20/SLM/3500/0606/EN

Halton SLM

Linear Slot Diffuser

- Horizontal or vertical plane jet air supply, suitable also for exhaust
- Ceiling or wall installation, suitable also for continuous "wall to wall" installations
- Adjustable throw pattern, flexibility of orientation with different configurations
- Detachable diffuser allows cleaning of the terminal unit and ductwork

Accessories

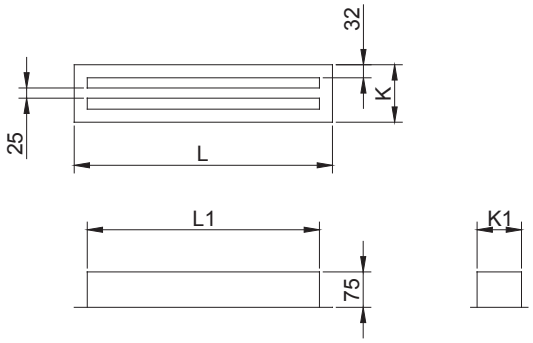
- Plenum with a circular duct connection(s) D160...250mm with rubber gasket
- Plenum options with measurement and adjustment functions
- Sound insulation for plenum

MATERIAL AND FINISHING

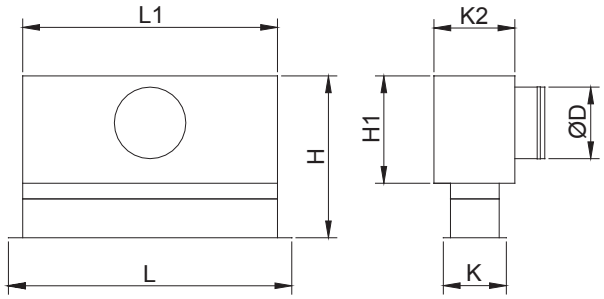
PART	MATERIAL	FINISHING	NOTE
Outer frame	Aluminium	Mill finished Anodised Polyester-painted / White RAL 9010 / 50% gloss	Special colours available 100 % Epoxy painted as option
End caps / T profiles	Aluminium	Mill finished Anodised Polyester-painted / White RAL 9010 / 50% gloss	Special colours available 100 % Epoxy painted as option
Inner vanes	Aluminium	Mill finished Anodised Polyester-painted / White RAL 9010 / 50% gloss	Special colours available 100 % Epoxy painted as option
Flow deflection vanes (for supply application)	Aluminium	Mill finished	Special colours available 100 % Epoxy painted as option
Plenum	Galvanised steel		

DIMENSIONS

SLM



SLM + PLM



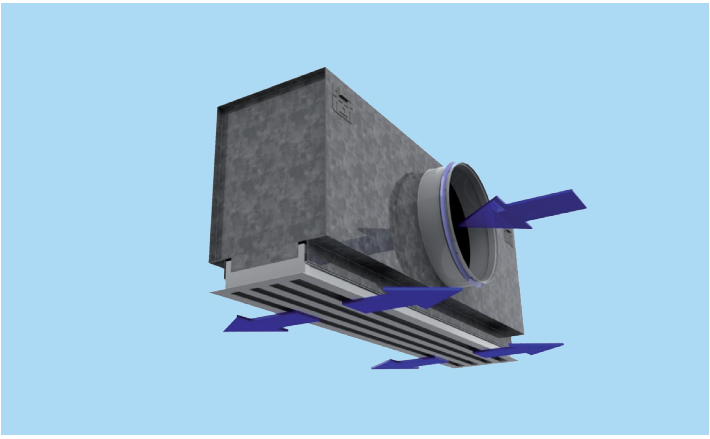
Standard dimensions of SLM + PLM plenum unit with standard end caps are presented in the table below.

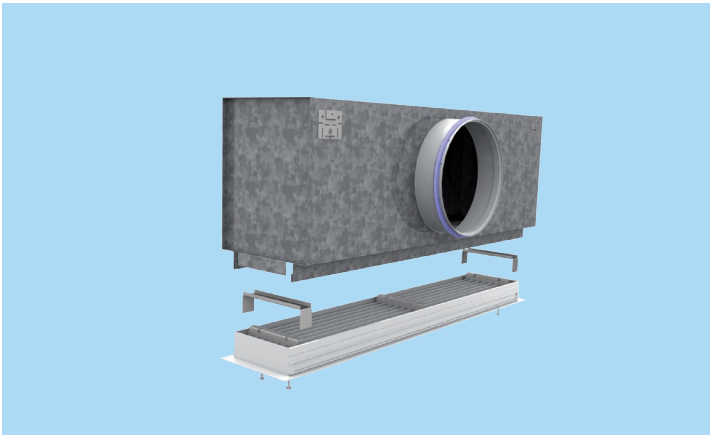
Active length	Slots	L	L1	H	H1	K	K1	K2	ØD
572	1	618	570	275..295	200	90	59	130	1x160
872	1	918	870	275..295	200	90	59	130	1x160
1172	1	1218	1170	275..295	200	90	59	130	1x160
1472	1	1518	1470	275..295	200	90	59	130	2x160
1772	1	1818	1770	275..295	200	90	59	130	2x160
572	2	618	570	315..335	240	141	109	181	1x200
872	2	918	870	315..335	240	141	109	181	1x200
1172	2	1218	1170	315..335	240	141	109	181	1x200
1472	2	1518	1470	315..335	240	141	109	181	2x200
1772	2	1818	1770	315..335	240	141	109	181	2x200
572	3	618	570	365..385	290	192	160	232	1x200
872	3	918	870	365..385	290	192	160	232	1x200
1172	3	1218	1170	365..385	290	192	160	232	1x200
1472	3	1518	1470	365..385	290	192	160	232	2x200
1772	3	1818	1770	365..385	290	192	160	232	2x200
572	4	618	570	365..385	290	243	211	283	1x250
872	4	918	870	365..385	290	243	211	283	1x250
1172	4	1218	1170	365..385	290	243	211	283	1x250
1472	4	1518	1470	365..385	290	243	211	283	2x250
1772	4	1818	1770	365..385	290	243	211	283	2x250

The width of the end caps is 32 mm.

