

solid 山西索立得工贸有限公司

Shanxi Solid Industrial Co.,Ltd.

STEEL PIPES

Shanxi Solid Industrial Co.,Ltd.

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DN



SUPERIOR
Apparatus

SHANXI SOLID INDUSTRIAL CO.,LTD

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ROTATING HEAT

Single-or dual-feeding available, fueled by lpg, automated furnace-temperature furnace-pressure and furnace flow, domestical-topping controlling performance.





◎ 精良的设备

SUPERIOR

Apparatus 今天的成功 明天奋斗的动力



PIERCING MILL

The punching machine can be adjusted automatically and locked hydraulically.
This unit features in stable punching process, uniform hair canal wall thickness etc.
This machine is advanced at home.





○ 精良的设备

SUPERIOR

Apparatus 今天的成功 明天奋斗的动力



ACCU-ROLL MILL

Conical roller, big disk, flexible adjustment, hydraulic-controlled lock system and balance system, easy and reliable operation.



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Slight-tensioned reducing mill



Pipe cutter



Straightener

SUPERIOR Apparatus



Cooling bed

GRADE, QUALITY, CHARACTER

Technological lever is a kind of grade

The grade is embodied in every combination from rational element to sensible element, from marking system to field elements, from traditional technology to high-tech A symbol of grade, begins from SOLID.

Technological lever is a kind of quality

Quality is involved with every detail from program design to program priority, from Production& fabrication to quality procedure skills. Excellent equipment produces high quality SOLID, begins with equipment for higher quality and strives for dual-win together with you from now.

Technological lever is a kind of character.

Character is constituted from communication to deep communication, from service to satisfied service, and from commitment to answer commitment step by step. Provide service to customer in view of the customers, SOLID, enjoys specialization of service value.



Pipe expander



Hydrostatic test equipments



SUPERIOR Apparatus



Ultrasonic crack detector



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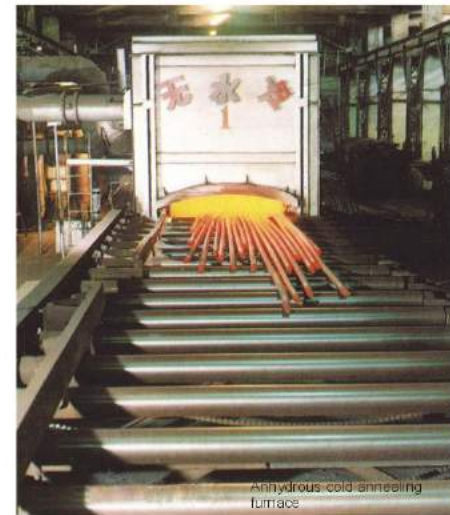
Website: <http://www.solidsteelfitting.com>



