



Figure 740 GRINNELL Rapid Installation Pivot-Bolt (GRIP) Rigid Coupling 2 Inch to 8 Inch

General Description

Figure 740 GRINNELL Rapid Installation Pivot-Bolt (GRIP) Rigid Couplings are a proven, dependable, and more efficient method of joining pipe than standard couplings. Simply push the gasket onto the pipe, swing the coupling body over the gasket, and tighten only one bolt. In comparison with other installation-ready couplings, the Figure 740 GRIP Coupling allows clear visual confirmation that the gasket is properly seated on the gasket sealing surfaces.

The Figure 740 GRIP Coupling is capable of pressures up to 750 psi (51,7 bar).

The Figure 740 GRIP Coupling saves installation time in two ways:

- Only one bolt on the coupling requires tightening.
- The gasket is specially designed for an easy push-on installation.

Preparation of the coupling for installation is also quicker. The nuts do not require un-torquing to remove the gasket as do the nuts used in standard rigid couplings.

The bolt end in the Figure 740 GRIP Coupling is staked to prevent inadvertent misplacement or loss of nuts during installation.

NOTICE

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.

Figure 740 GRINNELL Rapid Installation Pivot-Bolt (GRIP) Rigid Coupling described herein must be installed and maintained in compliance with this document, as well as with the applicable standards of the Approval agency, in addition to the standards of any other authorities having jurisdiction. Failure to do so may result in serious personal injury or impair the performance of these devices.

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

Technical Data

Approvals
NSF-61 Certified

Sizes
2 Inch to 8 Inch

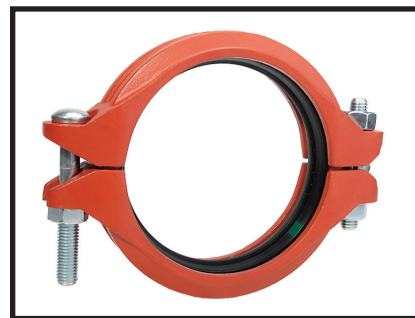
Housing
Ductile iron conforming to ASTM A 536, Grade 65-45-12

Finish

- Orange non-lead paint (standard)
- Red non-lead paint
- Hot-dipped Galvanized conforming to ASTM A 153

Bolts/Nuts
Bolts and nuts are zinc-electroplated conforming to ASTM B 633.

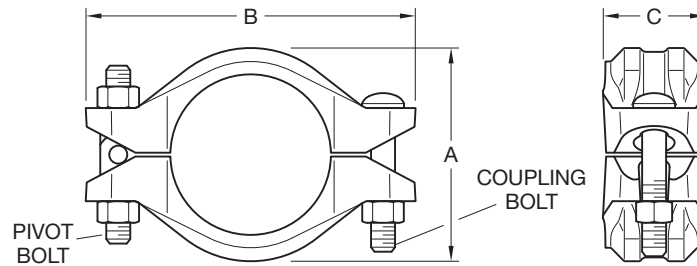
- Carbon Steel oval neck track head bolts are heat-treated and conform to the physical properties of ASTM A 183 Grade 2 and SAE J429 Grade 5 with a minimum tensile strength of 110,000 psi.
- Carbon Steel heavy hex nuts conform to the physical properties of ASTM A 183 Grade 2 and SAE J995 Grade 5.
- Carbon Steel pivot bolts are heat-treated with a minimum tensile strength of 130,000 psi.



Gasket

- Grade "EHT" EPDM, Center-Stop, Push-On Style, NSF-61 certified, Green and Red color code, -30°F to 250°F (-34°C to 121°C)
- Grade "T" Nitrile, Orange color code, -20°F to 180°F (-29°C to 82°C)

For proper gasket selection, refer to Technical Data Sheet G610.



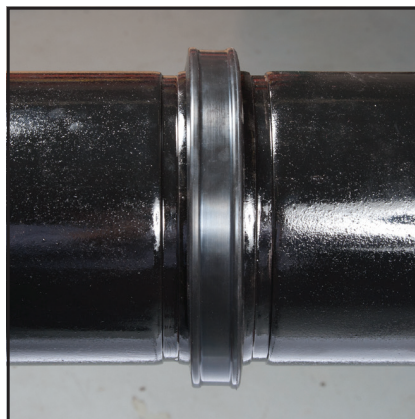
Pipe Size		Max.† Pressures psi (bar)	Max.* End Load Lbs. (kN)	Max.* End Gap Inches (mm)	Dimensions			Pivot Bolt Size Dia. x Lg.	Coupling Bolt Size Dia. x Lg.	Net Weight Lbs. (kg)
Nominal ANSI Inches	O.D. Inches				A Inches (mm)	B Inches (mm)	C Inches (mm)			
2 DN50	2.375 (60,3)	750 (51,7)	3,323 (14,78)	0.33 (8,3)	3.33 (84,5)	5.82 (147,8)	2.12 (53,8)	1/2 x 3-3/4	1/2 x 3-5/8	3.3 (1,5)
2-1/2 DN65	2.875 (73,0)	750 (51,7)	4,869 (21,66)	0.33 (8,3)	3.83 (97,3)	6.31 (160,3)	2.12 (53,8)	1/2 x 3-3/4	1/2 x 3-5/8	3.5 (1,6)
76,1mm DN65	3.000 (76,2)	750 (51,7)	5301 (23,58)	0.33 (8,3)	3.96 (100,5)	6.44 (163,5)	2.13 (54,1)	1/2 x 3-3/4	1/2 x 3-5/8	3.6 (1,6)
3 DN80	3.500 (88,9)	750 (51,7)	7,216 (32,10)	0.33 (8,3)	4.44 (112,8)	6.92 (175,8)	2.14 (54,4)	1/2 x 3-3/4	1/2 x 3-5/8	3.7 (1,7)
4 DN100	4.500 (114,3)	750 (51,7)	11,928 (53,06)	0.39 (9,8)	5.73 (145,6)	8.10 (205,7)	2.22 (56,4)	1/2 x 3-3/4	1/2 x 3-5/8	5.0 (2,3)
139,7mm DN125	5.500 (139,7)	750 (51,7)	17,819 (79,26)	0.39 (9,8)	6.68 (169,7)	9.64 (244,9)	2.31 (58,7)	5/8 x 4-1/2	5/8 x 4-1/2	7.7 (3,5)
5 DN125	5.563 (141,3)	750 (51,7)	18,229 (81,09)	0.39 (9,8)	6.79 (172,4)	9.71 (246,6)	2.31 (58,7)	5/8 x 4-1/2	5/8 x 4-1/2	7.7 (3,5)
165,1mm DN150	6.500 (165,1)	700 (48,2)	23,228 (103,18)	0.39 (9,8)	7.81 (198,4)	10.66 (270,8)	2.32 (58,9)	5/8 x 4-1/2	5/8 x 4-1/2	8.6 (3,9)
6 DN150	6.625 (168,3)	700 (48,2)	24,130 (107,34)	0.39 (9,8)	7.94 (201,7)	10.79 (274,1)	2.32 (58,9)	5/8 x 4-1/2	5/8 x 4-1/2	8.6 (3,9)
8 DN200	8.625 (219,1)	600 (41,4)	35,056 (155,94)	0.45 (11,3)	10.09 (256,3)	12.84 (326,1)	2.83 (71,9)	5/8 x 4-1/2	5/8 x 4-1/2	12.8 (5,8)

