

SCALE: 1/4"=1'-0"



N.F.P.A. 13, 2002 TABLE 8.6.5.1.2 POSITIONING OF SPRINKLERS TO AVOID OBSTRUCTIONS TO DISCHARGE (SSUSP)	
DISTANCE FROM SPRINKLERS TO SIDE OF OBSTRUCTION	MAXIMUM ALLOWABLE DISTANCE OF DEFLECTOR ABOVE BOTTOM OF OBSTRUCTION
LESS THAN 1 FT	0
1 FT TO LESS THAN 1 FT 6 IN	2 1/2
1 FT 6 IN TO LESS THAN 2 FT	3 1/2
2 FT TO LESS THAN 2 FT 6 IN	5 1/2
2 FT 6 IN TO LESS THAN 3 FT	7 1/2
3 FT TO LESS THAN 3 FT 6 IN	9 1/2
3 FT 6 IN TO LESS THAN 4 FT	12
4 FT TO LESS THAN 4 FT 6 IN	14
4 FT 6 IN TO LESS THAN 5 FT	16 1/2
5 FT AND GREATER	18

STEEL PIPE HANGER SPACING UNDER 100 PSI					
PIPE SIZE	BETWEEN HANGERS	TO END OF LINE	ARM-OVER LENGTH, MAX.		
1"	12'-0"	(SSP) 3'-0"	(SSU) 3'-0"	(SSP) 2'-0"	(SSU) 2'-0"
1½"	12'-0"	(SSP) 4'-0"	(SSU) 4'-0"	(SSP) 2'-0"	(SSU) 2'-0"
1¾"	12'-0"	(SSP) 5'-0"	(SSU) 5'-0"	(SSP) 2'-0"	(SSU) 2'-0"
2"	12'-0"	(SSP) 5'-0"	(SSU) 5'-0"	(SSP) 2'-0"	(SSU) 2'-0"
2½"	15'-0"	(SSP) 5'-0"	(SSU) 5'-0"	(SSP) 2'-0"	(SSU) 2'-0"
3"	15'-0"	(SSP) 5'-0"	(SSU) 5'-0"	(SSP) 2'-0"	(SSU) 2'-0"
4"	15'-0"	(SSP) 5'-0"	(SSU) 5'-0"	(SSP) 2'-0"	(SSU) 2'-0"

	SYM	CNT	POSITION	FINISH	TEMP	K	NPT	SIN	MFG.	MODEL#
Add	A ₀	2	Concealed	White	155	5.6	1/2"		Tyco	RFlI
Relocate	R ₀	18	Concealed	White	155	5.6	1/2"		Tyco	RFlI

SCOPE OF WORK
1.ADD AND RELOCATE SPRINKLERS FOR NEW CEILINGS AND WALLS.

GENERAL NOTES

1. All arm-overs and drops shall be 1" NPT unless noted otherwise
2. FIRE SPRINKLER SYSTEM DESIGN PER N.F.P.A. 13, 2013, LOCAL JURISDICTION REQUIREMENTS.
3. GENERAL CONTRACTOR TO COORDINATE WITH ALARM CONTRACTOR FOR SYSTEM SHUT DOWN TO PERFORM SYSTEM MODIFICATIONS.
4. PIPING WILL NOT BE HYDROSTATICALLY TESTED.
5. ALL HANGERS AND SUPPORTS SHALL BE IN ACCORDANCE WITH N.F.P.A. 13, 2013.
6. IT IS THE RESPONSIBILITY OF THE OWNER TO PROTECT THE SYSTEM FROM FREEZING.
7. ALL PIPE AND FITTING 1" TO 2" DIAMETER TO BE DYNATHREAD 40 WITH DUCTILE IRON FITTINGS.
8. CONTRACT DOCUMENTS DO NOT REQUIRE SPRINKLERS TO BE CENTERED IN TILE. SOME ROOMS MAY USE QUARTER POINT TILE TO AVOID EXCESSIVE NUMBER OF SPRINKLER.
9. RELOCATION OF EXISTING LINES AND MAINS, PAINT, PATCH, WIRING, DEMOLITION WORK, SPRINKLERS CENTERED IN TILES, CUSTOM COLOR SPRINKLERS, AND BACKFLOW DEVICES ARE EXCLUDED FROM THIS CONTRACT.

THIS APPROVED PLAN WITH FIRE PROTECTION
ENGINEER'S WET-STAMP OR MINIMUM NICET III-
CERTIFIED INDIVIDUAL'S STAMP MUST BE
PROVIDED ON JOBSITE

CT

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: **Neil Wiegert**
Date: **Mar 17, 2016**
2009 INTERNATIONAL CODES & 2011 NEC
07-575

PROJECT DATA

BUILDING DEPARTMENT: _____ CITY OF AURORA, COLORADO

BUILDING CODES: 2015 INTERNATIONAL BUILDING CODE
2014 NATIONAL ELECTRIC CODE
2015 INTERNATIONAL MECHANICAL CODE
2015 INTERNATIONAL PLUMBING CODE
2015 INTERNATIONAL FUEL GAS CODE
2015 INTERNATIONAL ENERGY CONSERVATION CODE
2003 ICC/AND ASH 177, ACCESSIBILITY USABLE BUILDING AND FACILITIES
NATIONAL FIRE PROTECTION ASSOCIATION STANDARDS

OCCUPANCY CLASSIFICATION: _____ PER IBC CHAPTER 3 (SECTION 302) = B

FIRE PARTITION: _____ PER IBC CHAPTER 7 = 1-HOUR

TYPE OF CONSTRUCTION: _____ PER IBC CHAPTER 6 (SECTION 602) = I-B

SPRINKLERED: _____ YES

NUMBER OF STORIES: _____ 4

PROJECT SCOPE: _____ THE SCOPE OF THIS PROJECT IS SECOND GENERATION INTERIOR BUILD OUT
NEW MLW/ROOF, FINISH UPDATES, AND NEW ADA COMPLAINT RESTROOMS

TENANT OCCUPANCY: _____ OFFICE (B) 4,513 SF.



Area of Work

[illegible]

DENVER NEPHROLOGY

1411 S. POTOMAC, SUITE 200

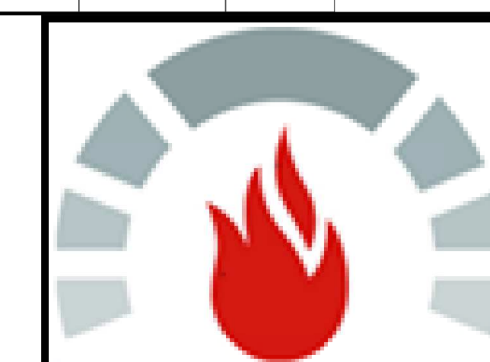
AURORA, CO

All Pro Fire Protection, LLC.

