

Pipe Flow rates Q - Velocity v- Pressure Drops R

PP-RCT Solid Wall D121.\_\_\_\_  
 20°C/2.0 Mpa • 70°C/1.0 Mpa

Temperature: 20 °C  
 Pipe Friction Factor: 0.007  
 Pipe Roughness: 0.0070 mm



Q = Flow rate (l/s)		v = Flow Velocity (m/s)						R = Pressure Drop (mbar/Mtr)				
d x s	16x2.2	20x2.8	25x3.5	32x4.4	40x5.5	50x6.9	63x8.6	75x10.3	90x12.3	110x15.1	125x17.1	
SDR	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	
Q	ID →	11.6	14.4	18	23.2	29.0	36.2	45.8	54.4	65.4	79.8	90.8
0.03	v	0.28	0.18	0.12	0.07							
	R	1.50	0.54	0.19	0.06							
0.05	v	0.47	0.31	0.20	0.12	0.08						
	R	3.58	1.28	0.45	0.14	0.05						
0.07	v	0.66	0.43	0.28	0.17	0.11	0.07					
	R	6.42	2.29	0.80	0.24	0.08	0.03					
0.09	v	0.85	0.55	0.35	0.21	0.14	0.09					
	R	9.96	3.55	1.23	0.37	0.13	0.05					
0.10	v	0.95	0.61	0.39	0.24	0.15	0.10	0.06				
	R	11.99	4.26	1.48	0.44	0.15	0.05	0.02				
0.12	v	1.14	0.74	0.47	0.28	0.18	0.12	0.07				
	R	16.53	5.87	2.03	0.61	0.21	0.07	0.02				
0.16	v	1.51	0.98	0.63	0.38	0.24	0.16	0.10	0.07			
	R	27.55	9.74	3.35	1.01	0.35	0.12	0.04	0.02			
0.18	v	1.70	1.11	0.71	0.43	0.27	0.17	0.11	0.08			
	R	34.00	12.00	4.12	1.24	0.43	0.15	0.05	0.02			
0.20	v	1.89	1.23	0.79	0.47	0.30	0.19	0.12	0.09	0.06		
	R	41.06	14.46	4.96	1.49	0.51	0.18	0.06	0.03	0.01		
0.30	v	2.84	1.84	1.18	0.71	0.45	0.29	0.18	0.13	0.09	0.06	
	R	85.33	29.85	10.17	3.03	1.04	0.36	0.12	0.05	0.02	0.01	
0.40	v	3.79	2.46	1.57	0.95	0.61	0.39	0.24	0.17	0.12	0.08	
	R	144.14	50.14	17.00	5.04	1.73	0.60	0.20	0.09	0.04	0.01	
0.50	v	4.73	3.07	1.97	1.18	0.76	0.49	0.30	0.22	0.15	0.10	0.08
	R	217.15	75.20	25.39	7.45	2.55	0.88	0.29	0.13	0.05	0.02	0.01
0.60	v	5.68	3.69	2.36	1.42	0.91	0.58	0.36	0.26	0.18	0.12	0.09
	R	304.17	104.92	35.31	10.38	3.55	1.23	0.40	0.18	0.07	0.03	0.02
0.70	v	6.63	4.30	2.75	1.66	1.06	0.68	0.43	0.30	0.21	0.14	0.11
	R	405.05	139.24	46.71	13.68	4.67	1.61	0.52	0.23	0.10	0.04	0.02
0.80	v	7.57	4.91	3.15	1.89	1.21	0.78	0.49	0.34	0.24	0.16	0.12
	R	519.70	178.11	59.58	17.40	5.93	2.04	0.66	0.29	0.12	0.05	0.03
0.90	v	8.52	5.53	3.54	2.13	1.36	0.87	0.55	0.39	0.27	0.18	0.14
	R	648.06	221.49	73.51	21.52	7.32	2.52	0.82	0.36	0.15	0.06	0.03