Leakage magnetic flow detector



COLD-DRAW Workshop



Anhydrous cold annealing furnace

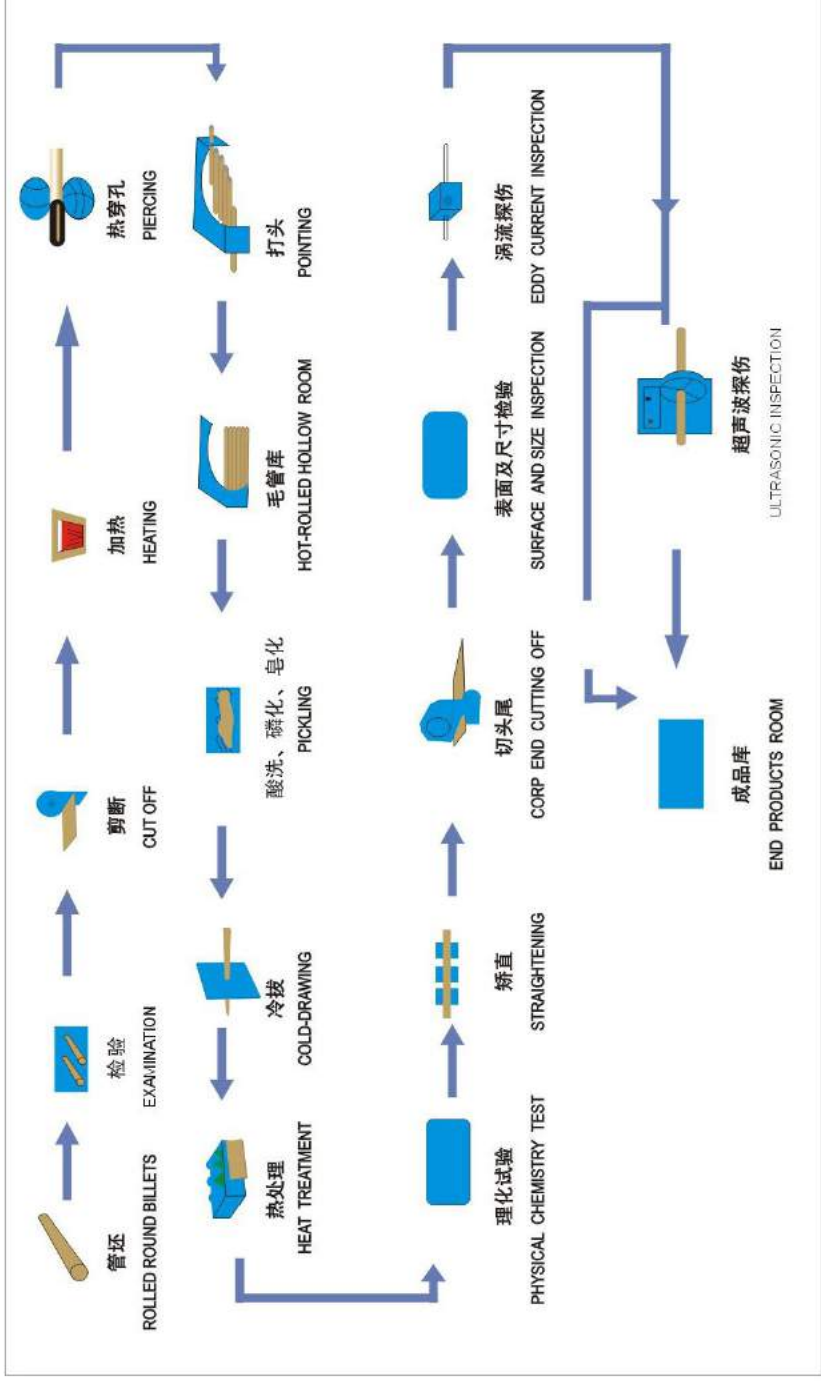


Cold drawn assembly

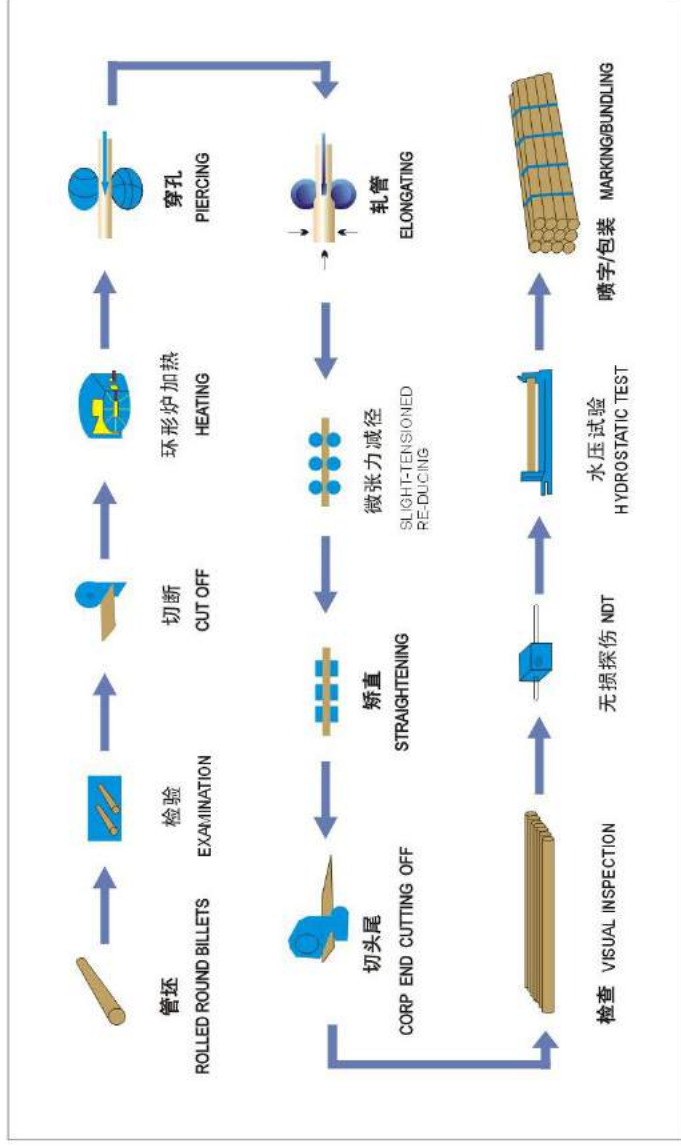
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COLD-DRAWING SEAMLESS STEEL PIPE process flow chart



HOT-ROLLING SEAMLESS STEEL PIPE process flow chart



SAMPLE PIPE



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PRODUCT
display



SHANXI SOLID INDUSTRIAL CO.,LTD

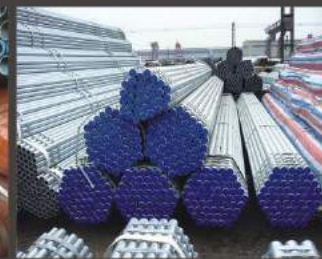
Tel: 0086-351-8390369

Fax: 0086-351-8390339

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◎ 产品展示
PRODUCT

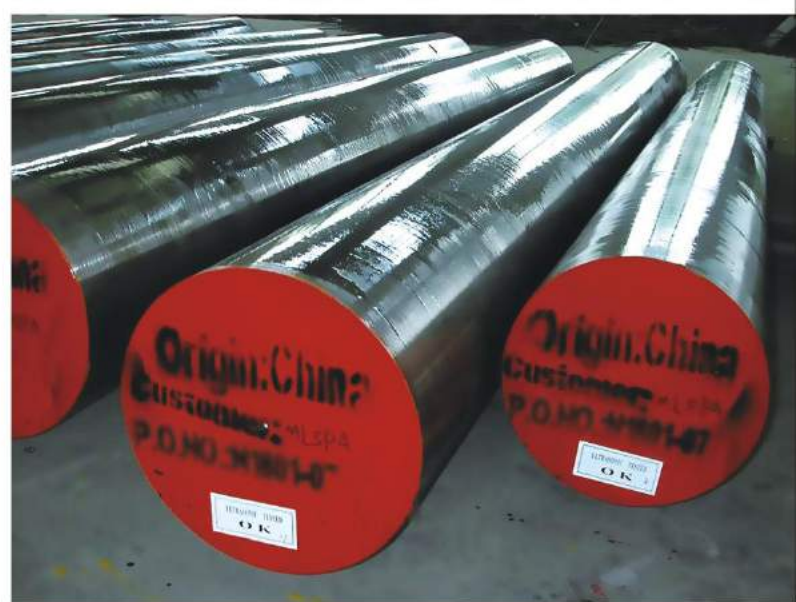
display 今天的成功 明天奋斗的动力



Hot Galvanized Pipes with Thread & Coupling



MATERIAL



SHANXI SOLID INDUSTRIAL CO.,LTD

Tel: 0086-351-8390369

Fax: 0086-351-8390339

TECHNICAL PARAMETERS OF SEAMLESS STEEL PIPE

公司常备材质：20#、Q345。技术标准：API 5L B, ASTM A106 GR.B, ASTM A53 GR.B, 高压锅炉管 GB5310-2009, 化肥专用管GB6479-2013, 石油裂化管GB9948-2013, 低中压锅炉管GB3087-2008, 流体管GB/T8163-2008, 结构管GB/T8162-2008, 液压支架管GB/T17396-2009。

A53 化学成份、机械性能 A53 Chemical components and mechanical property

标准 Standard	牌号 Trade mark	化学成份 Chemical components										机械性能 Mechanical property		
		C	Si	Mn	P	S	Cu	Ni	Mo	Cr	V	抗拉强度 Tensile Strength (Mpa)	屈服强度 Yield Strength (Mpa)	伸长率 Elongation (%)
ASTM A53	A	≤0.25	/	≤0.95	≤0.05	≤0.045	≤0.40	≤0.40	≤0.15	≤0.40	≤0.03	≥330	≥205	≥28.5
	B	≤0.30	/	≤1.2	≤0.05	≤0.045	≤0.40	≤0.40	≤0.15	≤0.40	≤0.03	≥415	≥240	≥29.5

A106 化学成份、机械性能 A106 Chemical components and mechanical property

标准 Standard	牌号 Trade mark	化学成份 Chemical components										机械性能 Mechanical property		
		C	Si	Mn	P, S	Cu	Ni	Mo	Cr	V	抗拉强度 Tensile Strength (Mpa)	屈服强度 Yield Strength (Mpa)	伸长率 Elongation (%)	
ASTM A106	B	≤0.30	≥0.10	0.29~1.06	≤0.035	≤0.40	≤0.40	≤0.15	≤0.40	≤0.08	≥415	≥240	≥30	
	C	≤0.35	≥0.10	0.29~1.06	≤0.035	≤0.40	≤0.40	≤0.15	≤0.40	≤0.08	≥485	≥275	≥30	

A179 化学成份、机械性能 A179 Chemical components and mechanical property

标准 Standard	牌号 Trade mark	化学成份 Chemical components										机械性能 Mechanical property		
		C	Si	Mn	P, S	Cu	Ni	Mo	Cr	V	抗拉强度 Tensile Strength (Mpa)	屈服强度 Yield Strength (Mpa)	伸长率 Elongation (%)	
ASTM A179	A179	0.06~0.18	/	0.27~0.63	≤0.035	/	/	/	/	/	≥325	≥180	35	

A192 化学成份、机械性能 A192 Chemical components and mechanical property

标准 Standard	牌号 Trade mark	化学成份 Chemical components										机械性能 Mechanical property		
		C	Si	Mn	P, S	Cu	Ni	Mo	Cr	V	抗拉强度 Tensile Strength (Mpa)	屈服强度 Yield Strength (Mpa)	伸长率 Elongation (%)	
ASTM A192	A192	0.08~0.18	≤0.25	0.27~0.63	≤0.035	/	/	/	/	/	≥325	≥180	≥35	

The common materials: 20# and Q345. Technical Standard: API 5L B, ASTM A106 GR.B, ASTM A53 GR.B; High-pressure boiler pipe GB5310-2009, Special pipe for fertilizer making GB6479-2013, pipe for petroleum cracking GB9948-2013, low- and medium-pressure boiler pipe GB3087-2008, fluid pipe GB/T8163-2008, structural pipe GB/T8162-2008 and hydraulic support pipe GB/T17396-2009.

