letter please do not hesitate to contact me on (07) 3342 1921.

Yours sincerely



John O'Connor
Director

Cc **Stephen Porter, General Manager Sales – OneSteel Manufacturing**

Attachment 7

PUBLIC
FILE
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AS/NZS 1163:2009

AS/NZS 1163:2009

Australian/New Zealand Standard™

Cold-formed structural steel hollow sections

Accessed by ONESTEEL on 16 May 2012



8 MANUFACTURING TOLERANCES

8.1 General

Tolerances and limits on the dimensions and mass of cold-formed hollow sections shall conform with the values given in—

- (a) Table 3, for shape and mass;
- (b) Table 4, for external corner profiles; and
- (c) Table 5, for length.

Where relevant, Tables 3, 4 and 5 shall be read in conjunction with Clause 8.2.

The internal corners of square and rectangular hollow sections shall be rounded.

NOTE: The internal corner profile is not specified.

TABLE 3
TOLERANCES FOR SHAPE AND MASS

Characteristic	Circular hollow sections	Square and rectangular hollow sections
External dimensions (d_c , d and b)	$\pm 1\%$, with a minimum of ± 0.5 mm and a maximum of ± 10 mm	$\pm 1\%$ with minimum of ± 0.5 mm
Thickness (t)	For $d_c \leq 406.4$ mm: $\pm 10\%$ For $d_c > 406.4$ mm: $\pm 10\%$ with a max of ± 2 mm	+10%
Out-of-roundness (σ)	2% for hollow sections having a diameter to thickness ratio not exceeding 100 (see Note 1)	—
Concavity/convexity (see Note 2)	—	Max. 0.8% or 0.5 mm, whichever is greater
Squareness of sides	—	$90^\circ \pm 1^\circ$
External corner profile	—	See Table 4
Twist (v)	—	2 +0.5 mm/m length
Straightness (see Note 3)	0.20% of total length	0.15% of total length
Mass (m) per unit length	Not less than 0.96 times the specified mass (Note 4) on individual lengths	

NOTES:

- 1 Where the diameter to thickness ratio exceeds 100, the tolerance on out-of-roundness becomes the subject of agreement between the manufacturer and purchaser.
- 2 The tolerance on convexity and concavity is independent of the tolerance on external dimensions.
- 3 The straightness tolerance applies to straightness in any one plane.
- 4 In lieu of any other requirement, the specified mass is considered to be the nominal mass as noted in Clause 16.

← Straightness
Tolerance

TABLE 4
EXTERNAL CORNER PROFILE

Perimeter mm	External corner profile (c_1 , c_2 or r_a) (see Note) mm
Equivalent to 50 × 50 or less	1.5t to 3.0t
Equivalent to greater than 50 × 50	1.8t to 3.0t

NOTE: The sides need not be tangential to the corner arcs.

Attachment 1

PUBLIC
FILE
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AS 1074—1989

Australian Standard®

**Steel tubes and tubulars for
ordinary service**

This Australian Standard was prepared by Committee WS/4, Steel Pipes and Fittings-Water and Gas. It was approved on behalf of the Council of Standards Australia on 8 February 1989 and published on 10 April 1989.

The following interests are represented on Committee WS/4:

Confederation of Australian Industry
Metal Trades Industry Association of Australia
Public Works Department, New South Wales
The Australian Gas Association
Water Resources Commission, Queensland

Additional interests participating in preparation of Standard:

Water Authority of Western Australia

Review of Australian Standards. To keep abreast of progress in industry, Australian Standards are subject to periodic review and are kept up to date by the issue of amendments or new editions as necessary. It is important therefore that Standards users ensure that they are in possession of the latest edition, and any amendments thereto.

Full details of all Australian Standards and related publications will be found in the Standardly Australia Catalogue of Publications; this information is supplemented each month by the magazine 'The Australian Standard', which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn Standards.

Suggestions for improvements to Australian Standards, addressed to the head office of Standards Australia, are welcomed. Notification of any inconsistency or ambiguity found in an Australian Standard should be made without delay in order that the matter may be investigated and appropriate action taken.

