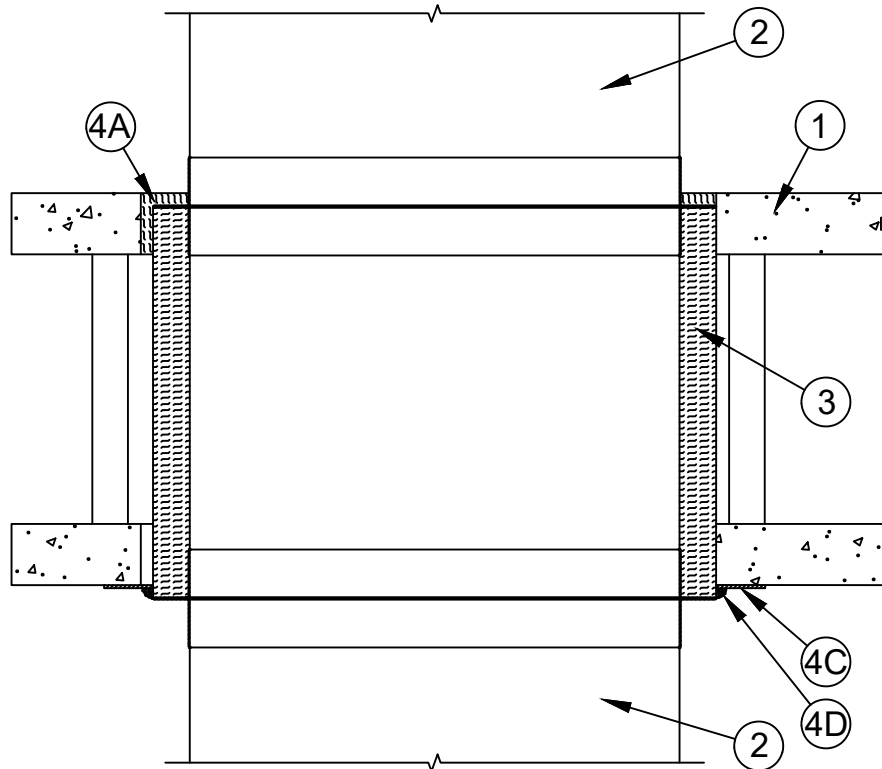




ANSI/UL1479	CAN/ULC S115
F Rating - 2 Hr	F Rating - 2 Hr
T Rating - 1-1/4 Hr	FT Rating - 1-1/4 Hr
	FH Rating - 2 Hr
	FTH - 1-1/4 Hr



- Precast Concrete Units (CFTV)*** - Precast, pre-stressed, dual deck units constructed in accordance with Floor-Ceiling Design No. K919. Max area of opening is 552 in.2 (0.36 m2) with a max dimension of 23-1/2 in. (597 mm).
FINFROCK INDUSTRIES INC - Type Dual Deck
- Coated Duct** - Max 20 by 20 in. (508 by 508 mm) No. 22 gauge (or heavier) steel duct coated with BW11 coating material to be installed concentrically or eccentrically within opening. Duct sections shall be assembled using bolted flanges or SMACNA approved Transverse Joint Reinforcements. Annular space between duct and periphery of opening shall be min 1-1/2 in. (38 mm) to max 2 in. (51 mm). Two sections of duct shall be connected together below the bottom surface of the precast concrete units. When duct connection is located more than 1/2 in. (13 mm) below bottom surface of precast unit, steel retaining angles (Item 4B) are required. Min 1.34 in. (34 mm) by 1.41 in. (36 mm) by 20 gauge prefabricated steel flanges shall be inserted on the end of both duct sections. Min 4.2 in. (107 mm) by 4.2 in. (107 mm) by 12 gauge prefabricated "L" shaped steel corner pieces shall be installed at each corner of the flanges on both sides of the connection. Corner pieces shall be attached together with 3/8 in. (10 mm) steel nuts and bolts at each corner. Duct to be rigidly supported on both sides of floor assembly.
FIRESPRAY INTERNATIONAL LTD - FLAMEBAR BW11 fire rated ductwork



