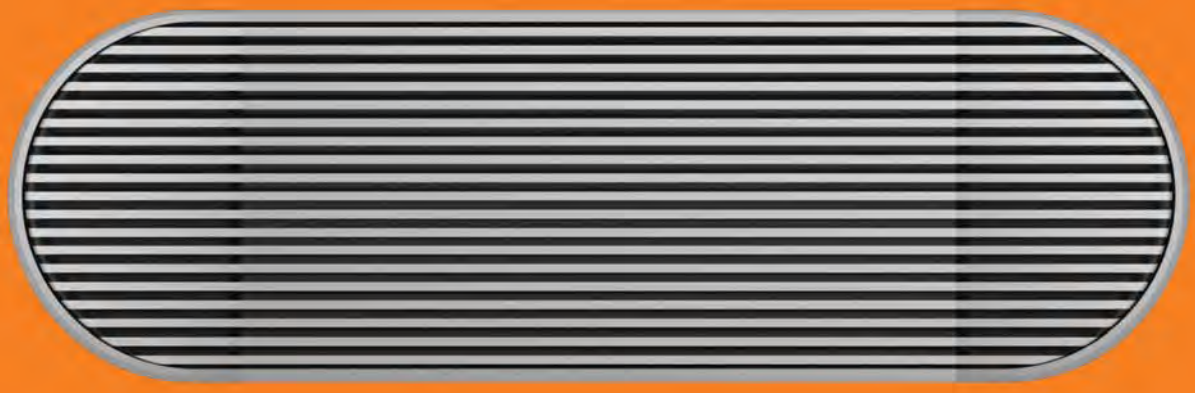
WATERLOO
A Swegon Group Company

Urban Grilles

UC Urban Curve

UF Urban Flat

UE Urban End



Urban End

Urban Curve

Urban Grilles

UC / UF / UE

Introduction

The Waterloo Urban Grille range has been designed with the industrial design aesthetic in mind, allowing for exposed duct work to become a feature of the building.

Product Description

1- Urban Curve

Curved to match oval or circular ducting. Flat blades only. For side fitting to radiused face of duct.

UCG 0° 3mm thick blade, 12.5mm pitch
UCN 0° 6mm thick blade, 12.5mm pitch
UCA Adjustable horizontal or vertical blade
(note: core is flat and not curved)

Options

- RAB Adjustable blades horizontal or vertical (Flat core)

2- Urban Flat

A flat grille to suit vertical throw when installed on the underside of ducting.
For flat face of duct. Blades parallel with centre-line of duct (See Airline Grilles for sizing, performance details and construction)

UFG 0° 3mm thick blade, 12.5mm pitch
UFJ 15° 3mm thick blade, 12.5mm pitch
UFN 0° 6mm thick blade, 12.5mm pitch
UFM 15° 6mm thick blade, 12.5mm pitch
UFF 45° 5mm thick blade, 12.5mm pitch
2UFJ 2 way 15° 3mm thick blade, 12.5mm pitch
2UFF 2 way 45° 5mm thick blade, 12.5mm pitch
2UFM 2 way 45° 6mm thick blade, 12.5mm pitch

Options

- 10mm blade pitch available with 3mm blades

3- Urban End

Designed to fit into the vertical end of flat oval duct or round. Blades are available in various angles to suit the throw characteristics required from the installation.

UEG 0° 3mm thick blade, 12.5mm pitch
UEJ 15° 3mm thick blade, 12.5mm pitch
UEN 0° 6mm thick blade, 12.5mm pitch
UEM 15° 6mm thick blade, 12.5mm pitch
UEF 45° 5mm thick blade, 12.5mm pitch

Options

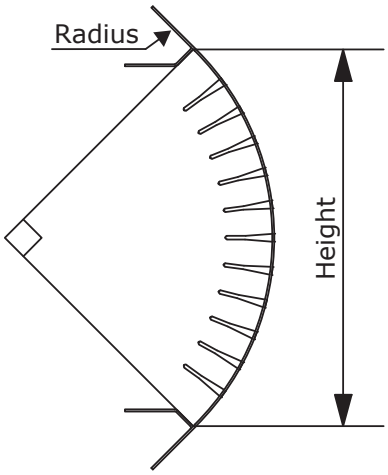
- HB Horizontal blades
- VB Vertical blades

Features

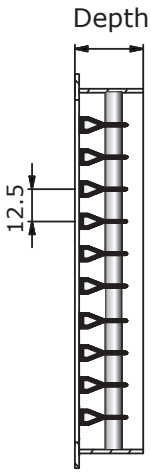
- The grilles are left in their raw finish to complement the popular 'Urban' style which includes exposed duct work.
- Urban grilles are available is 3 styles which allows for installation into any air distribution design.

