

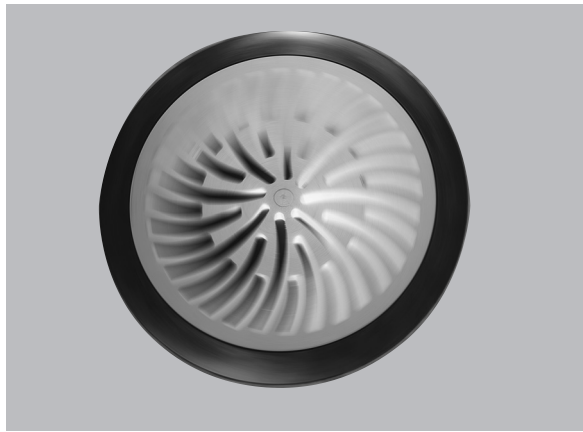
Chapter 4

Floor diffusers



RFB
Round
Floor outlet

318



RFB

- ▶ Swirl diffuser, floor
- ▶ Supply, round,
- ▶ Low velocity

Design:

Swirl diffuser
face plate: polycarbonate
ABS

colour: grey or black

Available types:

RFBTF -

R swirl diffuser
F floor
B rotating pattern, petal shaped
T trim ring
F damper attached to core + basket
C mounting clamps

Application:

The Solid Air RFB diffuser is designed for use in raised access floor air distribution systems, where the floor cavity is used as a pressurised supply air plenum. The RFB core design produces a low velocity helical discharge air pattern. The design achieves high induction rates of room air which optimises circulation and therefore comfort conditions.

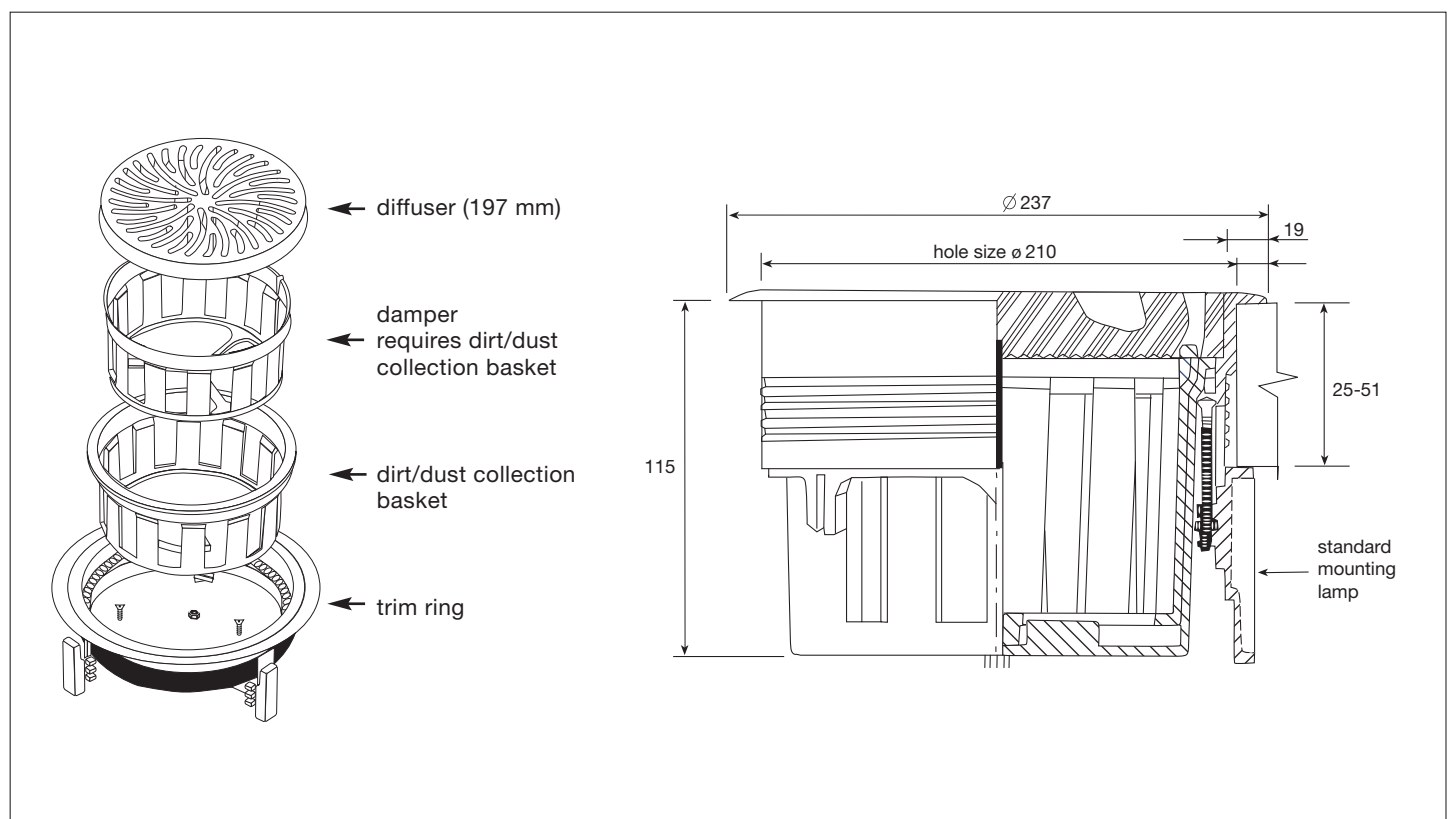
Features:

Under temperature: up to 3 K
Over temperature: up to 3 K
Capacity: up to 0,055 m³/s

Remark:

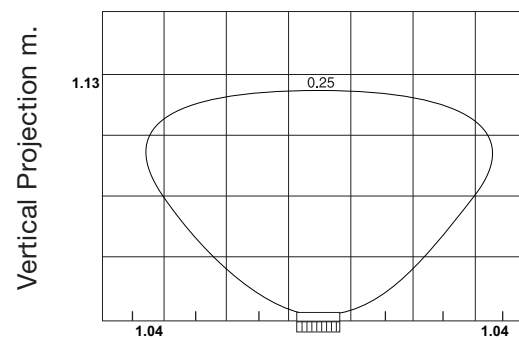
The stated dimensions are in mm.

Dimensions:



Performance data:

m ³ /s	m ³ /h	isovel velocity m/s	vertical projection m	horizontal spread m	Ps	Lp
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

Velocity profile:

Isovel indicate maximum room air velocities of 0.25 m/s at 0.04 m³/s supply 5°C ΔT.

General:

Projection and spread data were determined in a room with a ceiling height of 2700 mm, and a 5°C differential between supply air and averaged occupied zone temperature.

Tests conducted with dirt basket/damper installed. Damper fully open.

Data derived from independent test conducted in accordance with ANSI/ASHRAE Standard 70-1991

The pressure drop applies to fully opened damper.

Static pressure drop Ps in Pa.

Sound pressure Lp in dB(A).

The assumed room absorption is 10 dB.

Correction Factors for other supply air temperature differentials:

ΔT	3	4	5	6	7	8
Projection, m.	x 1.33	x 1.11	x 1.00	x 0.96	x 0.92	x 0.91
Spread, m.	x 0.87	x 0.94	x 1.00	x 1.06	x 1.11	x 1.16