6744 South Detroit Circle

Centennial, CO 80122

303 . 656 . 6137



CITY OF AURORA STANDARD FIRE SPRINKLER NOTES

- OWNER IS RESPONSIBLE FOR PROVIDING HEAT, ABOVE 40 DEGREES Fahrenheit, ADEQUATE ENOUGH TO PREVENT FREEZING OF THE SPRINKLER PIPING.
- ALL VALVES CONTROLLING THE WATER SUPPLY TO 20 OR MORE SPRINKLER HEADS MUST BE SUPERVISED. AT THE TIME OF FINAL INSPECTION, FIRE SAFETY SYSTEMS MUST BE SUPERVISED BY AN APPROVED UL-LISTED MONITORING AGENCY.
- THE CONTRACTOR (OR DESIGNEE) MUST PROVIDE ALL NECESSARY TESTING EQUIPMENT AND PERFORM ALL TESTING REQUIRED BY THE LIFE SAFETY INSPECTOR.
- ALL NEW OR EXISTING FIRE ALARM SYSTEMS MUST BE INTERCONNECTED WITH THE FLOW SWITCH OF THE FIRE SPRINKLER SYSTEMS OUTSIDE HORN AND STROBE.
- INSTALLATION OF INTERIOR ALARMS ACTIVATED BY THE FIRE SPRINKLER WATER FLOW WILL BE REQUIRED PER 2009 IFC, 903.4.2. APPROVED AUDIBLE DEVICES SHALL BE CONNECTED TO EVERY AUTOMATIC FIRE SPRINKLER SYSTEM.
- IMPORTANT: IN THE EVENT THAT A CONCEALED SPACE IS NOT SHOWN ON THE PLAN SUBMITTAL AND IS DISCOVERED IN THE FIELD, THE INSTALLING CONTRACTOR MUST COMPLY WITH 2007 NFPA 13, SECTION 8.15.1.
- ALL WATER SUPPLY VALVES AND WATER FLOW SWITCHES SHALL BE ELECTRICALLY SUPERVISED, IFC 2007, 903.4.
- ELECTRICAL EXTERIOR HORN AND STROBE SHALL BE LISTED FOR OUTDOOR USE, IFC 903.4.2. OUTSIDE HORN AND STROBE WILL ACTIVATE UPON BOTH GENERAL ALARM AND FLOW SWITCH ACTIVATION. WHEN FIRE ALARM PANEL IS SILENCED, THE INTERIOR AND EXTERIOR STROBES WILL CONTINUE UNTIL FIRE ALARM PANEL IS RESET.
- ALL CONTROL VALVE(S) WITHIN THE RISER ROOM MUST BE ACCESSIBLE, 2007 NFPA SECTION 8.16.1.1.7.
- PRESSURE GAUGES ARE REQUIRED ON THE SYSTEM SIDE OF THE MAIN VALVE AND ON THE SUPPLY SIDE OF THE BACKFLOW PREVENTOR.
- BOTH NEW AND EXISTING FIRE SPRINKLER SYSTEMS MUST BE EQUIPPED WITH APPROVED KNOX CAPS.
- THE FIRE DEPARTMENT CONNECTION(S) MUST BE LOCATED IN THE AREA SHOWN ON THE APPROVED SITE PLAN.
- THE FIRE DEPARTMENT CONNECTION MUST BE LOCATED NOT LESS THAN 18 IN. AND NOT MORE THAN 4 FT ABOVE THE LEVEL OF THE ADJACENT GRADE OR ACCESS LEVEL. 2007 NFPA 13, SECTION A.8.17.2.
- ALL FIRE LINES AND COMMERCIAL WATER SERVICE LINES WILL REQUIRE REDUCED PRESSURE BACK FLOW PREVENTER OR DOUBLE CHECK VALVES AS REQUIRED BY THE CITY OF AURORA UTILITY DEPARTMENT. CONTACT THE BUILDING DIVISION AT 303-739-7420 TO SCHEDULE FLOW TEST FOR PRIVATE FIRE LINES PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
- ALL FIRE SERVICE LINES SHALL BE INSTALLED, IN THEIR ENTIRETY, BY A STATE LICENSED CONTRACTOR. LICENSING CAN BE OBTAINED FROM THE COLORADO DIVISION OF FIRE SAFETY LOCATED AT 690 Kipling Street, Lakewood, CO 80215 (303-239-4600). IN ADDITION, APPROVED CIVIL PLANS FROM THE CITY OF AURORA WATER DEPARTMENT ARE REQUIRED FOR ALL FIRE SERVICE LINE CONNECTIONS. THE CONTRACTOR MUST PRESENT LICENSE AND APPROVED CIVIL PLANS TO THE PUBLIC IMPROVEMENTS DIVISION OF THE PUBLIC WORKS DEPARTMENT BEFORE PERMITS ARE ISSUED. ONCE THE PERMIT HAS BEEN ISSUED CONTACT THE CITY OF AURORA BUILDING CODES DIVISION AT 303-739-7420 TO SCHEDULE A FLUSH INSPECTION WITH A LIFE SAFETY INSPECTOR. FIRE SERVICE LINES SHALL BE RESTRAINED FOR THEIR ENTIRE LENGTH. REFER TO THE CITY OF AURORA PUBLIC UTILITY IMPROVEMENTS RULES AND REGULATIONS REGARDING STANDARDS AND SPECIFICATIONS, SECTION 15.00.

NFPA 13 Sprinkler System Acceptance Inspection

2009 IFC and 2007 NFPA 13

Date of Inspection: _____ Permit Number: _____

Business/Building Name: _____ Address of Project: _____

Contractor: _____ Contractor's Phone: _____

Reference numbers following worksheet statements represent an NFPA code section unless otherwise specified.

Pass | Fail | NA

1. ☐ | ☐ | ☐ Approved drawing and above-ground piping certification documents are on site.
2. ☐ | ☐ | ☐ Underground supply testing and flushing is witnessed and underground piping certification is provided. Flushing requirements shall be 880 GPM for 6 in., 1,560 GPM for 8 in., 2,440 GPM for 10 in., 3,520 for 12 in., have them pitot and calculate that flow and confirm the velocity is at least 10 ft/sec.
3. ☐ | ☐ | ☐ Hydrostatic test: wet system, 200 PSI for 2 hours and it should include the FDC piping.
4. ☐ | ☐ | ☐ Hydrostatic test: dry and double interlock system: 200 PSI for 2 hours and a 40 PSI air leak test for 24 hours with less than 1.5 PSI loss, 24.2.2.
5. ☐ | ☐ | ☐ Back flow prevention device is installed in accordance with the approved set of plans and forward flow tested, 24.2.5.
6. ☐ | ☐ | ☐ Systems subject to pressures greater than 150 PSI shall be hydrostatically tested at 50 PSI above system working pressure, 24.2.1.2.
7. ☐ | ☐ | ☐ Operational test of the dry-pipe valve is performed and the quick opening device (500+ gallon systems) is tested, 750+ gallon system must trip within 60 seconds.
8. ☐ | ☐ | ☐ Pressure reducing valves are tested at maximum and normal inlet pressures or as specified by the manufacturer, the supply pressure is recorded on the certificate, a relief valve is on the discharge side and gauges on each side of the valve, 24.2.4.

Riser

9. ☐ | ☐ | ☐ The main drain is routed to the exterior with a turned down elbow or an inside drain capable of handling the water flow. A flow test is performed. The main drain pipe is ¾ in. or greater for a riser up to 2 in., 1¼ in. or greater for a riser 2½ in. to 3½ in., 2 in. for a riser 4 in. or greater, 8.16.2.4.2, 24.2.3.4.
10. ☐ | ☐ | ☐ Water control valves and flow switches are electronically supervised and tested, IFC 903.4.
11. ☐ | ☐ | ☐ Paddle-type water flow is not allowed for dry, preaction or deluge systems.
12. ☐ | ☐ | ☐ 24-hour monitoring service agency or remote supervising station or proprietary supervising station received signals, 903.4.1.
13. ☐ | ☐ | ☐ Water flow alarm is tested and initiates an alarm within 5 minutes, located in accordance with the approved set of plans, and it is properly signed, 24.2.3.1.
14. ☐ | ☐ | ☐ High-rise: each floor system shall have water flow device with a test connection and be connected to the fire alarm system.
15. ☐ | ☐ | ☐ Permanent system identification signs for each control valve and what portion of the building each valve serves is provided, 6.7.4.
16. ☐ | ☐ | ☐ A permanent hydraulic nameplate is attached to the riser, 24.5.1. A general information sign that indicates the design capabilities and limitations of the automatic sprinkler system shall be provided at each system riser, antifreeze loop and auxiliary system control valve. The sign shall contain the required information specified in Sections 24.6.2, 24.6.1
17. ☐ | ☐ | ☐ Riser is supported by hanger or attachment, for multistory at the lowest level, each alternate level, above and below offsets, and at the top, 9.2.5.4.
18. ☐ | ☐ | ☐ Gauges are above and below riser check valve, 7.1.1.2.

FDC

19. ☐ | ☐ | ☐ FDC capped and permanently signed with system type, the required pressure to support the system if the pressure demand is equal to or greater than 150 PSI, and area or building served, 8.17.2.4.7.
20. ☐ | ☐ | ☐ FDC has check valve and drip valve, 8.17.2.5.
21. ☐ | ☐ | ☐ FDC for wet single riser system connects to the system side, 8.17.2.4.
22. ☐ | ☐ | ☐ FDC for wet multiriser system connects after the main system shut off valve, 8.17.2.4.

