

# 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

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**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 choice<sup>1</sup>)**

**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.

<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.

**NOTE**

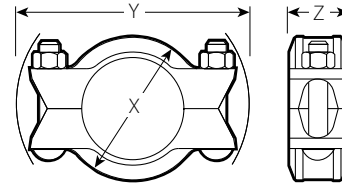
- EndSeal Grade “T-607” Nitrile gaskets with HP-70ES couplings may be specified in systems requiring compliance with API607 fire testing and in foam systems requiring compliance with NFPA 11.

**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 <sup>2</sup>	Maximum End Load <sup>2</sup>	Pipe End Separation <sup>3</sup>	Bolt/Nut <sup>4</sup>		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

<sup>2</sup> 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.

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

<sup>4</sup> 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").

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## 5.0 PERFORMANCE

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Not applicable - contact Victaulic with any questions.

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## 6.0 NOTIFICATIONS

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

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## 7.0 REFERENCE MATERIALS

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[05.01: Gasket Selection Guide](#)

[25.02: EndSeal™ Groove Specifications](#)

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### 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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