BAL-12

Linear Active Chilled Beam

INTRODUCTION

The active linear chilled beam features 1-way or 2-way air distribution patterns and incorporates an optimized nozzle design to deliver high capacity with low noise levels, all within a sleek linear form that complements modern commercial architectural styling. It is engineered to fit standard 12-inch ceiling systems and utilizes a vertical coil configuration, while its carefully optimized diffuser geometry enhances airflow performance and maximizes occupant comfort.

MODEL

BAL-12 - Active, Linear 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 or top air inlet locations
- 2-pipe and 4-pipe coil configurations
- 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
- Condensate tray with drain connection for field plumbing

OPTIONS

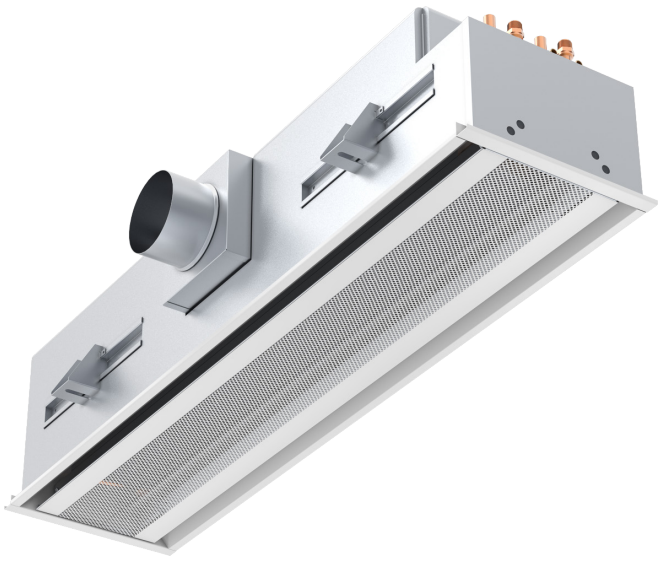
- Internal closed cell foam insulation
- 1/2" or 3/4" MPT water coil connections
- 12", 18" or 24" stainless steel braided hoses
- Lay-in and narrow tee frame styles
- Coil lint screen
- Constant volume regulator

FINISHES

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

ADVANTAGES

- Removal of high thermal loads is possible in this air/water system
- The size of the air duct system is reduced to a minimum, due to the low supply of primary air
- Substantial reduction in the operating costs, due to low primary air volume
- Improvement of the thermal comfort inside the room
- Suitable for several standard ceiling grids
- Contributing sound levels below NC-30



APPLICATION

Krueger active chilled beams features the aerodynamic properties of Krueger ceiling diffusers and benefit from the use of using hydronic coils and 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 two coils and 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 BAL-12s are offered for both cooling and heating, and lengths from 2' to 10'. They can be easily integrated into different grids styles within a suspended ceiling or even in drywall ceilings.

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