



## **SWIRL DIFFUSERS**



## Different types of anemostats

RADR and RADQ ceiling swirl diffuser elements provide high comfort level by supplying the fresh air radially. We produce RADR swirl diffusers with round front plate and RADQ swirl diffusers with square front plate fitting into modular structure ceiling.

Ceiling swirl diffusers are designed to install primary in a way that swirl diffuser front plates are coplanar with the ceiling. Not necessary to follow this installation method in order to operate the system properly. When swirl diffuser front plate is not coplanar with the ceiling, diffusers are delivered without plastic air flow blades..

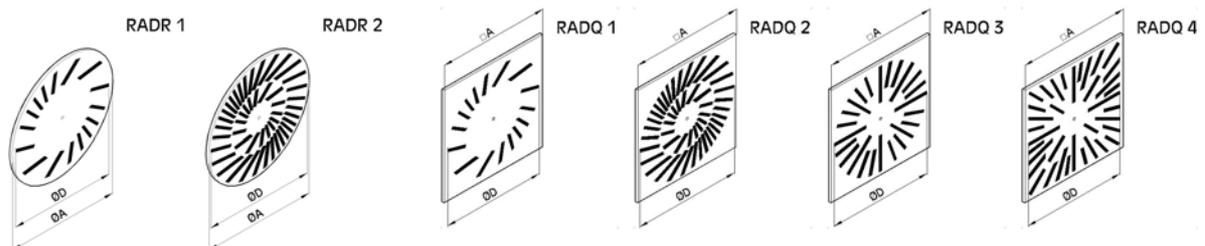


The number of the plastic airflow blades and their allocation can be chosen optionally based on customer request. So any kind of inner architecture idea can be performed.

Depending on building into the ceiling structure the connection branch can be placed on top or side of the box

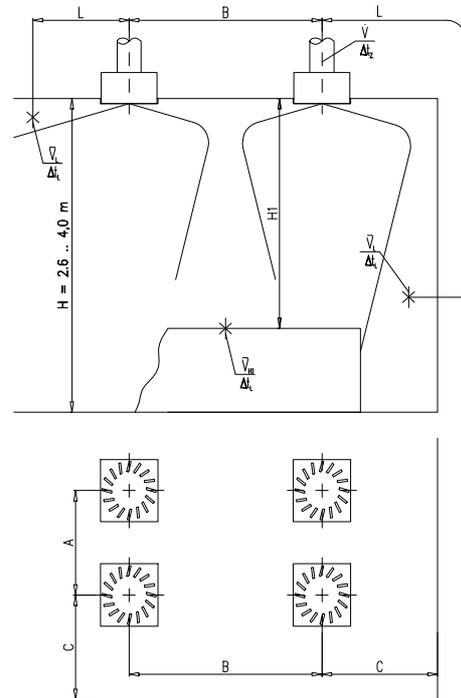
Sizes	Number of the slots	D	A	
			RADR	RADQ
310 x	8	276	310	310
	10			
400 x	16	366	396	396
500 x	16	466	496	496
	24			
600 x	16	566	600	596
	24			
	32			
	38			
625 x	16	566	625	623
	24			
	32			
	38			

