



MANUAL – INSTALLATION

Hospital Grade Welded Ceiling System with Integrated UNISTRUT

HGWC Series

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PRICE[®]

HOSPITAL GRADE WELDED CEILING SYSTEM WITH INTEGRATED UNISTRUT

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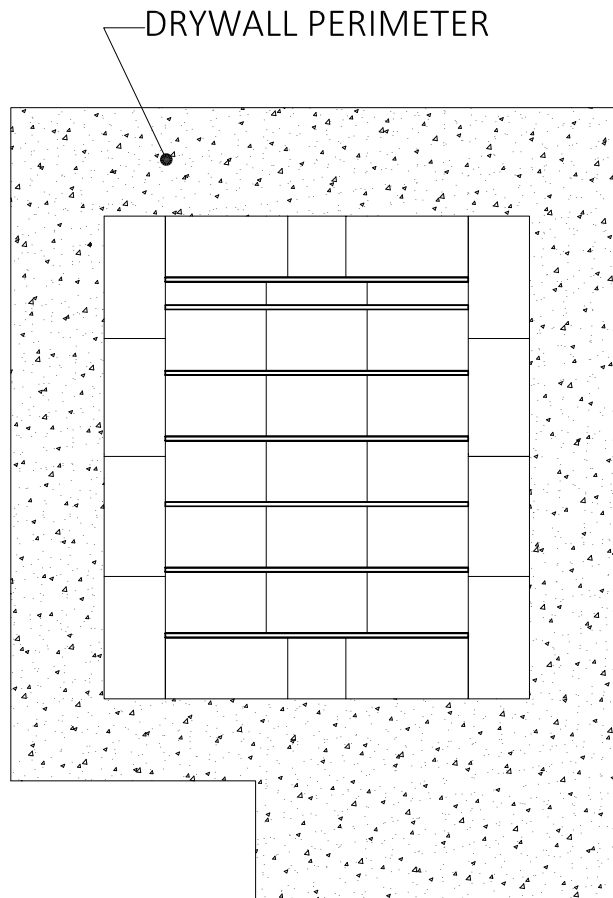
HOSPITAL GRADE WELDED CEILING SYSTEM WITH INTEGRATED UNISTRUT

PRODUCT OVERVIEW

NOTE: These instructions are for Perimeter Drywall Applications with Integrated Unistrut only. Contact Price for other installations at criticalenvironments@priceindustries.com, or (204) 654-5613 Option 5.

Before You Start

- Inspect all cartons and boxes for flaws and shipping damage.
 - If anything is discovered to be damaged, contact the shipping company and file a freight claim.
- Review Price project specific submittals to ensure booms and Unistrut have been located in the correct height/locations.
- If drywall perimeter is being installed prior to the ceiling system, ensure that the opening is cut to the correct dimensions (as per the submittal), and is square on all corners.
- Ensure all tools (as listed below) are on site and ready for use.
- A minimum of two (2) people will be required to install this system.



Typical Perimeter Drywall Application

HOSPITAL GRADE WELDED CEILING SYSTEM WITH INTEGRATED UNISTRUT

PRODUCT OVERVIEW

Required Tools/Parts

To be supplied by contractor

- (2+) 8 ft. ladders or scaffolding
- Laser level
- Cordless drill/impact
- #8 self-tapping screws (1/2 in. maximum length) – HGWC module connections
- #12 – 14 self-tapping (3/4 in. length recommended) – HGWC/Unistrut connections
- Screwdriver bit(s), or power nut driver(s) to suit self-tapping screws
- Damp cloth(s) (for cleaning)
- Utility knife
- Chalk line
- Pliers with wire cutter
- Tape measure
- Clamps/Locking plier
- Pre-stressed 12 ga. suspension wire (or approved alternative) with necessary equipment to hang wire

Price supplied

- Job specific submittal drawing showing all sizes and dimensions of ceiling modules, panels, and Unistrut locations
- Ceiling modules (refer to job submittal drawing for quantity and sizes)
- Access panels (refer to job submittal drawing for quantity and sizes)
- Access panel clips – Pat. 8,997,426 (Part Number 026002-002) – **Figure 1**
- One-Sided Ceiling Clips, if required (Part Number 026002-003) – **Figure 2**
- Universal Hold Down Clip (Part Number 026001-001) – **Figure 3**
- 1/8 in. x 1/2 in. (t x w) white gasket tape – For backside of tees (Part Number 042373-002) – **Figure 4**
- 1/32 in. x 3/4 in. (t x w) white gasket tape – For between tee sections (Part Number 042373-004) – **Figure 5**

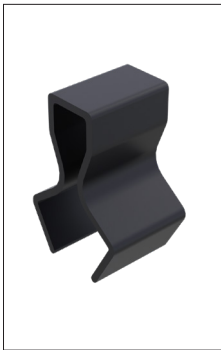


Figure 1. Access Panel Clip 026002-002



Figure 2: One-Sided Ceiling Clips 026002-003



Figure 3: Universal Hold Down Clip 026001-001



Figure 4. Gasket 042373-002



Figure 5. Gasket 042373-004

HOSPITAL GRADE WELDED CEILING SYSTEM WITH INTEGRATED UNISTRUT

INSTALLATION & MOUNTING INSTRUCTIONS

Installation Instructions

NOTE: Unistrut must be installed prior to installation of ceiling system. Confirm that installed locations and lengths of installed Unistrut matches dimensions and locations shown on Price's project specific submittals.

