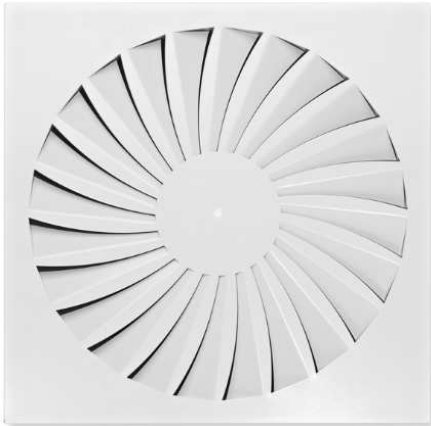




**Turbulence Diffusers  
TWD**



TWD226R



TWD226K

**DESCRIPTION:**

Ceiling turbulence diffusers in air conditioning systems create a turbulence to supply air to rooms. The resulting airflow induces high levels of room air, thereby rapidly reducing the airflow velocity and the temperature difference between supply air and room air. Ceiling turbulence diffusers allow for large volume flow rates. The result is a mixed flow ventilation in comfort zones, with good overall room ventilation, creating only very little turbulence in the occupied zone.

TWD226R : Turbulence Diffuser with fixed and circular aranged blades and circular front plate.

TWD226K : Turbulence Diffuser with fixed and circular aranged blades and square front plate.

**MATERIAL :**

Sheet metal front plate and blades

**FUNCTION :**

Type TWD ceiling turbulence diffusers have fixed blades. Air discharge is horizontal radial. The supply air to room air temperature difference may range from -12 to +10 K

**FINISHING :**

- Powder coated in RAL9010 colour as standard. Other colours on request

**INSTALLATION :**

- Bridge (standart)
- Screw
- No Fixing

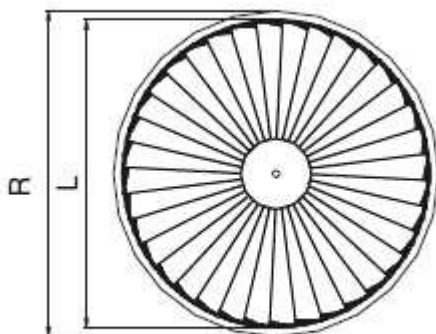
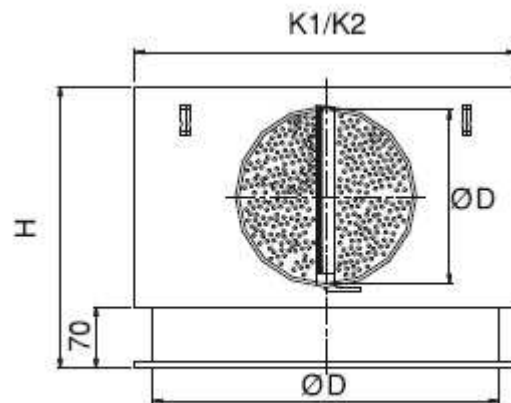
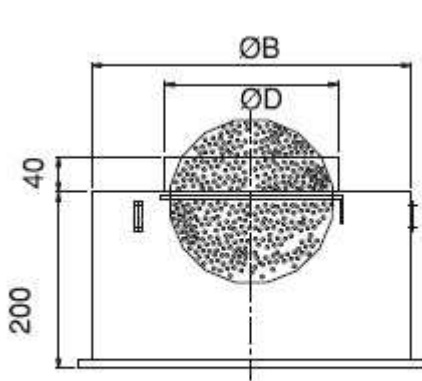
**ACCESSORIES:**

- Plenum box

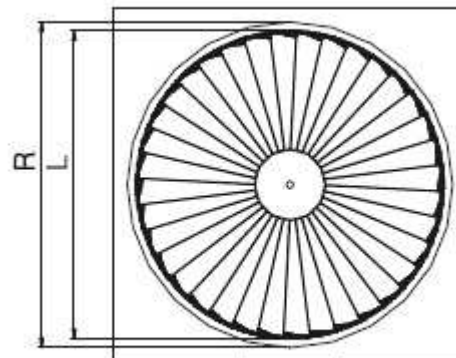


STANDARD SIZES (mm):

MODEL	B	D	H	K1	K2	L	Q	R
400	364	198	300	435	446	350	398	400
500	364	198	300	435	446	350	498	500
600	559	248	350	620	631	538	598	600
625	559	248	350	620	631	538	623	623

