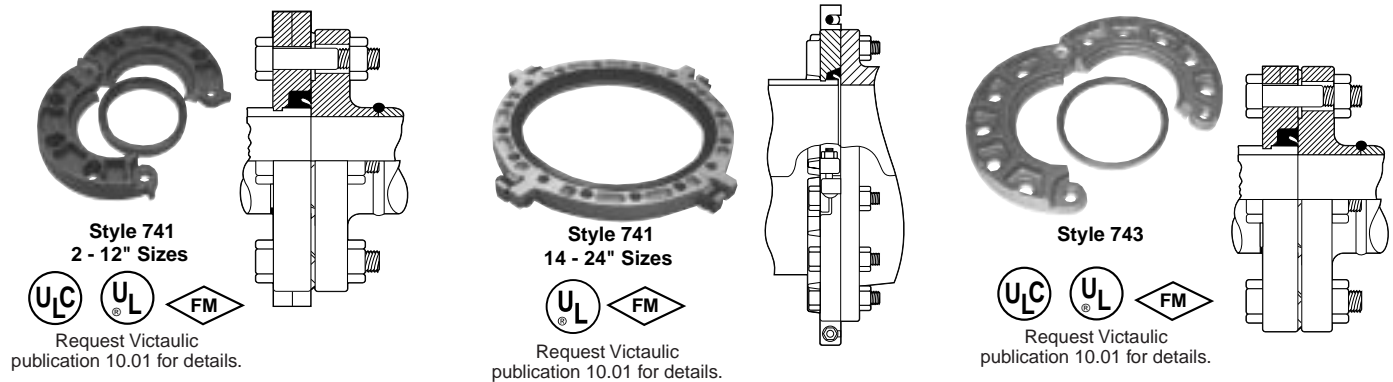


# Styles 741 and 743 Vic-Flange® Adapters

## PRODUCT DESCRIPTION



*Illustrations exaggerated for clarity*

### Style 741

Style 741 Vic-Flange® adapter is designed for directly incorporating flanged components with ANSI CL. 125 or CL. 150 bolt hole patterns into a grooved pipe system. Sizes 2 - 12" (50 - 300 mm) are hinged for easy handling with integral end tabs which facilitate assembly. Sizes 14 - 24" (350 - 600 mm) are cast in four (4) identical segments which are interconnected as assembly is completed.

The design incorporates small teeth inside the key shoulder I.D. to prevent rotation. These teeth should be removed when Vic-Flange adapter is utilized with a Victaulic Series 700 grooved end butterfly valve, Schedule 5 pipe or plastic pipe.

Vic-Flange adapters may only be used on Vic-300® butterfly valves on one side in 2 - 8" (50 - 200 mm) sizes. They are not recommended for 10 and 12" (250 and 300 mm) sizes.

Vic-Flange adapter Style 741 is not recommended for use with Victaulic Series 709 butterfly valves (contact Victaulic for recommendations). They may only be used on one side of Victaulic Series 700 butterfly valve, sizes 2 - 4" (50 - 100 mm) fitted with standard or lever-lock handles. Vic-Flange adapter must be assembled so it does not interfere with handle operation.

### Style 743

Vic-Flange Style 743 flange-to-groove adapter permits direct connection of ANSI Class 300 flanged components into a grooved system. The two-piece, hinged housing engages into the pipe groove and bolts directly to any standard flanged component. The conventional bolt hole pattern allows for easy, fast assembly. Style 743 rotates 360° for proper alignment of bolt holes before tightening. Vic-Flange gaskets utilize the Victaulic pressure-responsive design, sealing on the pipe end and directly to the opposing flange face. No standard flange gasket is required.

Style 743 is designed to mate with raised-face flanges, but can be used with flat-face flanges by removing the raised projections on the outside face of the flange.

#### Vic-Flange Notes

Because of the outside flange dimension, Vic-Flange should not be used within 90° of one another on a standard fitting. When wafer or lug-type valves are used adjoining a Victaulic fitting, check disc dimensions to assure proper clearance.

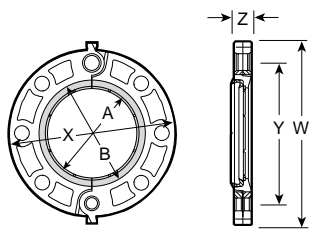
Vic-Flange adapters should not be used as anchor points for tie-rods across non-restrained joints. Mating rubber faced flanges, valves, etc., requires the use of a Vic-Flange washer.

Vic-Flange gaskets must always be assembled with the color coded lip on the pipe and the other lip facing the mating flange.

