

Figure 772 Rigid Couplings


The GRINNELL Figure 772 Grooved Rigid Coupling provides a rigid joint by firmly gripping along the circumference of the pipe grooves. An economical alternative to welding, threading or using flanges, the Figure 772 Grooved Rigid Coupling is a proven dependable method of joining pipe. It is capable of pressures up to 750 psi (51,7 bar) depending on pipe size and wall thickness.

The Figure 772 Grooved Rigid Coupling is UL Listed for grounding and bonding; it is suitable for bonding systems with a maximum service entrance capacity of 200 amps. Contact your GRINNELL Representative.



For detailed Listing / Approval information contact GRINNELL Mechanical Products.

Ductile Iron Housing Specifications

- ASTM A 536 – Standard specification for ductile iron castings, Grade 65-45-12
- ASTM A 153 – Standard specification for hot-dip galvanizing

Bolt/Nut Specifications

- **ANSI:** Carbon steel oval neck bolts and nuts are heat-treated and conform to the physical properties of ASTM A 183 Grade 2 and SAE J429 Grade 5 with a minimum tensile strength of 110,000 psi (7584 bar). Carbon Steel heavy hex nuts conform to the physical properties of ASTM A 183 Grade 2 and SAE J995 Grade 5. Bolts and nuts are zinc-electroplated conforming to ASTM B 633.
- **Metric:** Carbon steel oval neck track head bolts (Gold color coded) are heat treated and conform to the physical properties of ASTM F 568 M with a minimum tensile strength of 760 MPa. Carbon Steel heavy hex nuts conform to the physical properties of ASTM A 563 M Class 9. Bolts and nuts are zinc-electroplated conforming to ASTM B 633.
- Stainless steel bolts and nuts are available upon request.

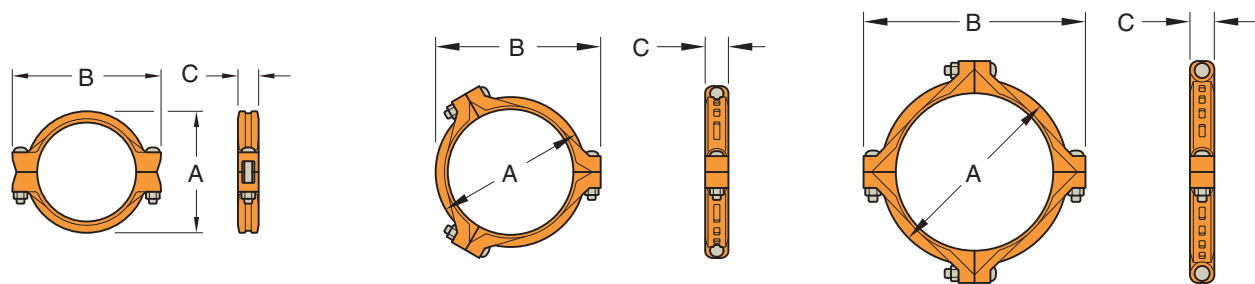
Coatings

- Orange – Non-lead paint (standard)
- Hot-Dipped, Zinc Galvanized (optional)

Gasket Specifications

- **Grade "E" EPDM** gaskets have a Green stripped color code identification and conform to ASTM D 2000 for service temperatures from -30°F to 230°F (-34°C to 110°C). They are recommended for hot water not to exceed 230°F (110°C), plus a variety of dilute acids, oil free air, and many chemical services. They are not recommended for petroleum services. For low temperature and vacuum systems, a **Tri-Seal Grade "E" EPDM gasket** with a rigid coupling is recommended.
- **Grade "T" Nitrile** gaskets have an Orange stripped color code identification and conform to ASTM D 2000 for service temperatures from -20°F to 180°F (-29°C to 82°C). They are recommended for petroleum products, vegetable oils, mineral oils, and air with oil vapors.
- **Grade "L" Silicone** gaskets have a Red stripped color code and conform to ASTM D 2000 for service temperatures from -30°F to 350°F (-34°C to 177°C). They are recommended for air without hydrocarbons, or dry heat.
- **Grade "O" Fluoroelastomer** gaskets have a Blue stripped color code and conform to ASTM D 2000 for service temperatures from +20°F to 300°F (-7°C to 149°C). They are recommended for oxidizing acids, petroleum products, hydraulic fluids, lubricants, and halogenated hydrocarbons.