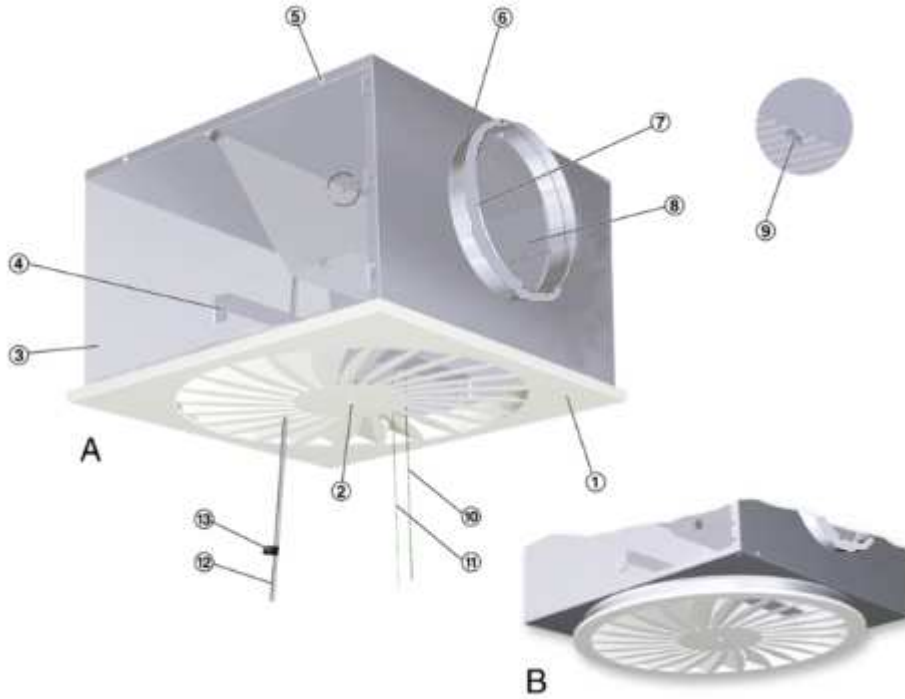


TWD226R



TWD226K

**TWD226 Plenum Box Details:**



**TWD226 A: Square front plate**

**TWD226 B: Circular front plate**

- ① Diffuser face
- ② Central fixing screw
- ③ Plenum Box
- ④ Cross Bar
- ⑤ Suspension hole
- ⑥ Spigot Optional
- ⑦ Lip seal Optional

- ⑧ Damper blade for volume flow rate balancing-Optional
- ⑨ Pressure tap - Optional
- ⑩ Green cord for closing the damper blade
- ⑪ White cord for opening the damper blade
- ⑫ Measuring tube
- ⑬ Text label indicating plenum box variant



**TWD226 SELECTION TABLE**

Qv(m <sup>3</sup> /h)	MODEL	FD 300	FD 400	FD 500	FD 600	FD 625
180	NR	35				
	Pt (Pa)	18,0				
	V (m/s)	0,11				
200	NR	35	18			
	Pt (Pa)	32,0	10,0			
	V (m/s)	0,12	0,10			
250	NR	40	20	15		
	Pt (Pa)	49,0	16,0	8,0		
	V (m/s)	0,16	0,11	0,10		
280	NR	45	25	20		
	Pt (Pa)	62,0	20,0	10,0		
	V (m/s)	0,19	0,12	0,10		
300	NR	45	30	20	20	20
	Pt (Pa)	70,0	23,0	11,0	6,0	6,0
	V (m/s)	0,20	0,13	0,11	0,10	0,10
350	NR	50	35	25	25	25
	Pt (Pa)	95,0	31,0	15,0	9,0	9,0
	V (m/s)	0,25	0,16	0,13	0,12	0,12
380	NR		35	30	25	25
	Pt (Pa)		37,0	18,0	10,0	10,0
	V (m/s)		0,18	0,14	0,13	0,13
400	NR			30	30	30
	Pt (Pa)			20,0	11,0	11,0
	V (m/s)			0,15	0,14	0,14
450	NR			35	30	30
	Pt (Pa)			25,0	14,0	14,0
	V (m/s)			0,17	0,16	0,16
480	NR			35	30	30
	Pt (Pa)			29,0	16,0	16,0
	V (m/s)			0,15	0,18	0,18
500	NR			35	35	35
	Pt (Pa)			31,0	17,0	17,0
	V (m/s)			0,20	0,19	0,19
550	NR				35	35
	Pt (Pa)				21,0	21,0
	V (m/s)				0,21	0,21
580	NR				35	35
	Pt (Pa)				23,0	23,0
	V (m/s)				0,22	0,22

