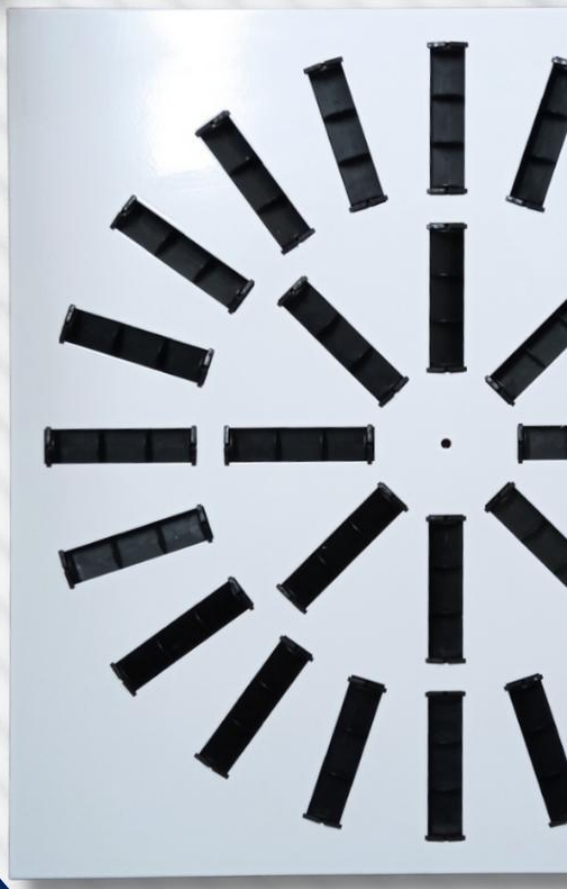
Difair

Serie QRT



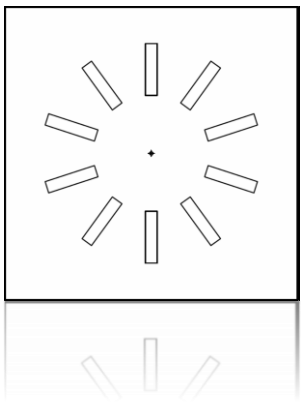
ROTATIONAL DIFFUSER

(+34) 91 3235805
(+34) 91 3235703
www.difair.es
info@difair.es
Avd. del Cno de lo Cortao, 28A, Nave 1
28703 San Sebastián de los Reyes, Madrid.

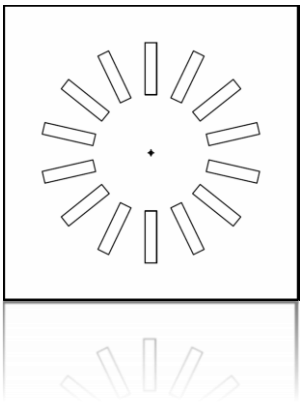
MODELS

Rotational diffuser made of sheet steel 595 x 595 mm, white lacquered.

