



Incorporating



Grilles & Diffusers

Series LG Linear bar grilles

- Our most versatile grille series, with a wealth of options available
- Dedicated frames for a strong blade pack with no bowing
- 0°, 15° and 45° blade profiles
- 85% maximum free area
- Hinged and removable cores optional
- Now available with plaster-in frame



Series LG

Series LG linear grilles are the most versatile grille series available from HVC.

Available with a range of different blade and frame types, hinged and removable cores, and a comprehensive range of finishes, they can be made suitable for a wide variety of applications.

If required for extract, specify your linear grille with 3mm thick, 0° blades, on a 20mm pitch. With a free area around 85%, this is a more robust alternative to Series ECG egg crate grilles, with very similar performance.

For supply applications, you can choose from 0°, 15° or 45° blade profiles, and 12.5mm or 20mm blade pitches, giving you full control over throw direction, free area and appearance.

Linear bar grilles are also now available with a plaster-in frame design, please refer to pages 3 and 9 for more information.



Design features

Material	Extruded aluminium
Frame	Standard: 36B - 36mm bevelled Optional: 31F - 31mm flat 50FS - 50mm flat TF - Tray frame SML - Surface mounted large PLG - Plaster-in
Sizes	Minimum: 100mm x 50mm Maximum: 2900mm x 2900mm
Fixings	Standard: None Optional: See page 13
Finish	Standard: Satin anodised (AA5) or mill aluminium depending on frame choice Refer to page 16 for more information
Mass/m² face area	See technical specifications on next page
Free area	See technical specifications on next page

Quality assurance

HVC Supplies (Stourbridge) Ltd is an ISO9001 certified company



Assessed to ISO 9001
Cert/Ref no. 1186

Technical specifications

Free area and mass

Series	Free area (approx.)	Mass/m ² (kg, approx.)
LG0 - 3 - 12.5	76%	10
LG0 - 3 - 20	85%	7
LG0 - 6 - 12.5	52%	14
LG0 - 6 - 20	70%	10
LG15 - 12.5	74%	10
LG15 - 20	83%	7
LG45 - 12.5	54%	10
LG45 - 20	63%	7

Please note:

Free area values given adjacent are calculated simply from blade thickness over blade pitch, and should solely be used for comparison of different models.

They make no allowances for losses caused by frames, tolerances etc.

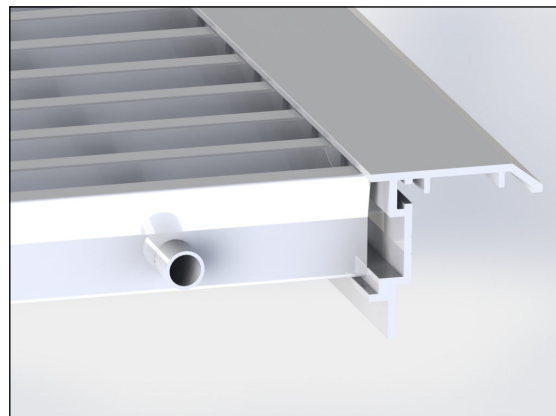
Dedicated frames

31F/36B

Well proven with over a decade in production, 31F and 36B frame types are purpose designed to suit Series LG linear bar grilles.

Offering the significant advantage of supporting the blade ends for a stronger blade pack, the frame also conceals both the blade and tube ends for a flawless design.

36B bevelled is standard with all blade types, 31F recommended when a flat frame is required (various options will require the use of other frames).

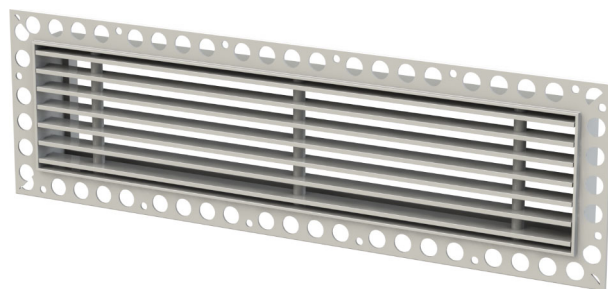


PLG (plaster-in)

Purpose designed for plaster-in installations.

