



YOUFA STEEL PIPE GROUP

TOP 500 ENTERPRISES OF CHINA INDUSTRY LEADING BRANDS

YSP

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TIANJIN YOUFA INTERNATIONAL TRADE CO., LTD



YOUFA STEEL PIPE GROUP

Youfa is the strongest welded steel pipe manufacturing group around china.

Brand "YSP" is the leading and outstanding brand in the industry



友發鋼管集團大樓外景
Appearance of Tianjin Youfa Steel Pipe Group



天津基地-第一分公司外景
Appearance of No. 1 Branch Company in Tianjin Base



唐山基地-唐山正元管業公司外景
Appearance of Tangshan Zhengyuan Steel Pipe Co., Ltd in Tangshan Base



邯鄲基地-邯鄲友發鋼管公司外景
Appearance of Handan Youfa Steel Pipe Co., Ltd in Handan Base

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Profile of the Group

Tianjin YouFa Steel Pipe Group Co., Ltd. was founded on July 1st, 2000, with the headquarters located at the largest steel pipe production base in China—Daquzhuang Village, Tianjin City, and it is the largest steel pipe manufacturing enterprise producing many kinds of steel pipes, including ERW steel pipe, hot dipped galvanized steel pipe(Round, Square / Rectangular, Spiral), square and rectangular steel pipe, steel pipe of lining plastic, plastic-coated steel pipe, spiral steel pipe, highway materials and processing "Youfa" and "Zhengjinyuan" brands. Now it has formed three production bases in Tianjin, Tangshan and Handan, owns 9 steel pipe enterprises with a total of 152 production lines, 1 highway protecting plate factory, 1 waste acid and wastewater processing plant, nearly 10,000 employees, 2 approved national level laboratories and the only one industry-university-research R&D institution in the industry—"Tianjin Welded Steel Pipe Technology Engineering Center". Products produced by three production bases are sold to 100 countries and regions. It produced over 12 million tons of various steel pipes in 2016. In case of head-to-tail connection of steel pipes produced by Youfa every week, they will make a circuit of the earth. Youfa's production and sales volume have ranked No. 1 for consecutive 10 years in China. And it has ranked among top 500 enterprises in China and top 500 enterprises in China's manufacturing industry.

Quality is the life of the enterprise. Youfa strictly controls product quality by virtue of 5 links—raw material

link, equipment link, technology link, management link and inspection link. Youfa brand steel pipes have been successfully applied to Three Gorges Project, Pudong International Airport, Capital International Airport, Beijing Olympic Stadium, Shanghai World Expo Exhibition Hall, Jiaozhou Bay Cross-sea Bridge, the tallest building in China—117 Building in Tianjin, Beijing-Zhangjiakou Olympic Winter Games stadium, Beijing Z15 Tower, Tian'anmen Parade Reviewing Stand, Shanghai Disneyland Park and other national priority projects. It has been recognized as No. 1 brand in the industry.

We Youfa are always taking "Going beyond ourselves, Making partners succeed, Realizing hundred years of Youfa and Creating harmony together" as vocation, and always holding fast the core value of "Honesty, Mutuality, Virtue and Partnership". Based on the cooperation with our partners, we will unswervingly keep building Tianjin Youfa to be a respected and happy enterprise!

Youfa Steel Pipe, selling to and supporting the whole world!



Tianjin Youfa International Trade Co., Ltd

Tianjin Youfa International Trade Co., Ltd, was founded in March, 2010, as the foreign trade window of Youfa Steel Pipe Group. The company is located in 7-8th Floor, Guotou Building, Dafeng Road, Hongqiao District, Tianjin City. The office covers an area of 1000 m². There are about 80 staffs; among them more than 50 have CET-6 certificates and some even better. Our annual sales of steel products are nearly 300,000.00 tons.

Through several years of hard work, we have established export business relationship with many big Transnational Enterprises. Based on the high quality and the considerate service, our products have set up a prominent brand image at home and abroad. Our sales markets mainly are: Middle & South America, the Southeast Asia, Middle East and Africa and so on, nearly covering 125 countries and regions, obtaining a well-deserved reputation. We have built a long-term cooperation with many clients, and have received word of praise from customers all over the world.

