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LICENSE NO. KNIGHFP044LK

**Fire Sprinkler System
Equipment Submittal**

Shoe Palace

3500 S. Meridian, Space 410 & 420

Puyallup, WA 98373

KFP Job #24-068





F1FR56 Series Quick Response Sprinklers

K-factor 5.6 (80)

Features

- Standard coverage quick-response sprinklers
- Upright, pendent, horizontal sidewall, and vertical sidewall deflectors
- Low profile, compact design
- Available in a wide variety of finishes

Product Description

Reliable Model F1FR56 series sprinklers are quick-response standard spray automatic fire sprinklers utilizing a sensitive 3.0 mm glass bulb thermal element.

Pendent and horizontal sidewall sprinklers may be installed exposed or surface mounted using escutcheons such as the Reliable Models B, C, or HB (reference Technical Bulletin 204). When installed recessed or concealed, the Model F1FR56 series sprinklers are specifically listed with and may only be installed with listed Reliable escutcheons and cover plates. Refer to the technical information on the following pages for specific listings for recessed and concealed installations and refer to Figures 5 and 6 for dimensional information.

When fitted with an approved water shield, these sprinklers may be considered intermediate sprinklers for use in racks, below grated walkways, and other areas where intermediate level sprinklers are required.

Table A provides a summary of the approvals and availability of specific Model F1FR series sprinkler configurations. Additional technical information for each sprinkler model is provided on the following pages.



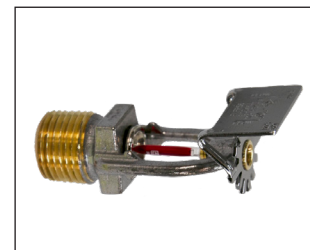
Model F1FR56 Pendent



Model F1FR56 Upright



Model F1FR56 Vertical Sidewall



Model F1FR56 Horizontal Sidewall

Note: Not all versions of the product are shown.

Note: This bulletin may contain information on New and Legacy sprinklers that reflects a dimensional change only. Sprinkler Identification Number (SIN), application, performance, and listings/approval are not otherwise affected. Sprinklers with New frames will include the suffix "N" in the order.

F1FR Series Sprinklers Summary

Table A

Sprinkler Model	K-Factor gpm/psi ^{1/2} (lpm/bar ^{1/2})	Orientation	Listings & Approvals	Max. Working Pressure psi (bar)	Sprinkler Identification Number (SIN)
F1FR56	5.6 (80)	Upright Intermediate Upright	cULus, FM, LPCB, VdS, EC, WM, UKCA	175 (12) 250 (17) (cULus only)	RA1425
		Pendent	cULus, FM, LPCB, VdS, EC, WM, UKCA	175 (12) 250 (17) (cULus only)	RA1414
		Concealed Pendent	cULus, VdS, EC, WM, UKCA	175 (12) 250 (17) (cULus only)	RA1414
		Horizontal Sidewall	cULus, FM	175 (12) 250 (17) (cULus only)	RA1435
		Vertical Sidewall	cULus, FM, LPCB, UKCA	175 (12)	RA1485

Model F1FR56 Upright Sprinkler

SIN RA1425

Technical Specifications

Style: Upright, Intermediate Upright

Threads: 1/2" NPT or ISO 7-R1/2

Nominal K-Factor: 5.6 (80 metric)

Max. Working Pressure:

175 psi (12 bar)

250 psi (17 bar) (cULus only)

Material Specifications

Thermal Sensor: 3 mm Glass Bulb

Sprinkler Frame: Brass Alloy

Cap: Bronze Alloy

Sealing Washer: Nickel with PTFE

Load Screw: Copper Alloy

Deflector: Brass Alloy

Sprinkler Finishes

(See Table B)

Sensitivity

Quick response

Temperature Ratings

135°F (57°C)

155°F (68°C)

175°F (79°C)

200°F (93°C)

286°F (141°C)

Guards & Shields (New Frames)

Factory Water Shield (cULus, FM)

F-1 Guard (cULus, FM)

F-3 Guard with Shield (cULus, FM)

Guards and Shields (Legacy Frames)

Factory Water Shield

C-1 Guard (FM)

C-3 Guard with Shield (cULus, FM)

D-1 Guard (cULus)

D-3 Guard with Shield (cULus)

Sprinkler Wrench

Model W2

Model J (New frame with guard installed)

Model JD (Legacy frame with guard installed)

Listings and Approvals

cULus Listed

FM Approved

LPCB

VdS

EC

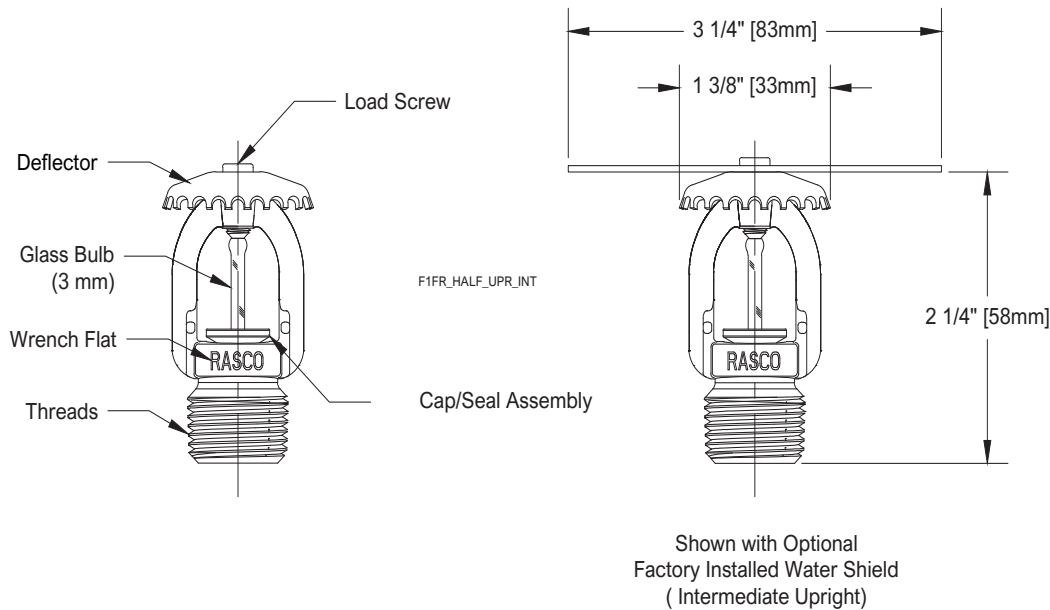
WM

UKCA: 0832-UKCA-CPR-S5045



Model F1FR56 Upright Sprinkler Components and Dimensions

Figure 1



Technical Specifications

Style:
 Pendent
 Recessed Pendent
 Concealed Pendent
Threads: 1/2" NPT or ISO 7-R1/2
Nominal K-Factor: 5.6 (80 metric)
Max. Working Pressure:
 175 psi (12 bar)
 250 psi (17 bar) (cULus only)

