



TECHNICAL BULLETIN 113

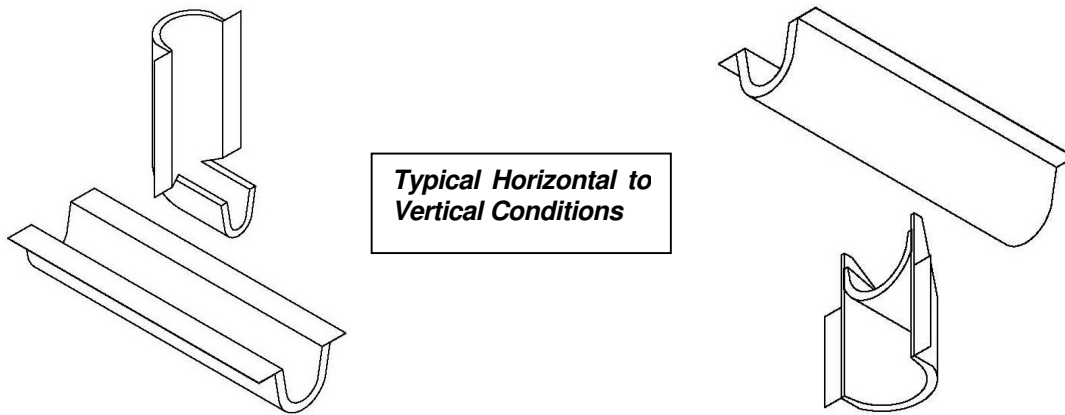
Subject: Transitions Between Fire Barriers by Different Manufacturers



*Pyro-Flex Floor and Wall Fire Barrier Systems
by MM Systems*

Expansion joint fire barriers are an important Life-Safety item. They serve as a key component of a structure's defense system against flame-spread and heat transfer as well as migration of toxic fumes and gases. Testing of fire barriers is done under the auspices of independent third-party agencies such as Intertek or Underwriters Laboratories who list the design and assign a rating. Proper installation of fire barriers is a vital step in maintaining the fire resistive characteristics of the barrier.

Very often, a building structure may require that both horizontal floor and vertical wall expansion joints be rated with a fire barrier. The barriers may intersect, requiring a field transition between the horizontal and vertical barriers.



Manufacturers, in conjunction with their independent third-party listing agency, develop very specific installation instructions on how to properly effect a field transition. Those instructions must be strictly followed for the application to be considered “rated”.

Serious issues arise when expansion joints and fire barriers are furnished by different manufacturers to different sub-trades. If fire barriers from different manufacturers occur where the joint openings intersect, a “liability gap” occurs.

FAQ’s Regarding Two Different Manufacturers Fire Barriers Intersecting

- **Is there a test standard for horizontal to vertical transitions?**

No. The current standard, ASTM E1966 (also known as UL 2079) provides no test methodology for testing transitions. Additionally, no code-recognized laboratory has a furnace configured for simultaneously testing a full-scale vertical barrier transitioning to a full-scale horizontal barrier.

- **With no test standard, how are a manufacturer’s transitions considered “rated”?**

The rating is based on an underlying engineering judgment developed by the manufacturer and reviewed by their independent third-party listing agency. Engineering judgments are born from years of experience in testing the performance characteristics of designs being evaluated. Transition details are unique to each manufacturer and may vary between specific styles.

- **I have fire barriers from different manufacturers intersecting. Can I simply choose a transition method from either manufacturer and still claim a rating?**

No. Manufacturers do not have the history and experience with other manufacturers designs to conduct a thoughtful engineering evaluation. Manufacturers will not assume the liability for a life-safety product they do not manufacture. Without the manufacturers’ express sanction, the transition would not be rated.

- **I can’t accept the liability of no rating. What are my options?**

Best Practice: Procure all the expansion joints and fire barriers from a single manufacturer. You will avoid a significant liability gap as well as reduce review and coordination problems during, submittals, field inspections, etc.

Alternate: Engage a design engineer to design a transition independent of the manufacturers and submit it to the authorities having jurisdiction for their approval. Whether the local authority would accept an unsanctioned third-party design is indeterminate.

- **I still have questions about my specific project. How can I obtain help?**

Contact your local MM representative (find them at www.mmsystemscorp.com) or contact MM directly at:

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