

# FLD-FP

## Fan Powered Floor Diffuser



ASLI FLD-FP round fan powered floor diffusers are specially designed for use in raised floor air distribution systems, where the floor cavity is used as a pressurized supply air plenum. Maximum comfort level could be achieved by producing high induction rates of room air with the design of FLD-FP.

Aesthetically appealing FLD-FP is assessable by removing the diffuser core to remove the dust in the dust tray. (FLD-FP comes with 3-speed control centrifugal fan by remote controller with infrared features). (Temperature set point can be set at the remote controller) and the centrifugal fan will run according to the temperature set point with 3 speeds.

### Materials

**Diffuser core :** Aluminum die casting.  
**Outer ring :** Aluminum die casting.  
**Housing :** 0.7mm thickness galvanized steel.  
**Insulation :** Fiber glass, 25mm, 32kg/m<sup>3</sup>.

### Surface Finish

Mill finished.

### Standard Models

**FLD-S-FP-M :** Fan powered straight opening floor diffuser (Master Unit)  
**FLD-S-FP-S :** Fan powered straight opening floor diffuser (Slave Unit)  
**FLD-C-FP-M :** Fan powered curve opening floor diffuser (Master Unit)  
**FLD-C-FP-S :** Fan powered curve opening floor diffuser (Slave Unit)

### Standard size *Unit : mm*

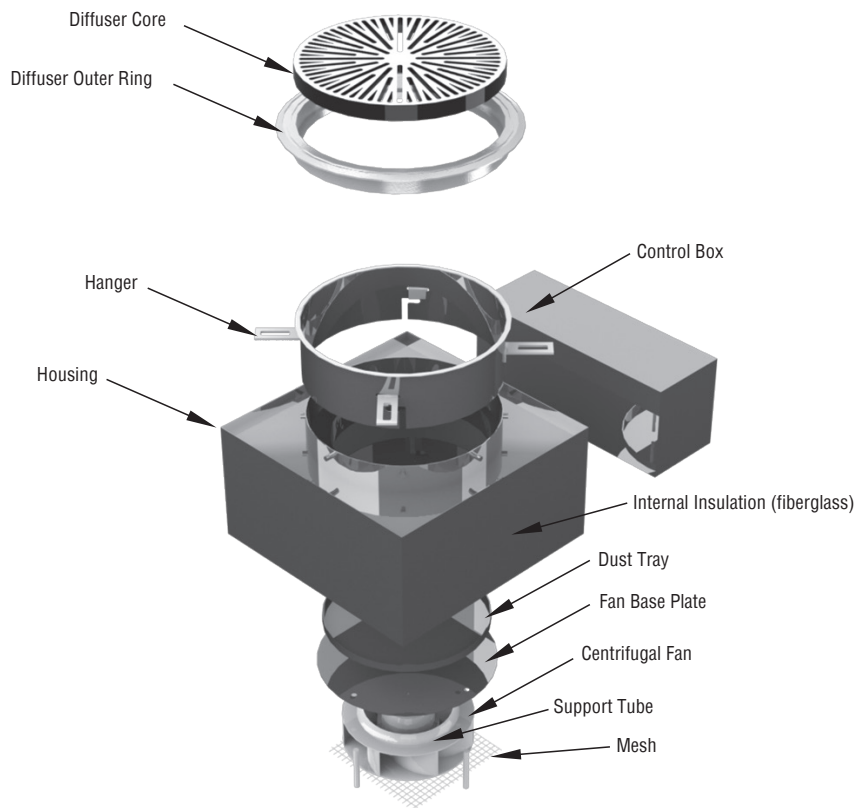
ø250

### Features

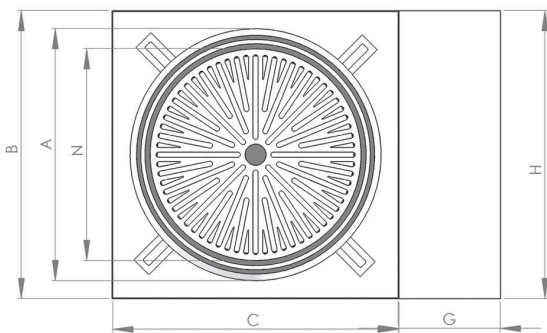
- Master/slave technology.
- Plug and play feature for ease of connection.
- Maximum connection up to 6 slave units.
- Swirl air pattern provides high induction rates of room air.
- Suitable for high ceiling air conditioning system.
- Dust tray catches anything that might fall through the diffuser face and is removable for cleaning.
- Aluminum die casting diffuser core provides high strength to withstand heavy load.
- Remote control via infrared. (Optional)
- 3 fan speeds. (3 air flow rates - low / medium / high)
- Fan speed controlled by the difference between temperature set point and sensed temperature.
- Fan speed can be override at the remote controller.
- Static pressure regains as fan is running.
- Internal insulation to attenuate noises and prevents condensation.
- The FLD-FP housing can be removed by simply rotating the housing and disengaging it at the collar.
- Hangers are provided for easy installation.
- Vibration free performance.
- Wire mesh at the air inlet under FLD-FP prevents unwanted object from passing through.

