

**PS/RWR-FSA
(RAL9016)**

- Swirl diffusers
- Square
- Steel
- White, RAL 9016



Square swirl diffusers with fixed blades for suspended ceilings type PS/RWR-FSA (RAL9016)

Swirl ceiling diffusers with high induction rate, consisting of a square plate for suspended ceilings with multiple fixed blades arranged in a circular pattern, to be equipped with galvanized steel plenum box.

Brand

- Cairox

Application

- For air supply and exhaust in ventilation and air conditioning systems

Material

- Steel

Colour

- Standard colour white, RAL 9016
- Other colours available upon request

Composition

- Front plate made of powder coated steel
- Central screw mounting

Mounting

- Fixing by central screw in the crossbar of the plenum box

Accessories

- Square plenum box, type **REV-B**
- Square insulated plenum box, type **REV-B ISO**
- Circular plenum box, type **RER-B**
- Insulated circular plenum box, type **RER-B ISO**
- Regulating valve for plenum box, type **CRC**
- Polystyrene plenum box, type **PPS-P** with duct connection **PPS-APD** and mounting bar **PPS-MB**

Order example

- **PS/RWR-FSA, 400 + RER-B 400 + CRC 200**

Explanation

PS/RWR-FSA = Diffuser type

400 = Diffuser size

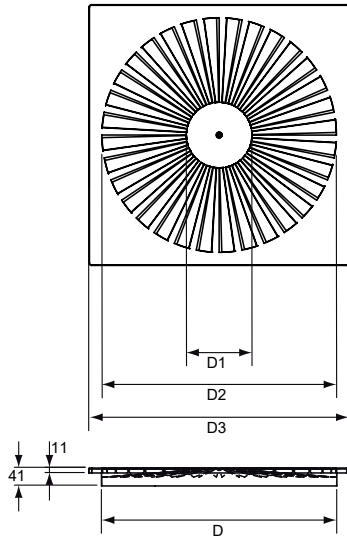
Accessories

RER-B = Plenum box type

400 = Size plenum box

CRC = Regulating valve for plenum box

200 = Plenum box connection diameter 200



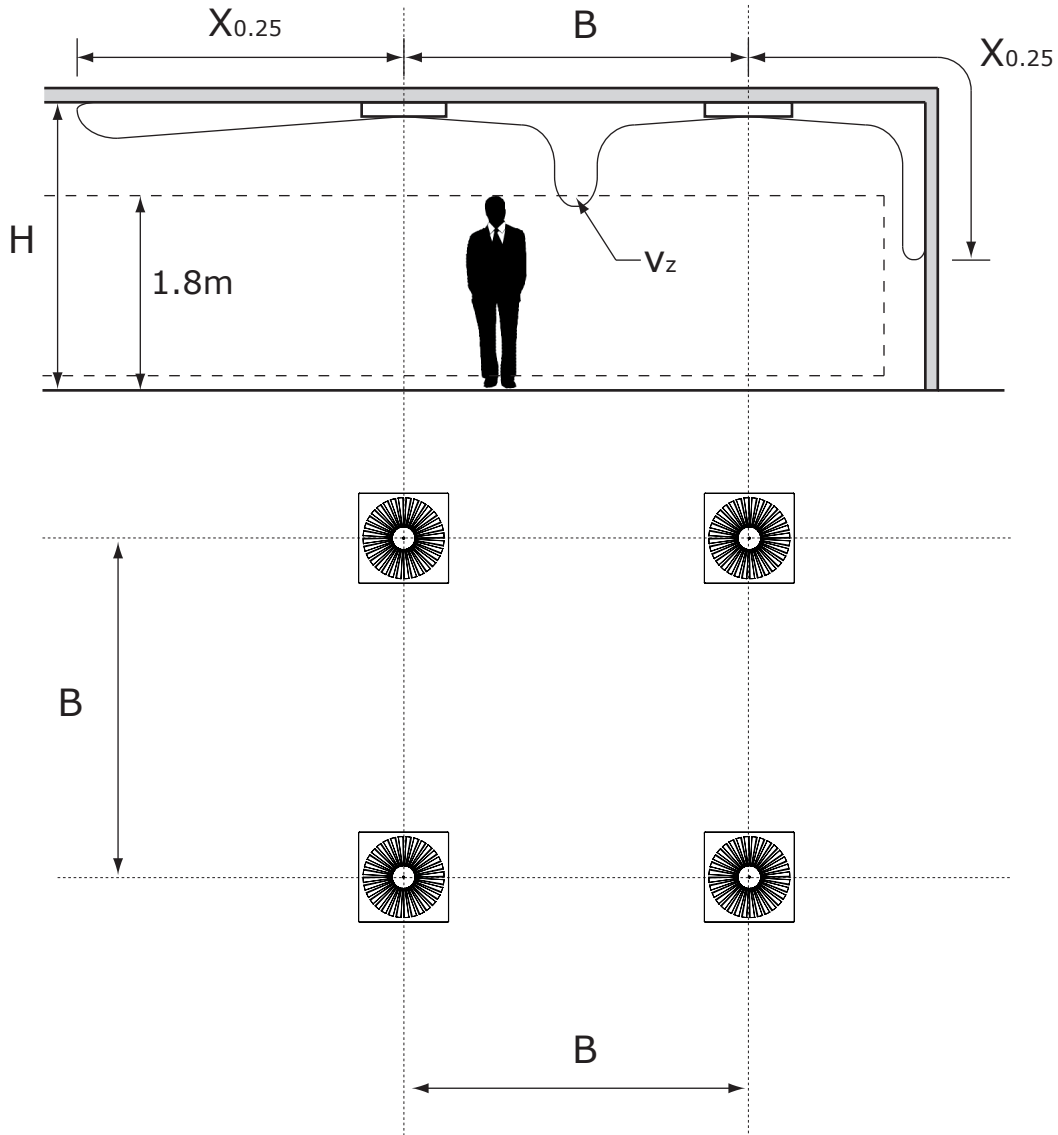
	Dimensions				
	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	#Blades
PS/RWR-FSA 300	238	100	236	596	28
PS/RWR-FSA 400	338	150	336	596	30
PS/RWR-FSA 500	438	150	436	596	32

