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FIRE DEPARTMENT PERMIT AND INSPECTION RECORD 05/30/2024
MUNICIPAL NO.2024-050197 FOLIO: 3220220090013
JOB SITE ADDRESS 7920 NW 154 ST
PROPOSED USE BANKS - AUTOMATIC TELLER
LEGAL MIAMI LAKES BUSINESS PARK SEC 1 PB 126-54
APPLICATION TYPE ALTER INTERIOR 800 SQFT 0 UNITS 0 FLOORS
OWNER NAME JIK HQ BUILDING LLLP
CONTRACTOR
QUALIFIER
PERMIT TYPE FIRE
CATEGORIES 0032 FIRE SPRINKLERS

DATE: 5/30/2024 PROCESS NUMBER: M2024016361 NEW *AMOUNT PAID 183.38
FIRE 5000 ALTERATIONS 137.57 FIRE 6 FIRE SUPP TES 232.81
FIRE 1 SPRINKLER UPF 187.00 UBS1 1 BLDG 7.5% UPF 1.88
UPMU 25 UPFRONT FEE F 25.00

5/30/2024 14:41 BNZWEB1 182405304997 WEBIPAS 183.38

FIRE DEPARTMENT PERMIT AND INSPECTION RECORD 05/30/2024
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PROPOSED USE BANKS - AUTOMATIC TELLER

REQUIRED INSPECTIONS INIT DATE
FIRE

0032 FIRE SPRINKLERS		
200 FIRE HYDRANTS	_____	_____
201 FIRE UNDERGROUND	_____	_____
202 FIRE PRESSURE TEST	_____	_____
206 FIRE ROUGH	_____	_____
207 FIRE PUMP PERFORMANCE TEST	_____	_____
210 FIRE STANDPIPE	_____	_____
215 FIRE FLUSH	_____	_____
209 FIRE FINAL	_____	_____

FIRE DEPARTMENT PERMIT AND INSPECTION RECORD 05/30/2024
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PROPOSED USE BANKS - AUTOMATIC TELLER

TO SCHEDULE A FIRE INSPECTION, PLEASE VISIT THE WEB AT
WWW.MIAMIDADE.GOV/BUILDING OR WWW.MIAMIDADE.GOV/FIRE. YOU WILL
NEED TO PROVIDE YOUR TEN DIGIT MUNICIPAL INSPECTION NUMBER AND
INSPECTION TYPE. THE INSPECTION TYPE CAN BE FOUND ON YOUR
INSPECTION REQUIREMENTS AND RECORDS CARD.

IF YOU HAVE ANY QUESTIONS OR CONCERNS REGARDING AN INSPECTION,
SCHEDULING A PRELIMINARY INSPECTION, OR LOAD BANK TEST
INSPECTION, PLEASE CALL FIRE PREVENTION AT 786-331-4800.

IF YOU HAVE ANY QUESTIONS OR CONCERNS REGARDING A PLAN REVIEW,
PLEASE CALL FIRE ENGINEERING AT (786) 315-2771.

**BE ADVISED THIS IS NOT A PERMIT. PERMIT IS TO BE ISSUED BY
YOUR CORRESPONDING MUNICIPAL BUILDING DEPARTMENT.

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MIAMI-DADE COUNTY
DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES

<http://www.miamidade.gov/building/home.asp>

5/30/2024 2:41:27 PM

Tracking #	Process #	Permit #
3224016361	M2024016361	2024050197

THIS COPY OF PLANS MUST BE AVAILABLE ON BUILDING SITE OR AN INSPECTION WILL NOT BE MADE.

Process #	Review	Disposition	Reviewer	Date
M2024016361	UPFRONT FEES	A	WEB APPLICATION ID	5/20/2024
M2024016361	FIRE	A	CARRIER, KEVIN	5/30/2024

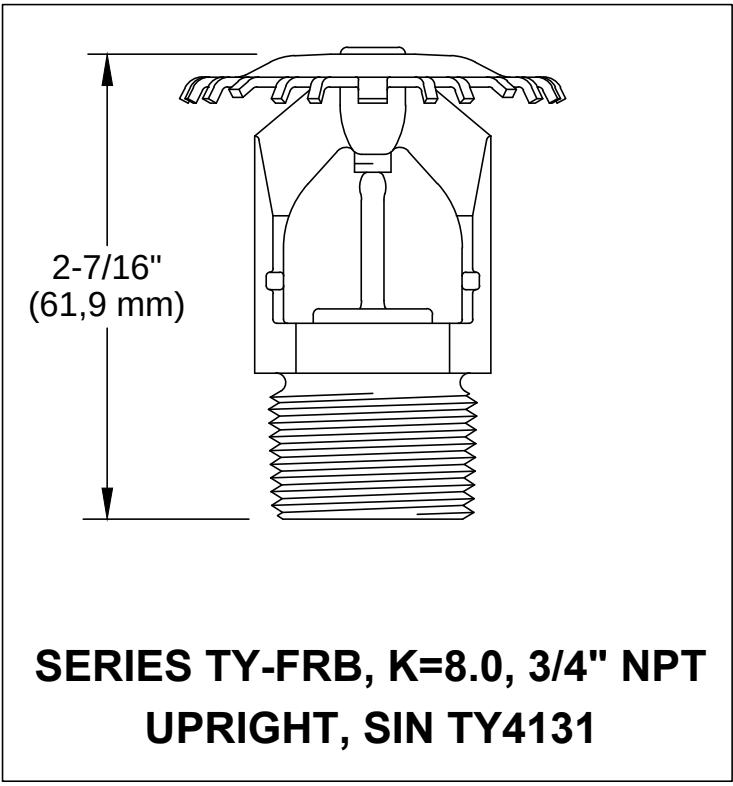
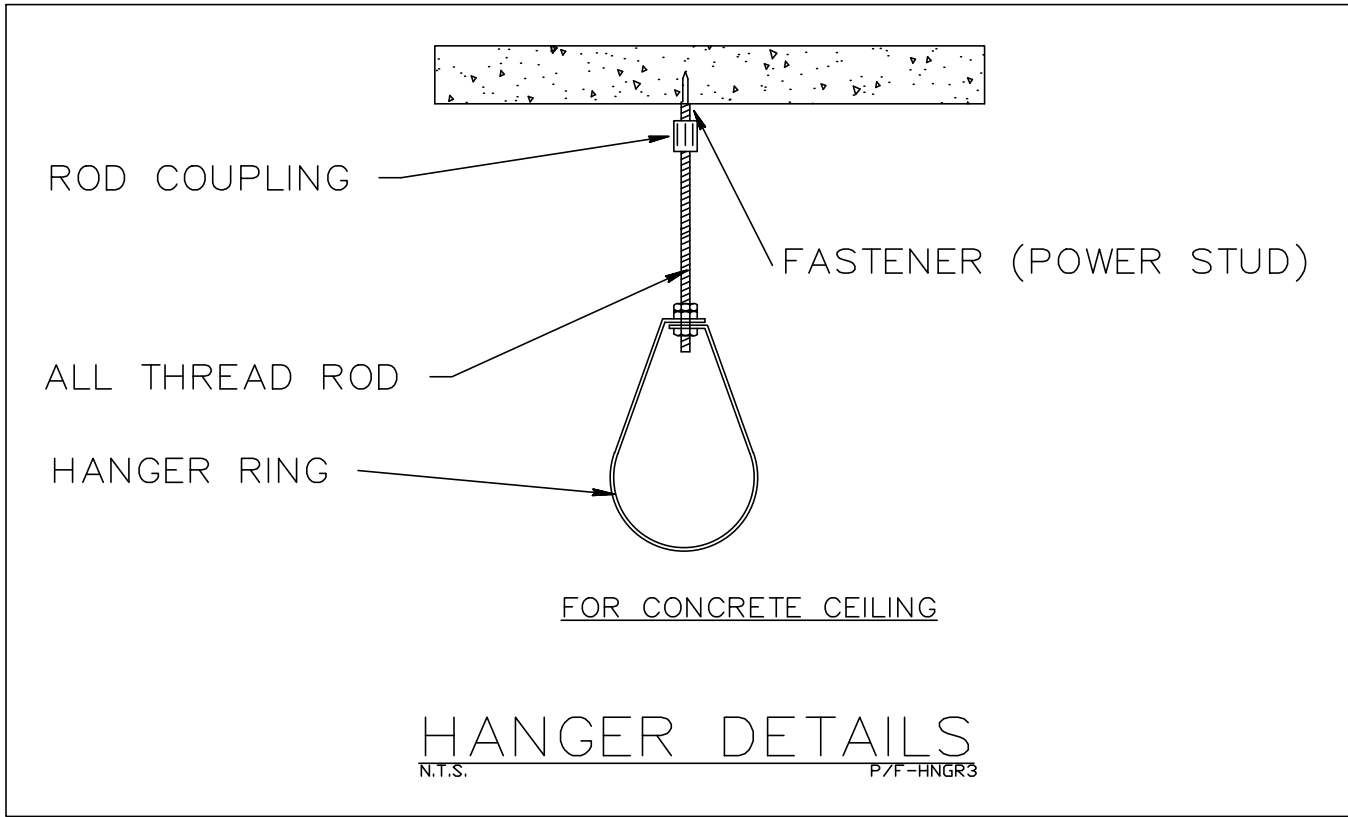
Disclaimer.

Subject to compliance with all Federal, State, and County Laws, rules and regulations. Miami-Dade County assumes no responsibility for accuracy of or results of these plans.

NOTICE: In addition to the requirements of this permit, there may be additional restrictions applicable to the property that may be found in the public records of this county, and there may be additional permits required from other governmental entities such as water management districts, state agencies or federal agencies.

Stamp Name	Trade	Disposition	Stamp Description
Approved	FIRE	A	Approved
Reference Only.	FIRE	R	Reference only.

HANGER SPAN SCHEDULE			
STEEL PIPE			
DIA., IN.	SPAN, FT(M)	DIA., IN.	SPAN, FT(M)
1	12(3.7)	2 1/2	15(4.6)
1 1/4	12(3.7)	3	15(4.6)
1 1/2	15(4.6)	4	15(4.6)
2	15(4.6)		



FIRE PROTECTION NOTES:

1. SYSTEMS SHALL COMPLY WITH THE FOLLOWING CODES:
Florida Building Code 7th Edition
Florida Fire Prevention Code, 7TH Edition (2020)
NFPA 13 (2016 EDITION)
NFPA 25 (2017 EDITION)
NFPA 101 (2018 EDITION)

Entire building is equipped with an Automatic Wet Fire Sprinkler System & Fire Pump in accordance with current NFPA standards.

New piping and fittings shall be WHEATLAND SCH. 40 Black Steel Pipe with Cast Iron or Ductile Iron Fittings.

Existing outlets are 1".

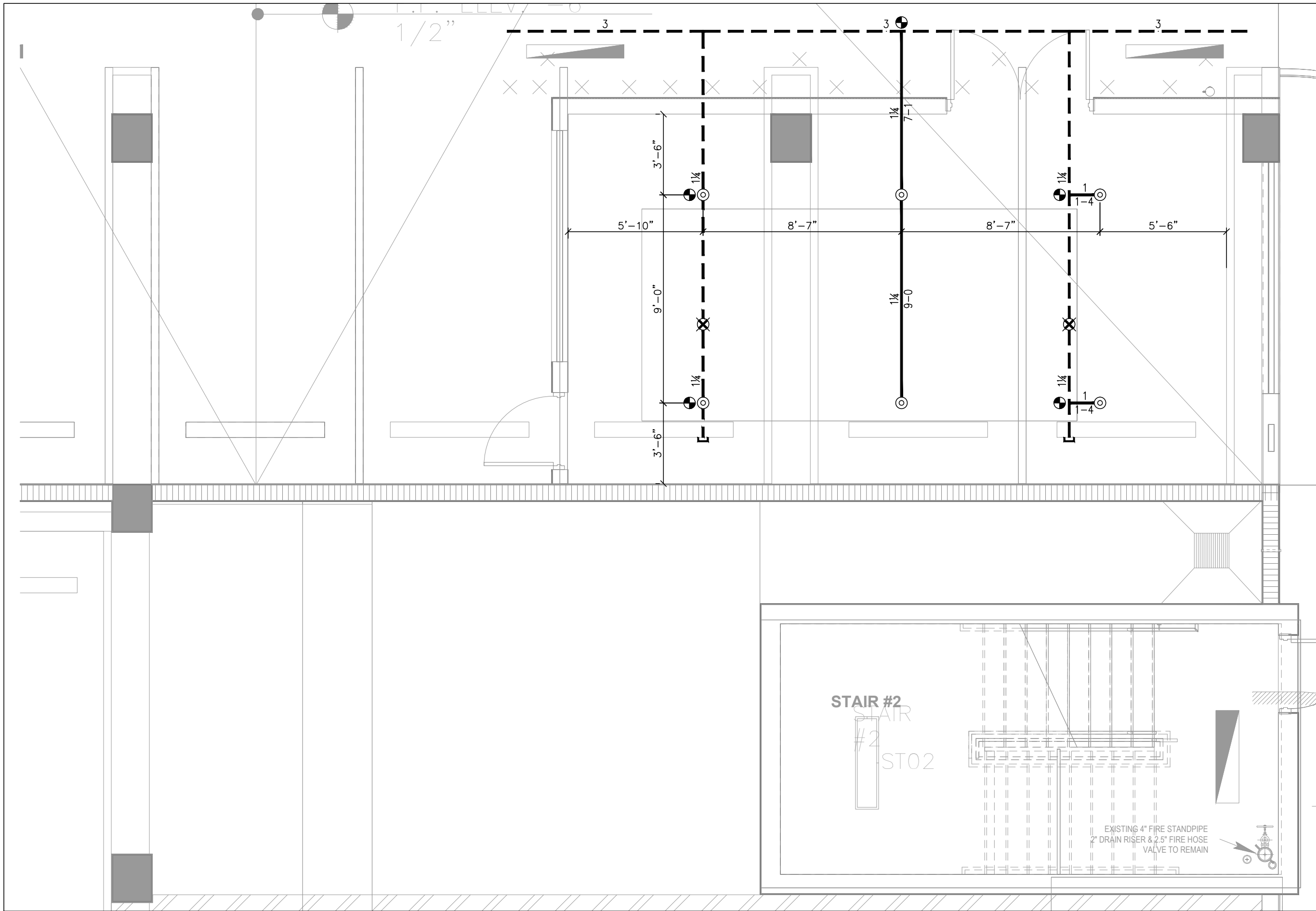
Existing mains and lines are located @ ELEV. 20'-8" A.F.F.

As per NFPA 13 2016 Edition: 25.2.1 Hydrostatic Tests
25.2.1.4 - Modifications to existing piping systems shall require testing at system working pressure.
25.2.1.4.1 - Where modification is made to an existing system affecting more than 20 sprinklers, the new portion shall be isolated and tested at not less than 200 psi for 2 hours.
25.2.1.4.2 - Modifications that cannot be isolated, such as relocated drops, shall require testing at system working pressure.

- Denotes existing piping
- Denotes new piping
- ⊗ Denotes existing 3/4" upright on sprig
- ⊗ Denotes removed sprinkler (02)
- ⊙A Denotes new/added sprinkler (06)
- ⊕ Denotes new pipe connection (05)

SCOPE OF WORK

REMOVE 02 SPRINKLERS & ADD 06 SPRINKLERS TO PROVIDE PROPER COVERAGE AND PROTECTION AS REQUIRED TO ACCOMMODATE NEW TENANT LAYOUT



DESIGN CRITERIA:
AREA: EMERGENCY GENERATOR ROOM
OCCUPANCY: ORDINARY HAZARD 2
SFK HEAD: TYCO TY4131 QR
DESIGN DENSITY: 0.20 gpm/sft
MAX HEAD COVERAGE: 130 SQ.FT.

FIRE COUPON DISKS REQ.: ENSURE DISKS ARE ATTACHED TO MECHANICAL TEES NFPA 13
CARRIER, KEVIN, 5/30/2024 12:41:34 PM

FIRE CANNOT ISOLATE SYS.: INSPECTOR AS PER NFPA 13: 25.2.1.4.2. MODIFICATIONS THAT CANNOT BE ISOLATED, SUCH AS RELOCATED DROPS SHALL NOT REQUIRE TESTING IN EXCESS OF SYSTEM WORKING PRESSURE
CARRIER, KEVIN, 5/30/2024 12:41:09 PM

FIRE APPROVED PAGE
CARRIER, KEVIN, 5/30/2024 12:41:02 PM

NO. DATE BY REVISIONS & APPROVALS				MULLER FIRE PROTECTION INC.		12277 SW 129 TH COURT MIAMI,FLORIDA 33186 PH: (305) 636-9780 FAX: (305) 636-9783	
SYMBOL DEVICE RATING QUAN.				JOB NAME AND ADDRESS:		LIGHT HAZARD	
⊙ TYCO TY4131 K8.0 BRASS UPRIGHT 288° 06				POPULAR BANK HEADQUARTERS		AUTOMATIC WET SYSTEM	
				7920 NW 154TH STREET MIAMI LAKES, FLORIDA 33016		BY DATE	
				PLAN DESCRIPTION: FIRE SPRINKLER MODIFICATION		SURVEY	
				CONTRACT WITH:		ENG'D	
						DRAWN	
						CHECKED	
						JOB NO./P.O. NO.	
INS. TOTAL SYS. 06 TOTAL SPRKS. ON JOB 06				SCALE 1/4" = 1'-0"		CONTRACT NO.	
				DRAWING NO. FP-1		REV.	

EXAMINER:	Date	Time	Stamp	Trade	Stamp Name
CARRIER, KEVIN	5/30/2024	12:38:26	PM	FIRE	Reference Only.

Muller Fire Protection Inc.
12277 S.W. 129TH Court
Miami, Florida 33186

Product Submittal Data

- 1 Sprinkler**
- 2 Piping**
- 3 Fittings**
- 4 Hanger & Supports**



Worldwide
Contacts

www.tyco-fire.com

Series TY-FRB – 2.8, 4.2, 5.6, and 8.0 K-Factor Upright, Pendent, and Recessed Pendent Sprinklers Quick Response, Standard Coverage

IMPORTANT

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

Always refer to Technical Data Sheet TFP700 for the "INSTALLER WARNING" that provides cautions with respect to handling and installation of sprinkler systems and components. Improper handling and installation can permanently damage a sprinkler system or its components and cause the sprinkler to fail to operate in a fire situation or cause it to operate prematurely.

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/tpf171

General Description

The TYCO Series TY-FRB 2.8, 4.2, 5.6, and 8.0 K-factor Upright, Pendent, and Recessed Pendent Sprinklers described in herein are quick response, standard coverage, decorative 3 mm glass bulb-type spray sprinklers. They are designed for use in light or ordinary hazard, commercial occupancies such as banks, hotels, and shopping malls.

The sprinkler, where applicable, is intended for use in areas with a finished

ceiling. This recessed pendent sprinkler uses one of the following recessed escutcheons:

- Two-piece Style 10 (1/2 in. NPT) or Style 40 (3/4 in. NPT) Recessed Escutcheon with 1/2 in. (12,7 mm) of recessed adjustment or up to 3/4 in. (19,1 mm) of total adjustment from the flush pendent position.
- Two-piece Style 20 (1/2 in. NPT) or Style 30 (3/4 in. NPT) Recessed Escutcheon with 1/4 in. (6,4 mm) of recessed adjustment or up to 1/2 in. (12,7 mm) of total adjustment from the flush pendent position.

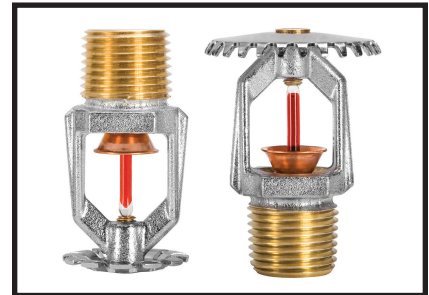
The adjustment provided by the recessed escutcheon reduces the accuracy to which the fixed pipe drops to the sprinklers must be cut.

Corrosion-resistant coatings, where applicable, are utilized to extend the life of copper alloy sprinklers beyond what would be obtained when exposed to corrosive atmospheres. Although corrosion-resistant coated sprinklers have passed the standard corrosion tests of the applicable approval agencies, the testing is not representative of all possible corrosive atmospheres. Consequently, it is recommended that the end user be consulted with respect to the suitability of these coatings for any given corrosive environment. The effects of ambient temperature, concentration of chemicals, and gas/chemical velocity, should be considered, as a minimum, along with the corrosive nature of the chemical to which the sprinklers will be exposed.

An intermediate level version of the Series TY-FRB Pendent Sprinklers is detailed in technical data sheet TFP356. Sprinkler guards are detailed in technical data sheet TFP780.

NOTICE

The Series TY-FRB 2.8, 4.2, 5.6, and 8.0 K-factor Upright, Pendent, and Recessed Pendent Sprinklers 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



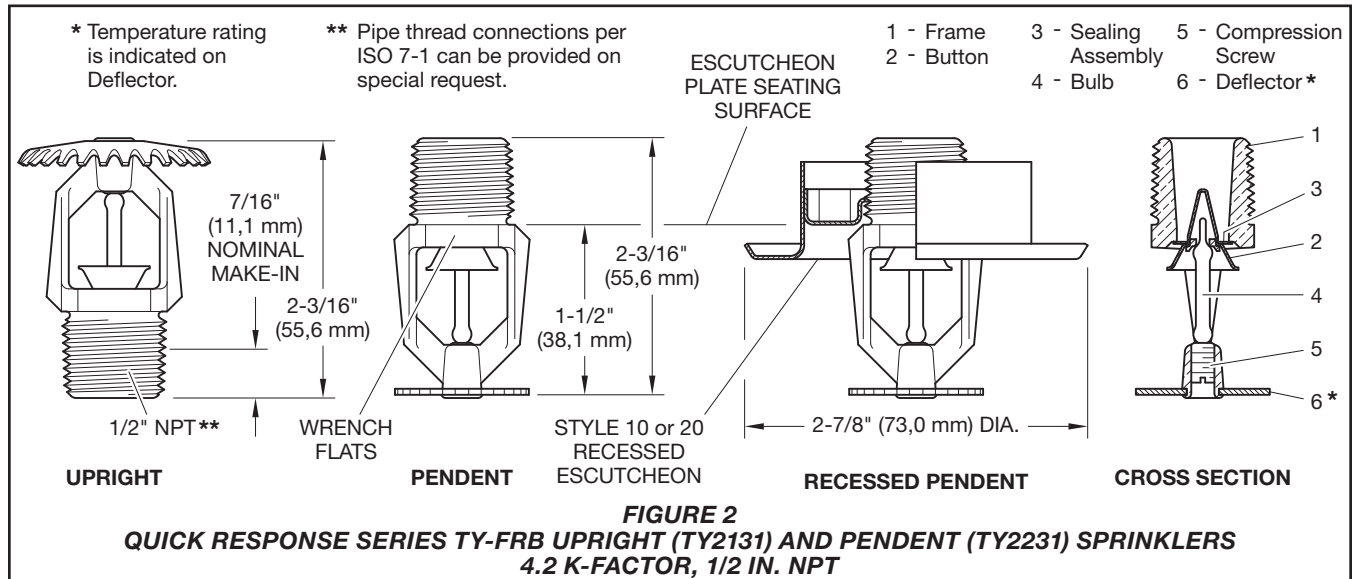
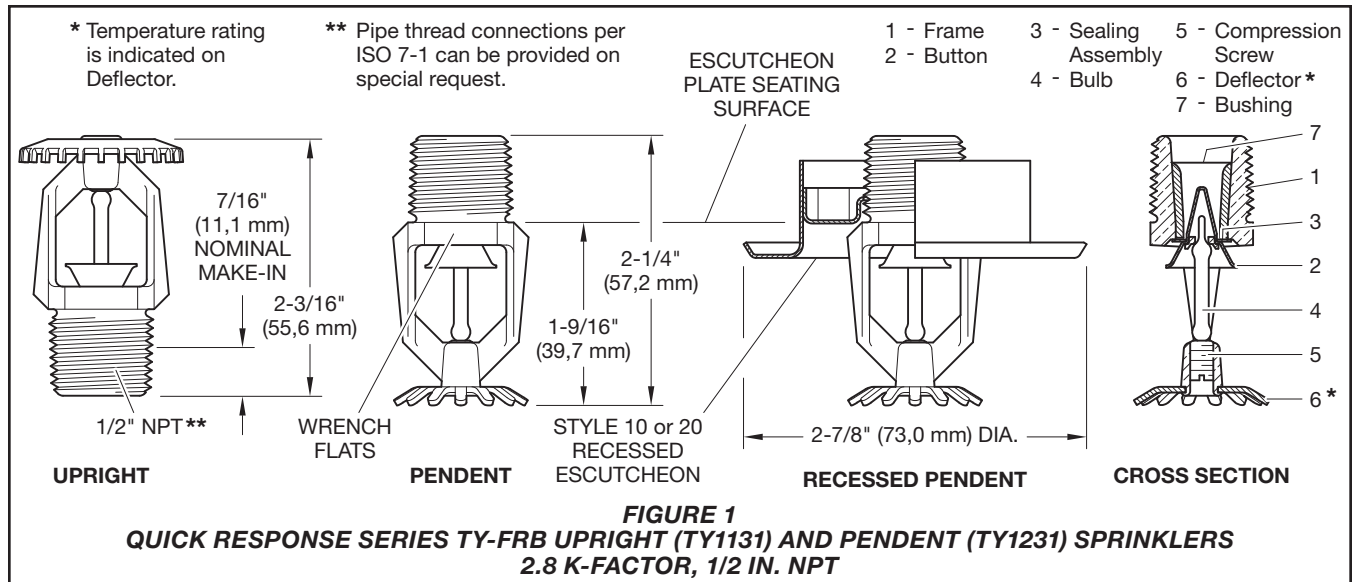
the standards of any authorities having jurisdiction. Failure to do so may impair the performance of these devices.

