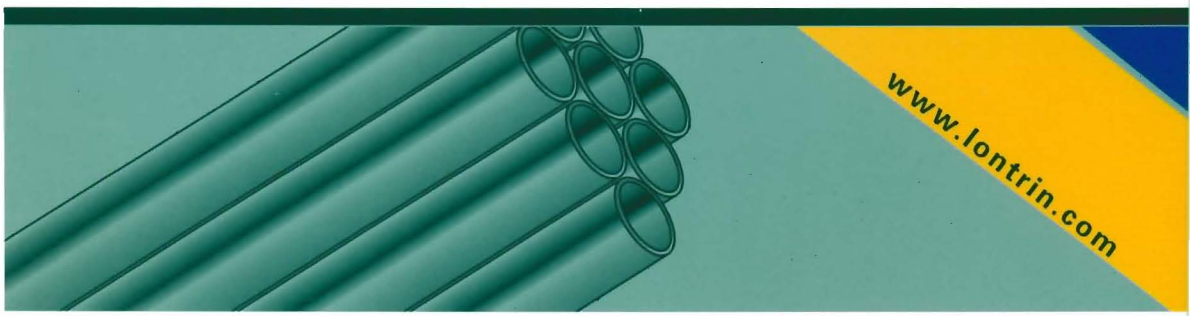
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扬州龙川钢管有限公司

YANGZHOU LONTRIN STEEL TUBE CO.,LTD



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扬州龙川钢管有限公司
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扬州龙川钢管有限公司

YANGZHOU LONTRIN STEEL TUBE CO.,LTD

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NO1



企业简介

扬州龙川钢管有限公司始建于2003年，位于江苏省江都市沿江开发区，南靠扬州港、西近宁启铁路、京沪、沿江、宁通三条高速在公司10公里交通圈内，在建的苏中机场仅距公司20公里，具有良好的地理环境和区域优势。

成长中的龙川钢管经过七年多的不懈努力，已实现前四期的规划目标，完成固定资产总投入人民币30亿元。现具备年产无缝钢管70万吨的规模，主要以生产ASTM/ASME、API、DIN、EN、JIS、BS、GB等标准为主，规格组距为Φ19-Φ811×2.5-120mm。产品广泛适用于电站锅炉、石油、石化、化工、电力、地质勘探、造船、机械、军工等行业。

龙川钢管在国内外享有较高声誉。在国内电站锅炉、石油、石化、化工等行业均建立了稳定的营销渠道，国内市场份额不断扩大；超过60%的产品远销亚、欧、美、非等46个国家和地区，市场国际化程度不断深化。

龙川钢管一贯坚持"走精品之路，做品牌企业"的发展战略，严格遵循"质量为本，用户至上，不断创新，持续改进"的质量方针。不断探索与企业规模相适应的管理模式，在国内钢管行业率先通过德国TüV ISO9001：2008质量管理体系认证；取得ISO14001:2004环境管理体系认证、通过API5CT、API5L、PED国际产品质量认证及LR、BV、CCS等多国船级社的工厂认证。获得国家质检总局颁发的压力管道元件(无缝钢管)制造许可证书。建立了国家级的钢管科研中心，国家级企业博士后科研工作站。

2009年底已启动总投资人民币15亿元，产品组距为Φ219-Φ811mm，年设计产能为30万吨的高合金无缝钢管生产线，于2011年3月底建成投产；同期已启动现代化的科研中心项目及投资20亿元年吐量30万吨的国际钢管物流中心项目。

到2013年，龙川钢管完成固定资产总投入人民币65亿元，将建成：占地达1平方公里、物产规模1百万吨（年制造无缝钢管70万吨、配送无缝钢管30万吨、规格组距为Φ19-Φ811mm）、销售总额超1百亿元的大型无缝钢管生产基地。如今，在创建"百年龙川"的共同愿景指引下，朝气蓬勃的龙川人，积极迎接挑战，抢抓机遇，正朝着集科研、物流、制造为一体的国际著名的现代化钢管企业的目标奋勇前进。

Introduction

YangZhou Lontrin Steel Tube Co., Ltd established in 2003, is located in the YanJiang Developing Zone Jiangdu City, Jiangsu province. Surrounded by Yangzhou Port, Ning-Qi Railway, Jing-Hu Highway, Ning-Tong Highway within 10KM, only 20KM away from the Airport which is been building, all these factors make our company have a great geographical environment and regional advantage.

With 7-year effort, Lontrin has realized the first four aims and made an invest in capital assets up to 3 billion RMB in total. At present, the annual capacity is 700,000 tons of seamless carbon steel pipes and alloy steel pipes. The main standards include API,ASTM/ASME, DIN, EN, JIS, BS and GB. The size range is Φ19-Φ811mm x 2.5-120mm.All the pipes are widely used in the fields of boilers 、petroleum、chemical 、electric power、geology exploration、 ship building、mechanic etc.

Our products have enjoyed a high reputation at home and abroad. We have established a stable and increasing market share in domestic fields of boilers、petroleum、chemical etc. More than 60% of our products are exported to 46 countries and areas such as Asia, Europe, America and Africa etc.

Our company, with the policy "pursue the perfect, to be the best", insists on the quality guideline "quality oriented, customer first, constant innovation and improvement". After unceasing explorating the suitable management, our company is one of the first steel companies who have got the certificates of ISO 9001:2008, ISO14001:2004,API, PED, LR, BV, CCS. We have got the pressure pipe components (seamless steel pipe) manufacturing license issued by the State General Administration of Quality Supervision.We have established a national research center of steel pipes and state-level enterprise post-doctoral research station.

At the end of 2009, we had invested another 1.5 billions RMB for high alloy seamless tubes' production line, whose size range from Φ219 to Φ811mm and production capacity is 300,000 tons, had putted into operation by the begin of 2011;At the same time, we had started the modern research center project and international steel distribution center project with the annual throughput of 300,000 tons.

By 2013,Lontrin will built a large-scale seamless steel pipe production base, covering an area of 1 square kilometer, the total investment in fixed assets 6 billion RMB, the annual manufacturing seamless steel pipe 700,000 tons, the annual distribution seamless pipe 300,000 tons, the size range Φ19-Φ811mm,total sales amount over 10 billions RMB. Nowadays, under common will of "Eternal Lontrin", young Lontrin people will face challenges and grasp opportunities, walking towards the orientation which makes Lontrin be an international well-known modern steel tube enterprise including research、logistics and production.









产品中心
Product

NO2

产品为冷拔和热轧无缝钢管，生产工艺先进，钢管产品性能可靠。
产品外径为Φ19–811mm,壁厚2.5–120mm, 品种有：

We produce and sell hot rolled and Hard–drawn seamless steel tubes.and they are characterized by process properties and stable comprehensive mechanical.
OD:from19mm to 811mm,WT: from2.5mm to 120mm
We supply products as follows:

扬州龙川钢管有限公司
YANGZHOU LONTRIN STEEL TUBE CO.,LTD

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Φ720高合金钢管
Brief introduction of Φ720 High-grade Alloy Pipes Project (P-03)



电站用锅炉钢管
Boiler tube for Power station (P-04右)



管道、容器、设备结构用管
Tube for structures of pipelines, vessls and equipment (P-06左)



高压化肥管
Tube for high-pressure for chemical equipment fertilizer (P-06右)



管线管
Line pipe
抗酸性管线管
Acid resistance of Line pipe (P-07)



油套管
Tubing and casing (P-09)



隔热油管
Insulated tubing (P-11左)



石油裂化管
Cracking tube (P-11右)



船舶用管
Pipe&tube for ship (P-12左)



输送流体用管
Tube for conveyance of fluid (P-12右)

Φ720 高合金项目简介

Brief introduction of Φ720 High-grade Alloy Pipes Project

扬州龙川钢管有限公司Φ720高合金项目是立足于高精尖无缝钢管产品的大型冶金项目，具有生产宽组距（Φ219～811mm）、特厚管（最大120mm）、高合金（P91、P92、304、321、347）、高精度无缝钢管的特点，项目总投资15亿元，主厂房建筑面积10万平方米，采用大型环形炉、3000吨压力穿孔机、大型复合穿轧机、新型pilger轧机、高精度廻转定径机、在线热处理线、高精度矫直机、大型无损检测及水压试验机组成的重型装备，全线采用计算机一二级控制＋ERP管理控制技术，具备年产Φ219～811mm无缝钢管30万吨的生产能力；产品覆盖高压锅炉用无缝钢管、高压化肥设备用无缝钢管、石油裂化用无缝钢管、不锈耐热无缝钢管、液压支柱用热轧无缝钢管、拖车气瓶用无缝钢管、低中压锅炉用无缝钢管、结构及输送流体用无缝钢管。

The Φ720 High-grade Alloy Pipes Project of Yangzhou Lontrin Steel Tube Co., Ltd is aimed at producting top seamless steel tubes. It can produce seamless pipes with large size range from 219 to 811mm, wall thickness upto 120mm, high-grade alloy (P91, P92,304,321,347) and high accuracy. This project has a total investment 1.5 billion RMB and covers 100 thousand square meters. The main equipments include ring heating furnace, 3000-tons press piercing mill , large-scale combined roll-piercing mill, new pilger rolling mill, high-precise billet sizing mill, on-line heat treatment, high precise straightening mill, large NDT test machine and hydrotest inspection mill. The whole production line adopts Computer and ERP managing-controlling techonology with an annual capacity of 300 thousand tons. The products cover high pressure boiler pipes, high pressure fertilizer pipes, Seamless steel pipes for petroleum cracking, stainless steel pipes, hydraulic hot rolled seamless pipes, low -medium pressure boiler pipes , structure seamless steel pipes,Seamless steel tubes for liquid service and pipes for gas bottle.



