

SUBMITTAL REVIEW



CLIENT NAME: Vails Gate Fire Department
PROJECT TITLE: Vails Gate FD - New Firehouse
SUBMITTAL No.: 220517-1 **H2M PROJECT No.:** VGFD2001
SUBMITTAL NAME: Sleeves and Sleeve Seals for Plumbing Piping PD

SUBMITTAL REVIEW	
REVIEW IS FOR GENERAL COMPLIANCE WITH CONTRACT DOCUMENTS. NO RESPONSIBILITY IS ASSUMED FOR CORRECTNESS OF DIMENSIONS OR DETAILS	
<input checked="" type="checkbox"/> NO EXCEPTIONS TAKEN	<input type="checkbox"/> SUBMIT SPECIFIED ITEM
<input type="checkbox"/> MAKE CORRECTIONS NOTED (RESUBMISSION NOT REQUIRED)	<input type="checkbox"/> NO ACTION TAKEN (REVIEW IS THE RESPONSIBILITY OF ANOTHER PARTY)
<input type="checkbox"/> REVISE & RESUBMIT	<input type="checkbox"/> NO ACTION TAKEN (THIS SUBMITTAL IS NOT REQUIRED BY THE CONTRACT)
<input type="checkbox"/> REJECTED - SEE REMARKS	<input type="checkbox"/> RECEIVED FOR RECORD
<p>Corrections or comments made on the shop drawings during this review do not relieve contractor from compliance with requirements of the drawings and specifications. This check is only for review of general conformance with the design concept of the project and general compliance with the information given in the contract documents. The contractor is responsible for: confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating their work with that of all other trades; and performing the work in a safe and satisfactory manner.</p> <p>H2M architects + engineers</p> <p>Date: 04/07/2023 By: KJE</p> <p>Rev.: 2020-05-20</p>	

Comments:

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CONTRACTOR'S COMPANY NAME
ADDRESS

SUBMISSION TRANSMITTAL FORM
CLIENT NAME: Vails Gate Fire District
PROJECT TITLE: VGFD2001-New Firehouse

H2M PROJECT NO.: VGFD2001

Product, Item, or System Submitted:	Sleeves & Seals Product Data		
Submission Date:	4/4/2023	Submission Log No.:	220517-1
Specification Section:	220517	Paragraph Reference:	1.04.C
Contract Drawing Reference(s):			
Manufacturer's Name:			
Manufacturer's Mailing Address:			
Manufacturer's Contact Information:	Name	() Tel. no.	Email
Supplier's Name:	Joseph Lombardo Plumbing & Heating		
Supplier's Mailing Address:			
Supplier's Contact Information:	Name	() Tel. no.	Email
This item is a substitution for the specified item:	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	
<p>KEY CONSTRUCTION SERVICES, LLC</p> <p>Project No: VGFD2001</p> <p><small>Reviewed for General Acceptance Only. This review does not relieve the Subcontractors or Suppliers of responsibility for making the work conform to the requirements of the contract. The Subcontractor and Suppliers are responsible for all dimensions, correct fabrication and accurate fit with the work of other trades.</small></p> <p><u>SUBJECT TO ARCHITECT AND OR ENGINEER APPROVAL</u></p> <p>Signed <i>Joseph Manfredi</i> (PM) Date: 4/4/2023</p> <p>Contractor's Approval Stamp with Signature & Date</p>		<p><u>Contractor's Brief Comments or Remarks</u> (attach separate letter as needed):</p> <p>By making this submission, we represent that we have determined and verified all field measurements and dimensions, field construction criteria, site and building constraints in terms of limitations in moving the item into the enclosed space, materials, catalog and model numbers and similar data and that we have checked and coordinated this submission with other work at or adjacent to the installed location in accordance with the requirements contained in the Contract Documents.</p>	

END OF SECTION 013300

Joe Lombardo
Plumbing & Heating of Rockland, Inc.

321 Spook Rock Road
Suffern, NY 10901
Ph. 845-357-6537 Fx 845-357-8529
E: info@josephlombardo.com
Website: www.josephlombardo.com

Rockland Cty. Plumbing #1000 Rockland Cty. Cooling # 1468
Westchester Cty. Plumbing #460 New Jersey State Plumbing #12702

TO: Key Construction
4246 Albany Post Rd. Suite 1
Hyde Park, NY 12538

LETTER OF TRANSMITTAL

Form with fields: DATE: 4-3-23, JOB NO., ATTENTION: Joe Manfredi, RE: Vails Gate Firehouse

WE ARE SENDING YOU [] Attached [] Under separate cover via the following items:
[] Shop Drawings [] Prints [] Plans [] Samples [] Specifications
[] Copy of letter [] Change order