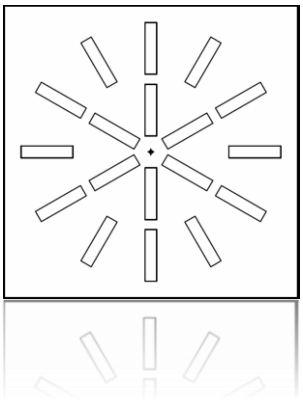
QRT100



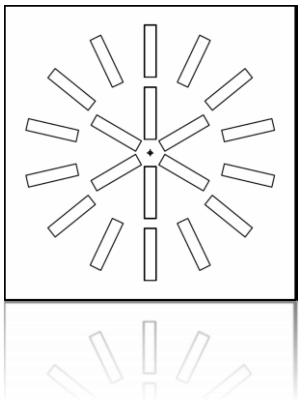
QRT200



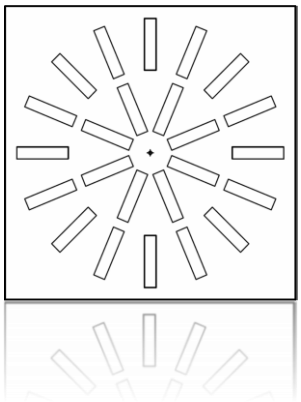
QRT300



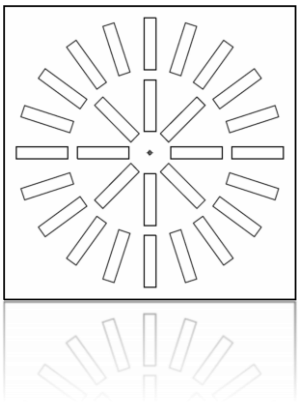
QRT400



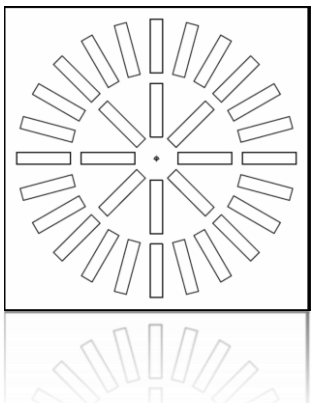
QRT500



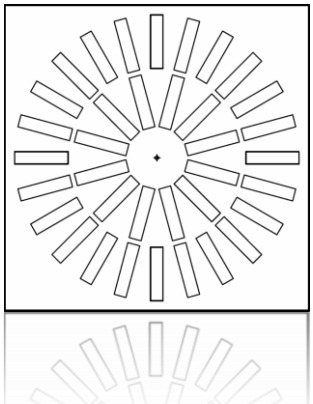
QRT600



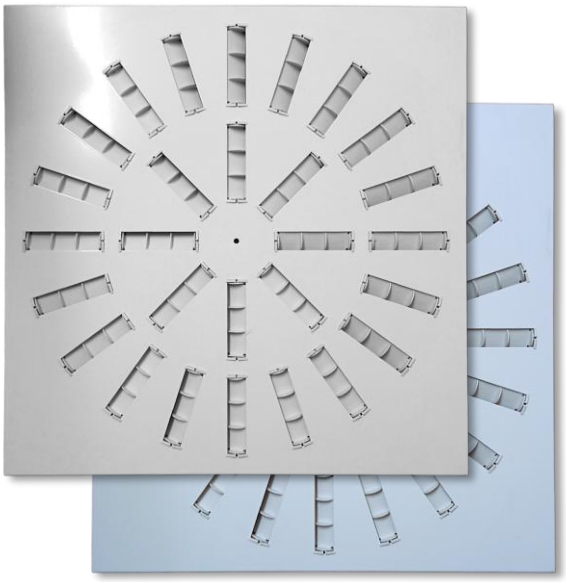
QRT800



QRT1000



APPLICATION

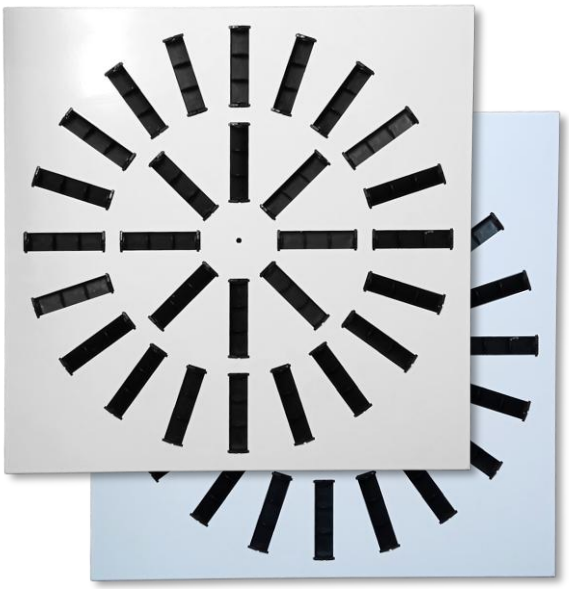


Our swirl / rotational diffusers are designed for air distribution in rooms with heights between 2.80 and 4 m. They are suitable for ventilation, heating and cooling installations.

They are particularly suitable where there is a danger of hot air stratification. This is due to the arrangement of the drive slots and the design of the rotating blade, which gives it a high induction power.

This minimizes the temperature difference between the air under the ceiling and the air above the floor.

Swirl / rotational diffusers are also recommended when it is necessary to be able to vary or fix the horizontal or vertical discharge. Thanks to their rotating blades, they can be positioned according to what is of interest in each case or in each season of the year. They can even be used for mixed air supply, with the outer slots being horizontal and the inner slots vertical.