PUBLIC
FILE
10

AS 1074—1989

Australian Standard®

**Steel tubes and tubulars for
ordinary service**

First published as AS B105—1951.
Second edition (consolidation of BS 1387:1957
with amendments—1960).
Revised and redesignated AS 1074—1971.
Second edition 1976.
Third edition 1980.
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PREFACE

This Standard was prepared by the Standards Australia's Committee on Steel Pipes and Fittings - Water and Gas to supersede AS 1074-1980, *Steel tubes and tubulars threaded or suitable for threading with pipe threads of Whitworth form.*

This edition adopts the descriptions, dimensions and masses as specified in BS 138:1985, *Specification for screwed and socketed steel tubes and tubulars and for plain end steel tubes suitable for welding or for screwing to BS 21 pipe threads.*

This Standard does not indicate the services for which the tubes are appropriate. Where the use of tubes is not controlled by by-laws or regulations, reference should be made to the appropriate Code of Practice or application Standard. Some Codes of Practice for building relating to town gas and water, and also the relevant by-laws, preclude the use of light tubes for these services. If the application is for pressure purposes, reference should be made to AS CB18, *SAA Pressure Piping Code Part 1: Ferruss piping.*

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STANDARDS AUSTRALIA

Australian Standard

Steel tubes and tubulars for ordinary service

SECTION 1. SCOPE AND GENERAL

1.1 SCOPE. This Standard specifies requirements for threaded steel tubes and tubulars, and plain-end steel tubes suitable for screwing as specified in AS 1722.1, and of DN 8 to DN 150 inclusive (nominal size). Three wall thicknesses of tube, designated Light, Medium, and Heavy, are specified in Section 2.

NOTE. Guidelines on information that should be specified by the purchaser or agreed upon at the time of enquiry or order are given in Appendix A.

1.2 REFERENCED DOCUMENTS. The following documents are referred to in this Standard.

AS	
1355	Glossary of terms used in connection with water and sanitary plumbing and drainage installations
1391	Methods for tensile testing of metals
1650	Galvanized coatings
1722	Pipe threads of Whitworth form
1722.1	Part 1: Sealing pipe threads
1835	Tubes for pressure purposes — Seamless steel
1836	Tubes for pressure purposes — Welded steel
2084	Non-destructive testing — Eddy current testing of metal tubes
BS	
3894	Method for converting elongation values for steel Part 1: Carbon and low alloy steels
ISO	
65	Carbon steel tubes suitable for screwing in accordance with ISO 7/1

1.3 DEFINITIONS. For the purpose of this Standard, the definitions given in AS 1355 and those below apply.

1.3.1 Tube length of uniform circular hollow section.

1.3.2 Socket — internally threaded coupling used in joining tubes.

1.3.3 Chamfer — machined or cast surface in the form of a cone at the entrance of a thread to assist assembly and prevent damage to the start of the thread.

1.3.4 Length of screwed-and-socketed tube.

1.3.4.1 Random length — length of tube with one socket screwed on.

1.3.4.2 Exact length — length of tube excluding socket.

1.3.5 Nominal size (DN) — a numerical designation of size which is common to all components in a piping system other than components designated by outside diameters or by thread size. It is a convenient round number for reference purposes and is only loosely related to manufacturing dimensions.

NOTE. It is designated by DN followed by a number, e.g. DN 32.

1.4 DESIGNATION. Tubes and tubulars shall be designated according to their nominal size.

Sockets and backnuts shall be designated according to the respective nominal sizes of the tubes for which they are intended.

SECTION 2. TUBES

2.1 PROCESS OF MANUFACTURE. Tubes may be either welded or seamless.

2.2 MATERIAL. Tubes shall be manufactured from steel which shows, not more than 0.045 percent of sulfur and not more than 0.045 percent of phosphorus. Carbon equivalent as calculated from the following equation shall not exceed 0.4:

$$\text{Carbon equivalent} = C + \frac{Mn}{6}$$

Lengths or strips cut from selected tubes and tested in accordance with AS 1391 shall show

- (a) minimum yield strength of 195 MPa;
- (b) a tensile strength of between 320 MPa and 460 MPa; and
- (c) an elongation of not less than 20 percent on a gauge length of $5.65\sqrt{S_0}$, where S_0 is the original cross-sectional area of the test piece.

