

## Application:

The swirl diffuser type RRBD is suitable for return air and its external appearance is the same as the RTBD supply diffuser. The diffuser may be used for surface mounting as well as for Tee bar mounting. The diffuser can be fitted with a plenum box which is delivered ready assembled.

# RRBD

- ▶ Swirl
- ▶ Return

## Design:

### Swirl diffuser

face plate: steel  
finish visible parts: epoxy powder  
colour: RAL 9010

### Plenum box

material: steel  
sendzimir  
lining: 12 mm  
finish: none

### Damper

material: steel  
sendzimir  
finish: none

## Available types:

### RRBD - -

- R** swirl diffuser
- R** return
- B** rotating pattern, petal shaped
- D** surface mounted

### - accessories

- O** none
- V** damper

### - designed with

- A** round top connection
- R** lined plenum box (assembled)
- U** un-lined plenum box (assembled)

## Dimensional data:

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

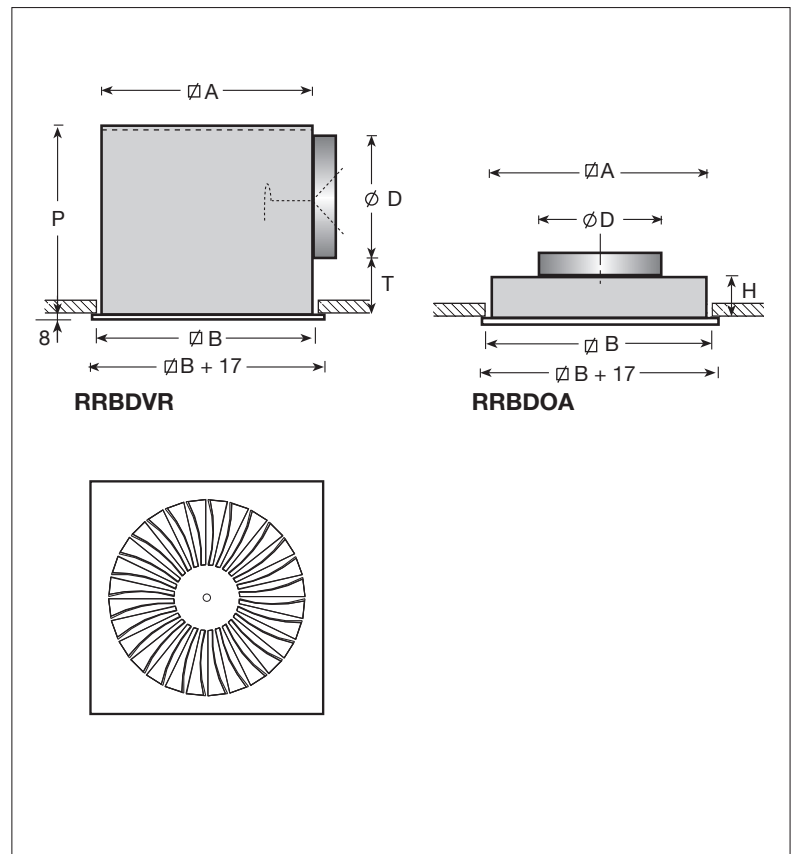
## Weights:

model	type		Ø vcd
	OA	OR	
250	2.0	2.7	0.1
350	3.3	4.5	0.2
450	5.0	6.8	0.3
550	6.9	9.6	0.4

## Remarks:

The dimensions are given in mm, weights in kg. Connection "D" is actual O.D. The face size of models 250, 350 and 450 are 295, 395 and 495 mm respectively overall. As such these models fit in a Tee-bar modular ceiling with a respective size of 300, 400 and 500 mm. For 600 mm grid see RRBM.

## Dimensions:



## Performance data:

### RRBDOA and RRBDOU:

air volume		round connection		
m <sup>3</sup> /s	m <sup>3</sup> /h	model	Ps	Lp
0.025	90	250	5	8
0.030	108	250	7	12
0.040	144	250	13	20
		350	5	-
0.050	180	250	20	26
		350	7	13
0.060	216	250	29	30
		350	10	17
		450	3	-
0.070	252	250	40	34
		350	14	21
		450	4	9
0.080	288	350	19	25
		450	6	12
		550	3	-
0.100	360	350	29	31
		450	9	18
		550	5	10
0.125	450	350	45	36
		450	14	24
		550	8	16
0.150	540	450	21	29
		550	11	21
0.200	720	450	37	36
		550	20	28
0.250	900	450	57	42
		550	31	34
0.300	1080	550	44	39

## General:

The pressure drop applies to fully opened damper.

- static pressure drop Ps in Pa.

The assumed room absorption is 10 dB.

- sound pressure Lp in dB(A).

Intermediate values may be interpolated.

## Lined Plenums:

model	middle frequency bands					
	125	250	500	1K	2K	4K
250	5	0	3	10	5	11
350	2	2	7	7	7	9
450	2	3	9	7	7	9
550	0	6	7	7	6	9