Carbon steel pipes meet the following standards: API 5L, ASTM A53/A500, ASTM A795, EN10219/10255, BS1387, BS1139, EN39, ISO65, DIN2440, JIS G3444/3466, etc. and are approved by the Third Party. They are widely used in oil and natural gas, low pressure liquid and mineral powder delivery, and for industrial and civil construction fields and for piles field. Paying attention to the quality of products and services,



possessing normative QAS, we have acquired certificates of API5L, ISO9001, ISO14000, ISO18000, FPC, UL quality system.

In order to provide customers a more personalized service, Tianjin Youfa Hongtuo Steel Pipe Manufacturing Co., Ltd as processing factory, specially designed for foreign trade service. It covers an area of 20000 square meters. There are about 200 employees, 10 lathes, 7 cutting machines, 2 sets of grooving machine, 2 sets of automatic paint or oil production line. We are committed to meet customer's various after-processing requirements.

Pursuing the "Customer first, Integrity first" principle, we are sincerely expecting to cooperate with you!

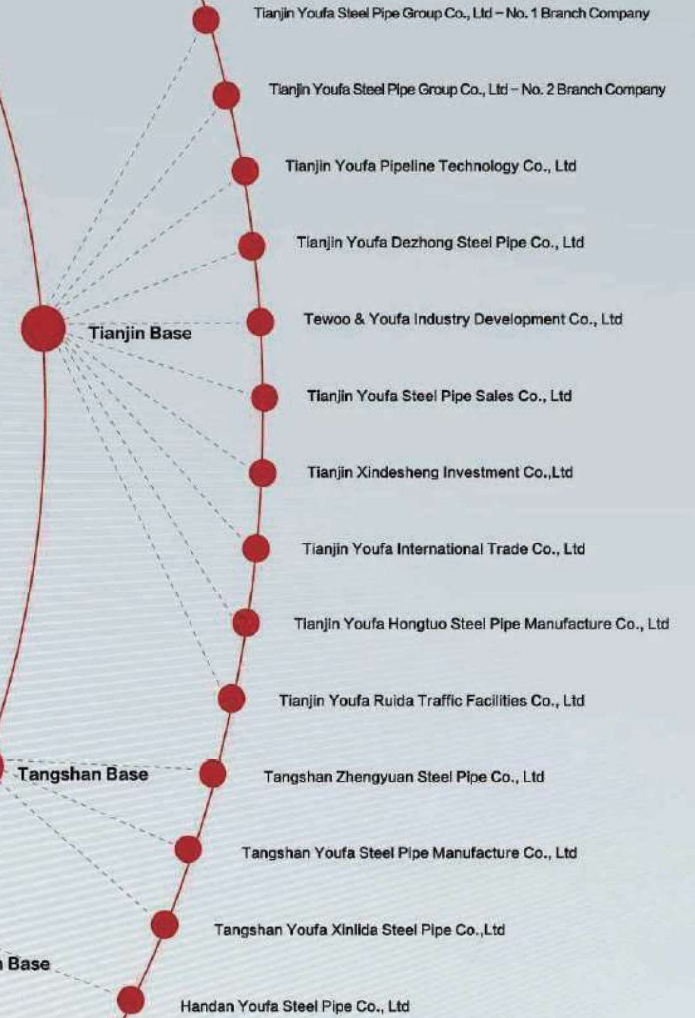
Organizational Structure



Chairman of
Youfa Steel Pipe Group: Li Maojin



CEO of
Youfa Steel Pipe Group: Yin Jiuxiang



TOP 500 ENTERPRISES OF CHINA
TEN MILLION TONS PRODUCTION CHINESE STEEL PIPE MANUFACTURER

**TOP 500 ENTERPRISES OF CHINA'S
MANUFACTURING INDUSTRY**
INDUSTRY PREFERRED BRAND

Electrical Resistance Weld Pipe - ERW

Manufacture Procedures



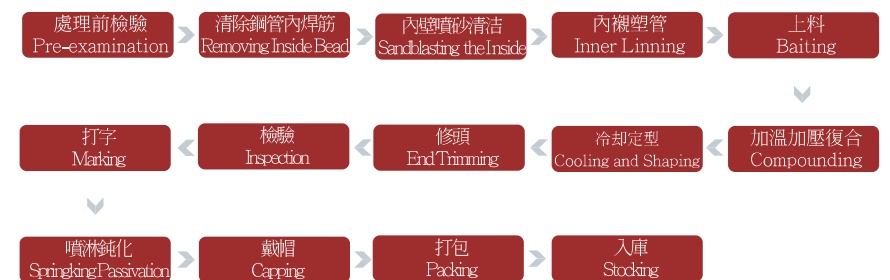
Hot-Dipped Galvanized Steel Pipe

Manufacture Procedures



Galvanized Steel Pipe of Lining Plastic

Manufacture Procedures





ERW Steel Pipe Production Line



ERW Steel Pipe Yard

ERW Steel Pipe

Size: DN15-600mm

Usage: low pressure liquid delivery such as water, gas, air, oil and steam and for machine structural purposes

Hot Dipped Galvanized Steel Pipe

Round Pipe: DN15-200mm
Square Pipe: 20x20-200x200mm
Rectangular Pipe: 20x40-100x200mm
Spiral Pipe: 219-1420mm

Usage: delivery of low pressure liquid such as water, gas, air, steam for heating and for machine structural purposes