ACCESSORIES

- Mounting crossbar.
- Polystyrene plenum with regulation and equalizer plate.
- Insulated sheet metal plenum with adjustment and equalizer plate.
- Uninsulated sheet metal plenum with regulation and equalizer plate.

FINISH (Diffuser)

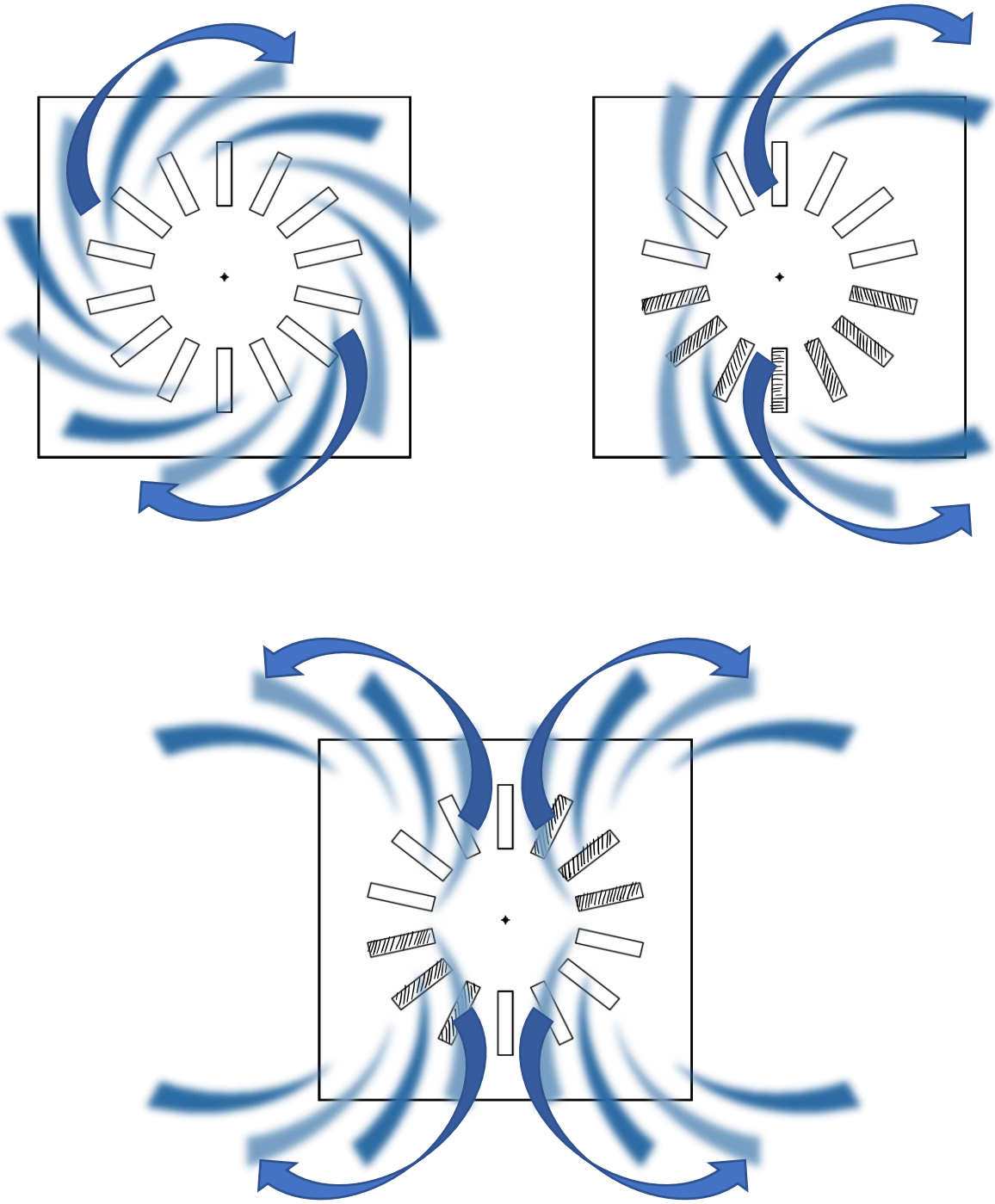
- **WHITE LACQUERED** rotational diffuser.
- On request, it can be manufactured in other colors of the **RAL CHART**.

FINISH (Blades)

- Plastic blades in **BLACK (STANDARD).**
- Plastic blades in **WHITE COLOR.**

AIR IMPULSE DIRECTION

Depending on the arrangement of the blades, we will achieve different effects in the air impulsion.



