USG DONN® ADVANCESPAN, DXAS™ AND DXTAS™
CORRIDOR ACOUSTICAL SUSPENSION SYSTEM
INSTALLATION GUIDE
USG DONN®
ADVANCESPAN, DXAS™
AND DXTAS™
CORRIDOR ACOUSTICAL
SUSPENSION SYSTEM

OVERVIEW
USG Donn AdvanceSpan acoustical suspension systems are designed for use in corridors and other areas with crowded plenum spaces that make installing hanger wires difficult. The system is available in DXAS 15/16” and DXTAS 9/16” profiles. The main tees are compatible with all Donn DX/DXL and DXT/DXLT cross tees. The main tees are used in conjunction with the US44 reversible structural wall channel to span distances up to 8’ with no hanger wires.

COMPONENTS
ADVANCESPAN MAIN TEES

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ATTACHMENT CLIPS

US44 AdvanceSpan Reversible Structural Wall Channel Molding

ASMTTP: AdvanceSpan Main Tee Splice Plate

US44CC: AdvanceSpan Channel Clip

ASCBC: AdvanceSpan Cross Brace Clip
A1: Install the structural wall channel.
- The wall channel is reversible and can be installed with either the 1/2" leg or 1" leg on the bottom.
- Using drywall screws, attach the structural wall channel through the upper half of the body to each stud typically 16” or 24” max OC. Powder actuated fasteners or similar can be used for masonry or concrete walls.

A2: Install the main tees
- Measure from the center cross tee punch and trim the necessary amounts from each end of the main tee according to the corridor width. Adjust as needed to ensure the main tee center remains aligned with the ceiling panel layout (Figure 1).
- Bend the US44CC as shown in Figure 2 to from a right angle.
- Snap the US44CC into the wall channel with the two longer tabs down. If the 1/2" leg is on the lower side, bend the two long tabs up so that the clip to snaps in securely (Figure 3). Use a framing screw to attach the US44CC to the US44 Channel Molding in the upper screw hole. For masonry walls, attached the US44CC clip to the US44 channel molding through the top leg into the pilot hole on the top of the clip (Figure 3).
- Install the main tees by screw attaching the US44 channel clip to the web of the main tees through the hole on the upper tab (Figure 4).

Important: All main tees must be attached with US44 channel clips on each end.
- For distances exceeding maximum unsupported spans, install hanger wires on main tees, or use the AdvanceSpan cross brace clip method to provide intermediate support (Figure 9, 10).
- To join main tees together, use the ASMTP splice plate as shown in Figure 7. When splicing main tees together, ensure that the center to center cross tee punch spacing is maintained between tees. Trim main tee ends if necessary to maintain module spacing.
- For corridor intersections, use the ASMTP splice plate as shown in Figures 5, 6, 11, and 12. Figures 11 and 12 show typical three way and four way intersection framing layouts.

Note: The splice plate requires two screws on each main tee as shown.

A3: Install the infill cross tees using the appropriate DX/DXL or DXT/DXLT cross tees.
- The US44CC and be trimmed to provide additional clearance for tile installation if desired (Figure 15). The US44CC is compatible with 1-1/2" tall cross tees only.
NON-SEISMIC INSTALLATION INSTRUCTIONS CONT.

Figure 4

DXAS Main Tee with US44CC Channel Clip to US44 Wall Channel Attachment, Drywall Partition - Fixed

Figure 5

AdvanceSpan DXAS Main Tee Intersection with ASMTSP Splice Plate

Figure 6

AdvanceSpan DXTAS Main Tee End Splice with ASMTSP Splice Plate

Figure 7

AdvanceSpan DXTAS Main Tee Intersection with ASMTSP Splice Plate
Figure 8

Non-Seismic Installation, No Hanger Wires

1. 8'-0" max. for intermediate duty performance, 7'-0" max. for heavy duty performance

Figure 9

Non-Seismic Installation, One Hanger Wire

1. 14'-0" for heavy duty load rating
2. Requires splicing main tees with ASMTSP splice clip
3. 7'-0" for heavy duty load rating
Using additional AdvanceSpan main tee as a cross brace support for repositioning hanger wires. Attached to system main tees using ASCBC AdvanceSpan Cross Brace Clip.

