MATERIAL SUBMITTAL

For

La Caille Restaurant Phase II

9565 S Wasatch Boulevard
Sandy, Utah 84092

November 18, 2020

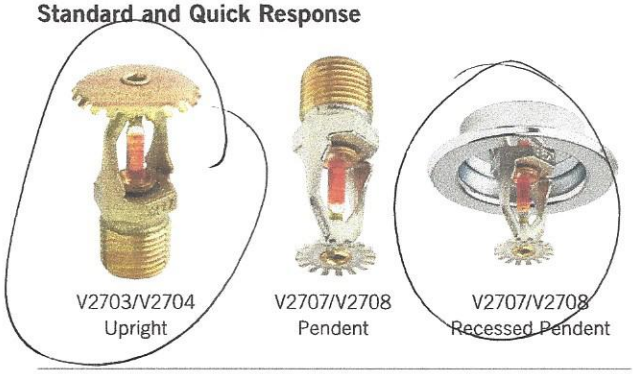
Fire Suppression Services
3802 S 2300 East
Salt Lake City, Utah
84109
801-830-3856

INDEX

FireLock® V27, K5.6
Models V2703, V2707, V2704, V2708

40.10

Standard Spray
Upright, Pendent and Recessed Pendent
Standard and Quick Response



V2703/V2704 Upright | V2707/V2708 Pendent | V2707/V2708 Recessed Pendent

Approvals/Listings:

See Victaulic Publication 10.01 for more details.

Product Description:

These Model V27 standard spray sprinklers are designed to produce a hemispherical spray pattern for standard commercial applications. They are available with either standard or quick response bulbs. It is cast with a hex-shaped wrench boss to allow easy tightening from many angles, reducing assembly effort. This sprinkler is available in various temperature ratings (see chart on page 3) and finishes to meet many design requirements. The recessed pendent should be utilized with a Model V27 recessed escutcheon which provides up to 3/4"/19 mm of adjustments.

Coverage

For coverage area and sprinkler placement, refer to NFPA 13 or applicable standard.

Technical Specifications:

Models: V2703, V2704, V2707, V2708

Style: Pendent, Upright or Recessed Pendent

Nominal Orifice Size: ½"/13 mm

K Factor: 5.6 Imp./8.1 S.I.[1]

Nominal Thread Size: ½" NPT/15 mm

Max. Working Pressure:

- 175 psi/1200 kPa (FM)
- 250 psi/1725 kPa (UL)

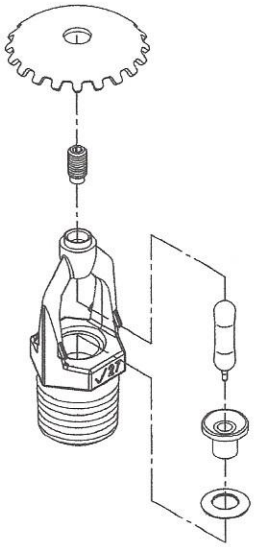
Factory Hydrostatic Test: 100% @ 500 psi/3450 kPa

Min. Operating Pressure:

- 7 psi/48 kPa
- 0.35 bar/5 psi (VdS for upright only)

Temperature Rating: See chart

[1] For K-Factor when pressure is measured in Bar, multiply S.I. units by 10.0.



Exaggerated for clarity

Job/Owner

System No.	La Caille
Location	9565 S. Wasatch Blvd.

Contractor

Submitted By	Fire Suppression Services inc.
Date	Dec-01, 2020

Engineer

Spec Section	
Paragraph	
Approved	
Date	

40.10 2544 Rev. J Updated 07/2014

Material Specifications:

Upright Deflector: Bronze per UNS C11000

Pendent Deflector: Bronze per UNS C51000

Bulb: Glass with glycerin solution

Bulb Nominal Diameter:

☐ Standard: 5.0 mm

☐ Quick Response: 3.0 mm

Load Screw: Bronze per UNS C65100

Pip Cap: Bronze per UNS C65100

Spring: Beryllium nickel

Seal: Teflon[2] tape

Frame: Die cast brass 65-30

Lodgement Spring: Stainless steel per UNS S30200

Accessories

Installation Wrench:

☐ Open End: V27

☐ Recessed: V27-2

Sprinkler Finishes:

☒ Plain Brass

☐ Chrome plated

☒ White painted[3]

☐ Black painted[3]

☐ Custom painted[3]

☐ Proprietary Nickel Teflon[2] coating[3]

☐ VC-250[4]

155, 200, 286 SR Only:

☐ Wax[3]

For cabinets and other accessories refer to separate sheet.

[2] Teflon is a registered trademark of Dupont Co.

[3] UL Listed for corrosion resistance.

[4] UL Listed and FM Approved for corrosion resistance.

Approvals/Listings:

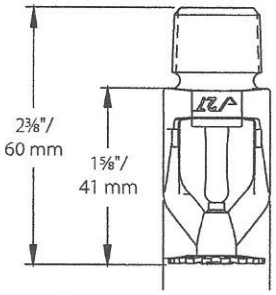
APPROVALS/LISTINGS	Model					
	V2703	V2707	V2707	V2704	V2708	V2708 [7]
Orifice Size (inches)	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Orifice Size (mm)	13	13	13	13	13	13
Nominal K Factor Imperial	5.6	5.6	5.6	5.6	5.6	5.6
Nominal K Factor S.I.[5]	8.1	8.1	8.1	8.1	8.1	8.1
Response	Standard	Standard	Standard	Quick	Quick	Quick
Deflector Type	Upright	Pendent	Recessed Pendent	Upright	Pendent	Recessed Pendent
Approved Temperature Ratings	F°/C°					
cULus	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C
FM	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C
NYC/MEA 62-99-E	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C
CSFM 7690-0531:112	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C
LPCB	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C	None	None	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C	None	None
VNIIPO	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C
CCC	ZSTZ 155°F/68°C 200°F/93°C	ZSTX 155°F/68°C 200°F/93°C	None	K-ZSTZ 155°F/68°C 200°F/93°C	K-ZSTZ 155°F/68°C 200°F/93°C	None
VdS	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C	None	None	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	None	None
CE	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C 360°F/182°C	None	None	135°F/57°C 155°F/68°C 175°F/79°C 200°F/93°C 286°F/141°C	None	None

[5] For K Factor when pressure is measured in Bar, multiply S.I. units by 10.0

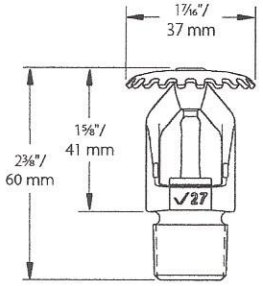
[7] FM Approved with 1/2" adjustment escutcheon only - quick response

Note: Listings and Approvals as of printing. All are approved open.

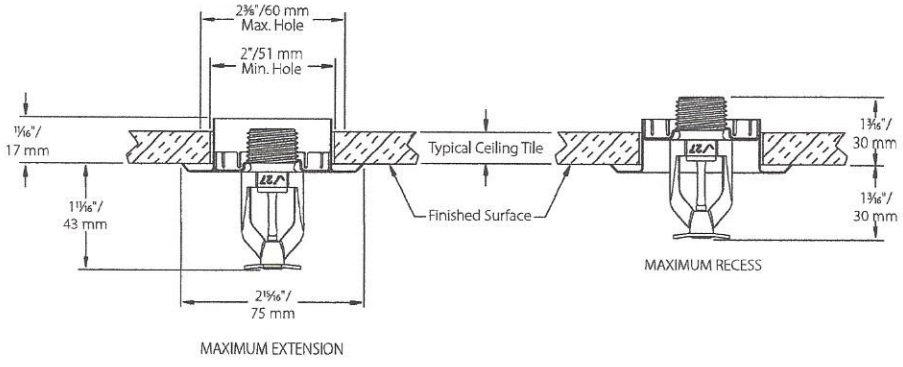
Dimensions:



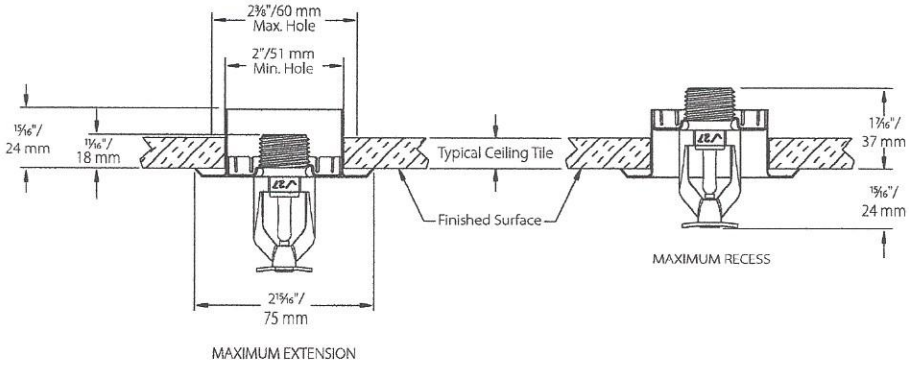
Standard Pendent –
V2707, V2708



Standard Upright –
V2703, V2704



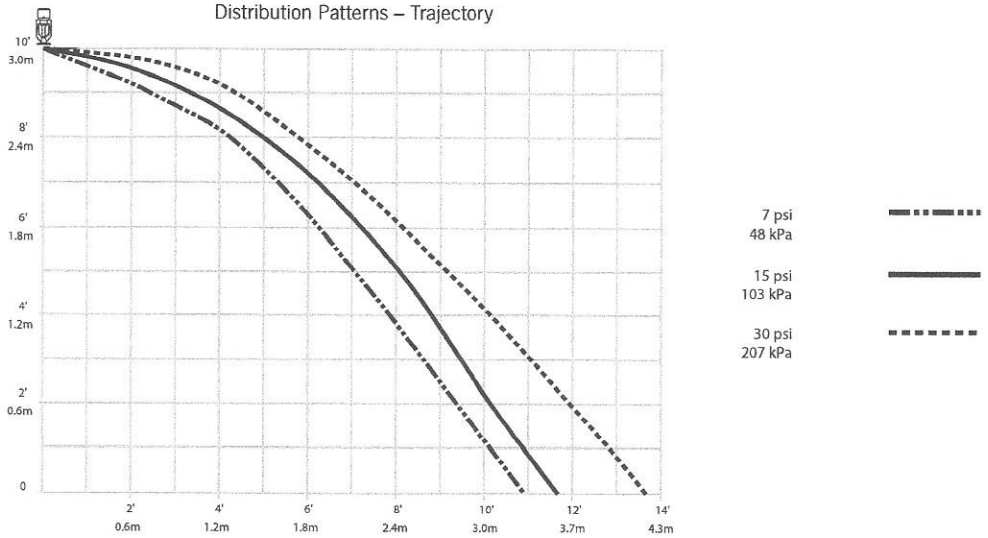
½" Adjustment Recessed – V2707, V2708 (drawing not to scale)



