

**(PS/) SNS-1A
(RAL9016)**

- Multinozzle diffusers
- Square
- Steel and plastics
- White, RAL 9016



SNS-1A 600-144

Square nozzle diffusers with square pattern type (PS/) SNS-1A (RAL9016)

Multinozzle ceiling diffusers with high induction rate, consisting of a square plate with individual adjustable nozzles arranged in a square pattern and to be equipped with a plenum box.

The nozzles are designed for high Coanda effect at both low and high flow rates. PS/SNS-1A = diffuser SNS-1A in plate 596 X 596

Brand

- Cairox

Application

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

Material

- Steel and plastic composite combination

Colour

- Standard colour white, RAL 9016
- Nozzles and diffuser available in RAL 9010, 9006 and 9005, price on request

Composition

- Frontplate made of powder coated steel
- Nozzles made out of Bayblend® a blend of ABS and polycarbonate made of recycled plastics
- Central screw mounting

Mounting

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

Accessories

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

Text for tender

- The air supply ceiling diffusers are square with a square arranged nozzle pattern. They are made of a steel powdercoated frontplate in white finish RAL 9016 and nozzles in plastic composite materials. The diffusers are standard delivered with galvanized steel plenumbox equipped with perforated plate and damper in the side entry spigot. The diffuser is centrally screw mounted.
- **Cairox Type (PS)/SNS-1A**

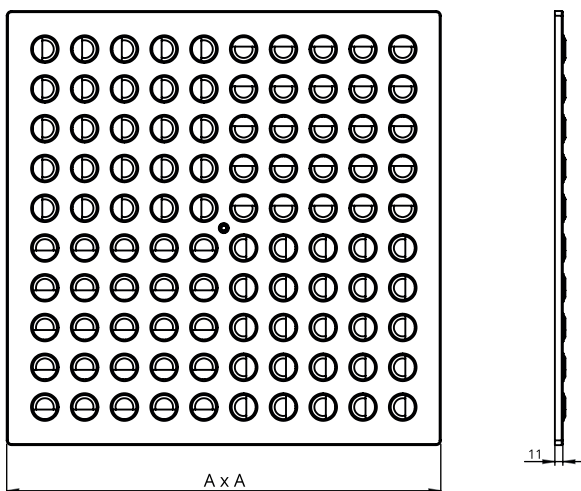
Order example

- **SNS-1A, 600 + REV-B 600 + CRC 250**

Explanation

SNS-1A= Diffuser type**600** = Diffuser size

Accessories

REV-B = Plenum box**600** = Size plenum box**CRC** = Regulating valve for plenum box**250** = Plenum box connection diameter

Dimensions		
	AxA [mm]	# Nozzles
SNS-1A 300-36	296x296	36
SNS-1A 400-64	396x396	64
SNS-1A 500-80	496x496	80
SNS-1A 600-100	596x596	100
SNS-1A 600-144	596x596	144
SNS-1A 625-100*	621x621	100
PS/SNS-1A 300/596-36	596x596	36
PS/SNS-1A 400/596-64	596x596	64
PS/SNS-1A 500/596-80	596x596	80