# FLD-FP Fan Powered Floor Diffuser

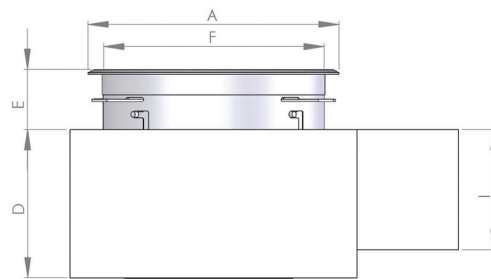
## FLD-S-FP Construction Illustration



FLD-FP exploded view



FLD-FP top view



FLD-FP side view

## FLD-FP Physical Dimension *Unit : mm*

N	A	B	C	D	E	F	G	H	I
250	297	340	340	175	71	264	120	340	142

# FLD-FP Fan Powered Floor Diffuser

## FLD-S-FP Air Flow Performance

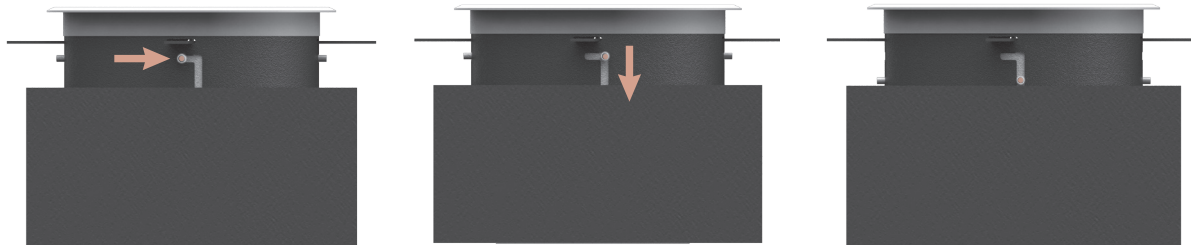
Fan Speed	Low	Medium	High
Air Flow Rate (CMH)	140	180	220
Vertical Projection (m)	1.3 - 1.5	1.7 - 1.9	1.9 - 2.1
Horizontal Spread (m)	1.3 - 1.8	1.4 - 1.9	1.5 - 2.0
NC	24	28	33

## FLD-C-FP Air Flow Performance

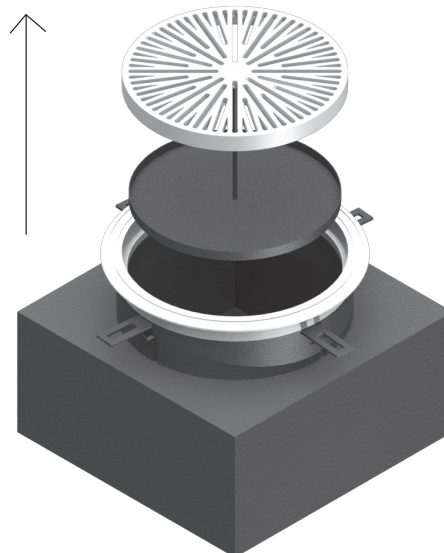
Fan Speed	Low	Medium	High
Air Flow Rate (CMH)	186	216	254
Vertical Projection (m)	1.6 - 1.8	2.0 - 2.3	2.3 - 2.5
Horizontal Spread (m)	1.6 - 2.2	1.7 - 2.3	1.8 - 2.4
NC	22	26	31

- Terminal velocities are based on 0.5m/s and 0.25m/s respectively.
- Air flow rate of 3 speeds can be modified by changing capacitor with difference capacitance.
- Air flow rates are measured with natural air intake with 15 Pa differential pressure.
- Throw is based on 6° Celsius difference of supply air and room air temperature.
- NC value is based on room absorption of 10dB, re 10<sup>-12</sup> watts.

