

RTBD

Swirl diffuser

Supply

Surface-mounted

Use

The RTBD swirl diffuser is suitable for supplying cooled or heated air with a large temperature difference in respect of the room temperature and can be used for constant and variable-volume systems. The discharge openings are not adjustable. The diffuser can be fitted in the ceiling and can be fitted with an insulated or uninsulated plenum box, which is supplied ready assembled. As standard, the plenum box is equipped with 8 mm hanging holes in the raised edge of the plenum. With the high induction swirl effect, a large number of air changes is feasible. With the extremely shallow inflow pattern, the RTBD diffuser is also suitable for slightly lower rooms.

Characteristics

Max. number of air changes:	up to 15 x
Undertemperature:	up to 10 K
Overtemperature:	up to 15 K

Version

Swirl diffuser

front face:	steel
post-treatment:	epoxy
colour:	white RAL 9010, optional RAL colour of your choice

Plenum box

material:	sendzimir galvanised steel
internal insulation:	1/2" duct liner
post-treatment:	none

Optional

plenum box:	flat-sided
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SA-Select

Check [SA-select](#) to create extended order codes and selection details online. **NB!** At this moment, SA-Select is only available in Dutch. But it is possible to create extended order codes and selection details online.

Available types

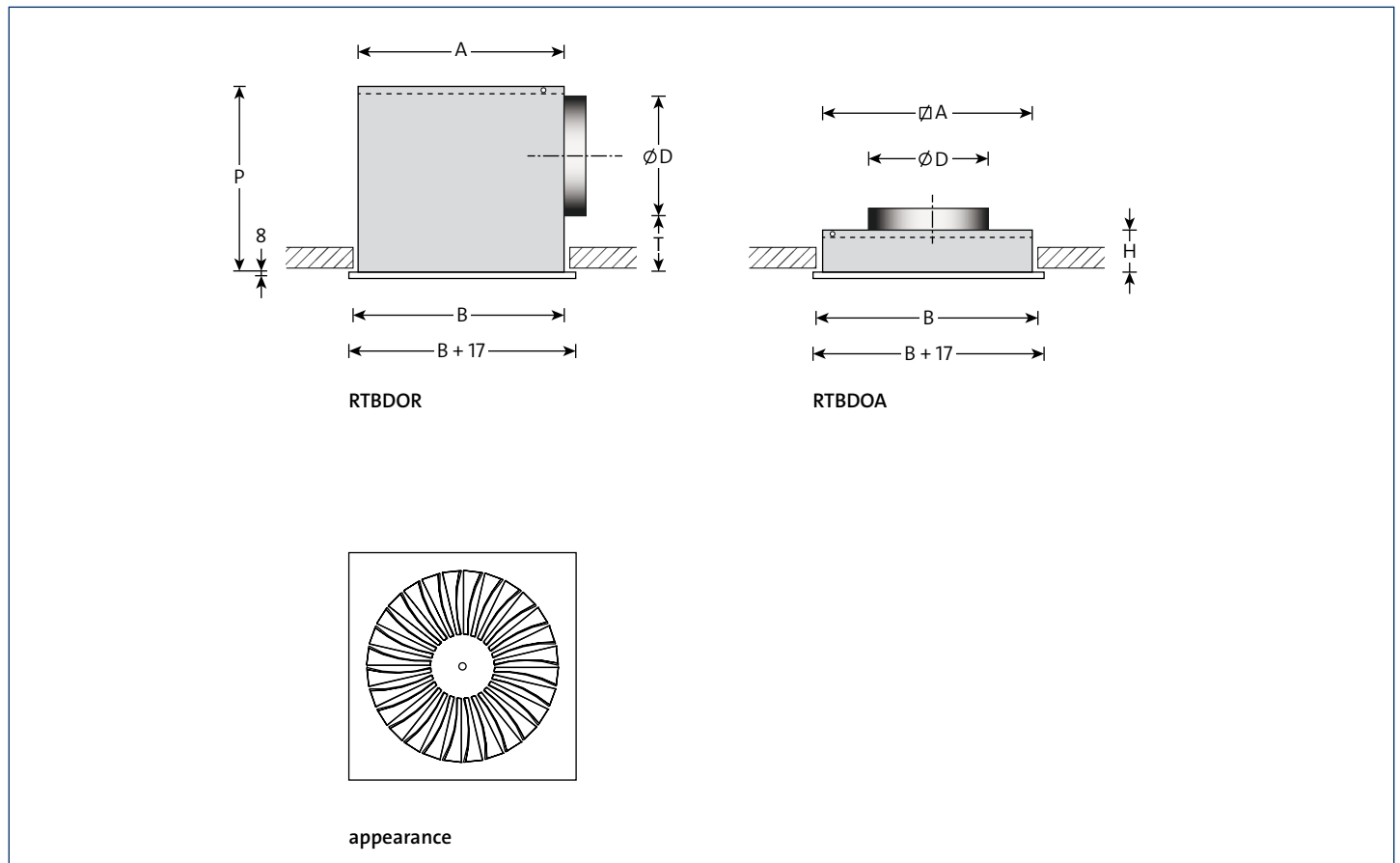
RTBD O -

- R** swirl ceiling diffuser
- T** supply
- B** petal shaped
- D** surface-mounted
- O** no accessories

- Version

- A** round top connection
- R** assembled, internally insulated plenum box
- U** assembled, uninsulated plenum box

Dimensions



Available dimensions and sizes

model	B	A	D	T	P	H
