

济南钢铁股份有限公司
出口产品简介

Export Products Introduction
of
Jinan Iron And Steel Company Limited

中国 • 山东
SHANDONG CHINA

前言

济钢始建于 1958 年，现有职工 3.8 万人，资产总额 260 亿元。主要产品有中板、中厚板、薄板、螺纹钢、翼板钢、中型材、球墨铸管、化产品等，是中国最大的中厚板生产、出口企业。

2004 年生产钢 687 万吨，进入中国十大钢行列，生产铁 545 万吨，钢材 556 万吨；实现销售收入 274 亿元，利税 31.4 亿元，利润 20.5 亿元；出口钢铁产品 117 万吨，创汇 4.4 亿美元。

2005 年，济钢产钢将达到 1000 万吨，销售收入将达到 400 亿元。济钢的目标是：实现做强做大，跨越发展，建设国内一流、国际先进的板材精品基地。

Forward

Jigang, established in 1958, has 38,000 employees and 26 billion Yuan of total assets at present. Its main products are medium plate, medium and thick plate, thin plate, hot rolled ribbed, flat bar, medium section steel, nodular graphite cast pipe and chemical products etc. Jigang is the largest production and export enterprise of medium and thick plate in China.

Jigang produced 6.87 million tons of steel in 2004 and became one of the ten largest producers in China, produced 5.45 million tons of iron and 5.56 million tons of rolled steel, earned 27.4 billion Yuan of sales income, 3.14 billion Yuan of tax and profit and 2.05 billion Yuan of profit, exported 1.17 million tons of

steel and iron products and earned 440 million US dollars.

In 2005, Jigang will produce 10 million tons steel and sales income will be 40 billion Yuan. The great target of Jigang is: Being stronger and larger, developing quickly and becoming the plate product base with best level in China and advanced level in the world.

主要出口产品目录 (Main export products Content)

★ 热轧钢板 (Hot-rolled steel plate)

★ 连铸方坯 (Con-casting billet)

★ 连铸板坯 (Con-casting slab)

★ 热轧薄板 (Hot-rolled thin plate)

★ 冷轧薄板 (Cold-rolled thin plate)

★ 彩涂板 (Color coating plate)

★ 镀锌板 (卷) (Cold galvanized plate (coil))

★ 中型材 (Medium section steel)

 热轧带肋钢筋/光圆钢筋 (Hot-rolled ribbed bar/plain steel bar)

 槽钢 (Channel steel)

 角钢 (Angle steel)

 翼板钢 (Flat bar)

★ 合资企业--济钢 (马) 钢板有限公司

 (Joint Venture--JI KANG DIMENSI SDN. BHD.)

★ 附录 1: 中板生产工艺流程

 Appendix 1: Technological flow of medium plate

★ 附录 2: 中厚板生产工艺流程

 Appendix 2: Technological flow of medium and thick plate

★ 附录 3: 中厚板热处理生产工艺流程

 Appendix 3: Technological flow of medium and thick plate
 heat treatment

❖ 热轧钢板

Hot-rolled Steel Plate

济钢能够生产的材质、厚度 (Grade and Thickness: Jigang can produce)

类别 Type	产品牌号 Grade	执行标准 Standard	厚度 (mm) Thickness
结构钢板 (机械建筑结构 桥梁) Structural plate (mechanical, building, structural, bridge)	Q235A/B	GB700	6~70
	Q235C/D		6~50
	Q345A/B	GB/T 1591	6~70
	Q345C/D、Q390A/B, Q420A/B		6~50
	Q390C、Q420C		6~40
	Q460C、Q390D/Q420D		6~30
	JG460C	JGX360	6~30
	JG590	Q/LYS 175	6~30
	Q235GJC\D、Q345GJC\D	YB4104 高建 (building)	6~40
	Q235qC/D、Q345qC/D、Q370qC/D	GB714 桥梁 (bridge)	6~40
	20#~50#, 45# 为主	GB699	6~80
	SS330、SS400、SS490	日标 JIS3101	6~50
	SM490A/B	日标 JIS3106	6~50
	SM520B/C, SM570		6~30
	St37-2、St44-2	德标 DIN17100	6~50
	A36、A283C	美标 ASTMA36	6~50
	A572 Gr50、Gr60	美标 ASTM A572	6~50
	43A、50B/C/D	英标 BS4360	6~50
	S355J2G3/K2G3, S355J0	欧标 EN10025	6~50
锅炉板 (boiler plate)	20g	GB713-1997	6~60
容器板 (container plate)	20R、16MnR	GB6654-1996	6~60
船板 (ship plate)	A、B、AH32、AH36	ABS (美)、BV (法)、DNV (挪威)、GL (德)、RINA (意)、NK (日)	6~25
	A、B、AH32、AH36	CCS (中)、LR (英)、KR (韩)	6~30
	D、DH32、DH36	ABS (美)、BV (法)、CCS (中)、DNV (挪威)、GL (德)、KR (韩)、LR (英)、RINA (意)、NK (日)	6~30
耐蚀板 (anti-corrosion plate)	Q235NH	JGX366-2005	6~30
	Q295NH	GB/T4172-2000	
	Q355NH	JGX364-2005	
	Q295GNH	GB/T4171-2000	
	JNS	JGX339-2004	
	09CuPCrNi、	JGX346-2004	
	SPA-H	JIS G3125-1987	
管线板 (Pipe-line plate)	A、B、X42、X46、X52、X56	API 5L	10~25

规格 (Specification)

中板 (medium plate)			中厚板 (medium and thick plate)		
厚度 mm (thickness)	宽度 mm (width)	长度 mm (length)	厚度 mm (thickness)	宽度 mm (width)	长度 mm (length)
6~14	1800~2000	6000~12000	16~40	2400~2800	6000~12000
12~14	2100~2200	6000~12000			
15~20	2100~2200	6000~8000			
出口量: 10 万吨/年。 Export Capacity: 0.1 million tons per year.			出口量: 20 万吨/年。 Export Capacity: 0.2 million tons per year.		
注: 1、中板重量范围 2~5 吨。 2、单规格订货数量在 50 吨以上。 Note: 1. The weight range of medium plates is from 2 to 5 tons. 2. The order quantity for each size should be above 50 tons.			注: 1、中厚板重量范围 9.00~11.34 吨。 2、厚度大于 40mm 的钢板, 其机械性能, 表面质量, 表面平整度不做要求。 3、单规格订货数量在 50 吨以上。 4、厚度大于 20mm 的钢板, 可以进行热处理。 Note: 1. The weight range of medium and thick plates is from 9 to 11.34 tons. 2. For thickness above 40 mm, no guarantee for mechanical property, surface conditions and surface flatness. 3. The order quantity for each size should be above 50 tons. 4. For thickness above 20 mm, can be processed with heat treatment.		

插入: 1、钢板图片 2、造船图片 3、船级社证书图片

❖ 连铸方坯

Con-casting Steel Billet

规格 (Specification):

120mm x 120mm x L $L \leq 6000\text{mm}$
150mm x 150mm x L $L \leq 10000\text{mm}$

材质 (Grade):

Q215, Q235, 20MnSi (V), 25MnSi (V)

❖ 连铸板坯

Con-casting Steel Slab

规格 (Specification):

180 mm x 1050 mm x 6000 mm (max)
200 mm x 1400/1250 mm x 10000 mm (max)
270 mm x 2100 mm x 2100 - 4000 mm
135 mm x 1250/1350/1550 (1000-1600) mm x 10000-13000mm
150 mm x 1250/1350/1550 (1000-1600) mm x 10000-13000mm

材质 (Grade: Special for 135/150mm) :

Type 类型	Usage 用途	Standard 标准	Typical grade 典型牌号
Carbon Structural Steel 碳素结构钢	Common Structural Plate 普通结构钢	GB/T700-1998	Q195-Q275
	Welding Structural Plate 焊接结构钢	JIS G3101	SS330-SS540
	Pipe Welding Steel Coil 焊接钢管	JIS G3132	SPHT1-SPHT4
High Quality Carbon Steel 优质碳素结构 钢	Galvanized Steel Sheet 镀锌钢板	GB/T699-1998	08 08A1
	Light Industry 轻工业	JIS G3131	SPHC-SPHE

