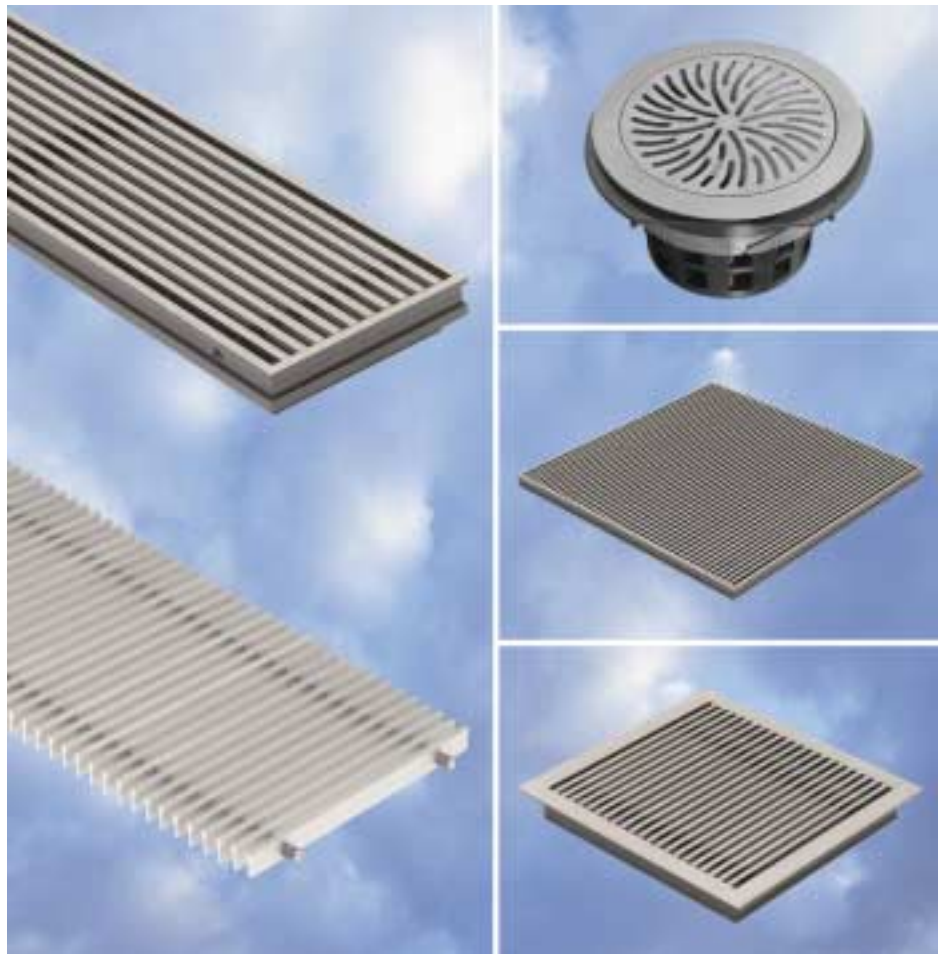


Air Diffusion

Swirl, Panel and Linear Floor Grilles & Diffusers

Features

- **Model TAFR**
Circular Floor Swirl
- **Models LDA, MDA & HDA**
Recessed Panel Floor Grilles
- **Model PFS**
Recessed Panel Floor Grille
- **Model F48**
Flanged Panel Floor Grille
- **Model FG**
Recessed Linear Floor Grille
- **Models F20 & F25**
Flanged Linear Floor Grilles
- **Model RO**
Roll Out Floor Grille



Air Diffusion

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Model MDA Medium Duty Recess Mounting Panel Grille, from extruded aluminium sections, suitable for square tile replacement in medium traffic applications.	Pages 8 – 9
Model HDA Heavy Duty Recess Mounting Panel Grille, from extruded aluminium sections, suitable for square tile replacement in heavy traffic applications.	Pages 10 – 11
Model PFS Heavy Duty Recess Mounting Panel Grille, from extruded aluminium sections having a steel reinforced sub-frame, suitable for square tile replacement in heavy traffic applications.	Pages 12 – 13
F48 Heavy Duty Flanged Surface Mounting Floor Grille, constructed from extruded aluminium sections and having a 48mm wide flange, suitable for square tile replacement in heavy traffic applications	Pages 14 – 15
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Introduction

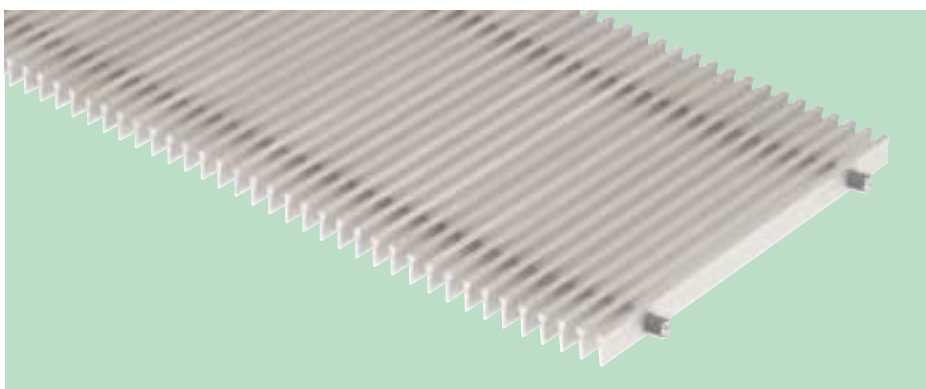
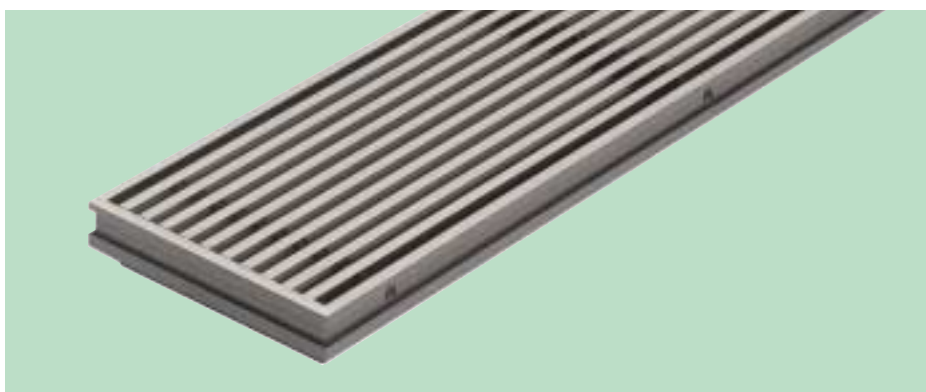
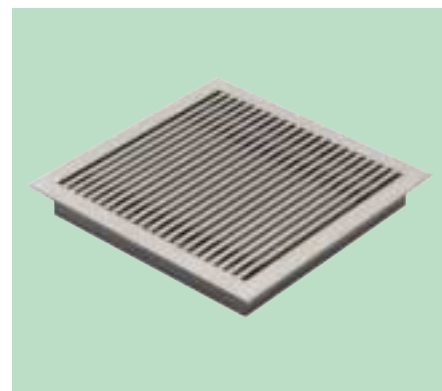
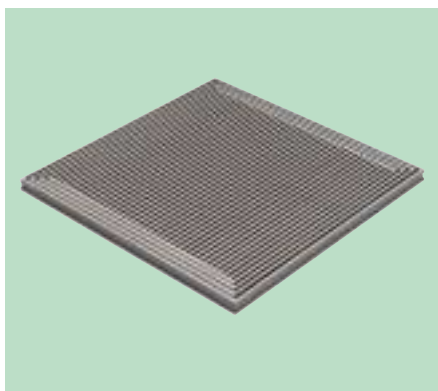
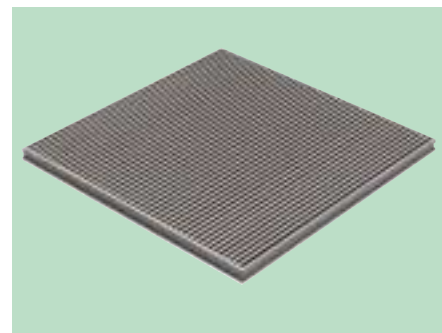
Under Floor Air Distribution

Increasingly under floor air distribution systems are used in many buildings and not just for computer rooms. Under floor systems allow the designer flexibility in space planning and meeting client needs in endlessly changing internal environments. Versatility is coupled with economics to provide quick and easy relocation of the air terminal device by simply lifting and re-positioning the tile, adding to the popularity of these systems.

There are many types of floor mounted air terminal devices for use in domestic, industrial, commercial and computer room applications, for both the supply of treated air and for extract from the occupied space.

When positioning floor grilles or diffusers care should be taken to ensure that the final location complies with the relevant legislation for Health and Safety in the work place.

To satisfy the demand for under floor air distribution systems **Air Diffusion** have brought together the most comprehensive range of Floor Grilles and Diffusers, which includes circular floor swirls, an extensive range of panel floor tile replacement and linear style grilles to suit most proprietary floor installations and applications.



Specification

Description

Model TAFR circular floor swirl diffuser blends both form and function into its design. The diffuser face possesses a series of curved slots, which provides a high induction helical air pattern and yet results in an astonishingly low plenum pressure, making it ideal for most applications using pressurised under floor air distribution systems.

Cleverly incorporated into the design is a manual air volume damper, which is easily adjusted by simply rotating the diffuser face. Each diffuser is supplied with M6 grub screws as a damper locking screw. Visual status of the damper position is via the external open/close indicator coupled with the internal open/close stop. There is no need to remove the diffuser face, a

unique feature only found in the Model TAFR.

Each diffuser also includes a dirt/dust collection receptacle, which is easily removed for cleaning.

Construction

Constructed from durable high impact polycarbonate material, manufactured to comply with UL 94-5V standard for flammability and smoke.

Dimension and Finish

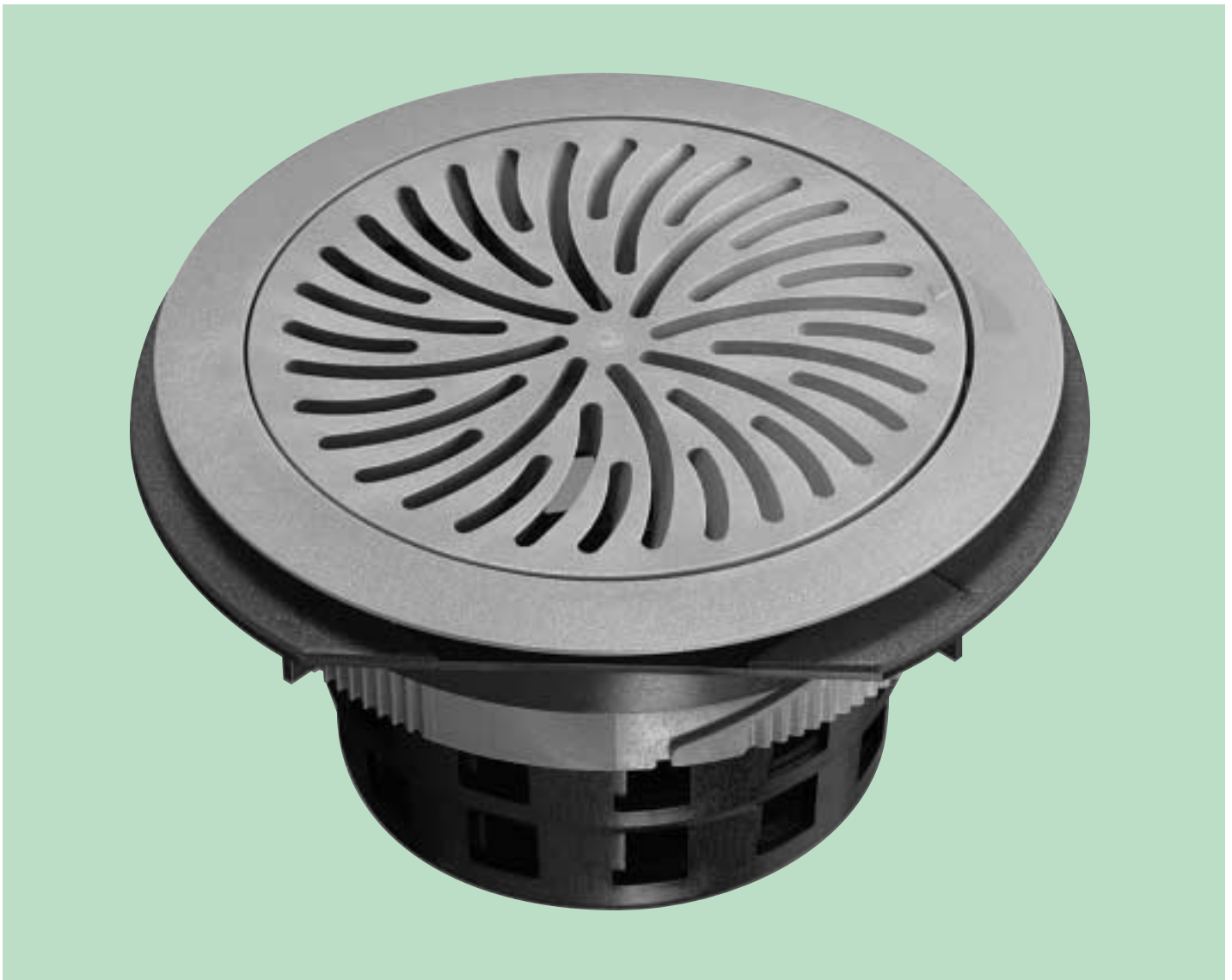
Model TAFR is supplied in a standard nominal size of 200mm diameter and is available in two standard finishes: Black or Grey.

