

# GRINNELL G-FIRE

## Figure 40-5 Strap (Pipe Outlet)

### Americas Only

## General Description

The GRINNELL G-FIRE Figure 40-5 Strap is an economical alternative to welded pipe outlets on steel pipe. The Figure 40-5 Strap can be used with full lengths of pipe and eliminates welding, decreasing waste and installation time. The Figure 40-5 Strap can be used in wet, dry pipe, and deluge systems and is rated to a maximum pressure of 175 psi (12 bar).

### NOTICE

*The Figure 40-5 Strap described herein must be installed and maintained in compliance with this document, and with the applicable standards of the NATIONAL FIRE PROTECTION ASSOCIATION (NFPA), in addition to the standards of any authorities having jurisdiction. Failure to do so may impair the performance of this device.*

*Owners are 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

**Listed/Approved Pressure Ratings**  
 See Table B

**Sizes**  
 Pipe Run: 1-1/4 to 2-1/2 inch (DN32 to DN65)  
 Outlet Thread: 1/2 to 1 Inch NPT

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

**Protective Coatings**  
 Clear rust inhibitive coating

**Friction Loss**  
 See Table A

- Bolts/Nuts**
- ANSI  
 The U-bolt is made from carbon steel conforming to ASTM A307 Grade A and zinc-electroplated conforming to ASTM B633.
  - The flange nuts are made from carbon steel conforming to ASTM A563 Grade A, and zinc electroplated per ASTM B633.
  - Stainless Steel U-Bolts and Nuts are available upon request.

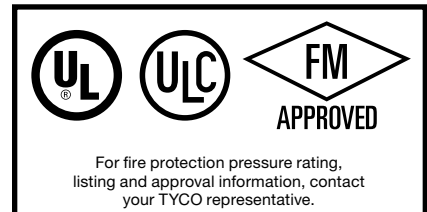
**Bolt Torque Specifications**  
 See Table C

**Gasket**  
 Refer to data sheet TFP1895 for additional gasket information.

## Care and Maintenance

The GRINNELL G-FIRE Figure 40-5 Strap 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 decision.



Fitting Size ANSI Inches	Equivalent Ft. Length (1 inch Sch. 40 pipe)
1-1/4 x 1	8
1-1/2 x 1	6
2 x 1	
2-1/2 x 1	4

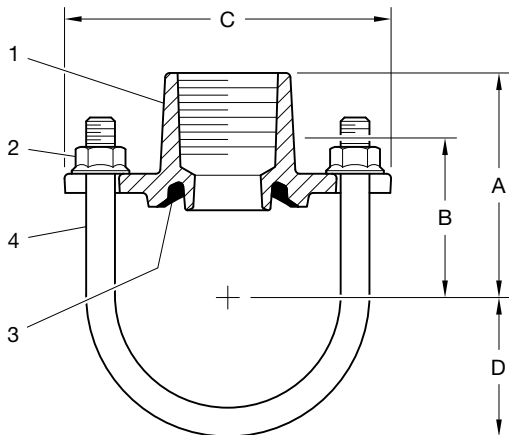
Hazen Williams coefficient = 120  
 The 1 inch outlets can be used in fire protection systems leading to a connection to system piping. These fittings should be used for hydraulically calculated systems only.