CONSTRUCTION FEATURES AND DIMENSIONS

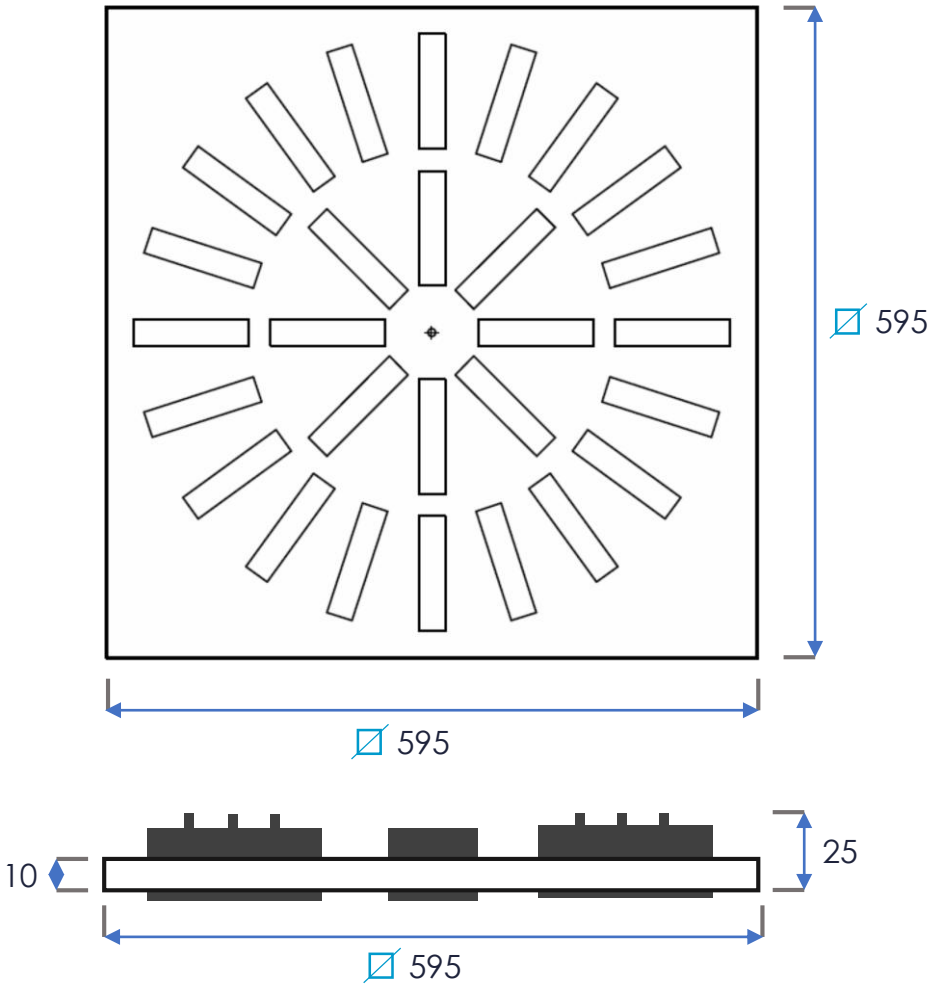
QRT DIFFUSER

Our QRT diffuser is made of galvanized sheet steel, epoxy painted. The blades are made of ABS plastic in black or white.

Its special design provides a perfect integration in modular ceilings.

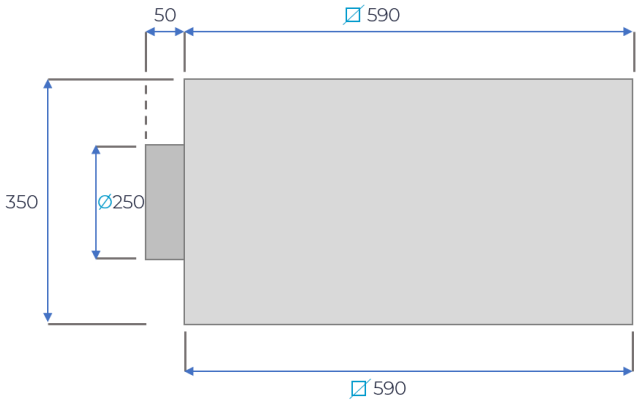
All this, together with their modern aesthetics, give the installations a very attractive finish.