### Possible allocation of plastic airflow blades



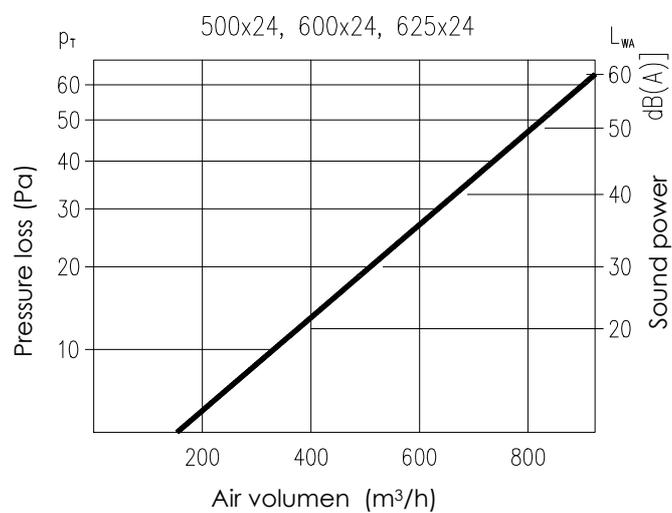
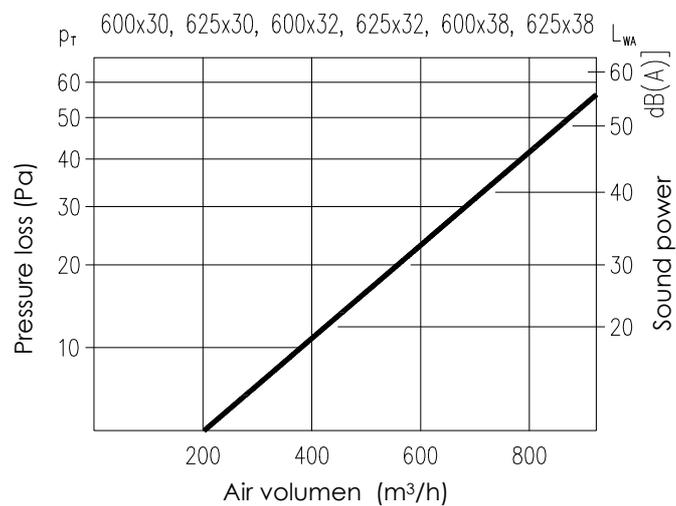
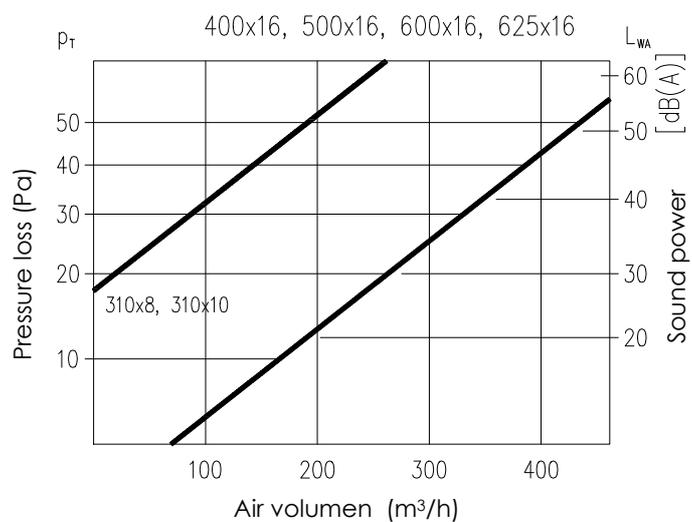
## Swirl diffusers selection

$V$ [m <sup>3</sup> /h]	Air volume / diffuser
$A, B$ [m]	Distance between 2 diffusers
$C$ [m]	Distance between the middle of the diffuser and the wall
$H1$ [m]	Distance between the ceiling and the occupied zone.
$V_L$ [m/s]	Airstream velocity measured in $L$ throw distance
$L$ [m]	Horizontal and vertical distance ( $C+H1$ ) when air is blown opposite the wall
$V_{H1}$ [m/s]	Average airflow velocity measured between 2 diffusers in $H1$ distance
$D_{pT}$	Pressure drop
$L_{WA}$ [dB(A)]	Acoustic Power Level
$D_{tz}$ [K]	Difference between room temperature and supply air temperature
$D_{tL}$ [K]	Difference between room temperature and airstream temperature

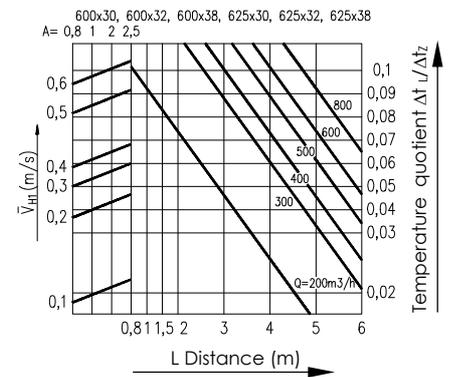
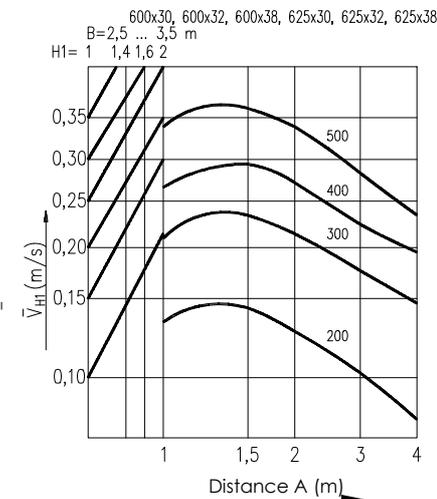
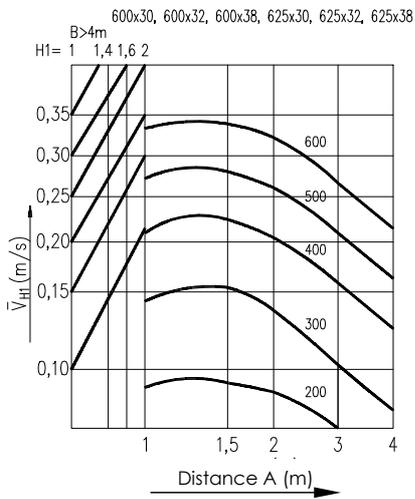
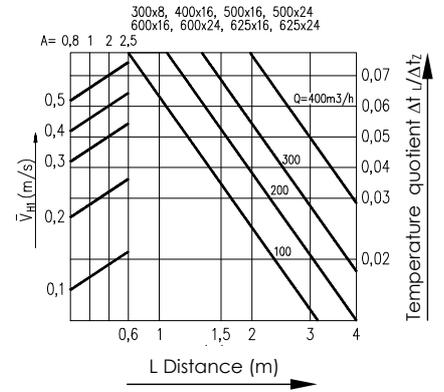
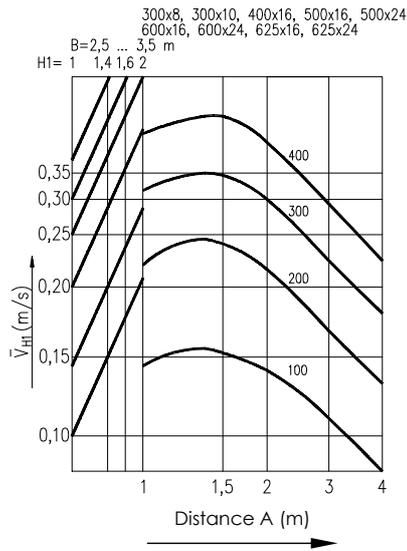
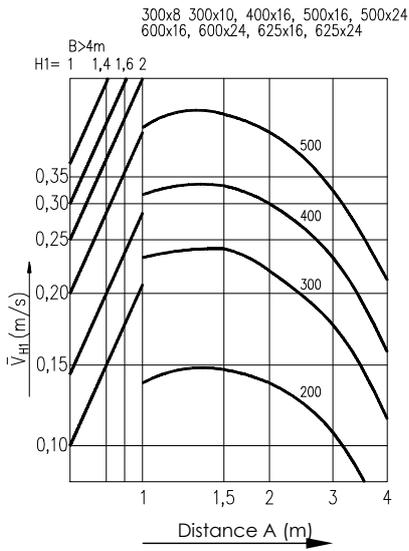


