The Linear Active Chilled Beam (ACBL) is Price Industries’ most versatile beam. With the option of either 1-way or 2-way throw patterns and pattern controllers to guide the discharged air (only on 24 in. wide unit), the ACBL can be utilized in room centers, perimeters or both to provide optimum thermal comfort. The ACBL is designed to provide a high cooling and heating output by conditioning the room air induced through the beams hydronic coil while simultaneously supplying fresh, conditioned air to the occupied area.
ACBL OPTIONS

Linestrings shown in brackets.

Integrated Diffuser (ADS)

Wings (WNG6)

Pattern Controllers (PC)

Valve & Controls Enclosure (ABS)

Slimline Coupling (SLIM)

Color options

Face options

Plenum finish options

Integrated Return (RET)
OPTION DETAILS

**Integrated Return (RET)**
The integrated return allows for a ducted or plenum style return, and places it in the most optimal location. This also provides a continuous linear aesthetic.

**Color Options**
In addition to the standard white option (B12), the exterior can be ordered in a variety of special (SPL) paint finishes. The coil can be unpainted or black (BLK).

**Integrated Diffuser (ADS)**
The integrated diffuser includes a separate air inlet that can be combined with a manual or VAV damper. When more airflow is required, an integrated diffuser can be used to adjust the airflow to the zone.

**Valve & Controls Enclosure (ABS)**
The enclosure section allows for room side access to the plumbing, valves, and electronic controls to simplify maintenance.

**Plenum Finish Options**
The plenum is not visible from the room side, but finishes may still be selected. Plenum comes in a standard galvanneal finish (GLV), or can be painted to match (MATCH) the exterior of the beam typical of open ceiling applications where the plenum can be seen.

**Wings (WNG6)**
When beams are installed in an open ceiling, wings ensure a horizontal air pattern and hide services such as plumbing, power, and ductwork.

**Pattern Controllers (PC)**
Pattern controllers govern the direction of the discharge air and can be used to shorten throw by up to 50% and help reduce any drafts felt by the occupants. This option is only available on the 24 in. model.

**Slimline Coupling (SLIM)**
The slimline coupling option allows multiple beams to be connected in series so that they appear as a single, continuous unit.

**Face Options**
- **Perforated Face** - Greater than 50% free area facilitates the induction process.
- **Grille Face** - Provides linear aesthetics for alternate styling options.
- **T-bar ceiling grid** - Standard or Tegular compatibility.
WATER COIL OPTIONS
The ACBL is available with two water coil configurations.

2-Pipe Configuration – Can be used in heating or cooling applications.

4-Pipe Configuration – Includes a dedicated heating circuit.

DAMPER OPTIONS
Three damper options allow for fine tuning of static pressure.

Volume Flow Regulator (VFR) – Maintains a constant airflow over a range of static pressures.

Manual Quadrant (MQ) Damper – For onsite fine tuning.

VAV Damper – Can be electronically actuated for VAV applications.
APPLICATIONS

Office Buildings
+ Typically installed in open office areas, private offices, conference rooms, hallways, and storage rooms.
+ Can be utilized in both interior and perimeter zones.
+ The slimline configuration allows for a row of beams to be installed adjacently without interruption in open office areas.

Healthcare
+ Typically installed in patient rooms and administrative areas.
+ Small footprint of the beams and ductwork can lead to additional usable space.

Laboratories
+ Beams are typically applied in load driven labs.
+ The air diffuser (ADS) option can be utilized in lab spaces to provide demand control ventilation as well as makeup air during occupied hours.
+ The pattern controller (PC) option can be used to spread the air in small footprint layouts.

K12 Schools
+ Multiple space uses available including libraries, classrooms, offices, and labs.

Post Secondary
+ Multiple space uses available including libraries, classrooms, offices, lecture hall, and labs.
+ Excellent waterside efficiency opportunity by utilizing the district loop from the central plant to supply the water to the beams.
DIMENSIONAL DATA

24 in. Linear Active Chilled Beam

### Dimensions

- **Nominal Width**: 24 in.
- **Actual Width (W)**: 23.75 in.
- **Nominal Length**: 36 in., 48 in., 60 in., 72 in., 84 in., 96 in., 108 in., 120 in.
- **Actual Length (L)**: 35.75 in., 47.75 in., 59.75 in., 71.75 in., 83.75 in., 95.75 in., 107.75 in., 119.75 in.

#### Diagram

![Diagram of 24 in. Linear Active Chilled Beam]

12 in. Linear Active Chilled Beam

### Dimensions

- **Nominal Width**: 12 in.
- **Actual Width (W)**: 11.75 in.
- **Nominal Length**: 24 in., 36 in., 48 in., 60 in., 72 in., 84 in., 96 in., 108 in., 120 in.
- **Actual Length (L)**: 23.75 in., 35.75 in., 47.75 in., 59.75 in., 71.75 in., 83.75 in., 95.75 in., 107.75 in., 119.75 in.

#### Diagram

![Diagram of 12 in. Linear Active Chilled Beam]
## PERFORMANCE DATA

### Performance Range

<table>
<thead>
<tr>
<th>Performance</th>
<th>24 in. ACBL 2-Way Discharge</th>
<th>24 in. ACBL 1-Way Discharge</th>
<th>12 in. ACBL 2-Way Discharge</th>
<th>12 in. ACBL 1-Way Discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Sensible Cooling (Btu/h per Active Lineal Foot)</td>
<td>300 to 1,600</td>
<td>400 to 1,300</td>
<td>200 to 1,100</td>
<td>200 to 650</td>
</tr>
<tr>
<td>Total Sensible Heating (Btu/h per Active Lineal Foot)</td>
<td>500 to 2,000</td>
<td>550 to 1,750</td>
<td>350 to 950</td>
<td>350 to 800</td>
</tr>
<tr>
<td>Sound Level</td>
<td>NC &lt; 15 to 35</td>
<td>NC &lt; 15 to 35</td>
<td>NC &lt; 15 to 35</td>
<td>NC &lt; 15 to 35</td>
</tr>
</tbody>
</table>

### Design Parameters

<table>
<thead>
<tr>
<th>Design Parameters</th>
<th>Cooling</th>
<th>Heating</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAT</td>
<td>55 – 65°F</td>
<td>60 – 90°F</td>
</tr>
<tr>
<td>Airflow Rate</td>
<td>3 – 25 cfm/ft. (2-Way Discharge)</td>
<td>3 – 15 cfm/ft. (1-Way Discharge)</td>
</tr>
<tr>
<td>EWT</td>
<td>Dew point + 2°F</td>
<td>90 – 140°F</td>
</tr>
<tr>
<td>Water ΔT</td>
<td>2 – 6°F</td>
<td>10 – 20°F</td>
</tr>
<tr>
<td>Water Flow Rate</td>
<td>min: 0.5 gpm</td>
<td>max: 3 gpm (Optimal ≥ 1 gpm)</td>
</tr>
<tr>
<td>Water ΔP</td>
<td>0 – 10 ft.</td>
<td></td>
</tr>
<tr>
<td>Air ΔP</td>
<td>0.2 – 0.8 in. (Target 0.4 – 0.6 in.)</td>
<td></td>
</tr>
</tbody>
</table>