



YOUFA STEEL PIPE GROUP

TOP 500 ENTERPRISES OF CHINA INDUSTRY LEADING BRANDS

STOCK CODE: 601686



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www.youfasteelpipe.com / www.chinayoufa.com

TIANJIN YOUFA INTERNATIONAL TRADE CO., LTD

CARBON STEEL



YOUFA STEEL PIPE GROUP

STOCK CODE: 601686

Listed enterprises on the main board of the Shanghai Stock Exchange

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



Brand "YOUFA" is the leading and outstanding brand in the industry.



Brand "ZHENGJINYUAN" is the growing champion in the industry.



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Profile of the Group

Tianjin Youfa Steel Pipe Group Co., Ltd. was established on July 1, 2000, and its headquarters is located in Tianjin Daquzhuang Town, the largest steel pipe production base in China. The company is a largest scale steel pipe manufacturing enterprise integrating the production of various pipe products such as ERW steel pipe, spiral welded pipe, hot-dip galvanized steel pipe, plastic lining composite pipe, plastic coated steel pipe, square and rectangular steel pipe, pipe hot-dip galvanized square and rectangular steel, stainless Steel Pipe, pipe fitting and scaffolding, etc. Output is over 20 million tons every year.

In addition to its headquarters in Tianjin, the company currently has a number of subsidiaries in Tangshan, Handan, Shaanxi, Liyang and other cities, with more than 9000 employees, 293 production lines of steel pipe and scaffolding. 3 national accreditation laboratories and 2 Tianjin accreditation enterprise technology centers. In 2023, the annual sales of Youfa steel pipes will be nearly 20 million tons. By the end of 2017, the whole group had 88 utility model patents and 4 invention patents. There are 32 patents in the process of application and acceptance.

The "Youfa" was recognized as a well known trademark in China by the Trademark Office of the State Administration for Industry and Commerce in March 2008. Youfa Group products have been awarded the title of "Tianjin Famous-brand Products" by the Tianjin Municipal Government for many consecutive years. The steel pipes of "Youfa" brand and "Zhengjinyuan" brand won the Gold Cup Award, the highest award in China's metallurgical industry. Until 2024, Tianjin Youfa Steel Pipe Group has been among the top 500 Chinese enterprises, the top 500 Chinese manufacturing enterprises and the top 500 Chinese private enterprises for 19 consecutive years, and has

maintained its leading position in the industry in terms of national production and sales volume for 19 consecutive years.

"Youfa" brand steel pipes sell well all over the country and are widely used in key national projects such as Three Gorges Project, Capital International Airport, Shanghai Pudong International Airport, the 2008 Olympic Games venues, and 2010 Shanghai World Expo exhibition hall. They are exported to 100 countries and regions in European Union, North America, South America, Africa, South-east Asia and the Middle East. They are recognized by the industry, with a domestic comprehensive market share of more than 30%.



Tianjin Youfa Steel Pipe Factory

Production Base	Factory Name	Products Name	Production Lines
Tianjin Production Base	Tianjin Youfa Steel Pipe Group Co., Ltd.-No.1 Branch Company;	Hot Dipped Galvanized Steel Pipe	16
		ERW Steel Pipe	9
	Tianjin Youfa Steel Pipe Group Co., Ltd.-No.2 Branch Company;	ERW Steel Pipe	7
		Square/Rectangular Steel Pipe	15
	Tianjin Youfa Dezhong Steel Pipe Co., Ltd.;	Galvanized Square/Rectangular steel Pipe	6
		SSAW Steel Pipe	5
	Tianjin Youfa Pipeline Technology Co., Ltd.;	Steel Pipe of Lining Plastic	10
		Plastic Coated Steel Pipe	3
	Tianjin Youfa Ruida Traffic Facilities Co., Ltd	Highway Materials	9
		Stainless Steel Pipe	20
Tianjin Youfa Stainless Steel Pipe Co., Ltd.;	Stainless Steel Pipe Fitting	60	
	Tewoo & Youfa Industry Development Co., Ltd. Tianjin Youfa Steel Pipe Group Sales Co., Ltd. Tianjin Youfa International Trade Co., Ltd. Tianjin Youfa Hongtuo Steel Pipe Manufacture Co., Ltd. Tianjin Xindesheng Investment Co., Ltd. Tianjin Tuanbo Yifanfengshun Hotel Co., Ltd. Tianjin Youfa Advertising Co., Ltd. Tianjin Jinghai Daquzhuang Yaoshun Hospital		
Tangshan Production Base	Tangshan Zhengyuan Pipeline Industry Co., Ltd.;	Hot Dipped Galvanized Steel Pipe	12
		ERW Steel Pipe	17
		Steel Pipe of Lining Plastic	4
	Tangshan Youfa Steel Pipe Manufacture Co., Ltd.;	ERW Steel Pipe	11
		ERW Steel Pipe	11
Tangshan Youfa New Construction Equipment Co., Ltd	Galvanize	12	
Handan Production Base	Handan Youfa Steel Pipe Co., Ltd.;	Ringlock Scaffolding System	9
		Hot Dipped Galvanized Steel Pipe	8
		ERW Steel Pipe	12
		Square/Rectangular Steel Pipe	13
		Galvanized Square/Rectangular Steel Pipe	4
Shaanxi Production Base	Shaanxi Youfa Steel Pipe Co., Ltd.;	SSAW Steel Pipe	4
		Steel Pipe of Lining Plastic	4
		Hot Dipped Galvanized Steel Pipe	6
		ERW Steel Pipe	12
		Square/Rectangular Steel Pipe	6
Liyang Production Base	Jiangsu Youfa Steel Pipe Co., Ltd.;	Galvanized Square/Rectangular Steel Pipe	3
		Steel Pipe of Lining Plastic	3
		Plastic Coated Steel Pipe	3
		Hot Dipped Galvanized Steel Pipe	6
Huludao Production Base	Huludao City Steel Pipe Industrial Co., Ltd.;	ERW Steel Pipe	10
		Square/Rectangular Steel Pipe	9
		Galvanized Square/Rectangular Steel Pipe	4
	Chengdu Yunganglian Logistics Co., Ltd.;	Welded Steel Oil Pipe	15
		Logistics Centre	
Total			293



TIANJIN YOUFA PRODUCTION BASE



TANGSHAN YOUFA PRODUCTION BASE



HANDAN YOUFA PRODUCTION BASE



SHAANXI YOUFA PRODUCTION BASE



LIYANG YOUFA PRODUCTION BASE



HULUDAO YOUFA PRODUCTION BASE



Galvanized Steel Pipe used in ADAMA INDUSTRIAL PARK PROJECT in ETHIOPIA



Scaffolding Steel Pipes used in Chevron Corporation Oil Platform



Construction Steel Pipe used in Beijing National Stadium-Bird's Nest

Core member of national important industry association

				
Council member of CAQ	Standing director unit of SCS	Vice president unit of Steel Pipe Branch of SCS	Vice President Unit of CCMSA	Vice President Unit of Supply Chain and Labor Management Branch of CCIA
				
President Unit of CAMT	President unit of Welded Pipe Branch of CAMT	Corporate member of the WPC	Unit member of CFPA	Group member of CGA

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, BSI and UL/FM quality system.

In order to provide customers a more personalized service, we founded Tianjin Youfa Hongtuo Steel Pipe Manufacture 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!



ERW Steel Pipe Production Line



ERW Steel Pipe Yard

ERW Steel Pipe

Size: DN15-600mm

Thickness: 1.2mm to 18.0mm

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

Manufacturer

Tianjin Youfa Steel Pipe Group Co., Ltd - No.2 Branch Company

Tangshan Youfa Steel Pipe Manufacture Co., Ltd

Tangshan Zhengyuan Steel Pipe Co., Ltd

Handan Youfa Steel Pipe Co., Ltd

Shaanxi Youfa Steel Pipe Co., Ltd

Hot Dipped Galvanized Steel Pipe

Round Pipe: DN15-200mm
Square Pipe: 15x15-1000x1000mm
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

Manufacturer

Tianjin Youfa Steel Pipe Group Co., Ltd - No.1 Branch Company

Handan Youfa Steel Pipe Co., Ltd

Tangshan Zhengyuan Steel Pipe Co., Ltd

Tianjin Youfa Dezhong Steel Pipe Co., Ltd

Shaanxi Youfa Steel Pipe Co., Ltd



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

Square /Rectangular Steel Pipe

Square Steel Pipe:20x20-400x400mm
Rectangular Pipe:20x40-1000x1200mm
Thickness:1.2mm to 30.0mm

Usage:steel struction,mechanical,manufacturing,construction,
automobile manufacturing,shipbuilding,electricity and so on.

