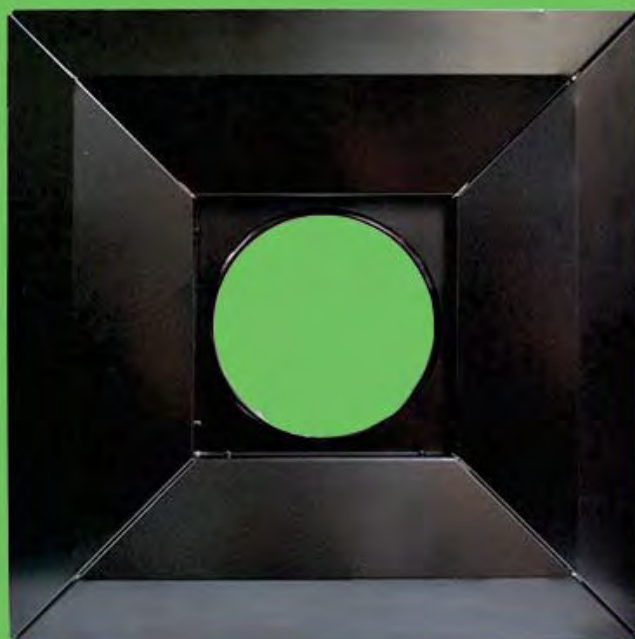


# Lay on Ceiling Tile Diffuser

LCT20 Lay on Ceiling Tile diffuser



## Lay on Ceiling Tile Diffuser

### LCT20

#### Introduction

The LCT20 has been developed for use when mounted directly on top of a 20% open area ceiling tile (supplied by others must be 20% after paint). The diffuser is supplied in black matt finish as standard. For fitting the LCT20 can be retained using double sided adhesive strip or by using edge clips. Available in a range of sizes to suit specific flow ranges. Can be duct or plenum mounted. Supplied with 3mm foam gasket.

#### Product Description

**LCT20** Lay on Ceiling Tile diffuser

**PBR** Side entry plenum box

**Lined** 6mm acoustic lining (optional) reaction to fire class C-s3-d0 to EN 13501-1: 2007

#### Finishes

Black (RAL9005)

#### Sizes

As indicated in the table.

#### Performance Table

		Supply Air Volume									
LCT20	l/s	60	70	80	90	100	120	140	160	180	
Size	m <sup>3</sup> /hr	216	252	288	324	360	432	504	576	648	
370	T (m)	0.6	0.9	1.2							
	L <sub>WA</sub> (dBA)	27	28	32							
	P <sub>s</sub> (Pa)	11	16	21							
450	T (m)		0.8	1.1	1.3	1.5					
	L <sub>WA</sub> (dBA)		27	31	36	42					
	P <sub>s</sub> (Pa)		7	11	17	24					
600	T (m)					1.8	2.3	2.6	2.8	3.0	
	L <sub>WA</sub> (dBA)					28	30	33	37	41	
	P <sub>s</sub> (Pa)					7	12	17	22	27	

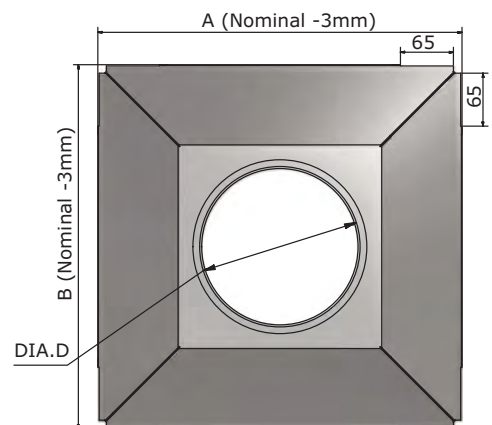
Terminal velocity = 0.25 m/s At 10°C cooling

Please note that the spigot size to match diffuser inlet should not be varied.

Three versions are available. Each has a specific operational range. Operating these outside the specified range is not recommended as functionality is affected.

Dimension table			
Size	370	450	600
A/B	367	447	597
C	95	95	95
D	157	197	247

Recommended rating (l/s)		
Size	Min	Max
370	61	75
450	75	100
600	100	180



#### ORDER EXAMPLE

LCT20/370/PBR/LINED

Type \_\_\_\_\_  
 Size \_\_\_\_\_  
 Plenum \_\_\_\_\_  
 Lined \_\_\_\_\_

## Plenum Box to suit MC / WR / LCT20 Diffusers

PBR

### Introduction

PBR plenum boxes are designed to guarantee a good mixing of the air prior to diffusion through the terminals. Available with Side Entry connections matching the diffuser neck (nominal size), these can be fitted with Spigot Flap Dampers, cord- / quadrant-operated, as well as 6mm acoustic lining (optional) reaction to fire class C-s3-d0 to EN 13501-1: 2007 to avoid noise generation.

