AJU Besteel

“We make the most beautiful and perfect circle.”

AJU Besteel Co., Ltd never stops challenging.

Now, we begin to run fast for the summit of the business.

The company has produced iron or steel products, the key industrial material,
making a great contribution in securing world-class competitiveness for Korea's major industries,
such as, oil refineries, architectures, automobile industries and the shipbuilding industry.
It has taken the lead in producing quality steel pipes and creating high value with continuous
quality innovations and technology development.

AJU Besteel

The Best Challenge
The Best Passion
The Best Value

CONTENTS

CEO'S Greeting

Since founded in 1996, our company has made a great effort to become a leading company in the steel industry, keeping in mind that it plays very important role in the foundation for the national development and a key sector in this field.

With the modern equipment, we will leap constantly forward until we obtain our customers' happiness and their satisfaction as we pursue to meet their expectations and desires through the best quality in goods and services.

The 21st century before us comes closer with unlimited challenges and opportunities. We intend to grow to be the global steel company in this field as we take social responsibilities and make harmony in this society.

We still need the generous attention and encouragement from our customers and we appreciate your trustful support.

AJU Besteel Co., Ltd. CEO, Park Yoo Duck

The History of Business

Since founded in 1996, we have provided for various pipes which are widely used in the industrial field with the latest equipment.
AJU Besteel took its first steps into the world class steel company in 1997. We have been recognized for our superior technology in this field after obtaining the certification of API 5L X70Q and API 5CT in 2009.
In 2010, we were able to leap forward as a full scale tube company producing various kinds of pipes for plumbing, pressure service, the structure purpose, Tubing and Casing and Line pipe for energy purposes.

1996-2004 Foundation period
THE CHALLENGE BIZ

Feb. 1996, It was founded
Feb. 1998, Moved the factory to the place (Oedong-eup, Gyeongju city)
Dec. 2001, Completed Slitter Line
Jan. 2003, Opened Seoul office
Oct. 2003, Acquired QS-9000:1998, ISO-9002:1994
Dec. 2003, Acquired Information Management System Certification (class 5)

2005-2009 Expansion period
THE PASSION BIZ

Sep. 2005, Set up Pohang factory
Nov. 2005, Conferred with the $10 million export prize on the 42th anniversary of the export day
Dec. 2005, Completed the small tube mill line facilities
Mar. 2006, Acquired the certification of KS D 3566, KS D 3760, KS D 3507
Oct. 2006, Completed PPL line facilities
Jan. 2007, Changed the company name to AJU Besteel Co., Ltd
Apr. 2007, Moved main office to a place (From Gyeongju city to Daesong-myeon Namgu, Pohang city)
Jun. 2007, Added additional certificates of KS D 3566, KS D 3760, KS D 3507
Oct. 2007, Acquired the certificates of KS D 3631, KS D 3562
Dec. 2007, Completed the medium tube mill line facilities
Dec. 2007, Completed the galvanized tube mill line facilities
Oct. 2008, Acquired the certificate of KS C 8401
Dec. 2008, Accomplished the object of 100 billion won, and issued shares worth 5,000 won at a face value
May. 2009, Acquired the certifications of API 5CT and API 5L

2009-Present Growth period
THE VALUE BIZ

Apr. 2010, Acquired the certifications of ABS(American Bureau of Shpping)
KR(Korean Register of Shipping), GL(Germanischer Lloyd)
Jun. 2010, Completed tube mill line for large size pipe
Aug. 2010, Acquired the certifications of KS D 3568, KS D 3589, KS F 4602
Oct. 2010, Completed OCTG line facilities
Nov. 2010, Completed the heat-treatment line facilities
Nov. 2010, Conferred with the $30 million export prize on the 47th anniversary of the export day
Jan. 2011, Acquired the certification of KS D 3565 for coated and wrapped steel pipes of water supply
Mar. 2011, Acquired the certification of Lloyd (Lloyd's Register) factory approval
Apr. 2011, Acquired the certification of DNV (Det Norske Veritas) factory approval

MAIN PRODUCTS & USAGE

Type of pipes		Similar specification				Usage
Type	Manufacturing methood	Korea	Japan	U.S.A	U.K	
For ordinary piping	ERW	Carbon steel pipes for ordinary piping (KS D 3507/SPP)	Carbon steel pipes for ordinary piping (JIS G 3452 / SGP)	ASTM A53 ASTM A153	BS 1387	For steam, water, oil and sprinkler, gas etc. with relatively low pressure
	ERW	Carbon steel pipes for fuel gas piping (KS D 3631/SPPG)	-		-	For fuel gas piping
For pressure service	ERW	Carbon steel pipes for pressure service (KS D 3562 / SPPS)	Carbon steel pipes for pressure service (JIS G 3454/STPG)	ASTM A53	BS 3601	For pressure service at the temperature of 350℃ or less
For structural purposes	ERW	Carbon steel tubes for machine structural purposes (KS D 3517/STKM)	Carbon steel tubes for machine structural purposes (JIS G 3445/STKM)	ASTM A513	BS 980 /BS 1717, BS 1775	For machinery, automobiles, harbor, ferce, bicycles, steel furniture and fixtures etc.
	ERW	Carbon steel tubes for general structural purposes (KS D 3566/STK)	Carbon steel tubes for general structural purposes (JIS G 3444/STK)	ASTM A500 ASTMA252	BS 980 /BS 1139 BS 4848	For civil works, architecture, steel tower, scaffolding, piles, veranda and fence and post etc.
	ERW	Carbon steel square pipes for general structural (KS D 3568 / SPSR)	Carbon steel square pipes for general structural (JIS A 3466/STKR)	ASTM A500	BS 4848	For civil works, architecture and other structures
Line pipe	ERW			API 5L		For transportation of petroleum and natural gas
OCTG	ERW			API 5CT		For conveying gas, water and oil in producing operation in both oil and natural gas industries
Conduits	ERW	Rigid steel conduits (KS C 8401)	Rigid steel conduits (JIS C 8305)	UL6 ANSI C80.1	BS 31	For protection of electric cable at electric distribution lines
Steel tube for plantation	ERW	Galvanized steel pipe for vinyl housing (KS D 3760)				Outstanding corrosion resistance, excellent workability, special usage green house, prime quality general structural fence
Scaffolding	ERW	Single pipe scaffolding				For construction temporary equipment

QUALITY CERTIFICATION STATUS

Division	Standard name	Certification authority	Year of acquirement
KS	Carbon steel tubes for general structural purposes (KS D 3566)	Korean Standard Association	2006
	Galvanized steel pipes for vinyl houses (KS D 3760)	Korean Standard Association	2006
	Carbon steel pipes for ordinary piping (KS D 3507)	Korean Standard Association	2006
	Carbon steel pipes for pressure service (KS D 3562)	Korean Standard Association	2007
	Fuel gas piping carbon steel pipes (KS D 3631)	Korean Standard Association	2007
	Steel wire conduit pipes (KS C 8401)	Korean Standard Association	2008
	Square and rectangular pipe (KS D 3568)	Korean Standard Association	2010
	Extrusion-typed polyethylene coated steel pipes (KS D 3589)	Korean Standard Association	2010
	Steel pipe piles (KS F 4602)	Korean Standard Association	2010
	Coated and wrapped steel pipes for water supply (KSD3565)	Korean Standard Association	2011
API	API Monogram (5CT)	American Petroleum Institute	2009
	API Monogram (5L)	American Petroleum Institute	2009
ISO	Quality management system (KS Q ISO 9001:2009 / ISO 9001:2008)	Korean Standard Association	2007
Classi-fication	Welding Procedure Survey	ABS (American Bureau Of Shipping)	2010
	Approval Of Manufacturers	GL (Germanischer Lloyd)	2010
	Approval Certificate For Manufacturing Process	KR (Korean Register)	2010
	Approval Of Manufacturers	DNV (Det Norske Veritas)	2011
	Approval Of Manufacturers	LR (Lloyd's Register)	2011

QUALITY CERTIFICATES

KS


KD D 3566


KS D 3760


KS D 3507


KS D 3562


KS D 3631


KS C 8401


KS D 3568


KS D 3589


KS F 4602

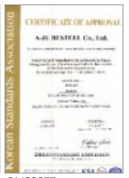
API


API 5L


API 5CT

ISO


QMS2657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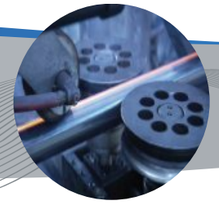
Classification


QMS2657


GL


ABS인증서-6



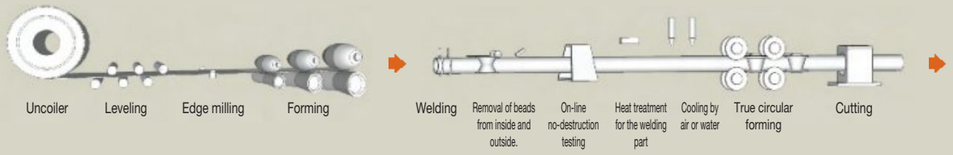
MAJOR PRODUCTION FACILITIES

Division	Facility name	Thickness (mm)	Outside diameter (mm)	Production capacity	Remark
Pipe manufacturing	Small tube mill	1.2~4.5	19.1~76.3	60,000MT	
	Medium tube mill	4.0~15.0	89.1~318	180,000MT	
	Large scale tube mill	4.0~15.0	318.1~508	260,000MT	
	OCTG line	3.0~12.0	26.67~139.8	100,000MT	
	Total production capacity			600,000MT	
Heat treatment	Quenching&Tempering	3.0~14T	60.3~177.8	70,000MT	
Galvanized pipes		15~500A		160,000MT	
PE coating	Exterior coating	MAX 25.4	100~1800A	60,000MT	
	Interior short coating	MAX 25.4	100~1800A	60,000MT	
Surface treatment	Pickled and Oiled Steel Sheets	1.4~6.4	500~1500(W)	160,000MT	

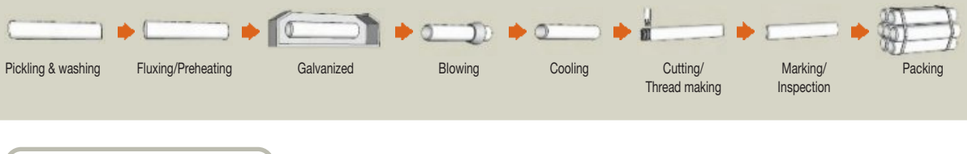
MANUFACTURING PROCESS

The pipe manufacturing lines (4 lines)

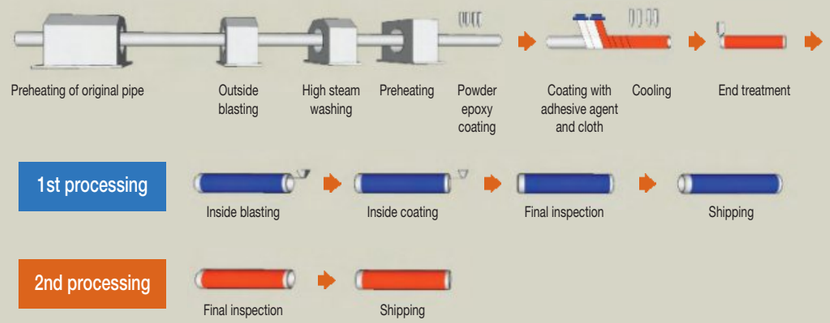
Standard pipe manufacturing process diagram



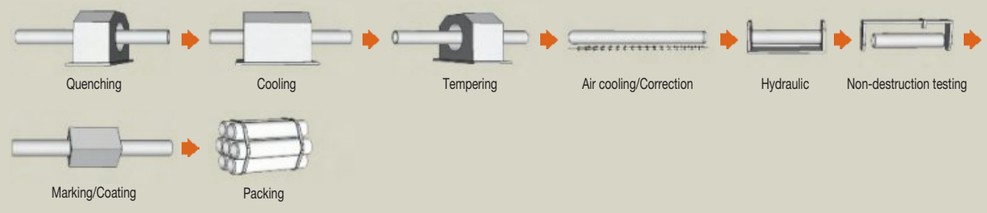
Galvanizing(2 line)



PE Coating(1line)



Heat treatment (1line)



AJU Besteel

AJB's Product List

MANUFACTURING SIZE RANGE / ROUND STEEL PIPE

(Unit : mm)

Thickness / Outside diameter	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
21.7		■	■	■	■	■									
22.2		■	■	■	■	■									
25.4			■	■	■	■	■								
27.2				■	■	■	■	■	■						
34.0				■	■	■	■	■	■	■					
42.7				■	■	■	■	■	■	■	■	■			
48.6				■	■	■	■	■	■	■	■	■	■		
60.5				■	■	■	■	■	■	■	■	■	■	■	
76.3				■	■	■	■	■	■	■	■	■	■	■	■
89.1					■	■	■	■	■	■	■	■	■	■	■
114.3						■	■	■	■	■	■	■	■	■	■
139.8						■	■	■	■	■	■	■	■	■	■
165.2							■	■	■	■	■	■	■	■	■
216.3							■	■	■	■	■	■	■	■	■
267.4								■	■	■	■	■	■	■	■
318.5								■	■	■	■	■	■	■	■
355.6									■	■	■	■	■	■	■
406.4										■	■	■	■	■	■
457.2											■	■	■	■	■
508.0												■	■	■	■

MANUFACTURING SIZE RANGE / SQ. & RECT PIPE

(Unit : mm)

Thickness		1	2	3	4	5	6	7	8	9	10	11	12	13
Square	Rectangular													
19×19			■	■										
25×2			■	■	■									
	30×20		■	■	■									
30×30			■	■	■	■								
	40×20		■	■	■	■								
40×40			■	■	■	■	■							
	50×30		■	■	■	■	■							
50×50			■	■	■	■	■	■						
	60×40		■	■	■	■	■	■						
60×60				■	■	■	■	■	■					
	75×45			■	■	■	■	■	■					
75×75				■	■	■	■	■	■	■				
	100×50			■	■	■	■	■	■	■				
100×100					■	■	■	■	■	■	■	■	■	
	125×75				■	■	■	■	■	■	■	■	■	
125×125						■	■	■	■	■	■	■	■	
	150×75					■	■	■	■	■	■	■	■	
150×150							■	■	■	■	■	■	■	
	200×100						■	■	■	■	■	■	■	
160×160							■	■	■	■	■	■	■	
180×180							■	■	■	■	■	■	■	■
	200×150						■	■	■	■	■	■	■	■
200×200							■	■	■	■	■	■	■	■
	250×150						■	■	■	■	■	■	■	■
250×250								■	■	■	■	■	■	■
	300×200							■	■	■	■	■	■	■
300×300									■	■	■	■	■	■
	350×250								■	■	■	■	■	■
	400×200								■	■	■	■	■	■
350×350									■	■	■	■	■	■
	400×300								■	■	■	■	■	■
400×400									■	■	■	■	■	■
	500×300								■	■	■	■	■	■