23. ____ | ____ | ____ FDC for dry system connects between the indicating and dry-pipe valves.
24. ____ | ____ | ____ FDC pipe complies with the size indicated on the plans, 18 in. to 48 in. above grade, and properly supported, 8.17.2, A.8.17.2. Ensure that the minimum clearance to the sides, front, and height is provided in accordance with IFC 912.3.2.

Sprinklers

25. ____ | ____ | ____ Spare sprinklers – Provide at least 6 spare sprinklers for systems designed with 300 or less sprinklers; 12 spare sprinklers for systems designed using 300 to 1,000 sprinklers, and 24 spare sprinklers for systems designed using more than 1,000 sprinklers, 6.2.9.
26. ____ | ____ | ____ Replacement wrench(s) are provided, 6.2.9.
27. ____ | ____ | ____ Sprinklers shall be a minimum of 4 in. from the wall and be properly spaced, 8.6.3.3.
28. ____ | ____ | ____ Sprinkler heads have a guard if subject to damage.
29. ____ | ____ | ____ Sprinkler heads are not painted or covered.
30. ____ | ____ | ____ ESFR upright deflectors are a minimum 7 in. above the top of the pipe, 8.12.5.3.2.1.
31. ____ | ____ | ____ EFSR sprinklers are at least 1 ft. horizontally from the bottom edge of bar joist or open truss and at least 3 ft. above the top of the storage level, 8.12.6.
32. ____ | ____ | ____ Proper type and temperature sprinklers are used and match plans.
33. ____ | ____ | ____ Escutcheon plates are installed.
34. ____ | ____ | ____ Sprinklers are not obstructed, 8.5.5-8.12.5.

Pipe: Hangers, Seismic, and Penetrations

35. ____ | ____ | ____ Piping layout and size are the same as on the approved set of plans.
36. ____ | ____ | ____ Pipe penetrations have proper clearance 2 in. for pipe 1 in. to 3½ in., 4 in. for pipe 4 in. and larger, 9.3.
37. ____ | ____ | ____ When flexible couplings are used in risers, above and below floor penetrations of multistory structures, near penetrations of concrete or masonry walls, and near expansion joints, their location is in accordance with Sections 9.3.2.1– 9.3.2.4
38. ____ | ____ | ____ Minimum clearance around pipes penetrating construction elements listed in 9.3.4.1 is in accordance with 9.3.4.2 unless the requirements of 9.3.4.3 – 9.3.4.7 are met.
39. ____ | ____ | ____ A seismic separation assembly is provided at building seismic joints, 9.3.3.
40. ____ | ____ | ____ Lateral sway bracing is provided and spaced in accordance with the approved set of plans for all mains, cross mains, and branch lines 2½ in. and larger.
41. ____ | ____ | ____ Longitudinal sway bracing is provided and spaced in accordance with the approved set of plans for feed mains and cross mains, 9.3.5.4.
42. ____ | ____ | ____ A 4-way sway brace is provided at least every 25 ft. and at the top of each riser, 9.3.5.5.
43. ____ | ____ | ____ Longitudinal and lateral bracing is provided for each run of pipe between the change of pipe direction unless the pipe run is less than 12 ft., 9.3.5.11.3.
44. ____ | ____ | ____ Riser nipples greater than 4 ft. are restrained from lateral movement, 9.3.6.6.
45. ____ | ____ | ____ Seismic bracing wire, wrap-around u-hooks, or lateral sway bracing shall not exceed 30 ft. spacing and is used to restrict sprinkler movement that could impact the building, equipment or finishing materials, 9.3.6.
46. ____ | ____ | ____ Restraining straps are on all C-clamps and the strap is bolted through if there is not a lip on the beam, 9.3.7.1.
47. ____ | ____ | ____ Branch lines have one hanger per section of pipe, 9.2.3.2.
48. ____ | ____ | ____ Mains and cross mains have one hanger between each branch line and at the end of the main, 9.2.4.
49. ____ | ____ | ____ The maximum distance between the end sprinkler and hanger is 36 in. for 1 in. pipe, 48 in. for 1¼ in., and 60 in. for 1½ in. pipe and greater, 9.2.3.4.
50. ____ | ____ | ____ Risers in multistory buildings have supports at the lowest level, at each alternate level, below offsets, and at the top, 9.2.5.4.
51. ____ | ____ | ____ Hangers are not within 3 in. of upright sprinklers, 9.2.3.3.

Dry and Preaction Systems

52. ____ | ____ | ____ Dry system compressor, fill line, pressure gauges, check valve and shutoff valve and relief valve are installed in accordance with the approved set of plans and 7.2.6.2. The system must pressurize the sprinkler pipe within 30 minutes, 7.2.6.2.2.
53. ____ | ____ | ____ Preaction and deluge systems operate upon activation of the detection system.
54. ____ | ____ | ____ Riser room is heated, 7.2.5.
55. ____ | ____ | ____ Air pressure is set according to the manufacturer's instructions or at least 20 PSI above the trip pressure, 16.2.2.

56. ____ | ____ | ____ Dry and preaction systems are supervised and water reaches furthest point within the time period provided on the plans or water delivery calculations in accordance with Table 7.2.3.6.1.
57. ____ | ____ | ____ Preaction systems exceeding 20 sprinklers automatically supervise (constant monitoring) pipe pressure (maintain at least 7 PSI) and detection devices, 7.3.2.4.

Additional Comments:

[illegible]

Inspection Date: _____

Approved or Disapproved

FD Inspector: _____

Inspection Date: _____

Approved or Disapproved

FD Inspector: _____

Inspection Date: _____

Approved or Disapproved

FD Inspector: _____

Permit #: _____ Date: _____

	Property Protected	System Installer	System Supplier
Business Name:			
Address:			
Representative:			
Telephone:			

Location of Plans: _____

Location of Owner's Manual: _____

1. Certification of System Installation: Complete this section after system is installed, but prior to conducting operational acceptance tests.

This system installation was inspected and found to comply with the installation requirements of:

_____ NFPA 13
 _____ IFC and IBC
 _____ Manufacturer's Instructions
 _____ Other (specify: FM, UL, etc.) _____

Print Name: _____

Signed: _____ Date: _____

Organization: _____

2. Certification of System Operation: All operational features and functions of this system were tested and found to be operating properly in accordance with the requirements of:

_____ NFPA 13
 _____ IFC and IBC
 _____ Manufacturer's Instructions
 _____ Other (specify) _____

Print Name: _____

Signed: _____ Date: _____

Organization: _____



Worldwide
Contacts

www.tyco-fire.com

Series RFI – 5.6 K-factor “Royal Flush II” Concealed Pendent Sprinklers Quick & Standard Response, Standard Coverage

General Description

The TYCO Series RFI 5.6 K-factor, “Royal Flush II” Concealed Pendent Sprinklers Quick Response (3-mm bulb) and Standard Response (5-mm bulb), are decorative sprinklers featuring a flat cover plate designed to conceal the sprinkler. These sprinklers are optimal for architecturally sensitive areas such as hotel lobbies, office buildings, churches, and restaurants.

Each sprinkler includes a Cover Plate/Retainer Assembly and a Sprinkler/Support Cup Assembly. The separable, two-piece assembly design provides the following benefits:

- Allows installation of the sprinklers and pressure testing of the fire protection system prior to installation of a suspended ceiling or application of the finish coating to a fixed ceiling.
- Permits the removal of suspended ceiling panels for access to building service equipment without having to first shut down the fire protection system and remove sprinklers.
- Provides for 1/2 inch (12,7 mm) of vertical adjustment to allow a measure of flexibility in determining the length of fixed piping to cut for the sprinkler drops.

The Series RFI Sprinklers are shipped with a Disposable Protective Cap. The Protective Cap is temporarily removed during installation and replaced to help protect the sprinkler during ceiling in-

stallation or finish. The tip of the Protective Cap can be used to mark the center of the ceiling hole into plaster board or ceiling tiles by gently pushing the ceiling product against the Protective Cap. When ceiling installation is complete, the Protective Cap is removed and the Cover Plate/Retainer Assembly is installed.

As an option, the Series RFI Standard Response (5-mm bulb) “Royal Flush II” Concealed Pendent Sprinklers can be fitted with a silicone Air and Dust Seal. (Refer to Figure 5.) The Air and Dust Seal is intended for sensitive areas where it is desirable to prevent air and dust from the area above the ceiling to pass through the cover plate.

