APW-4 (RAL9016)

- 4-way pattern diffusers
- Square
- Alumínium
- White, RAL 9016

4-way ceiling diffusers with fixed core type APW-4 (RAL9016)

4-way ceiling diffusers with fixed core and central screw mounting.

Brand
- Cairox

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

Material
- Aluminium

Colour
- Standard colour white, RAL 9016

Composition
- Frame and fixed inner core made of aluminium
- Fixed 4-way directional blades

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

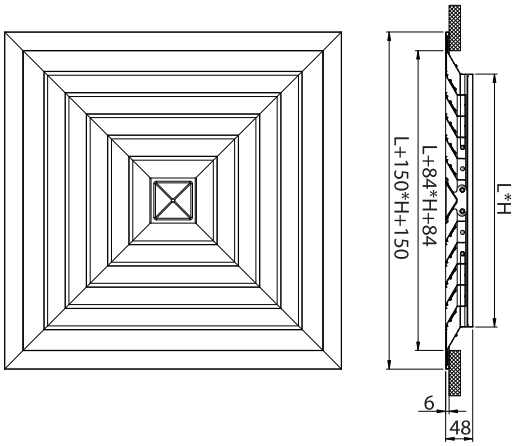
Accessories
- Opposite blade volume control damper type **DSF**
- Plenum box with side duct connection type **REF**
- Insulated plenum box with side duct connection type **REF ISO**
- Plenum box regulating valve **CRC**

Text for tender
- The air supply ceiling diffusers are square with a fixed 4-way pattern with a fixed core. They are made of aluminium and steel in white powder coating RAL 9016 and are supplied with a volume control damper and a plenum box with a crossbar.
- **Cairox** type **APW-4**+**DSF+REF**

Order example

- **APW-4, 444 + REF + DSF**

Explanation
APW-4 = Diffuser type
444 = Diffuser size
Accessories (Optional)
REF = Plenum box
DSF = Volume control damper



Dimensions	
	L x H [mm]
APW-4 294/150	145 x 145
APW-4 369/225	220 x 220
APW-4 444/300	295 x 295
APW-4 519/375	370 x 370
APW-4 595/445	445 x 445

