

# RTPM

- ▶ Swirl diffuser
- ▶ Supply
- ▶ For Tee-bar mounting

## 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:

- R T P M - -**
- R** swirl diffuser
  - T** supply
  - P** petal shaped, perforated face
- **face plate**  
**M** suited for Tee-bar mounting  
 module size 600 mm  
**T** tegular
- **accessories**  
**O** none  
**V** damper (key operated from adjacent tile)
- **designed with**  
**A** round top connection  
**R** lined plenum box (assembled)  
**U** un-lined plenum box (assembled)

## Application:

The swirl diffuser type RTPM is suitable for the supply of cooled air with a large temperature differential and can be utilised for constant and variable volume installations. The air pattern is fixed. The diffuser is for Tee-bar mounting in a ceiling with a 600 mm module size and can be fitted with a plenum box which is delivered ready assembled. The special high induction swirl effect enables a significant number of air changes. The very shallow inflow pattern also makes the diffuser suitable for somewhat lower spaces.

## Features:

Max. air exchanges: up to 15 x  
 Under temperature: up to 10 K  
 Over temperature: up to 15 K

## Dimensional data:

model	A	D	T	P	H
250	273	123	60	220	115
350	373	158	70	265	130
450	473	198	80	315	145
550	573	248	80	365	165

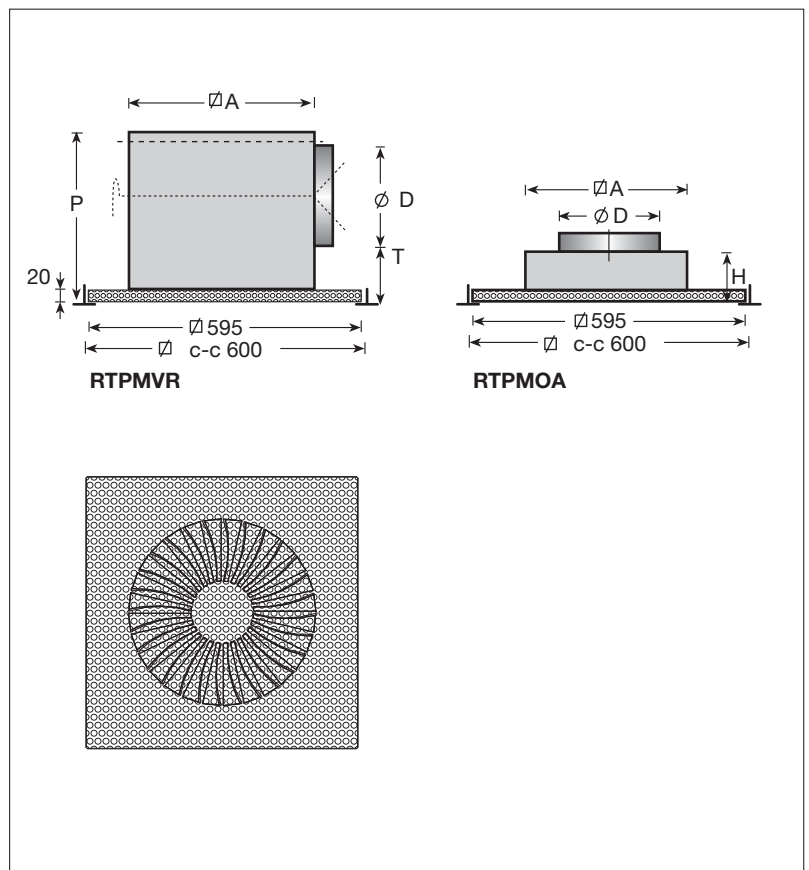
## Weights:

model	type		Ø vcd
	OA	OR	
250	5.3	6.0	0.1
350	6.5	7.7	0.2
450	8.0	9.9	0.3
550	9.8	12.5	0.4

## Remarks:

The dimensions are given in mm.  
 Weights are given in kg.  
 Connection "D" is actual O.D.  
 In addition to the standard lay-in ceiling diffuser, we can also provide the diffuser with a tegular edge to suit most modern ceiling systems (please refer to Solid Air Head office)

## Dimensions:



**Performance data RTPM:**

air volume		model											
		250			350			450			550		
m <sup>3</sup> /s	m <sup>3</sup> /h	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp
0.020	72	0.7	3	-									
0.025	90	0.9	6	-									
0.030	108	1.1	8	21	0.9	3	-						
0.040	144	1.5	14	29	1.2	6	-						
0.050	180	1.9	22	35	1.4	8	21	1.1	2	-			
0.060	216	2.2	31	39	1.7	12	26	1.3	3	-			
0.070	252	2.6	42	43	2.0	17	30	1.5	4	18	1.3	2	-
0.080	288	3.0	55	47	2.3	21	34	1.7	7	21	1.5	3	-
0.100	360				2.9	33	39	2.2	10	27	1.9	6	19
0.125	450				3.6	51	45	2.7	15	33	2.3	8	25
0.150	540							3.2	22	37	2.8	12	30
0.200	720							4.3	40	45	3.7	21	37
0.250	900										4.6	33	43

**Throw correction factor:**

V <sub>end</sub> m/s	throw factor
0.15	1.67
0.20	1.25
0.25	1.00
0.35	0.71
0.50	0.50

Throw figures are based on 0.25 m/s end velocity. In case other end velocities are required correct according to table.

**General:**

The throw applies to flush mounted in a horizontal dropped ceiling.

For return data see PRVM chapter 3.

- throw T in metres.

- 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