MODEL RFDD

ROUND FLOOR SWIRL DIFFUSER

APPLICATION

Round Floor Displacement Diffuser (RFDD Series) is used in supply air systems in false floors of offices, halls, theaters, gymnasium etc...
Radial ribs produce swirling discharge ensusurrounding air with low noise.

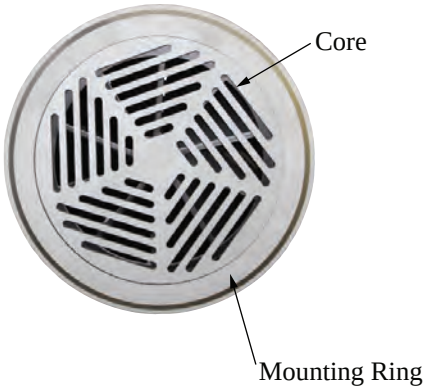
FEATURES

•Diffuser Core and Trim Ring
- Constructed from aluminum, die cast and deburred.

• **Adjustable Volume Grille**
- Constructed from galvanized steel sheets.
- Adjustable screw used to set grille position for required air supply volume.

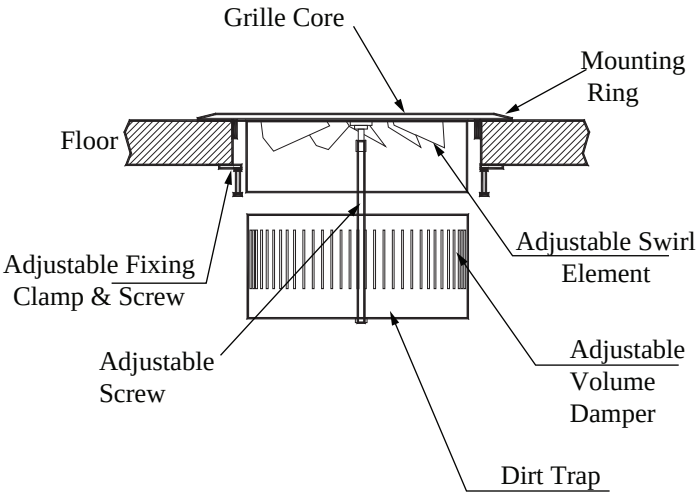
• **Swirl Element**
- Constructed from galvanized steel sheets.
- Swirl element determines the direction of discharge

• **Dirt Basket**
- Dirt trap at the bottom of the diffuser.
- Constructed from galvanized steel sheets.



•Sizes:
- Available in 6” and 8” diameters.
- *Kindly check illustrations on page (2) for more details*.

•Finish:
- Diffuser face and trim ring brut finish.
- Inner grille and swirl element painted black.



OPTIONS

• Horizontal or Vertical direction of discharge.
• Plenum Box for control of temperature in individual room
• All types of RAL finishing.

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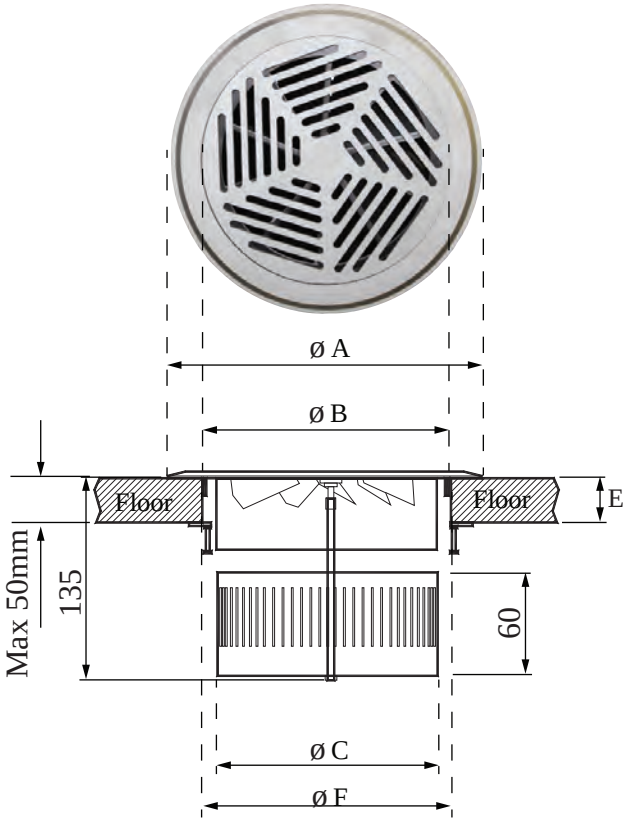
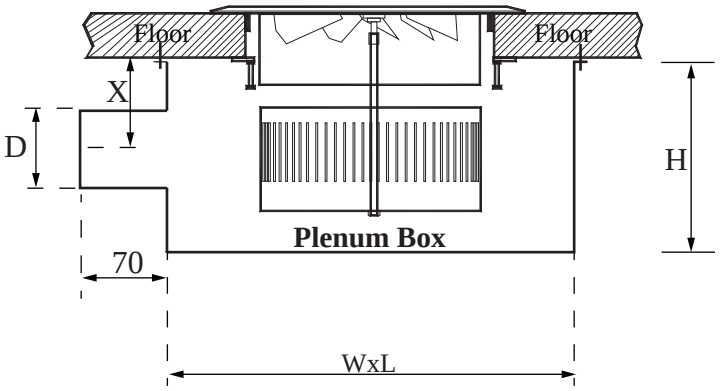
ILLUSTRATIONS