Quick selection											
PS/RWR-FSA			300			400			500		
Q	Ak		0.01			0.016			0.033		
	B		1.2	2.4	3.6	1.2	2.4	3.6	1.2	2.4	3.6
100	Vz	H= 2.7	0.2	0.15	0.12	0.15	0.11	0.09			
		H= 3.2	0.15	0.12	0.1	0.11	0.09	0.07			
		H= 3.8	0.12	0.1	0.08	0.09	0.07	0.06			
	Vk		2.8			1.7					
	X0,25		1.2			0.8					
150	Vz	H= 2.7	0.3	0.22	0.17	0.22	0.17	0.13	0.16	0.12	0.1
		H= 3.2	0.23	0.18	0.15	0.17	0.14	0.11	0.13	0.1	0.08
		H= 3.8	0.18	0.15	0.13	0.14	0.11	0.1	0.1	0.08	0.07
	Vk		4.2			2.6					1.3
	X0,25		1.8			1.3					0.9
200	Vz	H= 2.7				0.3	0.22	0.18	0.21	0.16	0.13
		H= 3.2				0.23	0.18	0.15	0.16	0.13	0.11
		H= 3.8				0.18	0.15	0.13	0.13	0.11	0.09
	Vk					3.5					1.7
	X0,25					1.9					1.2
250	Vz	H= 2.7				0.37	0.27	0.22	0.26	0.2	0.16
		H= 3.2				0.29	0.23	0.19	0.2	0.16	0.14
		H= 3.8				0.23	0.19	0.16	0.16	0.14	0.12
	Vk					4.3					2.1
	X0,25					2.3					1.6
300	Vz	H= 2.7							0.31	0.23	0.19
		H= 3.2							0.24	0.19	0.16
		H= 3.8							0.19	0.16	0.14
	Vk										2.5
	X0,25										1.9
400	Vz	H= 2.7							0.42	0.32	0.25
		H= 3.2							0.33	0.26	0.22
		H= 3.8							0.26	0.22	0.19
	Vk										3.4
	X0,25										2.7
500	Vz	H= 2.7							0.52	0.39	0.31
		H= 3.2							0.41	0.32	0.27
		H= 3.8							0.32	0.27	0.23
	Vk										4.2
	X0,25										3.5

