



DELTA PRIMA  
GLOBAL|GROUP

# **BROCHURE**

## **STEEL PIPES**

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# WHO ARE WE AND WHY CHOOSE US?

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We are an import and export company for industrial materials for the electric and oil sectors. Our solid team of professionals is at your disposal to advise you in an easy and timely way, in all your commercial and technical requirements. As a company we are able to recommend the best products and materials. Additionally, we have the capacity to carry out construction works and manufacture of electric substations and fire fighting systems anywhere in the world. The support of our allies for these projects, whether small or large, allows us to carry out our activities in the highest quality and service standards, with impeccable delivery and guarantee records.

At Delta Prima Global Group, we seek to facilitate the rapprochement between customers and manufacturers, making available to them the latest and most efficient technologies for manufactured products by prestigious brands; ensuring quality, responsibility and reliability in the suppliers of products they offer, because in this increasingly globalized world, it is necessary to have expert professionals who effectively identify production needs, in order to promote greater profitability in our businesses clients.

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# SEAMLESS STEEL PIPES

## SPECIFICATIONS

Standard: API 5L / ASME B36.1M / EN10210 / DIN

Steel grade: A53 GR.A / A106 GR.A GR. B / ST37

OD: 1/8" – 24" (10.3mm – 610mm)

Wall thickness: SCH10...STD, SCH40, SCH80...SCH160, XS, XXS.



### Chemical components and mechanicals properties

Standard	Steel grade	Chemical components									Mechanicals properties		
		C	Mn	P	S	Cu	Ni	Cr	Mo	V	Tensile strength (Mpa)	Yield strength (Mpa)	Elongation (Mpa)
ASTM A53	A	≤0.25	≤0.95	≤0.05	≤0.05	≤0.40	≤0.40	≤0.40	≤0.15	≤0.08	≥330	≥205	≥29.5
	B	≤0.30	≤1.20	≤0.05	≤0.05	≤0.40	≤0.40	≤0.40	≤0.15	≤0.08	≥415	≥240	≥29.5
ASTM A106	B	≤0.30	≥0.10	0.29-1.06	≤0.035	≤0.035	≤0.40	≤0.40	≤0.15	≤0.08	≥415	≥240	≥30
	C	≤0.35	≥0.10	0.29-1.06	≤0.035	≤0.035	≤0.40	≤0.40	≤0.15	≤0.08	≥485	≥275	≥30

# ALLOW STEEL PIPE / LOW TEMPERATURE STEEL PIPE



## SPECIFICATIONS

Standard: ASTM A213 / A333 / A335

Steel grade: T2 – T22 / Gr1 – Gr9 / P1 – P91

OD: 1/8" – 24" (10.3mm – 610mm)

Wall thickness: SCH10...STD, SCH40, SCH80...SCH160, XS, XXS.

### Chemical components and mechanicals properties

Standard	Steel grade	Chemical components							Mechanicals properties	
		C	Mn	Si	Cr	Mo	P	S	Tensile strength (Mpa)	Yield strength (Mpa)
ASTM A333	Gr6	≤0.25	0.29~1.06	≤0.10			≤0.025	≤0.025	≥415	≥240
ASTM A335	P1	0.10-0.20	0.30-0.80	0.10-0.50		0.44~0.65	≤0.025	≤0.025	≥380	≥205
	P5	≤0.15	0.30~0.60	≤0.50	4.00~6.00	0.45~0.65	≤0.025	≤0.025	≥415	≥205
	P9	≤0.15	0.30~0.60	0.25~1.00	8.00~10.00	0.90~1.10	≤0.025	≤0.025	≥415	≥205
	P11	0.05~0.15	0.30~0.60	0.50~1.00	1.00~1.50	0.44~0.65	≤0.025	≤0.025	≥415	≥205
	P12	0.05~0.15	0.30~0.61	≤0.50	0.80~1.25	0.44~0.65	≤0.025	≤0.025	≥415	≥220
	P22	0.05~0.15	0.30~0.60	≤0.50	1.90~2.60	0.87~1.13	≤0.025	≤0.025	≥415	≥205



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# LINE PIPE



## SPECIFICATIONS

Standard: API 5L PSL 1 & PSL 2

Steel grade: GrB – X70

OD: 1/2" – 152" (21.3mm – 3800mm)

Wall thickness: SCH10...STD, SCH40, SCH80...SCH160, XS, XXS.