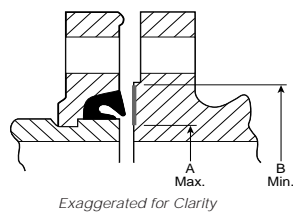
## DIMENSIONS

### Style 741

Sizes 2 - 12" (50 - 300 mm)  
ANSI Class 125 and 150 Flange



**Note:** Gray area of mating face must be free from gouges, undulations or deformities of any type for effective sealing.



Pipe Size		Max. Work. Pres. PSI* kPa	Max. End Load Lbs.* N	No. Bolts Req'd.†	Bolt† Size Inches	Sealing Surface Inches/mm		Dimensions Inches/millimeters				Aprx. Weight Each Lbs. kg
Nominal Out. Dia. In./mm	Actual Out. Dia. In./mm					"A" Max.	"B" Min.	W	X	Y	Z	
2 50	2.375 60.3	300 2065	1,330 5920	4	5/8 X 2 3/4	2.38 60	3.41 87	6.75 172	6.00 152	4.75 121	0.75 19	3.1 1.4
2 1/2 65	2.875 73.0	300 2065	1,950 8680	4	5/8 X 3	2.88 73	3.91 99	7.88 200	7.00 178	5.50 140	0.88 22	4.8 2.1
3 80	3.500 88.9	300 2065	2,885 12840	4	5/8 X 3	3.50 89	4.53 115	8.44 214	7.50 191	6.00 152	0.94 24	5.3 2.4
4 100	4.500 114.3	300 2065	4,770 21225	8	5/8 X 3	4.50 114	5.53 141	9.94 252	9.00 229	7.50 191	0.94 24	7.4 3.4
5 125	5.563 141.3	300 2065	7,290 32440	8	3/4 X 3 1/2	5.56 141	6.71 171	11.00 279	10.00 254	8.50 216	1.00 25	8.6 3.9
6 150	6.625 168.3	300 2065	10,350 46060	8	3/4 X 3 1/2	6.63 168	7.78 198	12.00 305	11.00 279	9.50 241	1.00 25	9.9 4.5
165,1 mm	6.500 165,1	300 2065	9,960 44320	8	3/4 X 3 1/2	6.50 165	7.66 195	+	11.00 279	9.50 241	1.00 25	10.0 4.5
8 200	8.625 219,1	300 2065	17,500 77875	8	3/4 X 3 1/2	8.63 219	9.94 252	14.63 372	13.50 343	11.75 298	1.13 29	16.6 7.5
10 250	10.750 273,0	300 2065	27,215 121110	12	7/8 X 4	10.75 273	12.31 313	17.19 437	16.00 406	14.25 362	1.19 30	24.2 11,0
12 300	12.750 323,9	300 2065	38,285 170270	12	7/8 X 4	12.75 324	14.31 364	20.25 514	19.00 483	17.00 432	1.25 32	46.8 21,2

\*Refer to notes on page 4.

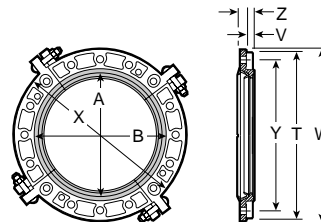
+ "W" dimension does not apply.

† Total bolts required to be supplied by installer, may be ordered from Victaulic.

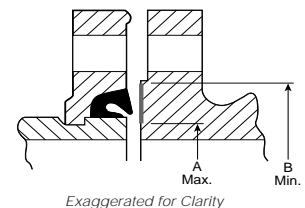
**IMPORTANT NOTES:** Style 741 Vic-Flange adapters provide rigid joints when used on pipe with standard cut or roll groove dimensions and consequently allow no linear or angular movement at the joint. When used with Victaulic Series 700 butterfly valves, plastic pipe or light wall metallic pipe, small teeth in I.D. of key section should be removed and may be used on one side of the valve. Contact Victaulic for information on AS2129 - Table E; ISO 2084 (PN10); DIN 2532 (PN10) and JIS B-2210 (10K) flanges.

### Style 741

Sizes 14 - 24" (350 - 600 mm)  
ANSI Class 125 and 150 Flanges



**Note:** Gray area of mating face must be free from gouges, undulations or deformities of any type for effective sealing.



