

The SAL50 is a diffuser with 50mm profiles wide. It is composed of extruded aluminum surfaces with eccentric rollers which slide inside and are mounted on the plenum, as well as linear slots with profiles. Each diffuser is supplied with a stabilising chamber, allowing for a uniform and silent airflow.

The SAL is available with one or multiple slots depending on the application and the required amount of air. The diffusers may be mounted in series, one behind the other, creating a continuous effect to the ceiling.

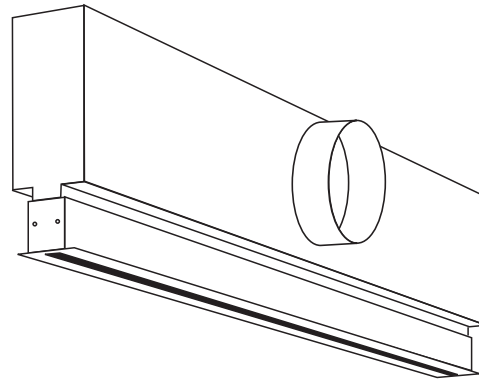
The SAL permits optimal configuration of the ventilation system to meet the requirements of a room. A variety of airstream configurations, even after the unit has been installed due to the eccentric rollers.

The SAL's technology provides high speed discharge of air with low acoustic power.

The laminar flow, the stability and the high induction generated from the very start of the outlet vent make the SAL the linear diffuser of choice for high air flow rates and variable air volumes.

Benefits

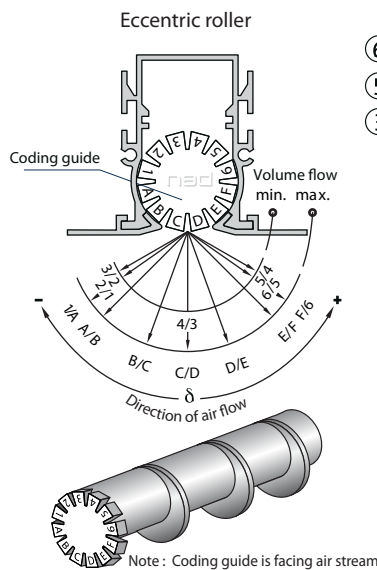
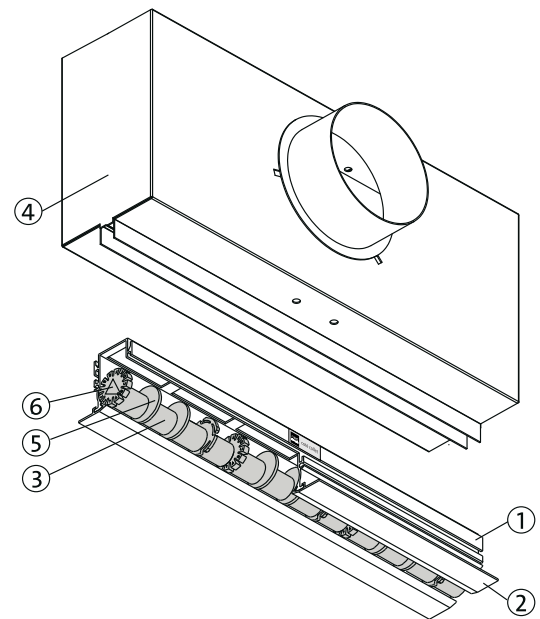
- Influence on the method of induction (diffus mode), extension of jets (divergent mode) and a very long vertical stream in heating mode.
- Rapid reduction of flow speed and temperature variations caused by high induction
- Low acoustic power for high airflow rates
- Stable laminar airflow and a variety of airflow directions available
- Eccentric rollers allowing 180° airflow adjustment
- Possibility of adjusting airflows, even after installation
- Possibility of reducing total airflow rate as much as 25% in VAV
- Approximately 3 times more induction than a conventional linear diffuser
- Approximately 3 times less temperature variation in occupied area than a traditional diffuser.
- Possibility of eliminating external heating sources due to the diffuser's heating abilities.
- Adaptable to systems requiring constant or variable airflows
- Areas with high air movement and low air velocity in the occupied zone



The SAL 50 linear diffuser slots are composed of extruded aluminum (1) with additional wide or narrow finishing profiles (2), the eccentric rollers (3), which can rotate on 360 degrees and a plenum (4).

