



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—Daqiu Zhuang 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!

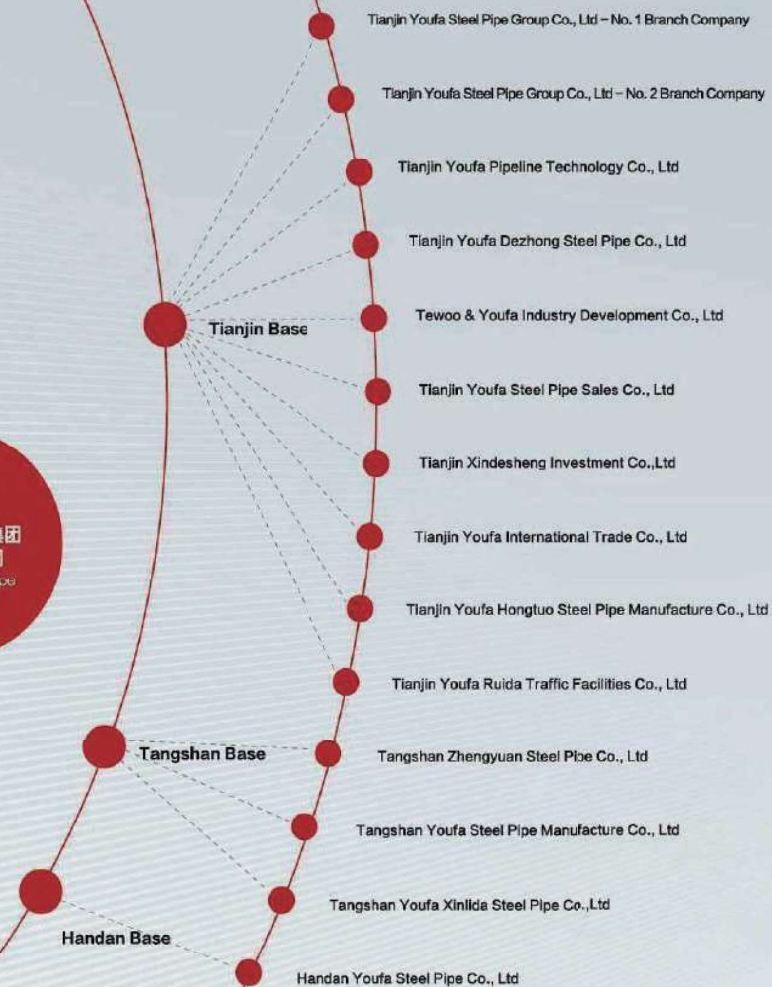
Organizational Structure



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



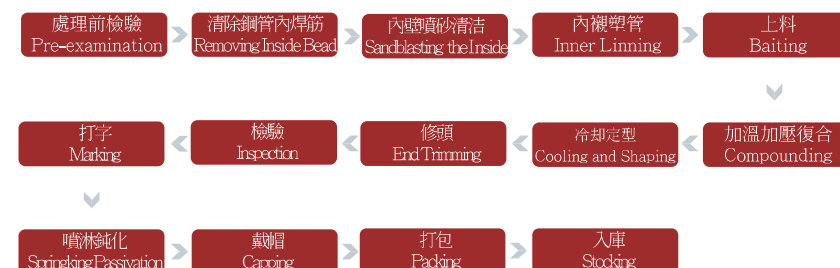
Hot-Dipped Galvanized Steel Pipe

Manufacture Procedures



Galvanized Steel Pipe of Lining Plastic

Manufacture Procedures





ERW Steel Pipe Production Line



ERW Steel Pipe

Size: DN15-600mm

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



ERW Steel Pipe Yard

Hot Dipped Galvanized / Black Steel Pipe

Round Pipe : DN15 - 600mm

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



Black Steel Pipe



Hot Dipped Galvanized Square Pipe



Tangshan Zhengyuan Hot Dipped Galvanized Steel Pipe Yard



Hot Dipped Galvanized Spiral Welded Steel Pipe



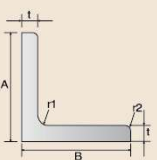
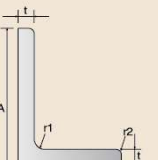
Hot Dipped Galvanized ERW Steel Pipe

