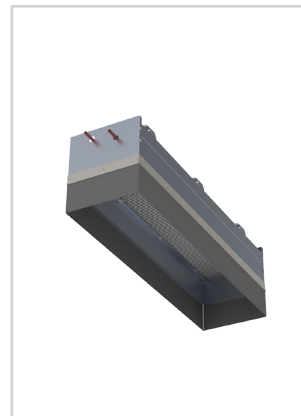


### CBPE / CBPR

- Provides comfortable, effective sensible cooling to the space
- Ultra quiet, natural convection driven operation
- Perforated or Linear Bar Grille options for exposed models
- Exposed, recessed or concealed installation
- Quick and simple installation
- Available in nominal lengths up to 10 feet
- ½" Sweat or ½" MNPT coil connections



CBPE



CBPR



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See website for Specifications

### MODELS:

CBPE / Exposed linear passive chilled beam  
CBPR / Recessed linear passive chilled beam

### FINISHES:

Standard Finish - #26 White  
Optional Finish - #84 Black

### OVERVIEW

Comfortable, effective, ultra-quiet sensible cooling technology

Passive chilled beams are primarily used to provide sensible cooling in perimeter zones and comfortable sensible cooling within interior zones. The primary mode of heat transfer is by natural convection, with a percentage of heat transfer transmitted through radiation. During cooling, warm room air rises to the ceiling area; cool air around the coil sinks down to the occupied area as a result of the higher density. As the cool air descends in to the space, more warm air is drawn over the coil creating a convective current that drives the system.

The airflow pattern generated from a passive beam is unidirectional with direct downward projection from the bottom of the beam. As the thermal buoyancy of the cool air drives the airflow down into space it will begin to mix with ambient room air and diffuse throughout the space. To maximize occupant comfort with passive beam systems, stationary or seated occupants should not be positioned directly under a beam. Passive beams should be installed in aisles, walkways or corridors, or at least 15 feet above the occupied space to prevent instances of occupant discomfort.

When using passive chilled beams, ventilation and latent cooling loads are addressed by a separate primary air system. Primary air systems could be traditional mixed air distribution, underfloor air distribution or displacement ventilation systems. As the primary air system is not used to address the entire cooling load the total system fan energy is reduced improving overall energy efficiency of the building. Applications with low latent cooling loads could use 100 percent outdoor air allowing for use of a dedicated outdoor air system with energy recovery further reducing total system energy consumption.

### CBPE

The CBPE is ideal for exposed installations or can be integrated into lay-in ceiling systems for concealed installations. For applications with low ceilings or limited ceiling plenum height the low profile design excels at satisfying sensible cooling.

### CBPR

CBPR passive beams are designed for recessed installation above a false ceiling. The false ceiling could be an architectural cloud type or even a perforated panel in a conventional lay-in ceiling grid. The CBPR beams are supplied with an additional skirt below the unit's coil that is designed to further enhance the convective current through beam augmenting performance. Beams should be installed with the skirt in contact with the top side of the false ceiling.