

CALCULATION SUMMARY

Project Name : Westdell - CRU #1B

Project Location: 1300 Fanshawe Pk Rd East

Contract No. : 062-040424

City: London, Ontario

Design Areas

Design Area Name	Calc. Mode (Model)	Occupancy	Area of Application	Total Water	Pressure @ Source	Min. Density	Min. Pressure	Min. Flow	Calculated Heads	Hose Streams	Margin To Source
			(ft ²)	(gpm)	(psi)	(gpm/ft ²)	(psi)	(gpm)	#	(gpm)	(psi)
1	Demand (HW)	Ord. Grp.2	1500	578.9	Required 49.2	0.2	19.6	24.8	13	250	18



HYDRAULIC CALCULATIONS for

Job Information

Project Name : Westdell - CRU #1B

Contract No. : 062-040424

City: London, Ontario

Project Location: 1300 Fanshawe Pk Rd East

Date: 4/4/2024

Contractor Information

Name of Contractor: SDC

Address: 23 Turnbull Drive

City: Brantford, Ontario N3T 0K4

Phone Number: 226-388-1503

E-mail: jhayhurst@hotmail.ca

Name of Designer: JSH

Authority Having Jurisdiction: Local Bldg Dept.

Design

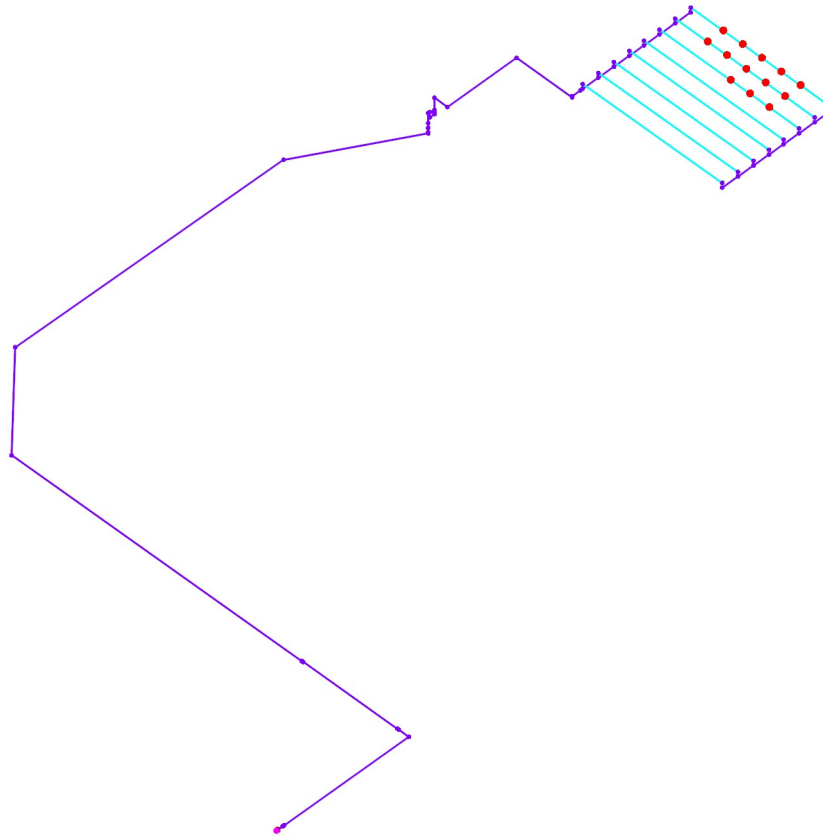
Remote Area Name	1
Remote Area Location	Retail Area
Occupancy Classification	Ord. Grp.2
Density (gpm/ft ²)	0.2
Area of Application (ft ²)	1500
Coverage per Sprinkler (ft ²)	124
Number of Calculated Sprinklers	13
In-Rack Demand (gpm)	0
Special Heads	
Hose Streams (gpm)	250
Total Water Required (incl. Hose Streams) (gpm)	578.9
Required Pressure at Source (psi)	49.2
Type of System	Wet
Volume - Entire System (gal)	1930.7 gal

Water Supply Information

Date	Nov.2015
Location	1300 Fanshawe Pk Rd E
Source	W1

Notes

Diagram for Design Area : 1 (Optimized Hvdraulic Simplified)



Hydraulic Analysis for : 1

Calculation Info

Calculation Mode	Demand
Hydraulic Model	Hazen-Williams
Fluid Name	Water @ 60F (15.6C)
Fluid Weight, (lb/ft ³)	N/A for Hazen-Williams calculation.
Fluid Dynamic Viscosity, (lb-s/ft ²)	N/A for Hazen-Williams calculation.

Water Supply Parameters

Supply 1 : W1

Flow (gpm)	Pressure (psi)
0	68
1160	65
1840	64

Supply Analysis

Node at Source	Static Pressure (psi)	Residual Pressure (psi)	Flow (gpm)	Available Pressure (psi)	Total Demand (gpm)	Required Pressure (psi)
W1	68	65	1160	67.2	578.9	49.2

Hoses

Inside Hose Flow / Standpipe Demand (gpm)	100
Outside Hose Flow (gpm)	0
Additional Outside Hose Flow (gpm)	150
Other (custom defined) Hose Flow (gpm)	0
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Total Hose Flow (gpm)	250