NOTICE

The Series RFI Concealed 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, 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.

Sprinkler Identification Number (SIN)

TY3531 – 3 mm bulb
TY3551 – 5 mm bulb

Technical Data

Sprinkler Approvals

Approvals apply only to the service conditions indicated in the Design Criteria section.



- TY3531 (3-mm Bulb) is UL Listed, C-UL Listed, VdS Approved (Certificate No. G4090007), and NYC Approved (MEA 353-01-E) as Quick Response.
- TY3531 (3-mm Bulb) is FM and LPCB Approved (Ref. No. 094a/10) Approved as Standard Response. Factory Mutual and LPCB do not approve any concealed sprinklers for quick response.
- TY3551 (5-mm Bulb) is UL Listed, C-UL Listed, FM Approved, LPCB Approved (Ref. No. 094a/9), and NYC Approved (MEA 353-01-E) as Standard Response.

Approvals for Air and Dust Seal

UL and C-UL Listed for use with the RFI Standard Response Concealed Sprinkler (TY3551).

Maximum Working Pressure

Maximum 250 psi (17,3 bar) by UL, C-UL, and NYC

Maximum 175 psi (12,1 bar) by FM, VdS, and LPCB

Temperature Rating

155°F (68°C) Sprinkler with
139°F (59°C) Plate

200°F (93°C) Sprinkler with
165°F (74°C) Plate

Discharge Coefficient

K = 5.6 GPM/psi^{1/2} (80,6 LPM/bar^{1/2})

Adjustment

1/2 inch (12,7 mm)

Finishes

See the Ordering Procedure section.

IMPORTANT

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.

Physical Characteristics

Frame	Bronze
Support Cup	Chrome Plated Steel
Guide Pins	Stainless Steel
Deflector	Bronze
Compression Screw	Brass
Bulb	Glass
Cap	Bronze or Copper
Sealing Assembly	Beryllium Nickel w/ TEFLON
Cover Plate	Brass
Retainer	Brass
Ejection Spring	Stainless Steel

Design Criteria

The TYCO Series RFI 5.6 K-factor, "Royal Flush II" Concealed Pendent Sprinklers are intended for fire protection systems designed in accordance with the standard installation rules recognized by the applicable Listing or Approval agency; for example, UL Listing is based on NFPA 13 and VdS Approval is based on the CEA 4001.

For more information on LPCB and VdS Approvals, contact Tyco Fire Protection Products at the following office:

Enschede, Netherlands
Telephone: 31-53-428-4444
Fax: 31-53-428-3377

The Series RFI Concealed Pendent Sprinklers are only listed and approved with the Series RFI Concealed Cover Plates having a factory applied finish.

NOTICE

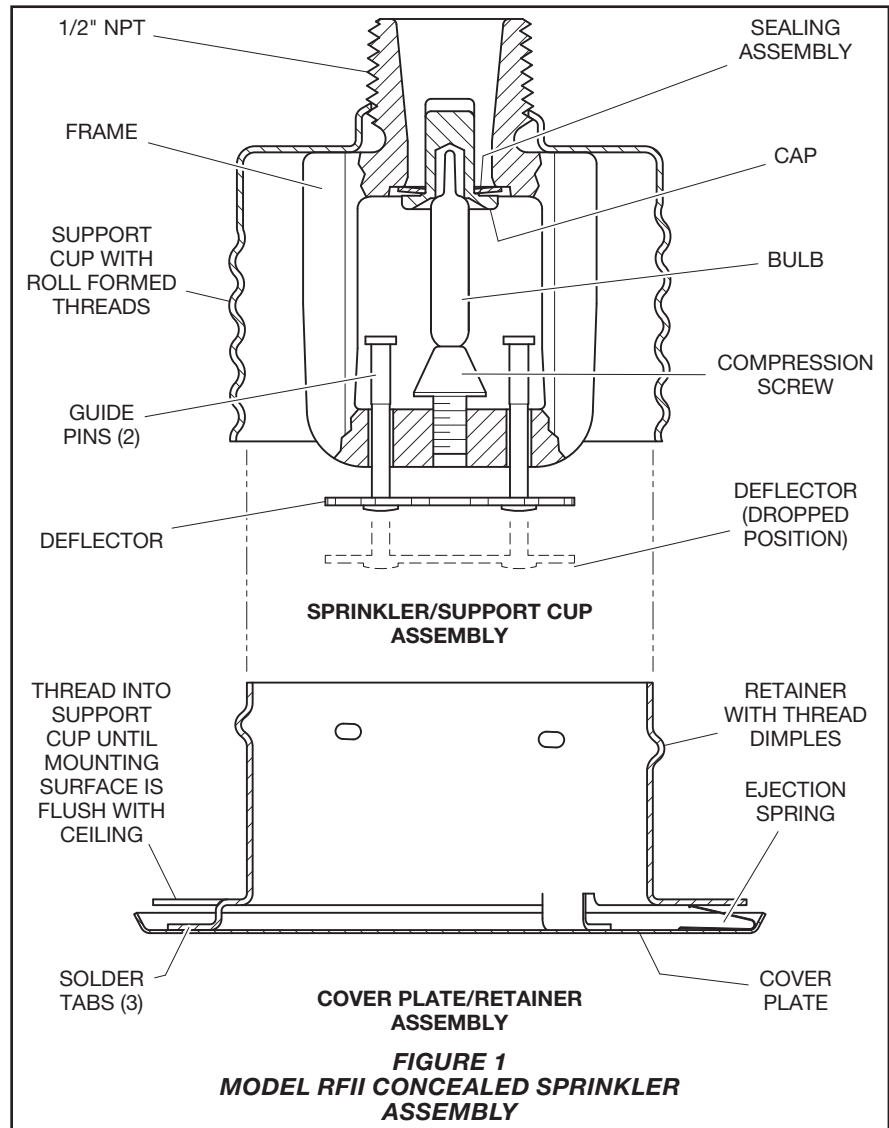
Do not use the Series RFI in applications where the air pressure above the ceiling is greater than that below. Down drafts through the Sprinkler/Support Cup Assembly can delay sprinkler operation in a fire situation.

Operation

When exposed to heat from a fire, the Cover Plate, normally soldered to the Retainer at three points, falls away to expose the Sprinkler/Support Cup Assembly.

The Deflector — supported by the Guide Pins — then drops down to its operational position.

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, activating the sprinkler and allowing water to flow.



Installation

The TYCO Series RFI 5.6 K-factor, "Royal Flush II" Concealed 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 inch (1,6 mm) for the 155°F (68°C) and 3/32 inch (2,4 mm) for the 200°F (93°C) temperature ratings.

A leak-tight 1/2 inch NPT sprinkler joint should be obtained by applying a minimum to maximum torque of 7 to 14 ft.-lbs. (9,5 to 19,0 Nm). Higher levels of torque can distort the sprinkler Inlet with consequent leakage or impairment of the sprinkler.

Do not attempt to compensate for insufficient adjustment in the Sprinkler by under- or over-tightening the Sprinkler/Support Cup Assembly. Re-adjust the position of the sprinkler fitting to suit.

