

**BLAZE**

ASTM A53 ERW Steel Pipe

Description:

ASTM A53 Electric Resistance Welded (ERW) Steel Pipe is manufactured by rolling steel strip into a cylindrical shape and electrically welding the longitudinal seam. The weld is heat-treated after welding to eliminate untempered martensite, while weld flash is removed from both the internal and external surfaces to provide a smooth finish and improved performance.

Manufactured in accordance with ASTM A53, ERW steel pipe is a high-quality carbon steel pipe with accurate dimensional tolerances and a lightweight construction. It is widely used for conveying oil, gas, steam, water and air under low to medium pressure, and is also suitable for general mechanical and structural applications.

Specifications :

Size	1/2" to 14" (DN15 to DN350)
Working Pressure	20 Bar (300 psi)
Standard	ASTM A53 Type E Grade B
End	Plain (square cut) / Beveled to 30° / Roll groove as AWWA C606 / NPT thread as ANSI B1.20.1
Finish	Galvanized / Black / Red



Schedule 10 Pipe Size Chart :

Size			Thickness	Mass	Test Pressure
NPS	DN	OD(mm)	T(mm)	kg/m	MPa
1/2"	15	21.3	2.11	1	4.8
3/4"	20	26.7	2.11	1.28	4.8
1"	25	33.4	2.77	2.09	4.8
1-1/4"	32	42.2	2.77	2.69	9
1-1/2"	40	48.3	2.77	3.11	9
2"	50	60.3	2.77	3.93	13.2
2-1/2"	65	73	3.05	5.26	12
3"	80	88.9	3.05	6.46	9.9
4"	100	114.3	3.05	8.37	7.7
5"	125	141.3	3.4	11.56	6.9
6"	150	168.3	3.4	13.83	5.8
8"	200	219.1	3.76	19.97	4.9
10"	250	273	4.19	27.78	4.4
12"	300	323.8	4.57	35.98	4.1
14"	350	355.6	6.35	54.69	5.2

*Dimensions and specifications conform to ASME B36.10M (Schedule 10). Pipes are manufactured via the High-Frequency Electric Resistance Welding (HFW) process.

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ASTM A53 ERW Steel Pipe

Schedule 40 Pipe Size Chart :

Size			Thickness	Mass	Test Pressure
NPS	DN	OD(mm)	T(mm)	kg/m	MPa
1/2"	15	21.3	2.77	1.27	4.8
3/4"	20	26.7	2.87	1.69	4.8
1"	25	33.4	3.38	2.5	4.8
1-1/4"	32	42.2	3.56	3.39	9
1-1/2"	40	48.3	3.68	4.05	9
2"	50	60.3	3.91	5.44	17.2
2-1/2"	65	73	5.16	8.63	17.2
3"	80	88.9	5.49	11.29	17.2
4"	100	114.3	6.02	16.08	15.2
5"	125	141.3	6.55	21.77	13.4
6"	150	168.3	7.11	28.26	12.3
8"	200	219.1	8.18	42.55	10.8
10"	250	273	9.27	60.29	9.9
12"	300	323.8	10.31	79.71	9.2
14"	350	355.6	11.13	94.55	9

* Pipes are manufactured using High-Frequency Electric Resistance Welding (HFW) for standard sizes, with LSAW (UOE/JCOE process) available for large-diameter requirements.

Permissible Dimensional Variations :

Size			OD Tolerance	Thickness Tolerance		Remark
NPS	DN	OD(mm)	mm	Sch10 (mm)	Sch40 (mm)	
1/2"	15	21.3	20.9 ~ 21.7	1.85 ~ 2.53	2.42 ~ 3.32	1. For pipe $\leq$ NPS 1-1/2", OD tolerance is $\pm$ 0.40mm. 2. For pipe $\geq$ NPS 2", OD tolerance is $\pm$ 1%. 3. The minimum wall thickness at any point must not be more than 12.5% below the nominal wall thickness. 4. The max thickness is not defined in ASTM A53, and Blazetech refers to ASTM- A53 with 20%, 22.5% or 15% as t/d ratio.
3/4"	20	26.7	26.3 ~ 27.1	1.85 ~ 2.53	2.51 ~ 3.44	
1"	25	33.4	33.0 ~ 33.8	2.42 ~ 3.32	2.96 ~ 4.06	
1-1/4"	32	42.2	41.8 ~ 42.6	2.42 ~ 3.32	3.12 ~ 4.27	
1-1/2"	40	48.3	47.9 ~ 48.7	2.42 ~ 3.32	3.22 ~ 4.42	
2"	50	60.3	59.7 ~ 60.9	2.42 ~ 3.32	3.42 ~ 4.69	
2-1/2"	65	73	72.3 ~ 73.7	2.67 ~ 3.66	4.52 ~ 6.19	
3"	80	88.9	88.0 ~ 89.8	2.67 ~ 3.74	4.80 ~ 6.31	
4"	100	114.3	113.2 ~ 115.4	2.67 ~ 3.74	5.27 ~ 7.37	
5"	125	141.3	139.9 ~ 142.7	2.98 ~ 4.17	5.73 ~ 8.02	
6"	150	168.3	166.6 ~ 170.0	2.98 ~ 4.17	6.22 ~ 8.71	
8"	200	219.1	216.9 ~ 221.3	3.29 ~ 4.61	7.16 ~ 10.02	
10"	250	273	270.3 ~ 275.7	3.67 ~ 5.13	8.11 ~ 11.36	
12"	300	323.8	320.6 ~ 327.0	4.00 ~ 5.60	9.02 ~ 12.63	
14"	350	355.6	352.0 ~ 359.2	5.56 ~ 7.78	9.74 ~ 13.63	

- Note:**
1. For exact length (cut length), length tolerance is -0.0mm / +6.0mm, as ASTM A530.
 2. The weight (mass) tolerance of unit pipe is $\pm$ 10%.
 3. For pipe $\leq$ NPS 4", weight is measured as per bundle. For pipe $>$ NPS 4", measured as per individual length.

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