

# We've Got It Covered

AN EXPANSION JOINT COVER EDUCATIONAL SERIES

## Understanding Fire Rated Expansion Joints

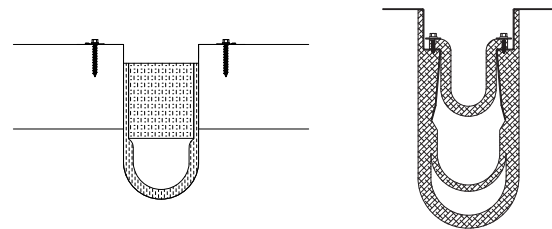
Fire rated expansion joints are necessary in order to maintain a building's safety and resiliency. Learn how to incorporate them without jeopardizing the life safety aspects of a building.

An expansion joint that runs through a building may interrupt a fire rated assembly. To maintain the integrity of the interrupted fire rated assembly and prevent the spread of fire, a tested and listed fire barrier should be incorporated.



### Block vs Drape Fire Barrier

Because fire barrier is dynamic - meaning it is meant to move - you always want to incorporate it in an expansion joint when required. There are two types of fire barrier that accommodate different movement criteria: block and drape.



	Block Fire Barrier <sup>1</sup>	Drape Fire Barrier
Joint Opening Size	4" - 6"	4" minimum opening*
Expansion / Contraction	50%	100%
Total Movement	100%	200%

*\*Drape fire barrier typically requires a minimum 4" opening to prevent damage to the system during seismic movement. If damaged, the fire barrier may not perform as it should in the event a fire breaks out after the seismic event.*



To ensure proper functionality of the expansion joint cover system, it is critical that fire barrier dimensions are considered when determining the final size of the expansion joint opening. Joints should never close to 0" when incorporating a fire barrier because it needs space to move in order to function properly. For example: if a joint with fire barrier closes to 0" during or after a seismic event, the barrier could be damaged, and a breach could occur in your passive fire protection. Refer to the chart for recommended minimum joint openings.

**Minimum joint width**

The narrowest linear gap that the joint is expected to close to.



**0" min joint width**

Nominal Joint	1"	2"	3"	4"	5"	6"	7"	8"+
Recommended Minimum Opening	0.5"	1"	1"	2"	2"	3"	3"	4"

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