

Pipe Flow rates Q - Velocity v- Pressure Drops R



PP-RCT Faser Watertec D101._._.
20°C/2.0 Mpa • 70°C/1.0 Mpa

Temperature: 60 °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	20x2.8	25x3.5	32x3.6	40x4.5	50x5.6	63x7.1	75x8.4	90x10.1	110x12.3	125x14	160x14.6	180x16.4	200x18.2	225x20.5	250x22.7	
SDR	7.4	7.4	9	9	9	9	9	9	9	9	11	11	11	11	11	
Q	ID →	14.4	18	24.8	31.0	38.8	48.8	58.2	69.8	85.4	97.0	130.8	147.2	163.6	184.0	204.6
0.05	v	0.31	0.20													
	R	1.06	0.36													
0.07	v	0.43	0.28	0.14												
	R	1.90	0.66	0.14												
0.09	v	0.55	0.35	0.19												
	R	2.97	1.02	0.22												
0.10	v	0.61	0.39	0.21	0.13	0.08										
	R	3.58	1.23	0.27	0.09	0.03										
0.12	v	0.74	0.47	0.25	0.16	0.10										
	R	4.95	1.69	0.37	0.13	0.04										
0.16	v	0.98	0.63	0.33	0.21	0.14	0.09									
	R	8.29	2.82	0.61	0.21	0.07	0.02									
0.18	v	1.11	0.71	0.37	0.24	0.15	0.10									
	R	10.25	3.48	0.75	0.26	0.09	0.03									
0.20	v	1.23	0.79	0.41	0.27	0.17	0.11									
	R	12.40	4.21	0.90	0.31	0.11	0.04									
0.30	v	1.84	1.18	0.62	0.40	0.25	0.16	0.11								
	R	25.93	8.73	1.85	0.63	0.22	0.07	0.03								
0.40	v	2.46	1.57	0.83	0.53	0.34	0.21	0.15	0.10							
	R	43.99	14.73	3.11	1.06	0.36	0.12	0.05	0.02							
0.50	v	3.07	1.97	1.04	0.66	0.42	0.27	0.19	0.13							
	R	66.49	22.17	4.65	1.58	0.54	0.18	0.08	0.03							
0.60	v	3.69	2.36	1.24	0.80	0.51	0.32	0.23	0.16	0.10						
	R	93.38	31.01	6.47	2.19	0.74	0.25	0.11	0.04	0.02						
0.70	v	4.30	2.75	1.45	0.93	0.59	0.37	0.26	0.18	0.12	0.09					
	R	124.63	41.24	8.57	2.90	0.98	0.32	0.14	0.06	0.02	0.01					
0.80	v	4.91	3.15	1.66	1.06	0.68	0.43	0.30	0.21	0.14	0.11					
	R	160.20	52.84	10.94	3.69	1.24	0.41	0.18	0.07	0.03	0.02					
0.90	v	5.53	3.54	1.86	1.19	0.76	0.48	0.34	0.24	0.16	0.12	0.07				
	R	200.09	65.82	13.57	4.57	1.54	0.51	0.22	0.09	0.03	0.02	0.00				
1.00	v	6.14	3.93	2.07	1.33	0.85	0.53	0.38	0.26	0.17	0.14	0.07	0.06			
	R	244.28	80.16	16.48	5.54	1.86	0.62	0.26	0.11	0.04	0.02	0.01	0.00			
1.20	v	7.37	4.72	2.49	1.59	1.02	0.64	0.45	0.31	0.21	0.16	0.09	0.07	0.06		
	R	345.53	112.90	23.07	7.73	2.59	0.85	0.37	0.15	0.06	0.03	0.01	0.00	0.00		
1.40	v	8.60	5.50	2.90	1.86	1.18	0.75	0.53	0.37	0.24	0.19	0.10	0.08	0.07		
	R	463.89	151.03	30.72	10.26	3.43	1.13	0.48	0.20	0.08	0.04	0.01	0.01	0.00		
1.60	v	9.83	6.29	3.31	2.12	1.35	0.86	0.60	0.42	0.28	0.22	0.12	0.09	0.08	0.06	
	R	599.33	194.54	39.39	13.12	4.38	1.44	0.61	0.26	0.10	0.05	0.01	0.01	0.00	0.00	
1.80	v	11.06	7.08	3.73	2.39	1.52	0.96	0.68	0.47	0.31	0.24	0.13	0.11	0.09	0.07	
	R	751.82	243.40	49.10	16.31	5.43	1.78	0.76	0.32	0.12	0.06	0.02	0.01	0.01	0.00	