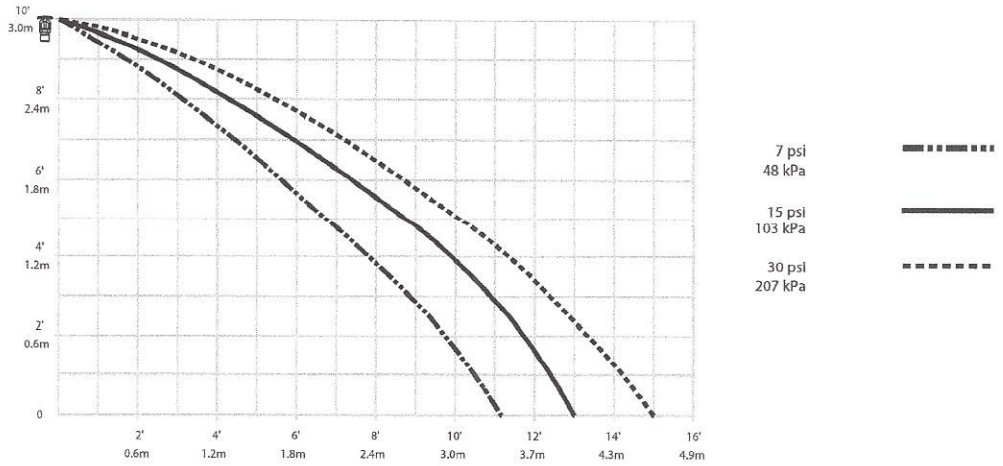
¾" Adjustment Recessed – V2707, V2708 (drawing not to scale)

Distribution Patterns:

Models V2707, V2708
K5.6 Standard Pendent and Recessed Pendent
Distribution Patterns – Trajectory



Models V2703, V2704
K5.6 Standard Upright
Distribution Patterns – Trajectory



NOTES:

A. Data shown is approximate and can vary due to differences in installation.

B. These graphs illustrate approximate trajectories, floor-wetting, and wall-wetting patterns for these specific Victaulic FireLock Automatic Sprinklers. They are provided as information for guidance in avoiding obstructions to sprinklers and should not be used as minimum sprinkler spacing rules for installation. **Refer to the appropriate NFPA National Fire Code or the Authority Having Jurisdiction for specific information regarding obstructions, spacing limitations and area of coverage requirements.** Failure to follow these guidelines could adversely affect the performance of the sprinkler and will void all Listings, Approvals and Warranties.

C. All patterns are symmetrical to the centerline of the waterway.

Ratings:

All glass bulbs are rated for temperatures from -67°F (-55°C) to those shown in the table below.

Sprinkler Temperature Classification	Victaulic Part Identification	Temperature – °F/°C		Glass Bulb Color
		Nominal Temperature Rating	Maximum Ambient Temperature Allowed	
Ordinary	A	135°F/57°C	100°F/38°C	Orange
Ordinary	C	155°F/68°C	100°F/38°C	Red
Intermediate	E	175°F/79°C	150°F/65°C	Yellow
Intermediate	F	200°F/93°C	150°F/65°C	Green
High	J	286°F/141°C	225°F [8]/107°C	Blue
Extra High [7]	K	360°F/182°C	300°F/149°C	Purple
–	M	Open	–	No Bulb

[7] Standard response only.

[8] 150/65 if wax coated.

Available Wrenches:

	V27-2 Recessed	V27 Open End
V2707, V2708 Pendent	✓	✓
V2707, V2708 Recessed Pendent	✓	–
V2703, V2704 Upright	–	✓

⚠ WARNING

- **Always read and understand installation, care, and maintenance instructions, supplied with each box of sprinklers, before proceeding with installation of any sprinklers.**
- **Always wear safety glasses and foot protection.**
- **Depressurize and drain the piping system before attempting to install, remove, or adjust any Victaulic piping products.**
- **Installation rules, especially those governing obstruction, must be strictly followed.**
- **Painting, plating, or any re-coating of sprinklers (other than that supplied by Victaulic) is not allowed.**

Failure to follow these instructions could result in serious personal injury and/or property damage.

The owner is responsible for maintaining the fire protection system and devices in proper operating condition. For minimum maintenance and inspection requirements, refer to the current National Fire Protection Association pamphlet that describes care and maintenance of sprinkler systems. In addition, the authority having jurisdiction may have additional maintenance, testing, and inspection requirements that must be followed.

If you need additional copies of this publication, or if you have any questions about the safe installation of this product, contact Victaulic World Headquarters: P.O. Box 31, Easton, Pennsylvania 18044-0031 USA, Telephone: 001-610-559-3300.

Installation
Reference should always be made to the I-40 Victaulic FireLock Automatic Sprinklers Installation and Maintenance Sheet for the product you are installing. This installation sheet is included with each shipment of Victaulic products for complete installation and assembly data, and is available in PDF format on our website at 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.

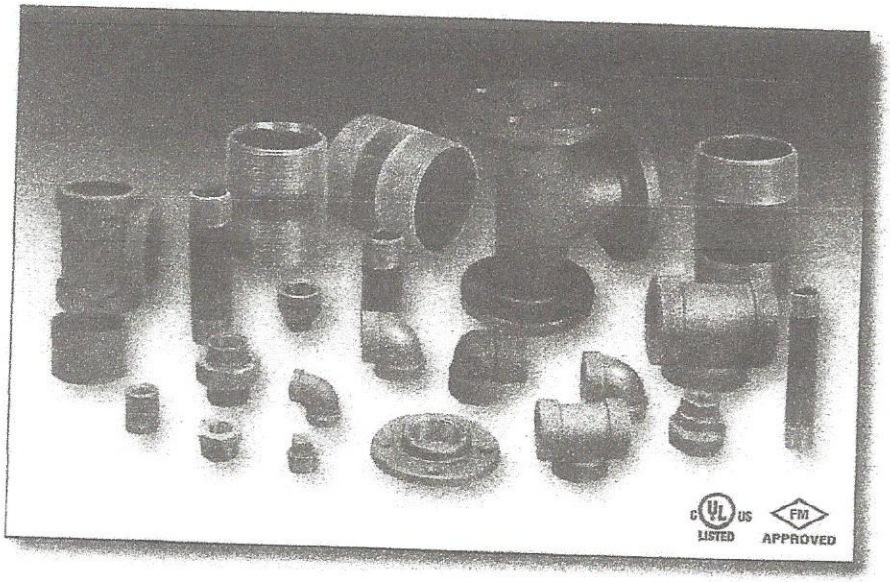
Trademarks
Victaulic is a registered trademark of Victaulic Company.

allied
TUBE & CONDUIT

With ABF Protection

•SCHEDULE-10/40

Anvil Cast Iron & Malleable Iron Threaded Fittings



Manufactured in Columbia, PA USA, Anvil offers the most complete line of Cast Iron and Malleable Iron Threaded Fittings in the industry. Our versatile range of fittings is designed to provide connection options for different applications and environments.

Cast Iron (Gray Iron) Threaded Fittings are manufactured in accordance with ASME/ANSI B14.4 and are UL/ULC listed and FM approved.

Malleable Iron Fittings are manufactured in accordance with ASME/ANSI B16.3 and Unions ASME/ANSI B16.39 and are available in Class 150, Class 250, and Class 300 UL/ULC listed and FM approved. In both classes, all Elbows and Tees ⅜" and larger are 100% air tested at a minimum of 100 psi (6.9 bar).

Cast Iron Flanged Fittings are manufactured in accordance with ASME B16.1 and are available in both Class 125 and Class 250.

Anvil Steel Pipe Nipples & Steel Pipe Couplings

Anvil offers a variety of Steel Pipe Nipples and Steel Pipe Couplings for the fire protection industry.

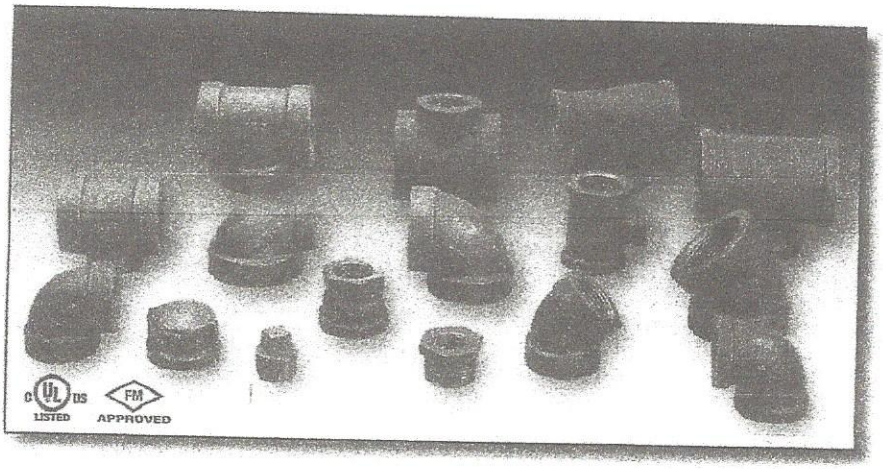
Anvil's Steel Pipe Nipples are manufactured in accordance with ASTM/ANSI A 733 welded and seamless carbon steel pipe nipples. Materials include black and hot-dipped galvanized finishes. Anvil manufactures a wide range of stock pipe nipples in ⅛" diameter through 8" diameter close through 72" inch length in half-inch increments. We also offer standard nipple packs ranging from one each (close to 6") and standard six packs which offer multiple counts of each. Cartons are packed with handles for easy carrying.

