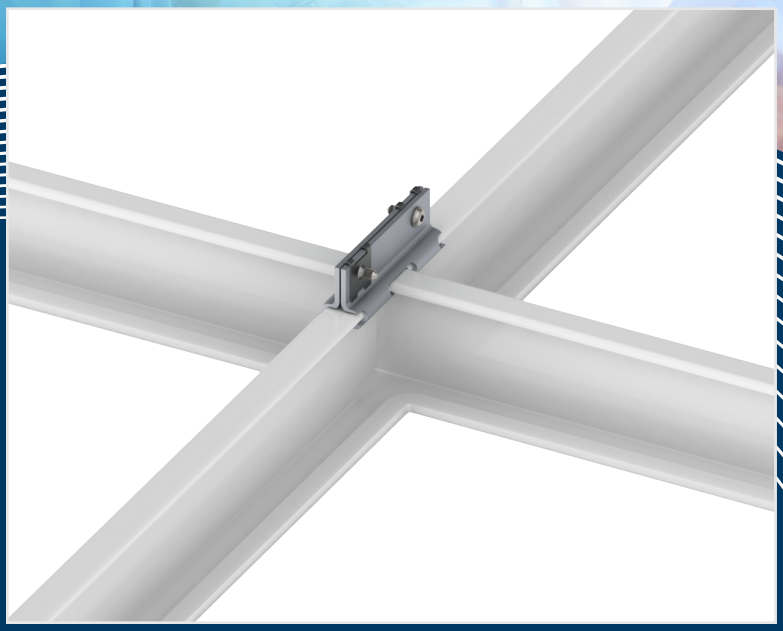
INSTALLATION &
OPERATION MANUAL



AORCS

ATLAS OPERATING ROOM CEILING SYSTEM

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INSPECTION

Unpack grid members and blank-off panels, check for shipping damage. If damaged do not install; report damage to the delivering carrier, and contact Titus for replacement components.

EXAMINATION

The installing contractor shall examine all openings, mechanical and electrical work, and adjoining/adjacent construction to receive Integrated Ceiling System prior to commencing this work. The installing contractor shall verify the ceiling is level and that ceiling opening is square and dimensions are as required in submittals.

Ceiling construction or openings not acceptable for Integrated Ceiling System installations shall be resolved prior to installation. Proceeding with the installation of the Ceiling System indicates the installing contractor accepts the openings and conditions.

PREPARATION

Due to overhead obstructions, adherence to layout procedure is strongly recommended

Verify hanger support, lighting, and HVAC locations. Verify any MEP trades that may and will sit within the ceiling system. When possible, run the ceiling grid main runners and ceiling wires opposite of overhead bar joists etc.

Install ceiling system per ASTM C636 with any additional requirements as noted within this manual

Lay out perimeter grid members and main runners on the floor directly underneath their installed positions per submittal drawings. Ensure floor is clean to prevent damage occurring to the grid finish.

Install 12-gauge pre-stressed hanger wires on maximum 48" centers in line with main runners and within 6" of perimeter grid members. Install the ceiling wires in locations to allow for proper installation of all trades.

Suspend wires by method or device whose suitability has been demonstrated by standard construction practice or by certified data. Suspension wires are not to be installed more than one in six out of plumb unless a countersloping wire or horizontal bracing is provided. Suspension wires are not to press against insulation, duct work, pipes, or other items within the ceiling plenum. Refer to ASTM C636 for allowable countersloping methods.

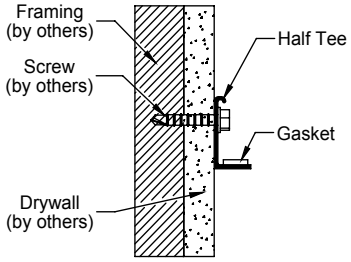
Where width of ducts, cable trays, and other construction within ceiling plenums causes hanger spacing to interfere with the location of hangers required to support ceiling system members, install supplemental suspension members and hangers in the form of trapeze or equivalent Architect / Engineer approved devices. Supplemental suspension members and hangers must be sized to support ceiling loads within performance limits established by referenced standards.