NOTE: Check to ensure that the perimeter drywall (if installed), Unistrut, and other equipment are installed at the correct heights using laser level.

Step 1: Snap chalk line on floor to mark locations and sizes of the ceiling module outlines.

Step 2: Unpack ceiling modules and lay them out on the floor (**Figure 6**) as per the job specific submittal package.

NOTE: Ensure floor surface is clean and free of debris that could damage the ceiling's finish.

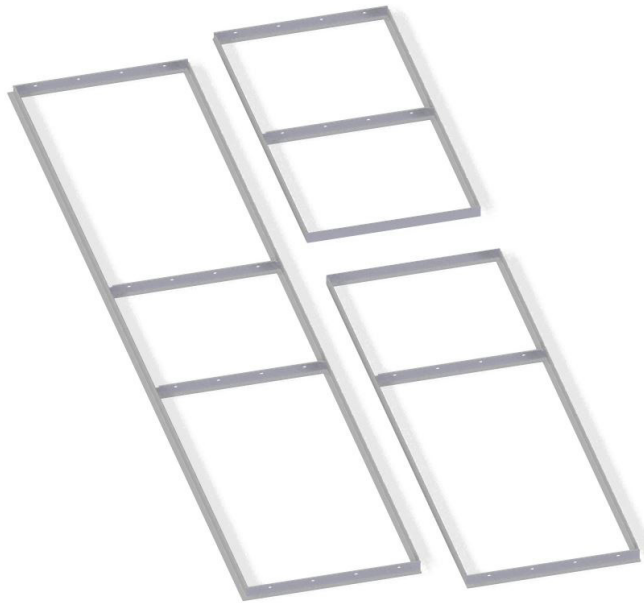


Figure 6. Ceiling Modules

Step 3: Attach lengths of pre-stressed 12 gauge suspension wire to the slab or structural steel (**Figure 7**) above the ceiling according to ASTM C636. For ceiling modules between two Unistrut channels, hanger wire needs to be attached to cross tees.

NOTE: Hanger wire may not be required if Structural Engineer has accounted for the Unistrut to support ceiling modules and ceiling panels (diffusers should be independently supported from the ceiling).

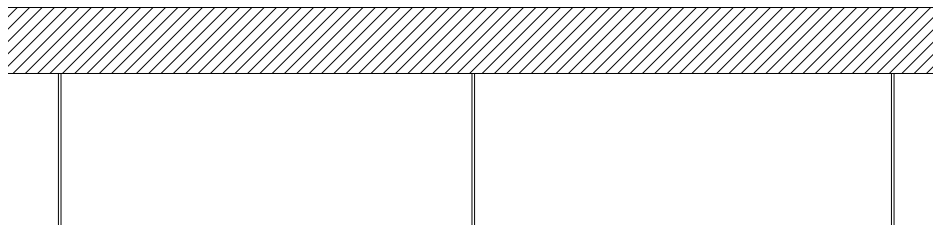


Figure 7. Suspension wires attached to ceiling

HOSPITAL GRADE WELDED CEILING SYSTEM WITH INTEGRATED UNISTRUT

INSTALLATION & MOUNTING INSTRUCTIONS

Step 4: Extend hanger wires 6 in. below the laser level line and snip to length as required.

Step 5: Ensure that the tees are clean by wiping them down with a damp cloth.

Step 6: Apply gasket to the backside (horizontal edge) of the tees (Part Number 042373-002). The gasket is supplied in 50 ft. rolls – measure and cut the gasket, as required.

NOTE: Gasket should be installed as close to the edge of the tee as possible – do not extend past the lip of the tee. At corners, gasket should be cut so that the edge of one side is aligned with the edge of the perpendicular tee – do not bend gasket around at corners, or overlap pieces. Do not stretch gasket as it is being applied; this will cause it to pull away from the grid over time.

