

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					4	0.6
500						0.7
580				22		0.9
620						1.0

Oval Hose Friction Loss and Velocity													
Size ID	1" Oval		1-1/4" Oval		1-1/2" Oval		2" Oval		3" Oval		4" Oval		
	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	0.77	0.62	3.56	0.17	2.05
90								4.91	0.74	0.77	4.00	0.21	2.31
100								5.91	0.91	0.92	4.44	0.25	2.56
110								6.98	1.08	1.09	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	.01
70	2.55	6.05	.38	2.77	.11	1.67	.04	1.10	.02
80	3.27	6.92	.49	3.17	.14	1.91	.05	1.25	.02
90	4.06	7.78	.61	3.57	.18	2.15	.06	1.41	.03
100	4.94	8.65	.74	3.96	.22	2.39	.08	1.56	.03
125	7.47	10.81	1.12	4.95	.33	2.99	.12	1.96	.05
150			1.57	5.94	.46	3.58	.16	2.35	.07
175			2.09	6.93	.61	4.18	.22	2.74	.09
200			2.67	7.92	.78	4.78	.28	3.13	.12
250			4.04	9.91	1.18	5.97	.42	3.91	.18
300			5.66	11.89	1.65	7.17	.59	4.69	.25
350					2.20	8.36	.79	5.48	.34
400					2.82	9.56	1.01	6.26	.43
450					3.50	10.73	1.25	7.04	.53
500							1.52	7.82	.65
750								1.38	8.27
1000								2.34	11.03
1250								.98	8.13

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								1.53
1000								.72
1250								1.09



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

ROW SPACING (INCHES)	FEET OF HOSE PER ACRE	FLOW						
		8" .67	8" .34	12" .45	12" .22	16" .34	16" .17	24" .28
30	17,424	117	59	78	38	59	30	49
32	16,335	109	56	74	36	56	28	46
34	15,374	103	52	69	34	52	26	43
36	14,520	97	49	65	32	49	25	41
38	13,756	92	47	62	30	47	23	39
40	13,068	88	44	59	29	44	22	37
42	12,446	83	42	56	27	42	21	35
44	11,880	80	40	53	26	40	20	33
46	11,363	76	39	51	25	39	19	32
48	10,890	73	37	49	24	37	19	30
50	10,454	70	36	47	23	36	18	29
52	10,052	67	34	45	22	34	17	28
54	9,680	65	33	44	21	33	16	27
56	9,334	63	32	42	21	32	16	26
58	9,012	60	31	41	20	31	15	25
60	8,712	58	30	39	19	30	15	24
62	8,431	56	29	38	19	29	14	24
64	8,168	55	28	37	18	28	14	23
66	7,920	53	27	36	17	27	13	22
68	7,687	52	26	35	17	26	13	22
70	7,467	50	25	34	16	25	13	21
72	7,260	49	25	33	16	25	12	20
74	7,064	47	24	32	16	24	12	20
76	6,878	46	23	31	15	23	12	19
78	6,702	45	23	30	15	23	11	19
80	6,534	44	22	29	14	22	11	18
82	6,375	43	22	29	14	22	11	18
84	6,223	42	21	28	14	21	11	17
86	6,078	41	21	27	13	21	10	17
88	5,940	40	20	27	13	20	10	17
90	5,808	39	20	26	13	20	10	16
92	5,682	38	19	26	13	19	10	16
94	5,561	37	19	25	12	19	9	16
96	5,445	36	19	25	12	19	9	15
98	5,334	36	18	24	12	18	9	15
100	5,227	35	18	24	11	18	9	15

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