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

NFPA 13 prohibits installation of 1/2 in. NPT sprinklers with K-factors greater than 5.6 in new construction. They are intended for retrofit in existing sprinkler systems only.

Sprinkler Identification Number (SIN)

TY1131 . . . Upright 2.8K, 1/2 in. NPT
TY1231 . . . Pendent 2.8K, 1/2 in. NPT
TY2131 . . . Upright 4.2K, 1/2 in. NPT
TY2231 . . . Pendent 4.2K, 1/2 in. NPT
TY3131 . . . Upright 5.6K, 1/2 in. NPT
TY3231 . . . Pendent 5.6K, 1/2 in. NPT
TY4131 . . . Upright 8.0K, 3/4 in. NPT
TY4231 . . . Pendent 8.0K, 3/4 in. NPT
TY4831 . . . Upright 8.0K, 1/2 in. NPT
TY4931 . . . Pendent 8.0K, 1/2 in. NPT



Technical Data

Approvals

UL and C-UL Listed
 FM, LPCB, and NYC Approved
 EAC Approved

Note: For complete approval information, including corrosion-resistant status, see Tables A, B, C and D.

Maximum Working Pressure

See Table E

Discharge Coefficient

K=2.8 gpm/psi^{1/2} (40,3 Lpm/bar^{1/2})
 K=4.2 gpm/psi^{1/2} (60,5 Lpm/bar^{1/2})
 K=5.6 gpm/psi^{1/2} (80,6 Lpm/bar^{1/2})
 K=8.0 gpm/psi^{1/2} (115,2 Lpm/bar^{1/2})

Temperature Rating

See Tables A and B

Finishes

Sprinkler: See Table D

Recessed Escutcheon: Signal or Pure White, Grey Aluminum, Jet Black, Chrome Plated, or Natural Brass

Physical Characteristics

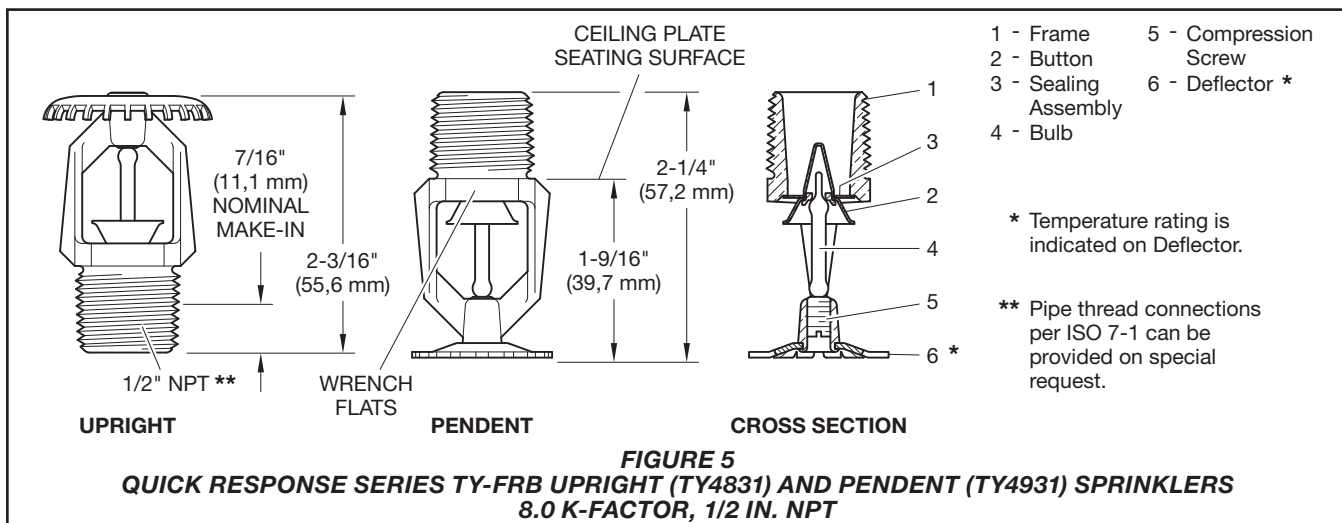
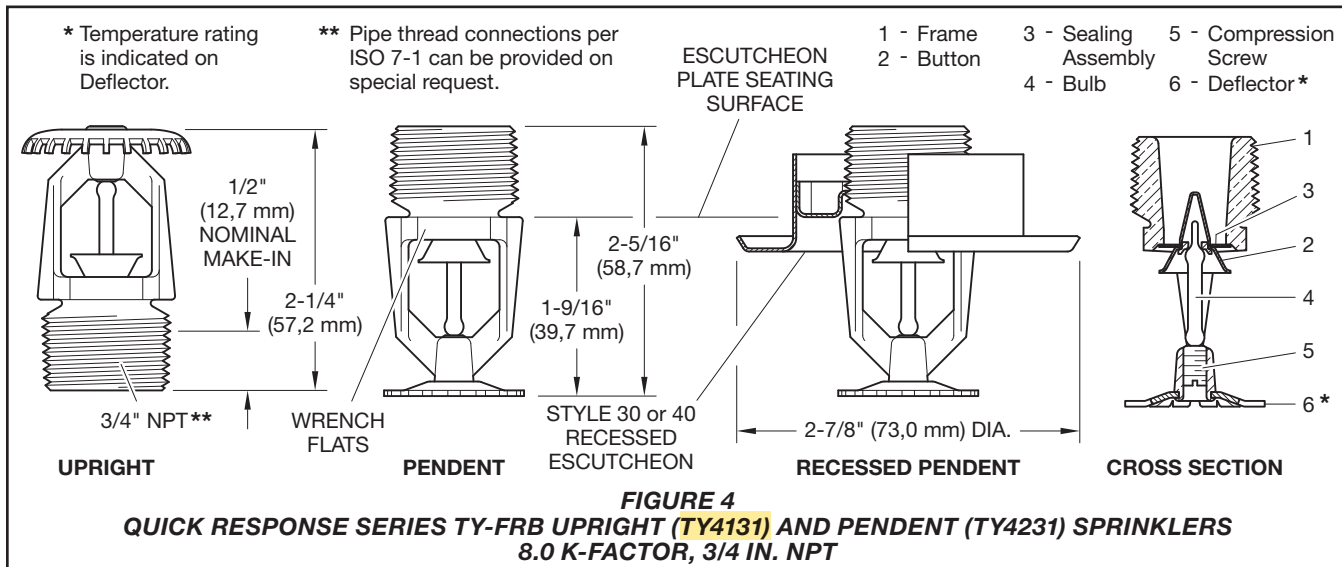
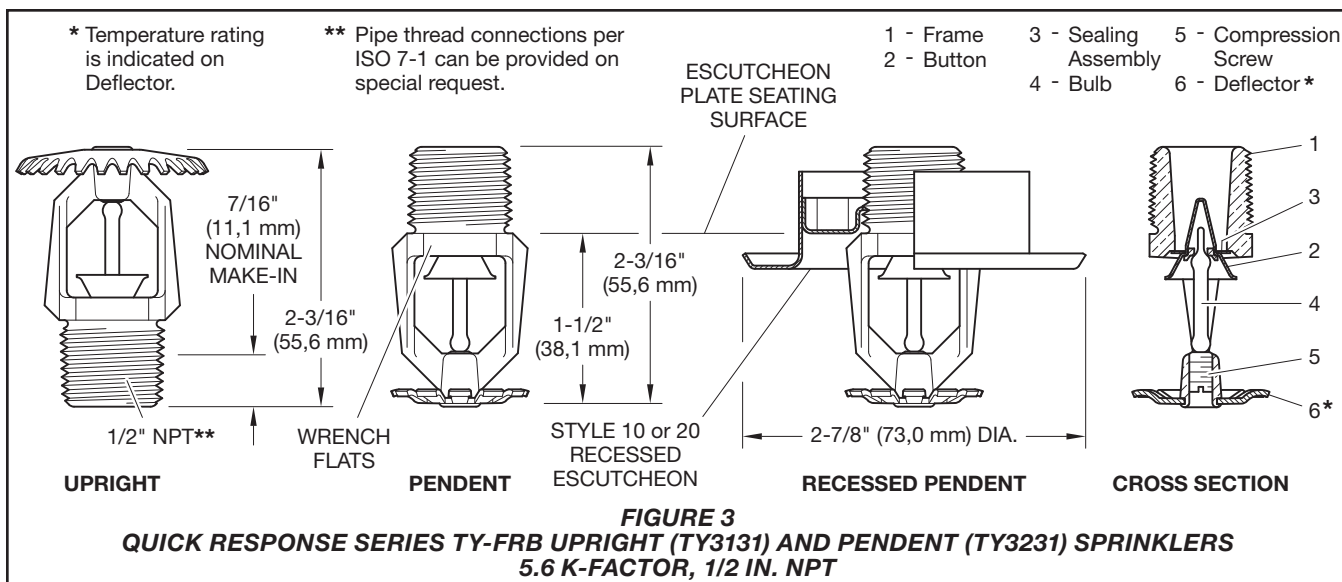
Frame Bronze
 Button Brass/Copper
 Sealing Assembly . . . Beryllium Nickel w/TEFLON
 Bulb Glass
 Compression Screw Bronze
 Deflector Copper/Bronze
 Bushing (K=2.8) Bronze

Operation

The glass bulb contains a fluid that expands when exposed to heat. When the rated temperature is reached, the fluid expands sufficiently to shatter the glass bulb, allowing the sprinkler to activate and water to flow.

Design Criteria

The TYCO Series TY-FRB 2.8, 4.2, 5.6, and 8.0 K-factor Upright, Pendent, and Recessed Pendent Sprinklers are intended for fire protection systems designed in accordance with the standard installation rules recognized by the applicable Listing or Approval agency, such as UL Listing based on the requirements of NFPA 13 and FM Approval based on the requirements of the FM Global Loss Prevention Data Sheets. Use only the style 10, 20, 30, or 40 recessed escutcheon, as applicable, for recessed pendent installations.



Installation

The TYCO Series TY-FRB 2.8, 4.2, 5.6, and 8.0 K-factor Upright, Pendent, and Recessed Pendent Sprinklers must be installed in accordance with this section.

General Instructions

Do not install any bulb type sprinkler if the bulb is cracked or there is a loss of liquid from the bulb. With the sprinkler held horizontally, a small air bubble should be present. The diameter of the air bubble is approximately 1/16 in. (1,6 mm) for the 135°F (57°C) and 3/32 in. (2,4 mm) for the 286°F (141°C) temperature ratings. A leak-tight 1/2 in. NPT sprinkler joint should be obtained by applying a minimum-to-maximum torque of 7 ft-lb to 14 ft-lb (9,5 N·m to 19,0 N·m). A leak tight 3/4 in. NPT sprinkler joint should be obtained with a torque of 10 ft-lb to 20 ft-lb (13,4 N·m to 26,8 N·m). Higher levels of torque can distort the sprinkler inlet and cause leakage or impairment of the sprinkler. Do not attempt to compensate for insufficient adjustment in the escutcheon plate by under or over-tightening the sprinkler. Re-adjust the position of the sprinkler fitting to suit.

Series TY-FRB Upright and Pendent Sprinklers

The Series TY-FRB Upright and Pendent Sprinklers must be installed in accordance with the following instructions:

Step 1. Install pendent sprinklers in the pendent position. Install upright sprinklers in the upright position.

Step 2. With pipe thread sealant applied to the pipe threads, hand-tighten the sprinkler into the sprinkler fitting.

Step 3. Tighten the sprinkler into the sprinkler fitting using only the W-Type 6 Sprinkler Wrench as shown in Figure 14. Apply the sprinkler wrench to the sprinkler wrench flats as shown in Figure 1 to Figure 5.

Series TY-FRB Recessed Pendent Sprinklers

The Series TY-FRB Recessed Pendent Sprinklers must be installed in accordance with the following instructions:

Step 1. After installing the Style 10, 20, 30, or 40 Mounting Plate, as applicable, over the sprinkler threads and with pipe-thread sealant applied to the pipe threads, hand-tighten the sprinkler into the sprinkler fitting.

Step 2. Tighten the sprinkler into the sprinkler fitting using only the W-Type 7 Recessed Sprinkler Wrench as shown in Figure 15. Apply the sprinkler wrench to the sprinkler wrench flats as shown in Figure 1 to 4.

Step 3. After the ceiling is installed or the finish coat is applied, slide on the Style 10, 20, 30, or 40 closure over the Series TY-FRB Recessed Pendent Sprinkler and push the closure over the mounting plate until its flange comes in contact with the ceiling.

Care and Maintenance

The TYCO Series TY-FRB 2.8, 4.2, 5.6, and 8.0 K-factor Upright, Pendent, and Recessed Pendent Sprinklers must be maintained and serviced 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 systems from the proper authorities and notify all personnel who may be affected by this action.

Absence of the outer piece of an escutcheon, which is used to cover a clearance hole, can delay sprinkler operation in a fire situation.

Sprinklers which are found to be leaking or exhibiting visible signs of corrosion must be replaced.

Automatic sprinklers must never be painted, plated, coated, or otherwise altered after leaving the factory. Modified sprinklers must be replaced. Sprinklers that have been exposed to

corrosive products of combustion, but have not operated, should be replaced if they cannot be completely cleaned by wiping the sprinkler with a cloth or by brushing it with a soft bristle brush.

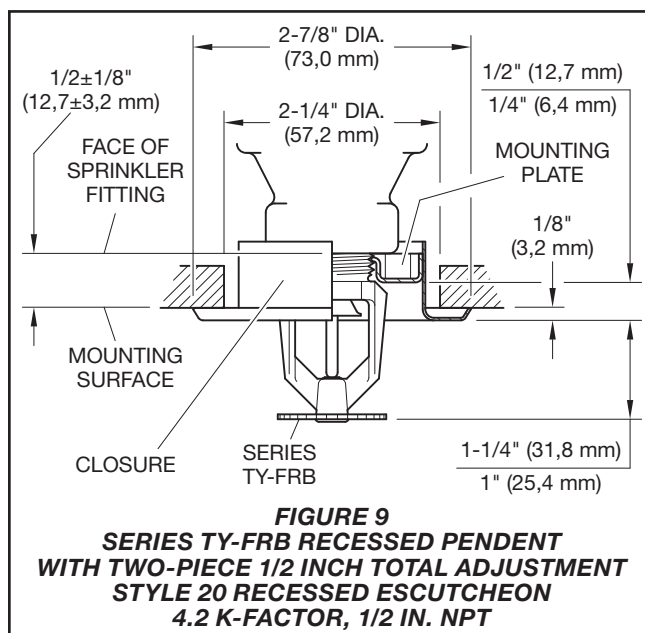
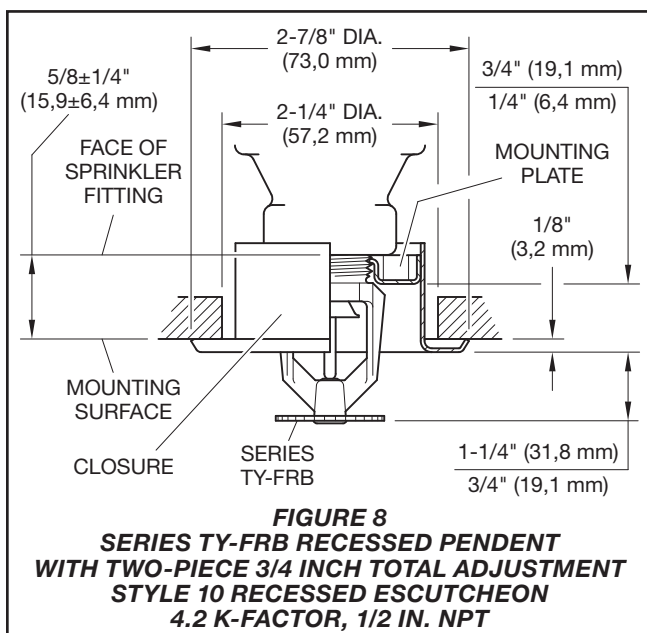
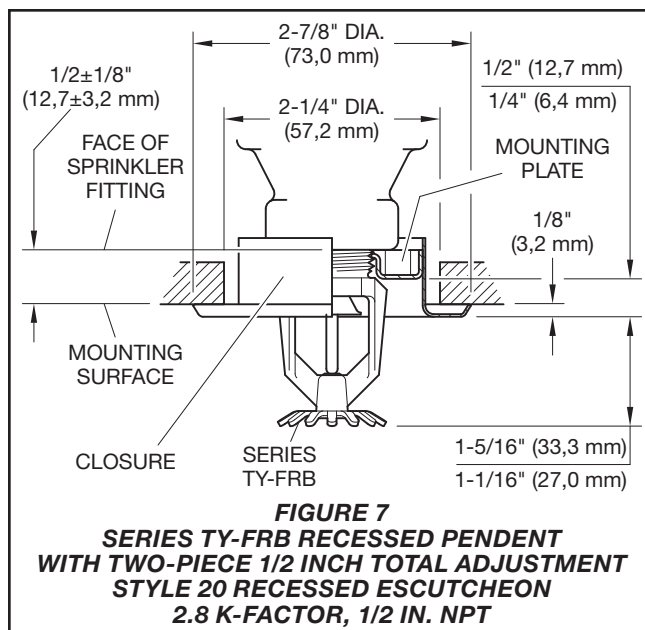
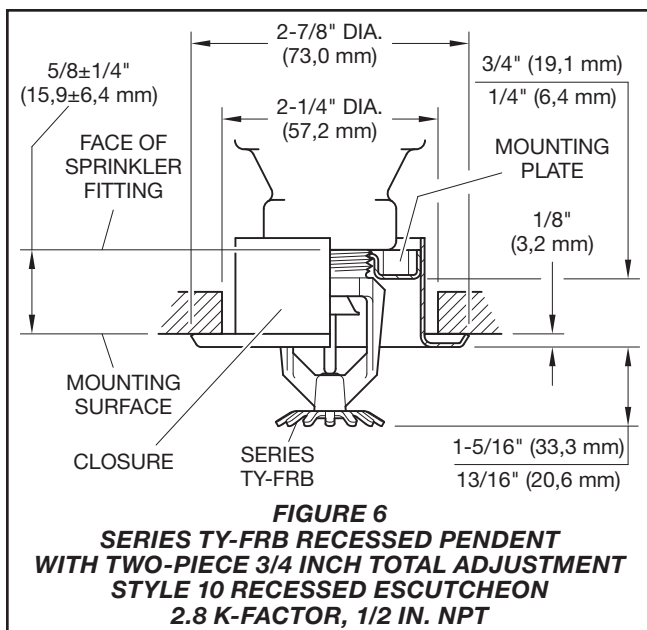
Care must be taken to avoid damage to the sprinklers before, during, and after installation. Sprinklers damaged by dropping, striking, wrench twist/slippage, or the like, must be replaced. Also, replace any sprinkler that has a cracked bulb or that has lost liquid from its bulb. For more information, see Installation section.