Tangshan Zhengyuan Hot Dipped Galvanized Steel Pipe Yard



Hot Dipped Galvanized Square Pipe



Hot Dipped Galvanized Spiral Welded Steel Pipe



Hot Dipped Galvanized ERW Steel Pipe



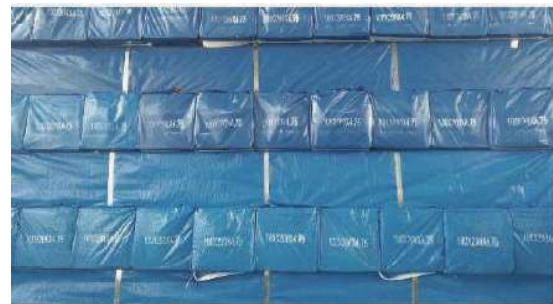
Grooved with Caps



Cut in Short Length



PVC Wrapped



Oiled and PVC Wrapped



Threaded with Coupling



Painted

Youfa Laboratory and Quality Control



直讀光譜儀
Direct reading spectrometer

洛錫衝擊試驗機
Drop hammer impact test machine

快速智能定硫儀
Fast intelligent sulfur determination instrument

電子萬能試驗機
Electronic universal testing machine

維氏硬度計
Vickers hardness tester

鹽霧試驗箱
Salt spray test box

Honor & Certificates



Steel Pipe Standards

Specifications		Application	Chemical Requirement(%)						Physical Requirement						
			C (Max)	Si (Max)	Mn (Max)	P (Max)	S (Max)	Others	Tensile Strength Min Mpa (Psi)	Yield Strength Min Mpa (Psi)					
BS EN39	S235GT	Scaffolding tube	0.2	a,b	1.4	0.04	0.045	0.020(Al)	340/520	235					
BS EN10255	L	Carbon Steel pipes for ordinary piping	0.2	-	1.4	0.035	0.03	-	320-520MPa	195MPa					
	M														
	H														
BS EN10219	S235JRH	Colded formed hollow section	0.17	-	1.4	0.045	0.045	0.009(N)	360-510Mpa (<3mm) 340-470Mpa (>3 <= 40mm)	235Mpa (<16mm) 225Mpa (>16 <= 40mm)					
	S275JCH		0.2	-	1.5	0.04	0.04	0.009(N)	430-580Mpa (<3mm) 410-560Mpa (>3 <= 40mm)	275Mpa (<16mm) 265Mpa (>16 <= 40mm)					
	S275J2H		0.2	-	1.5	0.035	0.035	-							
	S355JCH		0.2	0.55	1.6	0.04	0.04	0.009(N)	510-680Mpa (<3mm) 490-630Mpa (>3 <= 40mm)	355Mpa (<16mm) 345Mpa (>16 <= 40mm)					
	S355J2H		0.2	0.55	1.6	0.035	0.035	-							
BS1387	CLASS A	Carbon steel pipe	0.2	-	1.2	0.045	0.045	-	320-460Mpa	195Mpa					
	CLASS B														
	CLASS C														
BS3059	320	Fer Boiler	0.16	0.35	0.30-0.70	0.04	0.04	-	320-460Mpa	195Mpa					
BS3601	320	Pipes for Pressure Service	0.16	-	0.30-0.70	0.04	0.04	-	320-460Mpa	195Mpa					
