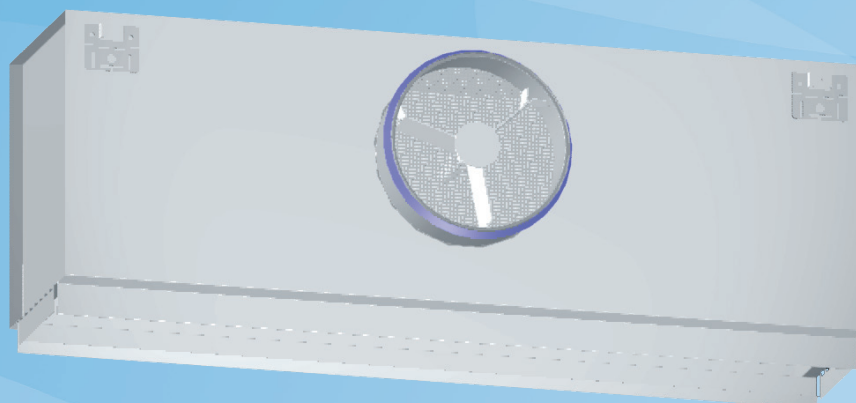


## Halton PLM

Plenum (SLM Linear Slot Diffusers)



- Plenum for connecting SLM linear slot diffuser supply/exhaust unit to ductwork
- Ensures proper function of the supply air diffuser
- Access for ductwork cleaning

### Product Models & Accessories

- Model with sound attenuation material
- Detachable airflow rate measurement and balancing module

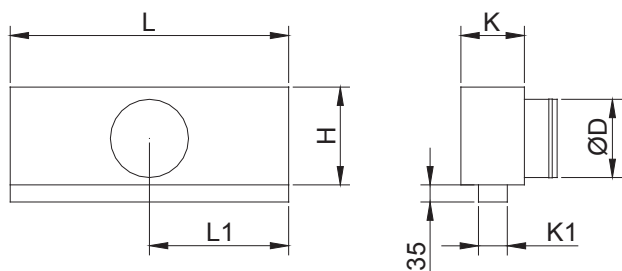
### MATERIAL AND FINISHING

PART	MATERIAL	NOTE
Plenum / spigot	Galvanised steel	
Insulation	Mineral wool	The mineral wool is fixed with nails

### ACCESSORIES

ACCESSORY	CODE	DESCRIPTION
Sound attenuation material	IN	Mineral wool in the PLM plenum on 2 sides (IN=2)
Sound attenuation material	IN	Mineral wool in the PLM plenum on 5 sides (IN=5)
Airflow measurement and adjustment unit	OM	For supply installation (OM=Y)

## DIMENSIONS



Standard dimensions for linear slot diffusers

Diffuser active length (mm)	572	872	1172	1472	1772
L (mm)	570	870	1170	1470	1770
L1 (mm)	286	436	586	368	443
Duct connections (pcs)	1	1	1	2	2

In addition to standard linear slot diffuser sizes, other sizes can be specially ordered.

The maximum length is 2000 mm.

Continuous plenums with modular design are also available for installation lengths greater than 2000 mm.

Slots	H	K	K1	ØD
1	200	130	59	160
2	240	181	109	200
3	240	232	160	200
4	290	283	211	250

## Adjustment

In order to enable airflow adjustment and measurement of airflow rate, it is recommended that the diffuser be connected to the plenum equipped with the MSM module.

The supply flow rate is determined by using the measurement and adjustment module MSM.

Measure both airflow rates of plenum boxes with two connections at the same time and sum up the airflow rates.

Detach the diffuser and pass the tubes and control spindle through the diffuser.

Replace the diffuser.

Measure the differential pressure using a manometer.

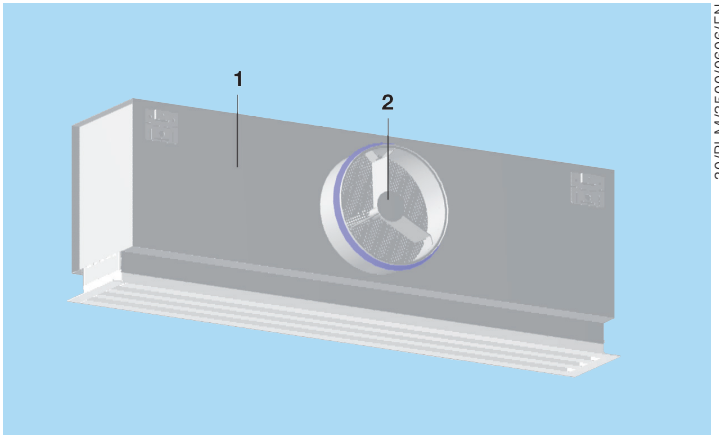
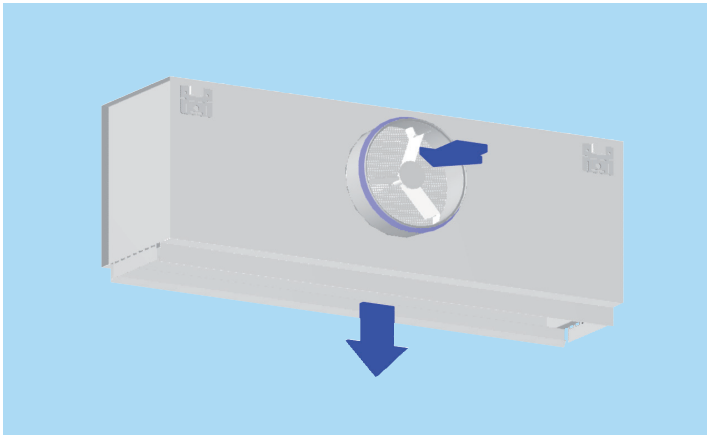
The flow rate is calculated using the formula below.

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

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 diffuser.



**Function**

The duct pressure and air velocity are reduced inside the PLM plenum box.

Air is supplied into the space through the diffuser, improving the air distribution quality.

The airflow rate can be adjusted using the optional measurement and adjustment module MSM.

**Installation**

**CODE DESCRIPTION**

- 1 Plenum
- 2 Measurement and adjustment module

The PLM is installed into the suspended ceiling with M8 drop rods (not supplied in the delivery) and connected to the ductwork with a spigot equipped with an integral rubber gasket.

When equipped with a measurement and adjustment module, the recommended safety distance upstream of the device is at least 3D, in order to ensure a reliable airflow rate measurement.

The units control spindle must not be excessively bent.

## Servicing

Remove the measurement and adjustment module by gently pulling the shaft; (not the control spindle).

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.

## Suggested specifications

The PLM plenum shall be made of galvanised steel. The plenum shall have an airflow measurement and adjustment module.

The diffuser shall be detachable in order to provide access to the measurement and adjustment module in the plenum.

The plenum shall have mineral wool as sound attenuation material.

The plenum reduces duct pressure and air velocity in order to supply air throughout the entire face area of the linear diffuser and improve the air distribution quality.

## Product code

PLM/S-L-D-N

S = Number of slots

1, 2, 3, 4

L = Length

400,+1,...,50000

D = Diameter of duct connection

S=1: 160

S=2, S=3: 200

S=4: 250

N = Number of duct connections

1,+1,...,((L-30)/(D+30)1)

Specifics and accessories

IN = Sound attenuation material

N No attenuation material

2 Sound attenuation material on 2 sides

5 Sound attenuation material on 5 sides

OM = Measurement/Adjustment module MSM

N No measurement and adjustment module

Y MSM installed in each duct connection

Code example

PLM/1-400-160-1, IN=N,OM=N