Reference **Figures 8** and **9** below for proper and improper installation

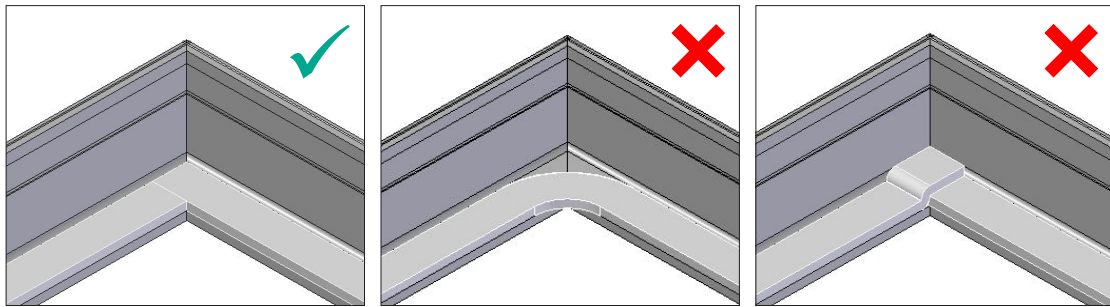


Figure 8. Gasket Installation Isometric View

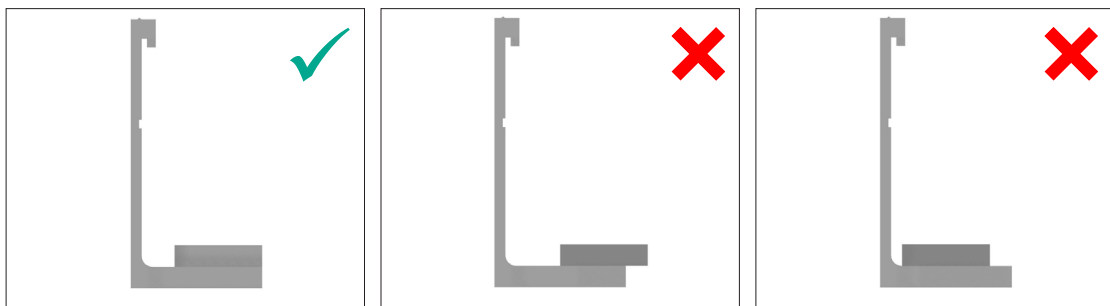


Figure 9. Gasket Installation Cross Section

HOSPITAL GRADE WELDED CEILING SYSTEM WITH INTEGRATED UNISTRUT

INSTALLATION & MOUNTING INSTRUCTIONS

Step 7: Apply gasket (Part Number 042373-004) to one outside (vertical) surface of the half tee where two modules meet. Gasket must also be installed along the entire length of the half-tee where half-tee meets Unistrut channels. The gasket is supplied in 50 ft. rolls – measure and cut the gasket as required.

NOTE: Gasket should be installed as close to the top of the tee as possible – do not extend past the top of the tee. Ensure that only one half tee has the gasket applied. Do not stretch gasket as it is being applied; this will cause it to pull away from the grid over time. Reference **Figures 10**, and **11** for further details.

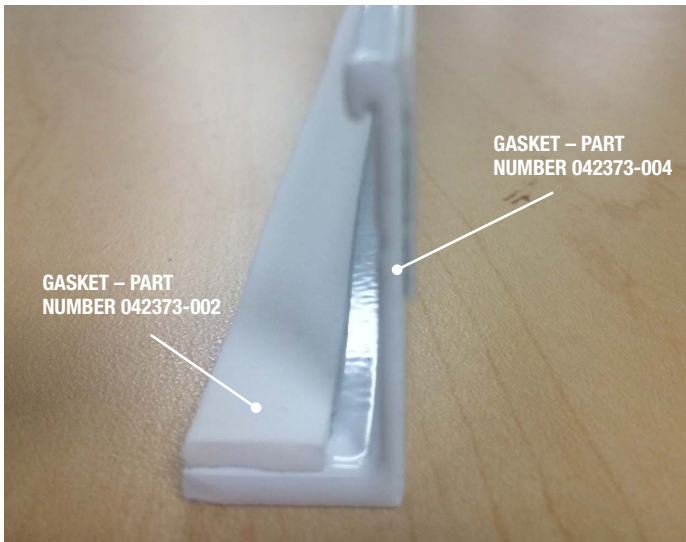


Figure 10. Price Half Tee with Installed Gaskets

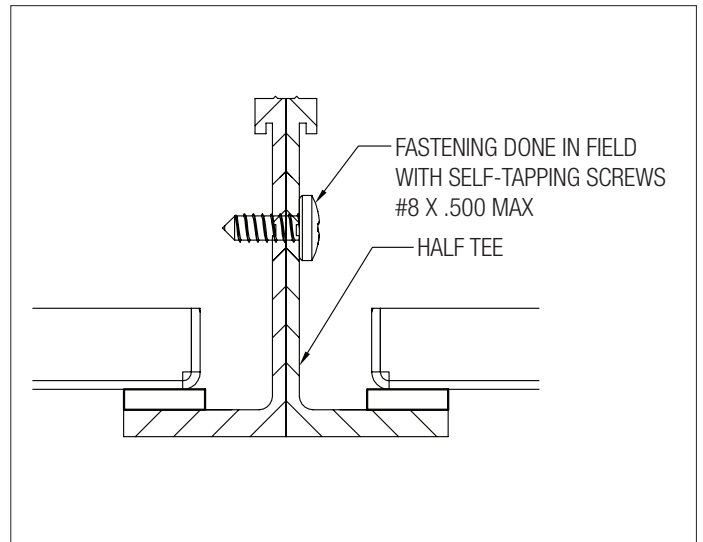


Figure 11. Two Fastened Half-tees

Step 8: If using Price supplied Closure Strip, apply Price supplied gasket (Part Number 042373-002) to room side horizontal edge on all of the Price half tees that run parallel to the Unistrut channels. Align gasket to the outside edge, as per **Figure 12** below. If using Closure Strip provided by others, follow manufacturers recommended installation.