The PLG plaster-in frame has a 20mm wide flange set 3mm back from the face of the grille. A repeating pattern of four 12mm holes and one 5mm hole is punched into this, with the 5mm hole serving as a fixing point for a screw, and the 12mm holes producing a large area for plaster to bind to supporting plasterboard.

The new frame is available with fixed cores, or with all types of removable core.

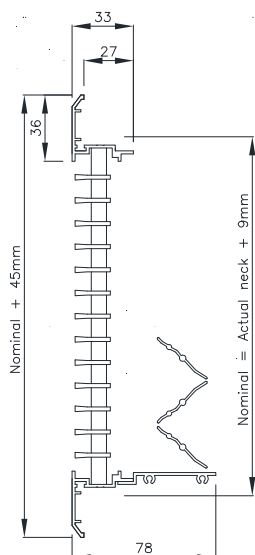


Technical drawings

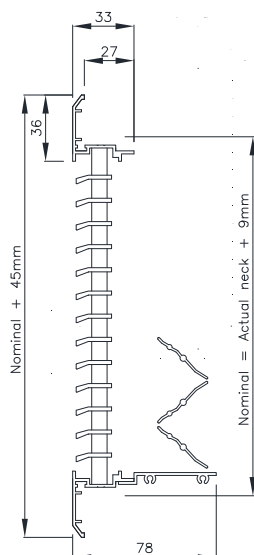
36B frame - 36mm bevelled

Grilles only

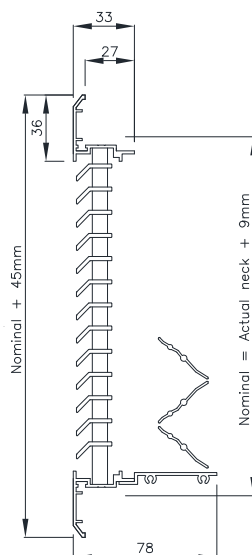
LG0 - 3 - 12.5 - 36B



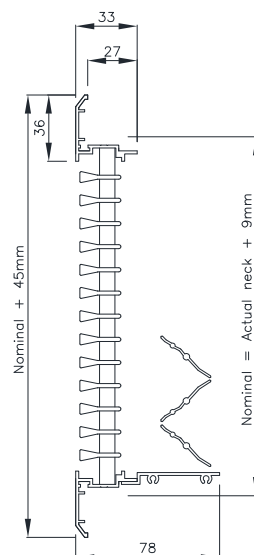
LG15 - 12.5 - 36B



LG45 - 12.5 - 36B

