

# PCBL

LINEAR PASSIVE CHILLED BEAM

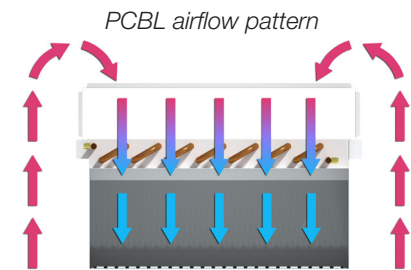


# PCBL

## Linear Passive Chilled Beam

The Linear Passive Chilled Beam (PCBL) is a sensible cooling only product that does not require airflow to treat the sensible load in a space. The cooling effect is created by natural convection through the use of a cooling coil in the unit. The warm return air rises and contacts the cooling coil which creates a downward airflow that draws the return air across the cooling coil and provides cooling capacity.

The compact design of the PCBL provides for short ceiling plenum heights or minimal clearance requirements for exposed installations. It does not require external air, but should be applied in conjunction with other air delivery systems such as active beams, underfloor air distribution, displacement ventilation, or mixing ventilation, to deal with space ventilation requirements and/or space latent loads. When combined with a displacement ventilation system, the passive chilled beam will greatly improve the system transfer effectiveness.



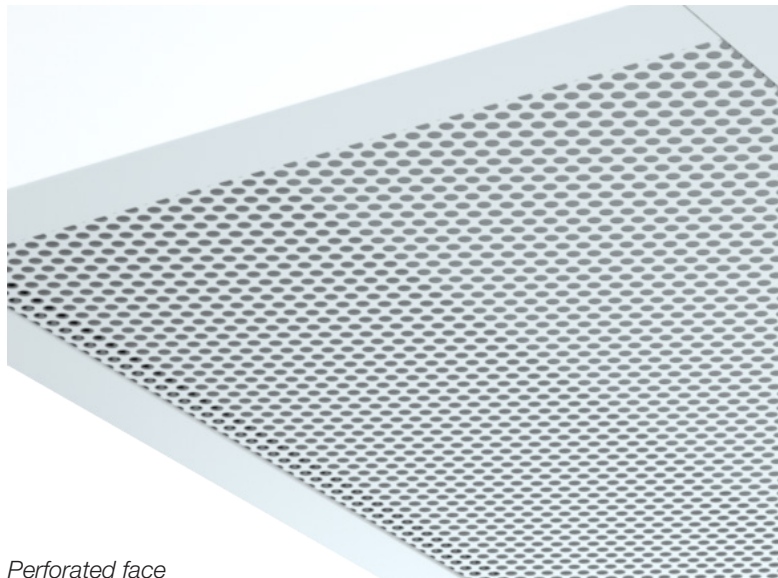
*Open ceiling application*

## ARCHITECTURAL INTEGRATION

- + **Commercial applications** – Perimeter cooling of high solar loads, complementary cooling, and spaces where quiet cooling is needed are excellent uses of passive chilled beam systems.
- + **In combination with displacement ventilation** – Both displacement ventilation and passive chilled beam systems utilize low velocity discharge air and benefit from stratification.
- + **Open ceilings** – Passive beams can be used in open ceilings.

## AESTHETIC OPTIONS

- + **Concealed mounting** – Mounts above a perforated or wooden slat ceiling with greater than 50% free area.
- + **Perforated Face** – Greater than 50% free area allows air to passively discharge into the occupied space.



*Perforated face*

## TYPICAL APPLICATIONS

The PCBL is designed for installation in open ceilings, T-bar ceilings, or concealed applications. Transient areas such as hallways, corridors, lobbies, and perimeter zones are the ideal locations for passive beams.

The PCBL with Integrated Return is designed with its own plenum and functions similarly to the PCBL. It is used in applications where the unit is to be installed in the ceiling and a return air path is required. For example, the PCBL with integrated return can be installed in a recessed drywall ceiling or used in a T-bar ceiling with non-perforated ceiling tiles.

## FEATURES

- + Extremely quiet operation
- + Low maintenance
- + Provides supplementary cooling
- + Upturned or straight coil connections

# ZONE CONTROLLER

With the Price Intelligent Controller for Hydronic Applications (PIC-HP), Price now offers control of both the air side and the water side at the zone level. A wide variety of standard sequences are available depending on the desired control method. This systems brings multiple control points into one location allowing substantial cost savings with Chilled Beams systems. These controls are available with BMS integration over BACnet.



