

Victaulic® Pressure Reducing Valve (PRV) Stations

Series 386



1.0 PRODUCT DESCRIPTION

Available Sizes

- 2 x 1 ½" to 6 x 2"/DN50 x DN40 to DN150 x DN50

Pipe Material

- Stainless steel

Maximum Working Pressure

- 300 psi/2068 kPa/21 bar

Operating Temperature Range

- +33°F to +140°F/+1°C to +60°C

Maximum Flowrate

- Up to 2789 gpm/10558 lpm

Application

- Fully integrated, ready-to-install pressure reducing valve (PRV) station.
- Typically for use in potable water systems to reduce and control system pressures to specified levels, independent of upstream pressure and flow variations.
- Offered in six standard configurations to accommodate various system flowrates, pressure reduction ratios, redundancy, and pressure safety options.
- Includes integrated low-flow bypass branch for accurate control in low water demand situations.
- Features integral automatic hydraulic control valves, isolation valves, pressure gauges and strainers for each branch.
- Fully supported with integrated strut frame, ready for installation.
- Connects to piping with a Victaulic grooved mechanical coupling. When connecting to a copper piping system, a Victaulic Style 647 dielectric waterway fitting or a Victaulic Style 644 transition coupling is available for order separately.
- Exclusively for use with Victaulic couplings, fittings, valves, accessories and pipe which feature ends formed with Victaulic Original Groove System (OGS).

ALWAYS REFER TO ANY NOTIFICATIONS AT THE END OF THIS DOCUMENT REGARDING PRODUCT INSTALLATION, MAINTENANCE OR SUPPORT.



1.0 PRODUCT DESCRIPTION (CONTINUED)

Optional Accessories¹

- Dielectric Waterway Fitting – Victaulic Style 647
- Installation-Ready™ Transition Coupling for Potable Water - Victaulic Style 644
- Pressure Relief Valve – Bermad Model BC-73Q-P/Victaulic Series 973-Q
- Air Release Valve - Bermad Model A30, A71, C30 or C70/Victaulic Series 9A3, 9A7, 9C3 or 9C7

¹ These items not offered as part of the standard Series 386 PRV Station but can be ordered separately.

Series 386 PRV Station Part Codes

(Use the 8th place in the part code to designate which configuration is being ordered)

EXAMPLE: KC40386**A**EB

Series 386**A** = Single Stage PRV Station with Low-Flow Bypass (LFB)

Series 386**B** = Two Stage PRV Station with LFB

Series 386**C** = Single Stage PRV Station with LFB & "Watchdog" Combination

Series 386**D** = Two Stage PRV Station with LFB & "Watchdog" Combination

Series 386**E** = Single Stage PRV Station with LFB, Redundant Branch & Excessive Pressure Shut-Off Valve

Series 386**F** = Two Stage PRV Station with LFB, Redundant Branch & Excessive Pressure Shut-Off Valve

2.0 CERTIFICATIONS/LISTINGS



PRV Station is UL Classified in accordance with NSF/ANSI/CAN 61 for domestic hot 140°F/60°C potable water service and NSF/ANSI/CAN 372.

3.0 SPECIFICATIONS – MATERIAL

- Schedule 10 stainless steel pipe.
- Victaulic Original Groove System (OGS).

Coupling: Ductile iron conforming to ASTM A536, Grade 65-45-12.

Housing Coating Color: Blue.

Gasket: Fluoroelastomer blend.

Bolts/Nuts: Carbon steel oval neck track bolts meeting the mechanical property requirements of ASTM A449 (imperial) and ISO 898-1 Class 9.8 (metric). Carbon steel hex nuts meeting the mechanical property requirements of ASTM A563 Grade B (imperial – heavy hex nuts) and ASTM A563M Class 9 (metric – hex nuts). Track bolts and hex nuts are zinc electroplated per ASTM B633 FE/ZN5, finish Type III (imperial) or Type II (metric).

Ball Valve (1 ½ – 2 ½"/DN40 – 73.0 mm): CF8M stainless steel body and end cap.

Ball: 316 stainless steel.

Seat: Reinforced polytetrafluorethylene (RTFE).

Seal: Fluoroelastomer.

Lever Handle: Carbon steel, zinc-plated; plastic grip.

Lever Handle Bracket: Hot rolled steel, black enamel coated.

Bracket Bolts & Washers: Cold rolled steel, zinc plated.

Integral Locking Device Components: Stamped carbon steel, zinc plated.

3.0 SPECIFICATIONS – MATERIAL (CONTINUED)

Butterfly Valve (3 – 6"/DN80 – DN150): Stainless steel body conforming to ASTM A351 Grade CF8M.

Disc: Stainless steel conforming to ASTM A351 Grade CF8M.

Seat: Fluoroelastomer.

10-Position Handle: Zinc-plated carbon steel handle with zinc-plated carbon steel latch plate and zinc-plated carbon steel fasteners, infinitely variable, padlockable and includes memory stop. Optionally available with tamper-resistant hardware.

