Pipe Inside Diameter and Flow Area Chart

Basis: Calculated from ASME B36.10M OD and wall: ID = OD − 2t, area = π ID² ÷ 4, volume per metre in litres = area in cm² ÷ 10.

instrumentationblog.in/downloads/engineering-reference-tables/pipe-inside-diameter-flow-area-chart/

Inside diameter, flow area and volume

NPS	DN	Sch 40 ID mm	Sch 40 area cm²	Sch 40 L/m	Sch 80 ID mm	Sch 80 area cm²	Sch 80 L/m
1/8	6	6.84	0.37	0.037	5.48	0.24	0.024
1/4	8	9.22	0.67	0.067	7.66	0.46	0.046
3/8	10	12.48	1.22	0.122	10.70	0.90	0.090
1/2	15	15.76	1.95	0.195	13.84	1.50	0.150
3/4	20	20.96	3.45	0.345	18.88	2.80	0.280
1	25	26.64	5.57	0.557	24.30	4.64	0.464
1 1/4	32	35.08	9.67	0.967	32.50	8.30	0.830
1 1/2	40	40.94	13.16	1.316	38.14	11.42	1.142
2	50	52.48	21.63	2.163	49.22	19.03	1.903
2 1/2	65	62.68	30.86	3.086	58.98	27.32	2.732
3	80	77.92	47.69	4.769	73.66	42.61	4.261
3 1/2	90	90.12	63.79	6.379	85.44	57.33	5.733
4	100	102.26	82.13	8.213	97.18	74.17	7.417
5	125	128.20	129.08	12.908	122.24	117.36	11.736
6	150	154.08	186.46	18.646	146.36	168.24	16.824
8	200	202.74	322.83	32.283	193.70	294.68	29.468
10	250	254.46	508.54	50.854	242.82	463.08	46.308
12	300	303.18	721.92	72.192	288.84	655.25	65.525
14	350	333.34	872.70	87.270	317.50	791.73	79.173
16	400	381.00	1140.09	114.009	363.52	1037.88	103.788
18	450	428.46	1441.82	144.182	409.34	1316.01	131.601
20	500	477.82	1793.16	179.316	455.62	1630.40	163.040
22	550				501.84	1977.97	197.797
24	600	575.04	2597.08	259.708	548.08	2359.27	235.927

Notes

- Flowmeter sizing should use the actual pipe ID, not the DN.

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