

PRODUCTS

SEAMLESS STEEL PIPE

LINE PIPE

The common materials: 20# and Q345. Technical Standard: API 5L B, ASTM A106 GR.B, ASTM A53 GR.B; High-pressure boiler pipe GB5310-1995, Special pipe for fertilizer making GB6479-2000, pipe for petroleum cracking GB9948-2000, low- and medium-pressure boiler pipe GB3087-1999, fluid pipe GB/T8163-1999, structural pipe GB/T8162-1999 and hydraulic support pipe GB/T17396-1998.

A53 Chemical components and mechanical property

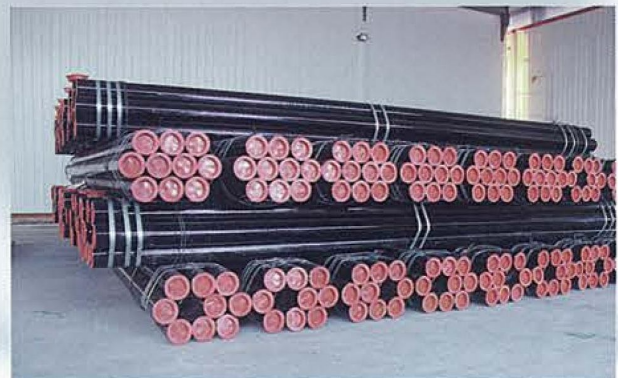
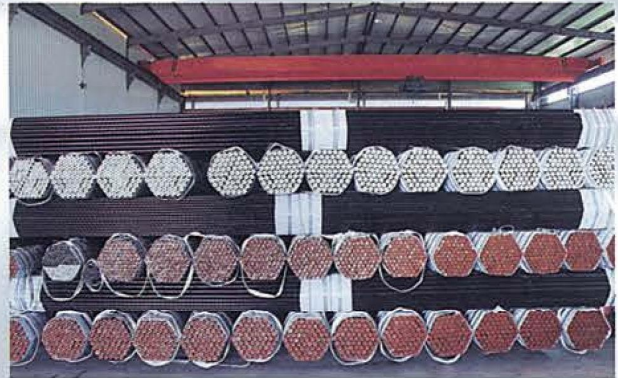
Standard	Trade mark	Chemical components										Mechanical property		
		C	Si	Mn	P	S	Cu	Ni	Mo	Cr	V	Tensile Strength (Mpa)	Yield Strength (Mpa)	Elongation (%)
ASTM A53	A	≤0.25	/	≤0.95	≤0.05	≤0.06	≤0.40	≤0.40	≤0.15	≤0.40	≤0.08	≥330	≥205	≥29.5
	B	≤0.30	/	≤1.2	≤0.05	≤0.06	≤0.40	≤0.40	≤0.15	≤0.40	≤0.08	≥415	≥240	≥29.5

