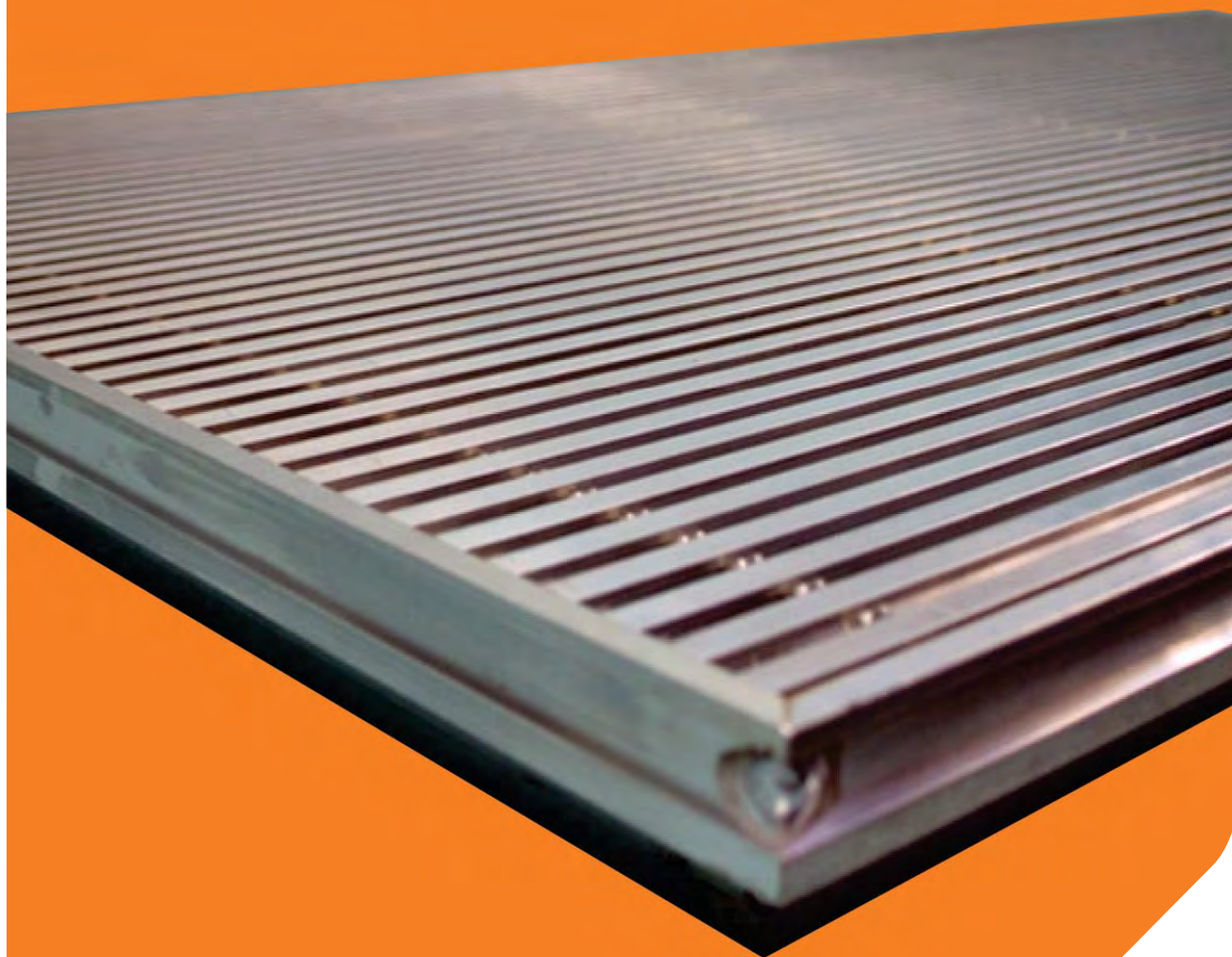


# Heavy Duty Floor Grilles - Linear

HDFGL Linear





## Heavy Duty Floor Grilles - Linear HDFG-L

### Introduction

The Waterloo HDFG heavy duty floor grille has been designed for commercial and industrial applications where heavy foot traffic is experienced. The L type is for linear applications; it is available with a recessed border style. This improved design is suitable for use with most types of raised floor pedestal system.

### Product Description

**HDFG-L** Linear  
**OBSS** Opposed blade damper  
**BL** Blanking plate

### Features

- Reversible core (0° or 15° discharge)
- Suitable for most pedestal flooring systems
- Facility for on site blanking
- Recessed border style
- Border alignment facility

### Finish

Mill finish as standard, powder or antistatic nylonic coating options available on request.

