BEL-12

Linear Active Chilled Beam

INTRODUCTION

The exposed linear chilled beam offers flexible one-way or two-way air distribution patterns and uses an optimized nozzle design that delivers high capacity with low noise levels, complemented by a sleek linear form that aligns with contemporary commercial architectural styling. Its integral coanda plates enable ceiling-independent operation, while the optimized diffuser geometry ensures effective air distribution to maximize occupant comfort.

MODEL

BEL-12 - Linear Active Chilled Beam

FEATURES

- 1-way or 2-way air distribution patterns
- 12” width
- 2’ to 10’ lengths, 1’ increments
- Perforated induced air grille
- Left hand or Right hand coil connections
- Side, top, or multi air inlet locations
- 2-pipe and 4-pipe coil configurations
- Field-reversible coils
- Configured nozzle geometry for capacity optimization
- Hinged induced air grille for roomside coil access
- Commissioning port with roomside access for balancing
- Mounting brackets with adjustments in two directions
- Durable powder coat finish
- 1/2” Sweat water coil connections
- Coil air vent
- Coil drain valve

OPTIONS

- Internal closed cell foam insulation
- 1/2” or 3/4” MPT water coil connections
- 12”, 18” or 24” stainless steel braided hoses
- Coil lint screen
- Constant volume regulator

FINISHES

- Standard Finish - #WHT British White
- Optional Finish - #BLK Black

APPLICATION

Krueger active chilled beams features the aerodynamic properties of Krueger ceiling diffusers and benefit from the use of using hydronic coils and induced air to reduce energy consumption associated with removal of sensible thermal loads. The primary air is supplied to the chilled beam subsequent to it being discharged through a series of nozzles located along the length of the beam. The nozzles inject the primary air into the mixing chamber at velocities capable of inducing room air through its water coil where it mixes with the primary supply air. This mixture of air is then discharged into the space through the ceiling slot diffusers. This provides high cooling outputs with low amounts of primary air. The reduced volume of air results in the reduction of the air handler capacity and size, smaller duct sizes, and the overall energy consumption.

The supplied air from the air handling unit is tempered and dehumidified to handle the latent load. The remaining loads in the space are addressed with the heat exchanger which is incorporated into the chilled beam. Applications with low latent cooling loads could use 100% outdoor air allowing for use of a dedicated outdoor air system with energy recovery further reducing total system energy consumption.

The BELs are offered for both cooling and heating and lengths from 2’ to 10’. The low overall height of the BEL is ideal for open ceiling or retrofit applications with limited floor height.