720全景厂房
Workshop of Φ720



环形炉
Ring heating furnace



压力穿孔机
Press piercing mill



复合穿孔机
Large-scale combined roll-piercing mill



皮尔格轧机
Pilger rolling mill



回转定径机
Sizing mill



矫直机
Straightening mill

Φ720 生产线产品大纲
Product Outline of 720 production line

序号 No.	钢管名称 Name	钢管规格 Size			标准 Standard	代表钢种或钢级Grade	备注 Remarks
		外径 (OD)mm	壁厚 (WT)mm	长度 (L)m			
1	结构管 Tube for structures of pipelines,vessls and equipment	219–811	20–120	6–12	GB/T8162 ASTM A53 EN10216–2	10–45,40Cr, 35CrMo、Q345系列	
2	高压锅炉管 High pressure boiler tube	219–720	20–120	6–12	GB5310 ASME DIN17175	20G、SA106B、SA210C、P11、P12、P22、15CrMoG、12Cr1MoVG、P91、P92	
3	低中压锅炉管 Low and midium pressure boiler tube	219–508	20–80	6–12	GB3087、ASME	10、20、SA106A/B/C SA210A1/C	
4	高压化肥管 Tube for high–pressure chemical fertilizer equipments	180–508	20–80	6–12	GB6479	20G、15MnV、12Cr2Mo	
5	石油裂化管 Cracking tube	180–508	20–80	6–12	GB9948 SA335	12CrMo、15CrMo、20G、P5、P9、Cr5Mo	
6	气瓶钢管 Gas vessel tube	219～406、426、457、508、559、610	15–30	6–12.5	GB18248	42Mn2、30CrMo 35CrMo	
7	船舶用管 Pipe&tube for ship	219–610	20–80	6–12	GB/T5312、ABS、LR、CCS	320、410	
8	管线管 Line pipe	219–811	20–120	6–12	API 5L、GB/T8163	10、20、B、X46–X70	
9	石油管 Casing	245–533	20–40	8–13	API 5CT	K55、J55、N80、L80、P110	
10	不锈钢 Stainless Steel	219–720	20–100	6–12	GB/T14975、GB/T14976、GB5310、ASME SA213	TP304、TP321、TP316L\N、TP347H	

Φ720 生产线工艺流程图

Flow chart of Φ720 production line

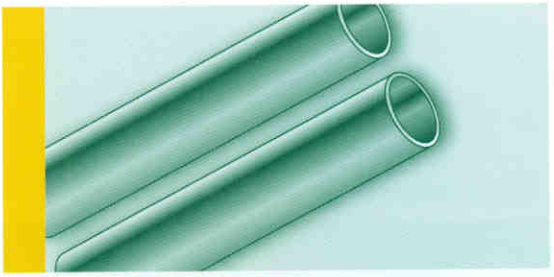


标准 Standard:

GB3087—中国国家标准
GB5310—中国国家标准
DIN17175—德国工业标准
ASME SA210\SA213—美国锅炉及压力容器规范
ASME SA106\SA333\SA335—美国锅炉及压力容器规范
EN10216-1\-2—欧洲压力管道标准
JIS G 3461—日本工业标准

用途 Uses:

用于低中压锅炉的集箱及蒸汽管道；用于高压锅炉的集箱及蒸汽管道，石化工业用管。
For manufacture wall panel,economizer,reheater,superheater and steam pipeline of boilers



锅炉钢管 Boiler tube

尺寸公差 Tolerances on dimensions :
外径允许偏差 OD tolerance:

标准 Standard	外径 Outside Diameter	外径允许偏差 O D Tolerance
DIN17175	≤120mm	±0.6%(min. ±0.25mm)
	>120mm	±0.75%
GB3087	10-30mm	±0.40mm
	30-50mm	±0.45mm
	>50mm	±1.0%
GB5310	≤30mm	±0.2mm
	30-50mm	±0.3mm
	>50mm	±0.8%
ASME SA-192M	≤25.4mm	±0.10mm
	25.4-38.1mm	±0.15mm
ASME SA-210	38.1-50.8mm	±0.20mm
ASME SA-213M	50.8-63.5mm	±0.25mm
	63.5-76.2mm	±0.30mm
	76.2-101.6mm	±0.38mm
JIS G3461	101.6-190.5mm	+0.38, -0.64mm
	190.5-228.6mm	+0.38, -1.14mm
ASME SA-106	≤48.3mm	±0.4mm
	48.3-114.3mm	±0.79mm
	>114.3mm	+1.59, -0.79mm
EN 10216-1/-2	-	±1%,min ±0.5mm

壁厚允许偏差 WT tolerance:

标准 Standard	外径OD	壁厚WT	壁厚允许偏差 WT Tolerance
DIN17175	≤130mm	S≤2Sn	+15%, -10%
		2Sn<S≤4Sn	+12.5%, -10%
		S>4Sn	±9%
	>130mm	S≤0.05da	+17.5%, -12.5%
		0.05da<S≤0.11da	±12.5%
		S>0.11da	±10%
GB3087	-	1.5-3.0mm	+15%, -10%
		>3.0mm	+12.5%, -10%
GB5310	-	2.0-3.0mm	+12%, -10%
		>3.0mm	±10%
ASME SA-192M	≤38.1mm	-	+20%, -0%
ASME SA-210 ASME SA-213M JIS G3461	>38.1mm	-	+22%, -0%
ASME SA-106	-	-	-12.5%
EN 10216-1/-2	≤219.1mm	-	±12.5%,±0.4mm

注：Sn为标准壁厚 Note:"Sn" is standard wall thickness

力学性能 Mechanical properties：

标准 Standard	牌号 Grade	抗拉强度 Tensile strength（MPa）	屈服强度 Yield strength（MPa）	伸长率（%） Elongation	冲击功（J） Impact energy	硬度 Hardness
GB3087	10	335～475	≥195	≥24	–	–
	20	410～550	≥245	≥20	–	–
GB5310	20G	410～550	≥245	≥24	≥35	–
	20MnG	≥415	≥240	≥22	≥35	–
	25MnG	≥485	≥275	≥20	≥35	–
	15CrMoG	440～640	≥235	≥21	≥35	–
	12Cr2MoG	450～600	≥280	≥20	≥35	–
	12Cr1MoVG	470～640	≥255	≥21	≥35	–
ASME SA106	SA106B	≥415	≥240	查表 See table	≥35	–
	SA106C	≥485	≥275	查表 See table	≥35	–
ASME SA333	SA333Ⅰ级	≥380	≥205	查表 See table	-45℃ ≥18	–
	SA333Ⅵ级	≥415	≥240	查表 See table	-45℃ ≥18	–
ASME SA335	SA335 P11	≥415	≥205	查表 See table	≥35	–
	SA335 P12	≥415	≥220	查表 See table	≥35	–
	SA335 P22	≥415	≥205	查表 See table	≥35	–
	SA335 P5	≥415	≥205	查表 See table	≥35	–
DIN17175	ST45.8/Ⅲ	410～530	≥255	≥21	≥27(DVM)	–
	15Mo3	450～600	≥270	≥22	≥34(DVM)	–
	13CrMo44	440～590	≥290	≥22	≥34(DVM)	–
	10CrMo910	450～600	≥280	≥20	≥34(DVM)	–
ASME SA210	SA210A-1	≥415	≥255	查表 See table	–	≤143HB
	SA210C	≥485	≥275	查表 See table	–	≤179HB
ASME SA213	SA213 T11	≥415	≥205	查表 See table	–	≤163HB
	SA213 T12	≥415	≥220	查表 See table	–	≤163HB
	SA213 T22	≥415	≥205	查表 See table	–	≤163HB
	SA192	≥325	≥180	≥35	–	≤77HB
JIS G 3461	STB 340	≥340	≥175	查表 See table	–	–
	STB 410	≥410	≥255		–	–
EN 10216-1	P195TR1	320～440	≥195	≥27	–	–
	P195TR2	320～440	≥195	≥27	≥40	–
	P235TR1	360～500	≥235	≥25	–	–
	P235TR2	360～500	≥235	≥25	≥40	–
	P265TR1	410～570	≥265	≥21	–	–
	P265TR2	410～570	≥265	≥21	≥40	–
EN 10216-2	16Mo3	450～600	≥280	≥22	–	–
	13CrMo4-5	440～590	≥290	≥22	–	–
	10CrMo9-10	410～573	≥280	≥22	–	–

化学成分 Chemical composition(%):

标准 Standard	牌号 Grade	C	Si	Mn	P	S	Cr	Mo	V
GB3087	10	0.07 ~ 0.13	0.17 ~ 0.37	0.35 ~ 0.65	≤0.030	≤0.030	≤0.15	–	–
	20	0.17 ~ 0.23	0.17 ~ 0.37	0.35 ~ 0.65	≤0.030	≤0.030	≤0.25	–	–
GB5310	20G	0.17 ~ 0.24	0.17 ~ 0.37	0.35 ~ 0.65	≤0.030	≤0.030	–	–	–
	20MnG	0.17 ~ 0.25	0.17 ~ 0.37	0.70 ~ 1.00	≤0.030	≤0.030	–	–	–
	25MnG	0.22 ~ 0.30	0.17 ~ 0.37	0.70 ~ 1.00	≤0.030	≤0.030	–	–	–
	15CrMo	0.12 ~ 0.18	0.17 ~ 0.37	0.40 ~ 0.70	≤0.030	≤0.030	0.80 ~ 1.10	0.40 ~ 0.55	–
	12Cr$_2$MoG	0.08 ~ 0.15	≤0.50	0.40 ~ 0.70	≤0.030	≤0.030	2.00 ~ 2.50	0.90 ~ 1.20	–
	12Cr$_1$MoG	0.08 ~ 0.15	0.17 ~ 0.37	0.40 ~ 0.70	≤0.030	≤0.030	0.90 ~ 1.20	0.25 ~ 0.35	0.15 ~ 0.30
ASME SA106	SA106B	≤0.30	≥0.1	0.29 ~ 1.06	≤0.035	≤0.035	–	–	
	SA106C	≤0.35	≥0.1	0.29 ~ 1.06	≤0.035	≤0.035	–	–	–
ASME SA333	SA333 Ⅰ级	≤0.30	≥0.1	0.40 ~ 1.06	≤0.025	≤0.025	–	–	–
	SA333Ⅵ级	≤0.30	≥0.1	0.29 ~ 1.06	≤0.025	≤0.025	–	–	–
ASME SA335	SA335 P$_{11}$	0.05 ~ 0.15	0.50 ~ 1.0	0.30 ~ 0.60	≤0.025	≤0.025	1.00 ~ 1.50	0.44 ~ 0.65	–
	SA335 P$_{12}$	0.05 ~ 0.15	≤0.50	0.30 ~ 0.61	≤0.025	≤0.025	0.80 ~ 1.25	0.44 ~ 0.65	–
	SA335 P$_{22}$	0.05 ~ 0.15	≤0.50	0.30 ~ 0.60	≤0.025	≤0.025	1.90 ~ 2.60	0.87 ~ 1.13	–
	SA335 P$_5$	≤0.15	≤0.50	0.30 ~ 0.60	≤0.025	≤0.025	4.00 ~ 6.00	0.45 ~ 0.65	–
DIN 17175	ST45.8/Ⅲ	≤0.21	0.10 ~ 0.35	0.40 ~ 1.20	≤0.040	≤0.040	–	–	–
	15Mo3	0.12 ~ 0.20	0.10 ~ 0.35	0.40 ~ 0.80	≤0.035	≤0.035	–	0.25 ~ 0.35	–
	13CrMo44	0.10 ~ 0.18	0.10 ~ 0.35	0.40 ~ 0.70	≤0.035	≤0.035	0.70 ~ 1.10	0.45 ~ 0.65	–
	10CrMo910	0.08 ~ 0.15	≤0.50	0.40 ~ 0.70	≤0.035	≤0.035	2.00 ~ 2.50	0.90 ~ 1.20	–
ASME SA210	SA210A-1	≤0.27	≥0.10	≤0.93	≤0.035	≤0.035	–	–	–
	SA210C	≤0.35	≥0.10	0.29 ~ 1.06	≤0.035	≤0.035	–	–	–
ASME SA213	SA213 T$_{11}$	0.05 ~ 0.15	0.50 ~ 1.0	0.30 ~ 0.60	≤0.025	≤0.025	1.00 ~ 1.50	0.44 ~ 0.65	–
	SA213 T$_{12}$	0.05 ~ 0.15	≤0.50	0.30 ~ 0.61	≤0.025	≤0.025	0.80 ~ 1.25	0.44 ~ 0.65	–
	SA213 T$_{22}$	0.05 ~ 0.15	≤0.50	0.30 ~ 0.60	≤0.025	≤0.025	1.90 ~ 2.60	0.87 ~ 1.13	–
ASME SA192M	SA192	0.06 ~ 0.18	≤0.25	0.27 ~ 0.63	≤0.035	≤0.035	–	–	–
JIS G 3461	STB 340	≤0.18	≤0.35	0.30 ~ 0.60	≤0.035	≤0.035	–	–	–
	STB 410	≤0.32	≤0.35	0.30 ~ 0.80	≤0.035	≤0.035	–	–	–
EN 10216-1	P195TR1	≤0.13	≤0.35	≤0.70	≤0.025	≤0.020	≤0.3	≤0.08	≤0.02
	P195TR2	≤0.13	≤0.35	≤0.70	≤0.025	≤0.020	≤0.3	≤0.08	≤0.02
	P235TR1	≤0.16	≤0.35	≤1.20	≤0.025	≤0.020	≤0.3	≤0.08	≤0.02
	P235TR2	≤0.16	≤0.35	≤1.20	≤0.025	≤0.020	≤0.3	≤0.08	≤0.02
	P265TR1	≤0.20	≤0.40	≤1.40	≤0.025	≤0.020	≤0.3	≤0.08	≤0.02
	P265TR2	≤0.20	≤0.40	≤1.40	≤0.025	≤0.020	≤0.3	≤0.08	≤0.02
EN 10216-2	16Mo3	0.12 ~ 0.20	≤0.35	0.40 ~ 0.90	≤0.025	≤0.020	≤0.3	0.25 ~ 0.35	–
	13CrMo4-5	0.10 ~ 0.17	≤0.35	0.40 ~ 0.70	≤0.025	≤0.020	0.70 ~ 1.15	0.40 ~ 0.60	–
	10CrMo9-10	0.08 ~ 0.14	≤0.50	0.30 ~ 0.70	≤0.025	≤0.020	2.00 ~ 2.50	0.90 ~ 1.10	–

