

Victaulic® Carbon Steel Riser Movement Fitting

No. A190



1.0 PRODUCT DESCRIPTION

Available Sizes

- 2 – 6”/DN50 – DN150

Pipe Material

- Carbon steel

Maximum Working Pressure

- Accommodates pressures ranging from full vacuum (29.9 in Hg/760 mm Hg) up to 300 psi/2100 kPa/21 bar

Operating Temperature

- Dependent on gasket selection from section 3.0

Function

- For use on carbon steel NPS riser piping branch lines to accommodate movement of the riser
- Provides 0.75” deflection (up or down) within a 24” shaft space
- Provides a shut-off valve on every floor
- Provides noise and vibration isolation

NOTES

- The No. A190 riser movement fitting is an engineered product and is not to be disassembled or modified. Doing so will affect the product’s performance.
- Allow 1” of clearance between fitting and wall penetration to account for system movement during startup.

Pipe Preparation

- Exclusively for use with pipe and Victaulic products which feature the Victaulic Original Groove System (OGS) groove profile (see section 7.0 Reference Materials)

2.0 CERTIFICATION/LISTINGS

Product designed and manufactured under Victaulic’s Quality Management System, as certified by LPCB in accordance with ISO 9001:2018.

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

Steel: Carbon steel, standard weight, conforming to ASTM A53, Type E, Grade B.

Housing: Ductile iron conforming to ASTM A536, Grade 65-45-12.

Housing Coating: Orange enamel.

Gasket: (specify choice¹)

Grade “EHP” EPDM

EHP (Red and Green stripes color code). Temperature range –30°F to +250°F/–34°C to +121°C. May be specified for hot water service within the specified temperature range plus a variety of dilute acids, oil-free air and many chemical services. NOT COMPATIBLE FOR PETROLEUM 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, 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.

Grade “O” Fluoroelastomer

Fluoroelastomer (Blue stripe color code). Temperature range +20°F to +300°F/–7°C to +149°C. May be specified for many oxidizing acids, petroleum oils, halogenated hydrocarbons, lubricants, hydraulic fluids, organic liquids and air with hydrocarbons. NOT COMPATIBLE FOR USE WITH HOT WATER SERVICES OR STEAM SERVICES.

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: (specify choice²)

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

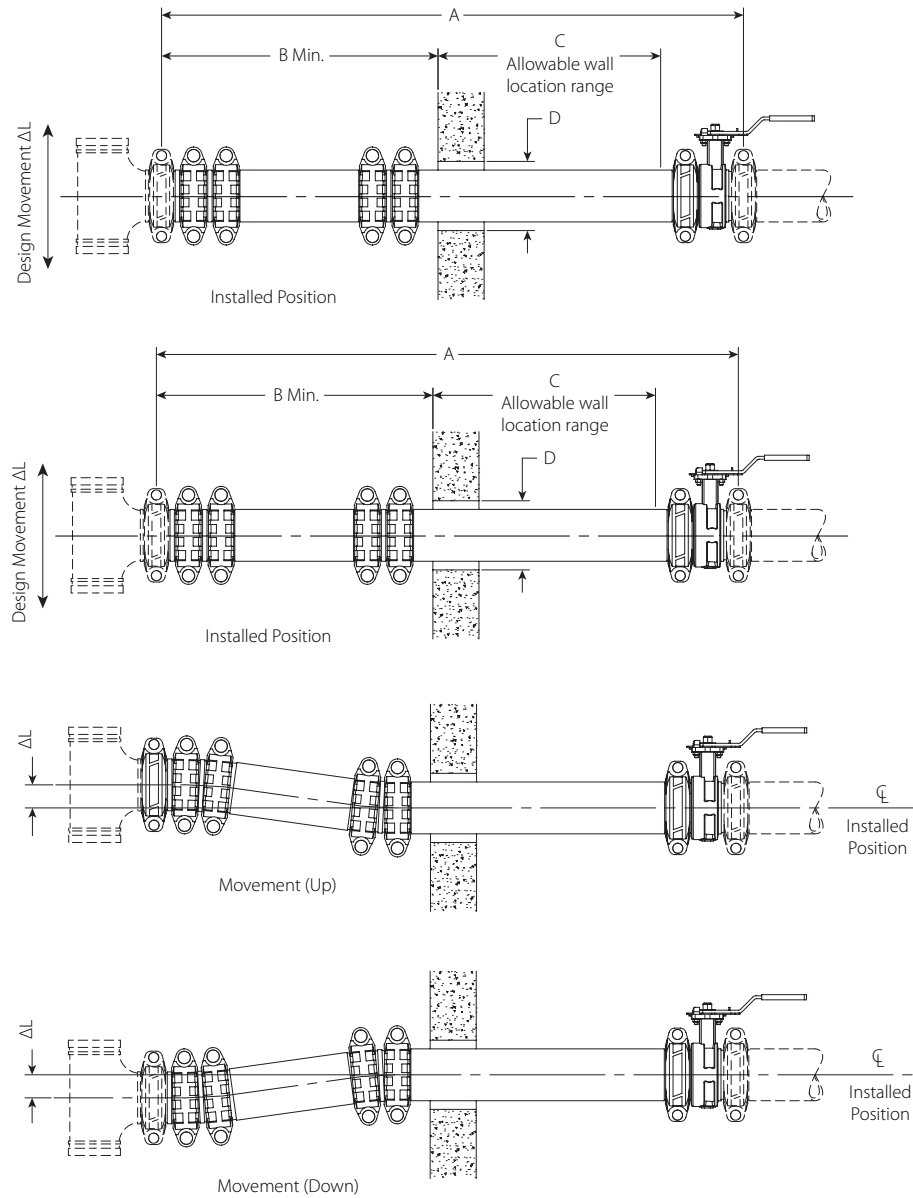
Optional: Stainless steel oval neck track bolts meeting the mechanical property requirements of ASTM F593, Group 2 (316 stainless steel), condition CW. Stainless steel heavy nuts meeting the mechanical property requirements of ASTM F594, Group 2 (316 stainless steel), condition CW. Bolts and nuts include galling reducing coating.²