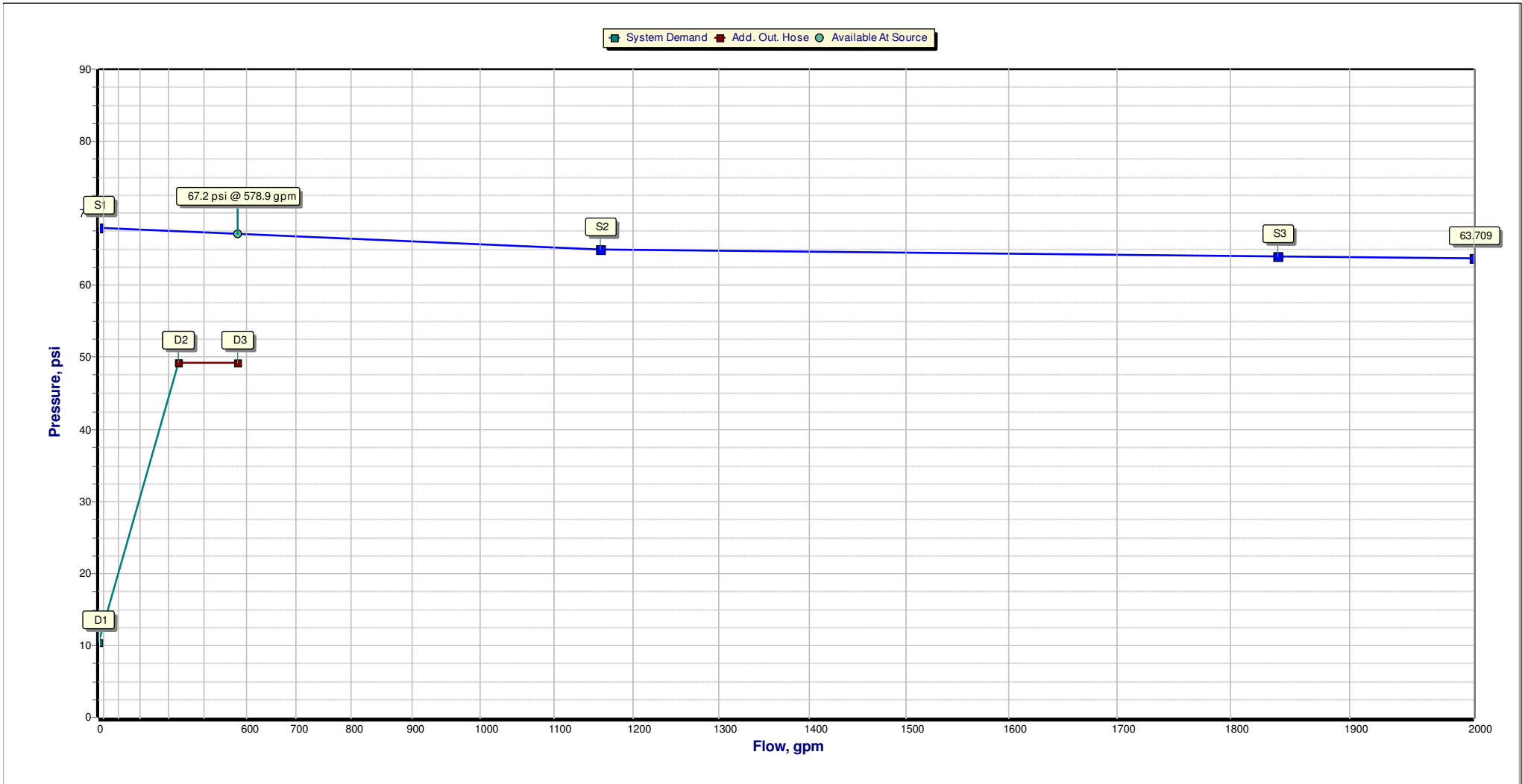
Sprinklers

Ovehead Sprinkler Flow (gpm)	328.9
InRack Sprinkler Flow (gpm)	0
Other (custom defined) Sprinkler Flow (gpm)	0
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Total Sprinkler Flow (gpm)	328.9

Other

Required Margin of Safety (psi)	0
W1 - Pressure (psi)	49.2
W1 - Flow (gpm)	428.9
Demand w/o System Pump(s)	N/A

Hydraulic Analysis for : 1



Hydraulic Analysis for : 1

Graph Labels

Label	Description	Values	
		Flow (gpm)	Pressure (psi)
S1	Supply point #1 - Static	0	68
S2	Supply point #2	1160	65
S3	Supply point #3	1840	64
D1	Elevation Pressure	0	10.4
D2	System Demand	428.9	49.2
D3	System Demand + Add.Out.Hose	578.9	49.2

Curve Intersections & Safety Margins

Curve Name	Intersection		Safety Margin	
	Pressure (psi)	Flow (gpm)	Pressure (psi)	@ Flow (gpm)
Supply	67.3	527.6	18	578.9

Open Heads

Head Ref.	Head Type	Coverage	K-Factor	Required			Calculated		
				Density	Flow	Pressure	Density	Flow	Pressure
		(ft ²)	(gpm/psi ^{1/2})	(gpm/ft ²)	(gpm)	(psi)	(gpm/ft ²)	(gpm)	(psi)
A1	Overhead Sprinkler	124	5.6	0.2	24.8	19.6	0.202	25	20
A10	Overhead Sprinkler	124	5.6	0.2	24.8	19.6	0.204	25.3	20.5
A11	Overhead Sprinkler	124	5.6	0.2	24.8	19.6	0.213	26.4	22.2
A12	Overhead Sprinkler	124	5.6	0.2	24.8	19.6	0.212	26.3	22.1
A13	Overhead Sprinkler	124	5.6	0.2	24.8	19.6	0.213	26.4	22.3
A2	Overhead Sprinkler	124	5.6	0.2	24.8	19.6	0.2	24.8	19.6
A3	Overhead Sprinkler	124	5.6	0.2	24.8	19.6	0.2	24.8	19.6
A4	Overhead Sprinkler	124	5.6	0.2	24.8	19.6	0.201	24.9	19.8
A5	Overhead Sprinkler	124	5.6	0.2	24.8	19.6	0.204	25.3	20.4
A6	Overhead Sprinkler	124	5.6	0.2	24.8	19.6	0.202	25	20
A7	Overhead Sprinkler	124	5.6	0.2	24.8	19.6	0.2	24.8	19.7
A8	Overhead Sprinkler	124	5.6	0.2	24.8	19.6	0.2	24.8	19.6

A9	Overhead Sprinkler	124	5.6	0.2	24.8	19.6	0.201	24.9	19.8
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Node Data

Node# Elev	Type Hgroup	K-Fact. Open/Closed	Discharge Overdischarge	Coverage Density	Tot. Pres. Elev. Pres.	Req. Pres. Req. Discharge
ft		gpm/psi ^{1/2}	gpm gpm	ft ² gpm/ft ²	psi psi	psi gpm
A3 17.92	Overhead Sprinkler HEAD	5.6 Open	24.8 0	124 0.2	19.6 -10.4	19.6 24.8
A2 17.92	Overhead Sprinkler HEAD	5.6 Open	24.8 0	124 0.2	19.6 -10.4	19.6 24.8
A8 17.92	Overhead Sprinkler HEAD	5.6 Open	24.8 0.0	124 0.2	19.6 -10.4	19.6 24.8
A7 17.92	Overhead Sprinkler HEAD	5.6 Open	24.8 0.0	124 0.2	19.7 -10.4	19.6 24.8
A4 17.92	Overhead Sprinkler HEAD	5.6 Open	24.9 0.1	124 0.201	19.8 -10.4	19.6 24.8
A9 17.92	Overhead Sprinkler HEAD	5.6 Open	24.9 0.1	124 0.201	19.8 -10.4	19.6 24.8
A1 17.92	Overhead Sprinkler HEAD	5.6 Open	25 0.2	124 0.202	20 -10.4	19.6 24.8
A6 17.92	Overhead Sprinkler HEAD	5.6 Open	25 0.2	124 0.202	20 -10.4	19.6 24.8
A5 17.92	Overhead Sprinkler HEAD	5.6 Open	25.3 0.5	124 0.204	20.4 -10.4	19.6 24.8
A10 17.92	Overhead Sprinkler HEAD	5.6 Open	25.3 0.5	124 0.204	20.5 -10.4	19.6 24.8
A12 17.92	Overhead Sprinkler HEAD	5.6 Open	26.3 1.5	124 0.212	22.1 -10.4	19.6 24.8
A11 17.92	Overhead Sprinkler HEAD	5.6 Open	26.4 1.6	124 0.213	22.2 -10.4	19.6 24.8
A13 17.92	Overhead Sprinkler HEAD	5.6 Open	26.4 1.6	124 0.213	22.3 -10.4	19.6 24.8
056 17.67	Node NODE				20.7 -10.3	
057 17.67	Node NODE				20.8 -10.3	
068 17.67	Node NODE				20.8 -10.3	
067 17.67	Node NODE				20.8 -10.3	
055 17.67	Node NODE				20.9 -10.3	
069 17.67	Node NODE				20.9 -10.3	
058 17.67	Node NODE				21.1 -10.3	
066 17.67	Node NODE				21.1 -10.3	
054 17.67	Node NODE				21.6 -10.3	
070 17.67	Node NODE				21.6 -10.3	
084 17.67	Node NODE				23.4 -10.3	
001 17.67	Node NODE				23.4 -10.3	