Material Specifications
Thermal Sensor: 3 mm Glass Bulb
Sprinkler Frame: Brass Alloy
Cap: Bronze Alloy
Sealing Washer: Nickel with PTFE
Load Screw: Copper Alloy
Deflector: Brass Alloy

Sprinkler Finishes
 (See Table B)

Sensitivity
 Quick response

Temperature Ratings⁽¹⁾
 135°F (57°C)
 155°F (68°C)
 175°F (79°C)
 200°F (93°C)
 286°F (141°C)

Recessed Escutcheons

Model F1 (cULus, LPCB, VdS, CE, WM)
 Model F2 (cULus, FM, LPCB, VdS, CE, WM)
 Model FP (cULus, VdS, CE, WM)

Cover Plate

Model CCP (cULus, VdS⁽²⁾, CE⁽²⁾)

Guards & Shields (New Frames)⁽³⁾

F-1 Guard (FM)
 F-5 Guard/Shield Kit (FM)
 F-7 Guard (cULus)
 F-8 Guard/Shield Kit (cULus)
 S-1 Shield (cULus, FM)

Guards & Shields (Legacy Frames)⁽³⁾

C-1 Guard (FM)
 C-5 Guard/Shield Kit (FM)
 D-1 Guard (cULus, FM)
 D-4 Guard/Shield Kit (FM)
 D-5 Guard/Shield Kit (cULus, FM)
 S-1 Shield (cULus, FM)

Sprinkler Wrenches

Model W2 (pendent)
 Model W4 (recessed or concealed)
 Model J (New frame with guard installed)
 Model JD (Legacy frame with guard installed)

Listings and Approvals⁽⁴⁾

cULus Listed
 FM Approved
 LPCB
 VdS
 EC
 WM
 UKCA: 0832-UKCA-CPR-S5045,
 0831-UKCA-CPR-5072 (CCP)

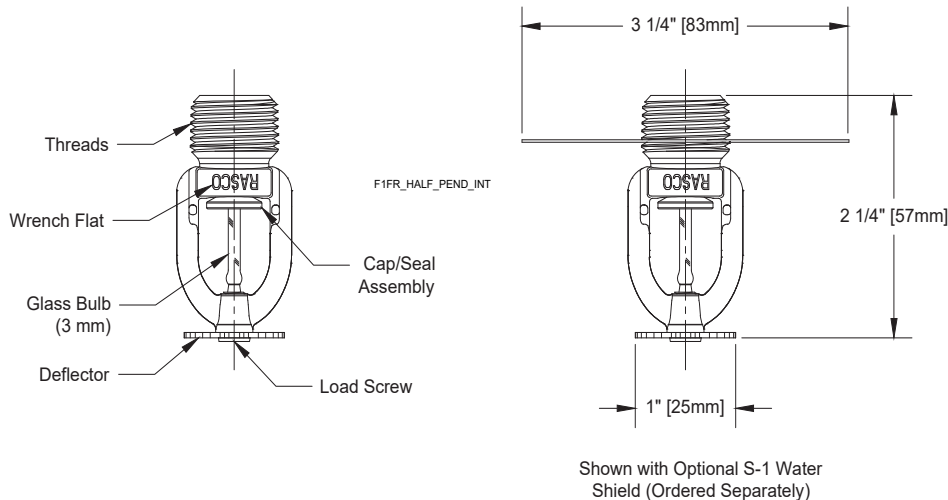


Notes:

1. 286°F (141°C) temperature rated sprinkler not listed for recessed or concealed use.
2. VdS and CE approval for CCP concealed use is for 155°C (68°C) sprinkler ONLY.
3. Not suitable for recessed or concealed installations.
4. When used surface mounted or exposed. See Recessed Escutcheon and Cover Plate section for specific approvals when installed recessed or concealed.

Model F1FR56 Pendent Sprinkler Components and Dimensions

Figure 2



Note: Please refer to Figure 8 for recessed and concealed installation.

Technical Specifications

Style:

Horizontal Sidewall
Recessed Horizontal Sidewall

Threads: 1/2" NPT or ISO 7-R1/2

Nominal K-Factor: 5.6 (80 metric)

Max. Working Pressure:

175 psi (12 bar)
250 psi (17 bar) (cULus only)

Material Specifications

Thermal Sensor: 3 mm Glass Bulb

Sprinkler Frame: Brass Alloy

Cap: Bronze Alloy

Sealing Washer: Nickel with PTFE

Load Screw: Copper Alloy

Deflector: Brass Alloy

Sprinkler Finishes

(See Table B)

Sensitivity

Quick response

Temperature Ratings ⁽¹⁾

135°F (57°C)
155°F (68°C)
175°F (79°C)
200°F (93°C)
286°F (141°C)

Recessed Escutcheons⁽²⁾

Model F1 (cULus)
Model F2 (cULus, FM)
Model FP (cULus)

Guards & Shields (New Frames)⁽³⁾

F-4 Guard (FM)
F-7 Guard (cULus)

Guards & Shields (Legacy Frames)⁽³⁾

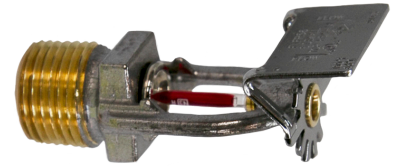
C1 Guard (FM)
D1 Guard (cULus)

Sprinkler Wrenches

Model W2 (non-recessed)
Model W4 (recessed)
Model J (New frame with guard installed)
Model JD (Legacy frame with guard installed)

