

Specified Technologies, Inc.
Design No. STI/PF 120-06
Through Penetration
SpecSeal SSC Collar, SpecSeal RED2 WrapStrip,
SpecSeal LCI, SpecSeal SSP Putty
CAN/ULC S115 at 50 Pa (0.20" of H₂O)
Rating: See Table 1

Table 1. Ratings

Pipe Diam. (in.) ¹	Diam of Opening (in.) ¹	SSC Collar or Required # of Layers or Thickness (in.) ¹	Fasteners Required	Penetrating Item (Sch 40) ²	Rating (min)			
					F	FT	FH	FTH
1.5	2	SSC 150 or 1/4 x 1- 1/2 [2 Layers]	2	PVC, ccPVC, RNC	120	0	120	0
				ABS, ccABS	120	0	0	0
				XFR 15-50	120	0	0	0
2	2.5	SSC 200 or 1/4 x 1- 1/2 [2 Layers]	2	PVC, ccPVC, RNC	120	0	120	0
				ABS, ccABS	120	0	0	0
				XFR 15-50	120	0	0	0
3	4	SSC 300 or 1/4 x 1- 1/2 [3 Layers]	3	XFR 15-50, PVC, ccPVC, RNC	120	0	0	0
				ABS, ccABS	120	0	120	0
4	5	SSC 400 or 1/4 x 1- 1/2 [4 Layers]	3	CPVC, PVC, ccPVC, RNC,	120	0	120	0
				ABS, ccABS	120	0	120	0
				XFR 15-50	120	0	0	0

¹ Convert inches to millimeters multiply by 25.4.

² XFR 15/50 PVC, Proprietary Extra Fire Resistant Polyvinyl Chloride, CPVC-Chlorinated Polyvinyl Chloride, PVC-Polyvinyl Chloride, ccPVC Cellular Core Polyvinyl Chloride, RNC Rigid Non-metallic Conduit (Made of PVC Sch 40 or thinner), ABS-Acrylonitrile Butadiene Styrene, ccABS-Cellular Core Acrylonitrile Butadiene Styrene