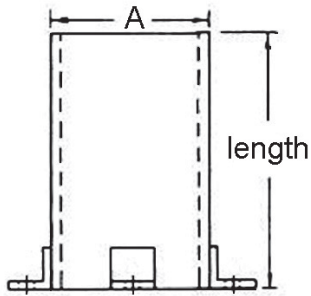
Table with 4 columns: EMAIL, DATE, NO., DESCRIPTION. Row 1: 1, 4-3-23, 220517, SLEEVES AND SEALS

THESE ARE TRANSMITTED as checked below:
[] For approval [] No Exceptions Taken [] Resubmit copies for review
[] For your use [] Make Corrections Noted [] Submit copies for distribution
[] As requested [] Rejected [] Return corrected prints
[] For review and comment
[] FOR BIDS DUE 20 PRINTS RETURNED AFTER LOAN TO US

COPY TO: Joe Manfredi SIGNED: Ronald J. Lombardo

FIG. 830

PIPE SLEEVE WITH WELDED LUGS



MATERIAL: Carbon steel, 304/316 stainless steel.
FINISH: Black, electro or hot-dipped galvanized.
SERVICE: Pipe sleeves are cut from standard weight pipe and are furnished with or without welded lugs.
ORDERING: Specify nominal pipe size A, length, figure number, with or without lugs and finish.

FIG. 835

NAILING SLEEVE



Cap & Tabs

Cap Only

SLEEVES THRU SHEETROCK WALLS AS NEEDED

MATERIAL: Galvanized sheet metal,
FINISH: Galvanized.
SERVICE: Sleeves are made in all heights and diameters, with or without cap & tabs.
ORDERING: Specify figure number, type, diameter, height and with or without cap or tabs.



TYPE 1
Stapled
or
Tacked



TYPE 2
Locking
Tabs
100pcs Min.



TYPE 3
Finger
Locks



TYPE 4
Split,
Butt
Edges

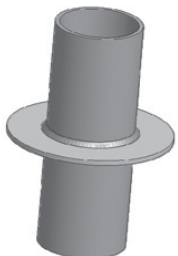


TYPE 5
Split,
Overlap

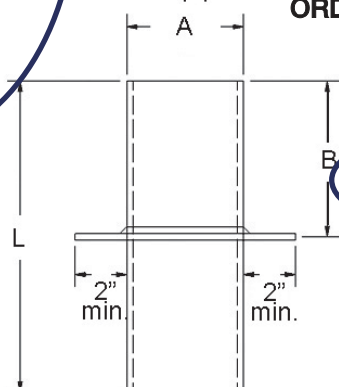


TYPE 6
Metal
Deck
Flange

FIG. 840



nominal pipe size

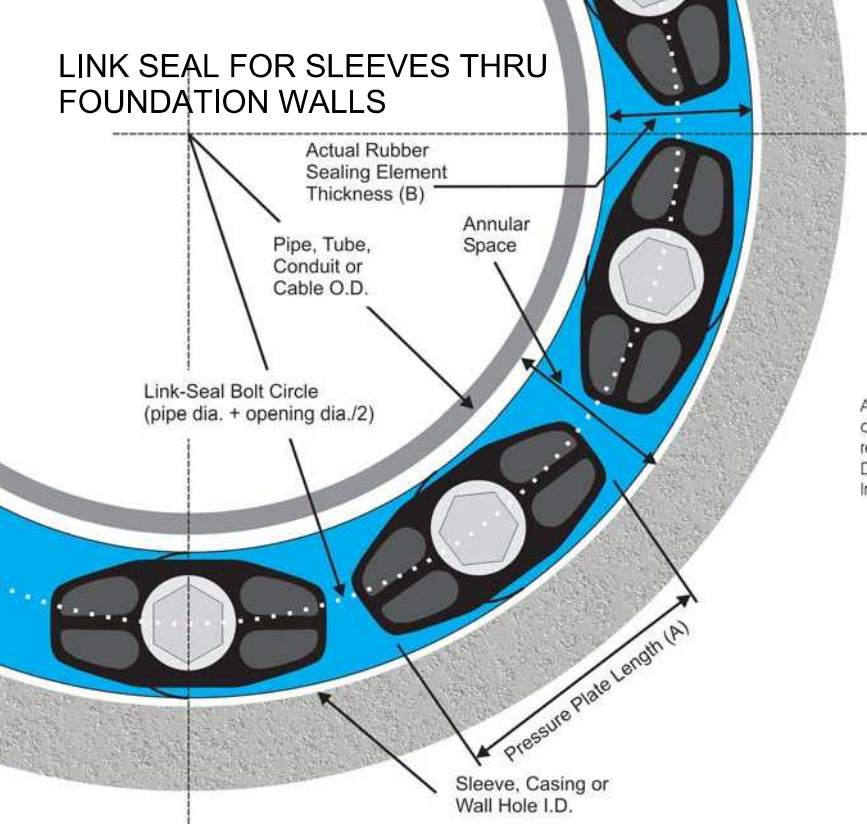


MATERIAL: Carbon steel, 304/316 stainless steel.
FINISH: Black, hot-dipped galvanized.
SERVICE: Waterproof sleeves are cut from standard weight pipe and are furnished with a continuously welded water stop of 1/4" steel plate.
ORDERING: Specify nominal pipe size A, ring center line B, length, figure number and finish.