Finishes

Raw unfinished.



Urban Curve



Urban End

Free Area					
Pitch	UCG UFG UEG	UFJ UEJ	UCN UFN UEN	UFM UEM	UFF UEF
12.5mm	74%	74%	44%	49%	49%

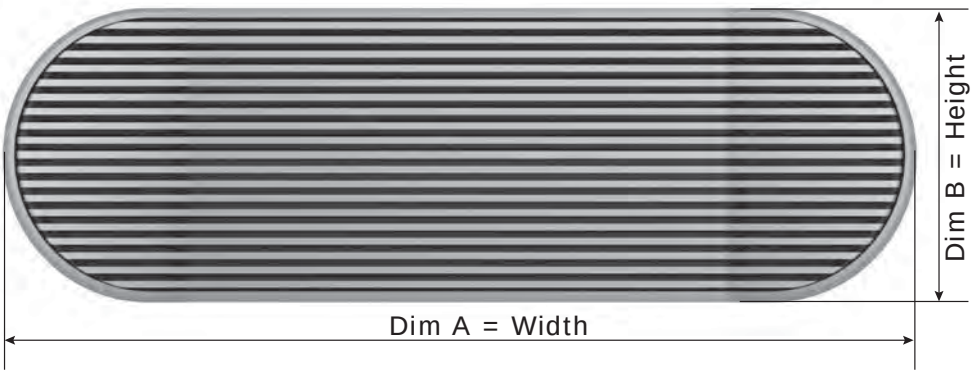
Order Example

UCG/320/250/R25/SF/OBSS

Type
Nominal Width
Duct size
Border
Fixing
Options

Urban Grilles

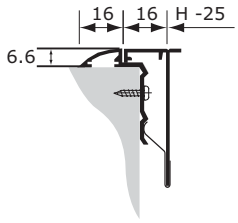
UC / UF / UE



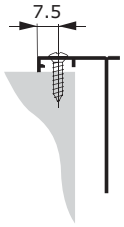
Flat oval duct sizing										
Standard ISO R20 duct size range		Height of duct mm								
Dim B		76	102	127	152	203	254	305	356	406
160	Width of duct mm (Dim A)	320								
180		401								
200		521	386							
224			467	371						
250				452	399					
280					478					
315					638					
355					800	610				
400					1039	770	582			
450						932	742	632		
500						1171	902	792		
560							1143	955	846	737
630							1626	1196	1006	897
710							1950	1598	1326	1138
800									1727	1539
900										1941

Notes: Urban end grilles are built to suit standard duct dimensions but are available to fit any width requested.

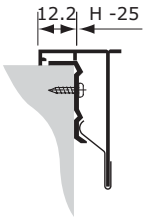
Controls and Fixing Options
Fixing Options