	380										0.35	0.40-0.80	-	360-500Mpa	235Mpa
	430											0.40-1.20	-	430-570Mpa	275Mpa
BS6323 Part 5 Type KM	ERW 1	Carbon Steel pipes for Mechanical Structural Purposes and General Structural Purposes	0.13	-	0.6	0.05	0.05	-	300Mpa	200Mpa					
	ERW 2		0.16	-	0.7				340Mpa	250Mpa					
	ERW 3		0.2	0.35	0.9				400Mpa	300Mpa					
	ERW 4		0.25		1.2				450Mpa	350Mpa					
	ERW 5		0.23	0.5	1.5				500Mpa	420Mpa					
ISO65	L II	Carbon steel tubes for screwing	0.2	-	1.4	0.035	0.03	-	320-520MPa	195MPa					
	L I														
	M														
	H														

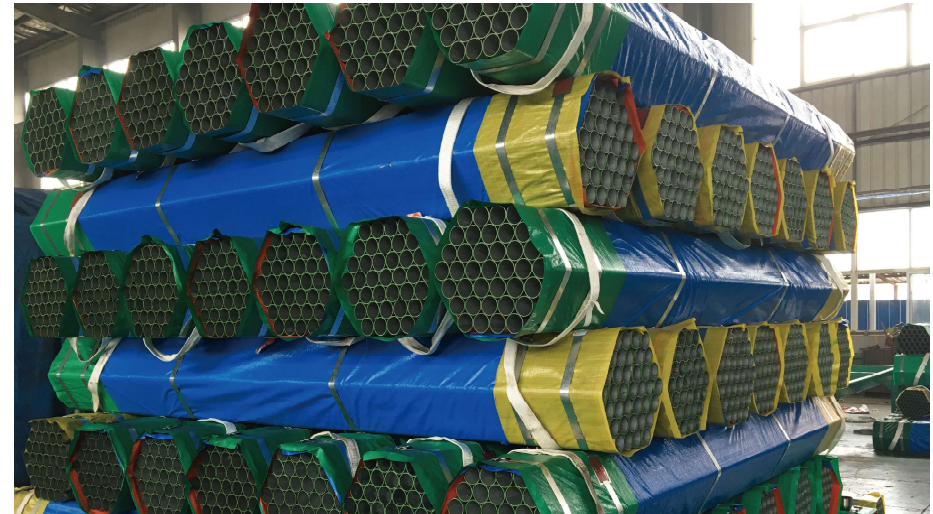
Elongation Min(%)		Flattening Test	Bend Test	Hydrostatic & NDT	Others		
Longitudinal Direction	Transverse Direction						
24	-	at 0°C or 90°C to the direction of flattening	-	-	-		
20	-	Larger than DN50 Weld portion H=0.75D The other side of weld portion H=0.6D	DN 50 and Smaller		50Bar or NDT	*Copper sulfate test: 4 times(1 minute)	
			D	21 27 34 42 48 60			
			r	65 85 100 150 170 220			
24 ≤40mm	20 (°C)	-	-	-	-		
20 ≤40mm	0	-	-	-	-		
20 ≤40mm	-20	-	-	-	-		
20 ≤40mm	0	-	-	-	-		
20 ≤40mm	-20	-	-	-	-		
20	-	≤DN50 without showing either crack or flaw	≤DN50 withstand the test without showing any signs of fracture or failure	50Bar or NDT	but dip galvanneal steel pipe threaded if need		
25	-	H=(1+C)W/(C+1/D) ; C:0.10	-	P=20Sa/D Or NDT	*Drift expanding test *Full body Normalizing		
25	-	H=(1+C)W/(C+1/D) T: °C Constant	Gr	Weld Portion	Other	P=20Sa/D Or NDT	*Heat treatment on the weld seam area
			320	0.029	0.1		
			300	0.029	0.08		
25	-	430	0.023	0.08	-	-	
22	-	-	-	-	-	-	
10	DN≤20	H=0.66D	-	50 Bars or P=20Sa/D	*Minimum expansion drift		
8		H=0.75D	-	P: Test Pressure(bar) D: Outside Diameter(mm) a: Specified Thickness(mm) S:80% of the specified minimum yield strength(N/mm ²) or NDT	*Type GKM,GZF annealing		
7		H=0.85D	-		*Type NKM,NZF		
6		H=0.85D	-		Normalizing		
6		H=0.85D	-				
20	-	-	-	50Bar	-		