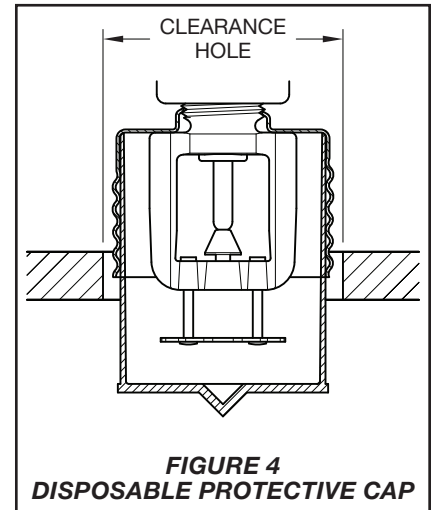
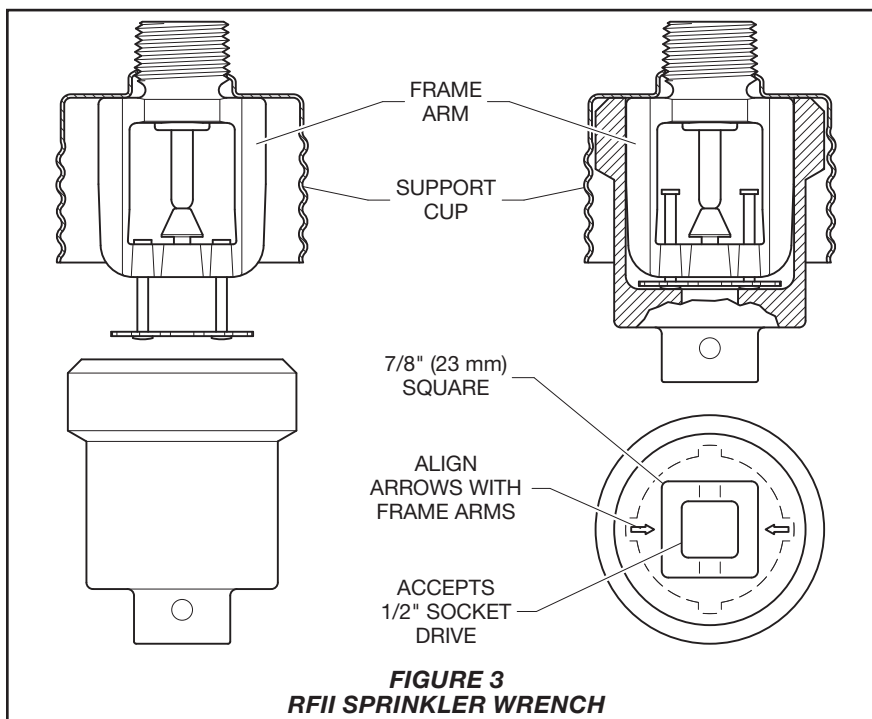
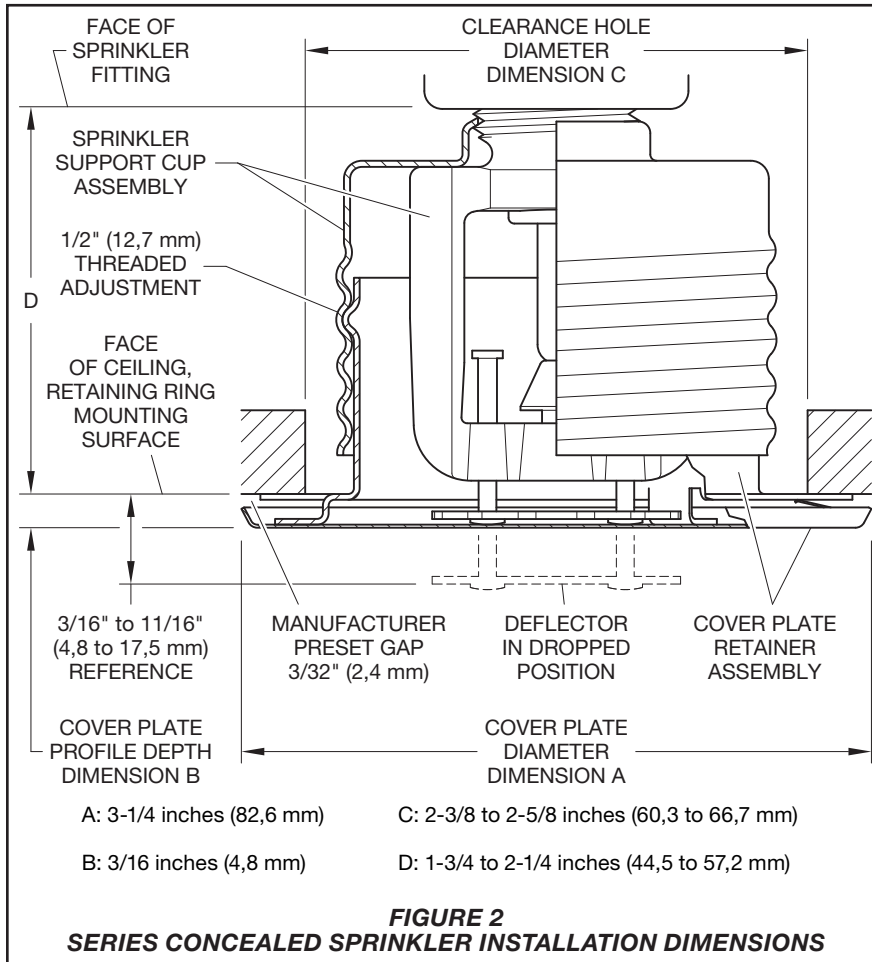
Step 1. Install the sprinkler only in the pendent position with the center-line of the sprinkler perpendicular to the mounting surface.

Step 2. Remove the Protective Cap.

Step 3. With pipe thread sealant applied to the pipe threads, hand-tighten the sprinkler into the sprinkler fitting.

Step 4. Wrench-tighten the sprinkler using only the RFI Sprinkler Wrench. (Refer to Figure 3.) Apply the RFI Sprinkler Wrench to the Sprinkler as shown in Figure 3.

Step 5. Replace the Protective Cap by pushing it upwards until it bottoms out against the Support Cup. (Refer to Figure 4.) The Protective Cap helps prevent damage to the Deflector and



Arms during ceiling installation and/or finish. You can also use the Protective Cap to locate the center of the clearance hole by gently pushing the ceiling material up against the center point of the Protective Cap.

NOTICE

As long as the Protective Cap remains in place, the system is considered "Out of Service".

Step 6. After the ceiling has been completed with the 2-1/2 inch (63.5 mm) diameter clearance hole and in preparation for installing the Cover Plate/Retainer Assembly, remove and discard the Protective Cap. Verify that the Deflector moves up and down freely.

If the Sprinkler is damaged and the Deflector does not move up and down freely, replace the entire Sprinkler. Do not attempt to modify or repair a damaged sprinkler.

Step 7. When installing an Air and Dust Seal, refer to Figure 5; otherwise, proceed to Step 8. To attach the Air and Dust Seal, verify the angle of the outside edge of the seal is oriented according to Figure 5. Start the edge of the Retainer in the grooved slot of the Air and Dust Seal and continue around the retainer until the entire Air and Dust Seal is engaged.

Step 8. Screw on the Cover Plate/Retainer Assembly until the Retainer (shown in Figure 2) or the Air and Dust Seal (shown in Figure 5) contacts the ceiling. Do not continue to screw on the Cover Plate/Retainer Assembly so that it lifts a ceiling panel out of its normal position. If you cannot engage the Cover Plate/Retainer Assembly with the Support Cup or you cannot engage the Cover Plate/Retainer Assembly sufficiently to contact the ceiling, you must reposition the Sprinkler Fitting.

Care and Maintenance

The TYCO Series RFI 5.6 K-factor, "Royal Flush II" Concealed 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 system from the proper authorities and notify all personnel who may be affected by this action.

Absence of the Cover Plate/Retainer Assembly can delay sprinkler operation in a fire situation.

When properly installed, there is a nominal 3/32 inch (2,4 mm) air gap between the lip of the Cover Plate and the ceiling, as shown in Figure 2.

This air gap is necessary for proper operation of the sprinkler. If the ceiling requires repainting after sprinkler installation, ensure that the new paint does not seal off any of the air gap.

Do not pull the Cover Plate relative to the Enclosure. Separation may result.

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 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. (Ref. Installation Section.)

Exercise care to avoid damage to sprinklers before, during, and after installation. Replace sprinklers damaged by dropping, striking, wrench twisting, wrench slipping, or the like. Also, replace any sprinkler that has a cracked bulb or that has lost liquid from its bulb. (Refer to the Installation section.)