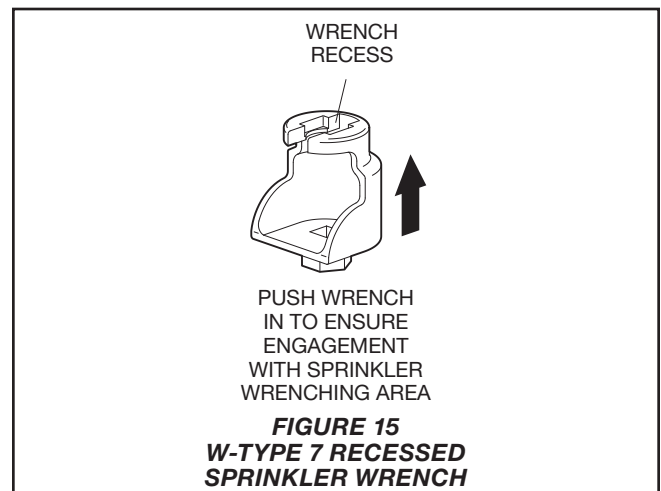
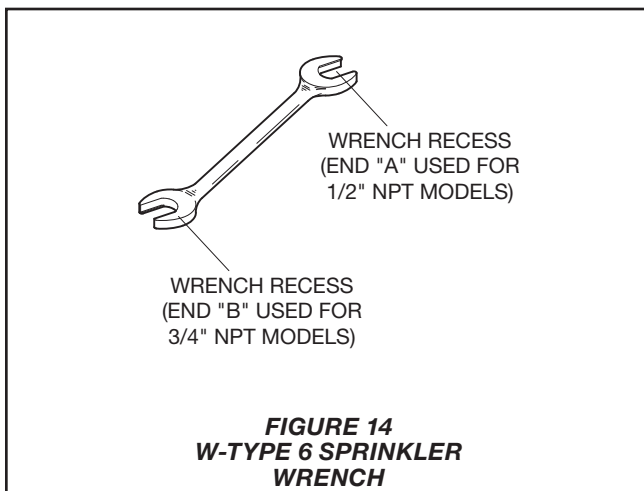
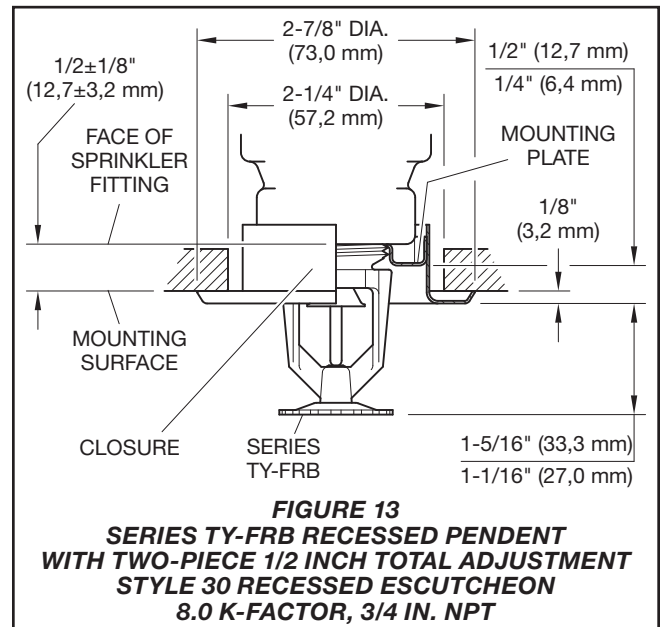
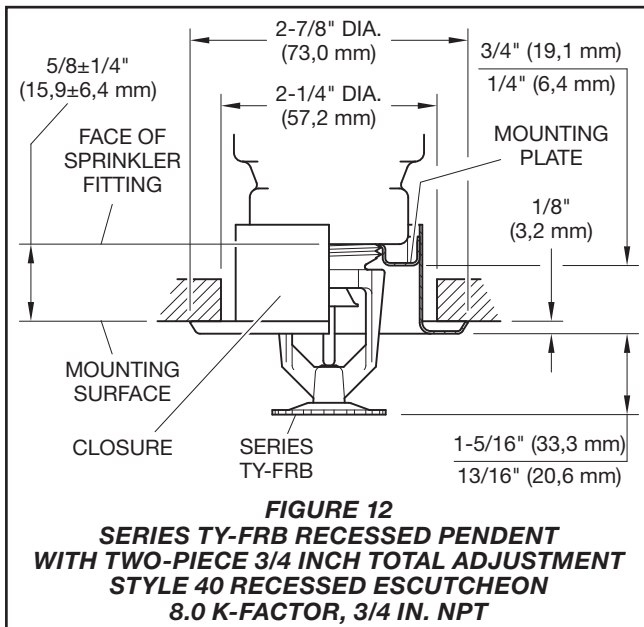
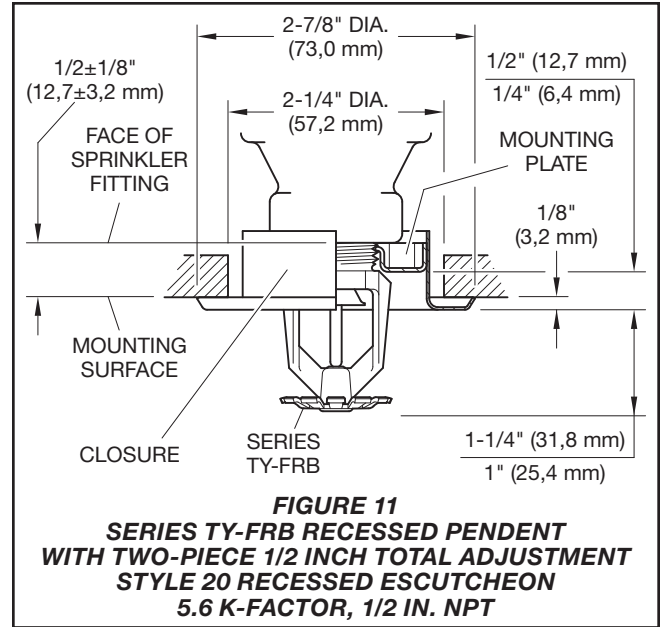
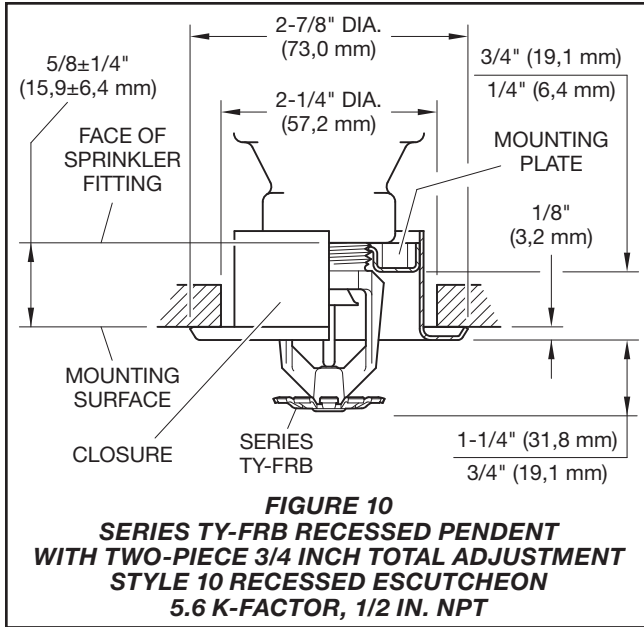
The owner is responsible for the inspection, testing, and maintenance of their fire protection system and devices in compliance with this document, as well as with the applicable standards of the National Fire Protection Association such as NFPA 25, in addition to the standards of any other authorities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

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

Care must be exercised to avoid damage to the sprinklers before, during, and after installation. Sprinklers damaged by dropping, striking, wrench twist/slippage, or the like, must be replaced. Also, replace any sprinkler that has a cracked bulb or that has lost liquid from its bulb. For more information, see Installation section.

Initial and frequent visual inspections of random samples are recommended for corrosion-resistant sprinklers to verify the integrity of the corrosion-resistant material of construction. Thereafter, annual inspections according to NFPA 25 should suffice. Inspections of corrosion-resistant sprinklers are recommended at close range, instead of from the floor level per NFPA. Inspection at close range can better determine the exact sprinkler condition and the long-term integrity of the corrosion-resistant material, which can be affected by the corrosive conditions present.





K-Factor	Type	Temperature	Bulb Liquid Color	Sprinkler Finish ⁵		
				Natural Brass	Chrome Plated	Polyester ^c
2.8 1/2 in. NPT	Pendent (TY1231)	135°F (57°C)	Orange	1, 2, 3, 4		
		155°F (68°C)	Red			
		175°F (79°C)	Yellow			
		200°F (93°C)	Green			
		286°F (141°C)	Blue			
	Upright (TY1131)	135°F (57°C)	Orange			
		155°F (68°C)	Red			
		175°F (79°C)	Yellow			
		200°F (93°C)	Green			
		286°F (141°C)	Blue			
	Recessed Pendent (TY1231) ^a Figure 6	135°F (57°C)	Orange	1, 2, 4		
		155°F (68°C)	Red			
		175°F (79°C)	Yellow			
		200°F (93°C)	Green			
	Recessed Pendent (TY1231) ^b Figure 7	135°F (57°C)	Orange			
		155°F (68°C)	Red			
		175°F (79°C)	Yellow			
		200°F (93°C)	Green			

NOTES

a. Installed with Style 10 (1/2 in. NPT) or Style 40 (3/4 in. NPT) 3/4 in. Total Adjustment Recessed Escutcheon, as applicable.

b. Installed with Style 20 (1/2 in. NPT) or Style 30 (3/4 in. NPT) 1/2 in. Total Adjustment Recessed Escutcheon, as applicable.

c. Frame and Deflector only.

1. Listed by Underwriters Laboratories, Inc., (UL) as Quick Response Sprinklers.

2. Listed by Underwriters Laboratories, Inc., for use in Canada (C-UL) as Quick Response Sprinklers.

3. Approved by Factory Mutual Research Corporation (FM) as Quick Response Sprinklers.

4. Approved by the City of New York under MEA 354-01-E.

5. Where Polyester Coated Sprinklers are noted to be UL and C-UL Listed, the sprinklers are UL and C-UL Listed as corrosion-resistant sprinklers.

TABLE A
LABORATORY LISTINGS AND APPROVALS FOR
2.8 K-FACTOR SPRINKLERS

K-Factor	Type	Temperature	Bulb Liquid Color	Sprinkler Finish ³		
				Natural Brass	Chrome Plated	Polyester ^c
4.2 1/2 in. NPT	Pendent (TY2231)	135°F (57°C)	Orange	1, 2		
		155°F (68°C)	Red			
		175°F (79°C)	Yellow			
		200°F (93°C)	Green			
		286°F (141°C)	Blue			
	Upright (TY2131)	135°F (57°C)	Orange			
		155°F (68°C)	Red			
		175°F (79°C)	Yellow			
		200°F (93°C)	Green			
		286°F (141°C)	Blue			
	Recessed Pendent (TY2231) ^a Figure 8	135°F (57°C)	Orange			
		155°F (68°C)	Red			
		175°F (79°C)	Yellow			
		200°F (93°C)	Green			
	Recessed Pendent (TY2231) ^b Figure 9	135°F (57°C)	Orange			
		155°F (68°C)	Red			
		175°F (79°C)	Yellow			
		200°F (93°C)	Green			

NOTES

- a. Installed with Style 10 (1/2 in. NPT) or Style 40 (3/4 in. NPT) 3/4 in. Total Adjustment Recessed Escutcheon, as applicable.
b. Installed with Style 20 (1/2 in. NPT) or Style 30 (3/4 in. NPT) 1/2 in. Total Adjustment Recessed Escutcheon, as applicable.
c. Frame and Deflector only.
1. Listed by Underwriters Laboratories, Inc., (UL) as Quick Response Sprinklers.
2. Listed by Underwriters Laboratories, Inc., for use in Canada (C-UL) as Quick Response Sprinklers.
3. Where Polyester Coated Sprinklers are noted to be UL and C-UL Listed, the sprinklers are UL and C-UL Listed, the sprinklers are UL and C-UL Listed as corrosion-resistant sprinklers.

TABLE B
LABORATORY LISTINGS AND APPROVALS FOR
4.2 K-FACTOR SPRINKLERS

K-Factor	Type	Temperature	Bulb Liquid Color	Sprinkler Finish ⁸			
				Natural Brass	Chrome Plated	Polyester ^c	Lead Coated
5.6 1/2 in. NPT	Pendent (TY3231)	135°F (57°C)	Orange	1, 2, 3, 4, 5, 6, 7			1, 2, 3, 5, 7
		155°F (68°C)	Red				
		175°F (79°C)	Yellow				
		200°F (93°C)	Green				
		286°F (141°C)	Blue				
	Upright (TY3131)	135°F (57°C)	Orange	1, 2, 3, 5, 6, 7			1, 2, 3, 5, 7
		155°F (68°C)	Red				
		175°F (79°C)	Yellow				
		200°F (93°C)	Green				
		286°F (141°C)	Blue				
	Recessed Pendent (TY3231) ^a Figure 10	135°F (57°C)	Orange	1, 2, 4, 5, 7			N/A ^d
		155°F (68°C)	Red				
		175°F (79°C)	Yellow				
		200°F (93°C)	Green				
		286°F (141°C)	Blue				
	Recessed Pendent (TY3231) ^b Figure 11	135°F (57°C)	Orange	1, 2, 3, 4, 5, 7			N/A
		155°F (68°C)	Red				
		175°F (79°C)	Yellow				
		200°F (93°C)	Green				
		286°F (141°C)	Blue				

NOTES

a. Installed with Style 10 (1/2 in. NPT) or Style 40 (3/4 in. NPT) 3/4 in. Total Adjustment Recessed Escutcheon, as applicable.

b. Installed with Style 20 (1/2 in. NPT) or Style 30 (3/4 in. NPT) 1/2 in. Total Adjustment Recessed Escutcheon, as applicable.

c. Frame and Deflector only.

d. Not available (N/A).

1. Listed by Underwriters Laboratories, Inc., (UL) as Quick Response Sprinklers.

2. Listed by Underwriters Laboratories, Inc., for use in Canada (C-UL) as Quick Response Sprinklers.

3. Approved by Factory Mutual Research Corporation (FM) as Quick Response Sprinklers.

4. Approved by the Loss Prevention Certification Board (LPCB Ref. No. 007k/04) as Quick Response Sprinklers. Note the following exceptions:

- LPCB does not rate the thermal sensitivity of recessed sprinklers.
- The recessed pendent (TY3231) sprinklers with a 286°F (141°C) temperature rating are not LPCB Approved.

5. Approved by the City of New York under MEA 354-01-E.

6. VdS Approved (For details, contact Johnson Controls, Enschede, Netherlands, Tel. 31-53-428-4444/Fax 31-53-428-3377.)

7. EAC Approved.

8. Where Polyester Coated and Lead-Coated Sprinklers are noted to be UL and C-UL Listed, the sprinklers are UL and C-UL Listed as Corrosion-Resistant Sprinklers. Where Lead-Coated Sprinklers are noted to be FM Approved, the sprinklers are FM Approved as a Corrosion-Resistant Sprinklers.

TABLE C

LABORATORY LISTINGS AND APPROVALS FOR

5.6 K-FACTOR SPRINKLERS

K-Factor	Type	Temperature	Bulb Liquid Color	Sprinkler Finish ⁹					
				Natural Brass	Chrome Plated	Polyester ^c	Lead Coated		
8.0 3/4 in. NPT	Pendent (TY4231)	135°F (57°C)	Orange	1, 2, 3, 4, 5, 6, 7, 8		1, 2, 5, 8			
		155°F (68°C)	Red						
		175°F (79°C)	Yellow						
		200°F (93°C)	Green						
		286°F (141°C)	Blue						
	Upright (TY4131)	135°F (57°C)	Orange				1, 2, 5, 8		N/A ^d
		155°F (68°C)	Red						
		175°F (79°C)	Yellow						
		200°F (93°C)	Green						
		286°F (141°C)	Blue						
	Recessed Pendent (TY4231) ^a Figure 12	135°F (57°C)	Orange	1, 2, 3, 5, 8		N/A			
		155°F (68°C)	Red						
		175°F (79°C)	Yellow						
		200°F (93°C)	Green						
		286°F (141°C)	Blue						
	Recessed Pendent (TY4231) ^b Figure 13	135°F (57°C)	Orange				1, 2, 4, 5, 6, 8		1, 2, 5, 8
		155°F (68°C)	Red						
		175°F (79°C)	Yellow						
		200°F (93°C)	Green						
		286°F (141°C)	Blue						
8.0 1/2 in. NPT	Pendent (TY4931)	135°F (57°C)	Orange	1, 2, 4, 5, 6, 8		1, 2, 5, 8			
		155°F (68°C)	Red						
		175°F (79°C)	Yellow						
		200°F (93°C)	Green						
		286°F (141°C)	Blue						
	Upright (TY4831)	135°F (57°C)	Orange				1, 2, 4, 5, 6, 8		1, 2, 5, 8
		155°F (68°C)	Red						
		175°F (79°C)	Yellow						
		200°F (93°C)	Green						
		286°F (141°C)	Blue						

NOTES

a. Installed with Style 10 (1/2 in. NPT) or Style 40 (3/4 in. NPT) 3/4 in. Total Adjustment Recessed Escutcheon, as applicable.

b. Installed with Style 20 (1/2 in. NPT) or Style 30 (3/4 in. NPT) 1/2 in. Total Adjustment Recessed Escutcheon, as applicable.

c. Frame and Deflector only.

d. Not available (N/A).

1. Listed by Underwriters Laboratories, Inc., (UL) as Quick Response Sprinklers.

2. Listed by Underwriters Laboratories, Inc., for use in Canada (C-UL) as Quick Response Sprinklers.

3. Approved by Factory Mutual Research Corporation (FM) as Quick Response Sprinklers.

4. Approved by the Loss Prevention Certification Board (LPCB Ref. No. 007k/04) as Quick Response Sprinklers. However, LPCB does not rate the thermal sensitivity of recessed sprinklers.

5. Approved by the City of New York under MEA 354-01-E.

6. VdS Approved (For details, contact Johnson Controls, Enschede, Netherlands, Tel. 31-53-428-4444/Fax 31-53-428-3377.)

7. Approved by the Loss Prevention Certification Board (LPCB Ref. No. 094a/06) as Quick Response Sprinklers.

8. EAC Approved.

9. Where Polyester Coated and Lead-Coated Sprinklers are noted to be UL and C-UL Listed, the sprinklers are UL and C-UL Listed as Corrosion-Resistant Sprinklers. Where Lead-Coated Sprinklers are noted to be FM Approved, the sprinklers are FM Approved as a Corrosion-Resistant Sprinklers.

TABLE D

LABORATORY LISTINGS AND APPROVALS FOR

8.0 K-FACTOR SPRINKLERS

K-Factor	Type	Sprinkler Finish			
		Natural Brass	Chrome Plated	Polyester	Lead Coated
2.8 1/2 in. NPT	Pendent (TY1231) and Upright (TY1131)	175 psi (12,1 bar)			N/A ²
	Recessed Pendent (TY1231)				
4.2 1/2 in. NPT	Pendent (TY2231) and Upright (TY2131)	175 psi (12,1 bar)			N/A
	Recessed Pendent (TY2231)				
5.6 1/2 in. NPT	Pendent (TY3231) and Upright (TY3131)	250 psi (17,2 bar) or 175 psi (12,1 bar) ¹			
	Recessed Pendent (TY3231)				
8.0 3/4 in. NPT	Pendent (TY4231) and Upright (TY4131)	175 psi (12,1 bar)			175 psi (12,1 bar)
	Recessed Pendent(TY4231)				N/A
8.0 1/2 in. NPT	Pendent (TY4931) and Upright (TY4831)	175 psi (12,1 bar)			175 psi (12,1 bar)
NOTES					
1. The maximum working pressure of 250 psi (17,2 bar) only applies to the Listing by Underwriters Laboratories Inc. (UL); the Listing by Underwriters Laboratories, Inc. for use in Canada (C-UL); and, the Approval by the City of New York.					
2. Not available (N/A).					
TABLE E MAXIMUM WORKING PRESSURE					

P/N 57 – XXX – X – XXX						
		SIN	SPRINKLER FINISH		TEMPERATURE RATINGS	
330	2.8K UPRIGHT (1/2 in. NPT)	TY1131	1	NATURAL BRASS	135	135°F (57°C)
331	2.8K PENDENT (1/2 in. NPT)	TY1231	3	PURE WHITE POLYESTER (RAL9010) ¹	155	155°F (68°C)
340	4.2K UPRIGHT (1/2 in. NPT)	TY2131	4	SIGNAL WHITE POLYESTER (RAL9003)	175	175°F (79°C)
341	4.2K PENDENT (1/2 in. NPT)	TY2231	5	JET BLACK POLYESTER (RAL9005) ²	200	200°F (93°C)
370	5.6K UPRIGHT (1/2 in. NPT)	TY3131	7	LEAD COATED	286	286°F (141°C)
371	5.6K PENDENT (1/2 in. NPT)	TY3231	9	CHROME PLATED		
390	8.0K UPRIGHT (3/4 in. NPT)	TY4131				
391	8.0K PENDENT (3/4 in. NPT)	TY4231				
360	8.0K UPRIGHT (1/2 in. NPT)	TY4831				
361	8.0K PENDENT (1/2 in. NPT)	TY4931				

NOTES
1. Eastern Hemisphere sales only.
2. Available in only 2.8K, 4.2K, and 8.0K, 155°F (68°C) and 200°F (93°C); requires longer lead time to manufacture.

TABLE F
SERIES TY-FRB PENDENT AND UPRIGHT SPRINKLERS
PART NUMBER SELECTION

Limited Warranty

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

Ordering Procedure

Contact your local distributor for availability. When placing an order, indicate the full product name and Part Number (P/N).

Sprinkler Assemblies with NPT Thread Connections

Specify: Series TY-FRB (Specify SIN), (specify K-factor), (specify Pendent or Upright) Sprinkler (specify) temperature rating, (specify) finish or coating, P/N (specify from Table F)

Recessed Escutcheon

Specify: Style (10, 20, 30, or 40) Recessed Escutcheon with (specify*) finish, P/N (specify*)

* Refer to technical data sheet TFP770

Sprinkler Wrench

Specify: W-Type 6 Sprinkler Wrench, P/N 56-000-6-387

Specify: W-Type 7 Sprinkler Wrench, P/N 56-850-4-001

Fire Sprinkler Pipe

Schedule 10 and Schedule 40

Submittal Data Sheet



FM Approved and Fully Listed Sprinkler Pipe

Wheatland Tube's Schedule 10 and Schedule 40 steel fire sprinkler pipe is FM Approved and UL® and C-UL Listed.

Approvals and Specifications

Schedule 10 and Schedule 40 meet or exceed the following standards:

- ASTM A135, Type E, Grade A (Schedule 10, 1-8 NPS)
- ASTM A795, Type E, Grade A (Schedule 40, 1-2 NPS)
- ASTM A53, Type E, Grade B (Schedule 40, 2-8 NPS)
- ASTM A53, Type F, Grade A (Schedule 40, 1-4 NPS)
- NFPA® 13 and NFPA 14

Manufacturing Protocols

Schedule 10 and Schedule 40 are subjected to the toughest possible testing protocols to ensure the highest quality and long-lasting performance.

Finishes and Coatings

All Wheatland black steel fire sprinkler pipe receives a proprietary mill coating to ensure a clean, corrosion-resistant surface that outperforms and outlasts standard lacquer coatings. This coating allows the pipe to be easily painted, without special preparation. Schedule 10 and Schedule 40 can be ordered in black or hot-dip galvanized, to meet FM/UL requirements for dry systems that meet the zinc coating specifications of ASTM A795 or A53.

Product Marking

Each length of Wheatland fire sprinkler pipe is continuously stenciled to show the manufacturer, type of pipe, grade, size and length. Bar coding is acceptable as a supplementary identification method.

SUBMITTAL INFORMATION

PROJECT:

CONTRACTOR:

DATE:

ENGINEER:

SPECIFICATION REFERENCE:

SYSTEM TYPE:

LOCATIONS:

COMMENTS:

☒ BLACK

☐ HOT-DIP GALVANIZED



Fire Sprinkler Pipe

Schedule 10 and Schedule 40

Submittal Data Sheet



SCHEDULE 10 WEIGHTS AND DIMENSIONS

NPS	NOMINAL OD		NOMINAL ID		NOMINAL WALL		WT./FT.	WT./FT. H ₂ O FILLED	PCS./LIFT	WT./LIFT 21'	WT./LIFT 24'	WT./LIFT 25'	UL
	in.	mm	in.	mm	in.	mm	lbs.	lbs.		lbs.	lbs.	lbs.	CRR*
1	1.315	33.4	1.097	27.9	0.109	2.77	1.405	1.814	70	2065	2360	2459	11.4
1¼	1.660	42.2	1.442	36.6	0.109	2.77	1.807	2.514	61	2315	2645	2756	7.3
1½	1.900	48.3	1.682	42.7	0.109	2.77	2.087	3.049	61	2673	3055	3183	5.8
2	2.375	60.3	2.157	54.8	0.109	2.77	2.640	4.222	37	2051	2344	2442	4.7
2½	2.875	73.0	2.635	66.9	0.120	3.05	3.354	5.895	30	2226	2544	2651	3.5
3	3.500	88.9	3.260	82.8	0.120	3.05	4.336	7.949	19	1730	1977	2060	2.6
4	4.500	114.3	4.260	108.2	0.120	3.05	5.619	11.789	19	2242	2562	2669	1.6
5	5.563	141.3	5.295	134.5	0.134	3.40	7.780	17.309	13	2124	2427	2529	1.5
6	6.625	168.3	6.357	161.5	0.134	3.40	9.298	23.038	10	1953	2232	2325	1.0
8	8.625	219.1	8.249	209.5	0.188	4.78	16.960	40.086	7	2493	2849	2968	2.1

SCHEDULE 40 WEIGHTS AND DIMENSIONS

NPS	NOMINAL OD		NOMINAL ID		NOMINAL WALL		WT./FT.	WT./FT. H ₂ O FILLED	PCS./LIFT	WT./LIFT 21'	WT./LIFT 24'	WT./LIFT 25'	UL
	in.	mm	in.	mm	in.	mm	lbs.	lbs.		lbs.	lbs.	lbs.	CRR*
1	1.315	33.4	1.049	26.6	0.133	3.38	1.68	2.055	70	2470	2822	2940	1.000
1¼	1.660	42.2	1.380	35.1	0.140	3.56	2.27	2.922	51	2431	2778	2894	1.000
1½	1.900	48.3	1.610	40.9	0.145	3.68	2.72	3.602	44	2513	2872	2992	1.000
2	2.375	60.3	2.067	52.5	0.154	3.91	3.66	5.109	24	1845	2108	2196	1.000
2½	2.875	73.0	2.469	62.7	0.203	5.16	5.80	7.871	20	2436	2784	2900	1.000
3	3.500	88.9	3.068	77.9	0.216	5.49	7.58	10.783	13	2069	2365	2464	1.000
3½	4.000	101.6	3.548	90.1	0.226	5.74	9.12	13.400	10	1915	2189	2280	1.000
4	4.500	114.3	4.026	102.3	0.237	6.02	10.80	16.311	10	2268	2592	2700	1.000
5	5.563	141.3	5.047	128.2	0.258	6.55	14.63	23.262	7	2151	2458	2560	1.000
6	6.625	168.3	6.065	154.1	0.280	7.11	18.99	31.498	5	1994	2279	2374	1.000
8**	8.625	219.1	7.981	202.7	0.322	8.18	28.58	50.240	5	3001	3430	3573	1.000

* Calculated using Standard UL CRR formula, UL Fire Protection Directory, Category VIZY. The CRR is a ratio value used to measure the ability of a pipe to withstand corrosion. Threaded Schedule 40 steel pipe is used as the benchmark (value of 1.0).