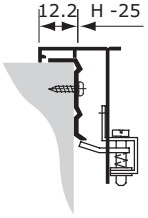
Frame: R16
Mounting: RCCF



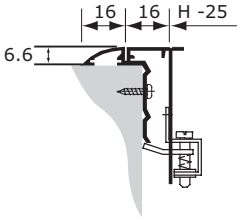
Frame: R25 / R32
Mounting: SF



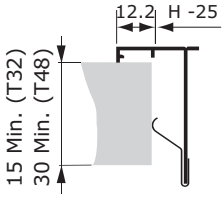
Frame: R25 / R32
Mounting: AFCF



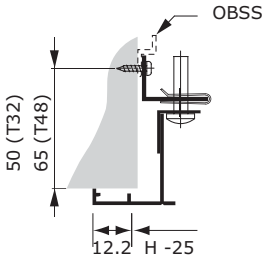
Frame: R25 / R32
Mounting: AFHS



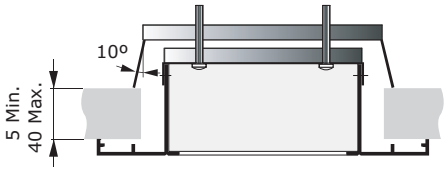
Frame: R16
Mounting: RCHS



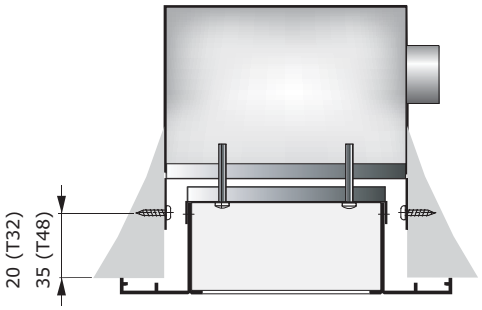
Frame: R16 / R25 / R32
Mounting: CF



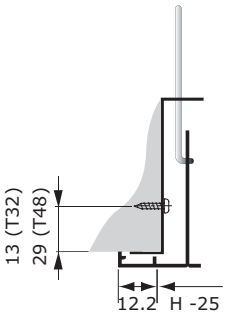
Frame: R16 / R25 / R32
Mounting: CRB



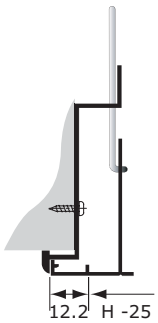
BSSBD (R16 / R25 / R32)
Duct / Plasterboard fixing



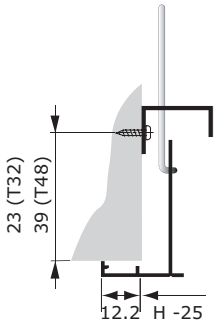
BSSBP (R16 / R25 / R32)
Plenum fixing (-15mm)



Frame: R25
Mounting: AFVS

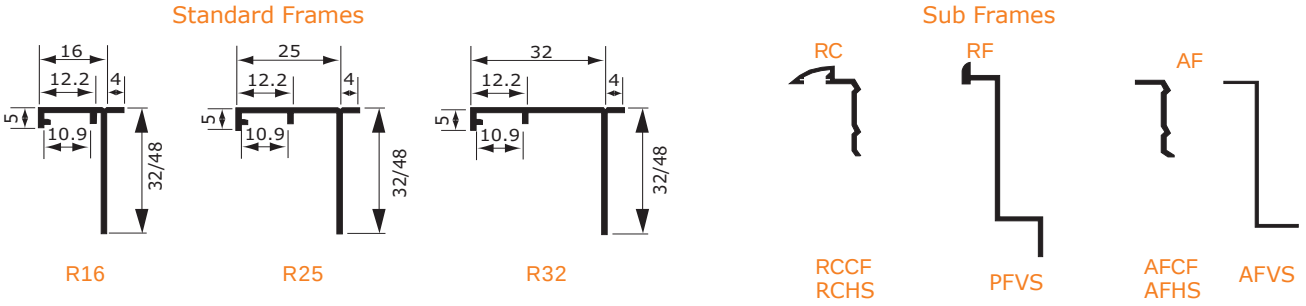


Frame: R25
Mounting: PFVS



Frame: R16 / R25 /R32
Mounting: VS

Standard Frames



Overall Grille Sizes
Grille with R16 = Nominal W/H + 7mm
Grille with R25 = Nominal W/H + 25mm
Grille with R32 = Nominal W/H + 39mm
Grille with RC = Nominal W/H + 39mm
Grille with PF = Nominal W/H + 21mm

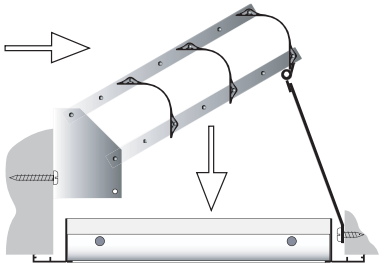
Note:
AF and RC subframes can be made to a maximum size of 800mm in any direction in one piece. For sizes above that, we supply in parts for assembly on site by others.