Configuration

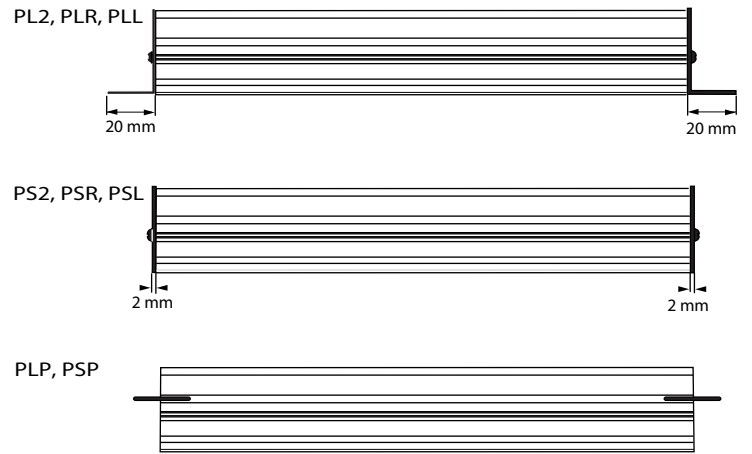
- ① Extruded aluminum profile
- ② Wide or narrow finishing profile
- ③ Eccentric rollers
- ④ Plenum
- ⑤ Air guiding blades
- ⑥ Display and adjustment dial.



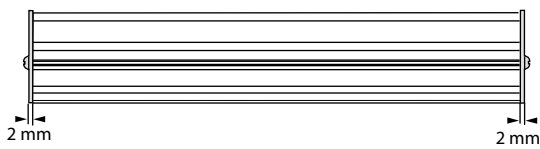
The 150 mm long eccentric rollers (3) offer a low acoustic level and optimal aerodynamics, and possess on their axis multiple air guiding planes (5), a display and adjustment dial (6) on which are alphanumeric characters, allowing the user to define and reproduce the roller settings. The profiles are attached to the plenum with the aid of screws for applications in a suspended ceilings and by central screws for the gypsum ceilings.

Sizes of profiles

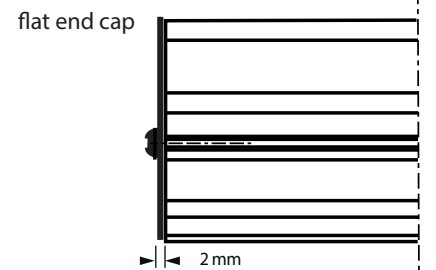
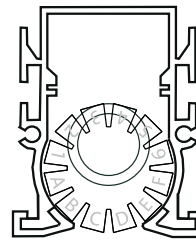
Nominal Size	PLP/PSP mm	PLL/PLR mm	PL2 mm	PSR/PSL mm	PS2 mm
300	300	320	340	302	304
600	563	583	603	565	567
750	750	770	790	752	754
900	900	920	940	902	904
1050	1050	1070	1090	1052	1054
1200	1173	1193	1213	1175	1177
1350	1350	1370	1390	1352	1354
1500	1500	1520	1540	1502	1504
1650	1650	1670	1690	1652	1654
1800	1800	1820	1840	1802	1804
1950	1950	1970	1990	1952	1954



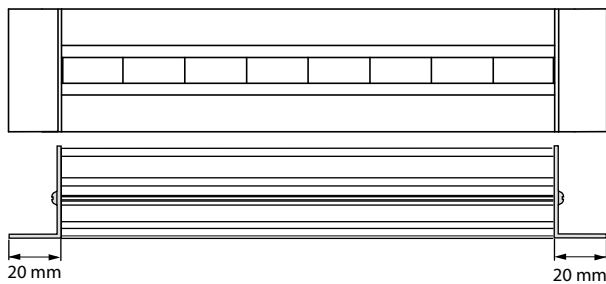
PS with narrow profile



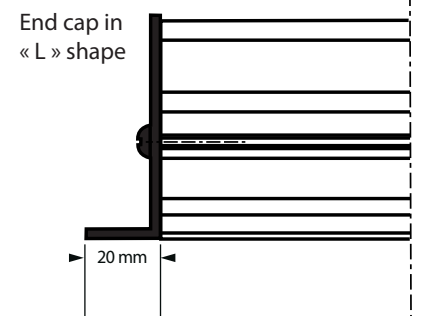
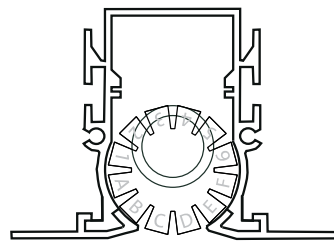
PS2 : with flat end cap on both sides
 PSR : with flat end cap on right side
 PSL : with flat end cap on left side