Pipe Size		Max. Work. Pres. PSI* kPa	Max. End Load Lbs.* N	Assembly Bolts †		Draw Bolts §		Sealing Surface Inches/mm		Dimensions Inches/millimeters						Aprx. Weight Each Lbs. kg
Nominal Out. Dia. In./mm	Actual Out. Dia. In./mm			† No. Bolts Req'd.	Size Inches	No. Bolts	Size Inches	"A" Max.	"B" Min.	T	V	W	X	Y	Z	
14 350	14.000 355,6	300 2065	46,180 205500	12	1 X 4 1/2	4	5/8 X 3 1/2	14.00 356	16.39 416	19.50 495	0.88 22	24.50 622	21.00 533	18.75 476	1.44 37	62.0 28,1
16 400	16.000 406,4	300 2065	60,300 268335	16	1 X 4 1/2	4	5/8 X 3 1/2	16.00 406	18.39 467	21.75 552	0.85 22	27.12 689	23.50 597	21.25 540	1.44 37	79.0 35,8
18 450	18.000 457,0	300 2065	76,340 339700	16	1 1/8 X 4 3/4	4	3/4 X 4 1/4	18.00 457	20.00 508	22.50 572	1.04 26	29.00 737	25.50 648	22.75 578	1.56 40	82.3 37,3
20 500	20.000 508,0	300 2065	94,250 419400	20	1 1/8 X 5 1/4	4	3/4 X 4 1/4	20.00 508	22.50 572	25.25 641	1.17 30	31.50 800	27.50 699	25.00 635	1.69 43	103.3 46,9
24 600	24.000 610,0	300 2065	135,700 603865	20	1 1/4 X 5 3/4	4	3/4 X 4 1/4	24.00 610	27.75 705	29.25 743	1.38 35	36.00 914	32.00 813	29.50 749	1.94 49	142.0 64,4

\*Refer to notes on page 4.

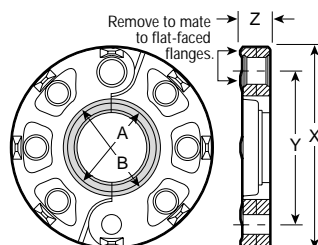
† Total bolts required to be supplied by installer, may be ordered from Victaulic. Bolt sizes for conventional flange-to-flange connection. Longer bolts required when Vic-Flange utilized with wafer-type valves.

§ Draw bolts supplied with 14 - 24" (350 - 600 mm) Vic-Flange adapters.

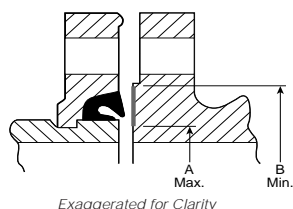
## DIMENSIONS

### Style 743

Grooved pipe adapter to  
ANSI Class 300 flanges



**Note:** Gray area of mating face must be free from gouges, undulations or deformities of any type for effective sealing.



Exaggerated for Clarity

Pipe Size		Max. Wk. Pres. PSI* kPa	Max. End Load Lbs.* N	No. Bolts Req'd. †	Bolt/Nut Size Inches	Sealing Surface In./mm		Dimensions Inches/mm			Aprx. Wgt. Each Lbs. kg
Nominal Out. Dia. In./mm	Actual Out. Dia. In./mm					"A" Max.	"B" Min.	X	Y	Z	
2	2.375	720	3,190	8	5/8 X 3	2.38	3.41	6.50	5.00	0.94	4.8
50	60.3	4960	14200			60	87	165	127	24	2.2
2 1/2	2.875	720	4,670	8	3/4 X 3 1/4	2.88	3.91	7.50	5.88	1.06	7.4
65	73.0	4960	20780			73	99	191	149	27	3.4
3	3.500	720	6,925	8	3/4 X 3 1/2	3.50	4.53	8.25	6.63	1.19	9.1
80	88.9	4960	30815			89	115	210	168	30	4.1
4	4.500	720	11,445	8	3/4 X 3 3/4	4.50	5.53	10.00	7.88	1.31	15.3
100	114.3	4960	50930			114	141	254	200	33	6.9
5	5.563	720	17,500	8	3/4 X 4	5.56	6.72	11.00	9.25	1.44	17.7
125	141.3	4960	77875			141	171	279	235	37	8.0
6	6.625	720	24,805	12	3/4 X 4 1/2	6.63	7.78	12.50	10.63	1.50	23.4
150	168.3	4960	110380			168	198	318	270	38	10.6
8	8.625	720	42,045	12	7/8 X 4 3/4	8.63	9.94	15.00	13.00	1.69	34.3
200	219.1	4960	187100			219	252	381	330	43	15.6
10	10.750	720	65,315	16	1 X 5 1/4	10.75	12.31	17.50	15.25	1.94	48.3
250	273.0	4960	290650			273	313	445	387	49	21.9
12	12.750	720	91,880	16	1 1/8 X 5 3/4	12.75	14.31	20.50	17.75	2.00	70.5
300	323.9	4960	408870			324	363	521	451	51	32.0

Refer to notes on page 4.