Fitting

			
● Slip on Flange	● Welding Neck Flange	● Threading Flange	● Blind Flange
			
● Tee Reducer	● Tee Straight	● L/R 180° Elbow	● S/R 180° Elbow
			
● L/R 90° Elbow	● S/R 90° Elbow	● L/R 45° Elbow	● S/R 45° Elbow
			
● Ecc Reducer	● Con Reducer	● Cap	

Section Steel

Equal & Unequal Angle Bar

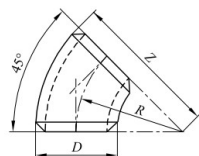
AVAILABLE STEEL GRADE	EQUAL ANGLE BAR	UNEQUAL ANGLE BAR
Q235B, Q345B A36, A572 Gr.50 S235JR, S355JR SS400,		
DIMENSION IN BOLD IN BELOW TABLES FOR EQUAL&UNEQUAL ANGLE ARE RECOMMENDED		

EQUAL ANGLE BAR DIMENSION-I (MM)			EQUAL ANGLE BAR DIMENSION-II (MM)		
A*B	t	UNIT WEIGHT (KG/M)	A*B	t	UNIT WEIGHT (KG/M)
20*20	3/4	0.889/1.145	90*90	6/7/8/10/12	8.350/9.656/10.946/13.476/15.940
25*25	3/4	1.124/1.459	100*100	6/7/8/10/12/14	9.366/10.830/12.276/15.120/17.898/20.611
30*30	3/4	1.373/1.786	110*110	7/8/10/12/14	11.928/13.532/16.690/19.782/22.809
36*36	3/4/5	1.656/2.163/2.654	120*120	8	14.7
40*40	3/4/5	1.852/2.422/2.976	125*125	8/10/12/14	15.504/19.133/22.696/26.193
45*45	3/4/5/6	2.088/2.736/3.369/3.985	130*130	9/12/15	17.9/23.4/28.8
50*50	3/4/5/6	2.332/3.059/3.770/4.465	140*140	10/12/14/16	21.488/25.522/29.490/33.393
56*56	3/4/5/8	2.624/3.446/4.251/6.568	150*150	12/15/19	27.3/33.6/41.9
60*60	4/5	3.68/4.55	160*160	10/12/14/16	24.729/29.391/33.987/38.518
63*63	4/5/6/8	3.907/4.822/5.721/7.469	180*180	12/14/16/18	33.159/38.383/43.542/48.634
65*65	5/6/8	5.00/5.91/7.66	200*200	14/16/18/20/24	42.894/48.680/54.401/60.056/71.168
70*70	4/5/6/7/8	4.372/5.397/6.406/7.398/8.373			
75*75	5/6/7/8/10	5.818/6.905/7.976/9.030/11.089			
80*80	5/6/7/8/10	6.211/7.376/8.525/9.658/11.874			

UNEQUAL ANGLE BAR DIMENSION (MM)		
A X B	t	UNIT WEIGHT (KG/M)
100 X 50	6/8	6.85/8.99
100 X 75	7/9/10	9.32/11.8/13
125 X 75	7/10/12	10.7/14.9/17.8
150 X 90	9/10/12	16.5/18.2/21.6
200 X 100	10/12	23/27.3

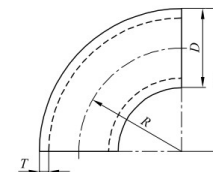
EN 10253 Butt-Welding Pipe Fittings

45° Elbow



Normal Size DN	Outside Diameter D	Radius R	Z
15	21.3	38	49
20	26.9	38	51
25	33.7	38	56
32	42.4	48	69
40	48.3	57	82
50	60.3	76	106
65	76.1	95	133
80	88.9	114	159
100	114.3	152	210
125	139.7	190	260
150	168.3	229	313
200	219.1	305	414
250	273.0	381	518
300	323.9	457	619
350	355.6	533	711
400	406.4	610	813
450	457.0	686	914
500	508.0	762	1016
550	559.0	838	1118
600	610.0	914	1219