注1：EN标准残余元素Nb≤0.01%，Ti≤0.04%，Ni≤0.30%，Cu≤0.30%总量≤0.70%

Note1:EN Residual element Nb≤0.01%，Ti≤0.04%，Ni≤0.30%，Cu≤0.30%total≤0.70%

注2：经协商，也可供应其他牌号的钢管

Note2:Other grade can also be provided after consuliting with customers



标准 Standard：
GB/T8162—中国国家标准
ASTM A53—美国材料与试验协会标准
ASME SA53—美国锅炉及压力容器规范
DIN1629—德国标准

用途 Uses：
用于制造管道、容器、设备、管件及机械结构用无缝钢管
For manufacture of pipelines,vessls,equipment,pipe fittings and steel structures

管道、容器、设备结构用无缝钢管
Tube for structures of pipelines,vessls and equipment

尺寸公差 Tolerances on dimensions:

标准Standard	外径公差（OD）		壁厚公差（WT）	
GB/T8162	D≤50mm	±0.50mm	S≤4mm	±12.5%
			4–20mm	+15%–12.5%
	D>50mm	±1%	S>20mm	±12.5%
ASTM A 53	D≤48.3mm	±0.4mm	−12.5%	
	D≥60.3mm	±1%		

力学性能 Mechanical properties：

标准 Standard	牌号 Grade	抗拉强度 Tensile strength（MPa）	屈服强度 Yield strength（MPa） S≤16mm	伸长率（%） Elongation
	10	≥335	≥205	≥24
GB/T8162	20	0.17 ~ 0.23	0.17 ~ 0.37	0.35 ~ 0.65
	35	0.32 ~ 0.39	0.17 ~ 0.37	0.50 ~ 0.80
	45	0.42 ~ 0.50	0.17 ~ 0.37	0.50 ~ 0.80
	Q345A	≤0.20	≤0.55	1.0 ~ 1.60
	Q345B	≤0.20	≤0.55	1.0 ~ 1.60
	Q345C	≤0.20	≤0.55	1.0 ~ 1.60
	Q345D	≤0.18	≤0.55	1.0 ~ 1.60
	Q345E	≤0.18	≤0.55	1.0 ~ 1.60
ASTMA53	A	≤0.25	–	≤0.95
ASMESA53	B	≤0.30	–	≤1.20
DIN1629	st37.0	≤0.17	–	–
	st44.0	≤0.21	–	–
	st52.0	≤0.22	≤0.55	≤1.60

.035	≤0.035	≤0.25	≤0.30	≤0.25	–	
.035	≤0.035	≤0.25	≤0.30	≤0.25	–	
.035	≤0.035	≤0.25	≤0.30	≤0.25	–	
.045	≤0.045	≤0.30	≤0.30	≤0.30	0.02–0.15	
.040	≤0.040	≤0.30	≤0.30	≤0.30	0.02–0.15	
.035	≤0.035	≤0.30	≤0.30	≤0.30	0.02–0.15	
.030	≤0.030	≤0.30	≤0.30	≤0.30	0.02–0.15	
.025	≤0.025	≤0.30	≤0.30	≤0.30	0.02–0.15	
.05	≤0.045	≤0.40	≤0.40	≤0.40	≤0.08	≤0
.05	≤0.045	≤0.40	≤0.40	≤0.40	≤0.08	≤0
040	≤0.040	≤0.25	≤0.25	≤0.25	–	
040	≤0.040	≤0.25	≤0.25	≤0.25	–	
040	≤0.035	≤0.25	≤0.25	≤0.25	–	

注：经协商，也可供应其他牌号的钢管
Note:Other grade can also be provided after consuliting with customers



标准 Standard:
GB6479—中国国家标准

用途 Uses:
用于制造高压化肥设备和管道用无缝钢管。
For manufacturing of high-pressure chemical fertilizer equipments and refineries

高压化肥设备用无缝钢管
Tube for high-pressure chemical fertilizer equipments

尺寸公差 Tolerances on dimensions:

钢管尺寸 Size		允许偏差Tolerances	
		普通级	高级
外径OD	14 ~ 30mm	± 0.20mm	± 0.15mm
	30 ~ 50mm	± 0.30mm	± 0.25mm
	> 50mm	± 0.75%	± 0.6%
壁厚WT	≤3.0mm	12.50%	± 10%
		-10%	
	> 3.0mm	± 10%	± 7.5%

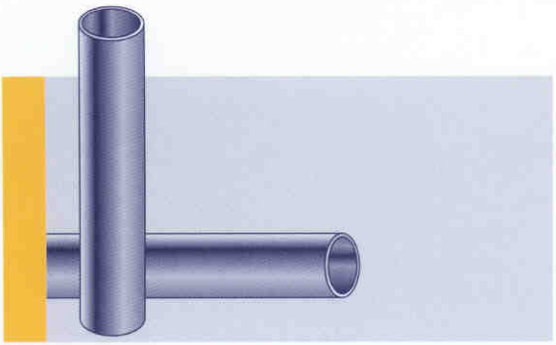
力学性能 Mechanical properties:

标准 Standard	牌号 Grade	抗拉强度 Tensile strength (MPa)	屈服强度 Yield strength (MPa)	伸长率 (%) Elongation	冲击功 (J) Impact energy	低温冲击Akv
GB6479	10	335 ~ 490	≥205	≥24	-	-20℃≥18
	20	410 ~ 550	≥245	≥24	≥39	-20℃≥18
	16Mn	490 ~ 670	≥320	≥21	≥47	-40℃≥21
	15CrMo	440 ~ 640	≥235	≥21	≥47	-
	1Cr5Mo	390 ~ 590	≥195	≥22	≥94	-
	12Cr2Mo	450 ~ 600	≥280	≥20	≥38	-

化学成分 Chemical composition (%):

标准 Standard	牌号 Grade	C	Si	Mn	P	S	Cr	Mo	Ni
GB6479	10	0.07 ~ 0.14	0.17 ~ 0.37	0.35 ~ 0.65	≤0.030	≤0.030	-	-	-
	20	0.17 ~ 0.24	0.17 ~ 0.37	0.35 ~ 0.65	≤0.030	≤0.030	-	-	-
	16Mn	0.12 ~ 0.20	0.20 ~ 0.60	1.20 ~ 1.60	≤0.030	≤0.030	-	-	-
	15CrMo	0.12 ~ 0.18	0.17 ~ 0.37	0.40 ~ 0.70	≤0.030	≤0.030	0.80 ~ 1.10	0.40 ~ 0.55	-
	1Cr5Mo	≤0.15	≤0.50	≤0.60	≤0.030	≤0.030	4.00 ~ 6.00	0.45 ~ 0.60	≤0.60
	12 Cr2Mo	0.80 ~ 0.15	≤0.50	0.40 ~ 0.70	≤0.030	≤0.030	2.0 ~ 2.50	0.90 ~ 1.20	-

注:
1、其中10的残余元素含量Ni≤0.25%、Cr≤0.15%、Cu≤0.20%
2、20的残余元素含量Ni≤0.25%、Cr≤0.25%、Cu≤0.20%、Mo≤0.15%、V≤0.08%
3、其他的残余元素含量Ni≤0.30%、Cr≤0.30%、Cu≤0.20%
Note:
1、10 Residual element Ni≤0.25%、Cr≤0.15%、Cu≤0.20%
2、20 Residual element Ni≤0.25%、Cr≤0.25%、Cu≤0.20%、Mo≤0.15%、V≤0.08%
3、The other Residual element Ni≤0.30%、Cr≤0.30%、Cu≤0.20%



标准 Standard:

API Spec 5L—美国石油学会标准
GB/T9711.2—中国国家标准

用途 Uses:

用于石油、天然气工业中的氧、水、油输送管
It is used for conveying gas,water,and petroleum of both the oil and natural gas industries.

管线用无缝钢管 Line pipe

尺寸公差 Tolerances on dimensions:

标准 Standard	外径公差 O D Tolerance		壁厚公差 W T Tolerances
API Spec 5L	D < 60.3mm	+0.41mm, −0.8mm	+15%/−12.5%
	D ≥ 60.3mm	±0.75%	
GB/T9711.2	±0.5mm或±0.75%D (取较大者)	T≤4	+0.6mm,−0.5mm
		4≤T≤25	+15%/−12.5%

力学性能 Mechanical properties:

标准 Standard	牌号 Grade	抗拉强度 Tensile strength (MPa)	屈服强度 Yield strength (MPa)	屈强比 Yield strength ratio	伸长率 (%) Elongation	0℃冲击功 Akv (J) Impact energy	热处理状态 Heat treatment fettle
API Spec 5L PSL2	B	414 ~ 758	241 ~ 448	≤0.80	≥22	≥40	正火
	X42	414 ~ 758	290 ~ 496	≤0.80	≥21	≥40	正火
	X52	455 ~ 758	359 ~ 531	≤0.85	≥20	≥40	正火
	X56	490 ~ 758	386 ~ 544	≤0.85	≥18	≥40	正火
	X60	517 ~ 758	414 ~ 565	≤0.85	≥18	≥40	正火
GB/T9711.2	L245NB	≥415	245 ~ 440	≤0.80	≥22	≥40	正火
	L290NB	≥415	290 ~ 440	≤0.80	≥21	≥40	正火
	L360NB	≥460	360 ~ 510	≤0.85	≥20	≥40	正火
	L415NB	≥520	415 ~ 565	≤0.85	≥18	≥40	正火

化学成分 Chemical composition(%):