Installation

PERIMETER GRID MEMBER INSTALLATION

Wall to wall and Soffit Installations

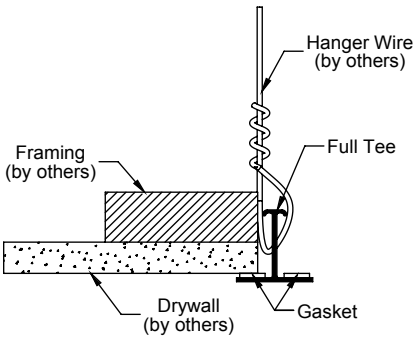
Install the half-tee grid members at the determined height given on the reflected ceiling documents. Unless a specific benchmark is given in each room by the construction engineer, install the ceiling at the high point of the floor in each room.



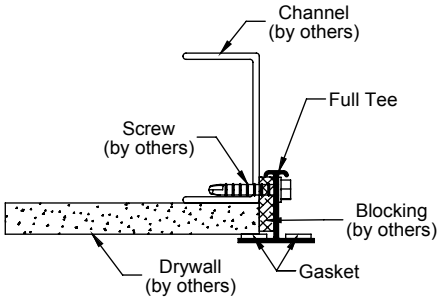
Wall/Soffit Attachment - Half Tee

Horizontal Drywall Perimeter Installations

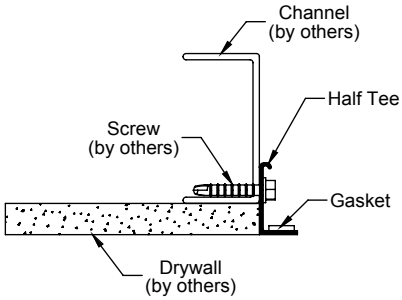
Full-tee or half-tee grid members can be used in these applications. Fasten half-tees to channels (by others) installed above the drywall. Full-tee members can be suspended or fastened to channels (by others.) If suspending full tees opening in the ceiling should be ½ inch larger than the overall on center length and width of the ceiling system.



Suspended Attachment - Full Tee

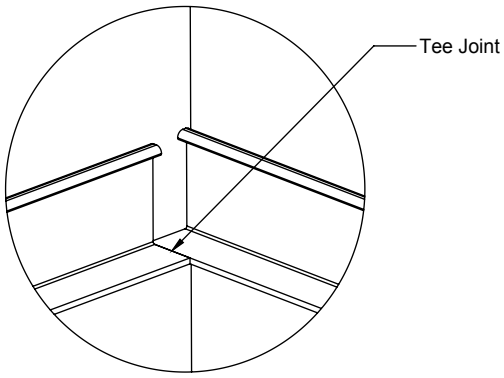


Direct Attachment - Full Tee



Direct Attachment - Half Tee

Trim the tees as necessary to ensure a tight fit and seal to the ceiling components connected to each other. A fine tooth carbide tip miter saw is recommended for cutting ceiling tees. Proper Personal Protection Equipment (PPE) is required for cutting and installing the ceiling components. A full face shield, ear protection and proper gloves should be worn for this procedure.



Note: Trim tees to ensure a tight fit. Gaps and out of square connections are not acceptable.

Installation (Continued)

