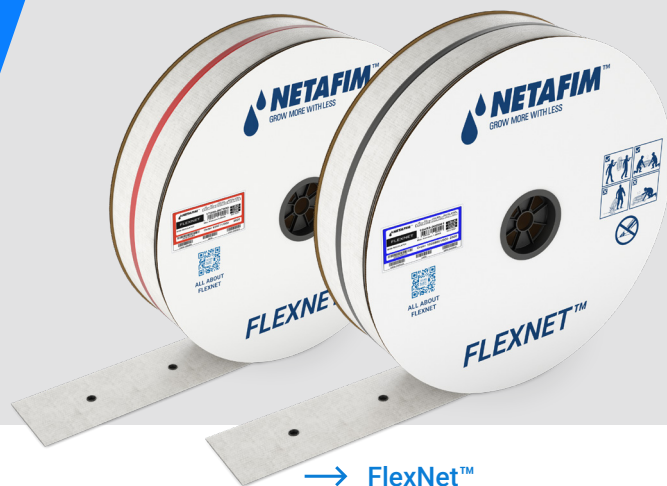


FlexNet™ / FlexNet™ HP

Friction loss characteristic



→ Head Loss (in metre) per 100 metre of pipe

inch		2"		3"		4"		6"		8"		10"		12"	
ID [mm]		51.5		78.3		102.5		163.0		209.0		260.0		320.0	
Flow LPS	Flow m³/h	Velocity m/s	Loss m	Velocity m/s	Loss m	Velocity m/s	Loss m	Velocity m/s	Loss m	Velocity m/s	Loss m	Velocity m/s	Loss m	Velocity m/s	Loss m
0.56	2	0.27	0.18	0.12	0.02	0.07	0.01	0.03	0.00	0.02	0.00	0.01	0.00	0.01	0.00
1.11	4	0.53	0.64	0.23	0.08	0.13	0.02	0.05	0.00	0.03	0.00	0.02	0.00	0.01	0.00
1.67	6	0.80	1.37	0.35	0.18	0.20	0.05	0.08	0.01	0.05	0.00	0.03	0.00	0.02	0.00
2.22	8	1.07	2.33	0.46	0.30	0.27	0.08	0.11	0.01	0.06	0.00	0.04	0.00	0.03	0.00
2.78	10	1.33	3.52	0.58	0.46	0.34	0.12	0.13	0.01	0.08	0.00	0.05	0.00	0.03	0.00
3.33	12	1.60	4.93	0.69	0.64	0.40	0.17	0.16	0.02	0.10	0.01	0.06	0.00	0.04	0.00
3.89	14	1.87	6.56	0.81	0.85	0.47	0.23	0.19	0.02	0.11	0.01	0.07	0.00	0.05	0.00
4.44	16	2.13	8.41	0.92	1.09	0.54	0.30	0.21	0.03	0.13	0.01	0.08	0.00	0.06	0.00
5	18	2.40	10.45	1.04	1.36	0.61	0.37	0.24	0.04	0.15	0.01	0.09	0.00	0.06	0.00
5.56	20	2.67	12.71	1.15	1.65	0.67	0.45	0.27	0.05	0.16	0.01	0.10	0.00	0.07	0.00
6.94	25	3.33	19.21	1.44	2.50	0.84	0.67	0.33	0.07	0.20	0.02	0.13	0.01	0.09	0.00
8.33	30	4.00	26.93	1.73	3.51	1.01	0.95	0.40	0.10	0.24	0.03	0.16	0.01	0.10	0.00
9.72	35			2.02	4.67	1.18	1.26	0.47	0.13	0.28	0.04	0.18	0.01	0.12	0.00
11.1	40			2.31	5.97	1.35	1.61	0.53	0.17	0.32	0.05	0.21	0.02	0.14	0.01
12.5	45			2.60	7.43	1.51	2.00	0.60	0.21	0.36	0.06	0.24	0.02	0.16	0.01
13.9	50			2.88	9.03	1.68	2.44	0.67	0.25	0.40	0.08	0.26	0.03	0.17	0.01
15.3	55			3.17	10.77	1.85	2.91	0.73	0.30	0.45	0.09	0.29	0.03	0.19	0.01
16.7	60			3.46	12.66	2.02	3.41	0.80	0.36	0.49	0.11	0.31	0.04	0.21	0.01
18.1	65			3.75	14.68	2.19	3.96	0.87	0.41	0.53	0.12	0.34	0.04	0.22	0.02
19.4	70			4.04	16.84	2.36	4.54	0.93	0.48	0.57	0.14	0.37	0.05	0.24	0.02
20.8	75					2.52	5.16	1.00	0.54	0.61	0.16	0.39	0.06	0.26	0.02
22.2	80					2.69	5.82	1.06	0.61	0.65	0.18	0.42	0.06	0.28	0.02
23.6	85					2.86	6.51	1.13	0.68	0.69	0.20	0.44	0.07	0.29	0.03
25	90					3.03	7.23	1.20	0.76	0.73	0.23	0.47	0.08	0.31	0.03
26.4	95					3.20	8.00	1.26	0.84	0.77	0.25	0.50	0.09	0.33	0.03
27.8	100					3.37	8.79	1.33	0.92	0.81	0.27	0.52	0.09	0.35	0.03
33.3	120					4.04	12.33	1.60	1.29	0.97	0.38	0.63	0.13	0.41	0.05
38.9	140							1.86	1.72	1.13	0.51	0.73	0.18	0.48	0.06
44.4	160							2.13	2.20	1.30	0.66	0.84	0.23	0.55	0.08
50	180							2.40	2.73	1.46	0.82	0.94	0.28	0.62	0.10
55.6	200							2.66	3.32	1.62	0.99	1.05	0.34	0.69	0.12
62.5	225							3.00	4.13	1.82	1.23	1.18	0.43	0.78	0.16
69.4	250							3.33	5.02	2.02	1.50	1.31	0.52	0.86	0.19
76.4	275							3.66	5.99	2.23	1.79	1.44	0.62	0.95	0.22
83.3	300							3.99	7.04	2.43	2.10	1.57	0.73	1.04	0.26
90.3	325									2.63	2.44	1.70	0.84	1.12	0.31
97.2	350									2.83	2.79	1.83	0.97	1.21	0.35
111	400									3.24	3.58	2.09	1.24	1.38	0.45
125	450									3.64	4.45	2.35	1.54	1.55	0.56
139	500									4.05	5.41	2.62	1.87	1.73	0.68
153	550											2.88	2.23	1.90	0.81
167	600											3.14	2.62	2.07	0.95

→ FlexNet™

diameter	bar	psi
2"	2.5	36
3"	2	29
4"	1.7	25
6"	1.4	20
8"	1	14
10"	0.8	12
12"	0.65	10

→ FlexNet™ HP

diameter	bar	psi
2"	3	43.5
3"		
4"		
6"	2.2	31

→ Notes

- ✓ Blue-highlighted areas indicate velocity greater than 1.29m/s
- ✓ Dark gray-highlighted areas indicate velocity greater than 2.4m/s

l = length of pipe (m)
Q = flow rate (m³/h)
d = inside or hydraulic diameter (mm)

Calculated Pressure Loss

f = friction head loss in mm of water per 100 m of pipe
(m H₂O per 100m pipe)

v = flow velocity (m/s)

C = 150
K = 353.67

l = 100

Hf = 1.131 × 10⁹ × (Q/C)^{1.852} / D^{4.8655} × l

V = k × Q / d²