

# **FIRESTOP SUBMITTAL PACKAGE**

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## ***SPECSEAL® CAST-IN FIRESTOP DEVICE***

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**PROJECT:**

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**SUBMITTED BY:**



# CAST-IN FIRESTOP DEVICE

<b>SYSTEM</b>	<b>DESCRIPTION</b>
F-A-1110	Max 6" steel or iron pipe, max 6" copper pipe or tube, max 6" steel conduit or EMT. 3 Hr.
F-A-1117	One or more max 3" steel or iron pipe, max 3" copper pipe or tube, max 3" conduit, max 3" EMT. 3 Hr. W Rating (Class 1).
F-A-1118	Max 4" steel or iron pipe, max 4" copper pipe or tube, max 4" conduit, max 4" EMT. 2 Hr. Equal F & T. W Rating (Class 1).
F-A-2203	One or more max 1" PVC, CPVC, PEX, RNC, OFR, ENT. 3 Hr F Rating. 3 Hr T Rating. W Rating (Class 1).
F-A-2204	Max. 1-1/2" PEX tube (closed). 3 Hr F Rating. 3 Hr T Rating. W Rating (Class 1).
F-A-2192	Max. 6" PVC, CPVC, ABS, FRPP (DWV or closed), RNC. 3 Hr T Rating. 3 Hr F Rating.
F-A-3055	Electrical, Telephone or Data Cables (max 40% fill). 3 Hr F Rating. W Rating (Class 1).
F-A-5041	Max 2" steel or iron pipe, max 2" copper pipe or tube with max 1" thick fiberglass insulation. 3 Hr F Rating. W Rating (Class 1).
F-A-7020	Max 4" round steel duct. 3 Hr F Rating. W Rating (Class 1).
F-A-8036	Multiple AC Line Sets with 1" pipes, 3/4" AB/PVC, thermostat wire and optional 1-1/4" PVC line. 3 Hr F Rating. W Rating (Class 1).

## General Certificate of Conformance

### Product Data Sheets

SpecSeal Cast-In Firestop Device

### Material Safety Data Sheets

SpecSeal Cast-In Firestop Device



Specified  
Technologies  
Inc.

200 Evans Way, Suite 2  
Somerville, NJ 08876  
Phone: (908) 526-8000  
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## GENERAL CERTIFICATE of CONFORMANCE

**Description: SpecSeal® CAST-IN FIRESTOP DEVICE**

**Catalog Numbers:**

CD200, CD200M, CD300, CD300M, CD400, CD400M

These products are tested to the following standards where applicable:

**ASTM STANDARD:**

E814 Fire Tests of Through-Penetration Firestops

E119 Fire Tests of Building Construction and Materials

**UL STANDARD:**

1479 Fire Tests of Through-Penetration Firestops

263 Fire Tests of Building Construction and Materials

**Chemical Content Statement:**

No asbestos, PCB's, or water-soluble intumescent ingredients are used or contained in these products.

J.P. Stahl Jr., CFPS  
Director of Engineering

January 20, 2009

Date

Paul M. Jankowski  
Quality Control Manager

January 20, 2009

Date





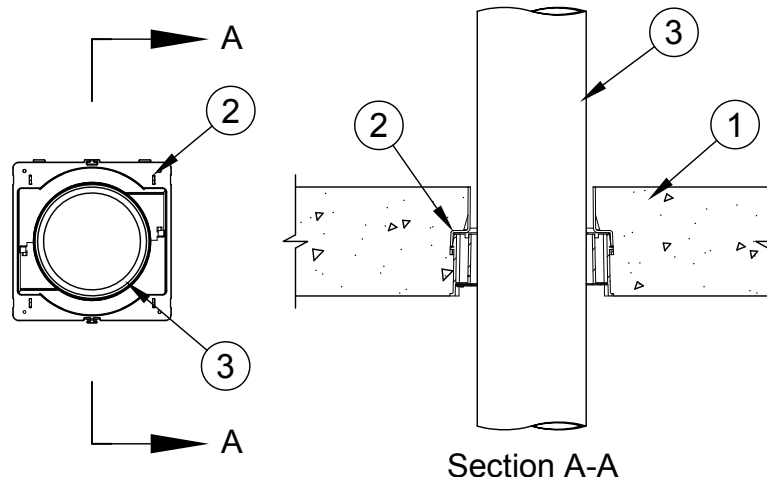
## **System No. F-A-1110**

F Rating - 3 Hr

T Ratings - 1/4 and 1 Hr (See Item 2)

L Rating At Ambient - Less Than 1 CFM/sq ft (See Item 4)

L Rating At 400 F - Less Than 1 CFM/sq ft (See Item 4)



1. **Floor Assembly** - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete floor.
- 1A. **Floor Assembly** - (Not Shown) - As an alternate to Item 1, the fire rated unprotected concrete and steel floor assembly shall be constructed of the material and in the manner specified in the individual D900 Series designs in the UL Fire Resistance Directory and as summarized below:
  - A. **Concrete** - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete topping, as measured from the top plane of the steel floor units.
  - B. **Steel Floor and Form Units\*** - Composite or non-composite max 3 in. (76 mm) deep galv steel fluted units as specified in the individual Floor-Ceiling Design.
2. **Firestop Device\*** - Cast in place firestop device permanently embedded during the concrete pour or grouted into the concrete assembly in accordance with the accompanying installation instructions. The throat of the firestop device may be cut flush with the top surface of the floor or extend beyond the top surface of the floor. **When throat of firestop device extends less than 3 in. (76 mm) above top of floor, T Rating is 1/4 hr. When throat of firestop device extends min 3 in. (76 mm) above top of floor, T Rating is 1 hr.**

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD200, CD200M, CD300, CD300M, CD400, CD400M CD600, or CD600M Cast In Firestop Device.

- 2A. **Firestop Device\*** - (Not Shown) - When Item 1A is used, a steel deck adapter kit consisting of steel plates and a nonmetallic extension tube shall be used in conjunction with Item 2. The deck adapter shall be installed in accordance with the accompanying installation instructions.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD200DK, CD300DK, CD400DK or CD600DK Cast In Firestop Device Deck Adapter



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2B. **Firestop Device\*** - (Not Shown) - When the concrete floor slab or concrete topping thickness over steel deck exceeds 8 in. (203 mm), a nonmetallic extension tube shall be used in conjunction with Item 2. The extension tube shall be installed in accordance with the accompanying installation instructions. The extension tube may be cut flush with the top surface of the floor or extend beyond the top surface of the floor.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD200X, CD300X, CD400X or CD600X Cast In Firestop Device Extension

3. **Through Penetrant** - One metallic pipe, tube or conduit to be centered within the firestop system. Pipe, conduit or tube to be rigidly supported on both sides of the floor assembly. The following types and sizes of through penetrant may be used:
- A. **Steel Pipe** - Nom 6 in. (152 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
  - B. **Iron Pipe** - Nom 6 in. (152 mm) diam (or smaller) cast or ductile iron pipe.
  - C. **Conduit** - Nom 6 in. (152 mm) rigid steel conduit or steel electrical metallic tubing (EMT).
  - D. **Copper Pipe or Tubing** - Nom 4 in. (102 mm) diam (or smaller) Type M (or heavier) copper tubing or Regular (or heavier) copper pipe.

Nom Pipe Diam+	Firestop Device
1-1/2 or 2 in. (38 or 51 mm )	CD200 or CD200M
2-1/2 or 3 in. (64 or 76 mm )	CD300 or CD300M
3-1/2 or 4 in. (89 or 102 mm )	CD400 or CD400M
6 in. (152 mm )	CD600 or CD600M

4. **Fill, Void, or Cavity Material\* - Putty** - (Optional, Not Shown) - Min 1 in. (25 mm) depth of fill material applied to fill annulus between penetrant and throat of firestop device at top of floor. **L Ratings apply only when putty fill material is used.**

**SPECIFIED TECHNOLOGIES INC** - SpecSeal Putty

\*Bearing the UL Classification Mark

+Bearing the UL Listing Mark



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## **System No. F-A-1117**

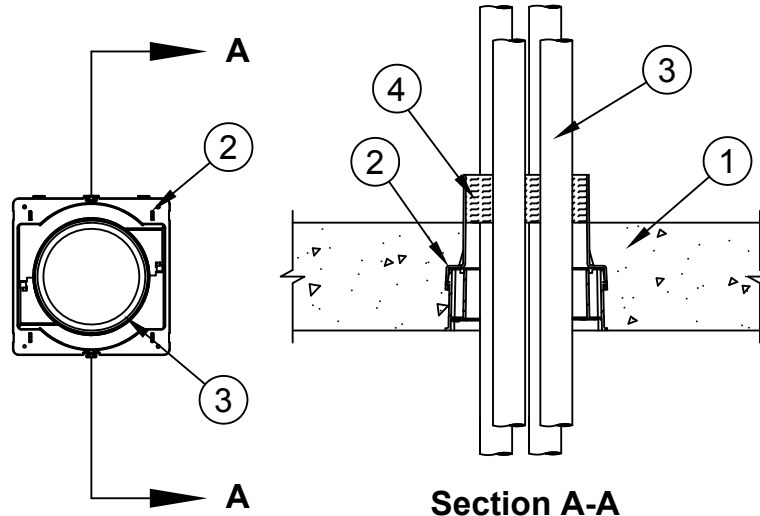
F Rating - 3 Hr

T Rating - 1/4 and 1 Hr (See Item 2)

