

Victaulic® Rigid Coupling

Style HP-70



2 – 16"/DN50 – DN400

1.0 PRODUCT DESCRIPTION

Available Sizes:

- 2 – 16"/DN50 – DN400

Pipe Material:

- Carbon steel

Maximum Working Pressure:

- Accommodates pressures ranging from full vacuum (29.9 in Hg/760 mm Hg) up to 1000 psi/ 6900 kPa
- Working pressure dependent on material, wall thickness and size of pipe

Application:

- Joins carbon steel pipe
- Provides a rigid pipe joint designed to restrict axial or angular movement

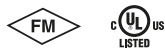
Pipe Preparation:

- Cut or roll grooved in accordance with [publication 25.01](#): Victaulic Original Groove System (OGS) Groove Specifications

Codes and Requirements:

- Hanger support spacing corresponds to ASME B31.1 Power Piping Code and ASME B31.9 Building Services Piping Code

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

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 for other coatings.

Gasket: (specify choice¹)

Victaulic 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 PETROLEUM SERVICES.

Victaulic 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, air with oil vapors, and 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.

Others

For alternate gasket selection, reference [publication 05.01](#): Victaulic Seal Selection Guide.

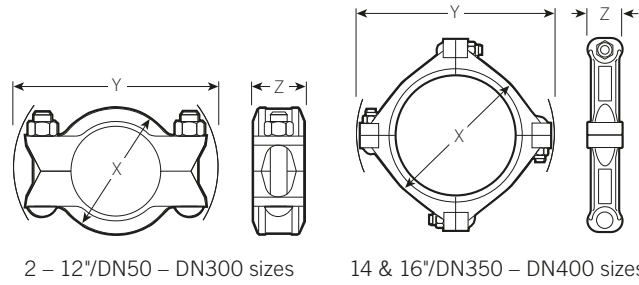
¹ Services listed are General Service Guidelines only. It should be noted that there are services for which these gaskets are not compatible. Reference should always be made to the latest [Victaulic Seal Selection Guide](#) for specific gasket service guidelines and for a listing of services which are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

Bolts/Nuts:

Standard: Carbon steel oval neck track bolts meeting the mechanical property requirements of ASTM A449 (imperial) and ISO 898-1 (metric) Class 9.8 (M10-M16) and Class 8.8 (M20 and greater). 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).

4.0 DIMENSIONS

Style HP-70



Size		Pipe End Separation ²		Bolt/Nut ³		Nut Torque	Dimensions			Weight
inches DN	Actual Outside Diameter inches mm	Allowable inches mm	Qty.	Size inches	ft-lbs N·m	X inches mm	Y inches mm	Z inches mm	Approximate (Each) lbs kg	
2 DN50	2.375 60.3	0.14 3.6	2	5/8 x 2 3/4	60 - 80 81 - 109	3.50 89	6.68 168	2.00 51	3.2 1.5	
2 1/2	2.875 73.0	0.14 3.6	2	5/8 x 3 1/2	60 - 80 81 - 109	4.13 105	7.38 187	2.00 51	4.0 1.8	
3 DN80	3.500 88.9	0.14 3.6	2	5/8 x 3 1/2	60 - 80 81 - 109	4.75 121	7.75 197	2.00 51	4.4 2.0	
4 DN100	4.500 114.3	0.25 6.4	2	3/4 x 4 1/4	60 - 80 81 - 109	6.00 152	9.63 245	2.13 54	7.5 3.4	
6 DN150	6.625 168.3	0.25 6.4	2	7/8 x 5 1/2	+	8.63 219	12.68 321	2.50 64	16.0 7.3	
8 DN200	8.625 219.1	0.25 6.4	2	1 x 5 1/2	+	11.00 279	15.00 381	2.75 70	26.1 11.8	
10 DN250	10.750 273.0	0.25 6.4	2	1 x 6 1/2	+	13.50 343	17.25 438	3.00 76	32.8 14.9	
12 DN300	12.750 323.9	0.25 6.4	2	1 x 6 1/2	+	15.63 397	19.13 486	3.13 80	46.0 20.9	
14 ⁴ DN350	14.000 323.9	0.25 6.4	4	1 1/4 x 4 1/2	600 814	16.75 425	22.00 559	3.88 99	64.0 29.0	
16 ⁴ DN400	16.000 406.4	0.25 6.4	4	1 1/4 x 4 1/2	700 949	18.75 476	24.13 613	3.88 99	72.0 32.7	

- + There are no torque requirements for these sizes. However, the nuts must be tightened evenly by alternating sides until metal-to-metal contact occurs at the bolt pads. NOTE: It is important to tighten all nuts evenly to prevent gasket pinching.
- ² Style HP-70 couplings are essentially rigid and do not permit expansion/contraction or angular movement. Contact Victaulic for torsional resistance information. For field installation only. HP-70 couplings when sufficiently pressurized, will allow pipe ends to separate to maximum point shown before joint acts in a fully restrained manner.
- ³ Metric thread size bolts are available (yellow chromate finish) for all coupling sizes upon request. Contact Victaulic for details.
- ⁴ These sizes are not UL Listed or FM Approved. These sizes are NOT intended for use on Advanced Groove System (AGS) roll groove pipe.

5.0 PERFORMANCE


Size inches DN	Maximum Working Pressure ⁵		Maximum End Load ⁵	
	psi	kPa	lbs	N
2 DN50	1000	6895	4430	19715
2½	1000	6895	6490	28881
3 DN80	1000	6895	9620	42810
4 DN100	1000	6895	15900	70755
6 DN150	1000	6895	34470	153390
8 DN200	800	5515	46740	207995
10 DN250	800	5515	72640	323250
12 DN300	800	5515	102000	453900
14 DN350	600	4137	92360	410800
16 DN400	600	4137	120600	536400







⁵ 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 TEST ONLY, the Maximum Joint Working Pressure may be increased to 1½ times the figures shown.

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.

7.0 REFERENCE MATERIALS

- [02.06: Victaulic Potable Water Approvals ANSI/NSF](#)
- [05.01: Victaulic Seal Selection Guide - Elastometric Seal Construction](#)
- [25.01: Victaulic Original Groove System Groove Specifications](#)
- [26.01: Victaulic Design Data](#)
- [29.01: Victaulic Terms and Conditions of Sale](#)
- [I-100: Victaulic Field Installation Handbook](#)
- [I-ENDCAP: Victaulic End Caps 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.

Warranty

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

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