Listings and Approvals

cULus Listed⁽⁴⁾
FM Approved⁽⁵⁾

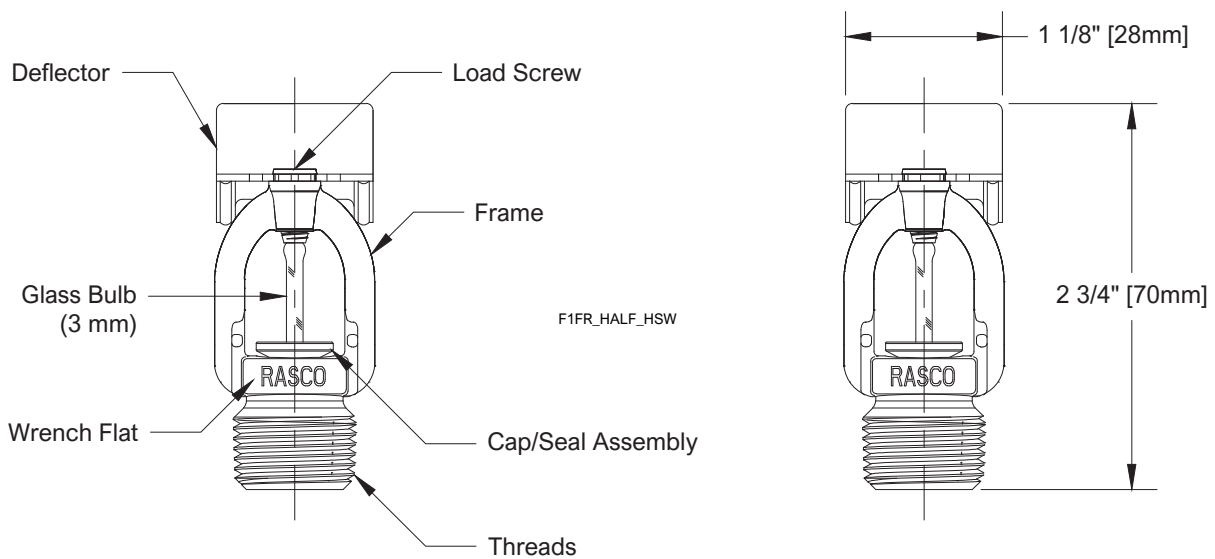


Notes:

1. 286°F (141°C) temperature rated sprinkler not listed for recessed use.
2. FM approved recessed installation when used with Model F2 escutcheon ONLY.
3. Not suitable for recessed horizontal sidewall installations.
4. cULus Listed for Light and Ordinary Hazard when installed exposed or surface mounted. Listed for Light Hazard ONLY when installed recessed.
5. FM Approved for Light Hazard ONLY.

Model F1FR56 Horizontal Sidewall Sprinkler Components and Dimensions

Figure 3



Note: Please refer to Figure 9 for recessed installation.

Technical Specifications

Style:

Upright Vertical Sidewall
Pendent Vertical Sidewall

Threads: 1/2" NPT or ISO 7-R1/2

Nominal K-Factor: 5.6 (80 metric)

Max. Working Pressure: 175 psi (12 bar)

Material Specifications

Thermal Sensor: 3 mm Glass Bulb

Sprinkler Frame: Brass Alloy

Cap: Bronze Alloy

Sealing Washer: Nickel with PTFE

Load Screw: Copper Alloy

Deflector: Brass Alloy

Sprinkler Finishes

(See Table B)

Sensitivity

Quick response

Temperature Ratings

135°F (57°C)

155°F (68°C)

175°F (79°C)

200°F (93°C)

286°F (141°C)

Guards & Shields (New Frames)

F-2 Guard (FM)

Guards & Shields (Legacy Frames)

C1 Guard (FM)

Sprinkler Wrenches

Model W2

Model J (New frame with guard installed)

Model JD (Legacy frame with guard installed)