SLEEVE THRU SLAB ON DECKS

SLEEVE THRU FOUNDATION WALLS

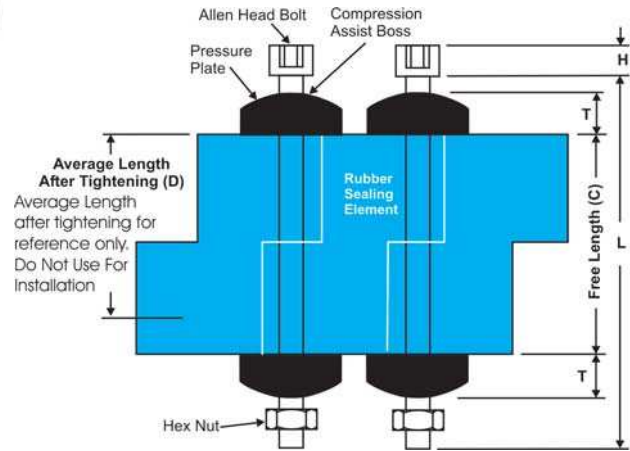
LINK SEAL FOR SLEEVES THRU FOUNDATION WALLS



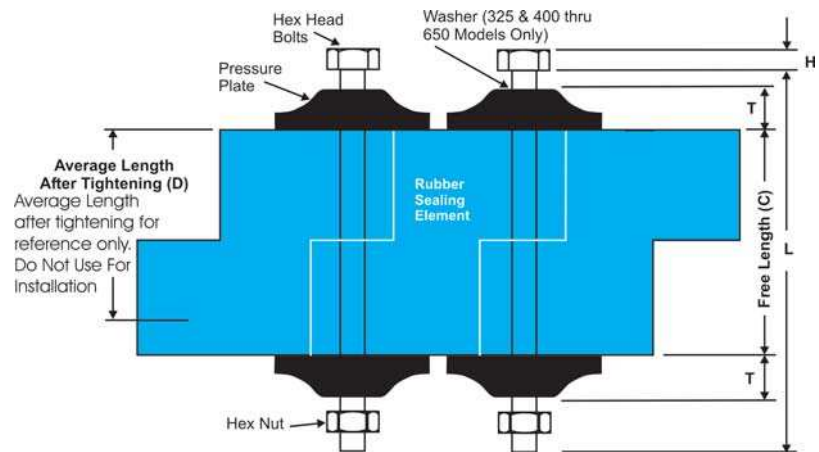
Drawings for Reference Only



For LS-200 through LS-315



For LS-325 through LS-650



Technical Data Submittal Sheet Supplement 12/15/10

***Dimensional Data for Models C, L, O, S-316, LS-316 and OS-316**

LINK-SEAL MODEL NO.	RUBBER SEALING ELEMENT			PRESSURE PLATE		BOLT				WEIGHT FOR 10 LINK SECTION (LBS)	MIN. REQUIRED SEATING WIDTH
	ACTUAL THICKNESS (B)	FREE LENGTH (C)	AVG. LENGTH AFTER TIGHTENING (D)	(A)	(T)	ALLEN HEAD HEX ACROSS FLATS	(H)	THREAD SIZE	(L)		
LS-200-*	0.48"	1.75"	1.38"	1.06"	0.31"	4mm Allen (0.157")	4.95mm (0.195")	M5-0.8	70mm (2.755")	0.70	2.25"
LS-275-*	0.61"	1.75"	1.38"	0.97"	0.31"	4mm Allen (0.157")	4.95mm (0.195")	M5-0.8	70mm (2.755")	0.75	2.25"
LS-300-*	0.69"	2.37"	1.87"	1.56"	0.44"	6mm Allen (0.236")	7.87mm (0.310")	M8-1.25	90mm (3.543")	2.15	3.00"
LS-315-*	0.81"	2.37"	1.87"	1.44"	0.44"	6mm Allen (0.236")	7.87mm (0.310")	M8-1.25	90mm (3.543")	2.30	3.00"
LS-325-*	0.88"	2.63"	2.00"	3.13"	1.00"	13mm (0.511")	5.30mm (0.215")	M8-1.25	90mm (3.543")	5.50	4.00"
LS-340-*	1.00"	2.70"	2.25"	1.48"	0.66"	13mm (0.511")	5.30mm (0.215")	M8-1.25	120mm (4.720")	3.30	4.00"
LS-360-*	1.24"	2.70"	2.25"	2.05"	0.77"	13mm (0.511")	5.30mm (0.215")	M8-1.25	120mm (4.720")	5.10	4.00"
LS-400-*	1.38"	3.50"	2.75"	3.50"	1.06"	17mm (0.669")	6.40mm (0.250")	M10-1.5	130mm (5.118")	12.00	5.00"
LS-410-*	1.43"	3.37"	2.87"	2.52"	0.88"	17mm (0.669")	6.40mm (0.250")	M10-1.5	130mm (5.118")	8.20	5.00"
LS-425-*	1.06"	3.00"	2.25"	3.50"	1.19"	17mm (0.669")	6.40mm (0.250")	M10-1.5	130mm (5.118")	10.00	5.00"
LS-475-*	1.56"	3.38"	2.63"	2.63"	0.88"	17mm (0.669")	6.40mm (0.250")	M10-1.5	130mm (5.118")	10.00	5.00"
LS-500-*	2.25"	3.75"	2.75"	3.63"	1.06"	19mm (0.748")	7.50mm (0.300")	M12-1.75	140mm (5.511")	22.50	5.00"
LS-525-*	2.06"	3.75"	2.87"	3.63"	1.06"	19mm (0.748")	7.50mm (0.300")	M12-1.75	140mm (5.511")	21.00	5.00"
LS-575-*	1.81"	3.75"	3.00"	3.00"	1.00"	19mm (0.748")	7.50mm (0.300")	M12-1.75	140mm (5.511")	15.50	5.00"
LS-600-*	3.09"	4.00"	3.00"	6.00"	1.90"	30mm (0.748")	12.50mm (0.490")	M20-2.5	180mm (7.086")	60.60	6.00"
LS-650-*	2.71"	3.98"	3.00"	3.96"	1.19"	19mm (0.748")	7.50mm (0.300")	M12-1.75	140mm (5.511")	26.10	6.00"



