

KRCP Perforated Face Diffusers

KRCP Perforated face supply diffuser

KRCPE Perforated face exhaust diffuser



Perforated Face Diffusers

KRCP / KRCPE

Introduction

The Waterloo KRCP range of diffusers have been designed to suit 600mm square ceiling modules of 'Burgess type', lay-in T and concealed T arrangements. The diffuser incorporates an easily removable perforated face plate and adjustable inner multicone pattern control cores which produce an efficient 4, 3, 2 or 1 way air diffusion pattern. Matching exhaust units are available. The control cores are available as separate items to facilitate simple on-site changes.

This diffuser may be applied to most commercial projects, but as the frame detail incorporates an anti-smudge ring, it is ideal for kitchen and restaurant applications. The range is suitable for systems involving air change rates up to 20 per hour and cooling differentials up to 14°C.

Product Description

- KRCP** Perforated face supply diffuser
- KRCPE** Perforated face exhaust diffuser
- OBSS** Opposed blade damper for square connections
- LD** Louvre damper for circular connections

Features

- Easy maintenance
- Anti-smudge frame
- Pivoted front plate
- Adjustable pattern control cores
- Versatile ceiling integration

Finishes

PPG9010 (RAL 9010 Gloss - 80% Gloss White)

PPM9010 (RAL 9010 Matt - 20% Gloss White)

PPM9006 (RAL 9006 Matt - 30% Gloss Silver)

Other colours available on request

Sizes

All diffusers are 596 x 596mm overall. Available spigot sizes are as follows:-

KRCP Ø 300

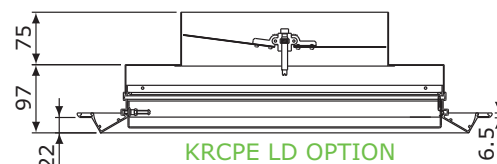
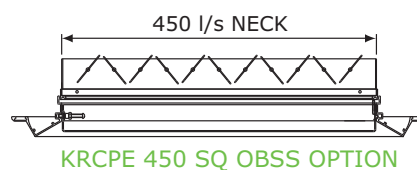
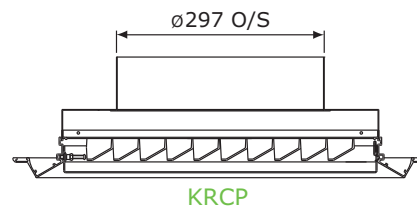
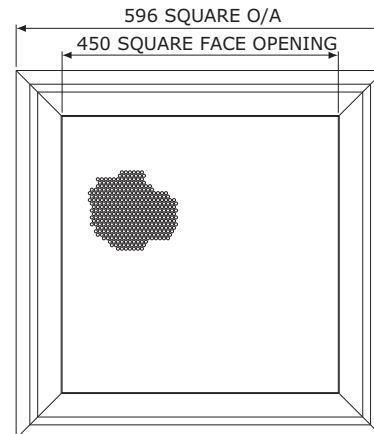
KRCPE 450 x 450, 300 x 300 or Ø 300

Weights

KRCP 5.7 kg

KRCPE 3.7 kg

OBSS 4.0 kg



ORDER EXAMPLE

KRCP/600/600/300 DIA/PPG9010/LD

Type _____

Nominal Width _____

Nominal Height _____

Spigot Size _____

Finish _____

Damper _____

Perforated Face Diffusers

KRCP / KRCPE

Selection Criteria

Ceiling Height 3.0 m

Radius of diffusion is based on terminal velocities of 0.75 m/s (minimum) and 0.10 m/s (maximum) respectively. Noise level is based on diffuser sound power level less 8dB room absorption.

Data is based on testing in accordance with BS 4773 Part 1 and 2 for isothermal air conditions. Data is directly applicable to cooling and heating applications