** 8 NPS Schedule 40 is FM Approved but not UL Listed.

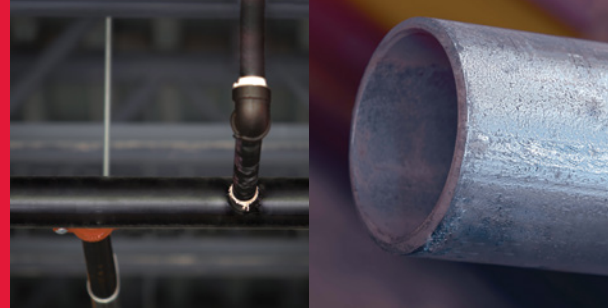


WFS-060520



Fire Sprinkler Pipe

MLT Black, Light Wall, Threadable
and GL Galvanized, Light Wall, Threadable
Submittal Data Sheet



FM Approved and Fully Listed Sprinkler Pipe

Wheatland Tube's MLT and GL steel fire sprinkler pipe are FM Approved for wet systems and are UL® and C-UL Listed and FM Approved for wet, dry and preaction deluge systems.

Approvals and Specifications

Both products meet or exceed the following standards:

- ASTM A795, Type E, Grade A for fire sprinkler applications up to 300 psi working pressure
- Threaded and welded fittings are approved in accordance with NFPA® 13

Manufacturing Protocols

MLT and GL are subjected to the toughest possible testing protocols to ensure the highest quality and long-lasting performance.

Finishes and Coatings

MLT, like all Wheatland black steel fire sprinkler pipe, receives a proprietary mill coating to ensure a clean, corrosion-resistant surface that outperforms and outlasts standard lacquer coatings. GL has a galvanized OD and is readily paintable.

Product Marking

Each length of Wheatland fire sprinkler pipe is continuously stenciled to show the manufacturer, type of pipe, grade, size and length. Barcoding is acceptable as a supplementary identification method.

MLT SPECIFICATIONS

NPS	NOM ID		UL THREADED CRR*			MLT	
	MLT	Schedule 40	MLT	Schedule 40	Mega-Thread	Nominal wt./ft.	Pcs./Lift
1	1.103	1.049	0.61	1.00	1.00	1.370	91
1¼	1.448	1.380	0.39	1.00	1.00	1.761	61
1½	1.688	1.610	0.31	1.00	1.00	2.033	61
2	2.153	2.067	0.25	1.00	1.00	2.686	37

* Calculated using Standard UL CRR formula, UL Fire Protection Directory, Category VIZY. The CRR is a ratio value used to measure the ability of a pipe to withstand corrosion. Threaded Schedule 40 steel pipe is used as the benchmark (value of 1.0).

GL SPECIFICATIONS

NPS	NOM ID		UL THREADED CRR*			GL	
	GL	Schedule 40	GL	Schedule 40	Mega-Thread	Nominal wt./ft.	Pcs./Lift
1	1.103	1.049	0.61	1.00	1.00	1.370	91
1¼	1.448	1.380	0.39	1.00	1.00	1.761	61
1½	1.688	1.610	0.31	1.00	1.00	2.033	61
2	2.153	2.067	0.25	1.00	1.00	2.686	37

* Calculated using Standard UL CRR formula, UL Fire Protection Directory, Category VIZY. The CRR is a ratio value used to measure the ability of a pipe to withstand corrosion. Threaded Schedule 40 steel pipe is used as the benchmark (value of 1.0).



SUBMITTAL INFORMATION

PROJECT:

CONTRACTOR:

DATE:

ENGINEER:

SPECIFICATION REFERENCE:

SYSTEM TYPE:

LOCATIONS:

COMMENTS:

☐ MLT

☐ GL

WFS-052920



FIG. MT-1 Threaded Mechanical Branch Tee



Mechanical branch connections are used for reducing branch outlets without welding. The MT-1 is a bolted saddle type fitting with NPT female threaded outlets. Design assures superior sealing, full pipe support, excellent stability and easy installation.

For the latest UL/ULC listed, LPCB, VdS and FM Approved pressure ratings versus pipe schedule, see www.anvilintl.com or contact your local Anvil Representative.



For Listings/Approval Details and Limitations, visit our website at www.anvilintl.com or contact an Anvil® Sales Representative.

MATERIAL SPECIFICATIONS

HOUSING:

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

BOLTS:

SAE J429, Grade 5, Zinc Electroplated

ISO 898-1, Class 8.8, Zinc Electroplated followed by a Yellow Chromate Dip

HEAVY HEX NUTS:

ASTM A563, Grade A, Zinc Electroplated

ISO 898-2, Class 8.8, Zinc Electroplated followed by a Yellow Chromate Dip

COATINGS:

- ☐ Rust inhibiting paint Color: ORANGE (standard)
 - ☐ Hot Dipped Zinc Galvanized (optional)
 - ☐ Other available options: Example: RAL3000 or RAL9000 Series
- For other coating requirements contact an Anvil Representative.

LUBRICATION:

- ☐ Standard Gruvlok
- ☐ Gruvlok Xtreme™ required for dry pipe systems and freezer applications.

GASKETS: Materials

Properties as designated in accordance with ASTM D-2000.

☐ Grade "E" EPDM (Green color code)

-40°F to 230°F (Service Temperature Range)(-40°C to 110°C)

Recommended for water service, diluted acids, alkalies solutions, oil-free air and many chemical services.

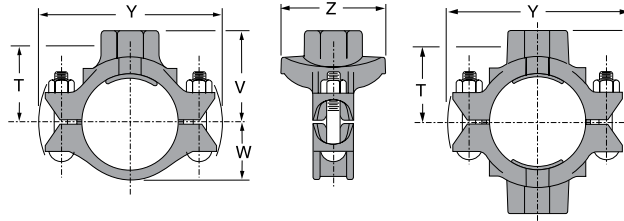
NOT FOR USE IN PETROLEUM APPLICATIONS.

PROJECT INFORMATION

APPROVAL STAMP

Project:	☐ Approved
Address:	☐ Approved as noted
Contractor:	☐ Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
- Job Copy	

FIG. MT-1 Threaded Mechanical Branch Tee



MT-1 THREADED MECHANICAL BRANCH TEE

Nominal Size	O.D.	Hole Dimensions		Max. Working Pressure ▲	Dimensions					Bolt Size	Approx. Wt. Ea.
		Min. Diameter	Max. Diameter		T	V Threaded	W	Y	Z		
In./DN(mm)	In./mm	In./mm	In./mm	PSI/bar	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	Lbs./Kg
2 x 1 50 x 25	2.375 x 1.315 60.3 x 33.7	1 1/2 38	1 1/8 41	300 20.7	1 15/16 50	2 1/8 67	1 1/8 40	4 1/8 117	2 1/2 63	3/8 x 2	1.7 0.8
2 x 1 1/4 50 x 32	2.375 x 1.660 60.3 x 42.4	1 3/4 44	1 1/8 48	300 20.7	1 15/16 49	2 1/8 67	1 1/8 40	4 1/8 117	2 1/2 63	3/8 x 2	1.7 0.8
2 x 1 1/2 50 x 40	2.375 x 1.900 60.3 x 48.3	1 3/4 44	1 1/8 48	300 20.7	1 15/16 49	2 1/8 67	1 1/8 40	4 1/8 117	2 1/2 73	3/8 x 2	1.7 0.8
2 1/2 x 1 65 x 25	2.875 x 1.315 73.0 x 33.7	1 1/2 38	1 1/8 41	300 20.7	2 1/8 62	3 1/8 79	1 13/16 46	5 1/8 141	3 3/8 86	1/2 x 2 3/4	3.6 1.6
2 1/2 x 1 1/4 65 x 32	2.875 x 1.660 73.0 x 42.4	2 51	2 1/8 54	300 20.7	2 1/8 62	3 1/8 79	1 13/16 46	5 1/8 141	3 3/8 86	1/2 x 2 3/4	3.6 1.6
2 1/2 x 1 1/2 65 x 40	2.875 x 1.900 73.0 x 48.3	2 51	2 1/8 54	300 20.7	2 1/8 62	3 1/8 79	1 13/16 46	5 1/8 141	3 3/8 86	1/2 x 2 3/4	3.6 1.6
3 x 1 80 x 25	3.500 x 1.315 88.9 x 33.7	1 1/2 38	1 1/8 41	300 20.7	2 3/4 71	3 1/8 87	2 1/8 55	6 1/4 159	3 15/16 99	1/2 x 2 3/4	3.8 1.7
3 x 1 1/4 80 x 32	3.500 x 1.660 88.9 x 42.4	2 51	2 1/8 54	300 20.7	2 3/4 70	3 1/8 87	2 1/8 55	6 1/4 159	3 15/16 99	1/2 x 2 3/4	3.8 1.7
3 x 1 1/2 80 x 40	3.500 x 1.900 88.9 x 48.3	2 51	2 1/8 54	300 20.7	2 3/4 70	3 1/8 87	2 1/8 55	6 1/4 159	3 15/16 99	1/2 x 2 3/4	3.8 1.7
3 x 2 80 x 50	3.500 x 2.375 88.9 x 60.3	2 1/2 64	2 3/8 67	300 20.7	2 3/4 70	3 1/8 87	2 1/8 55	6 1/4 159	3 15/16 99	1/2 x 2 3/4	4.4 2.0
4 x 1 100 x 25	4.500 x 1.315 114.3 x 33.7	1 1/2 38	1 1/8 41	300 20.7	3 5/8 85	4 102	2 3/8 67	7 1/4 184	3 13/16 97	1/2 x 2 3/4	4.6 2.1
4 x 1 1/4 100 x 32	4.500 x 1.660 114.3 x 42.4	2 51	2 1/8 54	300 20.7	3 5/8 84	4 102	2 3/8 67	7 1/4 184	3 13/16 97	1/2 x 2 3/4	4.6 2.1
4 x 1 1/2 100 x 40	4.500 x 1.900 114.3 x 48.3	2 51	2 1/8 54	300 20.7	3 5/8 84	4 102	2 3/8 67	7 1/4 184	3 13/16 97	1/2 x 2 3/4	4.6 2.1
4 x 2 100 x 50	4.500 x 2.375 114.3 x 60.3	2 1/2 64	2 3/8 67	300 20.7	3 5/8 84	4 102	2 3/8 67	7 1/4 184	4 1/2 115	1/2 x 2 3/4	4.8 2.2
4 x 2 1/2 100 x 65	4.500 x 2.875 114.3 x 73.0	2 3/4 70	2 3/8 73	300 20.7	3 5/8 78	4 102	2 3/8 67	7 1/4 184	4 1/2 115	1/2 x 2 3/4	5.4 2.4
4 x 3 100 x 80	4.500 x 3.500 114.3 x 88.9	3 1/2 89	3 3/8 92	300 20.7	3 76	4 1/8 105	2 3/8 67	7 1/4 184	5 1/8 130	1/2 x 2 3/4	5.4 2.4
5 x 1 1/2 125 x 40	5.563 x 1.900 141.3 x 48.3	2 51	2 1/8 54	300 20.7	4 1/8 103	4 3/4 121	3 13/16 81	8 1/8 211	3 13/16 97	5/8 x 4	7.4 3.4
5 x 2 125 x 50	5.563 x 2.375 141.3 x 60.3	2 1/2 64	2 3/8 67	300 20.7	4 1/8 103	4 3/4 121	3 13/16 81	8 1/8 211	3 13/16 97	5/8 x 4	7.9 3.6
5 x 2 1/2 125 x 65	5.563 x 2.875 141.3 x 73.0	2 3/4 70	2 3/8 73	300 20.7	3 13/16 97	4 3/4 121	3 13/16 81	8 1/8 211	3 13/16 97	5/8 x 4	7.9 3.6
6 x 1 1/4 150 x 32	6.625 x 1.660 168.3 x 42.2	2 51	2 1/8 54	300 20.7	3 13/16 97	4 15/16 126	3 11/16 94	9 3/8 238	3 3/8 98	5/8 x 4	8.0 3.6
6 x 1 1/2 150 x 40	6.625 x 1.900 168.3 x 48.3	2 51	2 1/8 54	300 20.7	4 1/8 113	5 1/8 130	3 11/16 94	9 3/8 238	3 3/8 98	5/8 x 4	7.5 3.4
6 x 2 150 x 50	6.625 x 2.375 168.3 x 60.3	2 1/2 64	2 3/8 67	300 20.7	4 1/8 112	5 1/8 130	3 11/16 94	9 3/8 238	4 1/16 112	5/8 x 4	8.0 3.6
6 x 2 1/2 150 x 65	6.625 x 2.875 168.3 x 73.0	2 3/4 70	2 3/8 73	300 20.7	4 3/8 106	5 1/8 130	3 11/16 94	9 3/8 238	4 1/16 112	5/8 x 4	8.0 3.6
6 x 3 150 x 80	6.625 x 3.500 168.3 x 88.9	3 1/2 89	3 3/8 92	300 20.7	4 3/8 105	5 1/4 133	3 11/16 94	9 3/8 238	5 1/8 143	5/8 x 4	9.7 4.4
8 x 2 200 x 50	8.625 x 2.375 219.1 x 60.3	2 1/2 64	2 3/8 67	300 20.7	5 1/8 138	6 1/4 159	4 3/8 123	10 1/16 313	4 1/16 112	3/4 x 4 1/4	10.2 4.6

All sizes may be used as mechanical crosses.

Threads are NPT per ANSI/ASME B1.20.1

▲ – Working Pressure Ratings are for reference only and based on Sch. 10 and Sch. 40 pipe. For the latest UL/ULC, FM, VdS and LPCB pressure ratings versus pipe schedule, please visit anvilintl.com or contact your local Anvil Representative.



For dry pipe systems and freezer applications lubrication of the gasket is required, Gruvlok® Xtreme™ Lubricant is required.

FIG. MT-1 & MT-8

Threaded Mechanical Branch Tees



ALWAYS USE A GRUVLOK® SPF/ANVIL® LUBRICANT FOR PROPER COUPLING ASSEMBLY. Thorough lubrication of the gasket is essential to assist the gasket into the proper sealing position.

1 Pipe preparation

Cut the appropriate size hole in the pipe and remove any burrs. Be sure to remove the slug from inside the pipe. Clean the gasket sealing surface within $\frac{5}{8}$ " (16mm) of the hole and visually inspect the sealing surface for defects that may prevent proper sealing of the gasket.

BRANCH SIZE	HOLE SAW SIZE	FLOW DATA	
		MT-1	MT-8
Inches (mm)	Inches $\pm \frac{1}{16}$, -0 (mm ± 3 , -0)	(see note)	
1 25	1½ 38	2 0.61	2 0.61
1¼(2"run) 32 (50mm run)	1¾ 44	4 1.22	4 1.22
1¼(2½"-6" run) 32 (65-150mm run)	2 51	4 1.22	4 1.22
1½(2"run) 40 (50mm run)	1¾ 44	8 2.44	4 1.22
1½(2½"-6" run) 40 (65-150mm run)	2 51	8 2.44	4 1.22
2 50	2½ 64	9 2.74	9 2.74
2½ 65	2¾ 70	10 3.05	10 3.05
3 O.D. 76.1	2¾ 70	7 2.13	7 2.13
3 80.4	3½ 89	8 2.44	8 2.44

Step 2



2 Check and lubricate gasket

Check the gasket to be sure it is compatible for the intended service. Apply a thin layer of Gruvlok SPF/Anvil lubricant to the back surface of the gasket. Be careful that foreign particles do not adhere to the lubricated surfaces. Insert the gasket back into the outlet housing making sure the tabs in the gasket line up with the tab recesses in the housing.

Step 3



3 Gasket installation

Lubricate the exposed surface of the gasket. Align the outlet housing over the pipe hole making sure that the locating collar is in the pipe hole.

Step 4



4 Alignment

Align the strap around the pipe, insert the bolts and tighten the nuts finger tight.

Step 5



5 Tighten nuts

Alternately and evenly tighten the nuts to the specified bolt torque.

Step 6



6 Assembly is complete

Specified Bolt Torque

Specified bolt torque is for the oval neck track bolts used on SPF® threaded mechanical branches. The nuts must be tightened alternately and evenly until fully tightened.

Caution: Proper torquing of mechanical branch bolts is required to obtain specified performance. **Over torquing the bolts may result in damage to the bolt and/or casting which could result in pipe joint separation.** Under torquing the bolts may result in lower pressure retention capabilities, lower bend load capabilities, joint leakage and pipe joint separation. Pipe joint separation may result in significant property damage and serious injury.

ANSI Specified Bolt Torque		
Bolt Size	Wrench Size	Specified Bolt Torque*
In.	In.	FT.-Lbs
¾	11/16	30-45
1½	7/8	80-100
5/8	11/16	100-130
¾	1¼	130-180

* Non-lubricated bolt torque

Metric Specified Bolt Torque		
Bolt Size	Wrench Size	Specified Bolt Torque*
mm	mm	N-M
M10	16	40-60
M12	22	110-150
M16	24	135-175
M20	30	175-245

* Non-lubricated bolt torque

Mechanical-T® Bolted Branch Outlets

STYLES 920 AND 920N



Victaulic Mechanical-T® Outlet provides a direct branch connection at any location a hole can be cut in pipe. The hole is cut oversize to receive a "holefinder" locating collar which secures the outlet in position permanently. A pressure responsive gasket seals on the pipe O.D.

Cross-type connections can be achieved by utilizing two upper housings of the same style and size, with the same or differing branch size connections. NOTE: Style 920 and Style 920N housings cannot be mated to each other to achieve a cross connection.

Style 920 and Style 920N Mechanical-T outlets are available with grooved or female threaded outlet. Specify choice on order. Units are supplied painted with plated bolts. Galvanized housings are available, supplied with plated bolts.

All sizes of Style 920 and 920N are rated at 500 psi/3450 kPa working pressure on Schedule 10 and 40 carbon steel pipe. They may also be used on high density polyethylene or polybutylene (HDPE) pipe. Pressure ratings on HDPE are dependent on the pipe rating. Contact Victaulic for ratings on other pipe. **Style 920 and 920N are not recommended for use on PVC plastic pipe.**

Standard piping practices dictate that the Mechanical-T Styles 920 and 920N must be installed so that the main and branch connections are a true 90° angle when permanently attached to the pipeline surface.

Additionally, the Vic-Tap II® hole cutting tool, which allows for hole cutting capabilities on pressurized systems, utilizes the Style 920 Mechanical-T in conjunction with the Series 726 Vic-Ball Valve to create the Style 931 Vic-Tap II Mechanical-T unit. See page 8 for further information.



STYLES 920 AND 920N

STYLE 920 CROSS

PATENTED

MATERIAL SPECIFICATIONS

Housing/Coating: Ductile iron conforming to ASTM A-536, grade 65-45-12, with orange enamel coating. Ductile iron conforming to ASTM A-395, grade 65-45-15, is available upon special request.

- **Optional:** Hot dipped galvanized

Gasket: (Specify choice*)

- **Grade "E" EPDM**

EPDM (Green color code). Temperature range -30°F to +230°F/-34°C to +110°C.

Recommended for cold and hot water service within the specified temperature range plus a variety of dilute acids, oil-free air and many chemical services. UL Classified in accordance with ANSI/NSF 61 for cold +86°F/+30°C and hot +180°F/+82°C. NOT RECOMMENDED FOR PETROLEUM SERVICES.

- **Grade "T" nitrile**

Nitrile (Orange color code). Temperature range -20°F to +180°F/-29°C to +82°C.

Recommended for petroleum products, air with oil vapors, vegetable and mineral oils within the specified temperature range. Not recommended for hot water services over +150°F/+66°C or for hot dry air over +140°F/+60°C.

*Services listed are General Service Recommendations only. It should be noted that there are services for which these gaskets are not recommended. Reference should always be made to the latest Victaulic Gasket Selection Guide for specific gasket service recommendations and for a listing of services which are not recommended.

Bolts/Nuts: Heat-treated plated carbon steel, trackhead meeting the physical and chemical requirements of ASTM A-449 and physical requirements of ASTM A-183.

JOB/OWNER

System No. _____

Location _____

CONTRACTOR

Submitted By _____

Date _____

ENGINEER

Spec Sect _____ Para _____

Approved _____

Date _____

www.victaulic.com

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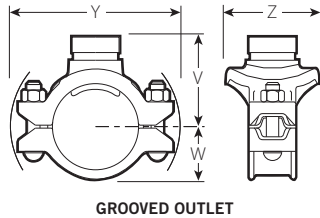


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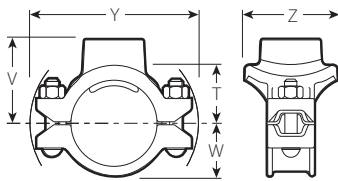
Mechanical-T® Bolted Branch Outlets

STYLES 920 AND 920N

DIMENSIONS



GROOVED OUTLET



FEMALE THREADED OUTLET

- Provides a direct branch connection at any location where a hole can be cut in the pipe
- A pressure responsive gasket provides the seal
- Request Publication 11.03 for Mechanical-T cross assemblies
- Pressure rated up to 500 psi/3450 kPa on steel pipe; also available for use with HDPE pipe
- Sizes from 2 × ½"/50 × 15 mm through 8 × 4"/200 × 100 mm

IMPORTANT NOTES:

Style 920 and Style 920N housings cannot be mated to one another to achieve cross connections.

