

# Victaulic® Flexible Loop for Steam

## Series 159



### 1.0 PRODUCT DESCRIPTION

#### Available Sizes

- 2 – 8"/DN50 – DN200

#### Maximum Working Pressure

- Suitable for use in saturated steam systems up to 150 psi/1034 kPa. Not suitable for use in superheated steam applications.
- For nonsteam applications: Provides working pressures ranging from full vacuum (29.9 inches Hg/760 mm Hg) up to 150 psi/1034 kPa.

#### Operating Temperature

- +32°F to +366°F/0°C to +186°C

#### Function

- Accommodates piping movement from thermal changes, seismic activity, and differential building settlement.
- Considerations must be made for the Series 159 Flexible Loop to be installed in an orientation that alleviates trapped condensate.

#### Pipe Preparation

- The Series 159 Flexible Loop is exclusively for use on pipe, couplings, valves, fittings and accessories featuring the Victaulic OGS-200 groove profile (see section 7.0 for Reference Materials).

### 2.0 CERTIFICATION/LISTINGS

The Series 159 Flexible Loop for Steam is compliant with ASME B31.1, B31.3 and B31.9 for means of increasing flexibility to the piping system.

### 3.0 SPECIFICATIONS – MATERIAL

**End Connections:** Schedule 40 carbon steel with Victaulic OGS-200 grooved ends.

**Corrugated Hose:** 321 stainless steel.

**Braid:** 304 stainless steel.

**90° Elbow:** Schedule 40 carbon steel conforming to ASTM A243 Grade WPB.

**180° Return:** Schedule 40 carbon steel conforming to ASTM A243 Grade WPB.

**Support Bracket:** Carbon steel.

**Fitting Coating:** Zinc coating.

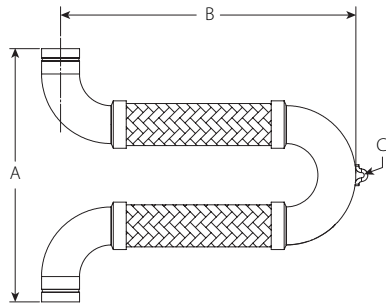
ALWAYS REFER TO ANY NOTIFICATIONS AT THE END OF THIS DOCUMENT REGARDING PRODUCT INSTALLATION, MAINTENANCE OR SUPPORT.

System No.		Location	
Submitted By		Date	

Spec Section		Paragraph	
Approved		Date	

## 4.0 DIMENSIONS

### Series 159 Flexible Loop for Steam



Size		Dimensions			Weight
Nominal inches DN	Actual Outside Diameter inches mm	A inches mm	B inches mm	C Maximum Hanger Rod Size inches mm	Approximate (Each) lb kg
2	2.375	20.00	25.00	0.63	18.0
DN50	60.3	508	635	16	8.2
2 1/2	2.875	21.50	28.00	0.63	29.0
	73.0	546	711	16	13.2
DN65	3.000	21.50	28.00	0.63	29.0
	76.1	546	722	16	13.2
3	3.500	24.00	30.00	0.63	43.0
DN80	88.9	610	762	16	19.5
4	4.500	30.00	35.00	0.63	60.0
DN100	114.3	762	889	16	27.2
	5.500	36.00	40.00	0.75	99.0
DN125	139.7	914	1016	19	44.9
	6.500	42.00	49.00	0.75	150.0
	165.1	1067	1245	19	68.0
6	6.625	42.00	49.00	0.75	150.0
DN150	168.3	1067	1245	19	68.0
8	8.625	56.00	58.00	0.75	286.0
DN200	219.1	1422	1473	19	129.7

## 5.0 PERFORMANCE

### Series 159 Flexible Loop for Steam

#### Movement

Size		Movement <sup>1</sup>
Nominal inches DN	Actual Outside Diameter inches mm	
2 DN50	2.375 60.3	±4.00 ±102
2½	2.875 73.0	±4.00 ±102
DN65	3.000 76.1	±4.00 ±102
3 DN80	3.500 88.9	±4.00 ±102
4 DN100	4.500 114.3	±4.00 ±102
DN125	5.500 139.7	±4.00 ±102
	6.500 165.1	±4.00 ±102
6 DN150	6.625 168.3	±4.00 ±102
8 DN150	8.625 219.1	±4.00 ±102

<sup>1</sup> This movement is the sum of all expected pipe movement, including thermal, seismic and building settlement.

#### Anchor Loads

Size		Anchor Load <sup>2</sup> Pound-Force Newton
Nominal inches DN	Actual Outside Diameter inches mm	
2 DN50	2.375 60.3	85 378
2½	2.875 73.0	95 423
DN65	3.000 76.1	95 423
3 DN80	3.500 88.9	100 445
4 DN100	4.500 114.3	130 578
DN125	5.500 139.7	205 912
	6.500 165.1	225 1001
6 DN150	6.625 168.3	225 1001
8 DN200	8.625 219.1	290 1290

<sup>2</sup> Anchor Load/Activation Force is based upon maximum system pressure of 150 psi.

## 6.0 NOTIFICATIONS

### WARNING



- Read and understand all instructions before attempting to install, remove, adjust, or maintain 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.
- The Series 159 Flexible Loop is suitable for use in saturated steam service. Use extreme caution when working around steam systems. For complete product ratings and applications, always refer to Victaulic publication 100.13, which can be downloaded at [victaulic.com](http://victaulic.com).
- DO NOT impact the flexible loop, pipe, couplings, or fittings when the system is pressurized.
- The Series 159 Flexible Loop shall be installed ONLY with Series 870 Rigid Couplings and pipe or fittings that are prepared to Victaulic OGS-200 Specifications. DO NOT install the Series 159 Flexible Loop with any other coupling or with pipe/fittings that are prepared to any other groove specification.

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

## 7.0 REFERENCE MATERIALS

[24.11: Victaulic In-Place OGS-0200 Roll Grooving Tool - Model RG1200](#)

[25.12: Victaulic OGS-200 Roll Groove Specifications](#)

[100.01: Victaulic OGS-200 Grooved End Fittings](#)

[100.02: Victaulic Rigid Coupling Style 870](#)

[100.12: Victaulic Gate Valve Series 871](#)

[I-870: Victaulic Installation Instructions Style 870 Rigid Coupling](#)

[I-159: Victaulic Installation Instructions Series 159 Flexible Loop for Steam](#)

[TM-RG1200: Model RG1200 Operating and Maintenance Instructions Manual](#)

### 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, and the applicable building codes and related regulations 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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