API 5CT TUBING

Outside diameter		Wall thickness		Weight						Test pressure (psi)				Type of pipe
				Plain ends			Threaded & Coupling			H40		J55 & K55		
in.	mm	in.	mm	lb/ft	kg/ft	kg/m	lb/ft	kg/ft	kg/m	STD	ALT	STD	ALT	
1,050	26,7	0,113	2,87	1,13	0,51	1,68	1,14	0,52	1,70	3,000	6,900	3,000	9,500	Non-Upset
		0,113	2,87	1,13	0,51	1,68	1,20	0,54	1,79	3,000	6,900	3,000	9,500	Ext, Upset
1,315	33,4	0,133	3,38	1,68	0,76	2,50	1,70	0,77	2,53	3,000	6,500	3,000	8,900	Non-Upset
		0,133	3,38	1,68	0,76	2,50	1,72	0,78	2,56	3,000	6,500	3,000	8,900	Integral Joint
		0,133	3,38	1,68	0,76	2,50	1,80	0,82	2,68	3,000	6,500	3,000	8,900	Ext, Upset
1,660	42,2	0,125	3,18	2,05	0,93	3,05	2,10	0,95	3,13	3,000	4,800	3,000	6,600	Integral Joint
		0,140	3,56	2,27	1,03	3,38	2,30	1,04	3,42	3,000	5,400	3,000	7,400	Non-Upset
		0,140	3,56	2,27	1,03	3,38	2,33	1,06	3,47	3,000	5,400	3,000	7,400	Integral Joint
		0,140	3,56	2,27	1,03	3,38	2,40	1,09	3,57	3,000	5,400	3,000	7,400	Ext, Upset
1,900	48,3	0,125	3,18	2,37	1,08	3,53	2,40	1,09	3,57	3,000	4,200	3,000	5,800	Integral Joint
		0,145	3,68	2,72	1,23	4,05	2,75	1,25	4,09	3,000	4,900	3,000	6,700	Non-Upset
		0,145	3,68	2,72	1,23	4,05	2,76	1,25	4,11	3,000	4,900	3,000	6,700	Integral Joint
		0,145	3,68	2,72	1,23	4,05	2,90	1,32	4,32	3,000	4,900	3,000	6,700	Ext, Upset
2,063	52,4	0,156	3,96	3,18	1,44	4,73	3,25	1,47	4,84	3,000	4,800	3,000	6,700	Integral Joint
2 3/8	60,3	0,167	4,24	3,94	1,79	5,86	4,00	1,81	5,95	3,000	4,500	3,000	6,200	Non-Upset
		0,190	4,83	4,44	2,01	6,59	4,60	2,09	6,85	3,000	5,100	3,000	7,000	Non-Upset
		0,190	4,83	4,44	2,01	6,59	4,70	2,13	6,99	3,000	5,100	3,000	7,000	Ext, Upset
2 7/8	73,0	0,217	5,51	6,17	2,79	9,17	6,40	2,90	9,52	3,000	4,800	3,000	6,600	Non-Upset
		0,217	5,51	6,17	2,79	9,17	6,50	2,95	9,67	3,000	4,800	3,000	6,600	Ext, Upset
3 1/2	88,9	0,216	5,49	7,58	3,44	11,28	7,70	3,49	11,46	3,000	3,900	3,000	5,400	Non-Upset
		0,254	6,45	8,81	4,00	13,11	9,20	4,17	13,69	3,000	4,600	3,000	6,400	Ext, Upset
		0,254	6,45	8,81	4,00	13,11	9,30	4,22	13,84	3,000	4,600	3,000	6,400	Ext, Upset
		0,289	7,34	9,92	4,50	14,75	10,20	4,63	15,18	3,000	5,300	3,000	7,300	Non-Upset
4	101,6	0,226	5,74	9,12	4,13	13,56	9,50	4,31	14,14	3,000	3,600	3,000	5,000	Non-Upset
		0,262	6,65	10,47	4,74	15,57	11,00	4,99	16,37	3,000	4,200	3,000	5,800	Ext, Upset
4 1/2	114,3	0,271	6,88	12,25	5,55	18,22	12,60	5,72	18,75	3,000	3,900	3,000	5,300	Non-Upset
		0,271	6,88	12,25	5,55	18,22	12,75	5,78	18,97	3,000	3,900	3,000	5,300	Ext, Upset

API 5CT CASING

Outside diameter		Wall thickness		Weight						Test pressure (psi)				Type of therad		
				Plain ends			Threaded & Coupling			H40		J55 & K55		Short	Long	Buttress
in.	mm	in.	mm	lb/ft	kg/ft	kg/m	lb/ft	kg/ft	kg/m	STD	ALT	STD	ALT			
4 1/2	114,30	0,205	5,21	9,41	4,26	13,99	9,50	4,31	14,14	2,900	-	3,000	4,000	x		
		0,224	5,69	10,24	4,64	15,22	10,50	4,76	15,63	-	-	3,000	4,400	x		x
		0,250	6,35	11,36	5,15	16,89	11,60	5,26	17,26	-	-	3,000	4,900	x	x	x
5	127,00	0,220	5,59	11,24	5,09	16,71	11,50	5,22	17,11	-	-	3,000	3,900	x		
		0,253	6,43	12,84	5,82	19,09	13,00	5,90	19,35	-	-	3,000	4,500	x	x	x
		0,296	7,52	14,88	6,74	22,13	15,00	6,80	22,32	-	-	3,000	5,200	x	x	x
5 1/2	139,70	0,244	6,20	13,71	6,21	20,39	14,00	6,35	20,83	2,800	-	3,000	3,900	x		
		0,275	6,99	15,36	6,96	22,84	15,50	7,03	23,07	-	-	3,000	4,400	x	x	x
		0,304	7,72	16,89	7,65	25,11	17,00	7,71	25,30	-	-	3,000	4,900	x	x	x
6 5/8	168,28	0,288	7,32	19,51	8,84	29,01	20,00	9,07	29,76	2,800	-	-	-	x		
		0,288	7,32	19,51	8,84	29,01	20,00	9,07	29,76	-	-	3,000	3,800	x	x	x
		0,352	8,94	23,60	10,70	35,09	24,00	10,89	35,72	-	-	3,000	4,700	x	x	x
7	177,80	0,231	5,87	16,72	7,57	24,85	17,00	7,71	25,30	2,100	-	-	-	x		
		0,272	6,91	19,56	8,86	29,08	20,00	9,07	29,76	2,500	-	3,000	3,400	x		
		0,317	8,05	22,65	10,26	33,68	23,00	10,43	34,23	-	-	3,000	4,000	x	x	x
		0,362	9,19	25,69	11,64	38,19	26,00	11,79	38,69	-	-	3,000	4,600	x	x	x
7 5/8	193,68	0,300	7,62	23,49	10,65	34,95	24,00	10,89	35,72	2,500	-	-	-	x		
		0,328	8,33	25,59	11,59	38,04	26,40	11,97	39,29	-	-	3,000	3,800	x	x	x
8 5/8	219,08	0,264	6,71	23,60	10,69	35,08	24,00	10,89	35,72	-	-	2,700	-	x		
		0,304	7,72	27,04	12,26	40,21	28,00	12,70	41,67	2,300	-	-	-	x		
		0,352	8,94	31,13	14,11	46,28	32,00	14,51	47,62	2,600	-	-	-	x		
		0,352	8,94	31,13	14,11	46,28	32,00	14,51	47,62	-	-	3,000	3,600	x	x	x
		0,400	10,16	35,17	15,94	52,30	36,00	16,33	53,58	-	-	3,000	4,100	x	x	x
9 5/8	244,48	0,312	7,92	31,06	14,07	46,18	32,30	14,65	48,07	2,100	-	-	-	x		
		0,352	8,94	34,89	15,81	51,88	36,00	16,33	53,58	2,300	-	-	-	x		
		0,352	8,94	34,89	15,81	51,88	36,00	16,33	53,58	-	-	3,000	3,200	x	x	x
		0,395	10,03	38,97	17,66	57,95	40,00	18,14	59,53	-	-	3,000	3,600	x	x	x
10 3/4	273,05	0,279	7,09	31,23	14,15	46,43	32,75	14,86	48,74	1,200	1,700	-	-	x		
		0,350	8,89	38,91	17,64	57,86	40,50	18,37	60,27	1,600	2,100	-	-	x		
		0,350	8,89	38,91	17,64	57,86	40,50	18,37	60,27	-	-	2,100	2,900	x		x
		0,400	10,16	44,26	20,06	65,81	45,50	20,64	67,71	-	-	2,500	3,300	x		x
		0,450	11,43	49,55	22,45	73,67	51,00	23,13	75,90	-	-	2,800	3,700	x		x
11 3/4	298,45	0,333	8,46	40,64	18,42	60,42	42,00	19,05	62,50	1,400	1,800	-	-	x		
		0,375	9,52	45,60	20,67	67,80	47,00	21,32	69,95	-	-	2,100	2,800	x		x
		0,435	11,05	52,62	23,85	78,23	54,00	24,49	80,36	-	-	2,400	3,300	x		x
		0,489	12,42	58,87	26,68	87,52	60,00	27,22	89,29	-	-	2,700	3,700	x		x
13 3/8	339,73	0,330	8,38	46,02	20,86	68,43	48,00	21,77	71,43	1,200	1,600	-	-	x		
		0,380	9,65	52,79	23,92	78,49	54,50	24,72	81,11	-	-	1,900	2,500	x		x
		0,430	10,92	59,50	26,97	88,47	61,00	27,67	90,78	-	-	2,100	2,800	x		x
		0,480	12,19	66,17	29,99	98,38	68,00	30,84	101,20	-	-	2,400	3,200	x		x
16	406,40	0,375	9,52	62,64	28,39	93,13	65,00	29,48	96,73	1,100	-	-	-	x		
		0,438	11,13	72,86	32,99	108,22	75,00	34,02	111,61	-	-	1,800	-	x		x
		0,495	12,57	82,05	37,18	121,99	84,00	38,10	125,01	-	-	2,000	-	x		x
18 5/8	473,08	0,435	11,05	84,59	38,33	125,77	87,50	39,69	130,22	1,100	-	1,500	-	x		
		0,435	11,05	84,59	38,33	125,77	87,50	39,69	130,22	-	-	1,500	-			x
20	508,00	0,438	11,13	91,59	41,51	136,19	94,00	42,64	139,89	1,100	-	1,400	-	x	x	
		0,438	11,13	91,59	41,51	136,19	94,00	42,64	139,89	-	-	1,400	-			x
		0,500	12,70	104,23	47,23	154,97	106,50	48,31	158,49	-	-	1,600	-	x	x	x

API 5CT TUBING (FULL–BODY HEAT TREATMENT)

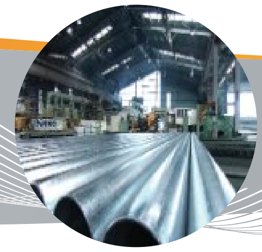
Outside diameter		Wall thickness		Weight						Test pressure (psi)					
				Plain ends			Threaded & Coupling			H40		J55 & K55		N80-1 & N80-Q	L80-1
in.	mm	in.	mm	lb/ft	kg/ft	kg/m	lb/ft	kg/ft	kg/m	STD	ALT	STD	ALT		
1,050	26,7	0,113	2,87	1,13	0,51	1,68	1,14	0,52	1,70	3,000	6,900	3,000	9,500	10000	10000
		0,113	2,87	1,13	0,51	1,68	1,20	0,54	1,79	3,000	6,900	3,000	9,500	-	-
1,315	33,4	0,133	3,38	1,68	0,76	2,50	1,70	0,77	2,53	3,000	6,500	3,000	8,900	10000	10000
		0,133	3,38	1,68	0,76	2,50	1,72	0,78	2,56	3,000	6,500	3,000	8,900	-	-
		0,133	3,38	1,68	0,76	2,50	1,80	0,82	2,68	3,000	6,500	3,000	8,900	-	-
1,660	42,2	0,125	3,18	2,05	0,93	3,05	2,10	0,95	3,13	3,000	4,800	3,000	6,600	-	-
		0,140	3,56	2,27	1,03	3,38	2,30	1,04	3,42	3,000	5,400	3,000	7,400	10000	10000
		0,140	3,56	2,27	1,03	3,38	2,33	1,06	3,47	3,000	5,400	3,000	7,400	-	-
		0,140	3,56	2,27	1,03	3,38	2,40	1,09	3,57	3,000	5,400	3,000	7,400	-	-
1,900	48,3	0,125	3,18	2,37	1,08	3,53	2,40	1,09	3,57	3,000	4,200	3,000	5,800	-	-
		0,145	3,68	2,72	1,23	4,05	2,75	1,25	4,09	3,000	4,900	3,000	6,700	9800	9800
		0,145	3,68	2,72	1,23	4,05	2,76	1,25	4,11	3,000	4,900	3,000	6,700	-	-
		0,145	3,68	2,72	1,23	4,05	2,90	1,32	4,32	3,000	4,900	3,000	6,700	-	-
2,063	52,4	0,156	3,96	3,18	1,44	4,73	3,25	1,47	4,84	3,000	4,800	3,000	6,700	9700	9700
2 3/8	60,3	0,167	4,24	3,94	1,79	5,86	4,00	1,81	5,95	3,000	4,500	3,000	6,200	9000	9000
		0,190	4,83	4,44	2,01	6,59	4,60	2,09	6,85	3,000	5,100	3,000	7,000	10000	10000
		0,190	4,83	4,44	2,01	6,59	4,70	2,13	6,99	3,000	5,100	3,000	7,000	-	-
2 7/8	73,0	0,217	5,51	6,17	2,79	9,17	6,40	2,90	9,52	3,000	4,800	3,000	6,600	9700	9700
		0,217	5,51	6,17	2,79	9,17	6,50	2,95	9,67	3,000	4,800	3,000	6,600	-	-
3 1/2	88,9	0,216	5,49	7,58	3,44	11,28	7,70	3,49	11,46	3,000	3,900	3,000	5,400	7900	7900
		0,254	6,45	8,81	4,00	13,11	9,20	4,17	13,69	3,000	4,600	3,000	6,400	9300	9300
		0,254	6,45	8,81	4,00	13,11	9,30	4,22	13,84	3,000	4,600	3,000	6,400	-	-
		0,289	7,34	9,92	4,50	14,75	10,20	4,63	15,18	3,000	5,300	3,000	7,300	10000	10000
4	101,6	0,226	5,74	9,12	4,13	13,56	9,50	4,31	14,14	3,000	3,600	3,000	5,000	7200	7200
		0,262	6,65	10,47	4,74	15,57	11,00	4,99	16,37	3,000	4,200	3,000	5,800	8400	8400
4 1/2	114,3	0,271	6,88	12,25	5,55	18,22	12,60	5,72	18,75	3,000	3,900	3,000	5,300	7700	7700
		0,271	6,88	12,25	5,55	18,22	12,75	5,78	18,97	3,000	3,900	3,000	5,300	-	-

API 5CT CASING (FULL–BODY HEAT TREATMENT)

Outside diameter		Wall thickness		Weight						Test pressure (psi)					
				Plain ends			Threaded & Coupling			H40		J55 & K55		N80-1 & N80-Q	L80-1
in.	mm	in.	mm	lb/ft	kg/ft	kg/m	lb/ft	kg/ft	kg/m	STD	ALT	STD	ALT		
4 1/2	114,30	0,205	5,21	9,41	4,26	13,99	9,50	4,31	14,14	2,900	-	3,000	4,000	-	-
		0,224	5,69	10,24	4,64	15,22	10,50	4,76	15,63	-	-	3,000	4,400	-	-
		0,250	6,35	11,36	5,15	16,89	11,60	5,26	17,26	-	-	3,000	4,900	7100	7100
5	127,00	0,220	5,59	11,24	5,09	16,71	11,50	5,22	17,11	-	-	3,000	3,900	-	-
		0,253	6,43	12,84	5,82	19,09	13,00	5,90	19,35	-	-	3,000	4,500	-	-
		0,296	7,52	14,88	6,74	22,13	15,00	6,80	22,32	-	-	3,000	5,200	7600	7600
5 1/2	139,70	0,244	6,20	13,71	6,21	20,39	14,00	6,35	20,83	2,800	-	3,000	3,900	-	-
		0,275	6,99	15,36	6,96	22,84	15,50	7,03	23,07	-	-	3,000	4,400	-	-
		0,304	7,72	16,89	7,65	25,11	17,00	7,71	25,30	-	-	3,000	4,900	7100	7100
6 5/8	168,28	0,288	7,32	19,51	8,84	29,01	20,00	9,07	29,76	2,800	-	-	-	-	-
		0,288	7,32	19,51	8,84	29,01	20,00	9,07	29,76	-	-	3,000	3,800	-	-
		0,352	8,94	23,60	10,70	35,09	24,00	10,89	35,72	-	-	3,000	4,700	5800	5800
7	177,8	0,231	5,87	16,72	7,57	24,85	17,00	7,71	25,30	2,100	-	-	-	-	-
		0,272	6,91	19,56	8,86	29,08	20,00	9,07	29,76	2,500	-	3,000	3,400	-	-
		0,317	8,05	22,65	10,26	33,68	23,00	10,43	34,23	-	-	3,000	4,000	5800	5800
		0,362	9,19	25,69	11,64	38,19	26,00	11,79	38,69	-	-	3,000	4,600	6600	6600

CARBON STEEL PIPE IN BLACK & HOT – DIPPED ZINC – COATED (ASTM A53)