Standard Installation Method

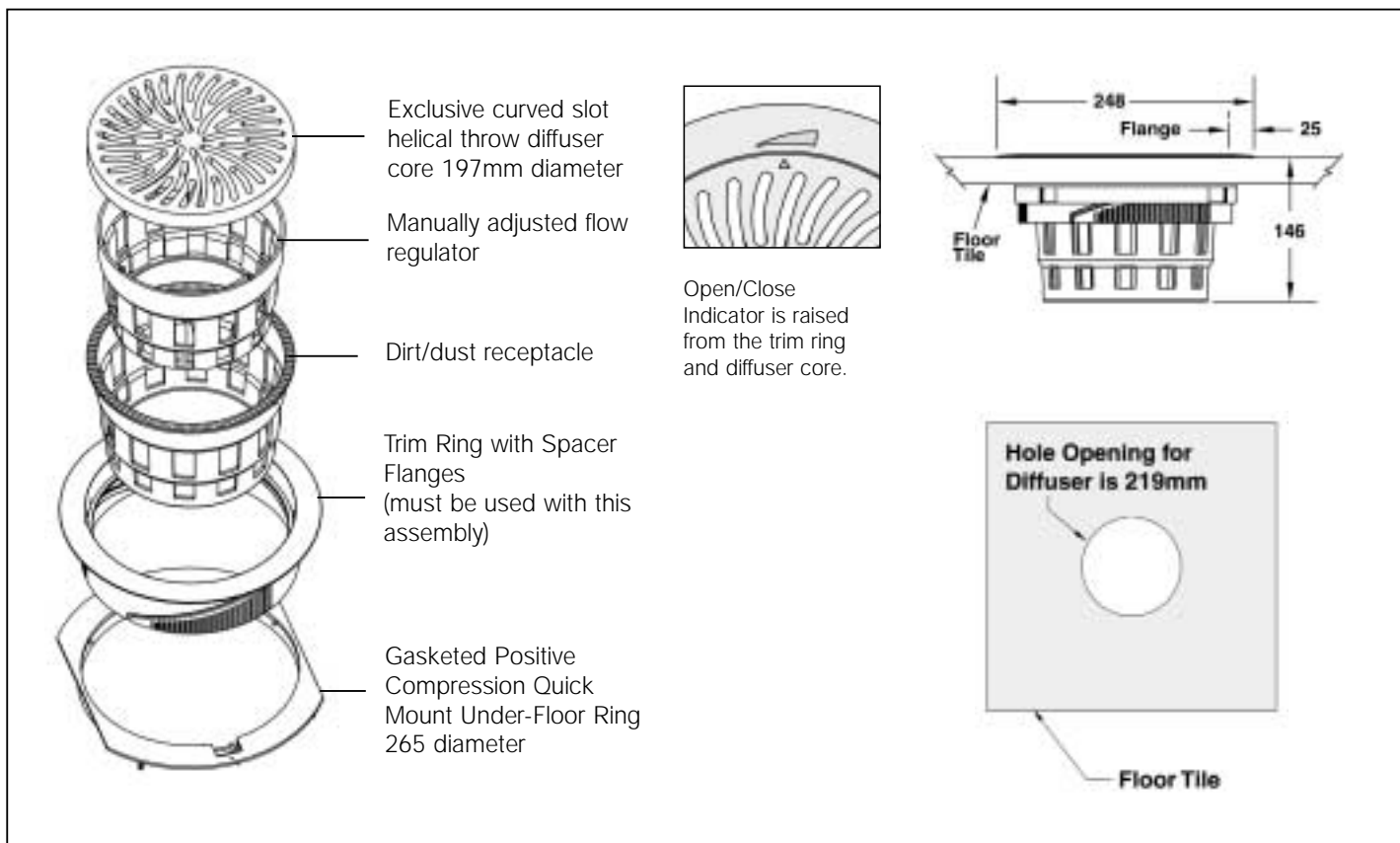
Floor panel installation into a prepared opening is by, quick mount under floor,

positive compression, gasketed ring for rapid and secure fixing. The extra wide flange is to prevent carpet, pulling away from the diffuser edge. The diffuser may be installed after the flooring or carpet fitting is complete.

Relocation of the diffuser to another area is simply carried out by moving the entire floor panel to the desired new position. Removal of the diffuser from the floor panel is not normally required.



Dimension and Installation Information



Performance Table

200 Dia	Air Volume (l/s)	33	36	38	40	43	45	47	50	52	57
	Plenum Pressure (Pa)	8	10	12	13	14	16	18	19	21	25
	NC Noise Criteria	-	-	-	-	11	13	15	16	18	20
3 Degrees Delta T	Projection (M)	1.60	1.70	1.80	2.00	2.10	2.20	2.40	2.50	2.60	2.70
	Spread (M)	0.36	0.42	0.54	0.57	0.60	0.63	0.66	0.66	0.66	0.66
6 Degrees Delta T	Projection (M)	1.30	1.40	1.40	1.50	1.60	1.60	1.70	1.80	1.90	2.0
	Spread (M)	0.45	0.54	0.6	0.63	0.69	0.72	0.75	0.75	0.75	0.75
9 Degrees Delta T	Projection (M)	1.10	1.20	1.30	1.40	1.50	1.50	1.60	1.60	1.70	1.80
	Spread (M)	0.54	0.60	0.66	0.69	0.72	0.75	0.81	0.84	0.90	1.05

Notes:

NC Values are based on octave band 2-7(125-4000Hz) sound power levels minus a room absorption of 10db.

Dash (-) in space denotes an NC value of less than 10.

Data was obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70-1991.

Spread is the total width of the 0.25 m/s isovel. Projection is the maximum distance above the floor to a terminal velocity of 0.25 m/s.

Both spread and projection data is determined in a room with a 2.7 metre ceiling and a 6 degrees delta T between the supply and average occupied zone temperatures.

Standard Ordering Procedure Example

Model	Fixing	Colour	Size
TAFR	Under-floor ring	Black	200mm
TAFR	Under-floor ring	Black or Grey	200mm diameter (one size only)

Important Note: All orders must be addressed to Air Diffusion, Ruskin Air Management Limited.

Note: Balancing damper supplied as standard

Specification

Description

Model LDA light duty tile replacement panel floor grille is designed to withstand a light loading and or foot traffic. Constructed entirely from aluminium extrusions and having a reinforced frame combines strength with air distribution performance, ideal for use in most general residential premises, private houses and offices, general offices and elderly residences where no heavy equipment is present. Model LDA is suitable for use on either supply or extract systems and may be fitted with an optional opposed blade damper.

To satisfy insulation and safety requirements the exposed surfaces of the grille can have a tough nylon coating applied. Earth terminals are also available when required.

Testing

The grille has been successfully tested without collapse to comply with the specification and structural integrity requirements of British and European test standard BS EN 13264:2001, Light Duty classification.

Finish

Standard finish is brushed aluminium alternatively a black nylon coating or other colours are available. As a special option a Shadow Line finish is also available.

Dimensions

The standard floor grille size is 599mm x 599mm overall, to suit most manufacturers floor panel sizes. Other special sizes are also available.

Standard Installation Method

Each grille incorporates a recessed flange

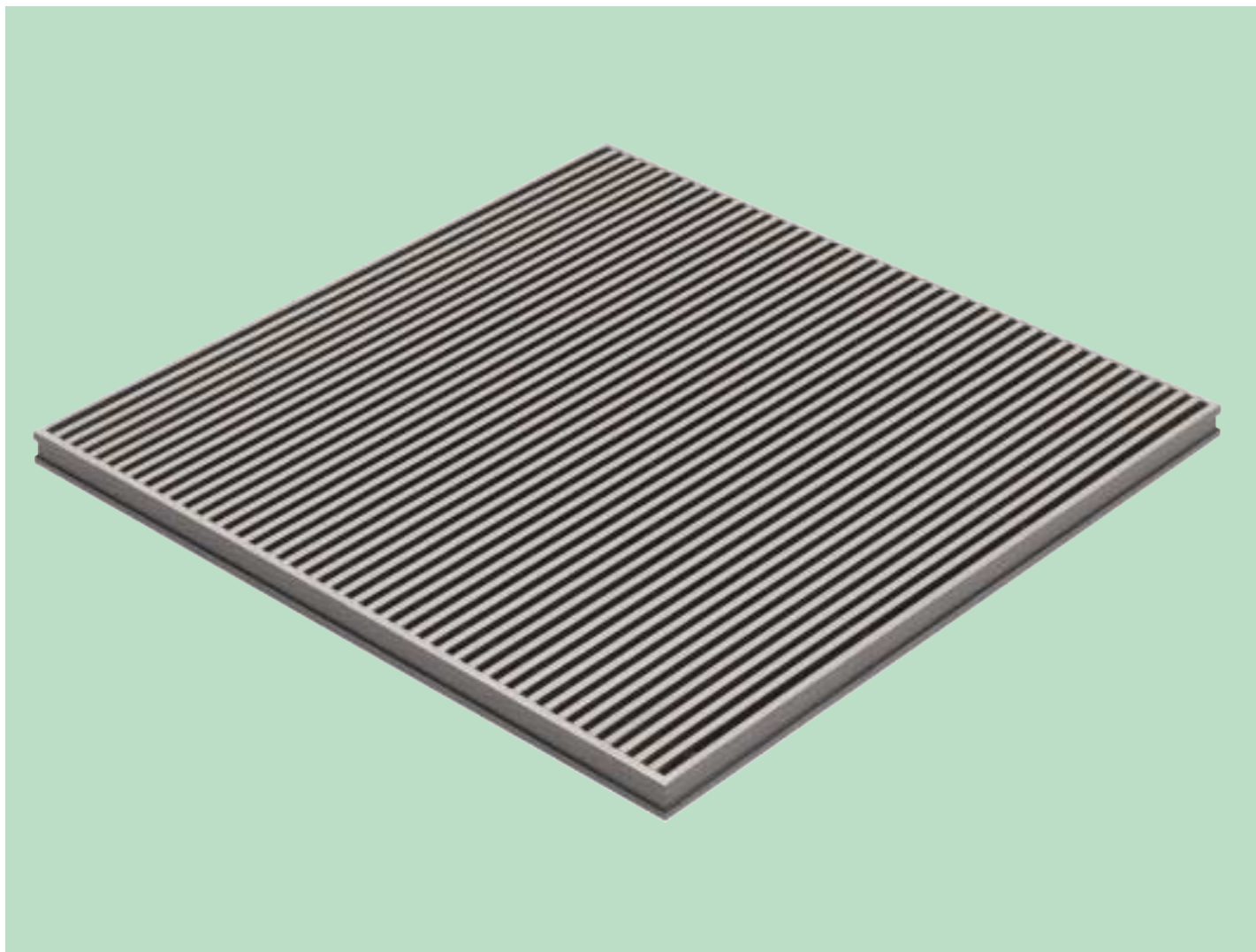
arrangement to allow installation via floor manufacturers raised floor jacks. To ensure a neat installation all grilles, including the final finish covering, are manufactured to match the overall thickness of the corresponding floor panels.

