



CEILING SYSTEMS

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METALWORKS™ 2' x 2' Faceted Installation Instructions

1. GENERAL

1.1 Product Description

MetalWorks 2x2 Faceted is a non-flat ceiling system composed of MetalWorks Vector™ or Tegular 24" x 24" panels with a PRELUDE™ XL 15/16" suspension system.

Installed panels are supported by the installation system as described in these instructions. Tegular panels require the use of hold down clips, which will reduce accessibility. Use item FHDC – Faceted Hold Down Clip for these installations. Vector installations remain fully accessible.

1.2 Finishes, Storage & Handling, Site Conditions

Refer to separate installation instructions for MetalWorks Tegular and Vector panels.

2. COMPONENTS

Only Armstrong PRELUDE main beams and PRELUDE XL 2' cross tees can be used. Main beams must be spaced 2' on center.

Only Armstrong MetalWorks Tegular and Vector panels can be used. Tegular panels will require the use of hold down clips.

3. DESIGN CONSIDERATIONS

Faceted installations are limited to a minimum radius of 22-1/2 feet. There is no maximum radius limitation.

Both Hills and Valleys may be created, and any portion of the circumference of the circle may be used. Hills and valleys may be connected together to create waves.

Reveals between panels will NOT be consistent on all sides. On hill installations, the spacing between panels on adjacent facets will be slightly less than between panels on the same facet. Valley conditions will have spaces that are slightly greater. This difference is slight, and is dependent on the radius of the installation.

4. INSTALLATION

Installations must comply with the requirements of ASTM C 636 with the following exceptions:

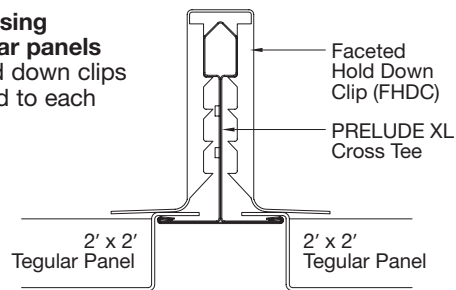
4.1 Suspend main beams 2 feet on center. Hangers must comply with ASTM C 636 requirements.

4.2 Install cross tees every 2 feet along the length of the mains.

4.3 Every second row of mains must be held in position by struts (or compression posts that extend from the main to the structure above. The function of these struts is to overcome the grid system's natural tendency to flatten out. These struts are necessary to maintain the desired curve, and must be spaced not more than 12 feet apart along the length of the mains. (See drawing on page 2).

Acceptable material for these struts is #16 gage, steel, cold rolled channels measuring 1/2" x 1-1/2" or 1/2" diameter EMT. Struts are to be attached to the grid by means of two #8 x 3/4" self drilling sheet metal screws, and to the structure by means of hardware appropriate for the materials encountered. Attachments to the structure must be capable of withstanding a minimum of 100 pounds of force in both tension and compression.

4.4 Installations using MetalWorks Tegular panels must have two hold down clips (item FHDC) applied to each cross tee.



4.5 MetalWorks Vector panels must be positioned so that all kerfed edges engage cross tees.

5. PERIMETER DETAILS

Perimeter conditions will require custom treatment. Moldings will need to be bent to match the angle of the ceiling where it contacts the walls at the straight sides, and will need to be cut to align with the panel segments on the faceted sides. It is recommended to have these installations tie into a wall or drywall bulkhead rather than to attempt to create a floating ceiling condition.

6. SEISMIC RESTRAINT

Installations requiring seismic restraint shall have splayed wire or rigid lateral force bracing applied as prescribed by local building code for flat ceilings.

