

G-FIRE Figure 730 Mechanical Tees Threaded and Grooved Outlets

IMPORTANT

Refer to Technical Data Sheet TFP2300 for warnings pertaining to regulatory and health information.

Scan the QR code or enter the URL in a web browser to access the most up-to-date electronic version of this document. Data rates may apply.



docs.jci.com/tycofire/TFP1860

General Description

The GRINNELL G-FIRE Figure 730 Mechanical Tees provide an additional threaded or grooved outlet in existing piping. For new construction, the Figure 730 Mechanical Tees provide a way to bypass the use of a reducing tee.

Note: A mechanical cross can easily be assembled from the outlet halves of two mechanical tees. See Figure 3.

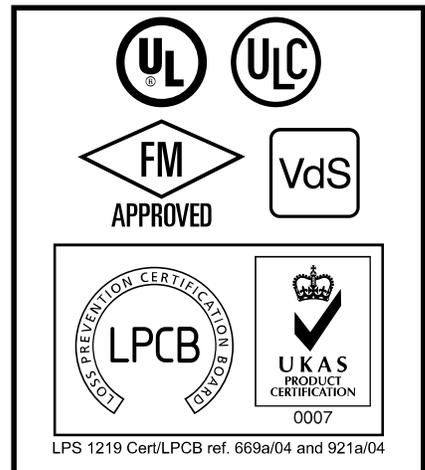
NOTICE

The GRINNELL G-FIRE Figure 730 Mechanical Tees 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.

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



Technical Data

Approvals

UL and ULC Listed
FM Approved
VdS Approved
LPCB Certified

For details see Tables A and B

Branch Outlet

- Threaded, Female NPT
- Threaded, Female ISO 7-1
- Grooved

Maximum Working Pressure

See Tables A and B

Note: *Maximum pressure applies to the mechanical tee. When connected to a grooved coupling, the rating will be the lesser of the mechanical tee or coupling rating. Maximum pressure is a total from all loads, based on standard weight steel pipe. For further information on piping specifications contact Technical Services.*

Loss as Equivalent Length of Pipe

When calculating system friction loss mechanical tees shall be represented as equivalent length of pipe, see Table D.

Pipe Hole Cut Diameters

Proper pipe preparation is required prior to installation of mechanical tees. Cut hole sizes are provided in Tables E and F.

Housing

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

Finish

- Orange, non-lead paint
- RAL, red non-lead paint
- Hot-dipped galvanized conforming to ASTM A153

Gaskets

Grade "E" EPDM, Green color code -30°F to 230°F (-34°C to 110°C)

For gasket details refer to Technical Data Sheet TFP1895.

Hardware

Bolts and nuts are provided in either ANSI or metric specifications and are zinc-electroplated conforming to ASTM B633.

ANSI

- Bolts: Carbon steel oval neck track head bolts are heat-treated and conform to the physical properties of ASTM A183 Grade 2 and SAE J429 Grade 5 with a minimum tensile strength of 110,000 psi (758,422 kPa).
- Nuts: Carbon steel heavy hex nuts conform to the physical properties of ASTM A183 Grade 2 and SAE J995 Grade 5.

Note: *ANSI bolts and nuts are available in stainless steel upon request.*

Metric

- Bolts: Carbon steel oval neck track head bolts (gold color coded) are heat-treated and conform to the physical properties of ASTM F568M with a minimum tensile strength of 760 MPa.
- Nuts: Carbon steel heavy hex nuts conform to the physical properties of ASTM A56M Class 9.

Care and Maintenance

The GRINNELL Figure 730 Mechanical Tees must be maintained in accordance with this section.

Before closing a fire protection system main control valve for maintenance work on the fire protection system that it controls, obtain permission to shut down the affected fire protection system from the proper authorities and notify all personnel who may be affected by this action.

The owner is responsible for the inspection, testing, and maintenance of their fire protection system and devices in compliance with this document, as well as with the applicable standards of the NATIONAL FIRE PROTECTION ASSOCIATION, such as NFPA 25, in addition to the standards of any other authorities having jurisdiction. Contact the installing contractor or sprinkler manufacturer regarding any questions.

Automatic sprinkler systems should be inspected, tested, and maintained by a qualified Inspection Service in accordance with local requirements and/or national code.

Limited Warranty

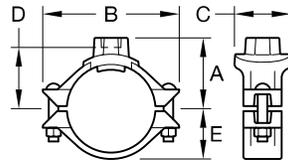
For warranty terms and conditions, visit www.tyco-fire.com.

Ordering Procedure

GRINNELL Products are available globally through a network of distribution centers. Visit www.tyco-fire.com for the nearest distributor.

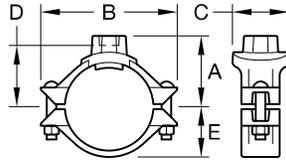
When placing an order indicate the full product name and Part Number (P/N).

Specify: Quantity, Figure 730 Mechanical Tee, size (specify ANSI inch or pipe OD), outlet type (specify Threaded or Grooved), thread specification (threaded outlets only, specify NPT or ISO 7-1), Grade "E" EPDM gasket type, P/N (specify from price book)