1.00	v	9.47	6.14	3.93	2.37	1.51	0.97	0.61	0.43	0.30	0.20	0.15
	R	790.06	269.36	89.67	25.96	8.80	3.02	0.98	0.43	0.18	0.07	0.04
1.20	v	11.36	7.37	4.72	2.84	1.82	1.17	0.73	0.52	0.36	0.24	0.19
	R	1114.88	378.48	125.48	36.18	12.23	4.19	1.35	0.59	0.25	0.09	0.05
1.40	v	13.25	8.60	5.50	3.31	2.12	1.36	0.85	0.60	0.42	0.28	0.22
	R	1493.92	505.32	166.94	47.96	16.16	5.52	1.78	0.78	0.32	0.12	0.07
1.60	v	15.15	9.83	6.29	3.79	2.42	1.56	0.97	0.69	0.48	0.32	0.25
	R	1927.04	649.81	214.00	61.28	20.60	7.03	2.26	0.99	0.41	0.16	0.09
1.80	v	17.04	11.06	7.08	4.26	2.73	1.75	1.09	0.77	0.54	0.36	0.28
	R	2414.14	811.87	266.62	76.13	25.54	8.69	2.79	1.22	0.50	0.19	0.10
2.00	v	18.93	12.29	7.86	4.73	3.03	1.94	1.21	0.86	0.60	0.40	0.31
	R	2955.16	991.46	324.79	92.49	30.97	10.52	3.37	1.47	0.61	0.23	0.13
2.5	v	23.67	15.36	9.83	5.92	3.79	2.43	1.52	1.08	0.74	0.50	0.39
	R	4489.83	1503.86	494.32	139.96	46.65	15.79	5.04	2.20	0.90	0.35	0.19
3.00	v		18.43	11.80	7.10	4.54	2.92	1.82	1.29	0.89	0.60	0.46
	R		2151.35	698.13	196.72	65.32	22.03	7.01	3.05	1.25	0.48	0.26
3.5	v		21.50	13.76	8.28	5.30	3.40	2.13	1.51	1.04	0.70	0.54
	R		2863.58	936.08	262.71	86.93	29.29	9.32	4.05	1.67	0.64	0.34
4.0	v		24.57	15.73	9.47	6.06	3.89	2.43	1.72	1.19	0.80	0.62
	R		3703.38	1208.07	337.86	111.47	37.39	11.85	5.13	2.11	0.81	0.43
4.5	v		27.65	17.69	10.65	6.82	4.37	2.73	1.94	1.34	0.90	0.70
	R		4649.64	1514.06	419.88	138.59	46.50	14.73	6.39	2.62	1.00	0.54
5.0	v			19.66	11.83	7.57	4.86	3.04	2.15	1.49	1.00	0.77
	R			1853.99	515.56	169.25	56.51	17.83	7.71	3.15	1.21	0.65
5.5	v			21.63	13.02	8.33	5.35	3.34	2.37	1.64	1.10	0.85
	R			2227.83	613.94	201.74	67.42	21.28	9.20	3.77	1.44	0.77
6.0	v			23.59	14.20	9.09	5.83	3.64	2.58	1.79	1.20	0.93
	R			2635.56	729.62	238.54	79.34	24.94	10.75	4.39	1.68	0.90
6.5	v			25.56	15.38	9.85	6.32	3.95	2.80	1.94	1.30	1.00
	R			2077.16	843.69	276.21	91.98	28.94	12.49	5.10	1.95	1.04
7.0	v			27.52	16.57	10.60	6.81	4.25	3.01	2.08	1.40	1.08
	R			3552.61	971.92	317.67	105.62	33.18	14.31	5.84	2.23	1.19
7.5	v			29.49	17.75	11.36	7.29	4.55	3.23	2.23	1.50	1.16
	R			4061.91	1118.65	363.91	120.46	37.68	16.20	6.60	2.51	1.34