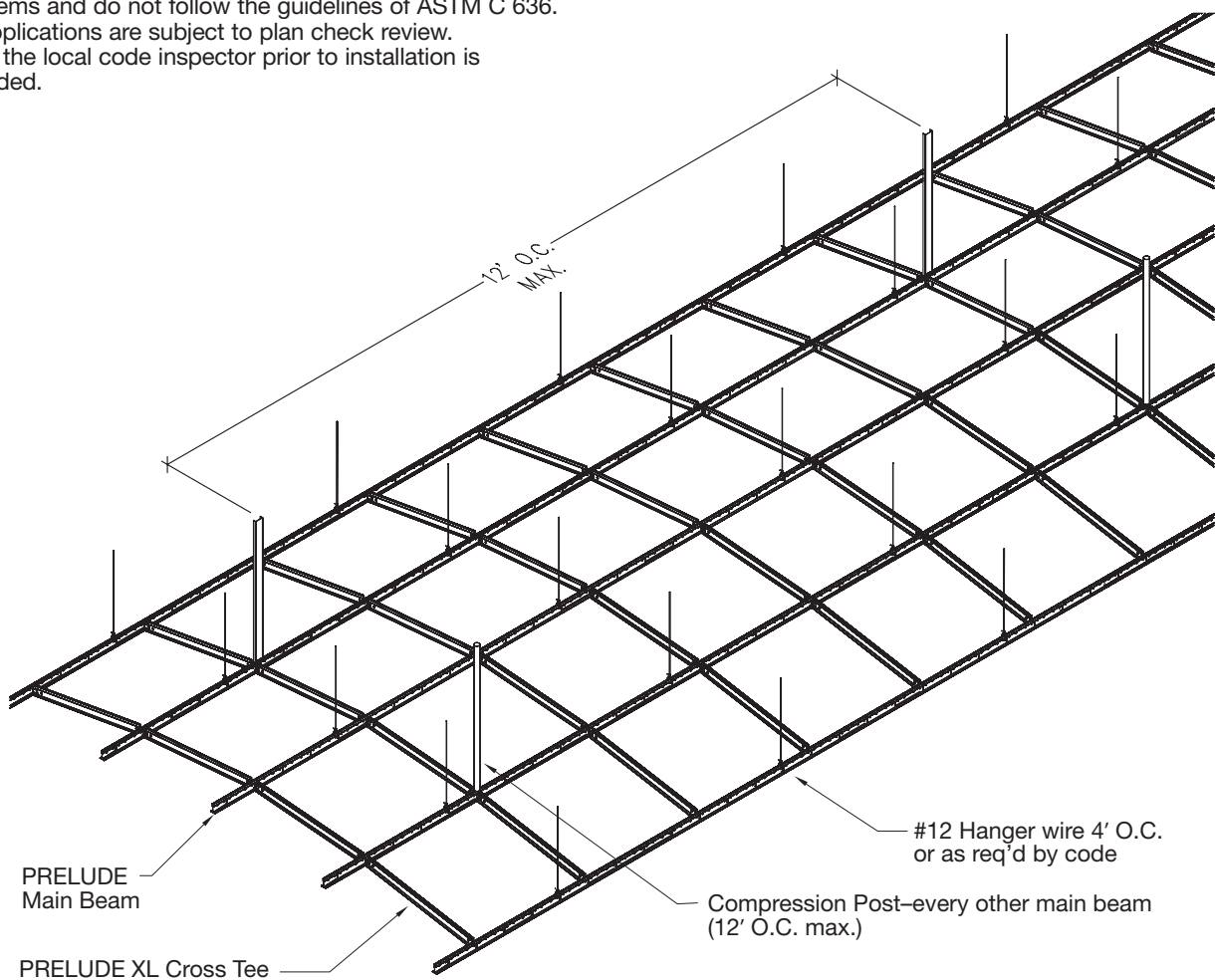
7. BUILDING CODE REQUIREMENTS

Standard flat ceiling applications are governed by ASTM C 636. Armstrong Faceted installations are curved applications using standard items and do not follow the guidelines of ASTM C 636. Faceted applications are subject to plan check review. Consulting the local code inspector prior to installation is recommended.

The International Building Code (IBC), as well as its antecedents, permits alternate designs, materials and methods of construction so long as any such alternate is approved by the Authority Having Jurisdiction (AHJ). The AHJ can approve an alternate that has performance equivalent to the prescribed code requirements. Such equivalent performance is typically established through an engineering evaluation or third party testing. An alternate design, material or construction method DOES meet building code requirements once approved by the AHJ.

In order to establish equivalent performance of our alternate installation method for building code approval by an AHJ, Armstrong uses reports generated by the Structural Engineering Earthquake Simulation Laboratory (SEESL) at the State University of New York's Buffalo campus.

Armstrong reports reflect only the performance of the materials used during our testing. This means that faceted installations can only be created using Armstrong PRELUDE main beams and PRELUDE XL 2' cross tees and may only be used with MetalWorks Vector and Tegular ceiling panels. For a copy of the reports, please contact TechLine.



MORE INFORMATION

For more information, or for an Armstrong representative, call 1 877 ARMSTRONG.

For complete technical information, detail drawings, CAD design assistance, installation information and many other technical services, call TechLine™ services at 1 877 ARMSTRONG or FAX 1 800 572 TECH.

For the latest product selection and specification data, visit armstrong.com/ceilings.

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