

Flow Capacity Charts & More

LAYFLAT						
FRICTION LOSS PER 100' PSI						
GPM	1 1/2"	2"	2 1/2"	3"	4"	6"
20	1.2					
30	2.4					
40	5.1	1.1				
50	6.0					
60		2.4	1.4			
80		4.1	1.9	1.0		
90	17					
100		6.0	2.8	1.2		
120				1.8		
140				2.2		
160				2.6	0.6	
180				3.3	0.7	
200		22	7		0.8	
220					1.0	
250				5		
280					1.4	0.2
300					1.6	0.2
350			22			
380						0.4
420						0.5
460						0.6
500					4	0.7
580					22	0.9
620						1.0

Oval Hose Friction Loss and Velocity												
Size	1" Oval		1-1/4" Oval		1-1/2" Oval		2" Oval		3" Oval		4" Oval	
ID	1.04		1.37		1.6		2.05		3.03		3.99	
	Friction Loss	Velocity	Friction Loss	Velocity	Friction Loss	Velocity	Friction Loss	Velocity	Friction Loss	Velocity	Friction Loss	Velocity
gpm	psi/100	fps	psi/100	fps	psi/100	fps	psi/100	fps	psi/100	fps	psi/100	fps
2	0.16	0.75	0.04	0.43	0.02	0.32	0.01	0.19	0.00	0.09	0.00	0.05
4	0.53	1.51	0.14	0.87	0.07	0.64	0.02	0.39	0.00	0.18	0.00	0.10
6	1.08	2.26	0.29	1.30	0.14	0.96	0.04	0.58	0.01	0.27	0.00	0.15
8	1.78	3.02	0.48	1.74	0.23	1.28	0.07	0.78	0.01	0.36	0.00	0.21
10	2.64	3.77	0.71	2.17	0.34	1.59	0.11	0.97	0.02	0.44	0.00	0.26
12	3.63	4.53	0.98	2.61	0.47	1.91	0.14	1.17	0.02	0.53	0.01	0.31
14	4.75	5.28	1.28	3.04	0.61	2.23	0.19	1.36	0.03	0.62	0.01	0.36
16	6.00	6.04	1.62	3.48	0.78	2.55	0.24	1.55	0.04	0.71	0.01	0.41
18	7.38	6.79	1.99	3.91	0.95	2.87	0.29	1.75	0.05	0.80	0.01	0.46
20	8.87	7.54	2.40	4.35	1.15	3.19	0.35	1.94	0.06	0.89	0.01	0.51
25	13.11	9.43	3.54	5.43	1.69	3.98	0.52	2.43	0.08	1.11	0.02	0.64
30	18.04	11.32	4.87	6.52	2.33	4.78	0.72	2.91	0.11	1.33	0.03	0.77
35			6.38	7.61	3.05	5.58	0.94	3.40	0.15	1.56	0.04	0.90
40			8.06	8.70	3.86	6.38	1.19	3.88	0.19	1.78	0.05	1.03
45			9.90	9.78	4.74	7.17	1.46	4.37	0.23	2.00	0.06	1.15
50			11.91	10.87	5.70	7.97	1.76	4.85	0.27	2.22	0.07	1.28
60					7.84	9.56	2.42	5.83	0.38	2.67	0.10	1.54
70					10.27	11.16	3.16	6.80	0.49	3.11	0.13	1.79
80								4.00	0.62	3.56	0.17	2.05
90								4.91	0.74	4.00	0.21	2.31
100								5.91	0.92	4.44	0.25	2.56
110								6.98	1.06	4.89	0.30	2.82
120									1.27	5.33	0.34	3.08
130									1.46	5.78	0.40	3.33
140									1.66	6.22	0.45	3.59
150									1.88	6.67	0.51	3.84
175									2.46	7.78	0.66	4.48
200									3.10	8.89	0.84	5.13
225									3.82	10.00	1.03	5.77
250									4.59	11.11	1.24	6.41
300											1.71	7.69
350											2.24	8.97
400											2.83	10.25

Grey boxes: Velocity above 5 fps is not recommended.

SDR 26								
FRICTION LOSS PSI/100' / FLOW VELOCITY FT/SECOND								
GPM	2"	3"	4"	5"	6"	8"	10"	
25	.38	2.16	.06	.99	.02	.60		
30	.53	2.59	.08	1.19	.02	.72	.01	.47
35	.71	3.03	.11	1.39	.03	.84	.01	.55
40	.90	3.46	.14	1.58	.04	.96	.01	.63
45	1.13	3.89	.17	1.78	.05	1.08	.02	.70
50	1.37	4.32	.20	1.98	.06	1.19	.02	.78
60	1.92	5.19	.29	2.38	.08	1.43	.03	.94
70	2.55	6.05	.38	2.77	.11	1.67	.04	1.10
80	3.27	6.92	.49	3.17	.14	1.91	.05	1.25
90	4.06	7.78	.61	3.57	.18	2.15	.06	1.41
100	4.94	8.65	.74	3.96	.22	2.39	.08	1.56
125	7.47	10.81	1.12	4.95	.33	2.99	.12	1.96
150			1.57	5.94	.46	3.58	.16	2.35
175			2.09	6.93	.61	4.18	.22	2.74
200			2.67	7.92	.78	4.78	.28	3.13
250			4.04	9.91	1.18	5.97	.42	3.91
300			5.66	11.89	1.65	7.17	.59	4.69
350					2.20	8.36	.79	5.48
400					2.82	9.56	1.01	6.26
450					3.50	10.75	1.25	7.04
500							1.52	7.82
750								2.34
1000								3.13
1250								3.98