Steel Pipe Couplings are manufactured in accordance with ASTM specification A 865. Straight-tapped couplings range in size from ⅛" NPS through 2" NPS, while 2½" NPS and larger are taper tapped.

SPF/ANVIL SPF Ductile Iron & Cast Iron Threaded Fittings

SPF Ductile Iron Threaded Fittings are UL/ULC Listed and FM Approved for 500 psi service. These fittings provide a dependable threaded connection and are available in a range of styles and specifications. All SPF Ductile Iron Threaded Fittings dimensions conform to ANSI B16.3 Class 150 requirements, and threads are NPT per ANSI/ASME B1.20.1.

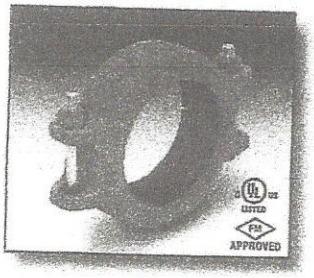
SPF Cast Iron Threaded Fittings are UL/ULC Listed and FM Approved for 300 psi service. These fittings are available in a range of styles and specifications. All SPF Cast Iron Threaded Fittings dimensions conform to ANSI B16.4 requirements, and threads are NPT per ANSI/ASME B1.20.1.



GRUVLOK Couplings & Flanges

Gruvlok Product Line

The Gruvlok product line is manufactured to the highest standards at our state-of-the-art manufacturing facility located in Columbia, PA USA. All products for Fire Protection are UL/ULC listed and FM approved.



Gruvlok Figure 7400 RigidLite® Coupling

The Gruvlok Figure 7400 Rigidlite Coupling is specially designed to provide a rigid, locked-in pipe connection to meet the specific demands of a rigid piping system not allowing for expansion, contraction or deflection. Fast and easy swing-over installation of the rugged lightweight housing produces a secure, rigid pipe joint. The Figure 7400 Rigidlite Coupling is UL/ULC Listed and FM Approved for fire protection service in both wet and dry systems, with roll grooved or cut grooved steel pipe prepared in accordance with Gruvlok grooving specifications. For the latest UL/ULC listed and FM approved pressure ratings versus pipe schedule, see www.anvilintl.com or contact your local Anvil Representative.

The Figure 7400 Rigidlite Coupling with a Pre-Lubricated Grade "E" EPDM, Type "A" gasket (coupling is easily identified by purple nuts) is intended for use in fire protection systems installed in accordance with NFPA Standard 13 "Sprinkler Systems".

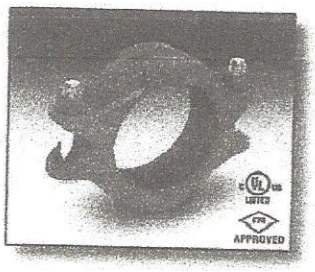
Available 1¼" – 8" nominal pipe sizes.

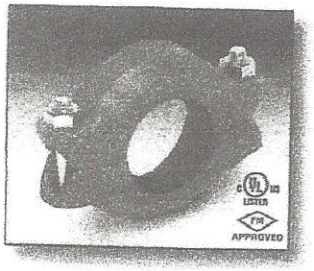
Gruvlok Figure 7000 Lightweight Flexible Coupling

The Gruvlok Figure 7000 Lightweight Coupling is designed for applications where system flexibility is desired. The Figure 7000 Lightweight Coupling is approximately 30% lighter in weight than the Figure 7001 Coupling. For the latest UL/ULC listed and FM approved pressure ratings versus pipe schedule, see www.anvilintl.com or contact your local Anvil Representative.

The Figure 7000 Lightweight Coupling with a Pre-Lubricated Grade "E" EPDM, Type "A" gasket (coupling is easily identified by purple nuts) is intended for use in fire protection systems installed in accordance with NFPA Standard 13 "Sprinkler Systems".

Available 1¼" – 8" nominal pipe sizes.





Gruvlok Figure 7010 Reducing Coupling

The Gruvlok Figure 7010 Reducing Coupling makes it possible to directly connect two different pipe sizes, eliminating the need for two couplings and a reducing fitting. The specially designed reducing coupling gasket with a center rib assures proper positioning of the gasket and prevents the smaller pipe from telescoping into the larger during assembly. For the latest UL/ULC listed and FM approved pressure ratings versus pipe schedule, see www.anvilintl.com or contact your local Anvil Representative. Figure 7010 Coupling comes complete with Grade "E" EPDM Gasket.

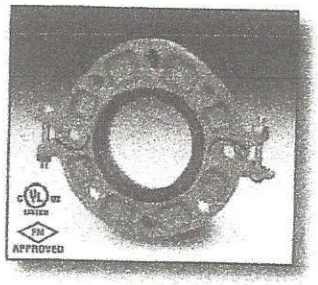
Available 2" – 8" nominal pipe sizes.

Gruvlok Figure 7012 Flange

The Gruvlok Figure 7012 Flange allows direct connection of Class 125 or Class 150 flanged components to a grooved piping system. The two interlocking halves of the 2" thru 12" sizes of the Gruvlok Flange are hinged for ease of handling, and are drawn together by a latch bolt which eases assembly on the pipe. Precision machined bolt holes, key and mating surfaces assure concentricity and flatness to provide exact fit-up with flanged, lug, and wafer styles of pipe system equipment. A specially designed gasket provides a leak-tight seal on both the pipe and the mating flange face. For the latest UL/ULC listed and FM approved pressure ratings versus pipe schedule, see www.anvilintl.com or contact your local Anvil Representative.

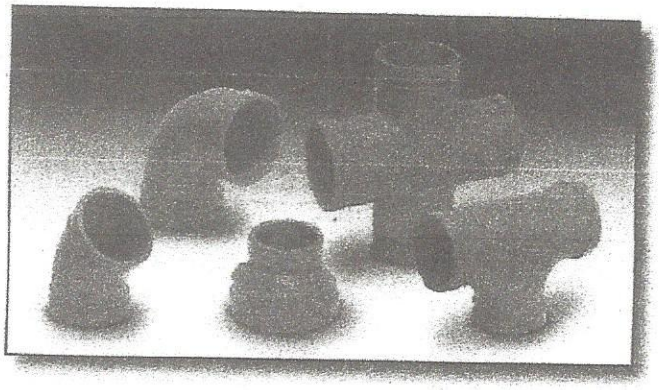
Gruvlok Flanges have designed-in anti-rotation tines which bite into and grip the sides of the pipe groove to provide a secure, rigid connection. The Gruvlok Fig. 7012 Flange requires the use of a steel adapter insert when used against rubber faced surfaces, wafer/lug design valves and serrated or irregular sealing surfaces. Flange comes complete with Grade "E" EPDM Gasket.

Available 2",– 12" nominal pipe sizes.



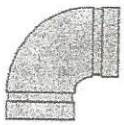
Gruvlok Fittings for Grooved End Pipe

Gruvlok fittings for fire protection applications are available through 8" nominal pipe size in a variety of styles. These fittings are designed to provide minimum pressure drop and uniform strength. Refer to Flow Data in the catalog for details. Depending on styles and size, Gruvlok fittings are provided in various materials including malleable iron, ductile iron or fabricated steel.

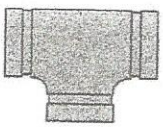


Material Specifications:

- **Cast Fittings:**
  Ductile iron conforming to ASTM A 536 or Malleable iron conforming to ASTM A 47
- **Fabricated Fittings:**
  1-6" Carbon steel, Schedule 40, conforming to ASTM A 53, Grade B
  8-12" Carbon steel, Schedule 30 conforming to ASTM A 53, Grade B
- **Coating:**
  Rust inhibiting paint Color: ORANGE (standard)
  Hot-dipped zinc galvanized conforming to ASTM A 153 (optional)



Gruvlok Fig. 7450
Short Pattern
90° Elbow



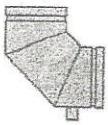
Gruvlok Fig. 7460
Short Pattern Tee

Gruvlok Fig. 7050
90° Elbow

Gruvlok Fig. 7051
45° Elbow

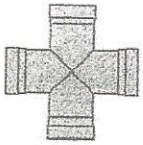
Gruvlok Fig. 7052
22½° Elbow

Gruvlok Fig. 7053
11¼° Elbow

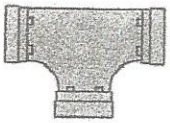


Gruvlok Fig. 7050DR
90° Drain Elbow

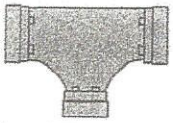
Gruvlok Fig. 7074
End Cap



Gruvlok Fig. 7068
Cross

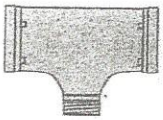


Gruvlok Fig. 7060
Standard Tee

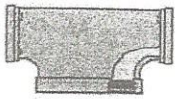


Gruvlok Fig. 7061
Reducing Tee

Gruvlok Fig. 7063
Threaded Tee



Gruvlok Fig. 7064
Reducing Tee with
Threaded Branch



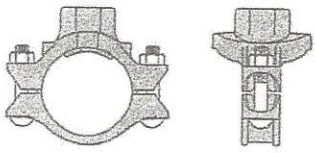
Gruvlok Fig. 7062
Bullhead Tee

Gruvlok Fig. 7065
Standpipe Tee

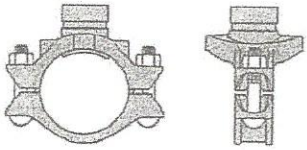
Gruvlok Fig. 7072
Concentric Reducer

Gruvlok Fig. 7073
Eccentric Reducer

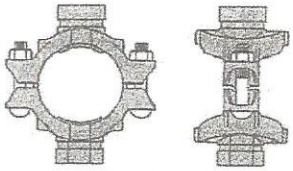
Gruvlok Fig. 7076
Concentric Reducer
(Groove x Thread)



Gruvlok Fig. 7045
Clamp-T, FPT Branch



Gruvlok Fig. 7046
Clamp-T, Grooved Branch



Gruvlok Fig. 7048
Clamp-T Cross (Groove x Groove)