Nominal Size ^a Run x Branch ANSI in. (DN)	Nominal Dimensions in. (mm)					Bolt ^b Size in. (metric)	Approx. Weight lbs (kg)
	A	B	C	D	E		
2 x 1/2 (50 x 15)	2.62 (66,5)	4.88 (124,0)	3.07 (78,0)	2.09 (53,1)	1.59 (40,4)	3/8 x 2-1/4 (M10 x 57)	2.5 (1,1)
2 x 3/4 (50 x 20)	2.62 (66,5)	4.88 (124,0)	3.07 (78,0)	2.08 (52,8)	1.59 (40,4)	3/8 x 2-1/4 (M10 x 57)	2.3 (1,0)
2 x 1 (50 x 25)	2.62 (66,5)	4.88 (124,0)	3.07 (78,0)	1.94 (49,3)	1.59 (40,4)	3/8 x 2-1/4 (M10 x 57)	2.2 (1,0)
2 x 1-1/4 (50 x 32)	2.78 (70,6)	4.88 (124,0)	3.32 (84,3)	2.08 (52,8)	1.59 (40,4)	3/8 x 2-1/4 (M10 x 57)	2.4 (1,1)
2 x 1-1/2 (50 x 40)	3.13 (79,5)	4.88 (124,0)	3.32 (84,3)	2.41 (61,2)	1.59 (40,4)	3/8 x 2-1/4 (M10 x 57)	2.5 (1,1)
2-1/2 x 1/2 (65 x 15)	2.87 (72,9)	5.25 (133,4)	3.07 (78,0)	2.34 (59,4)	1.81 (46,0)	3/8 x 2-1/4 (M10 x 57)	2.4 (1,1)
2-1/2 x 3/4 (65 x 20)	2.87 (72,9)	5.25 (133,4)	3.07 (78,0)	2.33 (59,2)	1.81 (46,0)	3/8 x 2-1/4 (M10 x 57)	2.4 (1,1)
2-1/2 x 1 (65 x 25)	2.87 (72,9)	5.25 (133,4)	3.07 (78,0)	2.19 (55,6)	1.81 (46,0)	3/8 x 2-1/4 (M10 x 57)	2.4 (1,1)
2-1/2 x 1-1/4 (65 x 32)	3.00 (76,2)	5.25 (133,4)	3.56 (90,4)	2.3 (58,4)	1.81 (46,0)	3/8 x 2-1/4 (M10 x 57)	2.5 (1,1)
2-1/2 x 1-1/2 (65 x 40)	3.07 (78,0)	5.25 (133,4)	3.59 (91,2)	2.35 (59,7)	1.81 (46,0)	3/8 x 2-1/4 (M10 x 57)	2.6 (1,2)
2-1/2 x 2 (65 x 50)	3.19 (81,0)	5.25 (133,4)	4.00 (101,6)	2.44 (62,0)	1.81 (46,0)	3/8 x 2-1/4 (M10 x 57)	2.7 (1,2)
76,1 mm x 1/2 (65 x 15)	2.94 (74,5)	5.62 (142,7)	3.07 (78,0)	2.41 (61,2)	1.87 (47,5)	- (M10 x 57)	2.5 (1,1)
76,1 mm x 3/4 (65 x 20)	2.94 (74,5)	5.62 (142,7)	3.07 (78,0)	2.4 (61,0)	1.87 (47,5)	- (M10 x 57)	2.5 (1,1)
76,1 mm x 1 (65 x 25)	2.94 (74,5)	5.62 (142,7)	3.07 (78,0)	2.26 (57,4)	1.87 (47,5)	- (M10 x 57)	2.5 (1,1)
76,1 mm x 1-1/4 (65 x 32)	3.03 (77,0)	5.62 (142,7)	3.56 (90,4)	2.33 (59,2)	1.87 (47,5)	- (M10 x 57)	3.3 (1,5)
76,1 mm x 1-1/2 (65 x 40)	3.13 (79,5)	5.62 (142,7)	3.56 (90,4)	2.41 (61,2)	1.87 (47,5)	- (M10 x 57)	3.6 (1,6)
76,1 mm x 2 (65 x 50)	3.25 (82,6)	5.62 (142,7)	3.97 (100,8)	2.5 (63,5)	1.87 (47,5)	- (M10 x 57)	3.7 (1,7)
3 x 1/2 (80 x 15)	3.19 (81,0)	6.13 (155,7)	3.07 (78,0)	2.66 (67,6)	2.21 (56,1)	1/2 x 3 (M12 x 76)	3.7 (1,7)
3 x 3/4 (80 x 20)	3.19 (81,0)	6.13 (155,7)	3.07 (78,0)	2.65 (67,3)	2.21 (56,1)	1/2 x 3 (M12 x 76)	3.7 (1,7)
3 x 1 (80 x 25)	3.19 (81,0)	6.13 (155,7)	3.07 (78,0)	2.51 (63,8)	2.21 (56,1)	1/2 x 3 (M12 x 76)	3.7 (1,7)
3 x 1-1/4 (80 x 32)	3.34 (84,8)	6.13 (155,7)	3.32 (84,3)	2.64 (67,1)	2.21 (56,1)	1/2 x 3 (M12 x 76)	3.5 (1,6)
3 x 1-1/2 (80 x 40)	3.38 (85,9)	6.13 (155,7)	3.56 (90,4)	2.66 (67,6)	2.21 (56,1)	1/2 x 3 (M12 x 76)	3.7 (1,7)
3 x 2 (80 x 50)	3.50 (88,9)	6.13 (155,7)	4.09 (103,9)	2.75 (69,9)	2.21 (56,1)	1/2 x 3 (M12 x 76)	4.7 (2,1)
4 x 1/2 (100 x 15)	3.69 (93,7)	7.13 (181,1)	3.07 (78,0)	3.16 (80,3)	2.78 (70,6)	1/2 x 3 (M12 x 76)	4,8 (2,2)
4 x 3/4 (100 x 20)	3.69 (93,7)	7.13 (181,1)	3.07 (78,0)	3.15 (80,0)	2.78 (70,6)	1/2 x 3 (M12 x 76)	4,8 (2,2)
4 x 1 (100 x 25)	3.69 (93,7)	7.13 (181,1)	3.07 (78,0)	3.01 (76,5)	2.78 (70,6)	1/2 x 3 (M12 x 76)	4,8 (2,2)
4 x 1-1/4 (100 x 32)	3.92 (99,6)	7.13 (181,1)	3.32 (84,3)	3.22 (81,8)	2.78 (70,6)	1/2 x 3 (M12 x 76)	4,8 (2,2)
4 x 1-1/2 (100 x 40)	4.00 (101,6)	7.13 (181,1)	3.56 (90,4)	3.28 (83,3)	2.78 (70,6)	1/2 x 3 (M12 x 76)	5.1 (2,3)