2.00	v	12.29	7.86	4.14	2.65	1.69	1.07	0.75	0.52	0.35	0.27	0.15	0.12	0.10	0.08	0.06
	R	921.35	297.60	59.83	19.83	6.59	2.16	0.92	0.38	0.14	0.08	0.02	0.01	0.01	0.00	0.00
2.5	v	15.36	9.83	5.18	3.31	2.12	1.34	0.94	0.65	0.44	0.34	0.19	0.15	0.12	0.09	0.08
	R	1419.65	456.45	91.10	30.05	9.94	3.24	1.38	0.57	0.22	0.12	0.03	0.02	0.01	0.01	0.00
3.00	v	18.43	11.80	6.21	3.98	2.54	1.60	1.13	0.78	0.52	0.41	0.22	0.18	0.14	0.11	0.09
	R	2024.25	648.56	128.71	42.28	13.94	4.53	1.92	0.79	0.30	0.16	0.04	0.02	0.01	0.01	0.00
3.5	v	21.50	13.76	7.25	4.64	2.96	1.87	1.32	0.92	0.61	0.47	0.26	0.21	0.17	0.13	0.11
	R	2735.09	873.90	172.62	56.51	18.57	6.01	2.54	1.05	0.40	0.21	0.05	0.03	0.02	0.01	0.01
4.0	v	24.57	15.73	8.29	5.30	3.38	2.14	1.50	1.05	0.70	0.54	0.30	0.24	0.19	0.15	0.12
	R	3552.14	1132.44	222.81	72.73	23.83	7.70	3.25	1.34	0.50	0.27	0.06	0.04	0.02	0.01	0.01
4.5	v	27.65	17.69	9.32	5.97	3.81	2.41	1.69	1.18	0.79	0.61	0.34	0.26	0.21	0.17	0.14
	R	4475.38	1424.14	279.28	90.92	29.72	9.58	4.04	1.66	0.62	0.34	0.08	0.05	0.03	0.02	0.01
5.0	v		19.66	10.36	6.63	4.23	2.67	1.88	1.31	0.87	0.68	0.37	0.29	0.24	0.19	0.15
	R		1749.01	342.01	111.09	36.23	11.65	4.90	2.02	0.76	0.41	0.10	0.05	0.03	0.02	0.01
5.5	v		21.63	11.39	7.29	4.65	2.94	2.07	1.44	0.96	0.74	0.41	0.32	0.26	0.21	0.17
	R		2107.04	411.00	133.24	43.36	13.91	5.85	2.40	0.90	0.49	0.11	0.06	0.04	0.02	0.01
6.0	v		23.59	12.43	7.95	5.08	3.21	2.26	1.57	1.05	0.81	0.45	0.35	0.29	0.23	0.18
	R		2498.21	486.25	157.35	51.10	16.37	6.87	2.82	1.06	0.57	0.13	0.08	0.05	0.03	0.02
6.5	v		25.56	13.46	8.62	5.50	3.48	2.44	1.70	1.14	0.88	0.48	0.38	0.31	0.24	0.20
	R		2922.52	567.74	183.42	59.47	19.01	7.97	3.27	1.22	0.66	0.15	0.09	0.05	0.03	0.02
7.0	v		27.52	14.50	9.28	5.92	3.74	2.63	1.83	1.22	0.95	0.52	0.41	0.33	0.26	0.21
	R		3379.96	655.49	211.46	68.45	21.85	9.15	3.75	1.40	0.75	0.18	0.10	0.06	0.03	0.02
7.5	v		29.49	15.53	9.94	6.35	4.01	2.82	1.96	1.31	1.02	0.56	0.44	0.36	0.28	0.23
	R		3870.55	749.47	241.45	78.05	24.88	10.41	4.26	1.59	0.85	0.20	0.11	0.07	0.04	0.02
8.0	v		31.46	16.57	10.61	6.77	4.28	3.01	2.09	1.40	1.08	0.60	0.47	0.38	0.30	0.24
	R		4394.26	849.71	273.41	88.26	28.09	11.74	4.80	1.79	0.96	0.23	0.13	0.08	0.04	0.03

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d x s	20x2.8	25x3.5	32x3.6	40x4.5	50x5.6	63x7.1	75x8.4	90x10.1	110x12.3	125x14	160x14.6	180x16.4	200x18.2	225x20.5	250x22.7	
SDR	7.4	7.4	9	9	9	9	9	9	9	9	11	11	11	11	11	
Q	ID →	14.4	18	24.8	31.0	38.8	48.8	58.2	69.8	85.4	97.0	130.8	147.2	163.6	184.0	204.6
9.0	v			18.64	11.93	7.62	4.81	3.38	2.35	1.57	1.22	0.67	0.53	0.43	0.34	0.27
