

# TROX<sup>®</sup> USA Chilled Beams

Issue 7, September 2008

## About TROX

Air Products is pleased to announce we now represent TROX USA for under-floor air distribution, displacement air distribution and chilled beams!

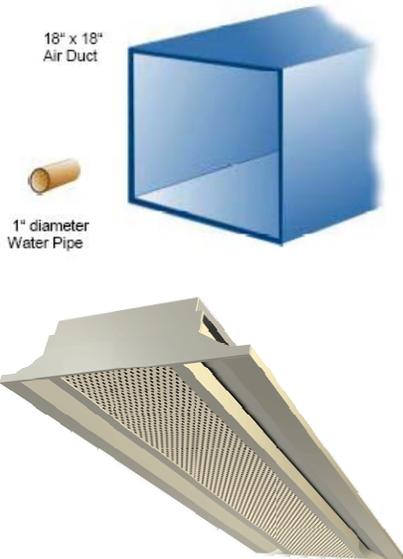
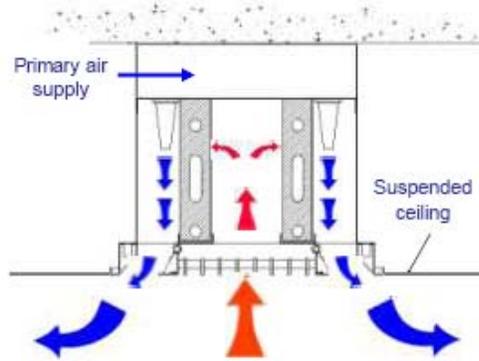
TROX understands the art of competently handling air like no other company in the world. In close collaboration with demanding clients from around the globe, TROX has successfully manufactured leading technologies and marketed systems and components for ventilation and indoor climate control. TROX is consistently expanding upon this position by means of intensive research and development activities.

## How Chilled Beams Operate

The primary air volume flow required for fresh air supply enters the upper plenum box through a connecting collar and is then discharged into the mixing zone via nozzles which are fitted into a diaphragm plate.

The induced air is drawn from the room through a water coil. In the mixing section of the DID600B the induced air is mixed with the primary air and the total discharged into the room via slots.

The DID600B can be used for cooling and/or heating. An additional collar for extract of exhaust air can be fitted adjacent to the primary air duct (supply and extract air construction).



## Benefits of Chilled Beams

- Chilled beams afford the designer an opportunity to replace large supply and return air ductwork with small chilled water pipes. This results in significant savings in terms of plenum space and increases usable floor space.
- Reduced supply air flow rates result in lower fan energy consumption.
- Operational efficiencies of pumps are intrinsically higher than fans, leading to lower cooling and heating energy transport costs.
- The higher chilled water temperatures used by chilled beams allow chiller efficiencies to be increased by as much as 35%.
- Chilled beams do not incorporate any moving parts (fans, motors, damper actuators, etc.) or complicated control devices. Most chilled beams do not require filters (and thus regular filter changes) or condensate trays.

## Energy Efficient

TROX Air-Water Systems use the energy benefits of load dissipation by means of water. This combines high comfort and Top-Design with energy efficiency. Furthermore the option of multi-functional: The COMBEAM systems not only provide the normal heating, cooling and ventilation functions, but they can also be equipped with extra mechanical services, such as lighting, loudspeakers and sprinkler systems. They can simply do it all!

[CLICK HERE to download "Chilled Beams Rules of Thumb"!!!](#)