



MANUAL – INSTALLATION

Active Chilled Beam Linear

ACBL Series

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PRICE[®]

ACTIVE CHILLED BEAM LINEAR

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ACTIVE CHILLED BEAM LINEAR

PRODUCT OVERVIEW

Before You Start

Inspect all cartons and boxes for flaws and shipping damage. If shipping damage has occurred, take photos and contact the shipping company to file a freight claim immediately. Ensure all tools (as listed on the following page) are on site and ready for use. A minimum of two (2) people are required for safe installation.

ACBL:

- 1 or 2 way discharge units
- Horizontal Coil
- 12 or 24 inch width
- 24 to 120 inch length

Handling

- Avoid introducing contaminants into the unit; such as dust or dirt. Keep the induction grille face, the duct inlet, and the water connection piping covered at all times during the installation process.
- To avoid smudging the unit while handling, the use of clean white cotton gloves is recommended.
- Storage of the units should be in a covered, dry location while waiting for installation. Location should be cleaned of excess dust before installation.

Typical Installation in Suspended Ceilings

Determine where beams should be located using building drawings and identification tags on schedule and units. Ensure the beam's length, width, nozzle size, number of pipe connections, pipe circuiting, duct size, duct inlet location and air discharge configuration (1 way or 2 way) match the requirements specified for that particular beam by cross referencing the Price provided schedule, the order linestrings and line instructions with the units that are on site.

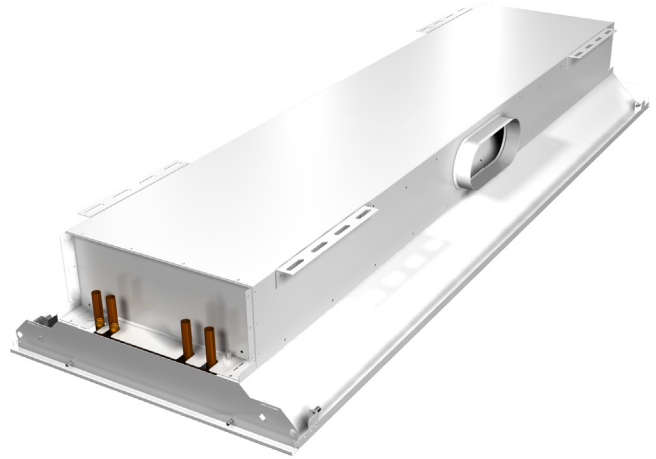
Maintenance

Maintenance required is accessing the coil from the room side through the hinged face and vacuuming the water coil with a soft bristle brush, as well as wiping the slot with a damp cloth based on space and owner requirements.

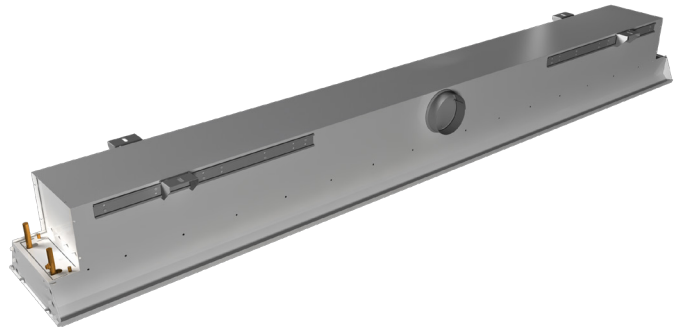
Maintain water conditions which prevent corrosion of copper tubing and ensure that safeguards against air accumulation through leaks or oxygen diffusion in system piping are functioning.

If included in the system design, check the condensate sensor(s) or humidity sensor(s) according to sensor manufacturer's methods and schedule.

ACBL24 ▼



ACBL12 ▼



ACTIVE CHILLED BEAM LINEAR

PRODUCT OVERVIEW

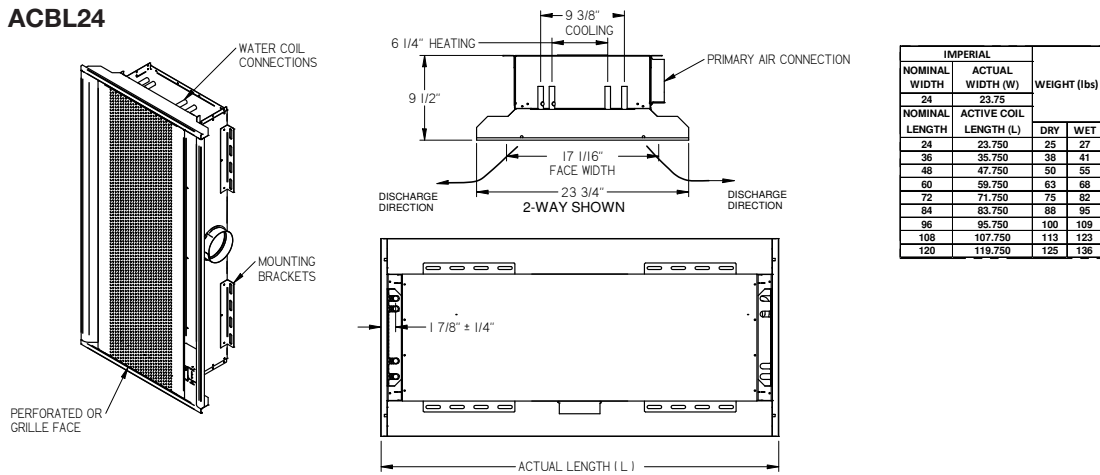
Required Tools/Parts

To be supplied by contractor

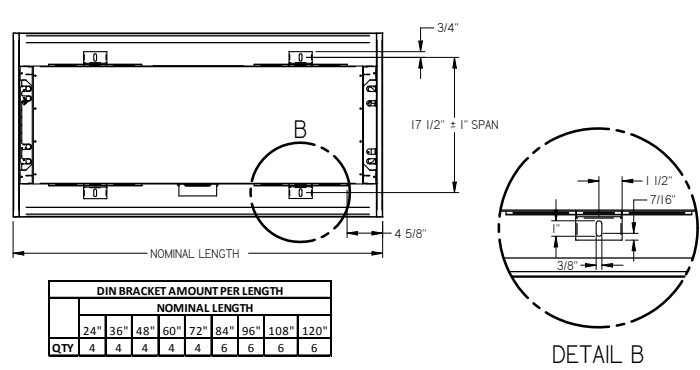
- (2+) Ladders or scaffolding
- Laser level
- Cordless drill/impact
- Damp cloth(s) (for cleaning)
- Tape measure
- Clamps/Locking plier
- Suspension methods
 - Pre-stressed 12 ga. suspension wire (or approved alternative) with necessary equipment to install wire into substructure.
 - Hang wire
 - 3/8 in. Threaded rod, 3/8 in. suspension nuts
 - Adjustable hanging wires
 - Speed rail (if applicable)
- Philips screw driver (DIN rail mounting option only)