² Optional bolts/nuts are available in imperial size only.

Valve: 10 Position Handle – Zinc-plated carbon steel handle with zinc-plated carbon steel latch plate and zinc-plated carbon steel fasteners, infinitely variable, padlockable and includes memory stop. Optionally available with tamper-resistant hardware.

4.0 DIMENSIONS

No. A190 Carbon Steel Riser Movement Fitting



Size		Dimensions				Weight	
Nominal	Actual Outside Diameter	A	B Min	C Allowable Wall Location Range ³	Ø D Min	Approximate (Each)	
inches DN	inches mm	inches mm	inches mm	inches mm	inches mm	lb	kg
2	2.375	48.38	24.00	22.00	7.50	35.5	
DN50	60.3	1229	610	559	191	16.1	
2½	2.875	49.00	24.00	22.00	8.00	46.9	
	73.0	1245	610	559	203	21.3	
3	3.500	49.00	24.00	22.00	8.50	57.3	
DN80	88.9	1245	610	559	216	26.0	
4	4.500	49.75	24.00	22.00	10.50	85.6	
DN100	114.3	1264	610	559	267	38.8	
6	6.625	51.00	24.00	22.00	13.50	151.4	
DN150	168.3	1295	610	559	343	68.7	

³ Thickness of wall to be considered by others.

5.0 PERFORMANCE







Size		Design Movement ⁴ ΔL inches mm	Maximum Working Pressure ⁵ psi kPa	Maximum Permissible End Load ⁵ lbs N
Nominal inches DN	Actual Outside Diameter inches mm			
2 DN50	2.375 60.3	0.75 19	300 2068	1329 5911
2½	2.875 73.0	0.75 19	300 2068	1947 8660
3 DN80	3.500 88.9	0.75 19	300 2068	2886 12837
4 DN100	4.500 114.3	0.75 19	300 2068	4771 21222
6 DN150	6.625 168.3	0.75 19	300 2068	10341 45999

⁴ Reference the drawings on page 3 for the definition of design movement.

⁵ Working Pressure and End Load are total, from all internal and external loads, based on ANSI steel pipe, grooved in accordance with Victaulic specifications. Contact Victaulic for performance on other pipe.

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

- [05.01: Victaulic Seal Selection Guide](#)
- [06.15: Victaulic Pressure Ratings and End Loads for Victaulic Couplings on Steel Pipe](#)
- [06.23: Victaulic QuickVic™ Rigid Coupling Style 107N](#)
- [06.24: Victaulic QuickVic™ Flexible Coupling Style 177N](#)
- [08.20: Victaulic Vic-300 MasterSeal™ Butterfly Valve Series 761](#)
- [26.01: Victaulic Design Data](#)
- [26.04: Victaulic Couplings Vibration Attenuation Characteristics](#)
- [29.01: Victaulic Terms and Conditions/Warranty](#)
- [I-100: Victaulic Field Installation Handbook](#)

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.

Warranty

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

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