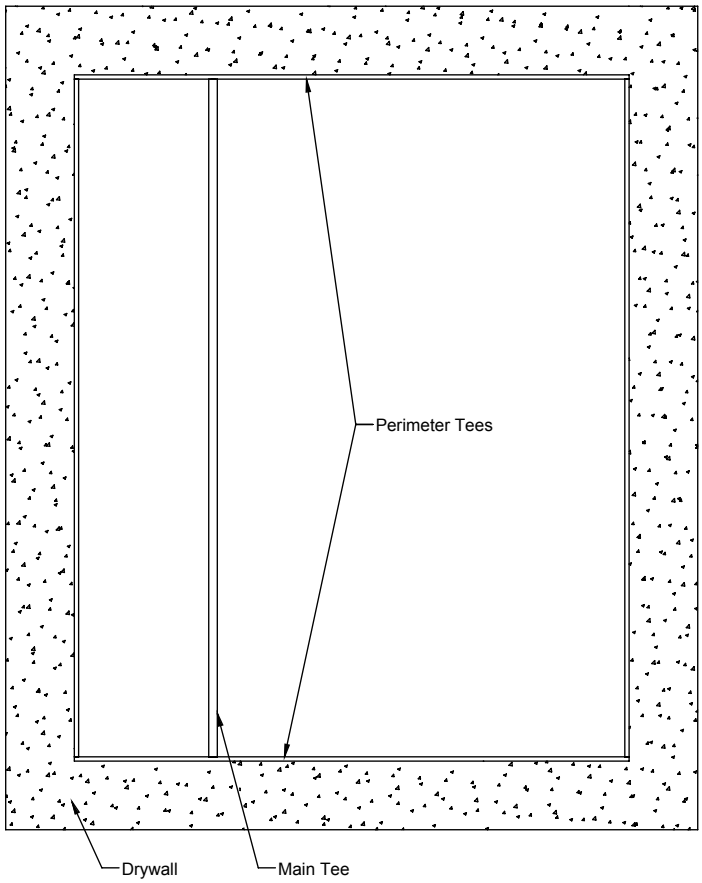
INTERIOR GRID MEMBER INSTALLATION

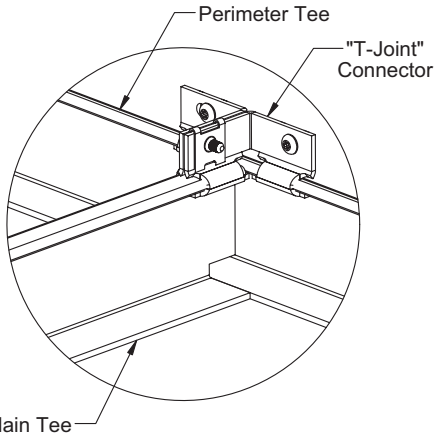
Setup string lines to aid in the installation of the main runners and cross tees. This will serve to keep the ceiling system square during installation. Determine which walls will be the starting point for the string lines.

- For wall to wall installations this will also give the ceiling border blank-off panels their permanent size. Note that due to MEP and equipment layout, the border tiles may not always be the same in size on each side of the room.

Start the ceiling main tee and cross tee installation while keeping a laser or leveling system in place for proper bending of the ceiling wires. This will keep the ceiling close to staying level while you erect the ceiling system. Final leveling of ceiling should be completed prior to installation of blank-off panels, lights, and diffusers.

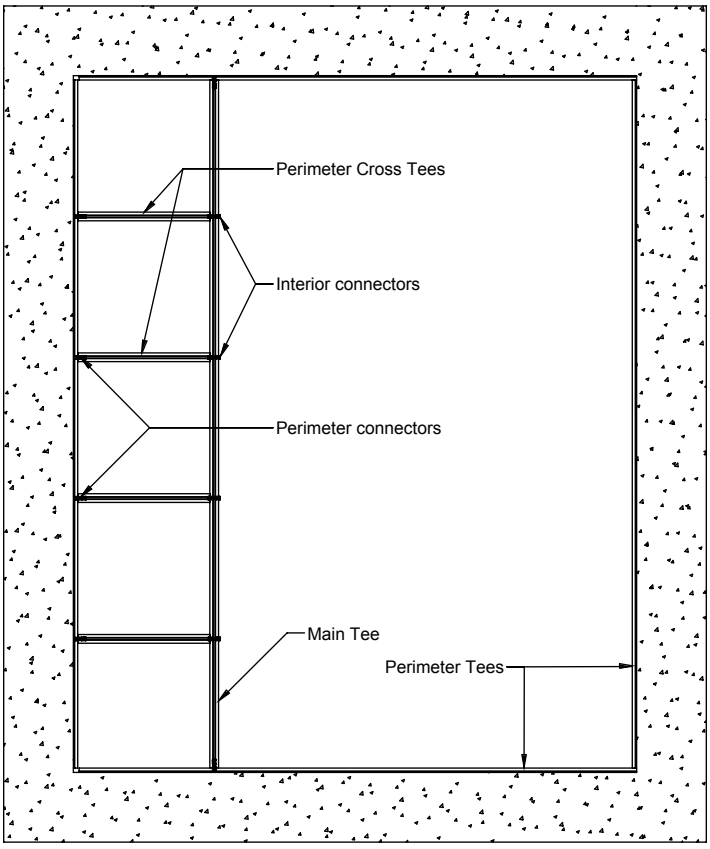
Install the first main tee. Secure main tee to perimeter tees using the quick snap connectors provided. Once installed, install the perimeter cross tees for the main tee. Use an angle (by others) secured to the cross tee as you set the cross tees into the perimeter tees using the quick snap connecters. This will prevent the tee from being bumped out of place during construction. All quick snap connections use #20 torque screws.