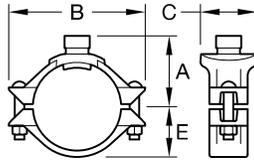
FIGURE 1 (PART 1 OF 2)
FIGURE 730 MECHANICAL TEES – THREADED OUTLETS
DIMENSIONS



Nominal Size ^a Run x Branch ANSI in. (DN)	Nominal Dimensions in. (mm)					Bolt ^b Size in. (metric)	Approx. Weight lbs (kg)
	A	B	C	D	E		
4 x 2 (100 x 50)	4.00 (101,6)	7.13 (181,1)	4.06 (103,1)	3.25 (82,6)	2.78 (70,6)	1/2 x 3 (M12 x 76)	5.5 (2,5)
4 x 76,1 mm (100 x 65)	4.00 (101,6)	7.13 (181,1)	4.38 (111,3)	2.87 (72,9)	2.78 (70,6)	— (M12 x 76)	6.2 (2,8)
4 x 3 (100 x 80)	4.13 (104,9)	7.13 (181,1)	5.13 (130,3)	2.93 (74,4)	2.78 (70,6)	1/2 x 3 (M12 x 76)	7.8 (3,5)
5 x 1-1/2 (125 x 40)	4.63 (117,6)	8.13 (206,5)	3.56 (90,4)	3.91 (99,3)	3.37 (85,6)	5/8 x 4-3/4 (M16 x 121)	7.8 (3,5)
5 x 2 (125 x 50)	4.63 (117,6)	8.13 (206,5)	4.06 (103,1)	3.88 (98,6)	3.37 (85,6)	5/8 x 4-3/4 (M16 x 121)	7.8 (3,5)
5 x 2-1/2 (125 x 65)	4.75 (120,7)	8.13 (206,5)	4.38 (111,3)	3.62 (91,9)	3.37 (85,6)	5/8 x 4-3/4 (M16 x 121)	8.9 (4,0)
5 x 3 (125 x 80)	5.00 (127,0)	8.13 (206,5)	5.13 (130,3)	3.8 (96,5)	3.37 (85,6)	5/8 x 4-3/4 (M16 x 121)	12.7 (5,8)
139,7 mm x 1-1/2 (125 x 40)	4.63 (117,6)	8.13 (206,5)	3.56 (90,4)	3.91 (99,3)	3.37 (85,6)	— (M16 x 121)	7.8 (3,5)
139,7 mm x 2 (125 x 50)	4.63 (117,6)	8.13 (206,5)	4.06 (103,1)	3.88 (98,6)	3.37 (85,6)	— (M16 x 121)	7.8 (3,5)
139,7 mm x 76,1 mm (125 x 65)	4.75 (120,7)	8.13 (206,5)	4.38 (111,3)	3.62 (91,9)	3.37 (85,6)	— (M16 x 121)	8.9 (4,0)
139,7 mm x 3 (125 x 80)	5.00 (127,0)	8.13 (206,5)	5.13 (130,3)	3.8 (96,5)	3.37 (85,6)	— (M16 x 121)	12.7 (5,8)
6 x 1-1/4 (150 x 32)	5.13 (130,3)	9.25 (235,0)	3.56 (90,4)	4.43 (112,5)	3.90 (99,1)	5/8 x 4-3/4 (M16 x 121)	7.5 (3,4)
6 x 1-1/2 (150 x 40)	5.13 (130,3)	9.25 (235,0)	3.56 (90,4)	4.41 (112,0)	3.90 (99,1)	5/8 x 4-3/4 (M16 x 121)	7.5 (3,4)
6 x 2 (150 x 50)	5.13 (130,3)	9.25 (235,0)	4.06 (103,1)	4.38 (111,3)	3.90 (99,1)	5/8 x 4-3/4 (M16 x 121)	7.7 (3,5)
6 x 2-1/2 (150 x 65)	5.13 (130,3)	9.25 (235,0)	4.38 (111,3)	4 (101,6)	3.90 (99,1)	5/8 x 4-3/4 (M16 x 121)	8.9 (4,0)
6 x 3 (150 x 80)	5.50 (139,7)	9.25 (235,0)	5.13 (130,3)	4.3 (109,2)	3.90 (99,1)	5/8 x 4-3/4 (M16 x 121)	10.3 (4,7)
6 x 4 (150 x 100)	5.38 (136,7)	9.25 (235,0)	6.13 (155,7)	4.08 (103,6)	3.90 (99,1)	5/8 x 4-3/4 (M16 x 121)	11.9 (5,4)
165,1 mm x 1-1/4 (150 x 32)	5.13 (130,3)	9.25 (235,0)	3.56 (90,4)	4.43 (112,5)	3.90 (99,1)	— (M16 x 121)	7.7 (3,5)
165,1 mm x 1-1/2 (150 x 40)	5.13 (130,3)	9.25 (235,0)	3.56 (90,4)	4.41 (112,0)	3.90 (99,1)	— (M16 x 121)	7.7 (3,5)
165,1 mm x 2 (150 x 50)	5.13 (130,3)	9.25 (235,0)	4.06 (103,1)	4.38 (111,3)	3.90 (99,1)	— (M16 x 121)	8.2 (3,7)
165,1 mm x 76,1 mm (150 x 65)	5.13 (130,3)	9.25 (235,0)	4.38 (111,3)	4 (101,6)	3.90 (99,1)	— (M16 x 121)	9.0 (4,1)
165,1 mm x 3 (150 x 80)	5.50 (139,7)	9.25 (235,0)	5.13 (130,3)	4.3 (109,2)	3.90 (99,1)	— (M16 x 121)	10.5 (4,8)
8 x 2-1/2 (200 x 65)	6.25 (158,8)	12.50 (317,5)	4.38 (111,3)	5.12 (130,0)	4.90 (124,5)	3/4 x 4-1/4 (M20 x 108)	12.6 (5,7)
8 x 76,1 mm (200 x 65)	6.25 (158,8)	12.50 (317,5)	4.38 (111,3)	5.12 (130,0)	4.90 (124,5)	— (M20 x 108)	12.6 (5,7)
8 x 3 (200 x 80)	6.50 (165,1)	12.50 (317,5)	5.13 (130,3)	5.3 (134,6)	4.90 (124,5)	3/4 x 4-1/4 (M20 x 108)	13.6 (6,1)
8 x 4 (200 x 100)	6.38 (162,1)	12.50 (317,5)	6.13 (155,7)	5.08 (129,0)	4.90 (124,5)	3/4 x 4-1/4 (M20 x 108)	15.2 (6,9)

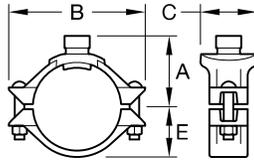
- Notes**
a. For pipe O.D. cross-reference see Table C.
b. Gold color coded metric bolt sizes are available upon request.
c. For pipe hole cut diameters see Tables E and F.