PL with wide profile ("L")

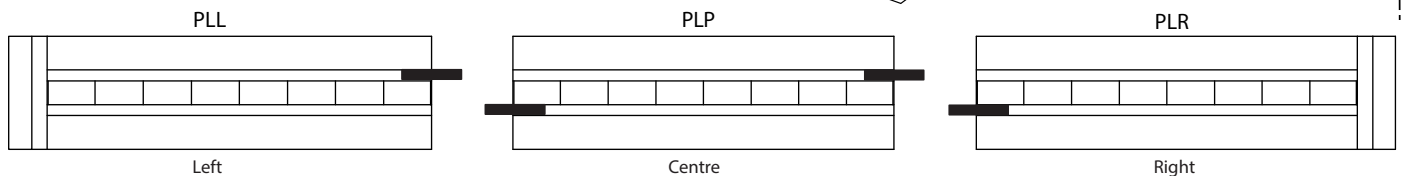
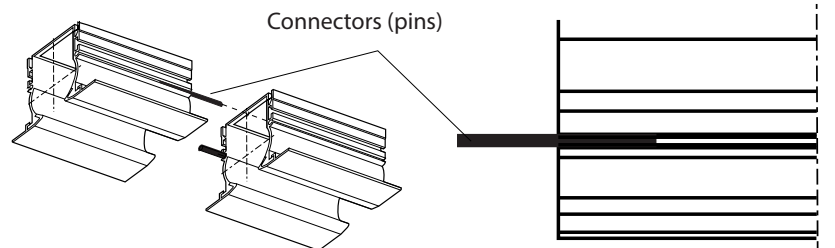


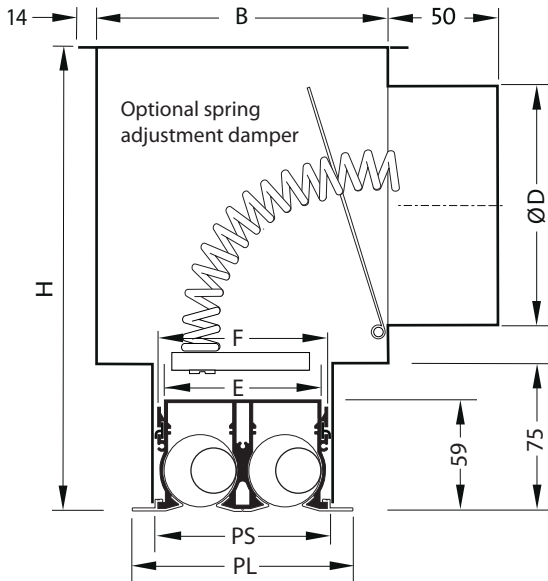
PL2: with wide end on both sides
 PLR: with wide end on the right side
 PLL: with wide end on the left side



Connectors (pins)

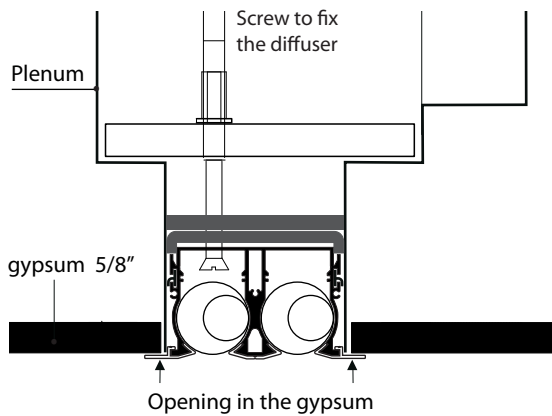
The connection between diffusers is made with the aid of pins (included) when diffusers are installed in serie.





Mounting and suspension for a gypsum ceiling

- Attach with screws provided for this purpose.
- Suspension of the plenum is achieved with the help of hooks and a threaded rod (not included).
- Position and fix the plenum and ensure the inlet opening of the diffuser is level with the ceiling, by simply pressing the diffuser inlet.