VISIT WWW.LINKSEAL.COM FOR LITERATURE AND INSTALLATION INSTRUCTIONS

Link-Seal® Modular Seal Model Properties

with EPDM Seal Elements



EPDM (Black)
EPDM (Blue) Low Durometer

Model “C” or “L” Link-Seal Modular Seal

Suitable for use in water, direct ground burial and atmospheric conditions. Provides electrical isolation where cathodic protection is required.

Type: Standard

Seal Element: EPDM (Black) or EPDM (Blue)

Pressure Plates: Reinforced Nylon Polymer

Bolts & Nuts: Steel with 2-part Zinc Dichromate & proprietary corrosion inhibiting coating.

Temp. Range: -40 to +250°F (-40 to +121°C)*

Model “S-316” or “LS-316” Link-Seal Modular Seal

For chemical processing & waste water treatment. EPDM rubber is resistant to most inorganic acids and alkalis, some organic chemicals (acetone, alcohol, ketones).

Type: Stainless

Seal Element: EPDM (Black) or EPDM (Blue)

Pressure Plates: Reinforced Nylon Polymer

Bolts & Nuts: 316 Stainless Steel

Temp. Range: -40 to +250°F (-40 to +121°C)*

* = Sustained operation near temperature limits may affect life expectancy.

with Nitrile Seal Elements



Nitrile (Green)

Model “O” Link-Seal Modular Seal

Nitrile rubber is resistant to oils, fuel and many solvents (gasoline, motor oil, kerosene, methane, jet fuel, hydraulic fluid, water, etc.).

Type: Oil Resistant

Seal Element: Nitrile (Green) Note: Not U.V resistant.

Pressure Plates: Reinforced Nylon Polymer

Bolts & Nuts: Steel with 2-part Zinc Dichromate & proprietary corrosion inhibiting coating.

Temp. Range: -40 to +210°F (-40 to +99°C)*

Model “OS-316” Link-Seal Modular Seal

Combination of oil resistant rubber and stainless steel hardware.

Type: Oil Resistant

Seal Element: Nitrile (Green) Note: Not U.V resistant.

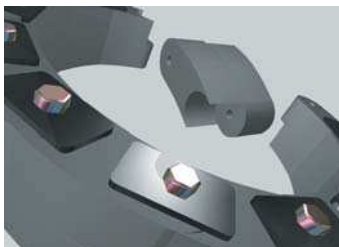
Pressure Plates: Reinforced Nylon Polymer

Bolts & Nuts: 316 Stainless Steel

Temp. Range: -40 to +210°F (-40 to +99°C)*

* = Sustained operation near temperature limits may affect life expectancy.

with Silicone Seal Elements



Silicone (Grey)

Model “T” Link-Seal Modular Seal

Silicone rubber is ideal for temperature extremes. The “T” model is one-hour Factory Mutual approved.

Type: High/Low Temperature

Seal Element: Silicone (Grey)

Pressure Plates: Steel Zinc Dichromate

Bolts: Steel with 2-part Zinc Dichromate & proprietary corrosion inhibiting coating.

Temp. Range: -67 to +400°F (-55 to +204°C)*

Model “FD/FS” Link-Seal Modular Seal

Double seal for added protection.

Type: Fire Seals

Seal Element: Silicone (Grey)

Pressure Plates: Steel zinc dichromate

Bolts: Steel with 2-part Zinc Dichromate proprietary corrosion inhibiting coating.