Special dimensions

In addition to standard sizes, other sizes can be specially ordered. The maximum length is 2 400 mm. Continuous linear diffusers with modular construction are available for diffuser lengths greater than 2400 mm. The diffuser modules are delivered with alignment strips.





Function

Air is supplied through the linear slots of the diffuser, either horizontally along the ceiling surface or vertically into the occupied zone.
For wall installations, the plane jet air is supplied either horizontally or directed to the ceiling surface, thus increasing the throw length.

Installation

The SLM linear slot diffuser is connected directly to the PLM or PLD plenum.
The plenum is installed into the suspended ceiling with M8 drop rods (not included in the delivery) and connected to the ductwork.
Remove the T-profiles of the SLM by pulling them gently out, in order to access the transversal bars located behind the profiles.
Fit the installation brackets into the grooves of the plenum and secure fixing with the screws supplied with the unit.
Put screws into the holes of the transversal bars.
Screw on until the diffuser is flush to the ceiling.
Replace the T-profiles.
The unit can be installed in a suspended ceiling by using the end caps N2 with a 32 mm flange.
The unit can be used for exhaust air by connecting the unit (model SLM/E) to the exhaust ceiling plenum using ST installation brackets.

ACCESSORIES

ACCESSORY	CODE	DESCRIPTION
Plenum	PLM	Plenum for duct connection (with or without attenuation material)
Plenum	PLD	Compact plenum for duct connection (with or without attenuation material)
Airflow measurement and adjustment module	MSM	For supply installation
Airflow measurement and adjustment module	MEM	For exhaust installation
End caps	N2	For modular ceiling. Width = 32 mm (2 pcs)
Sound attenuation	IN	Mineral wool
Installation brackets	ST	For installation of exhaust model (SLM/E) into the exhaust ceiling plenum

Special end caps are available for modular ceilings.

Adjustment

The air pattern can be changed through 180° by adjusting (use a screw driver) the flow deflection vanes. Each deflection vane section can be individually adjusted without removing the T-profiles, in order to provide flexibility in supply air pattern orientation.
Diffusers are delivered unadjusted with the flow deflection vanes in the open position.
In order to enable airflow adjustment and measurement of airflow rate, it is recommended that the diffuser be connected to the PLM or PLD balancing plenum equipped with the MSM module in supply and MEM in exhaust.
The supply flow rate is determined by using the measurement and adjustment module MSM.
Detach the linear diffuser and pass the tubes and control spindle through the linear diffuser between the flow deflection vanes.
Replace the diffuser.
Measure the differential pressure using a manometer.
The airflow rate is calculated using the formula below.

$$q_v = k * \sqrt{\Delta p_m}$$

Adjust the airflow rate by rotating the control spindle until the desired setting is achieved.
Lock the damper position with a screw.
Replace the tubes and spindle into the plenum and replace the linear diffuser.

Servicing

Remove the T-profiles.
Remove the linear diffuser by unscrewing the screws of the transversal bars.
Clean the parts by wiping them with a damp cloth.
Push the linear diffuser back into place by screwing the transversal bars to the installation brackets.

Option: with balancing plenum PLM + MSM/MEM or PLD + MSM/MEM

Remove the measurement and adjustment module by gently pulling the shaft; (not the control spindle or measurement tubes!).
Wipe the parts with a damp cloth, instead of immersing in water.
Reassemble the measurement and adjustment module by pushing the shaft back into place until the module meets the stopper.
Push the linear diffuser back into place by screwing the transversal bars to the installation brackets.

Suggested specifications

The linear slot diffuser shall have an extruded aluminium outer frame, flow deflection vanes and T-profiles, anodised or polyester-painted to white (RAL 9010) colour. Each air pattern adjustment section shall comprise two flow deflection vanes.

The diffuser shall be connected to the ductwork using a plenum with mineral wool as sound attenuation material.
The removable linear slot diffuser shall be mounted into the plenum with invisible screws.

The plenum shall comprise an airflow measurement and adjustment module. The linear diffuser shall be removable in order to provide access to the measurement and adjustment module in the plenum. Flow deflection vanes and T-profiles shall be easily removable for access to the plenum.

The supply air pattern shall be directable by adjusting the flow deflection vanes without any change in the appearance of the diffuser.

Product code

SLM/S-N-L

S = Model

S	Supply
E	Exhaust

N = Number of slots

1, 2, 3, 4

L = Length

400,+1,..,50000

Specifics and accessories

SE = End caps (Y/N)

Y	Yes
N	No

ST = Type of end caps

NA	Not assigned
N2	Standard 32 mm

FI = Finishing

AN	Anodised (class 10 um)
PN	Painted
MF	Mill finished

CO = Colour

W	White
X	Special colour
N	No painting

Code example

SLM/S-1-400, SE=Y,ST=N2,FI=AN,CO=N

Sub products

PLL	Plenum (Linear slot diffusers)