Number of slots		300 > 600	750 > 900	950 > 1500	1550 > 1950	
1	Size B	101	101	101	101	
	Size H	327	327	327	327	
	Size E	37	37	37	37	
	Size F	45	45	45	45	
	Size PS	49	49	49	49	
	Size PL	73	73	73	73	
	Size D	Side	125	150	200	2 X 150
		Top	125 (oval)*	150 (oval)*	200 (oval)*	2 X 150 (oval)*
Inlet		1	1	1	2	
2	Size B	145	145	145	145	
	Size H	377	377	377	377	
	Size E	82	82	82	82	
	Size F	89	89	89	89	
	Size PS	93	93	93	93	
	Size PL	117	117	117	117	
	Size D	Side	150	200	250	2 X 200
		Top	150 (oval)*	200 (oval)*	250 (oval)*	2 X 200 (oval)*
Inlet		1	1	1	2	
3	Size B	190	190	190	190	
	Size H	392	392	392	392	
	Size E	127	127	127	127	
	Size F	134	134	134	134	
	Size PS	138	138	138	138	
	Size PL	162	162	162	162	
	Size D	Side	200	250	302	2 X 250
		Top	200 (oval)*	250 (oval)*	302 (oval)*	2 X 250 (oval)*
Inlet		1	1	1	2	
4	Size B	236	236	236	236	
	Size H	429	429	429	429	
	Size E	171	171	171	171	
	Size F	178	178	178	178	
	Size PS	182	182	182	182	
	Size PL	206	206	206	206	
	Size D	Side	200	250	302	2 X 250
		Top	200	250 (oval)*	302 (oval)*	2 X 250 (oval)*
Inlet		1	1	1	2	

The optional balancing damper is adjustable by the diffuser.

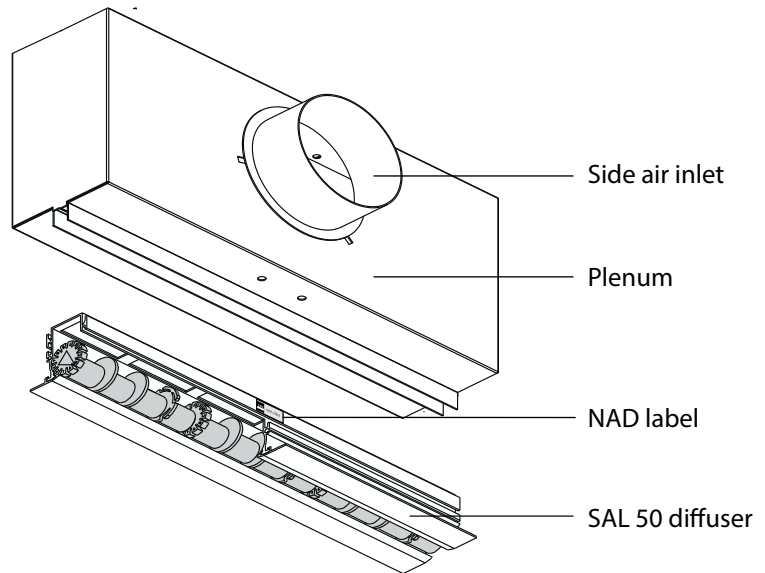
*** Note: In order to install a radial damper, the plenum will be oversized by 2 inches in relation to the inlet, to allow room on top for a round inlet instead of an oval one**

SAL 50 diffuser installation guide

Installation to ceiling with side air inlet

The adjustable side of the roller must be to the left of the collar

During assembly, the NAD label must always be placed on the same side as the collar of the plenum.