370 化学成份、机械性能 370 Chemical components and mechanical property

牌号 Trade mark	化学成份 Chemical components					机械性能 Mechanical property		
	C	Si	Mn	P	S	抗拉强度 Tensile Strength (Mpa)	屈服强度 Yield Strength (Mpa)	伸长率 Elongation (%)
STPG 370	≤0.25	≤0.35	0.30~0.90	≤0.040	≤0.040	≥370	≥218	30
STS 370	≤0.25	0.10~0.35	0.30~1.10	≤0.035	≤0.035	≥370	≥215	30
STPT 370	≤0.25	0.10~0.35	0.30~0.90	≤0.035	≤0.035	≥370	≥215	30

A213 化学成份、机械性能 A213 Chemical components and mechanical property

标准 Standard	牌号 Trade mark	化学成份 Chemical components										机械性能 Mechanical property		
		C	Si	Mn	P, S	Cu	Ni	Mo	Cr	V	抗拉强度 Tensile Strength (Mpa)	屈服强度 Yield Strength (Mpa)	伸长率 Elongation (%)	
ASTM A213	A213T11	0.05~0.15	0.50~1.00	0.30~0.80	≤0.025	/	/	0.44~0.65	1.0~1.5	/	≥415	≥170	≥30	
	A213T12	0.05~0.15	≤0.50	0.30~0.80	≤0.025	/	/	0.44~0.65	0.80~1.25	/	≥415	≥220	≥30	
	A213T22	0.05~0.15	≤0.50	0.30~0.80	≤0.025	/	/	0.67~1.13	1.90~2.60	/	≥415	≥205	≥30	

A210 化学成份、机械性能 A210 Chemical components and mechanical property

标准 Standard	牌号 Trade mark	化学成份 Chemical components										机械性能 Mechanical property		
		C	Si	Mn	P, S	Cu	Ni	Mo	Cr	V	抗拉强度 Tensile Strength (Mpa)	屈服强度 Yield Strength (Mpa)	伸长率 Elongation (%)	
ASTM A210	A210A1	≤0.27	≥0.10	≤0.93	≤0.35	/	/	/	/	/	≥415	≥255	≥30	
	A210C	≤0.35	≥0.10	0.29~1.08	≤0.35	/	/	/	/	/	≥485	≥275	≥30	

TECHNICAL PARAMETERS OF SEAMLESS STEEL PIPE

▶▶ API 5L 化学成份、机械性能 API 5L Chemical components and mechanical property PSL 1:

等级和类别 Class and Sort	化学成份 Chemical components				机械性能 Mechanical property			
	C (Max)	Mn (Max)	P (Max)	S (Max)	抗拉强度 Tensile Strength (Min)		屈服强度 Yield Strength (Min)	
					psi	Mpa	psi	Mpa
A25	0.21	0.60	0.030	0.030	45000	310	25400	175
A25P	0.21	0.60	0.045~0.030	0.030				
A	0.22	0.90	0.030	0.030	48000	335	30500	210
B	0.28	1.20	0.030	0.030	60200	415	35500	245
X42	0.28	1.30	0.030	0.030	60200	415	42100	290
X48	0.28	1.40	0.030	0.030	63100	435	46400	320
X52	0.28	1.40	0.030	0.030	66700	460	52200	360
X58	0.28	1.40	0.030	0.030	71100	490	56800	390
X60	0.28	1.40	0.030	0.030	75400	520	60200	415
X65	0.28	1.40	0.030	0.030	77600	535	65300	450
X70	0.28	1.40	0.030	0.030	82700	570	70300	495

▶▶ API 5L 化学成份、机械性能 API 5L Chemical components and mechanical property PSL 2:

等级和类别 Class and Sort	化学成份 Chemical components				机械性能 Mechanical property							
	C (Max)	Mn (Max)	P (Max)	S (Max)	抗拉强度 Tensile Strength (Min)		抗拉强度 Tensile Strength (Max)		屈服强度 Yield Strength (Min)		屈服强度 Yield Strength (Max)	
					Psi	Mpa	Psi	Mpa	Psi	Mpa	Psi	Mpa
BN	0.24	1.20	0.025	0.015	60200	415	95000	655	35500	245	65300	450
X42N	0.24	1.20	0.025	0.015	60200	415	95000	655	42100	290	71800	485
X48N	0.24	1.40	0.025	0.015	63100	435	95000	655	46400	320	76100	525
X52N	0.24	1.40	0.025	0.015	66700	460	110200	760	52200	360	78900	530
X58N	0.24	1.40	0.025	0.015	71100	480	110200	760	56600	390	79000	545
X60N	0.24	1.40	0.025	0.015	75400	520	110200	780	60200	415	81900	565
X65N	0.18	1.70	0.025	0.015	77600	535	110200	760	65300	450	87000	600
X70N	0.18	1.80	0.025	0.015	82700	570	110200	780	70300	485	92100	635
X80N	0.18	1.90	0.025	0.015	80600	625	119700	825	60600	555	102300	705

▶▶ API 5CT 化学成份、机械性能 API 5CT Chemical components and mechanical property

等级 Class	类别 Sort	化学成份 Chemical components											机械性能 Mechanical property						
		C		Mn		Mo		Cr		Ni	Cu	P	S	Si	屈服强度 Yield Strength (Mpa)	抗拉强度 Tensile Strength (Mpa)	硬度 Hardness		
		Min	Max	Min	Max	Min	Max	Min	Max	Max	Max	Max	Max	Max	Min	Max	Min	HRC	布氏 BBS
H40	/	/	/	/	/	/	/	/	/	/	/	0.030	0.030	/	276	552	414	/	/
J55	/	/	/	/	/	/	/	/	/	/	/	0.030	0.030	/	378	552	517	/	/
K55	/	/	/	/	/	/	/	/	/	/	/	0.030	0.030	/	378	552	655	/	/
N60	1	/	/	/	/	/	/	/	/	/	/	0.030	0.030	/	552	758	689	/	/
	Q	/	/	/	/	/	/	/	/	/	/	0.030	0.030	/	552	758	689	/	/
M65	/	/	/	/	/	/	/	/	/	/	/	0.030	0.030	/	448	588	588	22	235
L80	8Cr	/	0.15	0.30	0.60	0.90	1.10	8.0	10.00	0.50	0.25	0.020	0.010	1.00	552	855	655	23	241
	13Cr	0.15	0.22	0.25	1.00	/	/	12.0	14.00	0.50	0.25	0.020	0.010	1.00	552	855	655	23	241
C90	1	/	0.35	/	1.00	0.25	0.75	/	1.20	0.99	/	0.020	0.010	/	621	724	689	25.4	255
T95	1	/	0.35	/	1.20	0.25	0.85	0.40	1.50	0.88	/	0.020	0.010	/	655	758	724	25.4	255
P110	/	/	/	/	/	/	/	/	/	/	/	0.030	0.030	/	758	965	862	/	/