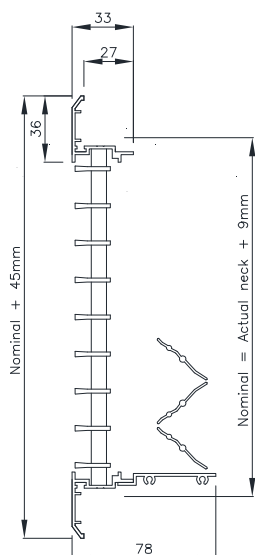


LG0 - 6 - 12.5 - 36B

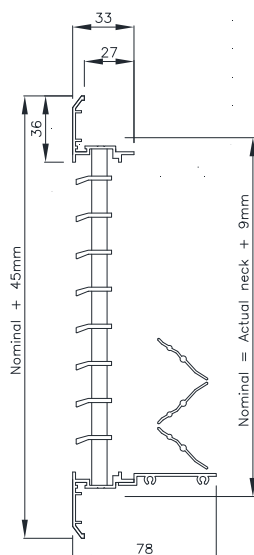


Grilles c/w opposed blade dampers

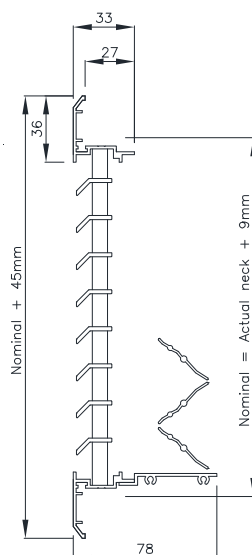
LG0 - 3 - 12.5 - D - 36B



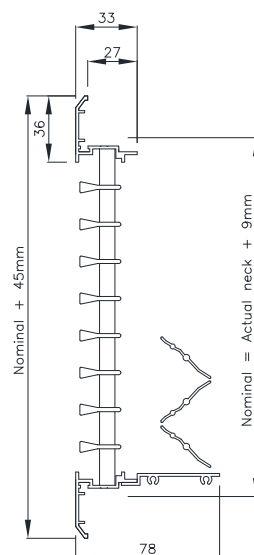
LG15 - 12.5 - D - 36B



LG45 - 12.5 - D - 36B

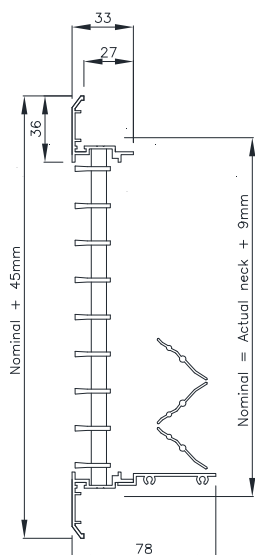


LG0 - 6 - 12.5 - D - 36B

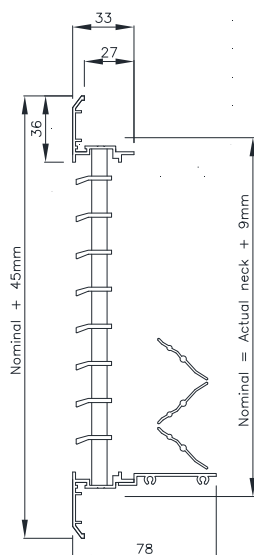


Grilles only

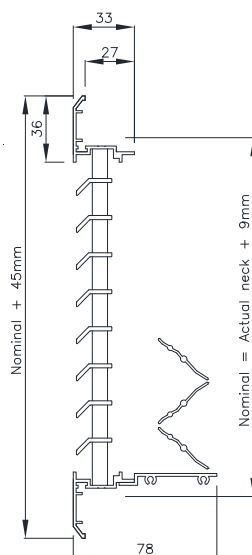
LG0 - 3 - 20 - 36B



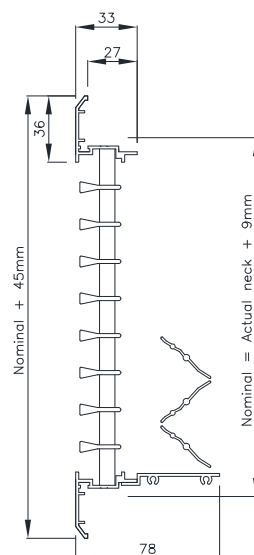
LG15 - 20 - 36B



LG45 - 20 - 36B



LG0 - 6 - 20 - 36B



Grilles c/w opposed blade dampers

LG0 - 3 - 20 - D - 36B



LG15 - 20 - D - 36B



LG45 - 20 - D - 36B



LG0 - 6 - 20 - D - 36B

