

# Acoustic Hoods

## Features

- Reduces room-to-room crosstalk via ceiling apertures
- Slim design suitable for shallow ceiling voids
- Custom built to fit any grille, diffuser or luminaire
- Easy to install
- Low pressure loss
- Reduces fan coil noise via ceiling apertures to rooms



## Specification

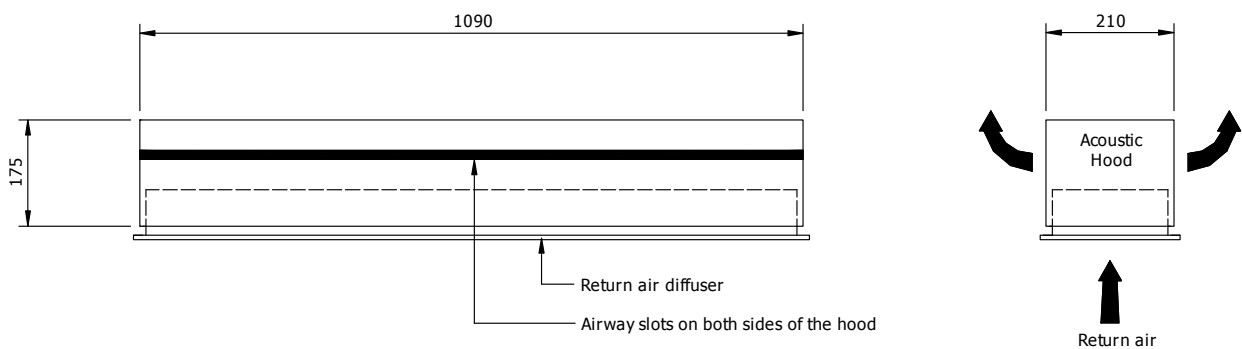
Lack of privacy between adjoining cellular offices is a common problem that can easily be avoided. Partitioning and suspended ceiling systems are readily available that can provide good privacy, however ceiling penetrations such as return air grilles and luminaires can seriously undermine this performance.

**HG** acoustic hoods can be custom built to fit on the back of any type of grille, diffuser or luminaire.

The acoustic performance of the hoods can also be designed to ensure that the acoustic integrity of the suspended ceiling is maintained.

The acoustic hoods shown below were developed for specific projects and laboratory tests were undertaken to confirm the acoustic and aerodynamic performances. Both designs of hood helped to achieve 40dB room-to-room privacy between adjacent cellular offices.

## Acoustic Hood - Example 1

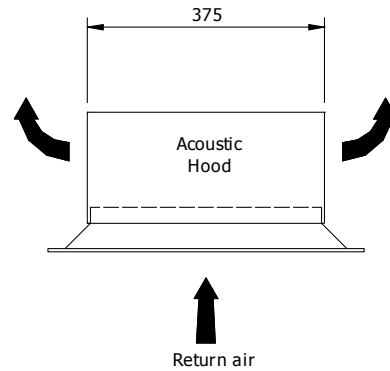
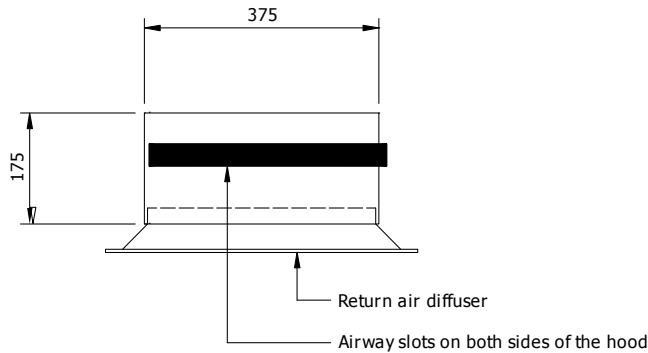


Octave Band Sound Reduction Index (dB)							
63	125	250	500	1k	2k	4k	8k
7	8	5	9	22	27	28	32

Air Volume (l/s)	Pressure Loss (Pa)			Weight (kg)
	Hood	Grille	Total	
130	15	15	30	6

# Acoustic Hoods

## Acoustic Hood - Example 2



Octave Band Sound Reduction Index (dB)							
63	125	250	500	1k	2k	4k	8k
9	8	7	12	22	27	28	33

Air Volume (l/s)	Pressure Loss (Pa)			Weight (kg)
	Hood	Grille	Total	
110	10	10	20	4

## Typical Acoustic Hood Specification

Acoustic hoods shall be fitted to the rear of the return air grilles, linear diffusers or luminaires that are being installed within the suspended ceiling system, as indicated on the equipment schedules.

The hoods are required to maintain the acoustic integrity of the suspended ceiling, and to ensure that the privacy criterion between adjacent cellular offices is not undermined.

The acoustic hood when fitted to the grille, linear diffuser or luminaire shall achieve the following acoustic performance, and shall not exceed the stated pressure loss at the required airflow:

Pressure Loss (Pa)	Octave Band Sound Reduction Index (dB)							
	63	125	250	500	1k	2k	4k	8k
30	9	8	7	12	22	27	28	33

The acoustic performance shall be obtained from tests undertaken in accordance with BS EN ISO 140-3:1995, "Laboratory measurement of airborne sound insulation of building elements".

The outer casing and internal baffles of the acoustic hood shall be constructed from galvanised sheet steel. Any long un-stiffened edges of the casing shall be beaded for rigidity.

The acoustic media used within the hoods shall have a Class "0" fire rating in accordance with BS476 Part 24.

The hoods shall be delivered to site suitably protected to prevent the ingress of dirt whilst on site, and shall be provided with labels stating hood reference and description.

The contractor shall provide samples to the hood manufacturer of each variation of grille, linear diffuser and luminaire fitted within their respective ceiling tile. The contractor shall also confirm any on-site constraints that may be applicable, such as limited height available, ceiling tile support positions, potential clashes with other equipment, etc.

The manufacturer shall ensure that the hoods fit easily and correctly to the grilles, linear diffusers or luminaires and do not clash with the ceiling tile or any other advised constraints. A sample of each assembly shall then be returned to the contractor, together with a certified drawing for approval prior to manufacture.

Acoustic hoods shall be model type "HG" as manufactured by:

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