Figure 12. Installed 1/8 in. x 1/2 in. (Part Number 042373-002) on Room Side of Price Half Tee

HOSPITAL GRADE WELDED CEILING SYSTEM WITH INTEGRATED UNISTRUT

INSTALLATION & MOUNTING INSTRUCTIONS

Step 9: Where ceiling system integrates with Unistrut, screw/drill the Price supplied half-tee to the Unistrut using contractor provided self-tapping screws (recommend #12 – 14, 3/4 in. long), **Figure 13**. The height of the tee will be detailed and called out by the medical equipment manufacturer, typically ranging from flush to 1/2 in. recess. Due to the thickness of the gasket, Price recommends a minimum recess of 1/16 in. Additional details are shown below in **Figure 14**.

NOTE: 12 in. recommended fastener spacing, ensuring to not block/interfere with any of the fixing blocks or any equipment located within the Unistrut channel. See **Figure 15** below for details.

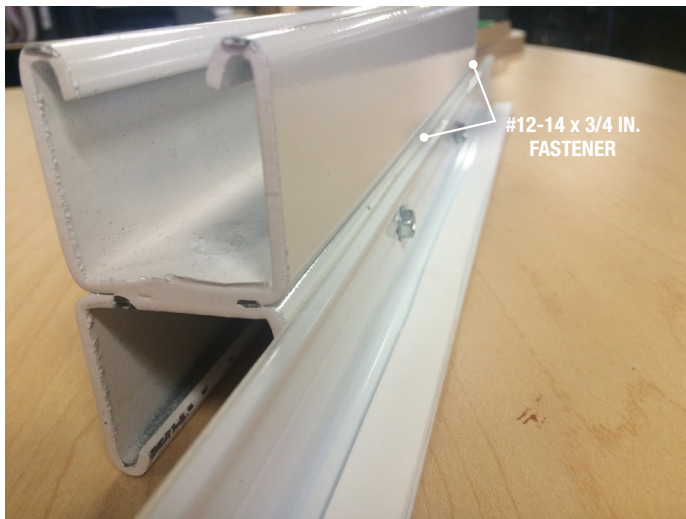


Figure 13. Unistrut and Price Half Tee Installation

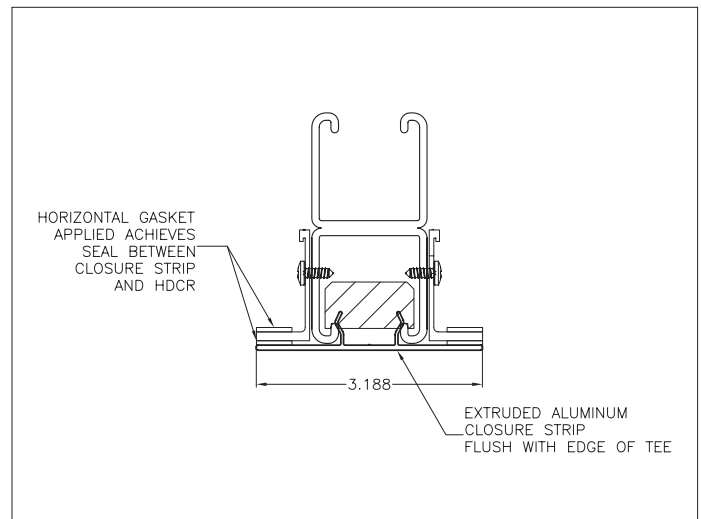


Figure 14. Cross Sectional Detail of Unistrut, Closure Strip, and HGWC Half Tee

NOTE: Ensure that the 0.031 in. x 3/4 in. gasket (Part Number 042373-004) is installed along the vertical edge of the tee prior to installation. Gasket should be flush with top of the tee. 1/8 in. x 1/2 in. gasket (Part Number 042373-002) should also be applied to the backside of the tee and be flush to the horizontal edge of the tee.