GB/T8163-2008 GB/T8162-2008 GB3087-2008 外径壁厚允许偏差

表1 钢管的外径允许偏差

单位为毫米

钢管种类	允许偏差
热轧(挤压、扩)钢管	$\pm 1\%D$ 或 ± 0.50 , 取其中较大者
冷拔(轧)钢管	$\pm 1\%D$ 或 ± 0.30 , 取其中较大者

热轧(挤压、扩)钢管壁厚允许偏差应符合表2的规定。

表2 热轧(挤压、扩)钢管壁厚允许偏差

单位为毫米

钢管种类	钢管公称外径	S/D	允许偏差
热轧(挤压)钢管	≤ 102	-	$\pm 12.5\%S$ 或 ± 0.40 , 取其中较大者
		≤ 0.05	$\pm 15\%S$ 或 ± 0.40 , 取其中较大者
	> 102	$> 0.05-0.10$	$\pm 12.5\%S$ 或 ± 0.40 , 取其中较大者
> 0.10		$\pm 12.5\%S$ $-10\%S$ $\pm 15\%S$	
热扩钢管	-	-	$\pm 12.5\%S$ $-10\%S$ $\pm 15\%S$

冷拔(轧)钢管壁厚允许偏差应符合表3的规定。

表3 冷拔(轧)钢管壁厚允许偏差

单位为毫米

钢管种类	钢管公称壁厚	允许偏差
冷拔(轧)钢管	≤ 3	$\pm 15\%S$ 或 ± 0.15 , 取其中较大者
	> 3	$\pm 12.5\%S$ $-10\%S$

TECHNICAL PARAMETERS OF ERS OF SEAMLESS STEEL PIPE

GB9948-2006外径壁厚允许偏差

分类代号	制造方式	钢管公称尺寸		允许偏差	
				普通	高级
WH	热轧 (挤压) 钢管	外径 (D)	≤50	±0.50	±0.30
			>50-159	±1%D	±0.75%D
			>159	±1%D	±0.9%D
	热扩钢管	壁厚 (S)	≤20	+15%S -10%S	±10%S
			>20	+12.5%S -10%S	±10%S
			全部	±1%D	
WC	冷拔(轧) 钢管	外径 (D)	14-30	±0.20	±0.15
			>30-50	±0.30	±0.25
			>50	±0.75%D	±0.6%D
	热扩钢管	壁厚 (S)	全部	±15%S	
			全部	±15%S	
			全部	±15%S	

ASTM A106/A533外径壁厚允许偏差 (单位为毫米)

10.3-48.3 -0.8+0.4 48.3-114.3 -0.8+0.8

114.3-219.1 -0.8+1.6 219.1-457 -0.8+2.4

457-660 -0.8+3.2

壁厚下限-12.5%

All Kinds of Standards of Seamless Steel Pipe

Chemical Composition and Mechanical Properties

各种标准无缝钢管的化学成分及力学性能

STRUCTURAL PIPE 结构管

Trade mark 牌号	Chemical composition (Smelt analysis) 化学成分 (熔炼分析) %							
	C	Si	Mn	P	S	Cr	Ni	Cu
	Max. 不大于							
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
35	0.32-0.39	0.17-0.37	0.50-0.80	0.035	0.035	0.25	0.30	0.25
45	0.42-0.50	0.17-0.37	0.50-0.80	0.035	0.035	0.25	0.30	0.25

Trade mark 牌号	Mechanical properties 力学性能						Standards adopted 采用标准
	Tensile strength 抗拉强度 MPa	Yield point 屈服点 Mpa Min. 不小于			Percentage elongation (Lo=5do) % Min 不小于	Distance Between Plates Fir Flattening Tests (H) 压扁试验 平板间距离 H(mm)	
		≤16mm	>16-30mm	>30mm			
10	≥335	205	195	185	24	2/3D	GB8162
20	≥410	245	235	225	20	2/3D	
35	≥510	305	295	285	17	-	
45	≥590	335	325	315	14	-	

All Kinds of Standards of Seamless Steel Pipe
Chemical Composition and Mechanical Properties

各种标准无缝钢管的化学成分及力学性能

BOILER TUBE 锅炉管

Trade mark 牌号	Steel tube classification 钢管类别	Chemical composition (Smelt analysis) 化学成分 (熔炼分析) %							
		C	Si	Mn	P	S	Cr	Mo	V
		Max. 不大于							
10	Medium-Low Pressure Boiler Tube 中低压力锅炉管	0.07-0.13	0.17-0.37	0.35-0.65	0.035	0.035	0.15	-	-
20	Medium-Low Pressure Boiler Tube 中低压力锅炉管	0.17-0.23	0.17-0.37	0.35-0.65	0.035	0.035	0.25	-	-
20G	High Pressure Boiler Tube 高压锅炉管	0.17-0.23	0.17-0.37	0.35-0.65	0.025	0.015	-	-	-

Trade mark 牌号	Tensile strength 抗拉强度 MPa	The Yield point for following tubes with various wall thickness 下列壁厚 (mm) 钢管的屈服点				Percentage elongation 伸长率 δ 5% (Lo=5do) % Min 不小于	Impact toughness value (DVM-Sample) 冲击韧性值 (DVM-试样) (纵向) J Min 不小于	Standards adopted 采用标准
		≤16		>16				
		Mpa Min. 不小于		Mpa Min. 不小于				
10	335-475	205		195		24	-	GB3087
20	410-550	245		235		20	-	GB3087
20G	410-550	245		235		24	40	GB5310

FLUID TRANSFERING PIPE 流体输送管

Trade mark 牌号	Chemical composition (Smelt analysis) 化学成分 (熔炼分析) %							
	C	Si	Mn	P	S	Cr	Ni	Cu
	Max. 不大于							
20	0.17-0.23	0.17-0.37	0.35-0.65	0.035	0.035	0.25	0.30	0.25

Trade mark 牌号	Mechanical properties 力学性能						Standards adopted 采用标准
	Tensile strength 抗拉强度 MPa	Yield point 屈服点 Mpa Min. 不小于		Percentage elongation (Lo=5do) % Min 不小于	Standards adopted 采用标准		
		Wall thickness 壁厚 (mm)					
		≤16	>16				
20	410-530	245		235		20	GB8163