L Rating At Ambient - Less Than 1 CFM/sq ft (See Item 5)

L Rating At 400 F - Less Than 1 CFM/sq ft (See Item 5)

W Rating - Class 1 (See Item 5)



1. **Floor Assembly** - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete floor.
- 1A. **Alternate Floor Assembly** - (Not Shown) - The fire rated unprotected concrete and steel floor assembly shall be constructed of the material and in the manner specified in the individual D900 Series designs in the UL Fire Resistance Directory and as summarized below:
  - A. **Concrete** - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete, as measured from the top plane of the steel floor units.
  - B. **Steel Floor and Form Units\*** - Steel Floor and Form Units\* - Composite or non-composite max 3 in. (76 mm) deep galv steel fluted units as specified in the individual Floor-Ceiling Design.
- 2A. **Firestop Device\*** - Cast in place firestop device permanently embedded during the concrete pour or grouted into the concrete assembly in accordance with the accompanying installation instructions. The throat of the firestop device may be cut flush with the top surface of the floor or extend beyond the top surface of the floor. When throat of firestop device extends less than 3 in. (76 mm) above top of floor, T Rating is 1/4 hr. When throat of firestop device extends min 3 in. (76 mm) above top of floor, T Rating is 1 hr.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD200, CD200M, CD300, CD300M, CD400 or CD400M Cast In Firestop Device

- 2B. **Firestop Device\*** - (Not Shown) - When the concrete thickness exceeds 8 in. (204 mm), a nonmetallic extension tube is used in conjunction with Item 2. Install the extension tube in accordance with the accompanying installation instructions.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD200X, CD300X, or CD400X Cast In Firestop Device Extension



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3. **Through Penetrants** - One or more metallic pipes, tubing, or conduits to be installed within the firestop system. Annular space between pipes, conduits, or tubing and periphery of opening shall be min 0 in. (0 mm) (point contact) to max 2 in. (51 mm). Annular space between pipes, conduits, or tubing to be min 1/8 in. (3 mm) to max 2 in. (51 mm). Pipes, tubing, or conduits to be rigidly supported on both sides of the floor assembly. The following types and sizes of the metallic pipes or conduits may be used:
- A. **Steel Pipes** - Nom 3 in. (102 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
  - B. **Iron Pipes** - Nom 3 in. (102 mm) diam (or smaller) cast or ductile iron pipe.
  - C. **Conduit** - Nom 3 in. (102 mm) rigid steel conduit or steel electrical metallic tubing (EMT).
  - D. **Copper Pipes or Tubing** - Nom 3 in. (102 mm) diam (or smaller) Type M (or heavier) or Regular (or heavier) copper pipe or tube.
4. **Packing Material** - Min 2 in. (51 mm) thickness of min 4 pcf (64 kg/m<sup>3</sup>) mineral wool firmly packed into device flush with top edge of device (Item 2). When W Ratings are required, recess mineral wool 1/4 in. (6 mm) from top edge of device to accommodate sealant (Item 5).
5. **Fill, Void, or Cavity Material\*** - (Optional, Not Shown) - Min 1/4 in. (6 mm) depth of fill material applied to fill annulus between penetrant and throat of firestop device at top of floor. L and W Ratings apply only when fill material is used.

**SPECIFIED TECHNOLOGIES INC** - Pensil 300 Silicone Sealant or Pensil 300SL Silicone Sealant

\*Bearing the UL Classification Mark



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### **System No. F-A-1118**

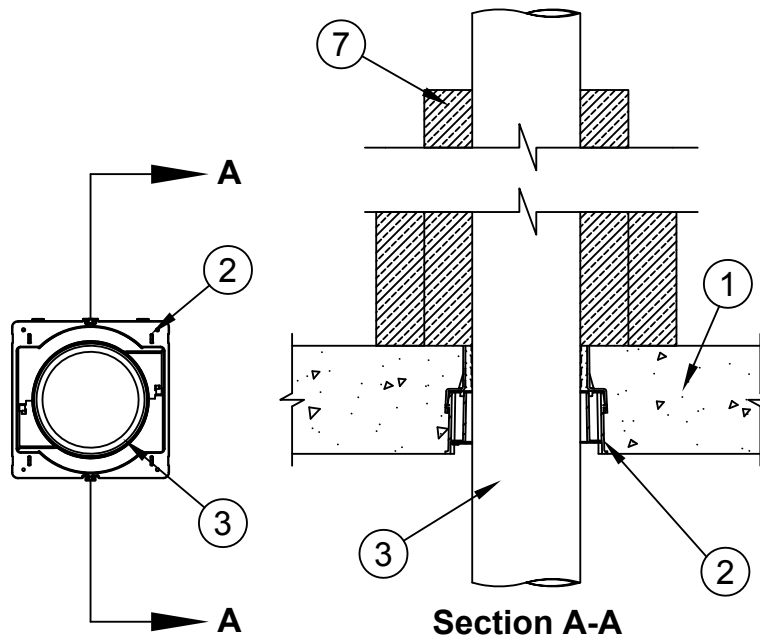
F Rating - 2 Hr

T Rating - 2 Hr

L Rating At Ambient - Less Than 1 CFM/sq ft (See Item 6)

L Rating At 400 F - Less Than 1 CFM/sq ft (See Item 6)

W Rating - Class 1 (See Item 6)



1. **Floor Assembly** - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete floor.
- 1A. **Alternate Floor Assembly** - (Not Shown) - The fire rated unprotected concrete and steel floor assembly shall be constructed of the material and in the manner specified in the individual D900 Series designs in the UL Fire Resistance Directory and as summarized below:
  - A. **Concrete** - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete, as measured from the top plane of the steel floor units.
  - B. **Steel Floor and Form Units\*** - Steel Floor and Form Units\* - Composite or non-composite max 3 in. (76 mm) deep galv steel fluted units as specified in the individual Floor-Ceiling Design.
2. **Firestop Device\*** - Cast in place firestop device permanently embedded during the concrete pour or grouted into the concrete assembly in accordance with the accompanying installation instructions. The throat of the firestop device may be cut flush with the top surface of the floor or extend beyond the top surface of the floor.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD200, CD200M, CD300, CD300M, CD400 or CD400M Cast In Firestop Device

- 2A. **Firestop Device\*** - (Not Shown) - When Item 1A is used, a steel deck adapter kit consisting of steel plates and a nonmetallic extension tube is used in conjunction with Item 2. Install the deck adapter in accordance with the accompanying installation instructions.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD200DK, CD300DK, or CD400DK Cast In Firestop Device Deck Adapter



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2B. **Firestop Device\*** - (Not Shown) - When the concrete thickness exceeds 8 in. (204 mm), a nonmetallic extension tube is used in conjunction with Item 2. Install the extension tube in accordance with the accompanying installation instructions.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD200X, CD300X, or CD400X Cast In Firestop Device Extension

3. **Through Penetrants** - One metallic pipe, tube, or conduit to be installed within the firestop system. Pipe or conduit to be rigidly supported on both sides of the floor assembly. The following types and sizes of the metallic pipes or conduits may be used:
- A. **Steel Pipes** - Nom 4 in. (102 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
  - B. **Iron Pipes** - Nom 4 in. (102 mm) diam (or smaller) cast or ductile iron pipe.
  - C. **Conduit** - Nom 4 in. (102 mm) rigid steel conduit or steel electrical metallic tubing (EMT).
  - D. **Copper Pipes or Tubing** - Nom 4 in. (102 mm) diam (or smaller) Type M (or heavier) or Regular (or heavier) copper pipe or tube.

Nom Pipe Diam+	Firestop Device
1-1/2 to 2-1/2 in. (38 to 64 mm)	CD200 and CD200M
2 to 3-1/2 in. (51 to 76 mm)	CD300 and CD300M
3 to 4 in. (76 to 102 mm)	CD400 and CD400M

+When metallic pipe, conduit, or tubing with diam smaller than those shown in the table above are used, fill material or packing material shall be installed into the device as described within Item 4 and 5.