Temp. Range: -67 to +400°F (-55 to +204°C)*

NOTE: Sustains a constant temp. of 325°F. (163°C.)

* = Sustained operation near temperature limits may affect life expectancy.

Material Properties of Link-Seal Modular Seal Elements

PROPERTY	ASTM METHOD	EPDM (EPDM L)	NITRILE	SILICONE
Hardness (shore A)	D-2240	50 ±5 (40 ±5)	50 ±5	50 ±5
Tensile	D-412	1450 psi	1300 psi	860 psi
Elongation	D-412	400%	300%	250%
Compression Set	S-395	15% 22 hrs. @ 158°F (70°C)	45% 22 hrs. @ 212°F (100°C)	40% 22 hrs. @ 350°F (177°C)
Specific Gravity	D-297	1.10	1.15	1.40

Material Properties of Composite Pressure Plates

PROPERTY	ASTM METHOD	VALUE
Izod Impact - Notched	D-256	2.05 ft-lb/in
Tensile Strength @ Yield	D-638	20,000 psi
Tensile Strength - Break	D-638	20,250 psi
Flexural Strength @ Yield	D-790	30,750 psi
Flexural Modulus	D-790	1,124,000 psi
Elongation, Break	D-638	11.07%
Specific Gravity	D-792	1.38
Moisture Content	--	0.18%

Bolt & Nut Specifications

Standard: Carbon Steel

Carbon steel, zinc dichromated per ASTM B633, with an additional corrosion inhibiting proprietary organic coating. (passes 1470 hour salt spray test)
Tensile Strength = 60,000 psi, minimum.

Option: Stainless Steel

ANSI Type = 316, Per ASTM F593-95
Tensile Strength = 85,000 psi, average.



PSI-Thunderline/Link-Seal®

6525 Goforth Street, Houston TX 77021 U.S.A.

Tel: 713-747-6948, Fax: 713-747-6029, Toll Free: 800-423-2410

www.linkseal.com, e-mail: info@psipsi.com

LSTECH-9/27/ 10

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CP 680-P and CP 680-M Cast-In Firestop Devices

For use in

- Dust and fiber free environments such as hospitals, computer centers and laboratories
- Concrete floor assemblies rated up to 4 hours

Product Description

- A one-step cast-in firestop device for a variety of pipe materials and diameters
- Helps reduce labor costs and increase productivity
- Ready-to-use out of the package
- Internationally tested and approved by UL and FM
- Reduces the chance of project delays due to failed inspections

Product Features

- Quick & simple installation
- SpeedLine Alignment system promotes faster layout
- QuickTurn System creates fast, simple vertical connections
- Integrated moisture and smoke seal
- Innovative adapter for metal deck applications

Installation & Applications

- Concrete floors from 2.5" (63 mm) thickness for either flat concrete or concrete over metal deck

CP 680-M:

- Insulated and non-insulated metal pipes
- EMT and electrical conduits
- Cable bundles
- Multiple pipes

CP 680-P:

Addresses all applications for CP 680-M as well as the following:

- Plastic pipes such as PVC, CPVC, ABS, ENT and FRPP
- Fresh and waste water pipes

Not suited for

- Areas with high condensation
- Outdoor areas
- Wall applications

Installation Instructions

Notice

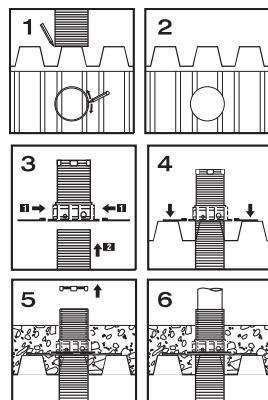
- Before handling, read Material Safety DataSheet and product label for safe usage and health information.
- Instructions below are general guidelines — always refer to the applicable drawing in the UL Fire Resistance Directory or Hilti Firestop Systems Guide for complete installation information

Instructions for use

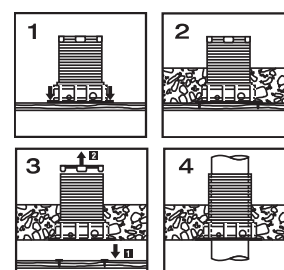
- Before pouring concrete, secure the cover cap in place, thereby preventing the flow of concrete into the cast-in device.
- Do not use for wall applications.

Concrete floor with metal decking

For concrete floor with metal decking applications use the correct size CP 680 Metal Deck Adapter for installed cast-in device and follow the illustrations.