**SELECTION CRITERIAS**

L=L<sub>1</sub>+H<sub>1</sub>  
 H<sub>1</sub>=1,2mt  
 Wall Effect

**EFFECTIVE AREA Ak(m<sup>2</sup>)**

MODEL	300	400	500	600/625
<b>Ak (m<sup>2</sup>)</b>	0.00884	0.00180	0.0251	0.0295



PRESSURE AND NOISE LEVEL SELECTION DIAGRAMS

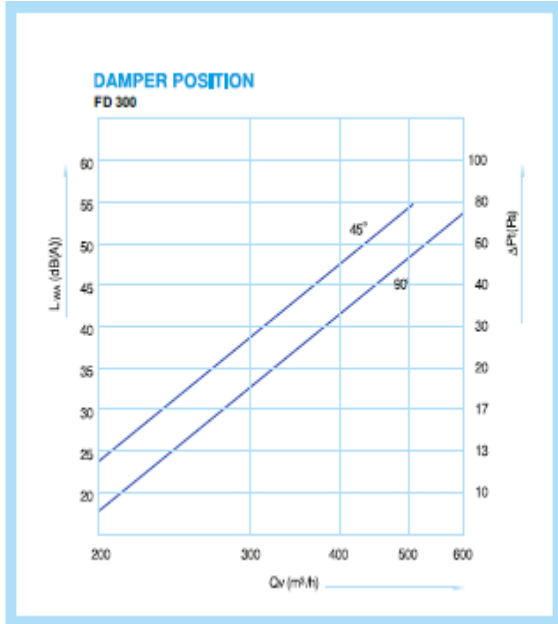


Diagram 1

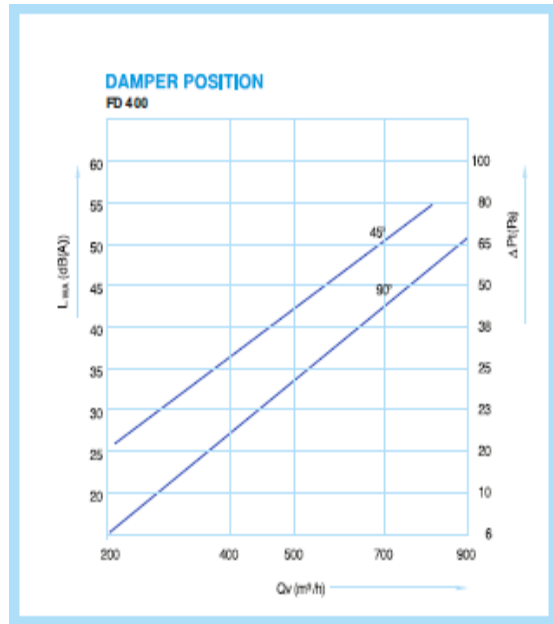


Diagram 2

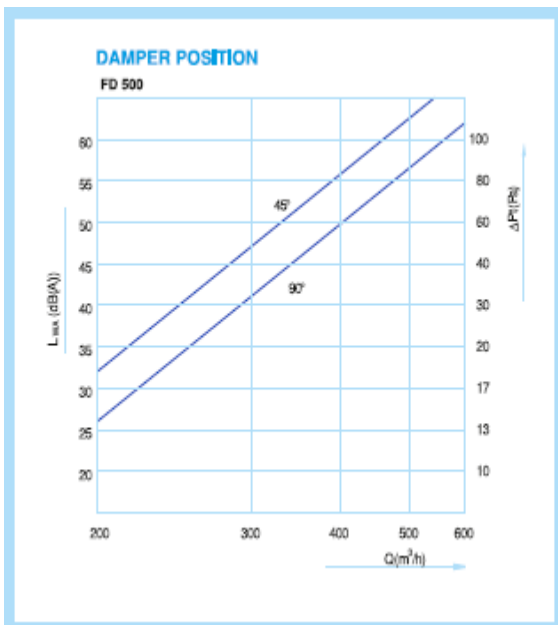


Diagram 3

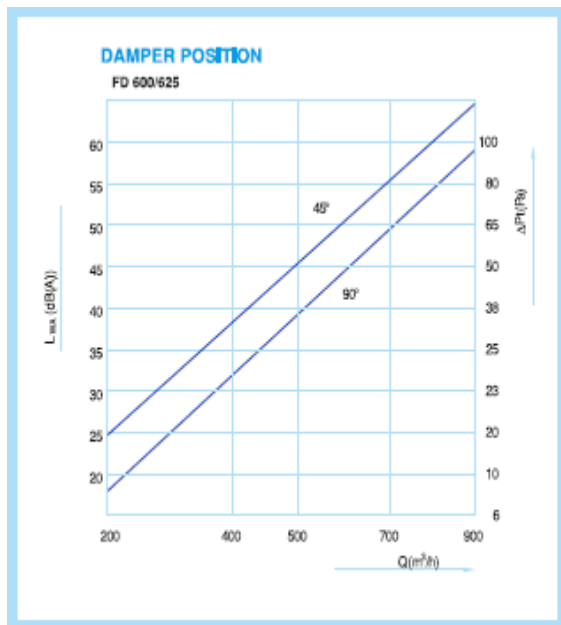
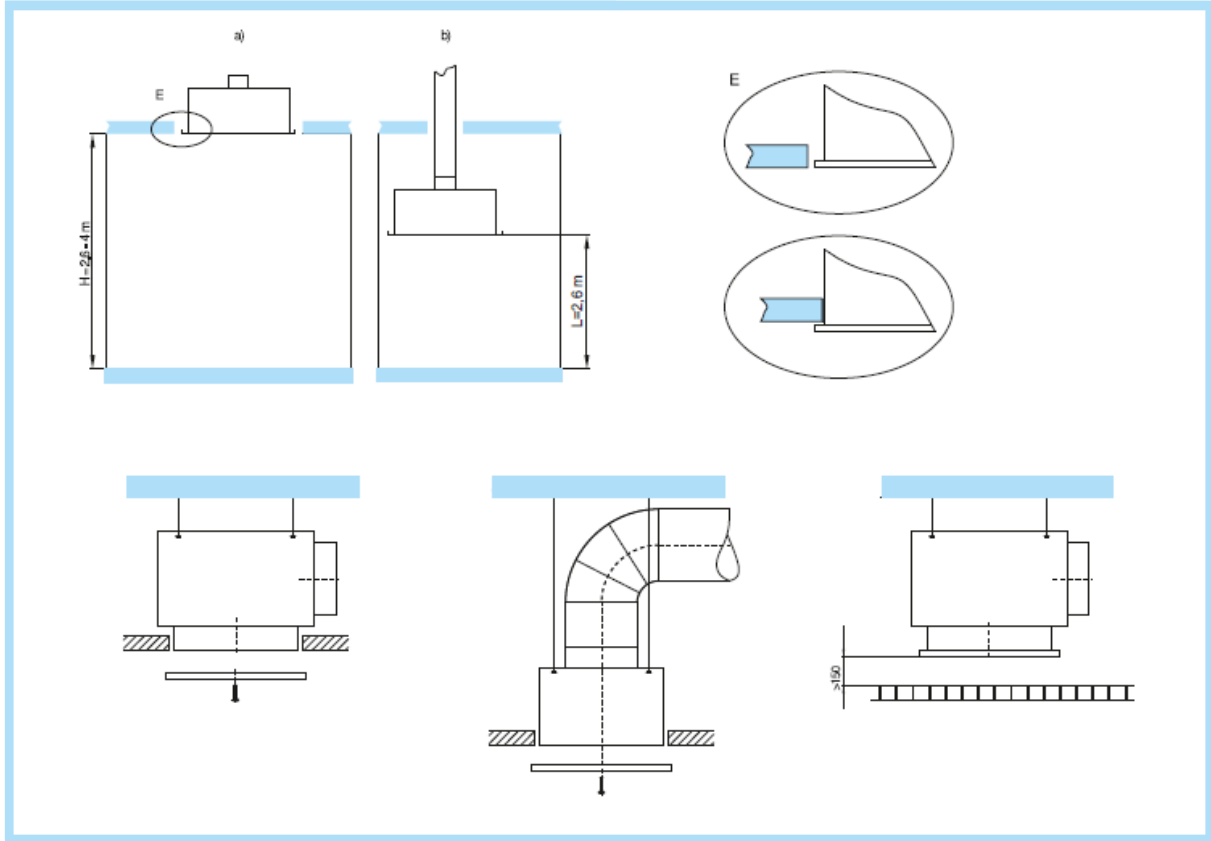