Check PIC-HP catalog  
for sequences

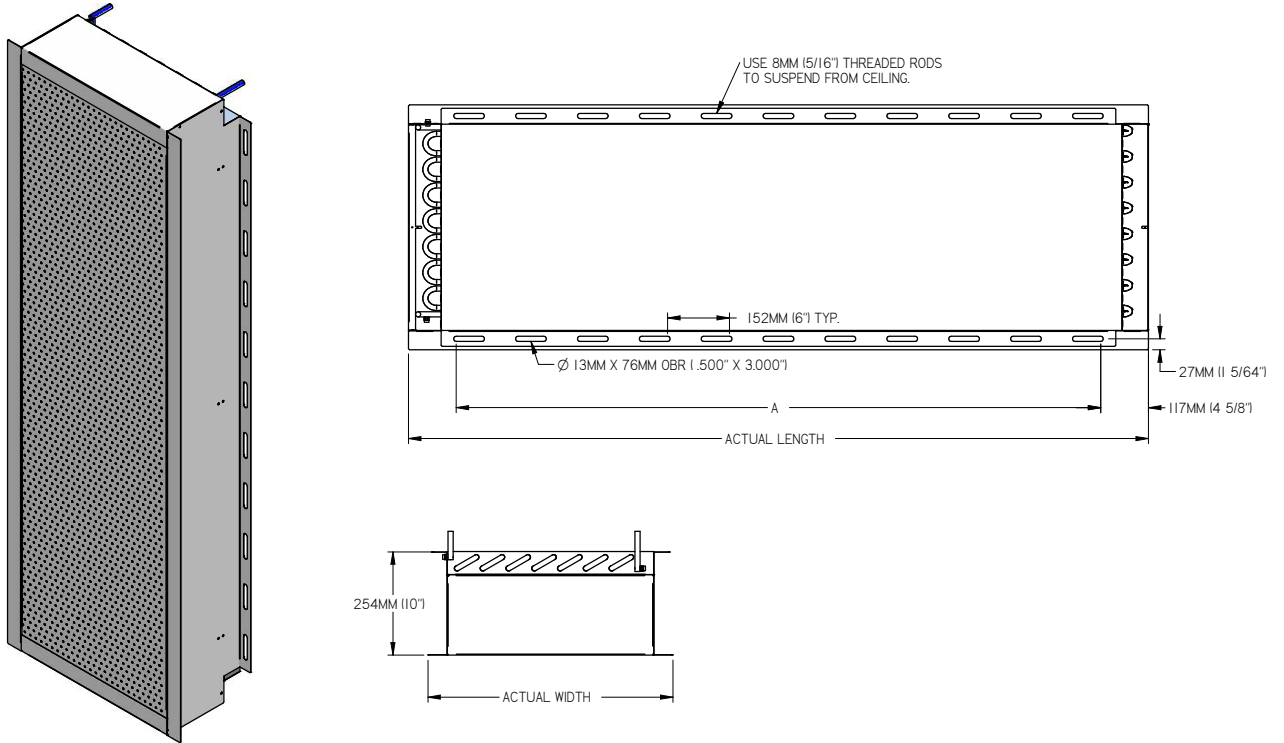


## PIC-HP Control Sequences



# DIMENSIONAL DATA

## PCBL



Nominal Width	Actual Width (W)
305	298
610	603

Nominal Length	Actual Length (L)
610	603
915	908
1220	1213
1525	1518
1830	1823
2135	2128
2440	2433
2745	2738
3050	3043

**Note:** All metric conversions are hard converted.

## PERFORMANCE DATA

### Performance Range

Performance	12 in. PCBL	24 in. PCBL
Total Sensible Cooling Watts per Active Lineal Meter	120 to 170	210 to 370

### Design Parameters

Design Parameters	Cooling
EWT	Dew point + 1.1°C
Water Flow Rate	min: 0.032 l/s max: 0.189 l/s (Optimal $\geq$ 0.063 l/s)
Waterside $\Delta T$	0.6 - 5.0°C
Water $\Delta P$	0 - 30 kPa

**Note:** All metric conversions are hard converted.





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