Strainer: Ductile iron body.

Screen: Type 304 stainless steel.

O-Rings: EPDM.

Coating: Fusion bonded epoxy, RAL 5017.

Pressure Reducing Valve, Excessive Pressure Shut-Off Valve, and Pressure Reducing System with “Watchdog” Hydraulic Backup Valve: Ductile iron body, cover and partition.

Internals: Stainless steel and bronze.

Control Accessories: Type 316 stainless steel.

Tubing & Fittings: Type 316 stainless steel.

Diaphragm: EPDM, nylon fabric-reinforced.

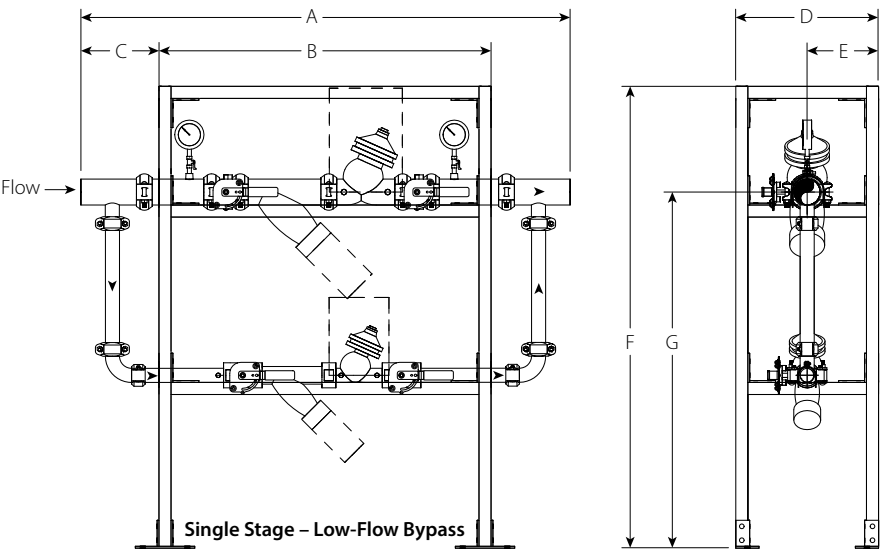
O-Rings: EPDM.

Seal: NBR.

Coating: Fusion bonded epoxy, RAL 5017.

4.0 DIMENSIONS

Series 386A Single Stage PRV Station with Low-Flow Bypass

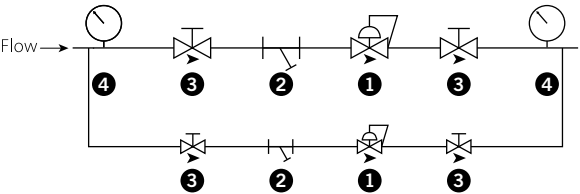


Size				Dimensions							Weight
Nominal Primary Line inches DN	Low-Flow x Bypass inches DN	Actual Outside Diameter Primary Line inches mm	Low-Flow x Bypass inches mm	A inches mm	B inches mm	C inches mm	D inches mm	E inches mm	F inches mm	G inches mm	Approximate (Each) lb kg
2 DN50	x 1 1/2 DN40	2.375 60.3	x 1.900 48.3	55.59 1412	38.38 975	8.56 217	17.25 438	8.63 219	61.75 1568	48.00 1219	262.0 118.8
2 1/2	x 1 1/2 DN40	2.875 73.0	x 1.900 48.3	61.72 1568	41.13 1045	10.66 271	17.25 438	8.63 219	59.25 1505	48.00 1219	277.0 125.6
3 DN80	x 1 1/2 DN40	3.500 88.9	x 1.900 48.3	66.23 1682	44.75 1137	10.80 274	19.25 489	9.63 244	62.25 1581	48.00 1219	324.0 147.0
	x 2 DN50		x 2.375 60.3	64.31 1633	44.75 1137	9.87 251	19.25 489	9.63 244	62.25 1581	48.00 1219	332.0 150.6
4 DN100	x 1 1/2 DN40	4.500 114.3	x 1.900 48.3	74.02 1880	53.25 1353	10.24 260	20.25 514	10.13 257	65.25 1657	48.00 1219	406.0 184.2
	x 2 DN50		x 2.375 60.3	74.02 1880	53.25 1353	10.48 266	20.25 514	10.13 257	65.25 1657	48.00 1219	416.0 188.7
	x 3 DN80		x 3.500 88.9	74.02 1880	53.25 1353	10.31 262	20.25 514	10.13 257	65.25 1657	48.00 1219	451.2 204.7
6 DN150	x 2 DN50	6.625 168.3	x 2.375 60.3	98.18 2494	69.25 1759	14.38 365	21.25 540	10.63 270	71.25 1810	48.00 1219	609.0 276.2

NOTE

- The standard Series 386 PRV Station is configured for left to right flow. If right to left flow is required, please contact Victaulic for details.

