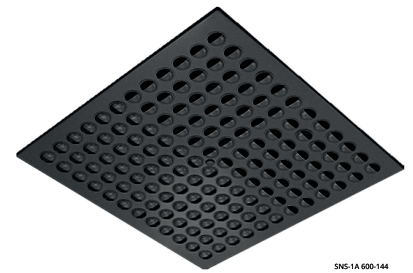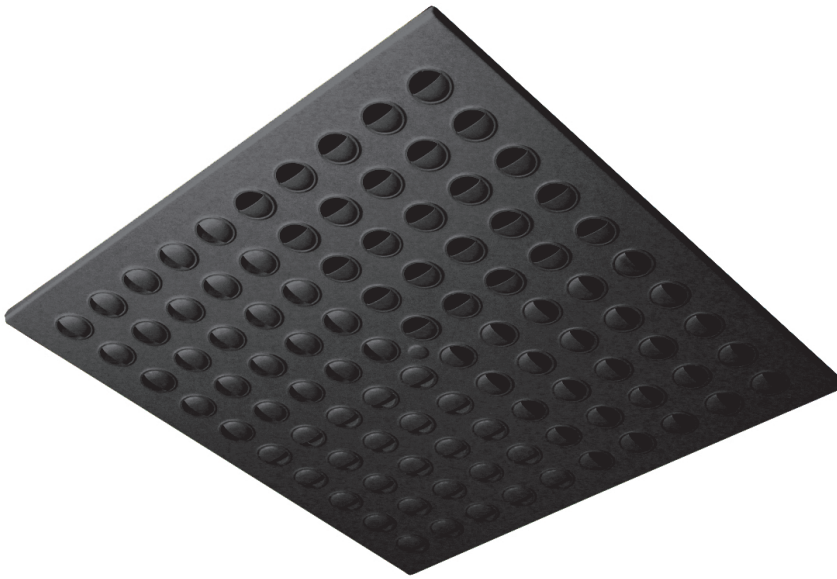**CAIROX**

⌐ Multinozzle diffusers
⌐ Square
⌐ Steel and plastics
⌐ Black, RAL 9005

SNS-1A 600-144

Black square nozzle diffusers with square pattern type
(PS/) SNS-1A (RAL9005)

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 galvanized steel plenum box.
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
- Colour black, RAL 9005
- Nozzles and diffuser available in RAL 9010, 9016 and 9006, 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 nozzlepattern. They are made of a steel powdercoated frontplate in black finish RAL 9005 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 **SNS-1A RAL9005 + REV-A**

Order example

- **SNS-1A RAL9005, 600 + REV-B 600 + CRC 250**

Explanation
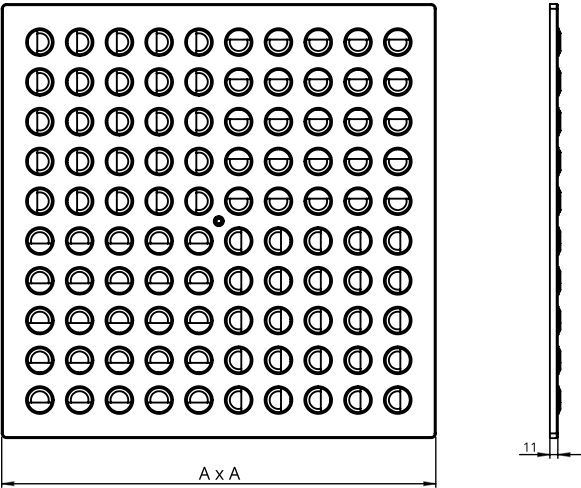**SNS-1A RAL9005 =** Diffuser type
600 = Diffuser size
Accessories
REV-B = Plenum box
600 = Size plenum box
CRC = Regulating valve for plenum box
250 = Plenum box connection diameter

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

Q	B	300 - #36 (0.0093) 1.2	2.4	3.6	400 - #64 (0.0165) 1.2	2.4	3.6	500 - #80 (0.0206) 1.2	2.4	3.6	600 - #100 / 625* - #100 (0.0258) 1.2	2.4	3.6	600 - #144 (0.0372) 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						
	Vz H=3.2	0.23	0.13	0.08	0.2	0.12	0.07	0.19	0.1	0.07						
	Vz 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							
	Ps		5			2			1							
	Lw(A)		21			<20			<20							
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			
	Vz 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			
	Vz 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				
	Ps		10			4			2			2				
	Lw(A)		28			<20			<20			<20				
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
	Vz 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
	Vz 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	
	Ps		22			8			5			3			2	
	Lw(A)		37			25			<20			<20			<20	
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
	Vz 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
	Vz 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	
	Ps					14			9			6			3	
	Lw(A)					33			28			23			<20	
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
	Vz 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
	Vz 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	
	Ps					21			14			9			4	
	Lw(A)					38			34			28			<20	
300	Vz H=2.7							0.93	0.56	0.39	0.79	0.46	0.31	0.62	0.34	0.22
	Vz H=3.2							0.61	0.41	0.3	0.5	0.33	0.24	0.37	0.23	0.16
	Vz 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	
	Ps								20			13			6	
	Lw(A)								39			33			23	
350	Vz H=2.7							1.04	0.65	0.46	0.89	0.54	0.37	0.69	0.39	0.25
	Vz H=3.2							0.7	0.48	0.36	0.58	0.39	0.29	0.42	0.27	0.19
	Vz 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	
	Ps								28			18			9	
	Lw(A)								43			37			27	
400	Vz H=2.7										0.97	0.6	0.42	0.75	0.44	0.29
	Vz H=3.2										0.65	0.44	0.33	0.47	0.31	0.22
	Vz 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	
	Ps											23			11	
	Lw(A)											41			31	
450	Vz H=2.7										1.05	0.66	0.47	0.82	0.48	0.33
	Vz H=3.2										0.71	0.49	0.37	0.52	0.35	0.25
	Vz 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	
	Ps											29			14	
	Lw(A)											44			34	
500	Vz H=2.7													0.88	0.53	0.36
	Vz H=3.2													0.57	0.39	0.28
	Vz H=3.8													0.39	0.28	0.22
	Vk														3.7	
	X0,25														3.4	
	Ps														17	
	Lw(A)														37	
600	Vz H=2.7													1	0.62	0.44
	Vz H=3.2													0.67	0.46	0.34
	Vz H=3.8													0.46	0.34	0.27
	Vk														4.5	
	X0,25														3.9	
	Ps														25	
	Lw(A)														42	

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 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