



Grinnell Mechanical Products

Figure 772

Rigid Coupling - Patented

General Description

The Figure 772 Rigid Coupling provides a rigid joint by firmly gripping along the circumference of the pipe grooves. The Figure 772 Rigid Coupling is a proven dependable method of joining pipe and is an economical alternative to welding, threading or using flanges. It is capable of pressures up to 750 psi (51,7 bar) depending on pipe size and wall thickness. The Figure 772 Coupling is UL Listed for grounding and bonding, and is suitable for bonding systems with a maximum service entrance capacity of 200 amps. (Contact TF&BP for details)

NOTE

Rigid Couplings are recommended for low temperature and vacuum applications.

WARNING

The Figure 772 Rigid Coupling described herein must be installed and maintained in compliance with this document, in addition to the standards of any other authorities having jurisdiction. Failure to do so may impair the performance of this device.

The owner is responsible for maintaining their system and devices in proper operating condition. The installing contractor or manufacturer should be contacted with any questions.

Technical Data

Sizes

1-1/4" to 24" (DN32 to DN600)

Maximum Pressure

See Figure 1.

Approvals

UL, FM, ULC, VdS, & LPCB

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

Bolt/Nuts

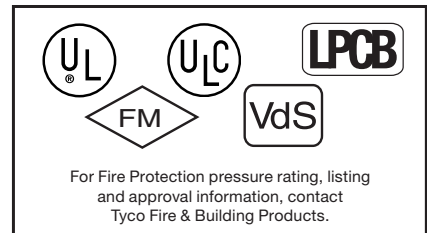
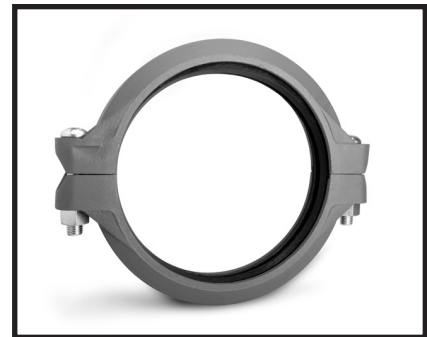
Track Head Bolts - conforming to
ASTM A-183, Zinc Plated,
(Min. Tensile = 110,000 psi/758,422 kPa)
Metric - conforming to ASTM F568M

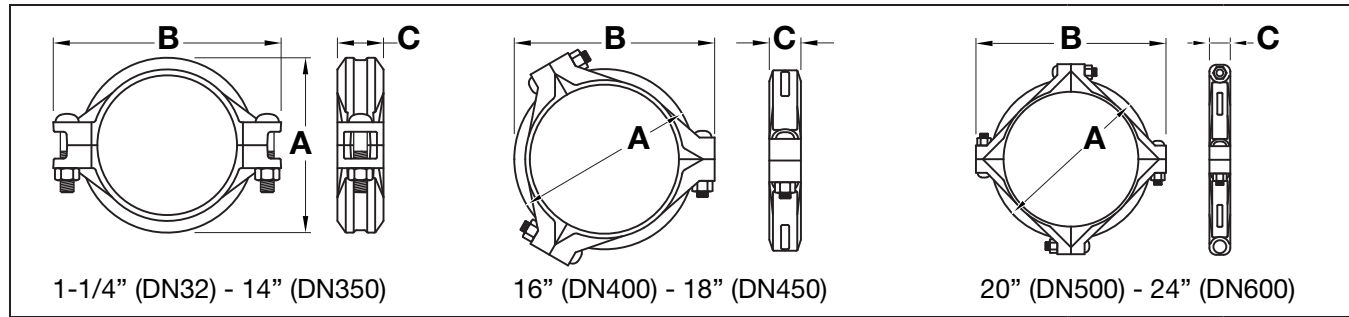
Gasket

(specify when ordering)

- Grade "E" EPDM, green color code
-30°F (-34°C) to +230°F (+110°C)
- Tri-seal Grade "E" EPDM,
green color code
-30°F (-34°C) to +230°F (+110°C)
- Grade "T" Nitrile, orange color code
-20°F (-29°C) to +180°F (+82°C)
- Grade "O" Fluoroelastomer,
blue color code
+20°F (-7°C) to +300°F (+149°C)
- Grade "L" Silicone, red gasket
-30°F (-34°C) to +350°F (+177°C)

(See Data Sheet G610 for aid in selecting proper gasket.)