FIGURE 1 (PART 2 OF 2)
FIGURE 730 MECHANICAL TEES - THREADED OUTLETS
DIMENSIONS



Nominal Size ^a Run x Branch ANSI in. (DN)	Nominal Dimensions in. (mm)				Bolt ^b Size in. (metric)	Approx. Weight lbs (kg)
	A	B	C	E		
2 x 1-1/4 (50 x 32)	2.78 (70,6)	4.88 (124,0)	3.32 (84,3)	1.59 (40,4)	3/8 x 2-1/4 (M10 x 57)	2.5 (1,1)
2 x 1-1/2 (50 x 40)	2.62 (66,5)	4.88 (124,0)	3.32 (84,3)	1.59 (40,4)	3/8 x 2-1/4 (M10 x 57)	2.4 (1,1)
2-1/2 x 1-1/4 (65 x 32)	3.00 (76,2)	5.25 (133,4)	3.56 (90,4)	1.81 (46,0)	3/8 x 2-1/4 (M10 x 57)	2.5 (1,1)
2-1/2 x 1-1/2 (65 x 40)	3.07 (78,0)	5.25 (133,4)	3.59 (91,2)	1.81 (46,0)	3/8 x 2-1/4 (M10 x 57)	2.5 (1,1)
2-1/2 x 2 (65 x 50)	3.19 (81,0)	5.25 (133,4)	4.00 (101,6)	1.81 (46,0)	3/8 x 2-1/4 (M10 x 57)	2.5 (1,1)
76,1 mm x 1 (65 x 25)	2.94 (74,5)	5.62 (142,7)	3.07 (78,0)	1.87 (47,5)	— (M10 x 57)	2.5 (1,1)
76,1 mm x 1-1/4 (65 x 32)	3.06 (77,7)	5.62 (142,7)	3.56 (90,4)	1.87 (47,5)	— (M10 x 57)	2.5 (1,1)
76,1 mm x 1-1/2 (65 x 40)	3.13 (79,5)	5.62 (142,7)	3.56 (90,4)	1.87 (47,5)	— (M10 x 57)	2.5 (1,1)
76,1 mm x 2 (65 x 50)	3.25 (82,6)	5.62 (142,7)	4.00 (101,6)	1.87 (47,5)	— (M10 x 57)	2.5 (1,1)
3 x 1-1/4 (80 x 32)	3.34 (84,8)	6.13 (155,7)	3.32 (84,3)	2.21 (56,1)	1/2 x 3 (M12 x 76)	3.5 (1,6)
3 x 1-1/2 (80 x 40)	3.38 (85,9)	6.13 (155,7)	3.56 (90,4)	2.21 (56,1)	1/2 x 3 (M12 x 76)	3.6 (1,6)
3 x 2 (80 x 50)	3.50 (88,9)	6.13 (155,7)	4.09 (103,9)	2.21 (56,1)	1/2 x 3 (M12 x 76)	4.5 (2,0)
4 x 1-1/4 (100 x 32)	3.92 (99,6)	7.13 (181,1)	3.32 (84,3)	2.78 (70,6)	1/2 x 3 (M12 x 76)	4.8 (2,2)
4 x 1-1/2 (100 x 40)	4.00 (101,6)	7.13 (181,1)	3.56 (90,4)	2.78 (70,6)	1/2 x 3 (M12 x 76)	5.0 (2,3)
4 x 2 (100 x 50)	4.00 (101,6)	7.13 (181,1)	4.06 (103,1)	2.78 (70,6)	1/2 x 3 (M12 x 76)	5.3 (2,4)
4 x 2-1/2 (100 x 65)	4.00 (101,6)	7.13 (181,1)	4.38 (111,3)	2.78 (70,6)	1/2 x 3 (M12 x 76)	5.9 (2,7)
4 x 76,1 mm (100 x 65)	4.00 (101,6)	7.13 (181,1)	4.38 (111,3)	2.78 (70,6)	— (M12 x 76)	5.9 (2,7)
4 x 3 (100 x 80)	4.13 (104,9)	7.13 (181,1)	5.13 (130,3)	2.78 (70,6)	1/2 x 3 (M12 x 76)	7.4 (3,4)
5 x 1-1/2 (125 x 40)	4.63 (117,6)	8.13 (206,5)	3.56 (90,4)	3.37 (85,6)	5/8 x 4-3/4 (M16 x 121)	7.7 (3,5)
5 x 2 (125 x 50)	4.63 (117,6)	8.13 (206,5)	4.06 (103,1)	3.37 (85,6)	5/8 x 4-3/4 (M16 x 121)	7.6 (3,4)
5 x 2-1/2 (125 x 65)	4.75 (120,7)	8.13 (206,5)	4.38 (111,3)	3.37 (85,6)	5/8 x 4-3/4 (M16 x 121)	8.6 (3,9)
5 x 76,1 mm (125 x 65)	4.75 (120,7)	8.13 (206,5)	4.38 (111,3)	3.37 (85,6)	— (M16 x 121)	8.6 (3,9)
5 x 3 (125 x 80)	5.00 (127,0)	8.13 (206,5)	5.13 (130,3)	3.37 (85,6)	5/8 x 4-3/4 (M16 x 121)	12.3 (5,6)
139,7 mm x 1-1/2 (125 x 40)	4.63 (117,6)	8.13 (206,5)	3.56 (90,4)	3.37 (85,6)	— (M16 x 121)	7.7 (3,5)
139,7 mm x 2 (125 x 50)	4.63 (117,6)	8.13 (206,5)	4.06 (103,1)	3.37 (85,6)	— (M16 x 121)	7.6 (3,4)
139,7 mm x 2-1/2 (125 x 65)	4.75 (120,7)	8.13 (206,5)	4.38 (111,3)	3.37 (85,6)	— (M16 x 121)	8.6 (3,9)
139,7 mm x 76,1 mm (125 x 65)	4.75 (120,7)	8.13 (206,5)	4.38 (111,3)	3.37 (85,6)	— (M16 x 121)	8.6 (3,9)
139,7 mm x 3 (125 x 80)	5.00 (127,0)	8.13 (206,5)	5.13 (130,3)	3.37 (85,6)	— (M16 x 121)	12.3 (5,6)

FIGURE 2 (PART 1 OF 2)
FIGURE 730 MECHANICAL TEES – GROOVED OUTLETS
DIMENSIONS

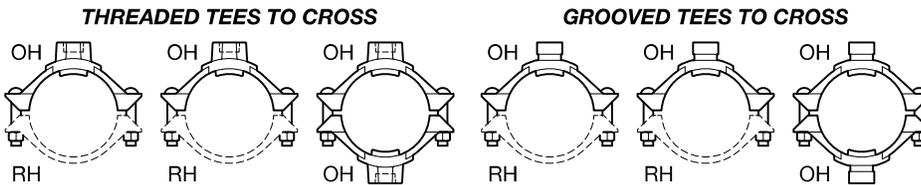


Nominal Size ^a Run x Branch ANSI in. (DN)	Nominal Dimensions in. (mm)				Bolt ^b Size in. (metric)	Approx. Weight lbs (kg)
	A	B	C	E		
6 x 1-1/4 (150 x 32)	5.13 (130,3)	9.25 (235,0)	3.56 (90,4)	3.90 (99,1)	5/8 x 4-3/4 (M16 x 121)	7.7 (3,5)
6 x 1-1/2 (150 x 40)	5.13 (130,3)	9.25 (235,0)	3.56 (90,4)	3.90 (99,1)	5/8 x 4-3/4 (M16 x 121)	7.6 (3,4)
6 x 2 (150 x 50)	5.13 (130,3)	9.25 (235,0)	4.06 (103,1)	3.90 (99,1)	5/8 x 4-3/4 (M16 x 121)	8.0 (3,6)
6 x 2-1/2 (150 x 65)	5.13 (130,3)	9.25 (235,0)	4.38 (111,3)	3.90 (99,1)	5/8 x 4-3/4 (M16 x 121)	8.8 (4,0)
6 x 76,1 mm (150 x 65)	5.13 (130,3)	9.25 (235,0)	4.38 (111,3)	3.90 (99,1)	5/8 x 4-3/4 (M16 x 121)	8.8 (4,0)
6 x 3 (150 x 80)	5.50 (139,7)	9.25 (235,0)	5.13 (130,3)	3.90 (99,1)	5/8 x 4-3/4 (M16 x 121)	10.1 (4,6)
6 x 4 (150 x 100)	5.38 (136,7)	9.25 (235,0)	6.13 (155,7)	3.90 (99,1)	5/8 x 4-3/4 (M16 x 121)	11.6 (5,3)
165,1 mm x 1-1/4 (150 x 32)	5.13 (130,3)	9.25 (235,0)	3.56 (90,4)	3.90 (99,1)	– (M16 x 121)	7.7 (3,5)
165,1 mm x 1-1/2 (150 x 40)	5.13 (130,3)	9.25 (235,0)	3.56 (90,4)	3.90 (99,1)	– (M16 x 121)	7.6 (3,4)
165,1 mm x 2 (150 x 50)	5.13 (130,3)	9.25 (235,0)	4.06 (103,1)	3.90 (99,1)	– (M16 x 121)	8.0 (3,6)
165,1 mm x 2-1/2 (150 x 65)	5.13 (130,3)	9.25 (235,0)	4.38 (111,3)	3.90 (99,1)	– (M16 x 121)	8.8 (4,0)
165,1 mm x 76,1 mm (150 x 65)	5.13 (130,3)	9.25 (235,0)	4.38 (111,3)	3.90 (99,1)	– (M16 x 121)	8.8 (4,0)
165,1 mm x 3 (150 x 80)	5.50 (139,7)	9.25 (235,0)	5.13 (130,3)	3.90 (99,1)	– (M16 x 121)	10.1 (4,6)
8 x 2-1/2 (200 x 65)	6.25 (158,8)	12.50 (317,5)	4.38 (111,3)	4.90 (124,5)	3/4 x 4-1/4 (M20 x 108)	12.3 (5,6)
8 x 76,1 mm (200 x 65)	6.25 (158,8)	12.50 (317,5)	4.38 (111,3)	4.90 (124,5)	– (M20 x 108)	12.3 (5,6)
8 x 3 (200 x 80)	6.50 (165,1)	12.50 (317,5)	5.13 (130,3)	4.90 (124,5)	3/4 x 4-1/4 (M20 x 108)	13.2 (6,0)
8 x 4 (200 x 100)	6.38 (162,1)	12.50 (317,5)	6.13 (155,7)	4.90 (124,5)	3/4 x 4-1/4 (M20 x 108)	14.7 (6,7)

Notes

- a. For pipe O.D. cross-reference see Table C.
- b. Gold color coded metric bolt sizes are available upon request.
- c. For pipe hole cut diameters see Tables E and F.