Size	Style No.	Max. Work Pressure@	Dimensions							Approx. Weight Each	
Run × Branch Nominal Size Inches mm	920 or 920N	psi kPa	Hole Diameter +0.13 -0.00 Inches mm	T** Inches mm	V † # Thd. Inches mm	V ‡ Grv. Inches mm	W Inches mm	Y Inches mm	Z Inches mm	Female Thd. Lbs. kg	Grv. Lbs. kg
2 50 × ½ (a) □ 15	920N	500 3450	1.50 38.1	2.00 51	2.53 64	—	1.61 41	5.35 136	2.75 70	3.1 1.5	—
	920N	500 3450	1.50 38.1	1.97 50	2.53 64	—	1.61 41	5.35 136	2.75 70	3.1 1.5	—
	920N	500 3450	1.50 38.1	1.85 47	2.53 64	—	1.61 41	5.35 136	2.75 70	3.0 1.4	—
	920N	500 3450	1.75 44.5	2.05 52	2.75 70	3.00 76	1.61 41	5.35 136	3.00 76	3.5 1.7	3.2 1.5
	920N	500 3450	1.75 44.5	2.03 52	2.75 70	3.12 79	1.61 41	5.35 136	3.25 83	3.6 1.7	3.2 1.5
2½ 65 × ½ (a) § □ 15	920N	500 3450	1.50 38.1	2.21 56	2.74 70	—	1.82 46	5.64 143	2.75 70	3.0 1.4	—
	920N	500 3450	1.50 38.1	2.18 55	2.74 70	—	1.82 46	5.64 143	2.75 70	3.0 1.4	—
	920N	500 3450	1.50 38.1	2.06 52	2.74 70	—	1.82 46	5.64 143	2.75 70	2.9 1.4	—
	920N	500 3450	1.75 44.5	2.30 58	3.00 76	3.25 83	1.82 46	6.29 160	3.00 76	3.5 1.7	3.2 1.5
	920N	500 3450	2.00 50.8	2.28 58	3.00 76	3.25 83	1.82 46	6.26 159	3.25 83	3.6 1.7	3.3 1.6
76.1 × ½ (a) □ 15	920N	300 2065	1.50 38.1	2.22 56	2.75 70	—	2.25 57	6.46 164	3.18 81	3.9 1.8	—
	920N	300 2065	1.50 38.1	2.19 56	2.75 70	—	2.25 57	6.46 164	3.18 81	3.9 1.8	—
	920N	300 2065	1.50 38.1	2.07 53	2.75 70	—	2.25 57	6.46 164	3.18 81	3.8 1.7	—
	920N	500 3450	1.75 44.5	2.30 58	3.00 76	3.31 84	1.92 49	6.29 160	3.00 76	3.5 1.6	3.2 1.5
	920N	500 3450	2.00 50.8	2.28 58	3.00 76	3.31 84	1.92 49	6.29 160	3.25 83	3.5 1.6	3.3 1.5
3 80 × ½ (a) □ 15	920N	500 3450	1.50 38.1	2.52 64	3.05 78	—	2.28 58	6.15 156	2.75 70	3.4 1.6	—
	920N	500 3450	1.50 38.1	2.49 63	3.05 78	—	2.28 58	6.15 156	2.75 70	3.4 1.6	—
	920N	500 3450	1.50 38.1	2.38 61	3.06 78	—	2.28 58	6.15 156	2.75 70	3.3 1.6	—
	920N	500 3450	1.75 44.5	2.55 65	3.25 83	3.56 90	2.28 58	6.15 156	3.00 76	3.8 1.8	3.7 1.8
	920N	500 3450	2.00 50.8	2.78 71	3.50 89	3.56 90	2.28 58	6.15 156	3.25 83	4.1 1.9	3.8 1.8
	920N	500 3450	2.50 63.5	2.75 70	3.50 89	3.56 90	2.28 58	6.75 172	3.88 99	4.9 2.3	4.6 2.1
3½ 90 × 2 50	920N	500 3450	2.50 63.5	3.00 76	—	3.75 95	2.44 62	6.72 171	3.88 99	—	3.8 1.8

TABLE CONTINUED ON PG. 3

** Center of run to engaged pipe end, female threaded outlet only (dimensions approximate).

† Available with grooved or female threaded outlet. Specify choice on order.

‡ Center of run to end of fitting.

Female threaded outlets are available to NPT and BSPT specifications.

@ See page 7 for Fire Protection approvals and pressure ratings.

(a) British Standard female pipe threaded outlet is available as listed. Specify "BSPT" clearly on order.

(b) For 76.1 mm threaded outlet, specify 2½" BSPT clearly on order.

§ Vds approved for fire protection services

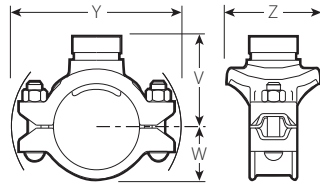
□ LPCB approved for fire protection services

Ø Approved for use in China by Tianjin Approvals Company.

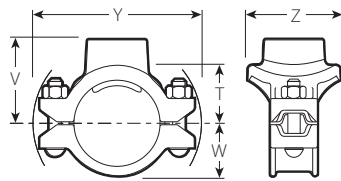
Mechanical-T[®] Bolted Branch Outlets

STYLES 920 AND 920N

DIMENSIONS



GROOVED OUTLET



FEMALE THREADED OUTLET

- Provides a direct branch connection at any location where a hole can be cut in the pipe
- A pressure responsive gasket provides the seal
- Request Publication 11.03 for Mechanical-T cross assemblies
- Pressure rated up to 500psi/3450kPa on steel pipe; also available for use with HDPE pipe
- Sizes from 2 × ½"/50 × 15mm through 8 × 4"/200 × 100mm

IMPORTANT NOTES:

Style 920 and Style 920N housings cannot be mated to one another to achieve cross connections.

Size		Style No.	Max. Work Pressure@	Dimensions							Approx. Weight Each		
Run x Branch Nominal Size Inches mm		920 or 920N	psi kPa	Hole Diameter +0.13 -0.00	T** Inches mm	V ‡ # Thd. Inches mm	V ‡ Grv. Inches mm	W Inches mm	Y Inches mm	Z Inches mm	Female Thd. Lbs. kg	Grv. Lbs. kg	
TABLE CONTINUED FROM PAGE 2													
4 100	x	1/2 (a) □ 15	920N	500 3450	1.50 38.1	3.03 77	3.56 90	—	2.69 68	7.01 178	2.75 70	3.7 1.8	—
		3/4 (a) □ 20	920N	500 3450	1.50 38.1	3.00 76	3.56 90	—	2.69 68	7.01 178	2.75 70	3.7 1.8	—
		1 (a) □ 25	920N	500 3450	1.50 38.1	2.88 73	3.56 90	—	2.69 68	7.01 178	2.75 70	3.6 1.8	—
		1 1/4 (a) † 32 (b)	920N	500 3450	1.75 44.5	3.08 78	3.78 96	4.00 102	2.69 68	7.01 178	3.00 76	4.0 1.9	3.6 1.8
		1 1/2 (a) † 40 (b)	920N	500 3450	2.00 50.8	3.28 83	4.00 102	4.00 102	2.69 68	7.01 178	3.25 83	4.2 2.0	3.9 1.9
		2 (a) † 50	920N	500 3450	2.50 63.5	3.25 83	4.00 102	4.00 102	2.69 68	7.01 178	3.88 99	5.0 2.3	4.6 2.1
		2 1/2 (a) † 65	920	500 3450	2.75 69.9	2.88 73	4.00 102	4.00 102	2.69 68	7.34 186	4.63 118	5.8 2.6	5.0 2.3
		76.1 mm	920	500 3450	2.75 69.9	2.88 73	—	4.00 102	2.69 68	7.34 186	4.63 118	—	6.4 2.9
		3 (a) † 80	920	500 3450	3.50 88.9	3.31 84	4.50 114	4.12 105	2.69 68	7.73 196	5.12 130	8.4 3.8	6.4 2.9
108.0	x	1 1/4 (a) □ 32	920N	500 3450	1.75 44.5	3.08 78	3.78 96	—	2.63 67	7.64 194	3.05 78	5.0 2.3	—
		1 1/2 (a) □ 40	920N	500 3450	2.00 50.8	3.28 83	4.00 102	—	2.63 67	7.64 194	3.25 83	5.0 2.3	—
		2 (a) 50	920N	500 3450	2.50 63.5	3.25 83	4.00 102	—	2.63 67	7.64 194	4.00 102	4.0 1.9	—
		76.1 mm	920	500 3450	2.75 69.9	2.88 73	4.00 102	4.00 102	2.63 67	7.64 194	4.29 109	8.0 3.6	7.8 3.5
		3 (a) 80	920	500 3450	3.50 88.9	3.31 84	4.50 114	4.50 114	2.63 67	7.63 194	4.88 124	6.8 3.1	6.5 3.0
5 125	x	1 1/2 (a) † 40	920	500 3450	2.00 50.8	4.03 102	4.75 121	4.75 121	3.16 80	9.70 246	3.69 94	7.4 3.4	7.6 3.4
		2 (a) † 50	920	500 3450	2.50 63.5	4.00 102	4.75 121	4.75 121	3.16 80	9.70 246	4.38 111	8.2 3.7	8.0 3.6
		2 1/2 (a) † 65	920	500 3450	2.75 69.9	3.63 92	4.75 121	4.75 121	3.16 80	9.70 246	4.63 118	8.3 3.8	7.9 3.6
		76.1 mm □	920	500 3450	2.75 69.9	3.75 95	—	4.75 121	3.16 80	9.70 246	4.63 118	—	8.0 3.6
		3 (a) † 80	920	500 3450	3.50 88.9	3.81 97	5.00 127	4.63 118	3.16 80	9.70 246	5.31 135	8.4 3.8	8.8 4.0
133.0	x	2 50	920N	500 3450	2.50 63.5	3.75 95	4.50 114	—	3.17 81	8.00 203	3.88 99	8.0 3.6	—
		3 80	920	500 3450	3.50 88.9	3.81 97	5.00 127	—	3.00 76	9.46 240	5.31 135	8.0 3.6	—
TABLE CONTINUED ON PG. 4													

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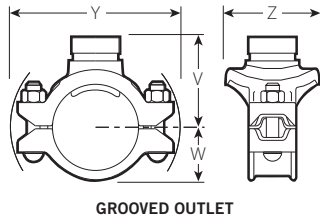
□ LPCB approved for fire protection services

∅ Approved for use in China by Tianjin Approvals Company.

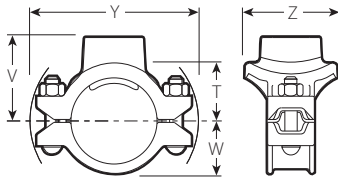
Mechanical-T® Bolted Branch Outlets

STYLES 920 AND 920N

DIMENSIONS



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IMPORTANT NOTES:

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Size	Style No.	Max. Work Pressure@	Dimensions								Approx. Weight Each		
Run × Branch Nominal Size Inches mm	920 or 920N	psi kPa	Hole Diameter +0.13 -0.00	T** Inches mm	V ‡ # Thd. Inches mm	V ‡ Grv. Inches mm	W Inches mm	Y Inches mm	Z Inches mm	Female Thd. Lbs. kg	Grv. Lbs. kg		
TABLE CONTINUED FROM PAGE 3													
139.7 ×	1½ † 40	920N	500 3450	2.00 50.8	3.78 96	4.50 114	—	3.30 84	8.23 209	3.25 83	7.0 3.2	—	
	2 † 50	920N	500 3450	2.50 63.5	3.75 95	4.50 114	—	3.30 84	8.23 209	3.88 99	9.0 4.1	—	
6 150 ×	1¼ (a) 32 (b)	920N	500 3450	1.75 44.5	4.43 112	5.13 130	5.13 130	3.79 96	9.15 232	3.25 83	5.1 2.3	4.8 2.2	
	1½ (a) † 40 (b)	920N	500 3450	2.00 50.8	4.40 112	5.13 130	5.13 130	3.79 96	9.15 232	3.25 83	5.4 2.4	5.1 2.3	
	2 (a) † 50	920N	500 3450	2.50 63.5	4.38 111	5.13 130	5.13 130	3.79 96	9.15 232	3.88 99	6.0 2.7	5.6 2.5	
	2½ 65	920	500 3450	2.75 69.9	4.01 110	5.13 130	5.12 130	3.69 94	10.51 267	4.63 118	8.3 3.8	7.6 3.4	
	76.1 mm	920	500 3450	2.75 69.9	4.15 105	—	5.21 132	3.69 94	10.51 267	4.63 118	—	8.4 3.8	
	3 (a) † 80	920	500 3450	3.50 88.9	4.31 110	5.50 140	5.13 130	3.69 94	10.51 267	5.31 135	9.9 4.5	8.4 3.8	
	4 (a) † 100	920	500 3450	4.50 114.3	3.81 97	5.75 146	5.38 137	3.69 94	10.51 267	6.25 159	10.1 4.6	10.1 4.6	
	159.0 ×	1½ (a) 40	920N	500 3450	2.00 50.8	4.41 112	5.13 130	—	3.63 92	9.40 239	3.25 83	7.8 3.5	—
		2 (a) 50	920N	500 3450	2.50 63.5	4.38 111	5.13 130	—	3.63 92	9.40 239	3.88 99	8.0 3.6	—
		76.1 mm	920	500 3450	2.75 69.9	4.38 111	5.50 140	5.13 130	3.63 92	9.40 239	4.63 118	9.5 4.3	9.5 4.3
3 80		920	500 3450	3.50 88.9	4.31 110	5.50 140	5.13 130	3.63 92	9.40 239	5.31 135	8.1 3.7	14.0 6.4	
108.0 mm		920	500 3450	4.50 114.3	4.45 113	—	5.38 137	3.63 92	9.40 239	6.12 155	—	10.0 4.5	
4 100		920	500 3450	4.50 114.3	3.81 96.80	5.75 146	—	3.63 92	9.40 239	6.25 159	18.0 8.2	—	
TABLE CONTINUED ON PG. 5													

** Center of run to engaged pipe end, female threaded outlet only (dimensions approximate).

† Available with grooved or female threaded outlet. Specify choice on order.

‡ Center of run to end of fitting.

Female threaded outlets are available to NPT and BSPT specifications.

@ See page 7 for Fire Protection approvals and pressure ratings.

(a) British Standard female pipe threaded outlet is available as listed. Specify "BSPT" clearly on order.

(b) For 76.1 mm threaded outlet, specify 2 ½" BSPT clearly on order.

§ Vds approved for fire protection services

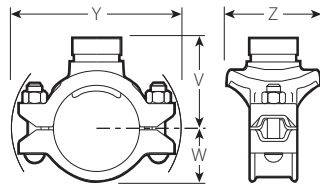
⊠ LPCB approved for fire protection services

⊙ Approved for use in China by Tianjin Approvals Company.

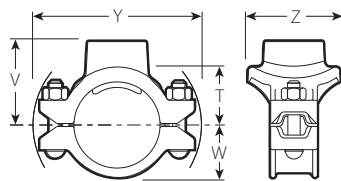
Mechanical-T® Bolted Branch Outlets

STYLES 920 AND 920N

DIMENSIONS



GROOVED OUTLET



FEMALE THREADED OUTLET

- Provides a direct branch connection at any location where a hole can be cut in the pipe
- A pressure responsive gasket provides the seal
- Request Publication 11.03 for Mechanical-T cross assemblies
- Pressure rated up to 500 psi/3450 kPa on steel pipe; also available for use with HDPE pipe
- Sizes from 2 × ½"/50 × 15 mm through 8 × 4"/200 × 100 mm

Size		Style No.	Max. Work Pressure@	Dimensions							Approx. Weight Each	
Run × Branch Nominal Size Inches mm	920 or 920N	psi kPa	Hole Diameter +0.13 -0.00	T** Inches mm	V ‡ # Thd. Inches mm	V ‡ Grv. Inches mm	W Inches mm	Y Inches mm	Z Inches mm	Female Thd. Lbs. kg	Grv. Lbs. kg	
TABLE CONTINUED FROM PAGE 4												
165.1 ×	1 25	920N	500 3450	1.50 38.1	3.88 99	4.56 116	—	3.79 96	9.34 237	2.75 70	8.0 3.6	—
	1¼ ¨ 32	920N	500 3450	1.75 44.5	4.43 113	5.13 130	—	3.79 96	9.34 237	3.25 83	8.4 3.8	—
	1½ (a) † ¨ 40	920N	500 3450	2.00 50.8	4.41 112	5.13 130	5.13 130	3.79 96	9.34 237	3.25 83	8.4 3.8	5.4 2.4
	2 (a) † 50	920N	500 3450	2.50 63.5	4.38 111	5.13 130	5.13 130	3.79 96	9.34 237	3.88 99	8.5 3.9	6.0 2.7
	76.1 mm	920	500 3450	2.75 69.9	4.01 110	5.13 130	5.21 132	3.63 92	10.51 267	4.63 118	8.6 3.9	7.6 3.4
	3 (a) † ø 80	920	500 3450	3.50 88.9	4.31 110	5.50 140	5.13 130	3.63 92	10.51 267	5.31 135	10.2 4.6	8.4 3.8
	4 (a) † ¨ 100	920	500 3450	4.50 114.3	3.81 97	5.75 146	5.38 137	3.63 92	10.51 267	6.25 159	10.5 4.8	8.4 3.8
	8 200 ×	2 (a) † 50	920	500 3450	2.75 69.9	5.44 138	6.19 157	6.25 159	4.81 122	12.42 316	4.50 114	11.6 5.3
2½ (a) † 65		920	500 3450	2.75 69.9	5.07 129	6.19 157	6.19 157	4.81 122	12.42 316	4.50 114	11.6 5.3	11.6 5.3
76.1 mm ¨		920	500 3450	2.75 69.9	5.25 133	—	6.25 159	4.81 122	12.42 316	4.56 116	—	11.6 5.3
3 (a) † ¨ 80		920	500 3450	3.50 88.9	5.31 135	6.50 165	6.50 165	4.81 122	12.42 316	5.31 135	12.6 5.7	11.6 5.3
4 (a) † ¨ 100		920	500 3450	4.50 114.3	4.81 122	6.75 171	6.38 162	4.81 122	12.42 316	6.25 159	15.3 6.9	12.5 5.7

** Center of run to engaged pipe end, female threaded outlet only (dimensions approximate).

† Available with grooved or female threaded outlet. Specify choice on order.

‡ Center of run to end of fitting.

Female threaded outlets are available to NPT and BSPT specifications.

@ See page 7 for Fire Protection approvals and pressure ratings.

(a) British Standard female pipe threaded outlet is available as listed. Specify "BSPT" clearly on order.

(b) For 76.1 mm threaded outlet, specify 2½" BSPT clearly on order.

§ Vds approved for fire protection services

▣ LPCB approved for fire protection services

Ø Approved for use in China by Tianjin Approvals Company.

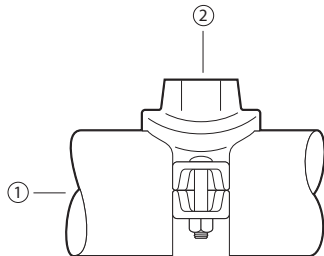
IMPORTANT NOTES:

Style 920 and Style 920N housings cannot be mated to **each other** to achieve cross connections.

Mechanical-T® Bolted Branch Outlets

STYLES 920 AND 920N

FLOW DATA



Exaggerated for clarity

Flow test data has shown that the total head loss between point (1) and (2) for the Style 920, 920N and 929 Mechanical-T® fittings can best be expressed in terms of the pressure difference across the inlet and branch. The pressure difference can be obtained from the relationship below.

C_v and K_v Values

Values for flow of water at +60°F/+16°C are shown in the table below.

Formulas for C_v/K_v Values:

$$\Delta P = \frac{Q^2}{C_v^2}$$

$$Q = C_v \times \sqrt{\Delta P}$$

Where:

Q = Flow (GPM)

ΔP = Pressure Drop (psi)

C_v = Flow Coefficient

$$\Delta P = \frac{Q^2}{K_v^2}$$

$$Q = K_v \times \sqrt{\Delta P}$$

Where:

Q = Flow (m³/hr)

ΔP = Pressure Drop (Bar)

K_v = Flow Coefficient

OUTLET SIZE		Equivalent Length of Outlet Size Schedule 40 Carbon Steel Pipe (per UL 213, Sec. 16) (C = 120)† FT		C _v /K _v Values	
NOMINAL DIAMETER In/mm	ACTUAL O.D. In/mm	GROOVED	THREADED	GROOVED	THREADED
½	0.840	-	2	-	11
15	21.3	-		-	9.4
¾	1.050	-	4	-	16
20	26.7	-		-	13.7
1	1.315	3**	8	-	21
25	33.7			-	1.8
1 ¼	1.660	5 ½	6	50	48
32	42.7			42.9	41.1
1 ½	1.900	11	11	53	53
40	48.3			45.4	45.4
2	2.375	9	10 ½	112	104
50	60.3			96	89.1
2 ½	2.875	20	12 ½	119	150
65	73.0			102	128.5
76.1 mm	3.000	16*	-	161	-
	76.1			138.1	
3	3.500	14	15 ½	249	237
80	88.9			213.4	203.1
4	4.500	20	22	421	401
100	114.3			360.8	343.6

† Hazen-Williams coefficient of friction is 120.

* Pipe with a wall thickness of 0.165in./4.2mm.

** 1" FireLock™ Innovative Groove System (IGS) outlet

Mechanical-T[®] Bolted Branch Outlets

STYLES 920 AND 920N

FIRE PROTECTION APPROVALS AND PRESSURE RATINGS

The information provided below is based on the latest listing and approval data at the time of publication. Listings/Approvals are subject to change and/or additions by the approvals agencies. Contact Victaulic for performance on other pipe and the latest listings and approvals.

Run Size		Outlet Size Inches/mm	Pipe Schedule	Approval Agency Rated Working Pressures – psi/kPa					
Nominal Size Inches/mm	Actual Outside Diameter Inches/mm			UL	ULC	FM	LPCB	Vds	
2 1/2 - 6 65 - 150	2.875 - 6.625 73.0 - 168.3	All	10, 40	400 2755	400 2755	400 2755	290 1999	232 1599	362 2496
2 1/2 - 4 65 - 100	2.875 - 4.500 73.0 - 114.3	All	DF	300 2065	300 2065	300 2065	290 1999	232 1599	362 2496
2 1/2 - 4 65 - 100	2.875 - 4.500 73.0 - 114.3	All	SF	300 2065	300 2065	300 2065	290 1999	232 1599	362 2496
6 150	6.625 168.3	3, 4	10	300 2065	300 2065	250 1724	290 1999	232 1599	362 2496
6 150	6.625 168.3	3, 4	30, 40	300 2065	300 2065	300 2065	290 1999	232 1599	362 2496
8 200	8.625 219.1	2 1/2	10, 40	400 2755	—	—	—	145 1000	—
8 200	8.625 219.1	3, 4	10	300 2065	—	250 1724	—	145 1000	—
8 200	8.625 219.1	3, 4	30, 40	300 2065	—	300 2065	—	145 1000	—

NOTES:

10 refers to Listed/Approved Schedule 10 steel sprinkler pipe.

40 refers to Listed/Approved Schedule 40 steel sprinkler pipe.

DF refers to Listed/Approved Dyna-Flow steel sprinkler pipe manufactured by American Tube Company.

SF refers to Listed/Approved Super-Flo steel sprinkler pipe manufactured by Allied Tube and Conduit Corporation.

VIC-TAP II HOLE CUTTING TOOL FOR 4 - 8"/100 - 200MM CARBON STEEL PIPE



The Vic-Tap II hole cutting tool is designed for use with the Style 931 Vic-Tap II Mechanical-T unit, which is a combination of the Style 920 Mechanical-T and Series 726 Vic-Ball Valve. The Vic-Tap II is capable of tapping into carbon steel pipe systems under pressures up to 500 psi/3450 kPa.

The Style 931 Vic-Tap II Mechanical-T unit is a full port ball valve which can be mounted on 4"/100mm, 5"/125mm, 6"/150mm and 8"/200mm diameter pipe. The Style 931 comes with a 2 1/2"/65mm grooved outlet.

The drill motor is an electric motor with ground fault circuit interrupter (GFCI) in accordance with safety codes.

For more information, refer to publication 24.01.

Mechanical-T[®] Bolted Branch Outlets

STYLES 920 AND 920N

INSTALLATION

Reference should always be made to the I-100 Victaulic Field Installation Handbook for the product you are installing. Handbooks are included with each shipment of Victaulic products for complete installation and assembly data, and are available in PDF format on our website at www.victaulic.com.

WARRANTY

Refer to the Warranty section of the current Price List or contact Victaulic for details.

NOTE

This product shall be manufactured by Victaulic or to Victaulic specifications. All products to be installed in accordance with current Victaulic installation/assembly instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.

