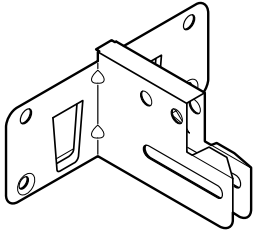


Perimeter Cross Tees with ACM7 Seismic Clip

ACM7 Seismic Clip



USG® offers numerous DONN® suspension systems cross tees designed to function with the USG ACM7 seismic clip in all seismic design categories A-F. Use this guide to ensure that the connection of the perimeter cross tees with the ACM7 seismic clip functions to meet the required seismic design criteria. Because codes continue to evolve, check with local officials prior to designing and installing a ceiling system.

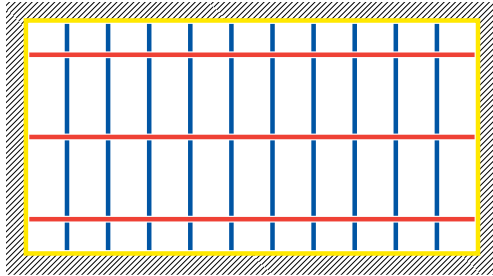
The ACM7 seismic clip is designed to function with a variety of main tee and cross tee profiles and dimensions. It is common practice to install the clip with cross tees that have a profile height of 1-1/2 in. or greater, however 2 ft. cross tees are produced with a profile height of 1 in. In a 2 ft. x 2 ft. layout, the 4 ft. cross tees are typically utilized at the perimeter and cut to size to meet the perimeter wall. This is an economical method as both ends of the 4 ft. cross tee can be used for cuts smaller than 2 ft. and produces no additional waste versus cutting a 2 ft. cross tee. The following layouts illustrate these differences.

Standard Non-Seismic Tee Patterns

KEY

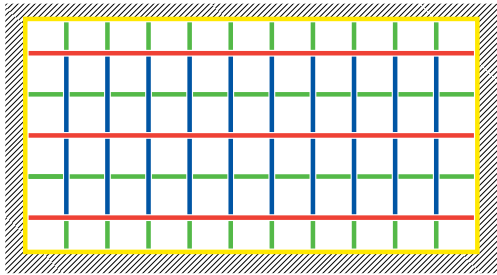
- Main Tee
- 4 ft. Cross Tee
- 2 ft. Cross Tee

**2 ft. x 4 ft.
Tee Layout**



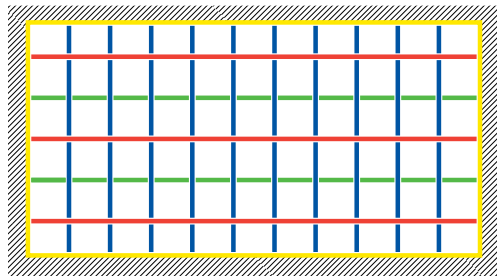
For a 2 ft. x 4 ft. ceiling layout, full-length main tees (red lines) are spaced 4 ft. on center (o.c.), as measured from the center of one tee to the center of the next, with 4 ft. cross tees (blue lines) installed perpendicular, 2 ft. o.c.

**2 ft. x 2 ft.
Tee Layout**





For a 2 ft. x 2 ft. ceiling layout, additional 2 ft. cross tees (green lines) are installed parallel to the main tees, and installed at the perimeter.

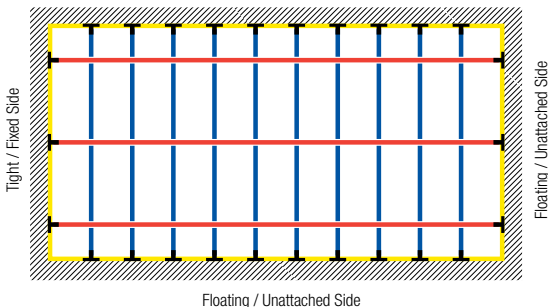
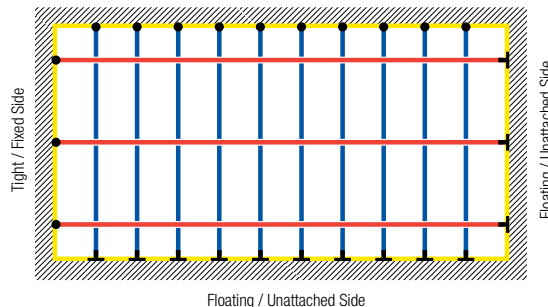
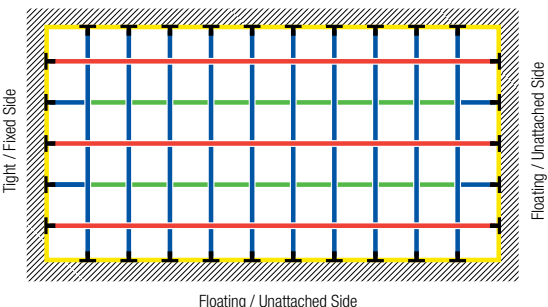
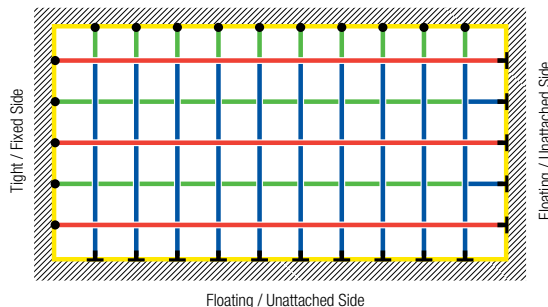
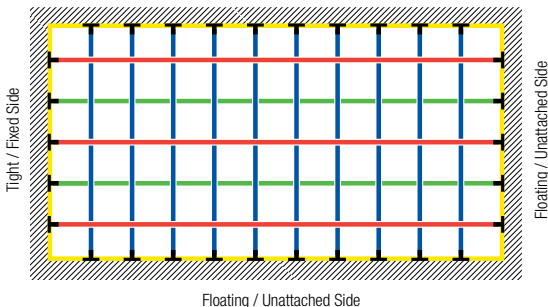
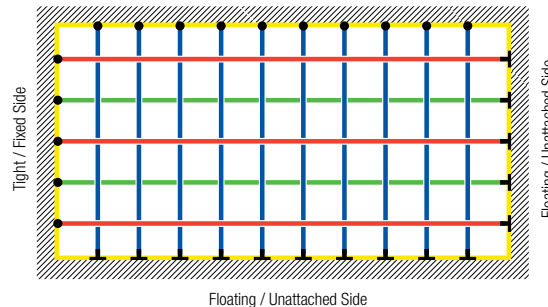
**2 ft. x 2 ft.
Tee Layout
(alternative)**