Node Data

Node# Elev	Type Hgroup	K-Fact. Open/Closed	Discharge Overdischarge	Coverage Density	Tot. Pres. Elev. Pres.	Req. Pres. Req. Discharge
ft		gpm/psi ^{1/2}	gpm gpm	ft ² gpm/ft ²	psi psi	psi gpm
083 17.67	Node NODE				23.5 -10.3	
062 14.67	Node NODE				26 -9	
063 14.67	Node NODE				26.1 -9	
005 14.67	Node NODE				26.2 -9	
006 14.67	Node NODE				26.4 -9	
007 14.67	Node NODE				26.5 -9	
008 14.67	Node NODE				26.6 -9	
009 14.67	Node NODE				26.7 -9	
010 14.67	Node NODE				26.7 -9	
048 14.67	Node NODE				28.6 -9	
047 14.67	Node NODE				28.6 -9	
046 14.67	Node NODE				28.8 -9	
045 14.67	Node NODE				29.1 -9	
044 14.67	Node NODE				29.5 -9	
043 14.67	Node NODE				30 -9	
042 14.67	Node NODE				30.6 -9	
023 14.67	Node NODE				31.3 -9	
024 14.67	Node NODE				31.5 -9	
029-O 5.97	Node NODE				39.5 -5.2	
029-I 5.17	Node NODE				40.6 -4.8	
030-O 4.55	Node NODE				40.9 -4.6	
030-I 4.17	Node NODE				41.4 -4.4	
031 3.5	Node NODE				42 -4.1	
035-O 0.54	Node NODE				43.5 -2.8	
035-I -2.5	Node NODE				47.1 -1.5	

Node Data

Node# Elev	Type Hgroup	K-Fact. Open/Closed	Discharge Overdischarge	Coverage Density	Tot. Pres. Elev. Pres.	Req. Pres. Req. Discharge
ft		gpm/psi ^{1/2}	gpm gpm	ft ² gpm/ft ²	psi psi	psi gpm
036 -5.33	Node NODE				48.3 -0.3	
127-O -6	Node NODE				49 0	
127-I -6	Node NODE				49 0	
128-O -6	Node NODE				49.1 0	
128-I -6	Node NODE				49.1 0	
130-O -6	Node NODE				49.2 0	
130-I -6	Node NODE				49.2 0	
H1 -6	Inside Hose HOSE		100		49.2 0	100
W1 -6	Supply SUPPLY		-428.9		49.2 0	

PIPE INFORMATION

Node 1 Node 2	Elev 1 Elev 2	K-Factor 1 K-Factor 2	Flow added (q) Total flow (Q)	Nominal ID Actual ID	Fittings quantity x (name) = length	L F T	C Factor Pf per ft	total (Pt) elev (Pe) frict (Pf)	NOTES
	(ft)	(gpm/psi ^{1/2})	(gpm)	(in)	(ft)	(ft)	(psi)	(psi)	

Path No: 1

A3 056	17.92 17.67	5.6	24.8 24.8	1 1.049	1x(us.Tee-Br)=5	0.25 5 5.25	120 0.1931	19.6 0.1 1	
056 055	17.67 17.67		-5.8 19	1.5 1.68		12.38 0 12.38	120 0.0119	20.7 0 0.1	
055 054	17.67 17.67		24.9 43.9	1.5 1.68		12.38 0 12.38	120 0.0561	20.9 0 0.7	
054 048	17.67 14.67		25.3 69.2	1.5 1.68	2x(us.Tee-Br)=19.68	23.95 19.68 43.64	120 0.1303	21.6 1.3 5.7	
048 047	14.67 14.67		0 69.2	3 3.26		10 0 10	120 0.0052	28.6 0 0.1	
047 046	14.67 14.67		69.3 138.5	3 3.26		10 0 10	120 0.0187	28.6 0 0.2	
046 045	14.67 14.67		44.8 183.3	3 3.26		10 0 10	120 0.0314	28.8 0 0.3	
045 044	14.67 14.67		25.2 208.5	3 3.26		9.26 0 9.26	120 0.0398	29.1 0 0.4	
044 043	14.67 14.67		26.4 234.8	3 3.26		10 0 10	120 0.0496	29.5 0 0.5	
043 042	14.67 14.67		28.3 263.1	3 3.26		10 0 10	120 0.0613	30 0 0.6	
042 023	14.67 14.67		30.8 293.9	3 3.26		10 0 10	120 0.0752	30.6 0 0.8	
023 024	14.67 14.67		35 328.9	3 3.26		1.5 0 1.5	120 0.0926	31.3 0 0.1	
024 029-O	14.67 5.97		0 328.9	4 4.26	5x(us.90)=65.84	102.22 65.84 168.05	120 0.0252	31.5 3.8 4.2	
029-O 029-I	5.97 5.17		0 328.9	4 0		0.8 0 0.8	0.9981	39.5 0.3 0.8	CV-1F Check ***
029-I 030-O	5.17 4.55		0 328.9	4 4.26		0.62 0 0.62	120 0.0252	40.6 0.3 0.0	
030-O 030-I	4.55 4.17		0 328.9	4 0		0.38 0 0.38	0.7839	40.9 0.2 0.3	BFV-N ***