Dimensional Data

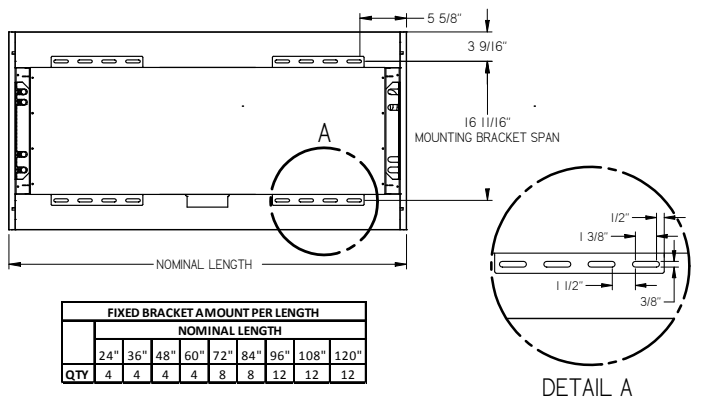
ACBL24



ACBL24 Adjustable Mounting Bracket



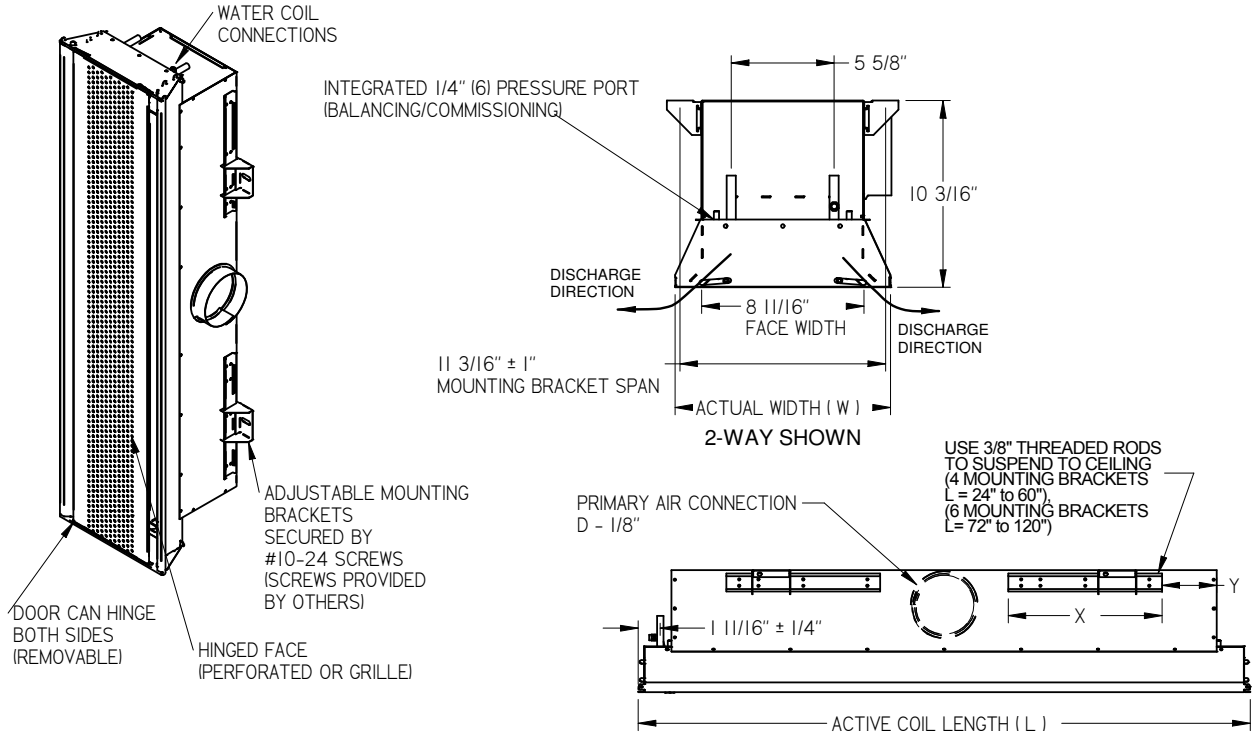
ACBL24 Fixed Mounting Bracket



ACTIVE CHILLED BEAM LINEAR

PRODUCT OVERVIEW

ACBL12



	IMPERIAL		WEIGHT (lbs)	
	NOMINAL SIZE	ACTUAL WIDTH (W)		
	WIDTH	12	11.750	
	NOMINAL SIZE	ACTIVE COIL LENGTH (L)	DRY	WET
	LENGTH	24	23.750	17
LENGTH	36	35.750	26	29
LENGTH	48	47.750	35	39
LENGTH	60	59.750	43	48
LENGTH	72	71.750	52	58
LENGTH	84	83.750	60	67
LENGTH	96	95.750	69	77
LENGTH	108	107.750	78	87
LENGTH	120	119.750	86	96

MOUNTING DETAIL		
NOMINAL BEAM LENGTH	X	Y
LENGTH 24	3.000	1.000
LENGTH 36	6.000	1.000
LENGTH 48	12.000	4.250
LENGTH 60	12.000	4.250
LENGTH 72	12.000	4.250
LENGTH 84	12.000	4.250
LENGTH 96	36.000	4.250
LENGTH 108	36.000	4.250
LENGTH 120	48.000	4.250

ACTIVE CHILLED BEAM LINEAR

INSTALLATION & MOUNTING INSTRUCTIONS

Unit Installation (Ceiling Grid)

Step 1: Determine beam locations and orientation according to approved reflected ceiling plans.

Step 2: Install adjustable hanging wire, Speed Rail, threaded rod and/or hanger to support all four corners of the beam as well as two middle supports (7 ft. - 10 ft. only)

Step 3: Orient beam according to reflected ceiling plan.

Step 4: Install 3/8 in. suspension nut on threaded rod.

Step 5: Slide beam mounting bracket over 3/8 in. threaded rod and attached 3/8 in. suspension nut.

Step 6: Level beams ~2 in. above the finished ceiling height for drop ceiling installations, at ceiling level for exposed beams, using laser level.

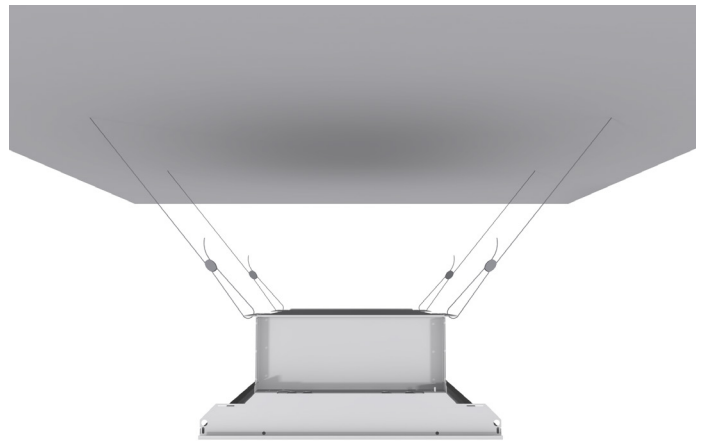
Step 7: Once ceiling is installed, lower beams onto grid and tighten the two suspension nuts to hold the beams tight in place.

Step 8: Connect the water supply and return piping to the beam coil. Hard pipe connections or flexible hose can be used (See Page 9).

Step 9: Connect the supply air to the ACBL inlet collar. The air connection can be made with either hard duct or flex duct. Ensure an air tight connection to achieve desired performance (See Page 9).

NOTE: Installation of chilled beams to substructure should be done in accordance with local codes. Additional seismic bracing might be required.