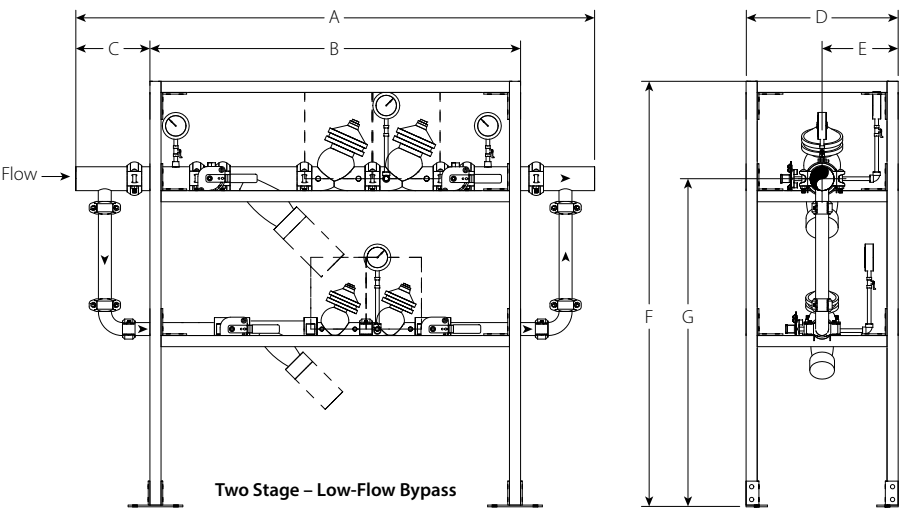
System Schematic



Symbol	Model or Valve Combo
①	Series 972 Pressure Reducing Valve
②	Series 968-F Strainer
③	Series 726S or Series 861 Valve for Isolation
④	Pressure Gauge

4.1 DIMENSIONS

Series 386B Two Stage PRV Station with Low-Flow Bypass

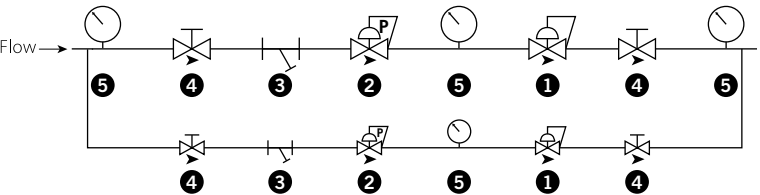


Size				Dimensions							Weight
Nominal Primary Line	Low-Flow Bypass	Actual Outside Diameter Primary Line	Low-Flow Bypass	A	B	C	D	E	F	G	Approximate (Each) lb kg
inches DN		inches mm		inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	
2 DN50	x 1 1/2 DN40	2.375 60.3	x 1.900 48.3	64.01 1626	46.25 1175	7.38 187	20.25 514	10.13 257	61.25 1556	48.00 1219	304.0 137.9
2 1/2	x 1 1/2 DN40	2.875 73.0	x 1.900 48.3	70.33 1786	49.25 1251	10.50 267	21.25 540	10.63 270	61.25 1556	48.00 1219	324.0 147.0
3 DN80	x 1 1/2 DN40	3.500 88.9	x 1.900 48.3	76.22 1936	54.25 1378	10.87 276	22.25 565	11.13 283	62.25 1581	48.00 1219	395.0 179.2
	2 DN50			74.30 1887	54.25 1378	9.78 248	22.25 565	11.13 283	62.25 1581	48.00 1219	406.0 184.2
4 DN100	x 1 1/2 DN40	4.500 114.3	x 1.900 48.3	86.77 2204	65.25 1657	10.69 272	23.25 591	11.63 295	65.25 1657	48.00 1219	493.0 223.6
	2 DN50			86.77 2204	65.25 1657	10.84 275	23.25 591	11.63 295	65.25 1657	48.00 1219	525.0 238.1
6 DN150	x 2 DN50	6.625 168.3	x 2.375 60.3	114.67 2913	85.25 2165	14.56 370	25.25 641	12.63 321	71.25 1810	48.00 1219	786.0 356.5

NOTE

- The standard Series 386 PRV Station is configured for left to right flow. If right to left flow is required, please contact Victaulic for details.

