

## Schedule Steel Pipe Dimensions Chart

This schedule steel pipe dimensions chart lists outside diameter, wall thickness, inside diameter and weight per metre for every NPS size from 1/8 inch to 24 inch across all standard schedules. Coverage spans SCH 10 to XXS per ASME B36.10M for carbon steel and ASME B36.19M for stainless steel. The outside diameter is fixed for any given NPS only wall thickness varies between schedules. Sachiya Steel International stocks these schedules ex-warehouse in Mumbai with EN 10204 3.1 Mill Test Certificate on every consignment.

### Pipe Schedule Master Chart — Wall Thickness (mm) for All Schedules

Wall thickness in mm for every NPS size from 1/8" to 24" across all standard schedules. Note: SCH 40 = STD up to NPS 10", and SCH 80 = XS up to NPS 8". Dash (—) indicates the schedule is not defined for that size in ASME B36.10M.

NPS	DN	OD (mm)	SCH 10	SCH 20	SCH 40	SCH 60	SCH 80	SCH 120	SCH 160	XXS
1/8"	6	10.3	1.24	—	1.73	—	2.41	—	—	—
1/4"	8	13.7	1.65	—	2.24	—	3.02	—	—	—
3/8"	10	17.1	1.65	—	2.31	—	3.20	—	—	—
1/2"	15	21.3	2.11	—	2.77	—	3.73	—	4.78	7.47
3/4"	20	26.7	2.11	—	2.87	—	3.91	—	5.56	7.82
1"	25	33.4	2.77	—	3.38	—	4.55	—	6.35	9.09
1-1/4"	32	42.2	2.77	—	3.56	—	4.85	—	6.35	9.70
1-1/2"	40	48.3	2.77	—	3.68	—	5.08	—	7.14	10.15
2"	50	60.3	2.77	—	3.91	—	5.54	—	8.74	11.07
2-1/2"	65	73.0	3.05	—	5.16	—	7.01	—	9.53	14.02
3"	80	88.9	3.05	—	5.49	—	7.62	—	11.13	15.24
3-1/2"	90	101.6	3.05	—	5.74	—	8.08	—	—	—
4"	100	114.3	3.05	—	6.02	—	8.56	11.13	13.49	17.12
5"	125	141.3	3.40	—	6.55	—	9.53	12.70	15.88	19.05
6"	150	168.3	3.40	—	7.11	—	10.97	14.27	18.26	21.95
8"	200	219.1	3.76	6.35	8.18	10.31	12.70	18.26	23.01	22.23
10"	250	273.0	4.19	6.35	9.27	12.70	15.09	21.44	28.58	25.40
12"	300	323.9	4.57	6.35	10.31	14.27	17.48	25.40	33.32	25.40
14"	350	355.6	6.35	7.92	11.13	15.09	19.05	27.79	35.71	—
16"	400	406.4	6.35	7.92	12.70	16.66	21.44	30.96	36.53	—
18"	450	457.2	6.35	7.92	14.27	19.05	23.83	34.93	39.67	—
20"	500	508.0	6.35	9.53	15.09	20.62	26.19	38.10	44.45	—
24"	600	609.6	6.35	9.53	17.48	24.61	30.96	46.02	52.37	—

### Schedule 40 (STD) Steel Pipe Dimensions

The most widely used pipe schedule worldwide. Standard for general-purpose water, gas, air and structural use. SCH 40 = STD for NPS 1/8" through NPS 10".

NPS	DN	OD (mm)	WT (mm)	ID (mm)	Weight (kg/m)
1/8"	6	10.3	1.73	6.84	0.37
1/4"	8	13.7	2.24	9.22	0.63
3/8"	10	17.1	2.31	12.48	0.84
1/2"	15	21.3	2.77	15.76	1.27
3/4"	20	26.7	2.87	20.96	1.69
1"	25	33.4	3.38	26.64	2.50
1-1/4"	32	42.2	3.56	35.08	3.39
1-1/2"	40	48.3	3.68	40.94	4.05
2"	50	60.3	3.91	52.48	5.44
2-1/2"	65	73.0	5.16	62.68	8.63
3"	80	88.9	5.49	77.92	11.29
3-1/2"	90	101.6	5.74	90.12	13.57
4"	100	114.3	6.02	102.26	16.07
5"	125	141.3	6.55	128.20	21.77
6"	150	168.3	7.11	154.08	28.26
8"	200	219.1	8.18	202.74	42.55
10"	250	273.0	9.27	254.46	60.31
12"	300	323.9	10.31	303.28	79.73
14"	350	355.6	11.13	333.34	95.00
16"	400	406.4	12.70	381.00	123.30
18"	450	457.2	14.27	428.66	156.00
20"	500	508.0	15.09	477.82	184.00
24"	600	609.6	17.48	574.64	255.40