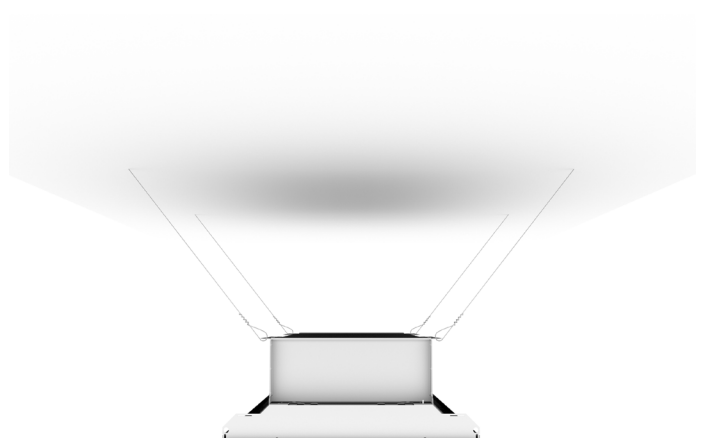
ADJUSTABLE HANGING HOOKS ▼



THREADED ROD ▼



HANGER WIRE ▼



ACTIVE CHILLED BEAM LINEAR

INSTALLATION & MOUNTING INSTRUCTIONS

Slimline Parts List

Quantity of parts per beam:

- A. (1) TEK Screw
- B. (2) #10-32 Bolt
- C. (3) Slimline Bracket (pre-installed)

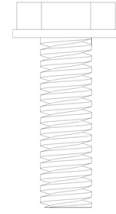
Slimline Installation Instructions for ACBL24

1. Hang and level each beam separately.
2. Align beams so that the faces are on the same plane.
3. Connect beams together using (2) Slimline Brackets, (4) TEK screws, and (4) #10-32 bolts.

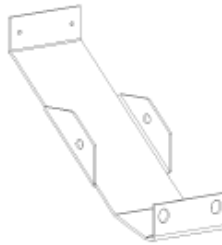
SLIMLINE PARTS ▼



A. (4) TEK SCREW

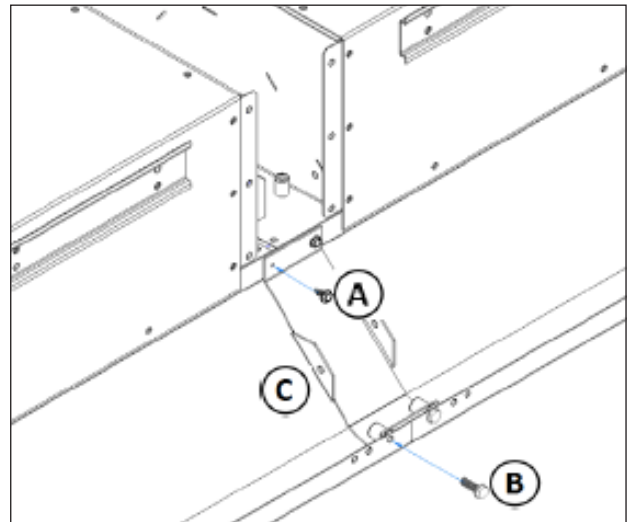
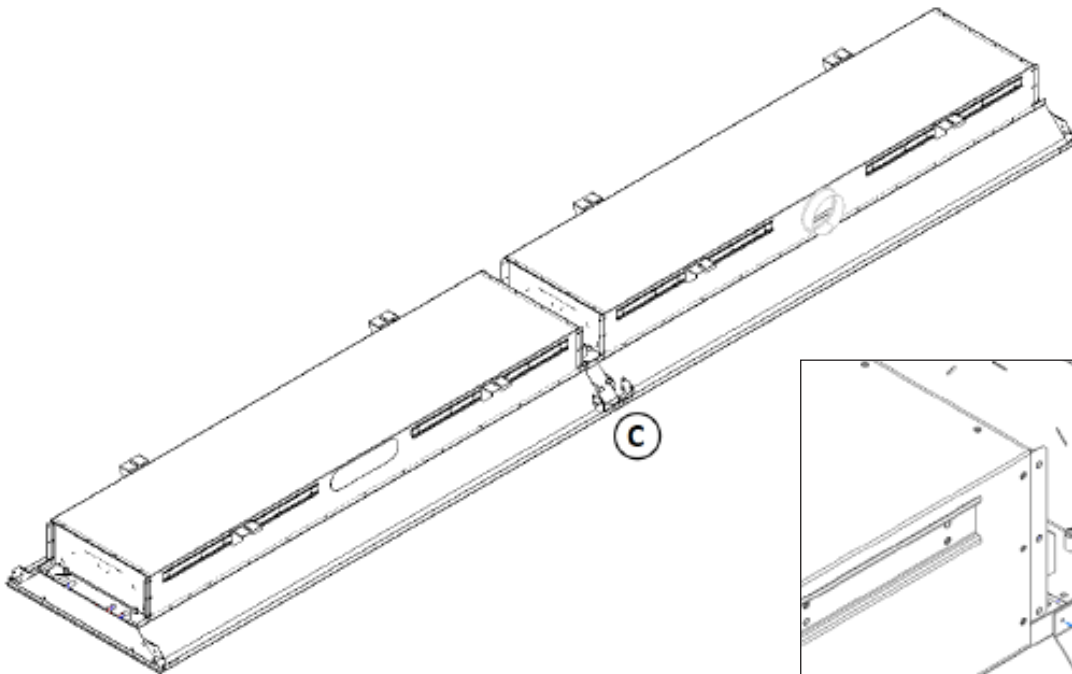


B. (4) #10-32 BOLT



C. (1) SLIMLINE BRACKET (PRE-INSTALLED)

INSTALLATION INSTRUCTIONS ▼



ACTIVE CHILLED BEAM LINEAR

INSTALLATION & MOUNTING INSTRUCTIONS

Slimline-Wings Parts List

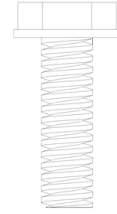
Quantity of parts per beam:

- A. (4) TEK Screw
- B. (16) #10-32 Bolt
- C. (2) Slimline Bracket (pre-installed)
- D. (2) Slimline-Wing Alignment Bracket
- E. (2) Wing Endcap

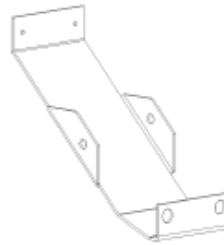
SLIMLINE-WINGS PARTS ▼



A. (4) TEK SCREW



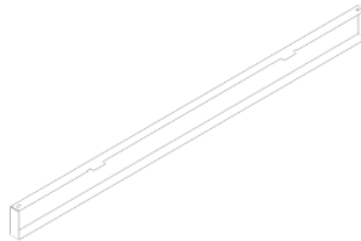
B. (16) #10-32 BOLT



C. (2) SLIMLINE BRACKET (PRE-INSTALLED)



D. (2) SLIMLINE-WING ALIGNMENT BRACKET



E. (2) WING ENDCAP

ACTIVE CHILLED BEAM LINEAR

INSTALLATION & MOUNTING INSTRUCTIONS

Slimline-Wings Installation for ACBL24

1. Hang and level each beam separately
2. Align beams so that the faces are on the same plane and properly aligned
3. With the wings in the vertical position, loosen screws to lower wings (1). (Fig. 1)
4. Tighten screws in down position.
5. Install self-drilling (TEK screws) & #10-32 onto Slim-Line Bracket (Fig. 2)
6. Install Slim-Line Wing Alignment bracket with #10-32 screws (Fig. 3)