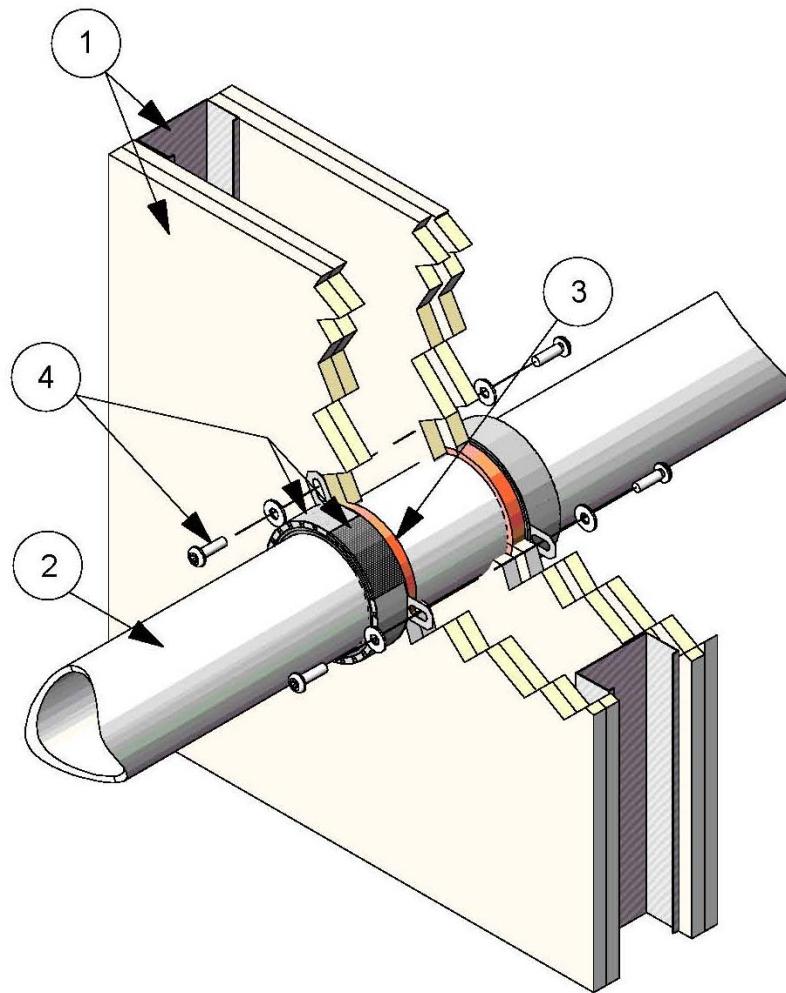


Figure 1. SpecSeal SSP or SpecSeal LCI

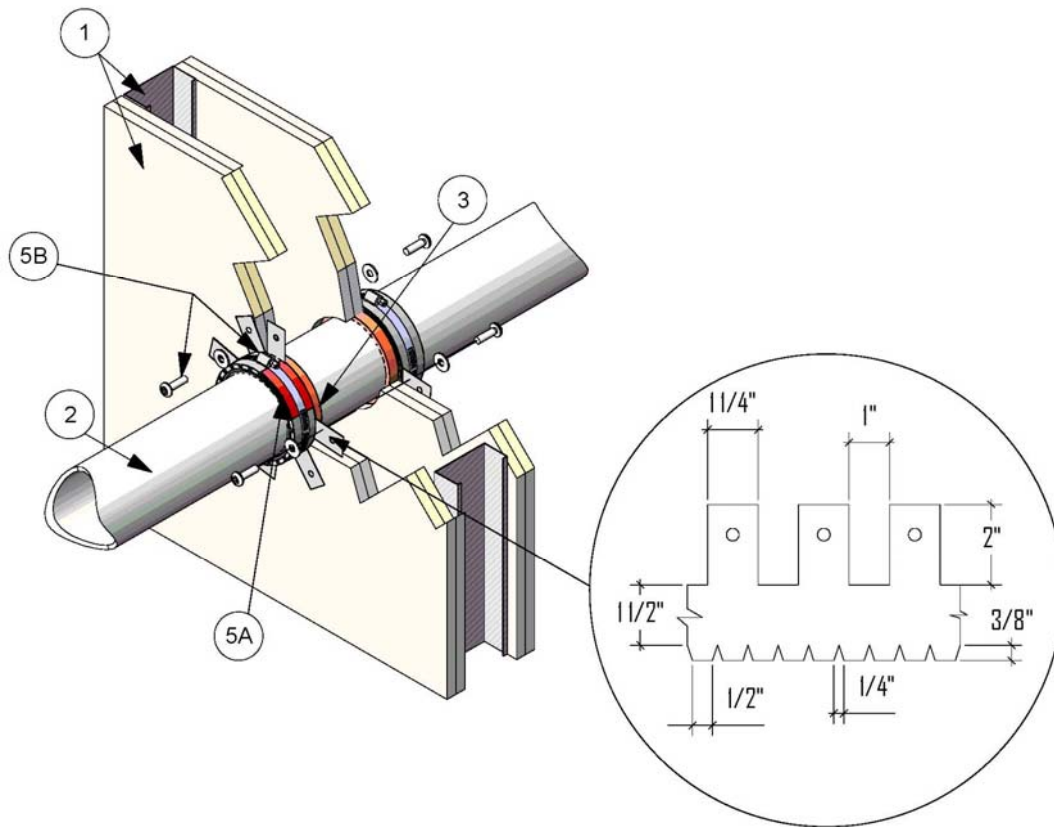


Figure 2. Optional Steel Collar and SpecSeal RED2 Wrap Strip with Hose Clamp

1. GYPSUM WALL ASSEMBLY – Use 2 hour fire rated wall assembly consisting of minimum 25 GA galvanized steel studs spaced maximum 24 in. (61mm) on center measuring 3-1/2 in. wide with 1-1/4 in. (32mm) legs. Attach studs with min. #6 x 3/8-inch (10mm) steel stud framing screws to channel shaped floor and ceiling tracks measuring 1/2-inch (13mm) deep by 3-1/2 in. (89mm) wide. Secure tracks to floor and ceiling with 1 in. (25mm) concrete fasteners spaced max. 18 in. (457mm) on center (oc). Secure floor and ceiling runners with min. 3 inch (76mm) concrete fasteners spaced max. 18 in. (457mm) oc. Cover studs and runners with two layers of 5/8 in. (16mm) thick, Type X gypsum wallboard on each face. Fasten the base layer

gypsum wallboard to steel studs with min. #6 1-1/4 in. (32mm) bugle head phillips fine thread drywall screws spaced max. 12 in. (305mm) on center. Fasten face layer of gypsum wallboard to steel studs with min. #6 1-7/8 in. (48mm) bugle head phillips fine thread drywall screws spaced max. 8 in. (203mm) on center. Joint Tape and Compound - vinyl or casein, dry or premixed joint compound applied to face layers of gypsum wallboard in two coats to all exposed screw heads and gypsum wallboard joints. A min. 2 in. (51mm) wide paper, plastic or fiberglass tape embedded in first layer of compound over joints in gypsum wallboard. Create a round through-opening with a diameter corresponding to the Penetrating Item



(Item 2) diameter as listed in the Table 1. - Use a two hour fire-rated floor/ceiling assembly consisting of min. 4-1/2 in. (114 mm) thick normal weight (100-150 pcf) reinforced concrete. Create a round through-opening with diameter in accordance with the Table 1.