Relocation of the grille to another area is simply carried out by lifting and moving the entire floor grille to the desired new position.

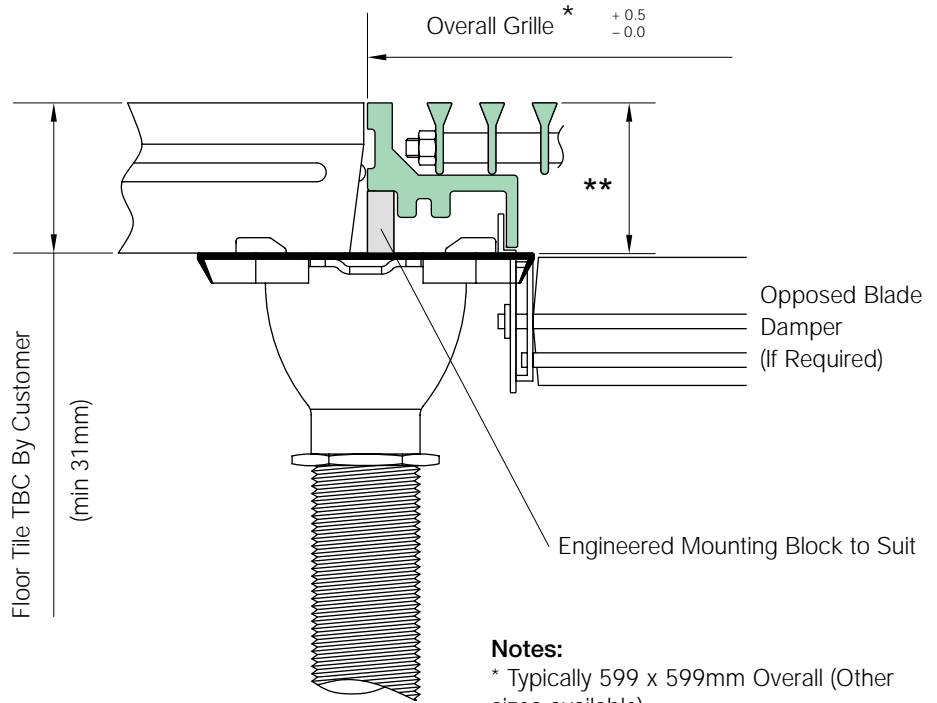
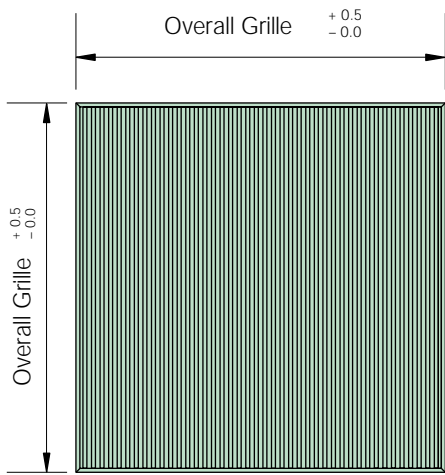
Model Types

Model LDA-G is supplied as grille only.

Model LDA-R is supplied complete with an aluminium opposed blade damper, which is adjusted through the grille core.



Dimension and Installation Information



Model LDA Illustrated.
Typically 599 x 599mm Overall
(Other sizes available).

Notes:

* Typically 599 x 599mm Overall (Other sizes available)

** Floor Tile Depth -0.5mm

Performance Table

Volume (l/s)	Total Pressure (Pa)	Free Area Velocity (m/s)	Duct Velocity (m/s)	Noise Level (NR)
225	6	1.6	0.9	23
340	11	2.4	1.3	29
450	18	3.2	1.7	35
560	25	4.0	2.2	40
670	32	4.8	2.6	45

Notes:

All figures shown include an Opposed Blade Damper set fully open.

When no damper is required a reduction of both 2NR and 2Pa can be applied to the noise and pressure figures stated.

For some projects it is a requirement for safety and insulation that the exposed surfaces of the panel floor grilles are black nylon coated. Other colours are available on request. Earthing terminals can also be supplied as an option.

Although the 599 x 599mm size is the most common other sizes are available.

Standard Ordering Procedure Example

Model	Fixing	Finish	Tile Depth	Size
LDA-G	F0	5	TBC mm	599 x 599mm
LDA-G without OBD	F0 No fixing	5 Standard Brushed Aluminium	Total Panel Thickness including Floor Covering	599mm x 599mm Overall (other sizes to special order)
LDA-R with OBD		94 Black Nylon Coating		
		For special finishes please refer to our Sales Office		

Important Note: All orders must be addressed to Air Diffusion, Ruskin Air Management Limited.

Specification

Description

Model MDA medium duty tile replacement panel floor grille is designed to withstand a medium loading and or foot traffic. Constructed entirely from aluminium extrusions and featuring a unique one piece, 'multi blade' mitred frame gives added strength with air distribution performance, ideal for use in most educational accommodation, data preparation and public areas or general office premises. Model MDA is suitable for use on either supply or extract systems and may be fitted with an optional opposed blade damper.

To satisfy insulation and safety requirements the exposed surfaces of the grille can have a tough nylon coating applied. Earth terminals are also available when required.

Testing

The grille has been successfully tested without collapse to comply with the specification and structural integrity requirements of British and European test standard BS EN 13264:2001, Medium Duty classification.

Finish

Standard finish is brushed aluminium alternatively a black nylon coating or other colours are available. As a special option a Shadow Line finish is also available.

Dimensions

The standard floor grille size is 599mm x 599mm overall, to suit most manufacturers floor panel sizes. Other special sizes are also available.

Standard Installation Method

Each grille incorporates a recessed flange

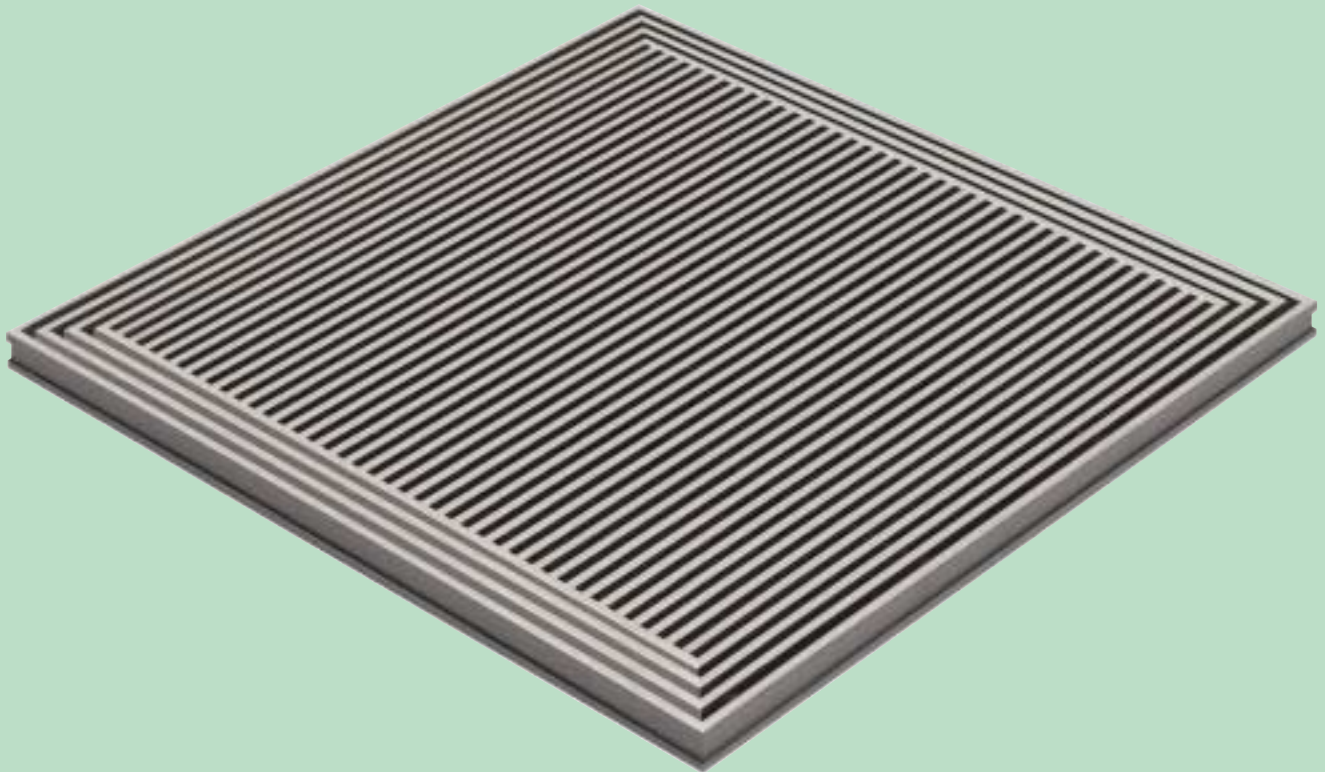
arrangement to allow installation via floor manufacturers raised floor jacks. To ensure a neat installation all grilles are manufactured to match the overall thickness of the corresponding floor panels, including the final finish covering.

Relocation of the grille to another area is simply carried out by lifting and moving the entire floor grille to the desired new position.

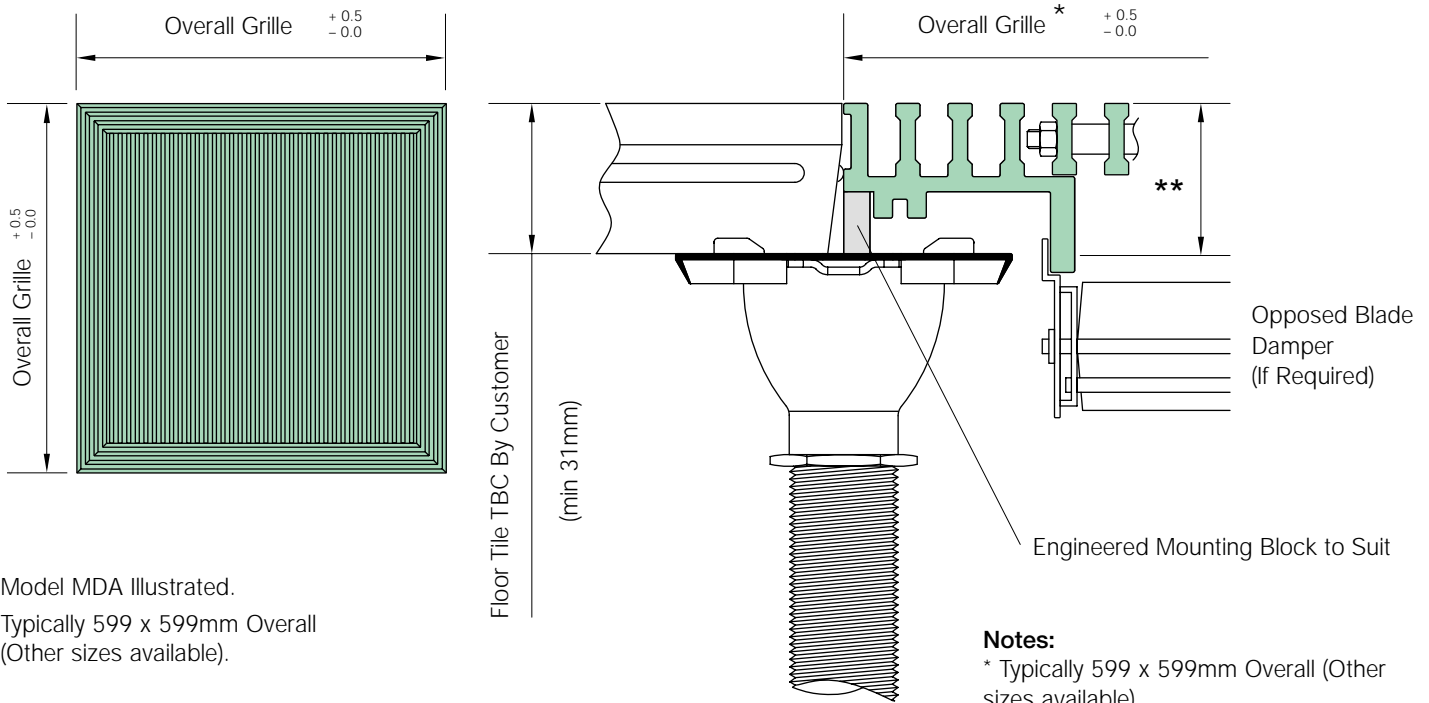
Model Types

Model MDA-G is supplied as grille only.

