



RFB

Displacement diffuser
Supply, round
Floor-mounted
Rotating discharge pattern

Available types

RFBTFC

- R** displacement diffuser
- F** supply, round, floor-mounted
- B** rotating discharge pattern
- T** mounting ring
- F** fixed volume unit + dust tray
- C** mounting clip

Use

The RFB displacement diffuser is suitable for supplying cooled air with a low entry velocity. The diffuser is designed to be built into raised floors. The raised floor operates as the pressure plenum.

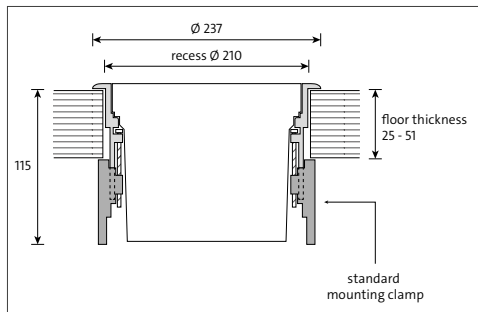
Characteristics

Undertemperature: up to 8 K
 Overtemperature: not applicable
 Capacity: up to approx. 0.055 m³/s

Version

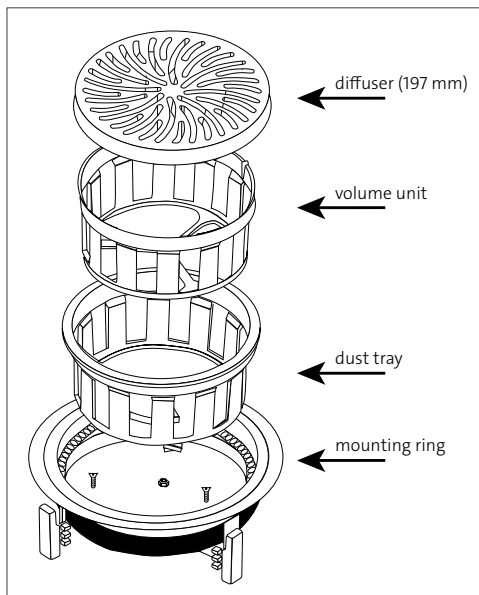
Displacement diffuser
 Material: polycarbonate ABS
 Colour: black or grey

Dimensions



Note

- The listed dimensions are in mm.



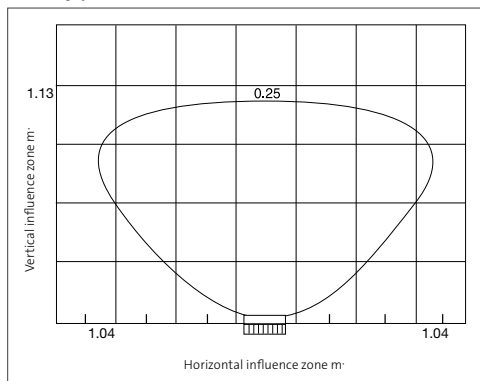
General

- The influence zone details are based on a room that is 2.7 m high, with a ΔT of 5 °C between room and supply air.
- The values apply to a diffuser including a fully-opened volume unit and a dust tray.
- Static pressure loss P_s in Pa.
- The assumed room attenuation is 10 dB.
- Sound pressure L_p in dB(A).
- It is permitted to interpolate the interim values.

Correction factor for different ΔT

ΔT	3	4	5	6	7	8
vertical influence zone	x 1.33	x 1.11	x 1.00	x 0.96	x 0.92	x 0.91
horizontal influence zone	x 0.87	x 0.94	x 1.00	x 1.06	x 1.11	x 1.16

Velocity profile



The velocity profile is given for an air velocity of 0.25 m/s at 144 m³/h and a ΔT of 5 °C.

Selection details

RFB

m ³ /s	m ³ /h	velocity isovel m/s	discharge pattern		P_s	L_p
			vertical	horizontal		
			m	m		
0.030	108	0.75	0.33	-	9	-
		0.50	0.43	-	9	-
		0.25	0.86	0.64	9	-
0.035	126	0.75	0.40	-	12	-
		0.50	0.52	-	12	-
		0.25	1.07	0.95	12	-
0.040	144	0.75	0.43	-	15	18
		0.50	0.55	-	15	18
		0.25	1.13	1.04	15	18
0.045	162	0.75	0.49	-	20	20
		0.50	0.64	-	20	20
		0.25	1.34	1.13	20	20
0.050	180	0.75	0.61	-	25	23
		0.50	0.77	-	25	23
		0.25	1.53	1.22	25	23
0.055	198	0.75	0.61	-	30	26
		0.50	0.80	-	30	26
		0.25	1.65	1.31	30	26