For complete contact information, visit www.victaulic.com

11.02 1480 REV 0 UPDATED 11/2018

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MALLEABLE IRON FITTINGS



Class 300 (XS/XH)

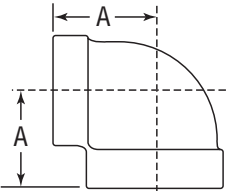
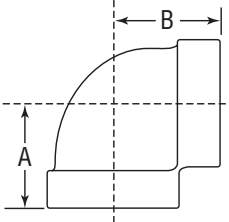
 FIGURE 1161 90° Elbow Straight	Size		A		Unit Weight			
					Black		Galv.	
	NPS	DN	in	mm	lbs	kg	lbs	kg
 	1/4	8	1 5/16	24	0.20	0.09	0.20	0.09
	3/8	10	1 1/16	27	0.29	0.13	0.29	0.13
	1/2	15	1 1/4	32	0.47	0.21	0.47	0.21
	3/4	20	1 7/16	37	0.66	0.30	0.66	0.30
	1	25	1 5/8	41	1.15	0.52	1.15	0.52
	1 1/4	32	1 15/16	49	1.88	0.85	1.88	0.85
	1 1/2	40	2 1/8	54	2.47	1.12	2.47	1.12
	2	50	2 1/2	64	3.85	1.75	3.85	1.75
	2 1/2	65	2 15/16	75	5.80	2.63	5.80	2.63
	3	80	3 3/8	86	9.95	4.51	9.95	4.51
	4	100	4 1/2	114	16.00	7.26	16.00	7.26

 FIGURE 1161R 90° Reducing Elbow	Size		A		B		Unit Weight			
							Black		Galv.	
	NPS	DN	in	mm	in	mm	lbs	kg	lbs	kg
 	3/8 x 1/4	10 x 8	1	25	1	25	0.26	0.12	—	—
	1/2 x 3/8	15 x 10	1 3/16	30	1 3/16	30	0.41	0.19	—	—
	3/4 x 1/2	20 x 15	1 5/16	33	1 3/8	35	0.62	0.28	0.62	0.28
	1 x 1/2	25 x 15	1 7/16	37	1 1/2	38	0.87	0.39	—	—
	1 x 3/4	25 x 20	1 1/2	38	1 9/16	40	1.00	0.45	1.00	.45
	1 1/4 x 3/4	32 x 20	1 5/8	41	1 3/4	44	1.41	0.64	—	—
	1 1/4 x 1	32 x 25	1 3/4	44	1 7/8	47	1.60	0.73	—	—
	1 1/2 x 1	40 x 25	1 7/8	47	2	51	1.89	0.86	—	—
	1 1/2 x 1 1/4	40 x 32	2	51	2 1/16	52	2.15	0.98	—	—
	2 x 1 1/4	50 x 32	2 1/8	54	2 5/16	59	3.12	1.41	3.12	1.41
	2 x 1 1/2	50 x 40	2 1/4	57	2 3/8	60	3.30	1.50	—	—

Note: See following page for pressure-temperature ratings. Galvanized weights may vary. Please contact your Anvil Representative if you need verification.
 All Elbows & Tees 3/8" (10 DN) and Larger are 100% Gas Tested at a Minimum of 100 PSI. (6.9 bar)

PROJECT INFORMATION		APPROVAL STAMP	
Project:		☐ Approved	
Address:		☐ Approved as noted	
Contractor:		☐ Not approved	
Engineer:		Remarks:	
Submittal Date:			
Notes 1:			
Miami Dade County Department of Regulatory and Economic Resources 3224016361 - 5/30/2024 2:41:27 PM PB - Product Submittal.pdf		- Job Copy	

MALLEABLE IRON FITTINGS



**Malleable Iron Threaded Pipe Unions
Pressure - Temperature Ratings**

Temperature		Pressure					
		Class 150		Class 250		Class 300	
(°F)	(°C)	psi	bar	psi	bar	psi	bar
-20° to 150°	-28.9° to 65.6°	300	20.7	500	34.5	600	41.4
200°	93.3°	265	18.3	455	31.4	550	37.9
250°	121.1°	225	15.5	405	27.9	505	34.8
300°	148.9°	185	12.8	360	24.8	460	31.7
350°	176.7°	150	10.3	315	21.7	415	28.6
400°	204.4°	110	7.6	270	18.6	370	25.5
450°	232.2°	75	5.2	225	15.5	325	22.4
500°	260.0°	—	—	180	12.4	280	19.3
550°	287.8°	—	—	130	9.0	230	15.9

Note: Unions with Copper or Copper Alloy seats are not intended for use where temperature exceeds 450°F



For Listings/Approval Details and Limitations, visit our website at www.anvilintl.com or contact an Anvil Sales Representative.

**Malleable Iron Threaded Fittings
Pressure - Temperature Ratings**

Temperature		Pressure							
		Class 150		Class 300					
				Sizes 1/4"–1" (6–25 mm)		Sizes 1 1/4"–2" (32–51 mm)		Sizes 2 1/2"–3" (64–76 mm)	
(°F)	(°C)	psi	bar	psi	bar	psi	bar	psi	bar
-20° to 150°	-28.9° to 65.6°	300	20.7	2,000	137.9	1,500	103.4	1,000	68.9
200°	93.3	265	18.3	1,785	123.1	1,350	93.1	910	62.7
250°	121.1	225	15.5	1,575	108.6	1,200	82.7	825	56.9
300°	148.9	185	12.8	1,360	93.8	1,050	72.4	735	50.7
350°	176.7	150	10.3	1,150	79.3	900	62.1	650	44.8
400°	204.4	—	—	935	64.5	750	51.7	560	38.6
450°	232.2	—	—	725	50.0	600	41.4	475	32.8
500°	260.0	—	—	510	35.2	450	31.0	385	26.5
550°	287.8	—	—	300	20.7	300	20.7	300	20.7

Anvil Class 150/300 Malleable Iron Fittings conform to ASME B16.3 and Unions conform to ASME B16.39.

ALL ELBOWS & TEES 3/8" (10 DN) and LARGER ARE 100% GAS TESTED AT A MINIMUM OF 100 PSI. (6.9 bar)

Standards and Specifications

	Dimensions	Material	Galvanizing*	Thread	Pressure Rating
MALLEABLE IRON FITTINGS					
Class 150/PN 20	ASME B16.3	ASTM A-197	ASTM A-153	ASME B1 20.1	ASME B16.3
Class 300/PN 50	ASME B16.3	ASTM A-197	ASTM A-153	ASME B1 20.1	ASME B16.3
MALLEABLE IRON UNIONS					
Class 150/PN 20	ASME B16.39	ASTM A-197	ASTM A-153	ASME B1 20.1	ASME B16.39
Class 250	ASME B16.39	ASTM A-197	ASTM A-153	ASME B1 20.1	ASME B16.39
Class 300/PN 50	ASME B16.39	ASTM A-197	ASTM A-153	ASME B1 20.1	ASME B16.39

* ASTM B 633, Type I, SC 4, may be supplied as alternate zinc coating per applicable ASME B16 product standard.

General Assembly of Threaded Fittings

- 1) Inspect both male and female components prior to assembly.
 - Threads should be free from mechanical damage, dirt, chips and excess cutting oil.
 - Clean or replace components as necessary.
- 2) Application of thread sealant
 - Use a thread sealant that is fast drying, sets-up to a semi hard condition and is vibration resistant. Alternately, an anaerobic sealant may be utilized.
 - Thoroughly mix the thread sealant prior to application.
 - Apply a thick even coat to the male threads only. Best application is achieved with a brush stiff enough to force sealant down to the root of the threads.
- 3) Joint Makeup
 - For sizes up to and including 2" pipe, wrench tight makeup is considered three full turns past handtight. Handtight engagement for 1/2" through 2" thread varies from 4 1/2 turns to 5 turns.
 - For 2 1/2" through 4" sizes, wrench tight makeup is considered two full turns past handtight. Handtight engagement for 2 1/2" through 4" thread varies from 5 1/2 turns to 6 3/4 turns.

CAST IRON THREADED FITTINGS



Class 125 (Standard)

☐ FIGURE 358 Tee	Size		A		B		Unit Weight	
							Black	
	NPS	DN	in	mm	in	mm	lbs	kg
	1/4	8	1/2	13	13/16	22	0.22	0.10
	3/8	10	5/8	16	1	25	0.35	0.16
	1/2	15	11/16	17	1 1/8	29	0.56	0.25
	3/4	20	13/16	22	1 5/16	33	0.84	0.38
	1	25	15/16	24	1 1/2	38	1.25	0.57
	1 1/4	32	1 1/8	29	1 3/4	44	2.03	0.92
	1 1/2	40	1 5/16	33	1 15/16	49	2.70	1.22
	2	50	1 9/16	40	2 1/4	57	4.23	1.92
	2 1/2	65	1 13/16	47	2 11/16	68	6.67	3.02
	3	80	2 3/16	56	3 1/8	79	10.00	4.54
	3 1/2	90	2 7/16	62	3 7/16	87	13.29	6.03
	4	100	2 11/16	68	3 3/4	95	16.33	7.41
	5	125	3 5/16	84	4 1/2	114	27.33	12.39
	6	150	3 7/8	98	5 1/8	130	40.85	18.53
	8	200	5 3/16	132	6 9/16	167	79.00	35.83

☐ FIGURE 360 Cross	Size		A		B		Unit Weight	
							Black	
	NPS	DN	in	mm	in	mm	lbs	kg
	1/2	15	9/16	14	13/16	22	2.80	1.27
	3/4	20	13/16	22	1 5/16	33	1.03	0.47
	1	25	15/16	24	1 1/2	38	1.59	0.72
	1 1/4	32	1 1/8	29	1 3/4	44	2.42	1.10
	1 1/2	40	1 5/16	33	1 15/16	49	3.21	1.46
	2	50	1 9/16	40	2 1/4	57	5.28	2.39
	2 1/2	65	1 13/16	47	2 11/16	68	8.07	3.66
	3	80	2 3/16	56	3 1/8	79	11.84	5.37
	4	100	2 3/4	70	3 13/16	98	19.63	8.90

Note: See following page for pressure-temperature ratings.

PROJECT INFORMATION		APPROVAL STAMP	
Project:		☐ Approved	
Address:		☐ Approved as noted	
Contractor:		☐ Not approved	
Engineer:		Remarks:	
Submittal Date:			
Notes 1:			
Miami Dade County Department of Regulatory and Economic Resources 3224016361 - 5/30/2024 2:41:27 PM PB - Product Submittal.pdf		- Job Copy	

CAST IRON THREADED FITTINGS



Anvil standard and extra heavy cast iron threaded fittings are manufactured in accordance with ASME B16.4. Plugs and bushings are manufactured in accordance with ASME B16.14.

NOTE: Figure 367 Concentric Reducers do not meet the overall length requirement of ASME B16.4. All other dimensions are in compliance.



For Listings/Approval Details and Limitations, visit our website at www.anvilintl.com or contact an Anvil Sales Representative.

Cast Iron Threaded Fittings Pressure - Temperature Ratings					
Temperature		Pressure			
		Class 125		Class 250	
(°F)	(°C)	psi	bar	psi	bar
-20° to 150°	-28.9 to 65.6	175	12.1	400	27.6
200°	93.3	165	11.4	370	25.5
250°	121.1	150	10.3	340	23.4
300°	148.9	140	9.7	310	21.4
350°	176.7	125	8.6	300	20.7
400°	204.4	–	–	250	17.2

Standards and Specifications					
	Dimensions	Material	Galvanizing*	Thread	Pressure Rating
CAST IRON THREADED FITTINGS					
Class 125	ASME B16.4	ASTM A-126 (A)	ASTM A-153	ASME B1.20.1	ASME B16.4
Class 250	ASME B16.4	ASTM A-126 (A)	ASTM A-153	ASME B1.20.1	ASME B16.4
CAST IRON PLUGS AND BUSHINGS					
	ASME B16.14	ASTM A- 126 (A)	ASTM A-153	ASME B1.20.1	ASME B16.14

* ASTM B 633. Type I, SC 4, may be supplied as alternate zinc coating per applicable ASME B16 product standard.

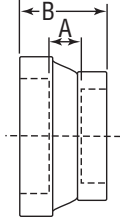
General Assembly of Threaded Fittings

- 1) Inspect both male and female components prior to assembly.
 - Threads should be free from mechanical damage, dirt, chips and excess cutting oil.
 - Clean or replace components as necessary.
- 2) Application of thread sealant
 - Use a thread sealant that is fast drying, sets-up to a semi hard condition and is vibration resistant. Alternately, an anaerobic sealant may be utilized.
 - Thoroughly mix the thread sealant prior to application.
 - Apply a thick even coat to the male threads only. Best application is achieved with a brush stiff enough to force sealant down to the root of the threads.
- 3) Joint Makeup
 - For sizes up to and including 2" pipe, wrench tight makeup is considered three full turns past handtight. Handtight engagement for 1/2" through 2" thread varies from 4 1/2 turns to 5 turns.
 - For 2 1/2" through 4" sizes, wrench tight makeup is considered two full turns past handtight. Handtight engagement for 2 1/2" through 4" thread varies from 5 1/2 turns to 6 3/4 turns.

CAST IRON THREADED FITTINGS



Class 125 (Standard)

FIGURE 367 Concentric Reducer									
Size				A		B*		Unit Weight	
								Black	
NPS	DN	NPS	DN	in	mm	in	mm	lbs	kg
3/4	20	1/2	15	5/8	16	19/16	40	0.40	0.18
1	25	1/2 (Hex)	15	11/16	17	1 11/16	43	0.54	0.24
		3/4 (Hex)	20	7/16	11	1 1/2	38	0.63	0.29
1 1/4	32	1/2	15	9/16	14	1 5/8	41	0.84	0.38
		3/4	20	1	25	2 1/8	54	0.90	0.41
		1	25	1 5/16	24	2 1/8	54	1.07	0.49
1 1/2	40	1/2	15	1/2	13	1 5/8	41	1.00	0.45
		3/4	20	1/2	13	1 5/8	41	1.20	0.54
		1	25	1/2	13	1 3/4	44	1.50	0.68
		1 1/4	32	1	25	2 1/4	57	1.45	0.66
2	50	1/2	15	5/8	16	2	51	2.00	0.91
		3/4	20	3/4	19	2	51	1.90	0.86
		1	25	3/4	19	2	51	1.83	0.83
		1 1/4	32	1 3/16	22	2 1/8	54	1.78	0.81
		1 1/2	40	7/8	22	2 3/16	56	1.98	0.90
2 1/2	65	1 1/2	40	3/4	19	2	51	3.10	1.41
		2	50	1	25	2 9/16	65	2.98	1.35
3	80	3/4	20	1 5/16	24	2 1/2	64	4.31	1.95
		2	50	1 1/16	27	2 3/4	70	3.96	1.80
		2 1/2	65	1 5/16	24	2 13/16	73	4.40	2.00
4	100	2	50	1 3/16	30	2 15/16	75	6.50	2.95
		2 1/2	65	1 3/16	30	3 1/8	79	7.78	3.53
		3	80	1 1/16	27	3 1/8	79	7.01	3.18
5	125	4	100	1 1/16	27	3 5/16	84	10.48	4.75
6	150	4	100	1 1/8	29	3 7/16	87	13.83	6.27
		5	125	1 1/8	29	3 9/16	90	15.53	7.04
8	200	6	150	1 1/4	32	3 7/8	98	29.10	13.20
* Dimension "B" does not conform to ASME standard.									

Note: See following page for pressure-temperature ratings.

PROJECT INFORMATION		APPROVAL STAMP	
Project:		☐ Approved	
Address:		☐ Approved as noted	
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CAST IRON THREADED FITTINGS



Anvil standard and extra heavy cast iron threaded fittings are manufactured in accordance with ASME B16.4. Plugs and bushings are manufactured in accordance with ASME B16.14.

NOTE: Figure 367 Concentric Reducers do not meet the overall length requirement of ASME B16.4. All other dimensions are in compliance.



For Listings/Approval Details and Limitations, visit our website at www.anvilintl.com or contact an Anvil Sales Representative.

Cast Iron Threaded Fittings Pressure - Temperature Ratings					
Temperature		Pressure			
		Class 125		Class 250	
(°F)	(°C)	psi	bar	psi	bar
-20° to 150°	-28.9 to 65.6	175	12.1	400	27.6
200°	93.3	165	11.4	370	25.5
250°	121.1	150	10.3	340	23.4
300°	148.9	140	9.7	310	21.4
350°	176.7	125	8.6	300	20.7
400°	204.4	–	–	250	17.2

Standards and Specifications					
	Dimensions	Material	Galvanizing*	Thread	Pressure Rating
CAST IRON THREADED FITTINGS					
Class 125	ASME B16.4	ASTM A-126 (A)	ASTM A-153	ASME B1.20.1	ASME B16.4
Class 250	ASME B16.4	ASTM A-126 (A)	ASTM A-153	ASME B1.20.1	ASME B16.4
CAST IRON PLUGS AND BUSHINGS					
	ASME B16.14	ASTM A- 126 (A)	ASTM A-153	ASME B1.20.1	ASME B16.14

* ASTM B 633. Type I, SC 4, may be supplied as alternate zinc coating per applicable ASME B16 product standard.

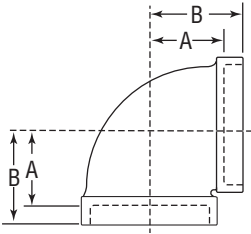
General Assembly of Threaded Fittings

- 1) Inspect both male and female components prior to assembly.
 - Threads should be free from mechanical damage, dirt, chips and excess cutting oil.
 - Clean or replace components as necessary.
- 2) Application of thread sealant
 - Use a thread sealant that is fast drying, sets-up to a semi hard condition and is vibration resistant. Alternately, an anaerobic sealant may be utilized.
 - Thoroughly mix the thread sealant prior to application.
 - Apply a thick even coat to the male threads only. Best application is achieved with a brush stiff enough to force sealant down to the root of the threads.
- 3) Joint Makeup
 - For sizes up to and including 2" pipe, wrench tight makeup is considered three full turns past handtight. Handtight engagement for 1/2" through 2" thread varies from 4 1/2 turns to 5 turns.
 - For 2 1/2" through 4" sizes, wrench tight makeup is considered two full turns past handtight. Handtight engagement for 2 1/2" through 4" thread varies from 5 1/2 turns to 6 3/4 turns.

CAST IRON THREADED FITTINGS



Class 125 (Standard)

FIGURE 351 90° Elbow	Size		A		B		Unit Weight	
							Black	
	NPS	DN	in	mm	in	mm	lbs	kg
 	1/4	8	1/2	13	13/16	22	0.16	0.07
	3/8	10	9/16	14	15/16	24	0.25	0.11
	1/2	15	11/16	17	1 1/8	29	0.40	0.18
	3/4	20	13/16	22	1 15/16	33	0.60	0.27
	1	25	15/16	24	1 1/2	38	0.92	0.42
	1 1/4	32	1 1/8	29	1 3/4	44	1.44	0.65
	1 1/2	40	1 5/16	33	1 15/16	49	1.95	0.88
	2	50	1 9/16	40	2 1/4	57	3.13	1.42
	2 1/2	65	1 13/16	47	2 11/16	68	4.94	2.24
	3	80	2 3/16	56	3 1/8	79	7.21	3.27
	3 1/2	90	2 7/16	62	3 7/16	87	9.67	4.39
	4	100	2 11/16	68	3 13/16	98	12.17	5.52
	5	125	3 5/16	84	4 1/2	114	21.46	9.73
	6	150	3 7/8	98	5 1/8	130	31.33	14.21
	8	200	5 3/16	132	6 9/16	167	64.56	29.28

Note: See following page for pressure-temperature ratings.

PROJECT INFORMATION		APPROVAL STAMP	
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CAST IRON THREADED FITTINGS



Anvil standard and extra heavy cast iron threaded fittings are manufactured in accordance with ASME B16.4. Plugs and bushings are manufactured in accordance with ASME B16.14.

NOTE: Figure 367 Concentric Reducers do not meet the overall length requirement of ASME B16.4. All other dimensions are in compliance.



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Cast Iron Threaded Fittings Pressure - Temperature Ratings					
Temperature		Pressure			
		Class 125		Class 250	
(°F)	(°C)	psi	bar	psi	bar
-20° to 150°	-28.9 to 65.6	175	12.1	400	27.6
200°	93.3	165	11.4	370	25.5
250°	121.1	150	10.3	340	23.4
300°	148.9	140	9.7	310	21.4
350°	176.7	125	8.6	300	20.7
400°	204.4	–	–	250	17.2

Standards and Specifications					
	Dimensions	Material	Galvanizing*	Thread	Pressure Rating
CAST IRON THREADED FITTINGS					
Class 125	ASME B16.4	ASTM A-126 (A)	ASTM A-153	ASME B1.20.1	ASME B16.4
Class 250	ASME B16.4	ASTM A-126 (A)	ASTM A-153	ASME B1.20.1	ASME B16.4
CAST IRON PLUGS AND BUSHINGS					
	ASME B16.14	ASTM A- 126 (A)	ASTM A-153	ASME B1.20.1	ASME B16.14

* ASTM B 633. Type I, SC 4, may be supplied as alternate zinc coating per applicable ASME B16 product standard.

General Assembly of Threaded Fittings

- 1) Inspect both male and female components prior to assembly.
 - Threads should be free from mechanical damage, dirt, chips and excess cutting oil.
 - Clean or replace components as necessary.
- 2) Application of thread sealant
 - Use a thread sealant that is fast drying, sets-up to a semi hard condition and is vibration resistant. Alternately, an anaerobic sealant may be utilized.
 - Thoroughly mix the thread sealant prior to application.
 - Apply a thick even coat to the male threads only. Best application is achieved with a brush stiff enough to force sealant down to the root of the threads.
- 3) Joint Makeup
 - For sizes up to and including 2" pipe, wrench tight makeup is considered three full turns past handtight. Handtight engagement for 1/2" through 2" thread varies from 4 1/2 turns to 5 turns.
 - For 2 1/2" through 4" sizes, wrench tight makeup is considered two full turns past handtight. Handtight engagement for 2 1/2" through 4" thread varies from 5 1/2 turns to 6 3/4 turns.

CAST IRON THREADED FITTINGS



Anvil standard and extra heavy cast iron threaded fittings are manufactured in accordance with ASME B16.4. Plugs and bushings are manufactured in accordance with ASME B16.14.

NOTE: Figure 367 Concentric Reducers do not meet the overall length requirement of ASME B16.4. All other dimensions are in compliance.



For Listings/Approval Details and Limitations, visit our website at www.anvilintl.com or contact an Anvil Sales Representative.

Cast Iron Threaded Fittings Pressure - Temperature Ratings					
Temperature		Pressure			
		Class 125		Class 250	
(°F)	(°C)	psi	bar	psi	bar
-20° to 150°	-28.9 to 65.6	175	12.1	400	27.6
200°	93.3	165	11.4	370	25.5
250°	121.1	150	10.3	340	23.4
300°	148.9	140	9.7	310	21.4
350°	176.7	125	8.6	300	20.7
400°	204.4	–	–	250	17.2

Standards and Specifications					
	Dimensions	Material	Galvanizing*	Thread	Pressure Rating
CAST IRON THREADED FITTINGS					
Class 125	ASME B16.4	ASTM A-126 (A)	ASTM A-153	ASME B1.20.1	ASME B16.4
Class 250	ASME B16.4	ASTM A-126 (A)	ASTM A-153	ASME B1.20.1	ASME B16.4
CAST IRON PLUGS AND BUSHINGS					
	ASME B16.14	ASTM A- 126 (A)	ASTM A-153	ASME B1.20.1	ASME B16.14

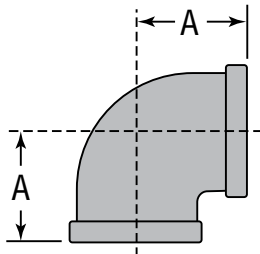
* ASTM B 633. Type I, SC 4, may be supplied as alternate zinc coating per applicable ASME B16 product standard.

