

Reference	Nozzle Type & Location	Flow in gpm	Pipe Fittings Size & Devices	Pipe Eqiv. Length	Friction Loss psi/ft	Req. psi	Notes
P1 to L1	5.60 q Q	23.28 23.28	1.049 120 2E T	lgth ftg tot	3.500 9.000 12.500	Pt Pf Pe	17.28 2.15 -1.08
P2 to L2	5.60 q Q	23.60 23.60	1.049 120 2E T	lgth ftg tot	3.500 9.000 12.500	Pt Pf Pe	17.76 2.21 -1.08
P3 to L3	5.60 q Q	24.57 24.57	1.049 120 2E T	lgth ftg tot	3.500 9.000 12.500	Pt Pf Pe	19.25 2.38 -1.08
P4 to L4	5.60 q Q	24.95 24.95	1.049 120 T	lgth ftg tot	2.500 5.000 7.500	Pt Pf Pe	19.85 1.47 -1.08
P5 to L5	5.60 q Q	25.25 25.25	1.049 120 T	lgth ftg tot	2.500 5.000 7.500	Pt Pf Pe	20.33 1.50 -1.08
P6 to L6	5.60 q Q	25.90 25.90	1.049 120 T	lgth ftg tot	2.500 5.000 7.500	Pt Pf Pe	21.39 1.57 -1.08
P7 to L7	5.60 q Q	28.10 28.10	1.049 120 T	lgth ftg tot	2.500 5.000 7.500	Pt Pf Pe	25.19 1.83 -1.08
P8 to L8	5.60 q Q	28.04 28.04	1.049 120 2E T	lgth ftg tot	3.500 9.000 12.500	Pt Pf Pe	25.08 3.04 -1.08
P9 to L9	5.60 q Q	28.46 28.46	1.049 120 2E T	lgth ftg tot	3.500 9.000 12.500	Pt Pf Pe	25.83 3.12 -1.08
P10 to L10	5.60 q Q	28.09 28.09	1.049 120 2E T	lgth ftg tot	3.500 9.000 12.500	Pt Pf Pe	25.17 3.05 -1.08
P11 to L11	5.60 q Q	28.51 28.51	1.049 120 2E T	lgth ftg tot	3.500 9.000 12.500	Pt Pf Pe	25.92 3.13 -1.08
P12 to L12	5.60 q Q	19.60 19.60	1.049 120 3E	lgth ftg tot	5.500 6.000 11.500	Pt Pf Pe	12.25 1.44 -1.08

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P13 to L13	5.60 q Q	20.10 20.10	1.049 120 T	lgth ftg tot	2.500 5.000 7.500	0.131	Pt Pf Pe 12.89 0.99 -1.08
P14 to L14	5.60 q Q	21.01 21.01	1.049 120 E T	lgth ftg tot	4.000 7.000 11.000	0.142	Pt Pf Pe 14.07 1.57 -1.08
P15 to L15	5.60 q Q	24.97 24.97	1.049 120 E T	lgth ftg tot	4.000 7.000 11.000	0.196	Pt Pf Pe 19.89 2.16 -1.08
P16 to L16	5.60 q Q	27.74 27.74	1.049 120 T	lgth ftg tot	2.500 5.000 7.500	0.238	Pt Pf Pe 24.55 1.79 -1.08
P17 to L17	5.60 q Q	26.62 26.62	1.049 120 2E T	lgth ftg tot	3.500 9.000 12.500	0.221	Pt Pf Pe 22.60 2.76 -1.08
P18 to L18	5.60 q Q	27.02 27.02	1.049 120 2E T	lgth ftg tot	3.500 9.000 12.500	0.227	Pt Pf Pe 23.28 2.84 -1.08
P19 to L19	5.60 q Q	28.42 28.42	1.049 120 2E T	lgth ftg tot	3.500 9.000 12.500	0.249	Pt Pf Pe 25.76 3.12 -1.08
L1 to L2	q Q	0.00 23.28	1.380 120	lgth ftg tot	12.000 0.000 12.000	0.045	Pt Pf Pe 18.35 0.54 0.00
L2 to L3	q Q	0.00 46.88	1.380 120	lgth ftg tot	10.000 0.000 10.000	0.165	Pt Pf Pe 18.89 1.65 0.00
L3 to M1	q Q	0.00 71.45	1.380 120 2E T	lgth ftg tot	17.000 12.000 29.000	0.361	Pt Pf Pe 20.55 10.46 0.00
L4 to L5	q Q	0.00 24.95	1.380 120	lgth ftg tot	10.000 0.000 10.000	0.052	Pt Pf Pe 20.24 0.52 0.00
L5 to L6	q Q	0.00 50.20	1.380 120	lgth ftg tot	6.000 0.000 6.000	0.188	Pt Pf Pe 20.75 1.13 0.00