	R			1068.89	343.20	110.52	35.09	14.63	5.97	2.22	1.19	0.28	0.16	0.09	0.05	0.03
10.0	v			20.71	13.26	8.46	5.35	3.76	2.61	1.75	1.35	0.74	0.59	0.48	0.38	0.30
	R			1313.04	420.82	135.22	42.83	17.83	7.27	2.70	1.45	0.34	0.19	0.11	0.07	0.04
12.0	v			24.86	15.91	10.15	6.42	4.51	3.14	2.10	1.62	0.89	0.71	0.57	0.45	0.37
	R			1876.19	599.51	191.96	60.56	25.14	10.21	3.78	2.03	0.47	0.27	0.16	0.09	0.05
14.0	v			29.00	18.56	11.85	7.49	5.27	3.66	2.45	1.90	1.04	0.82	0.67	0.53	0.43
	R			2539.12	809.46	258.45	81.28	33.66	13.64	5.04	2.70	0.63	0.35	0.21	0.12	0.07
16.0	v			33.14	21.21	13.54	8.56	6.02	4.18	2.79	2.17	1.19	0.94	0.76	0.60	0.49
	R			3301.81	1050.66	334.69	104.97	43.38	17.54	6.46	3.45	0.80	0.45	0.27	0.15	0.09
18.0	v			37.28	23.86	15.23	9.63	6.77	4.71	3.14	2.44	1.34	1.06	0.86	0.68	0.55
	R			4164.26	1323.09	420.67	131.63	54.29	21.91	8.06	4.30	0.99	0.56	0.33	0.19	0.11
20.0	v			26.51	16.92	10.70	7.52	5.23	3.49	2.71	1.49	1.18	0.95	0.75	0.61	0.50
	R			1626.75	516.37	161.26	66.39	26.74	9.82	5.24	1.21	0.68	0.41	0.23	0.14	0.11
25.0	v			33.14	21.16	13.37	9.40	6.54	4.37	3.38	1.86	1.47	1.19	0.94	0.76	0.61
	R			2522.49	798.17	248.27	101.87	40.88	14.95	7.95	1.83	1.02	0.61	0.35	0.21	0.14
30.0	v			39.77	25.39	16.05	11.28	7.84	5.24	4.06	2.23	1.76	1.43	1.13	0.91	0.73
	R			3613.34	1140.72	353.77	144.77	57.93	21.12	11.21	2.56	1.44	0.86	0.48	0.29	0.19
35.0	v			29.62	18.72	13.16	9.15	6.11	4.74	2.61	2.06	1.67	1.32	1.07	0.86	0.69
	R			1544.00	477.73	195.08	77.87	28.31	15.00	3.42	1.91	1.14	0.64	0.38	0.24	0.17
40.0	v			33.85	21.40	15.04	10.46	6.99	5.42	2.98	2.35	1.90	1.51	1.22	0.96	0.77
	R			2008.00	620.15	252.80	100.71	36.52	19.32	4.39	2.45	1.46	0.82	0.49	0.30	0.21
45.0	v			38.08	24.07	16.92	11.77	7.86	6.09	3.35	2.65	2.14	1.69	1.37	1.07	0.84
	R			2532.71	781.01	317.92	126.44	45.75	24.18	5.47	3.06	1.82	1.02	0.61	0.36	0.24
50.0	v			42.31	26.75	18.80	13.07	8.73	6.77	3.72	2.94	2.38	1.88	1.52	1.17	0.91
	R			3118.12	960.32	390.43	155.05	56.01	29.56	6.67	3.72	2.21	1.24	0.74	0.45	0.30
55.0	v			46.54	29.42	20.69	14.38	9.61	7.45	4.10	3.23	2.62	2.07	1.67	1.26	0.97
	R			3764.24	1158.07	470.34	186.54	67.28	35.47	7.99	4.45	2.64	1.48	0.88	0.53	0.36
60.0	v			50.77	32.10	22.57	15.69	10.48	8.12	4.47	3.53	2.86	2.26	1.83	1.38	1.04
	R			4471.05	1374.26	557.63	220.91	79.56	41.90	9.41	5.24	3.11	1.74	1.04	0.63	0.41
65.0	v			34.77	24.45	17.00	11.35	8.80	4.84	3.82	3.09	2.45	1.98	1.52	1.15	0.87
	R			1608.89	652.32	258.17	92.86	48.87	10.96	6.10	3.61	2.03	1.20	0.75	0.47	0.31
70.0	v			37.45	26.33	18.30	12.23	9.48	5.21	4.12	3.33	2.63	2.13	1.67	1.26	0.95
	R			1861.96	754.40	298.31	107.17	56.35	12.61	7.01	4.16	2.33	1.38	0.81	0.50	0.33