4. **Packing Material** - (Not Shown) - When required under Item 3, min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m<sup>3</sup>) mineral wool firmly packed into device flush with top edge of device (Item 2). When W Ratings are required, recess mineral wool 1/4 in. (6 mm) from top edge of device to accommodate sealant (Item 6).
5. **Fill, Void, or Cavity Material\*** - Putty - (Not Shown) - When required under Item 4, as an option to Item 4, min 1 in. (25 mm) depth of fill material applied within device flush with top edge of device (Item 2).

**SPECIFIED TECHNOLOGIES INC** - SpecSeal Putty

6. **Fill, Void, or Cavity Material\*** - (Optional, Not Shown) - Min 1/4 in. (6 mm) depth of fill material applied to fill annulus between penetrant and throat of firestop device at top of floor. L and W Ratings apply only when fill material is used.

**SPECIFIED TECHNOLOGIES INC** - Pensil 300 Silicone Sealant or Pensil 300SL Silicone Sealant

7. **Duct Wrap Material\*** - Nom 2 in. (51 mm) thick duct wrap tightly wrapped around penetrant to extend 36 in. (914 mm) above floor. An additional layer of nom 2 in. (51 mm) thick duct wrap tightly wrapped around the first layer of duct wrap to extend 12 in. (305 mm) (914 mm) above floor. All longitudinal seams of both layers of duct wrap are sealed with foil tape.

**THERMAL CERAMICS INC** - FireMaster® Duct Wrap 2x2, FireMaster Duct Wrap 2x2+, FireMaster FastWrap XL, or Pyroscat Duct Wrap XL

\*Bearing the UL Classification Mark

+Bearing the UL Listing Mark



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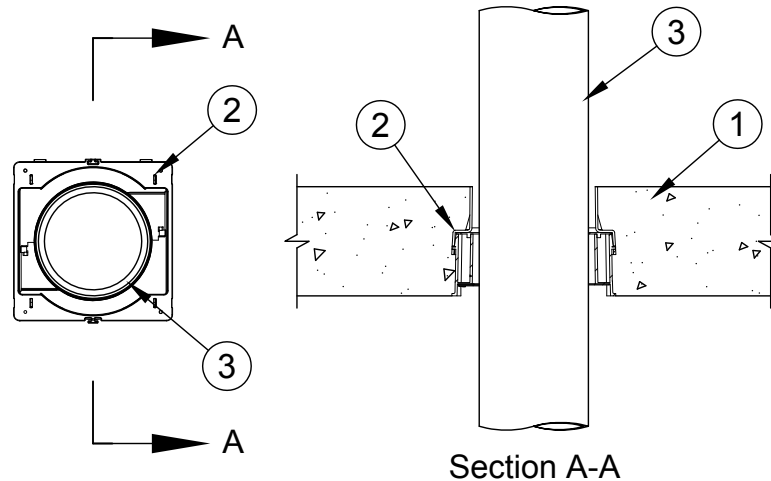
## **System No. F-A-2192**

F Rating - 3 Hr

T Ratings - 0 and 3 Hr (See Item 3)

L Rating At Ambient - Less Than 1 CFM/sq ft (See Item 7)

L Rating At 400 F - Less Than 1 CFM/sq ft (See Item 7)



1. **Floor Assembly** - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete floor.
- 1A. **Floor Assembly** - (Not Shown) - As an alternate to Item 1, the fire rated unprotected concrete and steel floor assembly shall be constructed of the material and in the manner specified in the individual D900 Series designs in the UL Fire Resistance Directory and as summarized below:
  - A. **Concrete** - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete floor.
  - B. **Steel Floor and Form Units\*** - Composite or non-composite max 3 in. (76 mm) deep galv steel fluted units as specified in the individual Floor-Ceiling Design.
2. **Firestop Device\*** - Cast in place firestop device permanently embedded during the concrete pour or grouted into the concrete assembly in accordance with the accompanying installation instructions. The devices may be cut flush or extend above the top surface of the floor.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD200, CD300, CD400 or CD600 Cast In Firestop Device

- 2A. **Firestop Device\*** - (Not Shown) - When Item 1A is used, a steel deck adapter kit consisting of steel plates and a nonmetallic extension tube is used in conjunction with Item 2. Install the deck adapter in accordance with the accompanying installation instructions.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD200DK, CD300DK, CD400DK or CD600DK Cast In Firestop Device Deck Adapter

- 2B. **Firestop Device\*** - (Not Shown) - When the concrete thickness exceeds 8 in. (203 mm), a nonmetallic extension tube is used in conjunction with Item 2. Install the extension tube in accordance with the accompanying installation instructions.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD200X, CD300X, CD400X or CD600X Cast In Firestop Device Extension



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3. **Through Penetrants** - One nonmetallic pipe or conduit to be installed within the firestop system. Pipe or conduit to be rigidly supported on both sides of the floor assembly. The following types and sizes of the nonmetallic pipes or conduits may be used:
- A. **Polyvinyl Chloride (PVC) Pipe** - Nom 6 in. (152 mm) diam (or smaller) solid or cellular core Schedule 40 polyvinyl chloride (PVC) pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems. **When PVC pipe is used, T Rating is 3 hr.**
  - B. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** - Nom 6 in. (152 mm) diam (or smaller) SDR 13.5 chlorinated polyvinyl chloride (CPVC) pipe for use in closed (process or supply) piping systems. **When CPVC pipe is used, T Rating is 3 hr.**
  - C. **Rigid Nonmetallic Conduit+** - Nom 6 in. (152 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with the National Electrical Code (NFPA 70). **When PVC conduit is used, T Rating is 3 hr.**
  - D. **Acrylonitrile Butadiene Styrene (ABS) Pipe** - Nom 4 in. (102 mm) diam (or smaller) solid or cellular core Schedule 40 acrylonitrile butadiene styrene (ABS) pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems. **When ABS pipe is used, T Rating is 3 hr.**
  - E. **Fire Retardant Polypropylene (FRPP) Pipe** - Nom 4 in. (102 mm) diam (or smaller) solid or cellular core Schedule 40 fire retardant polypropylene (FRPP) pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems. **When FRPP pipe is used, T Rating is 0 hr.**

Nom Pipe Diam+	Firestop Device
1-1/2 or 2 in. (38 or 51 mm )	CD200
2-1/2 or 3 in. (64 or 76 mm )	CD300
3-1/2 or 4 in. (89 or 102 mm )	CD400
6 in. (152 mm )	CD600

4. **Fill, Void, or Cavity Material\* - Putty** - (Optional, Not Shown) - Min 1 in. (25 mm) depth of fill material applied to fill annulus between penetrant and throat of firestop device at top of floor. **L Ratings apply only when putty fill material is used.**

**SPECIFIED TECHNOLOGIES INC** - SpecSeal Putty

\*Bearing the UL Classification Mark

+Bearing the UL Listing Mark



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## **System No. F-A-2203**

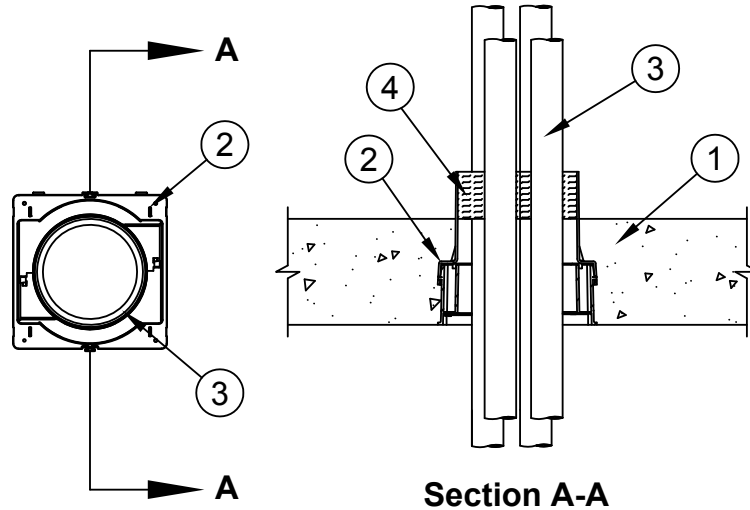
F Rating - 3 Hr

T Ratings - 3 Hr

L Rating At Ambient - Less Than 1 CFM/sq ft (See Item 5)

L Rating At 400 F - Less Than 1 CFM/sq ft (See Item 5)

W Rating - Class 1 (See Item 5)



1. **Floor Assembly** - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete floor.
- 1A. **Alternate Floor Assembly** - (Not Shown) - The fire rated unprotected concrete and steel floor assembly shall be constructed of the material and in the manner specified in the individual D900 Series designs in the UL Fire Resistance Directory and as summarized below:
  - A. **Concrete** - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete, as measured from the top plane of the steel floor units.
  - B. **Steel Floor and Form Units\*** - Steel Floor and Form Units\* - Composite or non-composite max 3 in. (76 mm) deep galv steel fluted units as specified in the individual Floor-Ceiling Design.
2. **Firestop Device\*** - Cast in place firestop device permanently embedded during the concrete pour or grouted into the concrete assembly in accordance with the accompanying installation instructions. The throat of the firestop device may be cut flush with the top surface of the floor or extend beyond the top surface of the floor.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD200, CD300, or CD400 Cast In Firestop Device