A106 Chemical components and mechanical property

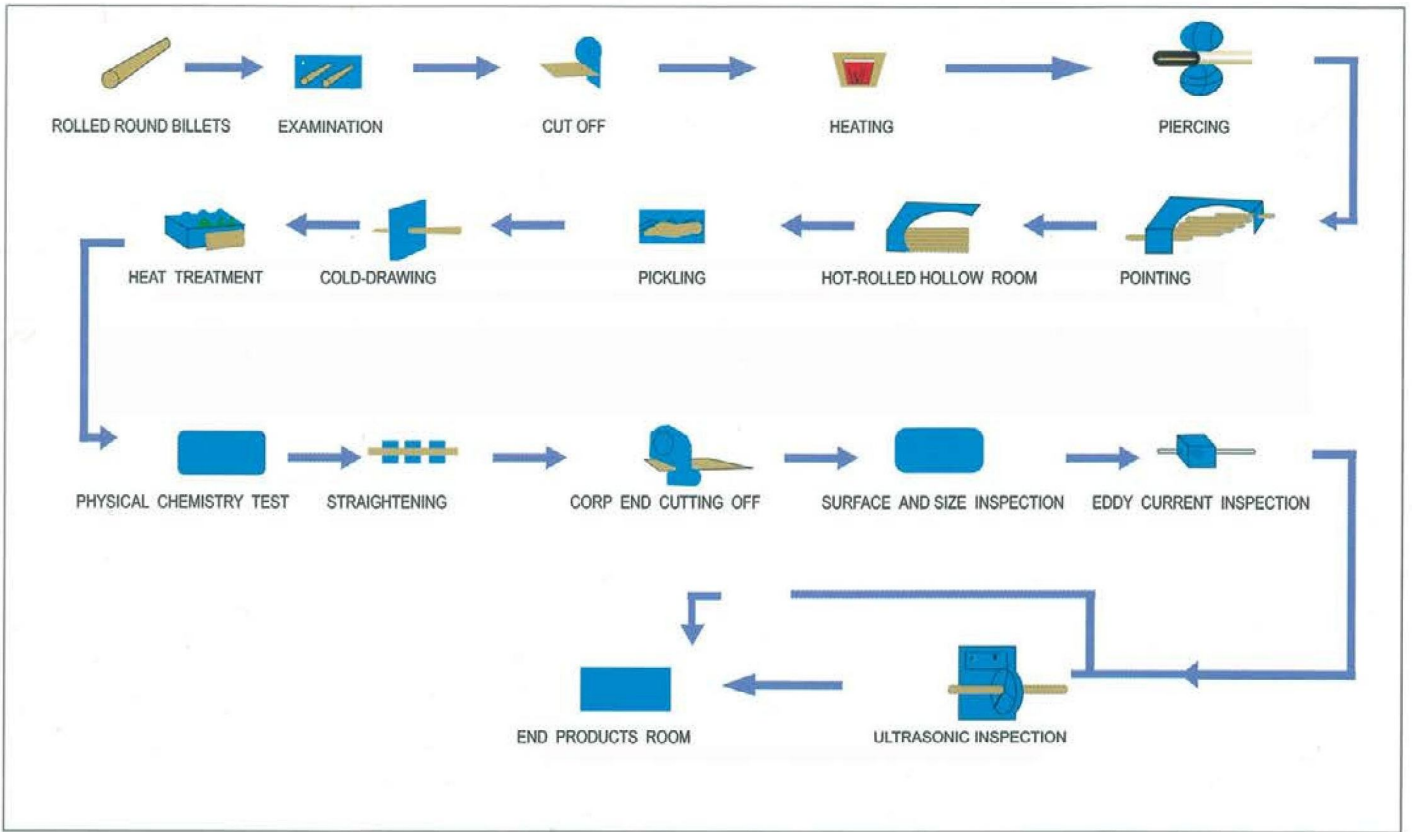
Standard	Trade mark	Chemical components										Mechanical property		
		C	Si	Mn	P, S	Cu	Ni	Mo	Cr	V	Tensile Strength (Mpa)	Yield Strength (Mpa)	Elongation (%)	
ASTM A106	B	≤0.30	≥0.10	0.29~1.06	≤0.035	≤0.40	≤0.40	≤0.15	≤0.40	≤0.08	≥415	≥240	≥30	
	C	≤0.35	≥0.10	0.29~1.06	≤0.035	≤0.40	≤0.40	≤0.15	≤0.40	≤0.08	≥485	≥275	≥30	

API 5L Chemical components and mechanical property PSL 1:

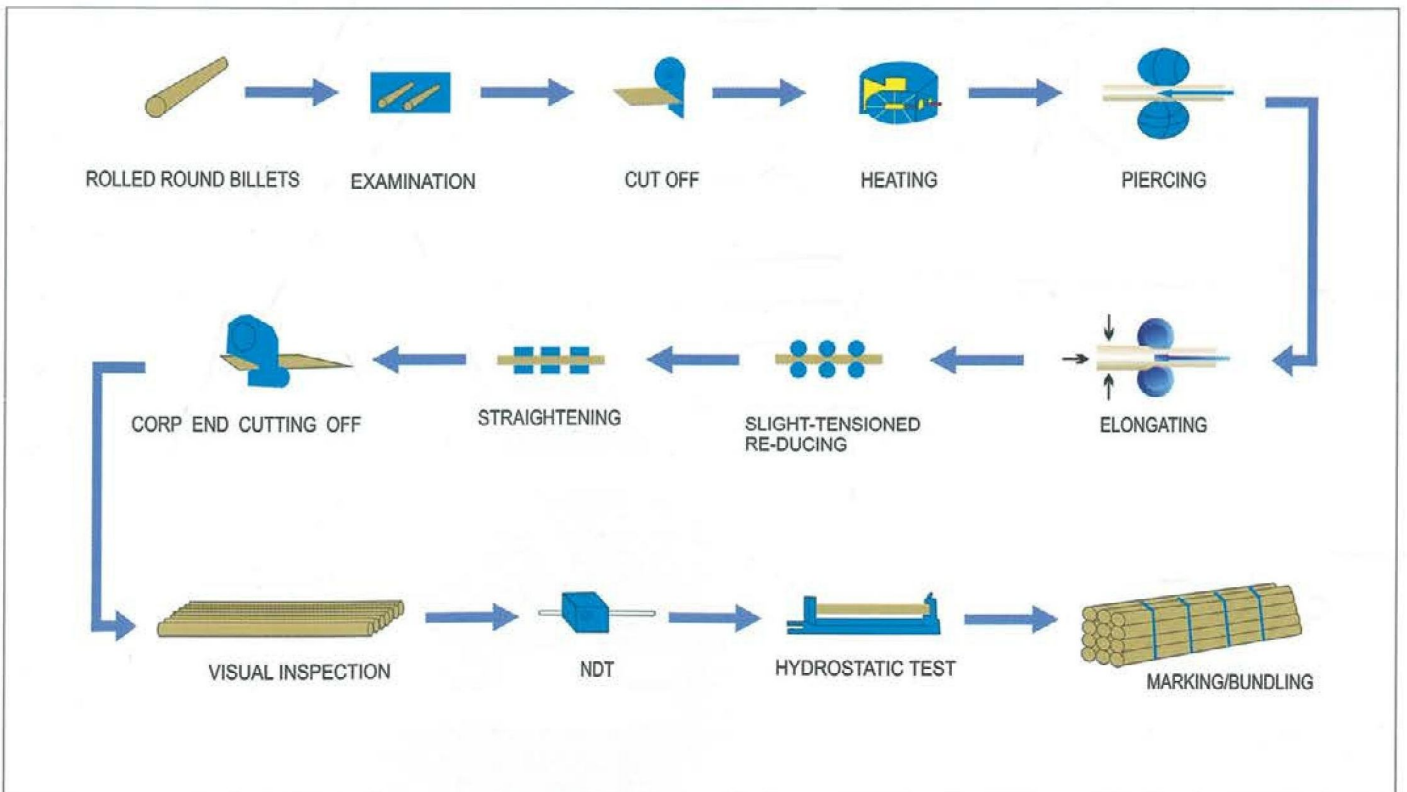
Class and Sort		Chemical components				Mechanical property			
		C (Max)	Mn (Max)	P (Max)	S (Max)	Tensile Strength (Min)		Yield Strength (Min)	
						psi	Mpa	psi	Mpa
A25	CL I	0.21	0.60	0.030	0.030	45000	310	25000	172
	CL II	0.21	0.60	0.030	0.030				
	A	0.22	0.90	0.030	0.030	48000	331	30000	207
	B	0.28	1.20	0.030	0.030	60000	414	35000	241
	X42	0.28	1.30	0.030	0.030	60000	414	42000	290
	X46	0.28	1.40	0.030	0.030	63000	434	46000	317
	X52	0.28	1.40	0.030	0.030	66000	455	52000	359
	X56	0.28	1.40	0.030	0.030	71000	490	56000	386
	X60	0.28	1.40	0.030	0.030	75000	517	60000	414
	X65	0.28	1.40	0.030	0.030	77000	531	65000	448
	X70	0.28	1.40	0.030	0.030	82000	565	70000	483