NOTE: Where other gauge lengths are used, the corresponding elongation on $5.65\sqrt{S_0}$ can be obtained from BS 3894, Part 1.

2.3 DIMENSIONS OF TUBES. The dimensions of the tubes shall be as given in Tables 2.1, 2.2, and 2.3.

as applicable, subject to the tolerances as specified in Clause 2.4.

2.4 PERMISSIBLE VARIATION IN THICKNESS, DIAMETER, AND MASS. The following manufacturing tolerances shall be permitted on the tubes:

- (a) **Thickness:**
 - Light welded tubes + unlimited, - 8 percent.
 - Medium and heavy tubes —
 - Welded + unlimited, - 10 percent.
 - Seamless + unlimited, - 12.5 percent.
- (b) **Outside diameter:**
 - Light tubes as given in Table 2.1.
 - Medium tubes as given in Table 2.2.
 - Heavy tubes as given in Table 2.3.
- (c) **Mass.** The mean consignment mass for quantities of 150 m and over of one size shall not deviate from the standard mass by more than ± 4 percent. No single tube shall deviate from the standard mass by more than +10, - 8 percent.

TABLE 2.1
DIMENSIONS OF STEEL TUBES—LIGHT

Nominal size	Outside diameter mm		Thickness mm	Mass of black tube kg/m	
	Min.	Max.		Plain or screwed ends	Screwed and socketed
DN 8	13.2	13.6	1.8	0.515	0.579
DN 10	16.7	17.1	1.8	0.670	0.676
DN 15	21.0	21.4	2.0	0.947	0.956
DN 20	26.4	26.9	2.3	1.38	1.39
DN 25	32.2	33.6	2.6	1.98	2.00
DN 32	41.9	42.5	2.6	2.54	2.57
DN 40	47.8	48.4	2.9	3.23	3.27
DN 50	59.6	60.2	2.9	4.08	4.15
DN 65	75.2	76.0	3.2	5.71	5.83
DN 80	87.9	88.7	3.2	6.72	6.89
DN 100	115.0	113.9	3.6	9.75	10.0

NOTE: Dimensions and masses are in accordance with ISO 65 (light series 2).

TABLE 2.2
DIMENSIONS OF STEEL TUBES—MEDIUM

Nominal size	Outside diameter mm		Thickness mm	Mass of black tube kg/m	
	Min.	Max.		Plain or screwed ends	Screwed and socketed
DN 8	13.3	13.9	2.2	0.641	0.645
DN 10	16.8	17.4	2.2	0.839	0.845
DN 15	21.1	21.7	2.6	1.21	1.22
DN 20	26.6	27.2	2.6	1.56	1.57
DN 25	33.4	34.2	3.2	2.41	2.43
DN 32	42.1	42.9	3.2	3.10	3.13
DN 40	48.0	48.8	3.2	3.57	3.61
DN 50	59.8	60.8	3.6	5.05	5.10
DN 65	75.4	76.6	3.6	6.43	6.55
DN 80	88.1	89.5	4.0	8.37	8.54
DN 100	113.3	114.9	4.5	12.2	12.5
DN 125	138.7	140.6	5.0	16.6	17.1
DN 150	164.1	166.1	5.0	19.7	20.3

NOTE: Dimensions and masses are in accordance with ISO 65.

Attachment 2 – Non-Confidential: Galvanising specifications from Industrial Galvanisers

COATING REQUIREMENTS

Thickness

The thickness of the galvanized coating shall conform with Table 1 and Table 2 in AS/NZS 4680:

TABLE 1.

REQUIREMENTS FOR COATING THICKNESS AND MASS FOR ARTICLES THAT ARE <u>NOT</u> CENTRIFUGED			
Article Thickness mm	Local coating thickness Microns	Average coating thickness Microns	Average coating mass g/m²
1.5mm or less	35	45	320
Over 1.5 to 3mm	45	55	390
Over 3 to 6mm	55	70	500
Over 6mm	70	85	600