The diffuser is installed to the false ceiling by means of a central screw, either to the mounting crossbar or to the plenum (made of sheet metal or polystyrene).



PLENUM (PLER y PLERAIS)

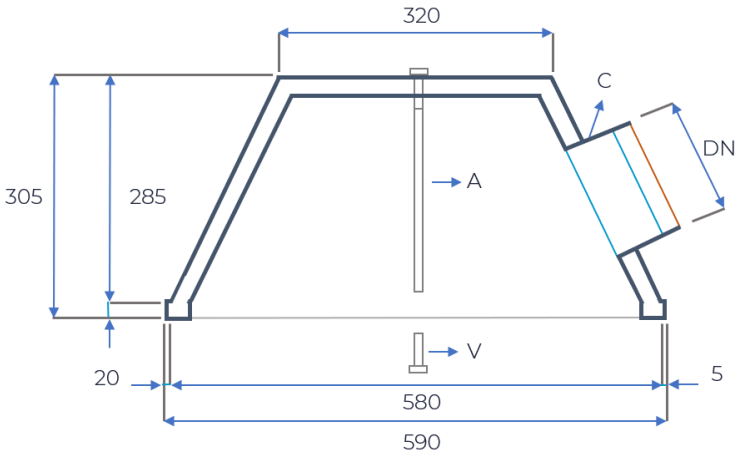
Made of galvanized steel sheet, insulated (PLERAIS) or uninsulated (PLER), they are specially designed to adapt to our rotational diffuser.
They are equipped with equalizing plate and regulating damper in the connection port.



POLYSTYRENE PLENUM (PRPE)

The polystyrene plenum (PRPE) is made of printed polystyrene, with a density of 45 Kg/mc, class 1 fireproof and crystallized on the inside. The transformation process, together with the characteristics of the material, make PRPE a compact and lightweight plenum.

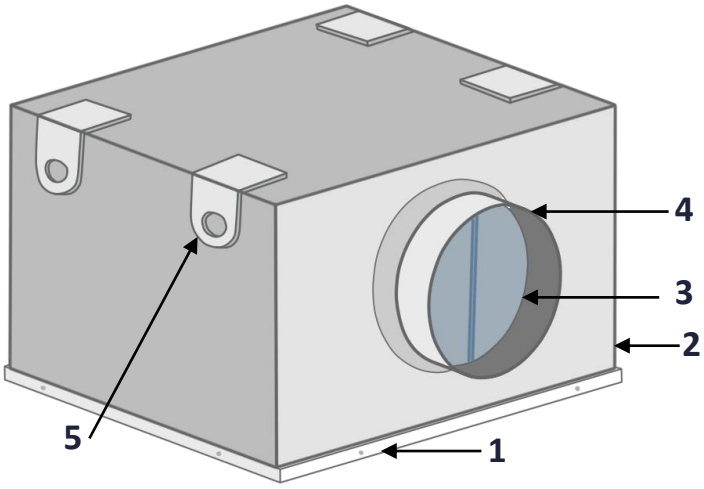
Designed to be used with panel diffusers or grilles of nominal dimensions 595x595mm, in standard version, it is supplied with connection port for flexible duct "C" (in sizes DN Ø150, Ø160, Ø200 and Ø 250), with adjustment damper with lever control to regulate the air flow and air equalizer plate.



INSTALATION DETAILS

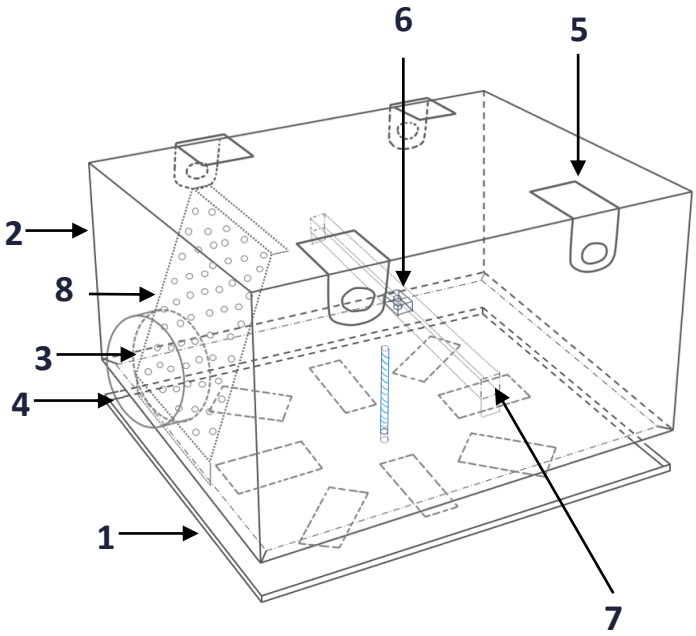
INSTALLATION DETAIL BY MEANS OF PLENUM BOX (PLER Y PLERAIS)

