

## Laminar flow diffusers (LFD)

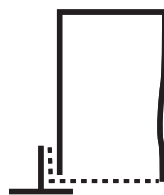
**Laminar flow diffusers (LFD)** are suitable for producing high air change rates with a vertical air distribution pattern that avoids entrainment, and are therefore ideal for “clean room” applications. The standard unit is suitable

for Lay in Tee Bar Ceiling Grids (LFD/T). Available options are Flanged Units (LFD/F) or Reverse Flanged Units for Multi-Panel assemblies (LFD/M). LFD diffusers are manufactured from 20swg mild steel perforated plate core

(9.5% free area) with a “Zintec” steel body. Flanges, when required, are extruded aluminium with the mitred corners being full welded and finished. Finally they are stove enamelled white as standard.

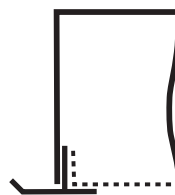
D01

Laminar flow diffusers (LFD)



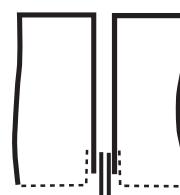
**LFD/T**

Lay In tee bar ceiling grid



**LFD/F**

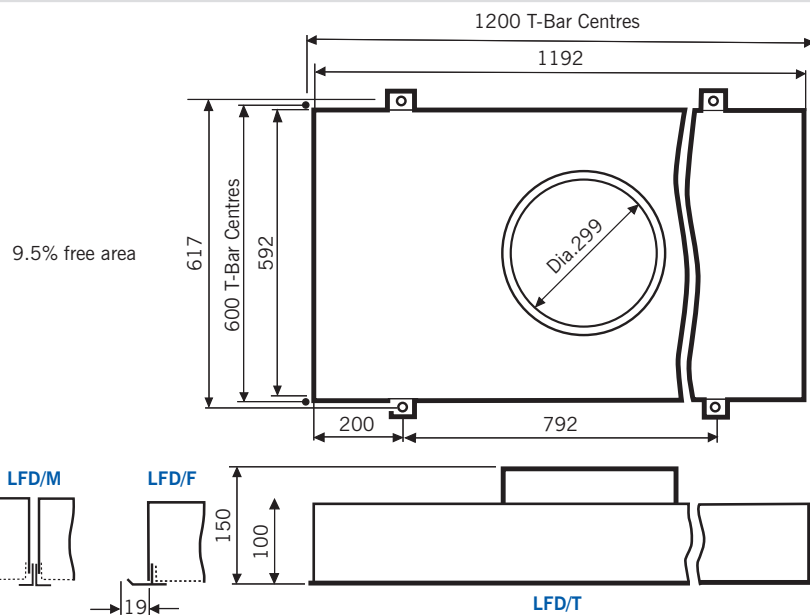
Flange unit (optional)



**LFD/M**

Reverse flange unit for Multi-Panel assemblies

### Dimensions



### Fixing methods

**FMG:** Clamping to a suspension bracket by concealed screw (standard).

## Performance data

### Laminar flow diffusers (LFD) Single Panel – LFD/T

The performance data is based on the following parameters:  
(1200 x 600 unit)

1. Rear plenum assembly fitted with a 300mm diameter spigot
2. A cooling differential of 6°C
3. Pressure drops indicated should be increased by 50% where dampers are fitted
4. NC values are based on a room absorption of 8 dB re 10<sup>-12</sup> watts

Air Volume m <sup>3</sup> /s	Velocity m/s	Pressure Drop Pa	Sound Level NC
0.05	0.077	2	-
0.075	0.105	6	20
0.10	0.152	9	25
0.125	0.185	15	35
0.15	0.230	22	38
0.175	0.272	29	42
0.20	0.305	43	44

### Multi panel - LFD/M\*

Outlet velocities for multiple assemblies would be in the region of between 0.08 and 0.14m/s producing a sound level range of NC15 - 25 per panel. Correction figures for NC levels in multi panel situations are available on request.

Air Volume Range m <sup>3</sup> /s	Multi Panel Assembly mm
0.280 - 0.415	2400-1800
0.400 - 0.720	2400-3000
0.715 - 1.115	2400-4200

**\*Note:** Before ordering LFD/M type. The General ceiling grid/type should be discussed with your local representative or the sales office.