

Professor-F Product Features

Description

The Frenger Professor-F unit is a slimline active chilled beam designed to be installed free hanging or directly fixed to the structural soffit. The unit is offered in two widths; 442mm (F45) and 592mm (F60), both with the same heating / cooling capacity.

It uses a supply of fresh ventilation air to draw warm room air to the unit's vertically mounted cooling batteries. This warmer room air is cooled as it passes through the finned tube cooling batteries, which comprises aluminium fins with copper channels through which cool water passes. The heat of the room is taken in through the aluminium fins, and transferred into the water circuit through the copper tube and on to a central chiller.

The unit is able to induce and condition 4-5 times as much room air as fresh air supplied. Conditioned air is then quietly reintroduced into the room, entraining to the ceiling rather than being dumped directly below the beam, thanks to patented nozzle and air chamber design that produce a Coanda effect.

Standard Features

- cooling
- fresh air
- air supply rate up to 30 l/s per unit
- all recirculated air is contained within the product casing

Optional Features

- heating
- integrated lighting
- Drypac™ condensation protection
- condensation sensors
- return air temperature sensors
- integrated control valves

Dimensions

length: modules from 1.2m up to 3.6m

width: 442mm (F45) or 592mm (F60)

air connections: 1x125mm DIA

water connections: 15mm OD

weight (dry): 11.5 kg/m (F45) and 12.5 kg/m (F60)

water content: 0.65 kg/m

Connection Possibilities

water: horizontal or vertical, same end or opposite

air: horizontal or vertical

Performance

cooling: 300 watts per linear metre at 12.5 l/s/m fresh air supply and 10dtK (difference between mean water temperature and room temperature).

heating: 450 watts per linear metre at 12.5 l/s/m fresh air supply and 30dtK.

Maintenance

The unit has no moving parts, and therefore maintenance requirement is limited to periodic cleaning of the finned tube batteries. All sides of the batteries can be accessed from below via the removable perforated faceplate.

Installation.

Beams are designed to be supported by 2 or 3 sets of threaded rod hangers, dependant on product length