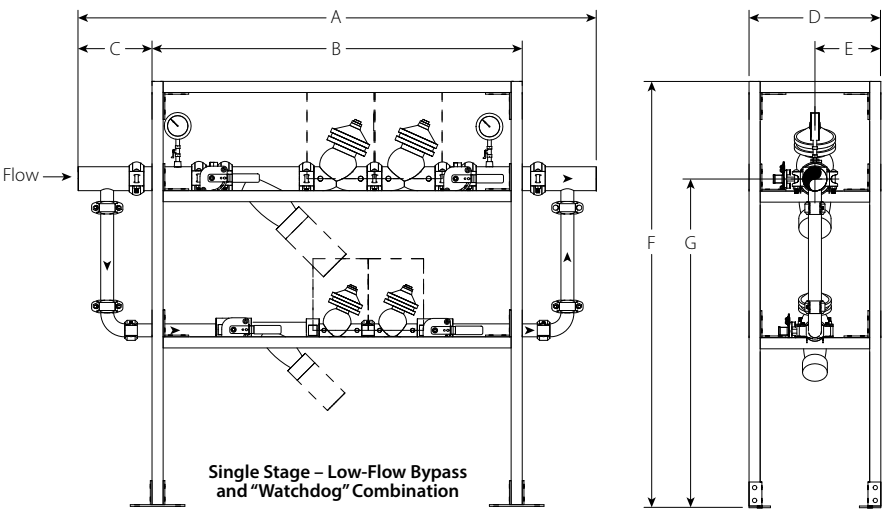
System Schematic



Symbol	Model or Valve Combo
①	Series 972 Pressure Reducing Valve
②	Series 972-PD Proportional Pressure Reducing Valve
③	Series 968-F Strainer
④	Series 726S or Series 861 Valve for Isolation
⑤	Pressure Gauge

4.2 DIMENSIONS

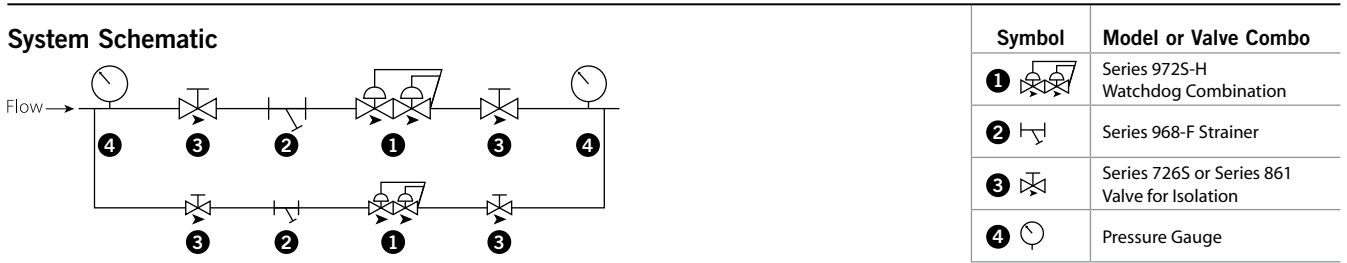
Series 386C Single Stage PRV Station with Low-Flow Bypass and "Watchdog" Combination



Size				Dimensions							Weight
Nominal Primary Line inches DN	Low-Flow Bypass inches DN	Actual Outside Diameter Primary Line inches mm	Actual Outside Diameter Low-Flow Bypass inches mm	A inches mm	B inches mm	C inches mm	D inches mm	E inches mm	F inches mm	G inches mm	Approximate (Each) lb kg
2 DN50	x 1 1/2 DN40	2.375 60.3	x 1.900 48.3	64.00 1626	46.25 1175	7.51 191	17.25 438	8.63 219	59.25 1505	48.00 1219	288.0 130.6
2 1/2	x 1 1/2 DN40	2.875 73.0	x 1.900 48.3	70.34 1787	49.25 1251	9.43 240	17.25 438	8.63 219	59.25 1505	48.00 1219	312.0 141.5
3 DN80	x 1 1/2 DN40	3.500 88.9	x 1.900 48.3	76.22 1936	54.25 1378	10.31 262	19.25 489	9.63 244	62.25 1581	48.00 1219	370.0 167.8
	2 DN50			74.30 1887	54.25 1378	9.93 252	19.25 489	9.63 244	62.25 1581	48.00 1219	397.0 180.1
4 DN100	x 1 1/2 DN40	4.500 114.3	x 1.900 48.3	87.14 2213	65.25 1657	10.68 271	20.25 514	10.13 257	65.25 1657	48.00 1219	501.0 227.2
	2 DN50			87.14 2213	65.25 1657	10.68 271	20.25 514	10.13 257	65.25 1657	48.00 1219	512.0 232.2
6 DN150	x 2 DN50	6.625 168.3	x 2.375 60.3	114.67 2913	85.25 2165	14.56 370	21.25 540	10.63 270	71.25 1810	48.00 1219	777.0 352.4