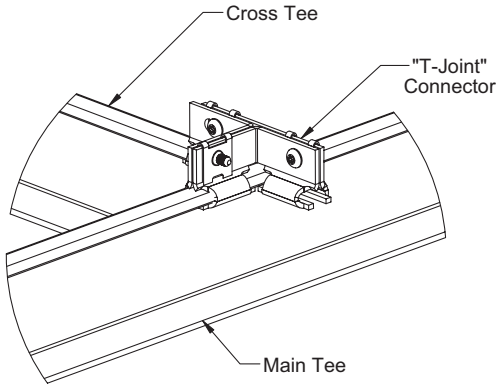


Note: Ensure "T-joint" connector is fully engaged to the profile of the perimeter tee, then tighten connector screws.

Trim the cross and main tees as necessary to ensure a tight fit and seal to the perimeter tees. A fine tooth carbide tip miter saw is recommended for cutting ceiling tees. PPE is required for cutting and installing the ceiling components. A full face shield, ear protection and proper gloves should be worn for this procedure.



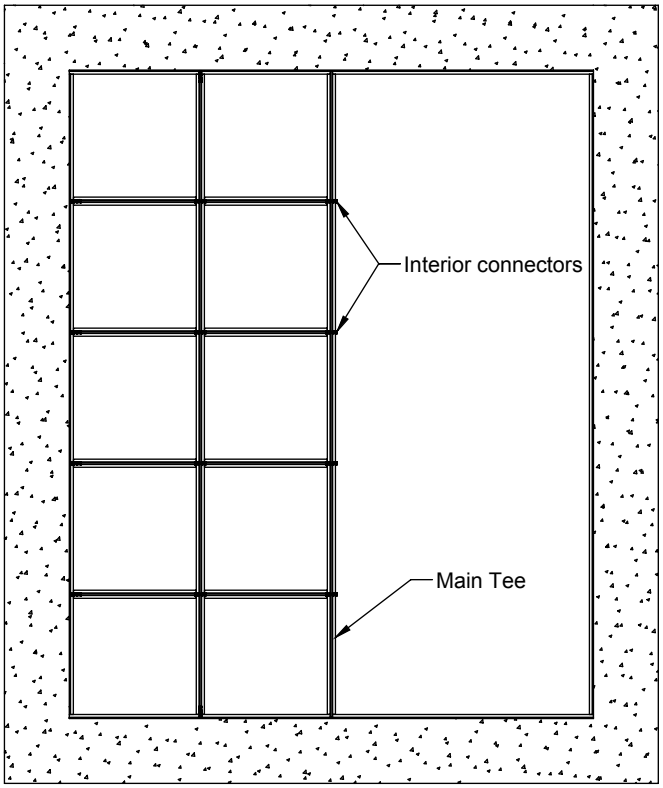
Note: Trim perimeter cross tees to ensure a tight fit. Tighten screws on perimeter connectors.



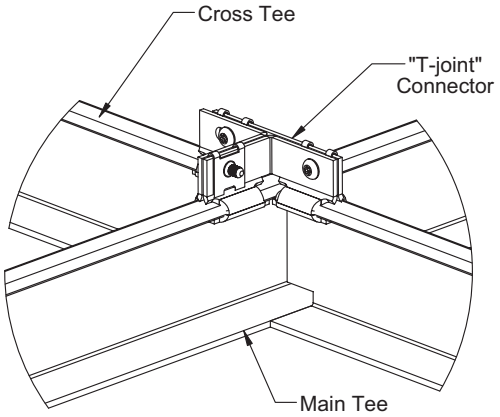
Note: Hand tighten screws on interior connectors to allow for installation of interior cross tees.