Manufacturer

Tianjin Youfa Dezhong Steel Pipe Co., Ltd
Handan Youfa Steel Pipe Co., Ltd
Shaanxi Youfa Steel Pipe Co., Ltd



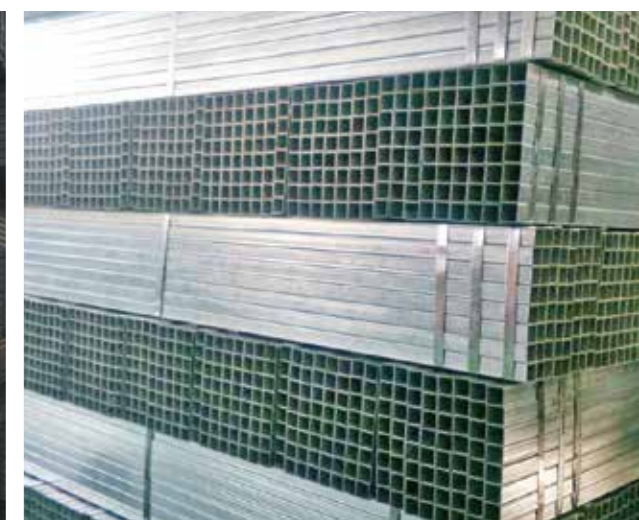
Square Tube Production Line



Rectangular Tube Yard



Rectangular Tube



Square Tube

Steel Pipe of Lining Plastic

Size: DN15-300mm

Usage: high-level drinking water convey

Manufacturer

Tianjin Youfa Steel Pipe Group Co., Ltd- No. 1 Branch Company.

Tangshan Zhengyuan Steel Pipe Co., Ltd

Handan Youfa Steel Pipe Co., Ltd



Steel Pipe of Lining Plastic for Cold Water



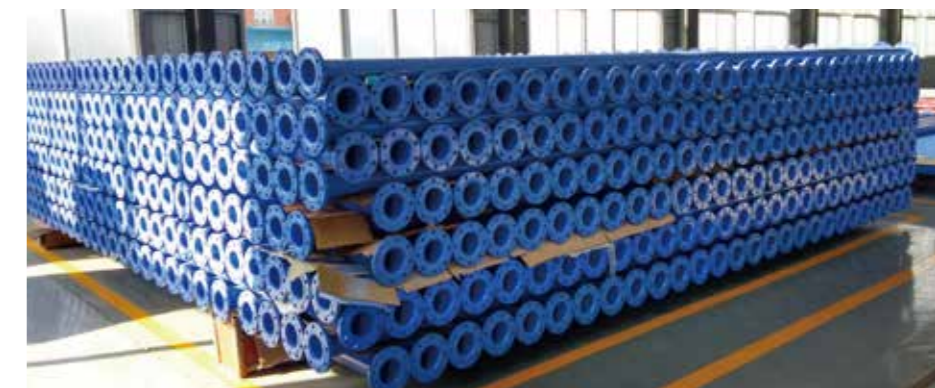
Steel Pipe of Lining Plastic for Hot Water



Steel Pipe of Lining Plastic Production Line



Plastic Coated Composite Pipe Production Workshop



Plastic Coated Composite Pipe Production Workshop

Plastic Coated Steel Pipe

Size: DN15-DN500

Usage: water supply, fire protection, wire and cable pipe, vent pipe

Manufacturer

Tianjin Youfa Pipeline Technology Co.,Ltd

Tianjin Youfa Steel Pipe Group Co., Ltd- No. 1 Branch Company.

SSAW (one kind of DSAW)

Specification: OD219-3500mm

Thickness: 6.0mm to 28.0mm

Usage: the line pipe of petroleum、gas and delivery of low pressure liquid such as water、gas、air、steam for heating, and for piles and the construction field for structure

Manufacturer

Tianjin Youfa Pipeline Technology Co., Ltd

Handan Youfa Steel Pipe Co., Ltd



Spiral Steel Pipe Yard



Spiral Steel Pipe Production Line



3PE Spiral Steel Pipe

LSAW (one kind of DSAW)

Range: OD406mm~1829mm

Usage: LSAW mainly used in construction engineering, oil/natural gas/liquid transmission, construction such as municipal engineering, coal mine support, piling and other fields.



Seamless Steel Pipe

Range: OD17.1~711mm

Usage: Seamless steel pipe is widely used as oil and natural gas transmission pipeline, Automotive industry, Automotive industry, Construction industry, Machinery manufacturing industry, Electric power industry, Chemical industry, water conservancy and other fields



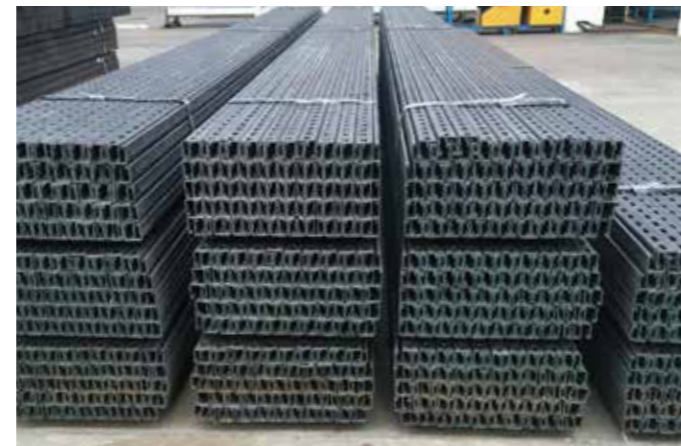
H X 50 140 GR. B PSL1 SMLS 11MPA NDE

Solar Structure

C-profile with holes Square tube

Manufacturer

Tianjin Youfa Ruida Traffic Facilities Co., Ltd



Highway Materials

Wave beam steel guardrail steel column
discourage block column cap ends

Manufacturer

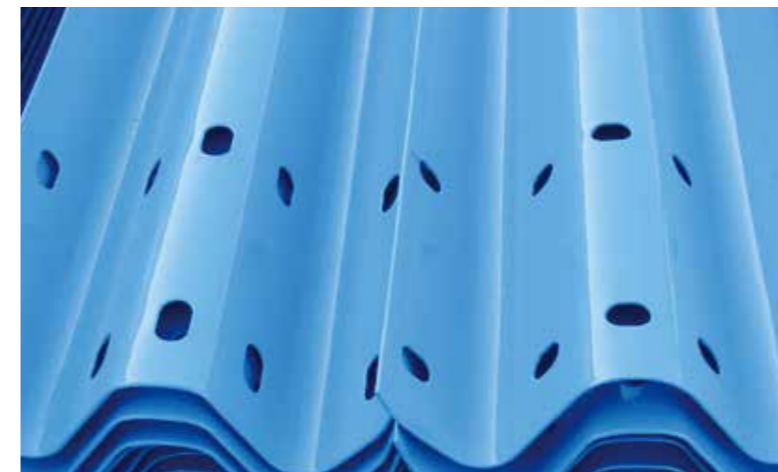
Tianjin Youfa Ruida Traffic Facilities Co., Ltd