Model MDA-R is supplied complete with an aluminium opposed blade damper, which is adjusted through the grille core.



Dimension and Installation Information



Model MDA Illustrated.
Typically 599 x 599mm Overall
(Other sizes available).

Notes:

- * Typically 599 x 599mm Overall (Other sizes available)
- ** Floor Tile Depth -0.5mm

Performance Table

Volume (l/s)	Total Pressure (Pa)	Free Area Velocity (m/s)	Duct Velocity (m/s)	Noise Level (NR)
225	6	1.6	0.9	23
340	11	2.4	1.3	29
450	18	3.2	1.7	35
560	25	4.0	2.2	40
670	32	4.8	2.6	45

Notes:

All figures shown include an Opposed Blade Damper set fully open. When no damper is required a reduction of both 2NR and 2Pa can be applied to the noise and pressure figures stated.

For some projects it is a requirement for safety and insulation that the exposed surfaces of the panel floor grilles are black nylon coated. Other colours are available on request. Earthing terminals can also be supplied as an option.

Although the 599 x 599mm size is the most common other sizes are available.

Standard Ordering Procedure Example

Model	Fixing	Finish	Tile Depth	Size
MDA-G	F0	5	TBCmm	599 x 599mm
MDA-G without OBD	F0 No fixing	5 Standard Brushed Aluminium	Total Panel Thickness including Floor Covering	599mm x 599mm Overall (other sizes to special order)
MDA-R with OBD		94 Black Nylon Coating		
		For special finishes please refer to our Sales Office		

Important Note: All orders must be addressed to Air Diffusion, Ruskin Air Management Limited.

Specification

Description

Model HDA heavy-duty tile replacement panel floor grille is designed to withstand heavy and extra heavy loadings. Constructed entirely from aluminium extrusions and featuring a unique one piece, 'multi blade' mitred frame provides extra strength with air distribution performance, ideal for use in computer rooms, telephone exchanges, public areas, control rooms and other special applications where heavy loadings are evident. Model HDA is suitable for use on either supply or extract systems and may be fitted with an optional opposed blade damper.

To satisfy insulation and safety requirements the exposed surfaces of the grille can have a tough nylon coating applied. Earth terminals are also available when required.

Testing

The grille has been successfully tested without collapse to comply with the specification and structural integrity requirements of British and European test standard BS EN 13264:2001, Heavy / Extra Heavy classification. In addition it complies with the specification requirements of PSA MOB PF2 PS/SPU March 1992, including a rolling load test and also in accordance with T11 extra heavy-duty air grille test.

Finish

Standard finish is brushed aluminium alternatively a black nylon coating, or other colours are available. As a special option a Shadow Line finish may also be provided.

Dimensions

The standard floor grille size is 599mm x 599mm overall, to suit most

manufacturers floor panel sizes. Other special sizes are also available.

Standard Installation Method

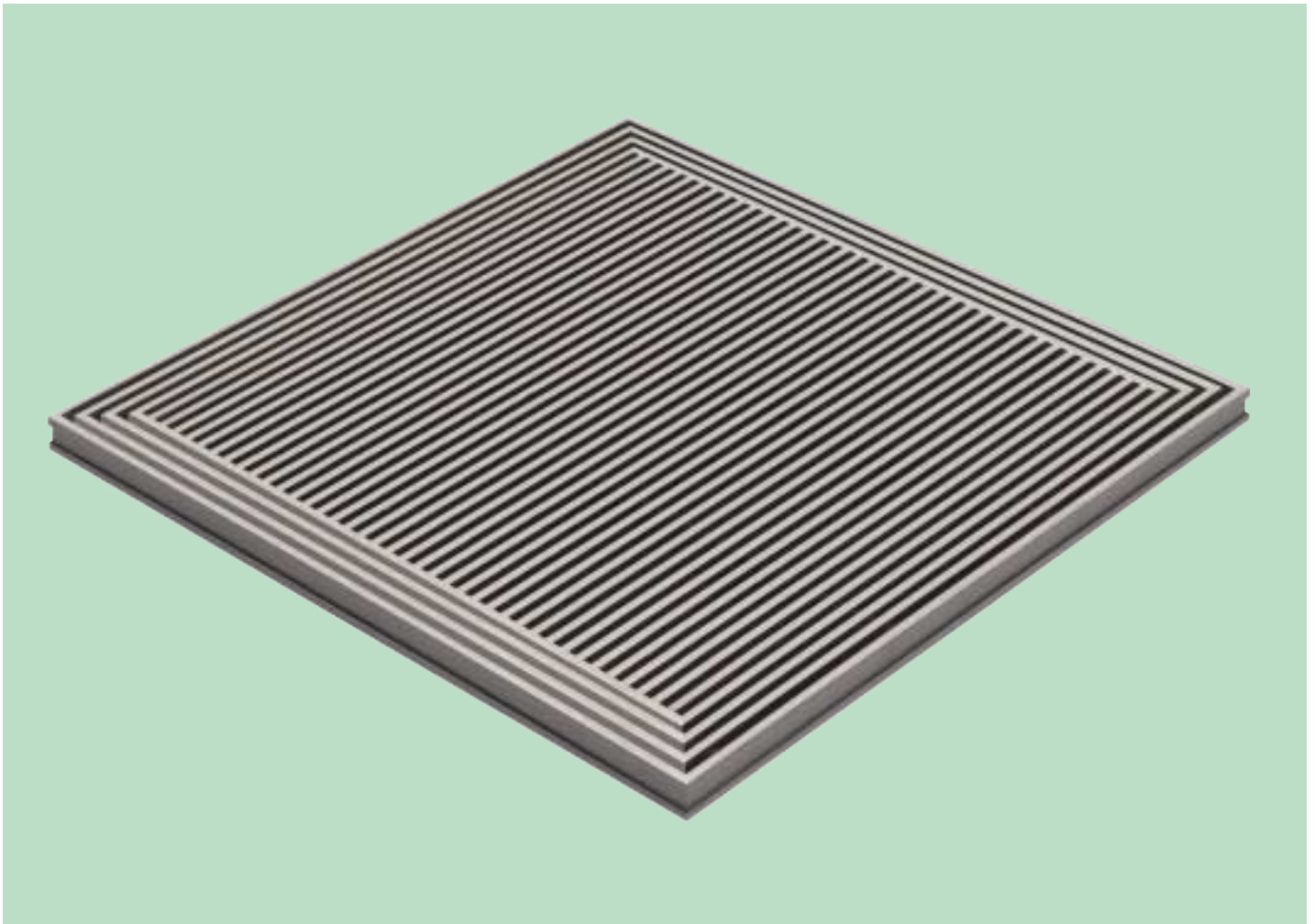
Each grille incorporates a recessed flange arrangement to allow installation via floor manufacturers raised floor jacks. To ensure a neat installation all grilles are manufactured to match the overall thickness of the corresponding floor panels, including the final finish covering.

Relocation of the grille to another area is simply carried out by lifting and moving the entire floor grille to the desired new position.

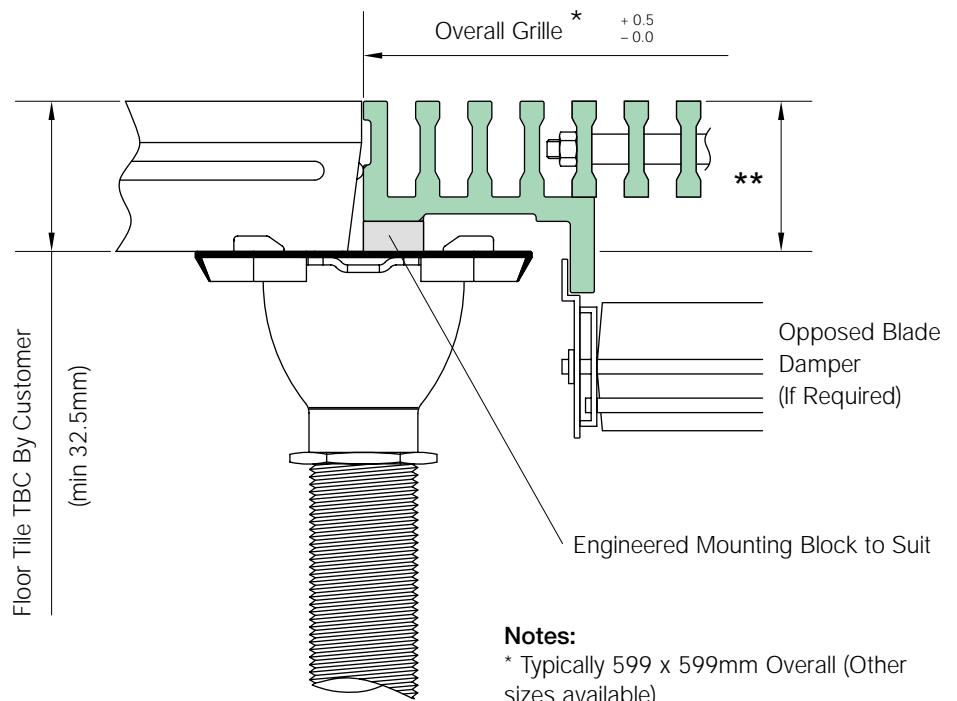
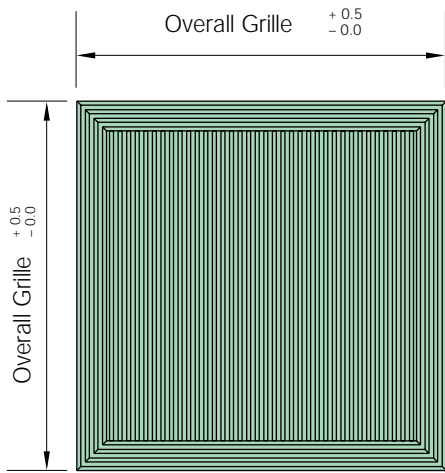
Model Types

Model HDA-G is supplied as grille only.

Model HDA-R is supplied complete with an aluminium opposed blade damper, which is adjusted through the grille core.



Dimension and Installation Information



Model HDA Illustrated.
Typically 599 x 599mm Overall
(Other sizes available).

Notes:

- * Typically 599 x 599mm Overall (Other sizes available)
- ** Floor Tile Depth -0.5mm

Performance data

Volume (l/s)	Total Pressure (Pa)	Free Area Velocity (m/s)	Duct Velocity (m/s)	Noise Level (NR)
200	6	1.7	0.9	26
300	12	2.5	1.4	27
400	19	3.3	1.8	31
500	25	4.2	2.3	42
600	32	5.0	2.7	46
700	38	5.8	3.2	49

Notes:

All figures shown include an Opposed Blade Damper set fully open. When no damper is required a reduction of both 2NR and 2Pa can be applied to the noise and pressure figures stated. For some projects it is a requirement for safety and insulation that the exposed surfaces of the panel floor grilles are black nylon coated. Other colours are available on request. Earthing terminals can also be supplied as an option. Although the 599 x 599mm size is the most common other sizes are available.