NPS Designator	Outside diameter		Wall thickness		Nominal weight			Weight class	Schedule No.	Test pressure			
					Plain ends					Plain ends			
										Grade A		Grade B	
in.	in.	mm	in.	mm	lb/ft	kg/ft	kg/m			psi	kPa	psi	kPa
1/2	0,840	21,3	0,109	2,77	0,85	0,39	1,27	STD	40	700	4830	700	4830
			0,147	3,73	1,09	0,49	1,62	XS	80	850	5860	850	5860
3/4	1,050	26,7	0,113	2,87	1,13	0,51	1,69	STD	40	700	4830	700	4830
			0,154	3,91	1,48	0,67	2,20	XS	80	850	5860	850	5860
1	1,315	33,4	0,133	3,38	1,68	0,76	2,50	STD	40	700	4830	700	4830
			0,179	4,55	2,17	0,98	3,24	XS	80	850	5860	850	5860
1 1/4	1,660	42,2	0,140	3,56	2,27	1,03	3,39	STD	40	1200	8270	1300	8960
			0,191	4,85	3,00	1,36	4,47	XS	80	1800	12410	1900	13100
1 1/2	1,900	48,3	0,145	3,68	2,72	1,23	4,05	STD	40	1200	8270	1300	8960
			0,200	5,08	3,63	1,65	5,41	XS	80	1800	12410	1900	13100
2	2,375	60,3	0,154	3,91	3,66	1,66	5,44	STD	40	2300	15860	2500	17240
			0,218	5,54	5,03	2,28	7,48	XS	80	2500	17240	2500	17240
2 1/2	2,875	73,0	0,203	5,16	5,80	2,63	8,63	STD	40	2500	17240	2500	17240
			0,276	7,01	7,67	3,48	11,41	XS	80	2500	17240	2500	17240
3	3,500	88,9	0,216	5,49	7,58	3,44	11,29	STD	40	2220	15310	2500	17240
			0,300	7,62	10,26	4,65	15,27	XS	80	2500	17240	2500	17240
3 1/2	4,000	101,6	0,226	5,74	9,12	4,14	13,57	STD	40	2030	14000	2370	16340
			0,318	8,08	12,52	5,68	18,63	XS	80	2800	19310	2800	19310
4	4,500	114,3	0,237	6,02	10,80	4,90	16,07	STD	40	1900	13100	2210	15240
			0,337	8,56	15,00	6,80	22,32	XS	80	2700	18620	2800	19310
5	5,563	141,3	0,258	6,55	14,63	6,64	21,77	STD	40	1670	11510	1950	13440
			0,375	9,52	20,80	9,43	30,94	XS	80	2430	16750	2800	19310
6	6,625	168,3	0,280	7,11	18,90	8,61	28,26	STD	40	1520	10480	1780	12270
			0,432	10,97	28,60	12,97	42,56	XS	80	2350	16200	2740	18890
8	8,625	219,1	0,250	6,35	22,38	10,15	33,31	-	20	1040	7170	1220	8410
			0,322	8,18	28,58	12,97	42,55	STD	40	1340	9240	1570	10820
			0,500	12,70	43,43	19,70	64,64	XS	80	2090	14410	2430	16750
10	10,750	273,0	0,250	6,35	28,00	12,73	41,75	-	20	840	5790	980	6760
			0,365	9,27	40,52	18,38	60,29	STD	40	1220	8410	1430	9860
			0,500	12,70	54,79	24,85	81,52	XS	60	1670	11510	1950	13440
12	12,750	323,8	0,250	6,35	33,41	15,15	49,71	-	20	710	4900	820	5650
			0,375	9,52	49,61	22,50	73,78	STD	-	1060	7310	1240	8550
			0,406	10,31	53,57	24,32	79,70	-	40	1150	7930	1340	9240
			0,500	12,70	65,48	29,70	97,43	XS	-	1410	9720	1650	11380
14	14,000	355,6	0,250	6,35	36,75	16,67	54,69	-	10	640	4410	750	5170
			0,312	7,92	45,65	20,71	67,90	-	20	800	5520	940	6480
			0,375	9,52	54,62	24,78	81,25	STD	30	960	6620	1120	7720
			0,438	11,13	63,60	28,80	94,55	-	40	1130	7790	1310	9030
			0,500	12,70	72,16	32,73	107,39	XS	-	1290	8890	1500	10340
16	16,000	406,4	0,250	6,35	42,09	19,09	62,64	-	10	560	3860	660	4550
			0,312	7,92	52,32	23,73	77,83	-	20	700	4830	820	5650
			0,375	9,52	62,64	28,41	93,17	STD	30	840	5790	980	6760
			0,500	12,70	82,85	37,58	123,30	XS	40	1120	7720	1310	9030
18	18,000	457,2	0,250	6,35	47,44	21,52	70,60	-	10	500	3450	580	4000
			0,312	7,92	58,99	26,76	87,75	-	20	620	4270	730	5030
			0,375	9,52	70,65	32,85	105,10	STD	-	750	5170	880	6070
			0,438	11,13	82,23	37,30	122,43	-	30	880	6070	1020	7030
			0,500	12,70	93,54	42,43	139,20	XS	-	1000	6890	1170	8070
20	20,000	508,0	0,250	6,35	52,78	23,94	78,55	-	10	450	3100	520	3590
			0,375	9,52	78,67	35,68	117,02	STD	20	680	4690	790	5450
			0,500	12,70	104,23	47,28	155,12	XS	30	900	6210	1050	7240



LINE PIPE (API 5L)

Nominal size	Outside diameter		Wall thickness			Weight			Test pressure							
									A				B			
									STD		ALT		STD		ALT	
in.	in.	mm	Grade	in.	mm	lb/ft	kg/ft	kg/m	psi	kPa×100	psi	kPa×100	psi	kPa×100	psi	kPa×100
3/8	0.675	17.1	STD	0.091	2.3	0.57	0.26	0.84	700	48	-	-	700	48	-	-
			XS	0.126	3.2	0.74	0.36	1.10	850	59	-	-	850	59	-	-
1/2	0.840	21.3	STD	0.109	2.8	0.85	0.40	1.28	700	48	-	-	700	48	-	-
			XS	0.147	3.7	1.09	0.35	1.61	580	59	-	-	850	59	-	-
3/4	1.050	26.7	STD	0.113	2.9	1.13	0.52	1.70	700	48	-	-	700	48	-	-
			XS	0.154	3.9	1.47	0.67	2.19	850	59	-	-	850	59	-	-
1	1.315	33.4	STD	0.133	3.4	1.68	0.77	2.52	700	48	-	-	700	48	-	-
			XS	0.179	4.5	2.17	0.98	3.21	850	59	-	-	850	59	-	-
1 1/4	1.660	42.2	STD	0.140	3.6	2.27	1.05	3.43	1200	83	-	-	1300	90	-	-
			XS	0.191	4.9	3.00	1.38	4.51	1800	124	-	-	1900	131	-	-
1 1/2	1.900	48.3	STD	0.145	3.7	2.72	1.24	4.07	1200	83	-	-	1300	90	-	-
			XS	0.200	5.1	3.63	1.66	5.43	1800	124	-	-	1900	131	-	-
2 3/8	2.375	60.3		0.083	2.1	2.03	0.92	3.01	1260	87	1570	-	1470	101	1830	-
				0.109	2.8	2.64	1.21	3.97	1650	-	2070	-	1930	-	2410	-
				0.125	3.2	3.00	1.37	4.51	1890	-	2370	-	2210	-	2500	-
				0.141	3.6	3.36	1.53	5.03	2140	-	2500	-	2490	-	2500	-
			STD	0.154	3.9	3.65	1.65	5.42	2330	161	2500	-	2500	172	2500	-
				0.172	4.4	4.05	1.85	6.07	2500	172	2500	-	2500	172	2500	-
				0.188	4.8	4.39	2.00	6.57	2500	172	2500	-	2500	172	2500	-
			XS	0.218	5.5	5.02	2.26	7.43	2500	172	2500	-	2500	172	2500	-
				0.250	6.4	5.67	2.59	8.51	2500	172	2500	-	2500	172	2500	-
				0.281	7.1	6.28	2.84	9.31	2500	172	2500	-	2500	172	2500	-
2 7/8	2.875	73.0		0.083	2.1	2.47	1.12	3.67	1040	71	1300	-	1210	83	1210	-
				0.109	2.8	3.22	1.48	4.85	1360	-	1710	-	1590	-	1590	-
				0.125	3.2	3.67	1.68	5.51	1570	-	1960	-	1830	-	1830	-
				0.141	3.6	4.12	1.88	6.16	1770	-	2210	-	2060	-	2060	-
				0.156	4.0	4.53	2.08	6.81	1950	136	2440	-	2280	158	2280	-
				0.172	4.4	4.97	2.27	7.44	2150	150	2500	-	2500	172	2500	-
				0.188	4.8	5.40	2.46	8.07	2350	163	2500	-	2500	172	2500	-
			STD	0.203	5.2	5.79	2.65	8.69	2500	172	2500	-	2500	172	2500	-
				0.216	5.5	6.13	2.79	9.16	2500	172	2500	-	2500	172	2500	-
				0.250	6.4	7.01	3.20	10.51	2500	172	2500	-	2500	172	2500	-
			XS	0.276	7.0	7.66	3.47	11.39	2500	172	2500	-	2500	172	2500	-
3 1/2	3.500	88.9		0.083	2.1	3.03	1.37	4.50	850	59	1070	-	1000	68	1250	-
				0.109	2.8	3.95	1.81	5.95	1120	-	1400	-	1310	-	1640	-
				0.125	3.2	4.51	2.06	6.76	1290	89	1610	-	1500	104	1880	-
				0.141	3.6	5.06	2.31	7.57	1450	-	1810	-	1690	-	2120	-
				0.156	4.0	5.57	2.55	8.37	1600	112	2010	-	1870	130	2340	-
				0.172	4.4	6.61	2.80	9.17	1770	123	2210	-	2060	143	2500	-
				0.188	4.8	6.65	3.03	9.95	1930	134	2420	-	2260	156	2500	-
			STD	0.216	5.5	7.58	3.45	11.31	2220	154	2500	-	2500	172	2500	-
				0.250	6.4	8.68	3.97	13.02	2500	172	2500	-	2500	172	2500	-
				0.281	7.1	9.66	4.36	14.32	2500	172	2500	-	2500	172	2500	-
			XS	0.300	7.6	10.25	4.65	15.24	2500	172	2500	-	2500	172	2500	-
4	4.000	101.6		0.083	2.1	3.47	1.57	5.15	750	51	930	-	870	60	1090	-
				0.109	2.8	4.53	2.08	6.82	980	68	1230	-	1140	80	1430	-
				0.125	3.2	5.17	2.37	7.76	1130	78	1410	-	1310	91	1640	-
				0.141	3.6	5.81	2.65	8.70	1270	88	1590	-	1480	102	1850	-
				0.156	4.0	6.40	2.94	9.63	1400	98	1760	-	1640	114	2050	-
				0.172	4.4	7.03	3.22	10.55	1550	108	1940	-	1810	125	2260	-
				0.188	4.8	7.65	3.49	11.46	1690	117	2120	-	1970	137	2470	-
			STD	0.226	5.7	9.11	4.11	13.48	1930	139	2540	-	2370	162	2800	-
				0.250	6.4	10.01	4.58	15.02	2250	156	2800	-	2630	182	2800	-
				0.281	7.1	11.16	5.04	16.55	2350	174	2800	-	2800	193	2800	-
			XS	0.318	8.1	12.50	5.69	18.68	2800	193	2800	-	2800	193	2800	-

Nominal size	Wall thickness	Test pressure															
		X42		X46		X52		X56		X60		X65		X70		X80	
		STD	ALT	STD	ALT	STD	ALT	STD	ALT	STD	ALT	STD	ALT	STD	ALT	STD	ALT
in.	in.	psi	psi	psi	psi	psi	psi	psi	psi	psi	psi	psi	psi	psi	psi	psi	psi
3/8	0.091	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0.126	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1/2	0.109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0.147	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/4	0.113	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0.154	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	0.133	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0.179	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1 1/4	0.140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0.191	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1 1/2	0.145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2 3/8	0.083	1760	2200	1930	2410	2180	2730	2350	2940	2520	3000	2730	3000	2940	3000	3000	3000
	0.109	2310	2890	2530	3000	2860	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	0.125	2650	3000	2910	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	0.141	2990	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	0.154	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	0.172	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	0.188	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	0.218	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	0.250	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	0.281	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
2 7/8	0.083	1460	1820	1590	1990	1800	2250	1940	2430	2030	2600	2250	2310	2430	3000	2770	3000
	0.109	1910	2390	2090	2620	2370	2960	2550	3000	2730	3000	2960	3000	3000	3000	3000	3000
	0.125	2190	2740	2400	3000	2710	3000	2920	3000	3000	3000	3000	3000	3000	3000	3000	3000
	0.141	2470	3000	2710	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	0.156	2730	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	0.172	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	0.188	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	0.203	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	0.216	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	0.250	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	0.276	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
3 1/2	0.083	1200	1490	1310	1640	1480	1850	1590	1990	1710	2130	1850	2310	1990	2490	2280	2850
	0.109	1570	1960	1720	2150	1940	2430	2090	2620	2240	2800	2430	3000	2620	3000	2990	3000
	0.125	1800	2250	1970	2460	2230	2790	2400	3000	2570	3000	2790	3000	3000	3000	3000	3000
	0.141	2030	2540	2220	2780	2510	3000	2710	3000	2900	3000	3000	3000	3000	3000	3000	3000
	0.156	2250	2810	2460	3000	2780	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	0.172	2480	3000	2710	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	0.188	2710	3000	2970	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	0.216	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	0.250	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	0.281	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	0.300	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
4	0.083	1050	1430	1150	1430	1290	1620	1390	1740	1490	1870	1620	2020	1740	2180	1990	2490
	0.109	1370	1720	1500	1880	1700	2130	1830	2290	1960	2450	2130	2660	2290	2860	2620	3000
	0.125	1580	1970	1730	2160	1950	2440	2100	2630	2250	2810	2440	3000	2630	3000	3000	3000
	0.141	1780	2220	1950	2430	2200	2750	2370	2960	2540	3000	2750	3000	2960	3000	3000	3000
	0.156	1970	2460	2150	2690	2430	3000	2620	3000	2810	3000	3000	3000	3000	3000	3000	3000
	0.172	2170	2710	2370	2970	2680	3000	2890	3000	3000	3000	3000	3000	3000	3000	3000	3000
	0.188	2370	2960	2590	3000	2930	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	0.226	2850	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	0.250	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	0.281	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	0.318	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000

LINE PIPE (API 5L)

Nominal size	Outside diameter		Wall thickness			Weight			Test pressure							
									A				B			
									STD		ALT		STD		ALT	
in.	in.	mm	Grade	in.	mm	lb/ft	kg/ft	kg/m	psi	kPa×100	psi	kPa×100	psi	kPa×100	psi	kPa×100
4 1/2	4,500	114,3		0,083	2,1	3,92	1,77	5,81	660	46	830	-	770	53	970	-
				0,125	3,2	5,84	2,67	8,77	1000	70	1250	-	1170	81	1460	-
				0,141	3,6	6,56	3,00	9,83	1130	78	1410	-	1320	91	1650	-
				0,156	4,0	7,24	3,32	10,88	1250	87	1560	-	1460	101	1820	-
				0,172	4,4	7,95	3,36	11,92	1380	96	1720	-	1610	111	2010	-
				0,188	4,8	8,66	3,95	12,96	1500	104	1880	-	1750	121	2190	-
				0,203	5,2	9,32	4,26	13,99	1620	113	2030	-	1890	132	2370	-
				0,219	5,6	10,01	4,58	15,01	1750	122	2190	-	2040	142	2560	-
			STD	0,237	6,0	10,79	4,88	16,02	1900	130	2370	-	2210	152	2770	-
				0,250	6,4	11,35	5,19	17,03	2000	139	2500	-	2330	162	2800	-
				0,281	7,1	12,66	5,72	18,77	2250	154	2800	-	2620	180	2800	-
				0,312	7,9	13,96	6,32	20,73	2500	172	2800	-	2800	193	2800	-
				0,337	8,6	14,98	6,83	22,42	2700	187	2800	-	2800	193	2800	-
				0,438	11,1	19,00	8,61	28,25	2800	193	2800	-	2800	193	2800	-
			XS	0,531	13,5	22,51	10,23	33,56	2800	193	2800	-	2800	193	2800	-
5 9/16	5,563	141,3		0,083	2,1	4,86	2,20	7,21	540	37	-	-	630	43	-	-
				0,125	3,2	7,26	3,32	10,90	810	56	-	-	940	65	-	-
				0,156	4,0	9,01	4,13	13,54	1010	70	-	-	1180	82	-	-
				0,188	4,8	10,79	4,93	16,16	1220	84	-	-	1420	98	-	-
				0,219	5,6	12,50	5,71	18,74	1420	98	-	-	1650	115	-	-
			STD	0,258	6,6	14,62	6,68	21,92	1670	116	-	-	1950	135	-	-
				0,281	7,1	15,85	7,16	23,50	1820	125	-	-	2120	145	-	-
				0,312	7,9	17,50	7,92	25,99	2020	139	-	-	2360	162	-	-
				0,344	8,7	19,17	8,67	28,45	2230	153	-	-	2600	178	-	-
			XS	0,375	9,5	20,78	9,41	30,88	2430	167	-	-	2800	193	-	-
				0,500	12,7	27,04	12,28	40,28	2800	193	-	-	2800	193	-	-
				0,625	15,9	32,96	14,99	49,17	2800	193	-	-	2800	193	-	-
6 5/8	6,625	168,3		0,083	2,1	5,80	2,62	8,61	450	31	560	39	530	37	660	45
				0,109	2,8	7,59	3,48	11,43	590	41	740	51	690	48	860	59
				0,125	3,2	8,68	3,97	13,03	680	47	850	59	790	54	990	68
				0,141	3,6	9,76	4,46	14,62	770	53	960	66	890	61	1120	77
				0,156	4,0	10,78	4,94	16,21	850	59	1060	73	990	68	1240	85
				0,172	4,4	11,85	5,42	17,78	930	64	1170	81	1090	75	1360	94
				0,188	4,8	12,92	5,90	19,35	1020	70	1280	88	1190	82	1490	103
				0,203	5,2	13,92	6,37	20,91	1100	76	1380	95	1290	89	1610	111
				0,219	5,6	14,98	6,85	22,47	1190	82	1490	103	1390	96	1740	120
				0,250	6,4	17,02	7,79	25,55	1360	94	1700	117	1580	109	1980	136
			STD	0,280	7,1	18,97	8,60	28,22	1520	105	1900	131	1780	123	2220	153
				0,312	7,9	21,04	9,53	31,25	1700	117	2120	146	1980	136	2470	170
				0,344	8,7	23,08	10,44	34,24	1870	129	2340	161	2180	150	2500	172
				0,375	9,5	25,03	11,34	37,20	2040	141	2550	176	2380	164	2800	193
			XS	0,432	11,0	28,57	13,01	42,67	2350	-	2800	-	2740	-	2800	-
				0,500	12,7	32,71	14,85	48,73	2720	187	2800	193	2800	193	2800	193
				0,562	14,3	36,39	16,55	54,31	2800	193	2800	193	2800	193	2800	193
				0,625	15,9	40,05	18,21	59,76	2800	193	2800	193	2800	193	2800	193
				0,719	18,3	45,35	20,26	67,69	2800	193	2800	193	2800	193	2800	193
				0,750	19,1	47,06	21,42	70,27	2800	193	2800	193	2800	193	2800	193