* niet meer verkrijgbaar / n'est plus disponible / no longer available

Quick selection																		
SNS 1A	- # Nozzles		300 - #36			400 - #64			500 - #80			600 - #100 / 625* - #100			600 - #144			
Q	Ak	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	
75	Vz	H= 2.7	0.42	0.2	0.12	0.38	0.18	0.11	0.35	0.17	0.1							
		H= 3.2	0.23	0.13	0.08	0.2	0.12	0.07	0.19	0.1	0.07							
		H= 3.8	0.13	0.08	0.06	0.12	0.07	0.05	0.1	0.07	0.05							
	Vk		2.2			1.3			1									
	X0,25		1.9			1.8			1.7									
100	Vz	H= 2.7	0.53	0.27	0.17	0.46	0.23	0.14	0.42	0.21	0.12	0.37	0.18	0.11				
		H= 3.2	0.3	0.18	0.12	0.26	0.15	0.1	0.23	0.13	0.09	0.2	0.11	0.07				
		H= 3.8	0.18	0.12	0.08	0.15	0.1	0.07	0.13	0.09	0.06	0.11	0.07	0.05				
	Vk		3			1.7			1.3					1.1				
	X0,25		2.1			2			1.9					1.8				
150	Vz	H= 2.7	0.72	0.4	0.26	0.6	0.33	0.21	0.57	0.31	0.19	0.49	0.25	0.15	0.38	0.18	0.11	
		H= 3.2	0.44	0.28	0.2	0.36	0.22	0.15	0.34	0.21	0.14	0.28	0.17	0.11	0.2	0.12	0.07	
		H= 3.8	0.28	0.2	0.15	0.22	0.15	0.11	0.21	0.14	0.1	0.17	0.11	0.08	0.12	0.07	0.05	
	Vk		4.5			2.5			2					1.6			1.1	
	X0,25		2.7			2.4			2.3					2.1			1.8	
200	Vz	H= 2.7				0.75	0.43	0.28	0.7	0.4	0.26	0.61	0.33	0.21	0.46	0.24	0.14	
		H= 3.2				0.47	0.3	0.21	0.43	0.28	0.2	0.36	0.23	0.16	0.26	0.15	0.1	
		H= 3.8				0.3	0.21	0.16	0.28	0.2	0.15	0.23	0.16	0.12	0.15	0.1	0.07	
	Vk					3.4			2.7					2.2			1.5	
	X0,25					2.8			2.7					2.4			2	
250	Vz	H= 2.7				0.87	0.52	0.35	0.83	0.49	0.33	0.7	0.4	0.26	0.54	0.29	0.18	
		H= 3.2				0.56	0.37	0.27	0.53	0.35	0.25	0.43	0.28	0.2	0.32	0.19	0.13	
		H= 3.8				0.37	0.27	0.21	0.35	0.25	0.19	0.28	0.2	0.15	0.19	0.13	0.1	
	Vk					4.2			3.4					2.7			1.9	
	X0,25					3.3			3.1					2.7			2.2	
300	Vz	H= 2.7							0.93	0.56	0.39	0.79	0.46	0.31	0.62	0.34	0.22	
		H= 3.2							0.61	0.41	0.3	0.5	0.33	0.24	0.37	0.23	0.16	
		H= 3.8							0.41	0.3	0.24	0.33	0.24	0.18	0.23	0.16	0.12	
	Vk								4					3.2			2.2	
	X0,25								3.5					3			2.4	
350	Vz	H= 2.7							1.04	0.65	0.46	0.89	0.54	0.37	0.69	0.39	0.25	
		H= 3.2							0.7	0.48	0.36	0.58	0.39	0.29	0.42	0.27	0.19	
		H= 3.8							0.48	0.36	0.29	0.39	0.29	0.22	0.27	0.19	0.14	
	Vk								4.7					3.8			2.6	
	X0,25								4					3.4			2.6	
400	Vz	H= 2.7										0.97	0.6	0.42	0.75	0.44	0.29	
		H= 3.2										0.65	0.44	0.33	0.47	0.31	0.22	
		H= 3.8										0.44	0.33	0.26	0.31	0.22	0.17	
	Vk													4.3			3	
	X0,25													3.7			2.9	
450	Vz	H= 2.7										1.05	0.66	0.47	0.82	0.48	0.33	
		H= 3.2										0.71	0.49	0.37	0.52	0.35	0.25	
		H= 3.8										0.49	0.37	0.29	0.35	0.25	0.19	
	Vk													4.8			3.4	
	X0,25													4.1			3.1	
500	Vz	H= 2.7													0.88	0.53	0.36	
		H= 3.2													0.57	0.39	0.28	
		H= 3.8													0.39	0.28	0.22	
	Vk																3.7	
	X0,25																	3.4
600	Vz	H= 2.7													1	0.62	0.44	
		H= 3.2													0.67	0.46	0.34	
		H= 3.8													0.46	0.34	0.27	
	Vk																	4.5
	X0,25																	