Specified Technologies Inc. 210 Evans Way Somerville, NJ 08876

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3. **Batts and Blankets*** - Nom 1-1/2 in. (38 mm) thick mineral wool batt insulation, faced on one side with aluminum foil/scrim vapor retarder having a min density of 8 pcf (128 kg/m³). Single layer of mineral wool batt material installed on sections of duct located within the cavity space of the precast concrete units (Item 1), with all joints sealed with a 4 in. (102 mm) wide pressure sensitive aluminum foil tape at each transverse joint, insulation material shall be cut to provide an overlapping (strip lapped) joint of 1 in. (25 mm). Mineral wool batt insulation shall terminate flush with the top and bottom surfaces of the precast concrete units, or extend a max 1/2 in. (13 mm) below the top or bottom surfaces of the precast unit. Nom annular space between insulated steel duct and periphery of opening shall be min 0 in. (point contact max two adjacent sides) to max 1/2 in. (13 mm) prior to installation of packing material (Item 4A).

See **Batts and Blankets (BZJZ)** category in the **Fire Resistance Directory** or **Batts and Blankets*** (BKNV) category in the **Building Materials Directory** for names of manufacturers.

4. **Firestop System** - The firestop system shall consist of the following:

- A. **Packing Material** - At top of floor, min 2-1/2 in. (64 mm) thickness of min 4 pcf (64 kg/m³) mineral wool batt insulation firmly packed into annular space, flush with the top surface of the floor. If the batt insulation (Item 3) secured around the duct is recessed below the top surface of the precast unit then additional packing material shall be installed at these locations, flush with the top surface of the floor assembly.
- B. **Retaining Angles - (Not Shown)** - When duct connection is located more than 1/2 in. (13 mm) below bottom surface of precast unit, min 1-1/2 in. (38 mm) by 1-1/2 in. (38 mm) by 1/8 in. (3 mm) galv steel angles installed flush to max 1/2 in. (13 mm) below bottom surface of precast unit. Angles attached to all four sides of steel duct with min No. 10 by 1/2 in. (13 mm) long steel sheet metal screws located a max 1 in. (25 mm) from each end of steel duct and spaced a max 4 in. (102 mm) OC.
- C. **Fill, Void or Cavity Materials* - Composite Sheet** - Foil-faced sheet with galv steel sheet backer. Sheets may be installed as one solid sheet or composite sheet may also be installed as strips on each side of the penetrant with a min 2 in. (51 mm) overlap at corner locations. Composite sheet shall extend towards the penetrant to a position that matches the extent of the projection of the flanges or steel retaining angles off the surface of the duct. Sheets cut to lap a min of 2 in. (51 mm) on the floor surfaces. Sheet to be installed with the galv steel sheet backer exposed (aluminum foil facing against floor surface) and secured to floor surface with min 3/16 in. (5 mm) diam by 1-1/4 in. (32 mm) long steel concrete screws, min 0.145 in. (3.7 mm) diam by 1-1/4 in. (32 mm) long powder actuated fasteners in conjunction with min 1-1/4 in. (32 mm) diam steel fender washers, or min 0.145 in. (3.7 mm) diam by 3/4 in. (19 mm) long powder actuated fasteners in conjunction with min 1 in. (25 mm) diam steel fender washers. Fasteners installed 1 in. (25 mm) from each corner. Max spacing of fasteners not to exceed 6 in. (152 mm) on two sides of the penetrant. Additional fasteners are required at locations 3 in. (76 mm) from the fasteners installed at the corners on the two remaining sides. Composite sheet installed on bottom surface of floor.

SPECIFIED TECHNOLOGIES INC - SpecSeal CS Composite Sheet

- D. **Fill, Void or Cavity Material* - Sealant** - Min 3/8 in. (10 mm) diam bead of fill material applied at the composite sheet/penetrant interface on the bottom surface of floor.

SPECIFIED TECHNOLOGIES INC - SpecSeal Series SSS Sealant, SpecSeal LCI Sealant or SpecSeal SIL300 Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



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