



Watch the installation video

# SERPENTINA® Vault

## Installation Instructions

### DESCRIPTION

The Serpentina Vault 3-Dimensional ceiling system consists of pre-engineered Vault canopies available in a Hill configuration and suspended with aircraft cables (provided with each shipment). Each Vault is 2' in width and available in lengths of 6', 8', 10', and 12'. Vaults are available in six arc dimensions (15°, 30°, 45°, 60°, 75°, and 90°). Vault panels can be perforated (R042 and R062) or unperforated (UPA), and are available in all of our standard colors and finishes (custom colors available upon request). Vaults arrive at the jobsite fully assembled and ready for installation.

### COMPONENTS

**Main Beams** are formed from extruded aluminum and are offered in nominal 6', 8', 10', and 12' lengths, curved to form "hills". Main beams are curved to form 15°, 30°, 45°, 60°, 75°, and 90° arcs.

**Concealed Tees** are cross tees that are the connection for the two main beams within each Vault. Concealed tees are connected to each main beam with a three-way grip clip.

**Three-Way Grip Clips** are used as connections for the main beams to the concealed tees. Clips are factory installed so no field assembly is required.

**Panels** are made from aluminum in 2' x 6', 2' x 8', 2' x 10', and 2' x 12' sizes. The panels are available perforated (R042 and R062) and unperforated (UPA), and are available in a variety of finishes.

**Cables and Hardware** are provided with each Serpentina Vault. Each cable is 10' in length and comes with an adjustable "Quick Loop" connector. The correct quantity of cables and hardware pieces are shipped with each Vault.

**Armstrong Support Hangers** are used if there are multiple Vaults next to each other in the installation. The support hangers simply snap over the bulb of the main beam and are screwed to the cross tee members. The knockouts determine the spacing between the panels.

**PLEASE READ ALL INSTALLATION INSTRUCTIONS BEFORE PROCEEDING**

### 1. INSTALLATION

#### 1.1 General

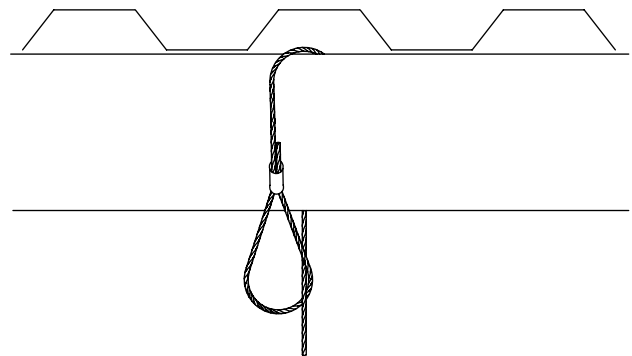
After opening the product crate, locate the Vaults, cable/hardware, support hangers (if using multiple Vaults), and installation instructions. Each Vault in the crate is already assembled, so no field modification is necessary. Extreme care must be taken in the removal, handling, and storage of the Vault during installation, as the panels are prefinished. The installer must also locate the cable/hardware pieces and support hangers (if installing multiple Vaults) as they are required for the suspension of each Vault.

#### 1.2 Suspension Cables and Hardware

Each Serpentina Vault is shipped with the appropriate number of suspension cables and hardware pieces. 2' x 6' and 2' x 8' Vaults include four suspension cables and hardware. 2' x 10' and 2' x 12' Vaults include six suspension cables and hardware.

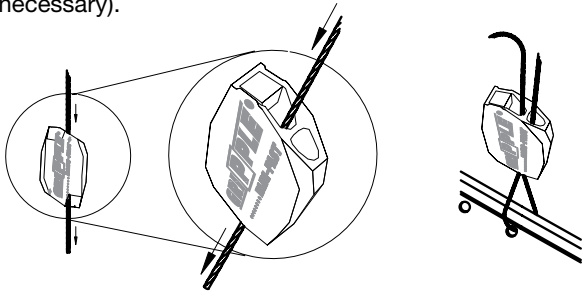
#### 1.2.1 Cable Attachment to Structure

Hardware for the attachment of the cable to the building structure is not provided. Cables are fitted with a loop at one end that is to be cinched to mounting hardware appropriate for the surface to which it is attached. Wire shot or eye-bolt location in the above deck is key in making sure you maintain alignment between Vaults.