DUCT Connection

Size	ø A	ø B	ø C	E	ø F
150	190	140	124	14	152
200	236	190	160	19	202

Dimension in “mm”



Plenum Box

Plenum Box Dimensions (mm)					
RFDD Size	W	L	H	D	X
150	225	225	150	98	72
200	275	275	180	123	84

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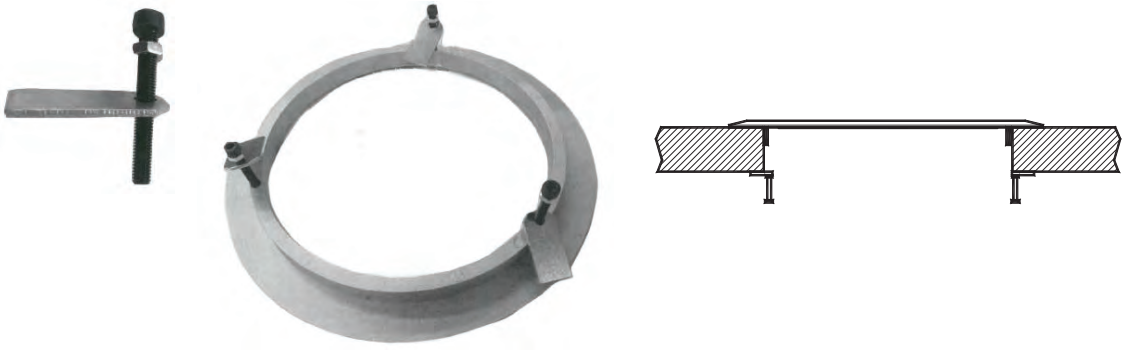
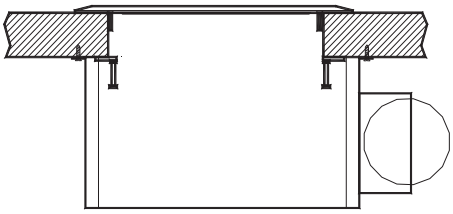
INSTALLATION METHOD

1.-Check the Nominal diameter concrete slab opening & Slab Thickness :

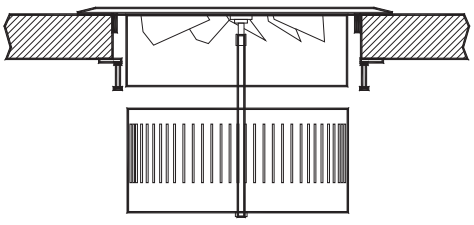
2.-Fit the screws on the mounting ring & fix it on the Slab :



3.- When using a installation with plenum, screw it onto the lower part of the concrete slab & use Gasket or sealant between the plenum & the Slab:



4.-Finally fix the Core of the RFDD, adjust the screw for air blanace and place the diffuser :



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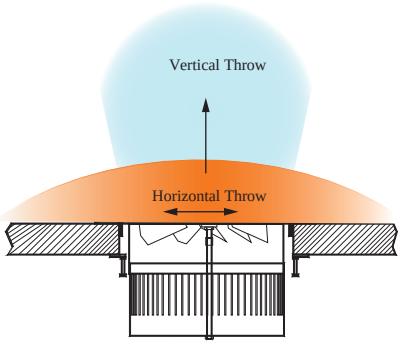
PERFORMANCE

