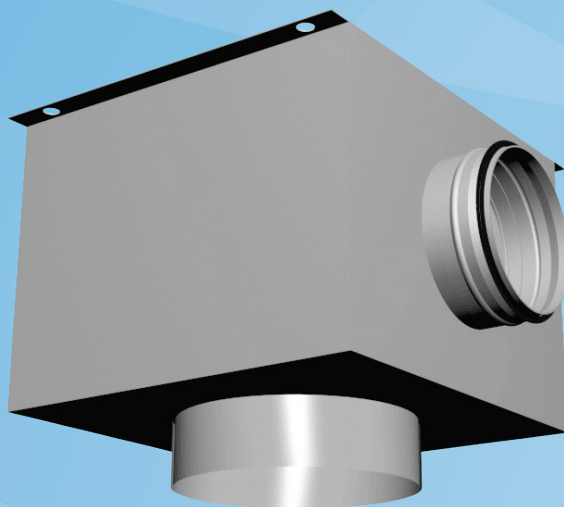


Halton PLC

Plenum

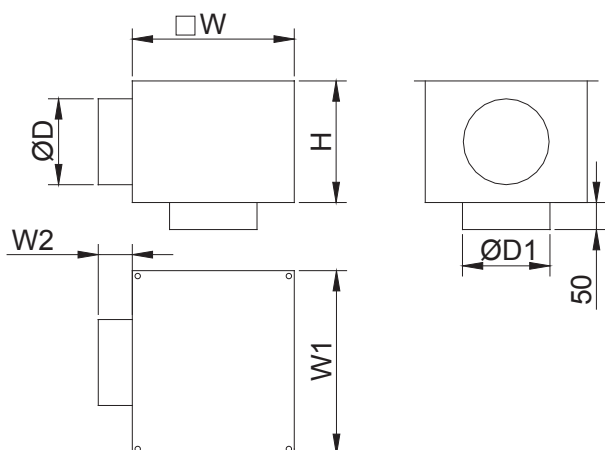


- Plenum for connecting ceiling diffuser/exhaust unit to ductwork
- Ensures proper function of the supply air diffuser
- Access for ductwork cleaning

Product Models & Accessories

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

DIMENSIONS



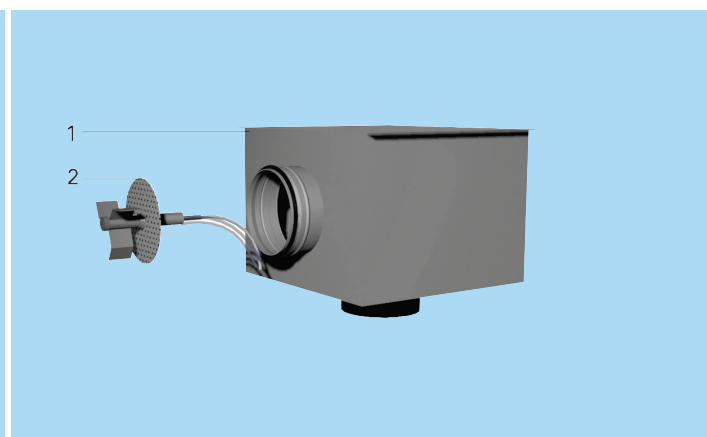
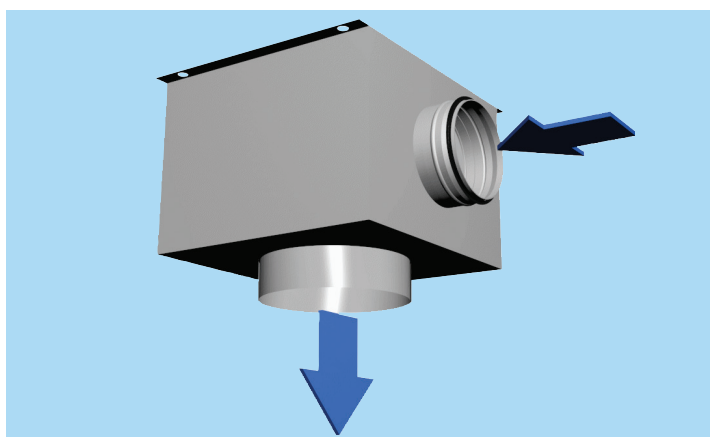
NS	W	W1	W2	H	ØD	ØD1
100	300	340	63	225	99	102
125	300	340	63	225	124	127
160	300	340	63	225	159	162
200	450	490	63	315	199	202
250	450	490	63	315	249	252
315	500	540	63	465	314	317
355	500	540	80	465	354	357
400	500	540	80	465	399	402
450	650	690	80	665	449	452
500	650	690	80	665	499	502
560	650	690	80	665	559	562
630	750	790	80	680	629	632

MATERIAL AND FINISHING

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

ACCESSORIES

ACCESSORY	CODE	DESCRIPTION
Balancing plenum	PLC	For balancing & equalising the airflow (with airflow adjustment and measurement unit)
Sound attenuation	I3	Mineral wool in the PLC plenum on 3 sides
Sound attenuation	I5	Mineral wool in the PLC plenum on 5 sides
Airflow measurement and adjustment unit	MSM	For supply installation (for spigot with diameter \leq 315)



Function

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

Air is spread evenly in the diffuser ensuring proper air distribution function.

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 plenum is installed into the suspended ceiling with M8 drop rods (not supplied in the delivery) Connect to the ductwork with a spigot equipped with an integral 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 unit's control spindle must not be excessively bent.

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.

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.

K -factors for installations with different safety distances (D= duct diameter)

PLC	>8xD	min 3xD
125	9.9	12.6
160	16.9	21.9
200	28.3	31.0
250	47.9	51.5
315	78.6	-

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.

Remount the measurement and adjustment module by pushing the shaft back into place until the module meets the stopper.

Suggested specifications

The PLC plenum shall be made of galvanised steel.

The plenum shall comprise 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 comprise sound insulation material made of mineral wool.

The plenum shall reduce duct pressure and air velocity in order to spread the supply air evenly in the diffuser and improve the air distribution quality.

Product code

PLC-D-IS

D = Diameter of duct connection

100, 125, 160, 200, 250, 315, 355, 400, 450, 500, 560, 630

IS = Sound attenuation material (mineral wool)

N No attenuation material

I3 Sound attenuation material on 3 sides

I5 Sound attenuation material on 5 sides

Specifics and accessories

MS = Measurement/adjustment module MSM

N No

Y Yes

Code example

PLC-100-N, MS=N