Listings and Approvals⁽¹⁾

cULus Listed

FM Approved

LPCB⁽²⁾

UKCA: 0832-UKCA-CPR-S5045

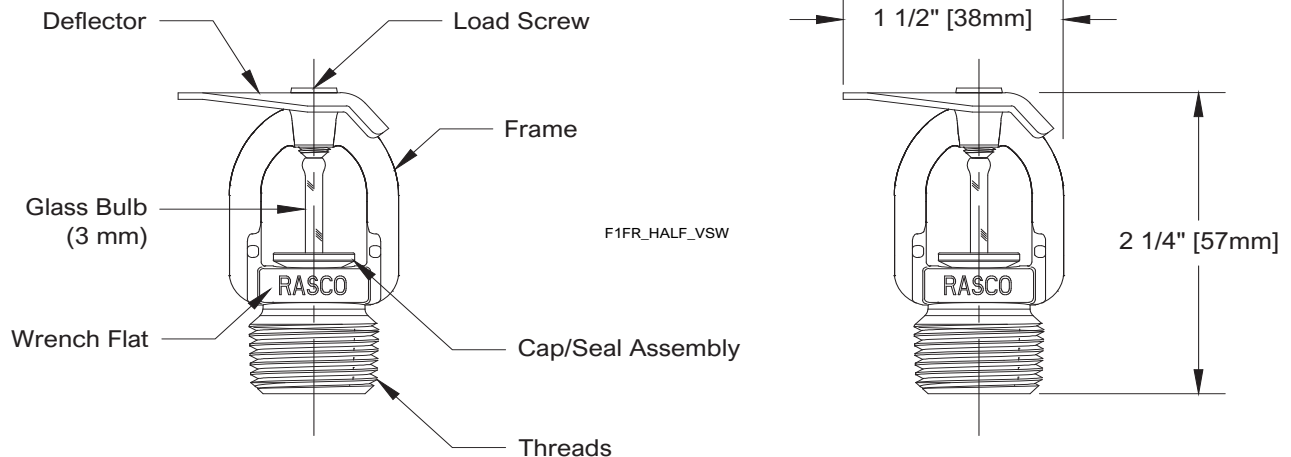


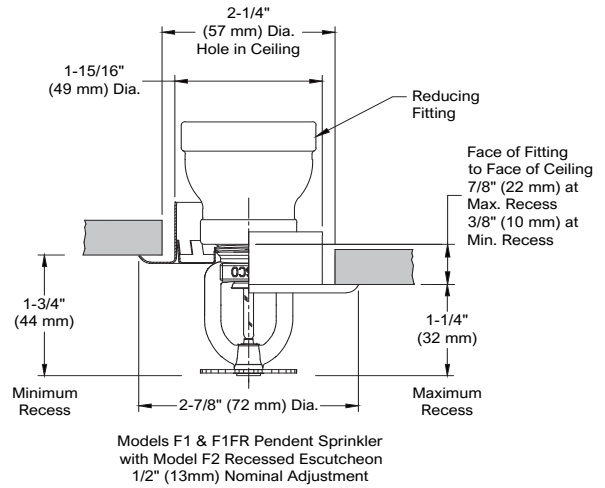
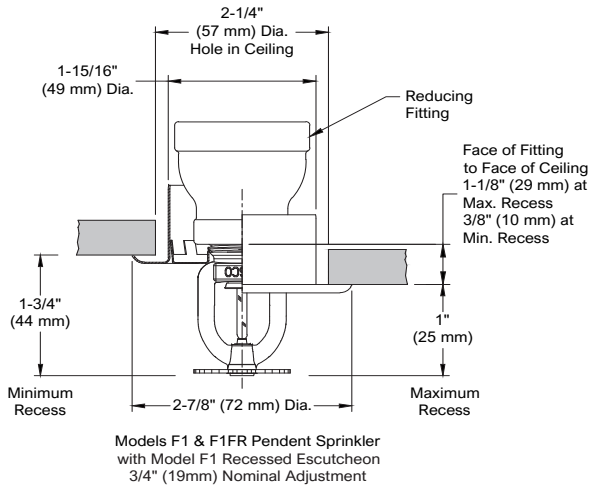
Notes:

1. Listed and approved for Light Hazard ONLY.
2. LPCB approved for use in pendent position ONLY.

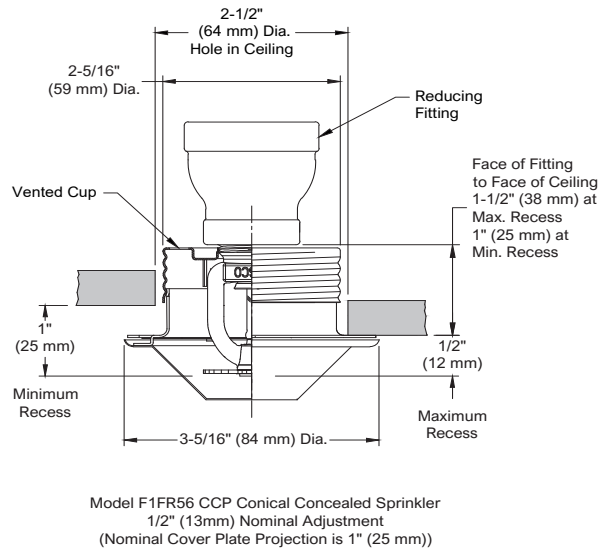
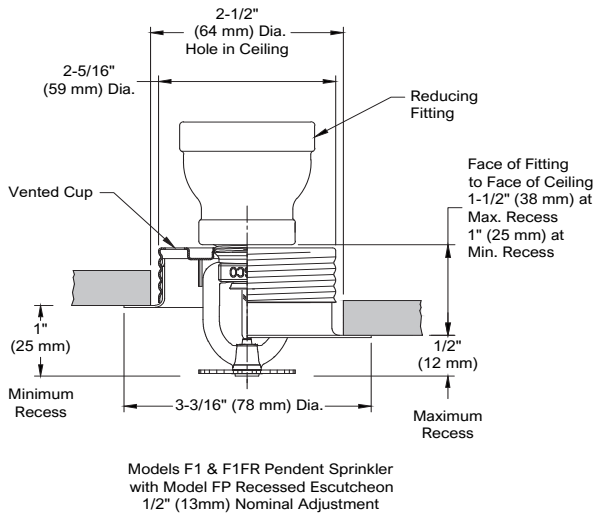
Model F1FR56 Vertical Sprinkler Components and Dimensions

Figure 4





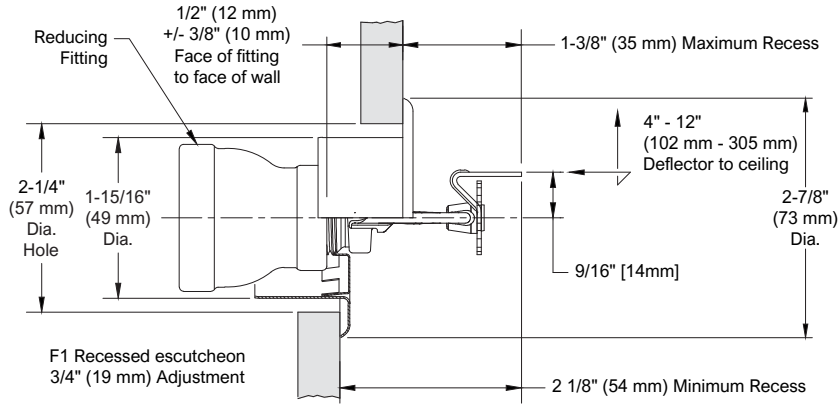
F1_REC_PEND_CCP



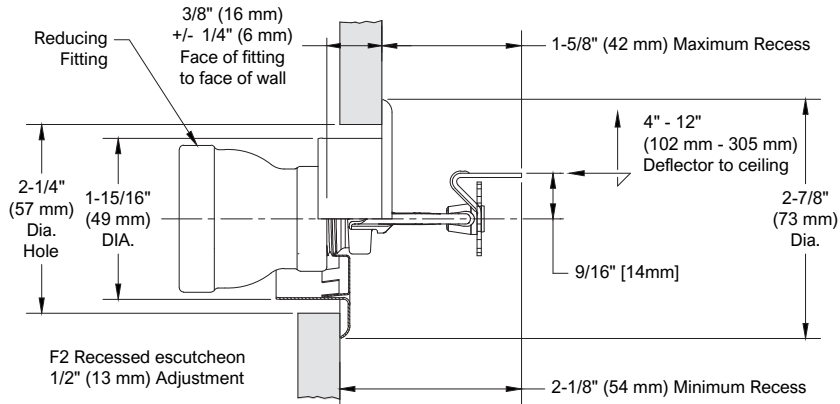
Note: Model FP recessed assemblies may not be used where the pressure in the space above the ceiling is positive with respect to the protected area. Ensure that the openings in the Model FP cup are unobstructed following installation.

Note: Model CCP concealed assemblies may not be used where the pressure in the space above the ceiling is positive with respect to the protected area. Ensure that the openings in the Model CCP cup are unobstructed following installation.