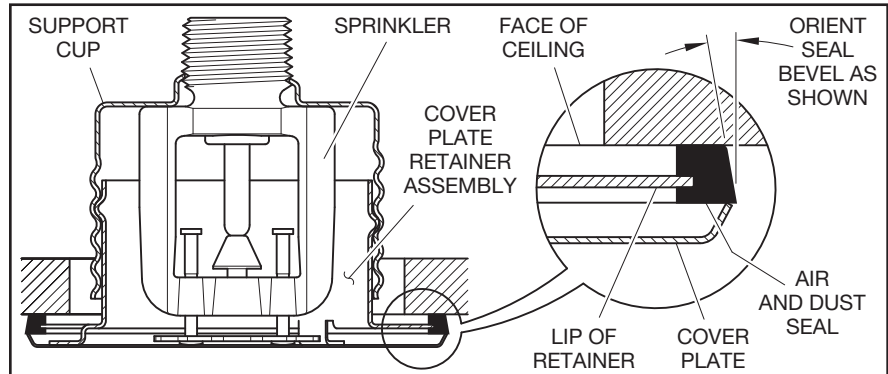


FIGURE 5
OPTIONAL AIR AND DUST SEAL FOR SERIES RFI (TY3551)

If you must remove a sprinkler, do not reinstall it or a replacement without re-installing the Cover Plate/Retainer Assembly. If a Cover Plate/Retainer Assembly becomes dislodged during service, replace it immediately.

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 (e.g., NFPA 25), in addition to the standards of any other authorities having jurisdiction. Contact the installing contractor or sprinkler manufacturer regarding any questions.

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

Ordering Procedure

Contact your local distributor for availability. When placing an order, indicate the full product name.

Sprinkler/Support Cup Assembly

Specify: Series RFI (specify SIN), K=5.6, "Royal Flush II" Pendent Sprinklers (specify) temperature rating and (specify) finish, P/N (specify).

	155°F (68°C)	200°F (93°C)
TY3531	51-792-1-155	51-792-1-200
TY3551	51-790-1-155	51-790-1-200

Separately Ordered Cover Plate/Retainer Assembly:

Specify: (temperature rating from below) Series RFI Concealed Cover Plate with (finish), P/N (specify).

	139°F (59°C)(a)	165°F (74°C)(b)
Grey White (RAL9002)	56-792-0-135	56-792-0-165
Brass	56-792-1-135	56-792-1-165
Pure White (c) (RAL9010)	56-792-3-135	56-792-3-165
Signal White (RAL9003)	56-792-4-135	56-792-4-165
Jet Black (RAL9005)	56-792-6-135	59-792-6-165
Brushed Chrome	56-792-8-135	56-792-8-165
Chrome	56-792-9-135	56-792-9-165
Custom	56-792-X-135	56-792-X-165

(a) For use with 155°F (68°C) sprinklers.

(b) For use with 200°F (93°C) sprinklers.

(c) Eastern Hemisphere sales only.

Sprinkler Wrench

Specify: RFI Sprinkler Wrench, P/N 56-000-1-075.

Air and Dust Seal

Specify: Air and Dust Seal, P/N 56-908-1-001.

RSN 1096022
PERMIT NO. 2016-1077206-CT



DYNA THREAD®

Dyna-Thread

Full Line Sch-40 Replacement

Dyna-Thread® offers the life expectancy of Sch-40 with superior hydraulics and greater value.

Dyna-Thread sprinkler pipe represents an engineering advancement for the sprinkler pipe industry. It combines the safety and longevity of traditional Sch-40 pipe with quality and superior hydraulic advantages.

Comparison to Schedule 40

- Dyna-Thread's inside diameter is up to 3.6% larger than Sch-40 giving it superior hydraulics. And, when used in combination with Dyna-Flow pipe, down sizing often occurs.
 - Dyna-Thread is fully listed and approved by UL, ULC, and FM for fire sprinkler applications.
 - The life expectancy of Dyna-Thread and Sch-40 are equal based on the calculated wall thicknesses per UL.
 - The consistent quality of steel used to make Dyna-Thread facilitates smooth threading and lower maintenance costs.
 - The exterior of Dyna-Thread is protected by a clean, durable mill coating for extended shelf life and easy paint application.
- With its increased strength and lighter weight, Dyna-Thread reduces installation fatigue and is ideal for retro-fit applications.

Corrosion Resistance Ratio (CRR) is a UL (Underwriters Laboratory) term for the estimated life expectancy of a pipe joint. This is based on the calculated wall thickness at the base of the first exposed thread, assumed to be the weakest point of the pipe length. Dyna-Thread and Sch-40 have the same calculated wall thicknesses at this point and are both assigned the same CRR of 1.00.

The internal surface of all black Allied Tube & Conduit Fire Sprinkler pipe products up to 4.5000" in diameter is coated with our new Antibacterial Formula, "ABF". In scientific laboratory test, ABS proved to have superior resistance to microbial colonization of pipe walls, thereby delaying or possibly preventing the onset of Microbiologically Influenced corrosion (MIC) when the First Sprinkler System is first installed.



Comparison to L.W.T. Pipes

- More wall thickness at the thread (CRR=1.00) gives Dyna-Thread better life expectancy than lightwall threadable pipe joints.
- Unlike lightwall threadable pipe, Dyna-Thread has no thread gauge warning.
- Dyna-Thread is approved for standard hanger spacing (15 ft. O.C.), can be used as earthquake sway bracing, and is safe to use as drops.
- Dyna-Thread is safer to weld on.
- Dyna-Thread is more widely accepted than lightwall threadable where Sch-40 is specified.

Specifications & Approvals

Super 40/Dyna-Thread pipe is manufactured to meet: ASTM A-135, Grade A and is in compliance with NFPA-13. All sizes of Super 40/Dyna-Thread are rated at 300 psi working pressure. Super 40/Dyna-Thread is UL and ULC Listed for wet, dry deluge and pre-action sprinkler systems and FM Approved for use in wet systems. Super 40/Dyna-Thread can be "hot-dip" galvanized to meet FM requirement for dry systems. Super 40/Dyna-Thread is approved for all threaded couplings and welded outlets and is suitable for all roll-grooved, and plain-end fittings. (See listing information).

Specifications

NPS	Nominal I.D.	Wt.	Wt. (H2O Filled)	Pcs/	Wt/Lift (21')	Wt/Lift (24')	Wt/Lift (25')
In; mm	In; mm	Lbs/Ft; Kg/m	Lbs/Ft; Kg/m	Lift	Lbs; Kg	Lbs; Kg	Lbs; Kg
1"	1.080	1.330	1.75	70	1955	2234	2327
25	27.4	2.0	2.60	70	887	1013	1056
1¼"	1.408	1.870	2.54	51	2002	2288	2384
32	35.8	2.8	3.78	51	908	1038	1081
1½"	1.639	2.290	3.22	44	2115	2418	2519
40	41.6	3.4	4.79	44	959	1097	1143
2"	2.104	3.050	4.57	30	1921	2196	2287
50	53.4	4.5	6.80	30	871	996	1037

tyco / Flow Control

allied
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11350 Norcom Rd. • Philadelphia, PA 19154
2525 N. 27 th Ave. • Phoenix, AZ 85009

Customer Service:
(800) 882-5543
Fax 708-339-1806

90° ELBOW



Ductile Iron



MATERIAL SPECIFICATIONS

Ductile iron threaded fittings are UL & ULC Listed & Factory Mutual Approved for 500 psi service.

Ductile iron per ASTM A536 Class 65-45-12.

Dimensions conform to ASME B16.14

Threads are NPT per ANSI/ASME B1.20.1.

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 three turns beyond hand tight, but no more than four turns.



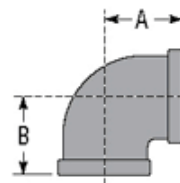
APPROVED

For Listing/Approval Details and Limitations visit our Web Site www.anvilintl.com or contact an Anvil®/AnvilStar™ Sales Representative.

90° ELBOW						
Nominal Size	Anvil Item Number	Universal Number	Max. Working Pressure*	Dimensions		Approx. Wt. Each
In. (mm)			PSI (kPa)	A In. (mm)	B In. (mm)	Lbs. (kg)
1 20	840000004	D890033	500 34.50	1.50 38.10	1.50 38.10	0.62 0.28
1 1/4 32	840000012	D890044	500 34.50	1.75 44.45	1.75 44.45	0.90 0.41
1 1/2 40	840000020	D890055	500 34.50	1.94 49.276	1.94 49.276	1.20 0.54
2 50	840000038	D890066	500 34.50	2.25 57.15	2.25 57.15	1.85 0.84

* UL, ULC & FM Pressure Ratings

For additional listings and approvals, see the technical data section.



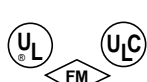
SPF Cast & Ductile Iron Fittings

www.anvilstar.com



Style 922 FireLock™ Outlet-T

PRODUCT DESCRIPTION



See Victaulic
publication 10.01
for details.