ITW BUILDEX - ITASCA, ILLINOIS
1349 W. Bryn Mawr Avenue
Itasca, IL 60143
(P) 800.848.5611
Email:
marketing@itwbuildex.com

larger image

Part Number 8059957, Sammys® 3/8" Vertical Threaded Rod Anchor - CST 20

- Easy two step process
  - Drill hole & drive Sammys concrete anchor using one kit (concrete installation kit)
  - Reduces installation time and cost
- Threaded rod attachment
  - Allows specifiers and designers to engineer systems with fewer attachment points
  - Holds up to 2400 lbs.
- Installs with SAMMYS Nut Driver
  - Ensures correct installation torque
  - Reduces occurrences of fastener failure due to over driving

SPECIFICATIONS

Product Name	Sammys®
Rod Size	3/8"-16
Substrate	Concrete
Mount Style	Vertical
Substrate Fastener Size	5/16" x 1-3/4"
Ultimate Pullout	2400 lb
Type	Rod Anchor
Product Family	Sammys® Concrete 3/8 Rod
Anchor Diameter	5/16 "
Hole Size	1/4 "

Anvil Pipe Hangers, Supports and Seismic Bracing

CPVC PIPE HANGERS

Fig. 185
One Hole Pipe Strap
Size Range: 3/4" thru 2"

Fig. 186
Two Hole Pipe Strap
Size Range: 3/4" thru 2"

Fig. 187
Two Hole 90° Side Mount Strap
Size Range: 3/4" thru 2"

Fig. 188
Two Hole Stand Off Strap
Size Range: 3/4" thru 2"

PIPE RINGS & CLEVIS

Fig. 138R
Extension Split Pipe Clamp
Size Range: 3/8" thru 3"

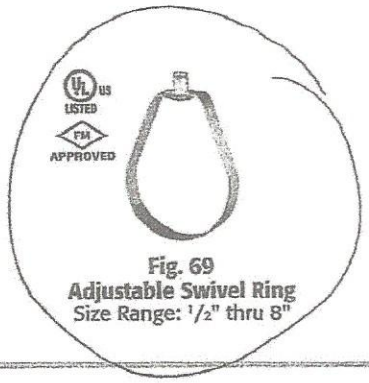


Fig. 69
Adjustable Swivel Ring
Size Range: 1/2" thru 8"

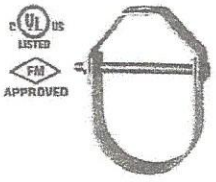


Fig. 260
Adjustable Clevis Hanger
Size Range: 1/2" thru 30"

STEEL PIPE CLAMPS

Fig. 261
Extension Pipe or Riser Clamp
Size Range: 3/4" thru 24"

Fig. 212
Medium Pipe Clamp
Size Range: 1/2" thru 30"

CEILING PLATE

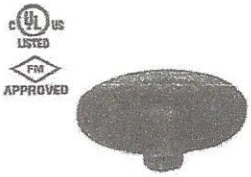


Fig. 153
Pipe Hanger Flange
Size Range: 3/8" thru 3/4"

HANGER RODS & ATTACHMENTS

Fig. 142
Coach Screw Rods Machine Threaded on Opposite End
Size Range: 3/8" thru 1/2"

Fig. 146
Continuous Thread
Size Range: 1/4" thru 1 1/2"

Fig. 136:
Fig. 136R:

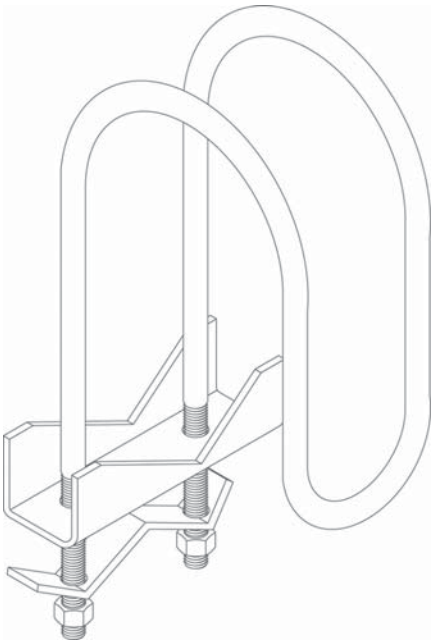
Fig. 136 & 136R
Straight Rod Coupling
Size Range: 1/4" thru 1"

Fig. 110R
Socket, Rod Threaded
Size Range: 1/4" thru 7/8"

Fig. 157
Extension Piece
Size Range: 3/8" thru 7/8"

Fig. 1000 - "Fast Clamp" Sway Brace Attachment

Component of State of California OSHPD Approved Seismic Restraints System



Size Range — Pipe size to be braced: 1" thru 6" Schedule 10 thru 40 IPS.* Pipe size used for bracing: 1" and 1¼" Schedule 40 IPS.

* Additionally **(UL)** approved for use to brace Schedule 7 sprinkler pipe up to 4" (maximum horizontal design load 655 lbs.) Torque requirement 6 — 8 ft. lbs.

Material — Carbon Steel

Function — For bracing pipe against sway and seismic disturbance. The pipe attachment component of a sway brace system: Fig. 1000 is used in conjunction with a TOLCO Fig. 900 Series Fitting and joined together with bracing pipe per NFPA 13* or TOLCO OSHPD Approved Seismic Manual, forming a complete sway brace assembly.

Features — Field adjustable, making critical pre-engineering of bracing pipe unnecessary. Unique design requires no threading of bracing pipe. Can be used as a component of a 4-way riser brace. Can be used as longitudinal brace with Fig. 907. Comes assembled and individually packaged with illustrated installation instructions — sizes are clearly marked. Steel leaf spring insert provided to assure installer and inspector necessary minimum torque has been achieved.

Installation — The Fig. 1000 is the "braced pipe" attachment component of a lateral sway brace assembly. It is intended to be combined with the "bracing pipe" and TOLCO structural attachment component, Fig. 980, 910 or 909 to form a complete bracing assembly. Follow NFPA 13 and/or OSHPD guidelines.

To Install — Place the Fig. 1000 over the pipe to be braced, insert bracing pipe through opening leaving a minimum of 1" extension. Brace pipe can be installed on top or bottom of pipe to be braced. Tighten hex nuts until leaf spring is flat. It is recommended that the brace angle be adjusted before hex nuts are fully tightened.

Approvals — Underwriters Laboratories Listed in the USA **(UL)** and Canada **(cUL)**. Approved by Factory Mutual Engineering **(FM)**. Included in our Seismic Restraints Catalog approved by the State of California Office of Statewide Health Planning and Development **(OSHPD)**. For additional load, spacing and placement information relating to OSHPD projects, please refer to the TOLCO Seismic Restraint Systems Guidelines.

Application Note — Position Fast Clamp and tighten two hex nuts until leaf spring flattens. A minimum of 1" pipe extension beyond the Fig. 1000 is recommended.

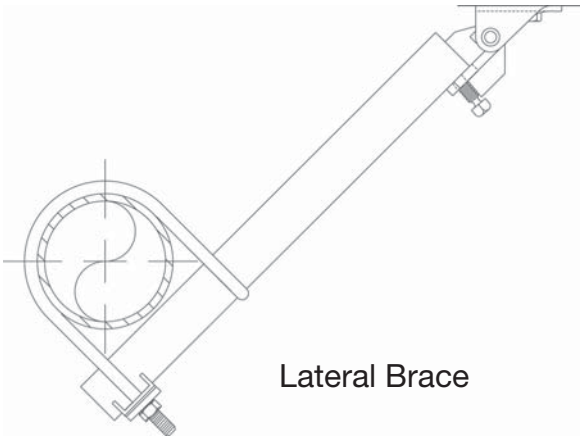
Finish — Plain

Note — Available in Electro-Galvanized and HDG finish or Stainless Steel materials.

Order By — Order first by pipe size to be braced, followed by pipe size used for bracing, figure number and finish.

Maximum Design Load
1" thru 4" pipe size — 2015 lbs.
6" size — 1265 lbs.

FM Approved Design Loads*
1" - 2½" - 600 lbs.
3" - 4" - 700 lbs.



Lateral Brace

TOLCO® brand bracing components are desgined to be compatible **ONLY** with other TOLCO® brand bracing components, resulting in a Listed seismic bracing assembly. **DISCLAIMER** — NIBCO does **NOT** warrant against the failure of TOLCO® brand bracing components, in the instance that such TOLCO® brand bracing components are used in combination with products, parts or systems which are not manufactured or sold under the TOLCO® brand. NIBCO shall **NOT** be liable under any circumstance for any direct or indirect, incidental or consequential damages of any kind, including but not limited to loss of business or profit, where non-TOLCO brand bracing components have been, or are used.

Fig. 907 - 4-Way Longitudinal Sway Brace Attachment

c UL US LISTED

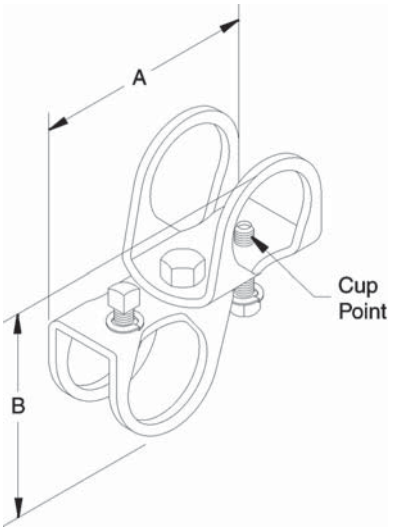
Component of State of California OSHPD Approved Seismic Restraints System

Size Range — 1" x 1", 1" x 1¼" and 1¼" x 1¼" bracing pipe.

Material — Carbon Steel, hardened cone (or cup) point engaging screw

Function — For bracing pipe against sway and seismic disturbances, Functions as a longitudinal brace connection when attached to a lateral brace pipe. Bracing connection must be positioned as close as physically possible to the braced pipe (No more than 3" away). Must be used only with TOLCO bracing components. When used in conjunction with TOLCO Fig. 1000, this combination bracing restricts piping movement in tension and compression both laterally and longitudinally.

