

Victaulic® FireLock™ Flange Adapter

Style 744



1.0 PRODUCT DESCRIPTION

Available Sizes

- 2 – 8” (50 – 200mm)

Maximum Working Pressure

- For maximum working pressure reference section 5.0 Performance

Application

- Designed for directly incorporating flanged components with ANSI CL. 125 or CL. 150 bolt hole patterns into a grooved pipe system
- Designed and recommended for use in fire protection systems only

Pipe Material

- Carbon Steel
- Stainless Steel
- For exceptions reference section 6.0 Notifications

2.0 CERTIFICATION/LISTINGS



3.0 SPECIFICATIONS – MATERIAL

Flange Housing: Ductile iron conforming to ASTM A-536, grade 65-45-12. Ductile iron conforming to ASTM A-395, grade 65-45-15, is available upon special request.

Coating: Black enamel

☐ Optional: Hot dipped galvanized

Bolts/Nuts: Supplied by installer

Gasket: Grade “E” EPDM – Type A Vic-Plus Gasket System¹

(Violet color code). FireLock products have been Listed by Underwriters Laboratories Inc. and Approved by Factory Mutual Research for wet and dry (oil free air) sprinkler services up to the rated working pressure using the Grade “E” Type A Vic-Plus Gasket System, requiring no field lubrication for most installation conditions.

¹ Standard gasket approved for dry pipe systems to –40°F (–40°C). Based on “typical” pipe surface conditions, supplemental lubricant is recommended for services installed below 0°F (–18°C) and for all dry pipe systems or systems to be subjected to air tests prior to being filled with water. Supplemental lubrication may also be required on pipe with raised or undercut weld seams or pipe that has voids and/or cracks at the weld seams.

Hinge Bushing: Electroplated steel.

ALWAYS REFER TO ANY NOTIFICATIONS AT THE END OF THIS DOCUMENT REGARDING PRODUCT INSTALLATION, MAINTENANCE OR SUPPORT.

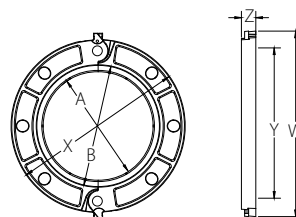


4.0 DIMENSIONS

Style 744

Sizes 2 – 8" (50 – 200 mm)

ANSI Class 125 and 150 Flange



Size		No. Bolts ² Qty.	Bolt/Nut Size ² inches	Dimensions						Approx. Weight (Each) lb kg
Nominal inches DN	Actual Outside Diameter inches mm			Sealing Surface		W inches mm	X inches mm	Y inches mm	Z inches mm	
				A Max. inches mm	B Min. inches mm					
2 DN50	2.375 60.3	4	5⁄8 x 2 3⁄4	2.38 60	3.41 87	6.75 172	6.00 153	4.75 121	0.88 20	3.5 1.6
2 1⁄2	2.875 73.0	4	5⁄8 x 3	2.88 73	3.91 99	7.88 200	7.00 178	5.50 140	1.00 24	4.8 2.2
3 DN80	3.500 88.9	4	5⁄8 x 3	3.50 89	4.53 115	8.38 211	7.50 191	6.00 152	1.00 25	5.5 2.5
4 DN100	4.500 114.3	8	5⁄8 x 3	4.50 114	5.53 140	9.88 251	9.00 229	7.50 191	1.00 25	6.8 3.1
5	5.563 141.3	8	3⁄4 x 3 1⁄2	5.56 141	6.71 170	11.00 277	10.00 254	8.50 216	1.13 27	8.3 3.8
6 ³ DN150	6.625 168.3	8	3⁄4 x 3 1⁄2	6.63 168	7.78 198	12.00 303	11.00 280	9.50 241	1.13 27	9.9 4.5
8 ³ DN200	8.625 219.1	8	3⁄4 x 3 1⁄2	8.63 219	9.94 252	14.50 369	13.50 343	11.75 298	1.25 30	14.0 6.4

² Total bolts required to be supplied by installer. Bolt sizes for conventional flange-to-flange connection. Longer bolts are required when Vic-Flange adapter is utilized with wafer-type valves.

³ Not available with Vic-Plus gasket system. Lubrication is required.