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L6 to L7	q Q	0.00 76.10	1.380 120	lgth ftg tot	10.000 0.000 10.000	Pt Pf Pe	21.88 4.06 0.00
L7 to M2	q Q	0.00 104.20	1.380 120 T	lgth ftg tot	1.000 6.000 7.000	Pt Pf Pe	25.94 5.08 0.00
L8 to L9	q Q	0.00 28.04	1.380 120	lgth ftg tot	13.000 0.000 13.000	Pt Pf Pe	27.04 0.83 0.00
L9 to M3	q Q	0.00 56.50	1.380 120 T	lgth ftg tot	7.500 6.000 13.500	Pt Pf Pe	27.87 3.16 0.00
L10 to L11	q Q	0.00 28.09	1.380 120	lgth ftg tot	13.000 0.000 13.000	Pt Pf Pe	27.13 0.83 0.00
L11 to M4	q Q	0.00 56.60	1.380 120 T	lgth ftg tot	7.500 6.000 13.500	Pt Pf Pe	27.97 3.17 0.00
L12 to L13	q Q	0.00 19.60	1.380 120	lgth ftg tot	5.500 0.000 5.500	Pt Pf Pe	12.61 0.18 0.00
L13 to L14	q Q	0.00 39.70	1.380 120 T	lgth ftg tot	8.500 6.000 14.500	Pt Pf Pe	12.79 1.76 0.00
L14 to L15	q Q	0.00 60.71	1.380 120 2E T	lgth ftg tot	12.000 12.000 24.000	Pt Pf Pe	14.55 6.41 0.00
L15 to L16	q Q	0.00 85.68	1.380 120	lgth ftg tot	8.500 0.000 8.500	Pt Pf Pe	20.96 4.29 0.00
L16 to M5	q Q	0.00 113.42	1.380 120 T	lgth ftg tot	1.000 6.000 7.000	Pt Pf Pe	25.25 5.94 0.00
L17 to L18	q Q	0.00 26.62	1.380 120	lgth ftg tot	13.000 0.000 13.000	Pt Pf Pe	24.28 0.76 0.00

Reference	Nozzle Type & Location	Flow in gpm	Pipe Fittings Size & Devices	Pipe Eqiv. Length	Friction Loss psi/ft	Req. psi	Notes
L18 to L19	q Q	0.00 53.64	1.380 120	lgth ftg tot	13.000 0.000 13.000	Pt Pf Pe	25.03 2.76 0.00
L19 to M6	q Q	0.00 82.06	1.380 120 T	lgth ftg tot	2.000 6.000 8.000	Pt Pf Pe	27.79 3.73 0.00
M1 to M2	q Q	0.00 71.45	4.260 120	lgth ftg tot	1.250 0.000 1.250	Pt Pf Pe	31.01 0.00 0.00
M2 to M3	q Q	0.00 175.65	4.260 120	lgth ftg tot	2.000 0.000 2.000	Pt Pf Pe	31.01 0.02 0.00
M3 to M4	q Q	0.00 232.15	4.260 120	lgth ftg tot	8.000 0.000 8.000	Pt Pf Pe	31.03 0.11 0.00
M4 to M5	q Q	0.00 288.75	4.260 120	lgth ftg tot	3.000 0.000 3.000	Pt Pf Pe	31.13 0.06 0.00
M5 to M6	q Q	0.00 402.17	4.260 120	lgth ftg tot	9.000 0.000 9.000	Pt Pf Pe	31.19 0.33 0.00
M6 to M13	q Q	0.00 484.23	4.260 120 2T BV 2E	lgth ftg tot	90.000 94.803 184.800	Pt Pf Pe	31.52 9.49 0.00
M13 to TOR	q Q	0.00 484.23	6.357 120 BV 2T 6E	lgth ftg tot	75.000 193.630 268.630	Pt Pf Pe	41.02 1.96 1.30
TOR to BF2	q Q	0.00 484.23	6.357 120 23 T	lgth ftg tot	9.000 60.720 69.720	Pt Pf Pe	44.28 0.51 3.90
BF2 to BF1	q Q	0.00 484.23	6.065 120 FDPLD	lgth ftg tot	4.000 0.000 4.000	Pt Pf Pe	48.69 FDPLD = 2.10 2.06 0.00
BF1 to DI	q Q	0.00 484.23	6.065 120 E	lgth ftg tot	2.000 14.000 16.000	Pt Pf Pe	50.79 0.15 0.43

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DI to HD2	q Q	0.00 484.23	8.510 140 5E T GV	lgth ftg tot	85.000 234.520 319.520	Pt Pf Pe	51.37 0.42 2.60
HD2 to BF4	Hose q Q	720.00 1,204.23	10.520 140 2E	lgth ftg tot	20.000 74.181 94.180	Pt Pf Pe	54.39 0.24 -3.03
BF4 to BF3	q Q	0.00 1,204.23	10.020 140 FDPLD	lgth ftg tot	5.000 0.000 5.000	Pt Pf Pe	51.60 FDPLD = 2.42 2.41 0.00
BF3 to POC	q Q	0.00 1,204.23	10.520 140 3E 2GV T	lgth ftg tot	165.000 212.429 377.430	Pt Pf Pe	54.03 0.96 3.03
	Source Qt	1,304.23				Pt	58.02