Installation (Continued)

Continue to install remaining main and cross tees to the initial string line layout. All tee to tee connections are made with the same quick snap connecters. There is no difference in the connecters except how the quick snap connecters are placed on top of the tees.



Note: Continue installing main tee from one side of the room/space working towards the opposite side. Installation can be begin in the center, working outwards. Do not install by working towards the center from two directions.



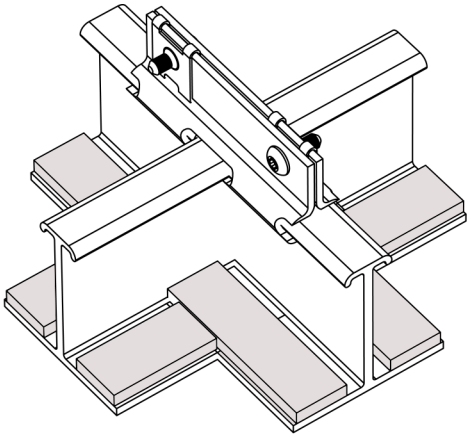
Note: Hand tighten screws on interior connectors to allow for installation of cross tees. Completely tighten once both cross tees have bee installed.

LEVELING

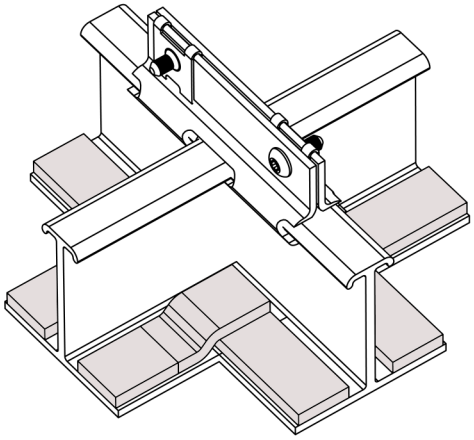
Finish the leveling procedure once the ceiling is in place, locked into perimeter members, and properly secured to each connection. Use a laser or leveling device to adjust the hangers to the laser and wrap the support wires using no less than three full wraps within a 3 inch length on main tee to wire connection. Local kinks or bends are not an acceptable means for leveling the grid.

Confirm all MEP trades, all above ceiling work, and all inspections are complete before proceeding to next step.

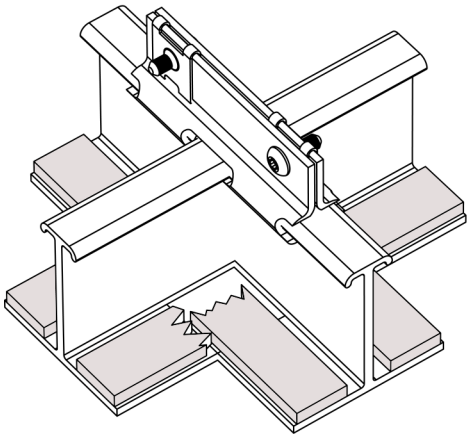
Wipe all dust, dirt and construction debris from the top of the ceiling tee flanges. Install the ceiling gasket provided with the ceiling system, making sure it adheres tightly to the tee flange. Do not leave any gaps between the main tees to cross tees or cross tees to wall molding.