Size	AK Factor (ft2)	Free area velocity (fpm)	300	400	500	600	700	800	900	1000
150	0.0516	Airflow (Cfm)	15	21	26	31	36	41	46	52
	Vertical Throw Setup	Sp (inch Wg)	0.019	0.037	0.056	0.080	0.108	0.140	0.177	0.226
		NC	<15	<15	15	21	26	31	35	40
		Throw ft @ 50ft	2	3	3	4	4	5	5	6
	Horizontal Throw Setup	Sp	0.022	0.042	0.065	0.093	0.125	0.162	0.204	0.260
		NC	<15	15	21	27	33	38	42	47
		Throw ft @ 50ft	2	4	5	6	7	8	10	11

Size	AK Factor (ft2)	Free area velocity (fpm)	200	250	300	350	400	450	500	550	650
200	0.185	Airflow (Cfm)	37	46	56	65	74	83	93	102	120
	Vertical Throw Setup	Sp (inch Wg)	0.035	0.054	0.08	0.107	0.139	0.175	0.22	0.265	0.366
		NC	<15	<15	16	22	27	31	35	39	45
		Throw ft @ 50ft	3	4	5	5	6	7	8	9	10
	Horizontal Throw Setup	Sp (inch Wg)	0.047	0.073	0.109	0.147	0.19	0.239	0.3	0.361	0.499
		NC	<15	16	25	31	36	41	46	50	>50
		Throw ft @ 50ft	5	7	9	10	12	13	15	16	19

Notes:

* Laboratory tests were performed in accordance with ASHRAE Standard 70-06 “Method of Testing For Rating the Performance of Air Outlets and Inlets”
*Air volume is in CFM at Δt 6° with damper at fully Open without Plenum with Straight Duct connection.
* SP - Static Pressure is in Inch of Water
* Ak - Area factor in ft²
* NC Level is based in Room Attenuation of 10dB with one diffuser operating.
* Throw data is given for terminal velocities at 50ft, Throw values are given for Δt 6°C conditions.



*** Throw Correction Factors for different ΔT:**

ΔT (°C)	4	6	8	10
Horizontal Pattern	0.8	1	1.1	1.17
Vertical Pattern	1.2	1	0.85	0.75