COLD-DRAWING SEAMLESS STEEL PIPE PROCESS FLOW CHART



HOT-ROLLING SEAMLESS STEEL PIPE PROCESS FLOW CHART





Size and Weight of Seamless Roll Steel Pipe

ASME B36.10M-1996

Nominal Diameter		Outside Diameter		(STD) (XS) (XXS)	Sch.no	Wall Thickness		Nominal Weight	
NPS	DN	in	mm			in	mm	lb/ft	kg/m
1/8	...	0.405	10.3	STD	40	0.068	1.73	0.24	0.37
1/8	...	0.405	10.3	XS	80	0.095	2.41	0.31	0.47
1/4	...	0.540	13.7	STD	40	0.088	2.24	0.42	0.63
1/4	...	0.540	13.7	XS	80	0.119	3.02	0.54	0.80
3/8	10	0.675	17.1	STD	40	0.091	2.31	0.57	0.84
3/8	10	0.675	17.1	XS	80	0.126	3.20	0.74	1.10
1/2	15	0.840	21.3	STD	40	0.109	2.77	0.85	1.27
1/2	15	0.840	21.3	XS	80	0.147	3.73	1.09	1.62
1/2	15	0.840	21.3	...	160	0.188	4.78	1.31	1.95
3/4	20	1.050	26.7	STD	40	0.113	2.87	1.13	1.69
3/4	20	1.050	26.7	XS	80	0.154	3.91	1.47	2.20
3/4	20	1.050	26.7	...	160	0.219	5.56	1.94	2.90
1	25	1.315	33.4	STD	40	0.133	3.38	1.68	2.50
1	25	1.315	33.4	XS	80	0.179	4.55	2.17	3.24
1	25	1.315	33.4	...	160	0.250	6.35	2.84	4.24
1 1/4	32	1.660	42.2	STD	40	0.140	3.56	2.27	3.39
1 1/4	32	1.660	42.2	XS	80	0.191	4.85	3.00	4.47
1 1/4	32	1.660	42.2	...	160	0.250	6.35	3.76	5.61
1 1/2	40	1.900	48.3	STD	40	0.145	3.68	2.72	4.05
1 1/2	40	1.900	48.3	XS	80	0.200	5.08	3.63	5.41
1 1/2	40	1.900	48.3	...	160	0.281	7.14	4.86	7.25
2	50	2.375	60.3	STD	40	0.154	3.91	3.65	5.44
2	50	2.375	60.3	XS	80	0.218	5.54	5.02	7.48
2	50	2.375	60.3	...	160	0.344	8.74	7.46	11.11
2 1/2	65	2.875	73.0	STD	40	0.203	5.16	5.79	8.63
2 1/2	65	2.875	73.0	XS	80	0.276	7.01	7.66	11.41
2 1/2	65	2.875	73.0	...	160	0.375	9.35	10.01	14.92
3	80	3.500	88.9	STD	40	0.216	5.49	7.58	11.29
3	80	3.500	88.9	XS	80	0.300	7.62	10.25	15.27
3	80	3.500	88.9	...	160	0.438	11.13	14.32	21.35
3 1/2	...	4.00	101.6	STD	40	0.226	5.74	9.11	13.57
3 1/2	...	4.00	101.6	XS	80	0.318	8.08	12.50	18.63
4	100	4.500	114.3	STD	40	0.237	6.02	10.79	16.07
4	100	4.500	114.3	XS	80	0.337	8.56	14.98	22.32
4	100	4.500	114.3	...	120	0.438	11.13	19.00	28.32
4	100	4.500	114.3	...	160	0.531	13.49	22.51	33.54
5	125	5.563	141.3	STD	40	0.258	6.55	14.62	21.77
5	125	5.563	141.3	XS	80	0.375	9.53	20.78	30.97
5	125	5.563	141.3	...	120	0.500	12.70	27.04	40.28
5	125	5.563	141.3	...	160	0.625	15.88	32.96	49.11
6	150	6.625	168.3	STD	40	0.280	7.11	18.97	28.26
6	150	6.625	168.3	XS	80	0.432	10.97	28.57	42.56
6	150	6.625	168.3	...	120	0.562	14.27	36.39	54.20
6	150	6.625	168.3	...	160	0.719	18.26	45.35	67.56
8	200	8.625	219.1	STD	40	0.322	8.18	28.55	42.55
8	200	8.625	219.1	XS	80	0.500	12.70	43.39	64.64
8	200	8.625	219.1	...	120	0.719	18.26	60.71	90.44
8	200	8.625	219.1	...	160	0.906	23.01	74.69	111.27
10	250	10.750	273.0	...	20	0.250	6.35	28.04	41.77
10	250	10.750	273.0	STD	40	0.365	9.27	40.48	60.31
10	250	10.750	273.0	...	80	0.594	15.09	64.43	96.01
10	250	10.750	273.0	...	120	0.844	21.44	89.29	133.06
10	250	10.750	273.0	...	160	1.125	28.58	115.64	172.33
12	300	12.750	323.8	...	20	0.250	6.35	33.38	49.73
12	300	12.750	323.8	...	40	0.406	10.31	53.52	79.73
12	300	12.750	323.8	...	80	0.688	17.48	88.63	132.08
12	300	12.750	323.8	XXS	120	1.000	25.40	125.49	186.97
12	300	12.750	323.8	...	160	1.312	33.32	160.27	238.76