TECHNICAL PARAMETERS OF ERS OF SEAMLESS STEEL PIPE

Size and Weight of Seamless Roll Steel Pipe
无缝轧制钢管的尺寸和重量

ASME B36.10M-1996

Nominal Diameter 公称直径		Outside Diameter 外径		标准厚 (STD) 加厚 (XS) 特加厚 (XXS)	Sch.no 管壁厚度号	Wall Thickness 壁厚		Nominal Weight 公称重量	
NPS	DN	in.英寸	mm毫米			in.英寸	mm毫米	lb/ft磅/英尺	kg/m千克/米
1/8	...	0.405	10.3	...	10	0.049	1.24	0.19	0.28
1/8	...	0.405	10.3	...	30	0.057	1.45	0.21	0.32
1/8	...	0.405	10.3	STD	40	0.068	1.73	0.24	0.37
1/8	...	0.405	10.3	XS	60	0.095	2.41	0.31	0.47
1/4	...	0.540	13.7	...	10	0.065	1.65	0.33	0.49
1/4	...	0.540	13.7	...	30	0.073	1.85	0.36	0.54
1/4	...	0.540	13.7	STD	40	0.086	2.24	0.42	0.63
1/4	...	0.540	13.7	XS	60	0.115	3.02	0.54	0.80
3/8	10	0.675	17.1	...	10	0.065	1.65	0.42	0.63
3/8	10	0.675	17.1	...	30	0.073	1.85	0.47	0.70
3/8	10	0.675	17.1	STD	40	0.091	2.31	0.57	0.84
3/8	10	0.675	17.1	XS	60	0.126	3.20	0.74	1.10
1/2	15	0.840	21.3	...	10	0.083	2.11	0.67	1.00
1/2	15	0.840	21.3	...	30	0.096	2.41	0.76	1.12
1/2	15	0.840	21.3	STD	40	0.108	2.77	0.85	1.27
1/2	15	0.840	21.3	XS	60	0.147	3.73	1.09	1.62
1/2	15	0.840	21.3	...	160	0.186	4.78	1.31	1.95
1/2	15	0.840	21.3	XXS	...	0.294	7.47	1.71	2.65
3/4	20	1.050	26.7	...	10	0.083	2.11	0.86	1.28
3/4	20	1.050	26.7	...	30	0.095	2.41	0.97	1.44
3/4	20	1.050	26.7	STD	40	0.113	2.87	1.13	1.69
3/4	20	1.050	26.7	XS	60	0.154	3.91	1.47	2.20
3/4	20	1.050	26.7	...	160	0.219	5.56	1.94	2.90
3/4	20	1.050	26.7	XXS	...	0.308	7.82	2.44	3.64
1	25	1.315	33.4	...	10	0.109	2.77	1.40	2.09
1	25	1.315	33.4	...	30	0.114	2.90	1.46	2.18
1	25	1.315	33.4	STD	40	0.133	3.38	1.68	2.50
1	25	1.315	33.4	XS	60	0.178	4.56	2.17	3.24
1	25	1.315	33.4	...	160	0.250	6.35	2.84	4.24
1	25	1.315	33.4	XXS	...	0.358	9.08	3.56	5.45
1 1/4	32	1.660	42.2	...	10	0.108	2.77	1.81	2.70
1 1/4	32	1.660	42.2	...	30	0.117	2.97	1.93	2.87
1 1/4	32	1.660	42.2	STD	40	0.140	3.56	2.27	3.39
1 1/4	32	1.660	42.2	XS	60	0.191	4.86	3.00	4.47
1 1/4	32	1.660	42.2	...	160	0.250	6.35	3.76	5.61
1 1/4	32	1.660	42.2	XXS	...	0.382	9.70	5.21	7.77
1 1/2	40	1.900	48.3	...	10	0.109	2.77	2.09	3.11
1 1/2	40	1.900	48.3	...	30	0.125	3.18	2.37	3.53

Size and Weight of Seamless Roll Steel Pipe
无缝轧制钢管的尺寸和重量

ASME B36.10M-1996

Nominal Diameter 公称直径		Outside Diameter 外径		标准厚 (STD) 加厚 (XS) 特加厚 (XXS)	Sch.no 管壁厚度号	Wall Thickness 壁厚		Nominal Weight 公称重量	
NPS	DN	in.英寸	mm毫米			in.英寸	mm毫米	lb/ft磅/英尺	kg/m千克/米
1 1/2	40	1.900	48.3	STD	40	0.145	3.68	2.72	4.05
1 1/2	40	1.900	48.3	XS	80	0.200	5.08	3.63	5.41
1 1/2	40	1.900	48.3	...	160	0.281	7.14	4.86	7.25
1 1/2	40	1.900	48.3	XXS	...	0.400	10.16	6.41	9.56
2	50	2.375	60.3	...	...	0.083	2.11	2.03	3.03
2	50	2.375	60.3	...	10	0.109	2.77	2.64	3.93
2	50	2.375	60.3	...	30	0.125	3.18	3.00	4.48
2	50	2.375	60.3	...	...	0.141	3.58	3.36	5.01
2	50	2.375	60.3	STD	40	0.164	4.17	3.65	5.44
2	50	2.375	60.3	...	...	0.172	4.37	4.05	6.03
2	50	2.375	60.3	...	...	0.188	4.78	4.39	6.54
2	50	2.375	60.3	XS	80	0.218	5.54	5.02	7.48
2	50	2.375	60.3	...	...	0.250	6.35	5.67	8.45
2	50	2.375	60.3	...	...	0.281	7.14	6.28	9.36
2	50	2.375	60.3	...	160	0.344	8.74	7.48	11.11
2	50	2.375	60.3	XXS	...	0.436	11.07	9.03	13.44
2 1/2	65	2.875	73.0	...	...	0.109	2.77	3.22	4.80
2 1/2	65	2.875	73.0	...	10	0.120	3.05	3.53	5.26
2 1/2	65	2.875	73.0	...	...	0.125	3.18	3.67	5.48
2 1/2	65	2.875	73.0	...	...	0.141	3.58	4.12	6.13
2 1/2	65	2.875	73.0	...	...	0.156	3.96	4.53	6.74
2 1/2	65	2.875	73.0	...	...	0.172	4.37	4.97	7.40
2 1/2	65	2.875	73.0	...	30	0.188	4.78	5.40	8.04
2 1/2	65	2.875	73.0	STD	40	0.203	5.16	6.79	10.03
2 1/2	65	2.875	73.0	...	...	0.216	5.49	7.13	10.44
2 1/2	65	2.875	73.0	...	...	0.260	6.35	7.01	10.44
2 1/2	65	2.875	73.0	XS	80	0.276	7.01	7.56	11.41
2 1/2	65	2.875	73.0	...	160	0.375	9.35	10.01	14.92
2 1/2	65	2.875	73.0	XXS	...	0.552	14.02	13.69	20.39
3	80	3.500	88.9	...	...	0.172	4.37	6.11	9.11
3	80	3.500	88.9	...	30	0.188	4.78	6.65	9.29
3	80	3.500	88.9	STD	40	0.215	5.49	7.58	11.29
3	80	3.500	88.9	...	...	0.260	6.35	8.68	12.93
3	80	3.500	88.9	...	...	0.281	7.14	9.56	14.40
3	80	3.500	88.9	XS	80	0.300	7.62	10.25	15.27
3	80	3.500	88.9	...	160	0.438	11.13	14.32	21.35
3	80	3.500	88.9	XXS	...	0.600	15.24	18.68	27.68
3 1/2	...	4.00	101.6	...	30	0.188	4.78	7.65	11.41
3 1/2	...	4.00	101.6	STD	40	0.225	5.74	9.11	13.57
3 1/2	...	4.00	101.6	...	...	0.250	6.35	10.01	14.92
3 1/2	...	4.00	101.6	...	...	0.281	7.14	11.16	16.63
3 1/2	...	4.00	101.6	XS	80	0.318	8.08	12.50	18.63