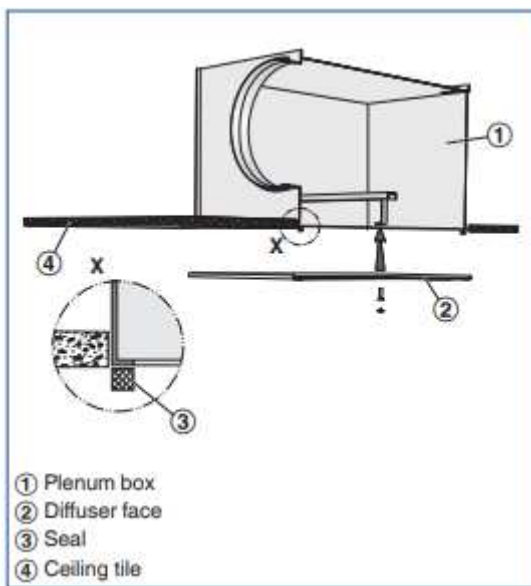
Diagram 4

INSTALLATION DETAILS:

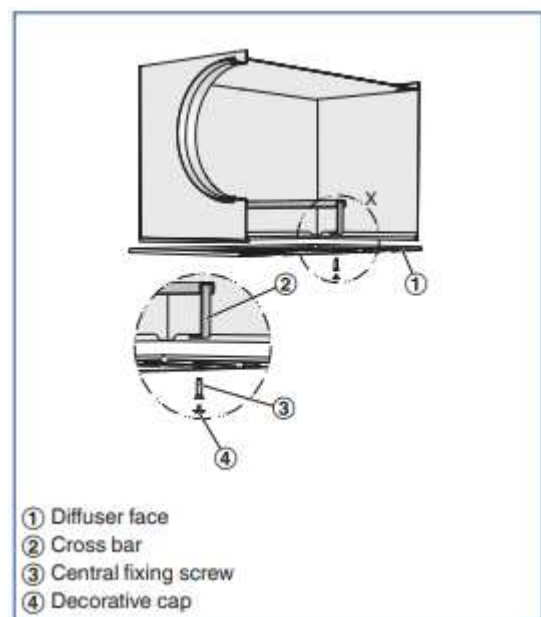


Diffuser face – sealing

Diffuser face – central screw fixing



– The self-adhesive sealing tape (supplied) has to be applied to the return edges of the plenum box by others



- Using the central fixing screw, fix the diffuser face to the cross bar of the plenum box



## Ceiling systems

- Attach the decorative cap

### Installation into grid ceilings



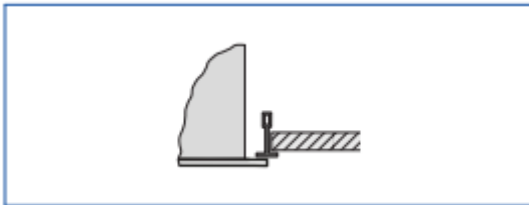
- Fix the plenum box to the ceiling
- The ceiling tile of the grid ceiling is independent of the ceiling diffuser
- Fix the diffuser face after the ceiling has been completed

### Installation in continuous ceilings



- Fix plenum box (including diffuser face, if necessary) to the ceiling
- Adjust plasterboard ceiling tile as required
- If necessary, fix the diffuser face after the ceiling has been completed

### Installation in T-bar ceilings



- Fix the plenum box to the ceiling
- The T-bar ceiling is independent of the ceiling diffuser
- Fix the diffuser face below the T-bars after the ceiling has been completed





**ORDER CODES**

SWD-124	SQF	RAL9010	SM	F 595x595
TWD226R TWD226K				(out size) F: Frame Size
CRF: Circular Frame SQF: Rectangular Frame				00: No Mounting SM: Screw Mounting BM: Bridge Mounting
				00: No coating EX: Eloxal Coating RAL----: Oven Drying Coating