FIGURE 1 ▼

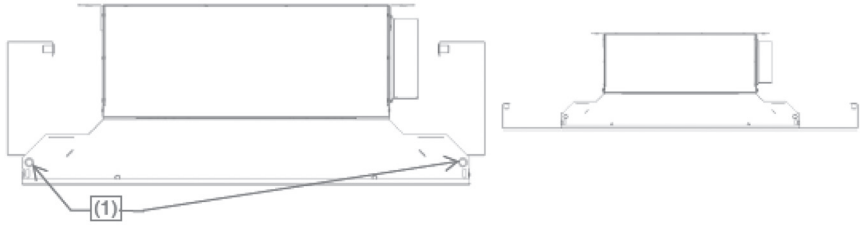


FIGURE 2 ▼

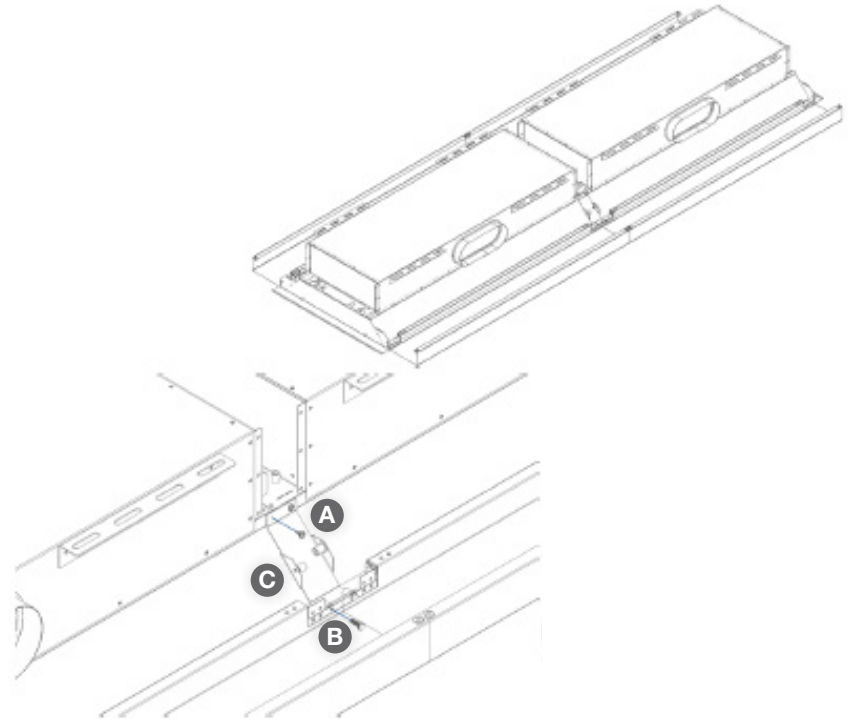
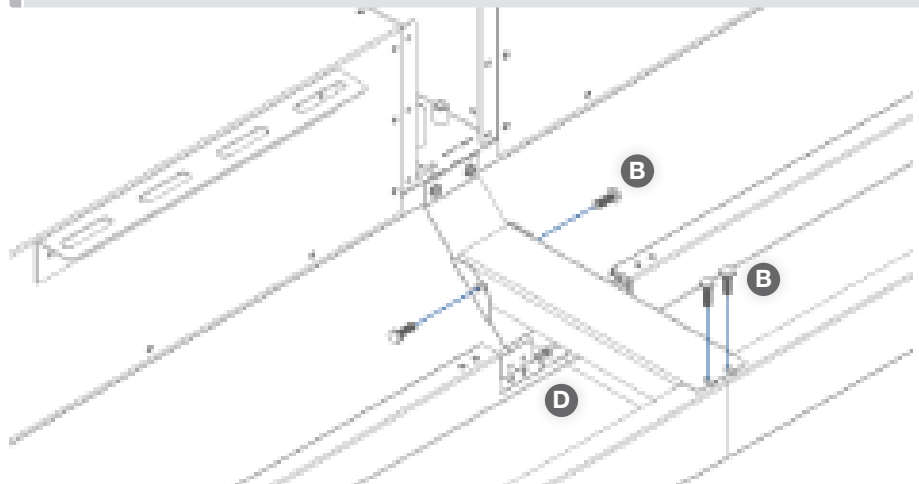


FIGURE 3 ▼



ACTIVE CHILLED BEAM LINEAR

INSTALLATION & MOUNTING INSTRUCTIONS

7. Install wing endcaps with #10-32 screws (Fig. 4)
8. Finished. (Fig. 5)

FIGURE 4 ▼

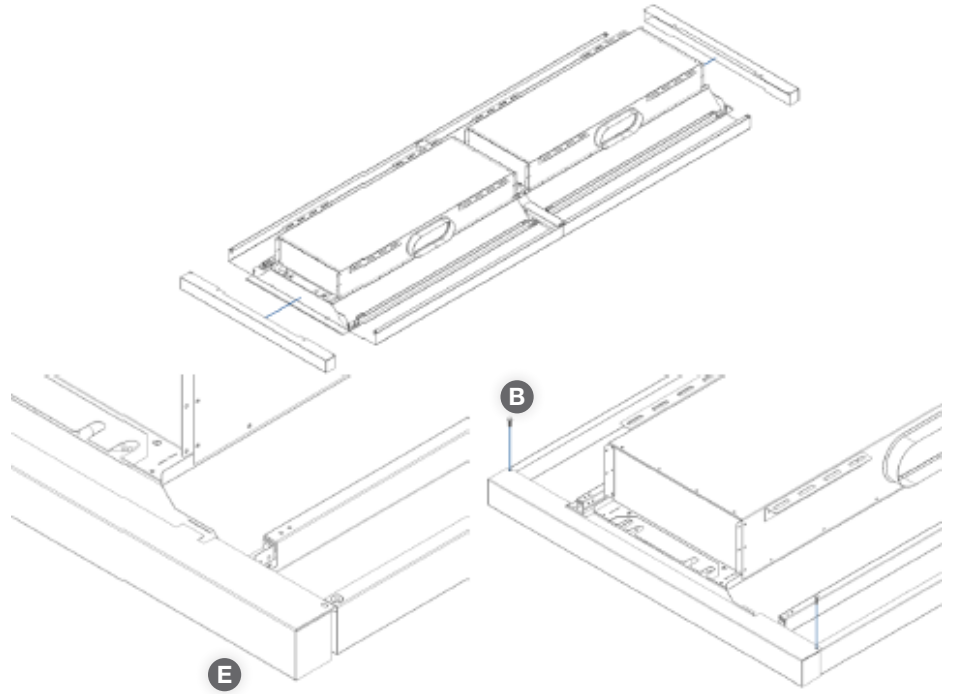
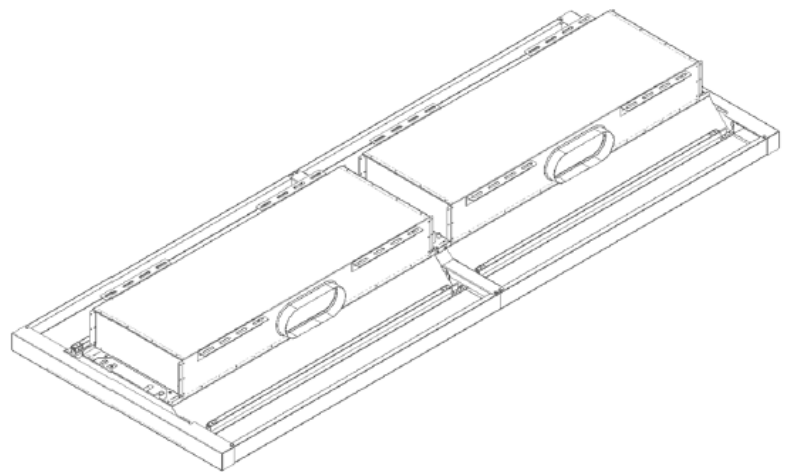


FIGURE 5 ▼



ACTIVE CHILLED BEAM LINEAR

INSTALLATION & MOUNTING INSTRUCTIONS

Water System Preparation

- Water connection options:
 - Sweat, Threaded, Push Connect.
- Before connecting beams to the water system, flush and drain the water main piping to remove contaminants from the construction process.
- Pressure test the water system for leaks Isolate and fix leaks.

Water Balancing - Manual

- Adjust balancing valves based on fluid flow rates scheduled on Price performance data.