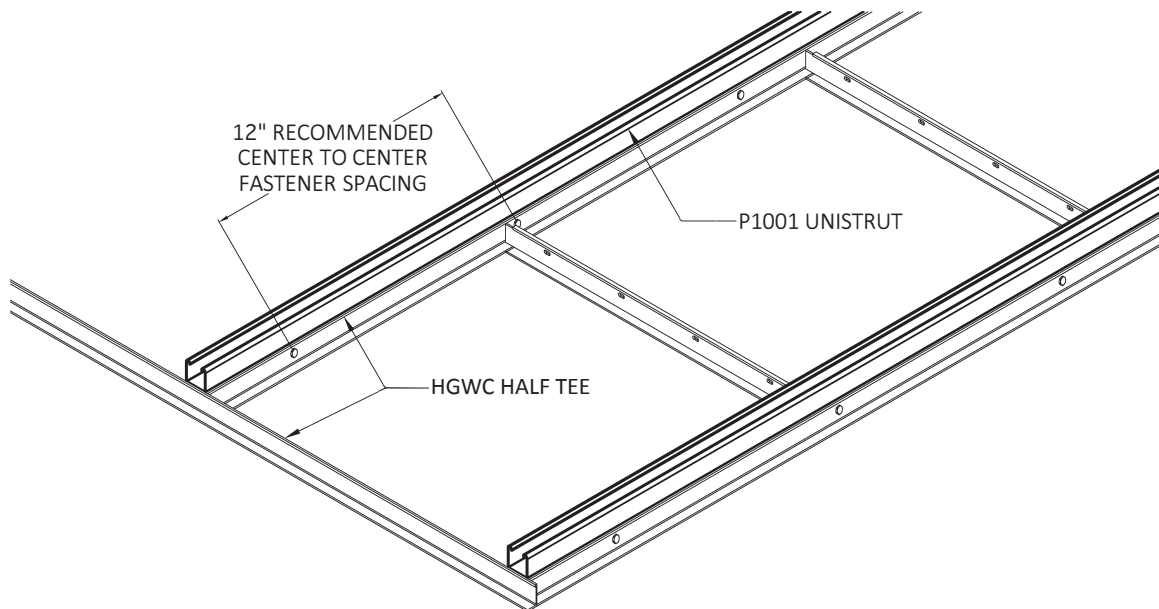


Figure 15. Isometric View of Unistrut and HGWC Ceiling Section

HOSPITAL GRADE WELDED CEILING SYSTEM WITH INTEGRATED UNISTRUT

INSTALLATION & MOUNTING INSTRUCTIONS

Step 10: For any full-tees located between Unistrut lengths, hang using 12 ga. suspension wire as per ASTM C636.

Step 11: Install all remaining HGWC modules (both along Unistrut and between Unistrut), repeating steps 9 and 10.

Step 12: Install remaining HGWC located outside of the Unistrut area, starting by raising the first section, temporarily supporting it using hanger wire. Do not twist the wires at this stage; bend in loose 180 degree loops (**Figure 16**) allowing leveling of the ceiling system once all sections are in place.

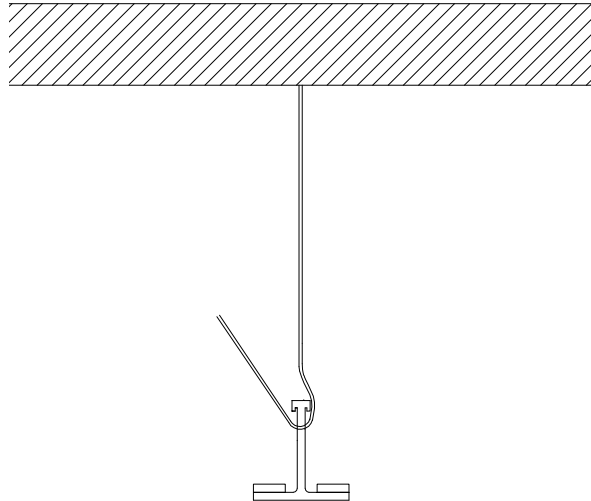


Figure 16. Hanger Wire

NOTE: If using perimeter HGWC, use steps 13A-15A. If using perimeter drywall, skip to step 13B and proceed.

NOTE: It is recommended to start working at one corner of the Unistrut and moving clockwise/counter clockwise around the Unistrut. This method allows for the contractor to trim or extend the drywall to meet up with the perimeter HGWC tees to provide a proper fit and seal. As seen in **Figure 17**.

