

Axiom[®] Design Troughs

Installation Instructions



1. GENERAL

1.1 Product Description

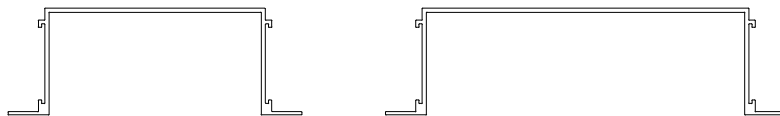
The Axiom[®] Design Trough options easily create channels within the ceiling to improve the installation process, reduce labor costs, reduce coordination complexity on-site during projects and easily integrate into other Armstrong design elements.

Component Description:

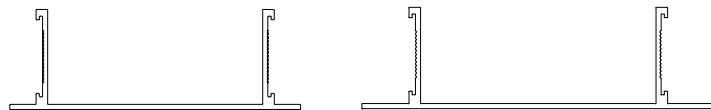
Axiom Design Troughs: Extruded aluminum profiles which give a smooth face or pocketed detail to any ceiling. Special bosses are provided to connect AXTBC or ATC (Adjustable Trim Clip, Item 7239) T-bar connector clips and splice plates to provide positive attachment with no visible fasteners. There are four profile designs to accommodate most situations, a 2" × 4" trough, a 2" × 6" trough, a 4" face plate, and a 6" face plate.

2. MATERIAL DELIVERY AND IDENTIFICATION

Axiom Design Troughs are packaged and delivered in the quantities ordered. All hardware and instructions for assembly will be included in the packaging. Custom projects may include shop drawings as well. Identify all parts listed in the drawings and verify they are delivered to the site before starting the installation. Exercise care to protect the finished surfaces of the trim.



(Fig 1) Troughs

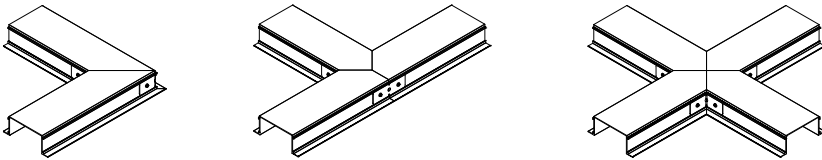


(Fig 2) Face Plates

3. COMPONENT ASSEMBLY

3.1 Prefabricated Welded Corners, 3-Way Intersections, and 4-Way Intersections

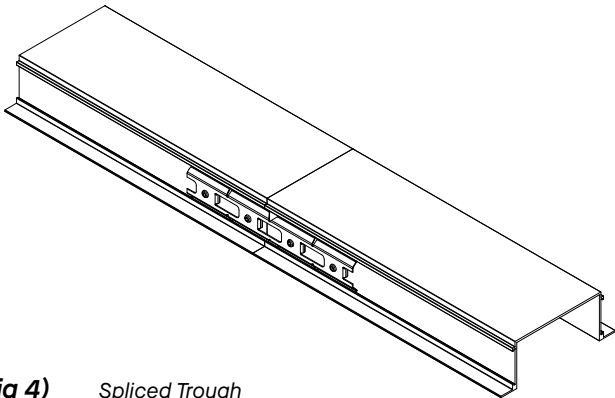
Corners and intersections are factory-mitered sections of trim that measure 12" along the centerlines of the assemblies. The unmitered ends are attached to the straight sections of Axiom® trim using the AX4SPLICEB (four screw) splice plates.



(Fig 3) Corners and Intersections

3.2 Splice Plates

Steel splice plates are used to align and secure joints between sections of the trim. Each joint requires a splice plate at every set of bosses for proper trim alignment. Join straight sections of troughs together using the AX4SPLICEB splice plate. Splice plates are secured to the trim sections using factory-installed set screws.

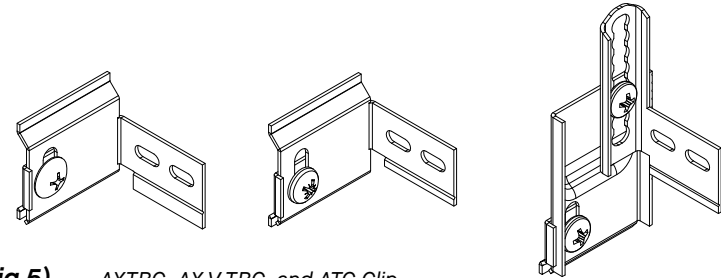


(Fig 4) Spliced Trough

NOTE: Splice plates can slide completely into the channel bosses and then slide into the adjoining section after trough is aligned. This will aid splice plate connections for the last piece.