Water Balancing - Auto/Pressure Independent

- Ensure correct pressure independent valves are installed based on design drawings. Confirm the correct flow rate is on the correct branch. (i.e. hot waterflow rate going through hot water coil.)

Air System Preparation

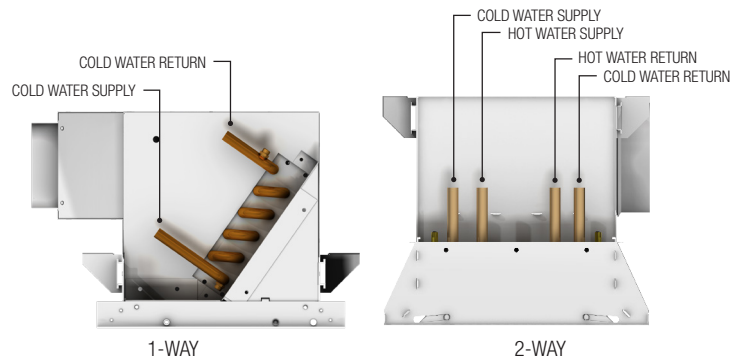
- Ensure an air tight connection between the supply duct and the active beam. Duct connections are recommended to meet SMACNA class B standard up to 2 in.w.g.
- Air connections will ideally have straight duct sections upstream of the air inlet. Although bends in the duct are permitted close to the air inlet, there should be 3 duct diameters straight leading into inlet to ensure laminar flow Only straight ductwork connections will yield a reliable pressure port measurement.

Air Balancing

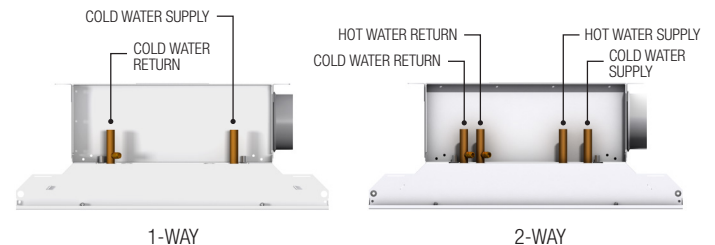
- Measure static pressure in the plenum of the active beam by connecting a static pressure measurement device to the port included on the beam. The pressure port is located inside the discharge slot, near the end of the beam.
- Adjust balancing damper to match the Price project schedule static pressure to the measured result.
- Damper should be used for trimming only.
- Contact the Price Application Engineering department for high altitude locations.
- See Air flow calibration charts on pg 12.

NOTE: Traversing the duct work before a beam will not guarantee that the beam is properly balanced because performance is based on internal plenum pressure.

ACBL12 PIPING ▼



ACBL24 PIPING ▼



PRESSURE PORT ▼



ACTIVE CHILLED BEAM LINEAR

INSTALLATION & MOUNTING INSTRUCTIONS

Damper Installation

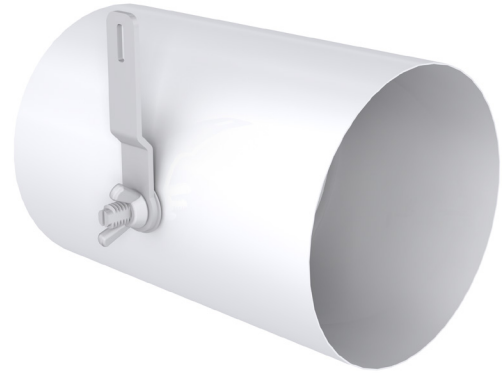
Select the appropriate MQ/VAV Damper required for the location based on the diameter of the unit or zone duct.

The MQ/VAV damper should always be installed in locations that are accessible for inspection and removal if necessary.

In order to avoid additional noise in the occupied space:

1. The MQ/VAV damper should be installed at least 5 duct diameters upstream of the active beam.
2. The MQ/VAV damper should be used as a trimming damper and not a balancing damper.

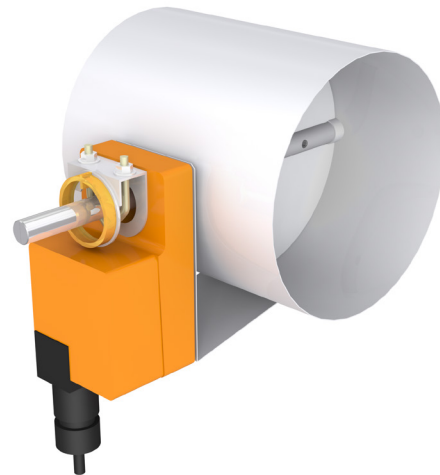
MQ DAMPER ▼



DAMPER INSTALLATION ▼



VAV DAMPER ▼



ACTIVE CHILLED BEAM LINEAR

INSTALLATION & MOUNTING INSTRUCTIONS

Interpretation of Beam Tag

All beams come shipped with a tag on the outside of their plastic wrapping. This tag should be checked to ensure that the beam is placed in the proper location, and contains the correct options.



0 75992500210001 8001

ORDER	LINE	UNIT	PART	SECTION	
744629	1	1	A	1/6	TAG: (EXAMPLE)

ACBL24//2W/24/84.00/48.00///406/2P1C-DV/SWT/LH/////5/A/MQ5/////P//GLV/FIX///WNG6//ABS12/RET12/ADS12/PC/INT/////PF/B12

1234567891011121314151617181920212223

- | | | |
|--|--|---|
| <ul style="list-style-type: none">1 Model2 Discharge (2W: 2-Way, 1W: 1-Way)3 Width (in.)4 Overall Length (in.)5 Coil Length (in.)6 Nozzle Style7 Coil Type8 Coil Connection | <ul style="list-style-type: none">9 Coil Orientation10 Inlet Size11 Inlet Location12 Inlet Damper Type13 Face Style (P: Perforated, G: Grille)14 Plenum Finish15 Mounting Bracket Type16 Casing Accessory | <ul style="list-style-type: none">17 Accessory Blank Section18 Return Exhaust Section19 Air Diffuser Section20 Pattern Controllers21 Insulation22 Protective Film23 Finish Code |
|--|--|---|

Contact information

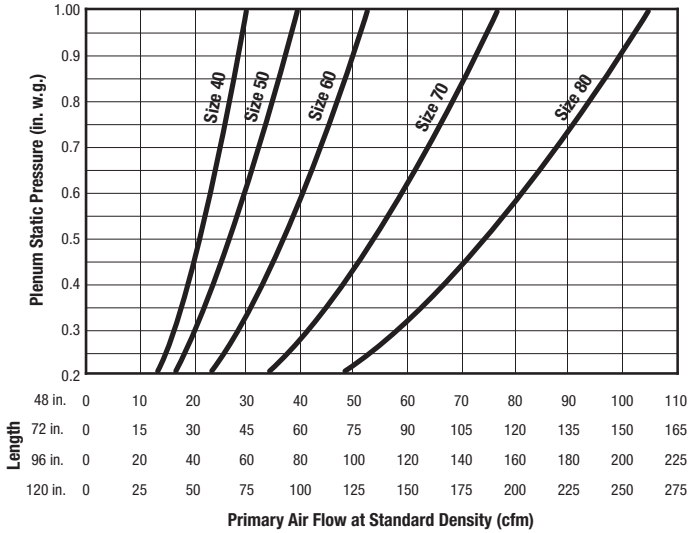
For all chilled beam issues please contact:
beamteam@priceindustries.com or
by phone at 204-654-5613 ext. 3