The Style 922 Outlet-T provides a convenient method of incorporating 1/2, 3/4, and 1" (15, 20 and 25 mm) outlets for directly connecting sprinkler heads, drop nipples, sprigs, gauges, drains and other outlet products. Available for 1 1/4 through 2 1/2" (32 to 65 mm) piping systems, Style 922 outlets are UL/ULC Listed, LPC,

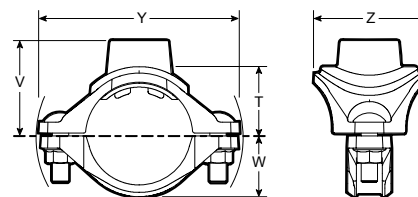
Vds/FM approved for branch connections on wet and dry systems.

The locating collar engages into the hole prepared in the pipe. When tightened, the assembly compresses the gasket onto the OD of the pipe. Style 922 Outlet-T is rated to 175 psi (1200 kPa) for fire protection systems.

Style 922 is suitable for use on standard, lightwall, Schedule 5 and other specialty pipes.* It is supplied with a clear, rust inhibitive coating. Contact Victaulic for other optional coatings.

*Consult Section 10.01 for specific listings/approvals.

DIMENSIONS



Nominal Size inches/mm Run X Branch FPT†	Required Hole Saw Size	Dimensions – inches/millimeters					Approx. Weight Each lbs/kg
		T*	V	W	Y	Z	
1 1/4 X 1/2 32 X 15	1 3/16 30,2	1.30 33,0	1.83 46,5	1.10 27,9	3.87 98,3	2.56 65,0	1.0 0,45
1 1/4 X 3/4 32 X 20	1 3/16 30,2	1.28 32,5	1.83 46,5	1.10 27,9	3.87 98,3	2.56 65,0	1.1 0,50
1 1/4 X 1 32 X 25	1 3/16 30,2	1.52 38,6	2.18 55,4	1.10 27,9	3.87 98,3	2.56 65,0	1.2 0,54
1 1/2 X 1/2 40 X 15	1 3/16 30,2	1.42 36,1	1.95 49,5	1.22 31,0	4.08 103,6	2.56 65,0	1.2 0,54
1 1/2 X 3/4 40 X 20	1 3/16 30,2	1.40 35,6	1.95 49,5	1.22 31,0	4.08 103,6	2.56 65,0	1.2 0,54
1 1/2 X 1 40 X 25	1 3/16 30,2	1.64 41,7	2.30 58,4	1.22 31,0	4.08 103,6	2.56 65,0	1.3 0,59
2 X 1/2 50 X 15	1 3/16 30,2	1.66 42,2	2.19 55,6	1.46 37,1	4.60 116,8	2.56 65,0	1.3 0,59
2 X 3/4 50 X 20	1 3/16 30,2	1.64 41,7	2.19 55,6	1.46 37,1	4.60 116,8	2.56 65,0	1.4 0,64
2 X 1 50 X 25	1 3/16 30,2	1.88 47,8	2.54 64,5	1.46 37,1	4.60 116,8	2.56 65,0	1.5 0,68
2 1/2 X 1/2 65 X 15	1 3/16 30,2	1.91 48,5	2.44 62,0	1.71 43,4	5.40 137,2	2.56 65,0	1.6 0,73
2 1/2 X 3/4 65 X 20	1 3/16 30,2	1.89 48,0	2.44 62,0	1.71 43,4	5.40 137,2	2.56 65,0	1.6 0,73
2 1/2 X 1 65 X 25	1 3/16 30,2	2.13 54,1	2.79 70,9	1.71 43,4	5.40 137,2	2.56 65,0	1.6 0,73

Victaulic female threaded products are designed to accommodate standard NPT or BSPT (optional) male pipe threads only. Use of male threaded products with special features, such as probes, dry pendent sprinkler heads, etc., should be verified as suitable for use with this Victaulic product. Failure to verify suitability in advance may result in assembly problems or leakage.

*Center of run to engaged pipe end for NPT threads (dimensions are approximate).

VICTAULIC® IS AN ISO 9001 CERTIFIED COMPANY

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Victaulic Asia Pacific
 Phone: 65-235-3035
 Fax: 65-235-0535
 e-mail: vicap@victaulic.com

PERFORMANCE

Nominal Size Inches/mm	Equivalent Length of 1" Pipe Feet meters
1¼ × 1 32 × 25	8.5 2.6
1½ × 1 40 × 25	8.5 2.6
2 × 1 50 × 25	8.5 2.6
2½ × 1 65 × 25	8.5 2.6

MATERIAL SPECIFICATIONS

Housing: Ductile iron conforming to ASTM A-395, grade 65-45-15, and ASTM A-536, grade 65-45-12

Gasket:
☐ **Grade "E" EPDM - Type A**
(Violet color code). FireLock products have been Listed by Underwriters Laboratories

Inc. and Approved by Factory Mutual Research for wet and dry (oil free air) sprinkler services up to the rated working pressure using the Grade "E" Type A Gasket System.

Bolts/Nuts: Heat treated carbon steel zinc electroplated track head bolt with a minimum

tensile strength of 110,000 psi (758340 kPa). Flanged hex nut, zinc electroplated.



INCORPORATED
 CORONA, CA (909)737-5599



Fig. 65 and Fig. 66 Reversible C-Type Beam Clamps 3/4 and 1-1/4 Inch Throat Openings

Size Range – (Fig. 65 and Fig. 66) 3/8, 1/2, AND 5/8 inch rod.

Material – Carbon Steel with hardened cup point set screw and jam nut.

Function – Recommended for hanging from steel beam where flange thickness does not exceed 3/4 inch (Fig. 65) or 1-1/4" (Fig. 66)

Features – All steel construction eliminates structural deficiencies associated with casting type beam clamps. May be used on top or bottom flange of the beam. (Beveled lip allows hanging from top flange where clearance is limited.) May be installed with set screw in up or down position. Offset design permits unlimited rod adjustment by allowing the rod to be threaded completely through the clamp. Open design permits inspection of thread engagement.

Approvals– Underwriters' Laboratories Listed in the USA (UL) and Canada (cUL). Factory Mutual Engineering Approved. Conforms to Federal Specification Society SP-69, type 19 and 23. Exceeds requirements of the National Fire Protection Association (NFPA), Pamphlet #13, 3/8 inch rod will support 1/2 thru 4 inch pipe, 1/2 inch rod will support 1/2 thru 8 inch pipe.

Finish – Plain.

Note—Available in Electro-Galvanized and HDG finish.

Order By—Figure number, rod size, and finish.

Fig. 65 Patent #4,570,885

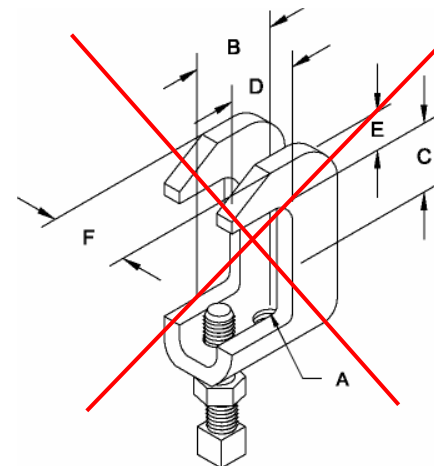
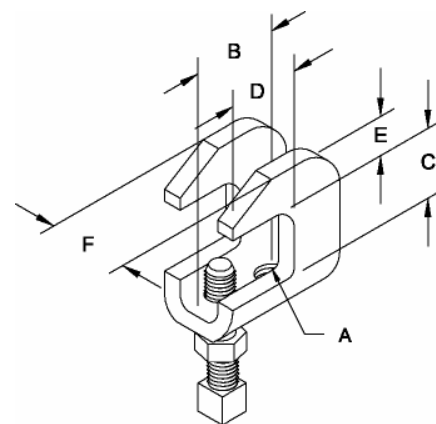


FIG. 65 TABLE							
ROD SIZE A	B	C	D	E	F	MAX. REC. LOAD LBS.* WT./100	APPROX WT./100
3/8	1-3/16	3/4	1	7/16	1	610	28
1/2	1-1/2	3/4	1	9/16	1-1/4	1130	55
5/8	1-1/2	3/4	1	9/16	1-1/4	1130	55

*Max. loads for clamp with set screw in up or down position.

