

# Victaulic® Single Branch Pressure Reducing Valve (PRV) Stations

## Series 386-SB



102.17



### 1.0 PRODUCT DESCRIPTION

#### Available Sizes

- 1 ½ – 6"/DN40 – DN150

#### 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 1321 gpm

#### Application

- Pre-engineered, ready-to-install single-branch pressure reducing station with integrated low-flow bypass attached to main pressure reducing valve (PRV).
- Typically for use in potable water systems to reduce and control system pressures to specified levels, independent of upstream pressure and flow variations.
- Typically used in tight-space installations where a standard Series 386 PRV Station may not fit, but user still needs a low-flow bypass feature for optimum low-flow pressure control.
- Offered in four standard configurations to accommodate various system flowrates, pressure reduction ratios, and pressure safety options.
- Features pressure reducing valve with integral low flow bypass, isolation valve, strainer, and pressure gauges.
- 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.



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## 1.0 PRODUCT DESCRIPTION (CONTINUED)

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### Optional Accessories<sup>1</sup>

- 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 Valve - Bermad Model A30, A71, C30 or C70/Victaulic Series 9A3, 9A7, 9C3 or 9C7

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

### Series 386-SB Single Branch PRV Station Part Codes

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

EXAMPLE: K014386**A**ES

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

Series 386**B**-SB = Two Stage, Single Branch PRV Station with Integral LFB

Series 386**C**-SB = Single Stage, Single Branch PRV Station with Integral LFB & “Watchdog” Combination

Series 386**D**-SB = Two Stage, Single Branch PRV Station with Integral LFB & “Watchdog” Combination

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## 2.0 CERTIFICATION/LISTINGS

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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 as noted in section 3.0 Specifications – Material.

Low-flow bypass is ICC-ES certified to ASSE 1003, CSA B356, NSF61 and NSF 372.

Product designed and manufactured under the Victaulic Quality Management System as certified by LPCB in accordance with ISO-9001:2008.

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## 3.0 SPECIFICATIONS – MATERIAL

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- 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)

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**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 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.

**Integral Low-Flow Bypass:**

**Body:** DZR low-lead forged brass.

**Cover:** Glass-reinforced nylon.

**Control Stem:** Stainless steel 303.

**Moving Parts:** DZR low-lead brass.

**Diaphragm:** EPDM.

**Seals:** EPDM.

**Compensation Piston Rings:** PTFE.

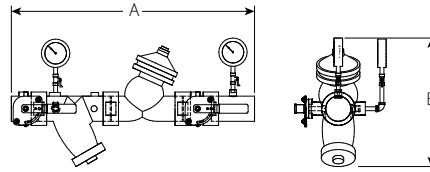
**Internal Filter:** Stainless steel 304.

**Seat:** Stainless steel 303.

**Shuttle:** PPSG40.

## 4.0 DIMENSIONS

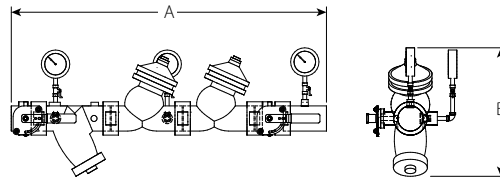
### Series 386A-SB Single Stage, Single Branch PRV Station with Integral Low-Flow Bypass



Size		Dimensions		Weight
Nominal inches DN	Actual Outside Diameter inches mm	A inches mm	B inches mm	Approx. (Each) lb kg
1½ DN40	1.900 48.3	32.56 827	16.01 407	57.1 25.9
2 DN50	2.375 60.3	34.13 867	16.02 407	72.8 33.0
2½	2.875 73.0	36.00 914	16.02 407	94.4 42.8
3 DN80	3.500 88.9	33.81 859	17.75 451	125.4 56.9
4 DN100	4.500 114.3	41.06 1043	20.44 519	205.8 93.3
6 DN150	6.625 168.3	51.06 1297	29.56 751	380.3 173.0

## 4.1 DIMENSIONS

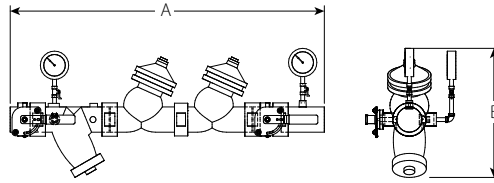
### Series 386B-SB Two Stage, Single Branch PRV Station with Integral Low-Flow Bypass



Size		Dimensions		Weight
Nominal inches DN	Actual Outside Diameter inches mm	A inches mm	B inches mm	Approx. (Each) lb kg
1½ DN40	1.900 48.3	40.69 1034	19.00 483	71.0 32.2
2 DN50	2.375 60.3	42.56 1081	19.02 483	95.3 43.2
2½	2.875 73.0	44.63 1134	19.03 483	121.8 55.2
3 DN80	3.500 88.9	43.75 1111	20.75 527	198.7 90.1
4 DN100	4.500 114.3	53.81 1367	22.56 573	335.3 152.1
6 DN150	6.625 168.3	67.50 1715	29.56 751	548.7 248.9