- 2A. **Firestop Device\*** - (Not Shown) - When Item 1A is used, a steel deck adapter kit consisting of steel plates and a nonmetallic extension tube is used in conjunction with Item 2. Install the deck adapter in accordance with the accompanying installation instructions.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD200DK, CD300DK, or CD400DK Cast In Firestop Device Deck Adapter



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- 2B. **Firestop Device\*** - (Not Shown) - When the concrete thickness exceeds 8 in. (204 mm), a nonmetallic extension tube is used in conjunction with Item 2. Install the extension tube in accordance with the accompanying installation instructions.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD200X, CD300X, or CD400X Cast In Firestop Device Extension

3. **Through Penetrants** - One or more nonmetallic pipes, tubing, or conduits to be installed within the firestop system. Annular space between pipes, conduits, or tubing and periphery of opening shall be min 0 in. (0 mm) (point contact) to max 2 in. (51 mm). Annular space between pipes, conduits, or tubing to be min 1/8 in. (3 mm) to max 1 in. (25 mm). Pipes, tubing, or conduits to be rigidly supported on both sides of the floor assembly. The following types and sizes of the metallic pipes or conduits may be used:
- A. **Polyvinyl Chloride (PVC) Pipe** - Nom 1 in. (25 mm) diam (or smaller) Schedule 40 solid or cellular core PVC pipe for use in vented (drain, waste, or vent) or closed (process or supply) piping systems.
  - B. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** - Nom 1 in. (25 mm) diam (or smaller) SDR11 CPVC pipe for use in closed (process or supply) piping systems.
  - C. **Rigid Nonmetallic Conduit+** - Nom 1 in. (25 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with the National Electrical Code (NFPA 70).
  - D. **Crosslinked Polyethylene (PEX) Tubing** - Nom 1 in. (25 mm) diam (or smaller) SDR 9 PEX tubing for use in closed (process or supply) piping systems.
  - E. **Optical Fiber Raceways (OFR)+** - Nom 1 in. (25 mm) diam (or smaller) optical fiber raceway (innerduct) formed of PVC or PVDF installed in accordance with the National Electrical Code (NFPA 70).
  - F. **Electrical Nonmetallic Tubing (ENT)+** - Nom 1 in. (25 mm) diam (or smaller) ENT formed of PVC installed in accordance with the National Electrical Code (NFPA 70).
4. **Packing Material** - Min 2 in. (51 mm) thickness of min 4 pcf (64 kg/m<sup>3</sup>) mineral wool firmly packed into device flush with top edge of device (Item 2). When W Ratings are required, recess mineral wool 1/4 in. (6 mm) from top edge of device to accommodate sealant (Item 5).
5. **Fill, Void, or Cavity Material\*** - (Optional, Not Shown) - Min 1/4 in. (6 mm) depth of fill material applied to fill annulus between penetrant and throat of firestop device at top of floor. L and W Ratings apply only when fill material is used.

**SPECIFIED TECHNOLOGIES INC** - Pensil 300 Silicone Sealant or Pensil 300SL Silicone Sealant

\*Bearing the UL Classification Mark

+Bearing the UL Listing Mark



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### **System No. F-A-2204**

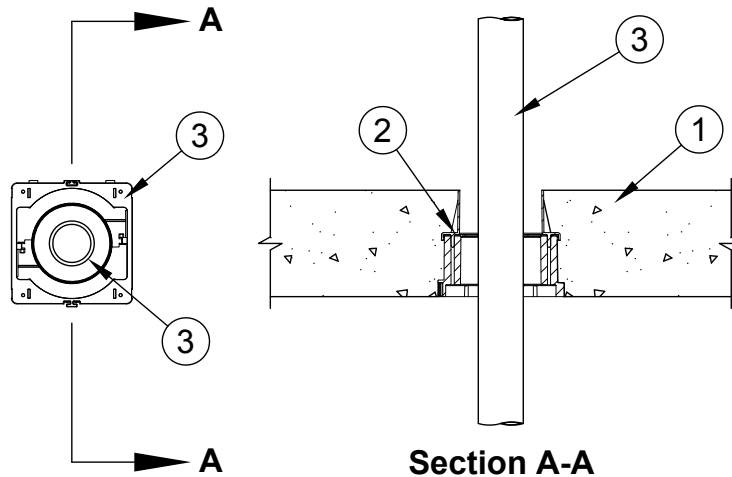
F Rating - 3 Hr

T Rating - 3 Hr

L Rating At Ambient - Less Than 1 CFM/sq ft (See Item 4 and 6)

L Rating At 400 F - Less Than 1 CFM/sq ft (See Item 4 and 6)

W Rating - Class 1 (See Item 4 and 6)



1. **Floor Assembly** - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete floor.
- 1A. **Alternate Floor Assembly** - (Not Shown) - The fire rated unprotected concrete and steel deck floor assembly shall be constructed of the material and in the manner specified in the individual D900 Series designs in the UL Fire Resistance Directory and as summarized below:
  - A. **Concrete** - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete, as measured from the top plane of the steel floor units.
  - B. **Steel Floor and Form Units\*** - Composite or non-composite max 3 in. (76 mm) deep galv steel fluted units as specified in the individual Floor-Ceiling Design.
2. **Firestop Device\*** - Cast in place firestop device permanently embedded during the concrete pour or grouted into the concrete assembly in accordance with the accompanying installation instructions. The devices may be cut flush or extend above the top surface of the floor.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD200 Cast In Firestop Device

- 2A. **Firestop Device\*** - (Not Shown) - When Item 1A is used, a steel deck adapter kit consisting of steel plates and a nonmetallic extension tube is used in conjunction with Item 2. Install the deck adapter in accordance with the accompanying installation instructions.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD200DK Cast In Firestop Device Deck Adapter

- 2B. **Firestop Device\*** - (Not Shown) - When the concrete thickness exceeds 8 in. (203 mm), a nonmetallic extension tube is used in conjunction with Item 3. Install the extension tube in accordance with the accompanying installation instructions.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD200X Cast In Firestop Device Extension



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3. **Cross Linked Polyethylene (PEX) Tubing** - Nom 1-1/2 in. (38 mm) diam (or smaller) SDR9 PEX tubing for use in closed (process or supply) piping systems. One nonmetallic tube to be installed within the firestop system. When nonmetallic tube with diam smaller than 1-1/2 in. (38 mm) is used, fill material or packing material shall be installed in the device as described in Items 4 and 5. Tube to be rigidly supported on both sides of the floor assembly.
4. **Packing Material** - (Optional, Not Shown) - When required under Item 3, min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m<sup>3</sup>) mineral wool firmly packed into device flush with top edge of device (Item 2). When W Rating is required, recess mineral wool 1/4 in. (6 mm) from top edge of device to accommodate sealant (Item 6).
5. **Fill, Void, or Cavity Material\* - Putty** - (Optional, Not Shown) - When required under Item 3, as an option to Item 4, min 1 in. (25 mm) depth of fill material applied within device flush with top edge of device (Item 2).

**SPECIFIED TECHNOLOGIES INC** - SpecSeal Putty

6. **Fill, Void, or Cavity Material\*** - (Optional, Not Shown) - To achieve L or W Ratings, apply min 1/4 in. (6 mm) depth of sealant atop packing material (Item 4) flush with top edge of device.

**SPECIFIED TECHNOLOGIES INC** - Pensil 300 Sealant, SpecSeal Series SIL300 Sealant or Pensil 300 SL Sealant or SpecSeal Series SIL300 Sealant

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## **System No. F-A-3055**

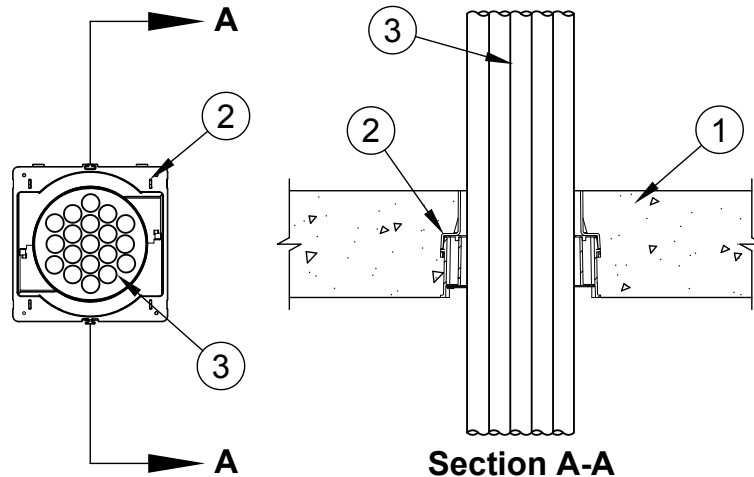
F Rating - 3 Hr

T Rating - 1/2 Hr

L Rating At Ambient - Less Than 1 CFM/sq ft (See Items 3, 4 and 6)

