

The Gruvlok® Fig. 7012 Flange allows direct connection of Class 125 or Class 150 flanged components to a grooved piping system. The two interlocking halves of the 2" thru 12" sizes of the Gruvlok Flange are hinged for ease of handling, and are drawn together by a latch bolt which eases assembly on the pipe. Precision machined bolt holes, key and mating surfaces assure concentricity and flatness to provide exact fit-up with flanged, lug, and wafer styles of pipe system equipment. A specially designed gasket provides a leak-tight seal on both the pipe and the mating flange face.



Working pressure ratings shown are for reference only and are based on Schedule 40 pipe. For the latest UL/ULC listed and FM approved pressure ratings versus pipe schedule, see www.anvilstar.com or contact your local AnvilStar Representative.

Gruvlok Flanges have designed-in anti-rotation tines which bite into and grip the sides of the pipe groove to provide a secure, rigid connection.

The Gruvlok Fig. 7012 Flange requires the use of a steel adapter insert when used against rubber faced surfaces, wafer/lug design valves and serrated or irregular sealing surfaces. In copper systems a phenolic adapter insert is required, in place of the steel adapter insert. (See Installation and Assembly Instructions Section or contact your AnvilStar Rep. for details.)

Flange comes complete with Grade "E" EPDM Gasket.



For Listing/Approval Details and Limitations, visit our website at www.anvilstar.com or contact an Anvil®/AnvilStar™ Sales Representative.

- Available galvanized.

* When ordering, refer to product as FP7012.

MATERIAL SPECIFICATIONS

HOUSING:

Ductile Iron conforming to ASTM A-536, Grade 65-45-12

LATCH BOLT/NUT (2"-12"):

Heat treated, zinc electroplated, carbon steel oval neck track bolts conforming to ASTM A-183 and zinc electroplated heavy hex nuts of carbon steel conforming to ASTM A-563 Grade A or Grade B, or J995 Grade 2.

COATINGS:

Rust inhibiting paint Color: ORANGE (standard)
Hot Dipped Zinc Galvanized (optional)
Other available options: Example: RAL3000 or RAL9000 Series
For other coating requirements contact an AnvilStar Representative.

LUBRICATION:

Standard Gruvlok
Gruvlok Xtreme™ required for dry pipe systems and freezer applications.

GASKETS: Materials

Properties as designated in accordance with ASTM D-2000.

Grade "E" EPDM (Green color code)

-40°F to 230°F (Service Temperature Range)[-40°C to 110°C]
Recommended for water service, diluted acids, alkalies solutions, oil-free air and many chemical services.

NOT FOR USE IN PETROLEUM APPLICATIONS.

PROJECT INFORMATION	APPROVAL STAMP
Project:	<input type="checkbox"/> Approved
Address:	<input type="checkbox"/> Approved as noted
Contractor:	<input type="checkbox"/> Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