General Assembly of Threaded Fittings

- 1) Inspect both male and female components prior to assembly.
 - Threads should be free from mechanical damage, dirt, chips and excess cutting oil.
 - Clean or replace components as necessary.
- 2) Application of thread sealant
 - Use a thread sealant that is fast drying, sets-up to a semi hard condition and is vibration resistant. Alternately, an anaerobic sealant may be utilized.
 - Thoroughly mix the thread sealant prior to application.
 - Apply a thick even coat to the male threads only. Best application is achieved with a brush stiff enough to force sealant down to the root of the threads.
- 3) Joint Makeup
 - For sizes up to and including 2" pipe, wrench tight makeup is considered three full turns past handtight. Handtight engagement for 1/2" through 2" thread varies from 4 1/2 turns to 5 turns.
 - For 2 1/2" through 4" sizes, wrench tight makeup is considered two full turns past handtight. Handtight engagement for 2 1/2" through 4" thread varies from 5 1/2 turns to 6 3/4 turns.

FIG. 3201

90° Elbow



For Listings/Approval Details and Limitations, visit our website at www.anvilintl.com or contact an Anvil® Sales Representative.

FIGURE 3201 - 90° ELBOW			
Nominal Size	Maximum Working Pressure▲	Dimension A	Approx. Wt. Each
<i>In. (mm)</i>	<i>PSI (kPa)</i>	<i>In. (mm)</i>	<i>Lbs. (kg)</i>
1	500	1.50	0.62
20	3450	38.10	0.28
1¼	500	1.75	0.90
32	3450	44.45	0.41
1½	500	1.94	1.20
40	3450	49.276	0.54
2	500	2.25	1.85
50	3450	57.15	0.84

▲ – Working Pressure Ratings are for reference only and based on Sch. 40 pipe. For the latest UL/ULC, and FM pressure ratings versus pipe schedule, please visit anvilintl.com or contact your local Anvil Representative.

MATERIAL SPECIFICATIONS

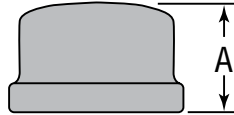
Dimensions: ASME B16.3
 Material: ASTM A536 Grade 65-45-12
 Finish: Black
 Threads: NPT per ASME B1.20.1
 Agency Approvals: All ductile iron threaded fittings are UL/ULC Listed and FM Approved.

NOTICE: Ductile iron fittings have higher tensile strength than that of steel pipe. Therefore, over tightening can cause damage to pipe threads which may cause leakage. Ductile iron fittings should be tightened approximately three turns beyond hand tight, but no more than four turns.

PROJECT INFORMATION		APPROVAL STAMP
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FIG. 3224

Cap



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FIGURE 3224 - CAP

Nominal Size	Maximum Working Pressure▲	Dimension A	Approx. Wt. Each
In. (mm)	PSI (kPa)	In. (mm)	Lbs. (kg)
1	500	1.16	0.32
25	3450	29.46	0.15
1¼	500	1.28	0.43
32	3450	32.51	0.20
1½	500	1.33	0.60
40	3450	33.78	0.27
2	500	1.45	0.91
50	3450	36.83	0.41

▲ – Working Pressure Ratings are for reference only and based on Sch. 40 pipe. For the latest UL/ULC, and FM pressure ratings versus pipe schedule, please visit anvilintl.com or contact your local Anvil Representative.

MATERIAL SPECIFICATIONS

Dimensions: ASME B16.3

Material: ASTM A536 Grade 65-45-12

Finish: Black

Threads: NPT per ASME B1.20.1

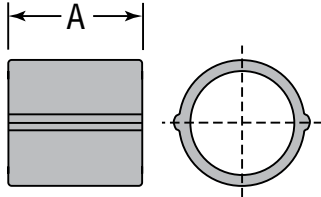
Agency Approvals: All ductile iron threaded fittings are UL/ULC Listed and FM Approved.

NOTICE: Ductile iron fittings have higher tensile strength than that of steel pipe. Therefore, over tightening can cause damage to pipe threads which may cause leakage. Ductile iron fittings should be tightened approximately three turns beyond hand tight, but no more than four turns.

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FIG. 3221**Coupling**

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FIGURE 3221 - COUPLING

Nominal Size	Maximum Working Pressure▲	Dimension A	Approx. Wt. Each
In. (mm)	PSI (kPa)	In. (mm)	Lbs. (kg)
1	500	1.67	0.40
25	3450	42.42	0.18
1¼	500	1.93	0.57
32	3450	49.02	0.26
1½	500	2.15	0.75
40	3450	54.61	0.34
2	500	2.53	1.15
50	3450	64.26	0.52

▲ – Working Pressure Ratings are for reference only and based on Sch. 40 pipe. For the latest UL/ULC, and FM pressure ratings versus pipe schedule, please visit anvilintl.com or contact your local Anvil Representative.

MATERIAL SPECIFICATIONS

Dimensions: ASME B16.3

Material: ASTM A536 Grade 65-45-12

Finish: Black

Threads: NPT per ASME B1.20.1

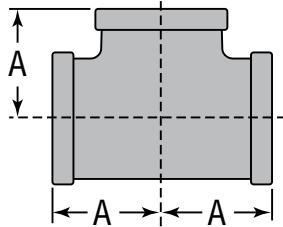
Agency Approvals: All ductile iron threaded fittings are UL/ULC Listed and FM Approved.

NOTICE: Ductile iron fittings have higher tensile strength than that of steel pipe. Therefore, over tightening can cause damage to pipe threads which may cause leakage. Ductile iron fittings should be tightened approximately three turns beyond hand tight, but no more than four turns.

PROJECT INFORMATION**APPROVAL STAMP**

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FIG. 3205**Straight Tee**

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FIGURE 3205 - STRAIGHT TEE

Nominal Size	Maximum Working Pressure▲	Dimension A	Approx. Wt. Each
<i>In. (mm)</i>	<i>PSI (kPa)</i>	<i>In. (mm)</i>	<i>Lbs. (kg)</i>
1	500	1.50	0.85
25	3450	38.10	0.39
1¼	500	1.75	1.22
32	3450	44.45	0.55
1½	500	1.94	1.55
40	3450	49.27	0.70
2	500	2.25	2.45
50	3450	57.15	1.11

▲ – Working Pressure Ratings are for reference only and based on Sch. 40 pipe. For the latest UL/ULC, and FM pressure ratings versus pipe schedule, please visit anvilintl.com or contact your local Anvil Representative.

MATERIAL SPECIFICATIONS

Dimensions: ASME B16.3

Material: ASTM A536 Grade 65-45-12

Finish: Black

Threads: NPT per ASME B1.20.1

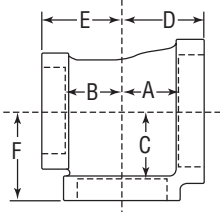
Agency Approvals: All ductile iron threaded fittings are UL/ULC Listed and FM Approved.

NOTICE: Ductile iron fittings have higher tensile strength than that of steel pipe. Therefore, over tightening can cause damage to pipe threads which may cause leakage. Ductile iron fittings should be tightened approximately three turns beyond hand tight, but no more than four turns.

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Notes 1:	

Class 125 (Standard)

FIGURE 359 Tee Reducing																			
Size						A		B		C		D		E		F		Unit Weight	
																		Black	
NPS	DN	NPS	DN	NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg
1/2	15	1/2	15	1/4	8	1 1/16	17	1 1/16	17	13/16	22	1 1/8	29	1 1/8	29	1 1/8	29	0.57	0.26
				3/8	10	1 1/16	17	1 1/16	17	3/4	19	1 1/8	29	1 1/8	29	0.57	0.26		
				3/4	20	1 3/16	22	13/16	22	1 1/16	17	1 1/4	32	1 1/4	32	13/16	22	0.68	0.31
				1	25	1	25	1	25	13/16	22	1 7/16	37	1 7/16	37	1 3/8	35	1.00	0.45
3/4	20	1/2	15	1/2	15	1 1/16	17	1 1/16	17	13/16	22	13/16	22	1 1/8	29	1 1/4	32	0.64	0.29
				3/4	20	1 3/16	22	13/16	22	13/16	22	1 5/16	24	1 1/4	32	1 5/16	24	0.75	0.34
	20	3/4	20	1/4	8	9/16	14	9/16	14	7/8	22	1 1/16	17	1 1/16	17	13/16	22	0.62	0.28
				3/8	10	1 1/16	17	1 1/16	17	15/16	24	13/16	22	13/16	22	1 1/4	32	0.75	0.34
				1/2	15	1 1/16	17	1 1/16	17	13/16	22	13/16	22	13/16	22	1 1/4	32	0.76	0.34
				1	25	1 5/16	24	1 5/16	24	13/16	22	1 7/16	37	1 7/16	37	1 3/8	35	0.99	0.45
1	25	1/4	8	1	25	1 5/16	24	1 5/16	24	1 5/16	24	1 1/2	38	1 1/4	32	1 1/2	38	1.08	0.49
				1/2	15	1 1/16	17	3/4	19	1 5/16	24	1 1/4	32	13/16	22	1 3/8	35	0.90	0.41
				3/4	20	1 3/16	22	13/16	22	1 5/16	24	1 3/8	35	1 1/4	32	1 7/16	37	0.91	0.41
				1	25	1 5/16	24	1 5/16	24	1 5/16	24	1 1/2	38	1 3/8	35	1 1/2	38	1.08	0.49
	25	3/4	20	1/2	15	1 1/16	17	1 1/16	17	1 5/16	24	1 1/4	32	13/16	22	1 3/8	35	0.89	0.40
				3/4	20	1 3/16	22	13/16	22	1 5/16	24	1 3/8	35	1 5/16	24	1 7/16	37	1.00	0.45
				1	25	1 5/16	24	1 5/16	24	1 5/16	24	1 1/2	38	1 7/16	37	1 1/2	38	1.13	0.51
		1	25	1/4	8	1 1/16	17	1 1/16	17	1 1/8	29	1 1/8	29	1 1/4	32	1 3/8	35	1.01	0.46
				1/2	15	1 1/16	17	1 1/16	17	1 5/16	24	1 1/4	32	1 1/4	32	1 3/8	35	1.01	0.46
				3/4	20	1 3/16	22	13/16	22	1 5/16	24	1 3/8	35	1 3/8	35	1 7/16	37	1.11	0.50
				1 1/4	32	1 1/8	29	1 1/8	29	1 5/16	24	1 11/16	43	1 11/16	43	1 9/16	40	1.49	0.68
				1 1/2	40	1 1/4	32	1 1/4	32	1	25	1 13/16	47	1 13/16	47	1 5/8	41	1.84	0.83
				2	50	1 7/16	37	1 7/16	37	1	25	2	50	2	50	1 3/4	44	2.70	1.22

Note: See page 6 for pressure-temperature ratings.

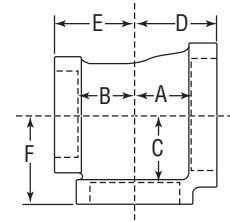
PROJECT INFORMATION		APPROVAL STAMP			
Project:		☐ Approved			
Address:		☐ Approved as noted			
Contractor:		☐ Not approved			
Engineer:		Remarks:			
Submittal Date:					
Notes 1:					
Notes 2:					
Notes 3:					
Notes 4:					
Notes 5:					
Notes 6:					
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Notes 127:					

CAST IRON THREADED FITTINGS



Class 125 (Standard)

FIGURE 359
Tee Reducing

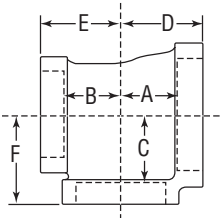


Size				A		B		C		D		E		F		Unit Weight			
																Black			
NPS	DN	NPS	DN	NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg		
1 1/4	32	1/2	15	1/2	15	1 3/16	22	13/16	22	1 1/8	29	1 7/16	37	1 5/16	24	1 5/8	41	1.00	0.45
				1	25	1 5/16	24	15/16	24	1 1/8	29	1 9/16	40	1 3/8	35	1 11/16	43	1.38	0.63
				1 1/4	32	1 1/8	29	1 1/8	29	1 1/8	29	1 3/4	44	1 9/16	40	1 3/4	44	1.64	0.74
	3/4	20	3/4	20	1 3/16	22	13/16	22	1 1/8	29	1 7/16	37	1 5/16	24	1 5/8	41	1.27	0.58	
			1	25	1 5/16	24	15/16	24	1 1/8	29	1 9/16	40	1 7/16	37	1 11/16	43	1.43	0.65	
			1 1/4	32	1 1/8	29	1 1/8	29	1 1/8	29	1 3/4	44	1 5/8	41	1 3/4	44	1.73	0.78	
	1	25	1/2	15	1 1/16	17	11/16	17	1 1/8	29	1 5/16	24	1 1/4	32	1 9/16	40	1.27	0.58	
			3/4	20	1 3/16	22	13/16	22	1 1/8	29	1 7/16	37	1 3/8	35	1 5/8	41	1.36	0.62	
			1	25	1 5/16	24	15/16	24	1 1/8	29	1 9/16	40	1 9/16	40	1 11/16	43	1.53	0.69	
			1 1/4	32	1 1/8	29	1 1/8	29	1 1/8	29	1 3/4	44	1 11/16	43	1 3/4	44	1.79	0.81	
			1 1/2	40	1 1/4	32	1 1/4	32	13/16	22	1 7/8	48	1 13/16	47	1 13/16	47	2.07	0.94	
			2	50	1 7/16	37	1 7/16	37	13/16	22	2 1/16	52	2	50	1 7/8	48	2.66	1.21	
	1 1/4	32	1/2	15	1 1/16	17	11/16	17	1 1/8	29	1 5/16	24	1 5/16	24	1 9/16	40	1.47	0.67	
			3/4	20	1 3/16	22	13/16	22	1 1/8	29	1 7/16	37	1 7/16	37	1 5/8	41	1.57	0.71	
			1	25	1 5/16	24	15/16	24	1 1/8	29	1 9/16	40	1 9/16	40	1 11/16	43	1.73	0.78	
			1 1/2	40	1 1/4	32	1 1/4	32	13/16	22	1 7/8	48	1 7/8	48	1 13/16	47	2.29	1.04	
			2	50	1 7/16	37	1 7/16	37	13/16	22	2 1/16	52	2 1/16	52	1 7/8	48	2.81	1.27	
	1 1/2	40	1/2	15	1 1/4	32	13/16	22	1 1/8	29	1 1/4	32	1 13/16	47	1 9/16	40	1 7/8	48	1.93
1 1/2					40	15/16	24	1 1/4	32	15/16	24	1 15/16	49	1 11/16	43	1 15/16	49	2.14	0.97
3/4		20	1 1/2	40	15/16	24	1 1/4	32	15/16	24	1 15/16	49	1 3/4	44	1 15/16	49	2.18	0.99	
			1/2	15	13/16	22	3/4	19	1 1/4	32	1 7/16	37	1 5/16	24	1 11/16	43	1.75	0.79	
1		25	3/4	20	7/8	22	13/16	22	1 1/4	32	1 1/2	38	1 3/8	35	1 3/4	44	1.70	0.77	
			1	25	1	25	15/16	24	1 1/4	32	1 5/8	41	1 1/2	38	1 13/16	47	1.72	0.78	
			1 1/4	32	13/16	22	1 1/8	29	1 1/4	32	1 13/16	47	1 11/16	43	1 7/8	48	2.08	0.94	
			1 1/2	40	15/16	24	1 1/4	32	15/16	24	1 15/16	49	1 13/16	47	1 15/16	49	2.29	1.04	
			2	50	1 1/2	38	1 7/16	37	15/16	24	2 1/8	54	2	50	2	51	2.91	1.32	
1 1/4		32	1/2	15	13/16	22	11/16	17	1 1/4	32	1 7/16	37	1 5/16	24	1 11/16	43	1.67	0.76	
			3/4	20	7/8	22	13/16	22	1 1/4	32	1 1/2	38	1 7/16	37	1 3/4	44	1.79	0.81	
			1	25	1	25	15/16	24	1 1/4	32	1 5/8	41	1 9/16	40	1 13/16	47	1.97	0.89	
			1 1/4	32	13/16	22	1 1/8	29	1 1/4	32	1 13/16	47	1 3/4	44	1 7/8	48	2.28	1.03	
			1 1/2	40	15/16	24	1 1/4	32	15/16	24	1 15/16	49	1 7/8	48	1 15/16	49	2.50	1.13	
			2	50	1 1/2	38	1 7/16	37	15/16	24	2 1/8	54	2 1/16	52	2	51	3.07	1.39	
1 1/2		40	1/2	15	13/16	22	13/16	22	1 1/4	32	1 7/16	37	1 7/16	37	1 11/16	43	1.84	0.83	
			3/4	20	7/8	22	7/8	22	1 1/4	32	1 1/2	38	1 1/2	38	1 3/4	44	1.95	0.88	
			1	25	1	25	1	25	1 1/4	32	1 5/8	41	1 5/8	41	1 13/16	47	2.13	0.97	
			1 1/4	32	13/16	22	13/16	22	1 1/4	32	1 13/16	47	1 13/16	47	1 7/8	48	2.44	1.11	
			2	50	1 1/2	38	1 1/2	38	15/16	24	2 1/8	54	2 1/8	54	2	51	3.23	1.46	
			2 1/2	65	1 13/16	47	1 13/16	47	15/16	24	2 7/16	62	2 7/16	62	2 3/16	56	4.15	1.88	

CAST IRON THREADED FITTINGS



Class 125 (Standard)

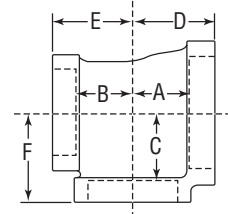
FIGURE 359 Tee Reducing																			
Size					A		B		C		D		E		F		Unit Weight		
																	Black		
NPS	DN	NPS	DN	NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg
2	50	1/2	15	1 1/2	40	15/16	24	1 3/8	35	1 1/2	38	2	51	1 13/16	47	2 1/8	54	2.95	1.34
				2	50	1 9/16	40	1 7/16	37	1 9/16	40	2 1/4	57	1 7/8	48	2 1/4	57	3.30	1.50
	3/4	20	1 1/4	32	1 3/16	22	1 1/8	29	1 7/16	37	1 7/8	48	1 3/4	44	2 1/16	52	2.50	1.13	
			1 1/2	40	1 5/16	24	1 5/16	24	1 1/2	38	2	51	1 13/16	47	2 1/8	54	3.40	1.54	
			2	50	1 9/16	40	1 7/16	37	1 9/16	40	2 1/4	57	1 15/16	49	2 1/4	57	3.31	1.50	
	1	25	1	25	1 1/16	17	1 1/16	17	1 7/16	37	1 3/4	44	1 5/8	41	2	51	2.70	1.22	
			1 1/4	32	1 3/16	22	1 1/8	29	1 1/2	38	1 7/8	48	1 3/4	44	2 1/16	52	2.94	1.33	
			1 1/2	40	1 5/16	24	1 1/4	32	1 1/2	38	2	51	1 13/16	47	2 1/8	54	2.85	1.29	
			2	50	1 9/16	40	1 7/16	37	1 9/16	40	2 1/4	57	2	51	2 1/4	57	3.46	1.57	
			2 1/2	65	1 7/8	48	1 13/16	47	1 9/16	40	2 9/16	65	2 3/8	60	2 7/16	62	4.88	2.21	
	1 1/4	32	1/2	15	1 1/16	17	1	25	1 7/16	37	1 3/4	44	1 5/8	41	2	51	2.48	1.12	
			3/4	20	7/8	22	7/8	22	1 7/16	37	1 9/16	40	1 1/2	38	1 15/16	49	2.50	1.13	
			1	25	1 1/16	17	1	25	1 7/16	37	1 3/4	44	1 5/8	41	2	51	2.73	1.24	
			1 1/4	32	1 3/16	22	1 1/8	29	1 7/16	37	1 7/8	48	1 3/4	44	2 1/16	52	2.90	1.32	
			1 1/2	40	1 5/16	24	1 1/4	32	1 1/2	38	2	51	1 7/8	48	2 1/8	54	3.13	1.42	
			2	50	1 9/16	40	1 7/16	37	1 9/16	40	2 1/4	57	2 1/16	52	2 1/4	57	3.71	1.68	
			2 1/2	65	1 7/8	48	1 3/4	44	1 9/16	40	2 9/16	65	2 3/8	60	2 7/16	62	4.54	2.06	
	1 1/2	40	1/2	15	1 3/16	22	1 3/16	22	1 7/16	37	1 1/2	38	1 7/16	37	1 7/8	48	2.34	1.06	
			3/4	20	7/8	22	7/8	22	1 7/16	37	1 9/16	40	1 1/2	38	1 15/16	49	2.46	1.12	
			1	25	1 1/16	17	1	25	1 7/16	37	1 3/4	44	1 5/8	41	2	51	2.66	1.21	
			1 1/4	32	1 3/16	22	1 3/16	22	1 7/16	37	1 7/8	48	1 13/16	47	2 1/16	52	2.98	1.35	
			1 1/2	40	1 5/16	24	1 5/16	24	1 1/2	38	2	51	1 15/16	49	2 1/8	54	3.24	1.47	
			2	50	1 9/16	40	1 1/2	38	1 9/16	40	2 1/4	57	2 1/8	54	2 1/4	57	3.70	1.68	
			2 1/2	65	1 7/8	48	1 15/16	49	1 9/16	40	2 9/16	65	2 9/16	65	2 7/16	62	5.46	2.48	
	2	50	1/2	15	1 3/16	22	1 3/16	22	1 7/16	37	1 1/2	38	1 1/2	38	1 7/8	48	2.74	1.24	
			3/4	20	7/8	22	7/8	22	1 7/16	37	1 9/16	40	1 9/16	40	1 15/16	49	2.86	1.30	
			1	25	1 1/16	17	1 1/16	17	1 7/16	37	1 3/4	44	1 3/4	44	2	51	3.05	1.38	
			1 1/4	32	1 3/16	22	1 3/16	22	1 7/16	37	1 7/8	48	1 7/8	48	2 1/16	52	3.38	1.53	
			1 1/2	40	1 5/16	24	1 5/16	24	1 1/2	38	2	51	2	51	2 1/8	54	3.59	1.63	
			2 1/2	65	1 7/8	48	1 7/8	48	1 9/16	40	2 9/16	65	2 9/16	65	2 7/16	62	5.17	2.34	
			3	100	3	76	3	76	2 7/16	62	3 11/16	94	3 11/16	94	3 1/2	89	7.87	3.57	

CAST IRON THREADED FITTINGS



Class 125 (Standard)