	Mechanical Structural Steel 机械结构钢	JIS G3141	SPCC-SPCD
		JIS G4051	S20C-S55C
		SAE J403	1006, 1008
Low Alloy Steel 低合金钢	Automobile Structural Steel 汽车用结构钢	GB3125-91	SAPH310-SAPH440
		JIS G3113	
Anti-corrosion Steel 耐腐蚀钢	Container Plate 容器钢板	GB/T4171-1984	09CuPCrNi-A
		JIS G3125	SPA-H
		JIS G3114	SMA41-SMA58
	Vehicle Plate 汽车钢板	GB/T4172-1984	09CuPTiRE
Pipeline Steel 管线钢	Petroleum Pipeline Steel 石油管线钢	API5L	X42-X60
Cutted into Billet 切割坯	Alloyed Steel 合金钢	GB1499-1998	20MnSi (V), 25MnSi (V)

❖ 热轧薄板

Hot-rolled thin plate

材质 (Grade):

Q195~Q275 (50%); 08AL (20%); Low Alloy Steel (25%); X60; X70 (5%)

规格 (Size):

厚度 (thickness)	1.5~12.7mm
宽度 (width)	900~1550mm
最大卷重 (Max Weight/Coil)	27.80MT
内径 (Inner Diameter)	760mm
单位长度重量 (Weight/mm)	16~18kg/mm

产量: 250 万吨/年

Production Capacity: 2.5 million tons per year

注: 预计 2006 年上半年投产。

Note: Expect to put into production on the first half of 2006.

插图: 热卷照片

❖ 冷轧薄板

Cold-rolled thin plate

材质 (Grade): CQ, DQ, DDQ; HSLA

规格 (Size):

厚度 (thickness)	0.3~3.5mm
宽度 (width)	900~1650mm
最大卷重 (Max Weight/Coil)	30MT
内径 (Inner Diameter)	508~610mm
外径 (Outside Diameter)	1100~2000mm
单位长度重量 (Weight/mm)	16~18kg/mm

产量: 46 万吨/年

Production Capacity: 460 thousand tons per year

用途: 建筑、轻工、家电、汽车

Usage: Building, Light Industry, household appliances, automobile

注: 预计 2005 年 12 月投产。

Note: Expect to put into production on Dec. 2005.

插图: 冷卷照片

❖ 彩涂板

Color coating plate

规格 (Size):

厚度 (thickness)	0.2~1.0mm
宽度 (width)	800~1250mm
卷重 (weight/Coil)	5~10MT
内径 (inner Diameter)	508~610mm
锌层厚度 (thickness of galvanized)	90~300g/m ²

产量: 10 万吨/年

Production Capacity: 100 thousand tons per year

插图: 彩涂板照片

❖ 镀锌板 (卷)

Cold galvanized plate (coil)

材质 (Grade): CQ, DQ, DDQ

规格 (Size):

厚度 (thickness)	0.2~1.25mm
宽度 (width)	800~1250mm
卷重 (weight/Coil)	5~10MT
锌层厚度 (thickness of galvanized)	90~300g/m ²

产量:20 万吨/年

Production Capacity: 200 thousand tons per year

插图: 镀锌板照片

❖ 中型材

Medium Section Steel

◆ 热轧带肋钢筋 / 光圆钢筋

Hot rolled ribbed bar/plain steel bar

规格、材质: 公称直径见下表, $L \leq 15000$ mm.

Size and Grade: Metrical Diameter is as following, $L \leq 15000$ mm.