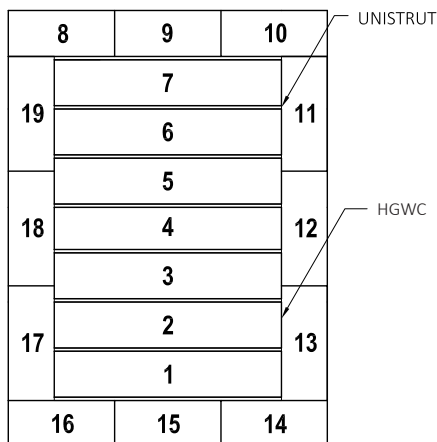


Figure 17. HGWC Perimeter Detail

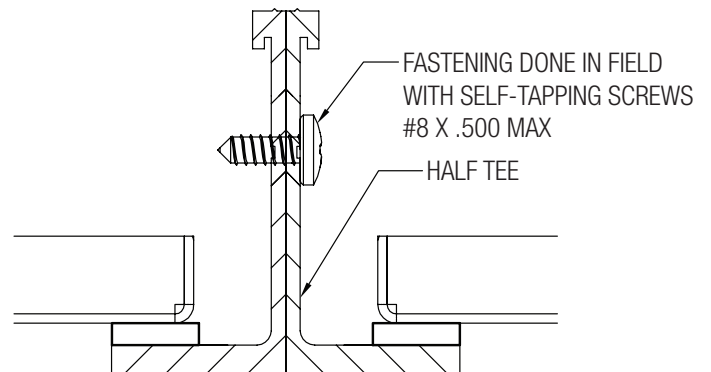


Figure 18. Fastening Adjacent HGWC Modules

Step 13A: When connecting adjacent HGWC modules, clamp sections together and fasten together using self-tapping screws (**Figure 17**). Bottom of tees should be flush and level prior to screwing together.

HOSPITAL GRADE WELDED CEILING SYSTEM WITH INTEGRATED UNISTRUT

INSTALLATION & MOUNTING INSTRUCTIONS

Step 14A: Repeat step 13A until all sections are installed. Proceed to Step 16.

Step 15A: Pull down the perimeter modules to tension the wires, and adjust the wire to minimize settling and movement of the grid once the diffusers, panels and lights are installed. Ensure that they are tight to the drywall (if installed), and/or at the correct height and there is no slack in the hanger wires. A sample perimeter installation detail is shown in **Figure 19**.

Step 13B: When using perimeter drywall, half tees will be shipped loose for perimeter finishing. Locate half tees and attach 1/8 in. x 1/2 in. gasket along backside (horizontal edge) of the tees (Part Number 042373-002), as per step 6.

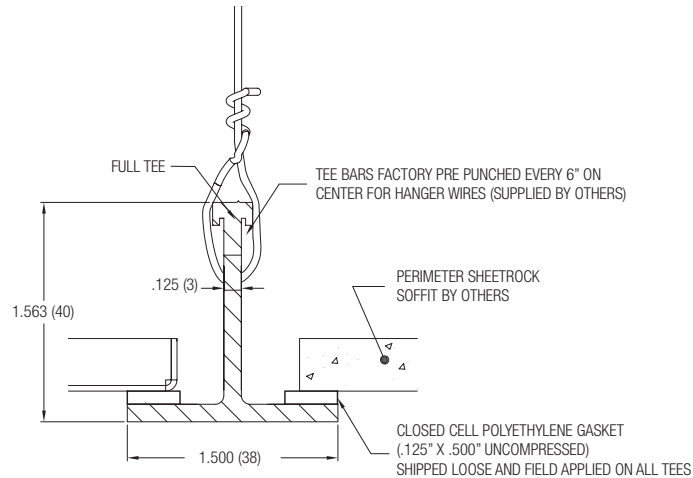


Figure 19. Perimeter Installation Detail

Step 14B: Apply gasket (Part Number 042373-004) to one outside (vertical) surface of the half tee where two modules, or Unistrut and half tee meet per Step 7.

NOTE: Ensure that only one vertical piece (Unistrut or half tee) has gasket applied. Back-to-back gasket may not provide proper seal between room side and ceiling space.

Step 15B: Attach half tees along the edges of the Perimeter Unistrut and perimeter half tees (Figure X and X) using self-tapping screws (by others). Proceed to step 16.

Step 16: Tighten hanger wire by twisting and securing per ASTM C636.

Step 17: Adjust all sections, starting with the immediate adjacent sections, making the entire ceiling grid level and flush. Tightening hanger wires by twisting and securing per ASTM C636, after each module is properly tensioned (**Figure 20**).

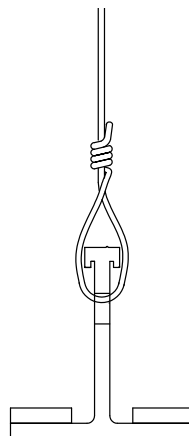


Figure 20. Tee Profile with Twisted Wire

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INSTALLATION & MOUNTING INSTRUCTIONS

Step 18: Identify ceiling panels that require field cutting for equipment or light booms (panels will have dotted circles shown on submittal drawings, **Figure 21**). Refer to equipment/light manufacturer's instructions for size of hole, mark on the back of the ceiling panel, and cut accordingly.