PROJECT INFORMATION:		APPROVAL STAMP:
Project:		
Date:	Phone:	
Architect / Engineer:		
Contractor:		
Address:		
Notes:		

Figure 772 Rigid Couplings


1 1/4" - 14" (32mm - 350mm)

16" - 18" (400mm - 450mm)

20" - 24" (500mm - 600mm)

Pipe Size		Max.† Pressures psi bar	Max.† End Load Lbs. kN	Max.*‡ End Gap Inches mm	Dimensions - Inches mm			Coupling Bolts		Approx. Weight Lbs. kg
Nominal Inches mm	O.D. Inches mm				A	B	C	Qty.	Size Inches mm	
1 1/4	1.660	750	1,623	0.06	2.75	4.38	1.81	2	3/8 x 2 1/4	1.0
32	42,4	51,7	7,22	1,5	69,9	111,3	46,0		M10 x 57	0,5
1 1/2	1.900	750	2,127	0.08	3.00	4.62	1.81	2	3/8 x 2 1/4	1.0
40	48,3	51,7	9,46	2,0	76,2	117,3	46,0		M10 x 57	0,5
2	2.375	750	3,323	0.188	3.41	5.70	1.88	2	1/2 x 3	2.9
50	60,3	51,7	14,78	4,8	86,6	145,0	47,8		M12 x 89	1,3
2 1/2	2.875	750	4,869	0.188	3.97	6.30	1.88	2	1/2 x 3	3.3
65	73,0	51,7	21,66	4,8	101	160,0	47,8		M12 x 89	1,5
76,1mm	3.000	750	5,301	0.188	4.10	6.43	1.88	2	—	3.6
65	76,1	51,7	23,58	4,8	104	163,0	47,8		M12 x 89	1,6
3	3.500	750	7,216	0.188	4.60	6.93	1.88	2	1/2 x 3	3.7
80	88,9	51,7	32,10	4,8	117	176,0	47,8		M12 x 89	1,7
4	4.500	750	11,928	0.188	5.80	8.07	1.88	2	1/2 x 3	4.3
100	114,3	51,7	53,06	4,8	147	205,0	47,8		M12 x 89	2,0
139,7mm	5.500	750	17,819	0.19	7.02	9.72	2.06	2	—	7.5
125	139,7	51,7	79,26	4,8	178,3	246,9	52,3		M16 x 83	3,4
5	5.563	750	18,229	0.19	7.09	9.71	2.04	2	5/8 x 3 1/4	7.5
125	141,3	51,7	81,09	4,8	180,1	246,6	51,8		M16 x 83	3,4
165,1mm	6.500	700	23,228	0.19	8.09	10.53	2.13	2	—	7.6
150	165,1	48,3	103,18	4,8	205,5	267,5	54,1		M16 x 83	3,4
6	6.625	700	24,130	0.19	8.09	10.53	2.13	2	5/8 x 3 1/4	7.6
150	168,3	48,3	107,34	4,8	205,5	267,5	54,1		M16 x 83	3,4
8	8.625	600	35,056	0.19	10.56	13.56	2.62	2	3/4 x 4 3/4	18.0
200	219,1	41,4	155,94	4,8	268,2	344,4	66,5		M20 x 121	8,2
10	10.750	500	45,381	0.13	12.84	16.41	2.62	2	1 x 6 1/2	24.6
250	273,0	34,5	201,87	3,3	326,1	416,8	66,5		M24 x 165	11,2
12	12.750	400	51,071	0.13	15.41	18.84	2.62	2	1 x 6 1/2	42.0
300	323,9	27,6	227,17	3,3	391,4	478,5	66,5		M24 x 165	19,1
14	14.000	300	46,181	0.13	16.68	20.38	2.93	2	1 x 5 1/2	48.0
350	355,6	20,7	205,43	3,3	423,7	517,6	74,4		—	21,7
16	16.000	300	60,319	0.13	18.50	22.64	2.93	3	1 x 5 1/2	52.1
400	406,4	20,7	268,31	3,3	469,9	575,1	74,4		—	23,6
18	18.000	300	76,341	0.25	21.31	25.12	3.06	3	1 x 5 1/2	68.0
450	457,2	20,7	339,58	6,4	541,3	638,0	77,7		—	30,8
20	20.000	300	94,248	0.25	23.50	27.88	3.06	4	1 1/8 x 5 3/4	89.0
500	508,0	20,7	419,23	6,4	596,9	708,2	77,7		—	40,4
24	24.000	250	113,097	0.25	27.63	32.00	3.19	4	1 1/8 x 5 3/4	96.0
600	609,6	17,2	503,08	6,4	701,8	812,8	81,0		—	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 thicknesses. Contact GRINNELL Mechanical Products for details.

‡ Max End Gap is for cut grooved standard weight pipe. Values for roll grooved pipe will be half that of cut grooved.

• Only available in ANSI bolt sizes.

▶ Sizes are available to JIS standards. Contact GRINNELL Mechanical Products for details.

For information on larger sizes, European sizes or other alternative sizes, contact GRINNELL Mechanical Products.

See page 17 for coupling specifications and pages 247 - 254 for gasket information.