

# Victaulic® Outlet Coupling

## Style 72



### 1.0 PRODUCT DESCRIPTION

#### Available Sizes

- 1 ½ x ½" through 6 x 2"/DN40 x DN15 through DN150 x DN50

#### Pipe Material

- Carbon steel
- For exceptions reference section 6.0 Notifications

#### Maximum Working Pressure

- Accommodates pressures up to 500 psi/3450 kPa/34 bar
- Working pressure dependent on material and size of pipe

#### Operating Temperature

- Dependent on gasket selection from section 3.0

#### Function

- Provides an integral reducing outlet
- Supplied with female threaded NPT or BSPT outlet connections

#### NOTES

- Style 72 outlet couplings are primarily intended for use when flow is out from the outlet. Flow into the outlet must not exceed 7 ft/sec (2.1 m/sec).
- Not recommended for use with stainless steel pipe
- Not for use on vacuum service

### 2.0 CERTIFICATION/LISTINGS



#### NOTES

- See [publication 10.01](#) for Fire Protection Certifications/Listings Reference Guide.
- See [publication 02.06](#): Victaulic Potable Water Approvals ANSI/NSF for potable water approvals if applicable.

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	

### 3.0 SPECIFICATIONS – MATERIAL

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**Housing:** Ductile iron conforming to ASTM A536, Grade 65-45-12. Ductile iron conforming to ASTM A395, Grade 65-45-15, is available upon special request.

**Housing Coating: (specify choice)**

Standard: Orange enamel.

Optional: Hot dipped galvanized.

Optional: Contact Victaulic with your requirements.

**Gasket: (specify choice<sup>1</sup>)**

**Grade “E” EPDM**

EPDM (Green stripe color code). Temperature range –30°F to +230°F/–34°C to +110°C. May be specified for cold and hot water service within the specified temperature range plus a variety of dilute acids, oil-free air and many chemical services. UL Classified in accordance with ANSI/NSF 61 for cold +73°F/+23°C and hot +180°F/+82°C potable water service and ANSI/NSF 372. NOT COMPATIBLE FOR USE WITH PETROLEUM SERVICES OR STEAM SERVICES.

**Grade “T” Nitrile**

Nitrile (Orange stripe color code). Temperature range –20°F to +180°F/–29°C to +82°C. May be specified for petroleum products, hydrocarbons, air with oil vapors, vegetable and mineral oils within the specified temperature range. Not compatible for hot water services over +150°F/+66°C or for hot dry air over +140°F/+60°C. NOT COMPATIBLE FOR USE WITH HOT WATER SERVICES OR STEAM SERVICES.

<sup>1</sup> Services listed are General Service Guidelines only. It should be noted that there are services for which these gaskets are not compatible. Reference should always be made to the latest [Victaulic Gasket Selection Guide](#) for specific gasket service guidelines and for a listing of services which are not compatible.

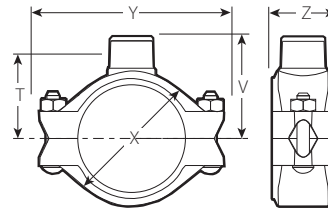
**Bolts/Nuts:** Carbon steel oval neck track bolts meeting the mechanical property requirements of ASTM A449. Carbon steel heavy hex nuts meeting the mechanical property requirements of ASTM A563 Grade B. Track bolts and heavy hex nuts are zinc electroplated per ASTM B633 ZN/FE5, finish Type III (imperial).

**Gasket Neck Insert:** Carbon steel, electroplated.



## 4.0 DIMENSIONS (Continued)

### Style 72 Outlet Coupling



Female Threaded Outlet

Size		Run x Reducing Outlet	Actual Outside Diameter inches mm	Allow. Pipe End Separation <sup>2</sup> inches mm	Bolt/Nut <sup>3</sup>		Dimensions					Weight		
Nominal inches DN	x				Qty.	Size inches	X inches mm	Y inches mm	Z inches mm	T <sup>4</sup> inches mm	V <sup>5</sup> inches mm	Approx. (Each) lb kg		
4 DN100	x	¾ DN20	4.500 114.3	1.050 26.9	0.44–0.63 11–16	2	½ x 2½	5.69 145	8.38 213	2.50 64	3.25 83	3.81 97	6.8 3.1	
					1.315 33.7	0.44–0.63 11–16	2	½ x 2½	5.69 145	8.38 213	2.50 64	3.25 83	3.81 97	11.4 3.1
					1.900 48.3	1.63–1.81 41–46	2	⅝ x 3¼	6.13 156	9.00 229	3.69 94	3.91 99	4.59 117	11.4 5.2
					2.375 60.3	1.63–1.81 41–46	2	2–⅝ x 3¼	6.13 156	9.00 229	3.69 94	3.91 99	4.59 117	18.0 5.2
6 DN150	x	1 DN25	6.625 219.1	1.315 33.7	1.63–1.81 41–46	2	¾ x 4¼	8.13 206	12.00 305	3.69 94	6.19 157	6.88 175	18.0 8.2	
					1.900 48.3	1.63–1.81 41–46	2	¾ x 4¼	8.13 206	12.00 305	3.69 94	6.19 157	6.88 175	18.0 8.2
					2.375 60.3	1.63–1.81 41–46	2	¾ x 4¼	8.13 206	12.00 305	3.69 94	6.19 157	6.06 154	18.0 8.2

<sup>2</sup> Allowable Pipe End Separation figures show the maximum nominal range of movement available at each joint for standard roll grooved pipe. Figures for standard cut grooved pipe may be doubled. These figures are maximums; for design and installation purposes, these figures should be reduced by 50% for ¾ – 3 ½"/20 – 90 mm or 25% for 4"/100 mm and larger.