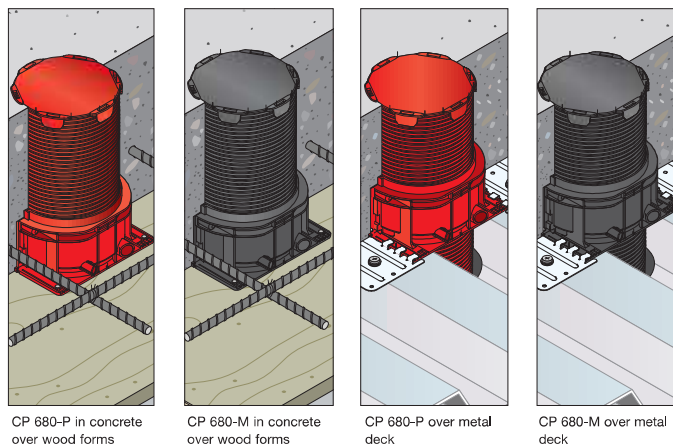
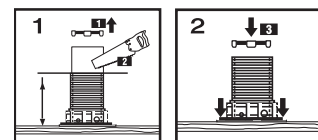


Concrete floor



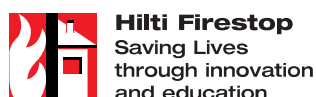
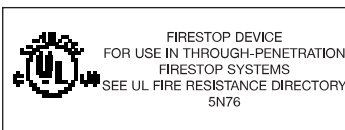
Installation option

Follow the illustrations if CP 680 has to be cut to slab thickness before installation, or when riser clamps are used.



CP 680-P and CP 680-M Technical Data

ID	Footprint	Opening Required thru Metal Deck
2"	3-3/4" x 4-1/2"	3-1/2" diameter
3"	4-3/4" x 5-5/8"	4-1/2" diameter
4"	6-3/8" x 6-3/4"	5-1/2" diameter
6"	9" x 9-1/2"	7-1/4" diameter
Expansion temperature		392°F (200°C)
Expansion rate		1:50 (unrestrained) 1:30 (Load expansion, Load = 20g/cm³)
Standard Height		8"
Temperature resistance		Maximum 212°F (100°C)
Color		CP 680-P: red CP 680-M: black
Approvals		
California State Fire Marshal City of New York		Listing No. 4485-1200:135, 4485-1200:136 MEA 1-07-M, MEA 2-07-M
Tested in accordance with		• UL 1479 • ASTM E 814 • ULC-S115
Internationally tested and approved		



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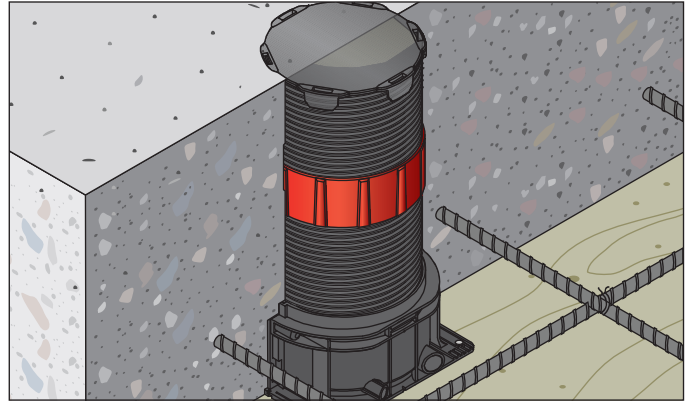
Height Extension

Product Description

- For use when concrete slabs are greater than 8" thick
- Device may add up to 6" with each extension kit
- QuickTurn Connection system promotes a fast, positive connection to the top of the appropriate cast-in device
- Red (CP 680-P) and Black (CP 680-M) versions create for easier identification when both combustible and non-combustible penetrants are employed for the same project

Color

- CP 680-P Kit — Red cylinder with Red coupling band
- CP 680-M Kit — Black cylinder with Red coupling band



Installation Instructions

Notice

- Before handling, read Material Safety DataSheet and product label for safe usage and health information.
- Instructions below are general guidelines — always refer to the applicable drawing in the UL Fire Resistance Directory or Hilti Firestop Systems Guide for complete installation information

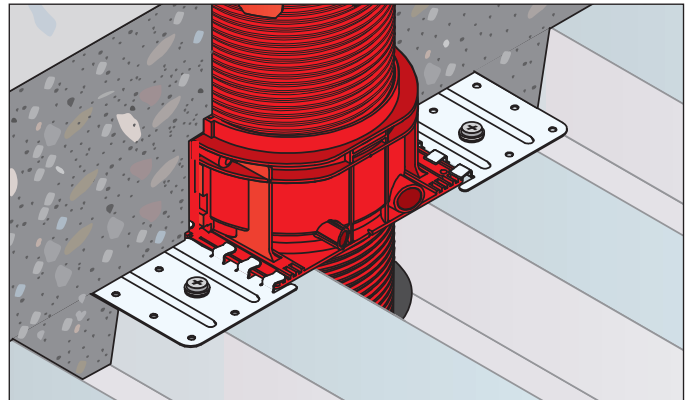
Metal Deck Adapters

Product Description

- For use with concrete over metal deck applications
- 6" cylinder extension protrudes through even the thickest spray fireproofing
- QuickTurn Connection system promotes a fast, positive connection to the underside of the appropriate cast-in device
- Red (CP 680-P) and Black (CP 680-M) versions create for easier identification when both combustible and non-combustible penetrants are employed for the same project
- Opening Required to Place the Cylinder Through a Metal Deck
 - For 2" Devices — 3-1/2" diameter
 - For 3" Devices — 4-1/2" diameter
 - For 4" Devices — 5-1/2" diameter
 - For 6" Devices — 7-1/4" diameter