PIPE INFORMATION

Node 1 Node 2	Elev 1 Elev 2	K-Factor 1 K-Factor 2	Flow added (q) Total flow (Q)	Nominal ID Actual ID	Fittings quantity x (name) = length	L F T	C Factor Pf per ft	total (Pt) elev (Pe) frict (Pf)	NOTES
	(ft)	(gpm/psi ^{1/2})	(gpm)	(in)	(ft)	(ft)	(psi)	(psi)	

Path No: 1

030-I 031	4.17 3.5		0 328.9	4 4.26	1x(us.90)=13.17	0.67 13.17 13.83	120 0.0252	41.4 0.3 0.3	
031 035-O	3.5 0.54		0 328.9	6 6.357	3x(us.90)=52.81	13.96 52.81 66.77	120 0.0036	42 1.3 0.2	
035-O 035-I	0.54 -2.5		0 328.9	6 0		3.04 0 3.04	0.7294	43.5 1.3 2.2	AmesC300N ***
035-I 036	-2.5 -5.33		0 328.9	6 6.357		2.83 0 2.83	120 0.0036	47.1 1.2 0.0	
036 127-O	-5.33 -6		0 328.9	8 7.98	3x(us.45)=38.58 1x(us.90)=25.72	494.84 64.3 559.14	150 0.0008	48.3 0.3 0.4	
127-O 127-I	-6 -6		0 328.9	8 0		0.96 0 0.96	0.0024	49 0 0	Gate A2360 ***
127-I 128-O	-6 -6		0 328.9	8 7.98		60.29 0 60.29	150 0.0008	49 0 0.0	
128-O 128-I	-6 -6		0 328.9	8 0		0.96 0 0.96	0.0024	49.1 0 0	Gate A2360 ***
128-I 130-O	-6 -6		0 328.9	8 7.98	1x(us.90)=25.72	86.51 25.72 112.23	150 0.0008	49.1 0 0.1	
130-O 130-I	-6 -6		0 328.9	8 0		0.96 0 0.96	0.0024	49.2 0 0	Gate A2360 ***
130-I H1	-6 -6		0 328.9	8 7.98		3.33 0 3.33	150 0.0008	49.2 0 0	
H1 W1	-6 -6		100 428.9	8 7.98		0.67 0 0.67	150 0.0013	49.2 0 0	
W1								49.2	

PIPE INFORMATION

Node 1 Node 2	Elev 1 Elev 2	K-Factor 1 K-Factor 2	Flow added (q) Total flow (Q)	Nominal ID Actual ID	Fittings quantity x (name) = length	L F T	C Factor Pf per ft	total (Pt) elev (Pe) frict (Pf)	NOTES
	(ft)	(gpm/psi ^{1/2})	(gpm)	(in)	(ft)	(ft)	(psi)	(psi)	

Path No: 2

A2 057	17.92 17.67	5.6	24.8 24.8	1 1.049	1x(us.Tee-Br)=5	0.25 5 5.25	120 0.1933	19.6 0.1 1	
057 058	17.67 17.67		5.8 30.6	1.5 1.68		12.38 0 12.38	120 0.0288	20.8 0 0.4	
058 062	17.67 14.67		25 55.6	1.5 1.68	2x(us.Tee-Br)=19.68	22.08 19.68 41.76	120 0.087	21.1 1.3 3.6	
062 063	14.67 14.67		0 55.6	3 3.26		10 0 10	120 0.0034	26 0 0.0	
063 005	14.67 14.67		55.6 111.3	3 3.26		10 0 10	120 0.0124	26.1 0 0.1	
005 006	14.67 14.67		34.4 145.6	3 3.26		10 0 10	120 0.0205	26.2 0 0.2	
006 007	14.67 14.67		-25.2 120.4	3 3.26		9.26 0 9.26	120 0.0144	26.4 0 0.1	
007 008	14.67 14.67		-26.4 94.1	3 3.26		10 0 10	120 0.0091	26.5 0 0.1	
008 009	14.67 14.67		-28.3 65.8	3 3.26		10 0 10	120 0.0047	26.6 0 0.0	
009 010	14.67 14.67		-30.8 35	3 3.26	1x(us.Tee-Br)=20.16	10 20.16 30.16	120 0.0015	26.7 0 0.0	
010 023	14.67 14.67		0 35	1.5 1.68	3x(us.Tee-Br)=29.53	95.53 29.53 125.06	120 0.037	26.7 0 4.6	
023								31.3	

Path No: 3

A8 068	17.92 17.67	5.6	24.8 24.8	1 1.049	1x(us.Tee-Br)=5	0.25 5 5.25	120 0.1934	19.6 0.1 1	
068 069	17.67 17.67		-5.8 19.1	1.5 1.68		12.38 0 12.38	120 0.012	20.8 0 0.1	
069 070	17.67 17.67		24.9 44	1.5 1.68		12.38 0 12.38	120 0.0563	20.9 0 0.7	
070 047	17.67 14.67		25.3 69.3	1.5 1.68	2x(us.Tee-Br)=19.68	23.95 19.68 43.64	120 0.1307	21.6 1.3 5.7	
047								28.6	

PIPE INFORMATION

Node 1 Node 2	Elev 1 Elev 2	K-Factor 1 K-Factor 2	Flow added (q) Total flow (Q)	Nominal ID Actual ID	Fittings quantity x (name) = length	L F T	C Factor Pf per ft	total (Pt) elev (Pe) frict (Pf)	NOTES
	(ft)	(gpm/psi ^{1/2})	(gpm)	(in)	(ft)	(ft)	(psi)	(psi)	

Path No: 4

A7 067	17.92 17.67	5.6	24.8 24.8	1 1.049	1x(us.Tee-Br)=5	0.25 5 5.25	120 0.1936	19.7 0.1 1	
067 066	17.67 17.67		5.8 30.6	1.5 1.68		12.38 0 12.38	120 0.0288	20.8 0 0.4	
066 063	17.67 14.67		25 55.6	1.5 1.68	2x(us.Tee-Br)=19.68	22.08 19.68 41.76	120 0.087	21.1 1.3 3.6	
063								26.1	

Path No: 5

A4 055	17.92 17.67	5.6	24.9 24.9	1 1.049	1x(us.Tee-Br)=5	0.25 5 5.25	120 0.1944	19.8 0.1 1	
055								20.9	

Path No: 6

A9 069	17.92 17.67	5.6	24.9 24.9	1 1.049	1x(us.Tee-Br)=5	0.25 5 5.25	120 0.1947	19.8 0.1 1	
069								20.9	

Path No: 7

A1 058	17.92 17.67	5.6	25 25	1 1.049	1x(us.Tee-Br)=5	0.25 5 5.25	120 0.1964	20 0.1 1	
058								21.1	

Path No: 8

A6 066	17.92 17.67	5.6	25 25	1 1.049	1x(us.Tee-Br)=5	0.25 5 5.25	120 0.1967	20 0.1 1	
066								21.1	