FIGURE 2 (PART 2 OF 2)
FIGURE 730 MECHANICAL TEES – GROOVED OUTLETS
DIMENSIONS



A mechanical cross can easily be assembled from the outlet halves (OH) of two mechanical tees, discarding the retaining halves (RH). All but dimension E of tees apply to cross conversions, see Figures 1 and 2.

FIGURE 3
FIGURE 730 MECHANICAL TEES – THREADED AND GROOVED OUTLETS
CONVERSION TO CROSS

Nominal Pipe Sizes ANSI in.	Pipe Schedule ^b	Pressure Rating psi (bar)		
		UL	ULC	FM
2 x: 1/2; 3/4; 1; 1-1/4 2-1/2 x: 1/2; 3/4; 1; 1-1/4; 1-1/2 3 x: 1/2; 3/4; 1; 1-1/4; 1-1/2; 2 4 x: 1/2; 3/4; 1; 1-1/4; 1-1/2; 2; 2-1/2; 3 5 x: 1-1/2; 2; 2-1/2; 3 6 x: 1-1/4; 1-1/2; 2; 2-1/2 8 ^a x: 2-1/2; 3; 4	10	300 (20,7)	300 (20,7)	300 (20,7)
	40	300 (20,7)	300 (20,7)	300 (20,7)
2 x 1-1/2 2-1/2 x 2	10	—	—	300 (20,7)
	40	—	—	300 (20,7)
6 x: 3; 4	10	250 (17,2)	250 (17,2)	300 (20,7)
	40	250 (17,2)	250 (17,2)	300 (20,7)
4 x 76,1 mm	10	300 (20,7)	300 (20,7)	300 (20,7)
	40	300 (20,7)	300 (20,7)	300 (20,7)

Pipe O.D. mm	Pipe Specification ^b	Pressure Rating psi (bar)	
		UL	FM
76,1 x: 21,3; 26,7; 33,7; 42,4; 48,3 139,7 x: 60,3; 76,1 165,1 x: 48,3; 60,3; 88,9	ISO 4200 Type D, E, and F EN 10255 Medium EN 10255 Heavy	—	300 (20,7)
139,7 x: 48,3; 88,9 165,1 x 42,4	ISO 4200 Type D and E	300 (20,7)	300 (20,7)
	ISO 4200 Type F	300 (20,7)	300 (20,7)
	EN 10255 Heavy EN 10255 Medium	—	300 (20,7)
165,1 x 76,1	ISO 4200 Type D, E, and F	—	300 (20,7)
	EN 10255 Heavy EN 10255 Medium	300 (20,7)	300 (20,7)

Pipe O.D. Sizes mm	Pipe Specification ^c	Pressure Rating psi (bar)	
		LPCB	VdS
60,3 x: 21,3; 26,7; 33,7; 42,4; 48,3 76,1 x: 21,3; 26,7; 33,7; 42,4; 48,3; 60,3 88,9 x: 21,3; 26,7; 33,7; 42,4; 48,3; 60,3 114,3 x: 21,3; 26,7; 33,7; 42,4; 48,3; 60,3; 76,1; 88,9 165,1 x: 42,2; 48,3; 60,3; 76,1; 88,9	ISO 65 Medium	290 (20)	—
168,3 x: 42,4; 48,3; 60,3; 76,1; 88,9; 114,3 219,1 x: 76,1; 88,9; 114,3	ISO 4200 Wall Thickness 5,4 mm	290 (20)	—
60,3 x: 21,3; 26,7; 33,7; 42,4; 48,3 76,1 x: 21,3; 26,7; 33,7; 42,4; 48,3; 60,3 88,9 x: 21,3; 26,7; 33,7; 42,4; 48,3; 60,3 114,3 x: 21,3; 26,7; 33,7; 42,4; 48,3; 60,3; 76,1; 88,9 168,3 x: 42,4; 48,3; 60,3; 76,1 219,1 x 76,1	DIN 2448 or 2548	—	232 (16)

Notes

- a. For 8 in. sizes, minimum allowed pipe wall thickness is 0.188.
b. See Agency website for Listing/Approvals of other pipe specifications:
UL Website – see Online Certificate Directory, www.ul.com
FM Global Website – www.approvalguide.com
c. See Agency website for Listing/Approvals of other pipe specifications:
LPCB Website – see Search Our Listings - Automatic Sprinklers, Water
Spray and Deluge Systems, www.redbooklive.com
VdS Website – see certifications, www.vds.de

TABLE A
FIGURE 730 MECHANICAL TEES – THREADED OUTLETS
LISTED/APPROVED PRESSURE RATINGS

Nominal Pipe Sizes ANSI in.	Pipe Schedule ^b	Pressure Rating psi (bar)		
		UL	ULC	FM
2 x: 1-1/4 2-1/2 x: 1-1/4; 1-1/2 3 x: 1-1/4; 1-1/2; 2 4 x: 1-1/4; 1-1/2; 2; 2-1/2 5 x: 1-1/2; 2; 2-1/2; 3 6 x: 1-1/4; 1-1/2; 2; 2-1/2 8 ^a x 2-1/2	10	300 (20,7)	300 (20,7)	300 (20,7)
	40	300 (20,7)	300 (20,7)	300 (20,7)
2 x 1-1/2 2-1/2 x 2	10	—	—	300 (20,7)
	40	—	—	300 (20,7)
4 x 3	10	175 (12)	175 (12)	300 (20,7)
	40	175 (12)	175 (12)	300 (20,7)
6 x: 3; 4 8 ^a x: 3; 4	10	250 (17,2)	250 (17,2)	300 (20,7)
	40	250 (17,2)	250 (17,2)	300 (20,7)

Pipe O.D. mm	Pipe Specification ^b	Pressure Rating psi (bar)	
		UL	FM
76,1 x: 42,4; 48,3 165,1 x: 42,4; 48,3; 60,3	ISO 4200 Type D, E, and F	—	300 (20,7)
	EN 10255 Heavy EN 10255 Medium	250 (17,2)	300 (20,7)
76,1 x 60,3	ISO 4200 Type D, E, and F	—	300 (20,7)
	EN 10255 Heavy EN 10255 Medium	—	300 (20,7)
139,7 x: 48,3; 88,9;	ISO 4200 Type D and E	300 (20,7)	300 (20,7)
	ISO 4200 Type F		300 (20,7)
	EN 10255 Heavy EN 10255 Medium		300 (20,7)
139,7 x: 60,3; 76,1 165,1 x: 88,9	ISO 4200 Type D, E, and F	—	300 (20,7)
	EN 10255 Heavy EN 10255 Medium		
165,1 x 42,4	ISO 4200 Type D and E	300 (20,7)	300 (20,7)
	ISO 4200 Type F	—	300 (20,7)
	EN 10255 Heavy EN 10255 Medium	250 (17,2)	300 (20,7)
165,1 x 76,1	ISO 4200 Type D, E, and F	—	300 (20,7)
	EN 10255 Heavy EN 10255 Medium	300 (20,7)	300 (20,7)