Approvals — Underwriter's Laboratories Listed in the USA **(UL)** and Canada **(cUL)**. Included in our Seismic Restraints Catalog approved by the State of California Office of Statewide Health Planning and Development **(OSHPD)**. For additional load, spacing and placement information relating to OSHPD projects, please refer to the TOLCO Seismic Restraint Systems Guidelines.



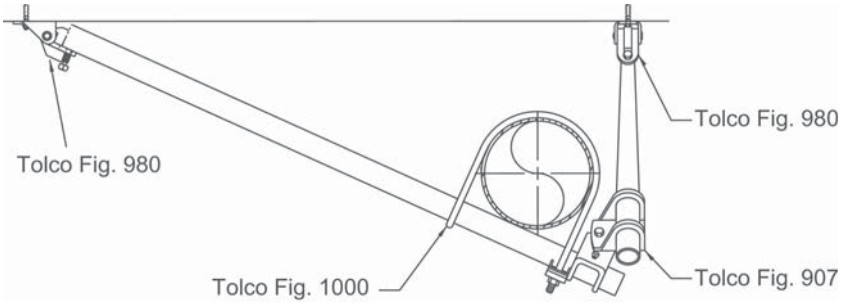
Installation Instructions — The Fig. 907 is a transitional component of a longitudinal 4-way sway brace assembly. It is intended to be installed with the longitudinal and lateral "bracing pipes", TOLCO structural attachment fittings, Fig. 909, 910 and 980 and the Fig. 1000 TOLCO "braced pipe" fitting, to form a complete bracing assembly. NFPA 13 and/or OSHPD guidelines should be followed.

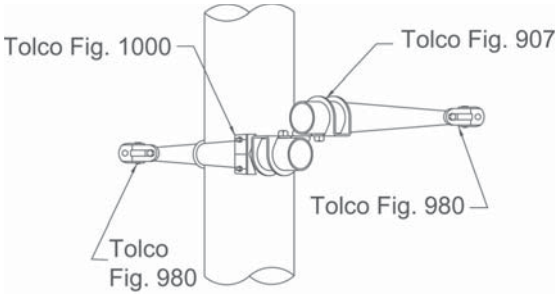
To Install — Attach the Fig. 907 over the lateral "bracing pipe" to within 3" of its position relative to the "braced pipe" connection. Adjust brace angle and tighten bolts until heads bottom out on surface.

Finish — Plain

Note — Available in Electro-Galvanized and HDG finish.

Order By — Figure number, bracing pipe sizes and finish.





Dimensions • Weights

Pipe Size	A	B	Max. Design Load Lbs.*	Approx. Wt./100
1 x 1	4¾	4¾	655*	103
1 x 1¼	5 1/16	4 13/16	655*	107
1¼ x 1¼	5⅜	5¼	655*	109

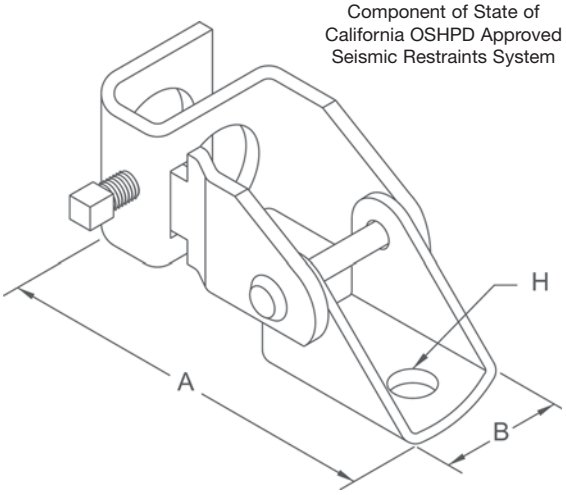
* Load will accommodate up to 4" pipe at maximum spacing.

TOLCO® brand bracing components are desgined to be compatible **ONLY** with other TOLCO® brand bracing components, resulting in a Listed seismic bracing assembly. **DISCLAIMER** — NIBCO does **NOT** warrant against the failure of TOLCO® brand bracing components, in the instance that such TOLCO® brand bracing components are used in combination with products, parts or systems which are not manufactured or sold under the TOLCO® brand. NIBCO shall **NOT** be liable under any circumstance for any direct or indirect, incidental or consequential damages of any kind, including but not limited to loss of business or profit, where non-TOLCO brand bracing components have been, or are used.

Fig. 909 - No-Thread Swivel Sway Brace Attachment

c UL US LISTED

Component of State of California OSHPD Approved Seismic Restraints System



Size Range — 1" bracing pipe. For brace pipe sizes larger than 1", use TOLCO Fig. 980.

Material — Carbon Steel, hardened cone point engaging screw

Function — The structural component of a sway and seismic bracing system.

Features — This product's design incorporates a **concentric** attachment opening which is critical to the performance of structural seismic connections. NFPA 13 (2010) 9.3.5.8.4 indicates clearly that fastener table load values are based only on concentric loading. No threading of the bracing pipe is required. Open design allows for easy inspection of pipe engagement.

Application Note — The Fig. 909 is used in conjunction with the TOLCO Fig. 1000, Fig. 1001, Fig. 4 (A) or Fig. 4L pipe clamp, and joined together with bracing pipe. Sway brace assemblies are intended to be installed in accordance with NFPA 13 (or TOLCO State of California OSHPD Approved Seismic Restraint Manual) and the manufacturer's installation instructions. The required type, number and size of fasteners used for the structure attachment fitting shall be in accordance with NFPA 13 and/or OSHPD.

Approvals — Underwriters Laboratories Listed in the USA **(UL)** and Canada **(cUL)**. Included in our Seismic Restraints Catalog approved by the State of California Office of Statewide Health Planning and Development **(OSHPD)**. For additional load, spacing and placement information relating to OSHPD projects, please refer to the TOLCO Seismic Restraint Systems Guidelines.

Installation Instructions — The Fig. 909 is the structural or transitional attachment component of a longitudinal or lateral sway brace assembly. It is intended to be combined with the "bracing pipe" and TOLCO "braced pipe" attachment, Fig. 1000, 1001, 4A, 4B or 4L to form a complete bracing assembly. NFPA 13 and/or OSHPD guidelines should be followed.

To Install — Place the Fig. 909 onto the bracing pipe. Tighten the set bolt until head bottoms out on surface. Attachment can pivot for adjustment to proper brace angle.

Finish — Plain

Note — Available in Electro-Galvanized and HDG finish.

Order By — Figure number, pipe size and finish.

Dimensions • Weights

Pipe Size	A	B	Hole Size H*	Max. Design. Load Lbs.	Max. Design Load Lbs. w/Washer	Approx. Wt./100
1	6	1⅝	17/32	2015	2765	91

* Available with hole sizes to accommodate up to 3/4" fastener. Consult Factory.

Fig. 200 - "Trimline" Adjustable Band Hanger

c UL US LISTED
FM APPROVED

Size Range — 1/2" thru 8" pipe

Material — Carbon Steel, Mil. Galvanized to G90 specifications

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

Features —

- (1/2" thru 2") 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.
- (2½" thru 8") Spring tension on nut holds it securely in hanger before installation. Adjusting nut is easily removed.

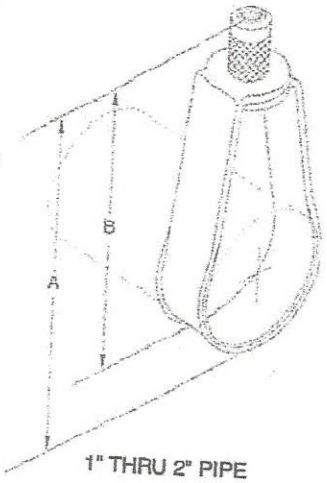
Approvals — Underwriters' Laboratories listed (1/2" thru 8") in the USA **(UL)** and Canada **(cUL)** for steel and CPVC plastic pipe and Factory Mutual Engineering Approved (3/4" thru 8"). Conforms to Federal Specifications WW-H-171E, Type 10 and Manufacturers Standardization Society SP-58, Type 10.

Maximum Temperature — 650°F

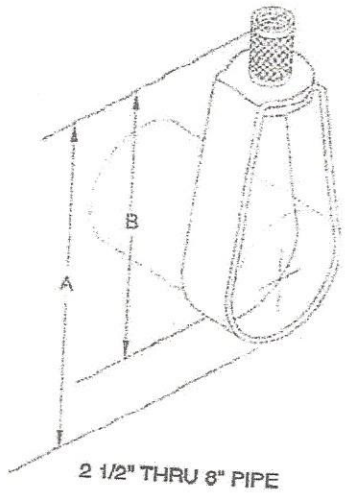
Finish — Mil. Galvanized. For Stainless Steel materials, order TOLCO® Fig. 200WON.

Order By — Figure number and pipe size

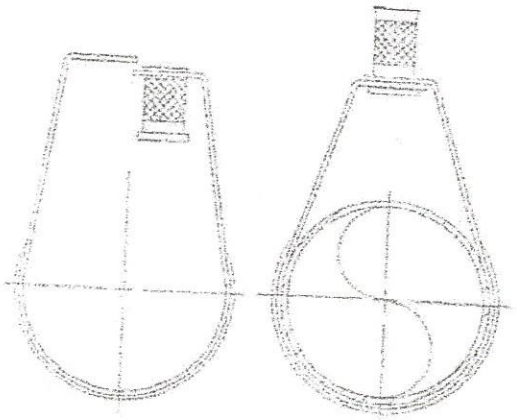
Note — For removable nut feature, order Fig. 200 S



1" THRU 2" PIPE



2 1/2" THRU 8" PIPE



Dimensions • Weights

Pipe Size	Rod Size Inch	Rod Size Metric	A	B	Max. Rec. Load Lbs.	Approx. Wt./100
1/2	3/8	8mm or 10mm	3⅛	2⅝	400	11
3/4	3/8	8mm or 10mm	3⅛	2½	400	11
1	3/8	8mm or 10mm	3⅜	2⅝	400	12
1¼	3/8	8mm or 10mm	3¾	2⅞	400	13
1½	3/8	8mm or 10mm	3⅞	2⅞	400	14
2	3/8	8mm or 10mm	4½	3	400	15
2½	3/8	10mm	5⅝	4⅛	600	27
3	3/8	10mm	5⅞	4	600	29
3½	3/8	10mm	7⅜	5¼	600	34
4	3/8	10mm	7⅜	5	1000	35
5	1/2	12mm	9⅛	6¼	1250	66
6	1/2	12mm	10⅛	6¾	1250	73
8	1/2	12mm	13⅛	8¾	1250	136

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FLOW TEST DATA SHEET

CITY SANDY CITY (UNINCORPORATED) SECTION _____

NAME OF PROPERTY LA CAILLE RESTAURANT

ADDRESS 9565 SO. WASATCH BLVD. SANDY, UTAH

STATE UTAH

DATE 11/25/20

TIME 11:00 A.M.