BS EN 10255 Steel Tubes and Tubular Suitable for Screwing to BS EN 10226 Pipe Threads

Series	Nominal Size		Outside Diameter				Wall Thickness		Mass of Black Tube						
			Max		Min				Plain End			Screwed and Socketed			
			in	mm	in	mm			lb/ft	kg/m	kg/ft	kg/m	kg/ft	kg/m	
L	1/2	15	0.854	21.7	0.827	21.0	0.091	2.3	0.726	0.329	1.08	0.732	0.332	1.09	
	3/4	20	1.067	27.1	1.039	26.4	0.091	2.3	0.941	0.427	1.4	0.947	0.430	1.41	
	1	25	1.339	34.0	1.307	33.2	0.114	2.9	1.478	0.671	2.2	1.492	0.677	2.22	
	1 1/4	32	1.681	42.7	1.650	41.9	0.114	2.9	1.895	0.860	2.82	1.915	0.869	2.85	
	1 1/2	40	1.913	48.6	1.882	47.8	0.114	2.9	2.184	0.991	3.25	2.211	1.003	3.29	
	2	50	2.390	60.7	2.346	59.6	0.126	3.2	3.031	1.375	4.51	3.078	1.396	4.58	
	2 1/2	65	2.992	76.0	2.961	75.2	0.126	3.2	3.864	1.753	5.75	3.944	1.789	5.87	
	3	80	3.492	88.7	3.461	87.9	0.126	3.2	4.543	2.060	6.76	4.657	2.112	6.93	
	3 1/2	90	3.984	101.2	3.949	100.3	0.142	3.6	5.846	2.652	8.7	5.967	2.707	8.88	
	4	100	4.484	113.9	4.449	113.0	0.142	3.6	6.605	2.996	9.83	6.787	3.078	10.1	
	5	125	5.543	140.8	5.453	138.5	0.117	4.5	10.080	4.572	15	10.416	4.724	15.5	
	6	150	6.555	166.5	6.453	163.9	0.117	4.5	11.961	5.425	17.8	12.364	5.608	18.4	
	L1	1/2	15	0.854	21.7	0.827	21.0	0.091	2.3	0.726	0.329	1.08	0.732	0.332	1.09
		3/4	20	1.067	27.1	1.039	26.4	0.091	2.3	0.934	0.424	1.39	0.941	0.427	1.4
		1	25	1.339	34.0	1.307	33.2	0.114	2.9	1.478	0.671	2.2	1.492	0.677	2.22
1 1/4		32	1.681	42.7	1.650	41.9	0.114	2.9	1.895	0.860	2.82	1.915	0.869	2.85	
1 1/2		40	1.913	48.6	1.882	47.8	0.114	2.9	2.177	0.988	3.24	2.204	1.000	3.28	
2		50	2.390	60.7	2.346	59.6	0.126	3.2	3.017	1.369	4.49	3.064	1.390	4.56	
2 1/2		65	3.004	76.3	2.961	75.2	0.126	3.2	3.850	1.747	5.73	3.931	1.783	5.85	
3		80	3.520	89.4	3.461	87.9	0.142	3.6	5.073	2.301	7.55	5.188	2.353	7.72	
4		100	4.524	114.9	4.449	113.0	0.157	4.0	7.257	3.292	10.8	7.459	3.383	11.1	
L2		1/2	15	0.843	21.4	0.827	21.0	0.079	2.0	0.636	0.289	0.947	0.642	0.291	0.956
		3/4	20	1.059	26.9	1.039	26.4	0.091	2.3	0.927	0.421	1.38	0.934	0.424	1.39
		1	25	1.331	33.8	1.307	33.2	0.102	2.6	1.331	0.604	1.98	1.344	0.610	2