### Product Description

- PBR** Side Entry plenum box to suit MC / WR / LCT20 Diffusers
- FDC** Cord-operated Flap Damper (optional)
- FDQ** Quadrant-operated Flap Damper (optional)
- LINED** 6mm acoustic lining (optional) reaction to fire class C-s3-d0 to EN 13501-1: 2007
- BLACK** Plenum painted black to prevent through vision (optional)

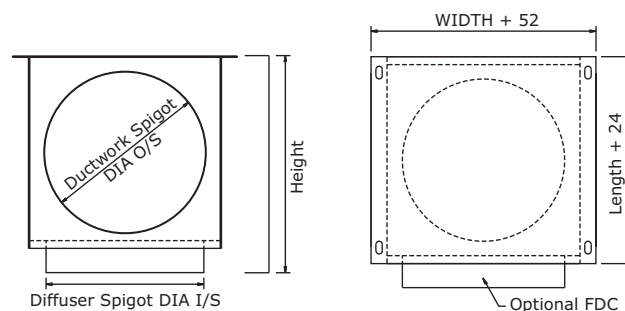
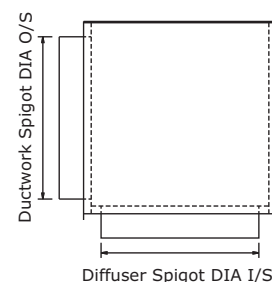
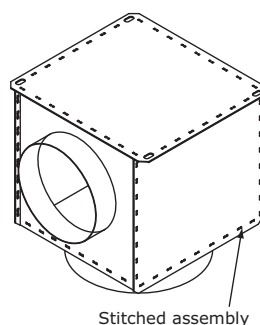
### Features

- Plated steel with spot welded and primed seam joints
- Side Entry spigot with optional airflow control damper
- Oblong holes on top plate for easy drop rod installation

### Finish

- PBR** Galvanised sheet steel

**Note:** The connection between the diffuser and plenum is adequately sealed for most installations, although secondary additional sealing may be required at the discretion of the installers, if the leakage rate required is particularly low.



Diffuser					Diffuser Spigot	Ductwork Spigot
Type	Size	Width	Length	Height		
WR	6	200	200	200	Ø152	Ø147
WR	8	250	250	250	Ø203	Ø197
WR	10	300	300	300	Ø254	Ø247
WR	12	350	350	350	Ø305	Ø297
WR	15	430	430	430	Ø381	Ø337
WR	18	500	500	500	Ø457	Ø447
WR	21	580	580	580	Ø534	Ø527
WR	24	660	660	660	Ø610	Ø603
MC	150	200	200	200	Ø147	Ø147
MC	200	250	250	250	Ø197	Ø197
MC	300	350	350	350	Ø297	Ø297
MC	450	500	500	500	Ø447	Ø447
LCT20	370	210	210	210	Ø157	Ø157 *
LCT20	450	250	250	250	Ø197	Ø197 *
LCT20	600	300	300	300	Ø247	Ø247 *

\* Larger sizes are permitted.

### ORDER EXAMPLE

PBR/300/1CC/SE/297dia/FCD/Lined

Type \_\_\_\_\_  
 Diffuser size \_\_\_\_\_  
 Spigot connections \_\_\_\_\_  
 Entry \_\_\_\_\_  
 Spigot size \_\_\_\_\_  
 Option \_\_\_\_\_  
 Option \_\_\_\_\_



## Waterloo Product Range

### GRILLES

A complete range of products suitable for all wall, ceiling and floor applications. Most grilles are made from aluminium and have a range of fixed or moveable blades designed to give performance whilst remaining aesthetically pleasing to the eye. Grilles are made to customer specified sizes and colours (PPM/G); standard colour PPM9010 (20% Gloss White). The range is complemented by the Aircell range of polymer Grilles.



### DIFFUSERS

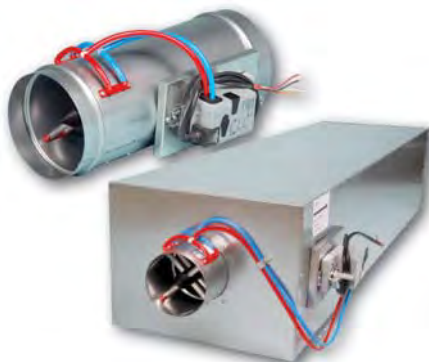
Designed to be installed in various ceiling systems, we have a complete range to suit both performance and aesthetical requirements. Most diffusers are made from aluminium and can be ordered with or without plenum boxes for easy duct work. Diffusers can be ordered in customer specified colours (PPM/G); standard colour is PPM 9010 (20% Gloss White). This range is complemented by the Aircell range of polymer Diffusers.



### ACTIVE AND PASSIVE CHILLED BEAMS

The finest quality range of high output active beams, used for ventilated heating and cooling applications. These units have 4 pipe coils to allow heating and cooling circuits to run simultaneously, giving constant and responsive control. The design allows a large optimum capacity and also allows the customer to specify the nozzle type and pitch for individual circumstances.

Active beams are made from steel to a large range of customer specified sizes and as such are suitable for various different ceiling systems. Standard finish is PPM 9010, however other (PPM/G) colours are available on request.



### AIR VOLUME CONTROL DAMPERS

Pressure independent Variable Air Volume and Constant Air Volume dampers made from zintec plate. Most volume dampers are regulated with an electronic motor and sensors and are calibrated to customer specifications before delivery.

The Constant Air Volume damper requires no power source as it is controlled via a mechanical device and calibrated before delivery. All volume dampers can be ordered with a single or double (insulation) skin.



### EXTERNAL LOUVRES

A quality range of products for external wall applications. Made from aluminium, with birdscreen or insect screen options. All louvres are made to customer specified sizes and (PPM/G) colours; standard colour is PPM 9006.



### DISPLACEMENT

A full range of recessed, semi-recessed, floor, wall and corner units providing high ventilation efficiency and excellent comfort. The very low pressure involved also offer quiet installations. Displacement units are available as wall or floor mounted, or indeed integrated within the architectural design.



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