标准 Standard	牌号 Grade	C	Si	Mn	P	S	V	Nb	Ti	CEV (%)
API Spec 5L PSL2	B	≤0.24	–	≤1.20	≤0.025	≤0.015	–	–	–	≤0.43
	X42	≤0.24	–	≤1.30	≤0.025	≤0.015	–	–	≤0.04	≤0.43
	X52	≤0.24	–	≤1.40	≤0.025	≤0.015	–	–	≤0.04	≤0.43
	X56	≤0.24	–	≤1.40	≤0.025	≤0.015	–	–	≤0.04	≤0.43
	X60	≤0.24	–	≤1.40	≤0.025	≤0.015	–	–	≤0.04	协议
GB/T9711.2	L245NB	≤0.16	≤0.40	≤1.10	≤0.025	≤0.020	–	–	–	≤0.42
	L290NB	≤0.17	≤0.40	≤1.20	≤0.025	≤0.020	≤0.05	≤0.05	≤0.04	≤0.42
	L360NB	≤0.20	≤0.45	≤1.60	≤0.025	≤0.020	≤0.10	≤0.05	≤0.04	≤0.45
	L415NB	≤0.21	≤0.45	≤1.60	≤0.025	≤0.020	≤0.15	≤0.05	≤0.04	协议

注 Note:

1. 0.015%≤Altot<0.06%; N≤0.012%; Al/N≥2/1; Cu≤0.25%; Ni≤0.30%; Cr≤0.30%; Mo≤0.10%
2. V+Nb+Ti≤0.15

规格 Size:

名义尺寸 Nominal Size	外径 OD		壁厚 WT		平端管米重 Plain-end Weight		标准试验压力（Internal Yield Pressure psi）				
	inch	mm	inch	mm	lb/ft	kg/m	B	X42	X52	X56	X60
0.675	0.675	17.15	0.091	2.31	0.57	0.85	700	–	–	–	–
			0.126	3.20	0.74	1.10	850	–	–	–	–
0.84	0.84	21.34	0.109	2.77	0.85	1.27	700	–	–	–	–
			0.147	3.73	1.09	1.62	850	–	–	–	–
1.05	1.05	26.67	0.113	2.87	1.13	1.68	700	–	–	–	–
			0.154	3.91	1.47	2.20	850	–	–	–	–
1.315	1.315	33.4	0.133	3.38	1.68	2.50	700	–	–	–	–
			0.179	4.55	2.17	3.24	850	–	–	–	–
1.66	1.66	42.2	0.145	3.68	2.35	3.50	1300	–	–	–	–
			0.191	4.85	3.00	4.47	1900	–	–	–	–
			0.382	9.70	5.22	7.78	2300	–	–	–	–
1.9	1.9	48.3	0.145	3.68	2.72	4.05	1300	–	–	–	–
			0.2	5.08	3.63	5.41	1900	–	–	–	–
			0.4	10.16	6.42	9.56	2300	–	–	–	–
2 3/8	2.375	60.3	0.109	2.77	2.64	3.93	1930	2310	2860	3000	3000
			0.154	3.91	3.65	5.44	2500	3000	3000	3000	3000
			0.436	11.07	9.03	13.44	2500	3000	3000	3000	3000
2 7/8	2.875	73	0.203	5.16	5.79	8.63	2500	3000	3000	3000	3000
			0.552	14.02	13.69	20.39	2500	3000	3000	3000	3000
3 1/2	3.5	88.9	0.216	5.49	7.58	11.29	2500	3000	3000	3000	3000
			0.3	7.62	10.25	15.27	2500	3000	3000	3000	3000
			0.6	15.24	18.59	27.68	2500	3000	3000	3000	3000

规格 Size:

名义尺寸 Nominal Size	外径 OD		壁厚 WT		平端管米重 Plain-end Weight		标准试验压力（Internal Yield Pressure psi）				
	inch	mm	inch	mm	lb/ft	kg/m	B	X42	X52	X56	X60
4	4	101.6	0.226	5.74	9.11	13.57	2370	2850	3000	3000	3000
			0.25	6.35	10.01	14.92	2630	3000	3000	3000	3000
4 1/2	4.5	114.3	0.237	6.02	10.79	16.07	2210	2650	3000	3000	3000
			0.531	13.49	22.51	33.53	2800	3000	3000	3000	3000
			0.674	17.12	27.54	41.03	2800	3000	3000	3000	3000
5 9/16	5.563	141.3	0.258	6.55	14.62	21.78	1950	2340	2890	3000	3000
			0.5	12.70	27.04	40.28	2800	3000	3000	3000	3000
6 5/8	6.625	168.3	0.28	7.11	18.98	28.27	1780	2660	3000	3000	3000
			0.432	10.97	28.58	42.57	2740	3000	3000	3000	3000

规格 Size:

名义尺寸 Nominal Size	外径 OD		壁厚 WT		平端管米重 Plain-end Weight		标准试验压力（Internal Yield Pressure psi）				
	inch	mm	inch	mm	lb/ft	kg/m	B	X42	X52	X56	X60
8 5/8	8.625	219.1	0.25	6.35	22.37	33.31	1220	1830	2260	2430	2610
			0.5	12.70	43.40	64.64	2430	3000	3000	3000	3000
			1	25.40	81.45	121.33	2800	3000	3000	3000	3000
10 3/4	10.75	273.1	0.365	9.27	40.50	60.32	1430	2420	3000	3000	3000
			0.719	18.26	77.05	114.77	2800	3000	3000	3000	3000
			1.25	31.75	126.87	188.97	2800	3000	3000	3000	3000
12 3/4	12.75	323.9	0.406	10.31	53.54	79.75	1340	2270	2810	2810	3000
			0.812	20.62	103.56	154.25	2670	3000	3000	3000	3000
			1.25	31.75	153.57	228.74	2800	3000	3000	3000	3000
14	14	355.6	1	25.4	138.97	206.83	2800	3000	3000	3000	3000
16	16	406.4	1	25.4	160.35	238.64	2630	3000	3000	3000	3000
18	18	457	1	25.4	181.73	270.34	2330	3000	3000	3000	3000
20	20	508	1	25.4	203.11	302.28	2100	3000	3000	3000	3000
22	22	559	1	25.4	224.49	334.23	1910	3000	3000	3000	3000
24	24	610	1	25.4	245.87	366.17	1750	3000	3000	3000	3000



抗酸性管线用钢管
Acid resistance of Line pipe

标准 Standard:

GB/T9711.3—中国国家标准

用途 Uses:

可用于含有H_2S,CO_2,和H_2S+CO_2以及氯离子等腐蚀介质环境的高品质抗酸性管线管，采用纯净钢生产，硫磷含量低，有效控制了残余元素和易氧化元素的存在，合理控制Cr,Mo,Ni等合金元素在钢中的含量和作用，在提高性能的同时，保证钢材的强韧性，腐蚀抗力、机械性能、硬度、断裂韧性、疲劳抗力、可焊性、止裂特征均具有特殊品质，不但应用于地面集输管道，还可应用于海底集输管道。

The high-quality acid-fast pipeline pipe Can be used to contain H_2S, CO_2, and H_2S + CO_2, and chloride ions and other corrosive media environment, the use of clean steel production, parathion low residual elements of effective control of the oxidation-prone elements of the existence of reasonable control Cr, Mo, Ni and other alloying elements in steel， In improving performance at the same time, to ensure the strength and toughness of steel, corrosion resistance, mechanical properties, hardness, fracture toughness, fatigue resistance, solderability, the characteristics of crack have a special quality, not only applies to ground transportation pipelines, gathering and transportation can also be applied to the seabed pipeline.

尺寸公差 Tolerances on dimensions:

标准 Standard	外径公差 O D Tolerance		壁厚公差 W T Tolerances	
	管体Pipe body	管端Pipe end		
GB/T9711.3	±0.5mm或±0.75%D(取较大者)	±0.5mm或±0.5%D(取较大者)	T≤4	+0.6mm, −0.5mm
			4≤T≤25	+15%/−12.5%

力学性能 Mechanical properties：

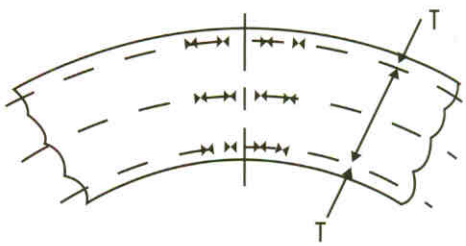
标准 Standard	牌号 Grade	抗拉强度 Tensile strength（MPa）	屈服强度 Yield strength（MPa）	屈强比 Yield strength ratio	伸长率（%） Elongation	横向-10℃冲击功Akv（J）Impact energy		纵向-10℃冲击功Akv（J）Impact energy	
						3个	单个	3个	单个
GB/T9711.3	L245NCS	≥415	245～440	≤0.90	≥22	≥40	≥30	≥40	≥30
	L290NCS	≥415	290～440	≤0.90	≥21	≥40	≥30	≥40	≥30
	L360NCS	≥460	360～510	≤0.90	≥20	≥40	≥30	≥40	≥30

硬度 Hardness

	内表inside	外表outside
HRC	≤22	≤27
HV	≤250HV10	≤275HV10

硬度测量位置见右图所示。
T<4 mm，只需测量壁厚中部横向位置，
4 mm<T<6 mm时，只需测量内外表面横向位置。

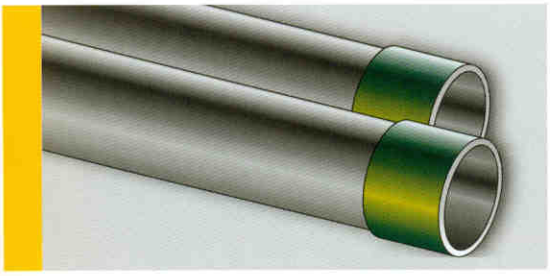
Hardness measurements shown in the right location.
T <4 mm, only the horizontal position of the central wall thickness measurement,
4 mm <T <6 mm, the only measurement of internal and external surface of the horizontal position.