FIGURE 359
Tee Reducing

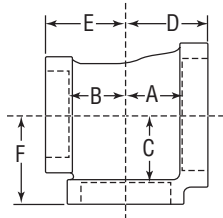


Size				A		B		C		D		E		F		Unit Weight	
																Black	
NPS	DN	NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg
2 1/2	65	1/2	15	2 1/2	65	1 13/16	47	1 13/16	47	2 11/16	68	2 1/4	57	2 11/16	68	5.20	2.36
		3/4	20	2 1/2	65	1 13/16	47	1 3/4	44	2 11/16	68	2 1/4	57	2 11/16	68	5.10	2.31
		1	25	2	50	1 9/16	40	1 9/16	40	2 7/16	62	2 1/8	54	2 9/16	65	5.03	2.28
				2 1/2	65	1 13/16	47	1 3/4	44	2 11/16	68	2 5/16	59	2 11/16	68	5.36	2.43
		1 1/4	32	2	50	1 9/16	40	1 1/2	38	2 7/16	62	2 1/8	54	2 9/16	65	4.96	2.25
				2 1/2	65	1 13/16	47	1 3/4	44	2 11/16	68	2 3/8	60	2 11/16	68	5.40	2.45
		1 1/2	40	1 1/2	40	1 5/16	24	1 5/16	22	2 3/16	56	1 5/16	49	2 7/16	62	4.23	1.92
				2	50	1 9/16	40	1 1/2	38	2 7/16	62	2 1/8	54	2 9/16	65	4.85	2.20
				2 1/2	65	1 13/16	47	1 13/16	47	2 11/16	68	2 7/16	62	2 11/16	68	4.85	2.20
		2	50	1/2	15	3/4	19	1 3/16	22	1 3/4	44	1 1/2	38	2 3/16	56	5.82	2.64
				3/4	20	7/8	22	7/8	22	1 3/4	44	1 9/16	40	2 1/4	57	3.62	1.64
				1	25	1	25	1 1/16	17	1 3/4	44	1 5/16	49	1 3/4	44	3.92	1.78
				1 1/4	32	1 3/16	22	1 3/16	22	1 3/4	44	2 1/16	52	1 7/8	48	4.26	1.93
				1 1/2	40	1 5/16	24	1 5/16	24	1 13/16	47	2 3/16	56	2	51	4.42	2.00
				2	50	1 9/16	40	1 9/16	40	1 7/8	48	2 7/16	62	2 1/4	57	5.17	2.34
				2 1/2	65	1 13/16	47	1 7/8	48	2 11/16	68	2 9/16	65	2 11/16	68	6.00	2.72
				3	80	2 1/16	52	2 1/8	54	3	80	2 7/8	73	2 13/16	73	7.35	3.33
		2 1/2	65	1/2	15	3/4	19	3/4	19	1 3/4	44	1 11/16	43	1 11/16	43	4.00	1.81
				3/4	20	7/8	22	7/8	22	1 3/4	44	1 3/4	44	1 3/4	44	4.29	1.95
				1	25	1	25	1	25	1 3/4	44	1 5/16	49	1 5/16	49	4.48	2.03
				1 1/4	32	1 3/16	22	1 3/16	22	1 3/4	44	2 1/16	52	2 1/16	52	4.83	2.19
				1 1/2	40	1 5/16	24	1 5/16	24	1 13/16	47	2 3/16	56	2 3/16	56	5.14	2.33
				2	50	1 9/16	40	1 9/16	40	1 7/8	48	2 7/16	62	2 7/16	62	5.88	2.67
				3	80	2 1/16	52	2 1/16	52	1 7/8	48	3	80	3	80	8.09	3.67
				4	100	2 3/4	70	2 13/16	73	2 7/16	62	3 11/16	94	3 11/16	94	14.03	6.36
	80	3/4	20	3	80	2 1/8	54	2 1/8	54	3 1/8	79	2 11/16	68	3 1/8	79	8.25	3.74
		1	25	3	80	2 1/8	54	2 1/8	54	3 1/8	79	2 11/16	68	3 1/8	79	8.30	3.76
		1 1/4	32	3	80	2 1/8	54	2 1/8	54	3 1/8	79	2 13/16	73	3 1/8	79	8.46	3.84
		1 1/2	40	3	80	2 1/8	54	2 3/16	56	2 1/8	54	2 13/16	73	3 1/8	79	8.13	3.69
		2	50	1 1/2	40	1 3/8	35	1 1/2	38	2 3/16	56	2 5/16	59	2 3/16	56	6.83	3.10
				2	50	1 9/16	40	1 9/16	40	2 3/16	56	2 9/16	65	2 1/4	57	7.29	3.31
				2 1/2	65	1 7/8	48	1 15/16	49	2 1/8	54	2 13/16	73	2 9/16	65	7.10	3.22
				3	80	2 1/8	54	2 3/16	56	2 1/8	54	3 1/8	79	2 15/16	75	8.79	3.99
		2 1/2	65	1	25	1	25	1 5/16	24	2 1/8	54	2 1/16	52	2 11/16	68	5.51	2.50
				1 1/4	32	1 1/4	32	1 3/16	22	2 1/8	54	2 3/16	56	2 1/16	52	5.92	2.68
				1 1/2	40	1 3/8	35	1 5/16	24	2 3/16	56	2 5/16	59	2 3/16	56	6.23	2.83
				2	50	1 9/16	40	1 1/2	38	2 3/16	56	2 9/16	65	2 7/16	62	6.81	3.09
				2 1/2	65	1 7/8	48	1 13/16	47	2 1/8	54	2 13/16	73	2 11/16	68	7.66	3.47
				3	80	2 1/8	54	2 1/8	54	3 1/8	79	3 1/16	78	3 1/8	79	9.13	4.14
		3	80	1/2	15	1 5/16	24	1 5/16	24	2 3/16	56	1 7/8	48	2 5/8	67	6.08	2.76
				3/4	20	1 5/16	24	1 5/16	24	2 1/8	54	1 7/8	48	2 5/8	67	6.06	2.75
				1	25	1	25	1	25	2 1/8	54	2 1/16	52	2 11/16	68	6.27	2.84
				1 1/4	32	1 1/4	32	1 1/4	32	2 1/8	54	2 3/16	56	2 3/16	56	6.75	3.06
				1 1/2	40	1 3/8	35	1 3/8	35	2 3/16	56	2 5/16	59	2 5/16	59	7.10	3.22
				2	50	1 9/16	40	1 9/16	40	2 3/16	56	2 9/16	65	2 9/16	65	7.75	3.51
				2 1/2	65	1 7/8	48	1 7/8	48	2 1/8	54	2 13/16	73	2 13/16	73	8.92	4.05
				4	100	2 11/16	68	2 11/16	68	2 7/16	62	3 11/16	94	3 1/2	89	12.80	5.80

CAST IRON THREADED FITTINGS



Class 125 (Standard)

FIGURE 359 Tee Reducing																			
Size				A		B		C		D		E		F		Unit Weight			
																Black			
NPS	DN	NPS	DN	NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg
3½	90	3½	90	1½	40	1⅜	35	1⅜	35	2⅞	62	2⅜	60	2⅜	60	3⅞	78	8.87	4.02
				2	50	1⅝	41	1⅝	41	2⅞	62	2⅝	67	2⅝	67	3⅞	81	9.94	4.51
4	100	1	25	4	100	2¾	70	2⅝	75	2¾	70	3¾	95	3½	89	3¾	95	13.52	6.13
				1½	40	4	100	2¾	70	2⅞	73	2¾	70	3¾	95	3½	89	3¾	95
		2	50	2	50	1⅞	43	1⅞	48	2¾	70	2⅞	68	2⅞	65	3½	89	11.34	5.14
				4	100	2¾	70	2¾	70	2¾	70	3¾	95	3½	89	3¾	95	13.89	6.30
		2½	65	2½	65	1⅞	48	1⅞	47	2⅝	67	2⅝	75	2⅞	73	3⅞	90	11.78	5.34
				4	100	2¾	70	2¾	70	2¾	70	3¾	95	3⅝	92	3¾	95	15.75	7.14
		3	80	2½	65	1⅞	48	1⅞	48	2⅝	67	2⅝	75	2⅞	73	3⅞	90	11.25	5.10
				3	80	2¼	57	2⅞	54	2⅞	68	3¼	83	3⅞	79	3⅝	92	12.50	5.67
		4	100	4	100	2¾	70	2⅞	68	2¾	70	3¾	95	3⅝	92	3¾	95	15.04	6.82
				4	100	1	25	1⅞	22	1⅞	22	2¾	70	2⅝	59	2⅝	59	3⅝	84
		1¼	32			1⅝	24	1⅝	24	2⅝	67	2⅝	59	2⅝	59	3⅝	84	10.38	4.71
		1½	40			1⅞	37	1⅞	37	2⅞	68	2⅞	62	2⅞	62	3⅝	84	10.75	4.88
		2	50			1⅞	43	1⅞	43	2¾	70	2⅞	68	2⅞	68	3½	89	11.63	5.27
		2½	65			2	51	2	51	2⅝	67	2⅝	75	2⅝	75	3⅞	90	12.85	5.83
		3	80			2¼	57	2¼	57	2⅞	68	3¼	83	3¼	83	3⅝	92	14.12	6.40
		5	125			3⅞	86	3⅞	86	2⅞	73	4⅞	111	4⅞	111	4	102	20.88	9.47
		6	150			3⅞	98	3⅞	98	2⅞	73	4⅝	125	4⅝	125	4⅞	103	26.36	11.95
		5	125	5	125	2	50	1¾	44	1¾	44	3⅞	87	2⅝	75	2⅝	75	4⅞	105
3	80					2⅝	59	2⅝	59	3¼	83	3½	89	3½	89	4¼	108	20.00	9.07
4	100					2⅞	71	2⅞	71	3⅞	86	4	102	4	102	4⅞	111	23.83	10.81
6	150	4	100	4	100	2⅞	73	2⅞	71	3⅞	98	4⅞	103	4	102	4⅝	125	30.00	13.61
				6	150	2½	65	2	51	2	51	3⅞	97	3¼	83	3¼	83	4⅞	121
		3	80			2⅞	60	2⅞	60	3⅞	97	3⅞	90	3⅞	90	4⅞	122	27.46	12.45
		4	100			2⅞	73	2⅞	73	3⅞	98	4⅞	103	4⅞	103	4⅝	125	32.44	14.71
		5	125	3⅞	86	3⅞	86	3⅞	97	4⅞	117	4⅞	117	5	127	37.00	16.78		



Anvil standard and extra heavy cast iron threaded fittings are manufactured in accordance with ASME B16.4. Plugs and bushings are manufactured in accordance with ASME B16.14.

NOTE: Figure 367 Concentric Reducers do not meet the overall length requirement of ASME B16.4. All other dimensions are in compliance.



For Listings/Approval Details and Limitations, visit our website at www.anvilintl.com or contact an Anvil Sales Representative.

Cast Iron Threaded Fittings Pressure - Temperature Ratings					
Temperature		Pressure			
		Class 125		Class 250	
(°F)	(°C)	psi	bar	psi	bar
-20° to 150°	-28.9 to 65.6	175	12.1	400	27.6
200°	93.3	165	11.4	370	25.5
250°	121.1	150	10.3	340	23.4
300°	148.9	140	9.7	310	21.4
350°	176.7	125	8.6	300	20.7
400°	204.4	–	–	250	17.2

Standards and Specifications					
	Dimensions	Material	Galvanizing*	Thread	Pressure Rating
CAST IRON THREADED FITTINGS					
Class 125	ASME B16.4	ASTM A-126 (A)	ASTM A-153	ASME B1.20.1	ASME B16.4
Class 250	ASME B16.4	ASTM A-126 (A)	ASTM A-153	ASME B1.20.1	ASME B16.4
CAST IRON PLUGS AND BUSHINGS					
	ASME B16.14	ASTM A- 126 (A)	ASTM A-153	ASME B1.20.1	ASME B16.14

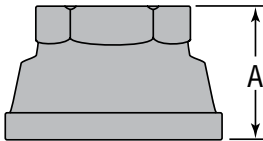
* ASTM B 633. Type I, SC 4, may be supplied as alternate zinc coating per applicable ASME B16 product standard.

General Assembly of Threaded Fittings

- 1) Inspect both male and female components prior to assembly.
 - Threads should be free from mechanical damage, dirt, chips and excess cutting oil.
 - Clean or replace components as necessary.
- 2) Application of thread sealant
 - Use a thread sealant that is fast drying, sets-up to a semi hard condition and is vibration resistant. Alternately, an anaerobic sealant may be utilized.
 - Thoroughly mix the thread sealant prior to application.
 - Apply a thick even coat to the male threads only. Best application is achieved with a brush stiff enough to force sealant down to the root of the threads.
- 3) Joint Makeup
 - For sizes up to and including 2" pipe, wrench tight makeup is considered three full turns past handtight. Handtight engagement for 1/2" through 2" thread varies from 4 1/2 turns to 5 turns.
 - For 2 1/2" through 4" sizes, wrench tight makeup is considered two full turns past handtight. Handtight engagement for 2 1/2" through 4" thread varies from 5 1/2 turns to 6 3/4 turns.

FIG. 3221R

Reducing Coupling



For Listings/Approval Details and Limitations, visit our website at www.anvilintl.com or contact an Anvil® Sales Representative.

FIGURE 3221R - REDUCING COUPLING			
Nominal Size	Maximum Working Pressure▲	Dimension A	Approx. Wt. Each
<i>In. (mm)</i>	<i>PSI (kPa)</i>	<i>In. (mm)</i>	<i>Lbs. (kg)</i>
1 x 1/2 25 x 15	500 3450	1.69 42.92	0.39 0.18
1 x 3/4 25 x 20	500 3450	1.69 42.92	0.53 0.24
1 1/4 x 3/4 32 x 20	500 3450	2.06 52.32	0.64 0.29

▲ – Working Pressure Ratings are for reference only and based on Sch. 40 pipe. For the latest UL/ULC, and FM pressure ratings versus pipe schedule, please visit anvilintl.com or contact your local Anvil Representative.

MATERIAL SPECIFICATIONS

Dimensions: ASME B16.3
 Material: ASTM A536 Grade 65-45-12
 Finish: Black
 Threads: NPT per ASME B1.20.1
 Agency Approvals: All ductile iron threaded fittings are UL/ULC Listed and FM Approved.

NOTICE: Ductile iron fittings have higher tensile strength than that of steel pipe. Therefore, over tightening can cause damage to pipe threads which may cause leakage. Ductile iron fittings should be tightened approximately three turns beyond hand tight, but no more than four turns.

PROJECT INFORMATION		APPROVAL STAMP
Project:		☐ Approved
Address:		☐ Approved as noted
Contractor:		☐ Not approved
Engineer:		Remarks:
Submittal Date:		
Notes 1:		
Miami Dade County Department of Regulatory and Economic Resources 3224016361 - 5/30/2024 2:41:27 PM PB SPF/ANVIL Product Submittal.pdf		- Job Copy

Fig. 69 (Formerly Afcon Fig. 300) Adjustable Swivel Ring, Tapped Per NFPA Standards

Size Range: 1/2" through 8"
Material: Carbon steel
Finish: Strap is Pre-Galvanized Zinc Material. Nut is Zinc Plated.
Service: Recommended for suspension of non-insulated **stationary** pipe line.
Maximum Temperature: 450° F
Approvals: Complies with Federal Specification A-A-1192A (Type 10), WW-H-171-E (Type 10), and ANSI/MSS SP-58 (Type 10). UL Listed and FM Approved (Sizes 3/4" - 8").
Features:

- 1/2" - 2" sizes designed for use with steel and CPVC piping and manufactured with FBC System Compatible oil.
- Threads are countersunk so that they cannot become burred or damaged.
- Knurled swivel nut provides vertical adjustment after piping is in place.
- Captured swivel nut in the 1/2" through 6" sizes. The capture is permanent in the bottom portion of the band, allowing the hanger to be opened during installation if desired, but not allowing the nut to fall completely out.

Ordering: Specify size, figure number and name.
Non-captured nut also available upon request.

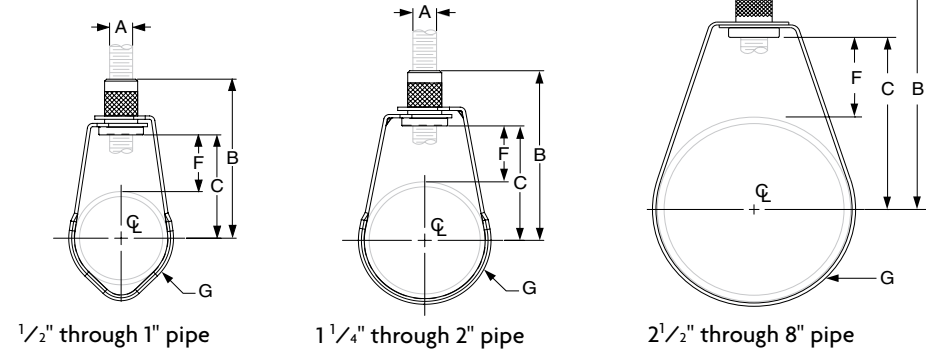


FIG. 69: DIMENSIONS (IN) • LOADS (LBS) • WEIGHT (LBS)							
Pipe Size	Max Load	Weight	Rod Size A	B	C	F	G Width
1/2	300	0.10	3/8	2 7/8	2	1 9/16	5/8
3/4		0.10		2 3/4	1 7/8	1 5/16	
1		0.10		2 9/16	1 11/16	1	
1 1/4		0.10		2 5/8	1 3/4	7/8	
1 1/2		0.10		2 3/4	1 7/8	1 1/8	
2	525	0.11	3/4	3 1/4	2 3/8	1 5/16	3/4
2 1/2		0.20		4	2 3/4	1 3/16	
3		0.20		3 13/16	2 15/16	1 3/16	
4	650	0.30	1/2	4 11/16	3 13/16	1 9/16	
5		0.54		5 5/16	4 3/8	2 1/4	
6	1,000	0.65		6 11/16	5 9/16	3 1/4	
8		1.00		8 9/16	7 9/16		



1/2" through 2" Size
Rounded Edge Design



2 1/2" through 8" Size

PROJECT INFORMATION		APPROVAL STAMP
Project:		☐ Approved
Address:		☐ Approved as noted
Contractor:		☐ Not approved
Engineer:		Remarks:
Submittal Date:		
Notes 1:		
Miami Dade County Department of Regulatory and Economic Resources		- Job Copy

All Thread Rod



All Thread Rod meets following specifications:

ASTM A307	Domestic and Import All Thread Rod
ASTM A36	Domestic All Thread Rod only
ATSM B 633	Domestic and Import Clear Zinc Plated/Yellow Zinc Plated
ASTM A 153	Domestic and Import Hot Dipped Galvanized
ASTM A193-08B	Import Stainless Steel T-304
ASTM A193-B8	Domestic Stainless Steel T-304
ASTM A193 B8M	Domestic Stainless Steel T-316

Size (in. x ft.)	Ferguson Alt 1			
	Black	Galv	SS 304	SS 316
1/2X10	BATRD10	GATRD10		
1/2X12	BATRD12	GATRD12	SS4ATRD12	SS6ATRD12
1/2X6	BATRDU	GATRDU	SS4ATRDU	SS6ATRDU
1/4X10		GATRB10		
1/4X12	BATRB12			
1/4X6	BATRB12	GATRB12	SS4ATRB12	
1X10		GATRG10		
1X12		GATRG12	SS4ATRG12	
1X6	BATRGU	GATRGU	SS4ATRGU	
3/4X10	BATRF10	GATRF10		
3/4X12	BATRF12	GATRF12	SS4ATRF12	SS6ATRF12
3/4X6	BATRFU	GATRFU	SS4ATRFU	
3/8X10	BATRC10	GATRC10	SS4ATRC10	
3/8X12	BATRC12	GATRC12	SS4ATRC12	
3/8X12				SS6ATRC12
3/8X3		GATRCM		
3/8X6	BATRCU	GATRCU	SS4ATRCU	
3/8X6				SS6ATRCU
5/8X10	BATRE10	GATRE10		
5/8X12	BATRE12	GATRE12	SS4ATRE12	
5/8X3			SS4ATREM	
5/8X6	BATREU	GATREU	SS4ATREU	
7/8X10	BATR7810	GATR7810		
7/8X12	BATR7812	GATR7812	SS4ATR7812	SS6ATR7812
7/8X3			SS4ATR78M	
7/8X6	BATR78U	GATR78U	SS4ATR78U	

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20348 04/14

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PB - Product Submittal.pdf



Address: 7920 NW 154 ST
Folio #: 3220220090013
MDC Process #: M2024016361
MDC Tracking #: 3224016361
Job Description: FIRE SPRINKLER

Master Permit #: BLC2023-2205

Sub Permit #: SME2024-1225

Revision #:

OFFICE USE ONLY

ZONING	Approved	Date	Disapproved	BUILDING	Approved	Date	Disapproved	STRUCT.	Approved	Date	Disapproved
	Date				Date				Date		
	Initials				Initials				Initials		
ROOFING	Approved	Date	Disapproved	ELECT.	Approved	Date	Disapproved	MECH.	Approved	Date	Disapproved
	Date				Date				Date		
	Initials				Initials				Initials		
PLUMBING	Approved	Date	Disapproved	FLOOD	Approved	Date	Disapproved		Approved	Date	Disapproved
	Date				Date				Date		
	Initials				Initials				Initials		

PLANS CHECKED-OUT

DATE	NAME

PLANS CHECKED-IN

DATE	NAME

	AMOUNTS
BASE PERMIT	
ZONING FEE	
CODE COMPLIANCE FEE	
TECHNOLOGY FEE	
DBPR SURCH. STATE	
DBPR SURCH. BUILDING	
SCANNING FEE	
WORK W/O PERMIT FEE	
UPFRONT FEE PAID	
BALANCE DUE:	



6601 Main St • Miami Lakes, Florida, 33014
Office: (305) 827-4015 • Fax: (305) 558-9884
Website: www.miamilakes-fl.gov

BUILDING PERMIT APPLICATION

Job Address: 7920 NW 154 St Miami Lakes, FL 33016

Unit #:

Folio #: 32- 20220090013

Owner-Builder: ☐

Master Permit #: BLC2023-2205

Sub Permit #: JME 2024-1225 Revision #: _____

OWNER INFORMATION	LEGAL USE/ WORK
NAME : JIK HQ Building LLLP	Current Use of Property: Bank - commercial
Address: 7900 Miami Lakes Dr West	Job Description Fire sprinkler head relocations/additions
City, State, Zip Miami Lakes, FL	
Phone #: 305-364-4140 Cell #:	JOB COST \$ 5,000.00 AREA/LENGTH: 800 SF/LF
Email Address:	Residential ☐ Multi-Family ☒ Commercial ☐ Industrial ☐
Company Name: Muller Fire protection	Code in Effect:
Qualifier Name: Rogelio Muller	Occupancy:
License # cc#512561-0001-1995	Construction Type:
Address 12277 SW 129th Court	Flood Zone/B.F.E.: F.F.E.:
City, State, Zip Miami, FL 33186	Firm Name:
Phone #: 786-412-8286 Cell #:	A/E of record:
Email Address: madelgado75@aol.com	License #
	Address
	City, State, Zip
	Phone #: Cell #:
	Email Address:

CONTRACTOR INFORMATION	ARCHITECT/ ENGINEER
Permit Type -- Check only One	Change to Permit -- Check only One
☐ Building ☐ Electrical ☐ Mechanical ☐ Plumbing/Gas	☐ Extension ☐ Renewal ☐ Revision
☐ Paving/Drainage ☐ Sign ☐ Roofing ☐ P/W	☐ Change Contractor ☐ Shop Drawing ☐ Cancellation

Application is hereby made to obtain a permit to do work and installation as indicated. I certify that no work or installation has commenced prior to the issuance of a permit and that all work will be performed to meet the standards, of all laws regulating construction in this jurisdiction. I understand that a separate permit must be secured for ELECTRICAL WORK, MECHANICAL, PLUMBING, SIGNS, WELLS, POOLS, RE-ROOFING, SHUTTERS, WINDOWS, FURNACES, BOILERS, HEATERS, TANKS, and AIR CONDITIONERS, etc. I understand that in signing this application I am responsible for the supervision and completion of the construction including scheduling of inspections and obtaining final inspections in accordance with the plans and specification WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOU PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR ATTORNEY OR LENDER BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT. OWNER/CONTRACTOR AFFIDAVIT: I Certify that all the foregoing information is accurate and that all work will be done in compliance with all applicable laws regulating construction and zoning.

X

Signature of Owner or Owner's Agent

Date

Print Name of Owner or Owner's Agent

STATE OF _____ COUNTY OF _____

Sworn to and subscribed before me this _____ 20____

by _____ (SEAL)

Personally known ☐ or I.D. _____

Signature of Qualifier

Date 5-16-24

ROGELIO MULLER

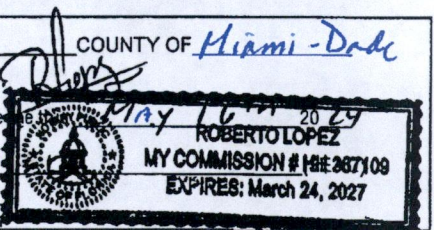
Print Name of Qualifier

STATE OF FL COUNTY OF Miami-Dade

Sworn to and subscribed before me this _____ 20____

by Rogelio Muller

Personally known ☒ or I.D. _____



NOTICE: In addition to the requirements of this permit, there may be additional deed restrictions enforced by the homeowner's associations that may be applicable to this property that may be found in the public records of this county, and there may be additional permits required from other governmental entities such as water management districts, state agencies, or federal agencies.