The plenum will be suspended from the floor slab by means of threaded rods or steel cables specially designed for this purpose.



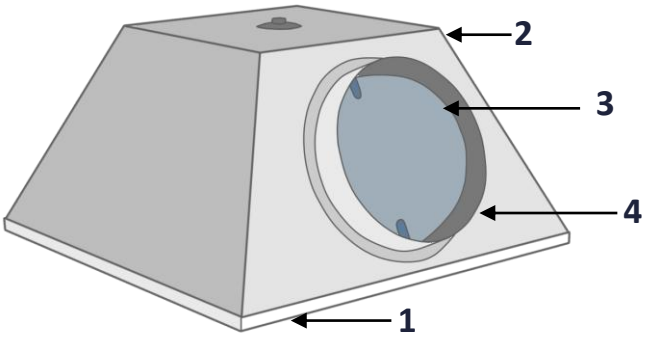
1. Rotational diffuser.
2. Plenum box.
3. Regulation at the connection port.
4. Connection port.

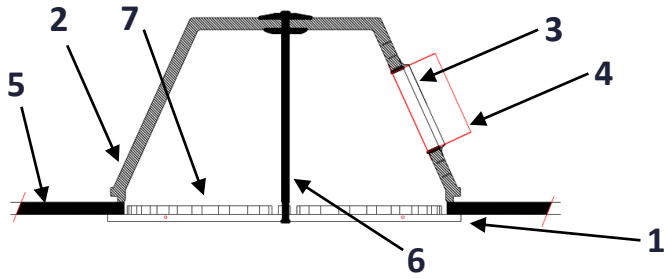
5. Hanging cards.
6. Caged nut.
7. Fixing strap.
8. Equalizer plate.



POLYSTYRENE PLENUM BOX INSTALLATION DETAIL (PRPE)

Fixing: Once the diffuser has been fixed to the plenum by means of the screw to the central post, the plenum can be positioned on the false ceiling structure (see PRPE SERIES data sheet).

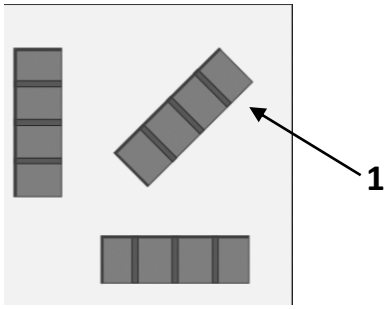


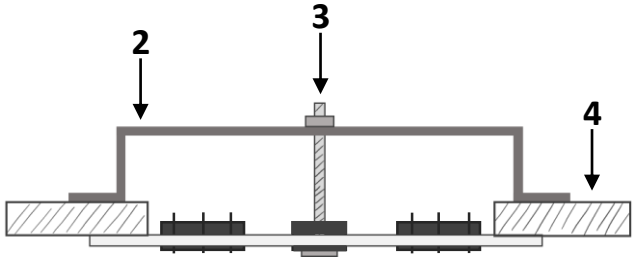


1. Rotational diffuser.
2. Plenum box.
3. Regulation at the connection port.
4. Connection port.
5. Ceiling.
6. Screw and central post.
7. Movable blades.