化学成分 Chemical composition(%):

标准 Standard	牌号 Grade	C	Si	Mn	P	S	V	Nb	Ti	CEV（%）
GB/T9711.3	L245NCS	≤0.14	≤0.40	≤1.35	≤0.02	≤0.008	–	–	–	≤0.36
	L290NCS	≤0.14	≤0.40	≤1.35	≤0.02	≤0.008	≤0.05	≤0.05	≤0.04	≤0.36
	L360NCS	≤0.16	≤0.45	≤1.65	≤0.02	≤0.008	≤0.10	≤0.05	≤0.04	≤0.43

注 Note：
1. 0.015%≤Altot＜0.06%；N≤0.012%；Al/N≥2/1；Cu≤0.25%；Ni≤0.30%；Cr≤0.30%；Mo≤0.10%
2. V＋Nb＋Ti≤0.15



标准 Standard:

API SPEC 5CT—美国石油学会标准

用途 Uses :

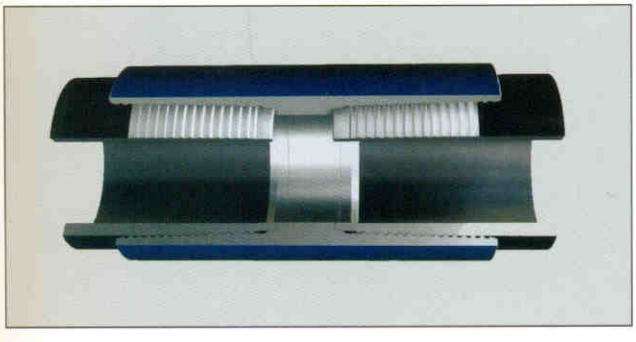
油管用于油井中抽取石油或天然气。

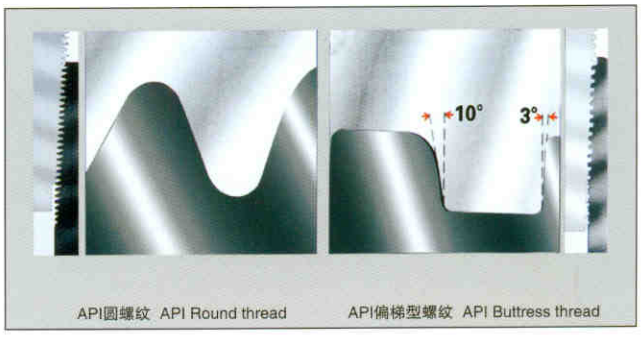
Tubing is used to extracting petroleum and natural gas from a well

套管用于油气井的井壁

Casing serves as walls of a well

油套管 Tubing and casing





API圆螺纹 API Round thread　　API偏梯型螺纹 API Buttress thread

尺寸偏差 Tolerances on dimensions:

项目 Item		允许偏差 Tolerances
外径 OD	D < 114.3mm	± 0.79mm
	D ≥ 114.3mm	+ 1% D
		-0.5% D
壁厚 WT		-12.50%
重量 Weight	单根 Single Lengths	+6.5%,-3.5%
	车载量 Carload Lots	-1.75%

力学性能 Mechanical properties：

钢级 Grade	抗拉强度 Tensile strength (MPa)	屈服强度 Yield strength (MPa)	硬度 Hardness
J55	≥517	379–552	-
K55	≥655	379–552	-
N80	≥689	552–758	-

规格 Size

油管规格 Size of Tubing:

尺寸代码 Size Desination	重量代码Weight Desination	重量代码Weight Desination	外径 O D		壁厚 W T		J55静水压试验压力 (Min.Internal Yield Pressure psi)		N80静水压试验压力 (Min.Internal Yield Pressure psi)		端部加工形式 Type of End Finish	
	不加厚 T&C Non-Upset	外加厚 T&C External-Upset	in	mm	in	mm	平端 P	带螺纹和接箍 STC/LC	平端 P	带螺纹和接箍 STC/LC	J55	N80
1.9	2.75	2.9	1.9	48.3	0.145	3.68	6700	6700	9800	9800	PNU	PNU
2 3/8	4	–	2.375	60.3	0.167	4.24	6200	6200	9000	9000	PN	PN
	4.6	4.7			0.19	4.83	7000	7000	10000	10000	PNU	PNU
	5.8	5.95			0.254	6.45	–	–	10000	10000	–	PNU
	6.6	–			0.259	7.49	–	–	–	–	P	P
	7.35	7.45			0.336	8.53	–	–	–	–	PU	PU
2 7/8	6.4	6.5	2.875	73.02	0.217	5.51	6600	6600	9700	9700	PNU	PNU
	7.8	7.9			0.276	7.01	–	–	10000	10000	–	PNU
	8.6	8.7			0.308	7.82	–	–	10000	10000	–	PNU
	9.35	9.45			0.34	8.64	–	–	–	–	–	–
	10.5	–			0.392	9.96	–	–	–	–	–	–
	11.5	–			0.44	11.18	–	–	–	–	–	–
3 1/2	7.7	–	3.5	88.9	0.216	5.49	5400	5400	7900	7900	PN	PN
	9.2	9.3			0.254	6.45	6400	6400	9300	9300	PNU	PNU
	10.2	–			0.289	7.34	7300	7300	10000	10000	PN	PN
	12.7	12.95			0.375	9.53	–	–	10000	10000	–	PNU
	14.3	–			0.43	10.92	–	–	–	–	–	P
	15.5	–			0.476	12	–	–	–	–	–	P
	17	–			0.53	13.46	–	–	–	–	–	P
4	9.5	–	4	101.6	0.226	5.74	5000	5000	7200	7200	PN	PN
	10.7	11			0.262	6.65	5800	–	8400	–	PU	PU
4 1/2	12.6	12.75	4.5	114.3	0.271	6.88	5300	5300	7700	7700	PNU	PNU
	15.2	–			0.337	8.56	–	–	–	–	–	–
	17	–			0.38	9.65	–	–	–	–	–	–
	18.9	–			0.43	10.92	–	–	–	–	–	–
	21.5	–			0.5	12.7	–	–	–	–	–	–
	23.7	–			0.56	14.22	–	–	–	–	–	–
	26.1	–			0.63	16	–	–	–	–	–	–

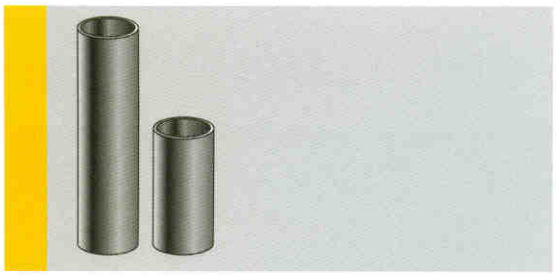
注： P —平端；N—不加厚；U—外加厚；T&C—车螺纹带接箍

Note:P-plain-end；N—Non-Upset；U—External-Upset；T&C—Threaded and coupled

套管规格 Size of Casing

尺寸代码 Size Desination	重量代码 Weight Desination	外径 O D		壁厚 W T		J55和K55静水压试验压力 (Min.Internal Yield Pressure psi)			N80静水压试验压力 (Min.Internal Yield Pressure psi)			端部加工形式 Type of End Finish	
		in	mm	in	mm	P	STC	LC	P	STC	LC	J55	N80
4 1/2	9.5	4.5	114.3	0.205	5.21	4000	4000	–	–	–	–	PS	–
	10.5			0.224	5.69	4400	4400	–	–	–	–	PSB	–
	11.6			0.25	6.35	4900	4900	4900	7100	–	7100	PSLB	PLB
	13.5			0.29	7.37	–	–	–	8200	–	8200	–	PLB
	15.1			0.337	8.56	–	–	–	–	–	–	–	–
5	11.5	5	127	0.22	5.59	3900	3900	–	–	–	–	PS	–
	13			0.253	6.43	4500	4500	4500	–	–	–	PSLB	–
	15			0.296	7.52	5200	5200	5200	7600	–	7600	PSLB	PLB
	18			0.362	9.19	–	–	–	9300	–	8700	–	PLB
	21.4			0.437	11.10	–	–	–	10000	–	8700	–	PLB
	23.2			0.478	12.14	–	–	–	10000	–	8700	–	PLB
	24.1			0.5	12.70	–	–	–	10000	–	8700	–	PLB
5 1/2	14	5.5	139.7	0.244	6.20	3900	3900	–	–	–	–	PS	–
	15.5			0.275	6.98	4400	4400	4400	–	–	–	PSLB	–
	17			0.304	7.72	4900	4900	4900	7100	–	7100	PSLB	PLB
	20			0.361	9.17	–	–	–	8400	–	7900	–	PLB
	23			0.415	10.54	–	–	–	9700	–	7900	–	PLB
6 5/8	20	6.625	168.28	0.288	7.32	3800	3800	3800	–	–	–	PSLB	–
	24			0.352	8.94	4700	4700	4700	6800	–	6800	PSLB	PLB
	28			0.417	10.59	–	–	–	8100	–	8100	–	PLB
	32			0.475	12.06	–	–	–	9200	–	8500	–	PLB
7	17	7	177.8	0.231	5.87	–	–	–	–	–	–	–	–
	20			0.272	6.91	3400	3400	–	–	–	–	PS	–
	23			0.317	8.05	4000	4000	4000	5800	–	5800	PSLB	PLB
	26			0.362	9.19	4600	4600	4600	6600	–	6600	PSLB	PLB
	29			0.408	10.36	–	–	–	7500	–	7400	–	PLB
	32			0.453	11.51	–	–	–	8300	–	7400	–	PLB
	35			0.498	12.65	–	–	–	9100	–	7400	–	PLB
	38			0.54	13.72	–	–	–	9900	–	7400		PLB
7 5/8	24	7.625	193.68	0.3	7.62	–	–	–	–	–	–	–	–
	26.4			0.328	8.33	3800	3800	3800	5500	–	5500	PSLB	PLB
	29.7			0.375	9.52	–	–	–	6300	–	6300	–	PLB
	33.7			0.43	10.92	–	–	–	7200	–	7200	–	PLB
	39			0.5	12.70	–	–	–	8400	–	8400	–	PLB
	42.8			0.562	14.27	–	–	–	9400	–	8400	–	PLB
	45.3			0.595	15.11	–	–	–	10000	–	8400	–	PLB
	47.1			0.625	15.88	–	–	–	10000	–	8400	–	PLB
8 5/8	24	8.625	219.08	0.264	6.71	2700	2700	–	–	–	–	PS	–
	28			0.304	7.72	–	–	–	–	–	–	–	–
	32			0.352	8.94	3600	3600	3600	–	–	–	PSLB	–
	36			0.4	10.16	4100	4100	4100	5900	–	5900	PSLB	PLB
	40			0.45	11.43	–	–	–	6700	–	6700	–	PLB
	44			0.5	12.70	–	–	–	7400	–	7400	–	PLB
	49			0.557	14.15	–	–	–	8300	–	8300	–	PLB

注： P —平端\S–短圆螺纹\L–长圆螺纹\B–偏梯形螺纹
Note:P–Plain–end\S–Short round thread\L–Long round thread\B–Buttress thread



标准 Standard：
API SPEC 5CT—美国石油学会标准
用途 Uses：
用于油田的稠油热采
For thermal recovery of heavy oil

隔热油管
Insulated tubing

规格 Size:

名称 Name	外径 OD	壁厚 WT	钢级 Grade	管端形式 Type of the end
外层管Outer tube	114.3	6.35	N80	平端/NUE
	114.3	6.88	N80	平端/NUE
内层管Inner tube	73	5.51	N80	平端/NUE
	88.9	6.45	N80	平端/NUE

尺寸偏差 Tolerances on dimensions:

名称 Name	外径 OD	壁厚 WT
外层管Outer tube	+ 1.0%	– 12.5%
	– 0.5%	
内层管Inner tube	± 0.79mm	– 12.5%

化学成分 Chemical composition（%）:

钢级 Grade	C	Si	Mn	P	S
N80	0.24–0.27	0.20–0.30	1.40–1.60	≤0.020	≤0.015

机械性能 Mechanical properties:

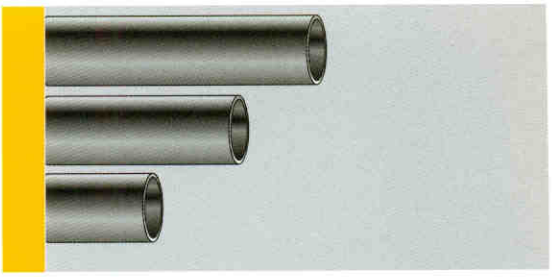
名称 Name	钢级 Grade	抗拉强度Tensile strength（MPa）	屈服强度Yield strength （MPa）	伸长率（%） Elongation
外层管Outer tube	N80	≥689	552–758	≥15.0%
内层管Inner tube	N80	≥689	552–758	≥13.5%

长度 Length:

名称 Name	范围/Range mm
外层管Outer tube	9000–9600
内层管Inner tube	9000–9600

注：经协商，也可供其它规格的钢管
Note:Other size can also be provided after consuliting with customers