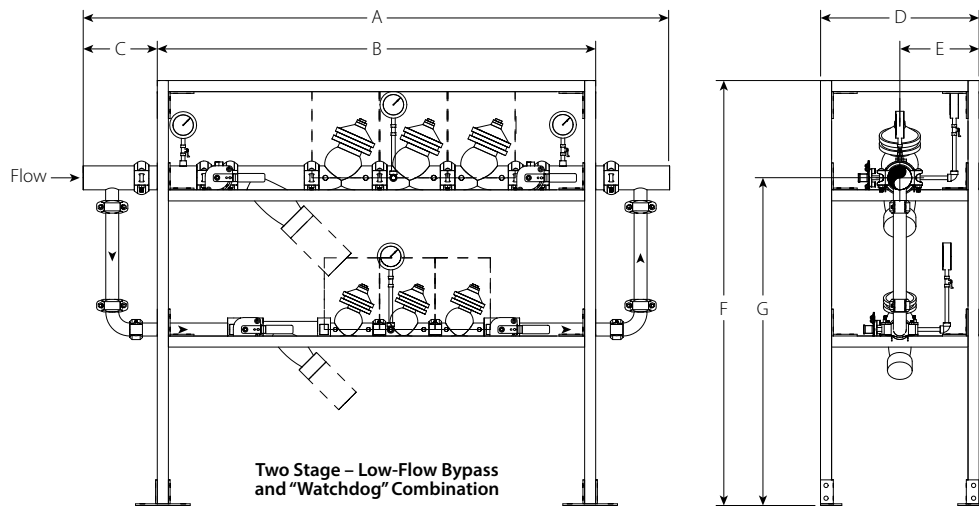
NOTE

- The standard Series 386 PRV Station is configured for left to right flow. If right to left flow is required, please contact Victaulic for details.



4.3 DIMENSIONS

Series 386D Two Stage PRV Station with Low-Flow Bypass and "Watchdog" Combination

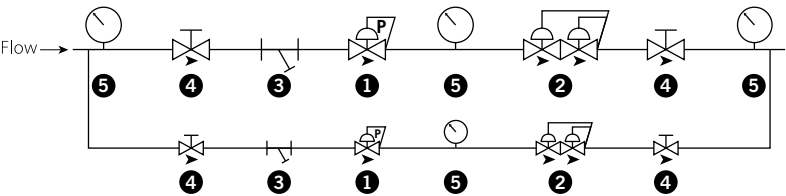


Size				Dimensions							Weight
Nominal		Actual Outside									Approximate
Primary Line	Low-Flow Bypass	Primary Line	Low-Flow Bypass	A	B	C	D	E	F	G	(Each)
inches		inches		inches	inches	inches	inches	inches	inches	inches	lb
DN		mm		mm	mm	mm	mm	mm	mm	mm	kg
2	x 1 1/2	2.375	x 1.900	72.43	54.25	9.00	21.25	10.63	61.25	48.00	343.0
DN50	DN40	60.3	48.3	1840	1378	229	540	270	1556	1219	155.6
2 1/2	x 1 1/2	2.875	x 1.900	78.95	58.25	10.25	21.25	10.63	61.25	48.00	451.0
DN65	DN40	73.0	48.3	2005	1480	260	540	270	1556	1219	201.6
3	x 1 1/2	3.500	x 1.900	86.21	64.25	10.88	23.25	11.63	62.25	48.00	460.0
DN80	DN40	88.9	48.3	2190	1632	276.0	591	295	1581	1219	208.7
	2		2.375	84.29	64.25	9.88	23.25	11.63	62.25	48.00	473.0
	DN50		60.3	2141	1632	251	591	295	1581	1219	214.5
4	x 1 1/2	4.500	x 1.900	99.52	78.25	10.72	23.25	11.63	65.25	48.00	604.0
DN100	DN40	114.3	48.3	2528	1988	272	591	295	1657	1219	274.0
	2		2.375	99.52	78.25	10.49	23.25	11.63	65.25	48.00	620.0
	DN50		60.3	2528	1988	266	591	295	1657	1219	281.2
6	x 2	6.625	x 2.375	131.16	101.25	14.94	25.25	12.63	71.25	48.00	954.0
DN150	DN50	168.3	60.3	3331	2572	379	641	321	1810	1219	432.7

NOTE

- The standard Series 386 PRV Station is configured for left to right flow. If right to left flow is required, please contact Victaulic for details.

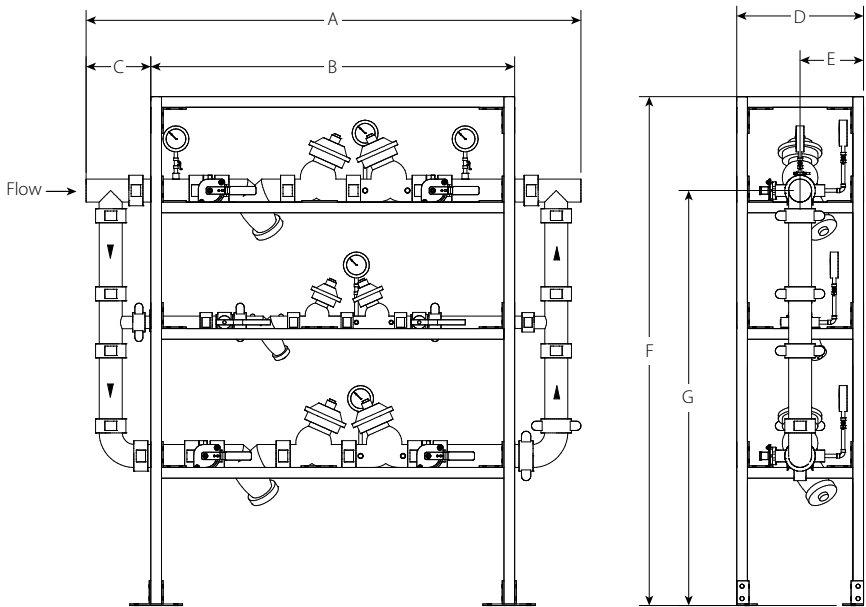
System Schematic



Symbol	Model or Valve Combo
1	Series 972-PD Proportional Pressure Reducing Valve
2	Series 972S-H Watchdog Combination
3	Series 968-F Strainer
4	Series 726S or Series 861 Valve for Isolation
5	Pressure Gauge