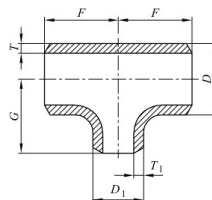
90° Elbow



Normal Size DN	Outside Diameter D	Radius R	W
15	21.3	38	49
20	26.9	38	51
25	33.7	38	56
32	42.4	48	69
40	48.3	57	82
50	60.3	76	106
65	76.1	95	133
80	88.9	114	159
100	114.3	152	210
125	139.7	190	260
150	168.3	229	313
200	219.1	305	414
250	273.0	381	518
300	323.9	457	619
350	355.6	533	711
400	406.4	610	813
450	457.0	686	914
500	508.0	762	1016
550	559.0	838	1118
600	610.0	914	1219

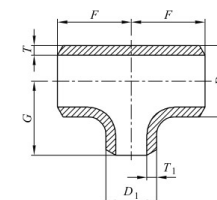
EN 10253 Butt-Welding Pipe Fittings

Tee



Side D		Side D ₁		F	G
DN	D	DN ₁	D ₁		
15	21.3	15	21.3	25	25
20	26.9	15	21.3	29	29
		20	26.9	29	29
25	33.7	15	21.3	38	38
		20	26.9	38	38
		25	33.7	38	38
32	42.4	15	21.3	48	48
		20	26.9	48	48
		25	33.7	48	48
		32	42.4	48	48
40	48.3	15	21.3	57	57
		20	26.9	57	57
		25	33.7	57	57
		32	42.4	57	57
		40	48.3	57	57
50	60.3	20	26.9	64	44
		25	33.7	64	51
		32	42.4	64	57
		40	48.3	64	60
		50	60.3	64	64

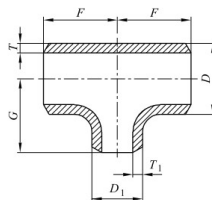
Tee



Side D		Side D ₁		F	G
DN	D	DN ₁	D ₁		
65	76.1	25	33.7	76	57
		32	42.4	76	64
		40	48.3	76	67
		50	60.3	76	70
		65	76.1	76	76
80	88.9	32	42.4	86	70
		40	48.3	86	73
		50	60.3	86	76
		65	76.1	86	83
		80	88.9	86	86
100	114.3	40	48.3	105	86
		50	60.3	105	89
		65	76.1	105	95
		80	88.9	105	98
		100	114.3	105	105
125	139.7	50	60.3	124	105
		65	76.1	124	108
		80	88.9	124	111
		100	114.3	124	117
		125	139.7	124	124

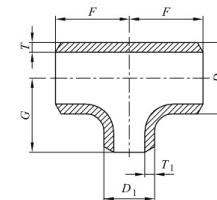
EN 10253 Butt-Welding Pipe Fittings

Tee



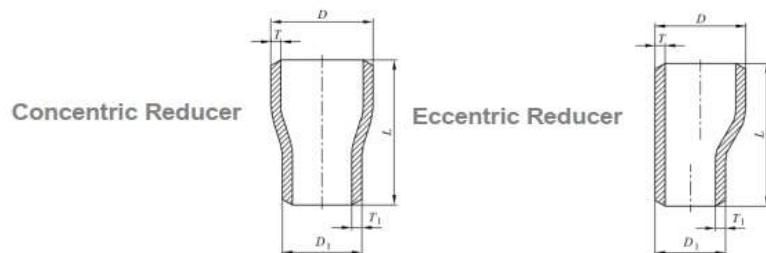
Side D		Side D ₁		F	G
DN	D	DN ₁	D ₁		
150	168.3	65	76.1	143	121
		80	88.9	143	124
		100	114.3	143	130
		125	139.7	143	137
		150	168.3	143	143
200	219.1	100	114.3	178	156
		125	139.7	178	162
		150	168.3	178	168
		200	219.1	178	178
250	273.0	100	114.3	216	184
		125	139.7	216	191
		150	168.3	216	194
		200	219.1	216	203
		250	273.0	216	216
300	323.9	150	168.3	254	219
		200	219.1	254	229
		250	273.0	254	241
		300	323.9	254	254
350	355.6	150	168.3	279	238
		200	219.1	279	248
		250	273.0	279	257
		300	323.9	279	270
		350	355.6	279	279