1. 14'-0" for heavy duty load rating
2. Requires splicing main tees with ASMTSP splice clip
3. 7'-0" for heavy duty load rating

Non-Seismic Installation, One Hanger Wire Using ASCBC Cross Brace Clip

UL44CC Channel Clips on all main tees

1. 14'-0" for heavy duty load rating
2. Requires splicing main tees with ASMTSP splice clip
3. 7'-0" for heavy duty load rating

Hanger wire offset from lower main

Figure 11

Typical Main Tee Layout
3-Way Intersection

Figure 12

Typical Main Tee Layout
4-Way Intersection
For installations in seismic zones C, D, E, & F, the system has been tested in accordance with AC156 by the University of California, Berkeley Seismology Laboratory. All tests were conducted without perimeter wires, lateral bracing splay wires, and compression posts.

B1: Install the structural wall channel
- For seismic installation, the structural wall channel must be installed with the 1” leg down.
- Using Drywall screws, attach the structural wall channel through the upper half of the body to each stud, drywall 16” or 24” OC max. Powder actuated fasteners or similar can be used for masonry or concrete walls.

B2: Install the main tees
- The system is installed with two adjacent walls fixed to the channel molding, and on opposing adjacent walls floating to provide +/- 3/4” movement between the tees and the wall molding.
- Trim the main tees leaving a 3/4” gap on one wall, keeping the center of the main tee aligned with ceiling panel layout (Figure 1).
- Bend the US44CC as shown in Figure 2 to form a right angle.
- Snap the US44CC into the wall channel with the two longer tabs down. Use a framing screw to attach the US44CC to the US44 Channel Molding in the upper pilot hole (Figure 3). For masonry walls, attached the US44CC clip to the US44 channel molding through the top leg into the pilot hole on the top of the clip.
- **Fixed side:** Install the main tees by screw attaching the US44 channel clip to the web of the main tees with one framing screw through the pilot holes on the upper tab (Figure 13).
- **Floating side:** Attach the main tees to the US44CC channel clips with one framing screw through at the center of the slot located at the top of the clip. Do not overtighten the screw (Figure 14).
- For distances exceeding maximum unsupported spans, install hanger wires on main tees, or use the AdvanceSpan cross brace clip method to provide intermediate support (Figures 22-23).

B-3: Install the infill cross tees using the appropriate DX/DXL or DXT/DXLT cross tees
- Perimeter cross tees are installed either fixed or floating on the adjacent walls corresponding with the main tees. The cross tees are attached to the US44 structural channel molding using the US44CC channel clip.
- **Fixed side:** attach the cross tee to the US44CC with a framing screw through the pilot hole into the bulb of the tee (Figure 15).
- **Floating side:** cut the perimeter cross tees to length leaving a 3/4” gap between the cross tee and channel molding. Attach the cross tee to the US44CC with a framing screw in the center of the slot to the cross tee bulb (Figure 16).
- **Important:** The US44CC is compatible only with 1-1/2” tall cross tees.

B-4: Floating main tee splices and expansion joints are constructed using the ASTMP splice plate and appropriate tee face sleeve, TFS -1 for DX and TFS-2 for DXT
- For expansion joints between longitudinal mains, leave the prescribed gap between the main tees and attach the ASTMP splice clip to each main through the center of the slot using a framing screw (Figure 18).
- The ASMTP splice plate can be used to attach cross tees to main tees at off module locations. The cross tees can be installed either fixed or floating, see Figures 19-20.