## FLD-S-FP Installation

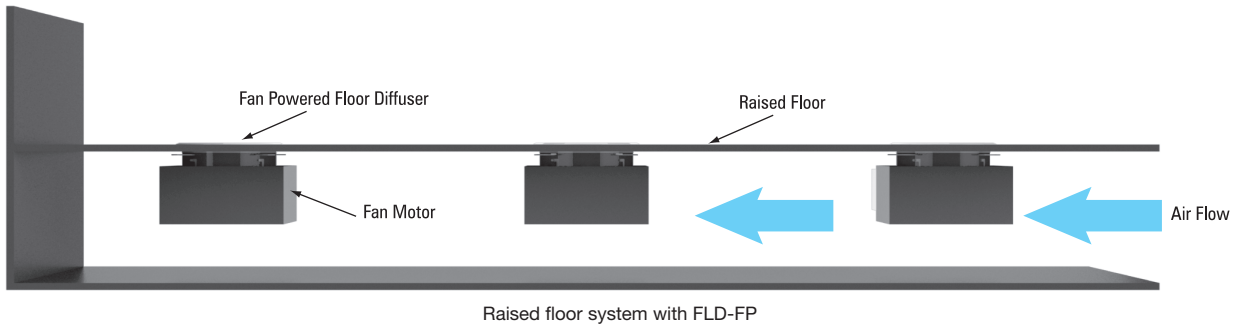


Remove housing of FLD-PB by rotating and disengaging it at the collar



Dust on the dust tray can be removed by lifting up the diffuser core of the FLD-FP

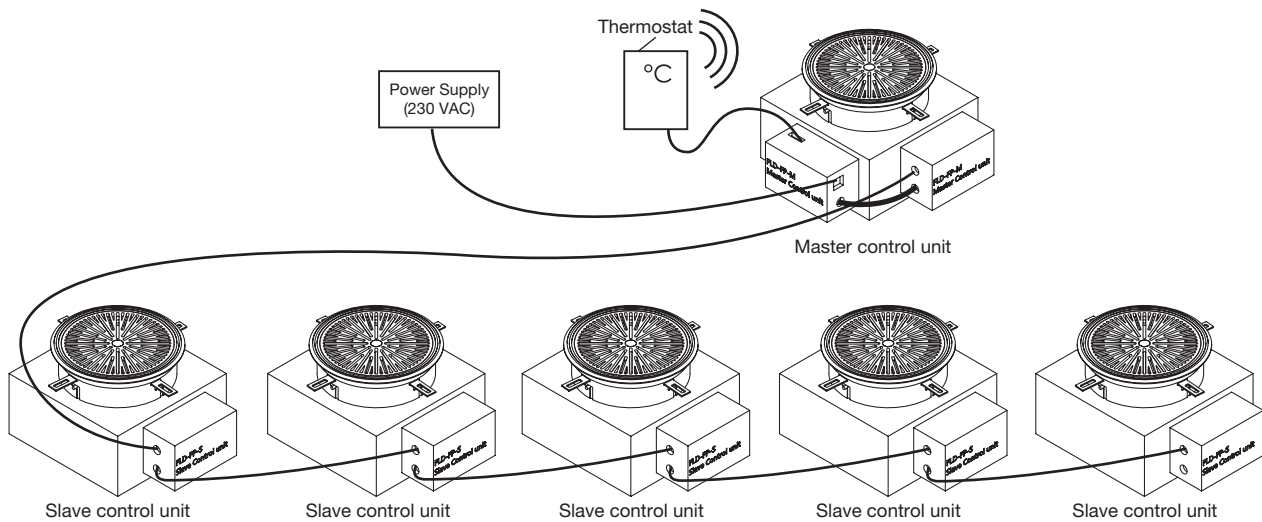
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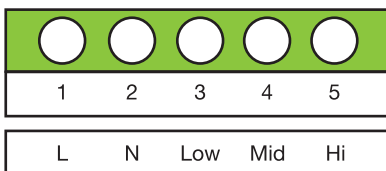
## Underfloor Control

### ASLI master/slave control technology

- Plug and play feature for easy connection.
- Single power supply to a group of floor diffuser.
- Each slave unit come with 3.5 meter insulated cable.
- Connection up to 7 units per group.
- Low smoke and Fume (LSF) cable available upon request.
- Convertibles feature allow Slave unit switch to master.



## Wiring diagram (Master unit)



## FLD-FP Order Code

Model	Type	Fan powered	Control	Neck Size
FLD	S	FP	M	250

Example : FLD - S - FP - M - N 250