75.0	v			40.12	28.21	19.61	13.10	10.15	5.58	4.41	3.57	2.82	2.28	1.79	1.35	1.01
	R			2133.46	863.86	341.32	122.50	64.37	14.38	7.99	4.73	2.65	1.57	0.93	0.56	0.37
80.0	v			42.80	30.09	20.92	13.97	10.83	5.96	4.70	3.81	3.01	2.43	1.88	1.41	1.06
	R			2423.40	980.71	387.21	138.84	72.90	16.26	9.03	5.34	2.99	1.77	1.07	0.64	0.42
85.0	v			45.47	31.97	22.23	14.85	11.51	6.33	5.00	4.05	3.20	2.59	1.99	1.48	1.10
	R			2731.77	1104.95	435.98	156.19	81.97	18.25	10.13	5.99	3.35	1.98	1.18	0.73	0.47
90.0	v			48.15	33.85	23.53	15.72	12.19	6.70	5.29	4.28	3.39	2.74	2.11	1.57	1.14
	R			3058.58	1236.57	487.63	174.55	91.55	20.35	11.29	6.68	3.73	2.21	1.31	0.79	0.51
95.0	v			50.82	35.73	24.84	16.59	12.86	7.07	5.59	4.52	3.57	2.89	2.21	1.64	1.20
	R			3403.82	1375.58	542.15	193.93	101.66	22.57	12.51	7.39	4.13	2.44	1.47	0.87	0.55
100.0	v			53.49	37.61	26.15	17.47	13.54	7.45	5.88	4.76	3.76	3.04	2.31	1.73	1.26
	R			3767.50	1521.97	599.55	214.31	112.29	24.90	13.79	8.15	4.55	2.69	1.58	0.93	0.59
105.0	v			56.17	39.49	27.46	18.34	14.22	7.82	6.17	5.00	3.95	3.20	2.45	1.81	1.31
	R			4149.60	1675.76	659.83	235.71	123.45	27.34	15.14	8.94	4.99	2.95	1.77	1.04	0.65
110.0	v			58.84	41.37	28.76	19.21	14.89	8.19	6.47	5.24	4.14	3.35	2.54	1.88	1.37
	R			4550.15	1836.92	722.99	258.12	135.12	29.89	16.54	9.77	5.45	3.22	1.94	1.13	0.71
115.0	v			43.25	30.07	20.09	15.57	8.56	6.76	5.47	4.33	3.50	2.74	2.11	1.57	1.14
	R			2005.47	789.02	281.54	147.33	32.56	18.01	10.63	5.92	3.50	2.11	1.26	0.76	0.49
120.0	v			45.13	31.38	20.96	16.25	8.94	7.06	5.71	4.52	3.65	2.89	2.21	1.64	1.20
	R			2181.41	857.92	305.98	160.05	35.33	19.54	11.52	6.42	3.79	2.31	1.41	0.84	0.54
125.0	v			47.01	32.68	21.83	16.92	9.31	7.35	5.95	4.70	3.80	3.00	2.31	1.73	1.26
	R			2364.73	929.71	331.42	173.30	38.22	21.12	12.46	6.94	4.10	2.54	1.54	0.91	0.58
130.0	v			48.89	33.99	22.71	17.60	9.68	7.64	6.19	4.89	3.96	3.16	2.41	1.79	1.31
	R			2555.43	1004.36	357.87	187.07	41.22	22.77	13.42	7.47	4.41	2.64	1.54	0.91	0.58
135.0	v			50.77	35.30	23.58	18.28	10.05	7.94	6.43	5.08	4.11	3.26	2.54	1.88	1.37
	R			2753.52	1081.90	385.34	201.36	44.33	24.48	14.43	8.03	4.74	2.89	1.73	1.04	0.65
140.0	v			52.65	36.61	24.45	18.96	10.42	8.23	6.66	5.27	4.26	3.36	2.64	1.96	1.41
	R			2959.00	1162.31	413.81	216.18	47.56	26.25	15.47	8.60	5.08	3.41	2.04	1.21	0.76
145.0	v			54.53	37.91	25.33	19.63	10.80	8.53	6.90	5.46	4.41	3.54	2.74	2.04	1.48
	R			3171.85	1245.59	443.30	231.51	50.89	28.08	16.54	9.20	5.43	3.54	2.04	1.21	0.76
150.0	v			56.41	39.22	26.20	20.31	11.17	8.82	7.14	5.64	4.56	3.67	2.81	2.11	1.54
	R			3392.10	1331.75	473.80	247.37	54.33	29.98	17.65	9.81	5.79	3.67	2.11	1.21	0.76