Notes

- a. For 8 in. sizes, minimum allowed pipe wall thickness is 0.188.
- b. See Agency website for Listing/Approvals of other pipe specifications:
 UL Website – see Online Certificate Directory, www.ul.com
 FM Global Website – www.approvalguide.com

TABLE B (PART 1 OF 2)
FIGURE 730 MECHANICAL TEES – GROOVED OUTLETS
LISTED/APPROVED PRESSURE RATINGS

Pipe O.D. Size mm	Pipe Specification ^c	Pressure Rating psi (bar)	
		LPCB	VdS
60,3 x: 42,4; 48,3 76,1 x: 42,4; 48,3; 60,3 88,9 x: 42,4; 48,3; 60,3 114,3 x: 42,4; 48,3; 60,3; 76,1; 88,9 165,1 x: 42,2; 48,3; 60,3; 76,1; 88,9	ISO 65 Medium	290 (20)	—
168,3 x: 42,4; 48,3; 60,3; 76,1; 88,9; 114,3 219,1 x: 76,1; 88,9; 114,3	ISO 4200 Wall Thickness 5,4 mm	290 (20)	—
60,3 x: 42,4; 48,3 76,1 x: 42,4; 48,3; 60,3 88,9 x: 42,4; 48,3; 60,3 114,3 x: 42,4; 48,3; 60,3; 76,1; 88,9 168,3 x: 42,4; 48,3; 60,3; 76,1; 88,9; 114,3 219,1 x: 76,1; 88,9; 114,3	DIN 2448 or 2548	—	232 (16)

Notes

- a. See Agency website for Listing/Approvals of other pipe specifications:
LPCB Website – see Search Our Listings – Automatic Sprinklers, Water Spray and Deluge Systems, www.redbooklive.com
VdS Website – see certifications, www.vds.de

TABLE B (PART 2 OF 2)
FIGURE 730 MECHANICAL TEES – GROOVED OUTLETS
LISTED/APPROVED PRESSURE RATINGS

Pipe Size		Pipe Size		Pipe Size	
Nominal ANSI in. (DN)	O.D. in. (mm)	Nominal ANSI in. (DN)	O.D. in. (mm)	Nominal ANSI in. (DN)	O.D. in. (mm)
1/2 (15)	0.840 (21,3)	2 (50)	2.375 (60,3)	— (125)	5.500 (139,7)
3/4 (20)	1.050 (26,7)	2-1/2 (65)	2.875 (73,0)	5 (125)	5.563 (141,3)
1 (25)	1.315 (33,7)	— (65)	3.000 (76,1)	— (150)	6.500 (165,1)
1-1/4 (32)	1.660 (42,4)	3 (80)	3.500 (88,9)	6 (150)	6.625 (168,3)
1-1/2 (40)	1.900 (48,3)	4 (100)	4.500 (114,3)	8 (200)	8.625 (219,1)

TABLE C
PIPE SIZE CROSS REFERENCE

Nominal Size Run x Branch ANSI in. (DN)	Equivalent Length of Sch. 40 Steel Pipe, ft (m)		Nominal Size Run x Branch ANSI in. (DN)	Equivalent Length of Sch. 40 Steel Pipe, ft (m)	
	Threaded	Grooved		Threaded	Grooved
2 x 1/2 (DN50 x DN15)	12**	N/A	4 x 3 (DN100 x DN80)	14 (4,27)	
2 x 3/4 (DN50 x DN20)	17.6**	N/A	5 x 1-1/2 (DN125 x DN40)	3 (0,91)	
2 x 1 (DN50 x DN25)	2 (0,60)	N/A	5 x 2 (DN125 x DN50)	6 (1,83)	
2 x 1-1/4 (DN50 x DN32)	3 (0,91)		5 x 2-1/2 (DN125 x DN65)	10 (3,05)	
2 x 1-1/2 (DN50 x DN40)	11 (3,35)		5 x 76,1 mm* (DN125 x DN65)	10 (3,05)	
2-1/2 x 1/2 (DN65 x DN15)	12**	N/A	5 x 3 (DN125 x DN80)	13 (3,96)	
2-1/2 x 3/4 (DN65 x DN20)	17.6**	N/A	139,7 mm x 1-1/2 (DN125 x DN40)	3 (0,91)	
2-1/2 x 1 (DN65 x DN25)	1 (0,30)	N/A	139,7 mm x 2 (DN125 x DN50)	6 (1,83)	
2-1/2 x 1-1/4 (DN65 x DN32)	4 (1,22)		139,7 mm x 2-1/2 (DN125 x DN65)	10 (3,05)	
2-1/2 x 1-1/2 (DN65 x DN40)	4 (1,22)		139,7 mm x 76,1 mm* (DN125 x DN65)	10 (3,05)	
2-1/2 x 2 (DN65 x DN50)	26 (7,92)		139,7 mm x 3 (DN125 x DN80)	13 (3,96)	
76,1 mm x 1/2 (DN65 x DN15)	12**	N/A	6 x 1-1/4 (DN150 x DN32)	2 (0,60)	
76,1 mm x 3/4 (DN65 x DN20)	17.6**	N/A	6 x 1-1/2 (DN150 x DN40)	3 (0,91)	
76,1 mm x 1 (DN65 x DN25)	1 (0,30)	N/A	6 x 2 (DN150 x DN50)	5 (1,52)	
76,1 mm x 1-1/4 (DN65 x DN32)	4 (1,22)		6 x 2-1/2 (DN150 x DN65)	8 (2,44)	
76,1 mm x 1-1/2 (DN65 x DN40)	4 (1,22)		6 x 76,1 mm* (DN150 x DN65)	8 (2,44)	
76,1 mm x 2 (DN65 x DN50)	26 (7,92)		6 x 3 (DN150 x DN80)	9 (2,74)	
3 x 1/2 (DN80 x DN15)	12**	N/A	6 x 4 (DN150 x DN100)	13 (3,96)	
3 x 3/4 (DN80 x DN20)	17.6**	N/A	165,1 mm x 1-1/4 (DN150 x DN32)	2 (0,60)	
3 x 1 (DN80 x DN25)	2 (0,60)	N/A	165,1 mm x 1-1/2 (DN150 x DN40)	3 (0,91)	
3 x 1-1/4 (DN80 x DN32)	2 (0,60)		165,1 mm x 2 (DN150 x DN50)	5 (1,52)	
3 x 1-1/2 (DN80 x DN40)	3 (0,91)		165,1 mm x 2-1/2 (DN150 x DN65)	8 (2,44)	
3 x 2 (DN80 x DN50)	5 (1,52)		165,1 mm x 76,1 mm* (DN150 x DN65)	8 (2,44)	
4 x 1/2 (DN100 x DN15)	12**	N/A	165,1 mm x 3 (DN150 x DN80)	9 (2,74)	
4 x 3/4 (DN100 x DN20)	17.6**	N/A	8 x 2-1/2 (DN200 x DN65)	11 (3,35)	
4 x 1 (DN100 x DN25)	2 (0,60)	N/A	8 x 76,1 mm* (DN200 x DN65)	11 (3,35)	
4 x 1-1/4 (DN100 x DN32)	4 (1,22)		8 x 3 (DN200 x DN80)	9 (2,74)	
4 x 1-1/2 (DN100 x DN40)	3 (0,91)		8 x 4 (DN200 x DN100)	13 (3,96)	
4 x 2 (DN100 x DN50)	5 (1,52)				
4 x 2-1/2 (DN100 x DN65)	11 (3,35)				
4 x 76,1 mm* (DN100 x DN65)	11 (3,35)				