Path No: 9

A5 054	17.92 17.67	5.6	25.3 25.3	1 1.049	1x(us.Tee-Br)=5	0.25 5 5.25	120 0.2004	20.4 0.1 1.1	
054								21.6	

Path No: 10

A10 070	17.92 17.67	5.6	25.3 25.3	1 1.049	1x(us.Tee-Br)=5	0.25 5 5.25	120 0.2008	20.5 0.1 1.1	
070								21.6	

PIPE INFORMATION

Node 1 Node 2	Elev 1 Elev 2	K-Factor 1 K-Factor 2	Flow added (q) Total flow (Q)	Nominal ID Actual ID	Fittings quantity x (name) = length	L F T	C Factor Pf per ft	total (Pt) elev (Pe) frict (Pf)	NOTES
	(ft)	(gpm/psi ^{1/2})	(gpm)	(in)	(ft)	(ft)	(psi)	(psi)	

Path No: 11

A12 084	17.92 17.67	5.6	26.3 26.3	1 1.049	1x(us.Tee-Br)=5	0.25 5 5.25	120 0.2161	22.1 0.1 1.1	
084 083	17.67 17.67		-8 18.4	1.5 1.68		12.38 0 12.38	120 0.0112	23.4 0 0.1	
083 046	17.67 14.67		26.4 44.8	1.5 1.68	2x(us.Tee-Br)=19.68	48.7 19.68 68.39	120 0.0582	23.5 1.3 4	
046								28.8	

Path No: 12

A11 001	17.92 17.67	5.6	26.4 26.4	1 1.049	1x(us.Tee-Br)=5	0.25 5 5.25	120 0.2163	22.2 0.1 1.1	
001 005	17.67 14.67		8 34.4	1.5 1.68	2x(us.Tee-Br)=19.68	22.08 19.68 41.76	120 0.0357	23.4 1.3 1.5	
005								26.2	

Path No: 13

A13 083	17.92 17.67	5.6	26.4 26.4	1 1.049	1x(us.Tee-Br)=5	0.25 5 5.25	120 0.2173	22.3 0.1 1.1	
083								23.5	

Path No: 14

056 057	17.67 17.67		0 5.8	1.5 1.68		12.38 0 12.38	120 0.0013	20.7 0 0.0	
057								20.8	

Path No: 15

006 045	14.67 14.67		0 25.2	1.5 1.68	4x(us.Tee-Br)=39.37	95.53 39.37 134.9	120 0.0201	26.4 0 2.7	
045								29.1	

Path No: 16

007 044	14.67 14.67		0 26.4	1.5 1.68	4x(us.Tee-Br)=39.37	95.53 39.37 134.9	120 0.0218	26.5 0 2.9	
044								29.5	

PIPE INFORMATION

Node 1 Node 2	Elev 1 Elev 2	K-Factor 1 K-Factor 2	Flow added (q) Total flow (Q)	Nominal ID Actual ID	Fittings quantity x (name) = length	L F T	C Factor Pf per ft	total (Pt) elev (Pe) frict (Pf)	NOTES
	(ft)	(gpm/psi ^{1/2})	(gpm)	(in)	(ft)	(ft)	(psi)	(psi)	

Path No: 17

008	14.67		0	1.5	4x(us.Tee-Br)=39.37	95.53	120	26.6	
043	14.67		28.3	1.68		39.37	0.0248	0	
						134.9		3.3	
043								30	

Path No: 18

009	14.67		0	1.5	4x(us.Tee-Br)=39.37	95.53	120	26.7	
042	14.67		30.8	1.68		39.37	0.029	0	
						134.9		3.9	
042								30.6	

Path No: 19

068	17.67		0	1.5		12.38	120	20.8	
067	17.67		5.8	1.68		0	0.0013	0	
						12.38		0.0	
067								20.8	

Path No: 20

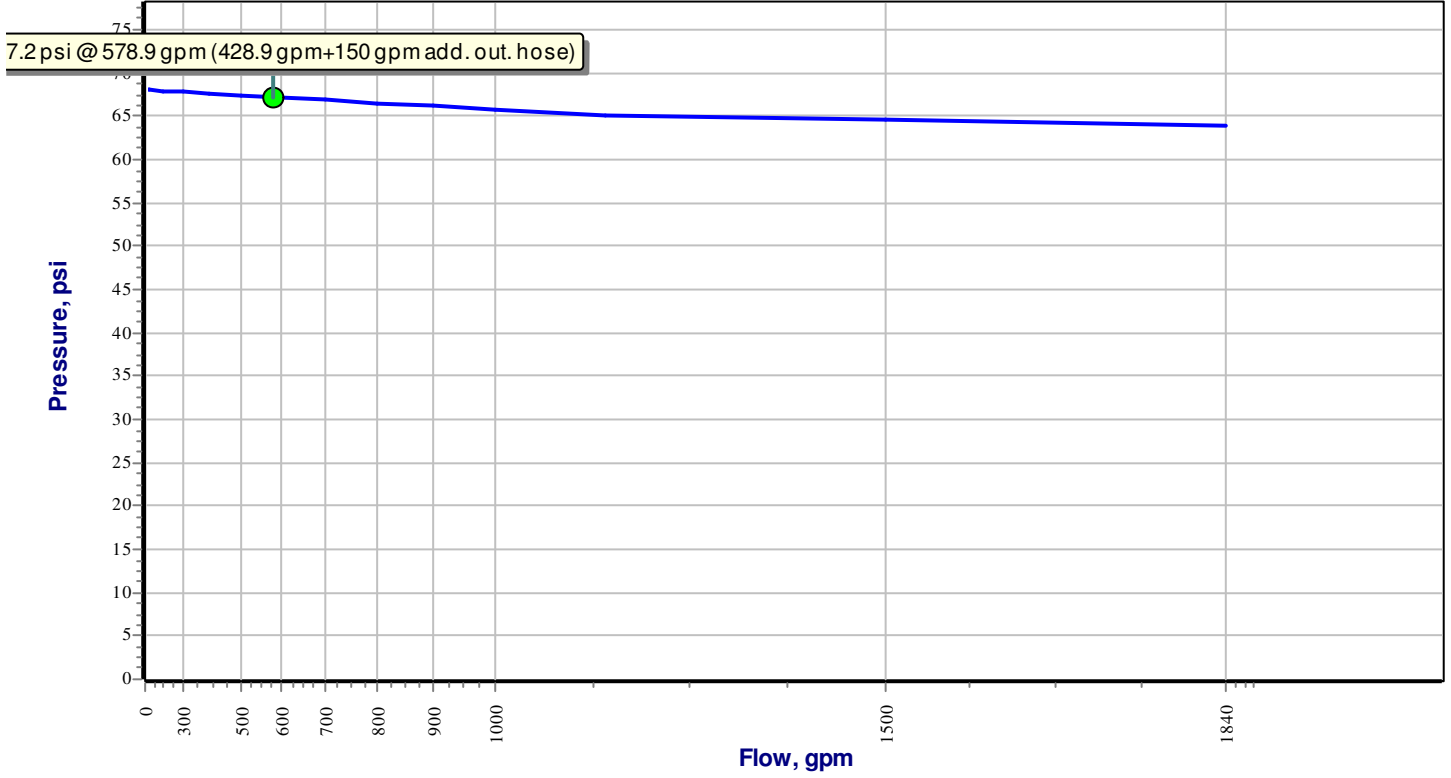
084	17.67		0	1.5		12.38	120	23.4	
001	17.67		8	1.68		0	0.0024	0	
						12.38		0.0	
001								23.4	