3.3 T-Bar Connector Clips

T-Bar connector clips are used to attach the channel trim to the supporting suspension system members. These two-piece or three-piece steel clips are supplied as an assembled unit with the steel locking screw factory-installed. One clip is required at each location where the suspension system intersects the channel Axiom trim.



(Fig 5) AXTBC, AX-V-TBC, and ATC Clip

There are three versions of the T-Bar connector clip:

The AXTBC is used in installations where the grid will rest flush on the Axiom flange (e.g. drywall, lay-in, full size Vector® and tegular panels) or need to be raised 1/4" (e.g. cut tegular panels, Silhouette® grid).

The AX-V-TBC is used in installations where the grid will need to be raised 3/8" or 1/2" (cut Vector panels). The AX-V-TBC must be requested at the time of order in lieu of the AXTBC clips. Please see Section 4.2 of this guide for additional interface details.

The ATC (Adjustable Trim Clip; Item 7239) can be used in various installations to accommodate a range of grid offsets. This clip can be adjusted to install grid at 0" to 3-3/4" above the flange of the Axiom at 1/8" increments. This adjustability enables Axiom to be installed with a range of WoodWorks®, MetalWorks™, and other Architectural Specialties products.

T-Bar connector clips are attached to the suspension system members using screws supplied by the installer. Framing screws (#6 × 7/16" or 1/2" lg.) are typical. See detail drawings for alignment of the connector clip with the suspension system member.

Typical Procedure

1. Cut suspension system to length
2. Attach clip to suspension system member
3. Engage clip in channel bosses and tighten locking screw

3.4 Axiom® Hanging Clip

A hanging clip (AX2HGC) will be used with any of the profiles to be installed in the bosses provided on the outside of the trough with hanger wire support as discussed in Section 4.1.3.a.

4. GENERAL INSTALLATION INSTRUCTIONS

4.1 Typical Procedure

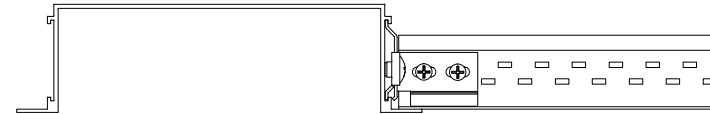
1. Lay out and install the suspension system according to the reflected ceiling plan.
 2. Attach the correct Axiom Connector Clip as described in Section 4.2
 - a. Insert one framing screw near the center of the slot into the grid.
 3. Install the Axiom Design Trough
 - a. Hang the trough using AX2HGC hanging clips and hanger wire. For full length straight sections of trim, hanging clips are required to be added on both sides of the trough no more than two feet in from both ends and then every four feet. For corners, two hanging clips are required to be installed on either end. For 3-way and 4-way intersections, a minimum of two clips are required to support the weldment, but it is recommended to install one clip per unmitered end.
- NOTE:** Any penetrations must be independently supported.
- b. Hang the sections of trim onto the suspension system by engaging the top ear of the connector clips under the boss of the channel trim. Slide the back plate downward to engage the lower boss on the trim and secure by tightening the locking screw.
 - c. Complete the installation of all channel trim sections. Install and secure the splices.
 - d. Make adjustments as necessary to properly align the complete installation. Insert a second framing screw in each of the connector clips.

4. Add additional hanger wires as required
 - a. The manufacturer requires that Axiom systems and their supporting suspension systems be installed and supported in a manner that complies with all applicable codes and standards. Typically, this will require the use of #12 gauge galvanized, soft annealed steel wire or equivalent. Specification and approval of alternate materials should be by design professionals familiar with the project. Wire wraps should be tight and neat.

- b. Main beams must be supported four feet on center or by calculation based on actual ceiling weight.
- c. Cross tees located on each side of an end detail trim must be supported by wires located not more than 8" from the trim.
- d. Color exposed cut edges of cut panels to match factory finish.

