INTRODUCTION

The system provides comfortable and effective sensible cooling to the space, featuring an optimized nozzle design that delivers high capacity with low noise levels. It is ideal for induction unit and unit ventilator retrofit projects, offering quick and simple installation. Additionally, it is available in nominal lengths of up to 6 feet, making it versatile for various applications.

MODEL

BAS - Under Sill Active Chilled Beam

FEATURES

- 3’ to 6’ lengths
- Left hand or right hand coil connections
- Left hand, right hand, or rear air inlet locations
- 2-pipe and 4-pipe coil configurations
- Configured nozzle geometry for capacity optimization
- Commissioning port with roomside access for balancing
- Mounting brackets with adjustments in two directions
- 1/2” Sweat water coil connections
- Coil air vent
- Condensate tray with drain connection for field plumbing

OPTIONS

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

ADVANTAGES

- Removal of high thermal loads is possible in this air/water system
- The height 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
- Contributing sound levels below NC-30
- Coil lint screen
- Constant volume regulator

APPLICATION

Krueger active chilled beams 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 plenum or soffit air through the water coil and where it mixes with the primary supply air. This mixture of air is then discharged into the space through 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 BASs are offered for both, cooling and heating, lengths from 3’ to 6’. They can be easily integrated in retrofit projects where induction units, unit ventilator, or other under sill units are being replaced. Under sill active beams save significant energy and reduce sounds levels compared to other under sill mounted products. Additionally, the utilization of most or all of the existing piping and duct work minimizes project costs.