

*the future of space conditioning*

# Air Curtain

recessed



# Recessed Air Curtain



Fig 1. Recessed air curtain

## Introduction

These recessed Air Curtains create an air barrier, which helps to prevent cold draughts thus creating a comfortable indoor climate. Energy losses through openings are reduced, which means considerable savings.

When the doors are closed, the Air Curtain will contribute towards the heating around the entrance area if required. The heated air from the unit will also help to dry any water/sleet dragged into an entrance, as such assisting in creating a safer environment.

Although Air Curtains emit warm air, the main purpose of an Air Curtain is not to provide general heating in a space. For more information with regard to general heating products, please contact our sales team for advice and information.

All Frenger Air Curtains are designed with energy efficiency in mind and with the introduction of Ecopower technology, end users can now benefit from energy saving and climate enhancing innovation.

The Air Curtains are available in two models; Model A is suitable for mounting up to 3m from floor level and Model B up to 4m.

## Features

- Low sound levels
- Corrosion proof galvanised steel sheet housing
- Option of non-standard colours
- Optimized airflow technology
- Discreet linear grille accommodates for air intake and outlet
- Units can be mounted together to create longer runs
- IP21 Rated
- Available in electric, water or ambient versions
- Supplied tangential fans
- 3 way valve supplied with water units
- FRA model with optional filter on surface mounted water and ambient units
- FRA models includes low inertia high efficiency energy heating coils in electric heating units
- FRB models available with 82/71°C and 60/40°C low-grade water coils



# Mounting & Details

## Model A

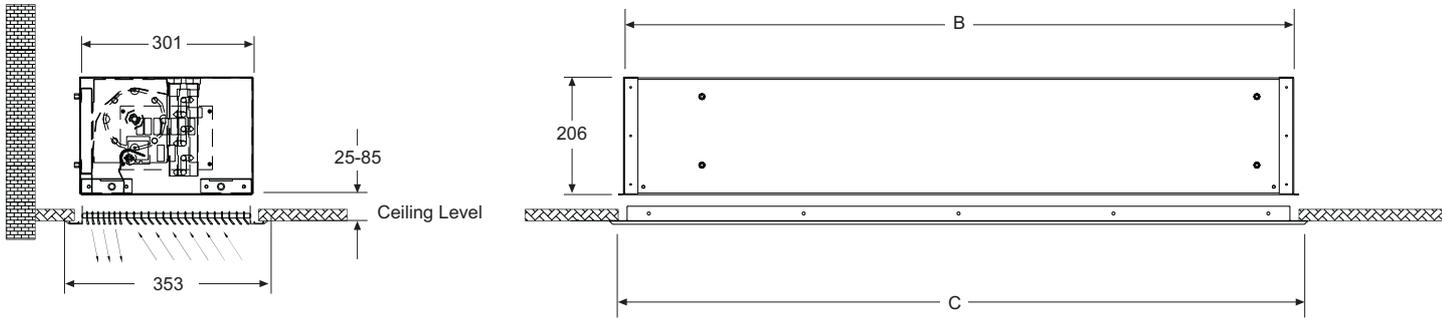
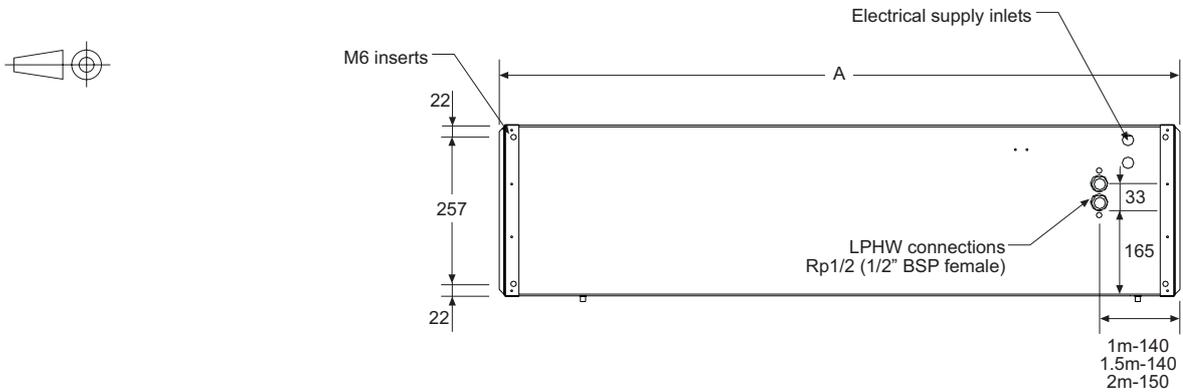