L Rating At 400 F - Less Than 1 CFM/sq ft (See Items 3, 4 and 6)

W Rating - Class 1 (See Items 3, 4 and 6)



1. **Floor Assembly** - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete floor.
- 1A. **Alternate Floor Assembly** - (Not Shown) - The fire rated unprotected concrete and steel deck floor assembly shall be constructed of the material and in the manner specified in the individual D900 Series designs in the UL Fire Resistance Directory and as summarized below:
  - A. **Concrete** - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete, as measured from the top plane of the steel floor units.
  - B. **Steel Floor and Form Units\*** - Composite or non-composite max 3 in. (76 mm) deep galv steel fluted units as specified in the individual Floor-Ceiling Design.
2. **Firestop Device\*** - Cast in place firestop device permanently embedded during the concrete pour or grouted into the concrete assembly in accordance with the accompanying installation instructions. The devices may be cut flush or extend above the top surface of the floor.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD200, CD200M, CD300, CD300M, CD400 or CD400M Cast In Firestop Device

- 2A. **Firestop Device\*** - (Not Shown) - When Item 1A is used, a steel deck adapter kit consisting of steel plates and a nonmetallic extension tube is used in conjunction with Item 2. Install the deck adapter in accordance with the accompanying installation instructions.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD200DK, CD300DK, or CD400DK Cast In Firestop Device Deck Adapter

- 2B. **Firestop Device\*** - (Not Shown) - When the concrete thickness exceeds 8 in. (203 mm), a nonmetallic extension tube is used in conjunction with Item 2. Install the extension tube in accordance with the accompanying installation instructions.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD200X, CD300X, or CD400X Cast In Firestop Device Extension



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3. **Cables** - Cables to be rigidly supported on both sides of the assembly. When L or W Ratings are required, aggregate cross-sectional area of cables in device to be max 40 percent of the cross-sectional area of the opening in device. Min separation between cables and between cables and periphery of opening is 1/8 in. (3 mm). See table below for max cable bundle diameter. Any combination of the following types and sizes of copper conductor cables may be used:
- A. Max 1/C 750 kcmil cable with crosslinked polyethylene (XLPE) jacket.
  - B. Max 7/C No. 12 AWG or max 12/C No. 14 AWG cable with XLPE insulation and jacket.
  - C. Max 400 pair No. 24 AWG cable with PVC or plenum-rated insulation and jacket.
  - D. Max 3/8 in. diam optical fiber communication cable with PVC or plenum-rated jacket.
  - E. Max 1/2 in. diam aluminum or steel armored optical fiber communication cable with PVC or plenum-rated jacket.
  - F. Max 4 pair No. 24 AWG Cat 5, Cat 5E or Cat 6 cable with PVC or plenum-rated jacket.
  - G. Coaxial cable with fluorinated ethylene insulation and jacket having a max diam of 5/8 in. (16 mm).

Max Cable Diam, in. (mm)	Firestop Device
2-3/8 (60)	CD200 and CD200M
3-1/2 (89)	CD300 and CD300M
4-1/2 (114)	CD400 and CD400M

+When cable bundle diam is smaller than those shown in the table above, fill material or packing material shall be installed into the device as described within Item 4 and 5.

- 4. **Packing Material** - (Not Shown) - When required under Item 3, min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m<sup>3</sup>) mineral wool firmly packed into device flush with top edge of device (Item 3). When W Ratings are required, min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m<sup>3</sup>) mineral wool firmly packed into the top of the device (Item 2) and recessed min 1/4 in. (6 mm) from top edge of device to accommodate for sealant (Item 6).
- 5. **Fill, Void, or Cavity Material\* - Putty** - (Not Shown) - When required under Item 3, as an option to Item 4, min 1 in. (25 mm) depth of fill material applied within device flush with top edge of device (Item 2).

**SPECIFIED TECHNOLOGIES INC** - SpecSeal Putty

- 6. **Fill, Void, or Cavity Material\*** - (Optional, Not Shown) - To achieve L or W Ratings, apply min 1/4 in. (6 mm) depth of sealant atop packing material (Item 4) flush with top edge of device with all interstices between cables filled.

**SPECIFIED TECHNOLOGIES INC** - Pensil 300 Sealant, SpecSeal Series SIL300 Sealant or Pensil 300 SL Sealant or SpecSeal Series SIL300 Sealant

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### **System No. F-A-5041**

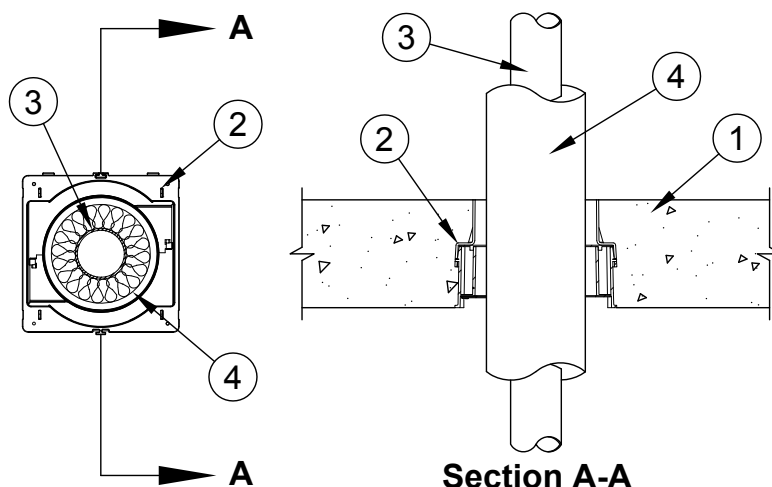
F Rating - 3 Hr

T Rating - 1 Hr

L Rating At Ambient - Less Than 1 CFM/sq ft (See Items 5 and 7)

L Rating At 400 F - Less Than 1 CFM/sq ft (See Items 5 and 7)

W Rating - Class 1 (See Items 4A, 5 and 7)



1. **Floor Assembly** - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete floor.
- 1A. **Alternate Floor Assembly** - (Not Shown) - The fire rated unprotected concrete and steel deck floor assembly shall be constructed of the material and in the manner specified in the individual D900 Series designs in the UL Fire Resistance Directory and as summarized below:
  - A. **Concrete** - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete, as measured from the top plane of the steel floor units.
  - B. **Steel Floor and Form Units\*** - Composite or non-composite max 3 in. (76 mm) deep galv steel fluted units as specified in the individual Floor-Ceiling Design.
2. **Firestop Device\*** - Cast in place firestop device permanently embedded during the concrete pour or grouted into the concrete assembly in accordance with the accompanying installation instructions. The devices may be cut flush or extend above the top surface of the floor.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD200, CD200M, CD300, CD300M, CD400 or CD400M Cast In Firestop Device

- 2A. **Firestop Device\*** - (Not Shown) - When Item 1A is used, a steel deck adapter kit consisting of steel plates and a nonmetallic extension tube is used in conjunction with Item 2. Install the deck adapter in accordance with the accompanying installation instructions.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD200DK, CD300DK, or CD400DK Cast In Firestop Device Deck Adapter

- 2B. **Firestop Device\*** - (Not Shown) - When the concrete thickness exceeds 8 in. (203 mm), a nonmetallic extension tube is used in conjunction with Item 2. Install the extension tube in accordance with the accompanying installation instructions.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD200X, CD300X, or CD400X Cast In Firestop Device Extension



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3. **Through Penetrants** - One metallic pipe or tube to be installed within the firestop system. Pipe or tube to be rigidly supported on both sides of the floor assembly. Penetrants to be rigidly supported on both sides of floor assembly. The following types and sizes of penetrants may be used.

- A. **Steel Pipe** - Nom 2 in. (25 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
- B. **Iron Pipe** - Nom 2 in. (25 mm) diam (or smaller) cast or ductile iron pipe.
- C. **Copper Pipe** - Nom 2 in. (25 mm) diam (or smaller) Regular (or heavier) copper pipe.
- D. **Copper Tube** - Nom 2 in. (25 mm) diam (or smaller) Type M (or heavier) copper tube.

Nom Pipe Diam+, in. (mm)	Nom Thickness of Pipe Insulation, in. (mm)	Firestop Device
1/2 (13)	1 (25)	CD200 and CD200M
1 (25)	1 (25)	CD300 and CD300M
1-1/4 (32)	1 (25)	CD300 and CD300M
2 (51)	1 (25)	CD400 and CD400M

+When nom diam of metallic pipe or tubing is smaller than that shown in the table, fill material or packing material shall be installed into the device as described within Item 5 and 6.