Discourage Block Column Cap



Wave Beam Steel Guardrail



Spray Wave Beam Steel Guardrail



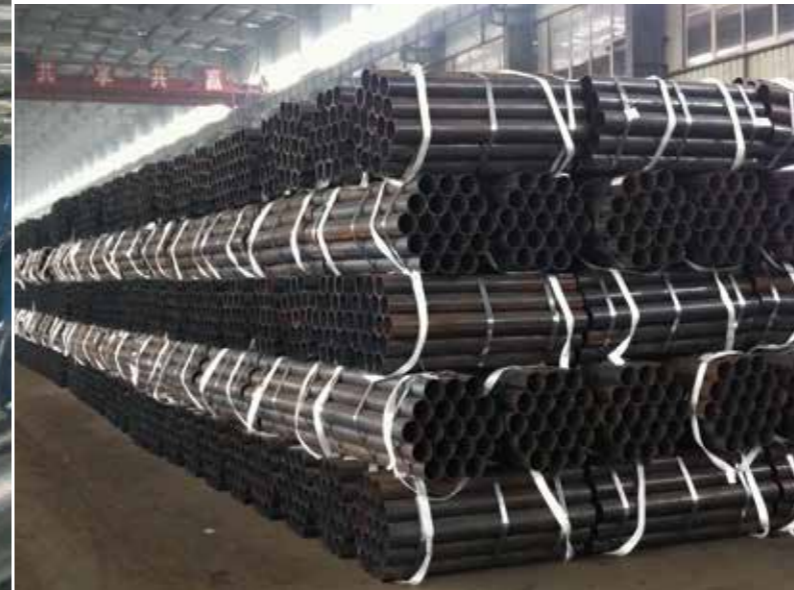
Round Steel Columns



Grooved with Caps

Processing Factory

Tianjin Youfa Steel Pipe Manufacture Co., Ltd
Usage: LSAW mainly used in construction engineering, oil/natural gas/liquid construction such as municipal engineering, coal mine support, piling o



Cut in Short Length



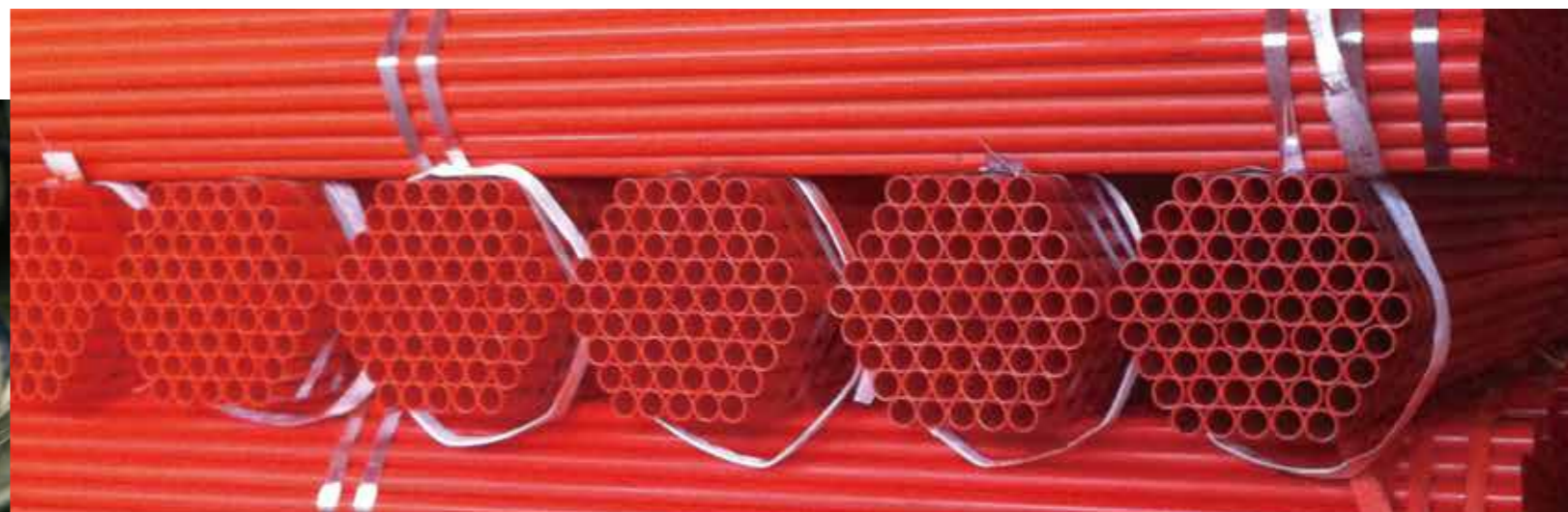
PVC Wrapped



Oiled and PVC Wrapped



Threaded with Coupling



Painted

Youfa Laboratory and Quality Control



直读光谱仪
Direct reading spectrometer



落锤冲击试验机
Drop hammer impact test machine



快速智能定硫仪
Fast intelligent sulfur determination instrument



电子万能试验机
Electronic universal testing machine



维氏硬度计
Vivtorinox hardness tester



盐雾试验箱
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)		
	S275JOH							0.009(N)			430-580Mpa (<3mm) 410-560Mpa (≥3 < 40mm)	275Mpa (<16mm) 265Mpa (>16 < 40mm)
	S275J2H							-				
	S355JOH							0.009(N)				
	S355J2H							-				
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	195Mpa		
	360							0.35			360-500Mpa	235Mpa
	430										430-570Mpa	275Mpa
BS6323 Part 5 Type KM	ERW 1	Carbon Steel pipes for Mechanical Purposes and General Structural Purposes	0.13	-	0.6	0.05	0.05	-	300Mpa	200Mpa		
	ERW 2							-	340Mpa	250Mpa		
	ERW 3							0.35	400Mpa	300Mpa		
	ERW 4								450Mpa	350Mpa		
	ERW 5							0.23	0.5	1.5	-	500Mpa
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		
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 galvanized steel pipe, Threaded if need			
25		$H=(1+C)/[(C+1/D)] ; C:0.10$		P=20Sa/D Or NDT P:Test Pressure(bar) D:Outside Diameter(mm) a:Specified Thickness(mm) S:80% of the specified minimum yield strength (N/mm ²)	*Drift expanding test *Full body Normalizing			
25		$H=(1+C)/[(C+1/D)]$ *C: Constant	Gr	Weld Portion	Other	P=20Sa/D Or NDT	*Heat treatment on the weld seam area	
			320	0.029	0.1			
			360	0.026	0.09			
25		430	0.023	0.08				
22								
10	D/t≤20	H=0.66D	-	50 Bars or P=20Sa/D	*Minimum expansion drift			
8		H=0.75D						
7		H=0.85D						
6		H=0.85D						
6		H=0.85D						
20	-	-	-	50Bar	-			

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)
API 5L (PSL1)	Line Pipe	0.21	-	0.6	0.03	0.03	-	310Mpa (45000 psi)	175Mpa (25400 psi)
					0.045-0.08			310Mpa (45000 psi)	175Mpa (25400 psi)
		0.22		0.9	335Mpa (48600 psi)			210Mpa (30500 psi)	
				1.2	415Mpa (60200 psi)			245Mpa (35500 psi)	
		0.26		1.3	415Mpa (60200 psi)			290Mpa (42100 psi)	
				1.4	435Mpa (63100 psi)			320Mpa (46400 psi)	
		1.45		460Mpa (66700 psi)	360Mpa (52200 psi)				
		1.65		490Mpa (71100 psi)	390Mpa (56600 psi)				
		1.45		520Mpa (75400 psi)	415Mpa (60200 psi)				
		1.65		535Mpa (77800 psi)	450Mpa (65300 psi)				
1.65	570Mpa (82700 psi)	485Mpa (70300 psi)							
API 5L (PSL2)	Line Pipe	0.22	0.45	1.2	0.025	0.015	CE(Pcm) ≤0.25% CE(IIW) ≤0.43%	415-760Mpa (60200-110200 psi)	245-450Mpa (35500-65300 psi)
				1.3				415-760Mpa (60200-110200 psi)	290-495Mpa (42100-71800 psi)
				1.3				435-760Mpa (63100-110200 psi)	320-525Mpa (46400-76100 psi)
				1.4				460-760Mpa (66700-110200 psi)	360-530Mpa (52200-76900 psi)
				1.4				490-760Mpa (71100-110200 psi)	390-545Mpa (56600-79000 psi)
				1.6				520-760Mpa (75400-110200 psi)	415-565Mpa (60200-81900 psi)
				1.6				535-760Mpa (77800-110200 psi)	450-600Mpa (65300-87000 psi)
				1.7				570-760Mpa (82700-110200 psi)	485-635Mpa (70300-92100 psi)
				1.85				625-825Mpa (90600-119700 psi)	555-705Mpa (80500-102300 psi)
				API 5CT				Casing & Tubing	-
655Mpa (95000 psi)	379-552Mpa (55000-80000 psi)								
689Mpa (100000 psi)	552-758Mpa (80000-110000 psi)								
655Mpa (95000 psi)	552-655Mpa (80000-95000 psi)								
862Mpa (125000 psi)	758-965Mpa (11000-14000 psi)								