Color

- CP 680-P Kit — Red cylinder with two (2) metal plates
- CP 680-M Kit — Black cylinder with two (2) metal plates



Installation Instructions

Notice

- Before handling, read Material Safety DataSheet and product label for safe usage and health information.
- Instructions below are general guidelines — always refer to the applicable drawing in the UL Fire Resistance Directory or Hilti Firestop Systems Guide for complete installation information



Hilti Firestop
 Saving Lives
 through innovation
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Water Barrier Module

Product Description

- A pre-installed water barrier solution that impedes water
- Meets W-Rating requirements for select penetrants
- For use where a single penetrant is employed per cast-in device
- QuickTurn Connection system promotes a fast, positive connection to the top of the appropriate cast-in device

Dimension

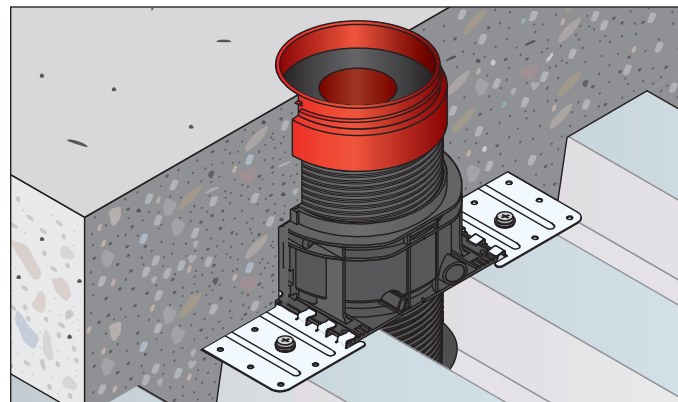
- Adds 1" to all cast-in devices

Pipe Sizes Addressed (See UL Systems)

- For 2" Water Module: 2" Pipe
- For 3" Water Module: 2.5" and 3" Pipe
- For 4" Water Module: 4" Pipe
- For 6" Water Module: 6" Pipe

Color

- Red housing with black gasket



Installation Instructions

Notice

- Before handling, read Material Safety DataSheet and product label for safe usage and health information.
- Instructions below are general guidelines — always refer to the applicable drawing in the UL Fire Resistance Directory or Hilti Firestop Systems Guide for complete installation information

Top Seal Plug

Product Description

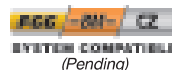
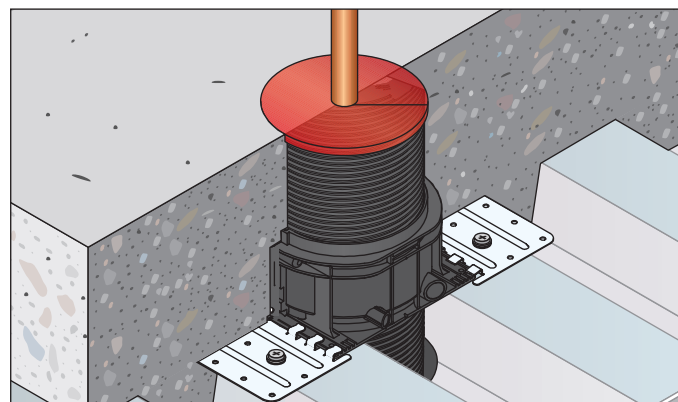
- A post-installed water barrier solution that impedes water
- Meets W-Rating requirements for select penetrants
- For use where a single penetrant is employed per cast-in device
- Chemically stable elastomeric material will not react with combustible pipes

Applications

- For single penetrants placed through a 2" cast-in place device
- Iron Pipe Sizing (IPS) and Copper Pipe Sizing (CPS) offerings available
- For pipes ranging from nominal 0.5" to 2.0" in diameter

Color

- Red



Installation Instructions

Notice

- Before handling, read Material Safety DataSheet and product label for safe usage and health information.
- Instructions below are general guidelines — always refer to the applicable drawing in the UL Fire Resistance Directory or Hilti Firestop Systems Guide for complete installation information



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**SAKRETE®**

The Pro's Choice Since 1936

Non-Shrink Construction Grout

Sakrete® Non-Shrink Construction Grout is a non-shrink, non-metallic, structural hydraulic cement for high-strength grouting.