TEMPERATURE 35° ±

TYPE OF CITY SYSTEM

GRAVITY _____

PUMPS _____

COMBINATION X

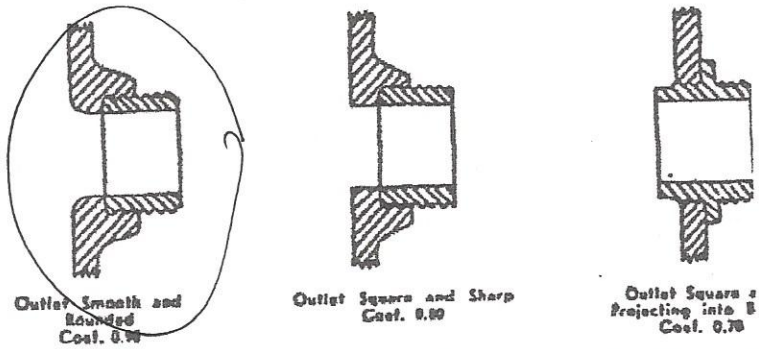


Fig. 12-12. Three general types of hydrant outlets and their coefficients of disc

NOTES:

① FLOWED HYDRANT ON PROPERTY. ② FIRE SPKR MAIN COMES OFF 6/8" MAIN BETWEEN STATIC READING AND FLOW HYD.

TEST CONDUCTED BY: KENT JOHNSTON FIRE SUPPRESSION SERVICES

WITNESSED BY: KENT JOHNSTON GERALD STREBER (SANDY F.D.)

INFO. DIST. TO: SANDY CITY FIRE DEPT. STEWART GRAY (UFA)

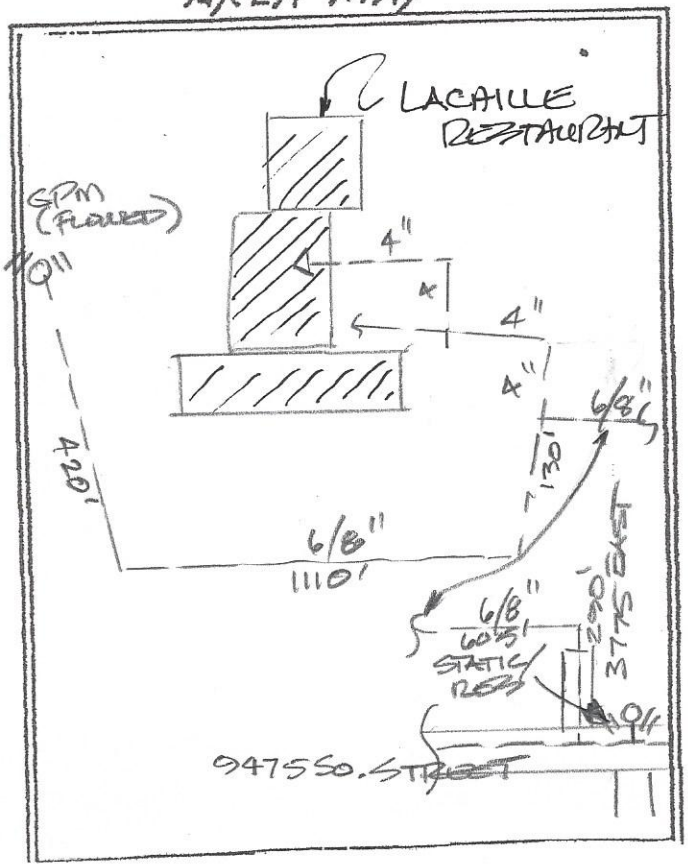
DRAPER CITY -

HAZEN WILLIAMS $29.83 \times .9 \times 6.25 \times \sqrt{55(10)} \rightarrow 1245$ GPM

$(7.42) = 1$

22

AREA MAP



OUTLET #1. SIZE 22

	GAGE #	DIRECT P.S.I.	ADJUSTED PSI	FLOW	OUTLET COEF.	ADJUSTED FLOW
STATIC		115				
RESID.		102				
PITOT		55				1245
SUB. TOT.						

OUTLET #2 SIZE _____

	GAGE #	DIRECT P.S.I.	ADJUSTED P.S.I.	FLOW	OUTLET COEF.	ADJUSTED FLOW
STATIC						
RESID.						
PITOT						
SUB. TOT.						

ADJUSTED TOTAL:

STATIC _____

RESID

ENGINEERS : MAIN STREET FIRE PROTECTION. (801) 830-3856.
ADDRESS : 9959 N Meadow Lane, Highland UT 84003.

LICENSE :
DESIGNER : Kent Johnston
DATE : 11-27-2020

FILE : C:\HYDRON59\La Caille Attic.HYD
JOB NAME : La Caille Attic
LOCATION : 9565 S Wasatch Boulevard Sandy, Utah

DESIGN DATA.

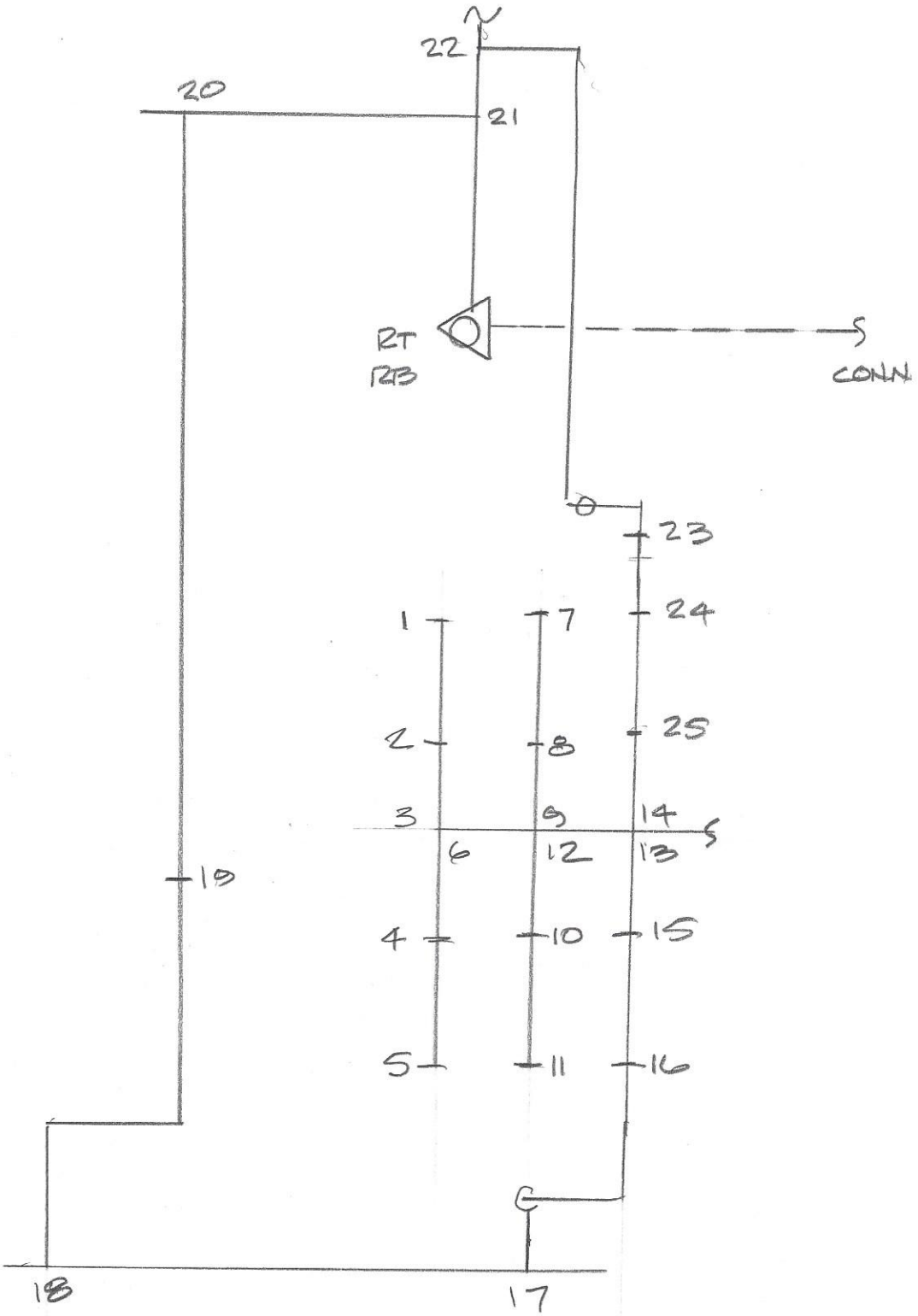
HAZARD :	LIGHT HAZARD ATTIC
DENSITY :	0.134 Sq Ft
AREA PER SPRINKLER :	112 Sq Ft
TOTAL CALCULATED AREA :	1456 Sq Ft
TOTAL SPRINKLERS CALCULATED :	13 Heads

FLOW DATA.