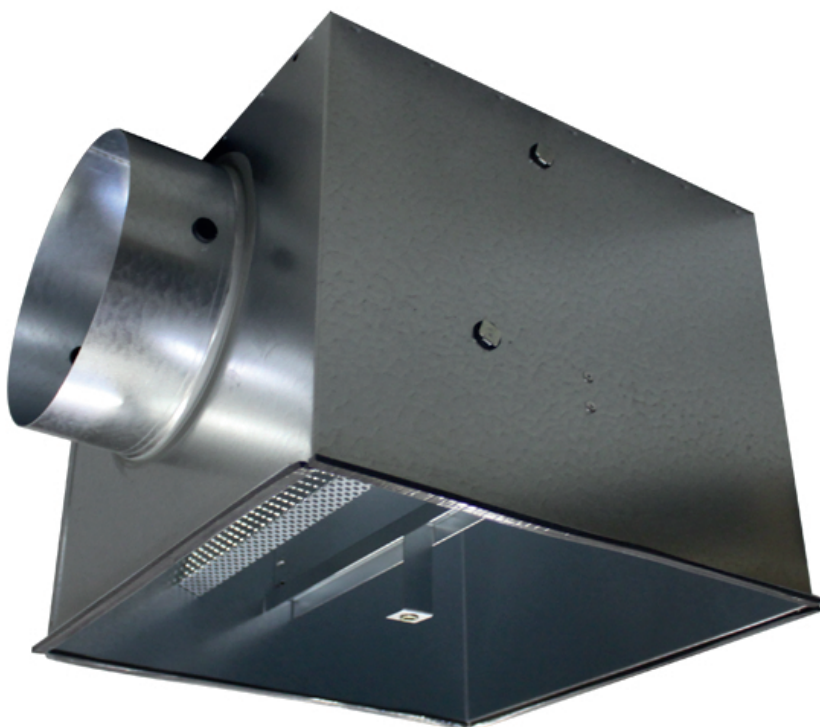
Symbols and specifications

- Q = Air volume in m³/h
 - Ak = Effective surface (free area) in m²
 - B = Distance between the diffusers in m
 - H = Installation height of the diffusers in m
 - Vz = Maximum velocity at the occupied zone according to distance between the diffusers and installation height in m/s
 - Vk = Average effective velocity through the diffuser in m/s
 - X0.25 = Throw length in m at an end velocity Vt of 0,25m/s
 - Ps = Static pressure loss given in Pa
 - Lw(A) = Acoustic power in dB(A)
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- The throw X0.25 is given at an end velocity of 0.25m/s for a smooth ceiling without any obstacles.
 - The values are given for isothermal supply air. Throw distances for cooling conditions at -11K can be calculated by dividing the X0.25 values with factor 1.1. For heating purposes at Dt of +11K a multiplier of 1.1 should be applied to the given X0.25 value.
 - In order to achieve a high comfort level, selections can be made according to the maximal velocity at the occupied zone Vz. These values are given at distances between diffusers B and installation heights H. Velocities Vz lower than, or equal to 0,25m/s at the occupied zone are advised.
 - The pressure losses Ps are given for diffusers without damper or with fully opened damper.
 - The acoustic power values Lw(A) are given for diffusers without damper or with fully opened damper without room attenuation. Acoustic powers below 20dB(A) are mentioned as "<20" in the tables.
 - For all special requirements, please contact our engineering office.

Placement instruction



- Plenum boxes
- Square
- Steel



Square plenum boxes type REV-B

Universal plenum boxes with perforated plate in galvanized steel

Brand

- Cairox

Material

- Galvanized steel

Composition

- Rectangular body in plain galvanized steel plate
- Crossbar for central mounting with M6 screw of diffuser
- Perforated equalizing plate for equal air diffusion inside the box
- Seal for airtight connection with the diffuser

Accessories

- Circular regulating valve, type **CRC**

Order example

- **REV-B 600 + CRC 250**

Explanation

REV-B = Plenum box type

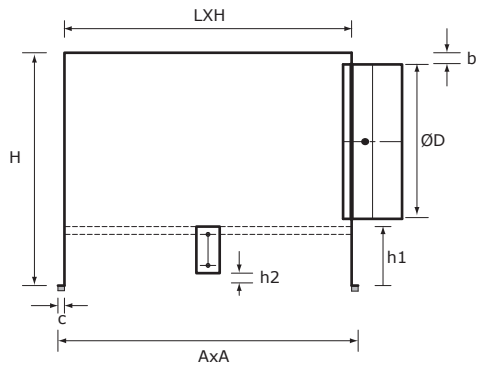
600 = Size type

Accessory

CRC 250 = Regulating valve for plenum box connection Ø250

Other available products

- Insulated plenumbox type **REV-B ISO**



Dimensions								
REV-B	L X H [mm]	A X A [mm]	ØD [mm]	H [mm]	b [mm]	c [mm]	h1 [mm]	h2 [mm]
300	270 X 270	288 X 288	160	250	15	9	65	10
400	370 X 370	388 X 388	200	300	15	9	65	10
500	470 X 470	488 X 488	200	300	15	9	65	10
600	570 X 570	588 X 588	250	350	15	9	65	10

- Plenum boxes
- Circular
- Steel



Circular plenum box type RER-B

Universal circular plenum boxes with perforated plate in galvanized steel

Brand

- Cairox

Composition

- Circular body in plain steel plate
- Crossbar for central mounting with M6 screw of diffuser
- Perforated equalizing plate for equal air diffusion inside the box
- Circular connection spigot
- Seal for airtight connection with the diffuser

Accessories

- Circular valve control damper , type **CRC**

Order example

- **RER-B 600 + CRC 250**

Explanation

RER-B = Plenum box type

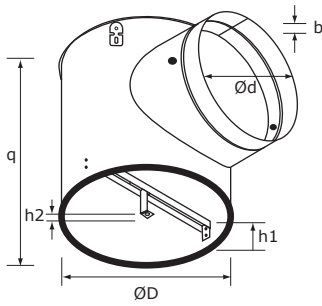
600 = Size type

Accessory

CRC 250 = Regulating valve for plenum box connection Ø250

Other available products

- Insulated plenumboxes type **RER-B ISO**



RER-B	Dimensions					
	ØD [mm]	q [mm]	Ød [mm]	b [mm]	h1 [mm]	h2 [mm]
300	275	230	160	15	65	10
400	375	270	200	15	65	10
500	476	270	200	15	65	10
600	576	320	250	15	65	10