ACTIVE CHILLED BEAM LINEAR

INSTALLATION & MOUNTING INSTRUCTIONS

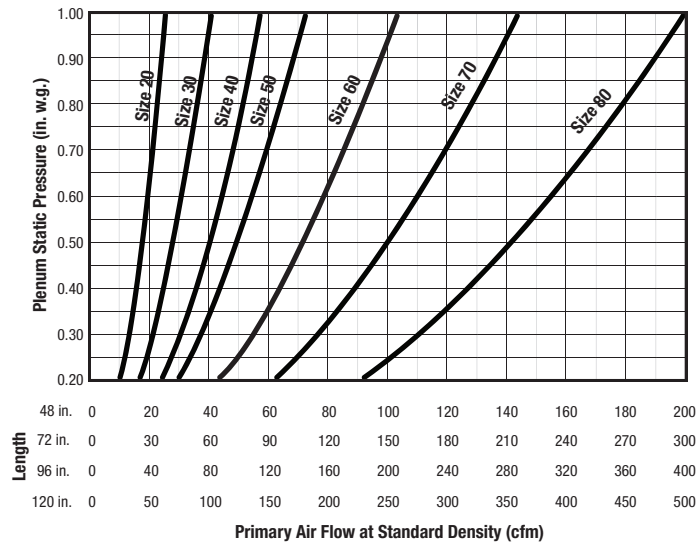
Airflow Calibration Charts: ACBL12 - 1way

Data presented for Standard Atmosphere at sea level.



Airflow Calibration Charts: ACBL12 - 2way

Data presented for Standard Atmosphere at sea level.

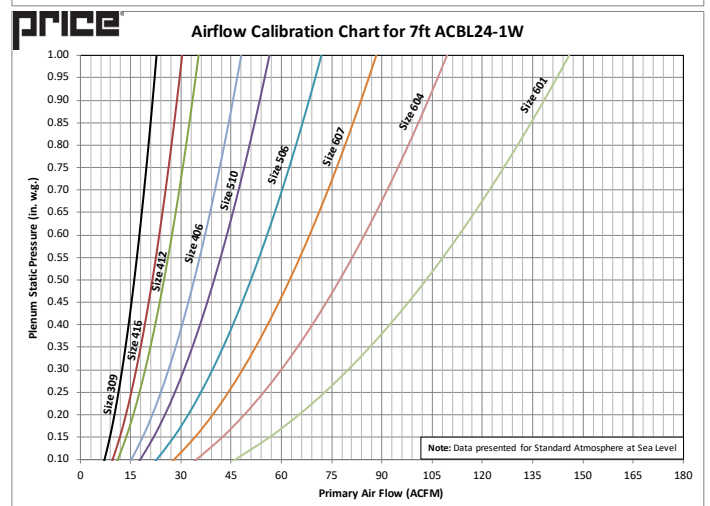
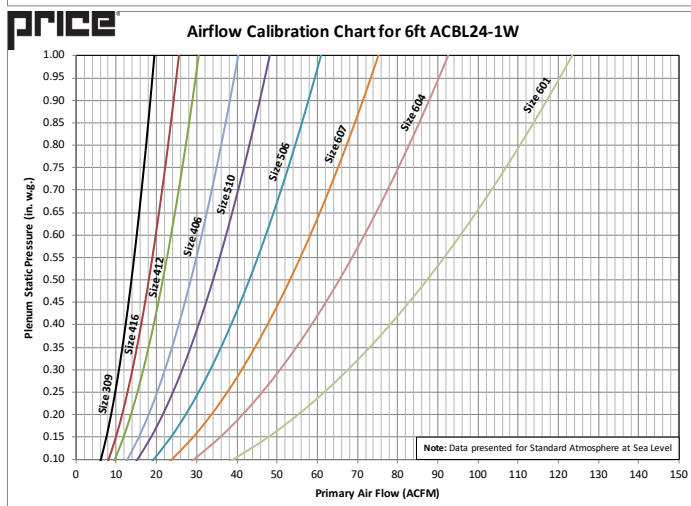
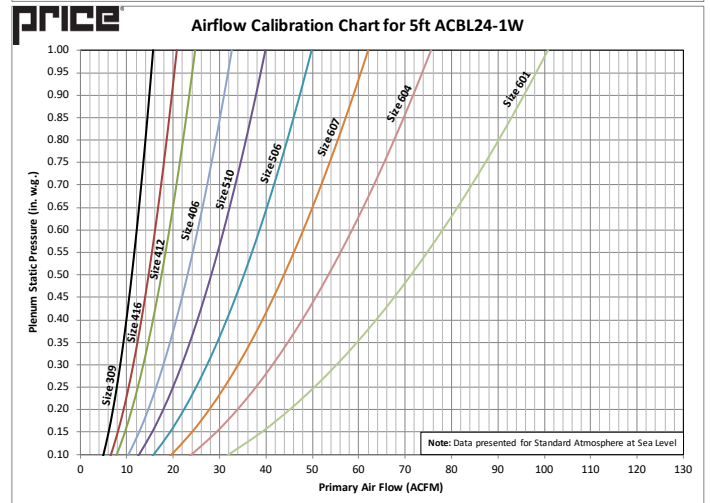
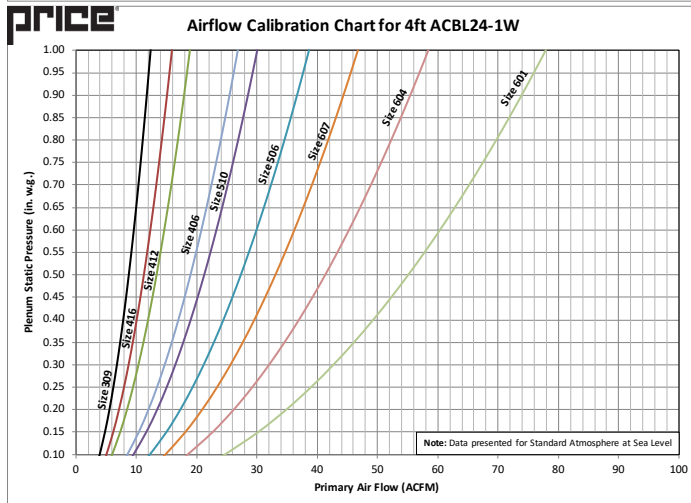
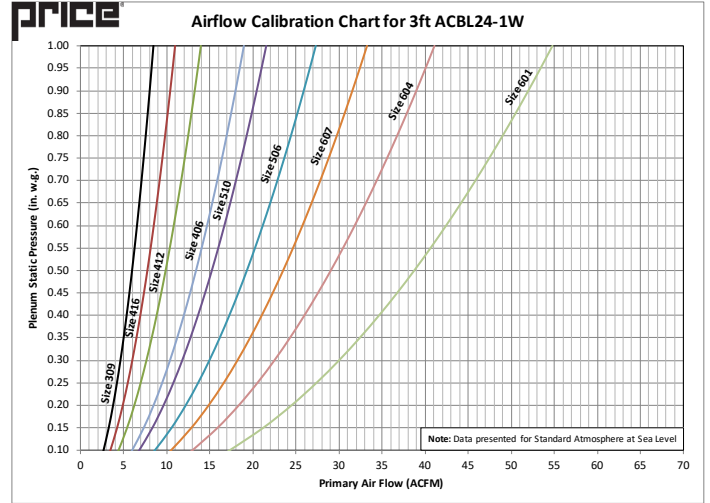
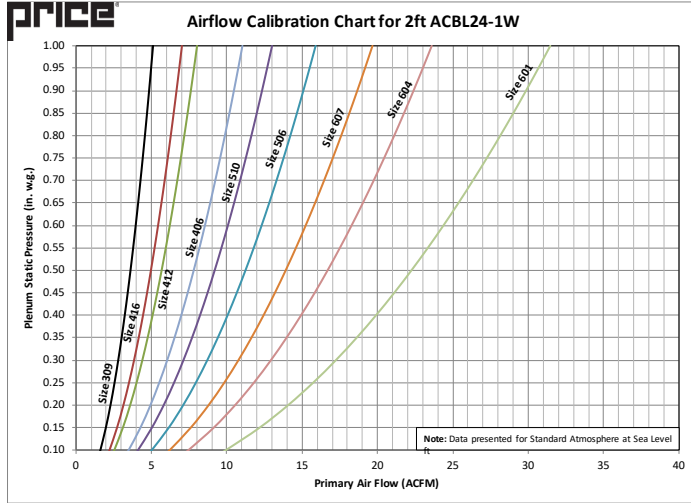