Elongation Min (%)		Flattening Test	Bend Test	Hydrostatic & NDT	Others																										
Longitudinal Direction	Transverse Direction																														
$e = \frac{A^2}{U^2} \times 100$ e, minimum elongation in 2 in(50.8mm)	$e = \frac{A^2}{U^2} \times 100$ e, minimum elongation in 2 in(50.8mm)	Weld portion; H=3/4D The other side of weld portion; H=3/5D	2 3/8 and smaller 90° X 12D	P=2st/D P=hydrostatic test Pressure(ksi) S= fiber stress, is the hoop stress expressed in megapascals equal to a percentage of specified min. yield strength for the various sizes as shown in the tabulation below (psi) t= specified thickness(inch) D= Outside Diameter(inch)and NDT	*Heat treatment on the weld seam area *Metallographic Examination *Fracture Toughness Test(PSL2)																										
		A,Cross-Sectional area of the test specimen in sq in	D<323.9mm ≥12.7mm Weld portion; H=2/3D The other side of weld portion H=1/2D Weld ductility test D>10 The other side of weld portion; H=1/3D Weld ductility Test			H=3.07T/(0.07+3t/D) less than X 52 H=3.05T/(0.05+3t/D) X 52 and higher	<table border="1"> <thead> <tr> <th rowspan="2">Grade</th> <th rowspan="2">Size Designation</th> <th colspan="2">percent of specified min. yield stress</th> </tr> <tr> <th>Standard Test Pressure</th> <th>Alternate Test Pressure</th> </tr> </thead> <tbody> <tr> <td>A25</td> <td>5 9/16</td> <td>60</td> <td>75</td> </tr> <tr> <td>A</td> <td>2 3/8 and larger</td> <td>60</td> <td>75</td> </tr> <tr> <td>B</td> <td>2 3/8 and larger</td> <td>60</td> <td>75</td> </tr> <tr> <td rowspan="3">X42-X80</td> <td>5 9/16 and smaller</td> <td>60</td> <td>75</td> </tr> <tr> <td>8 5/8-20 inch</td> <td>85</td> <td>85</td> </tr> <tr> <td>20 and larger</td> <td>90</td> <td>90</td> </tr> </tbody> </table>	Grade	Size Designation	percent of specified min. yield stress		Standard Test Pressure	Alternate Test Pressure	A25	5 9/16	60	75	A	2 3/8 and larger	60	75	B	2 3/8 and larger	60	75	X42-X80	5 9/16 and smaller	60	75	8 5/8-20 inch	85
Grade	Size Designation	percent of specified min. yield stress																													
		Standard Test Pressure	Alternate Test Pressure																												
A25	5 9/16	60	75																												
A	2 3/8 and larger	60	75																												
B	2 3/8 and larger	60	75																												
X42-X80	5 9/16 and smaller	60	75																												
	8 5/8-20 inch	85	85																												
	20 and larger	90	90																												
$e = \frac{A^2}{U^2} \times 100$ e, minimum elongation in 2 in (50.8mm)	$e = \frac{A^2}{U^2} \times 100$ e, minimum elongation in 2 in (50.8mm)	≥16, 0.65D 3.93 to 16 DX(0.980-0.020 6 D/t) <3.93 DX(1.104-0.051 8 D/t)	P=2(f X Y's min X t)/D and NDT. P=hydrostatic test pressure test pressure in megapascals. f= factor of 0.6 or 0.8, Y=specified yield strength for the pipebody in megapascals, t= specified wall thickness in mm D= Specified Outside diameter in mm Factor f	*Heat treatment on the weld seam area *Fracture Toughness Test																											
A,Cross-Sectional area of the test specimen in sq in U,Specified minimum ultimate tensile strength in Psi	A,Cross-Sectional area of the test specimen in sq in U,Specified minimum ultimate tensile strength in Psi	9 to 28, D(1.074-0.0194 D/t) 9 to 28, D(1.074-0.0194 D/t)	<table border="1"> <thead> <tr> <th rowspan="2">Standard Test Pressure</th> <th>SIZE</th> <th>H40</th> <th>J55,K55</th> <th>L80,N80</th> </tr> </thead> <tbody> <tr> <td>9 5/8 <</td> <td>0.8</td> <td>0.8</td> <td>0.8</td> </tr> <tr> <td>≥9 5/8</td> <td>0.6</td> <td>0.6</td> <td>0.8</td> </tr> </tbody> </table> Alternative Test Pressure All size 0.8 0.8 --		Standard Test Pressure	SIZE	H40	J55,K55	L80,N80	9 5/8 <	0.8	0.8	0.8	≥9 5/8	0.6	0.6	0.8														
Standard Test Pressure	SIZE	H40	J55,K55	L80,N80																											
	9 5/8 <	0.8	0.8	0.8																											
≥9 5/8	0.6	0.6	0.8																												

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)	
ASTM A53	A	Carbon Steel pipes for Ordinary piping	0.25	-	0.95	0.05	0.045	Cu,Cr,NI ≤0.40 MO≤0.15 V≤0.08	330Mpa (48000 psi)	205Mpa (30000 psi)
	B		0.30	-	1.20	0.05	0.045		415Mpa (60000 psi)	240Mpa (35000 psi)
ASTM A178	A	Boiler Tube	0.06-0.18	-	0.27-0.63	0.035	0.035	-	325Mpa	180Mpa
	C		0.35	-	0.8	0.035	0.035		415Mpa	255Mpa
	D		0.27	0.1 min	1.5	0.03	0.015		485Mpa	275Mpa
ASTM A214	-	Heat-Exchanger & Condenser Tube	0.18	-	0.27-0.63	0.035	0.035	-	-	
ASTM A252	Grade I	-	-	-	-	-	0.05	-	345Mpa (50000 psi)	205Mpa (30000 psi)
	Grade II								415Mpa (60000 psi)	240Mpa (35000 psi)
	Grade III								455Mpa (66000 psi)	310Mpa (45000 psi)
ASTM A500	A	Structural Carbon Steel Pipes In Round	0.30	-	1.40	0.045	0.045	Cu≤0.20 When required	310Mpa (45000 psi)	230Mpa (33000 psi)
	B		0.30	-	1.40	0.045	0.045		400Mpa (58000 psi)	290Mpa (42000 psi)
	C		0.27	-	1.40	0.045	0.045		425Mpa (62000 psi)	315Mpa (46000 psi)
	D		0.30	-	1.40	0.045	0.045		400Mpa (58000 psi)	250Mpa (36000 psi)
	A	Structural Carbon Steel Pipes In Square & Rectangular	0.30	-	1.40	0.045	0.045	Cu≤0.20 When Required	310Mpa (45000 psi)	270Mpa (39000 psi)
	B		0.30	-	1.40	0.045	0.045		400Mpa (58000 psi)	315Mpa (46000 psi)
	C		0.27	-	1.40	0.045	0.045		425Mpa (62000 psi)	345Mpa (50000 psi)
	D		0.30	-	1.40	0.045	0.045		400Mpa (58000 psi)	250Mpa (36000 psi)
ASTM A589 (Type IV)	A	Water-well piping pipe	-	-	-	0.05	0.06	-	330Mpa (48000 psi)	205Mpa (30000 psi)
	B		-	-	-	0.05	0.06		415Mpa (60000 psi)	240Mpa (35000 psi)
ASTM A795	A	Carbon Steel Pipes for fire protection use	0.25	-	0.95	0.035	0.035	-	-	-
	B		0.30	-	1.20	0.035	0.035		-	-

