

## GRINNELL Figure 71 Flange Adapters 2 Inch to 24 Inch (DN50 to DN600)

### General Description

The GRINNELL 71 Flange Adapter allows a direct transition from flanged components to GRINNELL grooved components. Flange bolt patterns conform to ANSI Class 125 and 150 standards as well as PN10 and PN16 as indicated.

#### NOTICE

The GRINNELL Products Figure 71 Flange Adapter described herein must be installed and maintained in compliance with this document, in addition to the standards of any authorities having jurisdiction. Failure to do so may result in serious personal injury or impair the performance of these devices.

Never remove any piping component nor correct or modify any piping deficiencies without first de-pressurizing and draining the system. Failure to do so may result in serious personal injury, property damage, and/or impaired device performance.

It is the designer's responsibility to select products suitable for the intended service and to ensure that pressure ratings and performance data are not exceeded. Material and gasket selection should be verified to be compatible for the specific application. Always read and understand the installation instructions.

The owner is responsible for maintaining their mechanical system and devices in proper operating condition. Contact the installing contractor or product manufacturer with any questions.

#### IMPORTANT

Refer to Technical Data Sheet G1100 for warnings pertaining to regulatory and health information.

### Technical Data

#### Sizes

2 in. to 24 in. (DN50 to DN600)

#### Maximum Pressure

Refer to Figures 1 and 2.

#### Approvals

UL and ULC Listed  
FM Approved  
VdS Approved  
LPCB Approved

#### Housing

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

#### Protective Coatings

- Non-lead orange paint
- RAL red (optional) non-lead paint
- Hot-dipped galvanized conforming to ASTM A 153

#### Gasket

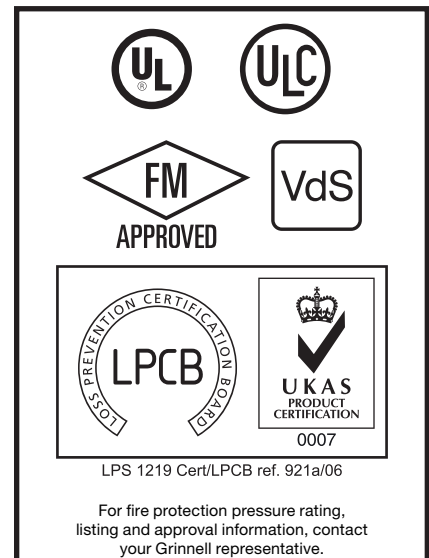
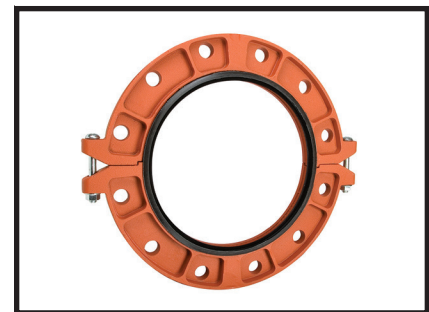
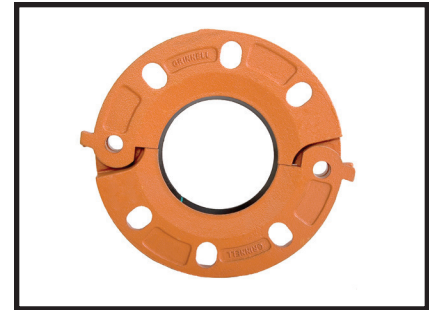
Grade "E" EPDM, Green color code  
-30°F to 230°F (-34°C to 110°C)

Grade "T" Nitrile, Orange color code  
-20°F to 180°F (-29°C to 82°C)  
Refer to Technical Data Sheet G610 for aid in selecting proper gasket.