ACTIVE CHILLED BEAM LINEAR

INSTALLATION & MOUNTING INSTRUCTIONS

Airflow Calibration Charts: ACBL24 - 1way

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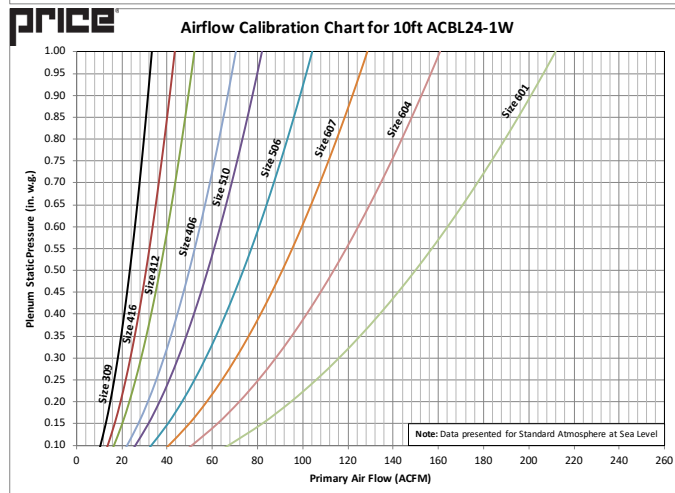
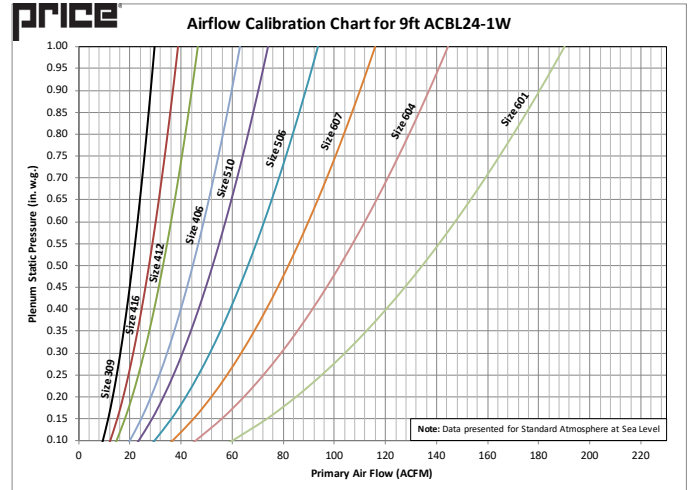
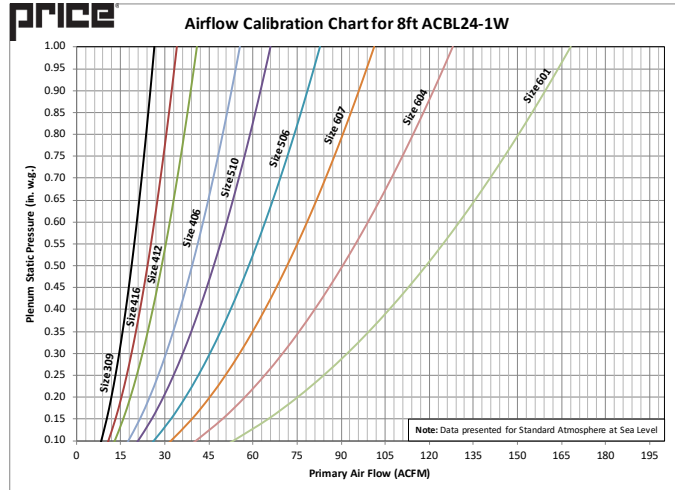