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SDR	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	
Q	ID →	11.6	14.4	18	23.2	29.0	36.2	45.8	54.4	65.4	79.8	90.8
8.0	v			31.46	18.93	12.12	7.78	4.86	3.44	2.38	1.60	1.24
	R			4605.05	1589.01	514.90	135.60	42.48	18.28	7.45	2.84	1.52
9.0	v				21.30	13.63	8.75	5.47	3.87	2.68	1.80	1.39
	R				1573.63	368.41	169.75	52.89	22.68	9.21	3.50	1.87
10.0	v				23.67	15.15	9.72	6.07	4.30	2.98	2.00	1.55
	R				1947.71	629.74	207.14	64.39	27.57	11.18	4.24	2.27
12.0	v				28.40	18.18	11.67	7.29	5.17	3.57	2.40	1.85
	R				2773.29	893.39	292.71	90.61	38.69	15.65	5.92	3.16
14.0	v				33.14	21.21	13.61	8.50	6.03	4.17	2.80	2.16
	R				3743.00	1202.24	392.62	121.12	51.59	20.82	7.86	4.19
16.0	v				37.87	24.24	15.55	9.72	6.89	4.77	3.20	2.47
	R				4856.78	1556.25	506.85	155.89	66.26	26.69	10.05	5.35
18.0	v					27.27	17.50	10.93	7.75	5.36	3.60	2.78
	R					1955.36	635.35	194.89	82.68	33.24	12.50	6.64
20.0	v					30.30	19.44	12.15	8.61	5.96	4.00	3.09
	R					2399.55	778.12	238.13	100.85	40.47	15.19	8.07
25.0	v					37.87	24.30	15.18	10.76	7.45	5.00	3.86
	R					3661.69	1197.33	364.67	153.88	61.52	23.00	12.19
30.0	v						29.16	18.22	12.91	8.94	6.00	4.64
	R						1687.42	517.48	217.73	86.77	32.34	17.11
35.0	v						34.03	21.26	15.07	10.42	7.00	5.41
	R						2276.27	696.52	292.35	116.20	43.19	22.81
40.0	v						38.89	24.29	17.22	11.91	8.00	6.18
	R						2952.33	893.45	375.08	149.10	55.42	29.27
45.0	v						43.75	27.33	19.37	13.40	9.00	6.95
	R						3715.55	1122.00	470.19	186.54	69.19	36.50
50.0	v						48.61	30.37	21.52	14.89	10.00	7.73
	R						4565.91	1376.25	575.85	228.05	84.43	44.48
55.0	v							33.40	23.68	16.38	11.00	8.50
	R							1656.19	692.04	273.64	101.14	53.23
60.0	v							36.44	25.83	17.87	12.00	9.27
	R							1961.81	818.76	323.29	119.30	62.72
65.0	v							39.48	27.98	19.36	13.00	10.04
	R							2293.10	956.00	377.00	138.92	72.97
70.0	v							42.51	30.13	20.85	14.00	10.82
	R							2650.05	1103.75	434.77	160.00	83.97
75.0	v							45.55	32.29	22.34	15.00	11.59
	R							3032.65	1262.01	496.59	182.53	95.72
80.0	v							48.59	34.44	23.83	16.00	12.36
	R							3440.91	1430.78	562.46	206.50	108.21
85.0	v							51.62	36.59	25.32	17.00	13.13
	R							3874.82	1610.05	632.37	231.93	121.45
90.0	v							54.66	38.74	26.81	18.00	13.91
	R							4334.37	1799.82	706.33	258.80	135.43
95.0	v								40.90	28.30	19.00	14.68
	R								2000.09	784.33	287.12	150.16
100.0	v								43.05	29.78	20.01	15.45
	R								2210.86	866.38	316.88	165.63
105.0	v								45.20	31.27	21.01	16.22
	R								2432.12	952.46	348.09	181.84
110.0	v								47.35	32.76	22.01	17.00
	R								2663.88	1042.58	380.74	198.79
115.0	v								49.50	34.25	23.01	17.77
	R								2906.12	1136.75	414.84	216.49
120.0	v								51.66	35.74	24.01	18.54
	R								3158.86	1234.95	450.37	234.92
125.0	v								53.81	37.23	25.01	19.31
	R								3422.10	1337.18	487.35	254.09
130.0	v								55.96	38.72	26.01	20.09
	R								3695.82	1443.46	525.76	274.01
135.0	v								58.11	40.21	27.01	20.86
	R								3980.03	1553.77	565.62	294.66
140.0	v								60.27	41.70	28.01	21.63
	R								4274.73	1668.11	606.92	316.05
145.0	v								62.42	43.19	29.01	22.40
	R								4579.92	1786.50	649.66	338.18