

Laminar flow panel

Model

LFP

Overview

Best suited to clean room / hospital applications, laminar flow panels provide a stable flow of clean air in a vertical pattern, creating an area free of airborne particulates (providing the supplied air is filtered to a sufficient degree).

HVC Series LFP Laminar flow panels are supplied with 100mm deep top entry plenum boxes as standard, and can be manufactured with or without frames.

Construction

- Variety of fully extruded aluminium frames available.
- Steel perforated plate, 3mm holes, staggered 5mm pitch, 0.7mm thick.
- Fixing lugs to suit drop rod ceiling mounted to top of plenum box.

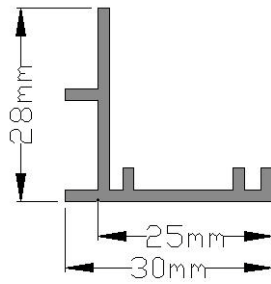
Options and accessories

Laminar flow panels being a standardised unit have no accessories, other than frame type.

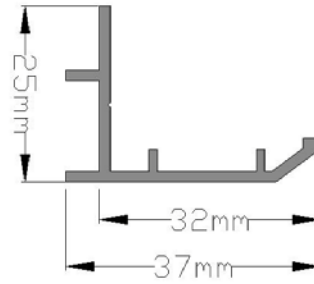
Any dampers used are recommended to be placed in the ductwork leading up to the panel, rather than built into it, as in other grilles and diffusers. This will avoid creating turbulence in the air which would affect the vertical throw of the panel.



Frame options



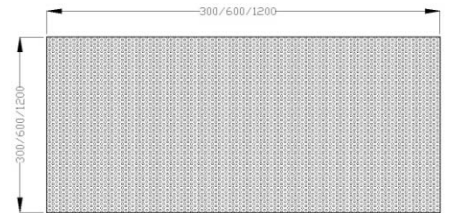
25mm flat
flange



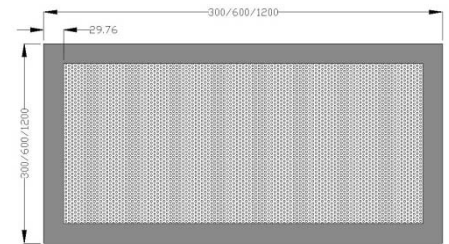
32mm bevelled
flange

Technical information

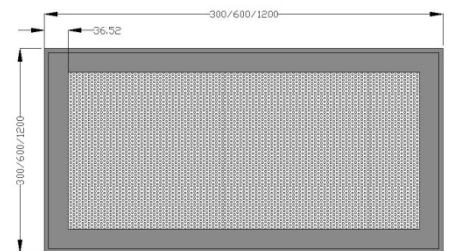
- Free area - 46%
- LFP Mass / M² - 9 KG
- (___ x ___) -LFP



- (___ x ___) - LFP – 25mm flat



- (___ x ___) - LFP – 32mm bevelled



Please note –All diagrams are shown with 300mm diameter spigot



Installation instructions

Laminar flow panels are always supplied with drilled brackets attached to the plenum, to suit a drop rod ceiling.

Selection data

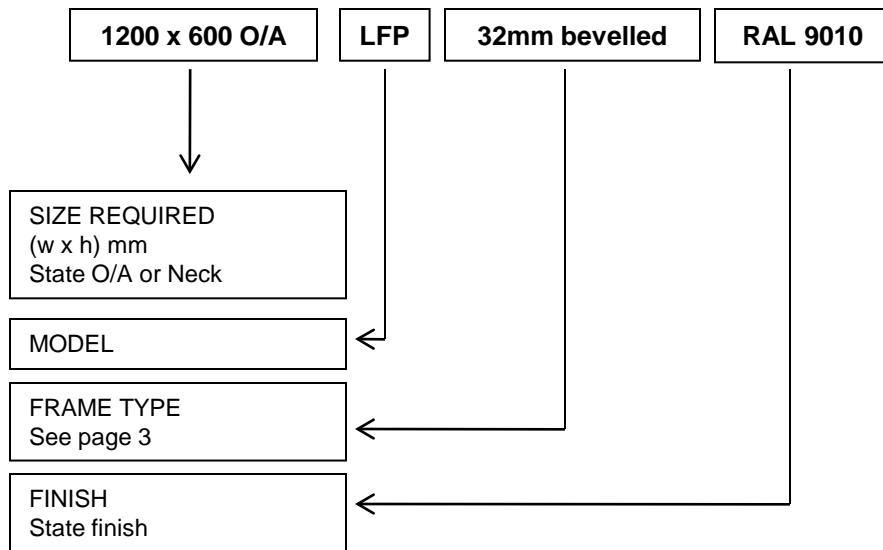
Air volume (m ³ /s)	Velocity (m ³ /s)	Sound level (NC)	Pressure drop (Pa)
0.500	0.077	-	2
0.750	0.105	20	6
0.100	0.152	25	9
0.125	0.185	35	15
0.150	0.230	38	22
0.175	0.272	42	29
0.200	0.305	44	43

Notes:

- **Performance** : Data based on 1200 x 600mm nominal panels with one 300mm diameter spigot mounted centrally. The panel has been mounted at a ceiling height of 2.7m into a "T" bar ceiling grid.
- **Temperature**: Data based on a supply air temperature 5°C below room temperature. This unit is not suitable under normal conditions for either heating or isothermal conditions. 5°C below room temperature offers the best laminar floor pattern.
- **Velocity**: Face velocities within the above information are the mean measured across the whole panel.
- **Pressure Drops**: Data based on a static pressure measures in spigot of panel.
- **Noise Levels**: Single room absorption of 8db on NC level. Multiple room absorption of 2db face velocity 0.12m/s on NC level.
- **Multiple Panels**: Under optimum conditions face velocity of 0.1m/s with a cooling differential of 5-9 deg. C.
- **Volume Control**: Not recommended for laminar flow panels within spigots as they affect the laminar flow characteristics. Upstream dampers within ductwork recommended.



Ordering Codes



Please note – Laminar flow panels come with plenum boxes which are as standard 100mm deep, un-insulated and with a 300mm diameter spigot of 50mm depth. Please state on order if required units vary from standard.

HVC Supplies (Stourbridge) Ltd reserves the right to alter, without notice, any specifications issued. Any alterations made will appear on www.h-v-c.com as soon as possible.