### Schedule 80 (XS) Steel Pipe Dimensions

Thicker wall than SCH 40 for the same OD — higher pressure rating, lower flow capacity. Used for high-pressure gas, chemical processing and steam lines. SCH 80 = XS for NPS 1/8" through NPS 8".

NPS	DN	OD (mm)	WT (mm)	ID (mm)	Weight (kg/m)
1/8"	6	10.3	2.41	5.48	0.47
1/4"	8	13.7	3.02	7.66	0.80
3/8"	10	17.1	3.20	10.70	1.10
1/2"	15	21.3	3.73	13.84	1.62
3/4"	20	26.7	3.91	18.88	2.20
1"	25	33.4	4.55	24.30	3.24

1-1/4"	32	42.2	4.85	32.50	4.47
1-1/2"	40	48.3	5.08	38.14	5.41
2"	50	60.3	5.54	49.22	7.48
2-1/2"	65	73.0	7.01	59.00	11.41
3"	80	88.9	7.62	73.66	15.27
3-1/2"	90	101.6	8.08	85.44	18.63
4"	100	114.3	8.56	97.18	22.32
5"	125	141.3	9.53	122.24	31.05
6"	150	168.3	10.97	146.36	42.56
8"	200	219.1	12.70	193.70	64.64
10"	250	273.0	15.09	242.82	95.92
12"	300	323.9	17.48	288.94	131.70
14"	350	355.6	19.05	317.50	160.80
16"	400	406.4	21.44	363.52	206.30
18"	450	457.2	23.83	409.54	257.70
20"	500	508.0	26.19	455.62	314.90
24"	600	609.6	30.96	547.68	445.90

### Pipe Schedule Applications Guide

Quick reference matching each schedule to its typical pressure rating, applications and industries — use this to select the right schedule before sizing.

Schedule	Wall Thickness	Pressure Rating	Typical Application	Industry
SCH 5 / 10	Lightest	Low	HVAC, food processing, low-pressure water	Food, pharma, HVAC
SCH 20	Light	Low–Medium	Fire protection, water distribution, drainage	Construction, municipal
SCH 40 (STD)	Standard	Medium	General plumbing, gas lines, structural use	Construction, oil & gas, power
SCH 60	Medium-heavy	Medium–High	Chemical processing, steam service	Petrochemical, power
SCH 80 (XS)	Heavy	High	High-pressure gas, chemical, steam	Oil & gas, refinery, power
SCH 120	Very heavy	Very high	Boiler and superheater service	Power generation
SCH 160	Extra heavy	Extra high	Hydraulic lines, high-temperature service	Petrochemical, offshore
XXS	Maximum	Extreme	Critical pressure service, sour gas	Subsea, high-pressure gas

### Carbon Steel Pipe Pressure Ratings — ASTM A106 Gr B at 38°C

Approximate maximum permissible working pressure (MAWP) in bar per ASME B31.3 for ASTM A106 Grade B carbon steel pipe. Pressure rating decreases with operating temperature; confirm with your piping engineer for service conditions above 100°C.

NPS	SCH 40 (bar)	SCH 80 (bar)	SCH 160 (bar)	Service Guideline
1/2"	125	172	248	General service, instrument air
3/4"	110	157	230	General service, low-pressure gas
1"	103	148	215	Water, steam, compressed air
1-1/2"	89	131	196	Utilities, process lines
2"	82	121	185	Process, chemical service
3"	75	110	170	Oil and gas, steam headers
4"	69	100	160	High-pressure fluid transport
6"	62	93	148	Offshore, petrochemical headers
8"	55	86	138	Mainline distribution
10"	48	78	126	Long-distance pipelines
12"	44	72	118	Structural and high-pressure mains

For SCH 5/10/20/120/160/XXS detailed dimension tables, NPS-to-DN conversion reference and detailed FAQs, visit our complete online [Schedule Steel Pipe Dimensions Chart](#).