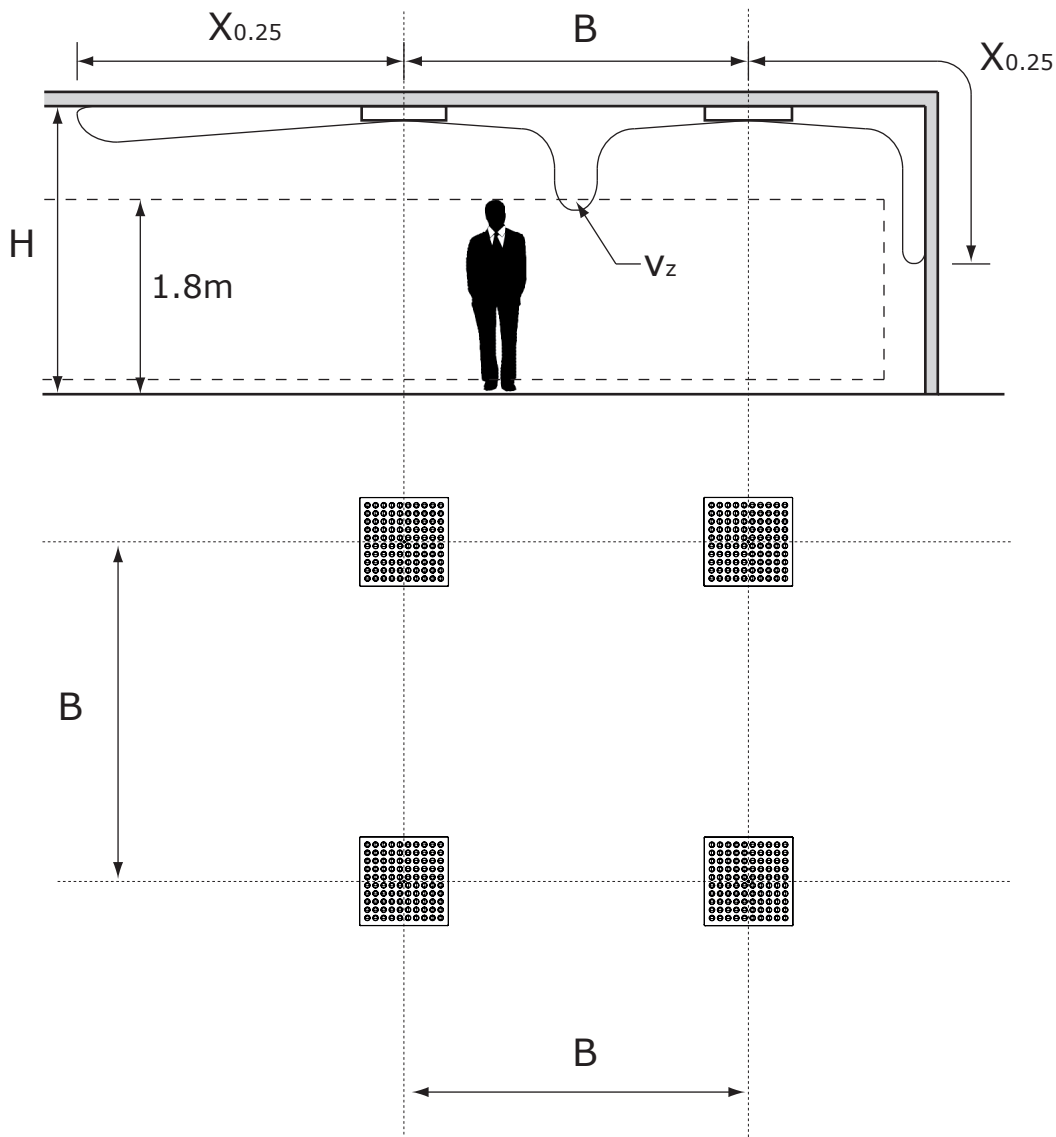
Symbols and specifications

- 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)