SDR 21								
FRICTION LOSS PSI/100' / FLOW VELOCITY FT/SECOND								
GPM	1 1/2"	2"	3"	4"	5"	6"	8"	
25	1.25	3.53	.42	2.25	.06	1.03	.02	.62
30	1.75	4.24	.59	2.70	.09	1.24	.03	.75
35	2.33	4.94	.78	3.15	.12	1.44	.03	.87
40	2.99	5.65	1.00	3.60	.15	1.65	.04	1.00
45	3.72	6.36	1.24	4.05	.19	1.86	.05	1.12
50	4.52	7.06	1.51	4.50	.23	2.06	.07	1.25
60	6.33	8.48	2.12	5.41	.32	2.48	.09	1.5
70	8.42	9.89	2.82	6.31	.42	2.89	.12	1.75
80			3.61	7.21	.54	3.30	.16	2.00
90			4.49	8.11	.67	3.71	.20	2.24
100			5.46	9.01	.82	4.13	.24	2.49
125					1.23	5.16	.36	3.12
150					1.73	6.19	.51	3.74
175					2.30	7.22	.68	4.36
200					2.95	8.25	.87	4.99
250					4.45	10.31	1.31	6.24
300							1.84	7.48
350							2.44	8.73
400							3.13	9.98
450							3.89	11.22
500								1.69
750								2.34
1000								3.13
1250								3.98



DRIPTAPE; G.P.M. PER ACRE @ 8 P.S.I.

FLOW								
ROW SPACING (INCHES)	FEET OF HOSE PER ACRE	8"	8"	12"	12"	16"	16"	24"
30	17.424	.67	.34	.45	.22	.34	.17	.28
32	16.335	.67	.34	.45	.22	.34	.17	.28
34	15.374	.67	.34	.45	.22	.34	.17	.28
36	14.520	.67	.34	.45	.22	.34	.17	.28
38	13.756	.67	.34	.45	.22	.34	.17	.28
40	13.068	.67	.34	.45	.22	.34	.17	.28
42	12.446	.67	.34	.45	.22	.34	.17	.28
44	11.880	.67	.34	.45	.22	.34	.17	.28
46	11.363	.67	.34	.45	.22	.34	.17	.28
48	10.890	.67	.34	.45	.22	.34	.17	.28
50	10.454	.67	.34	.45	.22	.34	.17	.28
52	10.052	.67	.34	.45	.22	.34	.17	.28
54	9.680	.67	.34	.45	.22	.34	.17	.28
56	9.334	.67	.34	.45	.22	.34	.17	.28
58	9.012	.67	.34	.45	.22	.34	.17	.28
60	8.712	.67	.34	.45	.22	.34	.17	.28
62	8.431	.67	.34	.45	.22	.34	.17	.28
64	8.169	.67	.34	.45	.22	.34	.17	.28
66	7.920	.67	.34	.45	.22	.34	.17	.28
68	7.687	.67	.34	.45	.22	.34	.17	.28
70	7.467	.67	.34	.45	.22	.34	.17	.28
72	7.260	.67	.34	.45	.22	.34	.17	.28
74	7.064	.67	.34	.45	.22	.34	.17	.28
76	6.878	.67	.34	.45	.22	.34	.17	.28
78	6.702	.67	.34	.45	.22	.34	.17	.28
80	6.534	.67	.34	.45	.22	.34	.17	.28
82	6.375	.67	.34	.45	.22	.34	.17	.28
84	6.223	.67	.34	.45	.22	.34	.17	.28
86	6.078	.67	.34	.45	.22	.34	.17	.28
88	5.940	.67	.34	.45	.22	.34	.17	.28
90	5.808	.67	.34	.45	.22	.34	.17	.28
92	5.682	.67	.34	.45	.22	.34	.17	.28
94	5.561	.67	.34	.45	.22	.34	.17	.28
96	5.445	.67	.34	.45	.22	.34	.17	.28
98	5.334	.67	.34	.45	.22	.34	.17	.28
100	5.227	.67	.34	.45	.22	.34	.17	.28

Pipe Flow Capacity At 100'

Flow Rate 4 PSI
Lost Per 100'

1/2".....3 GPM
3/4".....7 GPM
1".....14 GPM
1 1/4".....28 GPM
1 1/2".....40 GPM
2".....80 GPM

Flow Rate 2 PSI
Lost Per 100'

3".....150 GPM
4".....325 GPM
5".....550 GPM
6".....850 GPM
8".....1800 GPM