Tee

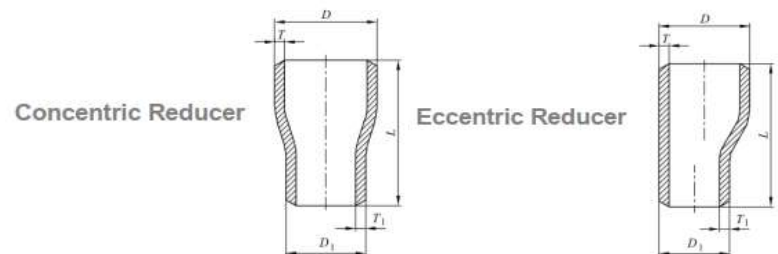


Side D		Side D ₁		F	G
DN	D	DN ₁	D ₁		
400	406.4	150	168.3	305	264
		200	219.1	305	273
		250	273.0	305	283
		300	323.9	305	295
		350	355.6	305	305
		400	406.4	305	305
450	457.0	200	219.1	343	298
		250	273.0	343	308
		300	323.9	343	321
		350	355.6	343	330
		400	406.4	343	330
500	508.0	450	457.0	343	343
		250	273.0	381	333
		300	323.9	381	346
		400	406.4	381	356
		450	457.0	381	368
550	559.0	500	508.0	381	381
		250	273.0	419	359
		300	323.9	419	371
		400	406.4	419	381
		500	508.0	419	406
600	610.0	550	559.0	419	419
		250	273.0	432	384
		300	323.9	432	397
		400	406.4	432	406
		500	508.0	432	432
600	610.0	600	610.0	432	432

EN 10253 Butt-Welding Pipe Fittings



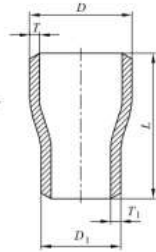
Side D		Side D ₁		Length L
DN	D	DN ₁	D ₁	
20	26.9	15	21.3	38
25	33.7	15	21.3	51
		20	26.9	51
32	42.4	15	21.3	51
		20	26.9	51
		25	33.7	51
40	48.3	20	26.9	64
		25	33.7	64
		32	42.4	64
50	60.3	20	26.9	76
		25	33.7	76
		32	42.4	76
		40	48.3	76
65	76.1	25	33.7	89
		32	42.4	89
		40	48.3	89
		50	60.3	89
80	88.9	32	42.4	89
		40	48.3	89
		50	60.3	89
		65	76.1	89



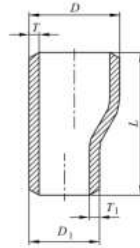
Side D		Side D ₁		Length L
DN	D	DN ₁	D ₁	
100	114.3	40	48.3	102
		50	60.3	102
		65	76.1	102
		80	88.9	102
125	139.7	50	60.3	127
		65	76.1	127
		80	88.9	127
		100	114.3	127
150	168.3	65	76.1	140
		80	88.9	140
		100	114.3	140
		125	139.7	140
200	219.1	80	88.9	152
		100	114.3	152
		125	139.7	152
		150	168.3	152
250	273.0	100	114.3	178
		125	139.7	178
		150	168.3	178
		200	219.1	178
300	323.9	125	139.7	203
		150	168.3	203
		200	219.1	203
		250	273.0	203

EN 10253 Butt-Welding Pipe Fittings

Concentric Reducer

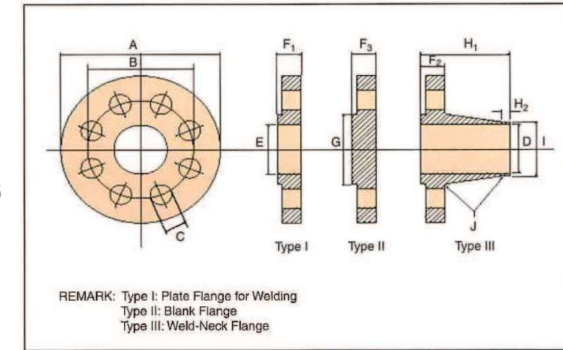


Eccentric Reducer



Side D		Side D ₁		Length L
DN	D	DN ₁	D ₁	
350	355.6	150	168.3	330
		200	219.1	330
		250	273.0	330
		300	323.9	330
400	406.4	200	219.1	356
		250	273.0	356
		300	323.9	356
		350	355.6	356
450	457.0	250	273.0	381
		300	323.9	381
		350	355.6	381
		400	406.4	381
500	508.0	300	323.9	508
		350	355.6	508
		400	406.4	508
		450	457.0	508
550	559.0	350	355.6	508
		400	406.4	508
		450	457.0	508
		500	508.0	508
600	610.0	400	406.4	508
		450	457.0	508
		500	508.0	508
		550	559.0	508