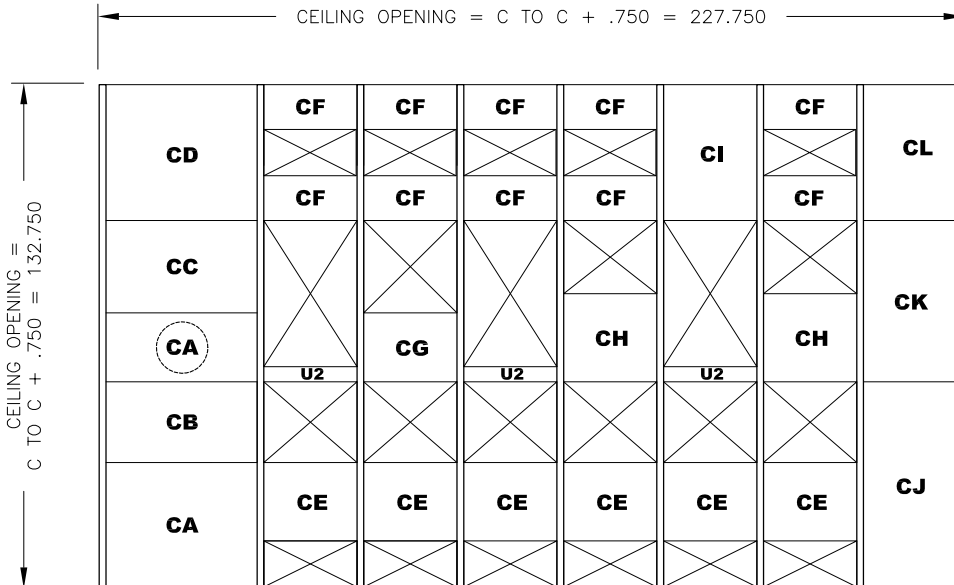


Figure 21. Sample Job Specific Submittal

NOTE: Ensure the hole will be covered by the equipment escutcheon (cover plate).

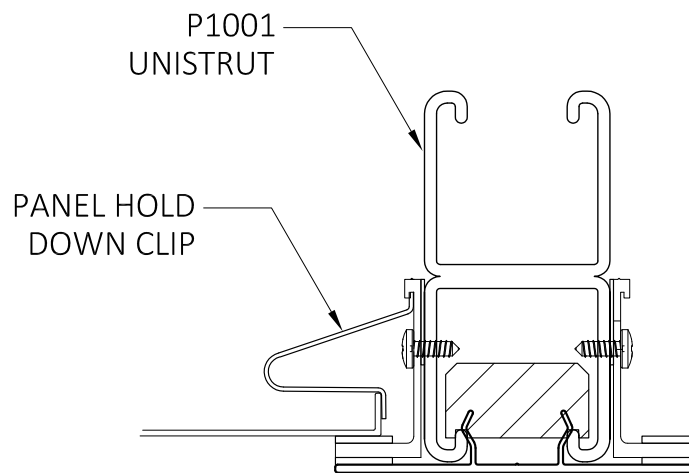


Figure 22. Unistrut Panel Clip

Step 19: Identify ceiling panel locations, denoted with a letter on the job specific submittal. There are three types of ceiling clips used on the HGWC systems with integrated strut.

- For cross tees, or sections where there are back-to-back panels, install ceiling install ceiling access clips (Part Number 026002-002) along two opposite sides of where the panel will be installed. To install hold down clips, press the clips on the top of the tee until they snap in place (no tools required). Refer to Figure 24 for details.
- For panels requiring room-side accessible that located between/beside diffuser units, install one-sided ceiling clips (part number 026002-003) by holding them in place along the half tee and screwing it in using provided hardware. Refer to figure 24 for details.

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- For panels not requiring room-side access that are located between/beside diffuser units that do not require room side accessibility, install Universal Hold Down Clips (Part Number 026001-001) by hooking them under the ceiling tee. Refer to Figure 24 for details.

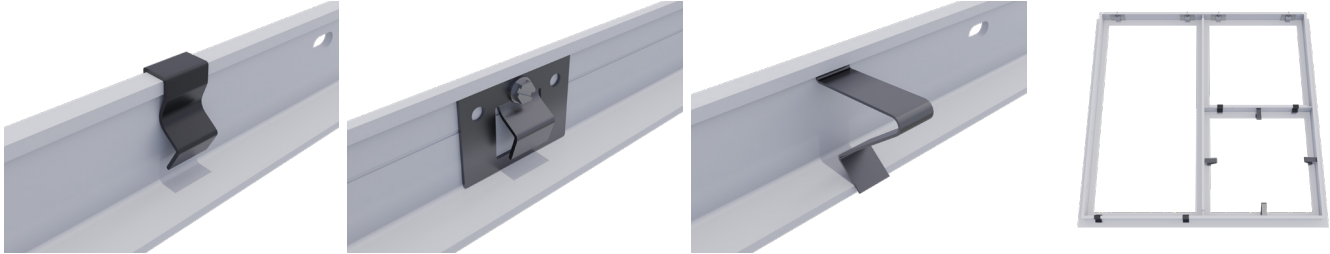


Figure 23. Ceiling Access Clips Installation

NOTE: Clips should be installed along the long side of the panels. For square panels, place clips along sides that are parallel to the long dimension of adjacent panels. The first clip should be installed 3 in. from the corner of the panel with the remaining clips spaced equally apart (12 in. in most cases).