标准 Standard:
GB9948—中国国家标准
用途 Uses:
用于石油、精炼厂的炉管、热交换器管和管道用无缝钢管。
For manufacture of furnace tubes,heat exchangers and pipelines in refineries



石油裂化用无缝钢管
Cracking tube

尺寸公差 Tolerances on dimensions:

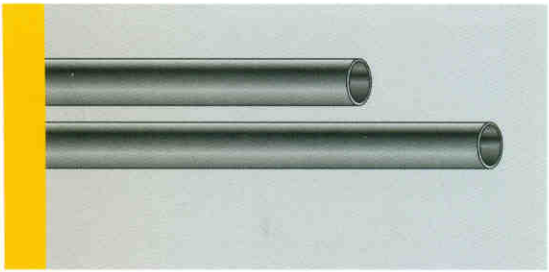
种类Variety	钢管尺寸/ Size		允许偏差/Tolerances
冷拔管 Hard-drawn	外径/OD	14–30mm	±0.2mm
		30–50mm	±0.3mm
		>50mm	±0.75%
	壁厚/WT	≤3mm	12.5%
			–10%
		>3mm	±10%

力学性能 Mechanical properties:

标准 Standard	牌号 Grade	抗拉强度 Tensile strength (MPa)	屈服强度 Yield strength (MPa) S≤16mm	伸长率 (%) Elongation	冲击功 (J) Impact energy	布氏硬度 (HB) Impact energy	交货状态 Delivery condition
GB9948	10	335 ~ 475	≥205	≥25	≥35	–	正火
	20	410 ~ 550	≥245	≥24	≥35	–	正火
	12CrMo	410 ~ 560	≥205	≥21	≥35	≤156	正火加回火
	15CrMo	440 ~ 640	≥235	≥21	≥35	≤170	正火加回火
	1Cr5Mo	390 ~ 590	≥195	≥22	≥35	≤187	退火

化学成分 Chemical composition (%):

标准 Standard	牌号 Grade	C	Mn	Si	Cr	Mo	Ni	P	S
GB9948	10	0.07 ~ 0.13	0.35 ~ 0.65	0.17 ~ 0.37	≤0.15	–	≤0.25	≤0.030	≤0.020
	20	0.17 ~ 0.23	0.35 ~ 0.65	0.17 ~ 0.37	≤0.25	–	≤0.25	≤0.030	≤0.020
	12CrMo	0.08 ~ 0.15	0.40 ~ 0.70	0.17 ~ 0.37	0.40 ~ 0.70	0.40 ~ 0.55	≤0.30	≤0.030	≤0.020
	15CrMo	0.12 ~ 0.18	0.40 ~ 0.70	0.17 ~ 0.37	0.80 ~ 1.10	0.40 ~ 0.55	≤0.30	≤0.030	≤0.020
	1Cr5Mo	≤0.15	≤0.60	≤0.50	4.00 ~ 6.00	0.45 ~ 0.60	≤0.60	≤0.030	≤0.020



船舶用无缝钢管

Pipe&tube for ship

船规 Classification of ships:

中国船级社/CCS
英国劳氏船级社/LR
法国船级社/BV
韩国船级社/KR
日本船级社/NK

标准 Standard:

GB/T5312—中国国家标准

用途 Uses:

用于船用锅炉与过热器和Ⅰ、Ⅱ级压力管系用无缝钢管的制造。
for manufacture of boiler,superheaters,and pressure system pipelines

尺寸公差 Tolerances on dimensions:

钢管尺寸Size		允许偏差Tolerances
外径OD	≤30mm	±0.20mm
	30–50mm	±0.30mm
	>50mm	±0.8%
壁厚WT	1.5≤S≤3.0mm	12.5%/–10%
	>3.0mm	±10%

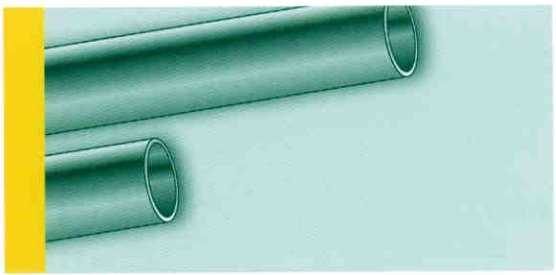
力学性能 Mechanical properties:

标准 Standard	类别 Type of steel	牌号 Grade	抗拉强度 Tensile strength (MPa)	屈服强度 Yield strength (MPa)	伸长率(%) Elongation
GB/T5312	碳钢和碳锰钢 carbon&carbon–mangnese	320	320 ~ 440	≥195	≥25
		360	360 ~ 480	≥215	≥24
		410	410 ~ 530	≥235	≥22
		460	460 ~ 580	≥265	≥21
		490	490 ~ 610	≥285	≥21

化学成分 Chemical composition (%):

标准 Standard	成分 Type of steel	牌号 Grade	C	Si	Mn	P	S
GB/T5312	碳钢和碳锰钢 carbon&carbon–mangnese	320	≤0.16	≤0.35	0.40 ~ 0.70	≤0.035	≤0.035
		360	≤0.17	≤0.35	0.40 ~ 0.80		
		410	≤0.21	≤0.35	0.40 ~ 1.20		
		460	≤0.22	≤0.35	0.80 ~ 1.40		≤0.030
		490	≤0.23	≤0.35	0.80 ~ 1.50		

注1：残余元素Cr≤0.25%，Mo≤0.10%，Ni≤0.30%，Cu≤0.30%总量≤0.70%
Note1:Residual element Cr≤0.25%，Mo≤0.10%，Ni≤0.30%，Cu≤0.30%total≤0.70%
注2：其他船规另行协商
Note2:Other classification of ships can also be provided after consulting with customers
注3：经协商，也可供应其他牌号的钢管
Note3:Other grade can also be provided after consuliting with customers



标准 Standard:
GB/T8163—中国国家标准
ASTM A53 --美国材料与试验协会标准
ASTM A106--美国材料与试验协会标准

用途 Uses:
用于石油、天然气输送以及其他流体输送
For conveyance of petroleum,gas and conveyance of other fluid

输送流体用无缝钢管
Tube for conveyance of fluid

尺寸公差 Tolerances on dimensions:

标准 Standard	外径公差（OD）		壁厚公差（WT）	
GB/T8163	>10–30mm	±0.40mm	S>1–3mm	+15%–10%
	>30–50mm	±0.45mm		
	D≥50mm	±1%	S>3mm	+12.5%–10%
ASTM A 106	D≤48.3mm	±0.4mm	–12.5%	
	48.3<D≤114.3mm	±0.79mm		
	D≥114.3mm	+1.59/–0.79mm		
ASTM A 53	D≤48.3mm	±0.4mm	–12.5%	
	D≥60.3mm	±1%		

力学性能 Mechanical properties：

标准 Standard	牌号 Grade	抗拉强度 Tensile strength（MPa）	屈服强度 Yield strength（MPa）S≤16mm	伸长率（%） Elongation
GB/T8163	10	335 ~ 475	≥205	≥24
	20	410 ~ 530	≥245	≥20
	Q345	490 ~ 665	≥325	≥21
ASTM A 106	A	≥330	≥205	查ASTM A106表4 See table 4 of ASTM A106
	B	≥415	≥240	
	C	≥485	≥275	
ASTM A 53	A	≥330	≥205	查ASTM A53表3 See table 3 of ASTM A53
	B	≥415	≥240	

化学成分 Chemical composition(%):

标准 Standard	牌号 Grade	C	Si	Mn	P	S	Cr	Ni	Cu	Mo	V
GB/T8163	10	0.07 ~ 0.13	0.17 ~ 0.37	0.35 ~ 0.65	≤0.035	≤0.035	≤0.15	≤0.30	≤0.25	–	–
	20	0.17 ~ 0.23	0.17 ~ 0.37	0.35 ~ 0.65	≤0.035	≤0.035	≤0.25	≤0.30	≤0.25	–	–
	Q345A	≤0.20	≤0.55	1.00 ~ 1.60	≤0.045	≤0.045	≤0.30	≤0.30	≤0.30	–	0.02 ~ 0.15
	Q345B	≤0.20	≤0.55	1.00 ~ 1.60	≤0.040	≤0.040	≤0.30	≤0.30	≤0.30	–	0.02 ~ 0.15
	Q345C	≤0.20	≤0.55	1.00 ~ 1.60	≤0.035	≤0.035	≤0.30	≤0.30	≤0.30	–	0.02 ~ 0.15
	Q345D	≤0.18	≤0.55	1.00 ~ 1.60	≤0.030	≤0.030	≤0.30	≤0.30	≤0.30	–	0.02 ~ 0.15
	Q345E	≤0.18	≤0.5	1.00 ~ 1.60	≤0.025	≤0.025	≤0.30	≤0.30	≤0.30	–	0.02 ~ 0.15
ASTM A 106	A	≤0.25	≥0.1	0.27 ~ 0.93	≤0.035	≤0.035	≤0.40	≤0.40	≤0.40	≤0.15	≤0.08
	B	≤0.30	≥0.1	0.29 ~ 1.06	≤0.035	≤0.035	≤0.40	≤0.40	≤0.40	≤0.15	≤0.08
	C	≤0.35	≥0.1	0.29 ~ 1.06	≤0.035	≤0.035	≤0.40	≤0.40	≤0.40	≤0.15	≤0.08
ASTM A 53	A	≤0.25	–	≤0.95	≤0.050	≤0.045	≤0.40	≤0.40	≤0.40	≤0.15	≤0.08
	B	≤0.30	–	≤1.20	≤0.050	≤0.045	≤0.40	≤0.40	≤0.40	≤0.15	≤0.08

注：经协商，也可供应其他牌号的钢管
Note:Other grade can also be provided after consuliting with customers