TECHNICAL PARAMETERS OF SIZES OF SEAMLESS STEEL PIPE

Size and Weight of Seamless Roll Steel Pipe
无缝轧制钢管的尺寸和重量

ASME B36.10M-1996

Nominal Diameter 公称直径		Outside Diameter 外径		标准厚 (STD) 加厚 (XS) 特加厚 (XXS)	Sch. No 管壁厚度号	Wall Thickness 壁厚		Nominal Weight 公称重量	
NPS	DN	in 英寸	mm 毫米			in 英寸	mm 毫米	lb/ft 磅/英尺	kg/m 千克/米
22	500	22.000	558	...	...	0.344	8.74	79.56	118.60
22	500	22.000	558	STD	20	0.376	9.53	86.61	129.13
22	500	22.000	558	...	...	0.406	10.31	93.63	139.50
22	500	22.000	558	...	...	0.438	11.13	100.66	150.37
22	500	22.000	558	...	...	0.489	11.91	107.85	160.68
22	500	22.000	558	XS	30	0.500	12.70	114.81	171.09
22	500	22.000	558	...	...	0.562	14.27	128.67	191.69
22	500	22.000	558	...	...	0.625	15.88	142.68	212.69
22	500	22.000	558	...	...	0.688	17.48	156.60	233.43
22	500	22.000	558	...	...	0.750	19.05	170.21	253.65
22	500	22.000	558	...	...	0.812	20.62	183.75	273.78
22	500	22.000	558	...	80	0.875	22.23	197.41	294.25
22	500	22.000	558	...	...	0.938	23.83	211.00	314.49
22	500	22.000	558	...	...	1.000	25.40	224.39	334.23
22	500	22.000	558	...	...	1.062	26.97	237.48	353.84
22	500	22.000	558	...	80	1.126	28.68	250.81	373.83
22	500	22.000	558	...	...	1.188	30.18	264.06	393.57
22	500	22.000	558	...	...	1.250	31.75	277.01	412.81
22	500	22.000	558	...	...	1.312	33.32	289.89	431.94
22	500	22.000	558	...	100	1.375	34.93	302.88	451.42
24	600	24.000	610	...	...	0.344	8.74	86.91	129.59
24	600	24.000	610	STD	20	0.375	9.53	94.62	141.12
24	600	24.000	610	...	...	0.406	10.31	102.31	152.47
24	600	24.000	610	...	...	0.438	11.13	110.22	164.37
24	600	24.000	610	...	...	0.489	11.91	117.86	175.66
24	600	24.000	610	XS	...	0.500	12.70	125.40	187.03
24	600	24.000	610	...	30	0.562	14.27	140.68	209.64
24	600	24.000	610	...	...	0.625	15.88	156.03	232.65
24	600	24.000	610	...	40	0.688	17.48	171.29	255.41
24	600	24.000	610	...	...	0.750	19.05	186.23	277.61
24	600	24.000	610	...	...	0.812	20.62	201.09	299.69
24	600	24.000	610	...	...	0.875	22.23	215.10	322.21
24	600	24.000	610	...	...	0.938	23.83	231.03	344.45
24	600	24.000	610	...	80	0.988	24.61	238.35	356.26
24	600	24.000	610	...	...	1.000	25.40	245.64	366.17
24	600	24.000	610	...	...	1.062	26.97	260.17	387.76
24	600	24.000	610	...	...	1.126	28.58	274.84	409.77
24	600	24.000	610	...	...	1.188	30.18	289.44	431.62
24	600	24.000	610	...	80	1.219	30.96	298.59	442.08
24	600	24.000	610	...	...	1.250	31.75	303.71	452.74
24	600	24.000	610	...	...	1.312	33.32	317.91	473.84
24	600	24.000	610	...	...	1.375	34.93	332.25	495.35
24	600	24.000	610	...	...	1.438	36.53	346.50	516.80
24	600	24.000	610	...	...	1.500	38.10	360.45	537.33

Size and Weight of Seamless Roll Steel Pipe
无缝轧制钢管的尺寸和重量

ASME B36.10M-1996

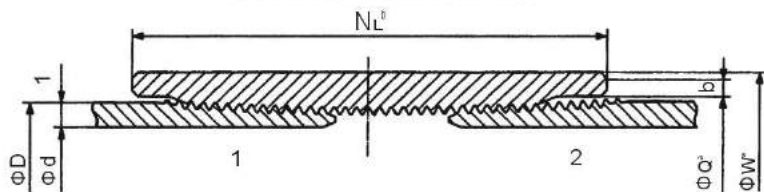
Nominal Diameter 公称直径		Outside Diameter 外径		标准厚 (STD) 加厚 (XS) 特加厚 (XXS)	Sch. No 管壁厚度号	Wall Thickness 壁厚		Nominal Weight 公称重量	
NPS	DN	in 英寸	mm 毫米			in 英寸	mm 毫米	lb/ft 磅/英尺	kg/m 千克/米
26	600	26.000	660	STD	...	0.375	9.53	102.63	152.87
26	600	26.000	660	...	...	0.406	10.31	110.98	165.16
26	600	26.000	660	...	...	0.438	11.13	119.57	178.09
26	600	26.000	660	...	...	0.489	11.91	127.86	190.34
26	600	26.000	660	XS	20	0.500	12.70	136.17	202.72
26	600	26.000	660	...	...	0.562	14.27	152.68	227.23
26	600	26.000	660	...	...	0.625	15.88	169.38	252.24
26	600	26.000	660	...	...	0.688	17.48	185.99	276.96
26	600	26.000	660	...	...	0.750	19.05	202.25	301.10
26	600	26.000	660	...	...	0.812	20.62	218.43	325.12
26	600	26.000	660	...	...	0.875	22.23	234.79	349.62
26	600	26.000	660	...	...	0.938	23.83	251.07	373.84
26	600	26.000	660	...	...	1.000	25.40	267.60	397.49
28	700	28.000	711	STD	...	0.376	9.53	110.64	164.85
28	700	28.000	711	...	...	0.406	10.31	119.65	178.15
28	700	28.000	711	...	...	0.438	11.13	128.93	192.09
28	700	28.000	711	...	...	0.489	11.91	137.90	206.22
28	700	28.000	711	XS	20	0.500	12.70	146.65	218.69
28	700	28.000	711	...	...	0.562	14.27	164.69	245.18
28	700	28.000	711	...	30	0.625	15.88	182.73	271.21
28	700	28.000	711	...	...	0.688	17.48	200.68	298.95
28	700	28.000	711	...	...	0.750	19.05	218.27	326.06
28	700	28.000	711	...	...	0.812	20.62	236.78	351.05
28	700	28.000	711	...	...	0.875	22.23	255.46	377.58
28	700	28.000	711	...	...	0.938	23.83	271.10	403.81
28	700	28.000	711	...	...	1.000	25.40	286.36	429.44
30	700	30.000	762	STD	...	0.375	9.53	118.65	176.84
30	700	30.000	762	...	...	0.406	10.31	126.32	191.11
30	700	30.000	762	...	...	0.438	11.13	136.29	206.09
30	700	30.000	762	...	...	0.489	11.91	147.82	220.30
30	700	30.000	762	XS	20	0.500	12.70	157.63	234.67
30	700	30.000	762	...	...	0.562	14.27	176.69	263.12
30	700	30.000	762	...	30	0.625	15.88	196.08	292.18
30	700	30.000	762	...	...	0.688	17.48	215.38	320.93
30	700	30.000	762	...	...	0.750	19.05	234.29	349.02
30	700	30.000	762	...	...	0.812	20.62	253.12	376.88
30	700	30.000	762	...	...	0.875	22.23	272.17	406.54
30	700	30.000	762	...	...	0.938	23.83	291.14	433.78
30	700	30.000	762	...	...	1.000	25.40	309.72	461.98
30	700	30.000	762	...	...	1.062	26.97	326.22	489.65
30	700	30.000	762	...	...	1.126	28.68	346.93	516.90
30	700	30.000	762	...	...	1.188	30.18	366.58	544.65
30	700	30.000	762	...	...	1.250	31.75	383.81	571.75