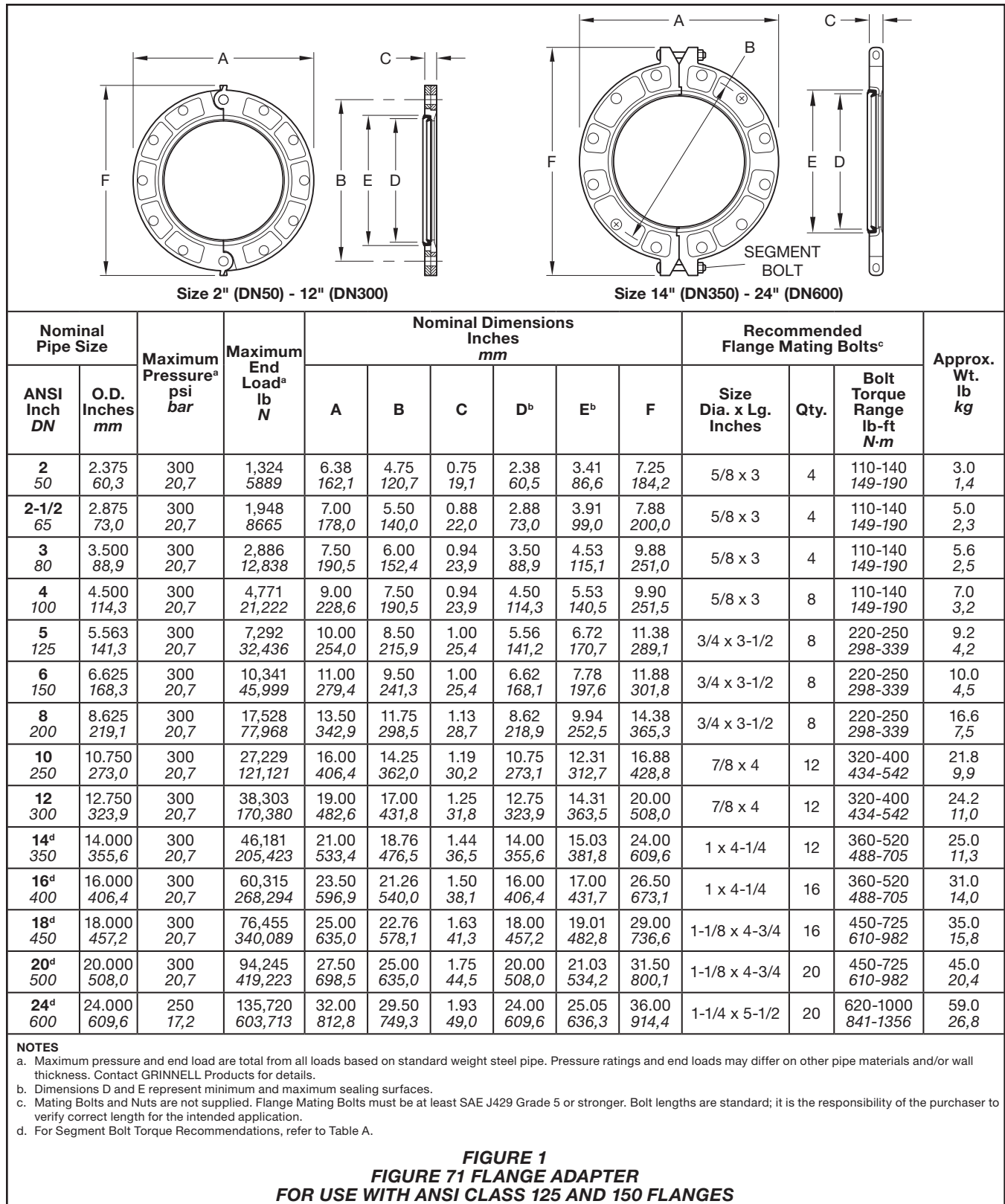
#### Segment Bolt Data

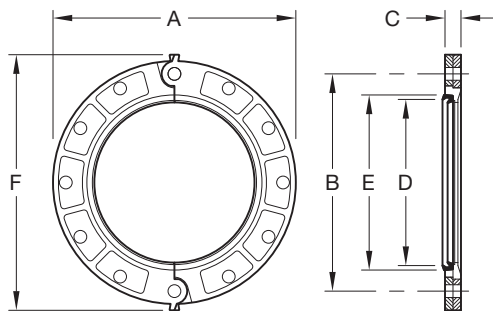
Nominal Pipe Size		Segment Bolts	
ANSI Inch DN	O.D. Inches mm	Size Dia. x Lg. Inches	Bolt Torque Range lb-ft N-m
14 350	14.000 355,6	5/8 x 4-3/4	100-130 149-190
16 400	16.000 406,4		
18 450	18.000 457,2	3/4 x 4-3/4	130-180 176-244
20 500	20.000 508,0		
24 600	24.000 609,6		

**TABLE A  
SEGMENT BOLT TORQUE**



For warranty terms and conditions, visit [www.grinnell.com](http://www.grinnell.com)





Size 2" (DN50) - 12" (DN300)

