

Schedule 120

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•What is Schedule 120

Schedule 120 steel pipe is a pipe wall thickness grade defined in the American Standard ANS/ASME B36.10M. The central feature is the increase in pressure capacity through a significant increase in wall thickness. This standard applies mainly to carbon and alloy steel materials, e.g. ASTM A106 Gr.B, API 5L X65, etc. The wall thickness of schedule 120 steel pipe is increased by about 30-50% compared to the common sch40, sch80 standard. However, it is slightly thinner than the highest grade XXS (Double Extra Strength) pipe.

•Size of Schedule 120

Nominal size [inches]	Outside diameter [inches]	Outside diameter [mm]	Wall thickness [inches]	Wall thickness [mm]	Weight [lb/ft]	Weight [kg/m]
4	4.5	114.3	0.438	11.13	19	28.32
5	5.563	141.3	0.5	12.7	27.04	40.28
6	6.625	168.3	0.562	14.27	36.39	54.2
8	8.625	219.1	0.719	18.26	60.71	90.44
10	10.75	273	0.844	21.44	89.29	133.06
12	12.75	323.8	1	25.4	125.49	186.97
14	14	355.6	1.094	27.79	150.79	224.65
16	16	406.4	1.219	30.96	192.43	286.64
18	18	457	1.375	34.93	244.14	363.56
20	20	508	1.5	38.1	296.37	441.49
22	22	559	1.625	41.28	353.61	527.02
24	24	610	1.812	46.02	429.39	640.03

●Pressure of Schedule 120

NPS (in)	Outside Diameter (in) (mm)	Schedule 120
4	4.5	4769
	114	32882
5	5.563	4404
	141	30366
6	6.625	4157
	168	28663
8	8.625	4085
	219	28166
10	10.75	3847
	273	26525
12	12.75	3843
	324	26497
14	14	3829
	356	26401
16	16	3733
	406	25739
18	18	3743
	457	25808
20	20	3675
	508	25339
22	22	3619
	559	24953
24	24	3700
	610	25512

●Application of Schedule 120

- Energy and power industry: Schedule 120 steel pipe is mainly used for high temperature and high pressure steam piping in thermal power plants, such as main steam pipe and reheat hot section piping, capable of withstanding high temperatures of more than 500 °C and pressures of more than 20MPa.

- Petrochemical: It is suitable for process piping of high-pressure reaction devices such as hydrocracking and catalytic reforming. Its thick-walled design can effectively resist hydrogen embrittlement and high-temperature sulfur corrosion.
- Chemical process: With excellent corrosion resistance, it is commonly used in process piping of high-pressure chemical equipment such as synthetic ammonia and urea.
- Oil & Gas Transportation: Used for high pressure trunk lines and compressor station connecting pipelines for long distance natural gas transmission pipelines, and high pressure water injection lines for oilfield water injection systems.