Fig 2. A model dimensions



Indicative only - not to scale

|                    |            | FRA-100R | FRA-150R | FRA-200R |
|--------------------|------------|----------|----------|----------|
| Cut-Out in ceiling | A(mm)      | 1129     | 1529     | 2040     |
|                    | B(mm)      | 1179     | 1579     | 2090     |
|                    | C(mm)      | 1209     | 1609     | 2120     |
|                    | Length(mm) | 1179     | 1576     | 2090     |
|                    | Width(mm)  | 311      | 311      | 311      |

\* Grille inner core dimensions

Please note that the ceiling void for the FRA range of recessed air curtain must be sufficiently large and freely ventilated so there will be an adequate supply of ventilation air (m<sup>3</sup>/hr) to the unit, see table below:

| Air Curtain | Required air flow within ceiling void (m <sup>3</sup> /hr) | Effective free area of ventilation grille for an enclosed ceiling void (cm <sup>2</sup> ) |
|-------------|--|---|
| FRA100R     | 353  | 500   |
| FRA150R     | 421  | 700   |
| FRA200R     | 707  | 1200  |

Model B

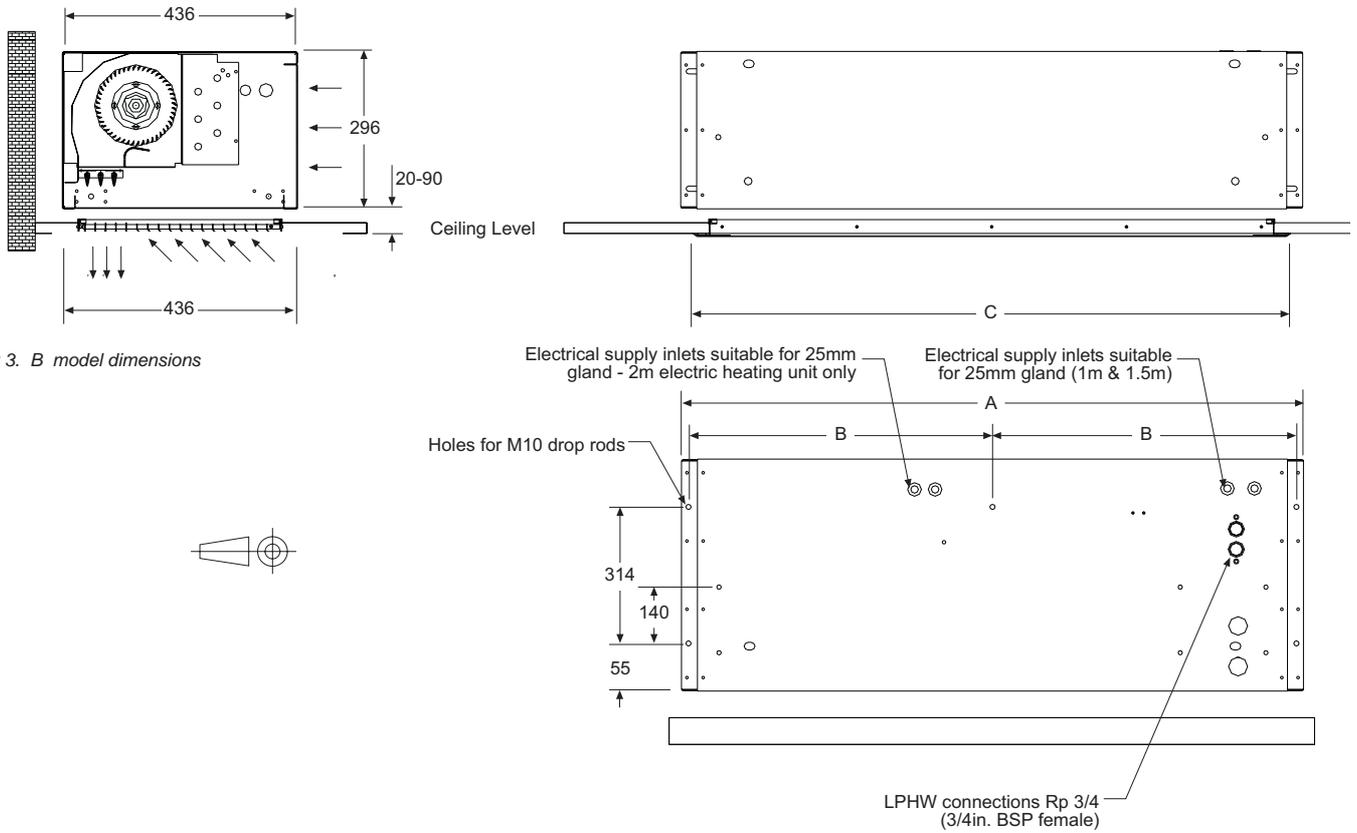


Fig 3. B model dimensions

|                    |             | FRB-100R | FRB-150R | FRB-200R |
|--------------------|-------------|----------|----------|----------|
|                    | A (mm)      | 1150     | 1650     | 2240     |
|                    | B (mm)      | N/A      | 800      | 1095     |
|                    | C (mm)      | 1104     | 1604     | 2190     |
| Cut-Out in ceiling | Length (mm) | 1055     | 1555     | 2145     |
|                    | Width (mm)  | 390      | 390      | 390      |

Please note that the ceiling void for the FRB range of recessed air curtain must be sufficiently large and freely ventilated so there will be an adequate supply of ventilation air (m<sup>3</sup>/hr) to the unit, see table below:

| Air Curtain | Required air flow within ceiling void (m <sup>3</sup> /hr) | Effective free area of ventilation grille for an enclosed ceiling void (cm <sup>2</sup> ) |