国 家 Country	标准号 Standard	牌号 Grade	屈服点 (σ_s , MPa) Yield point	公称直径(mm) Metrical Diameter
中 国 China	GB1499 GB13013	HRB335, HRB400, Q235	335, 400	$\Phi 12 \sim 32$
美 国 America	ASTM A615	Gr. 300, Gr. 400, Gr510	300, 420, 510	$\Phi 12 \sim 32$
英 国 U. K.	BS4449	250, 460	250, 460	$\Phi 12 \sim 32$
日 本 Japan	JIS Q3112	SD390, SD490	390, 490	$\Phi 12 \sim 32$
加拿大 Canada	CSA G30. 18-M92	400W	400	$\Phi 12 \sim 32$

◆ 槽钢

Channel Steel

材质(Grade):

GB700/Q235, JIS3001/SS400, BS4360/43A, ASTM/A36

规格(Size):

6.3#, 7.5#, 8#, 10#, 12#, 14#, 15#, 16#, $L=6000$ mm

(注: 以 6.3# 为例, 6.3 指槽钢的槽底宽度为 63mm, L 指槽钢的长度。)

(Note: For example, 6.3#, 63 means that the width of the Channel Steel bottom is 63mm, L means length of the Angel Steel.)

型号 Type	No.	6.3	7.5	7.5	8	10	10	12	12.5	14	15	16
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尺寸 Size	高度 h	63	75	75	80	100	100	120	125	140	150	160
	腿宽 b	40	35	40	43	48	46	53	44.5	58	47.6	63
	腰厚 d	4.8	4.0	3.8	5.0	5.3	4.0	5.5	4.5	6.0	4.7	6.5
重量 Weight	Kg/m	6.634	4.8	5.3	8.045	10.007	7.10	12.059	8.21	14.535	10.7	17.24

注：以线材捆装交货。Packing in bundle by wires.

◆ 角钢 Angle Steel

材质 (Grade):

GB700-88/Q215, Q235, JIS3101/SS400, BS4360/43A, ASTM/A36

规格 (Size):

63 X 63 X L, 75 X 75 X L, 80 X 80 X L, 90 X 90 X L,
100 X 63 X L L ≤12000 mm

(注：以“63 X 63 X L”为例，63 指的是角钢的边宽为 63mm，L 指角钢的长度。)

(Note: Take size “63 X 63 X L” as example, 63 means the width of the Angel Steel leg is 63mm, L means the length of Angel Steel.)

型号 Type	No.	6.3			7.5				8			
尺寸 Size	b(mm) 边宽	63			75				80			
	d(mm) 壁厚	6	8	10	6	7	8	10	6	7	8	10
重量 Weight	Kg/m	5.721	7.469	9.151	6.905	7.976	9.030	11.089	7.376	8.525	9.658	11.874

型号 Type	No.	9				10/6.3						
尺寸 Size	b(mm) 边宽	90				100/63						
	d(mm) 壁厚	7	8	10	12	6	7	8	10			
重量 Weight	Kg/m	9.656	10.946	13.476	15.940	7.550	8.722	9.878	12.142			

◆ 翼板钢 Flat bar

材质 (Grade): Q235B、Q345B

规格(Size):

Thickness	Width	Length
8	180\200\220\240\250	6000-10000 mm
10-22	180\200\220\240\250\300\320\330\340	6000-10000 mm

插入型材照片

❖ 合资企业--济钢（马）钢板有限公司

济钢（马）钢板有限公司位于马来西亚东半岛彭亨州关丹市格滨工业区，是迄今为止中国在马来西亚建立的最大合资项目，该项目于 1993 年 6 月 30 日奠基，1996 年 12 月 30 日全面投产，设计年产钢板能力为 35 万吨。主要设备包括：3 座连续式加热炉，粗除鳞、精除鳞，粗、精轧机，矫直机等等。

Joint Venture--JI KANG DIMENSI SDN. BHD.

Address: Lot 69-71, kawasan Perindustrian Gerbang, 26100 Kuantan, Pahang Darul
Makmur, Malaysia

Tel: 609-5834451/5834454

Fax: 609-5834452

E-mail: jikang@tm.net.my

JI KANG DIMENSI SDN. BHD. (Herein after referred to as JI KANG) located at the industrial district of Gebeng, Kuantan, Pahang Darul Makmur of Malaysia Peninsula. So far it is the largest joint venture that China has built in Malaysia. This project started on June 30th, 1993 and put into production on Dec. 30 1996. The annual capacity is about 0.35 million tons of hot rolled steel plates. The main equipment includes 3-continuous-heating furnaces, roughing and finishing descalers, roughing and finishing mills and hot levelers so on.