Notes
* Note: Equivalent Length of EN10255:2004 Heavy Pipe
** Minimum Discharge Coefficient (k)
Hazen Williams coefficient = 120
N/A = Not Available

TABLE D
FIGURE 730 MECHANICAL TEES – THREADED AND GROOVED OUTLETS
LOSS AS EQUIVALENT PIPE LENGTH

Nominal Size ^{a,b} Run x Branch ANSI in. (DN)	Pipe Hole Cut Diameter ^{c,d} in. (mm)	Nominal Size ^{a,b} Run x Branch ANSI in. (DN)	Pipe Hole Cut Diameter ^{c,d} in. (mm)	Nominal Size ^{a,b} Run x Branch ANSI in. (DN)	Pipe Hole Cut Diameter ^{c,d} in. (mm)
2 x 1/2 (50 x 15)	1.50 (38,0)	3 x 1-1/4 (80 x 32)	See Table F	139,7 mm x 76,1 mm (125 x 65)	2.75 (69,9)
2 x 3/4 (50 x 20)	1.50 (38,0)	3 x 1-1/2 (80 x 40)	2.00 (50,8)	139,7 mm x 3 (125 x 80)	3.50 (88,9)
2 x 1 (50 x 25)	See Table F	3 x 2 (80 x 50)	2.00 (50,8)	6 x 1-1/4 (150 x 32)	2.00 (50,8)
2 x 1-1/4 (50 x 32)		4 x 1/2 (100 x 15)	See Table F	6 x 1-1/2 (150 x 40)	2.00 (50,8)
2 x 1-1/2 (50 x 40)	4 x 3/4 (100 x 20)	6 x 2 (150 x 50)		2.50 (63,5)	
2-1/2 x 1/2 (65 x 15)	1.50 (38,0)	4 x 1 (100 x 25)		6 x 2-1/2 (150 x 65)	2.75 (69,9)
2-1/2 x 3/4 (65 x 20)	1.50 (38,0)	4 x 1-1/4 (100 x 32)		6 x 76,1 mm (150 x 65)	2.75 (69,9)
2-1/2 x 1 (65 x 25)	See Table F	4 x 1-1/2 (100 x 40)	2.00 (50,8)	6 x 3 (150 x 80)	3.50 (88,9)
2-1/2 x 1-1/4 (65 x 32)	2.00 (50,8)	4 x 2 (100 x 50)	2.50 (63,5)	6 x 4 (150 x 100)	4.50 (114,3)
2-1/2 x 1-1/2 (65 x 40)	2.00 (50,8)	4 x 2-1/2 (100 x 65)	2.75 (69,9)	165,1 mm x 1-1/4 (150 x 32)	2.00 (50,8)
2-1/2 x 2 (65 x 50)	2.00 (50,8)	4 x 76,1 mm (100 x 65)	2.75 (69,9)	165,1 mm x 1-1/2 (150 x 40)	2.00 (50,8)
76,1 mm x 1/2 (65 x 15)	See Table F)	4 x 3 (100 x 80)	3.50 (88,9)	165,1 mm x 2 (150 x 50)	2.50 (63,5)
76,1 mm x 3/4 (65 x 20)		5 x 1-1/2 (125 x 40)	2.00 (50,8)	165,1 mm x 2-1/2 (150 x 65)	2.75 (69,9)
76,1 mm x 1 (65 x 25)		5 x 2 (125 x 50)	2.50 (63,5)	165,1 mm x 76,1 mm (150 x 65)	2.75 (69,9)
76,1 mm x 1-1/4 (65 x 32)	2.00 (50,8)	5 x 2-1/2 (125 x 65)	2.75 (69,9)	165,1 mm x 3 (150 x 80)	3.50 (88,9)
76,1 mm x 1-1/2 (65 x 40)	2.00 (50,8)	5 x 76,1 mm (125 x 65)	2.75 (69,9)	8 x 2-1/2 (200 x 65)	2.75 (69,9)
76,1 mm x 2 (65 x 50)	2.00 (50,8)	5 x 3 (125 x 80)	3.50 (88,9)	8 x 76,1 mm (200 x 65)	2.75 (69,9)
3 x 1/2 (80 x 15)	See Table F	139,7 mm x 1-1/2 (125 x 40)	2.00 (50,8)	8 x 3 (200 x 80)	3.50 (88,9)
3 x 3/4 (80 x 20)		139,7 mm x 2 (125 x 50)	2.50 (63,5)	8 x 4 (200 x 100)	4.50 (114,3)
3 x 1 (80 x 25)		139,7 mm x 2-1/2 (125 x 65)	2.75 (69,9)		

Notes

- a. For pipe O.D. cross-reference see Table C.
- b. Not all sizes are available in threaded and grooved outlet types. See Figures 1 and 2 for applicable sizes.
- c. Proper outlet hole preparation is required for effective sealing and performance. Inspect the pipe seal surface within 5/8 in. (15,9 mm) of the hole to ensure it is free from conditions that would adversely affect proper gasket sealing. Remove any sharp or rough edges from the hole or upper housing contact area that might affect assembly, proper seating of the locating collar or flow from the outlet. For mechanical crosses, ensure double outlet holes are aligned on opposite sides of the pipe.
- d. Pipe hole cut diameter tolerance: +0.02 in. (0,5 mm), - 0 in. (0 mm).

TABLE E
FIGURE 730 MECHANICAL TEES – THREADED AND GROOVED OUTLETS
PIPE HOLE CUT DIAMETERS

Nominal Size ^a Run x Branch ANSI in. (DN)	Old		New	
	Part Number ^b	Pipe Hole Cut Diameter ^{c,d} in. (mm)	Part Number ^b	Pipe Hole Cut Diameter ^{c,d} in. (mm)
2 x 1 (50 x 25)	730AT20101	1.500 (38,0)	730AT20101K	1.625 (41,3)
	730AT20102		730AT20102K	
	7302010ES		7302010ESK	
	7302010EGS		7302010EGSK	
2 x 1-1/4 (50 x 32)	730AT20121	1.750 (44,5)	730AT20121K	1.813 (46,0)
	730AT20122		730AT20122K	
	7302013ES		7302013ESK	
	7302013EGS		7302013EGSK	
	730AG20121		730AG20121K	
	730AG20122		730AG20122K	
	7302013ERS		7302013ERSK	
	7302013EGRS		7302013EGRSK	
2-1/2 x 1 (65 x 25)	730AT25101	1.500 (38,0)	730AT25101K	1.625 (41,3)
	730AT25102		730AT25102K	
	7302510ES		7302510ESK	
	7302510EGS		7302510EGSK	
76,1 mm x 1/2 (65 x 15)	730AT26051		730AT26051K	
	730AT26052		730AT26052K	
76,1 mm x 3/4 (65 x 20)	730AT26071		730AT26071K	
	730AT26072		730AT26072K	
76,1 mm x 1 (65 x 25)	730AT26101		730AT26101K	
	730AT26102		730AT26102K	
3 x 1/2 (80 x 15)	730MT30051		730MT30051K	
	730MT30052		730MT30052K	
	7303005ES		7303005ESK	
	7303005EGS		7303005EGSK	
3 x 3/4 (80 x 20)	730MT30071		730MT30071K	
	730MT30072		730MT30072K	
	73030075ES	73030075ESK		
	73030075EGS	73030075EGSK		
3 x 1 (80 x 25)	730MT30101	730MT30101K		
	730MT30102	730MT30102K		
	7303010ES	7303010ESK		
	7303010EGSK	7303010EGSK		