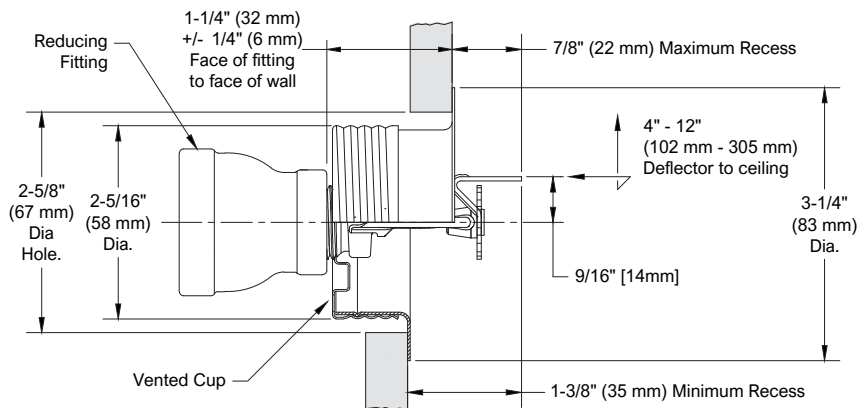




Model F1FR Horizontal Sidewall Sprinkler
with Model F1 Recessed Escutcheon
3/4" (19mm) Nominal Adjustment F1FR_REC_HSW



Model F1FR Horizontal Sidewall Sprinkler
with Model F2 Recessed Escutcheon
1/2" (13mm) Nominal Adjustment



Model F1FR Horizontal Sidewall Sprinkler
with Model FP Recessed Escutcheon
1/2" (13mm) Nominal Adjustment

Note: Model FP recessed assemblies may not be used where the pressure in the space behind the sprinkler is positive with respect to the space in the protected area. Ensure that the openings in the Model FP cup are unobstructed following installation.

Wrenches



Model W2 (upright, pendent)



Model J (New frame with guard installed)
Model JD (Legacy frame with guard installed, similar but with zinc finish)



Model W4
(recessed, concealed pendent)

Finishes⁽¹⁾

Table B

Standard Finishes			Special Application Finishes		
Sprinkler	F1, F2 and FP ⁽²⁾ Escutcheons	CCP Cover Plate ⁽²⁾	Sprinkler	F1, F2 and FP ⁽²⁾ Escutcheons	CCP Cover Plate ⁽²⁾
Bronze	Brass	Chrome	Electroless Nickel PTFE ⁽³⁾⁽⁴⁾	Bright Brass	Bright Brass
Chrome	Chrome	White Paint	Bright Brass ⁽⁵⁾	Satin Chrome	Satin Chrome
White Polyester ⁽³⁾	White Polyester		Satin Chrome	Custom Color Polyester	Custom Color Paint
			Custom Color Polyester ⁽³⁾		

Notes:

1. Paint or any other coating applied over the factory finish will void all approvals and warranties.
2. Model FP escutcheons and Model CCP sprinklers utilize a galvanized steel cup with a finished trim ring or cover plate.
3. cULus Listed as corrosion resistant.
4. FM Approved as corrosion resistant.
5. For 200°F (93°C) maximum temperature rated sprinklers only.

Installation

Model F1FR Series sprinklers must be installed in accordance with NFPA13 and the requirements of all applicable authorities having jurisdiction. Model F1FR Series sprinklers must be installed with the Reliable sprinkler installation wrench identified in this Bulletin. Any other wrench may damage the sprinkler. The Models W2 and W4 wrenches have two sets of jaws. Use the smallest set of jaws that fit on the wrench flats of the sprinkler. A leak tight sprinkler joint can be obtained with a torque of 8 to 18 lb-ft (11 to 24 N-m). Do not tighten sprinklers over the maximum recommended installation torque. Exceeding the maximum recommended installation torque may cause leakage or impairment of the sprinkler.

Glass bulb sprinklers have orange bulb protectors or protective caps to minimize bulb damage during shipping, handling and installation. Reliable sprinkler installation wrenches are designed to install sprinklers with bulb protectors in place. Remove the bulb protector at the time when the sprinkler system is placed in service for fire protection. Removal of the bulb protector before this time may leave the bulb vulnerable to damage. Remove bulb protectors by undoing the clasp by hand. Do not use tools to remove bulb protectors.

Maintenance

Reliable Model F1FR series sprinklers should be inspected and the sprinkler system maintained in accordance with NFPA 25, as well as the requirements of any Authorities Having Jurisdiction.

Prior to installation, sprinklers should remain in the original cartons and packaging until used. This will minimize the potential for damage to sprinklers that could cause improper operation or non-operation.

Do not clean sprinklers with soap and water, ammonia liquid or any other cleaning fluids. Remove dust by gentle vacuuming without touching the sprinkler.

Replace any sprinkler which has been painted (other than factory applied). A stock of spare sprinklers should be maintained to allow quick replacement of damaged or operated sprinklers. Failure to properly maintain sprinklers may result in inadvertent operation or non-operation during a fire event.

Guarantee

For the guarantee, terms, and conditions, visit www.reliablesprinkler.com.

Ordering Information

Specify the following when ordering:

Model

- F1FR56

Deflector/Orientation

- Upright
- Intermediate Upright
- Pendent
- CCP Concealed Pendent
- Horizontal Sidewall
- Vertical Sidewall

Temperature Rating

- See sprinkler technical specifications

Sprinkler Finish

- See Table B

Recessed Escutcheon⁽¹⁾⁽²⁾

- F1
- F2
- FP

Escutcheon Finish

- See Table B

CCP Cover Plate Temperature Rating

- 135°F (57°C) [For use with 135°F (57°C) and 155°F (68°C) sprinklers.]
- 165°F (74°C) [For use with 175°F (79°C) and 200°F (93°C) sprinklers.]

CCP Cover Plate Finish

- See Table B

Sprinkler Wrench

- Model W2
- Model W4 (recessed, concealed)
- Model J (New frame with guard installed)
- Model JD (Legacy frame with guard installed)

Notes:

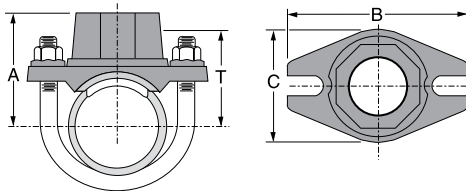
1. 286°F (141°C) sprinklers are not listed to be used recessed or concealed.
2. For FM, recessed sprinklers must use the Model F2 escutcheon.