250	278	273	123	55	215	110
350	378	373	158	65	260	125
450	478	473	198	75	310	140
550	578	573	248	75	360	160

Weight

model	type	
	without plenum OA	with plenum OR/OU
	kg	kg
250	2.4	3.0
350	4.0	5.2
450	6.0	7.9
550	8.5	11.2

Note

- The dimensions are in mm.
- The face plates of the models 250, 350 and 450 have external dimensions of 295 mm, 395 mm and 495 mm respectively.
- That makes these modules also suitable for modular ceilings with a panel size of 300 mm, 400 mm and 500 mm, respectively. Model 550 is suitable for a panel size of 600.
- Diffusers are suitable for a modular ceiling with a panel size of 600 mm, see type RTBM on our website.
- Information regarding flat-sided plenum boxes is available on our website.

Selection details

RTBD

air volume		model											
		250			350			450			550		
m ³ /s	m ³ /h	throw m	Δp_s Pa	L _{pA} dB(A)	throw m	Δp_s Pa	L _{pA} dB(A)	throw m	Δp_s Pa	L _{pA} dB(A)	throw m	Δp_s Pa	L _{pA} dB(A)
0.020	72	0.7	3	-									
0.025	90	0.9	5	-									
0.030	108	1.1	7	16	0.9	3	-						
0.040	144	1.5	13	24	1.2	5	-						
0.050	180	1.9	20	30	1.4	7	16	1.1	2	-			
0.060	216	2.2	28	34	1.7	11	21	1.3	3	-			
0.070	252	2.6	38	38	2.0	15	25	1.5	4	13	1.3	2	-
0.080	288	3.0	50	42	2.3	19	29	1.7	6	16	1.5	3	-
0.100	360				2.9	30	34	2.2	9	22	1.9	5	14
0.125	450				3.6	46	40	2.7	14	28	2.3	7	20
0.150	540							3.2	20	32	2.8	11	25
0.200	720							4.3	36	40	3.7	19	32
0.250	900										4.6	30	38

Attenuation values plenum box

model	attenuation values						
	125	250	500	1k	2k	4k	Hz
250	5	0	3	10	5	11	dB
350	2	2	7	7	7	9	dB
450	2	3	9	7	7	9	dB
550	0	6	7	7	6	9	dB

General

- The throw applies to flush-mounting in a flat, closed ceiling.
- The assumed room attenuation is 10 dB.
- It is permitted to interpolate the interim values.