Elongation Min (%)		Flattening Test	Bend Test	Hydrostatic & NDT	Others
Longitudinal Direction	Transverse Direction				
$\frac{A^{0.2}}{U^{0.9}}$ e: minimum elongation in 2 in(50.8mm) A: Cross-Sectional area of the test specimen in sq in U: Specified minimum ultimate tensile strength in Psi ;		For pipe over NPS 2 Weld portion; H=2/3D The other side of weld portion; H=1/3D	For Pipe NPS 2 and under 90° X 12D 180° X 8D When order for close coiling	Specified respectively in size and grade (p=2st/D) The min pressure NPS 3 ≤ P=2,500 Psi NPS >3 P=2,800Psi at least 5S NDT And NDT (NPS 2 and over)	*ZN Coating Weight 550 g/m2(min) *Heat treatment on the weld seem area (Grade B)
35		H=(1+e)t/(e+t/D) e:0.07(C≥0.19) 0.09 (C≤0.18)	-	P=220.6t/D or NDT P:hydrostatic test Pressure(Mpa) t:specified wall thickness(mm) D:specified outside diameter(mm)	*Full Body Normalizing *Flange Test *Reverse Flattening Test *Crush test(when required)
30		H=(1+e)t/(e+t/D) e:0.07(C≥0.19) 0.09 (C≤0.18)	-	P=220.6t/D or NDT P:hydrostatic test Pressure(Mpa) t:specified wall thickness(mm) D:specified outside diameter(mm)	*Full Body Normalizing *Flange Test *Reverse Flattening Test *Crush test(when required)
30 (E=48t+15.00),t=(inch)					
25 (E=40t+12.50),t=(inch)					
20 (E=32t+10.00),t=(inch)					
25		H=(1+e)t/(e+t/D) A: e=0.09 B: e=0.07 C: e=0.06	-		
23					
21					
23					
25					
23					
21					
23					
$\frac{A^{0.2}}{U^{0.9}}$ e: minimum elongation in 2 in(50.8mm) A: Cross-Sectional area of the test specimen in sq in U: Specified minimum ultimate tensile strength in Psi ;		-	-	In accordance with the specified hydrostatic pressures	*ZN Coating Weight 550 g/m2(min)
		Weld portion; H=2/3D The other side of weld portion; H= 1/3D	-	In accordance with the specified hydrostatic pressures or NDT	*ZN Coating Weight 480 g/m2(min)

ISO 65-Carbon Steel Tubes Suitable for Screwing in acc. ISO 7/1

DN	Designation of Thread	Outside Diameter D (mm)	Thicknesses (T) and masses per unit length (M) according to the series											
			Heavy Series			Medium Series			Light Series 1			Light Series 2		
			T (mm)	Plain End M (kg/m)	Screwed Socketed M (kg/m)	T (mm)	Plain End M (kg/m)	Screwed Socketed M (kg/m)	T (mm)	Plain End M (kg/m)	Screwed Socketed M (kg/m)	T (mm)	Plain End M (kg/m)	Screwed Socketed M (kg/m)
6	1/8	10.2	2.6	0.487	0.49	2	0.404	0.407	1.8	0.366	0.369	1.8	0.36	0.363
8	1/4	13.5	2.9	0.765	0.769	2.3	0.641	0.645	2	0.57	0.574	1.8	0.515	0.519
10	3/8	17.2	2.9	1.02	1.03	2.3	0.839	0.845	2	0.742	0.748	1.8	0.67	0.676
15	1/2	21.3	3.2	1.44	1.45	2.6	1.21	1.22	2.3	1.08	1.09	2	0.947	0.956
20	3/4	26.9	3.2	1.87	1.88	2.6	1.56	1.57	2.3	1.39	1.4	2.3	1.38	1.39
25	1	33.7	4	2.93	2.95	3.2	2.41	2.43	2.9	2.2	2.22	2.6	1.98	2
32	1 1/4	42.4	4	3.79	3.82	3.2	3.1	3.13	2.9	2.82	2.85	2.6	2.54	2.57
40	1 1/2	48.3	4	4.37	4.41	3.2	3.56	3.6	2.9	3.24	3.28	2.9	3.23	3.27
50	2	60.3	4.5	6.19	6.26	3.6	5.03	5.1	3.2	4.49	4.56	2.9	4.08	4.15
65	2 1/2	76.1	4.5	7.93	8.05	3.6	6.42	6.54	3.2	5.73	5.85	3.2	5.71	5.83
80	3	88.9	5	10.3	10.5	4	8.36	8.53	3.6	7.55	7.72	3.2	6.72	6.89
100	4	114.3	5.4	14.5	14.8	4.5	12.2	12.5	4	10.8	11.1	3.6	9.75	10
125	5	139.7	5.4	17.9	18.4	5	16.6	17.1						
150	6	165.1	5.4	21.3	21.9	5	19.8	20.4						



API 5L Line Pipe

Note 1.1psi=0.07031 kg/cm² 2.1lb/ft=0.45359kg/ft

Nominal Size	Outside Diameter(D)		Wall Thickness(t)		Weight(Wpe)		Calculated Inside Diameter(d)		Hydrostatic Test Pressure(psi)				
									Grade A25(Std)	Grade A (L210)		Grade B (L245)	
	in	mm	in	mm	lb/ft	kg/m	in	mm	Std	Alt	Std	Alt	
1/2	0.840	21.3	0.109	2.8	0.85	1.28	0.622	15.7	700	700	-	700	-
			0.147	3.7	1.09	1.61	0.546	13.9	850	850	-	850	-
			0.294	7.5	1.72	2.55	0.252	6.3	1000	1000	-	1000	-
3/4	1.050	26.7	0.113	2.9	1.13	1.7	0.824	20.9	700	700	-	700	-
			0.154	3.9	1.48	2.19	0.742	18.9	850	850	-	850	-
			0.308	7.8	2.44	3.64	0.434	11.1	1000	1000	-	1000	-
1	1.315	33.4	0.133	3.4	1.68	2.52	1.049	26.6	700	700	-	700	-
			0.179	4.5	2.17	3.21	0.957	24.4	850	850	-	850	-
			0.358	9.1	3.66	5.45	0.599	15.2	1000	1000	-	1000	-
1 1/4	1.660	42.2	0.140	3.6	2.27	3.43	1.380	35.0	1000	1200	-	1300	-
			0.191	4.9	3.00	4.51	1.278	32.4	1300	1800	-	1900	-
			0.382	9.7	5.22	7.77	0.896	22.8	1400	2200	-	2300	-
1 1/2	1.900	48.3	0.145	3.7	2.72	4.07	1.610	40.9	1000	1200	-	1300	-
			0.200	5.1	3.63	5.43	1.500	38.1	1300	1800	-	1900	-
			0.400	10.2	6.41	9.58	1.100	27.9	1400	2200	-	2300	-



ASTM A53 Welded Pipes / A106 Seamless Pipes

Dimensions, Weights (Masses) per Unit Length, and Test Pressures for Plain-End Pipe