Pipe Size		Max.† Pressures psi (bar)	Max.† End Load Lbs. (kN)	Max.*‡ End Gap Inches (mm)	Nominal Dimensions			Coupling Bolts		Approx. Weight Lbs. (kg)
Nominal ANSI Inches DN	O.D. Inches (mm)				A Inches (mm)	B Inches (mm)	C Inches (mm)	Qty.	Size** Inches (mm)	
1-1/4 DN32	1.660 (42,4)	750 (51,7)	1,623.2 (7,22)	0.06 (1,5)	2.75 (69,9)	4.38 (111,3)	1.81 (46,0)	2	3/8 x 2-1/4 M10 x 57	1.0 (0,5)
1-1/2 DN40	1.900 (48,3)	750 (51,7)	2,126.5 (9,46)	0.08 (2,0)	3.00 (76,2)	4.62 (117,3)	1.81 (46,0)	2	3/8 x 2-1/4 M10 x 57	1.0 (0,5)
2 DN50	2.375 (60,3)	750 (51,7)	3,322.6 (14,78)	0.13 (3,3)	3.41 (86,6)	5.12 (130,0)	1.88 (47,8)	2	3/8 x 2-1/4 M10 x 57	1.5 (0,7)
2-1/2 DN65	2.875 (73,0)	750 (51,7)	4,868.9 (21,66)	0.13 (3,3)	3.91 (99,3)	5.63 (143,0)	1.88 (47,8)	2	3/8 x 2-1/4 M10 x 57	2.5 (1,1)
- DN65	3.000 (76,1)	750 (51,7)	5,301.4 (23,58)	0.13 (3,3)	4.19 (106,4)	5.72 (145,3)	2.00 (50,8)	2	- M10 x 57	2.6 (1,2)
3 DN80	3.500 (88,9)	750 (51,7)	7,215.8 (32,10)	0.13 (3,3)	4.63 (117,6)	6.25 (158,8)	1.88 (47,8)	2	3/8 x 2-1/4 M10 x 57	2.6 (1,2)
4 DN100	4.500 (114,3)	750 (51,7)	11,928.2 (53,06)	0.19 (4,8)	5.81 (147,6)	7.50 (190,5)	1.97 (50,0)	2	3/8 x 2-1/4 M10 x 57	3.5 (1,6)
- DN125	5.500 (139,7)	750 (51,7)	17,818.7 (79,26)	0.19 (4,8)	7.02 (178,3)	9.72 (246,9)	2.06 (52,3)	2	- M16 x 83	7.5 (3,4)
5 DN125	5.563 (141,3)	750 (51,7)	18,229.3 (81,09)	0.19 (4,8)	7.09 (180,1)	9.71 (246,6)	2.04 (51,8)	2	5/8 x 3-1/4 M16 x 83	7.5 (3,4)
- DN150	6.500 (165,1)	700 (48,2)	23,228.2 (103,18)	0.19 (4,8)	8.09 (205,5)	10.53 (267,5)	2.13 (54,1)	2	- M16 x 83	7.6 (3,4)
6 DN150	6.625 (168,3)	700 (48,2)	24,130.1 (107,34)	0.19 (4,8)	8.09 (205,5)	10.53 (267,5)	2.13 (54,1)	2	5/8 x 3-1/4 M16 x 83	7.6 (3,4)
8 DN200	8.625 (219,1)	600 (41,4)	35,055.8 (155,94)	0.19 (4,8)	10.56 (268,2)	13.56 (344,4)	2.62 (66,5)	2	3/4 x 4-3/4 M20 x 121	18.0 (8,2)
10 DN250	10.750 (273,0)	500 (34,5)	45,381.3 (201,87)	0.13 (3,3)	12.84 (326,1)	16.41 (416,8)	2.62 (66,5)	2	1 x 6-1/2 M24 x 165	24.6 (11,2)
12 DN300	12.750 (323,9)	400 (27,6)	51,070.5 (227,17)	0.13 (3,3)	15.41 (391,4)	18.84 (478,5)	2.62 (66,5)	2	1 x 6-1/2 M24 x 165	42.0 (19,1)
14 DN350	14.000 (355,6)	300 (20,7)	46,181.4 (205,43)	0.13 (3,3)	16.68 (423,7)	20.38 (517,6)	2.93 (74,4)	2	1 x 5-1/2* M24 x 165	48.0 (21,7)
16 DN400	16.000 (406,4)	300 (20,7)	60,318.6 (268,31)	0.13 (3,3)	18.50 (469,9)	22.64 (575,1)	2.93 (74,4)	3	1 x 5-1/2* M24 x 165	52.1 (23,6)
18 DN450	18.000 (457,2)	300 (20,7)	76,340.7 (339,58)	0.25 (6,4)	21.31 (541,3)	25.12 (638,0)	3.06 (77,7)	3	1 x 5-1/2* M24 x 165	68.0 (30,8)
20 DN500	20.000 (508,0)	300 (20,7)	94,247.8 (419,23)	0.25 (6,4)	23.50 (596,9)	27.88 (708,2)	3.06 (77,7)	4	1-1/8 x 5-3/4* M24 x 165	89.0 (40,4)
24 DN600	24.000 (609,6)	250 (17,2)	113,097.3 (503,08)	0.25 (6,4)	27.63 (701,8)	32.00 (812,8)	3.19 (81,0)	4	1-1/8 x 5-3/4* M24 x 165	96.0 (43,5)