生产工艺及装备
Diagram of production process and Equipmen

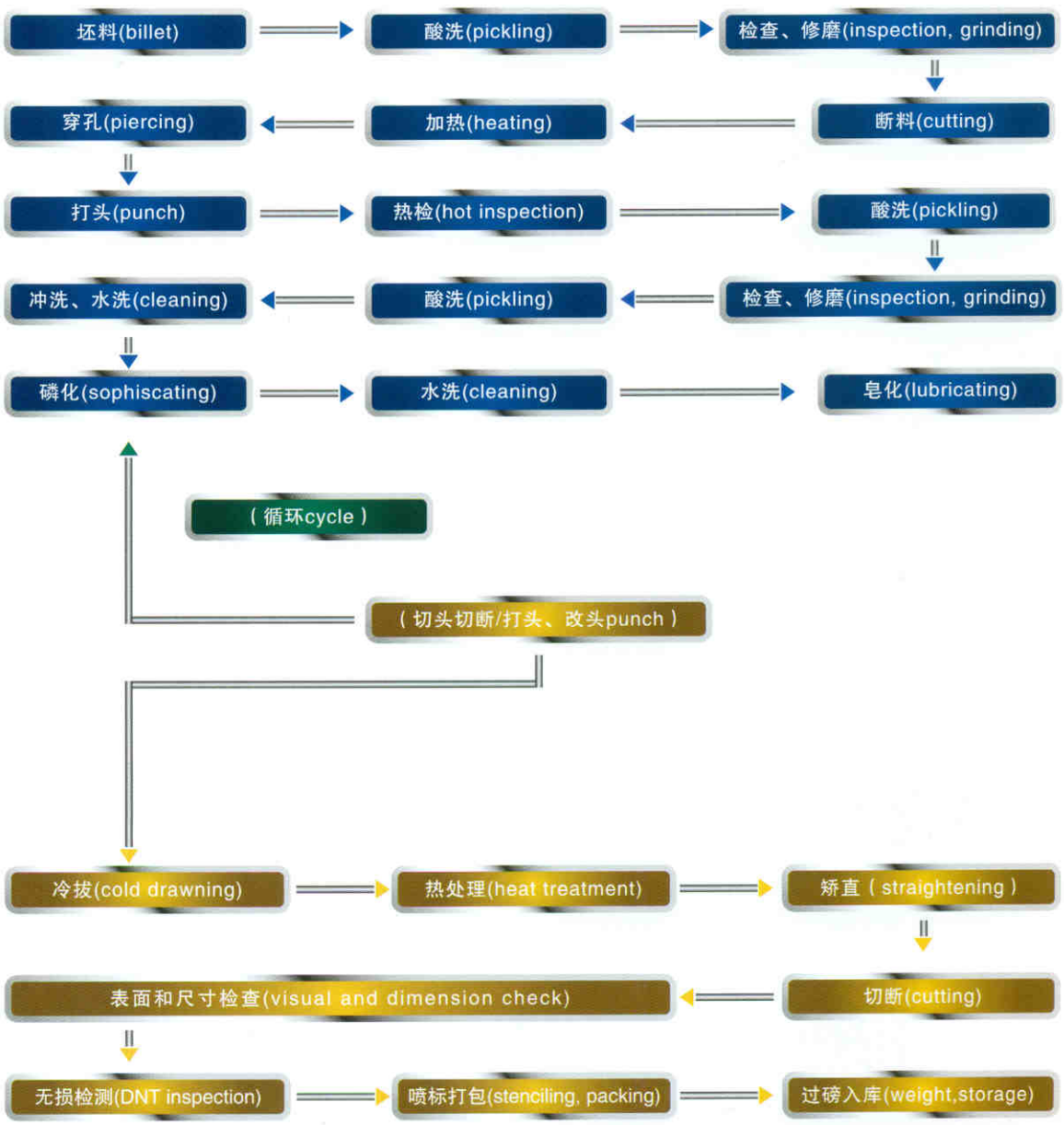


NO3

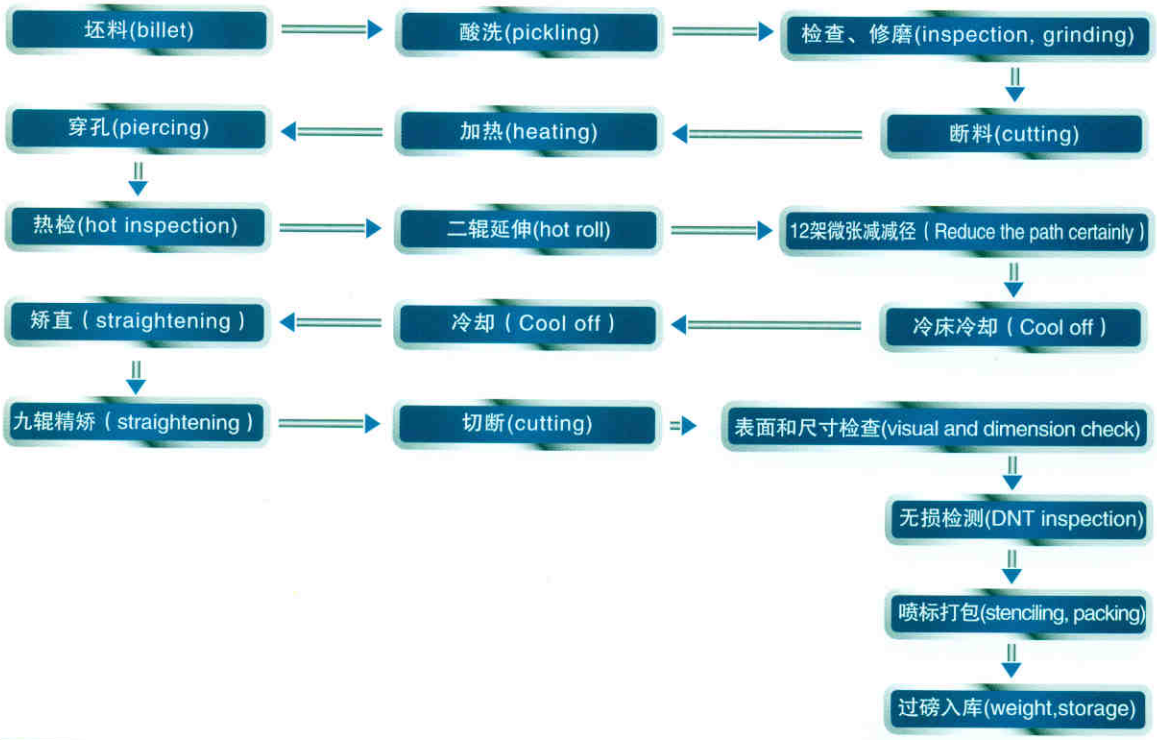
扬州龙川钢管有限公司
YANGZHOU LONTRIN STEEL TUBE CO.,LTD

LONTRIN

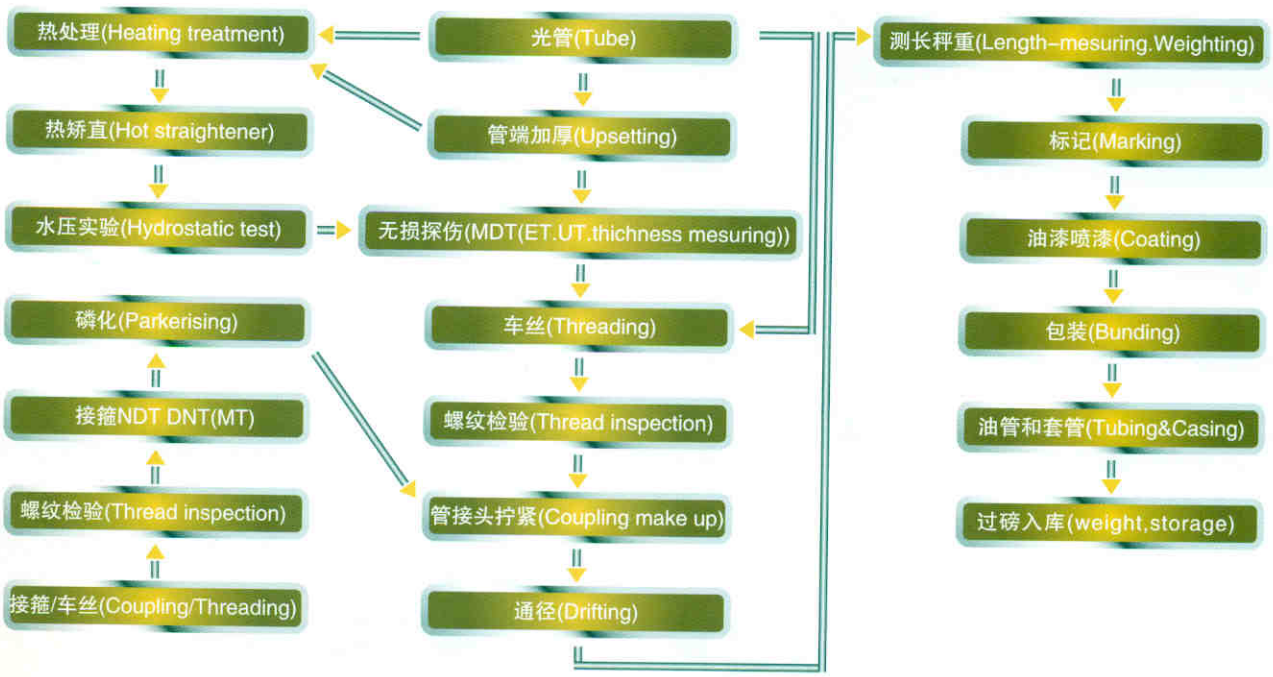
冷拔工艺 Cold-drawn technics



热轧工艺
Hot roll technics



管加工
OCTG Finshing Process





生产装备
Production equipment

主要有¢50、¢76、¢80、¢219穿孔机组，¢108、¢114热轧机组、¢720大口径机组、斜底式加热炉，100T、120T链式冷拔机，200T、300T先进的液压拉机，辊底式连续热处理炉、矫直机、打头机、切割机、车丝机、自动倒角机、自动喷涂机等配套设备。

Our company is equipped with the modern equipments. There are the production equipments, such as the Piercing Aggregates of the specification of Φ50, Φ76, Φ80, Φ114, Φ219, Φ720; and the Chaining Cold-drawn Machines of 100T, 120T; and the Sloping Bottom Heating Furnace. And recently, we have brought in Hydraulic Cold Drawn Machine of 200T and 300T, Rolling Bottom Continuous Heat-treatment Furnace and Straighten Machine, Drive Head Machine, Cutting Machine, and Beveling Machine.



Φ76穿孔机
Piercing mill



Φ219穿孔机
Piercing mill



Φ80穿孔机
Piercing mill



车丝机
Threading machine



300T液压冷拔机
Cold-drawn machine



Φ219热处理炉
Heating furnace



Φ108自动轧管机
Hot roll mill



Φ80冷拔线
Cold-drawn machine



Φ80热处理炉
Heating furnace



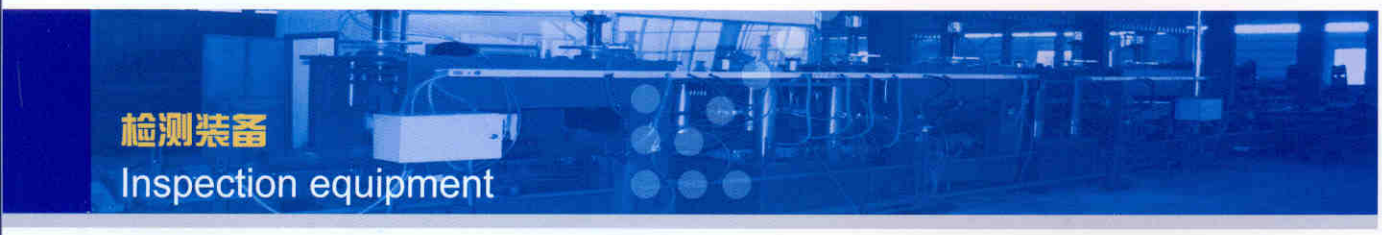
Φ80酸洗
Pickling



Φ80热处理炉
Heating furnace



再加热炉
Heating furnace



检测装备
Inspection equipment

公司拥有钢管涡流自动探伤机组、超声波自动探伤机组、水压机等先进的检测设备和检测技术手段，确保钢管产品达到客户的要求。

Eddy Current Inspection Machine, Ultrasonic Inspection Machine, and Spectrum Steel Diving Machine. All these can fully meet the needs of production and inspection.



