RTBC

Swirl diffuser
Supply
Surface-mounted, round

Available types

R T B C O -

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

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

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.

Use

The RTBC 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 with 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 unique high induction swirl effect, a large number of air changes is feasible. With the extremely shallow inflow pattern, the RTBC 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

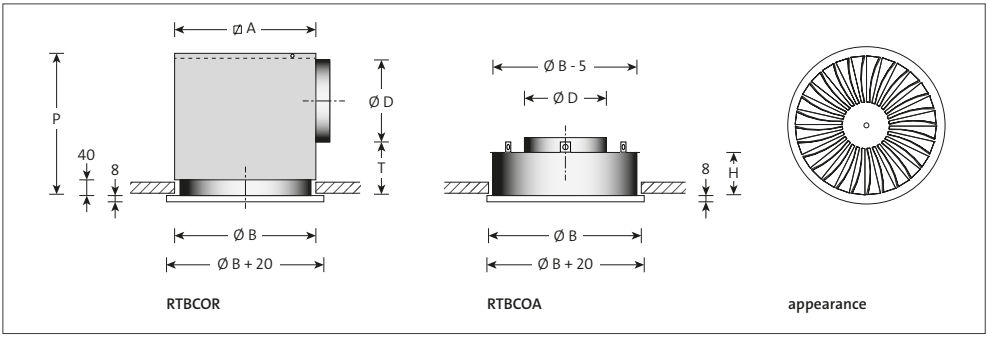
Material:	sendzimir galvanised steel
Internal insulation:	1/2” duct liner
Post-treatment:	none

Optional

Plenum box:	flat-sided

2025_03_V1

Dimensions



Availeble dimensions and sizes (without end reflection)

model	B	A	D	T	P	H
250	280	293	123	65	215	110
350	380	393	158	70	255	125
450	480	493	198	70	295	140
550	580	593	248	70	345	160

Note

- The listed dimensions are in mm.
- Information regarding flat-sided plenum boxes is available on our website.

Selection details

RTBC

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 (without end reflection)

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.

2025_03_V1