Selection Example

KRCP/600x600/300

4 way throw

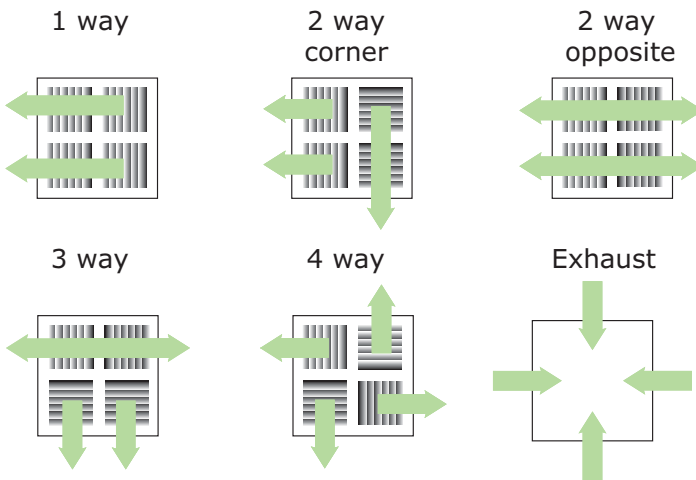
Air Flow Rate 210 l/s

Throw 0.7 - 2.0m

Static Pressure Loss 7 Pa

Noise level 33 dBA

Core Patterns

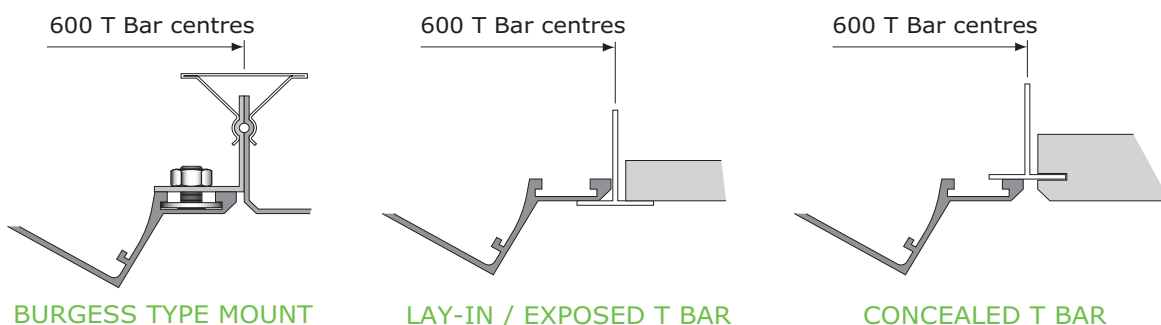


Performance Table

KRCP			Exhaust	
m³/h	l/s		Spigot 450x450	Spigot Ø 300
504	140	Pa	1	6
		L _w	-	-
1008	280	Pa	4	22
		L _w	-	-
1512	420	Pa	9	50
		L _w	23	28
2016	560	Pa	15	88
		L _w	35	38
2520	700	Pa	23	125
		L _w	45	46

KRCP			Supply				
m³/h	l/s		4 way throw	3 way throw long side	3 way throw short side	2 way throw	1 way throw
504	140	T	0.3-1.1	0.3-1.3	0.3-0.8	0.3-1.8	0.4-2.5
		Pa	4	4	4	4	4
		L _w	22	22	22	22	22
756	210	T	0.7-1.8	1.0-3.0	0.5-1.6	0.6-2.5	1.8-3.5
		Pa	7	7	7	7	7
		L _w	33	33	33	33	33
1008	280	T	1.2-2.5	1.6-3.5	0.7-2.0	1.2-3.5	3.2-5.5
		Pa	17	17	17	17	17
		L _w	42	42	42	42	42
1260	350	T	1.7-3.2	2.1-4.0	1.2-2.5	1.7-4.5	4.5-8.0
		Pa	26	26	26	26	26
		L _w	49	49	49	49	49

Installation Options



Control Options - Grille Mounted OBSS Opposed Blade Damper (Volume Control Damper)

Introduction

Waterloo OB Opposed Blade Dampers are manufactured to suit virtually the whole of our square / rectangular Air Terminal range and can be fitted to the neck of the terminals or inside plenum box.

They are adjustable from the front of the Grille or Diffuser with a screwdriver as standard, but are also available with cord- or lever-operation.

Manufactured with linked aluminium extruded blades, in sizes to suit any Waterloo Grille or Diffuser, they are useful for fine airflow regulation and can be adjusted from fully open to closed low-leakage position.

Product Description

- OBSS** Opposed Blade Damper, Screwdriver operated
- OBCO** Opposed Blade Damper, Cord operated
- OBSL** Opposed Blade Damper, Short Lever operated
- OBLL** Opposed Blade Damper, Long Lever operated
- BLACK** Painted black to prevent through vision

Features

- Linked aluminium extrusions for limited extra weight
- Large choice of adjustments to suit any configuration
- Can be fitted to virtually any Waterloo Grille or Diffuser

Finishes

Extruded aluminium blades

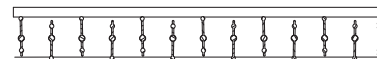
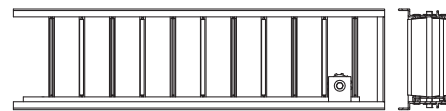
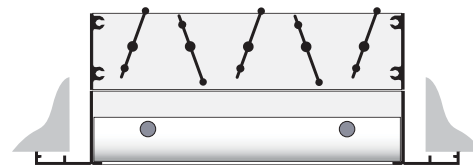
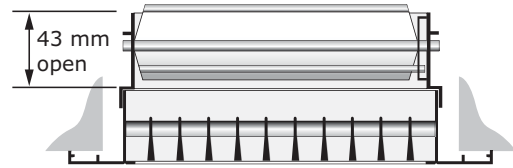
Sizes

Minimum Size - 100 x 75

Minimum Size for Plasterline - 100 x 50

Maximum Size - single section 800x600mm

Multiple sections will be banked to accommodate larger terminal sizes.



ORDER EXAMPLE

OBSS/Black/600/200/For ALN

Damper type _____
Options _____
Terminal Length _____
Terminal Width _____
Terminal type _____

ED Equalising Dampers (Directional Blades Incapable of Shut Off)

Introduction

Waterloo ED Equalising Dampers are manufactured to suit virtually the whole of our square / rectangular Air Terminal range and can be fitted to the neck of the terminals or inside plenum box.