FIG. 7043

Branch Outlet



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



The Gruvlok Figure 7043 Branch Outlet is for direct connection of sprinkler heads and drop nipples. Just cut a hole, saddle up and fasten it with the U-bolt. The branch outlet provides an economical, quick, and easy outlet at any location along a pipe. Specially engineered to conform to the pipe O.D., the Fig. 7043 provides a leak tight reliable seal in both positive pressure and vacuum conditions. Ductile iron housings with Grade E gasket and carbon steel U-bolt ($\frac{3}{8}$ " dia.) with flanged nuts. Ductile iron housing is available painted or galvanized.

The maximum working pressure for all sizes is 175 PSI (12.1 bar).

FIGURE 7043 BRANCH OUTLET

Nominal Size	O.D.	Hole Diameter		Dimensions				Specified Torque §		Approx. Wt. Each
		Min. Dia.	Max. Dia.	A	B	C	Take-out T	Min.	Max.	
In./DN(mm)	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	Ft.-Lbs./N-m		Lbs./Kg
1¼ x ½ 32 x 15	1.660 x 0.840 42.4 x 21.3	1⅜ 30	1¼ 32	2¼ 53	3½ 89	2⅝ 56	1⅝ 35	27	33	0.8 0.4
1¼ x ¾ 32 x 20	1.660 x 1.050 42.4 x 26.7	1⅜ 30	1¼ 32	2¼ 53	3½ 89	2⅝ 56	1⅝ 35	27	33	0.8 0.4
1¼ x 1 32 x 25	1.660 x 1.315 42.4 x 33.7	1⅜ 30	1¼ 32	2⅝ 56	3½ 89	2⅝ 56	1½ 38	27	33	0.9 0.4
1½ x ½ 40 x 15	1.900 x 0.840 48.3 x 21.3	1⅜ 30	1¼ 32	2⅝ 55	3½ 89	2⅝ 56	1⅝ 35	27	33	0.8 0.4
1½ x ¾ 40 x 20	1.900 x 1.050 48.3 x 26.7	1⅜ 30	1¼ 32	2⅝ 55	3½ 89	2⅝ 56	1⅝ 35	27	33	0.8 0.4
1½ x 1 40 x 25	1.900 x 1.315 48.3 x 33.7	1⅜ 30	1¼ 32	2⅝ 58	3½ 89	2⅝ 56	1½ 38	27	33	0.9 0.4
2 x ½ 50 x 15	2.375 x 0.840 60.3 x 21.3	1⅜ 30	1¼ 32	2½ 64	3⅝ 98	2⅝ 56	1⅝ 42	27	33	0.8 0.4
2 x ¾ 50 x 20	2.375 x 1.050 60.3 x 26.7	1⅜ 30	1¼ 32	2½ 64	3⅝ 98	2⅝ 56	1⅝ 42	27	33	0.8 0.4
2 x 1 50 x 25	2.375 x 1.315 60.3 x 33.7	1⅜ 30	1¼ 32	2⅝ 67	3⅝ 98	2⅝ 56	1¾ 45	27	33	0.9 0.4
2½ x ½ 65 x 15	2.875 x 0.840 73.0 x 21.3	1⅜ 30	1¼ 32	2⅞ 69	4⅝ 111	2⅝ 56	2 51	27	33	0.8 0.4
2½ x ¾ 65 x 20	2.875 x 1.050 73.0 x 26.7	1⅜ 30	1¼ 32	2⅞ 69	4⅝ 111	2⅝ 56	2 51	27	33	0.9 0.4
2½ x 1 65 x 25	2.875 x 1.315 73.0 x 33.7	1⅜ 30	1¼ 32	2⅞ 72	4⅝ 111	2⅝ 56	2⅝ 54	27	33	1.0 0.5

MATERIAL SPECIFICATIONS

GASKETS: Materials

Properties as designated in accordance with ASTM D 2000

- Grade "E" EPDM (Green color code)
-40°F to 150°F (Service Temperature Range)
(-40°C to 66°C) Recommended for water service, diluted acids, alkalis solutions, oil-free air and many chemical services.
NOT FOR USE IN PETROLEUM APPLICATIONS.

HOUSING:

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

COATINGS:

- Rust inhibiting paint – Color: ORANGE (standard)
- Hot Dipped Zinc Galvanized (optional)

U-BOLT:

Plated U-bolt conforming to ASTM A 307 with plated hex nuts conforming to ASTM A 563.

LUBRICATION:

- Standard Gruvlok
- Gruvlok Xtreme™

§ – For additional Bolt Torque information, see page 204. See Installation & Assembly directions on page 181. Not for use with copper systems.

PROJECT INFORMATION

APPROVAL STAMP

Project:	<input type="checkbox"/> Approved
Address:	<input type="checkbox"/> Approved as noted
Contractor:	<input type="checkbox"/> Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

FIG. 7043

Branch Outlet

ALWAYS USE A GRUVLOK LUBRICANT FOR PROPER BRANCH OUTLET ASSEMBLY. Thorough lubrication of the gasket is essential to assist the gasket into the proper sealing position.

SPECIFIED BOLT TORQUE

The nuts must be tightened alternately and evenly until fully tightened. **CAUTION:** Use of an impact wrench is not recommended because the torque output can vary significantly due to many variables including air pressure, battery strength and operational variations.

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



1 PIPE PREPARATION AND GASKET LUBRICATION— Cut a $1\frac{3}{16}$ " hole in the pipe and remove any burrs. Be sure to remove the slug from inside the pipe. Clean the gasket sealing surface within $\frac{5}{8}$ " of the hole and visually inspect the sealing surface for defects that may prevent proper sealing of the gasket. Remove the gasket from the housing and apply a thin layer of Gruvlok® 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.



2 GASKET INSTALLATION— Lubricate the exposed surface of the gasket with Gruvlok® lubricant.



3 ALIGNMENT— Align the outlet housing over the pipe hole making sure that the locating collar is in the pipe hole.



4 HOUSING ASSEMBLY— Attach the U-bolt from the other side and fasten the nuts finger tight.



5 TIGHTEN NUTS— Making sure the fitting is properly located over the pipe hole, tighten the nuts alternately and evenly to the specified torque of 27 to 33 Lbs.-Ft. (37 to 45 N-m).



6 ASSEMBLY IS COMPLETE— Visually inspect the assembly, the gasket will extrude out from under the housing.

Beam Clamps

TOLCO™ Fig. 65 - Reversible Steel C-Type Beam Clamp 3/4" (19.0mm) Throat Opening

Size Range:

Fig. 65 - 1/2"-13 rod sizes, and 5/8"-11 rod sizes
 Fig. 65XT - 3/8"-16 rod size (see below)

Material: 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" (19.0mm).