### Advantages

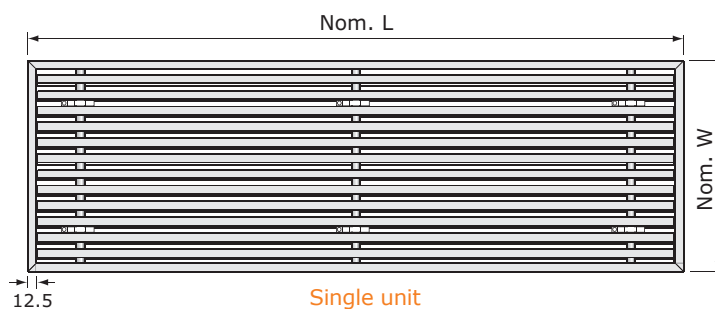
- Integrated design features - enabling tile and linear grille combinations for aesthetic continuity
- Improved additional strength design
- Easy "Drop in" installation
- Convenient damper adjustment

### Weights

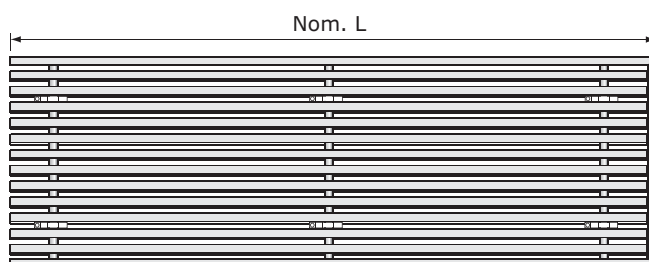
HDFG-L 18.0 kg/m<sup>2</sup> face area  
OBSS 9.5 kg/m<sup>2</sup> face area

### Sizes

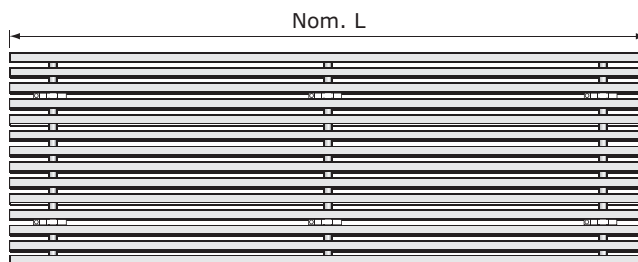
Length maximum single section 1000mm  
Width minimum 100mm  
maximum 600mm



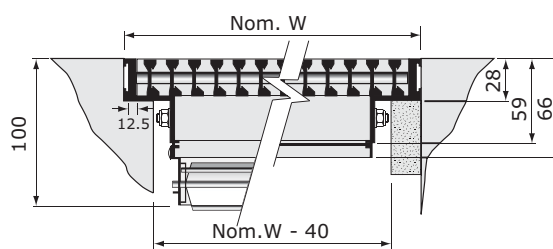
Single unit



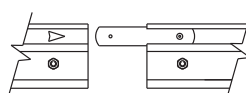
End section



Intermediate section



HDFG-L + OBSS // HDFG-L + BL



2 alignment strips supplied with each section for site fixing.

Free Area

47%

### ORDER EXAMPLE

HDFG-L/1000/300/MILL/OBSS/BL

Type \_\_\_\_\_  
Section Length \_\_\_\_\_  
Section Width \_\_\_\_\_  
Finish \_\_\_\_\_  
Damper \_\_\_\_\_  
Blanking Plate \_\_\_\_\_



## Heavy Duty Floor Grilles - Linear

HDFG-L

### Selection Example

HDFG-L / 1200x200

Air Volume 250 l/s/m

Throw 3.6 m

Pressure Drop 7 Pa

Noise Level 27 dBA

Spectrum Corrections

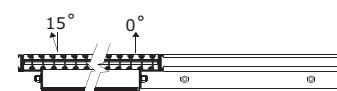
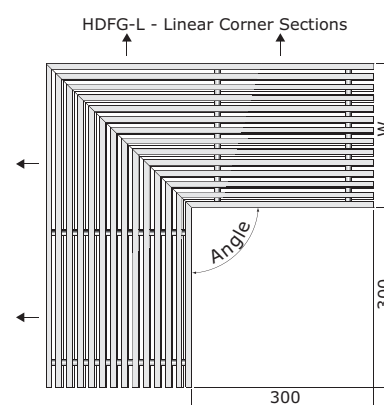
Frequency (Hz)	125	250	500	1k	2k	4k
Supply	+9	+13	+12	+6	+2	-2
Exhaust	+9	+11	+12	0	-5	-11