Size and Weight of Seamless Roll Steel Pipe

ASME B36.10M-1996

Nominal Diameter		Outside Diameter		(STD) (XS) (XXS)	Sch.no	Wall Thickness		Nominal Weight	
NPS	DN	in	mm			in	mm	lb/ft	kg/m
14	350	14.000	355.6	...	10	0.250	6.35	36.71	54.69
14	350	14.000	355.6	...	20	0.312	7.92	45.61	67.90
14	350	14.000	355.6	STD	30	0.375	9.53	54.57	81.33
14	350	14.000	355.6	...	40	0.438	11.13	63.44	94.55
14	350	14.000	355.6	...	60	0.594	15.09	85.05	126.71
14	350	14.000	355.6	...	80	0.750	19.05	106.13	158.10
14	350	14.000	355.6	...	120	1.094	27.79	150.79	224.65
14	350	14.000	355.6	...	160	1.406	35.71	189.11	281.70
16	400	16.000	406.4	...	20	0.312	7.92	52.27	77.83
16	400	16.000	406.4	STD	30	0.375	9.53	62.58	93.27
16	400	16.000	406.4	XS	40	0.500	12.70	82.77	123.30
16	400	16.000	406.4	...	60	0.656	16.66	107.50	160.12
16	400	16.000	406.4	...	80	0.844	21.44	136.61	203.53
18	450	18.000	457	...	20	0.312	7.92	58.94	87.71
18	450	18.000	457	...	30	0.438	11.13	82.15	122.38
18	450	18.000	457	...	40	0.562	14.27	104.67	155.80
18	450	18.000	457	...	60	0.750	19.05	138.17	205.74
18	450	18.000	457	...	80	0.938	23.83	170.92	254.55
18	450	18.000	457	...	100	1.156	29.36	207.96	309.62
20	500	20.000	508	STD	20	0.375	9.53	78.60	117.15
20	500	20.000	508	XS	30	0.500	12.70	104.13	155.12
20	500	20.000	508	...	40	0.594	15.09	123.11	183.42
20	500	20.000	508	...	60	0.812	20.62	166.40	247.83
20	500	20.000	508	...	80	1.031	26.19	208.87	311.17
22	550	22.000	559	STD	20	0.375	9.53	86.61	129.13
22	550	22.000	559	XS	30	0.500	12.70	114.81	171.09
22	550	22.000	559	...	60	0.875	22.23	197.41	294.25
22	550	22.000	559	...	80	1.125	28.58	250.81	373.83
22	550	22.000	559	...	100	1.375	34.93	302.88	451.42
24	600	24.000	610	STD	20	0.375	9.53	94.62	141.12
24	600	24.000	610	...	30	0.562	14.27	140.68	209.64
24	600	24.000	610	...	40	0.688	17.48	171.29	255.41
24	600	24.000	610	...	60	0.969	24.61	238.35	355.26
24	600	24.000	610	...	80	1.219	30.96	296.58	442.08
26	650	26.000	660	STD	...	0.375	9.53	102.63	152.87
26	650	26.000	660	...	...	0.406	10.31	110.98	165.18
26	650	26.000	660	XS	20	0.500	12.70	136.17	202.72
26	650	26.000	660	...	...	0.562	14.27	152.68	227.23
28	700	28.000	711	STD	...	0.375	9.53	110.64	164.85
28	700	28.000	711	...	...	0.406	10.31	119.65	178.15
28	700	28.000	711	XS	20	0.500	12.70	146.85	218.69
28	700	28.000	711	...	...	0.562	14.27	164.69	245.18
28	700	28.000	711	...	30	0.625	15.88	182.73	271.21
30	750	30.000	762	STD	...	0.375	9.53	118.65	176.84
30	750	30.000	762	...	...	0.406	10.31	128.32	191.11
30	750	30.000	762	XS	20	0.500	12.70	157.53	234.67
30	750	30.000	762	...	...	0.562	14.27	176.69	263.12
30	750	30.000	762	...	30	0.625	15.88	196.08	292.18
32	800	32.000	813	...	10	0.311	7.92	105.66	157.28
32	800	32.000	813	...	20	0.5	12.70	168.32	250.55
32	800	32.000	813	...	30	0.311	15.88	209.57	311.95
32	800	32.000	813	STD	...	0.375	9.53	126.74	188.66
32	800	32.000	813	...	40	0.688	17.48	230.23	342.70

TECHNICAL PARAMETERS