B-5: Framing intersections and corners
- For seismic category three way and four way corridor intersection framing layouts, see Figures 24 and 25.
- For expansion joints at corners, bend the ASTMP splice plate to form a 90° angle. Attach the ASTMP to the longitudinal main tee using two screws. Install the face sleeve over the intersecting main tee and attach to the ASTMP through the center of the slot leaving the prescribed gap between the tees (Figure 17).
Fixed DX/DXT AS Main Tee to US44 Channel Molding Attachment

Floating DX/DXT AS Main Tee to US44 Channel Molding Attachment

Cross Tee Attached to US44 Channel Molding with Trimmed US44CC Channel Clip

Cross Tee Attached to US44 Channel Molding with Trimmed US44CC Channel Clip

AdvanceSpan Main Tee Intersection with ASMTSP Splice Plate

AdvanceSpan Main Tee End Splice with ASMTSP Splice Plate
**SEISMIC INSTALLATION INSTRUCTIONS CONT.**

**Figure 19**
AdvanceSpan DXAS Main Tee to Cross Tee Intersection with ASMTSP Splice Plate - Fixed

**Figure 20**
AdvanceSpan DXAS Main Tee to Cross Tee Intersection with ASMTSP Splice Plate - Floating

**Figure 21**
Seismic Installation, No Hanger Wires

- Up to 7'-0" US44 Channel Molding
- 4' Cross Tees 24" o.c.
- AdvanceSpan Main Tees 4' o.c.
- US44CC Channel Clips on all tees, two adjacent sides fixed, two floating
- Light fixtures screw attached to tees, two slack wires attached to light fixture
- See US44CC Channel Clip installation details
- 2' Cross Tees as required. Infill 2' tees may be 1" high (e.g. Donn DX/DXL216).
- 1-1/2" high cross tees field cut at all perimeters

**Figure 22**
Seismic Installation, One Hanger Wire

- Up to 14'-0" Hanger wires
- 7'-0" max.
- US44CC Channel Clips on all tees, two adjacent sides fixed, two floating
- Light fixtures screw attached to tees, two slack wires attached to light fixture
- See US44CC Channel Clip installation details
- AdvanceSpan Main Tees 4' o.c.
- 4' Cross Tees 24" o.c.
- 2' Cross Tees as required. Infill 2' tees may be 1" high (e.g. Donn DX/DXL216).
- 1-1/2" high cross tees field cut at all perimeters
SEISMIC INSTALLATION INSTRUCTIONS CONT.

**Figure 23**
Seismic Installation, One Hanger Wire Using ASCBC Cross Brace Clip

- Hanger wire offset from lower main
- USA4CC Channel Clips on all tees, two adjacent sides fixed, two floating
- Light fixtures screw attached to tees, two slack wires attached to light fixture
- See USA4CC Channel Clip installation details
- Hanger wire 4’ o.c.
- US44 Channel Molding

**Figure 24**
3-Way Seismic Intersection Typical Main Tee Layout

- One hanger wire within center 1/3 of AdvanceSpan main tee
- Hanger wire within 8’ or 7’-0” for heavy-duty rating
- Hanger wire within 8’ or 7’-0” for heavy-duty rating
- 1/2” high cross tee field cut at all perimeters
- See USA4CC Channel Clip installation details

**Figure 25**
4-Way Seismic Intersection Typical Main Tee Layout

- One hanger wire within center 1/3 of AdvanceSpan main tee
- Hanger wire within 8’ or 7’-0” for heavy-duty rating
- Hanger wire within 8’ or 7’-0” for heavy-duty rating
- 1/2” high cross tee field cut at all perimeters
- See USA4CC Channel Clip installation details
PRODUCT INFORMATION
See usg.com for the most up-to-date product information.

CUSTOMER SERVICE
800 950-3839

TECHNICAL SERVICE
800 USG.4YOU (874-4968)

WEBSITES
usg.com

PRODUCT LITERATURE
Data Sheet AC3325

LIMITATIONS
Interior applications only

NOTICE
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SAFETY FIRST!
Follow good safety/industrial hygiene practices during installation. Wear appropriate personal protective equipment. Read SDS and literature before specification and installation.