

## Application:

The perforated diffuser types PSVT and PTVT are suited for supplying cooled and heated air with a large temperature differential with respect to the room temperature.

The diffuser can be Tee-bar mounted in a ceiling with a module size of 300 mm and can be fitted with a (lined) plenum box which is delivered ready assembled and includes a stabilisation plate.

The type PSVT has a fixed one-way spread pattern. The PTVT type is equipped with pattern adjusting blades that enable a free choice of the discharge direction. Prior to adjustment refer to the performance data. The very shallow inflow pattern also makes these diffusers suited for somewhat lower spaces. The radial pattern minimises ceiling smudging.

## Features:

Max. air exchanges:	up to 15 x
Under temperature:	up to 10 K
Over temperature:	up to 15 K
Free area	50%

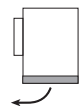
## Available dimensions:

	panel	
	600x300	300x300
PSVTOR 160	•	
PTVTOR 125	•	•
PTVTOR 160	•	

## Remarks:

The dimensions are given in mm.  
Connection "D" is actual O.D.

Type PSVT: The exhaust direction will be in the direction of the connection



# PSVT & PTVT

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

## Design:

### Perforated diffuser

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

### Plenum box

material:	steel galvanised sendzimir
lining:	12 mm
finish:	none

### Damper

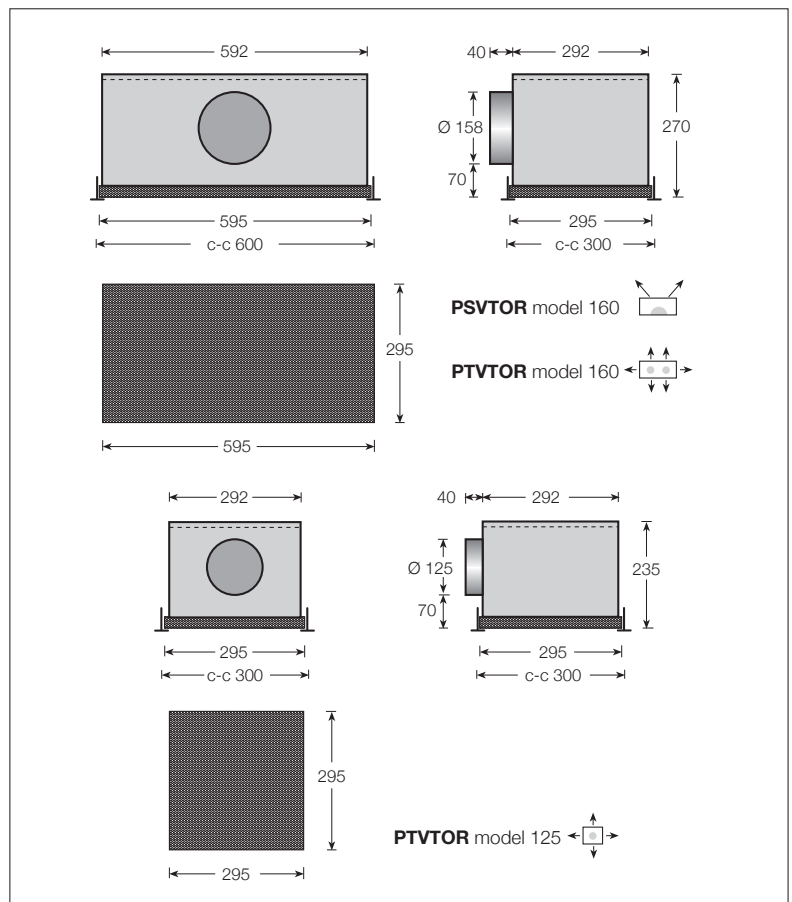
material:	steel galvanised sendzimir
finish:	none

## Available types:

### P - V T O R

- P** perforated ceiling diffuser
- **spread pattern**
  - S** supply, one-way spread pattern (fixed)
  - T** supply, adjustable spread pattern (equipped with pattern blades)
- V** flat face plate
- T** suited for standard Tee-bar mounting, module size 300/600 mm
- O** not applicable
- R** lined plenum box

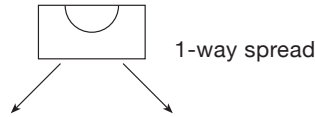
## Dimensions:



## Performance data:

### PSVTOR 160 front 600 x 300

air volume		1-way spread		
m <sup>3</sup> /s	m <sup>3</sup> /h	T	Ps	Lp
0.025	90	0.8	2	6
0.030	108	1.0	2	11
0.040	144	1.3	4	19
0.050	180	1.6	7	24
0.060	216	2.0	10	29

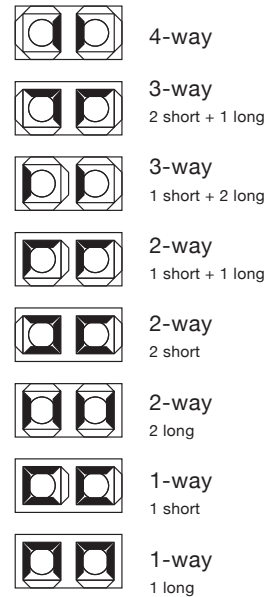


### PTVTOR 160 front 600 x 300

air volume		4-way			3-way 2K + 1L			3-way 1K + 2L			2-way 1K + 1L		
m <sup>3</sup> /s	m <sup>3</sup> /h	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp
0.030	108	0.6	3	-	0.7	4	10	0.6	3	-	0.9	4	10
0.040	144	0.7	6	16	1.0	7	19	0.8	6	17	1.2	7	19
0.050	180	0.9	9	23	1.2	11	26	1.0	10	24	1.4	12	26
0.060	216	1.1	13	28	1.4	16	31	1.2	14	29	1.7	17	31
0.080	288	1.5	23	37	1.9	29	40	1.7	25	38	2.3	29	40
0.100	360	1.8	36	44	2.4	45	47	2.1	39	45	2.9	46	47

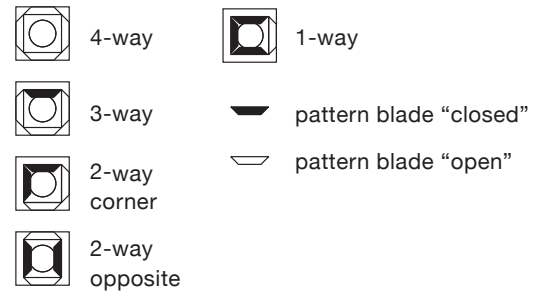
  

air volume		2-way 2L			2-way 2K			1-way 1L			1-way 1K		
m <sup>3</sup> /s	m <sup>3</sup> /h	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp
0.020	72	0.5	3	-	0.6	2	-	0.8	2	-	1.1	7	24
0.025	90	0.7	5	-	0.7	3	-	1.0	3	-	1.4	11	30
0.030	108	0.8	7	15	0.8	5	13	1.2	5	13	1.7	16	35
0.040	144	1.0	11	24	1.1	9	22	1.6	9	22	2.2	28	42
0.050	180	1.4	19	31	1.4	13	29	2.0	13	29	2.8	44	48
0.060	216	1.7	30	36	1.7	19	34	2.3	20	34			
0.080	288	2.1	47	46	2.2	34	43	3.1	36	43			



### PTVTOR 125 front 300 x 300

air volume		4-way			3-way			2-way opposite			2-way corner			1-way		
m <sup>3</sup> /s	m <sup>3</sup> /h	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp	T	Ps	Lp
0.015	54	0.4	1	-	0.4	1	-	0.6	2	3	0.6	3	5	0.9	7	13
0.020	72	0.6	1	5	0.6	2	7	0.7	4	10	0.7	4	12	1.2	12	21
0.025	90	0.7	2	11	0.7	3	13	0.9	5	16	0.9	7	18	1.5	19	27
0.030	108	0.8	3	16	0.9	4	18	1.1	8	21	1.1	10	23	2	28	31
0.040	144	1.1	4	23	1.2	6	25	1.5	13	28	1.5	17	29	2.5	49	39
0.050	180	1.4	6	29	1.5	10	31	1.9	20	34	1.9	25	34			
0.060	216	1.7	8	34	1.9	13	36	2.2	28	39	2.2	35	41			



## Return:

If used as return diffuser please refer to chapter 3 page 179  
 PSVT and PTVT 160: performance data PRVDOR 300  
 PTVT 125 : performance data PRVDOR 250

## General:

The throw applies to flush mounted in a horizontal dropped ceiling.  
 • 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
300	3	1	6	7	7	9
600	4	0	5	8	7	8