TABLE F (PART 1 OR 2)
FIGURE 730 MECHANICAL TEES – THREADED AND GROOVED OUTLETS
PIPE HOLE CUT DIAMETERS FOR LIMITED SIZES AS REFERENCED IN TABLE E

Nominal Size ^a Run x Branch ANSI in. (DN)	Old		New	
	Part Number ^b	Pipe Hole Cut Diameter ^{c,d} in. (mm)	Part Number ^b	Pipe Hole Cut Diameter ^{c,d} in. (mm)
3 x 1-1/4 (80 x 32)	730MT30121	1,750 (44,5)	730MT30121K	1,813 (46,0)
	730MT30122		730MT30122K	
	7303013ES		7303013ESK	
	7303013EGS		7303013EGSK	
	730MG30121		730MG30121K	
	730MG30122		730MG30122K	
	7303013ERS		7303013ERSK	
	7303013EGRS		7303013EGRSK	
4 x 1/2 (100 x 15)	730MT42051	1,500 (38,0)	730MT42051K	1,625 (41,3)
	730MT42052		730MT42052K	
	7304005ES		7304005ESK	
	7304005EGS		7304005EGSK	
4 x 3/4 (100 x 20)	730MT42071	1,500 (38,0)	730MT42071K	1,625 (41,3)
	730MT42072		730MT42072K	
	73040075ES		73040075ESK	
	73040075EGS		73040075EGSK	
4 x 1 (100 x 25)	730MT42101	1,750 (44,5)	730MT42101K	1,813 (46,0)
	730MT42102		730MT42102K	
	7304010ES		7304010ESK	
	7304010EGS		7304010EGSK	
4 x 1-1/4 (100 x 32)	730AT42121	1,750 (44,5)	730AT42121K	1,813 (46,0)
	730AT42122		730AT42122K	
	7304013ES		7304013ESK	
	7304013EGS		7304013EGSK	
	730AG42121		730AG42121K	
	730AG42122		730AG42122K	
	7304013ERS		7304013ERSK	
	7304013EGRS		7304013EGRSK	

Notes

- a. For pipe O.D. cross-reference see Table C.
- b. Part numbers, shown for reference only, represent various size tees featuring threaded and grooved outlets in painted and galvanized finishes for Americas and EMEA regions.
- c. Proper outlet hole preparation is required for effective sealing and performance. Inspect the pipe seal surface within 5/8 in. (15,9 mm) of the hole to ensure it is free from conditions that would adversely affect proper gasket sealing. Remove any sharp or rough edges from the hole or upper housing contact area that might affect assembly, proper seating of the locating collar or flow from the outlet. For mechanical crosses, ensure double outlet holes are aligned on opposite sides of the pipe.
- d. Pipe hole cut diameter tolerance: +0.02 in. (0,5 mm), - 0 in. (0 mm).

**TABLE F (PART 2 OR 2)
FIGURE 730 MECHANICAL TEES – THREADED AND GROOVED OUTLETS
PIPE HOLE CUT DIAMETERS FOR LIMITED SIZES AS REFERENCED IN TABLE E**

Installation Guidelines

NOTICE

The following instructions are a guideline for the proper installation of GRINNELL grooved products.

Always read and understand the instructions, including the Installation Guidelines section in this document. Failure to follow these instructions may result in improper product installation, joint failure, leakage, serious personal injury, and/or property damage.

To avoid serious personal injury, wear safety glasses, hard hat and foot protection.

Never remove any piping component without verifying that the system is depressurized and drained. Failure to do so may result in serious personal injury.

Torque values, shown in Table G, are supplied as a guideline and may be used when setting the torque on power impact wrenches. Always refer to the power impact wrench manufacturer's instructions for settings.

Pipe Preparation

Step 1. Verify the hole size from Table E and Table F.

Step 2. The hole must be drilled on the pipe center-line. For crosses, ensure double outlet holes are aligned.

Step 3. Remove any sharp or rough edges from the hole or upper housing contact area. The gasket-seating surface on the pipe should be examined to verify all loose debris, dirt, chips, paint and any other foreign material such as grease are removed.

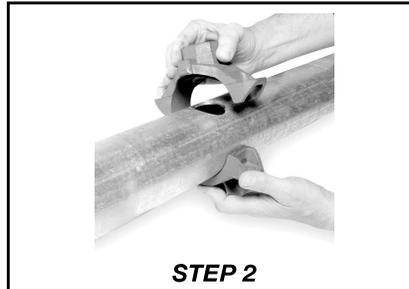
Installation / Assembly Instructions

The following instructions apply to Figure 730 Mechanical Outlet Tees with threaded or grooved outlets. If a cross configuration is desired, the lower housing is replaced with an upper outlet housing.

Verify that the gasket grade is correct for the application intended. Refer to Technical Data Sheet TFP1895 for additional information.

Step 1. Check for proper gasket positioning in the housing. The alignment tabs on the gasket should fit into the recesses of the housing. Gasket lubrication is not required on this product for applications above 40°F (4°C). For assembly or application below 40°F (4°C), a petroleum free lubricant is recommended.

Step 2. With one nut and bolt removed, swing the coupling around the pipe as shown:



Step 3. Verify that the housing outlet spike is positioned in the hole. Insert the other bolt into the housing and rotate the nuts clockwise until finger tight. Verify that the boltheads are fully recessed in the housing:



Nominal Pipe Size ANSI Inches DN	Bolt Size in. (mm)	Bolt Torque Range lb-ft (N·m)
2 - 2-1/2 DN50 - DN60	3/8 (M10)	30-40 (40-54)
3 - 4 DN80 - DN100	1/2 (M12)	90-110 (122-149)
5 - 6 DN125 - DN150	5/8 (M16)	100-130 (135-176)
8 DN200	3/4 (M20)	150-200 (203-271) ^a

NOTES:

a. Bolt torque for 8 in. (DN200) tee in LPCB Approved systems is 275 lb-ft (370 N·m).

TABLE G
FIGURE 730 MECHANICAL TEES
BOLT TORQUE SPECIFICATIONS

Step 4. Tighten nuts uniformly in an alternating pattern to the recommended bolt torque, see Table G, with even gaps between the bolt pads. Uneven tightening can cause the gasket to pinch or bind:

