



Application:

The round, conic Swirl diffuser type RTWS is suitable for the supply of cooled or heated air with a big temperature difference and is intended for industrial application.

The diffuser can be applied without ceiling influence because of the extended rim. The housing consists of a round metal nozzle body with six swirl blades that can be manually adjusted. Motor adjustment is possible. Any desired supply direction from horizontal to vertical can be set.

The diffuser is highly suitable for air heating installations in high rooms. The large penetration depth makes it possible to work with a lower air capacity.

Features:

Max. exchange rate: up to 15 x
Under temperature: up to 10 K
Over temperature: up to 15 K

Remark:

The stated dimensions are in mm.

The measure L is the maximum mounting height with an electric servo motor built on top.

Connection "D" is actual O.D.

RTWS

- ▶ Swirl diffuser conic
- ▶ Supply, round, adjustable
- ▶ Industrial, manual or motorised

Design:

Swirl diffuser:

round metal
nozzle body: aluminium
swirl blades: steel
finish: epoxy
colour: white RAL 9010

Plenum box:

material: galvanised sheet
interior lining: steel
finish: 12 mm
none

Servo motor:

brand: Siemens
GLB 161.1E
control: mod. 0-10 V
power: 24V AC

Available types:

RTWS - -

R round diffuser
T supply
W Swirl type
S no flange

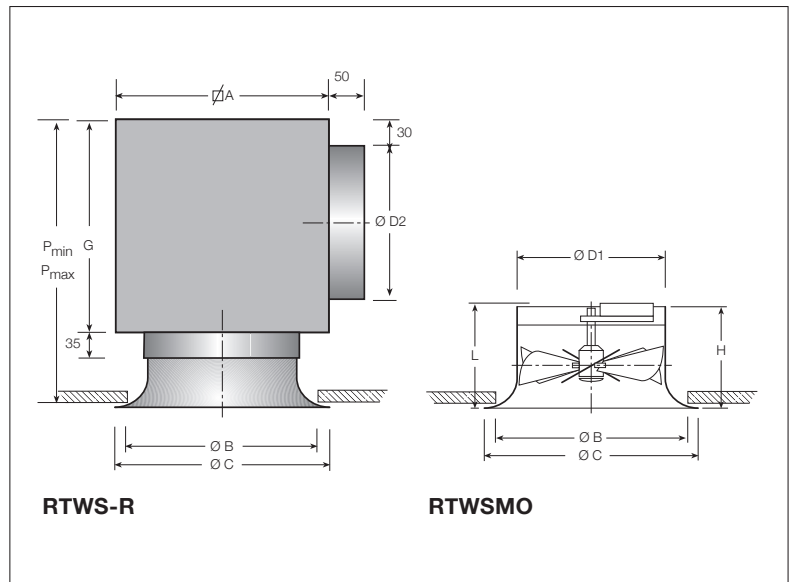
- operation

M motorised
H manually adjustable blades, separate

- designed with

O round top connection
U unlined plenum box (delivered separately)
R lined plenum box (delivered separately)

Dimensions:



model	A	B	C	D1	D2	G	H	L	Pmin	Pmax
250	310	310	360	248	249	310	202	232	459	519
315	375	400	464	313	314	375	225	255	547	607
400	460	500	560	401	399	460	250	260	657	717
500	560	620	690	497	499	560	306	316	813	873
630	700	780	870	627	629	700	350	350	997	1057

Performance data RTWS:

air volume		model 250			315			400			500			630		
m ³ /s	m ³ /h	Vh	Ps	Lp	Vh	Ps	Lp	Vh	Ps	Lp	Vh	Ps	Lp	Vh	Ps	Lp
0.060	216	1.2	8	-												
0.070	252	1.4	11	-												
0.080	288	1.6	15	-	1.0	5	-									
0.100	360	2.0	23	13	1.3	8	-									
0.125	450	2.5	36	19	1.6	13	12									
0.150	540	3.1	52	24	1.9	18	17	1.2	5	-						
0.200	720	4.1	92	31	2.6	32	24	1.6	9	-						
0.250	900	5.1	144	37	3.2	50	30	2.0	15	12	1.3	9	-			
0.300	1080				3.9	72	35	2.4	21	17	1.5	13	12			
0.400	1440				5.1	128	42	3.2	37	24	2.0	23	20	1.3	9	-
0.500	1800							4.0	58	30	2.5	36	26	1.6	14	13
0.600	2160							4.8	84	35	3.1	52	31	1.9	20	18
0.800	2880										4.1	92	38	2.6	35	25
1.000	3600										5.1	144	44	3.2	55	31
1.250	4500													4.0	86	37
1.500	5400													4.8	124	42

Selection method:

The model size is determined by the table. Interpolation of intermediate values is acceptable. For the recommended mounting height (bottom side of diffuser towards the floor) see figure. The recommended minimal distance among the swirl diffusers mutually is determined by the diagram. The distance up to a wall must be minimum half the mutual distance.

For an exchange rate of more than 15, consult our technicians.

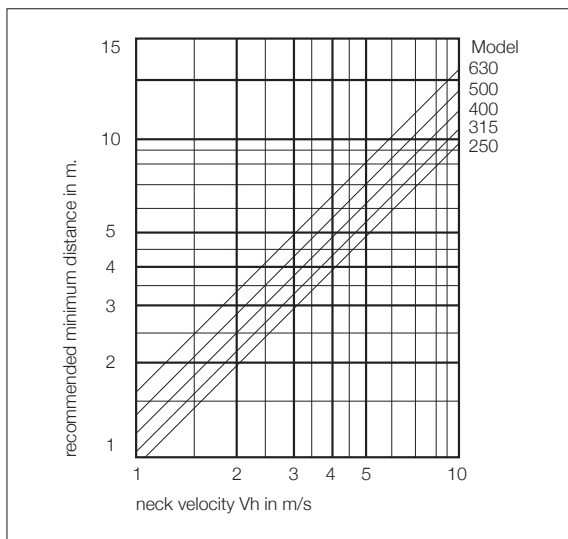
General:

- The pressure drop is stated without volume damper or plenum box.
- static pressure drop in Pa. The adopted room absorption is 10 dB. The sound pressure level is stated at a blade angle of 45 degrees.
 - sound pressure in dB(A).
 - neck velocity in m/s.

Remark:

For a full selection including blade angle settings see page 40 up to 53.

Minimum distance A:



Mounting height M:

model	Mounting height M
250	3,1 to 4,8 m
315	3,5 to 5,8 m
400	4,5 to 7,0 m
500	5,8 to 14,0 m
630	8,0 to 25,0 m

2 3 4 5 6 7 8 9 10 15 20 25 30 35 M in m