TECHNICAL PARAMETERS OF ERS OF SEAMLESS STEEL PIPE

API SPECIFICATION 5L/ISO 3183

钢管规定外径 O, D for pipes mm(in)	接箍尺寸 Sizes for coupling mm(in)				接箍理论重量 Weight for coupling Kg(lb)
	规定外径 ^a O, D for coupling mm ^a	规定最小长度 Min length for coupling ML ^b	规定凹槽直径 Diameter for socket Q ^c	规定承载面宽度 Width for bearing surface b	
10.3(0.405)	14.3(0.563)	27.0(1.063)	11.9(0.468)	0.8(0.031)	0.02(0.04)
13.7(0.540)	18.3(0.719)	41.3(1.625)	15.3(0.603)	0.8(0.031)	0.04(0.09)
17.1(0.675)	22.2(0.875)	41.3(1.625)	18.8(0.738)	0.8(0.031)	0.06(0.13)
21.3(0.840)	27.0(1.063)	54.0(2.125)	22.9(0.903)	1.6(0.063)	0.11(0.24)
26.7(1.050)	33.4(1.313)	54.0(2.125)	28.3(1.113)	1.6(0.063)	0.15(0.34)
33.4(1.315)	40.0(1.576)	66.7(2.625)	35.0(1.378)	2.4(0.093)	0.25(0.54)
42.2(1.660)	52.2(2.054)	69.8(2.750)	43.8(1.723)	2.4(0.093)	0.47(1.03)
48.3(1.900)	55.9(2.200)	69.8(2.750)	49.9(1.963)	2.4(0.093)	0.41(0.90)
60.3(2.375)	73.0(2.875)	73.0(2.875)	62.7(2.469)	3.2(0.125)	0.84(1.86)
73.0(2.875)	85.7(3.375)	104.8(4.125)	75.4(2.969)	4.8(0.188)	1.48(3.27)
88.9(3.500)	101.6(4.000)	108.0(4.250)	91.3(3.594)	4.8(0.188)	1.86(4.09)
101.6(4.000)	117.5(4.625)	111.1(4.375)	104.0(4.094)	4.8(0.188)	2.69(5.92)
114.3(4.500)	132.1(5.200)	114.3(4.500)	116.7(4.594)	6.4(0.250)	3.45(7.60)
141.3(5.563)	159.9(6.296)	117.5(4.625)	143.7(5.657)	6.4(0.250)	4.53(9.99)
168.3(6.625)	187.7(7.390)	123.8(4.875)	170.7(6.719)	6.4(0.250)	5.87(12.93)
219.1(8.625)	244.5(9.625)	133.4(5.250)	221.5(8.719)	6.4(0.250)	10.52(23.20)

API SPECIFICATION 5L/ISO 3183



无缝钢管技术参数 TECHNICAL PARAMETERS OF SEAMLESS STEEL PIPE

无缝钢管 Seamless Steel Pipe				
合金管 Alloy pipe	Cr5Mo (P5, STFA25, T5)15CrMo (P11, P12, STFA22)13CrMo44 12Cr1MoV P22(10CrMo 910)T91, P91, P9, T9 Wb36	GB5310 GB9948 ASTM A335/A335M ASTM A213/A213M DIN 17175 JIS G 3457 JIS G 3458	Φ16-824*2-100	石油、化工、电力、锅炉行业的耐高温、耐低温、耐腐蚀用无缝钢管。The seamless steel pipe features resistance to high pressure, high/low temperature and corrosion and is used in the industries of petroleum, chemical engineering and electric power as well as boiler.
高压锅炉管 High-pressure boiler pipe	20G, A106, ST45.8/III	GB5310, ASTM A106, DIN 17175	Φ14-630*2-80	高压锅炉用耐热无缝钢管 Temperature-resistant seamless steel pipe for high-pressure boiler
石油裂化管、化肥设备用高压无缝管 High-pressure seamless pipe for petroleum cracking and fertilizer making equipments	20, 12CrMo, 15CrMo	GB6948	Φ10-530*1.5-36	石油精炼厂的炉管、热交换管、蒸发器用无缝钢管。Boiler pipe for refinery, heat-exchanging pipe, seamless steel pipe for pipeline.
	20, 16Mn, Q345	GB6479	Φ18-530*3-40	化肥设备、管道 Fertilizer making equipment and pipe line
低中压锅炉管 Low and medium-pressure boiler pipes	10, 20	GB3087	Φ10-530*2-40	低中压锅炉过热用管、沸水管、机车大小烟管。Over-heat pipe for low- and medium-pressure boiler, boiling water pipe, locomotive smoke pipe (big and small)
流体管 Fluid pipe	20, Q345	GB/T8163	Φ8-630*1.0-40	流体输送 Fluid feeding
结构管 Structural pipe	10, 20, 35, 45, 16Mn, Q345B	GB/T8162	Φ6-1020*1.5-100	一般结构用 For common structure
管线管 Line pipe	B级	API 5L	Φ60-630*1.5-40	石油、天然气、工业输送气、水、油 Carrying gas, water or oil in the industries of petroleum and natural gas
液压支柱管 Hydraulic prop pipe	27SiMn	GB/T17396	Φ70-377*9-40	液压支架、液压支柱 Hydraulic support and prop
船用管 Ship pipe	410	GB/T5312	Φ14-428*1.5-45	制造船舶用耐压管、锅炉及过热器用管 Pipes for ship, boiler and over-heat

TECHNICAL PARAMETERS OF ERS OF SEAMLESS STEEL PIPE

规格 Size	外径 Outside diameter D		带螺纹和接管 名义重量 Nominal linear mass T&C		壁厚 Wall thickness I		端部加工形式 Type of end-finish														
	In	Mm	In	Kg/m	Lb/ft	Mm	In	H40	J55 K55	M65	L80 C95	N80 1类、 Q	C90 T95	P110	Q125	DLP 80T	DLP 110T	DLP 125T	DLP 110TT	DLP 125TT	
6 3/4	168.28	6.625	47.62	32.00	12.04	0.475	-	-	-	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB
7	177.80	7.000	25.30	17.00	5.87	0.231	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	177.80	7.000	29.76	20.00	6.91	0.272	S	S	S	-	-	-	-	-	-	-	-	-	-	-	-
7	177.80	7.000	34.23	23.00	8.05	0.317	-	SLB	LB	LB	LB	LB	LB	-	-	LB	LB	-	LB	-	-
7	177.80	7.000	38.69	26.00	9.19	0.362	-	SLB	LB	LB	LB	LB	LB	LB	-	LB	LB	-	LB	-	-
7	177.80	7.000	43.16	29.00	10.36	0.408	-	-	LB	LB	LB	LB	LB	LB	-	LB	LB	-	LB	-	-
7	177.80	7.000	47.62	32.00	11.51	0.453	-	-	LB	LB	LB	LB	LB	LB	-	LB	LB	-	LB	-	-
7	177.80	7.000	52.09	35.00	12.65	0.498	-	-	-	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB
7	177.80	7.000	56.55	38.00	13.72	0.540	-	-	-	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB
7 1/4	193.68	7.625	35.72	24.00	7.62	0.300	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7 1/4	193.68	7.625	39.29	26.40	8.33	0.328	-	SLB	SLB	LB	LB	LB	LB	-	-	LB	LB	-	LB	-	-
7 1/4	193.68	7.625	44.20	29.70	9.52	0.375	-	-	LB	LB	LB	LB	LB	LB	-	LB	LB	-	LB	-	-
7 1/4	193.68	7.625	50.15	33.70	10.92	0.430	-	-	LB	LB	LB	LB	LB	LB	-	LB	LB	LB	LB	LB	LB
7 1/4	193.68	7.625	58.04	39.00	12.70	0.500	-	-	-	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB
7 1/4	193.68	7.625	63.69	42.80	14.27	0.562	-	-	-	LB	LB	LB	LB	LB	LB	LB	LB	-	LB	-	-
7 1/4	193.68	7.625	67.41	45.30	15.11	0.595	-	-	-	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB
7 1/4	193.68	7.625	70.09	47.10	15.88	0.625	-	-	-	LB	LB	LB	LB	LB	LB	LB	LB	-	LB	-	-
8 3/4	219.08	8.625	35.72	24.00	6.71	0.264	-	S	S	-	-	-	-	-	-	-	-	-	-	-	-
8 3/4	219.08	8.625	41.67	28.00	7.72	0.304	S	-	S	-	-	-	-	-	-	-	-	-	-	-	-
8 3/4	219.08	8.625	47.62	32.00	8.94	0.352	S	SLB	SLB	-	-	-	-	-	-	-	-	-	-	-	-