Style 743 Vic-Flange must be ordered as a factory assembly when connected to a Victaulic fitting or valve. Contact Victaulic for details.

† Total bolts required to be supplied by installer, may be ordered from Victaulic.

## VIC-FLANGE ADAPTER NOTES

- The Style 741 (2 - 12"/50 - 300 mm) design incorporates small teeth inside the key shoulder I.D. to prevent rotation. These teeth should be removed when Vic-Flange adapter is utilized with a Victaulic Series 700 grooved end butterfly valve, Schedule 5 pipe or plastic pipe. Vic-Flange adapter Style 741 may only be used on one side of Victaulic Series 700 butterfly valve, sizes 2 - 4" (50 - 100 mm) fitted with standard or latch-lock handles.
- Vic-Flange adapter must be assembled so it does not interfere with handle operation. Because of the outside flange dimension, Vic-Flange adapter should not be used within 90° of one another on a standard fitting. When wafer or lug-type valves are used adjoining a Victaulic fitting, check disc dimensions to assure proper clearance.
- Vic-Flange adapters should not be used as anchor points for tie-rods across nonrestrained joints. Mating rubber faced flanges, valves, etc. requires the use of a Vic-Flange washer.
- Area A-B noted in the above drawing must be free from gouges, undulations or deformities of any type for effective sealing.
- Vic-Flange adapter gaskets must always be assembled with the color coded lip on the pipe and the other lip facing the mating flange.
- Vic-Flange hinge points must be oriented approximately 90° to each other when mated.
- Flange Washers: Vic-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 (Type F phenolic for Style 641 with copper systems) Flange Washer be inserted between the Vic-Flange adapter and the mating flange to provide the necessary sealing surface.

Typical applications where a Flange Washer should be used are:

- When mating to a serrated flange: a flange gasket should be used adjacent to the serrated flange and then the Flange Washer is inserted between the Vic-Flange adapter and the flange gasket.
- 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 Vic-Flange adapter.
- When mating a rubber faced flange: the Flange Washer is placed between the Vic-flanges and the rubber faced flange.
- When mating AWWA cast flanges to IPS flanges: the Flange Washer or Transition Ring is placed between two Vic-Flange adapters with the hinge points oriented 90° to each other. If one flange is not a Vic-Flange adapter (e.g., flanged valve), then a flange gasket must be placed adjacent to that flange and the Flange Washer inserted between the flange gasket and the Vic-Flange adapter. Transition rings rather than Flange Washers must be used when mating Style 741 to Style 341 Flange Adapters in sizes 14 - 24" (350 - 600 mm).

E When mating to components (valves, strainers, etc.) where the component flange face has an insert: follow the same arrangement as in Application 1.

*When ordering Flange Washers, always specify product style (Style 741, 743, 341, 641, 994) and size to assure proper Flange Washer is supplied.*

## MATERIAL SPECIFICATIONS

**Housing:** Ductile iron conforming to ASTM A-536, grade 65-45-12.

**Housing Coating:** Black enamel

- **Optional:** Hot dipped galvanized and others.

**Coupling Gasket:** (specify choice\*)

- **Grade "E" EPDM**

EPDM (Green color code). Temperature range -30°F to +230°F (-34°C to +110°C). Recommended for 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 +86°F (+30°C) and hot +180°F (+82°C) potable water service. NOT RECOMMENDED FOR PETROLEUM SERVICES.

- **Grade "T" nitrile**

Nitrile (Orange color code). Temperature range -20°F to +180°F (-29°C to +82°C). Recommended for petroleum products, air with oil vapors, vegetable and mineral oils within the specified temperature range; except hot, dry air over +140°F (+60°C) and water over +150°F (+66°C). NOT RECOMMENDED FOR HOT WATER SERVICES.

\*Services listed are General Service Recommendations only. It should be noted that there are services for which these gaskets are not recommended. Reference should always be made to the latest Victaulic Gasket Selection Guide for specific gasket service recommendations and for a listing of services which are not recommended.

**Hinge Bushing:** 2 - 12" (50 - 300 mm) only: Electroplated steel.

**Draw Bolts:** 14 - 24" (350 - 600 mm) only: Heat treated oval neck track bolts conforming to ASTM A-183.

### NOTES

Style 741 and 743 Vic-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.

\* 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 1½ times the figures shown.

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

This product shall be manufactured by Victaulic Company. All products shall 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.