CROSSBAR INSTALLATION DETAIL (PMR)

1. Movable blades.
2. Ceiling mounting crossbar without plenum.
3. Screw for crossbar.
4. Ceiling.





QUICK SELECTION TABLE

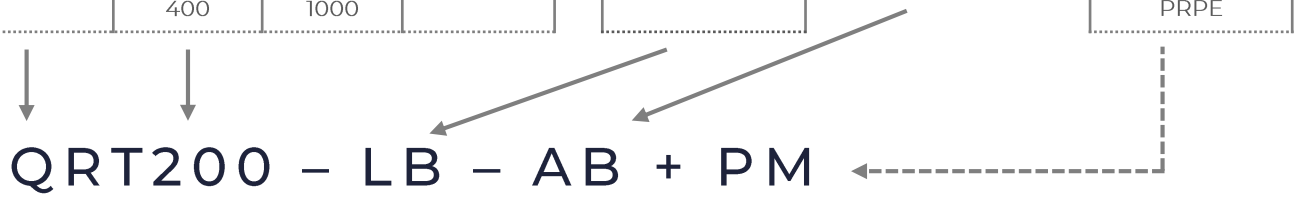
Q (m³/h)	Model		QRT 100			QRT 200			QRT 300			QRT 400			QRT 500			QRT 600			QRT 800			QRT 1000		
	Diffuser center-to-center distance (m)		1,2	1,8	2,7	1,2	1,8	2,7	1,2	1,8	2,7	1,2	1,8	2,7	1,2	1,8	2,7	1,2	1,8	2,7	1,2	1,8	2,7	1,2	1,8	2,7
50	Speed in occupied zone	H = 2,7 m	0,03	0,04	0,03																					
		H = 3,2 m	0,02	0,02	0,02																					
		H = 3,8 m	0,02	0,02	0,01																					
	Total ΔP (Pa)		2																							
	Sound level (dB)		< 15																							
150	Speed in occupied zone	H = 2,7 m	0,11	0,12	0,10	0,09	0,11	0,08	0,08	0,09	0,07															
		H = 3,2 m	0,07	0,08	0,06	0,06	0,07	0,05	0,05	0,06	0,04															
		H = 3,8 m	0,05	0,05	0,05	0,04	0,05	0,03	0,03	0,04	0,03															
	Total ΔP (Pa)		16			4			3																	
	Sound level (dB)		25			< 15			< 15																	
250	Speed in occupied zone	H = 2,7 m	0,18	0,20	0,17	0,14	0,18	0,13	0,13	0,15	0,12	0,11	0,13	0,10												
		H = 3,2 m	0,12	0,13	0,11	0,09	0,12	0,08	0,08	0,10	0,07	0,07	0,08	0,07												
		H = 3,8 m	0,08	0,09	0,08	0,06	0,08	0,06	0,06	0,07	0,05	0,05	0,06	0,05												
	Total ΔP (Pa)		45			12			7			3														
	Sound level (dB)		41			29			19			< 15														
350	Speed in occupied zone	H = 2,7 m				0,20	0,26		0,18	0,21	0,16	0,15	0,19	0,15	0,15	0,18	0,13	0,14	0,17	0,12	0,13	0,16	0,11			
		H = 3,2 m				0,13	0,16		0,12	0,14	0,10	0,10	0,12	0,09	0,10	0,11	0,09	0,09	0,11	0,08	0,08	0,10	0,07			
		H = 3,8 m				0,09	0,11	0,08	0,08	0,09	0,07	0,07	0,08	0,06	0,07	0,08	0,06	0,06	0,07	0,05	0,06	0,07	0,05			
	Total ΔP (Pa)					23			14			7			6			6			5					
	Sound level (dB)					38			28			20			17			16			< 15					
500	Speed in occupied zone	H = 2,7 m				0,29	0,36	0,25	0,26	0,31	0,23	0,22	0,27	0,21	0,21	0,25	0,19	0,20	0,24	0,18	0,18	0,22	0,16	0,16	0,17	0,13
		H = 3,2 m				0,18	0,23	0,16	0,17	0,19	0,15	0,14	0,17	0,13	0,14	0,16	0,12	0,13	0,15	0,11	0,11	0,14	0,10	0,10	0,11	0,08
		H = 3,8 m				0,13	0,16	0,11	0,12	0,13	0,10	0,10	0,12	0,09	0,10	0,11	0,09	0,09	0,10	0,08	0,08	0,10	0,07	0,07	0,07	0,06
	Total ΔP (Pa)					47			28			13			12			11			10			4		
	Sound level (dB)					48			38			30			27			26			24			< 15		
650	Speed in occupied zone	H = 2,7 m							0,34	0,40	0,30	0,28	0,35	0,27	0,28	0,33	0,25	0,27	0,30	0,23	0,24	0,28	0,21	0,21	0,22	0,18
		H = 3,2 m							0,22	0,25	0,19	0,18	0,22	0,17	0,18	0,20	0,16	0,17	0,19	0,15	0,15	0,18	0,13	0,13	0,14	0,11
		H = 3,8 m							0,15	0,18	0,13	0,12	0,15	0,12	0,12	0,14	0,11	0,12	0,13	0,10	0,10	0,12	0,09	0,09	0,10	0,08
	Total ΔP (Pa)								48			23			20			19			18			8		
	Sound level (dB)								46			37			35			34			32			21		
800	Speed in occupied zone	H = 2,7 m										0,35	0,43	0,33	0,34	0,41	0,31	0,33	0,37	0,28	0,29	0,35	0,25	0,26	0,27	0,22
		H = 3,2 m										0,22	0,27	0,21	0,22	0,25	0,19	0,21	0,24	0,18	0,18	0,22	0,16	0,16	0,17	0,14
		H = 3,8 m										0,15	0,19	0,15	0,15	0,18	0,14	0,14	0,16	0,12	0,13	0,15	0,11	0,11	0,12	0,09
	Total ΔP (Pa)											34			30			29			27			11		
	Sound level (dB)											43			42			39			37			27		
900	Speed in occupied zone	H = 2,7 m													0,38	0,47	0,35	0,37	0,42	0,32	0,34	0,41	0,29	0,31	0,32	0,25
		H = 3,2 m													0,19	0,31	0,22	0,25	0,29	0,21	0,22	0,27	0,19	0,19	0,19	0,16
		H = 3,8 m													0,17	0,22	0,17	0,16	0,21	0,15	0,16	0,18	0,13	0,13	0,14	0,11
	Total ΔP (Pa)														35			29			27			19		
	Sound level (dB)														42			40			39			32		
1000	Speed in occupied zone	H = 2,7 m																0,41	0,46	0,35	0,37	0,43	0,32	0,33	0,34	0,27
		H = 3,2 m																0,26	0,29	0,22	0,23	0,27	0,2	0,2	0,21	0,17
		H = 3,8 m																0,18	0,2	0,15	0,16	0,19	0,14	0,14	0,15	0,12
	Total ΔP (Pa)																	45			41			18		
	Sound level (dB)																	46			44			33		
1250	Speed in occupied zone	H = 2,7 m																						0,41	0,42	0,34
		H = 3,2 m																						0,26	0,26	0,21
		H = 3,8 m																						0,18	0,18	0,15
	Total ΔP (Pa)																							28		
	Sound level (dB)																							39		
1600	Speed in occupied zone	H = 2,7 m																						0,52	0,54	0,44
		H = 3,2 m																						0,33	0,34	0,28
		H = 3,8 m																						0,23	0,23	0,19
	Total ΔP (Pa)																							46		
	Sound level (dB)																							46		