* Pressures are balanced to a high degree of accuracy. Values may vary by 0.1 psi due to display rounding.

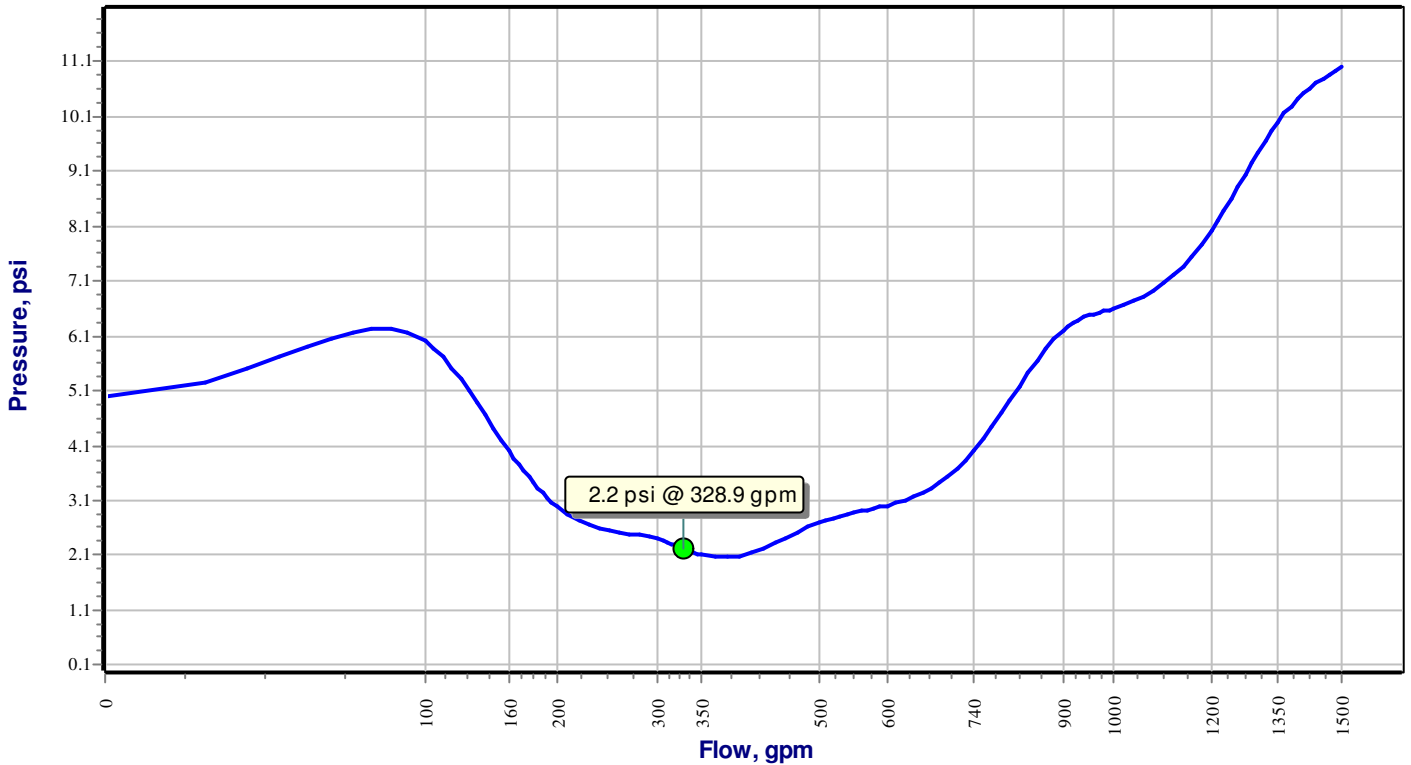
* Maximum Velocity of 12.64 ft/s occurs in the following pipe(s): (024-023)

*** Device pressure loss (gain in the case of pumps) is calculated from the device's curve. If the device curve is printed with this report, it will appear below. The length of the device as shown in the table above comes from the CAD drawing. The friction loss per unit of length is calculated based upon the length and the curve-based loss/gain value. Internal ID and C Factor values are irrelevant as the device is not represented as an addition to any pipe, but is an individual item whose loss/gain is based solely on the curve data.