(All Technical Data on 599 x 599mm Grille)

Vinyl Covering to (-) 0.5m
Carpet Covering to (-) 1m

Standard Ordering Procedure Example

Model	Fixing	Finish	Tile Depth	Size
HDA-G	F0	5	TBC mm	599 x 599mm
HDA-G without OBD	F0 No fixing	5 Standard Brushed Aluminium	Total Panel Thickness including Floor Covering	599mm x 599mm o/all (other sizes to special order)
HDA-R with OBD		94 Black Nylon Coating		
For special finishes please refer to our Sales Office				

Important Note: All orders must be addressed to Air Diffusion, Ruskin Air Management Limited.

Specification

Description

Model PFS heavy-duty tile replacement panel floor grille is designed to satisfy heavy load requirements. Constructed from aluminium extrusions and reinforced with a steel sub-frame ensures positive high load strength and is therefore appropriate for most computer room installations.

Model PFS is suitable for use on either supply or extract systems and may be fitted with an optional opposed blade damper.

Testing

The Model PFS has been successfully tested to the specification requirements of MOB PF2.PS Appendix B. January 1990, which includes a rolling load. This generally complies with the load requirements of the Property Group Design Guide of IBM (UK).

Finish

Standard finish is brushed aluminium, alternatively a black nylon coating, or other colours are available. As a special option a Shadow Line finish may also be provided.

Dimensions

The standard floor grille size is 599mm x 599mm overall, to suit most manufacturers floor panel sizes. Other special sizes are also available.

Standard Installation Method

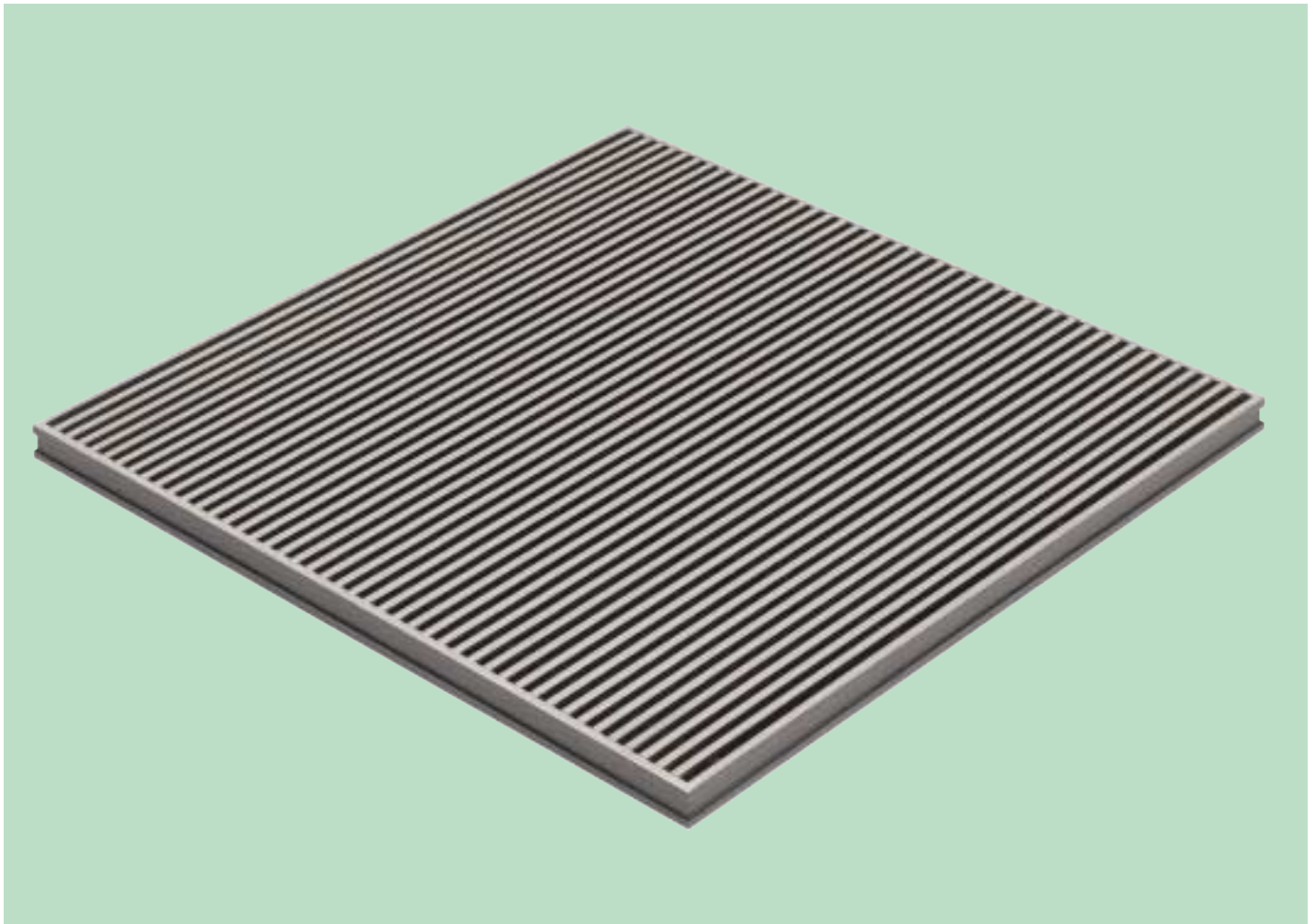
Each grille incorporates a recessed flange arrangement to allow installation via floor manufacturers raised floor jacks. To ensure a neat installation all grilles, including the final finish covering, are manufactured to match the overall thickness of the corresponding floor panels.

Relocation of the grille to another area is simply carried out by lifting and moving the entire floor grille to the desired new position.

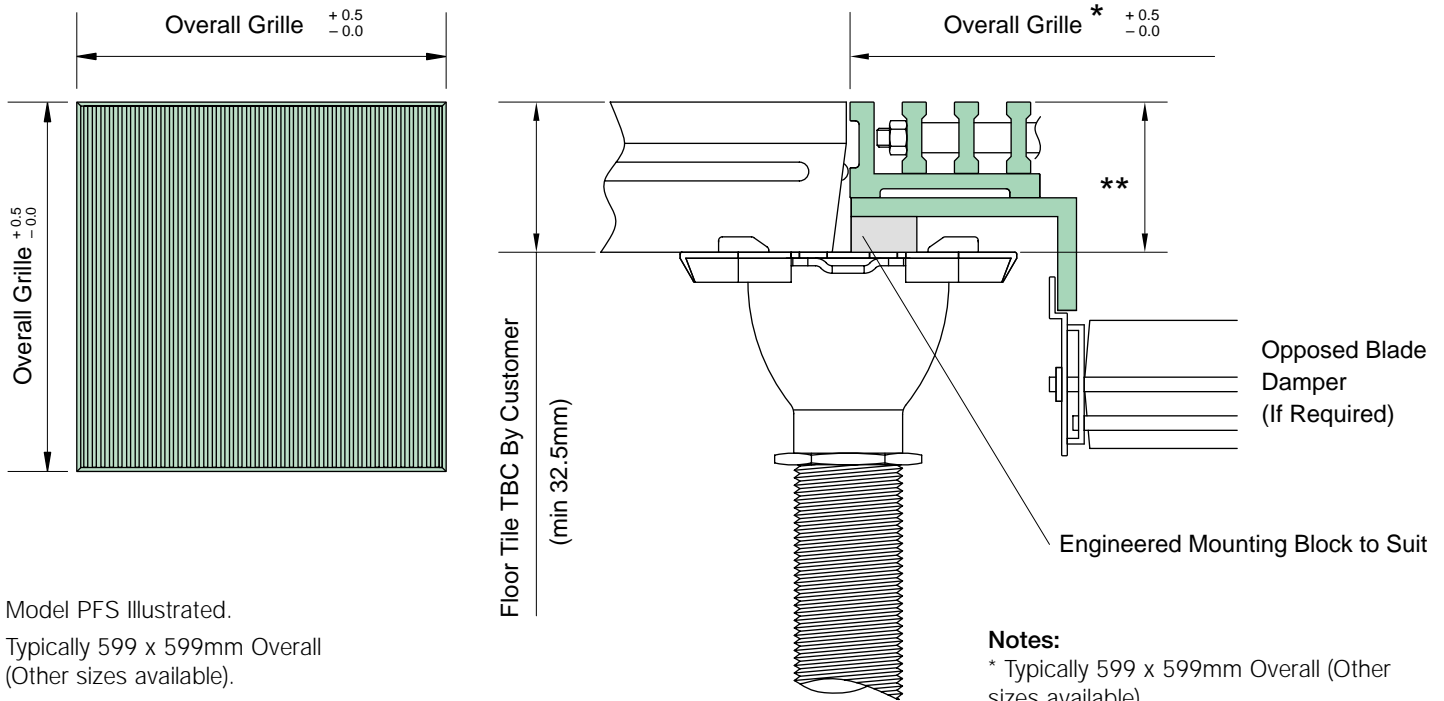
Model Types

Model PFS-G is supplied as grille only.

Model PFS-R is supplied complete with an aluminium opposed blade damper, which is adjusted through the grille core.



Dimension and Installation Information



Model PFS Illustrated.
Typically 599 x 599mm Overall
(Other sizes available).

Notes:
* Typically 599 x 599mm Overall (Other sizes available)
** Floor Tile Depth -0.5mm

Performance Table

Volume (l/s)	Total Pressure (Pa)	Free Area Velocity (m/s)	Duct Velocity (m/s)	Noise Level (NR)
200	6	1.7	0.9	26
300	12	2.5	1.4	27
400	19	3.3	1.8	31
500	25	4.2	2.3	42
600	32	5.0	2.7	46

Notes: Based on standard blade pitch Model PFS provides a free area of 0.125m²

Notes:
All figures shown include an Opposed Blade Damper set fully open. When no damper is required a reduction of both 2NR and 2Pa can be applied to the noise and pressure figures stated.
For some projects it is a requirement for safety and insulation that the exposed surfaces of the panel floor grilles are black nylon coated. Other colours are available on request. Earthing terminals can also be supplied as an option.
Although the 599 x 599mm size is the most common other sizes are available.

Standard Ordering Procedure Example

Model	Fixing	Finish	Tile Depth	Size
PFS-G	F0	5	TBC mm	599 x 599mm
PFS-G without OBD	F0 No fixing	5 Standard Brushed Aluminium	Total Panel Thickness including Floor Covering	599mm x 599mm Overall (other sizes to special order)
PFS-R with OBD		94 Black Nylon Coating		
		For special finishes please refer to our Sales Office		

Important Note: All orders must be addressed to Air Diffusion, Ruskin Air Management Limited.

Specification

Description

Model F48 medium/heavy duty tile replacement flanged panel floor grille is designed to satisfy medium/heavy load requirements. Constructed from heavy gauge aluminium extrusions having a 48mm wide flange frame. Most common use is in office areas to suit edge seamed floors where an overlapping flange is required. Model F48 is suitable for use on either supply or extract systems and may be fitted with an optional opposed blade damper.

To satisfy insulation and safety requirements the exposed surfaces of the grille can have a tough nylon coating applied. Earth terminals are also available when required.

Finish

Standard finish is brushed aluminium, alternatively a black nylon coating, or other colours are also available. As a

special option a Shadow Line finish may also be provided.

Dimensions

The standard floor grille size is 599mm x 599mm over flange (+0.5 – 0.0mm), to suit an overall floor depth of 6.4mm. Please note flange width is 48mm. Other special sizes are also available.

Standard Installation Method

Each grille incorporates a recessed flange arrangement to allow drop in tile replacement installation via stringers supported on floor manufacturers raised floor jacks, typically to suit a "Tate" style floor panel. All grilles are manufactured to a panel depth of 6.4mm. To ensure a neat installation this thickness must correspond with the adjacent floor panels, including the final finish covering. (All fixings and floor jacks by others).