4. **Pipe or Tube Covering\*** - Nom 1 in. (25 mm) thick hollow cylindrical heavy density (min 3.5 pcf or 56 kg/m<sup>3</sup>) glass fiber units, jacketed on the outside with an all service jacket.

See **Pipe and Equipment Covering-Materials\*** (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 50 or less may be used.

- 4A. **PVC Jacket+** - (Optional, Not Shown) - When W Ratings are required, an additional PVC jacket, supplied in sheet form, shall be tightly wrapped around the all service jacket on the pipe covering when a W Rating is required. The longitudinal seam of the PVC jacket shall be continuously sealed using the adhesive supplied with the jacket. The jacket is to be nom 48 in. (1.22 m) wide by nom 20 or 30 mil (0.5 or 0.8 mm) thick. The PVC jacket shall be positioned with its top edge located 37 in. to 40 in. (0.94 to 1.02 m) above the top surface of the floor assembly and shall extend downward into and/or through the floor opening.

See **Plastics+** (QMFZ2) category in the Plastics Recognized Component Directory for names of manufacturers. Any Recognized Component plastic material meeting the above specifications and having a UL 94 Flammability Classification of 94-5VA may be used.

5. **Packing Material** - (Not Shown) - When required under Item 3, min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m<sup>3</sup>) mineral wool firmly packed into device flush with top edge of device (Item 3). When W Ratings are required, min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m<sup>3</sup>) mineral wool firmly packed into the top of the device (Item 2) and recessed min 1/4 in. (6 mm) from top edge of device to accommodate sealant (Item 6).
6. **Fill, Void, or Cavity Material\* - Putty** - (Not Shown) - When required under Item 3, as an option to Item 5, min 1 in. (25 mm) depth of fill material applied within device flush with top edge of device (Item 2).

**SPECIFIED TECHNOLOGIES INC** - SpecSeal Putty

7. **Fill, Void, or Cavity Material\*** - (Optional, Not Shown) - To achieve L or W Ratings, apply min 1/4 in. (6 mm) depth of sealant atop packing material (Item 4) flush with top edge of device.

**SPECIFIED TECHNOLOGIES INC** - Pensil 300 Sealant, SpecSeal Series SIL300 Sealant or Pensil 300 SL Sealant or SpecSeal Series SIL300 Sealant

\*Bearing the UL Classification Mark

+Bearing the UL Listing Mark



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### **System No. F-A-7020**

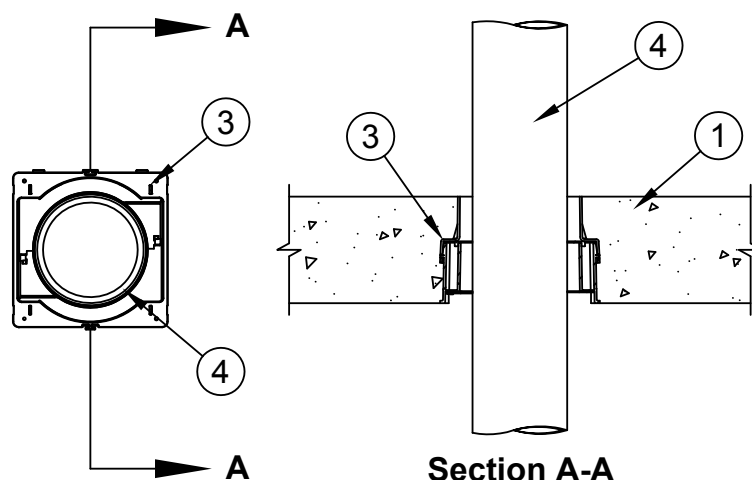
F Rating - 3 Hr

T Rating - 0 Hr

L Rating At Ambient - Less Than 1 CFM/sq ft (See Items 5 & 6)

L Rating At 400 F - Less Than 1 CFM/sq ft (See Items 5 & 6)

W Rating - Class 1 (See Items 4 & 6)



1. **Floor Assembly** - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete floor.
- 1A. **Alternate Floor Assembly** - (Not Shown) - The fire rated unprotected concrete and steel floor assembly shall be constructed of the material and in the manner specified in the individual D900 Series designs in the UL Fire Resistance Directory and as summarized below:
  - A. **Concrete** - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete, as measured from the top plane of the steel floor units.
  - B. **Steel Floor and Form Units\*** - Steel Floor and Form Units\* - Composite or non-composite max 3 in. (76 mm) deep galv steel fluted units as specified in the individual Floor-Ceiling Design.
2. **Firestop Device\*** - Cast in place firestop device permanently embedded during the concrete pour or grouted into the concrete assembly in accordance with the accompanying installation instructions. The throat of the firestop device may be cut flush with the top surface of the floor or extend beyond the top surface of the floor.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD400 or CD400M Cast In Firestop Device

- 2A. **Firestop Device\*** - (Not Shown) - When Item 1A is used, a steel deck adapter kit consisting of steel plates and a nonmetallic extension tube is used in conjunction with Item 2. Install the deck adapter in accordance with the accompanying installation instructions.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD400DK Cast In Firestop Device Deck Adapter



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2B. **Firestop Device\*** - (Not Shown) - When the concrete thickness exceeds 8 in. (204 mm), a nonmetallic extension tube is used in conjunction with Item 2. Install the extension tube in accordance with the accompanying installation instructions.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD400X Cast In Firestop Device Extension

3. **Steel Duct** - One nom 4 in. (102 mm) diam, No. 30 GA (or heavier) steel duct. Steel duct rigidly supported on both sides of assembly.
4. **Packing Material** - (Optional, Not Shown) - Min 4 in. (51 mm) thickness of min 4 pcf (64 kg/m<sup>3</sup>) mineral wool firmly packed into device flush with top edge of device (Item 2). When W Ratings are required, recess mineral wool 1/4 in. (6 mm) from top edge of device to accommodate sealant (Item 5).
5. **Fill, Void, or Cavity Material\*** - Putty - (Not Shown) - As an option to achieve L Ratings, min 1 in. (25 mm) depth of fill material applied within device flush with top edge of device (Item 2). Packing material (Item 4) not required when Item 5 is used.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal Putty

6. **Fill, Void, or Cavity Material\*** - (Optional, Not Shown) - Min 1/4 in. (6 mm) depth of sealant applied atop mineral wool (Item 4) flush with top edge of device. W Ratings apply only when fill material is used. Used as an option to Item 5 to achieve L Ratings.

**SPECIFIED TECHNOLOGIES INC** - Pensil 300 Silicone Sealant or Pensil 300SL Silicone Sealant

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## **System No. F-A-8036**

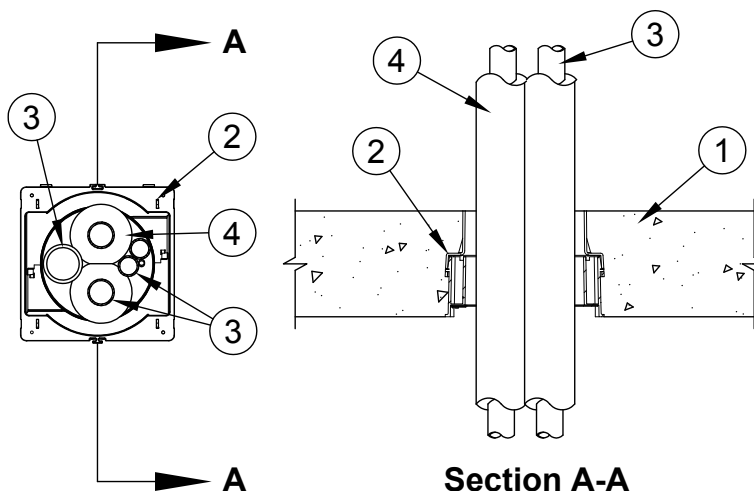
F Rating - 3 Hr

T Rating - 1/2 Hr

L Rating At Ambient - Less Than 1 CFM/sq ft (See Items 3, 5 and 6)

L Rating At 400 F - Less Than 1 CFM/sq ft (See Items 3, 5 and 6)

W Rating - Class 1 (See Items 3, 5 and 6)



1. **Floor Assembly** - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete floor.
- 1A. **Alternate Floor Assembly** - (Not Shown) - The fire rated unprotected concrete and steel deck floor assembly shall be constructed of the material and in the manner specified in the individual D900 Series designs in the UL Fire Resistance Directory and as summarized below:
  - A. **Concrete** - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete, as measured from the top plane of the steel floor units.
  - B. **Steel Floor and Form Units\*** - Composite or non-composite max 3 in. (76 mm) deep galv steel fluted units as specified in the individual Floor-Ceiling Design.
2. **Firestop Device\*** - Cast in place firestop device permanently embedded during the concrete pour or grouted into the concrete assembly in accordance with the accompanying installation instructions. The devices may be cut flush or extend above the top surface of the floor.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD200, CD200M, CD300, CD300M, CD400 or CD400M Cast In Firestop Device