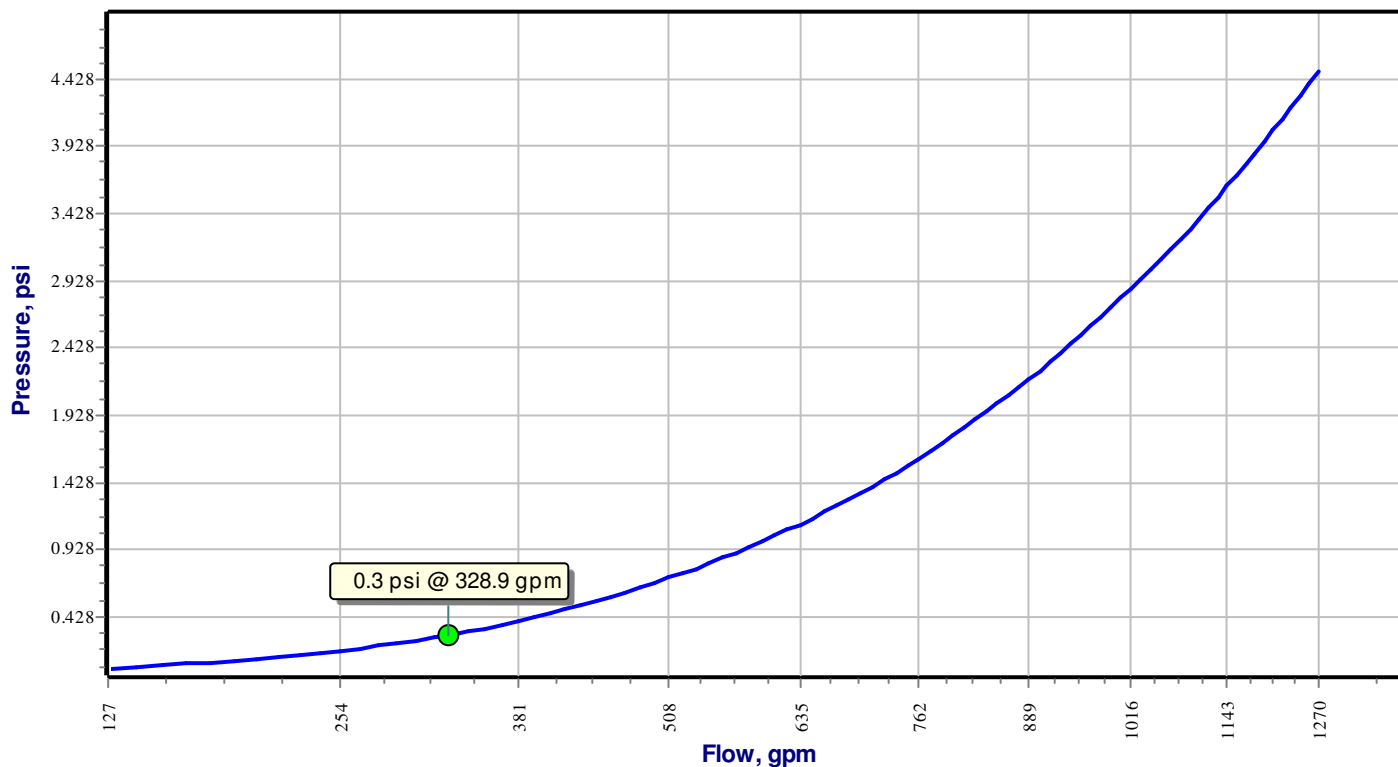
Pressure vs. Flow Function
Design Area: 1; Supply Ref.: W1; Supply Name:W1



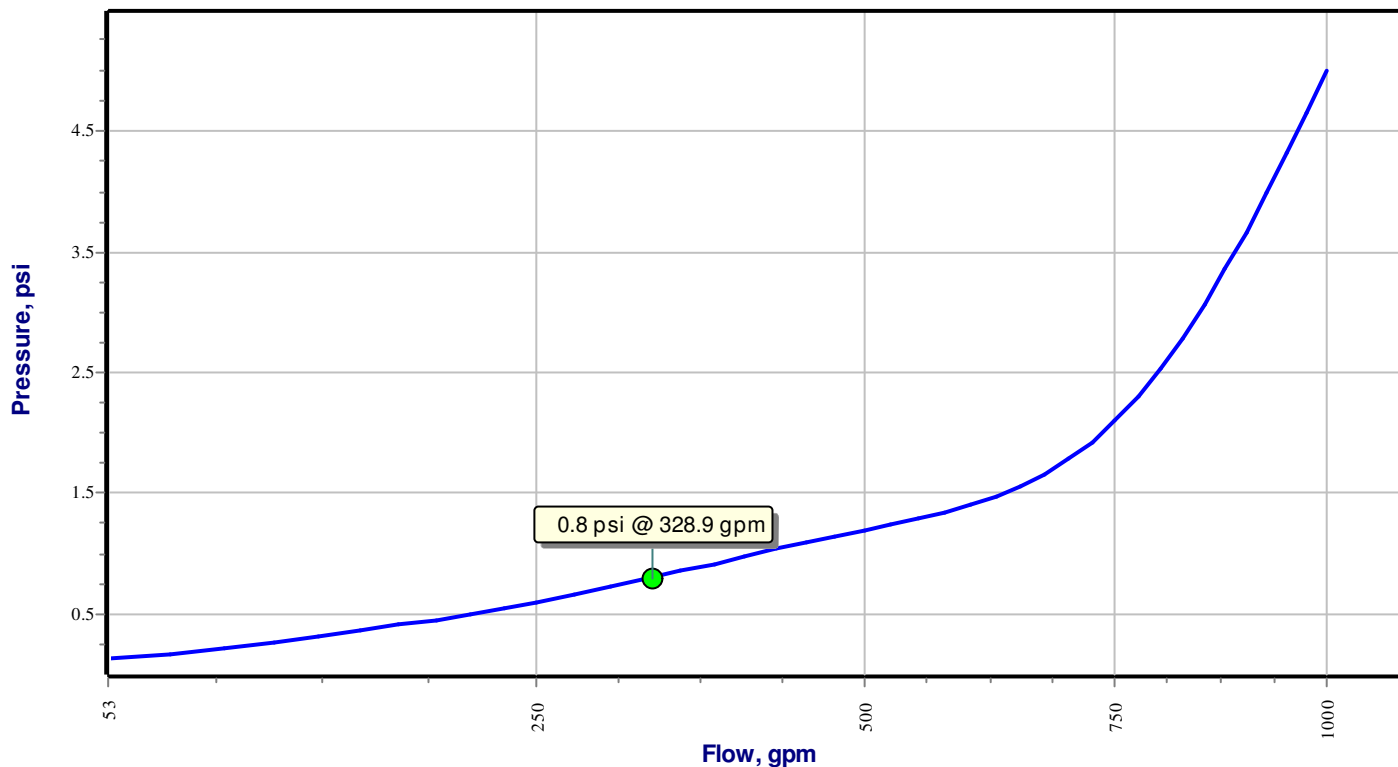
Pressure Loss Function
Design Area: 1; BFP Ref.: 231 (AmesC300N, Size = 6); Inlet Node: 035-I; Outlet Node: 035-O