超声涡流联合探伤机组
Joint Inspection Unit of ultrasonic eddy current



涡流探伤机组
Eddy current inspection unit



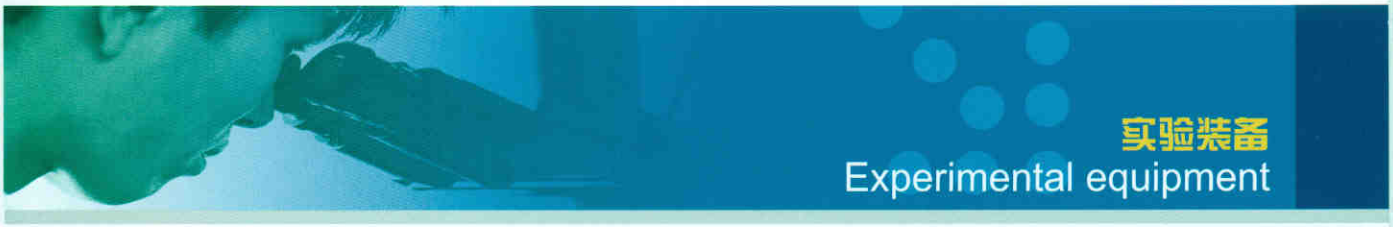
水压机1
Hydrostatic test machine



水压机2
Hydrostatic test machine



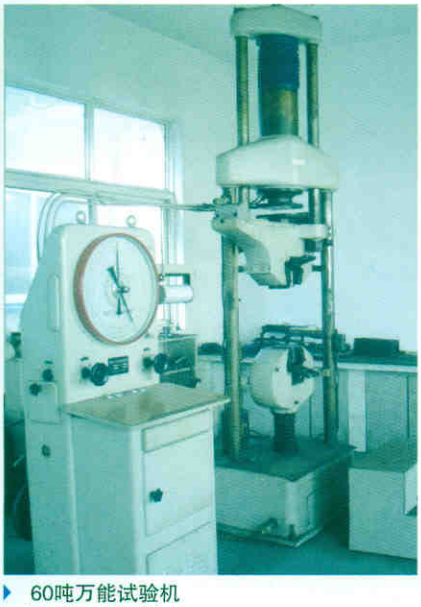
水压机3
Hydrostatic test machine



实验装备
Experimental equipment

公司建有专业产品理化检测中心大楼，拥有60T、100T微机液压万能试验机，冲击机，布氏硬度机、洛氏硬度机，微机金相显微镜，德国产SG1000直读式光谱仪、分析天秤、721比色计，碳硫分析仪，手提光谱分钢仪。

The main inspection equipments are Microcomputer Control Hydraulic General Testing Machine, Impact Machine (60T、100T), Brinell Hardness Tester, Rockwell Hardness Tester, and Microcomputer Control Metallic Phase Microscope, SG1000 Spectrograph made in German, Analytical Balance, 721 Colorimeter, C–S analyzer.



60吨万能试验机
Testing Machine



碳硫分析仪
Carbon and sulfur analyzer



洛氏硬度计
Rockwell Hardness Tester



恒温干燥箱
Oven thermostat



分析天平
Analytical balance



GS1000光谱仪
GS1000 spectrograph



布氏硬度计
Brinell hardness Tester



100吨微机液压万能试验机
Hydraulic Universal Testing Machine



摆锤冲击试验机
Pendulum impact testing machine



721分光光度计
721 colorimeter



质量管理体系
Quality Certification System

NO4

质量方针

质量为本，用户至上，不断创新，持续改进

龙川公司按照ISO9001《质量管理体系要求》API SPEC Q1《质量纲要规范》的要求对生产和质量进行全面管理，建立了公司质量管理体系，且注重对质量体系的改进与提升，严格的质量管理程序是保证我们整个产品线质量的关键。公司同时具备完善的理化性能检测手段。公司追求产品质量的高标准，确保各项指标满足客户的要求。

Quality policy

"Quality first, customers oriented, innovation and improvement pursued"

Lontrin has general supervision over the production and quality according to the ISO9001 system of quality certification. Our company attaches great importance to the product quality, Lontrin has been pursuiting the high standard of product quality, Brillant product quality has always been the mission pursuited by Lontrin to their best. We are operating according to the strict quality management procedure.







公司资质

公司资质 NO5
Certificate

龙川钢管公司获得的认可证书主要有：
油管、套管、管线管等产品获得美国石油学会API颁发的5CT、5L会标使用许可证
锅炉以及压力容器用无缝钢管获得欧盟的PED证书
船用管获得英国LR、法国BV、中国CCS以及其他国家船级社的工厂认可证书
龙川钢管公司取得中国石油能源一号网会员证书
质量管理体系获得德国T ü V公司颁发的ISO9001T ü V认证证书.
环境管理体系通过ISO14001认证
国家质量监督检验检疫总局颁发的特种设备制造许可证（无缝钢管）

Certificate

The chief certificates obtained by Lontrin Steel Tube are as following:
Tubing、Casing and line pipe have been got the 5L and 5CT association symbol usage permit issued by A P I.
Seamless steel pipe for boiler and pressure vessel has been gotten the European Commission PED certificate.
Ship pipes have been obtained the certification issued by LR、BV、CCS and other foreign nationality shipping certificate.
Lontrin Company has become the Energyahead's members of the PetrolChina .
Its quality management system（ISO9001） has been obtained the T ü V certification issued by T ü V
Envionment management system:ISO14001


API 5CT


API 5L



PED


PED



Manufacture license of Special equipment



ISO14001



ISO9001



BV



CCS


LR



TUV



CNPC



Postdoctoral programme



企业文化
Enterprise Culture

NO6



鸟瞰图 Airscape



研发生活小区 R&D living quarters



研发中心 R&D Center

企业精神
Enterprise Spirit

走精品之路，做品牌企业

Purse the perfect, To be the best



NO7

营销与服务
Marketing and Service

龙川公司向用户提供完善的售后服务。售后服务已经作为龙川公司的核心竞争力重要组成部分。从2008年开始，龙川公司致力于建设"最优服务、最低成本"的最具竞争力的售后服务体系，通过对龙川钢管用户服务工作现状分析，逐步改进服务体系，完善服务机构，提高服务质量，初步形成了具有龙川特色的用户服务系统。

龙川公司内部，通过完善用户服务流程，从订货、合同评审、用户投诉与质量异议等方面提供全面的服务，同时通过设立用户服务监督电话以及不断完善用户满意度调查等，加强对用户服务工作的监控和管理，提高售后服务的质量，进一步增强企业的核心竞争力。目前用户服务理念已经深入到龙川公司的生产部、技术部、质保部、销售部等各个部门，为用户提供满意的服务已经成为龙川全体员工的职责。龙川公司将继续坚持以客户需求为导向，为客户创造价值，将客户服务打造成为最具竞争力的龙川品牌。

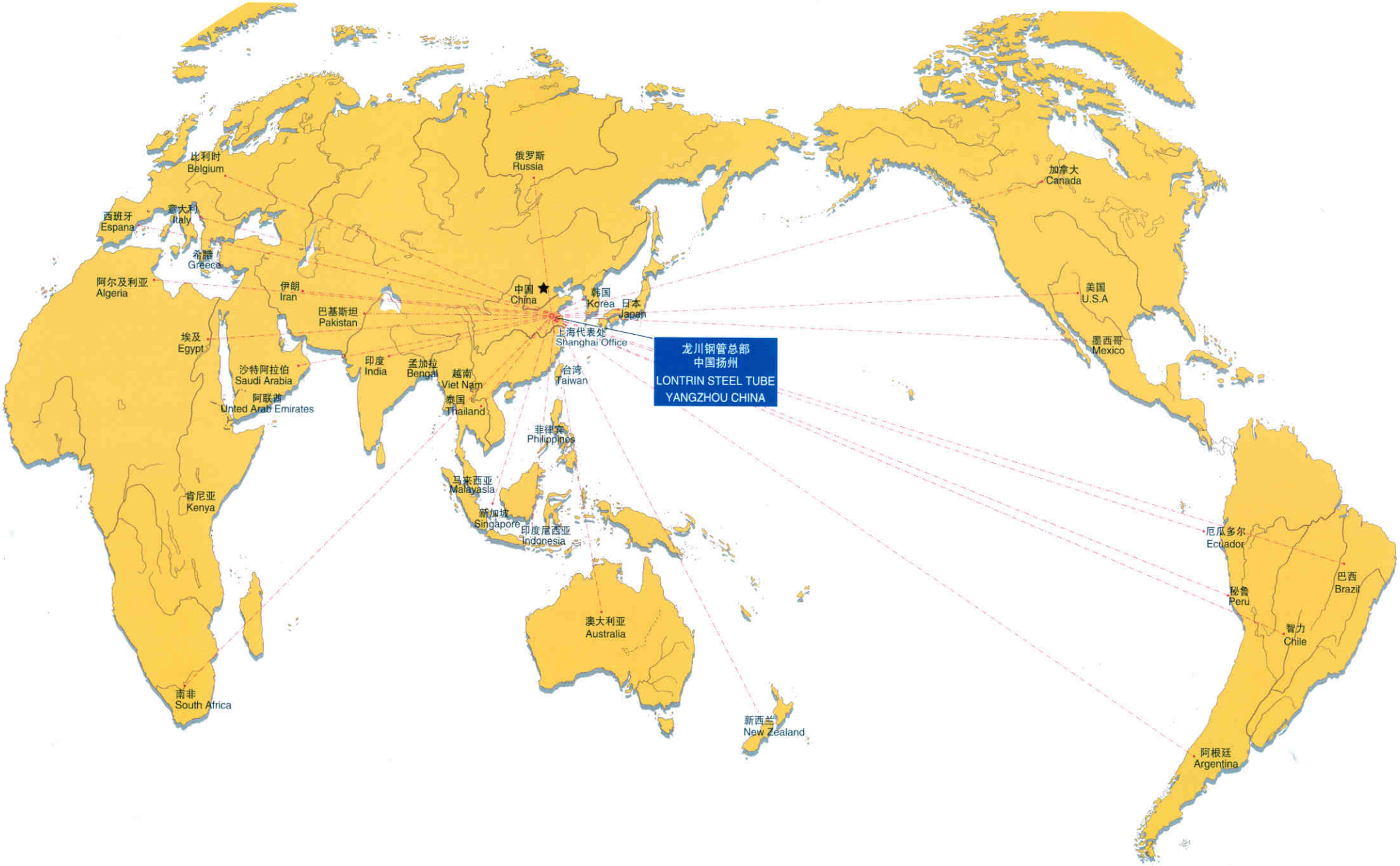




We, Lontrin Steel, offer all our customers perfect after-sales service, which has become one of our company's core competitive edges. Since 2008, Lontrin has been dedicating to building up the most competitive after-sales system, that is "Best service, lowest cost", in a series of active movements, which include analyzing our current service system for steel tube customers, gradually improving the status quo, optimizing the service structure and upgrading the service quality. We have now initially founded our Lontrin unique customer service system.

Lontrin provides a comprehensive range of service to its customer by perfecting customer service processes, including in taking orders, appraising orders, handling customer complaints and quality disagreements, etc, in combination with some other steps such as setting up customer complain telephone line and conducting customer satisfaction survey, with the intention to improve after-sales quality and to further improve Lontrin company's core competitive power. Now customer service concept has been embedded in the whole Lontrin, including production department, technical department, QC department, sales department and all other department. Providing satisfactory services for our customers has become the responsibility for any of Lontrin staff. Lontrin Company will continue to pursue customer-oriented, value-added crusade to merge perfect customer service into our most competitive Brand-Lontrin.

营销与服务Marketing and Service



营销与服务Marketing and Service