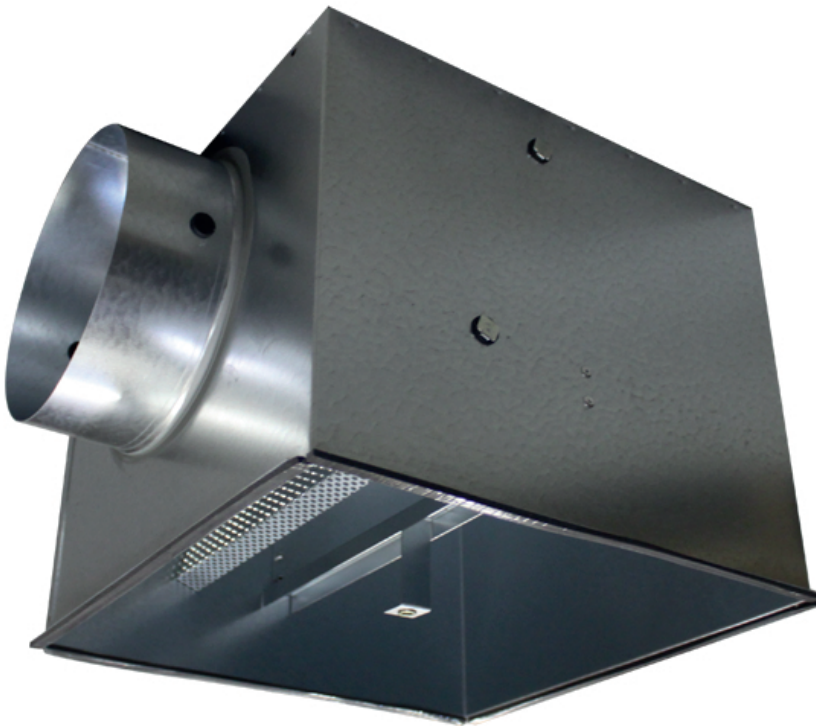
- The throw X0.25 is given at an end velocity of 0.25m/s for a smooth ceiling without any obstacles.
- The values are given for isothermal supply air. Throw distances for cooling conditions at -11K can be calculated by dividing the X0.25 values with factor 1.1. For heating purposes at Dt of +11K a multiplier of 1.1 should be applied to the

- given $X_{0.25}$ value.
- In order to achieve a high comfort level, selections can be made according to the maximal velocity at the occupied zone V_z . These values are given at distances between diffusers B and installation heights H . Velocities V_z lower than, or equal to $0,25\text{m/s}$ at the occupied zone are advised.
 - The pressure losses P_s are given for diffusers without damper or with fully opened damper.
 - The acoustic power values $L_w(A)$ are given for diffusers without damper or with fully opened damper without room attenuation. Acoustic powers below $20\text{dB}(A)$ 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

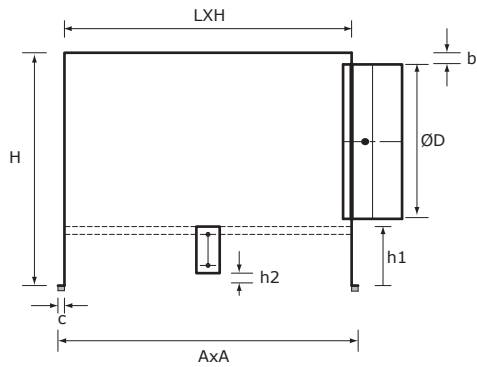
600 = Size type

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