|-------------|--|---|
| FRB100R     | 353  | 500   |
| FRB150R     | 421  | 700   |
| FRB200R     | 707  | 1200  |

# Mounting & Installation

Frenger Air Curtains Model A are designed for mounting over entry doors of heights from 2 up to 3m and Model B from 3 up to 4m from floor level. When deciding on the size of an Air Curtain it is vital that the Air Curtain covers the full width of the door for the optimum effect.

## Fixing

Make the cut-out in the ceiling to the dimensions given on the previous pages. Ensure the length of the hole is exact, so that the air curtain will fit through the ceiling cut-out although it may need to be kept on its side and angled upwards to fit. Ensure there is sufficient height clearance in the ceiling void to do this. Alternatively, the ceiling can be fitted after the air curtain has been installed.

Clearance holes for M8/M10 threaded rod to enter from above are provided on the top face of the casing (4 or 6 no. depending on product length, for dimensions see previous page - all suspension points must be used for each air curtain) allowing the unit to be suspended. Insert rod through each hole in top and attach onto each fixing bracket at a lower edge of air curtain. Lock rod in place using M8/M10 nut above and below fixing bracket (threaded rod and locking nuts are not provided). Ensure rod does not come below bottom face of unit. Ensure each of the threaded rods are secured to a suitable structure that can support the weight of the unit (for unit weights see previous details).\*

\* It is the sole responsibility of the installer to ensure that the building fixing points and suspension system used are for the air curtain being installed.

For detailed fixing instructions, please refer to our O&M manual

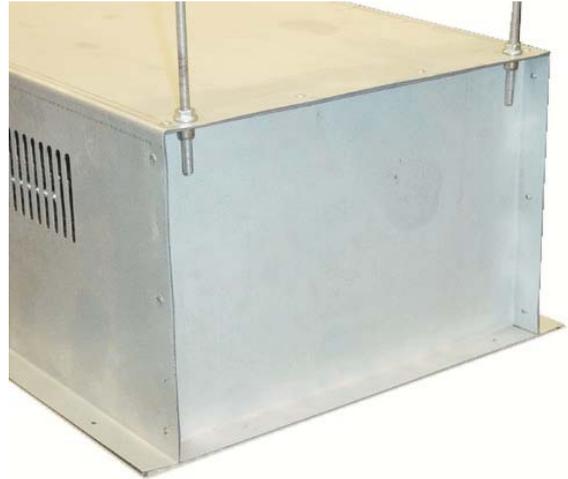


Fig 4. A model showing droprood fixings



Fig 5. B model showing droprood fixings



Fig 6. A model of grill