Nominal Pipe Size		Flange Bolt Pattern Designation	Maximum End Load <sup>a</sup> lb N	Nominal Dimensions Inches mm						Recommended Flange Mating Bolts <sup>c</sup>			Approx. Wt. lb kg
ANSI Inch DN	O.D. mm			A	B	C	D <sup>b</sup>	E <sup>b</sup>	F	Size Dia. x Lg.	Qty.	Bolt Torque Range N·m	
2 50	60,3	PN10 / PN16	1,324 5889	6.38 162,1	4.92 125,0	0.75 19,1	2.38 60,5	3.41 86,6	7.25 184,2	M16 x 76	4	149-190	3.0 1,4
76,1 65	76,1	PN10 / PN16	1,948 8665	7.28 184,9	5.71 145,0	0.88 22,4	3.00 76,1	4.03 102,4	8.09 205,5	M16 x 76	4	149-190	5.0 2,3
3 <sup>d</sup> 80	88,9	PN10	2,886 12,838	7.88 200,2	6.30 160,0	0.94 23,9	3.50 88,9	4.53 115,1	8.75 222,3	M16 x 76	4	149-190	5.6 2,5
3 80	88,9	PN16	2,886 12,838	7.88 200,2	6.30 160,0	0.94 23,9	3.50 88,9	4.53 115,1	8.75 222,3	M16 x 76	8	149-190	5.6 2,5
4 100	114,3	PN10 / PN16	4,771 21,222	9.00 228,6	7.09 180,1	0.94 23,9	4.50 114,3	5.53 140,5	9.90 251,5	M16 x 76	8	149-190	7.0 3,2
5 125	139,7	PN10 / PN16	7,292 32,436	9.84 249,9	8.27 210,1	1.00 25,4	5.50 139,7	6.53 165,9	10.69 271,5	M16 x 89	8	149-190	9.2 4,2
165.1 150	165,1	PN10 / PN16	10,341 45,999	11.25 285,8	9.45 240,0	1.00 25,4	6.50 165,1	7.53 191,3	12.12 307,8	M20 x 89	8	298-339	10.0 4,5
6 150	168,3	PN10 / PN16	17,528 77,968	11.00 279,4	9.49 241,1	1.00 25,4	6.62 168,1	7.78 197,6	11.88 301,8	M20 x 89	8	298-339	16.6 7,5
8 <sup>d</sup> 200	219,1	PN10	27,229 121,121	13.38 339,9	11.61 294,9	1.13 28,7	8.62 218,9	9.94 252,5	14.31 363,5	M20 x 89	8	298-339	21.8 9,9
8 200	219,1	PN16	27,229 121,121	13.38 339,9	11.61 294,9	1.13 28,7	8.62 218,9	9.94 252,5	14.31 363,5	M20 x 89	12	298-339	21.8 9,9
10 <sup>d</sup> 250	273,0	PN10	38,303 170,380	15.56 395,2	13.78 350,0	1.19 30,2	10.75 273,1	12.31 312,7	16.50 419,1	M20 x 102	12	298-339	22.5 10,2
10 250	273,0	PN16	38,303 170,380	16.00 406,4	13.98 355,1	1.19 30,2	10.75 273,1	12.31 312,7	16.88 428,8	M22 x 102	12	434-542	24.2 11,0
12 <sup>d</sup> 300	323,9	PN10	29,621 131,754	17.52 445,0	15.74 399,8	1.25 31,8	12.75 323,9	14.31 363,9	18.52 470,4	M20 x 102	12	298-339	27.5 12,5
12 300	323,9	PN16	29,621 131,754	18.12 460,2	16.14 410,0	1.25 31,8	12.75 323,9	14.31 363,9	19.14 486,2	M22 x 102	12	434-542	28.0 12,7

**NOTES**

- a. Maximum end load is total from all loads based on standard weight steel pipe. Pressure ratings and end loads may differ on other pipe materials and/or wall thickness. Contact GRINNELL Products for details
- b. Dimensions D and E represent minimum and maximum sealing surfaces.
- c. Mating Bolts and Nuts are not supplied. Flange Mating Bolts must be at least SAE J429 Grade 5 or stronger. Bolt lengths are standard; it is the responsibility of the purchaser to verify correct length for the intended application.
- d. For noted sizes, PN10 and PN16 dimensional values differ.
- e. General Note - Maximum Pressure rating is 20.7 bar (300 psi).

**FIGURE 2**  
**FIGURE 71 FLANGE ADAPTER**  
**FOR USE WITH PN10 AND PN16 FLANGES**

## **Ordering Procedure**

GRINNELL Products are available globally through a network of distribution centers. Visit [www.grinnell.com](http://www.grinnell.com) for the nearest distributor.

When placing an order, indicate the full product name. Specify the following:

- GRINNELL Figure 71 Flange Adapter;
- Quantity;
- Size: ANSI Inch size, DN, or pipe O.D.;
- Flange Bolt Pattern Designation: Class 125, 150 or PN10, PN16
- Protective coating: non-lead orange paint, RAL red non-lead paint, or hot-dipped galvanized; and
- Type of gasket: Grade "E" EPDM or Grade "T" Nitrile.