



## Grinnell Mechanical Products Installation / Assembly Instructions, Figure 702 Mechanical Outlet Coupling

### General Description

The following instructions apply to the Grinnell Figure 702 Grooved Outlet Couplings described in technical data sheet G220. The installation is based on IPS steel pipe grooved in accordance with Standard Cut Groove or Roll Groove Specifications. Refer to Technical Data Sheet G710.

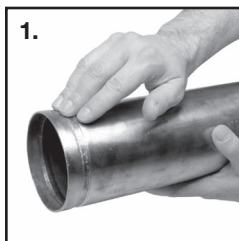
#### **⚠WARNING**

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.

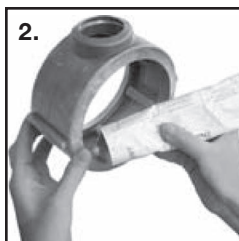
The products described herein must be installed and maintained in compliance with this document, as well as with the applicable standards of the Approval agency, in addition to the standards of any other authorities having jurisdiction. Failure to do so may result in serious personal injury or impair the performance of these devices.

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



#### **1. INSPECT PIPE ENDS**

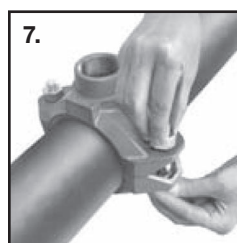
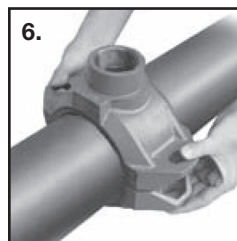
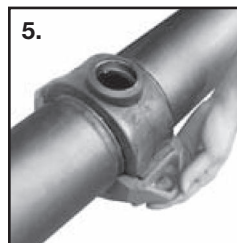
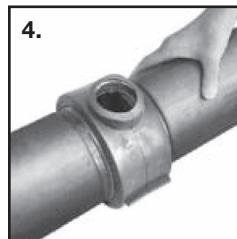
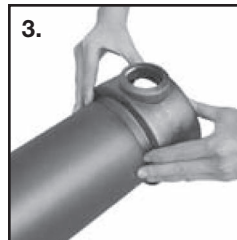
Inspect exterior groove and ends of the pipe to verify all loose debris, dirt, chips, paint and any other foreign material such as grease are removed. The sealing surfaces of the pipe ends must be free from projections, indentations, or other markings.



#### **2. LUBRICATE GASKET**

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

**Note:** The Figure 702 gasket contains a plated steel ring inside the outlet neck to aid sealing. Do not remove this steel ring.



To help insert pipe easily and mount couplings smoothly without pinching, the edges and outer surfaces of the gasket should be covered with a fine layer of lubricant. To prevent gasket deterioration, a petroleum-free lubricant is required for all EPDM gaskets. For low temperature applications, a petroleum-free silicone-based lubricant such as Dow Corning® 7 Release Compound should be used to prevent lubricant freezing.

#### **3. INSTALL GASKET**

Mount the gasket over one end of the pipe so that the gasket lip covers the area between the pipe end and the groove.

#### **4. INSERT MATING PIPE**

Insert the mating pipe into the other end of the gasket. Install both pipes until their ends touch the built-in internal rib of the gasket, which works as a pipe stop. No part of the gasket should protrude into the groove of either pipe.

#### **5. INSTALL LOWER HOUSING**

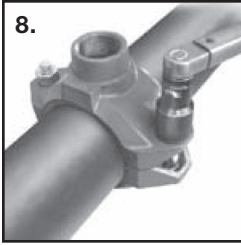
Place the lower coupling housing over the gasket around the bottom side of the gasket.

#### **6. POSITION UPPER HOUSING**

Place the upper coupling housing over the gasket so that the outlet opening of the housing properly fits on gasket outlet opening. Make sure the housing keys engage the pipe grooves.

#### **7. INSERT BOLT AND NUT**

Insert bolts and apply nuts hand tight. Make sure that the oval neck of the bolt engages into the bolt hole of the housing.



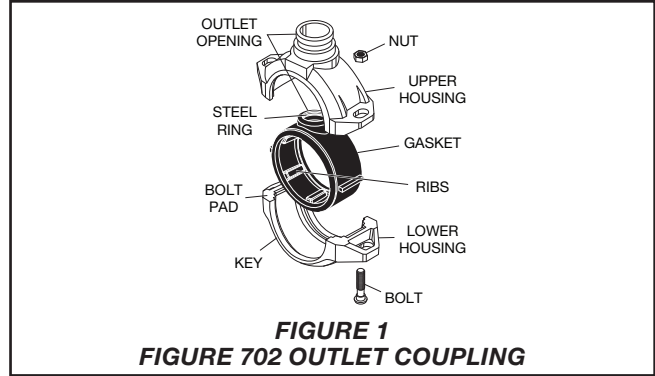
**8. TIGHTEN NUTS**

Tighten nuts alternately and equally until these conditions are met:

- Bolt pads meet and make metal-to-metal contact.
- Recommended torque values are obtained.

**NOTICE**

*Uneven tightening of bolts and nuts may cause the gasket to be pinched, resulting in an immediate or delayed leak. Excessive tightening of nuts may cause a bolt or joint failure. The recommended bolt torque for 3/8 inch bolts is 30 to 40 ft.lbs. and 80 to 100 ft.lbs. for 1/2 inch bolts.*



**FIGURE 1**  
**FIGURE 702 OUTLET COUPLING**

GROOVED OUTLET		THREADED OUTLET	
Outlet Size Inches mm	Equivalent Length Feet m	Outlet Size Inches mm	Equivalent Length Feet m
1 25,4	9 2.7	1 25,4	3 0.9
1-1/4 42,2	4 1.2	1-1/2 48,3	3 0.9
1-1/2 48,3	4 1.2		
2 60,3	13 4.0		

Meter and feet of Schedule 40 steel outlet pipe with a Hazen-Williams coefficient of friction value of 120

**TABLE A**  
**FIGURE 702 OUTLET COUPLING**  
**FLOW CHARACTERISTICS**



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