		1 1/4	32	1.673	42.5	1.650	41.9	0.102	2.6	1.707	0.774	2.54	1.727	0.783	2.57
		1 1/2	40	1.906	48.4	1.882	47.8	0.114	2.9	2.170	0.985	3.23	2.197	0.997	3.27
		2	50	2.370	60.2	2.346	59.6	0.114	2.9	2.742	1.244	4.08	2.789	1.265	4.15
	2 1/2	65	2.992	76.0	2.961	75.2	0.126	3.2	3.837	1.740	5.71	3.918	1.777	5.83	
	3	80	3.492	88.7	3.461	87.9	0.126	3.2	4.516	2.048	6.72	4.630	2.100	6.89	
	4	100	4.484	113.9	4.449	113.0	0.142	3.6	6.552	2.972	9.75	6.720	3.048	10	
	H	1/2	15	0.858	21.8	0.827	21.0	0.126	3.2	0.968	0.439	1.44	0.974	0.442	1.45
		3/4	20	1.075	27.3	1.043	26.5	0.126	3.2	1.257	0.570	1.87	1.263	0.573	1.88
		1	25	1.346	34.2	1.311	33.3	0.157	4.0	1.969	0.893	2.93	1.982	0.899	2.95
		1 1/4	32	1.689	42.9	1.654	42.0	0.157	4.0	2.547	1.155	3.79	2.567	1.164	3.82
		1 1/2	40	1.921	48.8	1.886	47.9	0.157	4.0	2.937	1.332	4.37	2.963	1.344	4.41
		2	50	2.394	60.8	2.350	59.7	0.177	4.5	4.159	1.887	6.19	4.207	1.908	6.26
2 1/2		65	3.016	76.6	2.965	75.3	0.177	4.5	5.329	2.417	7.93	5.409	2.454	8.05	
3		80	3.524	89.5	3.465	88.0	0.197	5.0	6.921	3.139	10.3	7.056	3.200	10.5	
4		100	4.528	115.0	4.453	113.1	0.213	5.4	9.744	4.420	14.5	9.945	4.511	14.8	
5		125	5.543	140.8	5.453	138.5	0.213	5.4	12.028	5.456	17.9	12.364	5.608	18.4	
6		150	6.555	166.5	6.453	163.9	0.213	5.4	14.313	6.492	21.3	14.716	6.675	21.9	
M		1/2	15	0.858	21.8	0.827	21.0	0.102	2.6	0.813	0.369	1.21	0.820	0.372	1.22
		3/4	20	1.075	27.3	1.043	26.5	0.102	2.6	1.048	0.475	1.56	1.055	0.479	1.57
		1	25	1.346	34.2	1.311	33.3	0.126	3.2	1.619	0.735	2.41	1.633	0.741	2.43
		1 1/4	32	1.689	42.9	1.654	42.0	0.126	3.2	2.083	0.945	3.1	2.103	0.954	3.13
	1 1/2	40	1.921	48.8	1.886	47.9	0.126	3.2	2.392	1.085	3.56	2.419	1.097	3.6	
	2	50	2.394	60.8	2.350	59.7	0.142	3.6	3.380	1.533	5.03	3.427	1.554	5.1	
	2 1/2	65	3.016	76.6	2.965	75.3	0.142	3.6	4.314	1.957	6.42	4.395	1.993	6.54	
	3	80	3.524	89.5	3.465	88.0	0.157	4.0	5.618	2.548	8.36	5.732	2.600	8.53	
	4	100	4.528	115.0	4.453	113.1	0.177	4.5	8.198	3.179	12.2	8.400	3.810	12.5	
	5	125	5.543	140.8	5.453	138.5	0.197	5.0	11.155	5.060	16.6	11.491	5.212	17.1	
	6	150	6.555	166.5	6.453	163.9	0.197	5.0	13.305	6.035	19.8	13.703	6.218	20.4	