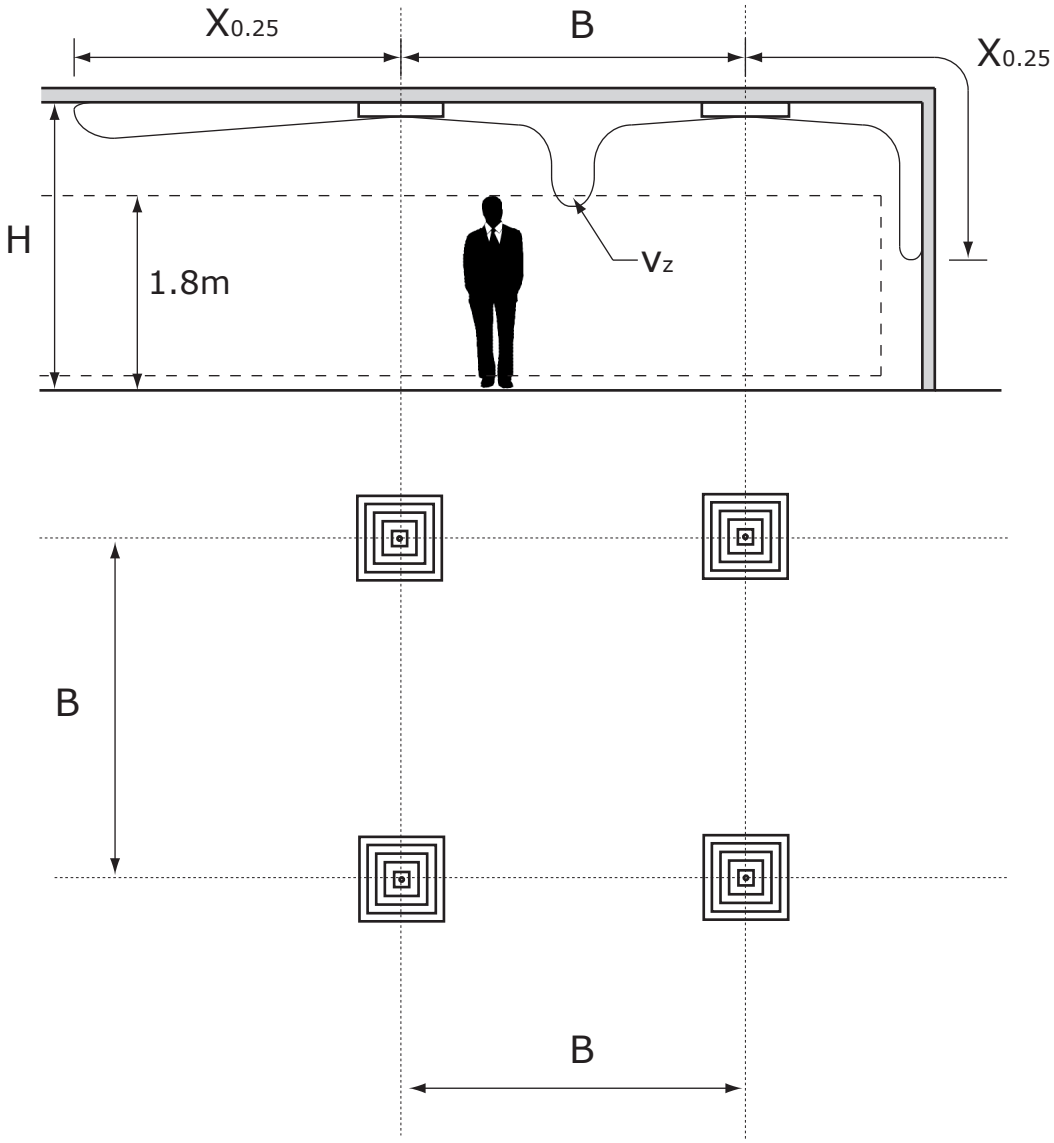
Quick selection																		
APW-4			294/150			369/225			444/300			519/375			595/450		
LxH			145x145			220x220			295x295			370x370			445x445		
	Ak		0.0109			0.0244			0.0435			0.0679			0.0978		
Q	B		1.2	2.4	3.6	1.2	2.4	3.6	1.2	2.4	3.6	1.2	2.4	3.6	1.2	2.4	3.6
100	Vz	H= 2.7	0.52	0.17	0.1												
		H= 3.2	0.2	0.11	0.08												
		H= 3.8	0.11	0.08	0.06												
	Vk			2.5													
	X0,25			1.8													
	Ps			4													
	Lw(A)			22													
150	Vz	H= 2.7	0.78	0.26	0.16	0.52	0.17	0.1									
		H= 3.2	0.29	0.17	0.12	0.2	0.11	0.08									
		H= 3.8	0.17	0.12	0.09	0.11	0.08	0.06									
	Vk			3.8			1.7										
	X0,25			2.1			1.8										
	Ps			10			2										
	Lw(A)			32			<20										
200	Vz	H= 2.7	1.04	0.35	0.21	0.7	0.23	0.14									
		H= 3.2	0.39	0.22	0.16	0.26	0.15	0.1									
		H= 3.8	0.22	0.16	0.12	0.15	0.1	0.08									
	Vk			5.1			2.3										
	X0,25			2.4			2										
	Ps			18			4										
	Lw(A)			39			22										
300	Vz	H= 2.7				1.04	0.35	0.21	0.78	0.26	0.16						
		H= 3.2				0.39	0.22	0.16	0.29	0.17	0.12						
		H= 3.8				0.22	0.16	0.12	0.17	0.12	0.09						
	Vk						3.4			1.9							
	X0,25						2.5			2.1							
	Ps						8			3							
	Lw(A)						32			20							
400	Vz	H= 2.7				1.39	0.46	0.28	1.04	0.35	0.21	0.83	0.28	0.17			
		H= 3.2				0.52	0.3	0.21	0.39	0.22	0.16	0.31	0.18	0.13			
		H= 3.8				0.3	0.21	0.16	0.22	0.16	0.12	0.18	0.13	0.1			
	Vk						4.6			2.6			1.6				
	X0,25						2.9			2.5			2.2				
	Ps						15			5			2				
	Lw(A)						39			28			<20				
600	Vz	H= 2.7							1.56	0.52	0.31	1.25	0.42	0.25	1.04	0.35	0.21
		H= 3.2							0.59	0.34	0.23	0.47	0.27	0.19	0.39	0.22	0.16
		H= 3.8							0.34	0.23	0.18	0.27	0.19	0.14	0.22	0.16	0.12
	Vk									3.8			2.5			1.7	
	X0,25									3.1			2.7			2.5	
	Ps									10			4			2	
	Lw(A)									38			29			21	
800	Vz	H= 2.7							2.09	0.7	0.42	1.67	0.56	0.33	1.39	0.46	0.28
		H= 3.2							0.78	0.45	0.31	0.63	0.36	0.25	0.52	0.3	0.21
		H= 3.8							0.45	0.31	0.24	0.36	0.25	0.19	0.3	0.21	0.16
	Vk									5.1			3.3			2.3	
	X0,25									3.7			3.2			2.9	
	Ps									18			8			4	
	Lw(A)									45			36			28	
1000	Vz	H= 2.7										2.09	0.7	0.42	1.74	0.58	0.35
		H= 3.2										0.78	0.45	0.31	0.65	0.37	0.26
		H= 3.8										0.45	0.31	0.24	0.37	0.26	0.2
	Vk												4.1			2.8	
	X0,25												3.7			3.3	
	Ps												12			5	
	Lw(A)												41			34	
1200	Vz	H= 2.7										2.5	0.83	0.5	2.09	0.7	0.42
		H= 3.2										0.94	0.54	0.38	0.78	0.45	0.31
		H= 3.8										0.54	0.38	0.29	0.45	0.31	0.24
	Vk												4.9			3.4	
	X0,25												4.2			3.7	
	Ps												17			8	
	Lw(A)												46			38	