规格 Size	外径 Outside diameter D		带螺纹和接管 名义重量 Nominal linear mass T&C		壁厚 Wall thickness I		端部加工形式 Type of end-finish														
	In	Mm	In	Kg/m	Lb/ft	Mm	In	H40	J55 K55	M65	L80 C95	N80 1类、 Q	C90 T95	P110	Q125	DLP 80T	DLP 110T	DLP 125T	DLP 110TT	DLP 125TT	
8 3/4	219.08	8.625	53.57	36.00	10.16	0.400	-	SLB	SLB	LB	LB	LB	LB	-	-	LB	LB	-	LB	-	-
8 3/4	219.08	8.625	59.53	40.00	11.43	0.450	-	-	LB	LB	LB	LB	LB	LB	-	LB	LB	-	LB	-	-
8 3/4	219.08	8.625	65.48	44.00	12.70	0.500	-	-	-	LB	LB	LB	LB	LB	-	LB	LB	LB	LB	LB	LB
8 3/4	219.08	8.625	72.92	49.00	14.15	0.557	-	-	-	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB
9 3/4	244.48	9.625	48.07	32.30	7.92	0.312	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9 3/4	244.48	9.625	53.57	36.00	8.94	0.352	S	SLB	SLB	-	-	-	-	-	-	-	-	-	-	-	-
9 3/4	244.48	9.625	59.53	40.00	10.03	0.395	-	SLB	SLB	LB	LB	LB	LB	-	-	LB	LB	-	LB	-	-
9 3/4	244.48	9.625	64.73	43.50	11.05	0.435	-	-	LB	LB	LB	LB	LB	LB	-	LB	LB	LB	LB	LB	LB
9 3/4	244.48	9.625	69.94	47.00	11.99	0.472	-	-	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB
9 3/4	244.48	9.625	79.62	53.50	13.84	0.545	-	-	-	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB
9 3/4	244.48	9.625	86.91	58.40	15.11	0.595	-	-	-	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB	LB
10 3/4	273.05	10.750	48.73	32.75	7.09	0.279	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 3/4	273.05	10.750	60.27	40.50	8.89	0.350	S	SB	SB	-	-	-	-	-	-	-	-	-	-	-	-
10 3/4	273.05	10.750	67.71	45.50	10.16	0.400	-	SB	SB	-	-	-	-	-	-	-	-	-	-	-	-
10 3/4	273.05	10.750	75.90	51.00	11.43	0.450	-	SB	SB	SB	SB	SB	SB	SB	SB	-	-	-	-	-	-
10 3/4	273.05	10.750	82.59	55.50	12.57	0.495	-	-	SB	SB	SB	SB	SB	SB	-	-	-	-	-	-	-
10 3/4	273.05	10.750	90.33	60.70	13.84	0.545	-	-	-	-	-	SB	SB	SB	-	-	-	-	-	-	-

TECHNICAL PARAMETERS OF ERS OF SEAMLESS STEEL PIPE

规格 Size	外径 Outside diameter D		带螺纹和接箍 名义重量 Nominal linear mass T&C		壁厚 Wall thickness t		端部加工形式 Type of end-finish														
	In	Mm	In	Kg/m	Lb/ft	Mm	In	H40	J55 K55	M65	L80 C95	N80 1类、 Q	C90 T95	P110	Q125	DLP 80T	DLP 110T	DLP 125T	DLP 110TT	DLP 125TT	
10 ³ / ₄	273.05	10.750	97.77	65.70	15.11	0.595	—	—	—	—	—	—	SB	SB	SB	—	—	—	—	—	—
11 ³ / ₄	298.45	11.750	62.50	42.00	8.46	0.333	S	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11 ³ / ₄	298.45	11.750	69.94	47.00	9.53	0.375	—	SB	SB	—	—	—	—	—	—	—	—	—	—	—	—
11 ³ / ₄	298.45	11.750	80.36	54.00	11.05	0.435	—	SB	SB	—	—	—	—	—	—	—	—	—	—	—	—
11 ³ / ₄	298.45	11.750	89.29	60.00	12.42	0.489	—	SB	SB	SB	SB	SB	SB	SB	SB	—	—	—	—	—	—
13 ³ / ₄	339.72	13.375	71.43	48.00	8.38	0.330	S	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13 ³ / ₄	339.72	13.375	81.10	54.50	9.65	0.380	—	SB	SB	—	—	—	—	—	—	—	—	—	—	—	—
13 ³ / ₄	339.72	13.375	90.78	61.00	10.92	0.430	—	SB	SB	—	—	—	—	—	—	—	—	—	—	—	—
13 ³ / ₄	339.72	13.375	101.19	68.00	12.19	0.480	—	SB	SB	SB	SB	SB	SB	SB	—	—	—	—	—	—	—
13 ³ / ₄	339.72	13.375	107.15	72.00	13.06	0.514	—	—	—	SB	SB	SB	SB	SB	—	—	—	—	—	—	—
16	406.40	16.000	93.67	65.00	9.53	0.375	S	—	—	—	—	—	—	—	—	—	—	—	—	—	—
16	406.40	16.000	111.61	75.00	11.13	0.438	—	SB	SB	—	—	—	—	—	—	—	—	—	—	—	—
16	406.40	16.000	125.01	84.00	12.57	0.495	—	SB	SB	—	—	—	—	—	—	—	—	—	—	—	—
16 ³ / ₄	473.08	18.625	130.21	87.50	11.05	0.435	S	SB	SB	—	—	—	—	—	—	—	—	—	—	—	—
20	508.00	20.000	139.89	94.00	11.13	0.438	SL	SLB	SLB	—	—	—	—	—	—	—	—	—	—	—	—
20	508.00	20.000	158.49	106.50	12.70	0.500	—	SLB	SLB	—	—	—	—	—	—	—	—	—	—	—	—
20	508.00	20.000	197.93	133.00	16.13	0.635	—	SLB	—	—	—	—	—	—	—	—	—	—	—	—	—