* Maximum available gap between pipe ends. Minimum gap = 0.
 † Maximum pressure and end load are total from all loads based on standard weight steel pipe. Pressure ratings and end loads may differ for other pipe materials and/or wall thickness. Contact Tyco Fire & Building Products for details.
 ** Gold color coded metric bolt sizes for DN32 - DN300 couplings are available upon request
 ‡ Max End Gap is for cut grooved standard weight pipe. Values for roll grooved pipe will be 1/2 that of cut grooved.
 • Only available in ANSI bolt sizes.

**FIGURE 1
 NOMINAL DIMENSIONS FIGURE 772 RIGID COUPLING**

Limited Warranty

Products manufactured by Tyco Fire & Building Products (TFBP) are warranted solely to the original Buyer for ten (10) years against defects in material and workmanship when paid for and properly installed and maintained under normal use and service. This warranty will expire ten (10) years from date of shipment by TFBP. No warranty is given for products or components manufactured by companies not affiliated by ownership with TFBP or for products and components which have been subject to misuse, improper installation or maintenance, corrosion, or other external sources of damage. Materials found by TFBP to be defective shall be either repaired or replaced, at TFBP's sole option. TFBP neither assumes, nor authorizes any person to assume for it, any other obligation in connection with the sale of products or parts of products. TFBP shall not be responsible for system design errors or inaccurate or incomplete information supplied by Buyer or Buyer's representatives.

In no event shall TFBP be liable, in contract, tort, strict liability or under any other legal theory, for incidental, indirect, special or consequential damages, including but not limited to labor charges, regardless of whether TFBP was informed about the possibility of such damages, and in no event shall TFBP's liability exceed an amount equal to the sales price.

The foregoing warranty is made in lieu of any and all other warranties, express or implied, including warranties of merchantability and fitness for a particular purpose.

This limited warranty sets forth the exclusive remedy for claims based on failure of or defect in products, materials or components, whether the claim is made in contract, tort, strict liability or any other legal theory.

This warranty will apply to the full extent permitted by law. The invalidity, in whole or part, of any portion of this warranty will not affect the remainder.

Ordering Procedure

When placing an order, indicate the full product name. Please specify the quantity, size, (ANSI inch size or pipe O.D.), figure number, type of gasket:

- Grade "E" EPDM
- Grade "E" EPDM Tri-Seal
- Grade "T" Nitrile
- Grade "O" Fluoroelastomer
- Grade "L" Silicone

Grinnell Mechanical Products, valves, accessories and other products are available throughout the U.S., Canada, and internationally, through a network of distribution centers. You may write directly or call 800-558-5236 for the distributor nearest you.

General Notes: 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. Always read and understand the installation instructions (IH-1000). Never remove any piping component or correct or modify any piping deficiencies without first depressurizing and draining the system. Material and gasket selection should be verified to be compatible for the specific application.



Certified Company