NOTES

- Working Pressure and End Load are total, from all internal and external loads, based on standard weight steel pipe, standard roll or cut grooved in accordance with Victaulic specifications. Contact Victaulic for performance on other pipe.
- WARNING: FOR ONE TIME FIELD TEST ONLY, the Maximum Joint Working Pressure may be increased to 1 1/2 times the figures shown.
- Style 744 FireLock Flange adapters provide rigid joints when used on pipe with standard roll or cut groove dimensions and consequently allow no linear or angular movement at the joint.
- WARNING: Depressurize and drain the piping system before attempting to install, remove, or adjust any Victaulic piping products.

5.0 PERFORMANCE

Size		Maximum Working Pressure psi kPa	Maximum End Load lbf N
Nominal inches DN	Actual Outside Diameter inches mm		
2 DN50	2.375 60.3	175 1207	775 3,448
2 ½	2.875 73.0	175 1207	1,100 4,894
3 DN80	3.500 88.9	175 1207	1,600 7,118
4 DN100	4.500 114.3	175 1207	2,700 12,010
5	5.563 141.3	175 1207	4,200 18,682
6 DN150	6.625 168.3	175 1207	6,000 26,690
8 DN200	8.625 219.1	175 1207	10,000 44,482

6.0 NOTIFICATIONS

Important Installation Considerations

1. The Style 744 (2 – 8" / 50 – 200 mm) design incorporates small teeth inside the key shoulder I.D. to prevent rotation.
2. FireLock Flange adapter shall not be used on FireLock or "V" Style fittings. Prior to installation, verify that there will not be interference between the flanges and other components in the system. When wafer or lug-type valves are used adjoining a Victaulic fitting, check disc dimensions to assure proper clearance.
3. FireLock Flange adapters shall not be used as anchor points for tie-rods across nonrestrained joints. Mating rubber faced flanges, valves, etc. require the use of a FireLock Flange washer.
4. The sealing surface of the mating flange face, area A-B noted in the above drawing, shall be free from gouges, undulations or deformities of any type for effective sealing.
5. FireLock Flange adapter gaskets shall be assembled with the color coded lip on the pipe and the other lip facing the mating flange.
6. Flange Washers: FireLock Flange adapters require a smooth hard surface at the mating flange face for effective sealing. Some applications for which the Vic-Flange adapter is otherwise well suited do not provide an adequate mating surface. In such cases, it is recommended that a metal Flange Washer be inserted between the FireLock Flange adapter and the mating flange to provide the necessary sealing surface.

Typical applications where a Flange Washer shall be used are:

- A. When mating to a serrated flange: a standard flat flange gasket should be used adjacent to the serrated flange and then the Flange Washer is inserted between the FireLock Flange adapter and the flange gasket.
- B. When mating to a wafer valve: where typical valves are rubber lined and partially rubber faced (smooth or not), the Flange Washer is placed between the valve and the FireLock Flange adapter.
- C. When mating a rubber faced flange: the Flange Washer is placed between the FireLock Flange adapters and the rubber faced flange.
- D. When mating AWWA cast flanges to IPS flanges: the Flange Washer is placed between two FireLock Flanges. The hinge points must be oriented approximately 90° to each other. If one flange is not a FireLock Flange adapter (e.g. flanged valve), then a standard flat flange gasket must be placed adjacent to that flange and the Flange Washer inserted between the flange gasket and the FireLock Flange adapter.
- E. When mating to components (valves, strainers, etc.) where the component flange face has an insert: follow the same arrangement as in Application A.
- F. When mating to a Series 705-W Butterfly valve, Style 744 may only be used on one side of the connection.

When ordering Flange Washers, always specify product style (Style 744) and size to assure proper Flange Washer is supplied.

NOTICE

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

7.0 REFERENCE MATERIALS

I-100: Field Installation Handbook

User Responsibility for Product Selection and Suitability

Each user bears final responsibility for determining the suitability of Victaulic products for their end-use application, in accordance with industry standards, project specifications, and Victaulic's published performance, maintenance, and safety data, as well as all warnings and installation 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, warranty, installation instructions, or this disclaimer.

Installation

Always refer to and follow the [Victaulic Installation Handbook](#) or installation instructions for 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 victaulic.com.

Warranty

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

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