- 2A. **Firestop Device\*** - (Not Shown) - When Item 1A is used, a steel deck adapter kit consisting of steel plates and a nonmetallic extension tube is used in conjunction with Item 2. Install the deck adapter in accordance with the accompanying installation instructions.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD200DK, CD300DK, or CD400DK Cast In Firestop Device Deck Adapter

- 2B. **Firestop Device\*** - (Not Shown) - When the concrete thickness exceeds 8 in. (203 mm), a nonmetallic extension tube is used in conjunction with Item 2. Install the extension tube in accordance with the accompanying installation instructions.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal CD200X, CD300X, or CD400X Cast In Firestop Device Extension



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3. **Through Penetrants** - Pipes, tubing or cable to be bundled within the device. The annular space between penetrants and the device is min 0 in. to max 3/4 in. (19 mm). To achieve L or W Rating, the min annular space is 1/8 in. (3 mm) and the min spacing between penetrants is 1/8 in. (3 mm). Penetrants to be rigidly supported on both sides of floor assembly. The following types and sizes of penetrants may be used.
- 3A. **Metallic Pipes** - A max of four pipes or tube installed within the device. Of the four metallic penetrants, a max of two may have a nom diam greater than 1/2 in. (13mm). The following types and sizes of metallic pipes, conduits or tubing may be used:
- A. **Steel Pipe** - Nom 1 in. (25 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
  - B. **Iron Pipe** - Nom 1 in. (25 mm) diam (or smaller) cast or ductile iron pipe.
  - C. **Copper Pipe** - Nom 1 in. (25 mm) diam (or smaller) Regular (or heavier) copper pipe.
  - D. **Copper Tube** - Nom 1 in. (25 mm) diam (or smaller) Type M (or heavier) copper tube.
- 3B. **Nonmetallic Pipes** - A max of one nonmetallic pipe or conduit may be used:
- A. **Polyvinyl Chloride (PVC) Pipe** - Nom 1-1/4 in. (32 mm) diam (or smaller) Schedule 40 solid core PVC pipe for use in vented (drain, waste or vent) or closed (process or supply) piping systems.
  - B. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** - Nom 1-1/4 in. (32 mm) diam (or smaller) SDR 13.5 CPVC pipe for use in closed (process or supply) piping systems.
- 3C. **Cables** - A max of two 4 pair No. 18 AWG (or smaller) thermostat cables with PVC insulation and jacket.
4. **Tube Insulation - Plastics#** - Nom 3/4 in. (19 mm) thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing. The tube insulation shall be installed on all metallic penetrants (Item 3A) having a nom diam greater than 1/2 in. (13 mm).

See **Plastics** (QMFZ2) category in the Plastics Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation meeting the above specifications and having a UL 94 Flammability Classification of 94-5VA may be used.

5. **Packing Material** - (Optional, Not Shown) - When L or W Rating is required, min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m<sup>3</sup>) mineral wool firmly packed into the top of the device (Item 2) and recessed min 1/4 in. (6 mm) from top edge of device to accommodate for sealant (Item 6).
6. **Fill, Void, or Cavity Material\*** - (Optional, Not Shown) - To achieve L or W Ratings, apply min 1/4 in. (6 mm) depth of sealant atop packing material (Item 5) flush with top edge of device.

**SPECIFIED TECHNOLOGIES INC** - Pensil 300 Sealant, SpecSeal Series SIL300 Sealant or Pensil 300 SL Sealant or SpecSeal Series SIL300 Sealant

\*Bearing the UL Classification Mark

+Bearing the UL Listing Mark



**Specified Technologies Inc. 200 Evans Way Somerville, NJ 08876**

Reproduced courtesy of Underwriters Laboratories, Inc.

Created or Revised: June 08, 2009

(800)992-1180 • (908)526-8000 • FAX (908)231-8415 • E-Mail:techserv@stifirestop.com • Website:www.stifirestop.com



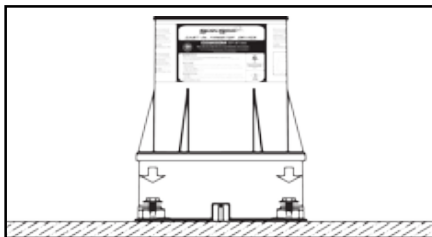
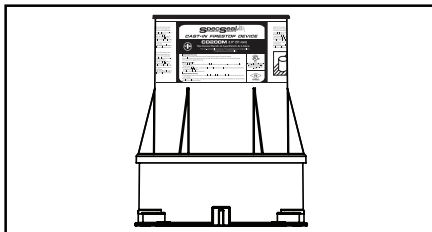
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PAGE 2 OF 2



## CAST IN FIRESTOP DEVICE

### APPLICATIONS

SpecSeal® Cast-In Firestop Devices are engineered for use in concrete floors to form firestopped openings for various through penetrating items including plastic or metal pipes, cables, and insulated pipes.



### PERFORMANCE

SpecSeal® Cast-In Firestop Devices have been successfully tested in accordance with ASTM E814 (ANSI/UL1479) in one, two, and three hour fire-rated floor assemblies. Consult factory for individual system designs and application requirements.

### SPECIFICATIONS

The firestop system shall be a molded plastic sleeve supplied with an intumescent firestopping system with an integral water and smoke resistant seal. The device shall be installed in accordance with the manufacturer's written instructions. The device shall also be classified by Underwriters Laboratories Inc. (UL) as a through-penetration firestop device when tested to ASTM E814 (ANSI/UL1479) for up to a 3 hr rating.

### PHYSICAL PROPERTIES

Table A:

PROPERTIES	CAST-IN FIRESTOP DEVICE
Shell Construction:	Polypropylene
Expansion Begins:	320° F (160° C)
Volume Expansion:	250X (free expansion)
In Service Temperature:	--
Shelf Life	None
Standard Height	8 in.

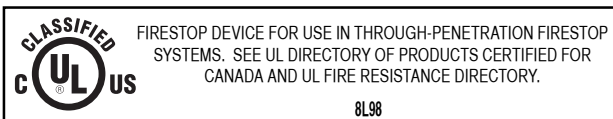
### PRODUCT DESCRIPTION

SpecSeal® Cast-In Firestop Devices consist of molded plastic sleeves incorporating an intumescent firestopping system and flexible smoke and water resistant seal secured with a steel retaining plate system. The molded plastic body can be easily cut as required to accommodate concrete thickness even in as little as 2-1/2 in. (64 mm) of concrete. The 2, 3, 4 and 6 in. (51, 76, 102 and 152 mm) devices are sized to accommodate pipes ranging from 1-1/2 to 6 in. (38 to 152 mm) trade size.

Accessories are available to adapt SpecSeal® Cast-In Firestop Devices to other uses. Available accessories include a steel deck kit to facilitate installation in fluted metal deck as well as extension tubes to lengthen the device for situations where the floor thickness is greater than 8 in. (204 mm).

### FEATURES

- Easy installation, eliminates core drilling
- Pipes can be installed from top or bottom
- Integral water and smoke resistant gasket
- Color coded for easy identification. Red for combustible or noncombustible penetrants; black for noncombustible penetrants
- Factory-metered dose of intumescence; eliminates guess work



### SPECIFIED DIVISIONS

Division	Section	Title
3	03 11 00	Concrete Forming
3	03 30 00	Cast-in-Place Concrete
7	07 84 00	Firestopping

Table B:

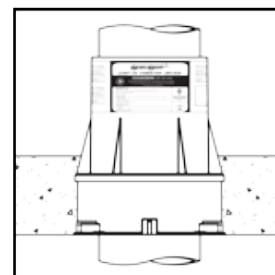
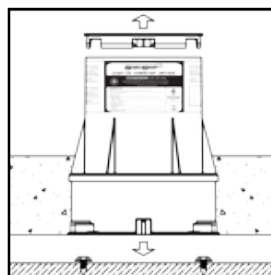
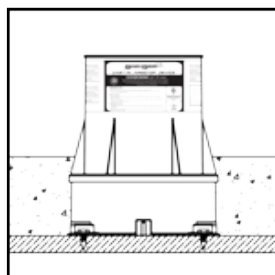
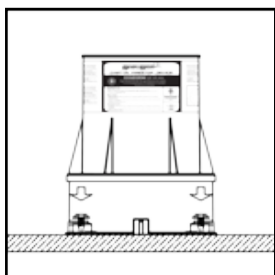
DIMENSIONS			
ID (in. mm)	Device Footprint (in. mm)	Deck Plate Footprint (in. mm)	Nom. Steel Deck Opening Size (in. mm)
2 (51)	5-1/8 x 5-1/8 (131 x 131)	5-1/8 x 10-3/8 (131 x 264)	3-5/8 (93)
3 (76)	5-3/4 x 5-3/4 (146 x 146)	5-3/4 x 11 (146 x 280)	4-1/4 (108)
4 (102)	6-3/4 x 6-3/4 (172 x 172)	6-3/4 x 12 (172 x 305)	5-1/4 (134)
6 (152)	9 x 9 (229 x 229)	9 x 15 (229 x 381)	7-1/4 (184)





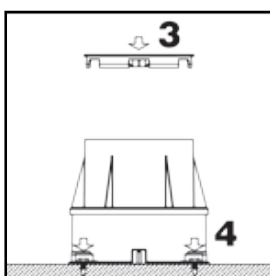
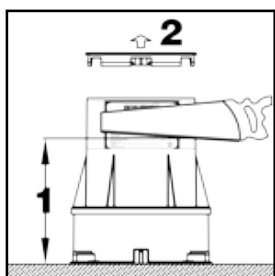
## INSTALLATION INSTRUCTIONS

The following steps represent a typical installation for SpecSeal® Cast-In Firestop Devices. See Table B for physical dimensions. Consult installation instructions for more specific information.