EN1092-1 Flange PN16



Nominal Size DN	Outside Diameter A	Diameter of Bolt Circle B	Diameter of Bolt Hole C	Bolting		Outside Diameter of Neck D (Type III)	Bore Diameter E (Type I)	Flange Thickness			Diameter of Shoulder G (Type II)	Lengths of Neck H1 (Type III)	Neck Diameter		Radius
				Number	Size			F1 (Type I)	F2 (Type II)	F3 (Type III)			H2 (Type III)	I (Type III)	
10	90	60	14	4	M12	17.2	18.0	14	14	14	-	35	6	28	3
15	95	65	14	4	M12	21.3	22.0	14	14	14	-	35	6	32	3
20	105	73	14	4	M12	25.9	27.5	16	16	16	-	38	6	39	4
25	115	85	14	4	M12	33.7	34.5	16	16	16	-	38	6	46	4
32	140	100	18	4	M16	42.4	43.5	18	16	16	-	40	6	58	5
40	150	110	18	4	M16	48.3	49.5	18	16	16	-	42	7	64	5
50	165	125	18	4	M16	66.3	61.5	20	18	18	-	45	8	74	5
65	185	145	18	4	M16	76.1	77.5	20	18	18	55	45	10	92	6
80	200	160	18	8	M16	88.9	90.5	20	20	20	70	50	10	110	6
100	220	180	18	8	M16	114.3	116.0	22	20	20	90	52	12	130	6
125	250	210	18	8	M16	139.7	141.5	22	22	22	115	55	12	158	6
150	285	240	22	8	M20	168.3	170.5	24	22	22	140	55	12	184	8
200	340	295	22	12	M20	219.1	221.5	26	24	24	190	62	16	234	8
250	405	355	26	12	M24	273.0	276.5	29	26	26	235	70	16	288	10
300	460	410	26	12	M24	323.9	327.5	32	28	28	285	78	16	342	10
350	520	470	26	16	M24	355.6	359.0	35	30	30	325	82	16	390	10
400	580	525	30	16	M27	406.4	411.0	38	32	32	375	85	16	444	10
450	640	585	30	20	M27	457.0	452.0	42	34	36	425	87	16	480	12
500	715	650	33	20	M30	506.0	513.5	46	34	36	475	90	16	545	12
600	840	770	36	20	M33	610.0	616.5	52	36	44	575	95	18	650	12
700	910	840	36	24	M33	711.0	-	60	36	48	670	100	18	750	12
800	1025	950	39	24	M36	813.0	-	68	38	52	770	105	20	848	12
900	1125	1050	39	28	M36	914.0	-	76	40	58	860	110	20	948	12
1000	1255	1170	42	28	M39	1015.0	-	84	42	64	960	120	22	1056	12
1200	1485	1380	48	32	M45	1220.0	-	98	48	76	1160	130	30	1260	12
1400	1685	1590	48	36	M45	1420.0	-	-	52	-	-	145	30	1465	12
1600	1930	1820	55	40	M52	1620.0	-	-	58	-	-	160	35	1668	12
1800	2130	2020	55	44	M52	1820.0	-	-	62	-	-	170	35	1870	15
2000	2345	2230	62	48	M56	2020.0	-	-	66	-	-	190	40	2072	15



Grooved with Caps

Processing Factory

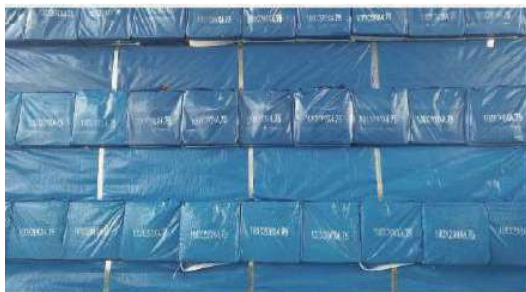
Tianjin Youfa Hongtuo Steel Pipe Manufacture Co., Ltd