Performance Table

HDFG-L			Supply Nom. Grille Width (mm)						Extract Nom. Grille Width (mm)					
m³/h/m	l/s/m		100	150	200	300	450	600	100	150	200	300	450	600
180	50	T	1.8											
		P <sub>s</sub>	2						3					
		L <sub>w</sub>	<20						<20					
270	75	T	2.7	1.5										
		P <sub>s</sub>	4	1					6	2				
		L <sub>w</sub>	<20	<20					<20	<20				
360	100	T	3.6	2.3	1.3									
		P <sub>s</sub>	7	3	1				13	4	2			
		L <sub>w</sub>	27	<20	<20				32	<20	<20			
450	125	T	4.4	2.7	1.8									
		P <sub>s</sub>	12	4	2				20	6	3			
		L <sub>w</sub>	34	<20	<20				39	<20	<20			
540	150	T	5	3.2	2.3	1.3								
		P <sub>s</sub>	16	6	3	1			28	9	4	2		
		L <sub>w</sub>	37	25	<20	<20			44	28	<20	<20		
630	175	T	5.5	3.6	2.7	1.7								
		P <sub>s</sub>	22	7	4	2			37	13	6	3		
		L <sub>w</sub>	40	27	<20	<20			48	32	<20	<20		
720	200	T	6	4.2	3	2								
		P <sub>s</sub>	29	10	6	3			50	17	9	4		
		L <sub>w</sub>	44	31	<20	<20			52	37	26	<20		
900	250	T		4.9	3.6	2.5	1.3							
		P <sub>s</sub>		16	7	4	1			28	13	5	2	
		L <sub>w</sub>		37	27	<20	<20			43	32	<20	<20	
1080	300	T		5.5	4.3	2.7	1.8	1.2						
		P <sub>s</sub>		22	11	4	2	1		37	18	6	3	2
		L <sub>w</sub>		41	32	<20	<20	<20		48	37	<20	<20	<20
1440	400	T		7.3	5.7	4	2.7	2						
		P <sub>s</sub>		32	22	10	4	2			39	17	6	3
		L <sub>w</sub>		50	41	31	<20	<20			50	36	<20	<20
2160	600	T			7	5	3.6	2.7						
		P <sub>s</sub>			44	17	7	4				30	13	6
		L <sub>w</sub>			48	37	27	<20				48	32	<20
2880	800	T				6.2	4.5	3.4						
		P <sub>s</sub>				30	13	7					22	10
		L <sub>w</sub>				44	35	25					42	30
3600	1000	T				7.2	5.5	4.3						
		P <sub>s</sub>				47	21	11					36	18
		L <sub>w</sub>				49	42	33					50	40

### Load Deflection Characteristics

- HDFG-L Floor Grille 300mm**  
**Wide** Load applied on grille centre line distributed over 25mm x 25mm point between blade supports. Maximum recommended point load 360kg.
- HDFG-L Floor Grille 600mm**  
**Wide** Load applied on grille centre line distributed over 25mm x 25mm point between blade supports. Maximum recommended point load 180kg.



### Note:

Orders for corner sections will be made to the configuration shown with a 90° angle. Requirements for angles other than 90° should be identified with a customer drawing or site template.

Orders for installations which include corner sections should clearly identify any preference for core discharge angle relative to the layout (0° or 15°). Unless specified otherwise, corners will be manufactured for 0° deflection.

### ORDER EXAMPLE

HDFG-L/300/90°/300/100/MILL  
 Type \_\_\_\_\_  
 Length 1 \_\_\_\_\_  
 Corner Angle \_\_\_\_\_  
 Length 2 \_\_\_\_\_  
 Section Width (W) \_\_\_\_\_  
 Finish \_\_\_\_\_



## 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

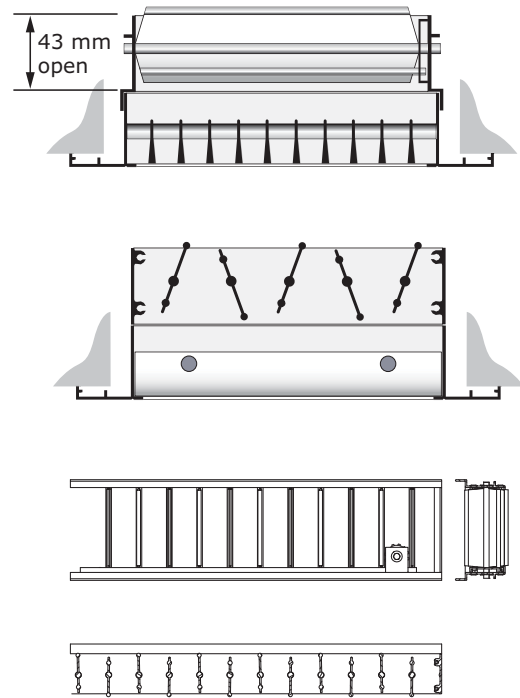
### Sizes

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 \_\_\_\_\_



## 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

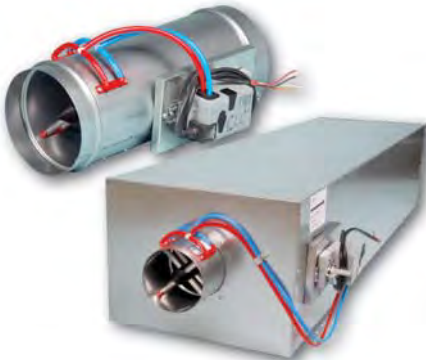
Designed to be installed in various ceiling systems, we have a complete range to suit both performance and aesthetical requirements. Most diffusers are made from aluminium and can be ordered with or without plenum chambers for easy duct work. Diffusers can be ordered in customer specified colours (PPM/G);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