### 1.2.2 Single Vault Installation – Cable Attachment

Each cross tee has holes near the end for the cable to be passed through. Use the adjustable “Quick Loop” connectors provided in the kit. Insert the cable through one end of the connector and then through the appropriate hanger wire hole on the support hanger. Slide the cable back through the “Quick Loop” connector and adjust to the correct elevation. Follow the instructions provided with the connectors if it becomes necessary to release the cable from the connector. It is recommended to keep the cable “slack” until final installation is approved and completed, in case the Vault suspended height needs to be adjusted. After final installation is completed, the cable “slack” can either be cut off or a specific length kept in order for future height adjustment (if necessary).

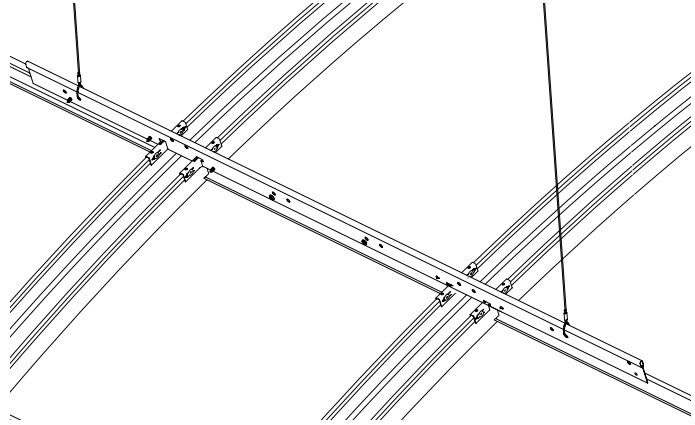


### 1.3 Suspend the Serpentina Vault(s)

- 1.3.1 Suspending the Vault may require two people, as Vaults are large in size (up to 12' in length).
- 1.3.2 Make sure your hands are clean or wear gloves that will not leave any marks.
- 1.3.3 Raise the Vault and gently pull the cables to take up the slack and continue to raise the Vault to the required height.
- 1.3.4 Vaults can be installed at different angles. Care should be taken to follow the design intent shown in the architectural plans.
- 1.3.5 As stated in section 1.2.2, after the Vault height is correct, you can either cut off the cable “slack” or keep a specific amount of cable for future height adjustment (if necessary).

### 1.4 Multiple Vault Installations (Side-to-Side)

It will be common for multiple Vaults to be specified and installed in a “side-to-side” manner. In this type of installation, you may choose to install hangers on the ground before hanging. For longer runs (four or more panels), it may be easier to suspend support hangers in the air first. In a multiple panel installation, suspension cables will be attached to the support hangers rather than the cross tees, like the single panel installation.



Panel lengths of 6' and 8' will have two rows of support hangers. Ten and 12' panels will require 3 rows of support hangers.

If you chose to hang support hangers in the air, using the cable and hardware provided slide the cables through the end holes in the support hanger (cables are 4' apart)

- 1.4.1 First, remove the framing screw at the three way clip.
- 1.4.2 Armstrong support hanger knockouts snap over the bulb of the main beam and 3-way clip to create the desired spacing between panels.
- 1.4.3 Using the same framing screw that was just removed, align the hole in the support hanger and 3-way clip and re-insert the screw through the holes. Repeat at all three way clips.