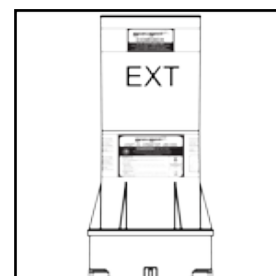
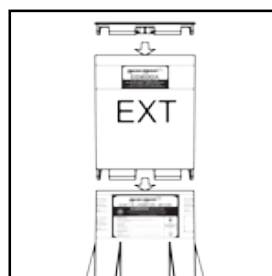


## OPTIONAL INSTALLATION INSTRUCTIONS

Cast-In Firestop Device may be cut to slab thickness prior to installation.

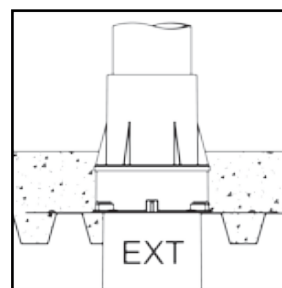
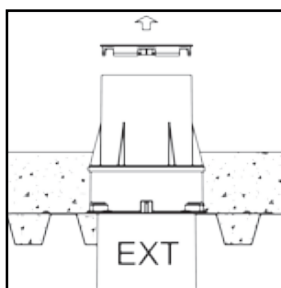
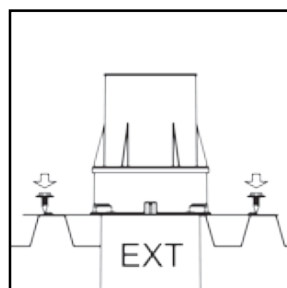
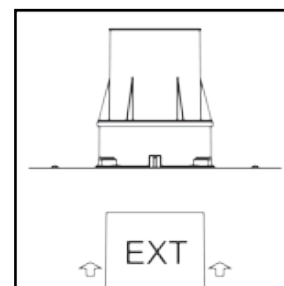
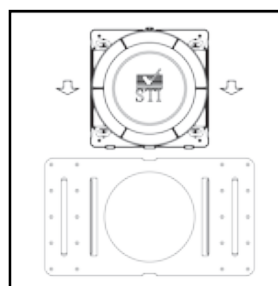
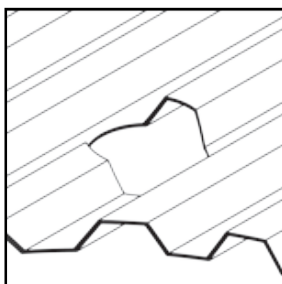
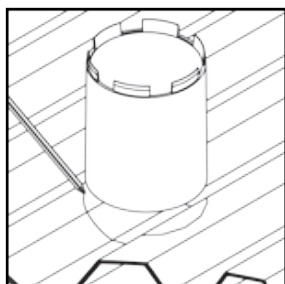


Extension may be added for thicker concrete flooring



## CONCRETE OVER STEEL DECK

Use appropriate Cast-In Firestop Device (see table above) with listed accessory per instructions included with products.



**DO NOT USE DEVICE FOR WALL APPLICATIONS**

## MAINTENANCE

Installations should be inspected periodically for subsequent damage. Any damage should be repaired using SpecSeal® products.

## TECHNICAL SERVICE

Specified Technologies Inc. provides toll free technical support to assist in product selection and appropriate installation design. UL Systems, Material Safety Data Sheets and other technical information is available at the Technical Library at [www.stifirestop.com](http://www.stifirestop.com).

## PRECAUTIONARY INFORMATION

No unusual hazards are known or expected. Observe normal safety procedures during installation.

## AVAILABILITY

SpecSeal® Cast-In Firestop Devices are available from authorized STI distributors worldwide. For information on where to buy, please visit [www.stifirestop.com](http://www.stifirestop.com) or call 800.992.1180.

### ORDERING INFORMATION

#### CATALOG NO. DESCRIPTION

#### Devices for Combustible and Noncombustible Penetrants

CD200	2" (51 mm) Trade Size Cast-In Firestop Device
CD300	3" (76 mm) Trade Size Cast-In Firestop Device
CD400	4" (102 mm) Trade Size Cast-In Firestop Device
CD600	6" (152 mm) Trade Size Cast-In Firestop Device

#### Devices for Noncombustible Penetrants

CD200M	2" (51 mm) Trade Size Cast-In Firestop Device
CD300M	3" (76 mm) Trade Size Cast-In Firestop Device
CD400M	4" (102 mm) Trade Size Cast-In Firestop Device
CD600M	6" (152 mm) Trade Size Cast-In Firestop Device

#### Extension Tubes

CD200X	2" (51 mm) Trade Size Extension Tube
CD300X	3" (76 mm) Trade Size Extension Tube
CD400X	4" (102 mm) Trade Size Extension Tube
CD600X	6" (152 mm) Trade Size Extension Tube

#### Deck Adapter Kits

CD200DK	2" (51 mm) Trade Size Metal Deck Adapter
CD300DK	3" (76 mm) Trade Size Metal Deck Adapter
CD400DK	4" (102 mm) Trade Size Metal Deck Adapter
CD600DK	6" (152 mm) Trade Size Metal Deck Adapter

IMPORTANT NOTICE: All statements, technical information, and recommendations contained herein are based upon testing believed to be reliable, but the accuracy and completeness thereof is not guaranteed.

#### WARRANTY

Specified Technologies Inc. manufactures its goods in a manner to be free of defects. Should any defect occur in its goods (within one year), Specified Technologies Inc., upon prompt notification, will at its option, exchange or repair the goods or refund the purchase price.

#### LIMITATIONS AND EXCLUSIONS:

THIS WARRANTY IS IN LIEU OF ALL OTHER REPRESENTATIONS EXPRESSED OR IMPLIED (INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR USE) AND UNDER NO CIRCUMSTANCES SHALL SPECIFIED TECHNOLOGIES INC. BE RESPONSIBLE FOR ANY INCIDENTAL OR CONSEQUENTIAL PROPERTY DAMAGE OR LOSSES. PRIOR TO USE, THE USER SHALL DETERMINE THE SUITABILITY OF THE PRODUCT FOR ITS INTENDED USE, AND THE USER ASSUMES ALL RISKS AND LIABILITY FOR SUBSEQUENT USE. No statement or recommendation not contained herein shall have any force or effect unless in an agreement signed by officers of seller and manufacturer.

STI is a member of the following organizations:



Specified Technologies Inc.  
THE FIRESTOP AUTHORITY

200 Evans Way • Somerville, NJ 08876 | Toll Free: 800-992-1180 • F: 908.526.9623



Technical Service 1-800-992-1180  
[www.stifirestop.com](http://www.stifirestop.com)

STI Product Data Sheet • Cast-In Firestop Device • FOD-5113 01/2009



# **Material Safety Data Sheet**

20-JANUARY-2009

## **SPECSEAL® CAST IN FIRESTOP DEVICE**

### **CHEMICAL PRODUCT/COMPANY IDENTIFICATION**

#### **Material Identification**

PRODUCT NAME	SPECSEAL® CAST IN FIRESTOP DEVICE
CHEMICAL FAMILY	Article

#### **Company Identification**

#### **MANUFACTURER/DISTRIBUTOR**

Specified Technologies Inc.  
200 Evans Way  
Somerville, NJ 08876

#### **PHONE NUMBERS**

Product Information : 1-908-526-8000  
Emergency : 1-800-255-3924

### **OTHER INFORMATION**

A Material Safety Data Sheet is not required on Specseal® Cast In Firestop Device due to the fact that this product is an "article" as defined within 29CFR 1910.1200. Accordingly, this product is exempt from OSHA Labeling/MSDS requirements.

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This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief accurate and reliable as of the data compiled. However, no representation, warranty, or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information.

#### **Responsibility for MSDS :**

Specified Technologies Inc.  
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Somerville, NJ 08876