Test pressure															
X42		X46		X52		X56		X60		X65		X70		X80	
STD	ALT	STD	ALT	STD	ALT	STD	ALT	STD	ALT	STD	ALT	STD	ALT	STD	ALT
psi	psi	psi	psi	psi	psi	psi	psi	psi	psi	psi	psi	psi	psi	psi	psi
930	1160	1020	1270	1150	1440	1240	1550	1330	1660	1440	1800	1550	1940	1770	2210
1400	1750	1530	1920	1730	2170	1870	2330	2000	2500	2170	2710	2330	2920	2670	3000
1580	1970	1730	2160	1960	2440	2110	2630	2260	2820	2440	3000	2630	3000	3000	3000
1750	2180	1910	2390	2160	2700	2330	2910	2500	3000	2700	3000	2910	3000	3000	3000
1930	2410	2110	2640	2390	2980	2570	3000	2750	3000	2980	3000	3000	3000	3000	3000
2110	2630	2310	2880	2610	3000	2810	3000	3000	3000	3000	3000	3000	3000	3000	3000
2270	2840	2490	3000	2810	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
2450	3000	2690	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
2650	3000	2910	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
2800	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
750	-	820	-	930	-	1000	-	1040	-	1160	-	1250	-	1430	-
1130	-	1240	-	1400	-	1500	-	1630	-	1750	-	1890	-	2160	-
1410	-	1550	-	1750	-	1910	-	2020	-	2120	-	2360	-	2690	-
1700	-	1870	-	2110	-	2270	-	2430	-	2640	-	2840	-	3000	-
1990	-	2170	-	2460	-	2650	-	2830	-	3000	-	3000	-	3000	-
2340	-	2560	-	2890	-	3000	-	3000	-	3000	-	3000	-	3000	-
2550	-	2790	-	3000	-	3000	-	3000	-	3000	-	3000	-	3000	-
3000	-	3000	-	3000	-	3000	-	3000	-	3000	-	3000	-	3000	-
3000	-	3000	-	3000	-	3000	-	3000	-	3000	-	3000	-	3000	-
3000	-	3000	-	3000	-	3000	-	3000	-	3000	-	3000	-	3000	-
3000	-	3000	-	3000	-	3000	-	3000	-	3000	-	3000	-	3000	-
3000	-	3000	-	3000	-	3000	-	3000	-	3000	-	3000	-	3000	-
790	-	860	-	980	-	1050	-	1130	-	1220	-	1320	-	1500	-
1040	-	1140	-	1280	-	1380	-	1480	-	1600	-	1730	-	1970	-
1190	-	1300	-	1470	-	1580	-	1700	-	1840	-	1980	-	2260	-
1340	-	1470	-	1660	-	1790	-	1920	-	2080	-	2230	-	2550	-
1480	-	1620	-	1840	-	1980	-	2120	-	2300	-	2470	-	2830	-
1640	-	1790	-	2030	-	2180	-	2340	-	2530	-	2730	-	3000	-
1790	-	1960	-	2210	-	2380	-	2550	-	2770	-	2980	-	3000	-
1930	-	2110	-	2390	-	2570	-	2760	-	2990	-	3000	-	3000	-
2080	-	2280	-	2580	-	2780	-	2980	-	3000	-	3000	-	3000	-
2380	-	2600	-	2940	-	3000	-	3000	-	3000	-	3000	-	3000	-
2660	-	2920	-	3000	-	3000	-	3000	-	3000	-	3000	-	3000	-
2970	-	3000	-	3000	-	3000	-	3000	-	3000	-	3000	-	3000	-
3000	-	3000	-	3000	-	3000	-	3000	-	3000	-	3000	-	3000	-
3000	-	3000	-	3000	-	3000	-	3000	-	3000	-	3000	-	3000	-
3000	-	3000	-	3000	-	3000	-	3000	-	3000	-	3000	-	3000	-
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3000	-	3000	-	3000	-	3000	-	3000	-	3000	-	3000	-	3000	-
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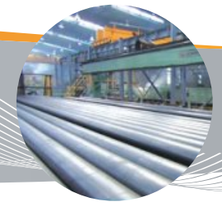


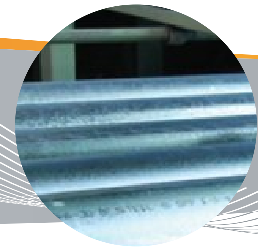
LINE PIPE (API 5L)

Nominal size	Outside diameter		Wall thickness			Weight			Test pressure							
									A				B			
									STD		ALT		STD		ALT	
in.	in.	mm	Grade	in.	mm	lb/ft	kg/ft	kg/m	psi	kPa×100	psi	kPa×100	psi	kPa×100	psi	kPa×100
8 5/8	8.625	219.1		0.125	3.2	11.35	5.19	17.04	520	36	650	45	610	42	760	52
				0.156	4.0	14.11	6.47	21.22	650	45	810	56	760	52	950	65
				0.188	4.8	16.94	7.73	25.37	780	54	980	68	920	63	1140	79
				0.203	5.2	18.26	8.36	27.43	850	-	1060	-	990	-	1240	-
				0.219	5.6	19.66	8.99	29.48	910	63	1140	79	1070	74	1330	92
				0.250	6.4	22.36	10.23	33.57	1040	72	1300	90	1220	84	1520	105
				0.277	7.0	24.70	11.16	36.61	1160	80	1450	100	1350	93	1690	116
				0.312	7.9	27.70	12.54	41.14	1300	90	1630	112	1520	105	1900	131
			STD	0.322	8.2	28.55	13.00	42.65	1340	92	1680	116	1570	108	1960	135
				0.344	8.7	30.42	13.76	45.14	1440	99	1790	123	1680	116	2090	144
				0.375	9.5	33.04	14.97	49.10	1570	108	1960	135	1830	126	2280	157
				0.438	11.1	38.30	17.36	56.94	1830	126	2290	158	2130	147	2670	184
			XS	0.500	12.7	43.39	19.70	64.64	2090	-	2610	-	2430	-	2800	-
				0.562	14.3	48.40	22.10	72.22	2350	162	2800	193	2740	189	2800	193
				0.625	15.9	53.40	24.28	79.67	2610	180	2800	193	2800	193	2800	193
				0.719	18.3	60.71	27.62	90.62	2800	193	2800	193	2800	193	2800	193
				0.750	19.1	63.08	28.71	94.20	2800	193	2800	193	2800	193	2800	193
				0.812	20.6	67.76	30.74	100.84	2800	193	2800	193	2800	193	2800	193
10 3/4	10.750	273.1		0.156	4.0	17.65	8.09	26.54	520	36	650	45	610	42	760	52
				0.188	4.8	21.21	9.68	31.76	630	43	790	54	730	50	920	63
				0.203	5.2	22.87	10.47	34.35	680	-	850	-	790	-	990	-
				0.219	5.6	24.63	11.26	36.94	730	50	920	63	860	59	1070	74
				0.250	6.4	28.04	12.83	42.09	840	58	1050	72	980	68	1220	84
				0.279	7.1	31.20	14.19	46.57	930	64	1170	81	1090	75	1360	94
				0.307	7.8	34.24	15.55	51.03	1030	71	1290	89	1200	83	1500	103
				0.344	8.7	38.23	17.29	56.72	1150	79	1440	99	1340	92	1680	116
			STD	0.365	9.3	40.48	18.44	60.50	1220	84	1530	105	1430	99	1780	123
				0.438	11.1	48.24	21.86	71.72	1470	101	1830	126	1710	118	2140	147
			XS	0.500	12.7	54.74	24.86	81.55	1670	-	2090	-	1950	-	2440	-
				0.562	14.3	61.15	27.82	91.26	1880	130	2350	162	2200	152	2740	189
				0.625	15.9	67.58	30.74	100.85	2090	144	2620	181	2440	168	2800	193
				0.719	18.3	77.03	35.05	114.99	2410	166	2800	193	2800	193	2800	193
				0.812	20.6	86.18	39.10	128.27	2720	187	2800	193	2800	193	2800	193
				0.875	22.2	92.28	41.87	137.36	2800	193	2800	193	2800	193	2800	193
				0.938	23.8	98.30	44.59	146.30	2800	193	2800	193	2800	193	2800	193
12 3/4	12.750	323.9		0.172	4.4	23.11	10.57	34.67	490	34	610	42	570	39	710	49
				0.188	4.8	25.22	11.51	37.77	530	37	660	45	620	43	770	53
				0.203	5.2	27.20	12.46	40.87	570	-	720	-	670	-	840	-
				0.219	5.6	29.31	13.40	43.96	620	43	770	53	720	50	900	62
				0.250	6.4	33.38	15.27	50.11	710	49	880	61	820	56	1030	71
				0.281	7.1	37.42	16.91	55.47	790	54	990	68	930	64	1160	80
				0.312	7.9	41.45	18.76	61.56	880	61	1100	73	1030	71	1280	88
				0.330	8.4	43.77	19.92	65.35	930	64	1160	80	1090	75	1360	94
				0.344	8.7	45.58	20.61	67.62	970	67	1210	83	1130	78	1420	98
			STD	0.375	9.5	49.56	22.45	73.65	1060	73	1320	91	1240	85	1540	106
				0.406	10.3	53.52	24.28	79.65	1150	-	1430	-	1340	-	1670	-
				0.438	11.1	57.59	26.10	85.62	1240	85	1550	107	1440	99	1800	124
			XS	0.500	12.7	65.42	29.71	97.46	1410	-	1760	-	1650	-	2060	-
				0.562	14.3	73.15	33.28	109.18	1590	110	1980	136	1850	127	2310	159
				0.625	15.9	80.93	36.81	120.76	1760	121	2210	152	2060	142	2570	177
				0.688	17.5	88.63	40.30	132.23	1940	134	2430	167	2270	156	2800	193
				0.750	19.1	96.12	43.76	143.56	2120	146	2650	183	2470	170	2800	193
				0.812	20.6	103.53	49.96	154.08	2290	158	2800	193	2670	184	2800	193
				0.875	22.2	110.97	50.34	165.17	2470	170	2800	193	2800	193	2800	193
				0.938	23.8	119.33	53.68	176.13	2650	183	2800	193	2800	193	2800	193

Test pressure							
X42	X46	X52	X56	X60	X65	X70	X80
psi	psi	psi	psi	psi	psi	psi	psi
910	1000	1130	1220	1300	1410	1520	1740
1140	1250	1410	1520	1630	1760	1900	2170
1370	1500	1700	1830	1960	2130	2290	2620
1480	1620	1840	2000	2120	2290	2470	2820
1600	1750	1980	2130	2290	2480	2670	3000
1830	2000	2260	2430	2610	2830	3000	3000
2020	2220	2510	2700	2890	3000	3000	3000
2280	2500	2820	3000	3000	3000	3000	3000
2350	2580	2910	3000	3000	3000	3000	3000
2510	2750	3000	3000	3000	3000	3000	3000
2740	3000	3000	3000	3000	3000	3000	3000
3000	3000	3000	3000	3000	3000	3000	3000
3000	3000	3000	3000	3000	3000	3000	3000
3000	3000	3000	3000	3000	3000	3000	3000
3000	3000	3000	3000	3000	3000	3000	3000
3000	3000	3000	3000	3000	3000	3000	3000
3000	3000	3000	3000	3000	3000	3000	3000
1040	1130	1280	1380	1480	1600	1730	1970
1250	1370	1550	1660	1780	1930	2080	2380
1350	1480	1670	1800	1930	2090	2250	2570
1450	1590	1800	1940	2080	2250	2420	2770
1660	1820	2060	2210	2370	2570	2770	3000
1850	2030	2290	2470	2650	2870	3000	3000
2040	2230	2520	2720	2910	3000	3000	3000
2280	2500	2830	3000	3000	3000	3000	3000
2420	2660	3000	3000	3000	3000	3000	3000
2910	3000	3000	3000	3000	3000	3000	3000
3000	3000	3000	3000	3000	3000	3000	3000
3000	3000	3000	3000	3000	3000	3000	3000
3000	3000	3000	3000	3000	3000	3000	3000
3000	3000	3000	3000	3000	3000	3000	3000
3000	3000	3000	3000	3000	3000	3000	3000
3000	3000	3000	3000	3000	3000	3000	3000
3000	3000	3000	3000	3000	3000	3000	3000
960	1050	1190	1280	1380	1490	1610	1830
1050	1150	1300	1400	1500	1630	1750	2010
1140	1250	1410	1520	1620	1760	1890	2170
1230	1340	1520	1640	1750	1900	2040	2340
1400	1530	1730	1870	2000	2170	2330	2670
1570	1720	1950	2100	2250	2440	2620	3000
1750	1910	2160	2330	2500	2700	2910	3000
1850	2020	2290	2460	2640	2860	3000	3000
1930	2110	2390	2570	2750	2980	3000	3000
2100	2300	2600	2800	3000	3000	3000	3000
2270	2490	2810	3000	3000	3000	3000	3000
2450	2690	3000	3000	3000	3000	3000	3000
2800	3000	3000	3000	3000	3000	3000	3000
3000	3000	3000	3000	3000	3000	3000	3000
3000	3000	3000	3000	3000	3000	3000	3000
3000	3000	3000	3000	3000	3000	3000	3000
3000	3000	3000	3000	3000	3000	3000	3000
3000	3000	3000	3000	3000	3000	3000	3000
3000	3000	3000	3000	3000	3000	3000	3000
3000	3000	3000	3000	3000	3000	3000	3000

LINE PIPE (API 5L)

Nominal size	Outside diameter		Wall thickness			Weight			Test pressure															
									A				B				X42	X46	X52	X56	X60	X65	X70	X80
									STD		ALT		STD		ALT									
in.	in.	mm	Grade	in.	mm	lb/ft	kg/ft	kg/m	psi	kPa×100	psi	kPa×100	psi	kPa×100	psi	kPa×100	psi	psi	psi	psi	psi	psi	psi	psi
14	14,000	355,6		0,188	4,8	27,73	12,66	41,52	480	33	600	41	560	39	700	48	960	1050	1190	1280	1370	1480	1600	1830
				0,203	5,2	29,91	13,69	44,93	520	36	650	45	610	42	760	52	-	-	-	-	-	-	-	1970
				0,210	5,3	30,93	13,95	45,78	540	-	680	-	630	-	790	-	1070	1170	1330	1430	1530	1660	1790	2040
				0,219	5,6	32,23	14,73	48,33	560	-	700	-	660	-	820	-	1120	1220	1380	1490	1600	1730	1860	2130
				0,250	6,4	36,71	16,80	55,11	640	44	800	55	750	52	940	65	1280	1400	1580	1700	1820	1970	2130	2430
				0,281	7,1	41,17	18,60	61,02	720	50	900	62	840	58	1050	72	1430	1570	1770	1910	2050	2220	2390	2730
				0,312	7,9	45,61	20,65	67,74	800	55	1000	69	940	65	1170	81	1590	1740	1970	2120	2270	2460	2650	3000
				0,344	8,7	50,17	22,68	74,42	880	61	1110	76	1030	71	1290	89	1750	1920	2170	2340	2510	2720	2920	3000
			STD	0,375	9,5	54,57	24,71	81,08	960	66	1210	83	1120	77	1410	97	1910	2090	2370	2550	2730	2960	3000	3000
				0,406	10,3	58,94	26,73	87,71	1040	-	1310		1220	-	1520	-	2070	2270	2560	2760	2960	3000	3000	3000
				0,438	11,1	63,44	28,74	94,30	1130	78	1410	97	1310	90	1640	113	2230	2450	2770	2980	3000	3000	3000	3000
				0,469	11,9	67,78	30,74	100,86	1210	-	1510		1410	-	1760	-	2390	2620	2960	3000	3000	3000	3000	3000
			XS	0,500	12,7	72,09	32,73	107,39	1290	89	1610	111	1500	103	1880	130	2550	2790	3000	3000	3000	3000	3000	3000
				0,562	14,3	80,66	36,69	120,36	1450	100	1810	125	1690	116	2110	145	2870	3000	3000	3000	3000	3000	3000	3000
				0,625	15,9	89,28	40,60	133,19	1610	111	2010	168	1880	130	2340	161	3000	3000	3000	3000	3000	3000	3000	3000
				0,688	17,5	97,81	44,47	145,91	1770	122	2210	152	2060	142	2580	178	3000	3000	3000	3000	3000	3000	3000	3000
				0,750	19,1	106,13	48,31	158,49	1930	133	2410	166	2250	155	2800	193	3000	3000	3000	3000	3000	3000	3000	3000
				0,812	20,6	114,37	51,87	170,18	2090	144	2610	180	2440	168	2800	193	3000	3000	3000	3000	3000	3000	3000	3000
				0,875	22,2	122,65	55,63	182,52	250	155	2800	193	2620	181	2800	193	3000	3000	3000	3000	3000	3000	3000	3000
				0,938	23,8	130,85	59,36	194,74	2412	166	2800	193	2800	193	2800	193	3000	3000	3000	3000	3000	3000	3000	3000
				1,000	25,4	138,84	63,04	206,83	2570	177	2800	193	2800	193	2800	193	3000	3000	3000	3000	3000	3000	3000	3000
				1,062	27,0	146,74	66,69	218,79	2730	189	2800	193	2800	193	2800	193	3000	3000	3000	3000	3000	3000	3000	3000
				1,125	28,6	154,69	70,30	230,63	2800	193	2800	193	2800	193	2800	193	3000	3000	3000	3000	3000	3000	3000	3000
				1,250	31,8	170,21	77,21	253,31	2800	193	2800	193	2800	193	2800	193	3000	3000	3000	3000	3000	3000	3000	3000
16	16,000	406,4		0,188	4,8	31,75	14,49	47,54	420	29	530	37	490	34	620	43	840	920	1040	1120	1200	1300	1400	1600
				0,203	5,2	34,25	15,68	51,45	460	32	570	39	530	37	670	46	910	990	1120	1210	1290	1400	1510	1730
				0,219	5,6	36,91	16,87	55,35	490	34	620	43	570	39	720	50	980	1070	1210	1300	1400	1510	1630	1860
				0,250	6,4	42,05	19,24	63,13	560	39	700	48	660	45	820	56	1120	1220	1380	1490	1590	1730	1860	2130
				0,281	7,1	47,17	21,31	69,91	630	43	790	54	740	51	920	63	1250	1370	1550	1670	1790	1940	2090	2390
				0,312	7,9	52,27	23,66	77,63	700	48	880	61	820	56	1020	70	1390	1520	1720	1860	1990	2150	2320	2650
				0,344	8,7	57,52	26,01	85,32	770	53	970	67	900	62	1130	78	1540	1680	1900	2050	2190	2380	2560	2920
			STD	0,375	9,5	62,58	28,34	92,98	840	58	1050	72	980	68	1230	85	1670	1830	2070	2230	2390	2590	2790	3000
				0,406	10,3	67,62	30,67	100,61	910	-	1110	-	1070	-	1330	-	1810	1980	2240	2420	2790	2800	3000	3000
				0,438	11,1	72,80	32,98	108,20	990	68	1230	85	1150	79	1440	99	1950	2140	2420	2610	2990	3000	3000	3000
				0,469	11,9	77,79	35,29	115,77	1060	-	1320	-	1230	-	1540	-	2090	2290	2590	2790	3000	3000	3000	3000
			XS	0,500	12,7	82,77	37,58	123,30	1120	77	1410	97	1310	90	1640	113	2230	2440	2760	2980	3000	3000	3000	3000
				0,562	14,3	92,66	42,14	138,27	1260	87	1580	109	1480	102	1840	127	2510	2750	3000	3000	3000	3000	3000	3000
				0,625	15,9	102,63	46,67	153,11	1410	97	1760	121	1640	113	2050	141	2790	3000	3000	3000	3000	3000	3000	3000
				0,688	17,5	112,51	51,15	167,83	1550	107	1940	134	1810	125	2260	156	3000	3000	3000	3000	3000	3000	3000	3000
				0,750	19,1	122,15	55,60	182,42	1690	116	2110	145	1970	136	2460	169	3000	3000	3000	3000	3000	3000	3000	3000
				0,812	20,6	131,71	59,73	195,98	1830	126	2280	157	2130	147	2660	183	3000	3000	3000	3000	3000	3000	3000	3000
				0,875	22,2	141,34	64,11	210,33	1970	136	2460	169	2300	158	2800	193	3000	3000	3000	3000	3000	3000	3000	3000
				0,938	23,8	150,89	68,44	224,55	2110	145	2640	182	2460	169	2800	193	3000	3000	3000	3000	3000	3000	3000	3000
				1,000	25,4	160,20	72,74	238,64	2250	155	2800	193	2620	181	2800	193	3000	3000	3000	3000	3000	3000	3000	3000
				1,062	27,0	169,43	77,00	252,61	2390	165	2800	193	2790	192	2800	193	3000	3000	3000	3000	3000	3000	3000	3000
				1,125	28,6	178,72	81,21	266,45	2530	174	2800	193	2800	193	2800	193	3000	3000	3000	3000	3000	3000	3000	3000
				1,188	30,2	187,93	85,40	280,17	2670	185	2800	193	2800	193	2800	193	3000	3000	3000	3000	3000	3000	3000	3000
				1,250	31,8	196,91	89,54	293,76	2800	193	2800	193	2800	193	2800	193	3000	3000	3000	3000	3000	3000	3000	3000



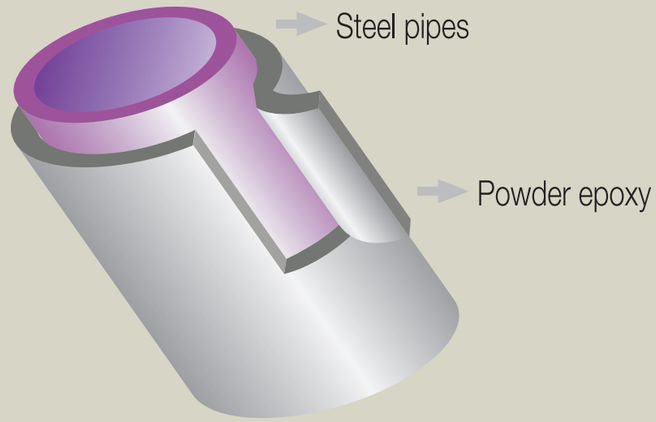
LINE PIPE (API 5L)

Nominal size	Outside diameter			Wall thickness		Weight			Test pressure								Test pressure							
									A				B				X42	X46	X52	X56	X60	X65	X70	X80
									STD		ALT		STD		ALT									
in.	in.	mm	Grade	in.	mm	lb/ft	kg/ft	kg/m	psi	kPa×100	psi	kPa×100	psi	kPa×100	psi	kPa×100	psi	psi	psi	psi	psi	psi	psi	psi
18	18,000	457,0		0,188	4,8	35,76	16,32	53,53	380	26	470	32	440	30	550	38	750	820	920	990	1070	1150	1240	1420
				0,219	5,6	41,59	19,00	62,34	440	30	550	38	510	35	640	44	870	950	1080	1160	1240	1340	1450	1650
				0,250	6,4	47,39	21,68	71,12	500	34	620	43	580	40	730	50	990	1090	1230	1320	1420	1530	1650	1890
				0,281	7,1	53,18	24,01	78,77	560	39	700	48	660	45	820	56	1110	1220	1380	1490	1590	1730	1860	2120
				0,312	7,9	58,94	26,67	87,49	620	43	780	54	730	50	910	63	1240	1360	1530	1650	1770	1920	2060	2360
				0,344	8,7	64,87	29,32	96,18	690	48	860	59	800	55	1000	69	1360	1490	1690	1820	1950	2110	2270	2600
			STD	0,375	9,5	70,59	31,96	104,84	750	52	940	65	880	61	1090	75	1490	1630	1840	1980	2120	2300	2480	2830
				0,406	10,3	76,29	34,58	113,46	810	-	1020	-	950	-	1180	-	1610	1760	1990	2150	2300	2490	2680	3000
				0,438	11,1	82,15	37,20	122,05	880	61	1100	76	1020	70	1280	88	1740	1900	2150	2320	2480	2690	2900	3000
				0,469	11,9	87,81	39,81	130,62	940	-	1170	-	1090	-	1370	-	1860	2040	2300	2480	2660	2880	3000	3000
			XS	0,500	12,7	93,45	42,41	139,15	1000	69	1250	86	1170	81	1460	101	1980	2170	2460	2640	2830	3000	3000	3000
				0,562	14,3	104,67	47,58	156,11	1120	77	1400	96	1310	90	1640	113	2230	2440	2760	2970	3000	3000	3000	3000
				0,625	15,9	115,98	52,72	172,95	1250	86	1560	107	1460	101	1820	125	2480	2720	3000	3000	3000	3000	3000	3000
				0,688	17,5	127,21	57,81	189,67	1380	95	1720	119	1610	111	2010	138	2730	2990	3000	3000	3000	3000	3000	3000
				0,750	19,1	138,17	62,87	206,25	1500	103	1880	130	1750	121	2190	151	2980	3000	3000	3000	3000	3000	3000	3000
				0,812	20,6	149,06	67,57	221,69	1620	112	2030	140	1890	130	2370	163	3000	3000	3000	3000	3000	3000	3000	3000
				0,875	22,2	160,03	72,55	238,03	1750	121	2190	151	2040	141	2550	176	3000	3000	3000	3000	3000	3000	3000	3000
				0,938	23,8	170,92	77,50	254,25	1880	130	2340	161	2190	151	2740	189	3000	3000	3000	3000	3000	3000	3000	3000
				1,000	25,4	181,56	82,40	270,34	2000	138	2500	172	2330	161	2800	193	3000	3000	3000	3000	3000	3000	3000	3000
				1,062	27,0	192,11	87,26	286,30	2120	146	2660	183	2480	171	2800	193	3000	3000	3000	3000	3000	3000	3000	3000
				1,125	28,6	202,75	92,09	302,14	2250	155	2800	193	2620	181	2800	193	3000	3000	3000	3000	3000	3000	3000	3000
				1,188	30,2	213,31	96,88	317,85	2370	163	2800	193	2770	191	2800	193	3000	3000	3000	3000	3000	3000	3000	3000
				1,250	31,8	223,61	101,63	333,44	2500	172	2800	193	2800	193	2800	193	3000	3000	3000	3000	3000	3000	3000	3000
20	20,000	508,0		0,219	5,6	46,27	21,15	69,38	390	27	490	34	460	32	570	39	830	910	1020	1100	1180	1280	1380	1580
				0,250	6,4	52,73	24,13	79,16	450	31	560	39	520	36	660	45	950	1040	1170	1260	1350	1460	1580	1800
				0,281	7,1	59,18	26,73	87,70	510	35	630	43	590	41	740	51	1060	1160	1320	1420	1520	1640	1770	2020
				0,312	7,9	65,60	29,70	97,43	50	39	700	48	660	45	820	56	1180	1290	1460	1570	1680	1830	1970	2250
				0,344	8,7	72,21	32,65	107,12	620	43	770	53	720	50	900	62	1300	1420	1610	1730	1860	2010	2170	2480
			STD	0,375	9,5	78,60	35,59	116,78	680	47	840	58	790	54	980	68	1420	1550	1760	1890	2030	2190	2360	2700
				0,406	10,3	84,96	38,53	126,41	730	-	910	-	850	-	1070	-	1530	1680	1900	2050	2190	2380	2560	2920
				0,438	11,1	91,51	41,46	136,01	790	54	990	68	920	63	1150	79	1660	1810	2050	2210	2370	2560	2760	3000
				0,469	11,9	97,83	44,37	145,58	840	-	1060	-	980	-	1230	-	1770	1940	2190	2360	2530	2740	2950	3000
			XS	0,500	12,7	104,13	47,28	155,12	900	62	1120	77	1050	72	1310	90	1890	2070	2340	2520	2700	2930	3000	3000
				0,562	14,3	116,67	53,07	174,10	1010	70	1260	87	1180	81	1480	102	2120	2330	2630	2830	3000	3000	3000	3000
				0,625	15,9	129,33	58,81	192,95	1120	77	1410	97	1310	90	1640	113	2360	2590	2930	3000	3000	3000	3000	3000
				0,688	17,5	141,90	64,52	211,68	1240	85	1550	107	1440	99	1810	125	2600	2850	3000	3000	3000	3000	3000	3000
				0,750	19,1	154,19	70,19	230,27	1350	93	1690	116	1580	109	1970	136	2840	3000	3000	3000	3000	3000	3000	3000
				0,812	20,6	166,40	75,47	247,60	1460	101	1830	126	1710	118	2130	147	3000	3000	3000	3000	3000	3000	3000	3000
				0,875	22,2	178,72	81,06	265,95	1580	109	1970	136	1840	127	2300	158	3000	3000	3000	3000	3000	3000	3000	3000
				0,938	23,8	190,96	86,62	284,18	1690	116	2110	145	1970	136	2460	169	3000	3000	3000	3000	3000	3000	3000	3000
				1,000	25,4	202,92	92,13	302,28	1800	124	2250	155	2100	145	2620	181	3000	3000	3000	3000	3000	3000	3000	3000
				1,062	27,0	214,80	97,62	320,26	1910	132	2390	165	2230	154	2750	189	3000	3000	3000	3000	3000	3000	3000	3000
				1,125	28,6	226,78	103,06	338,11	2020	139	2530	174	2360	162	2750	189	3000	3000	3000	3000	3000	3000	3000	3000
				1,188	30,2	238,68	108,46	355,83	2140	147	2670	184	2490	172	2750	189	3000	3000	3000	3000	3000	3000	3000	3000
				1,250	31,8	250,31	113,82	373,43	2250	155	2750	189	2620	181	2750	189	3000	3000	3000	3000	3000	3000	3000	3000
				1,312	33,3	261,86	118,81	389,91	2360	162	2750	189	2750	189	2750	189	3000	3000	3000	3000	3000	3000	3000	3000
				1,375	34,9	273,51	124,11	407,17	2480	171	2750	189	2750	189	2750	189	3000	3000	3000	3000	3000	3000	3000	3000

STEEL TUBES AND TUBULARS SUITABLE FOR SCREWING TO BS21 PIPES THREADS (BS 1387)

Tube	Nominal size		Outside diameter				Wall thickness		Weight					
			max.		min.				Plain ends			Screwed and socketed		
	in.	mm	in.	mm	in.	mm	in.	mm	lb/ft	kg/ft	kg/m	lb/ft	kg/ft	kg/m
Light (L)	1/4	8	0.535	13.6	0.520	13.2	0.071	1.8	0.346	0.157	0.515	0.349	0.158	0.519
	3/8	10	0.673	17.1	0.657	16.7	0.071	1.8	0.450	0.204	0.670	0.454	0.206	0.676
	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	1.380	0.934	0.424	1.390
	1	25	1.331	33.8	1.307	33.2	0.102	2.6	1.331	0.603	1.980	1.344	0.610	2.000
	1 1/4	32	1.673	42.5	1.650	41.9	0.102	2.6	1.707	0.774	2.540	1.727	0.783	2.570
	1 1/2	40	1.906	48.4	1.882	47.8	0.114	2.9	2.171	0.984	3.230	2.198	0.997	3.270
	2	50	2.370	60.2	2.346	59.6	0.114	2.9	2.742	1.244	4.080	2.789	1.265	4.150
	2 1/2	65	2.992	76.0	2.961	75.2	0.126	3.2	3.837	1.740	5.710	3.918	1.777	5.830
	3	80	3.492	88.7	3.461	87.9	0.126	3.2	4.516	2.048	6.720	4.630	2.100	6.890
	4	100	4.484	113.9	4.449	113.0	0.142	3.6	6.552	2.972	9.750	6.721	3.048	10.000
Medium (M)	1/4	8	0.547	13.9	0.524	13.3	0.091	2.3	0.431	0.195	0.641	0.433	0.197	0.645
	3/8	10	0.685	17.4	0.661	16.8	0.091	2.3	0.564	0.256	0.839	0.568	0.258	0.845
	1/2	15	0.854	21.7	0.831	21.1	0.102	2.6	0.813	0.396	1.210	0.820	0.372	1.220
	3/4	20	1.071	27.2	1.047	26.6	0.102	2.6	1.048	0.475	1.560	1.055	0.479	1.570
	1	25	1.346	34.2	1.315	33.4	0.126	3.2	1.620	0.735	2.410	1.633	0.741	2.430
	1 1/4	32	1.689	42.9	1.657	42.1	0.126	3.2	2.083	0.945	3.100	2.104	0.954	3.130
	1 1/2	40	1.921	48.8	1.890	48.0	0.126	3.2	2.399	1.088	3.570	2.426	1.100	3.610
	2	50	2.394	60.8	2.354	59.8	0.142	3.6	3.380	1.533	5.030	3.427	1.554	5.100
	2 1/2	65	3.016	76.6	2.969	75.4	0.142	3.6	4.328	1.963	6.440	4.402	1.996	6.550
	3	80	3.524	89.5	3.496	88.1	0.157	4.0	5.625	2.551	8.370	5.739	2.603	8.540
	4	100	4.524	114.9	4.461	113.3	0.177	4.5	8.199	3.718	12.200	8.401	3.810	12.500
	5	125	5.535	140.6	5.461	138.7	0.197	5.0	11.156	5.059	16.600	11.492	5.212	17.100
	6	150	6.539	166.1	6.461	164.1	0.197	5.0	13.239	6.004	19.700	13.643	6.187	20.300
Heavy (H)	1/4	8	0.547	13.9	0.524	13.3	0.114	2.9	0.514	0.233	0.765	0.517	0.234	0.769
	3/8	10	0.685	17.4	0.661	16.8	0.114	2.9	0.685	0.311	1.020	0.692	0.314	1.030
	1/2	15	0.854	21.7	0.831	21.1	0.126	3.2	0.968	0.439	1.440	0.974	0.442	1.450
	3/4	20	1.071	27.2	1.047	26.6	0.126	3.2	1.257	0.570	1.870	1.263	0.573	1.880
	1	25	1.346	34.2	1.315	33.4	0.157	4.0	1.976	0.896	2.940	1.989	0.902	2.960
	1 1/4	32	1.689	42.9	1.657	42.1	0.157	4.0	2.554	1.158	3.800	2.574	1.167	3.830
	1 1/2	40	1.921	48.8	1.890	48.0	0.157	4.0	2.944	1.335	4.380	2.970	1.347	4.420
	2	50	2.394	60.8	2.354	59.8	0.177	4.5	4.160	1.887	6.190	4.207	1.908	6.260
	2 1/2	65	3.016	76.6	2.969	75.4	0.177	4.5	5.329	2.417	7.930	5.410	2.454	8.050
	3	80	3.524	89.5	3.469	88.1	0.197	5.0	6.922	3.139	10.300	7.057	3.200	10.500
	4	100	4.524	114.9	4.461	113.3	0.213	54	9.745	4.419	14.500	9.946	4.511	14.800
	5	125	5.535	140.6	5.461	138.7	0.213	5.4	12.030	5.456	17.900	12.366	5.608	18.400
	6	150	6.539	166.1	6.461	164.1	0.213	5.4	14.315	6.492	21.300	14.718	6.675	21.900

FUSION BOND EPOXY COATED PIPE(AWWA C213)



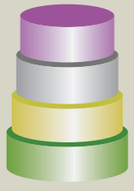
Coating method

- Exterior : The steel pipe coated with powder epoxy by electrostatic
- Interior : No coating
- Original pipe : API 5L, ASTM

DIVISION OF COATED PIPES USES

Division	Apply coating		Standard No.		Purpose
	Exterior	Interior	Domestic	Foreign country	
Gas pipes	Polyethylene Polypropylene	-	KS D 3589	DIN30670 DIN30678 AS/NZS 1518 AWWA C215	Gas pipes(LPG, LNG, City gas)
Oil pipelines	Polyethylene Polypropylene	-	KS D 3589	DIN30670 DIN30678 AS/NZS 1518 AWWA C215	Oil transfer pipes, Oil lading pipes, Oil-well pipes
Water supply pipes	Polyethylene Polypropylene	Liquid epoxy	KS D 3565	AWWA C210	Water supply pipes for building in&outside and burying underground
Steel pipes for marine piles	Polyethylene Polypropylene	-	KS D 3589	DIN30670 DIN30678 AS/NZS 1518 AWWA C215	Steel pipes for marine piles
Special pipes	Powder epoxy (FBE)	-	-	AWWA C213	Other burying underground pipes, Tubing for high temperature and humidity area

EXTRUDED POLYETHYLENE 3 LAYERS COATED STEEL PIPES (KS D 3562)



○ Coating method

- Exterior : Extrusion-typed polyethylene 3 layers coated steel pipes
  - 1st layer : Powder epoxy
  - 2nd layer : Adhesive agent
  - 3rd layer : Polyethylene
- Interior : No coating
- Original pipes (KS D 3507, 3631, 3562, API 5L, ASTM)

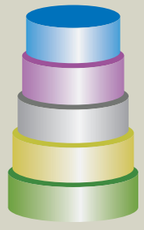
THE TYPES OF PIPES AND THE PRESSURE IN THE HYDROSTATIC TEST

No. of schedules	10	20	30	40	60	90
Tested pressure	20	35	50	60	90	120
	(20)	(34)	(49)	(59)	90(88)	120(118)

THE STANDARDS OF THE PIPES (KS D 3562)

Nominal diameter		Outside diameter	Nominal diameter											
A	B		Schedule 10		Schedule 20		Schedule 30		Schedule 40		Schedule 50		Schedule 60	
		mm	Thickness(mm)	Weight(kg/m)	Thickness(mm)	Weight(kg/m)	Thickness(mm)	Weight(kg/m)	Thickness(mm)	Weight(kg/m)	Thickness(mm)	Weight(kg/m)	Thickness(mm)	Weight(kg/m)
6	1/8	10.5	-	-	-	-	-	-	1.7	0.6	2.2	0.45	2.4	0.48
8	1/4	13.8	-	-	-	-	-	-	2.2	0.6	2.4	0.675	3.0	0.799
10	3/8	17.3	-	-	-	-	-	-	2.3	0.9	8.8	1.00	3.2	1.11
15	1/2	21.7	-	-	-	-	-	-	2.8	1.3	3.2	1.45	3.7	1.64
20	3/4	27.2	-	-	-	-	-	-	2.9	1.7	3.4	2.00	3.9	2.24
25	1	34.0	-	-	-	-	-	-	3.4	2.6	3.9	2.89	4.5	3.27
32	1 1/4	42.7	-	-	-	-	-	-	3.6	3.5	4.5	4.24	4.9	4.57
40	1 1/2	48.6	-	-	-	-	-	-	3.7	4.1	4.5	4.89	5.1	5.47
50	2	60.0	-	-	3.2	4.52	-	-	3.9	5.4	4.9	6.72	5.5	7.46
65	2 1/2	76.3	-	-	4.5	7.97	-	-	5.2	9.1	6.0	10.4	7.0	12.0
80	3	89.1	-	-	4.5	9.39	-	-	5.5	11.3	6.6	13.4	7.6	15.3
90	3 1/2	101.6	-	-	4.5	10.8	-	-	5.7	13.5	7.0	16.3	8.1	18.7
100	4	114.3	-	-	4.9	13.2	-	-	6.0	16	7.1	18.8	8.6	22.4
125	5	139.8	-	-	5.1	16.9	-	-	6.6	21.7	8.1	26.3	9.5	30.5
150	6	165.2	-	-	5.5	21.7	-	-	7.1	27.7	9.3	35.8	11.0	41.8
200	8	216.3	-	-	6.4	33.1	7.0	36.1	8.2	42.1	10.3	52.3	12.7	63.8
250	10	267.5	-	-	6.4	41.2	7.8	49.9	9.3	59.2	12.7	79.8	15.1	93.9
300	12	318.5	-	-	6.4	49.3	8.4	64.2	10.3	78.3	14.3	107	17.4	129
350	14	355.6	6.4	55.1	7.9	67.7	9.5	81.1	11.1	94.3	15.1	127	19.0	158
400	16	404.6	6.4	63.1	7.9	77.6	11.1	93	12.7	123	16.7	160	21.4	203
450	18	457.2	6.4	71.1	7.9	87.5	12.7	122	14.3	156	19.0	205	23.8	254
500	20	508.0	6.4	79.2	9.5	117	12.7	155	15.1	184	20.3	248	26.2	311
550	22	558.8	6.4	87.8	9.5	129	14.3	171	15.9	213	-	-	-	-
600	24	609.6	6.4	95.2	9.5	141	14.3	228	-	-	-	-	-	-
650	26	660.4	7.9	103	12.7	203	-	-	-	-	-	-	-	-

COATED AND WRAPPED STEEL PIPES FOR WATER SUPPLY



○ Coating method

- Exterior : Extrusion-typed polyethylene 3 layers coated steel pipes
  - 1st layer : Powder epoxy
  - 2nd layer : Adhesive agent
  - 3rd layer : Polyethylene
- Interior : Supply liquid epoxy resin paint and painting method
- Original pipes (KS D 3565)

THE TYPES OF PIPES AND THE PRESSURE IN THE HYDROSTATIC TEST

Tested pressure	Types and symbols			
	STWW 290	STWW 370	STWW 400	
			Nominal thickness	
			A	B
	2.5	3.4	2.5	2.0

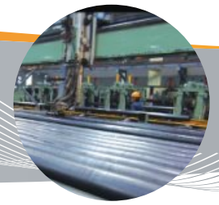
STANDARDS OF PIPES (KS D 3565)

Nominal diameter (A)	Outer diameter (mm)	Types of symbols							
		STWW 290		STWW 370		STWW 400			
						Nominal diameter			
						A		B	
		Thickness(mm)	Weight(kg/m)	Thickness(mm)	Weight(kg/m)	Thickness(mm)	Weight(kg/m)	Thickness(mm)	Weight(kg/m)
80	89.1	4.2	8.78	4.5	9.39	-	-	-	-
100	114.3	4.5	12.2	4.9	13.2	-	-	-	-
125	139.0	4.5	15.0	5.1	16.9	-	-	-	-
150	165.2	5.0	19.8	5.5	21.7	-	-	-	-
200	216.3	5.8	30.1	6.4	33.1	-	-	-	-
250	267.4	6.6	42.4	6.4	41.2	-	-	-	-
300	318.5	6.9	53.0	6.4	49.3	-	-	-	-
350	355.6	-	-	-	-	6.0	51.7	-	-
400	406.4	-	-	-	-	6.0	59.2	-	-
450	457.2	-	-	-	-	6.0	66.8	-	-
500	508.0	-	-	-	-	6.0	74.3	-	-
600	609.6	-	-	-	-	6.0	89.3	-	-
700	711.2	-	-	-	-	7.0	122	6.0	104
800	812.8	-	-	-	-	8.0	159	7.0	139
900	914.4	-	-	-	-	8.0	179	7.0	157
1000	1016.0	-	-	-	-	9.0	223	8.0	199
1100	1117.6	-	-	-	-	10.0	273	8.0	219
1200	1219.2	-	-	-	-	11.0	328	9.0	269
1350	1371.6	-	-	-	-	12.0	402	10.0	336
1500	1524.0	-	-	-	-	14.0	521	11.0	410
1600	1625.6	-	-	-	-	15.0	596	12.0	477
1650	1676.4	-	-	-	-	15.0	615	12.0	493
1800	1828.8	-	-	-	-	16.0	715	13.0	582
1900	1930.4	-	-	-	-	17.0	802	14.0	662
2000	2032.0	-	-	-	-	18.0	894	15.0	746
2100	2133.6	-	-	-	-	19.0	991	16.0	836
2200	2235.2	-	-	-	-	20.0	1093	16.0	876
2300	2336.8	-	-	-	-	21.0	1199	17.0	973
2400	2438.4	-	-	-	-	22.0	1311	18.0	1074
2500	2540.0	-	-	-	-	23.0	1428	18.0	1119
2600	2641.6	-	-	-	-	24.0	1549	19.0	1229
2700	2743.2	-	-	-	-	25.0	1676	20.0	1343
2800	2844.8	-	-	-	-	26.0	1807	21.0	1462
2900	2946.4	-	-	-	-	27.0	1944	21.0	1515
3000	3048.0	-	-	-	-	29.0	2159	22.0	1642

CARBON STEEL TUBES FOR GENERAL STRUCTURAL PURPOSES

KS D 3566 (JIS G 3444)

Outside diameter	Wall thickness		Weight		Cross-sectional area		Geometrical moment of inertia		Section modulus		Radius of gyration of area	
mm	mm		kg/m		cm^2		cm^4		cm^3		cm	
21.7	2.0	(2.0)	0.927	(0.927)	1.238	(1.238)	0.607	(0.607)	0.560	(0.560)	0.700	(0.700)
27.7	2.0	(2.0)	1.24	(1.24)	1.583	(1.583)	1.26	(1.26)	0.930	(0.930)	0.890	(0.890)
	2.3	(2.3)	1.41	(1.41)	1.799	(1.799)	1.41	(1.41)	1.03	(1.03)	0.880	(0.880)
34.0	2.3	(2.3)	1.80	(1.80)	2.291	(2.291)	2.89	(2.89)	1.70	(1.70)	1.12	(1.12)
42.7	2.3	(2.3)	2.29	(2.29)	2.919	(2.919)	5.97	(5.97)	2.80	(2.80)	1.43	(1.43)
	2.5	(2.5)	2.49	(2.49)	3.157	(3.157)	6.40	(6.40)	3.00	(3.00)	1.42	(1.42)
	2.8		2.76		3.510	(3.510)	7.02	(7.02)	3.96	(3.96)	1.41	(1.41)
48.6	2.3	(2.3)	2.63	(2.63)	3.345	(3.345)	8.99	(8.99)	3.70	(3.70)	1.64	(1.64)
	2.5	(2.5)	2.84	(2.84)	3.621	(3.621)	9.65	(9.65)	3.97	(3.97)	1.63	(1.63)
	2.8	(2.8)	3.16	(3.16)	4.029	(4.029)	10.6	(10.6)	4.36	(4.36)	1.62	(1.62)
	3.2	(3.2)	3.56	(3.58)	4.564	(4.564)	11.8	(11.8)	4.86	(4.86)	1.61	(1.61)
60.5	2.3	(2.3)	3.30	(3.30)	4.205	(4.205)	17.8	(17.8)	5.90	(5.90)	2.06	(2.06)
	3.2	(3.2)	4.52	(4.52)	5.760	(5.760)	23.7	(23.7)	7.84	(7.84)	2.03	(2.03)
	4.0	(4.0)	5.57	(5.57)	7.100	(7.100)	28.5	(28.5)	9.41	(9.41)	2.00	(2.00)
76.3	2.8	(2.8)	5.08	(5.08)	6.465	(6.465)	43.7	(43.7)	11.5	(11.5)	2.60	(2.60)
	3.2	(3.2)	5.77	(5.77)	7.349	(7.349)	49.2	(49.2)	12.9	(12.9)	2.59	(2.59)
	4.0	(4.0)	7.13	(7.13)	9.085	(9.085)	59.5	(59.5)	15.6	(15.6)	2.56	(2.56)
89.1	2.8	(2.8)	5.96	(5.96)	7.591	(7.591)	70.7	(70.7)	15.9	(15.9)	3.05	(3.05)
	3.2	(3.2)	6.78	(6.78)	8.636	(8.636)	79.8	(79.8)	17.9	(17.9)	3.04	(3.04)
	4.0		8.39		10.69	(10.69)	97.0	(97.0)	21.8	(21.8)	3.01	(3.01)
101.6	3.2	(3.2)	7.76	(7.76)	9.892	(9.892)	120	(120)	23.6	(23.6)	3.48	(3.48)
	4.0	(4.0)	9.63	(9.63)	12.26	(12.26)	146	(146)	28.8	(28.8)	3.45	(3.45)
	5.0	(5.0)	11.9	(11.9)	15.17	(15.17)	177	(177)	34.9	(34.9)	3.42	(3.42)
114.3	3.2	(3.2)	8.77	(8.77)	11.17	(11.17)	172	(172)	30.2	(30.2)	3.93	(3.93)
	3.6	(3.6)	9.83	(9.83)	12.52	(12.52)	192	(192)	33.6	(33.6)	3.92	(3.92)
	4.5	(4.5)	12.2	(12.2)	15.52	(15.52)	234	(234)	41.0	(41.0)	3.89	(3.89)
	5.6		15.0		19.12	(19.12)	283	(283)	49.6	(49.6)	3.85	(3.85)
139.8	3.6	(3.6)	12.1	(12.1)	15.40	(15.40)	357	(357)	51.1	(51.1)	4.82	(4.82)
	4.0	(4.0)	13.4	(13.4)	17.07	(17.07)	394	(394)	56.3	(51.1)	4.80	(4.80)
	4.5	(4.5)	15.0	(15.0)	19.13	(19.13)	438	(438)	62.7	(62.7)	4.79	(4.79)
	6.0	(6.0)	19.8	(19.8)	25.22	(25.22)	566	(566)	80.9	(80.9)	4.74	(4.74)
165.2	4.5	(4.5)	17.8	(17.8)	22.72	(22.72)	734	(734)	88.9	(88.9)	5.68	(5.68)
	5.0	(5.0)	19.8	(19.8)	25.16	(25.16)	808	(808)	97.8	(97.8)	5.67	(5.67)
	6.0	(6.0)	23.6	(23.6)	30.01	(30.01)	952	(952)	115	(115)	5.63	(5.63)
	7.0	(7.1)	27.3	(27.3)	34.79	(34.79)	109×10	(109×10)	132	(132)	5.60	(5.60)
190.7	4.5	(4.5)	20.7	(20.7)	26.32	(26.32)	114×10	(114×10)	120	(120)	6.59	(6.59)
	5.0	(5.0)	22.9	(22.9)	29.17	(29.17)	126×10	(126×10)	132	(132)	6.57	(6.57)
	6.0	(6.0)	27.3	(27.3)	34.82	(34.82)	149×10	(149×10)	156	(156)	6.53	(6.53)
	7.0	(7.0)	31.7	(31.7)	40.40	(40.40)	171×10	(171×10)	179	(179)	6.50	(6.50)
		(8.2)		(36.9)		(47.01)		(196×10)		(206)		(6.46)
216.3	4.5	(4.5)	23.5	(23.5)	29.94	(29.94)	168×10	(168×10)	155	(155)	7.49	(7.49)
		(5.8)		(30.1)		(38.36)		(213×10)		(197)		(7.45)
	6.0	(6.0)	31.1	(31.1)	36.61	(36.61)	219×10	(219×10)	203	(203)	7.44	(7.44)
	7.0	(7.0)	36.1	(36.1)	46.03	(46.03)	252×10	(252×10)	233	(233)	7.40	(7.40)
	8.0	(8.0)	41.1	(41.1)	52.35	(52.35)	284×10	(284×10)	263	(263)	7.37	(7.37)
		(8.2)		(42.1)		(53.61)		(291×10)		(269)		(7.36)
267.4	6.0	(6.0)	38.7	(38.7)	49.27	(49.27)	421×10	(421×10)	315	(315)	9.24	(9.24)
		(6.6)		(42.4)		(54.08)		(460×10)		(344)		(9.22)
	7.0	(7.0)	45.0	(45.0)	57.27	(57.27)	486×10	(486×10)	363	(363)	9.21	(9.21)
	8.0	(8.0)	51.2	(51.2)	68.19	(68.19)	549×10	(549×10)	411	(411)	9.18	(9.18)
	9.0	(9.0)	57.4	(57.4)	73.06	(73.06)	611×10	(611×10)	457	(457)	9.14	(9.14)
		(9.3)		(59.2)		(75.41)				(470)		(9.13)
318.5	6.0		46.2		58.91		719×10		542		11.1	
	7.0		53.8		65.50		813×10		552		11.0	
	8.0		61.3		78.04		941×10		591		11.0	
	9.0		68.7		87.51		105×10^2		659		10.9	
355.6	6.3		54.3		69.13		105×10^2		593		12.4	
	8.0		68.6		87.36		132×10^2		742		12.3	
	9.0		76.9		98.00		147×10^2		828		12.3	
	12.0		102		129.5		191×10^2		108×10		12.2	
406.4	9.0		88.2		112.4		222×10^2		109×10		14.1	
	12.0		117		148.7		289×10^2		142×10		14.0	
	16.0		154		196.2		374×10^2		184×10		13.8	
	19.0		182		231.2		435×10^2		214×10		13.7	
457.2	9.0		99.5		126.7		318×10^2		140×10		15.8	
	12.0		132		167.8		416×10^2		182×10		15.7	
	16.0		174		221.8		540×10^2		236×10		15.6	
	19.0		205		261.8		629×10^2		275×10		15.5	
500	9.0		109		138.8		418×10^2		167×10		17.4	
	12.0		144		184.0		548×10^2		219×10		17.3	
	14.0		168		213.8		632×10^2		253×10		17.2	
508.0	9.0		111		141.1		439×10^2		173×10		17.6	
	12.0		147		187.0		575×10^2		226×10		17.5	
	14.0		171		217.3		663×10^2		261×10		17.5	
	16.0		194		247.3		749×10^2		295×10		17.4	
	19.0		229		291.9		874×10^2		344×10		17.3	
	22.0		264		335.9		994×10^2		391×10		17.2	



CARBON STEEL PIPES FOR ORDINARY PIPING

KS D 3507 (JIS G 3452) / KS D 3631

Norminal diameter		Outside diameter (mm)	Tolerances on outside diameter		Wall thickness (mm)	Tolerances on wall thickness	Unit weight excluding socket (kg/m)
A	B		Taper threaded pipe	Others			
10	3/8	17.3	±0.5mm (±0.5mm)		2.35 (2.3)		0.866 (0.851)
15	1/2	21.7	±0.5mm (±0.5mm)		2.65 (2.8)		1.25 (1.31)
20	3/4	27.2	±0.5mm (±0.5mm)		2.65 (2.8)		1.60 (1.68)
25	1	34.0	±0.5mm (±0.5mm)		3.25 (3.2)		2.45 (2.43)
32	1 1/4	42.7	±0.5mm (±0.5mm)		3.25 (3.5)		3.16 (3.38)
40	1 1/2	48.6	±0.5mm (±0.5mm)		3.25 (3.5)		3.63 (3.89)
50	2	60.5	±0.5mm (±0.5mm)	±1% (±1%)	3.65 (3.8)		5.12 (5.31)
65	2 1/2	76.3	±0.7mm (±0.7mm)	±1% (±1%)	3.65 (4.2)		6.34 (7.47)
80	3	89.1	±0.8mm (±0.8mm)	±1% (±1%)	4.05 (4.2)		8.49 (8.79)
90	3 1/2	101.6	±0.8mm (±0.8mm)	±1% (±1%)	4.05 (4.2)		9.74 (10.1)
100	4	114.3	±0.8mm (±0.8mm)	±1% (±1%)	4.5 (4.5)		12.2 (12.2)
125	5	139.8	±0.8mm (±0.8mm)	±1% (±1%)	4.85 (4.5)	+ Not specified	16.1 (15.0)
150	6	165.2	±0.8mm (±0.8mm)	±1% (±1.6%)	4.85 (5.0)	-12.5%	19.2 (19.8)
175	7	190.7	±0.9mm (±0.9mm)	±1% (±1.6%)	5.3 (5.3)		24.2 (24.2)
200	8	216.3	±1.0mm (±1.0mm)	±1% (±0.8%)	5.85 (5.8)		30.4 (30.1)
225	9	241.8	±1.2mm (±1.2mm)	±1% (±0.8%)	6.2 (6.2)		36.0 (36.0)
250	10	267.4	±1.3mm (±1.3mm)	±1% (±0.8%)	6.4 (6.6)		41.2 (42.4)
300	12	318.6	±1.5mm (±1.5mm)	±1% (±0.8%)	7.0 (6.9)		53.8 (53.0)
350	14	355.6	- (-)	±1% (±0.8%)	7.6 (7.9)		65.2 (67.7)
400	16	406.4	- (-)	±1% (±0.8%)	7.9 (7.9)		77.6 (77.6)
450	18	457.2	- (-)	±1% (±0.8%)	7.9 (7.9)		87.5 (87.5)
500	20	508.0	- (-)	±1% (±0.8%)	7.9 (7.9)		97.4 (97.4)
550	22	558.8	-	±1%	7.9		107
600	24	609.6	-	±1%	7.9		117

CARBON STEEL PIPES FOR PRESSURE SERVICE

KS D 3562 (JIS G 3454)

Norminal diameter		Outside diameter	Nominal wall thickness																	
			Schedule 10			Schedule 20			Schedule 30			Schedule 40			Schedule 60			Schedule 80		
			Wall thickness	Weight	Test pressure	Wall thickness	Weight	Test pressure	Wall thickness	Weight	Test pressure	Wall thickness	Weight	Test pressure	Wall thickness	Weight	Test pressure	Wall thickness	Weight	Test pressure
A	B	mm	mm	kg/m	kgf/㎠ (MPa)	mm	kg/m	kgf/㎠ (MPa)	mm	kg/m	kgf/㎠ (MPa)	mm	kg/m	kgf/㎠ (MPa)	mm	kg/m	kgf/㎠ (MPa)	mm	kg/m	kgf/㎠ (MPa)
10	3/8	17.3	-	-		-	-		-	-		2.3	0.851		2.8	1.00		3.2	1.11	
15	1/2	21.7	-	-		-	-		-	-		2.8	1.31		3.2	1.46		3.7	1.64	
20	3/4	27.2	-	-		-	-		-	-		2.9	1.74		3.4	2.00		3.9	2.24	
25	1	34.0	-	-		-	-		-	-		3.4	2.57		3.9	2.89		4.5	3.27	
32	1 1/4	42.7	-	-		-	-		-	-		3.6	3.47		4.5	4.24		4.9	4.57	
40	1 1/2	48.6	-	-		-	-		-	-		3.7	4.10		4.5	4.89		5.1	5.47	
50	2	60.5	-	-		3.2	4.52		-	-		3.9	5.44		4.9	6.72		5.5	7.46	
65	2 1/2	76.3	-	-		4.5	7.97		-	-		5.2	9.12		6.0	10.4		7.0	12.0	
80	3	89.1	-	-		4.5	9.39		-	-		5.5	11.3		6.6	13.4		7.6	15.3	
90	3 1/2	101.6	-	-		4.5	10.8		-	-		5.7	13.5		7.0	16.3		8.1	18.7	
100	4	114.3	-	-	20	4.9	13.2	35	-	-	50	6.0	16.0	60	7.1	18.8	90	8.6	22.4	120
125	5	139.8	-	-	(2.0)	5.1	16.9	(3.5)	-	-	(5.0)	6.6	21.7	(6.0)	8.1	26.3	(9.0)	9.5	30.5	(12)
150	6	165.2	-	-		5.5	21.7		-	-		7.1	27.7		9.3	35.8		11.0	41.8	
200	8	216.3	-	-		6.4	33.1		7.0	36.1		8.2	42.1		10.3	52.3		12.7	63.8	
250	10	267.4	-	-		6.4	41.2		7.8	49.9		9.3	59.2		12.7	79.8		15.1	93.9	
300	12	318.5	-	-		6.4	49.3		8.4	64.2		10.3	78.3		14.3	107		17.4	129	
350	14	355.6	6.4	55.1		7.9	67.7		9.5	81.1		11.1	94.3		15.1	127		19.0	158	
400	16	406.4	6.4	63.1		7.9	77.6		9.5	93.0		12.7	123		16.7	160		21.4	203	
450	18	457.2	6.4	71.1		7.9	87.5		11.1	122		14.3	156		19.0	205		23.8	254	
500	20	508.0	6.4	79.2		9.5	117		12.7	155		15.1	184		20.6	248		26.2	311	
550	22	558.8	6.4	87.2		9.5	129		12.7	171		15.9	213		-	-		-	-	
600	24	609.6	6.4	95.2		9.5	141		14.3	228(210)		-	-		-	-		-	-	

PO STEEL TUBES FOR MACHINE STRUCTURAL PURPOSES

KS D 3517 (JIS G 3445)

Productive standard		Application & Chemical composition										
Outside diameter	Thickness (mm)	Type		Classification	Chemical composition (%)					Application	Mechanical properties		
					C	Si	Mn	P	S		Tensile strength kg f/mm² {N/mm²}	Yield point kg f/mm² {N/mm²}	Elongation (%) No.11, No.12 specimen
13.8	1.20 ~ 2.30	11	A	STKM11A	0.12 Max	0.35 Max	0.25 ~ 0.60	0.04 Max	0.04 Max	Steel pipes for application for mechanical Parts such as machinery, automobiles, bicycles, furniture and fixtures etc.	30 Min {294}	-	35 Min
15.9		12	A	STKM12A	0.20 Max	0.35 Max	0.25 ~ 0.60	0.04 Max	0.04 Max		35 Min {243} 40 Min {392} 48 Min {471}	18 Min {177} 28 Min {275} 36 Min {353}	35 Min 25 Min 20 Min
19.1			B	STKM12B									
			C	STKM12C									
22.2	1.20 ~ 3.20	13	A	STKM13A	0.25 Max	0.35 Max	0.30 ~ 0.90	0.04 Max	0.04 Max		38 Min {373} 45 Min {441} 52 Min {510}	22 Min {216} 31 Min {304} 39 Min {382}	30 Min 20 Min 15 Min
25.4			B	STKM13B									
			C	STKM13C									
31.8		14	A	STKM14A	0.30 Max	0.35 Max	0.30 ~ 1.00	0.04 Max	0.04 Max		42 Min {412} 51 Min {500} 56 Min {549}	25 Min {245} 36 Min {353} 42 Min {412}	25 Min 15 Min 15 Min
38.1			B	STKM14B									
			C	STKM14C									
48.6	1.70 ~ 4.00	15	A	STKM15A	0.25 ~ 0.35	0.35 Max	0.30 ~ 1.00	0.04 Max	0.04 Max		48 Min {471} 59 Min {579}	28 Min {275} 44 Min {431}	22 Min 12 Min
			C	STKM15C									
60.5		16	A	STKM16A	0.35 ~ 0.45	0.40 Max	0.40 ~ 1.00	0.04 Max	0.04 Max		52 Min {510} 63 Min {618}	33 Min {324} 47 Min {461}	20 Min 12 Min
			C	STKM16C									
76.3		17	A	STKM17A	0.45 ~ 0.55	0.40 Max	0.40 ~ 1.00	0.04 Max	0.04 Max		56 Min {549} 66 Min {647}	35 Min {343} 49 Min {481}	20 Min 10 Min
89.1			C	STKM17C									
114.3	2.20 ~ 5.00	18	A	STKM18A	0.18 ~ Max	0.55 Max	1.50 Max	0.04 Max	0.04 Max		45 Min {441} 50 Min {490} 52 Min {510}	28 Min {275} 32 Min {314} 39 Min {382}	25 Min 23 Min 15 Min
			B	STKM18B									
139.8			C	STKM18C									

SQUARE AND RECTANGULAR PIPES

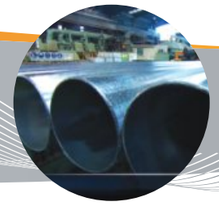
SQUARE KS D 3568 (JIS G 3466)