4.4 DIMENSIONS

Series 386E Single Stage PRV Station with Low-Flow Bypass, Redundant Branch and Excessive Pressure Shut-Off Valve



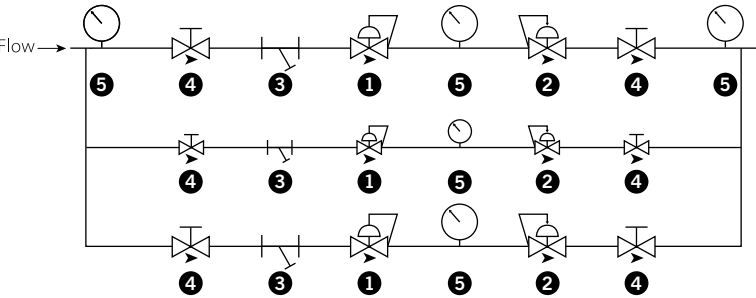
Size				Dimensions							Weight
Primary Line	Low-Flow Bypass	Primary Line	Low-Flow Bypass	A	B	C	D	E	F	G	Approximate (Each)
inches DN	inches DN	inches DN	inches DN	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	lb kg
2 DN50	x 1 1/2 DN40	2.375	x 1.900	65.01	47.25	8.91	17.25	8.63	62.25	51.00	444.0
		60.3	x 48.3	1651	1200	226	438	219	1581	1295	201.4
2 1/2	x 1 1/2 DN40	2.875	x 1.900	68.85	49.25	9.74	17.25	8.63	62.25	51.00	480.0
		73.0	x 48.3	1749	1251	247	438	219	1581	1295	217.7
3 DN80	x 1 1/2 DN40	3.500	x 1.900	75.16	55.25	9.81	19.25	9.63	77.25	63.00	633.0
		88.9	x 48.3	1909	1403	249	489	244	1962	1600	287.1
	2 DN50	2.375	x 60.3	75.16	55.25	9.81	19.25	9.63	77.25	63.00	640.0
4 DN100	x 1 1/2 DN40	4.500	x 1.900	88.95	64.25	12.25	20.25	10.13	78.25	61.00	879.0
		114.3	x 48.3	2259	1632	311	514	257	1988	1549	398.7
	2 DN50	2.375	x 60.3	88.95	64.25	12.25	20.25	10.13	78.25	61.00	885.0
6 DN150	x 2 DN50	6.625	x 2.375	+	+	+	+	+	+	+	+
		168.3	x 60.3	+	+	+	+	+	+	+	+

+ Contact Victaulic for details.

NOTE

- The standard Series 386 PRV Station is configured for left to right flow. If right to left flow is required, please contact Victaulic for details.

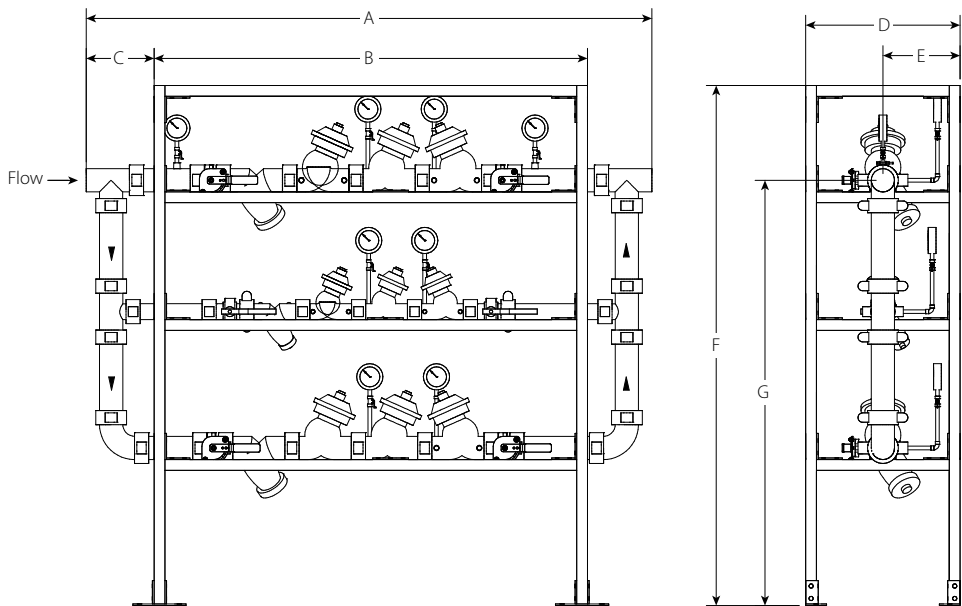
System Schematic



Symbol	Model or Valve Combo
1	Series 972 Pressure Reducing Valve
2	Series 979-4 Excessive Pressure Shut-Off Valve
3	Series 968-F Strainer
4	Series 726S or Series 861 Valve for Isolation
5	Pressure Gauge