ROTATIONAL DIFFUSER
SERIE QRT

Serie	Model		Meas's
	100	500	
QRT	200	600	LxH
	300	800	
	400	1000	

Finish	Blade Finish
LB	AN (standard)
RAL	AB

Accessories
PM
PLER
PLERAIS
PRPE



DESCRIPTION

SERIE

- QRT: Rotational diffuser.

MODEL

- QRT200: Rotational diffuser, size 200.

MEASUREMENTS (mm)

- LxH: 595 x 595 mm (standard).

FINISH

- LB: White lacquered.

BLADE FINISH

- AB: White blades.

ACCESSORIES (optional)

- PM: Mounting crossbar.

Order example: QRT200-LB+AB+PM

- To order a rotational diffuser, model 200, white lacquered with white blades and crossbar, you should request:

Order	Description
1 Diffuser QRT 200-LB-AB	Rotational diffuser, model 200, white lacquered with white blades
1 Crossbar PMR	Mounting crossbar for QRT

Order example: QRT300-LB + PLER

- To order a rotational diffuser, model 300, white lacquered with black blades and uninsulated sheet metal plenum box with air regulation in connection port, you should request:

Order	Description
1 Diffuser QRT300-LB	Rotational diffuser, model 300, white lacquered with black blades
1 Plenum box PLER	Uninsulated sheet metal plenum box with air regulation in connection port

(+34) 91 3235805
(+34) 91 3235703
www.difair.es
info@difair.es
Manufacturas Difair-Clima, S.L.
Avd. del Cno de lo Cortao, 28A, Nave 1
28703 San Sebastián de los Reyes, Madrid.