TOTAL SPRINKLER FLOW :	261.8 Gpm
TOTAL HOSE STREAM :	100.0 Gpm
TOTAL WATER REQUIRED :	361.8 Gpm

BASE OF RISER NODE	:	RB
FLOW	:	261.8 Gpm
PRESS	:	50.3 Psi

AUTHORITY HAVING JURISDICTION : Draper UFA
PHONE :



SCHEMATIC CALC. LAYOUT

N.T.S

ENGINEERS : MAIN STREET FIRE PROTECTION. (801) 830-3856.
ADDRESS : 9959 N Meadow Lane, Highland UT 84003.
JOB : La Caille Attic
DATE: 11-27-2020 FILE: C:\HYDRON59\La Caille Attic.HYD

SOURCE | STATIC : 115 Psi RESIDUAL : 102 Psi FLOW : 1245 Gpm

NODE NO.	ELEVATION Feet	K-FACTOR	PRESSURE Psi	DISCHARGE Gpm
1	16.0	5.60	7.0	14.8
2	16.0	5.60	7.9	15.7
3	16.0		10.9	
4	16.0	5.60	7.9	15.7
5	16.0	5.60	7.0	14.8
6	15.0		13.2	
7	16.0	5.60	7.5	15.3
8	16.0	5.60	8.4	16.3
9	16.0		11.7	
10	16.0	5.60	8.4	16.3
11	16.0	5.60	7.5	15.3
12	15.0		14.1	
13	15.0		19.1	
14	16.0		23.3	
15	16.0	5.60	23.5	27.2
16	16.0	5.60	23.9	27.4
17	10.0		32.5	
18	10.0		35.3	
19	10.0		40.7	
20	10.0		44.4	
21	10.0		44.6	
22	10.0		44.6	
23	16.0	5.60	25.2	28.1
24	16.0	5.60	24.3	27.6
25	16.0	5.60	23.8	27.3
RT	10.0		45.4	
RB	0.0		50.3	
CONN	0.0	SOURCE	52.2	361.8

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SPRINKLERS FLOWING	:	13	Heads
AREA PER SPRINKLER	:	112	Sq Ft
MIN SPRINKLER FLOW	:	15	Gpm
REQUIRED DENSITY	:	0.134	Gpm/Sq Ft
COMPUTED DENSITY	:	0.132	Gpm/Sq Ft
TOTAL SPRINKLER FLOW	:	261.8	Gpm
INSIDE HOSE STREAM	:		Gpm
OUTSIDE HOSE STREAM	:	100	Gpm
TOTAL WATER REQUIRED	:	361.8	Gpm
TOTAL SPRINKLER PRESS	:	52.2	Psi
FIXED PRESS LOSS	:	0.0	Psi
SUPPLY PRESS AVAILABLE	:	113.7	Psi
DEMAND PRESS REQUIRED	:	52.2	Psi
PRESSURE CUSHION	:	61.5	Psi
MAXIMUM VELOCITY	:	18.6	F/S

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PIPE NO.	BEG / END	ELEV (Feet) / ELEV	FLOW Gpm	K-FACTOR / FITTING TYPE / DIAMETER	LENGTH FTG / TOTAL	C-FACTOR / FRI-LOSS (Psi/Ft)	PRESSURE (Psi)		
1	1	16.0	q= 14.8	K= 5.60 L=	14.0		Pt 7.0	Pt	7.0
			Q= 14.8	F= F=	0.0	C= 120	Pe 0.0	Pv	-0.2
			Vel= 5.1	D= 1.089 TL=	14.0	0.0622	Pf 0.9	Pn	6.8
	2	16.0					Pt 7.9		
2	2	16.0	q= 15.7	K= 5.60 L=	7.0		Pt 7.9	Pt	7.9
			Q= 30.5	F= T F=	6.0	C= 120	Pe 0.0	Pv	-0.7
			Vel= 10.5	D= 1.089 TL=	13.0	0.2367	Pf 3.1	Pn	7.1
	3	16.0					Pt 10.9		
3	4	16.0	q= 14.8	K= 5.60 L=	14.0		Pt 7.9	Pt	7.9
			Q= 14.8	F= F=	0.0	C= 120	Pe 0.0	Pv	-0.2
			Vel= 5.1	D= 1.089 TL=	14.0	0.0622	Pf 0.9	Pn	7.7
	5	16.0					Pt 7.0		
4	3	16.0	q= 15.7	K= 5.60 L=	7.0		Pt 10.9	Pt	10.9
			Q= 30.5	F= T F=	6.0	C= 120	Pe 0.0	Pv	-0.7
			Vel= 10.5	D= 1.089 TL=	13.0	0.2367	Pf 3.1	Pn	10.2
	4	16.0					Pt 7.9		
5	3	16.0	q= 0.0	K= 0.00 L=	1.0		Pt 10.9	Pt	10.9
			Q= 61.0	F= T F=	7.0	C= 120	Pe 0.4	Pv	-1.0
			Vel= 12.4	D= 1.420 TL=	8.0	0.2343	Pf 1.9	Pn	9.9
	6	15.0					Pt 13.2		
6	6	15.0	q= 0.0	K= 0.00 L=	8.0		Pt 13.2	Pt	13.2
			Q= 61.0	F= F=	0.0	C= 120	Pe 0.0	Pv	-0.6
			Vel= 9.1	D= 1.650 TL=	8.0	0.1128	Pf 0.9	Pn	12.6
	12	15.0					Pt 14.1		
7	7	16.0	q= 15.3	K= 5.60 L=	14.0		Pt 7.5	Pt	7.5
			Q= 15.3	F= F=	0.0	C= 120	Pe 0.0	Pv	-0.2
			Vel= 5.3	D= 1.089 TL=	14.0	0.0663	Pf 0.9	Pn	7.3
	8	16.0					Pt 8.4		
8	8	16.0	q= 16.3	K= 5.60 L=	7.0		Pt 8.4	Pt	8.4
			Q= 31.6	F= T F=	6.0	C= 120	Pe 0.0	Pv	-0.8
			Vel= 10.9	D= 1.089 TL=	13.0	0.2525	Pf 3.3	Pn	7.6
	9	16.0					Pt 11.7		
9	10	16.0	q= 15.3	K= 5.60 L=	14.0		Pt 8.4	Pt	8.4
			Q= 15.3	F= F=	0.0	C= 120	Pe 0.0	Pv	-0.2
			Vel= 5.3	D= 1.089 TL=	14.0	0.0663	Pf 0.9	Pn	8.2
	11	16.0					Pt 7.5		

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PIPE NO.	BEG / END	ELEV (Feet) / ELEV	FLOW Gpm	K-FACTOR / FITTING TYPE / DIAMETER	LENGTH FTG / TOTAL	C-FACTOR / FRI-LOSS (Psi/Ft)	PRESSURE (Psi)
10	9	16.0	q= 16.3	K= 5.60 L=	7.0		Pt 11.7 Pt 11.7
			Q= 31.6	F= T F=	6.0	C= 120	Pe 0.0 Pv -0.8
			Vel= 10.9	D= 1.089 TL=	13.0	0.2525	Pf 3.3 Pn 10.9
	10	16.0					Pt 8.4
11	9	16.0	q= 0.0	K= 0.00 L=	1.0		Pt 11.7 Pt 11.7
			Q= 63.2	F= T F=	7.0	C= 120	Pe 0.4 Pv -1.1
			Vel= 12.8	D= 1.420 TL=	8.0	0.2500	Pf 2.0 Pn 10.6
	12	15.0					Pt 14.1
12	12	15.0	q= 0.0	K= 0.00 L=	12.0		Pt 14.1 Pt 14.1
			Q= 124.2	F= F=	0.0	C= 120	Pe 0.0 Pv -2.3
			Vel= 18.6	D= 1.650 TL=	12.0	0.4201	Pf 5.0 Pn 11.8
	13	15.0					Pt 19.1
13	13	15.0	q= 0.0	K= 0.00 L=	2.0		Pt 19.1 Pt 19.1
			Q= 124.2	F= T F=	9.0	C= 120	Pe -0.4 Pv -2.3
			Vel= 18.6	D= 1.650 TL=	11.0	0.4201	Pf 4.6 Pn 16.8
	14	16.0					Pt 23.3
14	14	16.0	q= 27.2	K= 5.60 L=	7.0		Pt 23.3 Pt 23.3
			Q= 63.1	F= F=	0.0	C= 120	Pe 0.0 Pv -0.2
			Vel= 5.3	D= 2.203 TL=	7.0	0.0294	Pf 0.2 Pn 23.1
	15	16.0					Pt 23.5
15	15	16.0	q= 27.2	K= 5.60 L=	7.0		Pt 23.5 Pt 23.5
			Q= 90.2	F= F=	0.0	C= 120	Pe 0.0 Pv -0.4
			Vel= 7.6	D= 2.203 TL=	7.0	0.0570	Pf 0.4 Pn 23.1
	16	16.0					Pt 23.9
16	16	16.0	q= 27.4	K= 5.60 L=	30.0		Pt 23.9 Pt 23.9
			Q= 117.6	F= 3ET F=	35.0	C= 120	Pe 2.6 Pv -0.7
			Vel= 9.9	D= 2.203 TL=	65.0	0.0930	Pf 6.0 Pn 23.3
	17	10.0					Pt 32.5
17	17	10.0	q= 0.0	K= 0.00 L=	30.0		Pt 32.5 Pt 32.5
			Q= 117.6	F= F=	0.0	C= 120	Pe 0.0 Pv -0.7
			Vel= 9.9	D= 2.203 TL=	30.0	0.0930	Pf 2.8 Pn 31.9
	18	10.0					Pt 35.3
18	18	10.0	q= 0.0	K= 0.00 L=	30.0		Pt 35.3 Pt 35.3
			Q= 117.6	F= 2ET F=	28.0	C= 120	Pe 0.0 Pv -0.7
			Vel= 9.9	D= 2.203 TL=	58.0	0.0930	Pf 5.4 Pn 34.7
	19	10.0					Pt 40.7