FEATURES AND BENEFITS:

- Meets ASTM C 1107 (Plastic and Flowable) Packaged Dry, Hydraulic Cement Grout (Non-shrink)
- Non-corrosive, Will Not Attack Reinforcement
- Non-shrink, Per ASTM C 1107
- Non-metallic, Non-Staining, Gray Color
- Meets Corps of Engineers Specification CRD-C 621
- Plastic and Flowable Consistency
- Pumpable for Easy Placement
- Super Plasticized for Improved Strength

USES: Grouting of

- Concrete - poured in place, precast, tilt-up and prestressed
- Heavy Machinery
- Sole Plates
- Anchor Bolts
- Steel Bearing Plates
- Dowel Rods
- Reinforcing Steel in Block Cells
- Concrete Columns

SAFETY:

READ and UNDERSTAND the Material Safety Data Sheet (MSDS) before using this product. WARNING: Wear protective clothing and equipment. See HMIS block. For emergency information, call CHEMTREC at 800-424-9300 or 703-527-3887 (outside USA). KEEP OUT OF REACH OF CHILDREN.

PREPARATION:

Remove all unsound concrete, grease, oil, paint, and any other foreign material that will inhibit performance. Prior to grout placement, all surfaces must be clean and saturated with water for 24 hours. Remove excess water before placing the grout. Provide air relief holes where necessary if grouting is beneath large plates.

Suggestions in Form Work: Wood form work or other absorbent forms should be coated with a form release oil to prevent grout adherence and water absorption. Design form work to facilitate rapid, continuous and complete filling of the space to be grouted. Use methods that will enable the grout to flow by gravity between the surfaces and keep the grout in full contact with these surfaces until it has hardened.

Refer to: ACI 351.R-99 Report on Grouting between Foundations and Bases for Support Equipment and Machinery for important information and recommendations.

TECHNICAL DATA:

<u>Consistency of Flow</u>	<u>Plastic</u>	<u>Flowable</u>
ASTM C 942	115%	140%
24 hours	3,000 psi (21 MPa)	2,000 psi (14 MPa)
7 days	6,500 psi (45 MPa)	6,000 psi (43 MPa)
28 days	9,000 psi (62 MPa)	8,000 psi (55 Mpa)

MIXING:

Add only clean water. The water quantities shown are approximate and may vary slightly with type of equipment and application conditions. Water demand and mix temperature must be determined using standard test methods for consistency and temperature measurement at the time of application.

Desired Grout Consistency:

Flowable (Pumping Consistency), 50 lbs. (22.7kg) Grout, approximately 1.1 Gallons Water (4.2 L)

Plastic (Trowel Consistency), 50 lbs. (22.7 kg) Grout, approximately 1.0 Gallon Water (3.8 L)

PLACEMENT:

Use a mixer large enough to permit continuous placement before any part of the grout has set. Place the grout quickly. Rodding the grout lightly will help move material. Avoid vibration which can cause bleeding and segregation. Shut down nearby machines.

The air, mix & substrate temperatures should all be between 40°F (4.4°C) and 90°F (32.2°C).

CURING:

SAKRETE Construction Grout can be exposed under normal weathering conditions. Forms may be removed as soon as the grout reaches its final set. Protect from freezing for a minimum of 48 hours after placement. ACI 308-Standard Practice for Curing Concrete.

STORAGE:

Store in a tightly closed container off the floor in a dry place.

COVERAGE:

50 lbs. covers 0.45 cu. ft. (12.7 L)

PACKAGING:

50 lb. bag (22.7 kg) UPC: 7-64661-16350-3

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The Pro's Choice Since 1936

Non-Shrink Construction Grout

ENVIRONMENTAL ADVISORY:

Uncured or crushed cured cement is an environmental hazard, which may adversely affect fish and wildlife. Dispose of construction debris containing cement, including empty bags, at a permitted municipal disposal firm. Do not use crushed concrete as a fill near an aquatic habitat.

WARNING! CAUSES IRRITATION - Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Exposure may result in irritation of the skin, eyes or nasal passages from alkali in Portland cement. When wet, contact with the skin or eyes may result in irritation or burns. **FIRST AID:** In case of eye contact, flush immediately with plenty of water for at least 15 minutes and get prompt medical attention; for skin, wash thoroughly with plenty of soap and water. If irritation persists, get medical attention. **WARNING! HARMFUL IF INHALED** - Avoid breathing dust. Keep container closed. Use with adequate ventilation. Excessive exposure by inhalation over an extended period of time may result in the development of pulmonary diseases including pneumoconiosis and silicosis. Crystalline Silica has been classified by IARC and NTP as a carcinogen.

LIMITED PRODUCT WARRANTY

The manufacturer warrants that this product shall be of merchantable quality when used or applied in accordance with the manufacturer's instructions. This product is not warranted as suitable for any purpose other than the general purpose for which it is intended. This warranty runs for one (1) year from the date the product is purchased. ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED TO THE DURATION OF THIS WARRANTY. Liability under this warranty is limited to replacement of defective product or, at the manufacturer's option, refund of the purchase price. CONSEQUENTIAL AND INCIDENTAL DAMAGES ARE NOT RECOVERABLE UNDER THIS WARRANTY.

The SAKRETE Companies
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