

Victaulic® EndSeal™ Coupling

Style HP-70ES



1.0 PRODUCT DESCRIPTION

Available Sizes

- 2 – 12"/50 – 300 mm

Pipe Material

- Carbon Steel

Maximum Working Pressure

- Up to 2500psi/17235 kPa Working pressure dependent on material, wall thickness and size of pipe

Function

- Provides a rigid pipe joint designed to restrict axial or angular movement in high pressure rigid systems and/or plastic coated pipe.

Pipe Preparation

- Victaulic EndSeal™ (ES) Groove System

2.0 CERTIFICATION/LISTINGS



NOTES

- Refer to Victaulic [submittal publication 10.01](#) for details
- Refer to Victaulic [submittal publication 02.06](#) 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.

Housing Coating: (specify choice)

Standard: Black enamel.

Optional: Hot dipped galvanized and others.

Gasket: (specify choice¹)

Grade “HMT” High modulus nitrile (EndSeal)

Color code orange and silver stripes. May be specified for petroleum products, hydrocarbons, air with oil vapors, vegetable and mineral oils up to +180°F/+82°C. Also may be specified for hot dry air up to +140°F/+60°C and water up to +150°F/+66°C.

Grade “T-607” nitrile (EndSeal)

Color code, gray gasket. May be specified for petroleum products, hydrocarbons, air with oil vapors, vegetable and mineral oils up to +180°F/+82°C. Also may be specified for hot dry air up to +140°F/+60°C and water up to +150°F/+66°C.

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 Gasket Selection Guide](#) for specific gasket service guidelines and for a listing of services which are not compatible.

NOTE

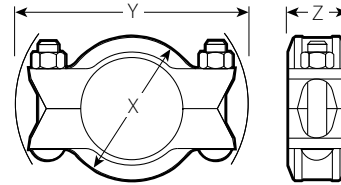
- EndSeal Grade “T-607” Nitrile gaskets with HP-70ES couplings may be specified in systems requiring compliance with API607 fire testing and in foam systems requiring compliance with NFPA 11.

Hardware:

Bolts/Nuts: Electroplated, heat treated carbon steel, track-head type, conforming to physical properties of ASTM A-183, minimum tensile 110,000 psi/758340 kPa.

4.0 DIMENSIONS

Style HP-70 ES



| Size | | Maximum Working Pressure ² | Maximum End Load ² | Pipe End Separation ³ | Bolt/Nut ⁴ | | Dimensions | | | Weight |
|--------------|-------------------------|---------------------------------------|-------------------------------|----------------------------------|-----------------------|-------------|------------|--------|------|--------------------|
| Nominal Pipe | Actual Outside Diameter | | | Allowable | Qty. | Size | X | Y | Z | Approximate (Each) |
| inches | inches | psi | lb | inches | | inches | inches | inches | lb | |
| DN | mm | kPa | kg | mm | | mm | mm | mm | kg | |
| 2 | 2.375 | 2500 | 11000 | 0.19 | 2 | 5/8 x 2 3/4 | 3.44 | 6.51 | 1.88 | 3.2 |
| DN50 | 60.3 | 17250 | 48950 | 4.8 | | | 87 | 765 | 48 | 1.5 |
| 2 1/2 | 2.875 | 2500 | 16200 | 0.19 | 2 | 5/8 x 3 1/2 | 4.00 | 7.10 | 1.88 | 4.0 |
| | 73.0 | 17250 | 72090 | 4.8 | | | 102 | 180 | 48 | 1.8 |
| 3 | 3.500 | 2500 | 25400 | 0.19 | 2 | 5/8 x 3 1/2 | 4.69 | 7.74 | 1.88 | 4.6 |
| DN80 | 88.9 | 17250 | 113030 | 4.8 | | | 119 | 197 | 48 | 2.1 |
| 4 | 4.500 | 2500 | 39000 | 0.19 | 2 | 3/4 x 4 1/4 | 5.94 | 9.54 | 2.13 | 8.2 |
| DN100 | 114.3 | 17250 | 173550 | 4.8 | | | 151 | 242 | 54 | 3.7 |
| 6 | 6.625 | 2000 | 68800 | 0.27 | 2 | 7/8 x 5 1/2 | 8.50 | 12.61 | 2.38 | 16.4 |
| DN150 | 168.3 | 13800 | 306160 | 6.7 | | | 216 | 320 | 60 | 7.4 |
| 8 | 8.625 | 1500 | 87500 | 0.27 | 2 | 1 x 5 1/2 | 10.94 | 14.97 | 2.75 | 26.0 |
| DN200 | 219.1 | 10350 | 389375 | 6.7 | | | 278 | 380 | 70 | 11.8 |
| 10 | 10.750 | 1250 | 114500 | 0.28 | 2 | 1 x 6 1/2 | 13.43 | 17.22 | 2.88 | 37.2 |
| DN250 | 273.0 | 8600 | 509525 | 7.1 | | | 341 | 437 | 73 | 16.9 |
| 12 | 12.750 | 1250 | 160800 | 0.28 | 2 | 1 x 6 1/2 | 15.56 | 19.06 | 3.00 | 42.0 |
| DN300 | 323.9 | 8600 | 715560 | 7.1 | | | 395 | 484 | 76 | 19.1 |

² Working Pressure and End Load are total, from all internal and external loads, based on standard weight (ANSI) steel pipe, "ES" cut or roll grooved in accordance with Victaulic specifications. Contact Victaulic for performance on other pipe.

³ For field installation only. HP-70ES is essentially rigid and does not permit expansion and contraction.

⁴ Number of bolts required equals number of housing segments.

NOTES

- HP-70ES couplings cannot be used with Victaulic Series 700 butterfly valves.
- HP-70ES couplings must always be used with pipe grooved to Victaulic "ES" dimensions.
- Metric thread size bolts are available (color coded gold) for all coupling sizes upon request. Contact Victaulic for details.
- WARNING: FOR ONE TIME FIELD TEST ONLY, the Maximum Joint Working Pressure may be increased to 1 1/4 times the figures shown.
- Victaulic HP-70ES couplings may be used on Victaulic standard ductile iron cast fittings.
- Heavy wall fittings must be used on all systems with operating pressures above 1000 psi (2 – 6") or 800 psi (8 – 12").

5.0 PERFORMANCE

Not applicable - contact Victaulic with any questions.

6.0 NOTIFICATIONS



Depressurize and drain the piping system before attempting to install, remove or adjust any Victaulic piping products.

7.0 REFERENCE MATERIALS

[05.01: Gasket Selection Guide](#)

[25.02: EndSeal™ Groove Specifications](#)

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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