Note 1.1psi=0.07031kg/cm ² 2.11lb/ft=0.45359kg/ft								
NPS Designator	DN Designator	Specified Outside Diameter, in.(mm)	Specified Wall Thickness, in.(mm)	Nominal Weight (Mass) per Unit Length, Plain End, lb/ft(kg/m)	Weight Class	Schedule No.	Test Pressure, psi [mPa]	
							Grade A	Grade B
20	500	20.000(508)	0.250 (6.35)	52.78(78.55)	-	10	450(3.1)	520(3.6)
			0.281 (7.14)	59.23(88.19)	-	-	510 (3.5)	590 (4.1)
			0.312 (7.92)	65.66(97.67)	-	-	560 (3.9)	660(4.5)
			0.344 (8.74)	72.28(107.60)	-	-	620 (4.3)	720 (5.0)
			0.375 (9.52)	78.67(117.02)	STD	20	680 (4.7)	790 (5.4)
			0.406(10.31)	84.04(126.53)	-	-	730 (5.0)	850 (5.9)
			0.438 (11.13)	91.59(136.37)	-	-	790 (5.4)	920 (6.3)
			0.469(11.91)	97.92(145.70)	-	-	850 (5.9)	950 (6.5)
			0.500(12.70)	104.23(155.12)	XS	30	900 (6.2)	1050 (7.2)
			0.594(15.09)	123.23(183.42)	-	40	1170(8.1)	1250 (8.6)
			0.812(20.62)	166.56(247.83)	-	60	1460 (10.1)	1710(11.80)
			1.031(26.19)	209.06(311.17)	-	80	1860 (12.8)	2170 (15.0)
			1.281(32.54)	256.34(381.53)	-	100	2310 (15.9)	2690 (18.5)
			1.500(38.10)	296.65(441.49)	-	120	2700 (18.6)	2800 (19.3)
			1.750(44.45)	341.41(508.11)	-	140	2800 (19.3)	2800 (19.3)
1.969(50.01)	379.53(564.81)	-	160	2800 (19.3)	2800 (19.3)			
24	600	24.000(610)	0.250 (6.35)	63.47(94.46)	-	10	380(2.6)	440(3.0)
			0.281 (7.14)	71.25(106.08)	-	-	420 (2.9)	490 (3.4)
			0.312 (7.92)	79.01(117.51)	-	-	470(3.2)	550(3.8)
			0.344 (8.74)	86.99(129.5)	-	-	520 (3.6)	600 (4.1)
			0.375 (9.52)	94.71(140.88)	STD	20	560 (3.9)	660 (4.5)
			0.406(10.31)	102.40(152.37)	-	-	610 (4.2)	710 (4.9)
			0.438 (11.13)	110.32(164.26)	-	-	660 (4.5)	770 (5.3)
			0.469(11.91)	117.98(175.54)	-	-	700 (4.8)	820 (5.7)
			0.500(12.70)	125.61(186.94)	XS	-	750 (5.2)	880 (6.1)
			0.562(14.27)	140.81(209.50)	-	30	840(5.8)	980 (6.8)
			0.688(17.48)	171.45(255.24)	-	40	1030 (7.1)	1200(8.3)
			0.938 (23.83)	231.25(344.23)	-	-	1410 (9.7)	1640 (11.3)
			0.969 (24.61)	238.57(355.02)	-	60	1450 (10.0)	1700 (11.7)
			1.219(30.96)	296.86(441.78)	-	80	1830 (12.6)	2130 (14.7)
			1.531(38.89)	367.74(547.33)	-	100	2300 (15.9)	2680 (18.5)
1.812(46.02)	429.79(639.58)	-	120	2720 (18.8)	2800 (19.3)			
2.062(52.37)	483.57(719.63)	-	140	2800 (19.3)	2800 (19.3)			
2.344(59.54)	542.64(807.63)	-	160	2800 (19.3)	2800 (19.3)			
26	650	26.000(660)	0.250 (6.35)	68.82(102.42)	-	-	350(2.4)	400(2.8)
			0.281 (7.14)	77.26(115.02)	-	-	390 (2.7)	450 (3.1)
			0.312 (7.92)	85.68(127.43)	-	10	430(3.0)	500(3.4)
			0.344 (8.74)	94.35(140.45)	-	-	480(3.3)	560 (3.9)
			0.375 (9.52)	102.72(152.80)	STD	-	520 (3.6)	610 (4.2)
			0.406(10.31)	111.08(165.28)	-	-	560 (3.9)	660 (4.5)
			0.438 (11.13)	119.69(178.20)	-	-	610 (4.2)	710 (4.9)
			0.469(11.91)	128.00(190.46)	-	-	650 (4.5)	760 (5.2)
			0.500(12.70)	136.30(202.85)	XS	20	690 (4.8)	810 (5.6)
			0.562(14.27)	152.83(227.37)	-	-	780(5.4)	910 (6.3)



ASTM A500 Round Pipes

Nominal Size	Outside Diameter		Wall Thickness		Weight		
	inch	mm	inch	mm	lb/ft	kg/ft	kg/m
1/2	0.840	21.3	0.109	2.77	0.85	0.39	1.27
3/4	1.050	26.7	0.113	2.87	1.13	0.51	1.69
1	1.315	33.4	0.104	2.64	1.34	0.61	2.00
1 1/4	1.660	42.2	0.110	2.79	1.81	0.82	2.71
	1.660	42.2	0.140	3.56	2.27	1.03	3.39
	1.660	42.2	0.191	4.85	3.00	1.36	4.47
1 1/2	1.900	48.3	0.114	2.90	2.17	0.98	3.25
	1.900	48.3	0.145	3.68	2.72	1.23	4.05
	1.900	48.3	0.200	5.08	3.63	1.64	5.41
2	2.375	60.3	0.121	3.07	2.92	1.32	4.33
	2.375	60.3	0.154	3.91	3.65	1.66	5.44
	2.375	60.3	0.218	5.54	5.02	2.28	7.48
2 1/2	2.875	73	0.156	3.96	4.53	2.05	6.74
	2.875	73	0.188	4.78	5.40	2.45	8.04
	2.875	73	0.203	5.16	5.79	2.63	8.63
	2.875	73	0.276	7.01	7.66	3.47	11.41
	2.875	73	0.276	7.01	7.66	3.47	11.41
3	3.500	88.9	0.156	3.96	5.58	2.53	8.30
	3.500	88.9	0.188	4.78	6.63	3.01	9.92
	3.500	88.9	0.226	5.49	7.58	3.44	11.29
3 1/2	4.000	101.6	0.156	3.96	6.40	2.90	9.54
	4.000	101.6	0.188	4.78	7.63	3.46	11.41
	4.000	101.6	0.226	5.74	9.11	4.13	13.57
4	4.500	114.3	0.156	3.96	7.25	3.29	10.78
	4.500	114.3	0.188	4.78	8.64	3.92	12.91
	4.500	114.3	0.219	5.56	10.00	4.54	14.91
	4.500	114.3	0.237	6.02	10.79	4.89	16.08
	4.500	114.3	0.337	8.56	14.98	6.79	22.32
5	5.563	141.3	0.258	6.55	14.62	6.63	21.77
	5.563	141.3	0.375	9.53	20.78	9.43	30.97
6	6.625	168.3	0.280	7.11	18.97	8.60	28.26
	6.625	168.3	0.322	8.18	28.55	12.95	42.55
8	8.625	219.1	0.500	12.7	43.39	19.68	64.64
	8.625	219.1	0.500	12.7	43.39	19.68	64.64
10	10.750	273.0	0.365	9.27	40.48	18.36	60.29
	10.750	273.0	0.500	12.7	54.74	24.83	81.53
12	12.750	323.8	0.375	9.52	49.56	22.48	73.79
	12.750	323.8	0.500	12.7	65.42	29.67	97.44
14	14.000	355.6	0.375	9.52	54.57	24.75	81.25
	14.000	355.6	0.500	12.7	72.09	32.70	107.40
16	16.000	406.4	0.375	9.52	62.58	28.39	93.18
	16.000	406.4	0.500	12.7	82.77	37.54	123.31
18	18.000	457	0.375	9.52			105.06
	18.000	457	0.500	12.7			139.16
20	20.000	508	0.375	9.52			117.03
	20.000	508	0.500	12.7			155.13
24	24.000	609.6	0.375	9.52			140.89
	24.000	609.6	0.500	12.7			186.95

ASTM A500 GR.A/B/C Cold Formed Hollow Section

Square Pipes		Rectangular Pipes	
Size(mm)	Thickness(mm)	Size(mm)	Thickness(mm)
10 x 10	0.6 - 1.0	20 x 10	0.6 - 1.0
12 x 12	0.6 - 1.0	25 x 12	0.6 - 1.0
16 x 16	0.6 - 1.2	38 x 19	0.6 - 1.5
19 x 19	0.6 - 1.5	50 x 25	0.6 - 1.5
20 x 20	0.6 - 1.5	50 x 30	1.0 - 3.0
25 x 25	1.0 - 2.75	60 x 40	1.5 - 3.5
30 x 30	1.0 - 2.75	75 x 50	1.5 - 4.0
32 x 32	1.0 - 3.0	80 x 40	1.5 - 4.0
38 x 38	1.0 - 3.0	100 x 50	2.0 - 6.0
40 x 40	1.0 - 3.5	100 x 60	2.0 - 6.0
50 x 50	1.0 - 5.0	100 x 75	2.0 - 6.0
60 x 60	1.0 - 6.0	120 x 60	3.0 - 6.0
63.5 x 63.5	1.0 - 6.0	120 x 80	3.0 - 6.0
70 x 70	1.5 - 6.0	125 x 50	3.0 - 6.0
75 x 75	1.5 - 6.0	125 x 75	3.0 - 6.0
80 x 80	2.0 - 6.0	150 x 50	3.0 - 6.0
90 x 90	2.0 - 6.0	150 x 75	3.0 - 6.0
100 x 100	2.3 - 6.0	150 x 100	4.0 - 12
120 x 120	4.0 - 6.0	160 x 80	4.0 - 6.0
125 x 125	4.0 - 6.0	175 x 100	4.0 - 12
150 x 150	4.0 - 8.0	200 x 100	4.0 - 12
200 x 200	6.0 - 12	200 x 150	4.0 - 12
250 x 250	6.0 - 12	250 x 150	5.0 - 12
300 x 300	6.0 - 12	300 x 200	5.0 - 12
350x350	6.0 - 12	350x250	5.0 - 12
400 x 400	6.0 - 12	400 x 200	5.0 - 12
500x500	6.0 - 16	500x300	5.0-16