* Maximum available gap between pipe ends. Minimum Gap = 0.120

† 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 a Grinnell Mechanical Products representative for more information.

TABLE 1
FIGURE 740 RIGID GROOVED COUPLING FOR JOINING PIPING



NSF Requirement

In order to retain the NSF 61 certification, an NSF 61 certified lubricant must be used for the intended service. (e.g., LA-CO Industries Lubri-Joint or Dow Corning No. 7 both offered through Grinnell Products.)

Step 3. Install the gasket by pushing it over the pipe until the center stop of the gasket is in contact with the end of the pipe.

Slide the other pipe end into the gasket ensuring it makes contact with the center leg of the gasket. Both pipe ends should be aligned vertically and horizontally.

The gasket should now appear evenly spaced between the two grooves and the outside of the gasket should be parallel with the pipe.

Installation continued on Page 4

Installation

The following instructions apply to the Figure 740 GRINNELL Pivot-Bolt (GRIP) Rigid Couplings described in Technical Data Sheet G144. The installation is based on pipe grooved in accordance with Standard Cut Groove or Roll Grooved Specifications. Refer to Technical Data Sheet G710 for Steel Pipe.

Verify that the coupling and gasket grade are correct for the application intended. Refer to Data Sheet G610 for additional gasket information.

Step 1. Inspect exterior groove and ends of the pipe to verify all burrs, loose debris, dirt, chips, paint and any other foreign material is removed. Ensure pipe end sealing surfaces are free of sharp edges, projections, indentations, and/or other defects.

Disassemble coupling by loosening the nut on the Coupling Bolt only. Loosen nut to the end of the bolt and swing out of slotted hole. Remove the gasket.

NOTICE

Do not loosen or adjust the nuts on the Pivot Bolt. The Pivot Bolt assembly is factory-preset for optimal performance. In the unlikely event that the nuts have become loosened, tighten the nuts on the Pivot Bolt to a minimum torque of 10 ft.-lbs.

Step 2. Apply a thin layer of lubricant to the gasket. Be sure to include the sealing edges as well as the outer surfaces. To prevent deterioration of the gasket material, a petroleum lubricant should never be used on Grade E gaskets. For assembly below 40°F (4°C), a petroleum-free silicone lubricant is recommended be used to prevent freezing of the lubricant.





Step 4. Swing the coupling housing over the gasket. Verify that the housings are over the gasket and that the housing keys are fully engaged into the grooves.

Step 5. Slide the Coupling Bolt and nut into the housing and tighten the nut until finger tight. Verify that the bolt head is fully recessed in the housing and the nut is recessed into the counter-bore around the slot.

Step 6. Tighten the nut on the Coupling Bolt until properly torqued (Refer to Table 2). There is no need to tighten the nut on the Pivot Bolt.

Visually inspect the coupling to assure that the housing keys are engaged into the grooves.



Bolt Size ANSI Inches	Bolt Torque Range Ft.-Lbs.
1/2	90-110
5/8	100-130

**TABLE 2
BOLT TORQUE
RECOMMENDATIONS**

NOTICE

Figure 740 GRIP Coupling has an intended gap of up to 1/16 of an inch on the Coupling Bolt side to allow for positive rigid gripping onto the pipe. The patented tongue and groove design provides protection to the back of the gasket during installation. For recommended bolt torques, refer to Table 2.

Bolt-torque information is supplied as a guideline and may be used when setting the torque on power impact wrenches. Refer to the manufacturer's instructions for settings.



Ordering Procedure

GRINNELL Products are available globally through a network of distribution centers. For the nearest distributor, visit www.grinnell.com. When placing an order, indicate the full product name.

Specify the Figure 740 GRINNELL Rapid Installation Pivot-Bolt (GRIP) Rigid Coupling, quantity, pipe size (Nominal ANSI or O.D.), finish (orange, red, or galvanized) and type of gasket:

- Grade "EHT" EPDM
- Grade "T" Nitrile