For this 2 ft. x 2 ft. ceiling layout, additional 2 ft. cross tees (green lines) are installed parallel to the main tees and 4 ft. cross tees are installed at the perimeter perpendicular to the main tees at 2 ft. o.c.

Standard Seismic Tee Patterns with USG ACM7 Seismic Clip

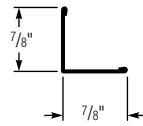
- KEY**
- Main Tee
 - 4 ft. Cross Tee
 - 2 ft. Cross Tee
 - Perimeter Trim
 -  USG ACM7 Seismic Clip
 - Pop Rivet
 -  Surrounding Wall

	USG ACM7 Seismic Clips	USG ACM7 Seismic Clips and Pop Rivets
2 ft. x 4 ft. Tee Layout	<p style="text-align: center;">Tight / Fixed Side</p>  <p style="text-align: center;">Floating / Unattached Side</p>	<p style="text-align: center;">Tight / Fixed Side</p>  <p style="text-align: center;">Floating / Unattached Side</p>
2 ft. x 2 ft. Tee Layout	<p style="text-align: center;">Tight / Fixed Side</p>  <p style="text-align: center;">Floating / Unattached Side</p>	<p style="text-align: center;">Tight / Fixed Side</p>  <p style="text-align: center;">Floating / Unattached Side</p>
2 ft. x 2 ft. Tee Layout (alternative)	<p style="text-align: center;">Tight / Fixed Side</p>  <p style="text-align: center;">Floating / Unattached Side</p>	<p style="text-align: center;">Tight / Fixed Side</p>  <p style="text-align: center;">Floating / Unattached Side</p>

USG ACM7 Seismic Clip

Tee Profile Details

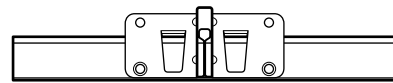
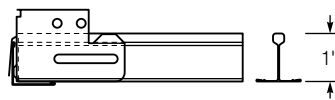
M7



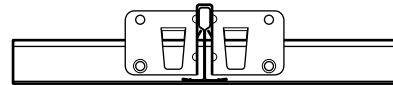
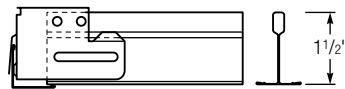
Side

Front

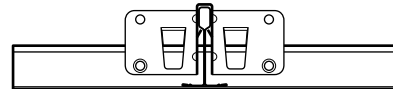
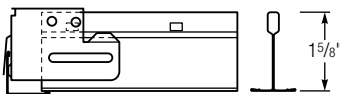
1 in. Tee Height



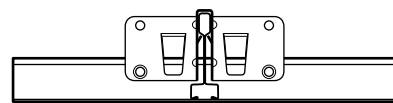
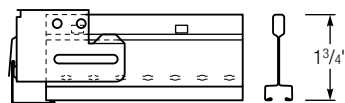
1-1/2 in. Tee Height



1-5/8 in. Tee Height



1-3/4 in. Tee Height



Note: $3/4$ in. gap shown is typical for seismic design categories D-F. $3/8$ in. gap is typical for seismic design category C.

USG ACM7 Seismic Clip

Perimeter Cross Tee Options

The ACM7 seismic clip is designed to function with a variety of main tee and cross tee profiles and dimensions. It is common practice to install the clip with cross tees that have a profile height of 1-1/2 in. or greater, however 2 ft. cross tees are produced with a profile height of 1 in. and in some instances 2 ft. cross tees are desired at the perimeter. For this application, the ACM7 seismic clip can function with 2 ft. cross tees that have a profile height of 1 in., however the connection is different versus tees that have a profile height of 1-1/2 in. or greater. Use the following guidelines to ensure that the connection of the 2 ft. perimeter cross tees with the ACM7 seismic clip functions to meet the required seismic design criteria.