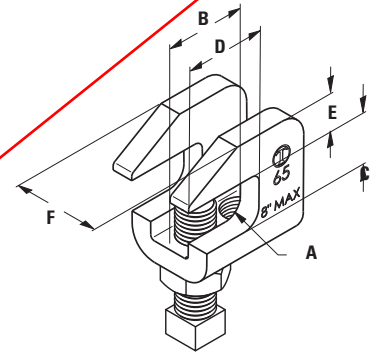
Features: All steel construction eliminates structural deficiencies associated with casting type beam clamps. May be used on top or bottom flange of beam. (Beveled lip allows hanging from top flange where clearance is limited.) May be installed with set screw in up or down position. Offset design permits 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). Exceeds requirements of the National Fire Protection Association (NFPA), pamphlet 13, 3/8"-16 rod will support 1/2" (15mm) thru 4" (100mm) pipe
 1/2"-13 rod will support thru 8" (200mm) pipe

Finish: Plain or Electro-Galvanized. Contact customer service for alternative finishes and materials.

Order By: Figure number and finish

Fig. 65 Patent #4,570,885



Set Screw and Locknut Included



Part No.	Rod Size A	B in. (mm)	C in. (mm)	D in. (mm)	E in. (mm)
65-1/2	1/2"-13	1 1/2" (38.1)	3/4" (19.0)	1" (25.4)	9/16" (14.3)
65-5/8	5/8"-11	1 1/2" (38.1)	3/4" (19.0)	1" (25.4)	9/16" (14.3)

Part No.	F in. (mm)	Approx. Wt./100 Lbs. (kg)
65-1/2	1 1/4" (31.7)	55 (24.9)
65-5/8	1 1/4" (31.7)	55 (24.9)

Beam Clamps

TOLCO™ Fig. 65XT - Reversible Steel C-Type Beam Clamp 3/4" (19.0mm) Throat Opening

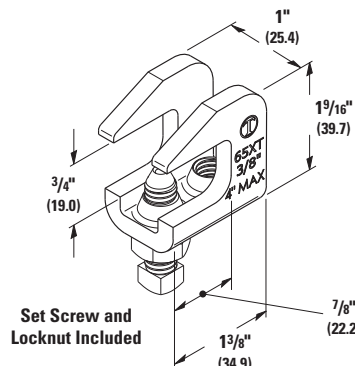
Feature: Extruded holes allows for more thread engagement of threaded rod and set screw.

Finish: Plain or Electro-Galvanized

Order By: Figure number and finish

Approvals: Underwriters Laboratories Listed (cULus) and FM Approved (FM) for up to 4" (100mm) pipe.

Designed to meet or exceed requirements of FM DS 2-0 and NFPA 13.



Set Screw and Locknut Included



Part No.	For Rod Size	Approx. Wt/100 Lbs. (kg)
65XT	3/8"-16	28.0 (12.7)

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

Beam Clamps

TOLCO™ Fig. 69R - Retrofit Capable Beam Clamp Retaining Strap

Size Range: 3/8"-16 & 1/2"-13 rod
 4" (101.6mm) thru 16" (406.4mm) lengths
 Note: longer lengths are available consult factory



Material: Pre-Galvanized Steel

Function: To offer more secure fastening of various types of beam clamps to beam where danger of movement might be expected. NFPA 13 requires the use of retaining straps with all beam clamps installed in earthquake areas. Satisfies requirements of NFPA 13.

Features: Beveled locking slot* is precisely formed to align with the threaded section of a hanger rod or set screw and engage the unit securely. May be used as shown in Section "A-A" or inverted. Allows easy installation for new construction or retrofit applications.

Important Note: Good installation practice of a retaining strap requires that the strap be held tightly and securely to all component parts of the assembly. Therefore the beveled locking slot of the Fig. 69R will provide a secure reliable installation.

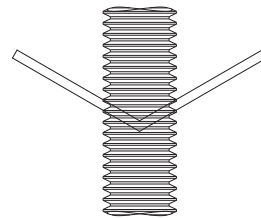
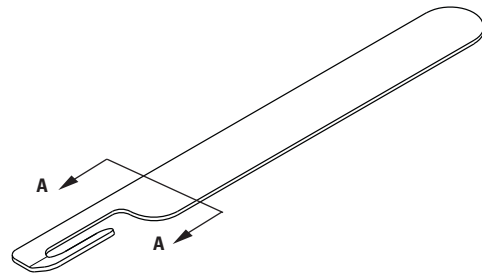
Approvals: Underwriters Laboratories Listed in the USA (UL) and Canada (cUL). Approved for use with any listed B-Line series or Tolco beam clamp.

Finish: Pre-Galvanized

Order By: Figure number, length, and finish.

Note: Minimum return on strap is 1" (25.4mm)