4.2 Axiom Connector Clip Options

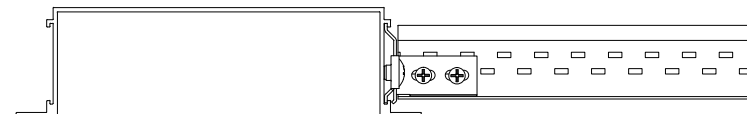
Prelude® and Suprafine® T-Bar suspension systems are designed to rest on the lower flange of the trough and are for use with flat lay-in and some tegular applications. For installations where the T-Bar suspension system will rest on the lower flange of the Axiom trim - use AXTBC.



AXTBC Standard Clip,
Suspension System Flush

(Fig 6) Trough with AXTBC and Grid

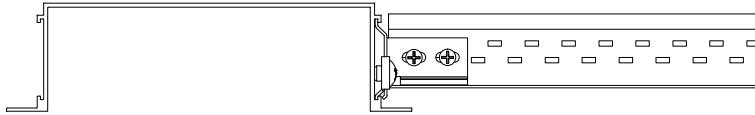
When installations require tegular panels to rest on the face of the grid or when using dimensional grid, such as Silhouette® and Interlude® (systems with 5/16" shoulder height), it will require the clip to be modified to be held 1/4" above the trough flange. Modify the clip by cutting 1/4" off the bottom of the clip at the score line. This can be done with a regular pair of snips. Follow visual instructions for more detail. Silhouette, Interlude® XL®, and HRC (systems with a 5/16" shoulder height), Tegular panels on Prelude® or Suprafine® with the panel face resting on the trim flange, and 5/8" concealed tile – use AXTBC.



AXTBC Modified Clip,
Suspension System 1/4" Offset

(Fig 7) Trough with Trimmed AXTBC and Grid

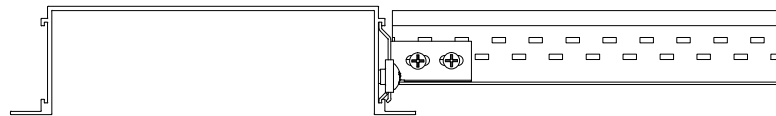
Vector® cut panels and 3/4" concealed tile will require use of the AX-V-TBC clip (sold separately). The suspension system must be held 3/8" above the trough flange. For Vector (cut panels) and 3/4" concealed tile – use AX-V-TBC.



AX-V-TBC Standard Clip,
Suspension System 3/8" Offset

(Fig 8) Trough with AX-V-TBC and Grid

Ultima® and Optima® Vector® cut panels will require use of the AX-V-TBC clip (sold separately). The clip must be modified to hold the suspension system 1/2" above the trough flange. Modify the AX-V-TBC by cutting 1/8" off the bottom of the clip at the score line. Ultima and Optima Vector (cut panels) – use AX-V-TBC.



AX-V-TBC Modified Clip,
Suspension System 1/2" Offset

(Fig 9) Trough with AX-V-TBC and Grid

For products that require a grid offset from the Axiom® flange that cannot be achieved with the AXTBC (0", 1/4") or the AX-V-TBC (3/8" or 1/2") – use the ATC (7239). The ATC can be adjusted to install grid at 0" to 3-3/4" above the flange of the Axiom at 1/8" increments (when tab is cut off).

5. AXIOM® DIRECT TROUGH COMPONENT SUPPORT

The manufacturer requires the Axiom Design Trough and ceiling suspension system be installed and supported in a manner that complies with all applicable codes and standards.

6. INSTALL CEILING PANELS OR TILE

- 6.1 Cut and install tiles or panels using standard procedures for the products specified.
- 6.2 Treat exposed cut edges of ceiling panels as detailed in the product specifications.

7. FINAL DETAILING

- 7.1 Check and adjust the alignment of the suspension system and ceiling panels.
- 7.2 Clean exposed surfaces as required. Painted Axiom components may be wiped down with rubbing alcohol or a mild soap solution to remove finger prints, oil, etc.
- 7.3 Touch up painted components as required. All painted custom Axiom shipments include a container of paint to be used for touch up.

MORE INFORMATION

For more information, or for an Armstrong representative, call 877 276-7876. For complete technical information, detail drawings, CAD design assistance, installation information, and many other technical services, call TechLine customer support at 877 276-7876.

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