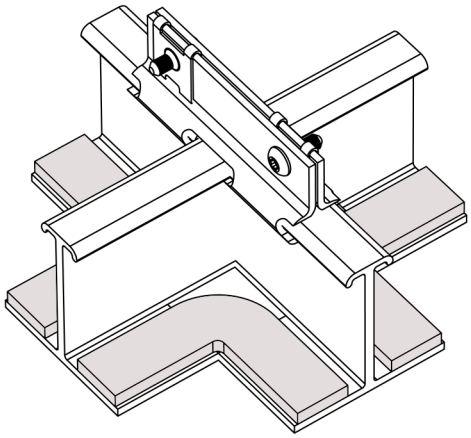
Acceptable: Clean cut edges/tight fit



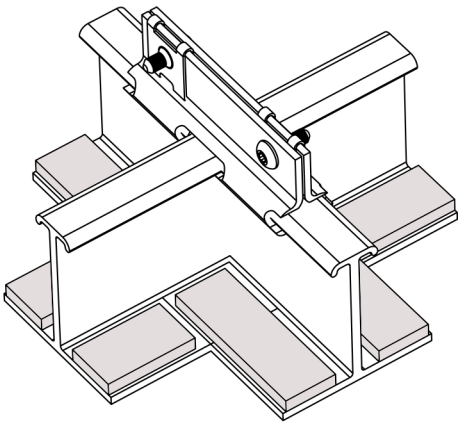
Unacceptable: Overlapping gaskets



Unacceptable: Torn gasket edges



Unacceptable: Stretched gasket



Unacceptable: Excessive gaps between gaskets

Blank-off Panel Installation

Blank-off Panel Installation

Cut and install the ceiling tiles using all the proper PPE. Start with the border panels. Cutting tiles will require a fine tooth blade on a table saw. It is recommended that you protect the panels from getting scratched while cutting.

Install the border panels and hold down ceiling clips. The clips seal the tile to gasket ensuring there are no gaps between tile and gasket, completing the antimicrobial seal.

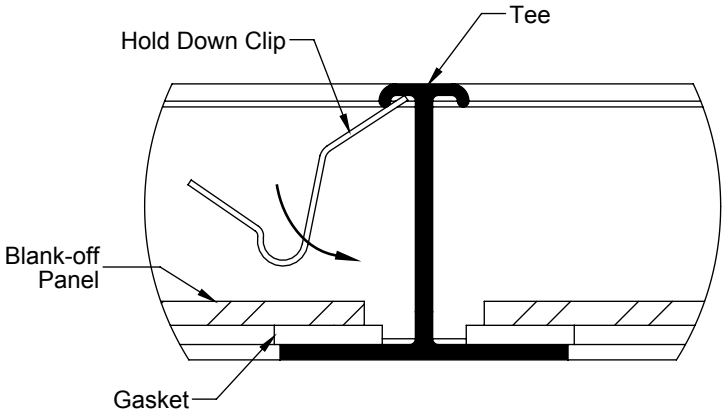
Identify which blank-off panels need clearance holes for lights, fixtures, and equipment support. Refer to vendor documentation for the required opening sizes. Mark area to be removed and verify opening size and location to components as installed. Ensure clearance holes will be fully covered by escutcheons or mounting frames.

Install cut panels as shown on drawings. Panels with clearance holes for booms must be installed prior to boom mounting, and remain in place during boom installation. Do not cut blank-off panels in half.

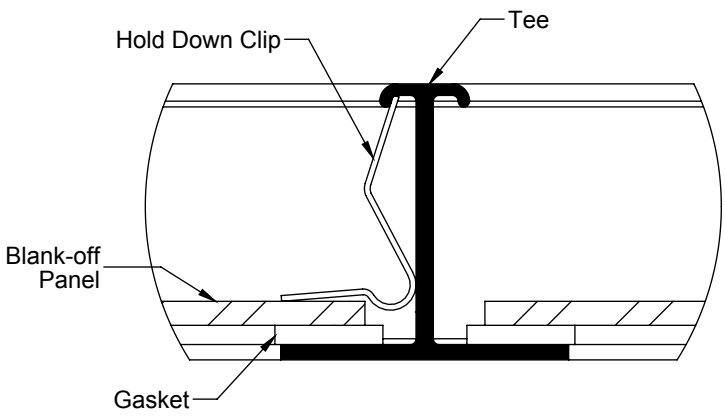
Install diffusers and lights per product specific installation manuals.

Complete installation of the remaining blank-off panels. Start from one end of the room, drop in ceiling tile and hold down clips as you go. It is very important to properly install hold down clips to complete the proper seal. Install at least 1 clip per side on blank-off panels; for panel lengths exceeding 36 inches, (2) evenly spaced clips should be installed per side.

Clip Installation



Installed position



Note: Slide hold down clip into recess at top of tees. Swing/press clip down until it seats itself in the installed position.

Notes

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