ASTM A795 Black and Red and Hot Dipped Zinc-Coated, Welded Steel Pipe for Fire Protection Use

Dimensions, Weights, and Test Pressure For Light-Weight Fire Protection Pipe—Schedule 10 A									
NPS Designator	DN Designator	Outside Diameter		Wall Thickness		Weight Plain End		Test Pressure Seamless and Electric-Resistance-Welded	
		in	mm	in	mm	lb/ft	kg/m	psi	MPa
3/4	20	1.05	26.7	0.083	2.11	0.86	1.28	700	4.8
1	25	1.315	33.4	0.109	2.77	1.41	2.09	700	4.8
1 1/4	32	1.66	42.2	0.109	2.77	1.81	2.69	1000	6.9
1 1/2	40	1.9	48.3	0.109	2.77	2.09	3.11	1000	6.9
2	50	2.375	60.3	0.109	2.77	2.64	3.93	1000	6.9
2 1/2	65	2.875	73	0.12	3.05	3.53	5.26	1000	6.9
3	80	3.5	88.9	0.12	3.05	4.34	6.46	1000	6.9
3 1/2	90	4	101.6	0.12	3.05	4.98	7.41	1200	8.3
4	100	4.5	114.3	0.12	3.05	5.62	8.37	1200	8.3
5	125	5.563	141.3	0.134	3.4	7.78	11.58	1200	8.3
6	150	6.625	168.3	0.134	3.4	9.3	13.85	1000	6.9
8	200	8.625	219.1	0.188	4.78	16.96	25.26	800	5.5
10	250	10.75	273.1	0.188	4.78	21.23	31.62	700	4.8



Dimensions, Weights, Test Pressures For Standard-Weight Fire Protection Pipe—Schedule 30 and Schedule 40									
NPS Designator	DN Designator	Outside Diameter		Wall Thickness		Weight Plain End		Test Pressure Seamless and Electric-Resistance-Welded	
		in	mm	in	mm	lb/ft	kg/m	psi	MPa
1/2	15	0.84	21.3	0.109	2.77	0.85	1.27	700	4.8
3/4	20	1.05	26.7	0.113	2.87	1.13	1.68	700	4.8
1	25	1.315	33.4	0.133	3.38	1.68	2.5	700	4.8
1 1/4	32	1.66	42.2	0.14	3.58	2.27	3.4	1000	6.9
1 1/2	40	1.9	48.3	0.145	3.68	2.72	4.07	1000	6.9
2	50	2.375	60.3	0.154	3.91	3.66	5.5	1000	6.9
2 1/2	65	2.875	73	0.203	5.16	5.8	8.68	1000	6.9
3	80	3.5	88.9	0.216	5.49	7.58	11.35	1000	6.9
3 1/3	90	4	101.6	0.226	5.74	9.12	13.71	1200	8.3
4	100	4.5	114.3	0.237	6.02	10.8	16.25	1200	8.3
5	125	5.563	141.3	0.258	6.55	14.63	22.07	1200	8.3
6	150	6.625	168.3	0.28	7.11	18.99	28.6	1200	8.3
8	200	8.625	219.1	0.277	7.04	24.72	38.09	1200	8.3
10	250	10.75	273.1	0.307	7.8	34.27	53.29	1000	6.9



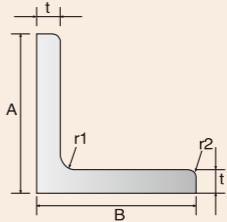
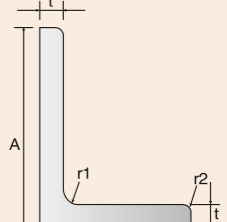
Note 1.1psi=0.07031kg/cm2 2.1lb/ft=0.45359kg/ft

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

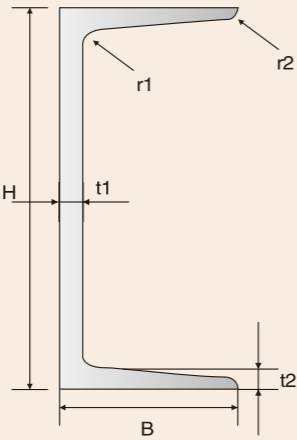
AVAILABLE STEEL GRADE	EQUAL ANGLE BAR	UNEQUAL ANGLE BAR
Q235B, Q345B A36, A572 Gr.50 S235JR, S355JR SS400,		
DIMENSION IN BOLD IN BELOW TABLES FOR EQUAL&UNEQUAL ANGLE ARE RECOMMENDED		

EQUAL ANGLE BAR DIMENSION-I (MM)		
A*B	t	UNIT WEIGHT (KG/M)
20*20	3/4	0.889/1.145
25*25	3/4	1.124/1.459
30*30	3/4	1.373/1.786
36*36	3/4/5	1.656/2.163/2.654
40*40	3/4/5	1.852/2.422/2.976
45*45	3/4/5/6	2.088/2.736/3.369/3.985
50*50	3/4/5/6	2.332/3.059/3.770/4.465
56*56	3/4/5/8	2.624/3.446/4.251/6.568
60*60	4/5	3.68/4.55
63*63	4/5/6/8	3.907/4.822/5.721/7.469
65*65	5/6/8	5.00/5.91/7.66
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

EQUAL ANGLE BAR DIMENSION-II (MM)		
A*B	t	UNIT WEIGHT (KG/M)
90*90	6/7/8/10/12	8.350/9.656/10.946/13.476/15.940
100*100	6/7/8/10/12/14	9.366/10.830/12.276/15.120/17.898/20.611
110*110	7/8/10/12/14	11.928/13.532/16.690/19.782/22.809
120*120	8	14.7
125*125	8/10/12/14	15.504/19.133/22.696/26.193
130*130	9/12/15	17.9/23.4/28.8
140*140	10/12/14/16	21.488/25.522/29.490/33.393
150*150	12/15/19	27.3/33.6/41.9
160*160	10/12/14/16	24.729/29.391/33.987/38.518
180*180	12/14/16/18	33.159/38.383/43.542/48.634
200*200	14/16/18/20/24	42.894/48.680/54.401/60.056/71.168

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

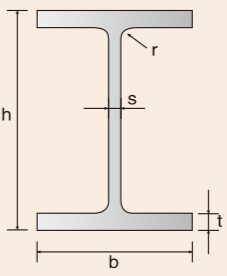
Steel Channel

AVAILABLE STEEL GRADE	STEEL CHANNELS
Q235B, Q345B A36, A572 Gr.50 S235JR, S355JR SS400,	
<p>DIMENSION IN BOLD IN BELOW TABLES FOR STEEL CHANNELS ARE RECOMMENDED</p>	

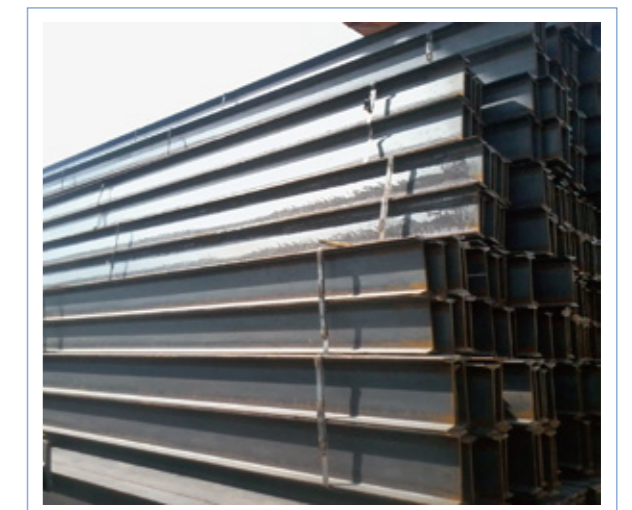
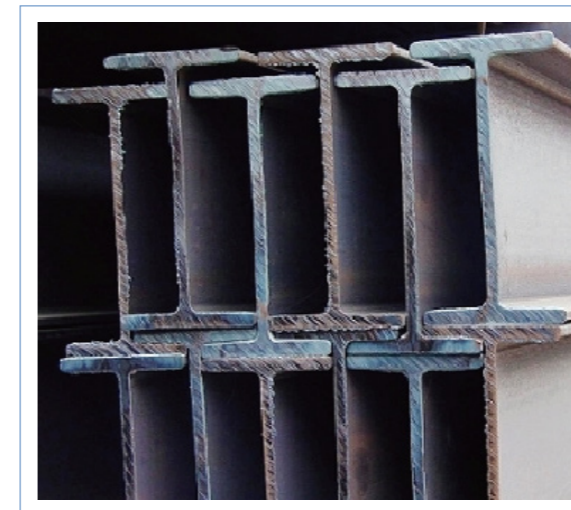
CHANNEL DIMENSION (MM)			UNIT WEIGHT (KG/M)
H * B	t1	t2	
75*40	3.8	7	5.3
75*40	5	7	6.92
100 * 50	3.8	6	7.3
100 * 50	4.5	7.5	8.97
100 * 50	5	7.5	9.36
125 * 65	6	6.8	11.66
125 * 65	5.2	8	13.4
150 * 75	5.5	7.3	14.66
150 * 75	6	10	17.9
150 * 75	6.5	10	18.6