**TABLE A**  
**FIGURE 40-5 STRAP**  
**FRICTION LOSS AS**  
**EQUIVALENT PIPE LENGTH**  
**(1 INCH OUTLETS ONLY)**

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

Nominal Run Size ANSI Inches (DN)	O.D. Inches (mm)	Outlet Size NPT	Nominal Dimensions Inches (mm)				Approx. Weight Lbs. (kg)
			A	B	C	D	
1-1/4 (32)	1.660 (42,4)	1/2	2.00 (50,8)	1.50 (38,1)	3.50 (88,9)	1.20 (30,5)	0.84 (0,4)
		3/4	2.00 (50,8)	1.50 (38,1)	3.50 (88,9)	1.20 (30,5)	0.88 (0,4)
		1	2.31 (58,7)	1.68 (42,7)	3.50 (88,9)	1.20 (30,5)	1.13 (0,5)
1-1/2 (40)	1.900 (48,3)	1/2	2.12 (53,8)	1.62 (41,1)	3.50 (88,9)	1.32 (33,5)	0.84 (0,4)
		3/4	2.12 (53,8)	1.62 (41,1)	3.50 (88,9)	1.32 (33,5)	0.88 (0,4)
		1	2.43 (61,7)	1.80 (45,7)	3.50 (88,9)	1.32 (33,5)	1.13 (0,5)
2 (50)	2.375 (60,3)	1/2	2.36 (59,9)	1.86 (47,2)	3.74 (95,0)	1.55 (39,4)	0.88 (0,4)
		3/4	2.36 (59,9)	1.86 (47,2)	3.74 (95,0)	1.55 (39,4)	0.95 (0,4)
		1	2.67 (67,8)	2.04 (51,8)	3.74 (95,0)	1.55 (39,4)	1.16 (0,5)
2-1/2 (65)	2.875 (73,0)	1/2	2.61 (66,3)	2.11 (53,6)	4.25 (108,0)	1.80 (45,7)	0.90 (0,4)
		3/4	2.61 (66,3)	2.11 (53,6)	4.25 (108,0)	1.80 (45,7)	0.99 (0,5)
		1	2.92 (74,2)	2.29 (58,2)	4.25 (108,0)	1.80 (45,7)	1.21 (0,5)

Outlet Hole Size on Pipe is 1-3/16 inch (30,2 mm) diameter.



Item	Description
1	Housing
2	Flanged Nut
3	Gasket
4	U-Bolt

**FIGURE 1**  
**FIGURE 40-5 STRAP (PIPE OUTLET)**  
**NOMINAL DIMENSIONS**

Nominal Pipe Sizes ANSI Inches	Pipe Schedule <sup>a</sup>	Pressure Rating psi (bar)		
		UL	ULC	FM
1-1/4 x 1/2; 3/4; 1 1-1/2 x 1/2; 3/4; 1 2 x 1/2, 3/4; 1 2-1/2 x 1/2; 3/4; 1	10	175 (12)	175 (12)	175 (12)
	40	175 (12)	175 (12)	175 (12)

**NOTES**

- a. 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**  
**LISTED/APPROVED PRESSURE RATINGS**

Pipe Schedule	Bolt Torque Range lb-ft (N·m)
Schedule 5, 10	15 - 20 (20 - 27)
Schedule 30	25 - 30 (34 - 41)
Schedule 40	25 - 30 (34 - 41)

**TABLE C**  
**FIGURE 40-5 STRAP OUTLET**  
**BOLT TORQUE SPECIFICATIONS**

After placing a fire protection system in service, notify the proper authorities and advise those responsible for monitoring proprietary and/or central station alarms.

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 NFPA such as NFPA 25, in addition to the standards of any authority having jurisdiction. Contact the installing contractor or product manufacturer with any questions. Any impairments must be immediately corrected.

Automatic sprinkler systems are recommended to be inspected, tested, and maintained by a qualified Inspection Service in accordance with local requirements and/or national codes.

## Limited Warranty

For warranty terms and conditions, visit [www.tyco-fire.com](http://www.tyco-fire.com).

## Ordering Procedure

GRINNELL Products are available globally through a network of distribution centers. For the nearest distributor, visit [www.tyco-fire.com](http://www.tyco-fire.com). When placing an order, indicate the full product name.

Specify: G-FIRE Figure 40-5 Strap, (size), (quantity), P/N (specify):

- 1-1/4" x 1/2 NPT . . . . . STP1305ES
- 1-1/4" x 3/4 NPT . . . . . STP13075ES
- 1-1/4" x 1 NPT . . . . . STP1310ES
- 1-1/2" x 1/2 NPT . . . . . STP1505ES
- 1-1/2" x 3/4 NPT . . . . . STP15075ES
- 1-1/2" x 1 NPT . . . . . STP1510ES
- 2" x 1/2 NPT . . . . . STP2005ES
- 2" x 3/4 NPT . . . . . STP20075ES
- 2" x 1 NPT . . . . . STP2010ES
- 2-1/2" x 1/2 NPT . . . . . STP2505ES
- 2-1/2" x 3/4 NPT . . . . . STP25075ES
- 2-1/2" x 1 NPT . . . . . STP2510ES