Chemical components and mechanicals properties

Standard	Steel grade	Chemical components								Mechanicals properties	
		C	Mn	Cr	Mo	P	S	Ni	Cu	Tensile strength (Mpa)	Yield strength (Mpa)
API Spec 5L PSL 1	B	≤0.28	≤1.20	≤0.50	≤0.15	≤0.030	≤0.030	≤0.50	≤0.50	≥415	≥245
	X42	≤0.28	≤1.30	≤0.50	≤0.15	≤0.030	≤0.030	≤0.50	≤0.50	≥415	≥290
	X46	≤0.28	≤1.40	≤0.50	≤0.15	≤0.030	≤0.030	≤0.50	≤0.50	≥435	≥320
	X52	≤0.28	≤1.40	≤0.50	≤0.15	≤0.030	≤0.030	≤0.50	≤0.50	≥460	≥360
	X56	≤0.28	≤1.40	≤0.50	≤0.15	≤0.030	≤0.030	≤0.50	≤0.50	≥490	≥390
	X60	≤0.28	≤1.40	≤0.50	≤0.15	≤0.030	≤0.030	≤0.50	≤0.50	≥520	≥415
	X65	≤0.28	≤1.40	≤0.50	≤0.15	≤0.030	≤0.030	≤0.50	≤0.50	≥535	≥450
	X70	≤0.28	≤1.40	≤0.50	≤0.15	≤0.030	≤0.030	≤0.50	≤0.50	≥570	≥485
API Spec 5L PSL 2	BN	≤0.24	≤1.20	≤0.30	≤0.15	0.025	0.015	≤0.30	≤0.50	415-655	245-450
	X42N	≤0.24	≤1.20	≤0.30	≤0.15	0.025	0.015	≤0.30	≤0.50	415-655	290-495
	X46N	≤0.24	≤1.40	≤0.30	≤0.15	0.025	0.015	≤0.30	≤0.50	435-655	320-525
	X52N	≤0.24	≤1.40	≤0.30	≤0.15	0.025	0.015	≤0.30	≤0.50	460-760	360-530
	X56N	≤0.24	≤1.40	≤0.30	≤0.15	0.025	0.015	≤0.30	≤0.50	490-760	390-545
	X60N	≤0.24	≤1.40	≤0.50	≤0.50	0.025	0.015	≤0.50	≤0.50	520-760	415-565
	X65Q	≤0.18	≤1.70	≤0.50	≤0.50	0.025	0.015	≤0.50	≤0.50	535-760	450-600
	X70Q	≤0.18	≤1.80	≤0.50	≤0.50	0.025	0.015	≤0.50	≤0.50	570-760	485-635

# CASING PIPES AND PERFORATED PIPES



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## SPECIFICATIONS

Standard: API 5CT

Steel grade: H40 / J55 / K55 / N80 / M65 / L80 / C90 / T95 / P110

OD: 4 1/2" – 20" (10.3mm – 508mm)

Wall thickness: 5.21mm – 16.13mm

### Chemical components and mechanicals properties

Class	Sort	Chemical components													Mechanicals properties				
		C		Mn		Mo		Cr		Ni	Cu	P	S	Si	Tensile strength (Mpa)	Yield strength (Mpa)		Hardness	
		min	max	min	max	min	max	min	max	max	max	max	max	max	min	min	max	HRC	HBW/HBC
H40	/	/	/	/	/	/	/	/	/	/	/	0.030	0.030	/	414	276	552	/	/
J55	/	/	/	/	/	/	/	/	/	/	/	0.030	0.030	/	517	379	552	/	/
K55	/	/	/	/	/	/	/	/	/	/	/	0.030	0.030	/	655	379	552	/	/
N80	1	/	/	/	/	/	/	/	/	/	/	0.030	0.030	/	689	552	758	/	/
	Q	/	/	/	/	/	/	/	/	/	/	0.030	0.030	/	689	552	758	/	/
M65	/	/	/	/	/	/	/	/	/	/	/	0.030	0.030	/	586	448	586	22	235
L80	9Cr	/	0.15	0.30	0.60	0.90	1.10	8.00	10.00	0.50	0.25	0.020	0.010	1	655	552	655	23	241
	13Cr	0.15	0.22	0.25	1.00	/	/	12.00	14.00	0.50	0.25	0.020	0.010	1	655	552	655	23	241
C90	1	/	0.35	/	1.00	0.25	0.75	/	1.20	0.99	/	0.020	0.010	/	689	621	724	25.4	255
T95	1	/	0.35	/	1.20	0.25	0.85	0.40	1.50	0.99	/	0.020	0.010	/	724	655	758	25.4	255
P110	/	/	/	/	/	/	/	/	/	/	/	0.030	0.030	/	862	758	965	/	/



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# STAINLESS STEEL PIPES



## SPECIFICATIONS

Standard: API 5CT

Steel grade: H40 / J55 / K55 / N80 / M65 /  
L80 / C90 / T95 / P110

OD: 4 1/2" – 20" (10.3mm – 508mm)

Wall thickness: 5.21mm – 16.13mm

Stainless steel pipe standards

Stainless type	GB	ANSI	UNS	JIS	EN
Austenitic Stainless Steel	06Cr19Ni10	TP304	S30400	SUS304	X5CrNi18-10 1.4301
	022Cr19Ni10	TP304L	S30403	SUS304L	X2CrNi19-11 1.4306
	07Cr19Ni10	TP304H	S30409	SUS304H	X6CrNi18-10 1.4978
	10Cr18Ni9NbCu38N	/	S30432		
	06Cr25Ni20	TP310S	S31008	SUS310S	X12CrNi23-12 1.4845
	07Cr25Ni21NbN	TP310HCbN	S31042		
	06Cr17Ni12Mo2	TP316	S31600	SUS316	X5CrNiMo17-12-2 1.4401
	022Cr17Ni12Mo2	TP316L	S31603	SUS316L	X2CrNiMo17-12-2 1.4404
	07Cr17Ni12Mo2	TP316H	S31609		X2CrNiMo17-13-3 1.4436
	06Cr17Ni12Mo3Ti	TP316Ti	S31635	SUS316Ti	X6CrNiMo17-12-2 1.4571
	06Cr18Ni11Ti	TP321	S32100	SUS321	X6CrNiTi18-10 1.4541
	07Cr18Ni11Ti	TP321H	S32109	SUS321H	X6CrNiTi18-10 1.4541
	06Cr18Ni11Nb	TP347	S34700	SUS347	X6CrNiNb18-10 1.4550
	07Cr18Ni11Nb	TP347H	S34709	SUS347H	X7CrNiNb18-10 1.4912
	08Cr18Ni11NbFG	TP347HFG	S34710		
16Cr20Ni14Si2	/	/		X15CrNiSi20-12 1.4828	
Duplex Stainless Steel	00Cr14Ni14Si4	/	/		
	00Cr25Ni6Mo3N	/	S32900	SUS329J1L	
	022Cr22Ni5Mo3N	/	S31803	SUS329J3L	X2CrNiMoN22-5-3 1.4462
	022Cr23Ni7Mo4N	/	S32205		
	022Cr25Ni7Mo4N	/	S32750		X2CrNiMoN25-7-41.4410
	022Cr19Ni5Mo3Si2N	/	S31500	3RE60	

# SQUARE AND RECTANGULAR PIPE



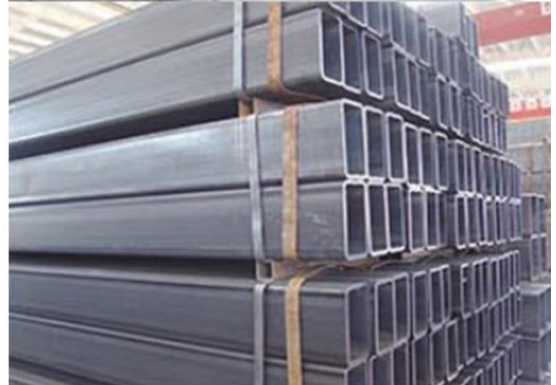
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## SPECIFICATIONS

Material: A53 Gr. A / Gr. B / A106 Gr.A /  
GR.B / A333 GR1 / GR3 / GR6 / S355JR /  
S355JO / S355J2

OD: 20mm \* 20mm – 600mm \* 600mm

Wall thickness: 1mm – 40mm





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# PIPE ACCESSORIES



**ELBOW**



**TEE**



**FORGED FITTING**



**FLANGE**



**COMPENSATOR**



**GAUGE**



**VALVE**



**GATE VALVE**



Nominal pipe size outside diameter and thickness (ANSI B36.10 B36.19M)

NPS	DN	D	Sch5s	Sch10s	Sch10	Sch20	Sch30	Sch40s	STD	Sch40	Sch60	Sch80s	XS	Sch80	Sch100	Sch120	Sch140	Sch160	XXS
1/8"	6	10.3		1.24				1.73	1.73	1.73		2.41	2.41	2.41					
1/4"	8	13.7		1.65				2.24	2.24	2.24		3.02	3.02	3.02					
3/8"	10	17.1		1.65				2.31	2.31	2.31		3.2	3.2	3.2					
1/2"	15	21.3	1.65	2.11			2.41	2.77	2.77	2.77		3.73	3.73	3.73				4.78	7.74
3/4"	20	26.7	1.65	2.11			2.41	2.87	2.87	2.87		3.91	3.91	3.91				5.56	7.82
1"	25	33.4	1.65	2.77	2.77		2.9	3.38	3.38	3.38		4.55	4.55	4.55				6.35	9.09
1 1/4"	32	42.2	1.65	2.77	2.77		2.97	3.56	3.56	3.56		4.85	4.85	4.85				6.35	9.7
1 1/2"	40	48.3	1.65	2.77	2.77		3.18	3.68	3.68	3.68		5.08	5.08	5.08				7.14	10.15
2"	50	60.3	1.65	2.77	2.77		3.18	3.91	3.91	3.91		5.54	5.54	5.54				8.74	11.07
2 1/2"	65	73	2.11	3.05	3.05		4.78	5.16	5.16	5.16		7.01	7.01	7.01				9.53	14.02
3"	80	88.9	2.11	3.05	3.05		4.78	5.49	5.49	5.49		7.62	7.62	7.62				11.13	15.24
3 1/2"	90	101.6	2.11	3.05	3.05		4.78	5.74	5.74	5.74		8.08	8.08	8.08					
4"	100	114.3	2.11	3.05	3.05		4.78	6.02	6.02	6.02		8.56	8.56	8.56		11.13		13.49	17.12
5"	125	141.3	2.77	3.4	3.4			6.55	6.55	6.55		9.53	9.53	9.53		12.7		15.88	19.05
6"	150	168.3	2.77	3.4	3.4	4.5		7.11	7.11	7.11		10.97	10.97	10.97		14.27		18.26	21.95
8"	200	219.1	2.77	3.76	3.76	6.35	7.04	8.18	8.18	8.18	10.31	12.7	12.7	12.7	15.09	18.26	20.62	23.01	22.23
10"	250	273	3.4	4.19	4.19	6.35	7.8	9.27	9.27	9.27	12.7	12.7	12.7	15.09	18.26	21.44	25.4	28.58	25.4
12"	300	323.8	3.96	4.57	4.57	6.35	8.38	9.53	9.53	10.31	14.27	12.7	12.7	17.48	21.44	25.4	28.58	33.32	25.4
14"	350	355.6	3.96	4.78	6.35	7.92	9.53		9.53	11.13	15.09		12.7	19.05	23.83	27.79	31.75	35.71	
16"	400	406.4	4.19	4.78	6.35	7.92	9.53		9.53	12.7	16.66		12.7	21.44	26.19	30.96	36.53	40.49	
18"	450	457.2	4.19	4.78	6.35	7.92	11.13		9.53	14.27	19.05		12.7	23.83	29.36	34.96	39.67	45.24	
20"	500	508	4.78	5.54	6.35	9.53	12.7		9.53	15.09	20.62		12.7	26.19	32.54	38.1	44.45	50.01	
22"	550	558.8	4.78	5.54	6.35	9.53	12.7		9.53		22.23		12.7	28.58	34.93	41.28	47.63	53.98	
24"	600	906.6	5.54	6.35	6.35	9.53	14.27		9.53	17.48	24.61		12.7	30.96	38.89	46.02	52.37	59.54	
26"	650	660.4			7.92	12.7			9.53					12.7					
28"	700	711.2			7.92	12.7	15.88		9.53					12.7					
30"	750	762	6.35	7.92	7.92	12.7	15.88		9.53					12.7					
32"	800	812.8			7.92	12.7	15.88		9.53	17.48				12.7					
34"	850	863.6			7.92	12.7	15.88		9.53	17.48				12.7					
36"	900	914.4			7.92	12.7	15.88		9.53	17.48				12.7					
38"	950	965.2							9.53					12.7					
40"	1000	1016							9.53					12.7					
42"	1050	1066.8							9.53					12.7					
44"	1100	1117.6							9.53					12.7					
46"	1150	1168.4							9.53					12.7					
48"	1200	1219.2							9.53					12.7					

## Single-weight calculation formula for per meter

Seamless pipe

$$\text{Kg/m} = (\text{OD} - \text{T}) * \text{T} * 0.0246615$$

Where:

OD is the outside diameter

T is the wall thickness

## Pressure test formula

$$2\text{ST}/\text{D} * 0.9 = \text{P}$$

Where: S (min yield) D=pipe diameter  
0.9=factor P=Mpa

So thickness formula is as the following

$$\text{T} = \text{P} / 0.9 * \text{D} / (2\text{S})$$



# STANDARD TABLE FOR STEEL PIPE

Standard table for steel pipes								
Steel type	GB/T	JIS		ASTM	DIN			
	Material	Material	Standard	Material	Material	Steel No.	Standard	
Carbon Steel pipes	10#	GGP	G3452	(A53-F)	(St37)	1.0033	DIN1626	
		STPY41	G3457	A283-D				
		STPG38	G3454	A135-A	(St37)	1.011	DIN1626	
		STPG38	G3456	A53-A				
		STB30	G3461	A106-A	St37-2	1.0112	DIN17175	
		STB33	G3461	G3455	A179-C	St35.8	1.0305	DIN1629/4
						A214-C	St35.4	
		STB35	G3461	G3455	A192	St35.8	1.0305	DIN17175
	A226					St35.8	1.0305	
	20#		STPT42	G3454	A351-B	(St42)	1.013	DIN1626
					A53-B	St42-2	1.0132	
			STPT42	G3456	A106-B	St45-8	1.0405	DIN17175
			STB42	G3461	A106-B	St45-8	1.0405	DIN17175
	STS42	G3455		A178-C	St45-4	1.0309	DIN1629/4	
A210-A-1								
Low alloy steel pipes	16Mn	STS49	G3455	A210-C	St52.4	1.0832	DIN1629/4	
		STPT49	G3456		St52	1.0831	DIN1629/3	
	15MnV	STBL39	G3464					
Low temperature alloy steel pipes	16Mn	STPL39	G3460	A333-1.6	TT St35N	1.0356	SEW680	
	15MnV	STBL39	G3464	A333-1.6				
	09Mn2v			A333-7.9	A333-7.9	TT St35N	1.0356	SEW680
				A334-7.9	A334-7.9			
	(06ALNbCuN)			G3460	A333-3.4		1.5637	SEW680
				G3464	A334-3.4			
(20Mn23AL)				A333-8	X8Ni9	1.5662	SEW680	
Hot usage steel pipes	16MO	STPA12	G3458	A335-P1,A369-FP1	15MO3	1.5414	DIN17175	
		STPA12,13	G3462	A250-T1,A209-T1				
	12CrMO	STBA20	G3462	G3458	A335-P2,A369-FP2	13CrMO44	1.7335	DIN17175
					A213-T2			
	15CrMO	STPA22	G3462	G3458	A335-P11,A369-FP12			
					A213-T12			
	12Cr1MOV	STPA23	G3458	G3458	A335-P11,A369-FP12			
		STBA23	G3462	G3462	A199.T11,A213-T11			

# STANDARD TABLE FOR STEEL PIPE



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Standard table for steel pipes

Steel type	GB		JIS		ASTM	DIN	
	Standard	Material	Material	Standard	Material	Steel No.	Standard
Hot usage steel pipes	GB5310	12Cr2Mo	STPA24	G3458	A335-P22,A369-FP22	10CrMo190	SEW610
			STBA24	G3462	A199-T22,A213-T22		
		Cr5Mo	STPA25	G3458	A335-P5,A389-FP5	12CrMo195	DIN17175
			STPA25	G3462	A213-T5		
			STPA26	G3458	A335-P9,A369-FP9		
STPA26	G3462	A199-T9,A213-T9					
Carbon steel boiler tube	GB6479	10#	STB340 (STB35)	G3461	ASTM A179 A192	St35.8	DIN17175
	GB5310	20G	STB410	G3461	ASTM 178 C	St45.8	DIN17175
	GB6479		(STB42)		A210 A1		
			STB510	G3461	ASTM 210 C	19Mn5	DIN17175
Alloy steel boiler tube	GB9948	12CrMo	STBA20	G3462	ASTM A213 T 2	13CrMo44	DIN17175
	GB5310				ASTM A213 T 12		
	GB6479						
	GB9948	15CrMo	STBA22		ASTM A213 T 11		
	GB5310				A199 T11		
	GB6479						
	GB5310	12Cr2Mo	STBA24		ASTM A213 T 22	10CrMo910	DIN17175
	GB6479				A199 T22		
	GB9948	1Cr5Mo	STBA25		ASTM A213 T 5	12CrMo195	DIN17175
GB6479	A199 T5						
			STBA26	ASTM A213 T 9	X12CrMo91	DIN17175	
				A199 T9			
Hot usage steel pipes	GB9948	20#	STFA410	G3467			
			STFA23		ASTM A200 T11		
	GB9948	STFA24	ASTM A200 T22				
	GB9948	1Cr5Mo	STFA25		ASTM A200 T5		
			STFA26		ASTM A200 T9		
Normal usage steel pipes	GB8163	10#	STPG370 (STPG38)	G3456	ASTM A53A	ST35	DIN1629
	GB8163	20#	STPG410 (STP42)		ASTM A53B	ST45	DIN17175
High temperature carbon steel	GB6479	10#	STPT410 (STPT38)	G3456	ASTM A 106A	ST35.8	DIN17175
	GB9948						
	GB5310	20G	STPT410 (STPT42)		ASTM A 106B	ST45.8	DIN17175
	GB6479		STPT480 (STPT49)		ASTM A106C		
Alloy steel	GB9948	12CrMo	STPA20	G3458	A335 P2, A369-FP2	13CrMo44	DIN17175
	GB6479		A213-T2				
	GB9948		STPA22		ASTM A335 P12		
		STPA23	ASTM A335P11				
	GB5310	12CrMo	STPA24		ASTM A335 P22	10CrMo910	DIN17175
	GB6479						
GB9948	1Cr5Mo	STPA25	ASTM A335 P5	12CrMo195	DIN17175		
GB6479		STPA26	ASTM A335 P9	X12CrMo91	DIN17175		