*** SP Correction Factors for Damper grille position:**

Damper Opening	100%	50%	25%
SP Factor	1	1.35	2.4

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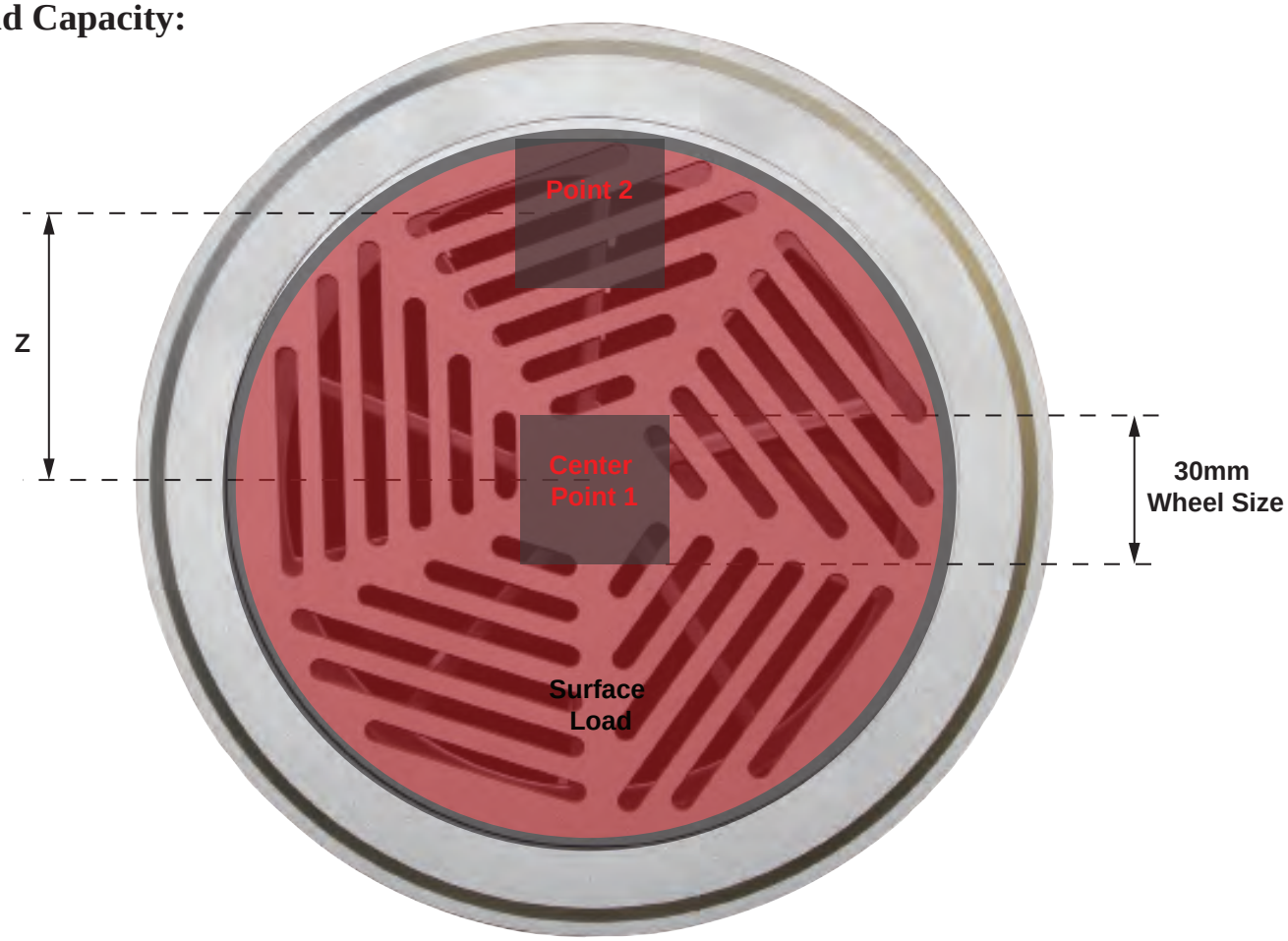
Load Capacity:



Size	Max Rolling wheel Load (Kg)		Max Surface Load on Core (Kg)	Z Spacing (mm)
	Center Point 1	Point 2		
150	128	98	300	52
200	117	82	250	77

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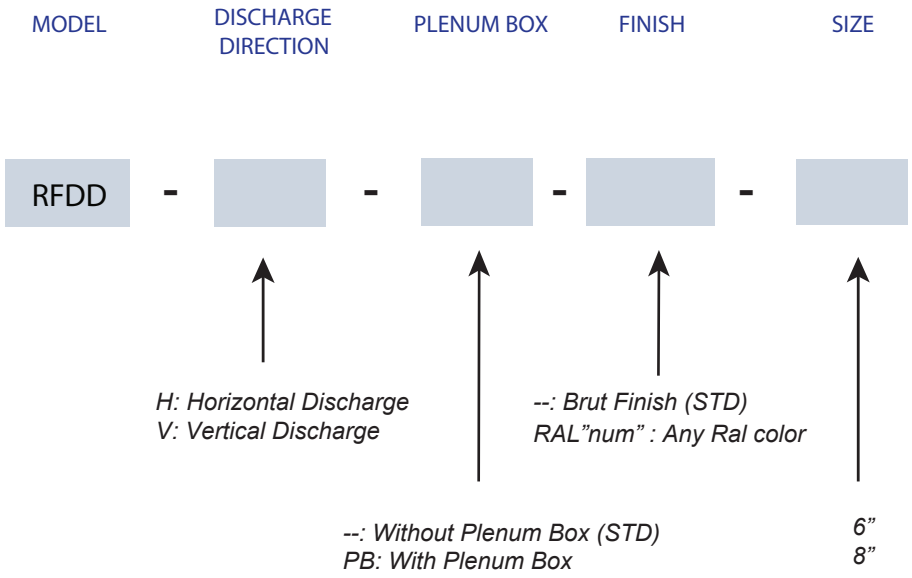
PERFORMANCE

ORDERING INFORMATION



- *For more information please consult our engineers.*