4.5 DIMENSIONS

Series 386F Two Stage PRV Station with Low-Flow Bypass, Redundant Branch and Excessive Pressure Shut-Off Valve

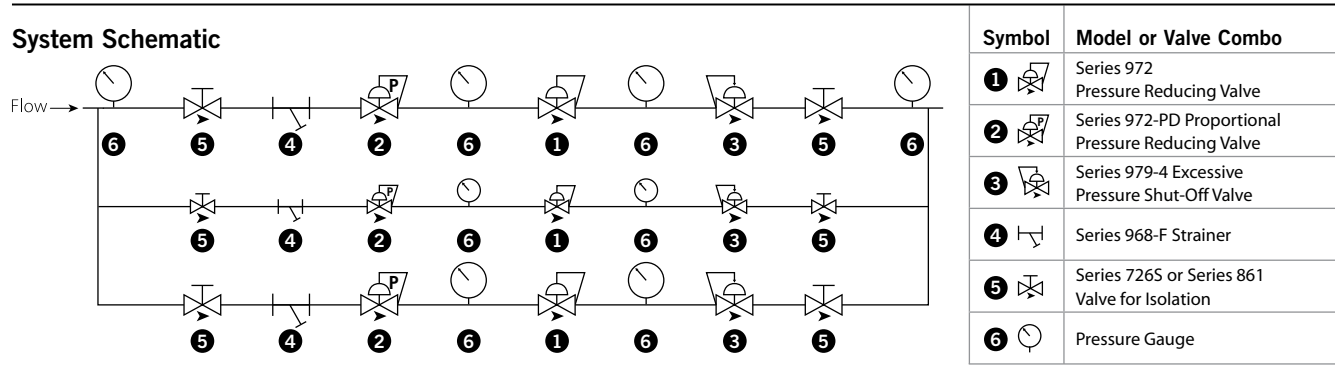


Size				Dimensions							Weight	
Nominal Primary Line	Low-Flow x Bypass	Actual Outside Diameter Primary Line	Low-Flow x Bypass	A	B	C	D	E	F	G	Approximate (Each)	
inches DN		inches mm		inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	lb	kg
2 DN50	x 1 ½ DN40	2.375 60.3	x 1.900 48.3	73.43 1865	55.25 1403	8.19 208	21.25 540	10.63 270	78.25 1988	65.00 1651	538.0 244.0	
2 ½	x 1 ½ DN40	2.875 73.0	x 1.900 48.3	77.46 1967	58.25 1480	9.66 245	21.25 540	10.63 270	78.25 1988	65.00 1651	572.0 259.5	
3 DN80	x 1 ½ DN40	3.500 88.9	x 1.900 48.3	85.15 2163	65.25 1657	9.81 249	23.25 591	11.63 295	78.25 1988	64.00 1626	761.0 345.2	
	2 DN50		2.375 60.3	85.15 2163	65.25 1657	10.22 260	23.25 591	11.63 295	78.25 1988	64.00 1626	775.0 351.5	
4 DN100	x 1 ½ DN40	4.500 114.3	x 1.900 48.3	101.70 2583	77.75 1975	11.89 302	23.25 591	11.63 295	78.25 1988	61.00 1549	1069.0 484.9	
	2 DN50		2.375 60.3	101.70 2583	77.75 1975	12.13 308	23.25 591	11.63 295	78.25 1988	61.00 1549	1080.0 489.9	
6 DN150	x 2 DN50	6.625 168.3	x 2.375 60.3	+ +	+ +	+ +	+ +	+ +	+ +	+ +	+ +	

+ Contact Victaulic for details.

NOTE

- The standard Series 386 PRV Station is configured for left to right flow. If right to left flow is required, please contact Victaulic for details.



5.0 PERFORMANCE

Series 386 PRV Station Design Recommendations

Flow Recommendation

Series 386A/B/C/D - Main Branch & Low-Flow Bypass Operational

PRV Station Size	Maximum Continuous Flow		Maximum Intermittent Flow	Minimum Flow	Series 973-Q Pressure Relief Valve Recommended Size
	8 ft/sec	10 ft/sec	15 ft/sec	gpm	inches
2 x 1 ½	122	153	229	1	1 ½
2 ½ x 1 ½	166	208	312	1	1 ½
3 x 1 ½	220	275	413	1	1 ½
3 x 2	254	318	477	1	1 ½
4 x 1 ½	358	447	670	1	1 ½
4 x 2	391	489	734	1	1 ½
4 x 3*	490	612	918	3	2
6 x 2	783	979	1468	1	2

* The 4 x 3 PRV Station size is only available in the Series 386A configuration.