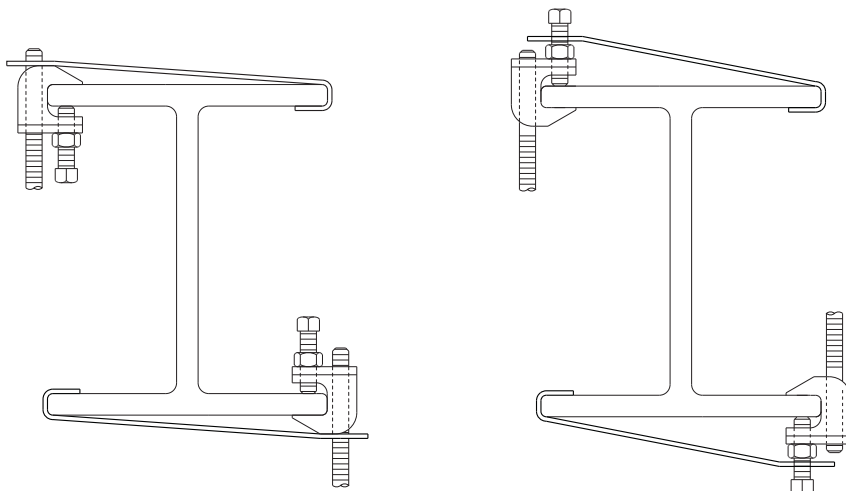
* Patent #5,947,424



A - A

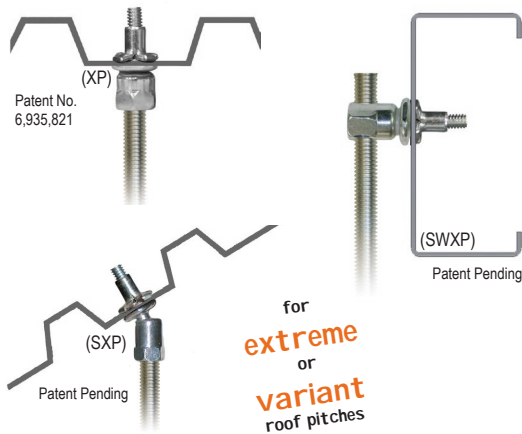


Part No.	Slot Width in. (mm)	For Use With	Length
69R-3/8-L	7/16" (11.1)	B3033-3/8, B3034-3/8, 65-3/8, 65XT-3/8, 66-3/8	Specify
69R-1/2-L	9/16" (14.3)	B3033-1/2, B3034-1/2, 65-1/2, 66-1/2	Specify



All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

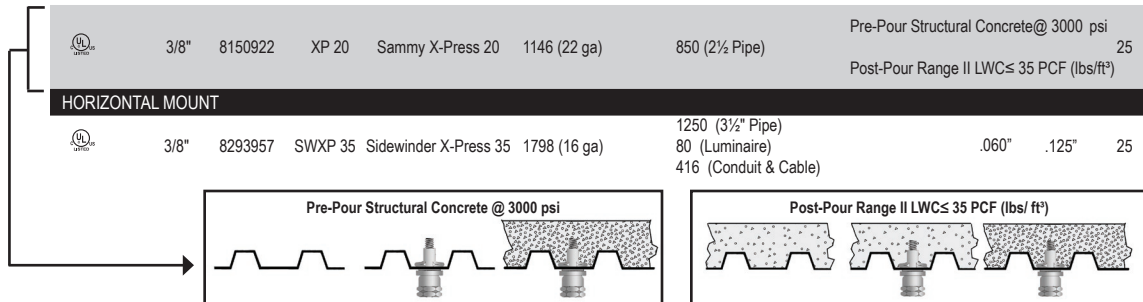
Sammy X-Press® *Installs into Metal Deck, Purlin, or Tubular Steel*



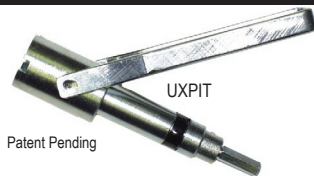
Product Features

- The **Sammy X-Press** expands to provide direct vertical attachment in:
 - Metal Deck (22-16 gauge)
 - Z-Purlin (18-16 gauge)
 - The **Sammy X-Press Swivel** allows you to hang plumb in extreme roof pitches:
 - 89° in Z-Purlin
 - 45° in metal deck for 12/12 pitch
 - The **Sammy X-Press Sidewinder** expands to provide horizontal attachment in:
 - 16 ga - 3/16" steel - purlin, tubular steel.
- Installs in seconds, saving time & installation costs.
 - Use in applications where access to the back of the installed fastener is prohibited. i.e. metal roof deck, tubular steel, or vapor barrier fabric.
 - Less jobsite material needed.
 - No retaining nut required.
 - Provides design flexibility.

Approvals	Rod Size	Part Number	Model	Description	Ultimate Pullout (lbs)	UL Test Load (lbs)	FM Test Load (lbs)	Min Thick	Max Thick	Box Qty	Case Qty	Application
VERTICAL MOUNT												
UL	1/4"	8181922	XP 200	X-Press 200	1146 (22 ga)	185 (Luminaire) 250 (Luminaire)		.027" .056"	.125"	25	125	Metal Deck
UL, FM	3/8"	8150922	XP 20	X-Press 20	1146 (22 ga)	850 (2 1/2" Pipe) 185 (Luminaire) 250 (Luminaire) 283 (Conduit & Cable)	940 (2" Pipe) 1475 (4" Pipe)	.027" .027" .056"	.125"	25	125	Metal Deck
UL, FM	3/8"	8153922	XP 35	X-Press 35	1783 (16 ga)	1250 (3 1/2" Pipe) 85 (Luminaire) 250 (Luminaire) 416 (Conduit & Cable)	940 (2" Pipe) 1475 (4" Pipe)	.060" .105" .027" .056"	.125"	25	125	Purlin
UL, FM	3/8"	8294922	SXP 20	Swivel X-Press 20	1061 (22 ga Vertical) 829 (45° Off Vertical)	750 (2" Pipe) 170 vertical (Luminaire) 80 @ 45° (Luminaire) 283 vertical (Conduit & Cable) 233 @ 45° (Conduit & Cable)	635 (2" Pipe)	.027"	.125"	25	125	Metal Deck
UL, FM	3/8"	8295922	SXP 35	Swivel X-Press 35	1675 (16 ga Vertical) 1558 (89° Off Vertical)	1250 (3 1/2" Pipe) 250 vertical (Luminaire) 80 @ 90° (Luminaire) 500 vertical (Conduit & Cable) 333 @ 89° (Conduit & Cable)	635 (2" Pipe)	.060"	.125"	25	125	Purlin
UL	3/8"	8150922	XP 20	Sammy X-Press 20	1146 (22 ga)	850 (2 1/2" Pipe)	Pre-Pour Structural Concrete @ 3000 psi Post-Pour Range II LWC ≤ 35 PCF (lbs/ft³)			25	125	Metal Deck (Pre-Pour) Metal Deck (Post-Pour)
HORIZONTAL MOUNT												
UL	3/8"	8293957	SWXP 35	Sidewinder X-Press 35	1798 (16 ga)	1250 (3 1/2" Pipe) 80 (Luminaire) 416 (Conduit & Cable)		.060"	.125"	25	125	Purlin



Sammy X-Press It® **INSTALLATION TOOL**



Part Number	Model	Description	Each Qty
8194910	UXPIT*	Universal X-Press It Tool	1
8195910	RXPIT	Retro Socket for 8151910	1
8152910	XPDB	25/64" Drill Bit	1

*Tool Includes: Sleeve, Bit Receiver, Hex Wrench, and 25/64" Drill Bit.



To watch a video demonstration of the Sammy X-Press, visit <http://www.sammysuperscrew.com/sammyxpress.htm>