Cut in Short Length



PVC Wrapped



Oiled and PVC Wrapped



Threaded with Coupling



Painted

Youfa Laboratory and Quality Control



Honor & Certificates



直讀光譜儀
Direct reading spectrometer

落錘衝擊試驗機
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

維氏硬設計
Vitrinox hardness tester

鹽霧試驗箱
Salt spray test box

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(AI)	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)
	S275JRH		0.2	-	1.5	0.04	0.04	0.009(N)	430-580Mpa (<3mm) 410-590Mpa (>3 <= 40mm)	275Mpa (<16mm) 265Mpa (>16 <= 40mm)
	S275J2H		0.2	-	1.5	0.035	0.035	-		
	S355JRH		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	For Boiler	0.16	0.35	0.30-0.70	0.04	0.04	-	320-480Mpa	195Mpa
BS3601	320	Pipes for Pressure Service	0.16	-	0.30-0.70	0.04	0.04	-	320-460Mpa	166Mpa
	360		0.17	0.35	0.40-0.80			-	360-500Mpa	235Mpa
	430		0.21		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	0.8			-	400Mpa	300Mpa
	ERW 4		0.25		1.2			-	450Mpa	350Mpa
	ERW 5		0.33		1.6			-	500Mpa	400Mpa
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				
20 ≤40mm	0				
	-20				
20	-	≤DN50 without showing either crack or flaw	≤DN50 withstand the test without showing any signs of fracture or failure	50Bar or NDT	hot dip galvanneal steel pipe, Threaded if need
25	-	$H=(1+C)D/(C+1/D); C:0.10$	-	P=20Sa/D Or NDT P: Test Pressure(bar) D: Outside Diameter(mm) a: Specified Thickness(mm) 5.80% of the specified minimum yield strength (N/mm ²)	*Drift expanding test *Full body Normalizing
25	-				
25	-	H=(1+C) D/(C+1/D) C: Constant	Gr	Weld Portion	Other
			320	0.029	0.1
			360	0.029	0.08
25	-	430	0.023	0.08	
22	-				
10	D/520	H=0.66D	-	-	50 Bars or P=20Sa/D P: Test Pressure(bar) D: Outside Diameter(mm) a: Specified Thickness(mm) 5.80% of the specified minimum yield strength(N/mm ²) or NDT
8		H=0.75D			
7		H=0.85D			
6		H=0.85D			
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			
		-	DN	in	mm	in	mm	in	mm	lb/ft	kg/ft	kg/m	lb/ft	kg/ft
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
	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
L2	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
	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
H	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
	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
	M	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
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 Tubulars 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				
		-	DN	in	mm	in	mm	in	mm	lb/ft	kg/ft	kg/m	lb/ft	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	5.549	138.7	0.196	5.0	11.15	5.060	16.6	11.20	5.080	17.1	
Heavy	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	
	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	

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																									

EN10255

Chemical composition(cast analysis)and mechanical properties

Chemical composition %				Mechanical properties		
C max.	Mn max.	P max.	S max.	Upper yield strength ReH min. (Mpa)	Tensile strength R _m (Mpa)	Elongation A min.%
0.2	1.4	0.035	0.03	195	320 - 520	20

EN10217-1

Chemical composition(cast analysis) in % by mass

Steel grades		C max.	Si max.	Mn max.	Mn max.	P 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	0.7	0.03	0.02	0.3	0.08	0.3	-	0.3	0.01	0.04	0.02	0.7
P195TR2	1.0108	0.13	0.35	0.7	0.03	0.02	0.3	0.08	0.3	0.02	0.3	0.01	0.04	0.02	0.7
P235TR1	1.0254	0.16	0.35	1.2	0.03	0.02	0.3	0.08	0.3	-	0.3	0.01	0.04	0.02	0.7
P235TR2	1.0255	0.16	0.35	1.2	0.03	0.02	0.3	0.08	0.3	0.02	0.3	0.01	0.04	0.02	0.7
P265TR1	1.0258	0.2	0.4	1.4	0.03	0.02	0.3	0.08	0.3	-	0.3	0.01	0.04	0.02	0.7
P265TR2	1.0259	0.2	0.4	1.4	0.03	0.02	0.3	0.08	0.3	0.02	0.3	0.01	0.04	0.02	0.7

Mechanical properties

Steel grades		Tensile properties				
Steel name	Steel number	Upper yield strength ReH 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