Series 386E/F - One Main Branch & Low-Flow Bypass Operational; Second Main Branch On Standby

PRV Station Size	Maximum Continuous Flow		Maximum Intermittent Flow	Minimum Flow	Series 973-Q Pressure Relief Valve Recommended Size
	8 ft/sec	10 ft/sec	15 ft/sec	gpm	inches
2 x 2 x 1 ½	122	153	229	1	1 ½
2 ½ x 2 ½ x 1 ½	166	208	312	1	1 ½
3 x 3 x 1 ½	220	275	413	1	1 ½
3 x 3 x 2	254	318	477	1	1 ½
4 x 4 x 1 ½	358	447	670	1	1 ½
4 x 4 x 2	391	489	734	1	2
6 x 6 x 2	783	979	1468	1	2

Series 386E/F - Both Main Branches & Low-Flow Bypass Operational

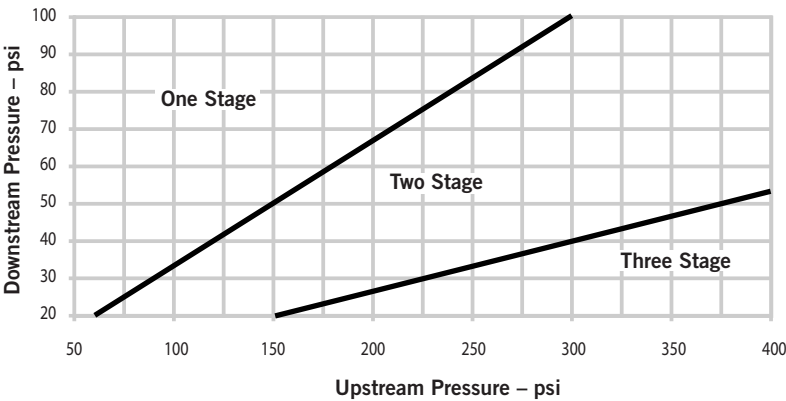
PRV Station Size	Maximum Continuous Flow		Maximum Intermittent Flow	Minimum Flow	Series 973-Q Pressure Relief Valve Recommended Size
	8 ft/sec	10 ft/sec	15 ft/sec	gpm	inches
2 x 2 x 1 ½	201	251	376	1	1 ½
2 ½ x 2 ½ x 1 ½	289	361	541	1	1 ½
3 x 3 x 1 ½	396	495	743	1	1 ½
3 x 3 x 2	430	538	807	1	2
4 x 4 x 1 ½	670	838	1257	1	2
4 x 4 x 2	705	881	1321	1	2
6 x 6 x 2	1488	1860	2789	1	2

5.0 PERFORMANCE (CONTINUED)

Pressure Reduction Stages Guide

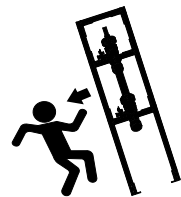
Check the location on the graph according to the inlet and the outlet pressures:

- Single Stage: Series 386A, 386C and 386E
- Two Stage: Series 386B, 386D and 386F
- Three Stage: Contact Victaulic.



6.0 NOTIFICATIONS

WARNING



- Read and understand all instructions before attempting to install any Victaulic piping products.
- Depressurize and drain the piping system before attempting to install, remove, adjust, or maintain any Victaulic piping products.
- Wear safety glasses, hardhat, and foot protection.
- Verify that the proper equipment is available for handling the Pressure-Reducing Valve (PRV) Station.
- Use proper material handling techniques to prevent the PRV Station assembly from tipping.
- The PRV station shall be anchored securely to the floor or wall with appropriate fasteners for the substrate and load.
- Isolate each section and vent pressure before attempting to remove, adjust, or maintain the PRV Station.

Failure to follow these instructions could result in death or serious personal injury and property damage.

7.0 REFERENCE MATERIALS

[02.06: Victaulic Approvals for Potable Water Products](#)

[I-PRV: Victaulic Series 386 Pressure Reducing Valve \(PRV Station\) Installation Instructions](#)

User Responsibility for Product Selection and Suitability

Each user bears final responsibility for determining the suitability of Victaulic products for their end-use application, in accordance with industry standards, project specifications, and Victaulic's published performance, maintenance, and safety data, as well as all warnings and installation instructions. Nothing in this or any other document, nor any verbal recommendation, advice, or opinion from any Victaulic employee, shall be deemed to alter, vary, supersede, or waive any provision of Victaulic Company's standard conditions of sale, warranty, installation instructions, or this disclaimer.

Installation

Always refer to and follow the [Victaulic Installation Handbook](#) or installation instructions for the product you are installing. Handbooks are included with each shipment of Victaulic products, providing complete installation and assembly data, and are available in PDF format on our website at [victaulic.com](#).

Warranty

Refer to the Warranty section of the current Price List or contact Victaulic for details.

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