Step 20: Install ceiling panels in appropriate locations (refer to job specific submittal for locations). Maneuver panel through the grid opening so that the entire panel is above the tee surface. Place the panel at a 30 degree angle and push one edge of the panel against the ceiling access clips. Drop the panel to engage remaining ceiling access clips (**Figure 24**). For small panels, it may be necessary to push down on some edges to ensure all clips have been locked in place.

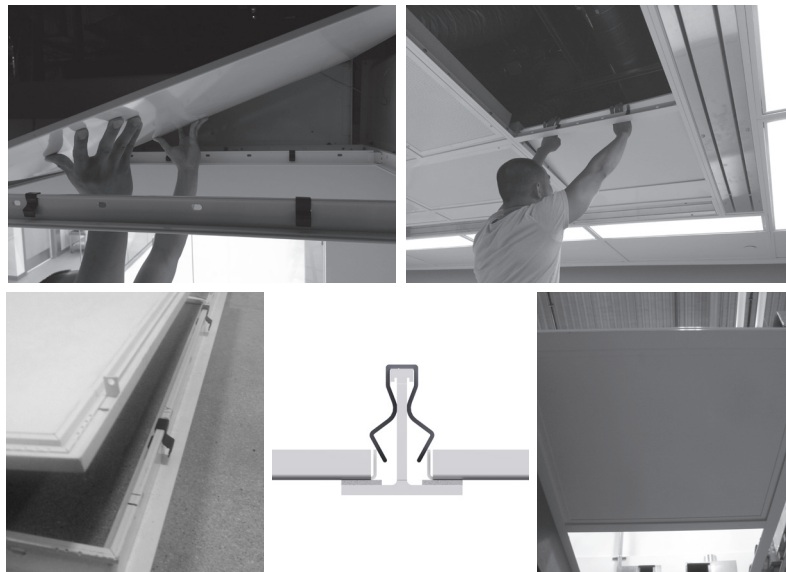


Figure 24. Ceiling Access Panel Installation

NOTE: You may need to press the panel in place to ensure all ceiling access clips are engaged. Leave a large panel as the last panel installed. All ceiling panels should be installed prior to the installation of the booms and other equipment.

To remove ceiling panels, push up on the face of the panel near any edge and remove the panel through the opening to access the ceiling above (**Figure 25**)

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INSTALLATION & MOUNTING INSTRUCTIONS



Figure 25. Removal of Ceiling Access Panel

Step 21: Refer to diffuser installation instructions for laminar diffusers and HORD (if applicable) to install in ceiling.

Step 22: Measure distances between breaks in Closure Strip between equipment rails, as well as between equipment rails and end of Unistrut to determine length of closure strips required.

Step 23: Cut closure strips to required lengths. Where Unistrut ends, it is recommended to increase the length of the closure strip by 5/8 in. and cope 1 in. of the vertical pieces so that it butts up flush to Price half-tee. Refer to **Figure 26** for further detail.

Step 24: Insert closure strip, ensuring that it is tight against the fixing block.

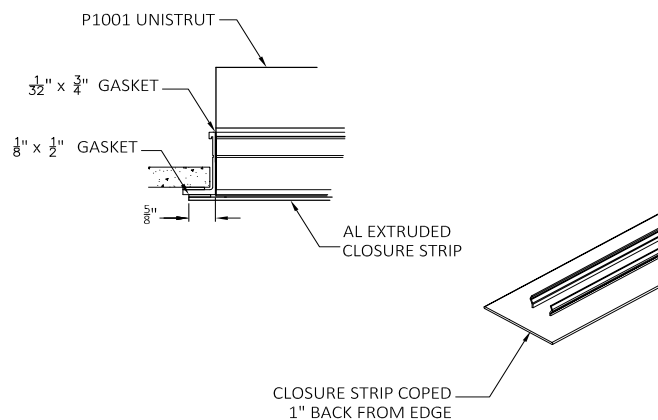


Figure 26. Coped Closure Strip and Side View of Assembly

Step 25: Apply thin layer of caulking to seal between fixing block and closure strip (**Figure 27**).

For any questions or concerns with installation please contact criticalenviroments@priceindustries.com or call (204) 654-5613 Option 5.

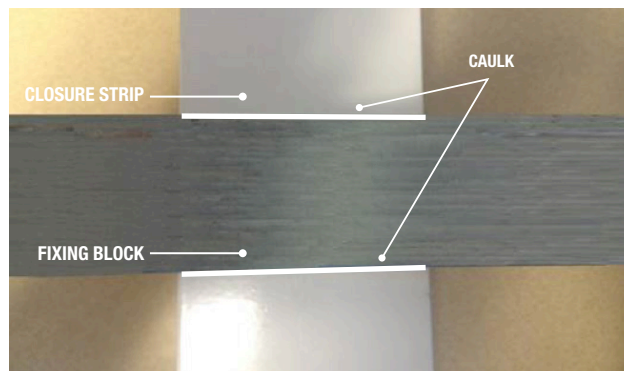


Figure 27. Sealing Fixing Block/Closure Strip

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