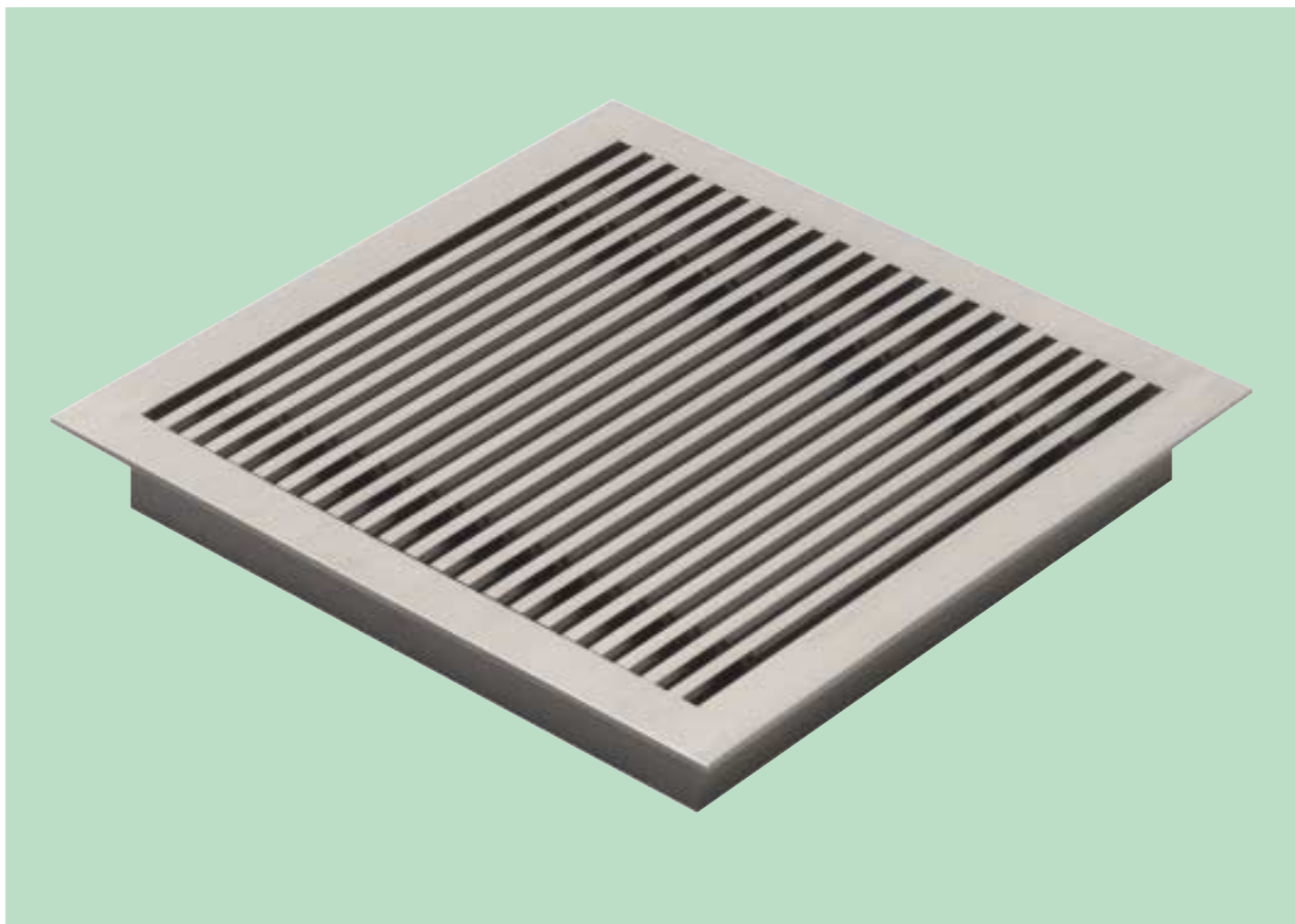
Relocation of the grille to another area is

simply carried out by lifting and moving the entire floor grille to the desired new position.

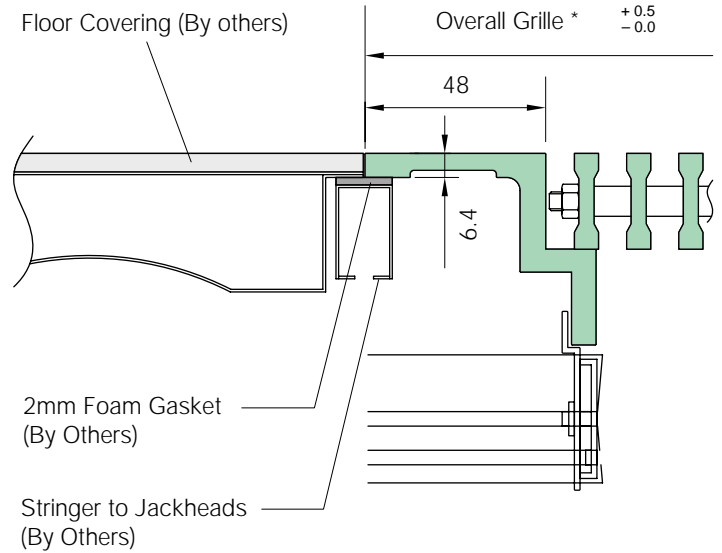
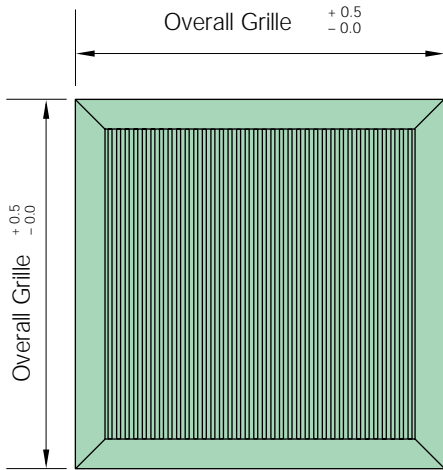
Model Types

Model F48-G is supplied as grille only.

Model F48-R is supplied complete with an aluminium opposed blade damper, which is adjusted through the grille core.



Dimension and Installation Information



Model F48 Illustrated.
Typically 599 x 599mm Overall
(Other sizes available).

Opposed blade damper if required

Performance Table

Volume (l/s)	Total Pressure (Pa)	Free Area Velocity (m/s)	Duct Velocity (m/s)	Noise Level (NR)
180	6	1.6	0.9	23
270	11	2.4	1.3	29
350	18	3.2	1.7	35
440	25	4.0	2.2	4.0
530	32	4.8	2.6	45

Note:

All figures shown include an Opposed Blade Damper set fully open.

When no damper is required a reduction of both 2NR and 2Pa can be applied to the noise and pressure figures stated.

For some projects it is a requirement for safety and insulation that the exposed surfaces of the panel floor grilles are black nylon coated. Other colours are available on request. Earthing terminals can also be supplied as an option.

Although the 599 x 599mm size is the most common other sizes are available.

Standard Ordering Procedure Example

Model	Fixing	Finish	Tile Depth	Size
F48-G	F0	5	6.4mm	599 x 599mm over flange
F48-G without OBD F48-R with OBD	F0 No fixing (Plain un-drilled flange)	5 Brushed Satin Aluminium 9 Nylon Coat to Standard RAL Colour For special finishes please refer to our Sales Office	6.4mm to suit standard overall panel depth including floor covering	599mm x 599mm (+0.5 - 0.0mm) over flange. (Other sizes to special order)

Important Note: All orders must be addressed to Air Diffusion, Ruskin Air Management Limited.

Specification

Description

Model FG Light/Medium duty linear floor grille is designed to satisfy light/medium load requirements in recessed openings. Constructed from aluminium extrusions using a 6.5mm bar on a 14.5mm pitch with a flangeless border having a fixed core as standard or optional removable core. Model FG can be used on either supply or extract systems and may be fitted with an optional opposed blade damper.

Finish

Standard finish is brushed aluminium, alternatively a nylon coating to a standard RAL colour or as a special option a Shadow Line finish may also be provided.

Dimensions

Supplied as a single section to a maximum nominal length of 1800mm and up to a maximum nominal width of 300mm.

To form a continuous run, individual sections are supplied for bolting together on site, by others.

Standard Installation Method

For recessed installation, by others, into prepared openings.

Model Types

Model FGL is supplied as a Fixed Core, Light Duty grille only.

Model FGM is supplied as a Fixed Core, Medium Duty grille only.

Model FGRCL is supplied as a Removable Core, Light Duty grille only.

Model FGRCM is supplied as a Removable Core, Medium Duty grille only.

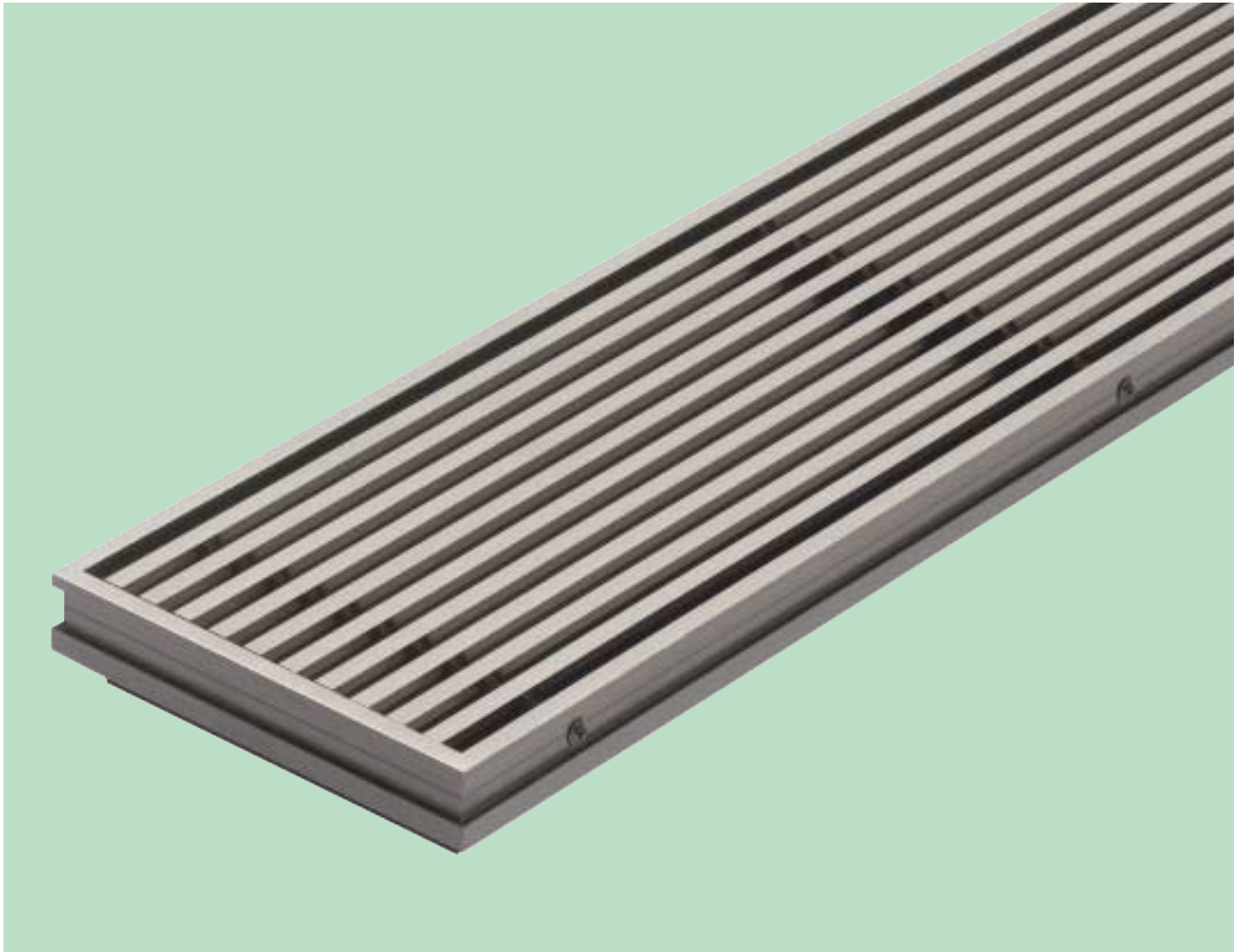
Model FGL-R is supplied as a Fixed Core, Light Duty grille, complete with an aluminium opposed blade damper, which

is adjusted through the grille core.

