



Grinnell Mechanical Products

Figure 702

Mechanical Outlet Coupling

General Description

The Grinnell Figure 702 Mechanical Outlet Coupling has the combined features of a coupling and a reducing outlet. The Grinnell Figure 702 is a pipe joining coupling with an integral reducing outlet, eliminating the need for a mechanical tee or a reducing tee and associated couplings. The Figure 702 is available with grooved, male threaded, or female threaded outlets.

The Figure 702 can be used for vacuum service up to 10 inHg (254 mmHg) that can occur when the system is drained.

⚠ 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. The installing contractor or device manufacturer should be contacted with any questions.

Technical Data

Sizes

Run sizes from 1-1/2 inch to 6 inch
(DN40 to DN150)

Maximum Pressure

500 psi (34,5 bar)

Housing

Ductile iron conforming to ASTM A536, Grade 65-45-12

Protective Coatings

Orange paint (standard)

Bolt/Nuts

- Track Head Bolts conforming to ASTM A183, Zinc Plated (Min. Tensile = 110,000 psi/758,422 kPa)
- Hexagonal Nuts conforming to ASTM A563, Zinc Plated

Gasket

- 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)

See data sheet G610 for more gasket information.



Installation / Assembly

Refer to data sheet G957.

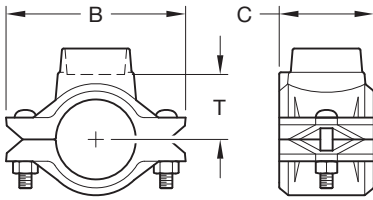


Figure 702
Outlet Coupling with Female NPT Outlet

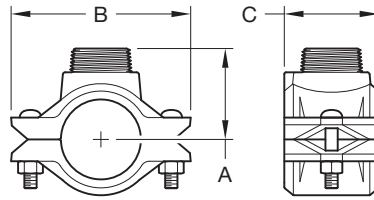


Figure 702
Outlet Coupling with Male NPT Outlet

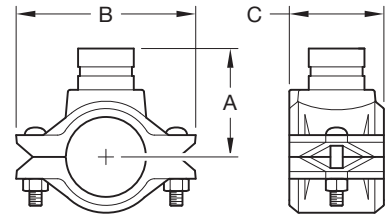


Figure 702
Outlet Coupling with Grooved Outlet

Nominal Run Size		Nominal Branch Size				End Gap Range Inches (mm)	Max. Run End Load Lbs. (kN)	Nominal Dimensions-Inches (mm)				Coupling Bolt Size Inches	Approx. Weight Lbs. (kg)
ANSI Inches DN	O.D. Inches (mm)	Female NPT Inches (mm)	Male NPT Inches (mm)	Grooved				A	B	C	T*		
				ANSI Inches DN	O.D. Inches (mm)								
1-1/2 DN40	1.900 (48,3)	1/2 (21,3)	—	—	—	0.81-0.88 (20-22)	1418 (6,3)	—	4.50 (114,3)	2.75 (70,0)	2.06 (52,0)	3/8 x 2-1/8	2.6 (1,2)
		3/4 (26,7)	—	—	—	0.81-0.88 (20-22)		—	4.50 (114,3)	2.75 (70,0)	2.06 (52,0)		2.6 (1,2)
		1 (33,7)	—	—	—	0.81-0.88 (20-22)		—	4.50 (114,3)	2.75 (70,0)	1.94 (49,0)		2.9 (1,3)
2 DN50	2.375 (60,3)	1/2 (21,3)	—	—	—	0.81-0.88 (20-22)	2215 (9,9)	—	5.00 (127,0)	2.75 (70,0)	2.32 (59,0)	3/8 x 2-1/8	3.1 (1,4)
		3/4 (26,7)	—	—	—	0.81-0.88 (20-22)		—	5.00 (127,0)	2.75 (70,0)	2.32 (59,0)		3.1 (1,4)
		1 (33,7)	1 (33,7)	1 DN25	1.315 (33,7)	0.81-0.88 (20-22)		3.50 (89,0)	5.00 (127,0)	2.75 (70,0)	2.20 (56,0)		3.3 (1,5)
2-1/2 DN65	2.875 (73,0)	1/2 (21,3)	—	—	—	1.25-1.50 (32-38)	3246 (14,4)	—	6.33 (161,0)	3.25 (83,0)	2.20 (56,0)	1/2 x 2-3/8	4.8 (2,2)
		3/4 (26,7)	—	—	—	1.25-1.50 (32-38)		—	6.33 (161,0)	3.25 (83,0)	2.56 (65,0)		4.6 (2,1)
		1 (33,7)	—	—	—	1.25-1.50 (32-38)		—	6.33 (161,0)	3.25 (83,0)	2.44 (62,0)		2.2 (1,0)
		—	1-1/4 (42,4)	1-1/4 DN32	1.660 (42,4)	1.25-1.50 (32-38)		3.70 (94,0)	6.33 (161,0)	3.25 (83,0)	—		5.1 (2,3)