BS 1387/85 Steel Tubes and Tubular Suitable for Screwing to BS 21 Pipe Threads

Series	Nominal Size		Outside Diameter				Wall Thickness		Mass of Black Tube						
			Max		Min				Plain End			Screwed and Socketed			
			in	mm	in	mm			lb/ft	kg/m	kg/ft	kg/m	kg/ft	kg/m	
Light	1/2	15	0.841	21.4	0.825	21.0	0.080	2.0	0.636	0.289	0.947	0.646	0.293	0.956	
	3/4	20	1.059	26.9	1.041	26.4	0.090	2.3	0.927	0.421	1.38	0.954	0.433	1.39	
	1	25	1.328	33.8	1.309	33.2	0.104	2.6	1.330	0.604	1.98	1.360	0.617	2	
	1 1/4	32	1.670	42.5	1.650	41.9	0.104	2.6	1.710	0.774	2.54	1.750	0.794	2.57	
	1 1/2	40	1.903	48.4	1.882	47.8	0.116	2.9	2.170	0.985	3.23	2.220	1.010	3.27	
	2	50	2.370	60.2	2.347	59.6	0.116	2.9	2.740	1.240	4.08	2.810	1.270	4.15	
	2 1/2	65	2.991	76.0	2.960	75.2	0.126	3.2	3.840	1.740	5.71	3.980	1.810	5.83	
	3	80	3.491	88.7	3.460	87.9	0.126	3.2	4.520	2.050	6.72	4.490	2.130	6.89	
	4	100	4.481	113.9	4.450	113.0	0.142	3.6	6.550	2.970	9.75	6.840	3.100	10	
	Medium	1/2	15	0.586	21.7	0.831	21.1	0.104	2.6	0.813	0.369	1.21	0.828	0.376	1.22
		3/4	20	1.072	27.2	1.047	26.6	0.104	2.6	1.050	0.475	1.56	1.070	0.485	1.57
		1	25	1.346	34.2	1.316	33.4	0.126	3.2	1.620	0.735	2.41	1.650	0.748	2.43
		1 1/4	32	1.687	42.9	1.657	42.1	0.126	3.2	2.080	0.945	3.1	2.130	0.966	3.13
		1 1/2	40	1.919	48.8	1.889	48.0	0.126	3.2	2.400	1.090	3.57	2.460	1.120	3.61
		2	50	2.394	60.8	2.354	59.8	0.142	3.6	3.380	1.530	5.03	3.470	1.570	5.1
2 1/2		65	3.014	76.6	2.969	75.4	0.142	3.6	4.320	1.960	6.43	4.460	2.020	6.55	
3		80	3.524	89.5	3.469	88.1	0.157	4.0	5.620	2.550	8.37	5.800	2.630	8.54	
4		100	4.524	114.9	4.459	113.3	0.177	4.5	8.200	3.720	12.2	8.340	3.780	12.5	
5		125	5.534	140.6	5.459	138.7	0.196	5.0	11.15	5.060	16.6	11.20	5.080	17.1	
6		150	6.539	166.1	6.459	164.1	0.196	5.0	13.24	6.000	19.7	13.30	6.030	20.3	
Heavy		1/2	15	0.856	21.7	0.831	21.1	0.126	3.2	0.968	0.439	1.44	0.983	0.446	1.45
		3/4	20	1.072	27.2	1.047	26.6	0.126	3.2	1.260	0.570	1.87	1.280	0.581	1.88
		1	25	1.346	34.2	1.316	33.4	0.157	4.0	1.980	0.896	2.94	2.010	0.912	2.96
		1 1/4	32	1.687	42.9	1.657	42.1	0.157	4.0	2.550	1.160	3.8	2.600	1.180	3.83
	1 1/2	40	1.919	48.8	1.889	48.0	0.157	4.0	2.940	1.340	4.38	3.010	1.370	4.42	
	2	50	2.394	60.8	2.354	59.8	0.177	4.5	4.160	1.890	6.19	4.190	1.900	6.26	
	2 1/2	65	3.014	76.6	2.969	75.4	0.177	4.5	5.330	2.420	7.93	5.390	2.440	8.05	
	3	80	3.524	89.5	3.469	88.1	0.196	5.0	6.920	3.140	10.3	6.870	3.120	10.5	
	4	100	4.524	114.9	4.459	113.3	0.212	5.4	9.740	4.420	14.5	9.910	4.500	14.8	
	5	125	5.534	140.6	5.459	138.7	0.212	5.4	12.30	5.460	17.9	12.30	5.580	18.4	
	6	150	6.539	166.1	6.459	164.1	0.212	5.4	14.31	6.490	21.3	14.70	6.670	21.9	