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PIPE NO.	BEG / END	ELEV (Feet) / ELEV	FLOW Gpm	K-FACTOR / FITTING TYPE / DIAMETER	LENGTH FTG / TOTAL	C-FACTOR / FRI-LOSS (Psi/Ft)	PRESSURE (Psi)
19	19	10.0	q= 0.0 Q= 117.6 Vel= 6.6	K= 0.00 L= F= ET F= D= 2.703 TL=	78.0 30.0 108.0	C= 120 0.0343	Pt 40.7 Pt 40.7 Pe 0.0 Pv -0.3 Pf 3.7 Pn 40.4
	20	10.0					Pt 44.4
20	20	10.0	q= 0.0 Q= 117.6 Vel= 2.6	K= 0.00 L= F= T F= D= 4.310 TL=	25.0 29.0 54.0	C= 120 0.0035	Pt 44.4 Pt 44.4 Pe 0.0 Pv 0.0 Pf 0.2 Pn 44.4
	21	10.0					Pt 44.6
21	21	10.0	q= 0.0 Q= 144.1 Vel= 3.2	K= 0.00 L= F= F= D= 4.310 TL=	6.5 0.0 6.5	C= 120 0.0052	Pt 44.6 Pt 44.6 Pe 0.0 Pv -0.1 Pf 0.0 Pn 44.5
	22	10.0					Pt 44.6
22	22	10.0	q= 28.1 Q= 144.1 Vel= 12.1	K= 5.60 L= F= 4ET F= D= 2.203 TL=	82.5 42.0 124.5	C= 120 0.1354	Pt 44.6 Pt 44.6 Pe 2.6 Pv -1.0 Pf 16.9 Pn 43.6
	23	16.0					Pt 25.2
23	23	16.0	q= 27.6 Q= 116.0 Vel= 9.8	K= 5.60 L= F= F= D= 2.203 TL=	9.0 0.0 9.0	C= 120 0.0907	Pt 25.2 Pt 25.2 Pe 0.0 Pv -0.6 Pf 0.8 Pn 24.5
	24	16.0					Pt 24.3
24	24	16.0	q= 27.3 Q= 88.4 Vel= 7.4	K= 5.60 L= F= F= D= 2.203 TL=	10.0 0.0 10.0	C= 120 0.0548	Pt 24.3 Pt 24.3 Pe 0.0 Pv -0.4 Pf 0.5 Pn 24.0
	25	16.0					Pt 23.8
25	14	16.0	q= 27.3 Q= 61.1 Vel= 5.1	K= 5.60 L= F= T F= D= 2.203 TL=	3.5 14.0 17.5	C= 120 0.0277	Pt 23.3 Pt 23.3 Pe 0.0 Pv -0.2 Pf 0.5 Pn 23.1
	25	16.0					Pt 23.8
26	21	10.0	q= 0.0 Q= 261.7 Vel= 5.8	K= 0.00 L= F= T F= D= 4.310 TL=	20.0 29.0 49.0	C= 120 0.0155	Pt 44.6 Pt 44.6 Pe 0.0 Pv -0.2 Pf 0.8 Pn 44.4
	RT	10.0					Pt 45.4
27	RT	10.0	q= 0.0 Q= 261.7 Vel= 5.8	K= 0.00 L= F= AC F= D= 4.310 TL=	10.0 32.0 42.0	C= 120 0.0155	Pt 45.4 Pt 45.4 Pe 4.3 Pv -0.2 Pf 0.7 Pn 45.1
	RB	0.0					Pt 50.3

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PIPE NO.	BEG / END	ELEV (Feet) / ELEV	FLOW Gpm	K-FACTOR / FITTING TYPE / DIAMETER	LENGTH FTG / TOTAL	C-FACTOR / FRI-LOSS (Psi/Ft)	PRESSURE (Psi)	
	RB	0.0	q= 0.0	K= 0.00 L=	110.0		Pt 50.3	Pt 50.3
28			Q= 261.7	F= ET F=	40.0	C= 140	Pe 0.0	Pv -0.2
			Vel= 5.8	D= 4.280 TL=	150.0	0.0121	Pf 1.8	Pn 50.1
	CONN	0.0					Pt 52.2	
			Q= 361.8	<<< SOURCE >>>			Pt 52.2	

E=90-Elb T=Tee L=LgtElb C=ChkVlv B=BfyVlv G=GatVlv A=AlmChk F=45-E

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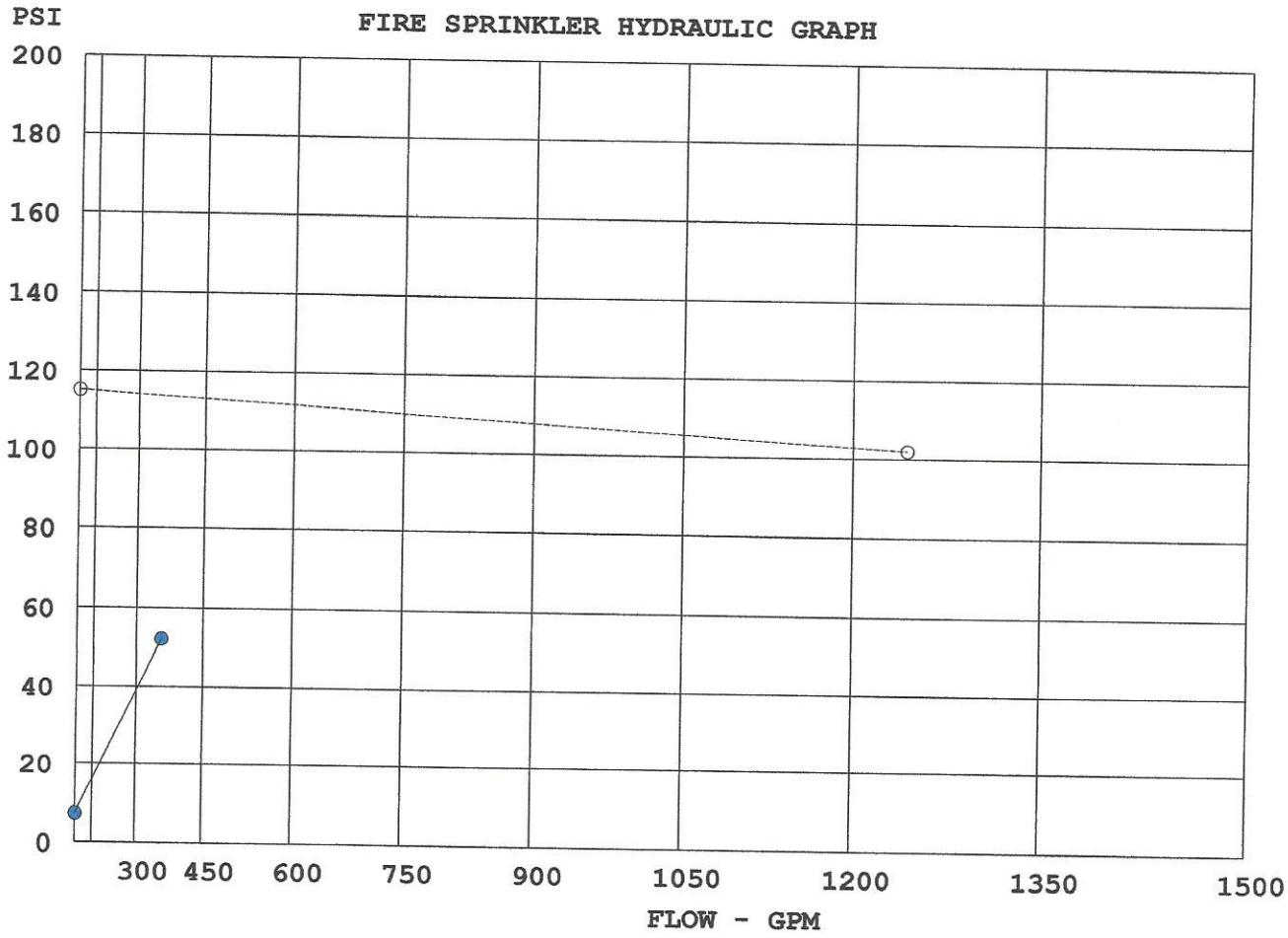
JOB : La Caille Attic



Water Supply

Static : 115 Psi
Resid : 102 Psi
Flow : 1245 Gpm

Water Demand

Avl Press : 113.7 Psi @ 362 Gpm
Req Press : 52.2 Psi @ 362 Gpm
Press Cush: 61.5 Psi

Seismic Bracing Calculations

Sheet _____ of _____

Project: LA CAILLE RESTAURANT (PHASE II)

Address: 9565 SO. WASATCH. BLVD. SANDY, UTAH

Contractor: _____

Address: _____

Telephone: _____

Fax: _____

Brace Information

Length of brace: 2-6

Diameter of brace: 1"

Type of brace: SCH. 40

Angle of brace: 45° TO 49°

Least radius of gyration:* .421

l/*r* value:* 100

Maximum horizontal load: 4455 LBS.

Seismic Brace Attachments

Structure attachment fitting or tension-only bracing system:

Make: ACME Model: 123

Transition attachment fitting (where applicable):

Make: _____ Model: _____

Listed load rating: 1000 Adjusted load rating per 9.3.5.2.4: 707

Sway brace (pipe attachment) fitting:

Make: ACME Model: 321

Listed load rating: 1200 Adjusted load rating per 9.3.5.2.4: 849

Fastener Information

Orientation of connecting surface: "E"

Fastener:

Type: LAG BOLT

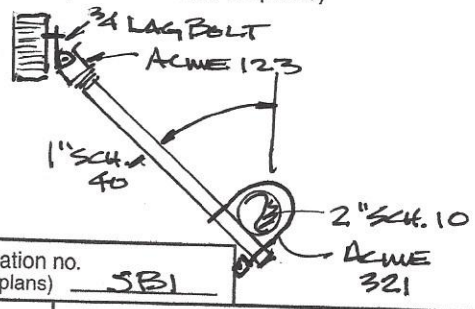
Diameter: 3/4"

Length (in wood): – 2 1/2"

Maximum load: 620 # (LBS)

Seismic Brace Assembly Detail

(Provide detail on plans)



Brace identification no. (to be used on plans) SB1

☒ Lateral brace ☐ Longitudinal brace ☐ 4-way brace

Sprinkler System Load Calculation ($F_{pw} = C_p W_p$)

C_p = .5

Diameter	Type	Length (ft)	Total (ft)	Weight per ft	Weight
1 1/2"	SCH. 10	20'0"	20.0	3.04 lb/ft	60.8 lb
1"	SCH 40	126.5'	126.5	2.05 lb/ft	258.3 lb
				lb/ft	lb
				lb/ft	lb
				lb/ft	lb
				Subtotal weight	319.1 lb
				W_p (incl. 15%)	366.97 lb
				Total (F_{pw})	183.49 lb
				Maximum F_{pw} per 9.3.5.5.2 (if applicable)	

* Excludes tension-only bracing systems

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FIGURE A.9.3.5(a) Seismic Bracing Calculation Form.