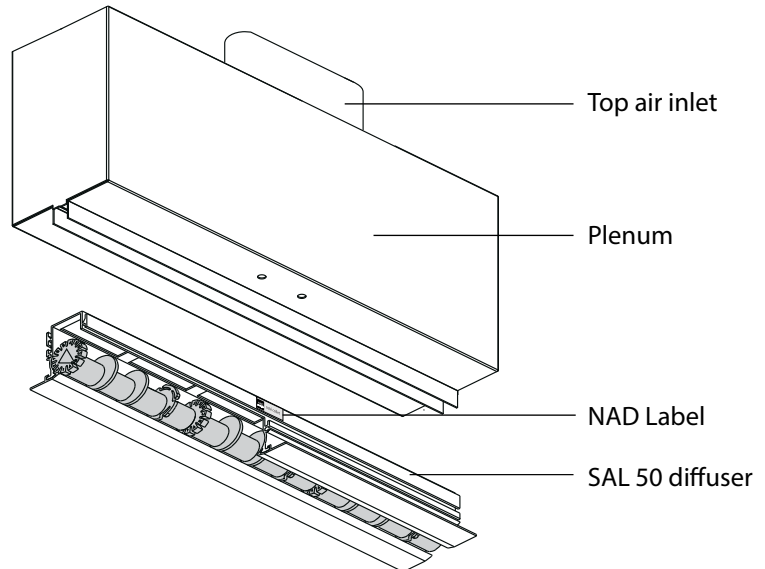


Installation to ceiling with top air inlet

The adjustable side of the roller must be to the left of the collar

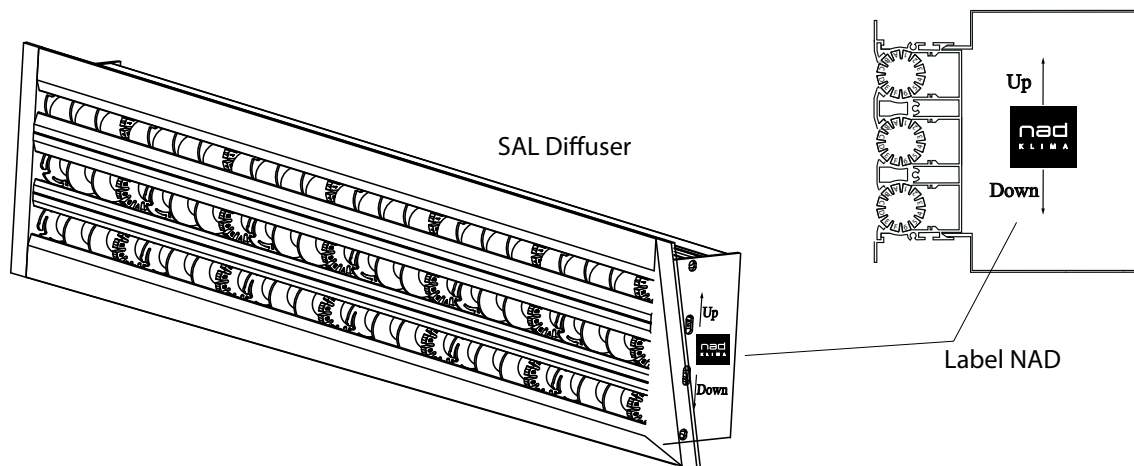
In order to ensure proper operation, during assembly, follow the numbering diffusers with plenums.

Make sure the NAD label on the diffuser is oriented towards the inside of the part.



Wall installation

During assembly, follow the orientation indicated on the label at the left of the plenum.



Codification

SAL	50											Product			
		0300, 0600, 0750, 0900, 1050, 1200, 1350, 1500, 1650, 1800, 1950										Length of diffuser			
		1, 2, 3, 4										Number of slots			
		DFS = Standard diffuse 21 / 65 DFL = Window diffuse BC / 65 DFR = Window diffuse DE / 21 DFH = Diffuse height BC / DE DFE = Diffuse window (max. 4 m) BC / EF DFF = Diffuse AB / EF DFN = Diffuse CD / AB DFT = Diffuse CD / EF DVB = Divergence 21 DVD = Divergence 65 DVM = Wall divergence DE (jet towards the ceiling) DVV = Vertical divergence CD DVS = Divergence 21 - 65										Airflow			
		PL2 = Wide profile with end cap in "L" shape on both sides PLL = Wide profile with end cap in "L" shape on left side PLR = Wide profile with end cap in "L" shape on right side PLP = Wide profile without an end cap (with pins) PS2 = Narrow profile with flat end cap on two sides PSL = Narrow profile with flat end cap on left side PSR = Narrow profile with flat end cap on right side PSP = Narrow profile without end cap (with pull pins)										Profile and end cap			
		W = White eccentric rollers - (RAL 9003) C = Cream eccentric rollers - (RAL 9010) B = Black eccentric rollers										Colour of eccentric rollers			
		9003 = White 9010 = Cream 00SB = Solar black (Standard matte black) 00SM = Silver matte (Standard metallic gray) _____ = RAL color (indicate the number of the colour)										Diffuser colour			
		S = Plenum with inlet on the side T = Plenum with inlet on the top X = Without plenum										Plenum			
		I = With acoustic insulation A = With closed cell acoustic insulation X = Without insulation										Acoustic insulation			
		F = With fireproof insulation and fireproof dampers X = Without fireproof insulation and fireproof dampers										Fireproof insulation			
		D = With spring damper R = With radial damper ** X = Without damper										Balancing damper			
		G = Gypsum ceiling W = Wall X = Suspended ceiling R = Return Grille (SAL 50 without connection plenum and roller)										Type of installation			
SAL	50	0300	1	DFS	PL2	B	9003	S	X	X	X	X	X	Annotation	Example

Notes : ** Not available on oval collar