DT-2M - Duct Fitted

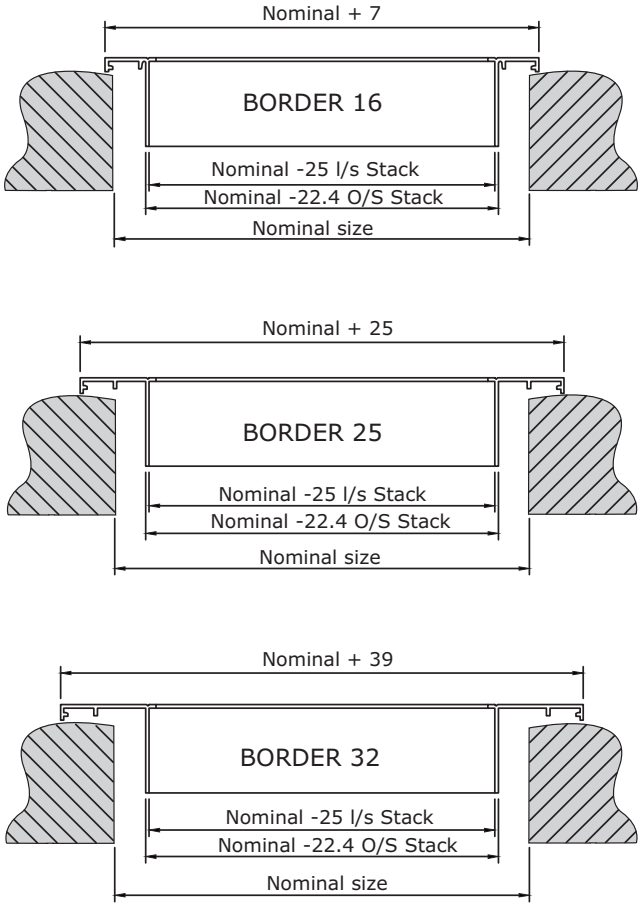
The hinged strip is used to calibrate the amount of air desired, by altering the angle of the blades and therefore altering the amount of disruption to the airflow.

Sizes for DT-2M
Width = 100 - 1225
Height = 75 - 425

Correction for Grille + Damper		
Supply 0° spread	dBA + 2	P_s x 1.3
Supply 45° spread	dBA + 2	P_s x 1.1
Exhaust	dBA + 2	P_s x 1.2



Grille Nominal Sizes



Grille Fixing Selection

Types	SF	CF	CRB	VS	AFVS	PFVS	BSSB	AFCF	AFHS	RCCF	RCHS
1H / 2H / 1V / 2V	A/C	A	A/C	A/C	A/C	A/C	A/B/C	A	A/C	A	A/C
1KH / 2KH	A/C										
1KV / 2KV	A/C										
1HM / 2HM	A/C										
1VM / 2VM	A/C										
PER / 3HF	A/C	A		A/C	A/C	A/C		A		A	
GC5 / 3HG / 3HJ	A/C	A	A/C	A/C	A/C	A/C	A/B/C	A	A/C	A	A/C
ALF / 2ALF	A/C	A		A/C	A/C	A/C		A		A	
ALN / ALM / ALG / ALJ	A/C	A	A/C	A/C	A/C	A/C	A/B/C	A	A/C	A	A/C
ALG2 / ALJ2	A/C	A	A/C	A/C	A/C	A/C		A	A/C	A	A/C
ALM2 / ALN2	A/C	A	A/C	A/C	A/C	A/C		A	A/C	A	A/C
2ALM / 2ALJ / ALG10 / ALJ10	A/C	A		A/C	A/C	A/C		A		A	A/C
NSA / NSB / DVA / DVB	A/C										
DVC / NSC	A/C	A		A/C	A/C	A/C		A		A	
RTC / 2RTC	A/C										
BORDER STYLES	25T/32T	16T/25T/32T	16T/25T/32T	16T/25T/32T	25T/32T	25T	RTC/16T 25T/32T	25T/32T	25T/32T	16T/RTC-R16	16T/RTC-R16

A = SUITABLE FOR DUCTING AND WALL
B = SUITABLE FOR PLASTERBOARD
C = SUITABLE FOR CEILING

Removable Cores

Types	Removable	RCCF	RCHS	PFVS	AV	AFCF	AFHS	RTC	RCG - GC5	Special
1H/2H/1V/2V	Grille	B	B	B	N	N	N			
PER/GC5	Grille	B	B	B	N	N	N			
RCG - GC5	Core								B	
3HG/3HJ	Grille	B	B	B	N	N	N			
3HG/3HJ	Core							B		B
3HF/ALF	Grille	B		B	N	N				
3HF/3HJ	Core							B		B
ALN/ALM/ALG/ALJ	Grille	B	B	B	N	N	N			
ALN/ALM/ALG/ALJ	Core							B		B
ALG10/ALJ10	Grille	B		B	N	N				
ALG10/ALJ10	Core							B		B
NSC/DVC	Grille	B		B	N	N				
RTC/2RTC	Grille	B								
RTC/2RTC	Core							B		