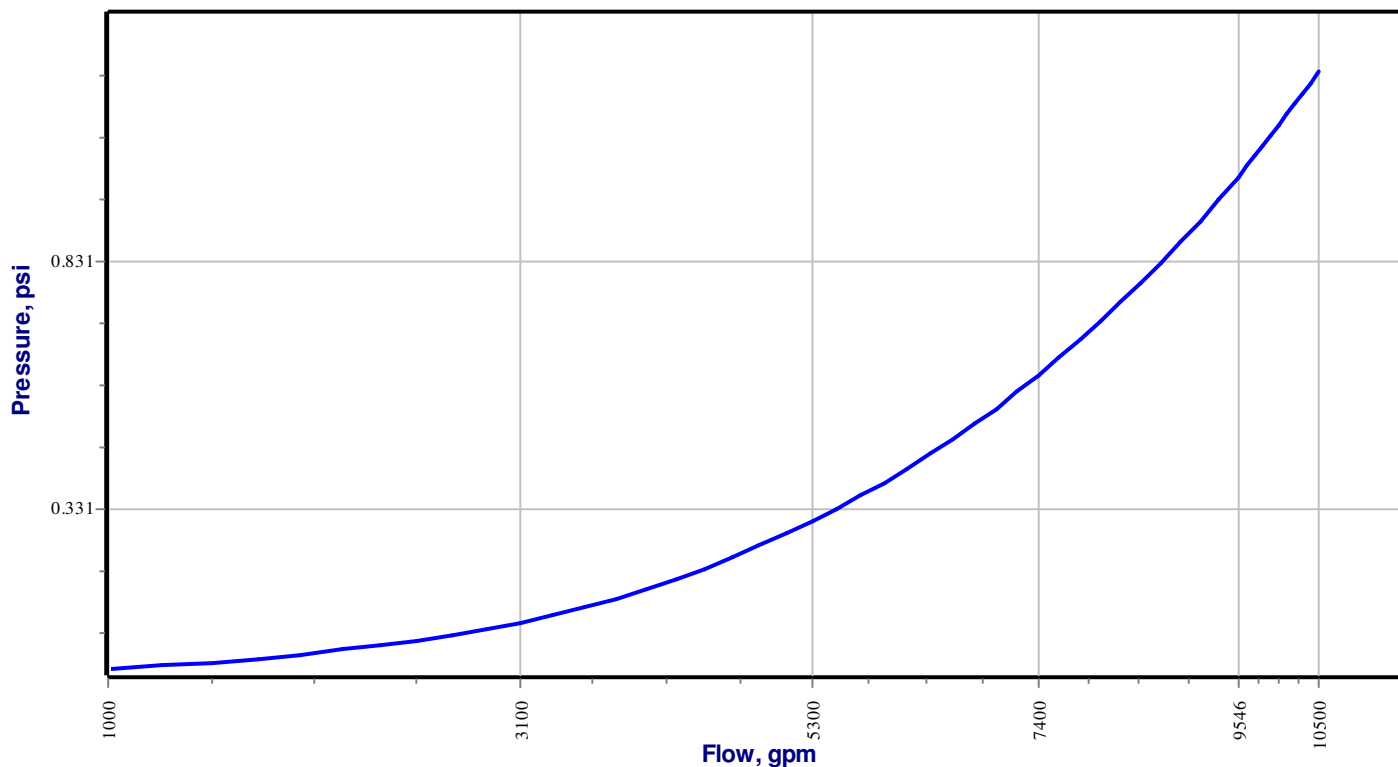
Pressure Loss Function
Design Area: 1; Valve Ref.: 229 (BFV-N, Size = 4); Inlet Node: 030-I; Outlet Node: 030-O



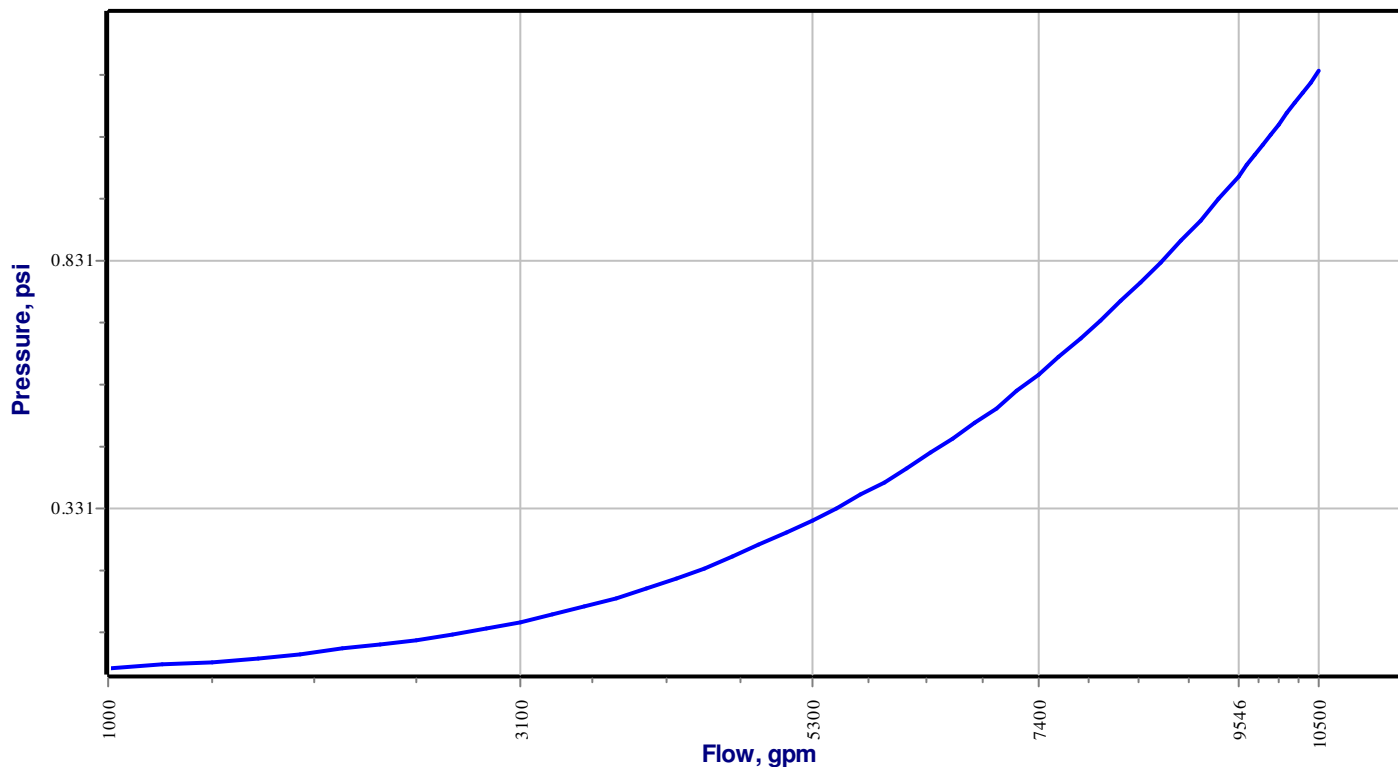
Pressure Loss Function
Design Area: 1; Valve Ref.: 230 (CV-1F Check, Size = 4); Inlet Node: 029-I; Outlet Node: 029-O



Pressure Loss Function
Design Area: 1; Valve Ref.: 232 (Gate A2360, Size = 8); Inlet Node: 128-I; Outlet Node: 128-O



Pressure Loss Function
Design Area: 1; Valve Ref.: 233 (Gate A2360, Size = 8); Inlet Node: 127-I; Outlet Node: 127-O



Pressure Loss Function
Design Area: 1; Valve Ref.: 234 (Gate A2360, Size = 8); Inlet Node: 130-I; Outlet Node: 130-O