中厚板生产能力

Capacity of medium and thick plate production

生产品种 (Grade):

43A, 50B, SS400, A36, LRA, LRB

生产规格 (Size):

厚度 (Thickness): 6mm—30mm
长度 (Length): 4877mm—9144mm
宽度 (Width): 1524mm—2438mm

插入：主要装备照片：1、中厚板生产线

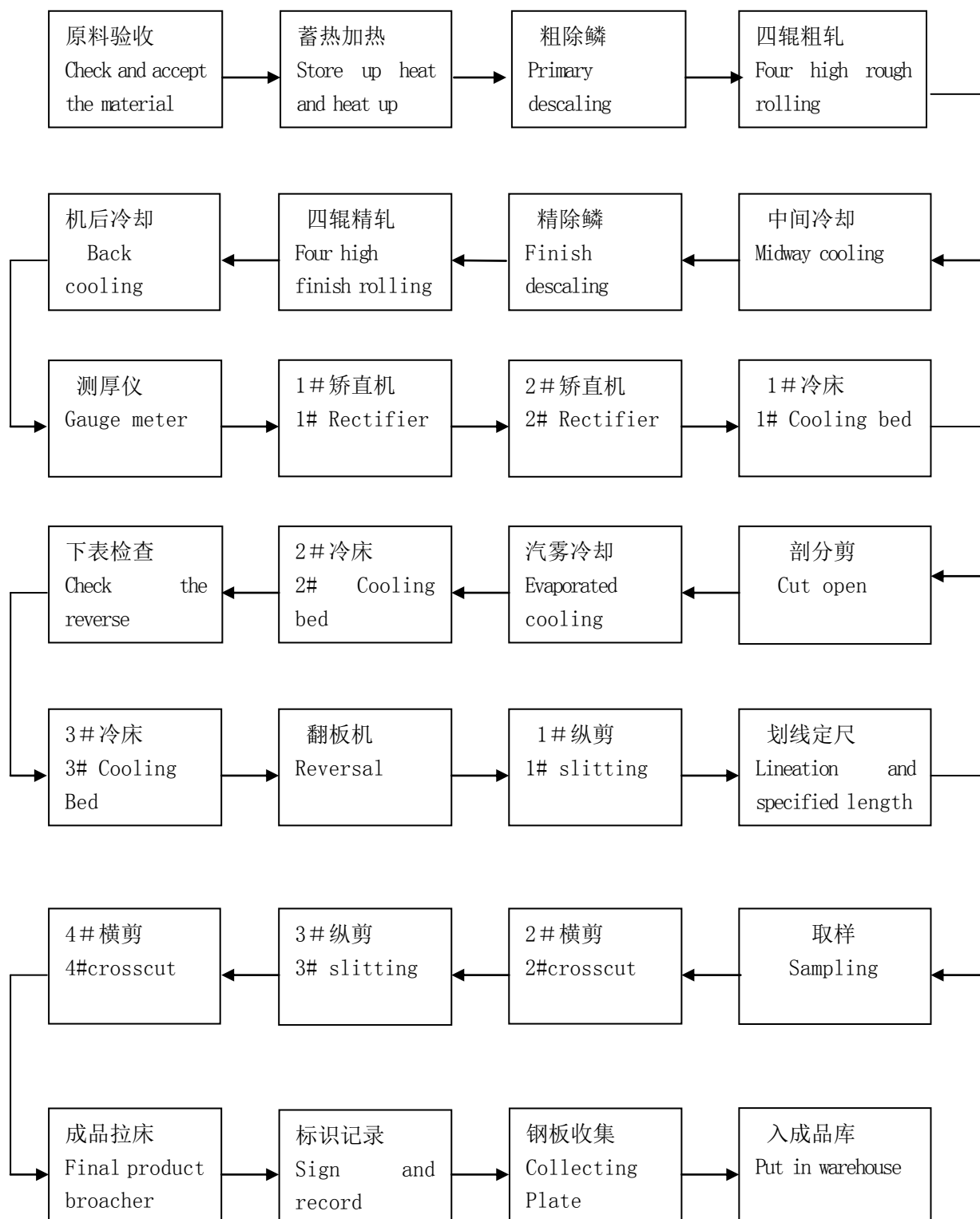
2、1750 高炉

3、1700 轧机

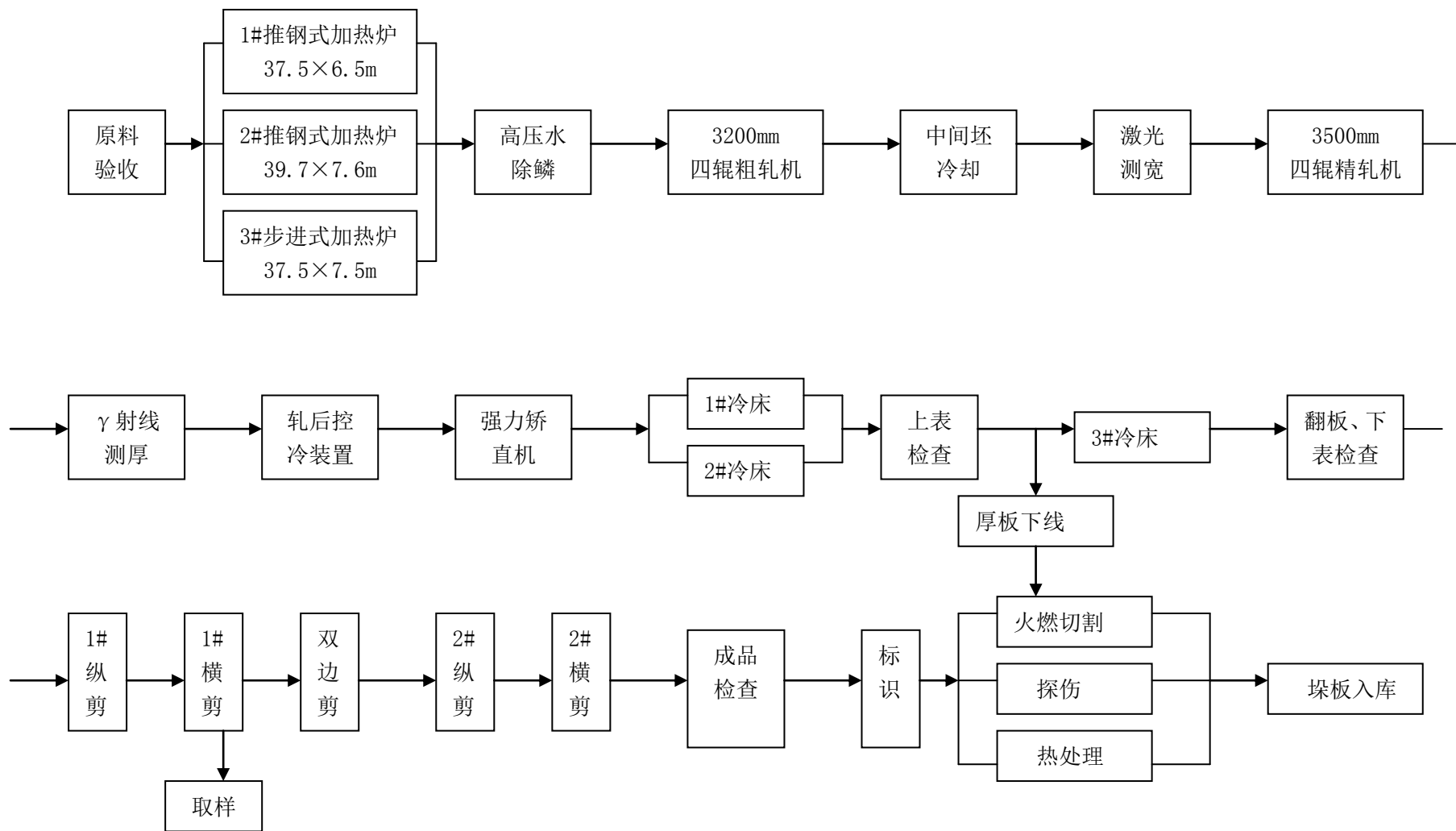
4、120 吨转炉及控制室

附录 1：中板生产工艺流程

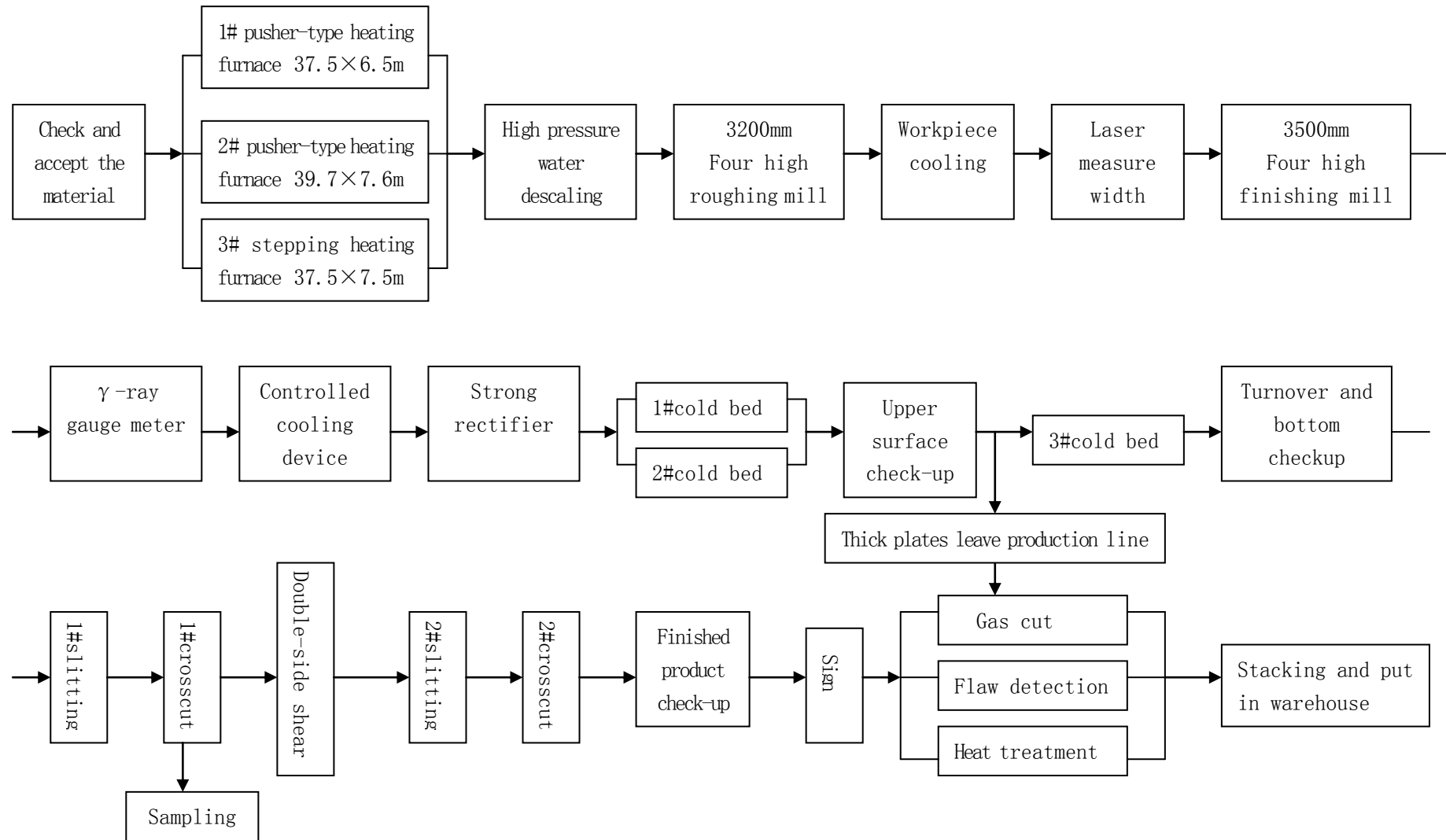
Appendix 1: Technological flow of medium plate



附录 2：中厚板生产工艺流程



Appendix 2: Technological flow of medium and thick plate



附录 3：中厚板热处理生产工艺流程

Appendix 3: Technological flow of medium and thick plate heat treatment