B = BEADED FRAME
N = NON BEADED FRAME
RTC = R5 OR R16 FRAME WITH CORE AND PACKERS
SPECIAL = PART 6200001 FRAME WITH CORE AND BRACKET INCORPORATING TERRY CLIP

Control Options - Grille Mounted

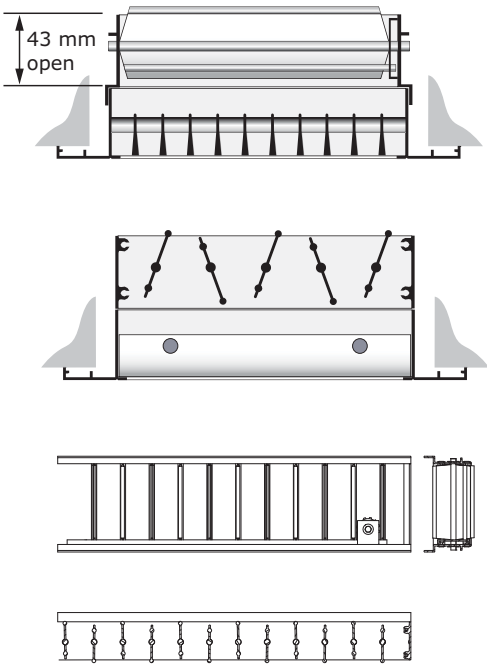
OBSS Opposed Blade Damper (Volume Control Damper)

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/300/300/Black/ To suit a 1H

- Damper type
- Terminal length
- Terminal width
- Options
- Terminal type

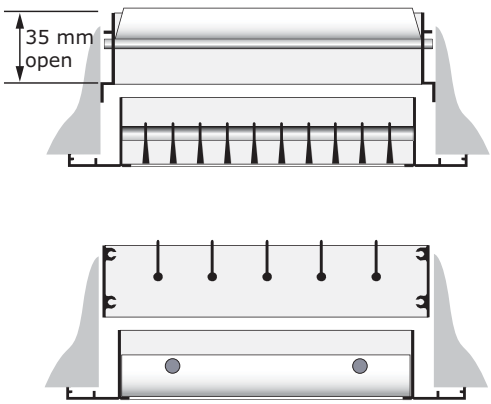
ED Equalising Dampers (Directional Blades Incapable of Shut Off)

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/300/300/Black/ To suit a 1H

- Damper type
- Terminal length
- Terminal width
- Options
- Terminal type

Plenum Boxes

Grille Plenum Boxes

Introduction

Correct selection and sizing of distribution plenum chambers is critical because grille air resistance is very low relative to the distribution ductwork resistance. It is therefore recommended that whenever possible grilles are served by low velocity stub ducts from branch ducting systems fitted with correct balancing controls.
Where it is necessary to specify and use grille plenums a generous allowance for commissioned noise generation should be made.

Product Description

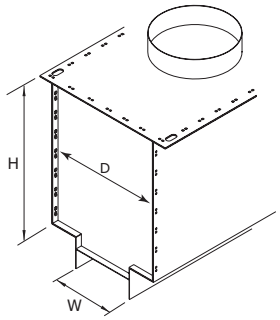
PBG	Individual grille plenum
PBG/LL	Low line grille plenum
NRG	Neck reducer
PBLG	Linear grille plenum
PBLG/LL	Low line linear grille plenum
PBSG	Security grille plenum

Spigot Options

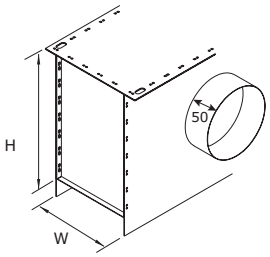
SE	Side Entry
TE	Top Entry
1CC	1- Circular Connection
1RC	1- Rectangular/Square Connection
1FO	1- Flat Oval Connection

Features

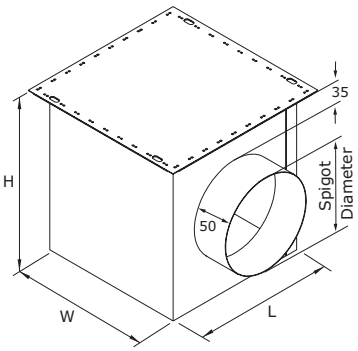
- Plated steel with stitched seam joints.
- Standard circular connection diameters: 97, 122, 157, 197, 247, 312 and 397 Ø
- Available with circular, square,rectangular or flat oval spigots in either top or side entry applications
- Standard or Low-line configurations
- Optional 6mm internal thermal/acoustic lining



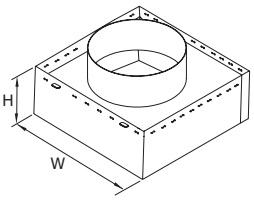
PBLG/LL - Top entry Low-line linear grille plenum box.



