

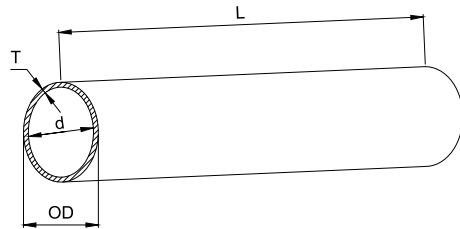
ASTM A53 seamless steel pipe

Seamless steel pipe (SMLS) is formed by drawing a solid billet over a piercing rod to create the hollow shell, without welding or seam. It is suitable for bending and cutting. The advantage of seamless steel is the ability of withstanding higher pressure.

ASTM A53 specification also covers seamless steel pipe. The pipe is intended for pressure and mechanical applications and is also acceptable for ordinary uses in oil, gas, steam, water and air lines. It is suitable for welding, bending and flanging.



- Certificate: UL listed
- Standard: ASTM A53, Type S, Grade B
- Dimension: Sch40 / Sch80 as ASME B36.10M
- Application: Fire main pipe, fire pump pipe, fire standpipe, fire sprinkler branch pipe



Supply scope for Sch40 pipe

Size			Thickness	Mass	Test pressure	Ref. No.
NPS	DN	OD (mm)	T (mm)	kg/m	MPa	
1/2"	15	21.3	2.77	1.27	4.8	P07-4015 (UL)
3/4"	20	26.7	2.87	1.69	4.8	P07-4020 (UL)
1"	25	33.4	3.38	2.50	4.8	P07-4025 (UL)
1-1/4"	32	42.2	3.56	3.39	9.0	P07-4032 (UL)
1-1/2"	40	48.3	3.68	4.05	9.0	P07-4040 (UL)
2"	50	60.3	3.91	5.44	17.2	P07-4050 (UL)
2-1/2"	65	73.0	5.16	8.63	17.2	P07-4065 (UL)
3"	80	88.9	5.49	11.29	17.2	P07-4080 (UL)
4"	100	114.3	6.02	16.08	15.2	P07-40100 (UL)
5"	125	141.3	6.55	21.77	13.4	P07-40125 (UL)
6"	150	168.3	7.11	28.26	12.3	P07-40150 (UL)
8"	200	219.1	8.18	42.55	10.8	P07-40200 (UL)
10"	250	273.0	9.27	60.29	9.9	P07-40250 (UL)
12"	300	323.8	10.31	79.71	9.2	P07-40300 (UL)

Note:

1. For NPS 1/2" to 3/4" pipe, the manufacturing method is cold drawn.
2. For NPS 1" to 1- 1/2" pipe, the manufacturing method is cold drawn or hot rolled process.
3. For NPS 2" to 3" pipe, the manufacturing method is hot rolled 6-5/8" PQF mill.
4. For NPS 4" to 12" pipe, the manufacturing method is hot rolled 10-3/4" PQF mill.

ASTM A53 seamless steel pipe

Supply scope for Sch80 pipe

Size			Thickness	Mass	Test pressure	Ref. No.
NPS	DN	OD (mm)	T (mm)	kg/m	MPa	
1/2"	15	21.3	3.73	1.62	5.9	P07-8015 (Only ISO)
3/4"	20	26.7	3.91	2.20	5.9	P07-8020 (Only ISO)
1"	25	33.4	4.55	3.24	5.9	P07-8025 (UL)
1-1/4"	32	42.2	4.85	4.47	13.1	P07-8032 (UL)
1-1/2"	40	48.3	5.08	5.41	13.1	P07-8040 (UL)
2"	50	60.3	5.54	7.48	17.2	P07-8050 (UL)
2-1/2"	65	73.0	7.01	11.41	17.2	P07-8065 (UL)
3"	80	88.9	7.62	15.27	17.2	P07-8080 (UL)
4"	100	114.3	8.56	22.32	19.3	P07-80100 (UL)
5"	125	141.3	9.53	30.97	19.3	P07-80125 (UL)
6"	150	168.3	10.97	42.56	18.9	P07-80150 (UL)
8"	200	219.1	12.70	64.64	16.8	P07-80200 (UL)
10"	250	273.0	15.09	95.98	16.0	P07-80250 (Only ISO)
12"	300	323.8	17.48	132.05	15.7	P07-80300 (Only ISO)

Note:

1. For NPS 1/2" to 3/4" pipe, the manufacturing method is cold drawn.
2. For NPS 1" to 1- 1/2" pipe, the manufacturing method is cold drawn or hot rolled process.
3. For NPS 2" to 3" pipe, the manufacturing method is hot rolled 6-5/8" PQF mill.
4. For NPS 4" to 12" pipe, the manufacturing method is hot rolled 10-3/4" PQF mill.

Permissible variations for A53 seamless steel pipe

Size			OD tolerance	THS tolerance		Remark
NPS	DN	OD (mm)	mm	Sch40 (mm)	Sch80 (mm)	
1/2"	15	21.3	20.9 ~ 21.7	2.42 ~ 3.32	3.26 ~ 4.48	1. For pipe ≤ NPS 1-1/2", OD tolerance is ± 0.40mm. 2. For pipe ≥ NPS 2", OD tolerance is ± 1%. 3. The min THS at any point is not more than 12.5%. 4. The max THS is not defined in ASTM A53, and TPMC refers to ASTM A530 with 20%, 22.5% or 15% as t/D ratio.
3/4"	20	26.7	26.3 ~ 27.1	2.51 ~ 3.44	3.42 ~ 4.69	
1"	25	33.4	33.0 ~ 33.8	2.96 ~ 4.06	3.98 ~ 5.46	
1-1/4"	32	42.2	41.8 ~ 42.6	3.12 ~ 4.27	4.24 ~ 5.82	
1-1/2"	40	48.3	47.9 ~ 48.7	3.22 ~ 4.42	4.45 ~ 6.10	
2"	50	60.3	59.7 ~ 60.9	3.42 ~ 4.69	4.85 ~ 6.65	
2-1/2"	65	73.0	72.3 ~ 73.7	4.52 ~ 6.19	6.13 ~ 8.41	
3"	80	88.9	88.0 ~ 89.8	4.80 ~ 6.31	6.67 ~ 8.76	
4"	100	114.3	113.2 ~ 115.4	5.27 ~ 7.37	7.49 ~ 9.84	
5"	125	141.3	139.9 ~ 142.7	5.73 ~ 8.02	8.34 ~ 10.96	
6"	150	168.3	166.6 ~ 170.0	6.22 ~ 8.71	9.60 ~ 12.62	
8"	200	219.1	216.9 ~ 221.3	7.16 ~ 10.02	11.11 ~ 14.61	
10"	250	273.0	270.3 ~ 275.7	8.11 ~ 11.36	13.20 ~ 17.35	
12"	300	323.8	320.6 ~ 327.0	9.02 ~ 12.63	15.30 ~ 21.41	

Note:

1. For exact length, length tolerance is -0.0mm / +6.0mm.
2. The weight (mass) tolerance of unit pipe is ±10%.
3. For pipe ≤ NPS 4", weight is measured as per bundle. For pipe > NPS 4", measured as per individual length.