BS EN10217-1 Available Size (Dimension in mm)

Nominal Size (DN)	Outside Diameter (OD)	2.0	2.3	2.6	2.9	3.2	3.6	4.0	4.5	5.0	5.4	5.6	5.9	6.3	7.1	8.0	8.8	10.0	11.0	12.5	14.2	16.0	17.5	20.0	22.2	25.0	
50	60.3																										
65	76.1																										
80	88.9																										
100	114.3																										
125	139.7																										
150	168.3																										
200	219.1																										
250	273.0																										
300	323.9																										
350	355.6																										
400	406.4																										
450	457.0																										
500	508.0																										
550	559.0																										
600	610.0																										
650	660.0																										
700	711.0																										
750	762.0																										
800	813.0																										
850	864.0																										
900	914.0																										
1000	1016.0																										
1200	1220.0																										
1400	1420.0																										
1600	1620.0																										
1800	1820.0																										
2000	2020.0																										

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Chemical composition(cast analysis)and mechanical properties

Chemical composition %				Mechanical properties		
C max.	Mn max.	P max.	S max.	Upper yield strength R _{eH} min. (Mpa)	Tensile strength R _m (Mpa)	Elongation A min. %
0.20	1.40	0.035	0.030	195	320 - 520	20

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Chemical composition(cast analysis) in % by mass

Steel grades		C max.	Si max.	Mn max.	P max.	S max.	Cr max.	Mo max.	Ni max.	Al max.	Cu max.	Nb max.	Ti max.	V max.	Cr+Cu+Mo+Ni max.
Steel name	Steel number														
P195TR1	1.0107	0.13	0.35	0.70	0.025	0.02	0.30	0.08	0.30	-	0.30	0.01	0.04	0.02	0.70
P195TR2	1.0108	0.13	0.35	0.70	0.025	0.02	0.30	0.08	0.30	0.02	0.30	0.01	0.04	0.02	0.70
P235TR1	1.0254	0.16	0.35	1.20	0.025	0.02	0.30	0.08	0.30	-	0.30	0.01	0.04	0.02	0.70
P235TR2	1.0255	0.16	0.35	1.20	0.025	0.02	0.30	0.08	0.30	0.02	0.30	0.01	0.04	0.02	0.70
P265TR1	1.0258	0.20	0.40	1.40	0.025	0.02	0.30	0.08	0.30	-	0.30	0.01	0.04	0.02	0.70
P265TR2	1.0259	0.20	0.40	1.40	0.025	0.02	0.30	0.08	0.30	0.02	0.30	0.01	0.04	0.02	0.70

Mechanical properties

Steel grades		Tensile properties				
Steel name	Steel number	Upper yield strength R _{eH} min. for T mm (Mpa)		Tensile Strength R _m (Mpa)	Elongation A min. %	
		T ≤ 16	16 < T ≤ 40		l	t
P195TR1	1.0107	195	185	320-440	27	25
P195TR2	1.0108	195	185	320-440	27	25
P235TR1	1.0254	235	225	360-500	25	23
P235TR2	1.0255	235	225	360-500	25	23
P265TR1	1.0258	265	255	410-570	21	19
P265TR2	1.0259	265	255	410-570	21	19