Size	$V_{max}$		$V_{min}$		$L_{WA} max$	$L_W NC max$	$L_{WA} min$	$L_W NC min$	$A_{eff}$ m <sup>2</sup>
	l/s	m <sup>3</sup> /h	l/s	m <sup>3</sup> /h	dB(A)	NC	dB(A)	NC	
<b>310 x 8</b>	67,8	244	15,3	55	40	40	< 20	< 20	0,0070
<b>310 x 10</b>	83,4	300	19,5	70	40	40	< 20	< 20	0,0070
<b>400 x 16</b>	107,5	387	30,6	110	40	40	< 20	< 20	0,0140
<b>500 x 16</b>	107,5	387	30,6	110	40	40	< 20	< 20	0,0140
<b>500 x 24</b>	177,8	640	61,1	220	40	40	< 20	< 20	0,0210
<b>600 x 16</b>	107,5	387	30,6	110	40	40	< 20	< 20	0,0140
<b>600 x 24</b>	177,8	640	61,1	220	40	40	< 20	< 20	0,0295
<b>600 x 30</b>	191,7	690	76,4	275	40	40	< 20	< 20	0,0365
<b>600 x 32</b>	205,6	740	81,9	295	40	40	< 20	< 20	0,0395
<b>600 x 38</b>	216,7	780	97,2	350	40	40	< 20	< 20	0,0435
<b>625 x 16</b>	107,5	387	30,6	110	40	40	< 20	< 20	0,0140
<b>625 x 24</b>	177,8	640	61,1	220	40	40	< 20	< 20	0,0295
<b>625 x 30</b>	191,7	690	76,4	275	40	40	< 20	< 20	0,0365
<b>625 x 32</b>	200,1	720	81,9	295	40	40	< 20	< 20	0,0395
<b>625 x 38</b>	211,1	760	97,2	350	40	40	< 20	< 20	0,0435

## Quick selection



# Technical data



## References

LEGO Manufacturing Kft. Nyíregyháza  
DIEHL Aircabin Hungary Kft. Nyírbátor  
MERCEDES BENZ Manufacturing Kft. Kecskemét  
GE Hungary Nyrt. Budapest  
SOUTH BUDA BUSINESS PARK Irodaház, Budapest  
KIKÁ Áruház Debrecen és Kassa  
GETRAG FORD Kechnec  
SCHELLING Kechnec  
FLEXTRONICS Nyíregyháza, Sárvár, Brno, Zalaegerszeg, Zalalövő  
ROBERT BOSCH Elektronika Kft Hatvan  
SIEMENS Gönyü  
INFOPARK Budapest  
ÁRPÁD CENTER Budapest  
CITY GATE IRODAHÁZ Budapest  
DOTE Debrecen  
HUMAN Gödöllő  
HIETE Budapest

You may download the full referenclist from our web-seite  
[www.radel-hahn.hu](http://www.radel-hahn.hu).



**radel & hahn zrt**

H-4028 Debrecen, Kassai út 92.

Telefon: 0036 52448441 Fax: 0036 52415258

E-mail: [info@radel-hahn.hu](mailto:info@radel-hahn.hu) Web-site: [www.radel-hahn.hu](http://www.radel-hahn.hu)