

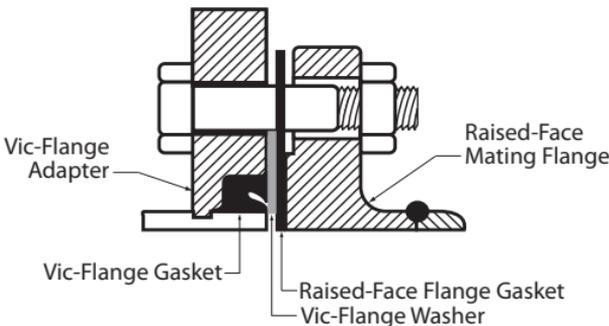
VICTAULIC FLANGE WASHER NOTES FOR 14-INCH/355.6-MM AND LARGER SIZES (NON-AGS)

Style 741 Vic-Flange Adapter

Victaulic Flange Adapters require a smooth, hard surface at the mating flange face for proper sealing. Some applications, for which the Victaulic Flange Adapter is otherwise well suited, do not provide an adequate mating surface. In such cases, a metal Victaulic Flange Washer is recommended for insertion between the Victaulic Flange Adapter and the mating flange to provide the necessary sealing surface. To ensure the proper Victaulic Flange Washer is supplied, always specify the product style and size when ordering.

- A. When mating a Victaulic Flange Adapter to a serrated flange** – a flange gasket shall be used against the serrated flange. The Victaulic Flange Washer should then be inserted between the Victaulic Flange Adapter and the flange gasket.
- B. When mating a Victaulic Flange Adapter to a wafer-type valve that is rubber-lined and partially rubber-faced (smooth or not)** – the Victaulic Flange Washer should be placed between the valve and the Victaulic Flange Adapter.
- C. When mating a Victaulic Flange Adapter to a rubber-faced flange, valve, etc.** – the Victaulic Flange Washer must be placed between the Victaulic Flange Adapter and the rubber-faced flange.
- D. When mating a Victaulic Flange Adapter to components (valves, strainers, etc.) where the component flange face has an insert** – follow the same arrangement as if the Victaulic Flange Adapter was being mated to a serrated flange. Refer to application “A” above.
- E. When mating Victaulic AWWA Flange Adapters to Victaulic NPS Flange Adapters** – the Victaulic Flange Transition Ring must be placed between the two Victaulic Flange Adapters with the draw bolt locations offset from each other. If one flange is not a Victaulic Flange Adapter (i.e. flanged valve), a flange gasket must be placed against the non-Victaulic flange. The Victaulic Flange Washer must then be inserted between the flange gasket and the Victaulic Flange gasket. **NOTE:** A Victaulic Transition Ring, rather than a Victaulic Flange Washer, must be used when mating a Style 741 Vic-Flange Adapter to a Style 341 Vic-Flange Adapter in 14 – 24-inch/355.6 – 610-mm sizes.

EXAMPLE:



Exaggerated for Clarity

! WARNING



- Read and understand all instructions before attempting to install any Victaulic piping products.
 - Depressurize and drain the piping system before attempting to install, remove, or adjust any Victaulic piping products.
 - Wear safety glasses, hardhat, and foot protection.
- Failure to follow these instructions could result in serious personal injury, improper product installation, and/or property damage.

NOTICE

- Make sure there is sufficient clearance behind the pipe groove to permit proper assembly of the Vic-Flange Adapter.

1. CHECK PIPE ENDS: The outside surface of the pipe, between the groove and the pipe end, must be smooth and free from indentations, projections (including weld seams), and roll marks to ensure a leak-tight seal. All oil, grease, loose paint, dirt, and cutting particles must be removed.



2. ADD FIRST SEGMENT: Place the first segment onto the pipe, making sure that the key engages in the groove properly. **NOTE:** On vertical pipe, the segments must be held in place until all segments are fastened together. For horizontal pipe, the segments can be balanced on top of the pipe, as shown above.



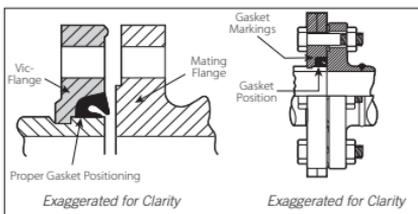
3. ADD ADDITIONAL SEGMENTS: Add each segment by inserting the draw bolts (provided) into the flange adapter with the nuts (provided) loosely and uniformly tightened. This will permit the flange adapter to be rotated for bolt hole alignment in later steps.



4. CHECK GASKET AND LUBRICATE: Check the gasket to make sure it is suitable for the intended service. Apply a thin coat of Victaulic Lubricant or silicone lubricant to the gasket lips and exterior. **NOTE:** This gasket is designed to provide the sole seal. However, reference should be made to the notes at the beginning of this section for special applications.

⚠ CAUTION

- Always use a compatible lubricant to prevent the gasket from pinching/tearing during installation. Failure to follow this instruction could result in joint leakage.