1. Utilize 4 ft. cross tees for all perimeter tees. **Installation:** Standard

2. Utilize both 4 ft. and 2 ft. cross tees around the perimeter.

– 4 ft. Cross Tees with the USG ACM7 Seismic Clip:

Installation: Standard

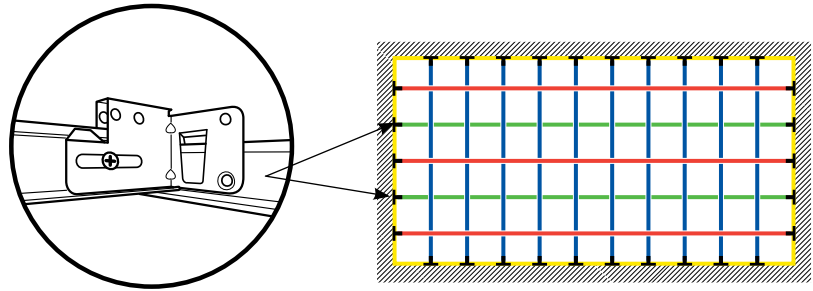
– 2 ft. Cross Tees with the USG ACM7 Seismic Clip:

Installation: The following seismic clip installation guidelines apply:

Seismic Designn Category C

Installation: Insert a Type S screw through the center of slot in the ACM7 seismic clip and through the web of the 2 ft. cross tee. The screw will provide vertical support of the tee-ends while allowing lateral movement. Do not tighten this screw as this will restrict the lateral movement of the tee.

Construction:

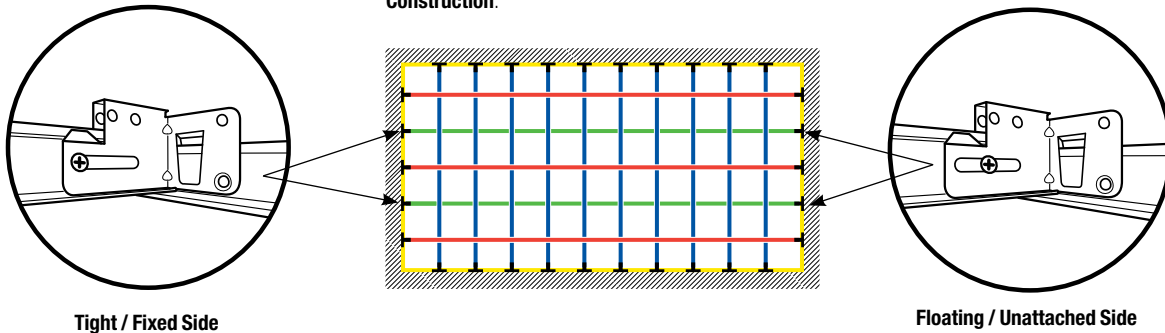


Seismic Disgn Category D, E & F

Installation: On the floating sides insert a Type S screw through the center of slot in the ACM7 seismic clip and through the web of the 2 ft. cross tee. The screw will provide vertical support of the tee-ends while allowing lateral movement. Do not tighten this screw as this will restrict the lateral movement of the tee.

On the tight or fixed sides insert a Type S screw through the end of the slot in the ACM7 seismic clip farthest away from the perimeter and through the web of the 2 ft. cross tee. This fastener will restrict any lateral movement of the tee. It is not necessary to tighten this screw..

Construction:



Product Information

See usg.com for the most up-to-date product information.

Installation

Must be installed in compliance with ASTM C636, ASTM E580, CISCA, and standard industry practices.

Code Compliance

The information presented is correct to the best of our knowledge at the date of issuance. Because codes continue to evolve, check with a local official prior to designing and installing a ceiling system. Other restrictions and exemptions may apply. This is only intended as a quick reference.

Purpose

This seismic technical guide (STG) is intended as a resource for design professionals, to promote more uniform criteria for plan review and jobsite inspection of projects. This STG indicates an acceptable method for achieving compliance with applicable codes and regulations, although other methods proposed by design professionals may be considered and adopted.

ICC Evaluation Service, Inc., Report Compliance

Suspension systems manufactured by USG Interiors, Inc., have been reviewed and are approved by listing in ICC-ES Evaluation Report 1222. Evaluation Reports are subject to reexamination, revision and possible cancellation. Please refer to usgdesignstudio.com or usg.com for current reports.

L.A. Research Report Compliance

DOWN brand suspension systems manufactured by USG Interiors, Inc., have been reviewed and are approved by listing in the following L.A. Research Report number: 25764.

Notice

We shall not be liable for incidental and consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instructions or for other than the intended use. Our liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing to us within thirty (30) days from date it was or reasonably should have been discovered.

Safety First!

Follow good safety/industrial hygiene practices during installation. Wear appropriate personal protective equipment. Read MSDS and literature before specification and installation.