ACTIVE CHILLED BEAM LINEAR

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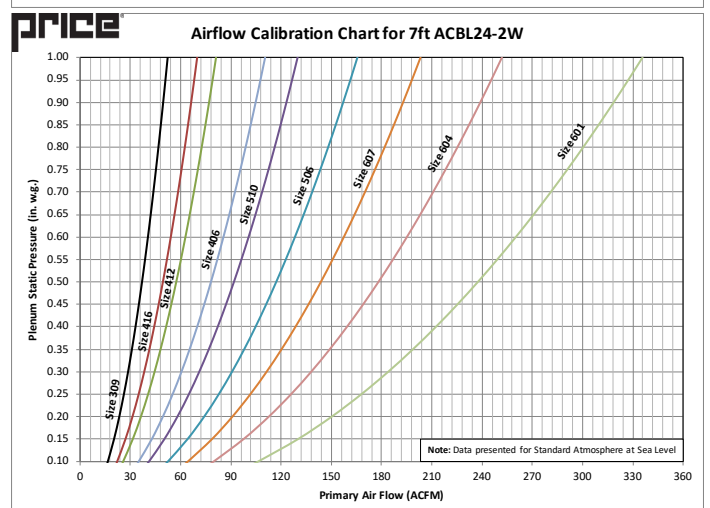
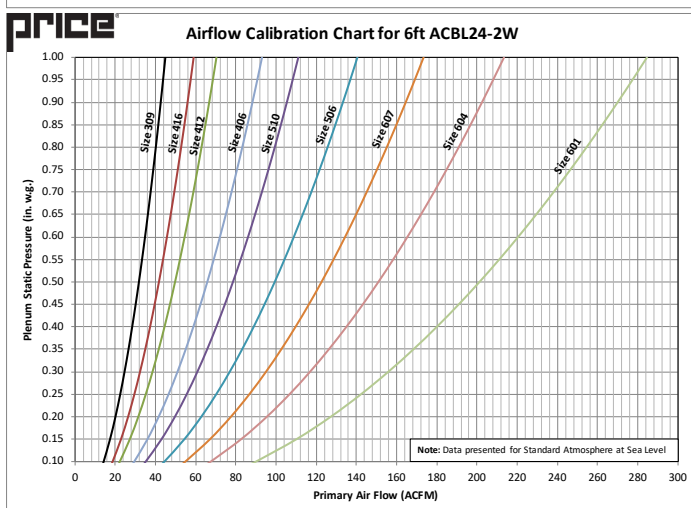
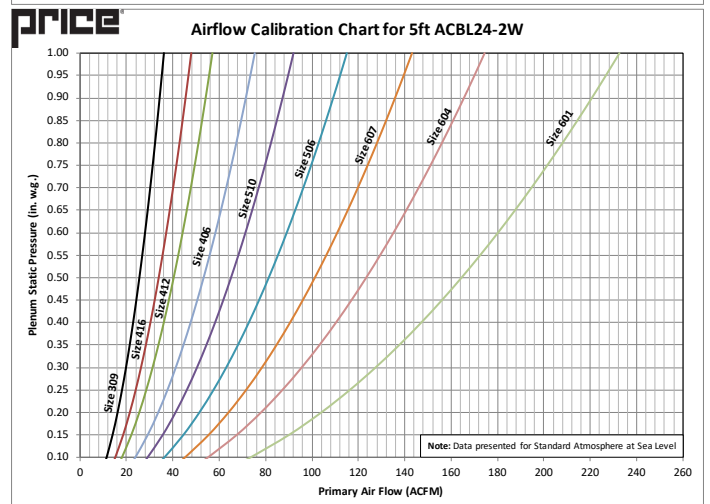
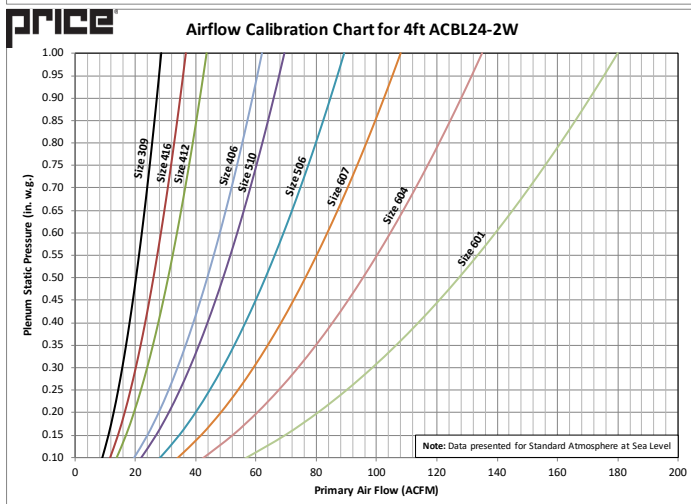
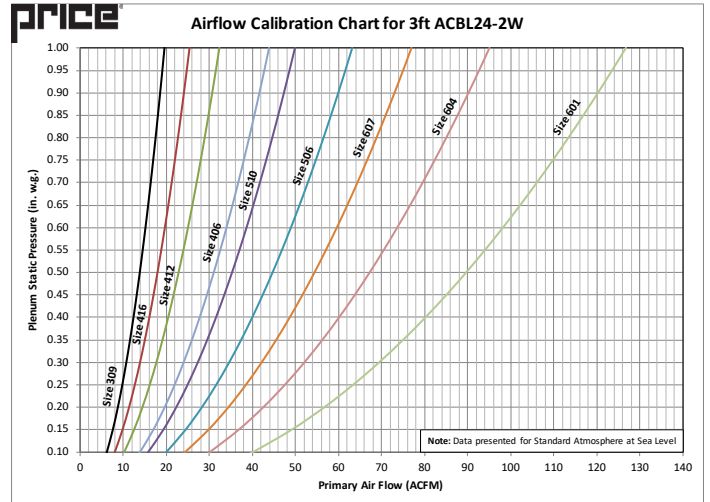
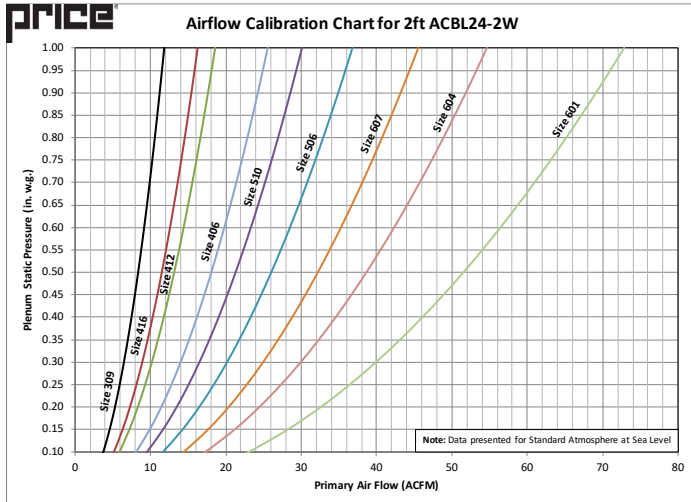


ACTIVE CHILLED BEAM LINEAR

INSTALLATION & MOUNTING INSTRUCTIONS

Airflow Calibration Charts: ACBL24 - 2way

Data presented for Standard Atmosphere at sea level.

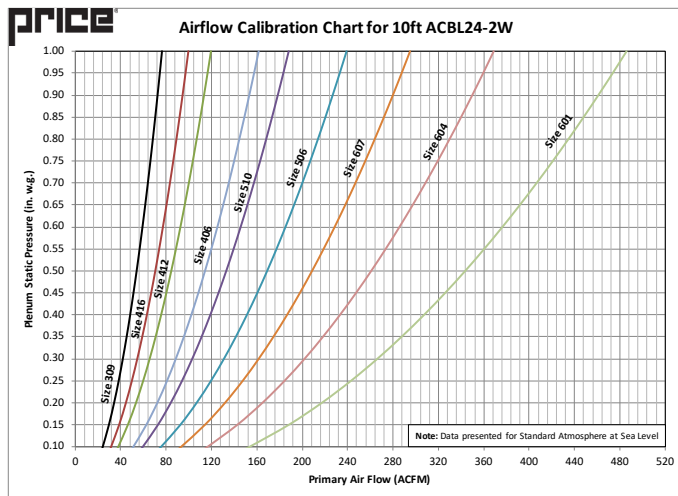
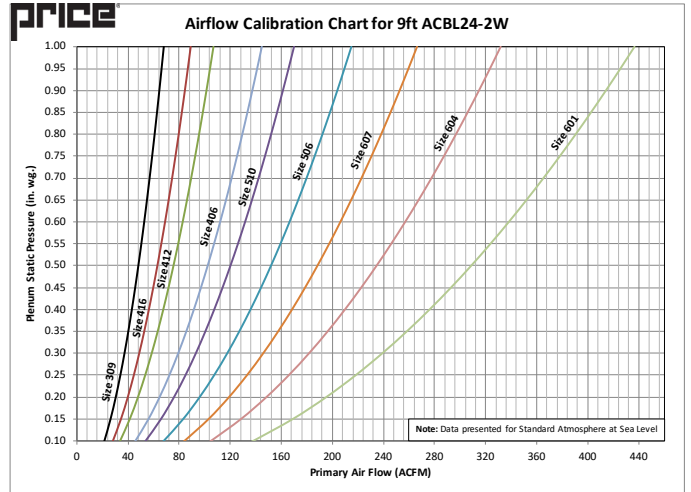
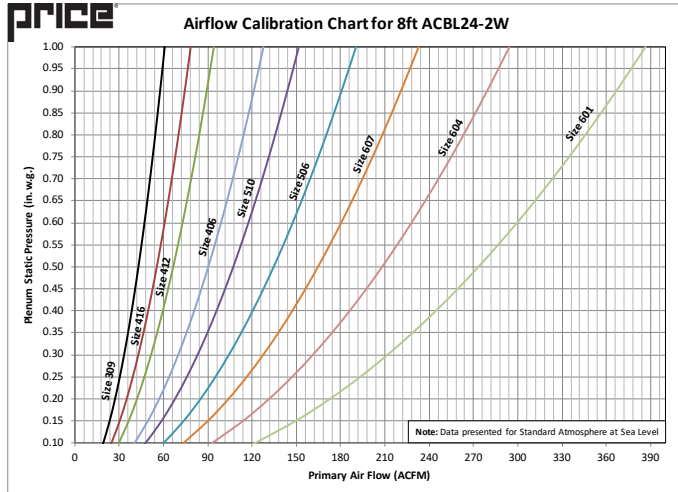


ACTIVE CHILLED BEAM LINEAR

INSTALLATION & MOUNTING INSTRUCTIONS

Airflow Calibration Charts: ACBL24 - 2way

Data presented for Standard Atmosphere at sea level.



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