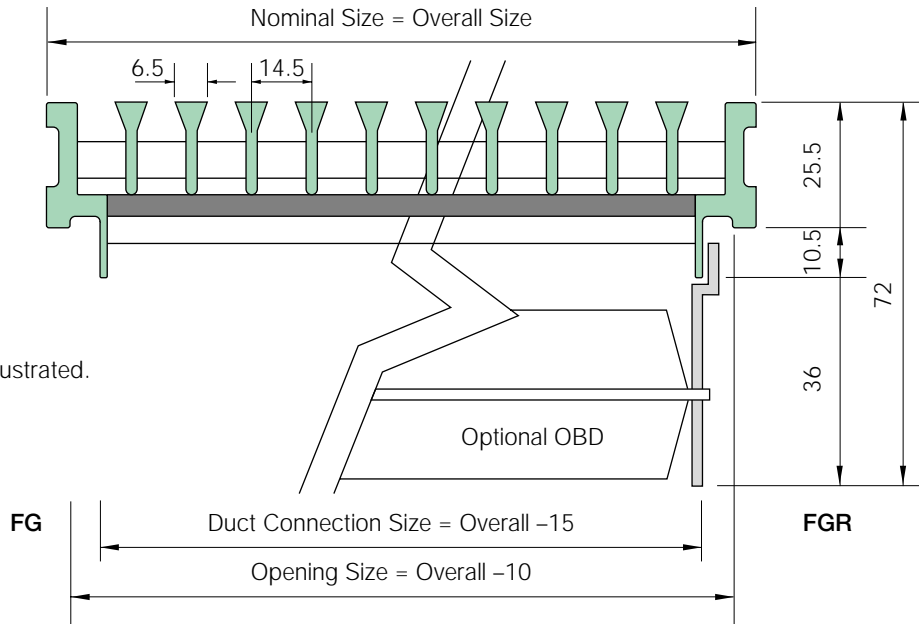
Model FGM-R is supplied as a Fixed Core, Medium Duty grille, complete with and aluminium opposed blade damper, which is adjusted through the grille core.

Model FGRCL-R is supplied as a Removable Core, Light Duty grille, complete with an aluminium opposed blade damper, which is adjusted through the grille core.

Model FGRCM-R is supplied as a Removable Core, Medium Duty grille, complete with an aluminium opposed blade damper, which is adjusted through the grille core.



Dimension and Installation Information



Model FG Light Duty Illustrated.

Performance Table (Linear)

Model Width mm	Volume l/s/m	Duct Area Velocity Free m/s	Velocity m/s	Throw Metres	Pressure Pa	Sound Power NRLW
100	45	0.5	1.1	0.6	3	-
	90	1.0	2.2	1.8	8	22
	135	1.5	3.3	3.0	16	28
150	65	0.5	1.0	0.8	3	-
	130	1.0	2.0	2.4	7	24
	195	1.5	3.0	4.4	15	30
200	90	0.5	1.0	1.1	3	-
	180	1.0	2.0	3.0	7	25
	195	1.5	3.0	4.4	15	30
250	115	0.5	1.0	1.3	3	-
	230	1.0	2.0	3.7	7	25
	287	1.25	2.5	4.8	10	28
300	140	0.5	1.0	1.5	3	-
	280	1.0	2.0	4.5	7	26
	350	1.25	2.5	5.6	10	30

Note: All throws are based on 10 °C cooling.

Standard Ordering Procedure Example

Model FGL	Fixing F0	Finish 5	Size (nom length x nom width) 1200 x 150mm
FGL Fixed Core, Light Duty without OBD	F0 No fixing	5 Brushed Satin Aluminium	Depth Grille only = 36mm Grille with OBD fitted = 72mm
FGL-R Fixed Core, Light Duty with OBD		9 Nylon Coat to Standard RAL Colour.	Size Maximum one piece length. 1800mm. Minimum nominal width 100mm, maximum overall width 300mm (Other sizes to special order)
FGM Fixed Core, Medium Duty without OBD		For special finishes please refer to our Sales Office	
FGM-R Fixed Core, Medium Duty with OBD			
FGRCL Removable Core, Light Duty without OBD			
FGRCL-R Removable Core, Light Duty with OBD			
FGRCM Removable Core, Medium Duty without OBD			
FGRCM-R Removable Core, Medium Duty with OBD			

Important Note: All orders must be addressed to Air Diffusion, Ruskin Air Management Limited.

Specification

Description

Model F20 and F25 Light/Medium duty flanged linear bar floor grille is designed to satisfy light/medium load requirements. Constructed from aluminium extrusions using a 6.5mm bar on a 14.5mm pitch with either a 20mm or 25mm wide flange border having a fixed core as standard or optional removable core. Model F20 & F25 can be used on either supply or extract systems and may be fitted with an optional opposed blade damper.

To make provision for cable entry into the occupied space via the floor void, an integral brush section can be fitted to the Models F20 and F25. The brushes allow the cables to pass through and form a seal around the cable.

The brush sections can be manufactured to dimensions to suit the application. Opposed blade dampers are only fitted to active sections of grille.

Finish

Standard finish is brushed aluminium, alternatively a nylon coating to a standard RAL colour, or as a special option a Shadow Line finish may also be provided.

Dimensions

Supplied as a single section to a maximum nominal length of 1800mm and up to a maximum nominal width of 300mm.

To form a continuous run, individual sections are supplied for bolting together on site, by others.

Square, Rectangular or other special sizes may also be supplied.

Standard Installation Method

For installation, by others, into prepared openings. If additional fixing details are required please contact our technical sales office.

Model Types

Model F20L is supplied as a 20mm Wide Flanged, Fixed Core, Light Duty, grille only.

Model F20M is supplied as a 20mm Wide Flanged, Fixed Core, Medium Duty, grille only.

Model F25L is supplied as a 25mm Wide Flanged, Fixed Core, Light Duty, grille only.

Model F25M is supplied as a 25mm Wide Flanged, Fixed Core, Medium Duty, grille only.

Model F20LRC is supplied as a 20mm Wide Flanged, Removable Core, Light Duty, grille only.

Model F20MRC is supplied as a 20mm Wide Flanged, Removable Core, Medium Duty, grille only.

Model F25LRC is supplied as a 25mm Wide Flanged, Removable Core, Light Duty, grille only.

Model F25MRC is supplied as a 25mm Wide Flanged, Removable Core, Medium Duty, grille only.

Model F20L-R is supplied as a 20mm Wide Flanged, Fixed Core, Light Duty grille, complete with an aluminium opposed blade damper, which is adjusted through the grille core.

Model F20M-R is supplied as a 20mm Wide Flanged, Fixed Core, Medium Duty, grille, complete with and aluminium opposed blade damper, which is adjusted through the grille core.

Model F25L-R is supplied as a 25mm Wide Flanged, Fixed Core, Light Duty grille, complete with an aluminium opposed blade damper, which is adjusted through the grille core.

Model F25M-R is supplied as a 25mm Wide Flanged, Fixed Core, Medium Duty grille, complete with and aluminium opposed blade damper, which is adjusted

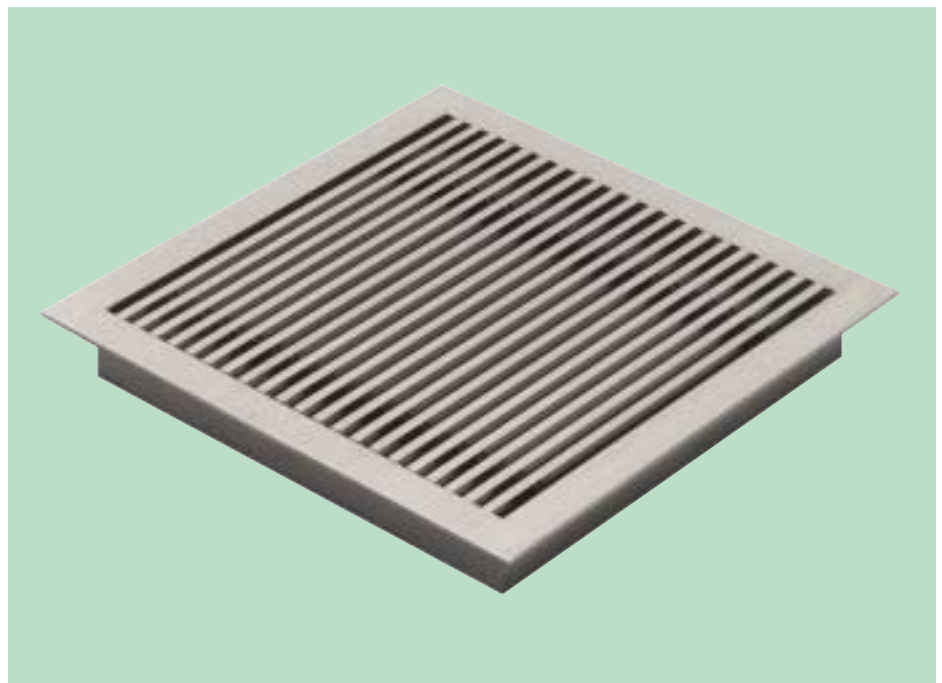
through the grille core.

Model F20LRC-R is supplied as a 20mm Wide Flanged, Removable Core, Light Duty grille, complete with an aluminium opposed blade damper, which is adjusted through the grille core.

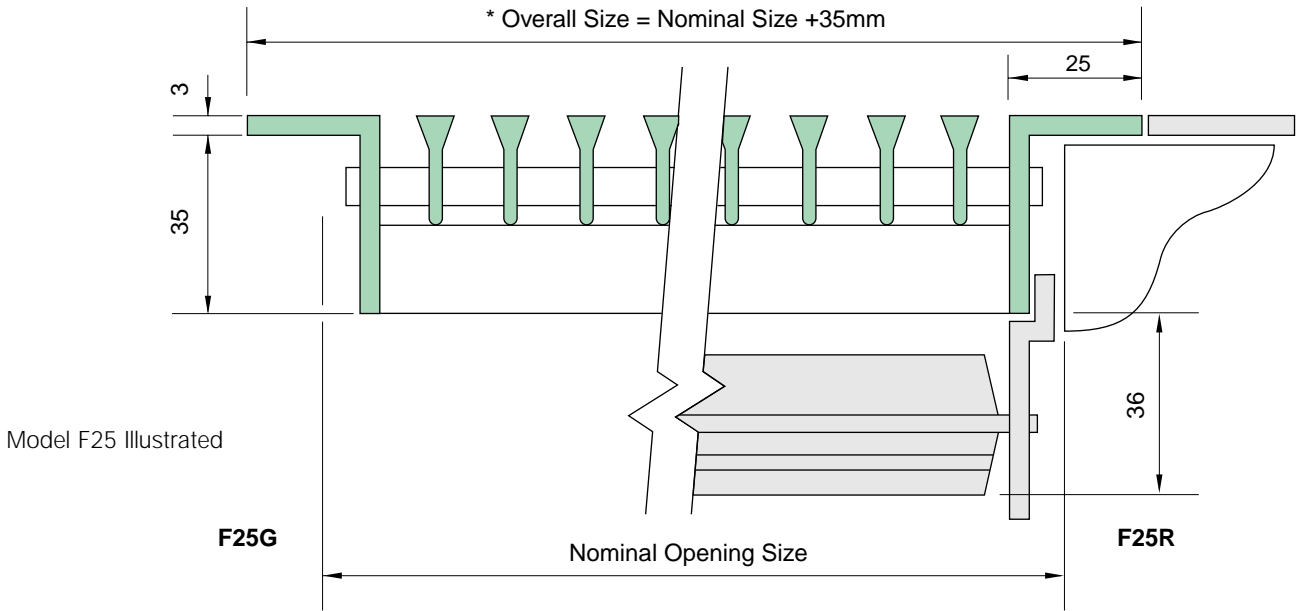
Model F20MRC-R is supplied as a 20mm Wide Flanged, Removable Core, Medium Duty grille, complete with an aluminium opposed blade damper, which is adjusted through the grille core.