- 5. INSTALL GASKET:** Install the gasket into the cavity between the pipe OD and the flange recess. Make sure the gasket is positioned properly, as shown above. **NOTE:** The lettering on the outside of the gasket must face the flange-adapter gasket pocket of the Style 741 Vic-Flange Adapter. When installed correctly, the lettering on the gasket will not be visible.



- 6. ALIGN VIC-FLANGE AND MATING FLANGE:** Rotate the Vic-Flange on the pipe end, as required, to align the holes with the mating flange.



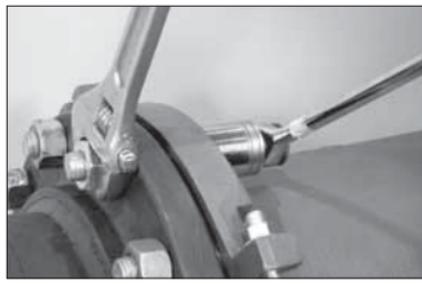
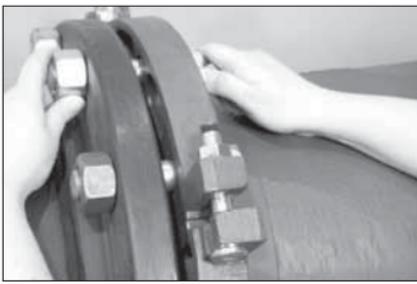
- 7. INSERT STANDARD FULL-SHANK DIAMETER ASSEMBLY BOLTS AT LAP JOINTS:** Insert a standard, full-shank diameter assembly bolt into each of the four lap joint holes. **NOTE:** It may be necessary to tighten the draw bolts to line up the lap joint bolt holes for insertion of the bolts.



- 8. TIGHTEN DRAW BOLTS:** After the four assembly bolts are inserted into the lap-joint bolt holes, torque the draw bolts to approximately 150 ft-lbs/203 N•m. **NOTE:** It is normal to have a small amount of shift as these bolts are being torqued.



- 9. JOIN VIC-FLANGE ADAPTER AND MATING FLANGE:** Direct the four assembly bolts, installed in step 7, into the mating flange holes. Hand-tighten a nut onto each of the four assembly bolts to prevent the bolts from pulling out.



10. INSTALL REMAINING BOLTS/ NUTS: Insert a standard, full-shank diameter assembly bolt through each remaining hole in the Vic-Flange Adapter/ mating flange. Thread standard flange nuts finger-tight onto all bolts.

11. TORQUE ASSEMBLY BOLTS: Tighten all assembly bolts evenly until the required torque value is achieved. Refer to the “Style 741 Assembly Bolt Torque Requirements” table below for the torque requirement.

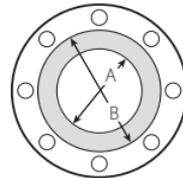
Style 741 Helpful Information

Size		Assembly Bolts/Nuts †		Draw Bolts/Nuts ‡			Required Mating Face Sealing Surface inches/mm	
Nominal Size inches	Actual Pipe Outside Diameter inches/mm	Number of Bolts/ Nuts Required	Bolt/Nut Size X Length inches	Number of Bolts/ Nuts Required	Bolt/Nut Size X Length inches	Socket Size inches	“A” Maximum	“B” Minimum
14	14.000 355.6	12	1 x 4½	4	¾ x 3½	1½	14.00 355.6	16.39 416.3
16	16.000 406.4	16	1 x 4½	4	¾ x 3½	1½	16.00 406.4	18.39 467.1
18	18.000 457	16	1 ⅝ x 4¾	4	¾ x 4¼	1 ⅝	18.00 457.2	20.00 208.0
20	20.000 508	20	1 ⅝ x 5¼	4	¾ x 4¼	1 ⅝	20.00 508.0	22.50 571.5
24	24.000 610	20	1 ¼ x 5¾	4	¾ x 4¼	1 ⅝	24.00 610.0	27.75 704.9

† Victaulic does not supply assembly bolts/nuts. Bolt/nut sizes are for conventional flange-to-flange connections. Longer bolts are required when Vic-Flange Adapters are used with wafer-type valves. Full-shank diameter assembly bolts are required for proper installation of Style 741 Vic-Flange Adapters.

‡ Draw bolts/nuts are supplied with 14 – 24-inch/355.6 – 610-mm Style 741 Vic-Flange Adapters.

The shaded area of the mating face (shown to the right) must be free from gouges, undulations, and deformities of any type for proper sealing.



Style 741 Assembly Bolt Torque Requirements

Size		Torque Requirements
Nominal Size inches	Actual Pipe Outside Diameter inches/mm	ft-lbs N•m
14 – 16	14.000 – 16.000 355.6 – 406.4	200 – 300 271 – 407
18 – 20	18.000 – 20.000 457 – 508	300 – 400 407 – 542
24	24.000 610	400 – 500 542 – 678