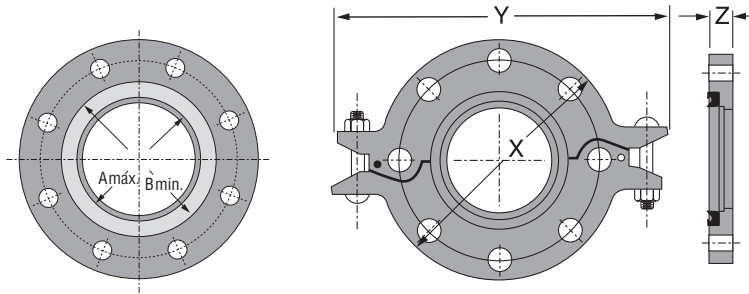


FIGURE 7012 FLANGE: ANSI CLASS 125 & 150

Nominal Size	Pipe O.D.	Max. Working Pressure ▼	Max. End Load ▼	Latch Bolt		Dimensions			Sealing Surface		Mating Flange Bolts				Approx. Wt. Ea.	
				Latch Bolt Size*	Specified Torque §		X	Y	Z	A Max.	B Min.	Mating Flange Bolts		Specified Torque §		
					Min.	Max.						Qty.	Size (ANSI)	Min.		Max.
In./DN(mm)	In./mm	PSI/bar	Lbs./kN	In./mm	Ft.-Lbs/N-m	In./mm	In./mm	In./mm	In./mm	In./mm		In. (ISO) mm	Ft.-Lbs/N-m	Lbs./Kg		
2	2.375	300	1,329	3/8 x 2 3/4	30 45	6 1/4	8 3/8	3/4	2 3/8	3 1/16	4	5/8 x 2 3/4	110 140	4.2		
50	60.3	20.7	5.91	M10 x 70	40 60	159	213	19	60	87	4	M16 x 70	149 190	1.9		
2 1/2	2.875	300	1,948	3/8 x 2 3/4	30 45	7	9 1/2	3/4	2 1/8	4	4	5/8 x 2 3/4	110 140	4.6		
65	73.0	20.7	8.66	M10 x 70	40 60	178	241	19	73	102	-	M16 x 70	149 190	2.1		
3 O.D.	2.996	300	2,115	-	30 45	7 1/4	9 3/4	3/4	3	4 1/2	-	-	110 140	4.8		
76.1	76.1	20.7	9.41	M10 x 70	40 60	184	248	19	76	105	4	M16 x 70	149 190	2.2		
3	3.500	300	2,886	3/8 x 2 3/4	30 45	7 7/8	10 1/2	3/4	3 1/2	4 7/16	4	5/8 x 2 3/4	110 140	6.0		
88.9	88.9	20.7	12.84	M10 x 70	40 60	200	267	19	89	116	8	M16 x 70	149 190	2.7		
4	4.500	300	4,771	3/8 x 2 3/4	30 45	9	11 1/2	3/4	4 1/2	5 5/16	8	5/8 x 2 3/4	110 140	6.3		
100	114.3	20.7	21.22	M10 x 70	40 60	229	292	19	114	141	8	M16 x 70	149 190	2.9		
5 1/2 O.D.	5.500	300	7,127	-	30 45	9 7/8	12 7/8	7/8	5 1/8	6 3/4	-	-	220 250	15.6		
139.7	139.7	20.7	31.70	M10 x 70	40 60	251	327	22	141	171	8	M16 x 75	298 339	7.1		
5	5.563	300	7,292	3/8 x 2 3/4	30 45	10	12 1/2	7/8	5 9/16	6 3/4	8	3/4 x 2 1/2	220 250	8.8		
125	141.3	20.7	32.44	M10 x 70	40 60	254	318	22	141	171	-	-	298 339	4.0		
6 1/2 O.D.	6.500	300	9,955	-	30 45	11 1/4	14	7/8	6 5/8	7 13/16	-	-	220 250	9.7		
165.1	165.1	20.7	44.28	M10 x 70	40 60	286	356	22	168	198	8	M20 x 80	298 339	4.4		
6	6.625	300	10,341	3/8 x 2 3/4	30 45	11	14	7/8	6 5/8	7 13/16	8	3/4 x 3 1/8	220 250	9.6		
150	168.3	20.7	46.00	M10 x 70	40 60	279	356	22	168	198	8	M20 x 80	298 339	4.4		
8	8.625	300	17,528	3/8 x 2 3/4	30 45	13 1/2	16 1/2	1	8 5/8	10	8	3/4 x 3 1/4	220 250	15.6		
200	219.1	20.7	77.97	M10 x 70	40 60	343	419	25	219	254	8 (12)	M20 x 80	298 339	7.1		
10	10.750	300	27,229	3/8 x 2 3/4	30 45	16	19	1	10 3/4	12 1/2	12	7/8 x 3 1/2	320 400	18.2		
250	273.1	20.7	121.12	M10 x 70	40 60	406	483	25	273	308	12	M20 x 90	439 542	8.3		
12	12.750	300	38,303	3/8 x 2 3/4	30 45	19	21 3/4	1 1/4	12 3/4	14 1/8	12	7/8 x 3 3/4	320 400	29.9		
300	323.9	20.7	170.38	M10 x 70	40 60	483	552	32	324	359	12	-	439 542	13.6		
12 (PN)	12.750	300	38,303	-	30 45	18 1/8	21 1/4	1	12 3/4	14 1/8	12	-	320 400	20.9		
300	323.9	20.7	170.38	M10 x 70	40 60	460	540	25	324	359	12	M20 x 90	439 542	9.5		

+ PN 16 uses M24 x 90 (PN) Dimensions for bolt circle PN 10 & 16 Flange.