## 4.2 DIMENSIONS

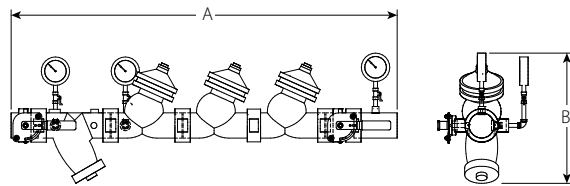
### Series 386C-SB Single Stage, Single Branch PRV Station with Integral Low-Flow Bypass & “Watchdog” Combination



Size		Dimensions		Weight
Nominal inches DN	Actual Outside Diameter inches mm	A inches mm	B inches mm	Approx. (Each) lb kg
1 ½ DN40	1.900 48.3	40.69 1033	16.02 407	65.2 30.0
2 DN50	2.375 60.3	42.56 1081	16.02 407	82.9 37.6
2 ½	2.875 73.0	44.63 1134	16.02 407	108.2 49.1
3 DN80	3.500 88.9	43.75 1111	17.75 451	146.1 66.3
4 DN100	4.500 114.3	53.81 1367	20.43 519	246.8 112.0
6 DN150	6.625 168.3	67.50 1715	29.57 751	442.6 201.0

## 4.3 DIMENSIONS

### Series 386D-SB Two Stage, Single Branch PRV Station with Low-Flow Bypass & “Watchdog” Combination



Size		Dimensions		Weight
Nominal inches DN	Actual Outside Diameter inches mm	A inches mm	B inches mm	Approx. (Each) lb kg
1 ½ DN40	1.900 48.3	48.81 1240	16.02 407	86.7 39.3
2 DN50	2.375 60.3	51.00 1295	16.01 407	110.1 50.0
2 ½	2.875 73.0	53.25 1353	16.01 407	138.8 63.0
3 DN80	3.500 88.9	53.75 1365	17.75 451	199.7 90.6
4 DN100	4.500 114.3	66.56 1691	21.57 548	336.4 152.6
6 DN150	6.625 168.3	84.00 2134	29.57 751	616.7 280.0

## 5.0 PERFORMANCE

### Series 386-SB Single Branch PRV Station Design Recommendations

#### Flow Recommendation

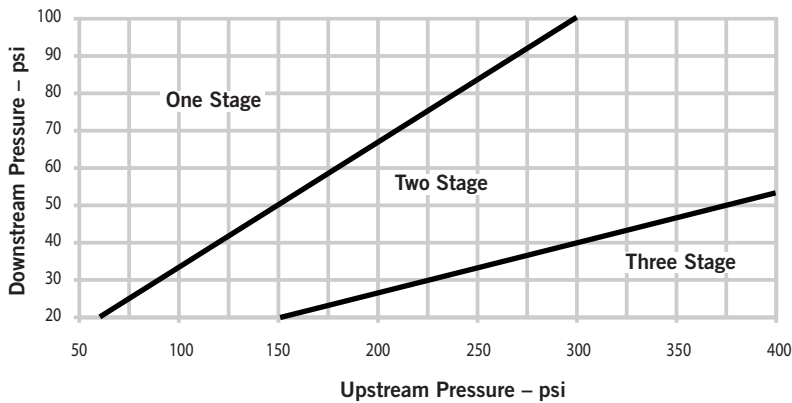
#### Series 386A/B/C/D-SB – Main Branch & Integral Low-Flow Bypass Operational

PRV Station Size inches	Maximum Continuous Flow (8 ft/sec) gpm	Maximum Continuous Flow (10 ft/sec) gpm	Maximum Intermittent Flow (15 ft/sec) gpm	Minimum Flow gpm	Series 973-Q Pressure Relief Valve Recommended Size inches
1½	44	55	83	1	1½
2	78	98	147	1	1½
2½	122	153	229	1	1½
3	176	220	330	1	1½
4	313	391	587	1	1½
6	705	881	1321	1	2

#### Pressure Reduction Stages Guide

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

- Single Stage: Series 386A-SB and 386C-SB
- Two Stage: Series 386B-SB and 386D-SB
- 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

[Q2.06: 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 making a determination as to the suitability of Victaulic products for a particular end-use application, in accordance with industry standards and project specifications, as well as Victaulic performance, maintenance, safety, and warning 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, installation guide, or this disclaimer.

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### Note

This product shall be manufactured by Victaulic or to Victaulic specifications. All products to be installed in accordance with current Victaulic installation/assembly instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.

### Installation

Reference should always be made to the Victaulic installation handbook or installation instructions of 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 [www.victaulic.com](http://www.victaulic.com).

### Warranty

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

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