Model F25LRC-R is supplied as a 25mm Wide Flanged, Removable Core, Light Duty grille, complete with an aluminium opposed blade damper, which is adjusted through the grille core.

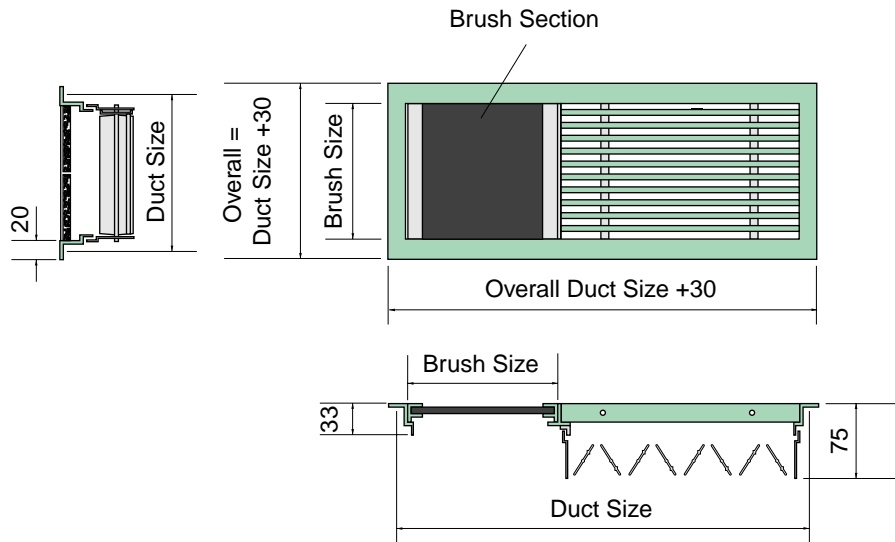
Model F25MRC-R is supplied as a 25mm Wide Flanged, Removable Core, Medium Duty grille, complete with an aluminium opposed blade damper, which is adjusted through the grille core.



Dimension and Installation Information



Floor Grille with Brush Section



Performance Table (Linear)

Model Width mm	Volume l/s/m	Duct Area Velocity Free m/s	Velocity m/s	Throw Metres	Pressure Pa	Sound Power NRLW
100	45	0.5	1.1	0.6	3	-
	90	1.0	2.2	1.8	8	22
	135	1.5	3.3	3.0	16	28
150	65	0.5	1.0	0.8	3	-
	130	1.0	2.0	2.4	7	24
	195	1.5	3.0	4.4	15	30
200	90	0.5	1.0	1.1	3	-
	180	1.0	2.0	3.0	7	25
	195	1.5	3.0	4.4	15	30
250	115	0.5	1.0	1.3	3	-
	230	1.0	2.0	3.7	7	25
	287	1.25	2.5	4.8	10	28
300	140	0.5	1.0	1.5	3	-
	280	1.0	2.0	4.5	7	26
	350	1.25	2.5	5.6	10	30

Model F20 and F25 Flanged Linear Bar Floor Grilles

Inset Type Selection Data

Volume l/s		Size (mm)		
		500 x 520	300 x 300	450 x 350
50	Face velocity m/s	0.52	0.59	0.43
	Free area velocity m/s	1.06	1.16	0.86
	Total area pressure Pa	-	-	-
	Sound power NRLW	-	-	-
	Throw metres	1.0	1.0	0.8
100	Face velocity m/s	1.04	1.18	0.86
	Free area velocity m/s	2.12	2.32	1.72
	Total area pressure Pa	6	7	4
	Sound power NRLW	22	23	18
	Throw metres	2.0	2.1	1.8
150	Face velocity m/s	1.56	1.77	1.29
	Free area velocity m/s	3.18	3.48	2.58
	Total area pressure Pa	16	17	11
	Sound power NRLW	30	32	26
	Throw metres	3.8	4.0	3.1
200	Face velocity m/s	2.08	2.36	1.72
	Free area velocity m/s	4.25	4.65	3.45
	Total area pressure Pa	23	25	17
	Sound power NRLW	35	37	32
	Throw metres	5.1	5.5	4.5
250	Face velocity m/s	2.6	2.95	2.15
	Free area velocity m/s	5.3	5.8	4.3
	Total area pressure Pa	31	34	24
	Sound power NRLW	40	42	37
	Throw metres	6.8	7.0	6.0

Note: All throws are based on 10°C cooling.

Standard Ordering Procedure Example

Model	Fixing	Finish	Size (nom length x nom width)
F20-RL	F0	5	1500 x 200mm

F20L
20mm Flange, Fixed Core, Light Duty without OBD

F20L-R
20mm Flange, Fixed Core, Light Duty with OBD

F25L
25mm Flange, Fixed Core, Light Duty without OBD

F25L-R
25mm Flange, Fixed Core, Light Duty with OBD

F20M
20mm Flange, Fixed Core, Medium Duty without OBD

F20M-R
20mm Flange, Fixed Core, Medium Duty with OBD

F25M
25mm Flange, Fixed Core, Medium Duty without OBD

F25M-R
25mm Flange, Fixed Core, Medium Duty with OBD

F20LRC
20mm Flange, Removable Core, Light Duty without OBD

F20LRC-R
20mm Flange, Removable Core, Light Duty with OBD

F25LRC
25mm Flange, Removable Core, Light Duty without OBD

F25LRC-R
25mm Flange, Removable Core, Light Duty with OBD

F20MRC
20mm Flange, Removable Core, Medium Duty without OBD

F20-MRC-R
20mm Flange, Removable Core, Medium Duty with OBD

F25RCM
25mm Flange, Removable Core, Medium Duty without OBD

F25MRC-R
25mm Flange, Removable Core, Medium Duty with OBD.

F0 No fixing.

5 Brushed Satin Aluminium

9 Nylon Coat to Standard RAL

Colour

For special finishes please refer to our Sales Office.

Depth

Model F20 Grille only = 33mm
Grille with OBD fitted = 69mm

Model F25 Grille only = 38mm
Grille with OBD fitted = 74mm.

Size

Maximum one piece length 1800mm Minimum nominal width 100mm, maximum nominal width 300mm (Other sizes to special order).

Important Note: All orders must be addressed to Air Diffusion, Ruskin Air Management Limited.

Specification

Description

Model RO Light Duty rollout linear floor grille is designed to satisfy light load requirements in recessed openings where a removable lay in core is required to allow easy access beneath the finished floor level. Constructed from aluminium extrusions using a 6.5mm bar on a 19mm pitch mounted on steel springs having aluminium/nylon spacers between each blade. Model RO can be used on either supply or extract systems.

Finish

Standard finish is natural aluminium or alternatively natural anodised aluminium. As a special option colour anodising may be supplied.

To avoid unsightly scratches or scoring of the grille surface it is not recommended to use colour anodising or paint finishes where the grilles will be subject to regular foot or any other form of traffic.

Dimensions

Supplied to suit a nominal length and up to a maximum nominal width of 600mm. To retain rigidity grille widths in excess of 300mm will require additional longitudinal supports, by others, within the structural opening.

To form a continuous appearance, individual sections are supplied loose and butted together on site, by others.

Standard Installation Method

For lay in, recessed installation, by others, into prepared openings.

A separate sub frame assembly can be provided for site fixing, by others. Either FG, F20 frames or a standard angle may be used for this purpose.

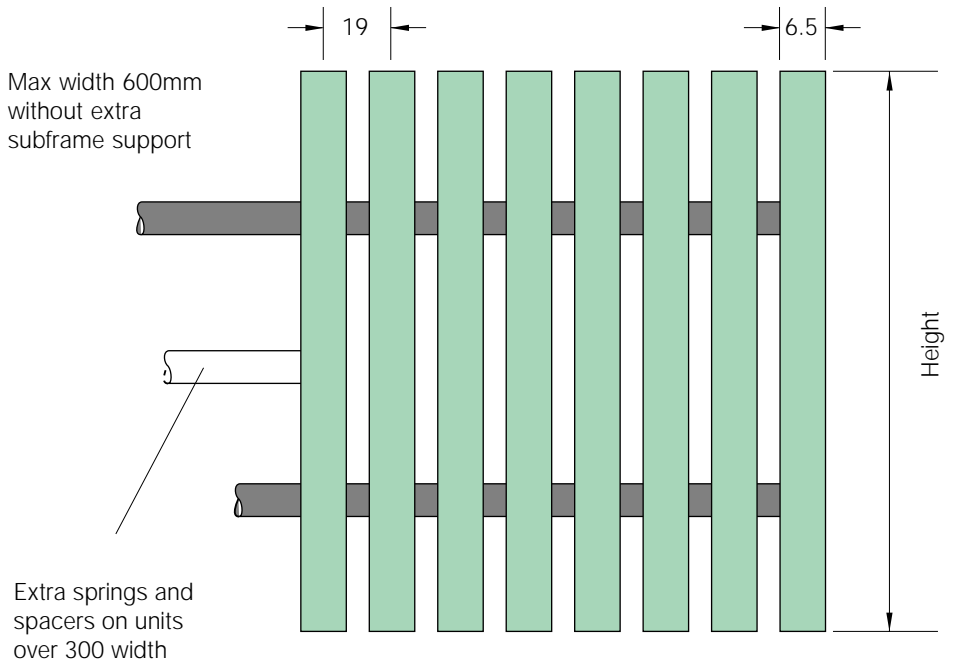
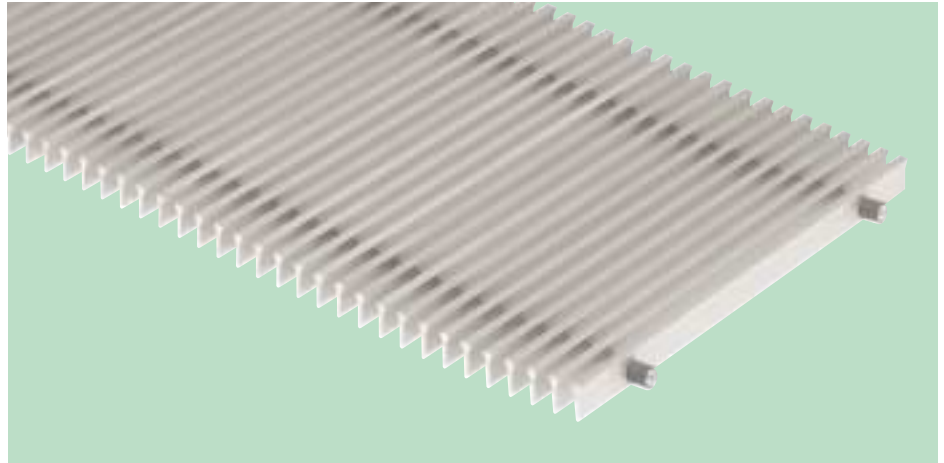
Model Types

Model RO is supplied as a Flexible Rollout grille core only.

Free Area

Approximately 65%.

Dimension and Installation Information



Standard Ordering Procedure Example

Model	Fixing	Finish	Frame	Size (nom length x nom width)
RO	F0	0	O	3000 x 300mm
RO Rollout Core Only	F0 No fixing	0 Natural Aluminium 1 Natural Anodised Aluminium For special finishes please refer to our Sales Office	O No Frame S Sub Frame (Specify separately type of frame required)	Depth Grille Core only = 19mm Size Nominal length to suit Minimum nominal width 100mm, maximum nominal width 600mm (Additional support required over 300mm wide)

Important Note: All orders must be addressed to Air Diffusion, Ruskin Air Management Limited.

Product Range

Swirl, Displacement and High Induction Diffusers



Linear Bar Grilles



Circular and Jet Diffusers



Perforated and Louvre Face Ceiling Diffusers



Cylinder Diffusers and Air Valves



Product Range

Slot and Fixed Blade Diffusers



Miscellaneous



Wall Grilles



External Louvres



Air Diffusion

CREATIVE AIR SOLUTIONS

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International Code: +441707 Email: sales@air-diffusion.co.uk Website: www.air-diffusion.co.uk

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