* Available in ANSI or metric bolt sizes only as indicated.

▼ Based on use with standard wall pipe.

§ - For additional Bolt Torque information, see Technical Data Section.

The Gruvlok Flange bolt hole pattern conforms to ANSI Class 150 and Class 125 flanges.

To avoid interference issues, flanges cannot be assembled directly to Series 7700 butterfly valve. Flange can be assembled to one side of series 7500 and 7600 valve only.

Mating flange bolts must be at least Intermediate Strength Bolting per ASME B16.5. Bolts with material properties equal or greater than SAE J429 Grade 5 are acceptable.

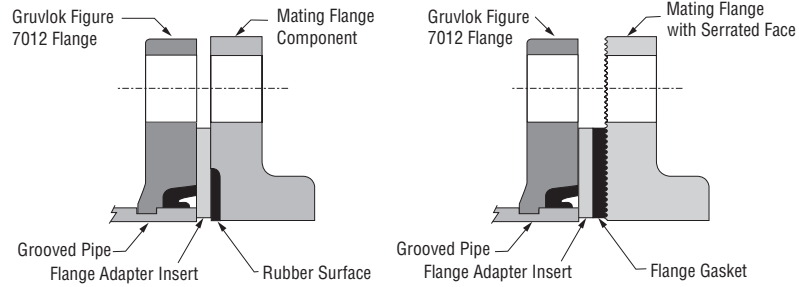
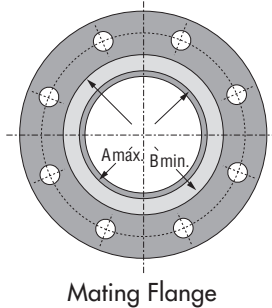
Refer to Gruvlok Products Catalog or AnvilStar's web site for more information on installing this flange.

300 Lb Flange is available, Fig. 7013, see Gruvlok Catalog or contact your AnvilStar Rep. for more information.

Other sizes available, contact an AnvilStar Representative.



WARNING
For dry pipe systems and freezer applications lubrication of the gasket is required, Gruvlok® Xtreme™ Lubricant is required.



- A. The sealing surfaces A Max. to B Min. of the mating flange must be free from gouges, undulations and deformities of any type to ensure proper sealing of the gasket.
- B. Gruklok Flanges are to be assembled on butterfly valves so as not to interfere with actuator or handle operation.
- C. Do not use Gruklok Flanges within 90 degrees of one another on standard fittings because the outside dimensions may cause interference.
- D. Gruklok Flanges should not be used as anchor points for tie-rods across non-restrained joints.
- E. Fig. 7012 Gruklok Flange sealing gaskets require a hard flat surface for adequate sealing. The use of a Gruklok Flange Adapter Insert is required for applications against rubber faced valves or other equipment. The Gruklok Flange Adapter Insert is installed between the Gruklok Flange sealing gasket and the mating flange or surface to provide a good sealing surface area.
- F. Gruklok Flanges are not recommended for use against formed rubber flanges.
- G. An additional bolt is recommended for the hinge side of the 2" - 12" Figure 7012 when connecting to lug valves.
- H. Contact an AnvilStar Representative for Di-Electric Flange connections.

Applications which require a Gruklok Flange Adapter Insert:

1. When mating to a wafer valve (lug valve), if the valve is rubber faced in the area designated by the sealing surface dimensions (A Max. to B Min.), place the Gruklok Flange Adapter Insert between the valve and the Gruklok flange.
2. When mating to a rubber-faced metal flange, the Gruklok Flange Adapter Insert is placed between the Gruklok Flange and the rubber-faced flange.
3. When mating to a serrated flange surface, a standard full-faced flange gasket is installed against the serrated flange face and the Gruklok Flange Adapter Insert is placed between the Gruklok Flange and the standard Flange gasket.
4. When mating to valves or other component equipment where the flange face has an insert, use procedure described in note 3.