PBLG - Side entry Linear grille plenum box.



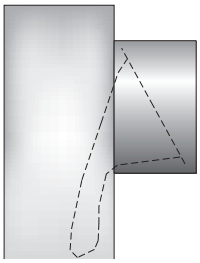
PBG - Side entry grille plenum box



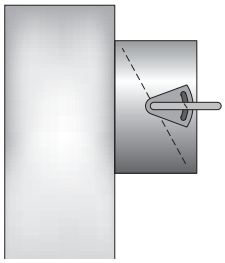
NRG - Neck Reducer

Note: The connection between the grille 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.

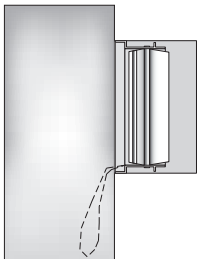
Control Options



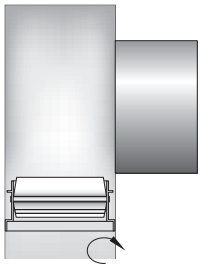
FDC
Cord operated flap damper for mounting within circular spigots to plenum chambers. The cord should be fed through the air terminal device ready for commissioning.



FDQ
Flap damper with external quadrant control for mounting within circular spigots to plenum chambers. The quadrant is accessible from outside the duct and the damper can be locked in any position.



OBCO
Cord operated opposed blade damper for installation within square or rectangular spigots to plenum chambers. The cord should be fed through the air terminal device ready for commissioning.



OBSS / ED
Standard opposed blade damper for diffuser or duct mounting. Adjustable by screwdriver inside the duct or through the face of the air terminal device. The ED is an individually adjustable blade device for equalising airflow across the diffuser.

Finish

PBG/NRG Galvanised sheet steel

Dimensions

Length	Extract Grille length
Width	Extract Grille width
Height	SE – Spigot diameter or height + 100mm as standard
	TE – as specified by customer (200mm minimum recommended)

Order

When ordering plenum chambers please specify length, width & height, spigot size and position (Top or Side Entry) and control options. Please note that the plenum height should in general be 100mm greater that the spigot diameter (Side Entry applications).

Plenum Order Example

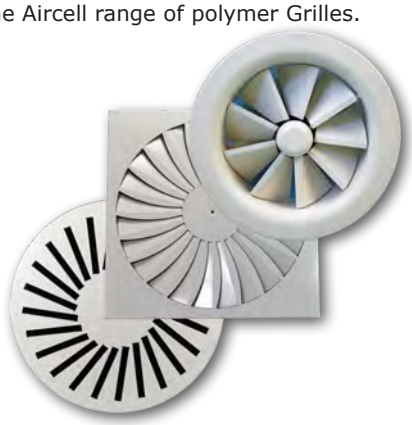
PBG-1H/570/570/400/SE/1CC/157dia/Lined

- Type
- Plenum box length
- Plenum box width
- Plenum box height
- Spigot position
- Spigot type
- Spigot size
- Acoustic lining

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.



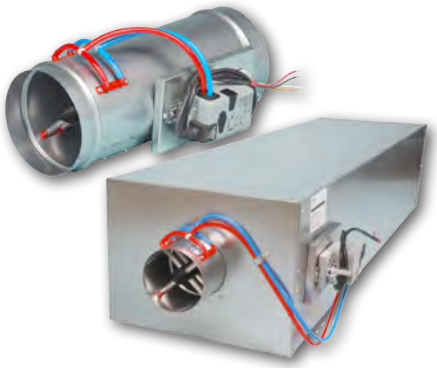
DIFFUSERS

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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EMS 590755

Waterloo declare that, at the time of print, all products are in accordance with relevant directives, as identified by HEVAC and other European Organisations and will display the CE Marking where required.

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