<sup>3</sup> Number of bolts required equals number of housing segments.

<sup>4</sup> Center of run to the engaged pipe end. Female threaded outlet only (dimensions approximate).

<sup>5</sup> Center of run to end of fittings.

#### NOTES

- Metric thread size bolts are available (color-coded gold) for all coupling sizes upon request. Contact Victaulic for details.
- NPT or BSPT threaded outlets available.

## 5.0 PERFORMANCE

### Style 72 Outlet Coupling

Size				Maximum Working Pressure <sup>6</sup>	Maximum Permissible End Load			
Run x Reducing Outlet					Run	Reducing Outlet		
Nominal inches DN		Actual Outside Diameter inches mm		psi kPa	lb N	lb N		
1½ DN40	x	½ DN15 48.3	x	0.840 21.3	500 3450	1418 6308	277 1232	
			¾ DN20		1.050 26.9	500 3450	1418 6308	433 1926
			1 DN25		1.315 33.7	500 3450	1418 6308	679 3020
2 DN50	x	½ DN15 60.3	x	0.840 21.3	500 3450	2215 9853	277 1232	
			¾ DN20		1.050 26.9	500 3450	2215 9853	433 1926
			1 DN25		1.315 33.7	500 3450	2215 9853	679 3020
2½	x	½ DN15 73.0	x	0.840 21.3	500 3450	3246 14439	277 1232	
			¾ DN20		1.050 26.9	500 3450	3246 14439	433 1926
			1 DN25		1.315 33.7	500 3450	3246 14439	679 3020
			1¼ DN32		1.660 42.4	500 3450	3246 14439	1082 4813
			1½ DN40		1.900 48.3	500 3450	3246 14439	1418 6308
3 DN80	x	¾ DN20 88.9	x	1.050 26.9	500 3450	4811 21400	433 1926	
			1 DN25		1.315 33.7	500 3450	4811 21400	679 3020
			1¼ DN32		1.660 42.4	500 3450	4811 21400	1082 4813
			1½ DN40		1.900 48.3	500 3450	4811 21400	1418 6308
4 DN100	x	¾ DN20 114.3	x	1.050 26.9	500 3450	7952 35372	433 1926	
			1 DN25		1.315 33.7	500 3450	7952 35372	679 3020
			1½ DN40		1.900 48.3	400 2750	6362 28300	1134 5044
			2 DN50		2.375 60.3	400 2750	6362 28300	1772 7882
6 DN150	x	1 DN25 219.1	x	1.315 33.7	400 2750	13789 61337	543 2415	
			1½ DN40		1.900 48.3	400 2750	13789 61337	1134 5044
			2 DN50		2.375 60.3	400 2750	13789 61337	1772 7882

<sup>6</sup> Working Pressure and End Load are total, from all internal and external loads, based on standard weight (ANSI) steel pipe, standard roll or cut grooved in accordance with Victaulic specifications. Contact Victaulic for performance on other pipe.

**NOTE**

- WARNING: FOR ONE-TIME FIELD USE ONLY, the Maximum Joint Working Pressure may be increased to 1½ times the figures shown.

## 5.1 PERFORMANCE

### Style 72 Outlet Coupling

$C_v/K_v$  values for flow of water at +60°F/+16°C are shown in the table below.

#### Formulas for $C_v/K_v$ values:

$$\Delta P = \frac{Q^2}{C_v^2}$$

$$Q = C_v \times \sqrt{\Delta P}$$

**Where:**

Q = Flow (GPM)  
 $\Delta P$  = Pressure Drop (psi)  
 $C_v$  = Flow Coefficient

$$\Delta P = \frac{Q^2}{K_v^2}$$

$$Q = K_v \times \sqrt{\Delta P}$$

**Where:**

Q = Flow (m<sup>3</sup>/hr)  
 $\Delta P$  = Pressure Drop (Bar)  
 $K_v$  = Flow Coefficient

Outlet Size	Equivalent Length of 1 in. Schedule 40 Steel Pipe (per UL 213, SECTION 16)	$C_v$ $K_v$
inches mm	(C=120) <sup>7</sup> , FT	
1/2 15	–	5.0 4.3
3/4 20	–	15.0 13.0
1 25	7.0	22.0 19.1
1 1/4 32	9.0	40.0 34.6
1 1/2 40	11.0	53.0 45.6
2 50	26.0	66.0 56.6

<sup>7</sup> Hazen-Williams coefficient of friction is 120.

## 6.0 NOTIFICATIONS

### WARNING



- Read and understand all instructions before attempting to install, remove, adjust, or maintain any Victaulic piping products.
- Always verify that the piping system has been completely depressurized and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.
- Wear safety glasses, hardhat, and foot protection.

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

### NOTICE

- Victaulic does not recommend the use of any furnace butt-welded pipe with sizes NPS 2"/DN50 and smaller Victaulic gasketed joint products. This includes, but is not limited to, ASTM A53 Type F pipe.

## 7.0 REFERENCE MATERIALS

[02.06: Victaulic Potable Water Approvals ANSI/NSF](#)

[05.01: Victaulic Seal Selection Guide](#)

[06.08: Victaulic Reducing Coupling Style 750](#)

[10.01: Victaulic Products for Fire Protection Piping Systems - Regulatory Approval Reference Guide](#)

[I-100: Victaulic Field Installation Handbook](#)

[I-ENDCAP: Victaulic End Cap Installation Safety 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, 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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