Side length	Wall thickness	Unit weight	Cross-sectional area	Geometrical moment of inertia	Modulus of section	Radius of gyration of area
A × B	t			cm^4	cm^3	cm
mm	mm	Kg/m	cm^2	Ix, Iy	Zx, Zy	ix, iy
20×20	1,2	0,697	0,865	0,53	0,52	0,769
	1,6	0,872	1,123	0,67	0,65	0,751
25×25	1,2	0,867	1,105	1,03	0,824	0,965
	1,6	1,12	1,432	1,27	1,02	0,942
30×30	1,2	1,06	1,345	1,83	1,22	1,17
	1,6	1,38	1,752	2,31	1,54	1,15
40×40	1,6	1,88	2,392	5,79	2,90	1,56
	23	2,62	3,332	7,73	3,86	1,52
50×50	1,6	2,38	3,032	11,7	4,68	1,96
	2,3	3,34	4,252	15,9	6,34	1,93
	3,2	4,50	5,727	20,4	8,16	1,89
60×60	1,6	2,88	3,672	20,7	6,89	2,37
	2,3	1,06	5,172	28,3	9,44	2,34
	3,2	53,50	7,007	36,9	12,3	2,30
75×75	1,6	3,64	4,632	41,3	11,0	2,99
	2,3	5,14	6,552	57,1	15,2	2,95
	3,2	7,01	8,927	75,5	20,1	2,91
	4,5	9,55	12,17	98,6	26,3	2,85
80×80	2,3	5,50	7,012	69,9	17,5	3,16
	3,2	7,51	9,567	92,7	23,2	3,11
	4,5	10,3	13,07	122	30,4	3,05
90×90	2,3	6,23	7,932	101	22,4	3,56
	3,2	8,51	10,85	135	29,9	3,52
100×100	2,3	6,95	8,852	140	27,9	3,97
	3,2	9,52	12,13	187	37,5	3,93
	4,0	11,7	14,95	226	45,3	3,89
	4,5	13,1	16,67	249	49,9	3,87
	6,0	17,0	21,63	311	62,3	3,79
	9,0	24,1	30,67	408	81,6	3,65
	12,0	30,2	38,53	471	94,3	3,50
125×125	3,2	12,0	15,33	376	60,1	4,95
	4,5	16,6	21,17	506	80,9	4,89
	5,0	18,3	23,36	553	88,4	4,86
	6,0	21,7	27,63	641	103	4,82
	9,0	31,1	39,67	865	138	4,67
	12,0	39,7	50,53	103×10	165	4,52
150×150	4,5	20,1	25,67	896	120	5,91
	5,0	22,3	28,36	982	131	5,89
	6,0	26,4	33,63	115×10	153	5,84
	9,0	38,2	48,67	158×10	210	5,69
175×175	4,5	23,7	30,17	145×10	166	6,93
	5,0	26,2	33,36	159×10	182	6,91
	6,0	31,1	39,63	186×10	213	6,86
200×200	4,5	27,2	34,67	219×10	219	7,95
	5,0(6,0)	35,8	45,63	283×10	283	7,88
	6,0(8,0)	46,9	59,79	362×10	362	7,78
	9,0	52,3	66,67	399×10	399	7,73
	12,0	67,9	86,53	498×10	498	7,59
250×250	5,0	38,0	48,36	481×10	384	9,97
	6,0	45,2	57,63	567×10	454	9,92
	8,0	59,5	75,79	732×10	585	9,82
	9,0	66,5	84,67	809×10	647	9,78
	12,0	86,8	110,5	103×10^2	820	9,63
300×300	4,5	41,3	52,67	763×10	508	12,0
	6,0	54,7	69,63	996×10	664	12,0
	9,0	80,6	102,7	143×10^2	956	11,8
	12,0	106	134,5	183×10^2	122×10	11,7
	16,0	138	175,2	231×10^2	154×10	11,5
350×350	9,0	94,7	120,7	232×10^2	132×10	13,9
	12,0	124	158,5	298×10^2	170×10	13,7
	16,0	163	207,2	379×10^2	216×10	13,5
400×400	9,0	109	138,7	351×10^2	175×10	15,9
	12,0	143	182,5	453×10^2	227×10	15,8
	16,0	188	239,2	579×10^2	290×10	15,6

SQUARE AND RECTANGULAR PIPES

RECTANGULAR KS D 3568 (JIS G 3466)

Side length	Wall thickness	Unit weight	Cross-sectional area	Geometrical moment of inertia		Modulus of section		Radius of gyration of area	
A × B	t			cm^4		cm^3		cm	
mm	mm	Kg/m	cm^2	Ix	Iy	Zx	Zy	ix	iy
30×20	1,2	0,868	1,105	1,34	0,711	0,890	0,711	1,10	0,802
30×20	1,6	1,124	1,4317	1,66	0,879	1,11	0,879	1,80	0,784
40×20	1,2	1,053	1,3453	2,73	0,923	1,36	0,923	1,42	0,828
40×20	1,6	1,375	1,7517	3,43	1,15	1,72	1,15	1,40	0,810
50×20	1,6	1,63	2,072	6,08	1,42	2,43	1,42	1,71	0,829
50×20	2,3	2,25	2,872	8,00	1,83	3,20	1,83	1,67	0,798
50×30	1,6	1,88	2,392	7,96	3,60	3,18	2,40	1,82	1,23
50×30	2,3	2,62	3,332	10,6	4,76	4,25	3,17	1,79	1,20
60×30	1,6	2,13	2,712	12,5	4,25	4,16	2,83	2,15	1,25
60×30	2,3	2,98	3,792	16,8	5,65	5,61	3,76	2,11	1,22
60×30	3,2	3,99	5,087	21,4	7,08	7,15	4,72	2,05	1,18
75×20	1,6	2,25	2,872	17,6	2,10	4,6	2,10	2,47	0,855
75×20	2,3	3,16	4,022	23,7	2,73	6,3	2,73	2,43	0,824
75×45	1,6	2,88	3,672	28,4	12,9	7,56	5,75	2,78	1,88
75×45	2,3	4,06	5,172	38,9	17,6	10,4	7,82	2,74	1,84
75×45	3,2	5,50	7,007	50,8	22,8	13,5	10,1	2,69	1,80
80×40	1,6	2,88	3,672	30,7	10,5	7,68	5,26	2,89	1,69
80×40	2,3	4,306	5,172	42,1	14,3	10,5	7,14	2,85	1,66
80×40	3,2	5,50	7,007	54,9	18,4	13,7	9,21	2,80	1,62
90×45	2,3	4,60	5,862	61,0	20,8	13,6	9,22	3,23	1,88
90×45	3,2	6,25	7,967	80,2	27,0	17,8	12,0	3,17	1,84
100×20	1,6	2,88	3,672	38,1	2,78	7,61	2,78	3,22	0,870
100×20	2,3	4,06	5,172	51,9	3,64	10,4	3,64	3,17	0,839
100×40	1,6	3,38	4,312	53,5	12,9	10,7	6,44	3,52	1,73
100×40	2,3	4,78	6,092	73,9	17,5	14,8	8,77	3,48	1,70
100×40	4,2	8,32	10,60	120	27,6	24,0	10,6	3,36	1,61
100×50	1,6	3,64	4,632	61,3	21,1	12,3	8,43	3,64	2,13
100×50	2,3	5,14	6,552	84,8	29,0	17,0	11,6	3,60	2,10
100×50	3,2	7,01	8,927	112	30,8	22,5	15,2	3,55	2,06
100×50	4,5	9,55	12,17	147	48,9	29,3	19,5	3,47	2,00
125×40	1,6	4,01	5,112	94,4	15,8	15,1	7,91	4,30	1,76
125×40	2,3	5,69	7,242	131	21,6	20,9	10,8	4,25	1,73
125×75	2,3	6,95	8,852	192	87,5	30,6	23,3	4,65	3,14
125×75	3,2	9,52	12,13	257	117	41,1	31,3	4,60	3,10
125×75	4,0	11,7	14,95	311	141	49,7	37,5	4,56	3,07
125×75	4,5	13,1	16,67	342	155	54,8	41,2	4,53	3,04
125×75	6,0	17,0	21,63	428	192	68,5	51,1	4,45	2,98
150×75	3,2	10,8	13,73	402	137	53,6	36,6	5,41	3,16
150×80	4,5	15,2	19,37	563	211	75,0	52,9	5,39	3,30
150×80	5,0	16,8	21,36	614	230	81,9	57,5	5,36	3,28
150×80	6,0	19,8	25,23	710	264	94,7	66,1	5,31	3,24
150×100	3,2	12,0	15,33	488	262	65,1	52,5	5,64	4,14
150×100	4,5	16,6	21,17	658	352	87,7	70,4	5,58	4,08
150×100	6,0	21,7	27,63	835	444	111	88,8	5,50	4,01
150×100	9,0	31,1	39,67	113×10	595	151	119	5,33	3,87
200×100	4,5	20,1	25,67	133×10	455	133	90,9	7,20	4,21
200×100	6,0	26,4	33,63	170×10	577	170	115	7,12	4,14
200×100	9,0	38,2	48,67	235×10	782	235	156	6,94	4,01
200×150	4,5	23,7	30,17	176×10	113×10	176	151	7,64	6,13
200×150	6,0	31,1	39,63	227×10	146×10	227	194	7,56	6,06
200×150	9,0	45,3	57,67	317×10	202×10	317	270	7,41	5,93
300×200	6,0	45,2	57,63	737×10	396×10	491	396	11,3	8,29
300×200	9,0	66,5	84,67	105×10^2	563×10	702	563	11,2	8,16
300×200	12,0	86,8	110,5	134×10^2	711×10	890	711	11,0	8,02
350×150	6,0	45,2	57,63	891×10	239×10	509	319	12,4	6,44
350×150	9,0	66,5	84,67	127×10^2	337×10	726	449	12,3	6,31
350×150	12,0	86,8	110,5	161×10^2	421×10	921	562	12,1	6,17
400×200	6,0	54,7	69,63	148×10^2	509×10	739	509	14,6	8,55
400×200	9,0	80,6	102,7	213×10^2	727×10	107×10	727	14,4	8,42
400×200	12,0	106	134,5	273×10^2	923×10	136×10	923	14,2	8,23
450×250	8,0	85,4	109	300×10^2	1214×10	133×10	971	16,6	10,6
450×250	10,0	106	135	368×10^2	1481×10	164×10	1185	16,5	10,5
450×250	12,0	126	161	434×10^2	1735×10	193×10	1389	16,4	10,4
450×250	12,5	131	167	450×10^2	1797×10	200×10	1438	16,4	10,4
500×300	10,0	122	155	537×10^2	2443×10	215×10	1629	18,6	12,6
500×300	12,0	145	185	634×10^2	2873×10	253×10	1916	18,5	12,5
500×300	12,5	151	192	658×10^2	2978×10	263×10	1985	18,5	12,5
500×300	16,0	191	243	817×10^2	3676×10	327×10	2451	18,3	12,3



GALVANIZED STEEL TUBES FOR THE VINYL HOUSE

Standard(O.D) \ Thickness (mm)		1.0	1.2	1.4	1.5	1.6	1.7	2.0	Characteristics and Applications
in	mm	kg/m	kg/m	kg/m	kg/m	kg/m	kg/m	kg/m	
5/8	15.9	0.367	0.435	0.501	0.533	0.564			
3/4	19.1	0.446	0.530	0.611	0.651	0.690			
7/8	22.2	0.523	0.621	0.718	0.766	0.813			• Outstanding corrosion resistance
1	25.4	0.602	0.716	0.829	0.884	0.939	0.994		• Excellent workability
1-1/8	28.6	0.681	0.811	0.939	1.00	1.07	1.13		• Special usage green house
1-1/4	31.8	0.760	0.906	1.050	1.121	1.192	1.26		• Prime quality general structural fence
1-1/2	38.1	0.915	1.092	1.267	1.354	1.440	1.53	1.78	
2	50.8		1.468	1.705	1.824	1.941	2.06	2.41	

STEEL SCAFFOLDING PIPES

Standard

CARBON STEEL TUBES FOR GENERAL STRUCTURAL PURPOSES
STK-500

Mechanical nature

Yield Point	36kg/mm^2 Min.(355N/mm^2 Min.)
Tensile Strength	51kg/mm^2 Min.(355N/mm^2 Min.)
Moment of Inertia (I)	9.32cm^4
Section Modulus (Z)	3.83cm^3
Radius of Gyration (i)	1.64cm

Standard length · weight

Length (m)	1	2	3	4	6
Weight (kg)	2.73	5.46	8.19	10.92	16.38

Size

Outside Diameter	48.6mm(1.913in)
Thickness	2.4mm(0.094in)

RIGID STEEL CONDUITS / HEAVY GAUGE STEEL CONDUITS (KS C 8401 / JIS C 8304)

Nominal size	Outside diameter	Tolerance of outside diameter	Thickness	Nominal inside diameter	Weight	Effective length of thread (mm)	
	mm	mm	mm	mm	kg/m	Max	Min
G 16	21.0	±0.3	2.3	16.4	1.06	19	16
G 22	26.5	±0.3	2.3	21.9	1.37	22	19
G 28	33.3	±0.3	2.5	28.3	1.90	25	22
G 36	41.9	±0.3	2.5	36.9	2.43	28	25
G 42	47.8	±0.3	2.5	42.8	2.79	28	25
G 54	59.6	±0.3	2.8	54.0	3.92	32	28
G 70	75.2	±0.3	2.8	69.6	5.00	36	32
G 82	87.9	±0.3	2.8	82.3	5.88	40	36
G 92	100.7	±0.4	3.5	93.7	8.39	42	36
G 104	113.4	±0.4	3.5	106.4	9.48	45	39

CONDUIT TUBE THREAD (KS B 0223)

Nominal thread	Nominal size	Number of threads per inch	Pitch	Height of thread	External thread		
					Major dia.	Pitch dia.	Minor dia.
					Internal thread		
					Major dia.	Pitch dia.	Minor dia.
CTG 16	G 16	14	1.8143	1.017	20.955	19.793	18.922
CTG 22	G 22	14	1.8143	1.017	26.441	25.279	24.408
CTG 28	G 28	11	2.3091	1.294	33.249	31.770	30.661
CTG 36	G 36	11	2.3091	1.294	41.910	40.431	39.322
CTG 42	G 42	11	2.3091	1.294	47.803	46.324	45.215
CTG 54	G 54	11	2.3091	1.294	59.614	58.135	57.026
CTG 70	G 70	11	2.3091	1.294	75.184	73.705	72.026
CTG 82	G 82	11	2.3091	1.294	87.884	86.405	85.296
CTG 92	G 92	11	2.3091	1.294	100.330	98.851	97.742
CTG 104	G 104	11	2.3091	1.294	113.030	111.551	110.442

UL6 RIGID METAL CONDUITS (HEAVY)

Nominal size	Nominal inside diameter		Outside diameter		Nominal wall thickness		Length without coupling		Weight	
in.	in.	mm	in.	mm	in.	mm	ft. & in.	m	P.E	T.C
1/2	0.632	16.05	0.840	21.34	0.104	2.64	9-11 1/4	3.03	0.371	0.376
3/2	0.836	21.23	1.050	26.67	0.107	2.72	9-11 1/4	3.03	0.490	0.499
1	1.049	26.64	1.315	33.40	0.126	3.20	9-11	3.02	0.726	0.739
1 1/4	1.380	35.05	1.660	42.16	0.133	3.38	9-11	3.02	0.985	1.000
1 1/2	1.610	40.89	1.900	48.26	0.138	3.51	9-11	3.02	1.181	1.200
2	2.067	52.50	2.375	60.33	0.146	3.71	9-11	3.02	1.579	1.610
2 1/2	2.469	62.71	2.875	73.03	0.193	4.90	9-10 1/2	3.01	2.509	2.590
3	3.068	77.93	3.500	88.90	0.205	5.21	9-10 1/2	3.01	3.277	3.370
1 1/2	3.548	90.12	4.000	101.60	0.215	5.46	9-10 1/4	3.00	3.945	4.100
4	4.026	102.26	4.500	114.30	0.225	5.72	9-10 1/4	3.00	4.668	4.790
5	5.047	128.19	5.563	141.30	0.245	6.22	9-10	3.00	6.315	6.510
6	6.065	154.05	6.625	168.28	0.266	6.76	9-10	3.00	8.207	8.520

ANSI C80.1 RIGID STEEL CONDUITS, ZINC COATED

Nominal size	Nominal inside diameter		Outside diameter		Nominal wall thickness		Length without coupling		Weight	
in.	in.	mm	in.	mm	in.	mm	ft. & in.	m	P.E	T.C
3/8	0.493	12.5	0.675	17.1	0.091	2.31	9-11 1/2	3.04	51.5	23.36
1/2	0.632	16.1	0.840	21.3	0.104	2.64	9-11 1/4	3.03	79.0	35.83
3/4	0.836	21.2	1.050	26.7	0.107	2.72	9-11 1/4	3.03	105.0	47.63
1	1.063	27.0	1.315	33.4	0.126	3.20	9-11	3.02	153.0	69.40
1 1/4	1.394	35.4	1.660	42.2	0.133	3.38	9-11	3.02	201.0	91.17
1 1/2	1.624	41.2	1.900	48.3	0.138	3.51	9-11	3.02	249.0	112.95
2	2.083	52.9	2.375	60.3	0.146	3.71	9-11	3.02	332.0	150.60
2 1/2	2.489	63.2	2.875	73.0	0.193	4.90	9-10 1/2	3.01	527.0	239.05
3	3.090	78.5	3.500	88.9	0.205	5.21	9-10 1/2	3.01	682.6	309.63
3 1/2	3.570	90.7	4.000	101.6	0.215	5.46	9-10 1/4	3.00	831.0	376.94
4	4.050	102.9	4.500	114.3	0.225	5.72	9-10 1/4	3.00	972.3	441.04
5	5.073	128.9	5.563	141.3	0.245	6.22	9-10	3.00	1313.6	595.85
6	6.093	154.8	6.6625	168.3	0.266	6.76	9-10	3.00	1745.3	791.67

The company has done a great deal for the happiness and safety of human beings.

AJU Besteel

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