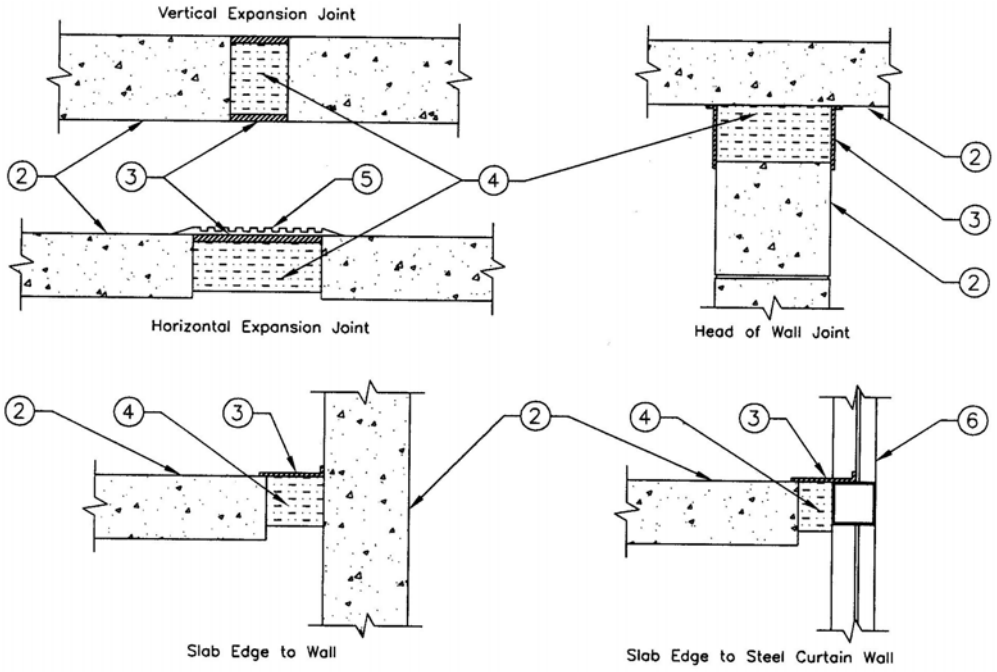
Intertek	4100NS 4100SL 5100SP	PFP/PHV 120-03

Horizontal or Vertical Expansion/Control Joints

Test Standards: ASTM E-814, UL 1479, UL 2079, ULC S115-M11
**L-Rating At Ambient < 1 CFM/Lin Ft
**L-Rating At 400° F < 1 CFM/Lin Ft
Test Furnace Internal Positive Pressure Differential – 2.5 Pa (0.01 in. of water) Minimum
Max. Joint Movement – Compression 1", Extension 0"
CSI Code: 07 84 43 Fire-Resistance Joints Sealants

Penetrating Material & Size	Max Width	Fire "F" Rating	Hose "FH" Rating	Temperature "FTH" Rating
Vertical & Horizontal Joints	6" (152 mm)	Up to 2 hours	Up to 2 hours	Up to 2 hours
Horizontal Joints with Metal Cover Plate	12" (305 mm)	Up to 2 hours	Up to 2 hours	Up to 2 hours
Horizontal Joints without Cover Plate	12" (305 mm)	Up to 2 hours	N/A	Up to 2 hours



System Design Instructions

1. **Penetrating Item:** For service penetrations see System Design PFP/PHV 120-01.
2. **Floor/Ceiling or Wall Assemblies:** ASTM E-119 and CAN/ULC S101 up to 2 hour rated floor/ceiling or wall assemblies conforming to as follows:
   a) Cast in place normal or light density concrete floor/ceiling assemblies having a minimum cross section thickness of 4 ½" (114mm) or;
   b) Cast in place concrete wall assemblies having a minimum cross section thickness of 6" (150mm) or;
   c) Hollow or concrete filled unit masonry (concrete block) wall assemblies laid up with mortar having a minimum cross section thickness of 8" (200mm).
3. **Firestop System Component 1:** PFP Partners – Firestop 4100NS* (non-sag) for vertical or horizontal applications or 4100SL* (self-leveling) for horizontal applications at a minimum wet film thickness ¼" (6mm) or 5100SP* (mastic) for vertical or horizontal applications sprayed into place with a minimum wet film thickness of 1/8" (3mm). Always overlap 5100SP* onto the surface of the substrate a minimum of ½" (13mm). Do not thin 5100SP* firestop mastic when spraying, use equipment capable of applying material as supplied.

4. **Fire System Component 2:** Filler material mineral rock wool or ceramic fiber insulation with a minimum density of 4-6 PCF (68 kg/m^3) compressed a minimum of 25% into the joint space at a minimum depth of 3-1/2" (88 mm). Recess filler material 1/4" (6 mm) for 4100* series sealant placement. On joints less than 1/4" (6 mm), filler material not required.
5. **Metal Cover Plate:** On expansion/control joints over 6" (150mm) in width, cover top surface of joint with minimum 18 gauge sheet metal or 3/16" (5mm) aluminum cover plate. Overlap cover plate onto the concrete a minimum of 1½" (37mm) on each side. Reliably fasten on 8" (400mm) centers one side of the cover plate only to the concrete surface to allow for expansion/contraction.
6. **Steel Curtain Wall:** This design was tested from concrete slab edge to simulated steel curtain wall. However, possible deflection of the curtain wall system due to fire exposure has not been evaluated. The design should ensure rigidity of the curtain wall system to prevent such movement.

***WH Labeled Component**

**** Leakage Test performed on 6 inch joint using 5100SP - cycled 500 times at 10 cycles/min - 16.7% compression and extension.**