- 2. PENETRATING ITEM** – Refer to the Table 1 for Penetrating Item type and size. Concentrically position in the opening made in the Wall Assembly (Item 1) a Schedule 40 pipe for use in vented or closed piping system. Establish an annular space between the Penetrating Item (Item 2) the edge of the opening in the Wall Assembly (Item 1) according to the Table 1.

- 3. CERTIFIED MANUFACTURER:** Specified Technologies Inc.

CERTIFIED PRODUCT: Sealant

MODEL: SpecSeal SSP Putty or SpecSeal LCI

FILL, VOID OR CAVITY MATERIAL – Apply a min. 5/8 in. (16mm) depth of sealant fill material in the annular space between the Wall Assembly (Item 1) and the Penetrating Item (Item 2) flush with both faces of the Wall Assembly (Item1).

- 4. CERTIFIED MANUFACTURER:** Specified Technologies Inc.

CERTIFIED PRODUCT: Prefabricated Intumescent Collar

MODEL: SpecSeal SSP Collar (see Table 1 for applications)

COLLAR – Install around the Penetrating Item (Item 2) in accordance with the accompanying installation instructions. Device incorporates anchor tabs for attachment to the wall surfaces of the Gypsum Wall Assembly (Item 1). Secure collar to wall surfaces with min. 1/4 in. by min. 2-3/4 in. (70 mm) long steel hollow wall anchors in conjunction with min. 1 in. (25 mm) diameter steel fender washers. The number of fasteners is dependent upon the nominal diameter of the Penetrating Item (Item 2). Refer to Table 1 for applicable number of fasteners

- 5. FIELD ADAPTED COLLAR AND WRAP ASSEMBLY** – Use the following as an alternative to Collar (Item 4).

- A. CERTIFIED MANUFACTURER:** Specified Technologies Inc.

CERTIFIED PRODUCT: Intumescent Wrap Strip

MODEL: SpecSeal RED2 Wrap Strip (see Table 1 for applications)

WRAP STRIP – As an alternate to Collar (Item 4) and in conjunction with Restraining Collar (Item 5B), nominal 1/8-in. (3mm) thick by 1-1/2 in. (38mm) wide SpecSeal RED2 Wrap Strips faced on both sides with a plastic film. Strips tightly wrapped around nonmetallic pipe with edges butted against the underside of the floor. The wrap strips may be installed with butted seams in successive layers aligned or offset or continuously wrapped around the Penetrating Item (Item 2). Temporarily



hold Wrap Strip layers in place with tape. See Table 1 for minimum number of layers required per nominal pipe size.

- B. **STEEL COLLAR** – As an alternate to Collar (Item 4) and in conjunction with Wrap Strip (Item 5A) use a nominal 1-1/2 in. (38mm) deep collar with 1 in. (25mm) wide by 2 in. (51mm) long anchor tabs for attachment to Gypsum Wall Assembly (Item 1) and min. 1/4 in. (6mm) wide retaining tabs located opposite the anchor tabs. Steel collar, with anchor tabs bent outward 90 degrees, wrapped tightly around wrap strip layers with min. 1 in. (25mm) overlap at seam. Retainer tabs to be bent 90 degrees toward pipe to lock wrap strips in position. Anchor

tabs to be pressed tightly against the wall surface(s). Collar to be secured in place with one 1/2 in. (13mm) wide by 0.028 in. (0.7mm) thick stainless steel hose clamp. As an alternate to the hose clamps, collar secured together by means of three No. 8 by 1/4 in. (6 mm) long steel screws. Collar to be secured to wall surfaces with min. 1/4 in. (6mm) by min. 2-3/4 in. (70 mm) long steel hollow wall anchors in conjunction with min. 1 in. (25 mm) diameter steel fender washers. The number of fasteners is dependent upon the nominal diameter of the Penetrating Item (Item 2). Refer to Table 1 for applicable number of fasteners.

Consult the listing report on the Directory of Building Products (<https://bpdirectory.intertek.com>) for the edition of the standard(s) evaluated.

Compliance of the assembly described in this Design Listing with the referenced standard relies on verification that the assembly constructed in the field is consistent with that described herein. Intertek certified products may be verified by the approved Intertek label; other products must be verified by the Authority Having Jurisdiction as meeting the specifications stated herein.