FIG. 66 TABLE							
ROD SIZE A	B	C	D	E	F	MAX. REC. LOAD LBS.* WT./100	APPROX WT./100
3/8	1-3/16	1-1/4	1	7/16	1	610	28
1/2	1-1/2	1-1/4	1	9/16	1-1/4	1130	55
5/8	1-1/2	1-1/4	1	9/16	1-1/4	1130	55

*Max. loads for clamp with set screw in up or down position.



INCORPORATED
CORONA, CA (909)737-5599

Fig. 98
Rod Stiffener

Size Range—Secures 3/8 thru 7/8 inch hanger rod.
Material – Carbon Steel.
Function—Secures channel to hanger rod for vertical seismic bracing.
Finish—Electro Galvanized.
Order By—Figure number.
Note—Available in HDG finish or Stainless Steel materials.

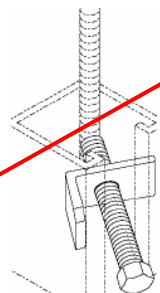
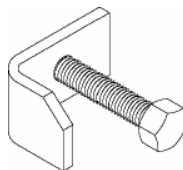
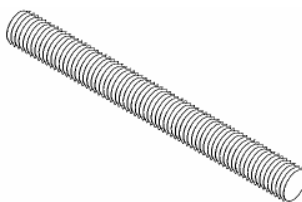


Fig. 99
All Thread Rod Cut To Length

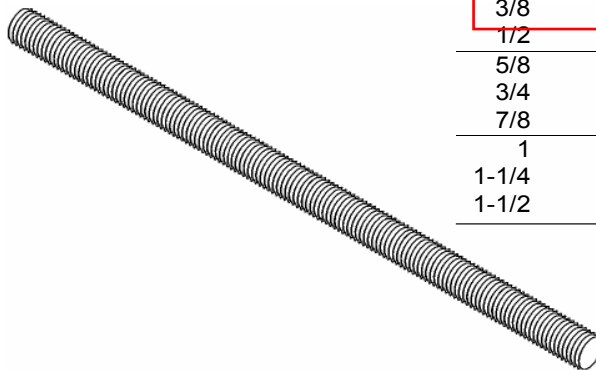
Size Range—3/8 thru 7/8 inch rod in 1 inch increments.
Material – Carbon Steel.
Maximum Temperature—750°F.
Finish— Plain.
Order By—Figure number, rod diameter, rod length, and finish.
Note—Available in Electro-Galvanized and HDG finish or Stainless Steel materials.



ROD SIZE	MAX. REC. LOAD LBS. FOR SERVICE TEMPS	
	650°F	750°F
3/8	610	540
1/2	1130	1010
5/8	1810	1610
3/4	2710	2420
7/8	3770	3360

Fig. 100
All Thread Rod Full Lengths

Size Range—3/8 thru 7/8 inch rod in 10 foot lengths.
Material – Carbon Steel.
Maximum Temperature—750°F.
Finish— Plain.
Order By—Figure number, rod diameter, and finish. **Note**— Available in Electro-Galvanized and HDG finish or Stainless Steel materials.



ROD SIZE	MAX. REC. LOAD LBS. FOR SERVICE TEMPS		APPROX. WEIGHT PER 100FT.
	650°F	750°F	
1/4	240	215	12
3/8	610	540	29
1/2	1130	1010	53
5/8	1810	1610	84
3/4	2710	2420	123
7/8	3770	3360	169
1	4960	4420	222
1-1/4	8000	7140	360
1-1/2	11630	10370	510



To'.c0

INCORPORATED
CORONA, CA (909)737-5599

Fig. 200



"Trimline" Adjustable Band Hanger

Size Range — 1/2 thru 8 inch pipe.

Material — Carbon Steel, Mil. Galvanized to G-90 specifications.

Function — For fire sprinkler and other general piping purposes. Knurled swivel nut design permits hanger adjustment after installation.

Features

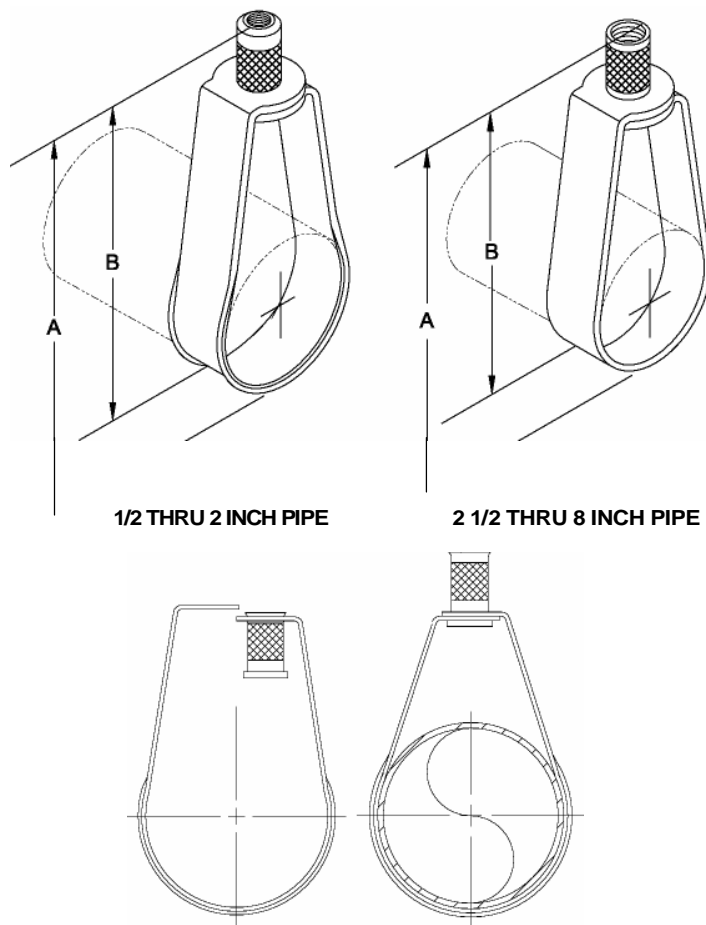
- (1/2 thru 2 inch) Flared edges ease installation for all pipe types and protect CPVC plastic pipe from abrasion. Captured design keeps adjusting nut from separating with hanger. Hanger is easily installed around pipe.
- (2-1/2 thru 8 inch) Spring tension on nut holds it securely in hanger before installation. Adjusting nut is easily removed.

Approvals— Underwriters' Laboratories Listed (1/2" thru 8") in the U.S. (UL) and Canada (cUL) for steel and CPVC plastic pipe and Factory Mutual Engineering Approved (3/4" thru 8"). Conforms to Federal Specifications WW-H-171 E, Type 10, and Manufacturers Standardization Society SP-69, type 10.

Maximum Temperature - 650°F.

Finish — Mil. Galvanized, for Stainless Steel materials order Tolco Fig. 200WON.

Order By— Figure number and pipe size.



PIPE SIZE	INCH	ROD SIZE METRIC*	A	B	MAX. REC. LOAD LBS.	APPROX. WT./100
1/2	3/8	8mm or 10mm	3-1/8	2-5/8	400	11
3/4	3/8	8mm or 10mm	3-1/8	2-1/2	400	11
1	3/8	8mm or 10mm	3-3/8	2-5/8	400	12
1-1/4	3/8	8mm or 10mm	3-3/4	2-7/8	400	13
1-1/2	3/8	8mm or 10mm	3-7/8	2-7/8	400	14
2	3/8	8mm or 10mm	4-1/2	3	400	15
2-1/2	3/8	10mm	5-5/8	4-1/8	600	27
3	3/8	10mm	5-7/8	4	600	29
3-1/2	3/8	10mm	7-3/8	5-1/4	600	34
4	3/8	10mm	7-3/8	5	1000	35
5	1/2	12mm	9-1/8	6-1/4	1250	66
6	1/2	12mm	10-1/8	6-3/4	1250	73
8	1/2	12mm	13-1/8	8-3/4	1250	136

*Order Fig. 200M