		—	1-1/2 (48,3)	1-1/2 DN40	1.900 (48,3)	1.25-1.50 (32-38)		3.70 (94,0)	6.33 (161,0)	3.25 (83,0)	—		2.4 (1,1)
3 DN80	3.500 (88,9)	3/4 (26,7)	—	—	—	1.25-1.50 (32-38)	4811 (21,4)	—	6.87 (175,0)	3.25 (83,0)	2.83 (72,0)	1/2 x 3	5.9 (2,7)
		1 (33,7)	1 (33,4)	1 DN25	1.315 (33,7)	1.25-1.50 (32-38)		4.00 (102,0)	6.87 (175,0)	3.25 (83,0)	2.75 (70,0)		6.2 (2,8)
		—	1-1/2 (48,3)	1-1/2 DN40	1.900 (48,3)	1.25-1.50 (32-38)		4.00 (102,0)	6.87 (175,0)	3.25 (83,0)	—		6.4 (2,9)
4 DN100	4.500 (114,3)	3/4 (26,7)	—	—	—	1.63-1.81 (41-46)	7952 (35,4)	—	8.31 (211,0)	3.66 (93,0)	3.70 (94,0)	5/8 x 3-1/2	9.2 (4,2)
		1 (33,7)	1 (33,4)	—	—	1.63-1.81 (41-46)		—	8.31 (211,0)	3.66 (93,0)	3.58 (91,0)		9.5 (4,3)
		1-1/2 (48,3)	1-1/2 (48,3)	1-1/2 DN40	1.900 (48,3)	1.63-1.81 (41-46)		4.88 (124,0)	8.31 (211,0)	3.66 (93,0)	3.31 (84,0)		9.5 (4,3)
		—	2 (60,3)	2 DN50	2.375 (60,3)	1.63-1.81 (41-46)		4.88 (124,0)	8.31 (211,0)	3.66 (93,0)	—		9.9 (4,5)
6 DN150	6.625 (168,3)	—	—	—	—	1.63-1.81 (41-46)	17,235 (76,7)	—	10.86 (276,0)	3.70 (94,0)	—	5/8 x 3-1/2	13.2 (6,0)
		1 (33,7)	—	—	—	1.63-1.81 (41-46)		—	10.86 (276,0)	3.70 (94,0)	4.76 (121,0)		13.2 (6,0)
		1-1/2 (48,3)	1-1/2 (48,3)	1-1/2 DN40	1.900 (48,3)	1.63-1.81 (41-46)		6.06 (154,0)	10.86 (276,0)	3.70 (94,0)	4.76 (121,0)		13.6 (6,2)
		—	2 (60,3)	2 DN50	2.375 (60,3)	1.63-1.81 (41-46)		6.06 (154,0)	10.86 (276,0)	3.70 (94,0)	—		14.3 (6,5)

* Center of run pipe to end of outlet pipe (dimensions approximate). Female threaded outlet only.

TABLE 1
FIGURE 702 OUTLET COUPLING

Limited Warranty

Products manufactured by Tyco Fire Suppression & Building Products (TFSBP) 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 TFSBP. No warranty is given for products or components manufactured by companies not affiliated by ownership with TFSBP 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 TFSBP to be defective shall be either repaired or replaced, at TFSBP's sole option. TFSBP neither assumes, nor authorizes any person to assume for it, any other obligation in connection with the sale of products or parts of products. TFSBP shall not be responsible for system design errors or inaccurate or incomplete information supplied by Buyer or Buyer's representatives.

In no event shall TFSBP 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 TFSBP was informed about the possibility of such damages, and in no event shall TFSBP'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. Specify the quantity, size, (ANSI inch size or pipe O.D.), figure number, and gasket.

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

Nominal Outlet Size	Grooved		Threaded	
	Cv Values	Equivalent Length Feet (M)	Cv Values	Equivalent Length Feet (M)
1/2 15	—	—	—	10 (3,0)
3/4 20	—	—	15	5 (1,5)
1 25	12	30 (9,1)	25	7 (2,1)
1-1/4 32	42	10 (3,0)	40	10 (3,0)
1-1/2 40	72	10 (3,0)	60	12 (3,7)
2 50	130	10 (3,0)	—	—

Values for flow of water at +60°F (+16°C).

TABLE 2
FIGURE 702 FLOW CHARACTERISTICS