They are individually adjustable to control air direction and may be used for localised blanking.

Manufactured with aluminium extruded blades, in sizes to suit any Waterloo Grille or Diffuser, they can be adjusted manually by removing the Grille or Diffuser core.

Product Description

- ED** Equalising deflector
- BLACK** Painted black to prevent through vision

Features

- Aluminium extrusions for limited extra weight
- Individually adjustable for fine airflow regulation
- Can be fitted to virtually any Waterloo Grille or Diffuser

Finishes

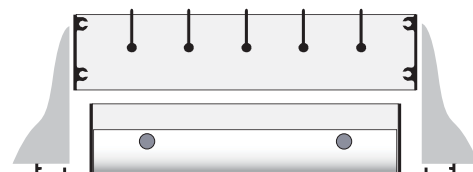
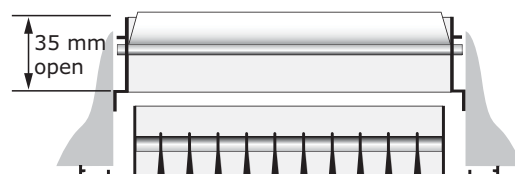
Extruded aluminium blades

Sizes

Minimum Size - 100 x 50

Maximum Size - single section 800x600mm

Multiple sections will be banked to accommodate larger terminal sizes.



ORDER EXAMPLE

ED/Black/600/200/For A CSF

Damper type _____
Options _____
Terminal Length _____
Terminal Width _____
Terminal type _____

LD Butterfly-style Louvre Damper

Introduction

Designed to adjust the airflow in our Format Circular Diffusers MC, WR and Perforated faced diffusers LF, CPD, KRCP the LD butterfly dampers allow for the air to be regulated prior to distribution through the terminals.

They are adjustable from the front of the Diffuser with a screwdriver and are made in aluminium.

They allow for the airflow to be left fully open, or restricted to closed low-leakage configuration when the damper is in the shut-off position.

Product Description

LD Butterfly-style Louvre Damper, Screwdriver operated

Features

- Screwdriver operated from terminal face

Finish

LD Aluminium blades

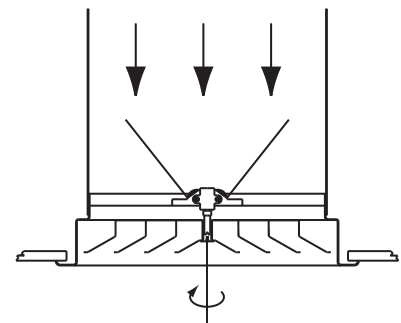
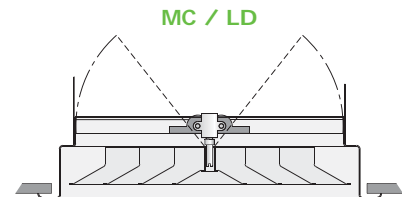
Dimensions

MCØ 150 / 200 / 300 / 450mm

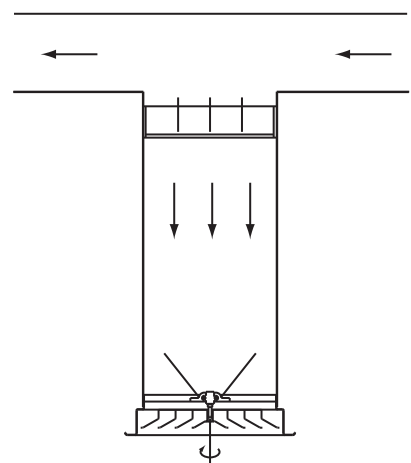
WRØ 150 / 200 / 250 / 300 / 375 / 450 / 525 / 600mm

Also sizes to suit standard circular spigots.

Note – the LD can only be selected with the MC or WR Circular Diffusers and the KRCP, CPD, LF perforated diffusers



LD - Standard arrangement for supply ducts.
Adjustable through diffuser face.



ED & LD - Equalisation at stub duct take

ORDER EXAMPLE

MC/300 DIA/BLINDFIX/PPM9010/LD
 Diffuser type _____
 Diffuser diameter _____
 Fixing _____
 Finish _____
 Butterfly damper _____



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

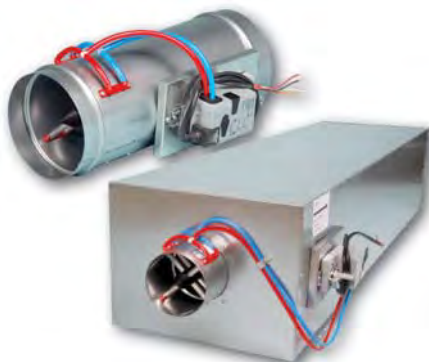
Designed to be installed in various ceiling systems, we have a complete range to suit both performance and aesthetical requirements. Most diffusers are made from aluminium and can be ordered with or without plenum boxes for easy duct work. Diffusers can be ordered in customer specified colours (PPM/G); 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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