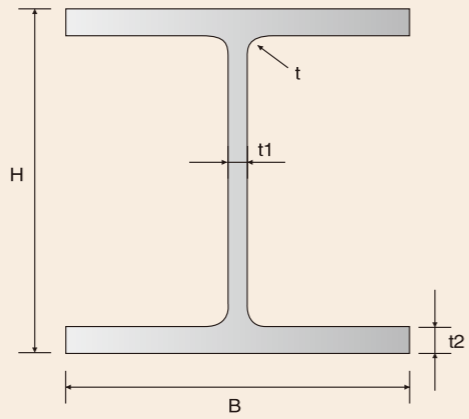
IPE / IPEAA

AVAILABLE STEEL GRADE	IPE/IPEAA
Q235B, Q345B A36, A572 Gr.50 S235JR, S355JR SS400,	
<p>DIMENSION IN BOLD IN BELOW TABLES FOR IPE/IPEAA ARE RECOMMENDED</p>	

NOMINAL SIZE	DIMENSION					UNIT WEIGHT (KG/M)
	h	b	s	t	r	
IPE AA-100	97.6	55	3.6	4.4	7	6.72
IPE-100	100	55	4.1	5.7	7	8.10
IPE AA-120	117	64	3.8	4.8	7	8.36
IPE-120	120	64	4.4	6.3	7	10.4
IPE AA-140	136.6	73	3.8	5.2	7	10.05
IPE-140	140	73	4.7	6.9	7	12.9
IPE AA-160	156.4	82	4	5.6	7	12.31
IPE-160	160	82	5.0	7.4	9	15.8
IPE AA-180	176.4	91	4.3	6.2	9	14.94
IPE-180	180	91	5.3	8.0	9	18.8
IPE AA-200	196.4	100	4.5	6.7	12	17.95
IPE-200	200	100	5.6	8.5	12	22.4



H Beam

AVAILABLE STEEL GRADE	H BEAM
Q235B, Q345B A36, A572 Gr.50 S235JR, S355JR SS400,	
DIMENSION IN BOLD IN BELOW TABLES FOR H BEAM ARE RECOMMENDED	

ITEM	H*B (mm) NOMINAL SIZE	t1 (mm)	t2 (mm)
HW	100*100, 125*125, 150*150, 175*175, 200*200, 250*250, 300*300, 350*350, 400*400	6 ~ 45	8 ~ 35
HM	150*100, 200*150, 250*175, 300*200, 350*250, 400*300, 450*300, 500*300, 600*300,	6 ~ 14	9 ~ 23
HN	100*50, 125*60, 150*75, 175*90, 200*100, 250*125, 300*150, 350*175, 400*150, 400*200, 450*150, 450*200, 500*150, 500*200, 600*200, 700*300, 800*300, 900*300	5 ~ 18	7 ~ 28

HW, HM, HN STAND FOR H BEAMS WITH WIDE FLANGE, MEDIUM FLANGE, NARROW FLANGE SEPARATELY.



Coil and Plate



Wire Rods

SPECIFICATION:

Diameter:

5.5MM,6.5MM,7MM,8MM,9MM,10MM,11MM,12MM,13MM,14MM,16MM;

Coil Weight: About 2 MT;

Steel Grade: Q195,SAE1006,SAE1008,SAE1010,etc;

Usage: Widely used in Construction, automobile, oil field, mine.Such as prestressed steel wire, wire rod for steel strand, cord steel, spring steel, cold heading steel, galvanized steel wire for bridge cable, high carbon steel and welding steel, etc.

Hot Dipped Galvanized Steel Coils

SPECIFICATION:

Thickness: 0.11-3.0MM; Width: 600-1250MM;

Zinc Coating: 30-275g/m2;

Internal Diameter: 508MM or 610MM;

Coil Weight: 2-10 MT;

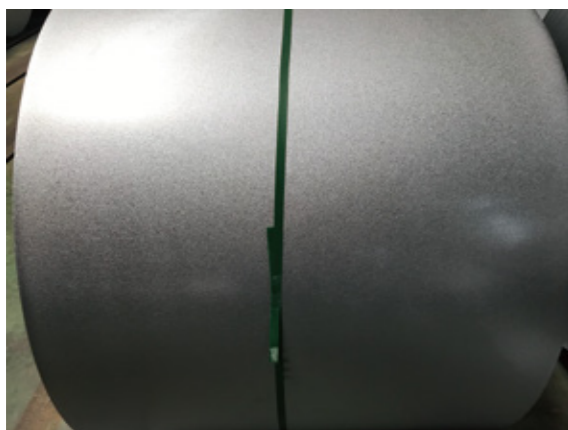
Quality: Commercial and Structural Quality;

Surface: Zero Spangle,Minimum Spangle,Regular Spangle,Oiled,Dry&Chromated;

Standard: JIS G3302,ASTM A653M,EN10327,etc;

Steel Grade: SGCC,DX51D+Z,S250GD,S280GD,S350GD,etc;

Usage: Widely used in building materials,light industry,transportation and farming.Such as for making steel profile for wall and roofing,steel pipe,kitchen appliance,etc.



Hot Dipped Galvalume Steel Coils

SPECIFICATION:

Thickness: 0.11-1.0MM; **Width:** 750-1250MM;

AZ Coating: 30-150g/m2;

Internal Diameter: 508MM or 610MM;

Coil Weight: 2-10 MT;

Quality: Commercial and Structural Quality;

Surface: Regular Spangle,Oiled,Dry&Chromated;

Standard: JIS G3302,ASTM A792/A792M,etc;

Steel Grade: SGCC,SGCH,etc;

Usage: Widely used in building materials,light industry,transportation and farming.Such as for making steel profile for wall and roofing,sandwich panel,corrugated sheet,home appliance, kitchen appliance,etc.

Pre-painted Galvanized /Galvalume Steel Coils

SPECIFICATION:

Thickness: 0.12-0.8MM(BMT); **Width:** 750-1250MM;

Zinc/AZ Coating: 30-150g/m2;

Internal Diameter: 508MM or 610MM;

Coil Weight: 2-10 MT;

Quality: Commercial and Structural Quality;

Standard: JIS G3312,ASTM A755M,En10169,etc;

Steel Grade: CGCC,DX51D+Z,S250GD,S280GD,S350GD,etc;

Usage: Widely used in building materials,light industry,transportation and farming.Such as for making steel profile for wall and roofing,sandwich panel,corrugated sheet,home appliance, kitchen appliance,etc.

All Staff of Tianjin Youfa International Trade Co., Ltd



Tianjin Youfa Steel Pipe Group Culture

YOUFA'S MISSION:

TO LET ITS EMPLOYEES GROW HAPPILY;

TO PROMOTE THE HEALTHY DEVELOPMENT OF THE INDUSTRYT.

友发的使命

让员工幸福成长

促行业健康发展

YOUFA'S VISION:

TO BECOME A GLOBAL EXPERT OF PIPELINE SYSTEM.

友发的愿景

做全球管道系统专家

YOUFA'S CORE VALUE:

TO BE WIN-WIN WITH INTEGRITY POLICY;

TO ADVANCE TOGETHER WITH VIRTUE FIRST.

友发核心价值观

共赢互利信为本

同心并进德为先

YOUFA'S SPIRIT:

TO DISCIPLINE OURSELVES,BENEFIT OTHERS;

COOPERATE AND FORGE AHEAD.

友发的精神

律己利他

合作进取