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
- µPs = Static pressure loss given in P
- Lw(A) = Acoustic power in dB(A)

- 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 of with fully opened damper.
- The acoustic power values Lw(A) are given for diffusers without damper of 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 for APW-4 and PS/ APW-4 type REF

Galvanized steel plenum boxes with crossbar and circular side entry spigot.

Brand

- Cairox

Accessoiries

- Circular regulating valve, type **CRC**

Order example

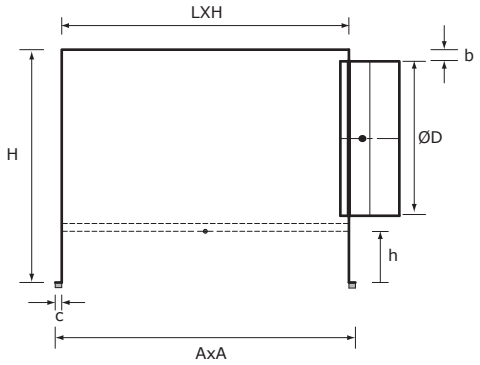
- **REF 444** + **CRC 200**

Explanation
REF = Plenum box type
444 = Size according to diffuser

Accessory
CRC 200 = Regulating valve for plenum box spigot Ø200

Other available products

- Insulated plenumboxes available upon request



Dimensions							
REF	H [mm]	b [mm]	LXH [mm]	ØD [mm]	AxA [mm]	h [mm]	c [mm]
294	260	15	264x264	125	284X284	90	10
369	290	15	339x339	160	359X359	90	10
444	330	15	414x414	200	434X434	90	10
519	380	15	489x489	250	509X509	90	10
595	450	15	565x565	315	585X585	90	10