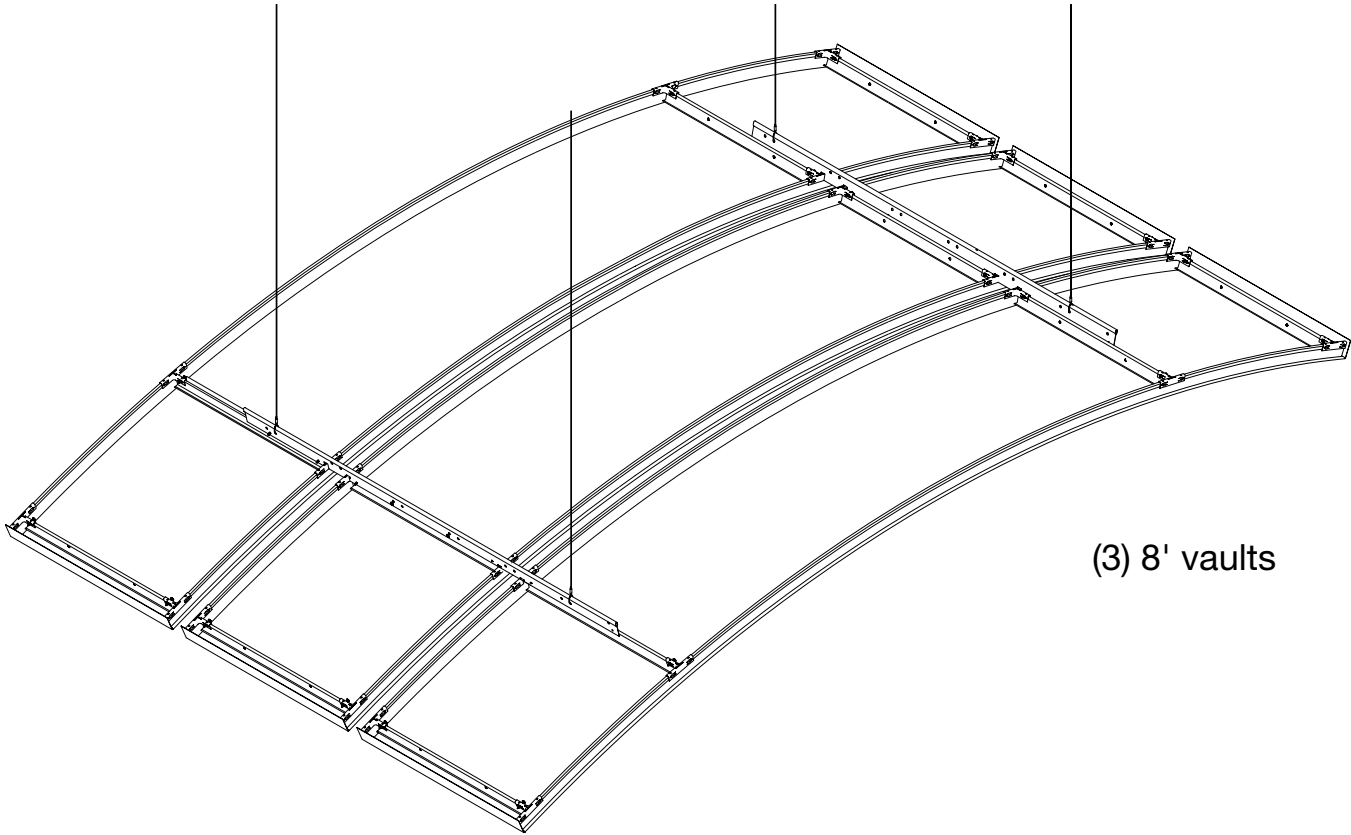
If you have more than 3 panels side by side, hang one end of the support hanger (4' away from the previous hanger). Then attach the other end of the support hanger to the back of the vault already in place.

### 1.5 Leveling and Final Assembly

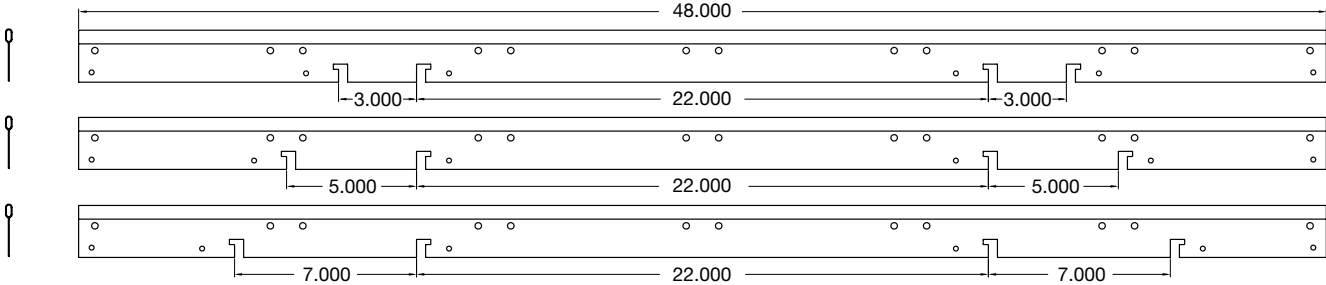
Use of a laser and/or string lines to provide leveling and panel alignment is recommended in setting final Vault height and placement.

### 1.6 Cleaning Recommendations

- 1.6.1 Adjust and clean components as necessary
- 1.6.2 Use only mild detergent and a damp cloth
- 1.6.3 Never use abrasives or solvent
- 1.6.4 Panels should be handled with clean gloves/hands to avoid fingerprints



(3) 8' vaults



## MORE INFORMATION

For more information, or for an Armstrong representative, call 1 877 276 7876.

For complete technical information, detail drawings, CAD design assistance, installation information, and many other technical services, call TechLine<sup>SM</sup> services at 1 877 276 7876, or FAX 1 800 572 TECH.

For the latest product selection and specification data, visit [armstrongceilings.com/serpentina](http://armstrongceilings.com/serpentina)  
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