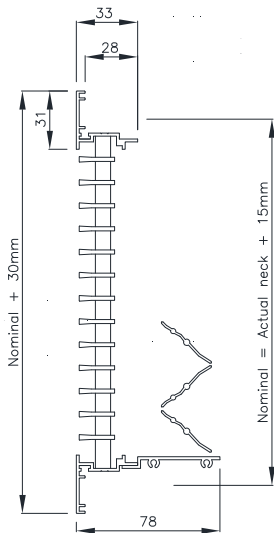


Technical drawings

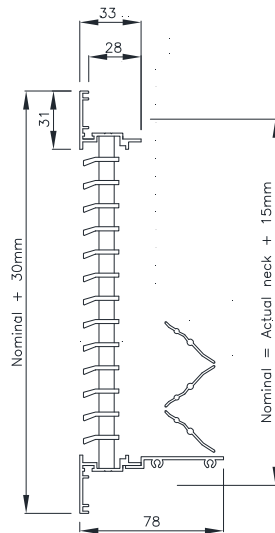
31F frame - 31mm flat

Grilles only

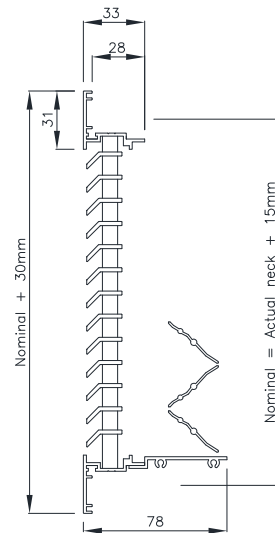
LG0 - 3 - 12.5 - 31F



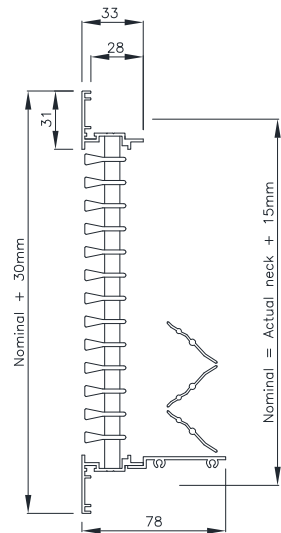
LG15 - 12.5 - 31F



LG45 - 12.5 - 31F

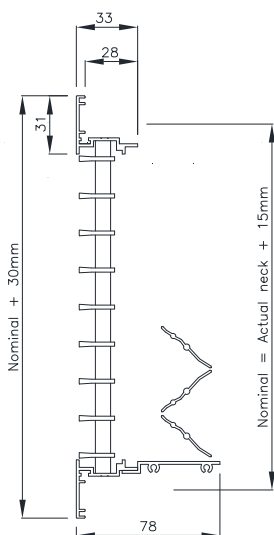


LG0 - 6 - 12.5 - 31F

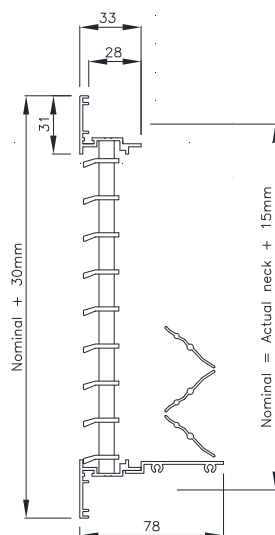


Grilles c/w opposed blade dampers

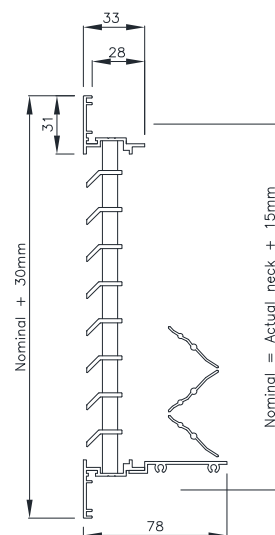
LG0 - 3 - 12.5 - D - 31F



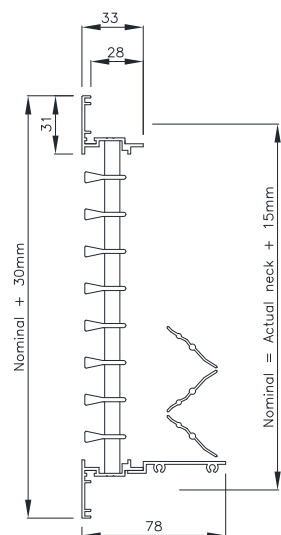
LG15 - 12.5 - D - 31F



LG45 - 12.5 - D - 31F

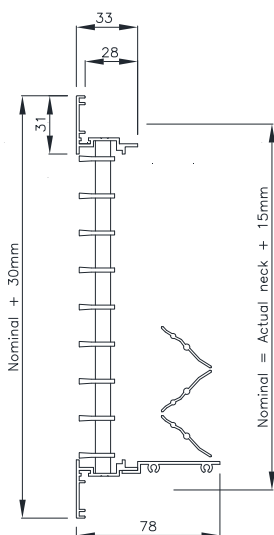


LG0 - 6 - 12.5 - D - 31F

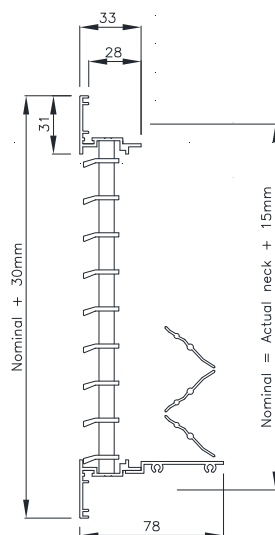


Grilles only

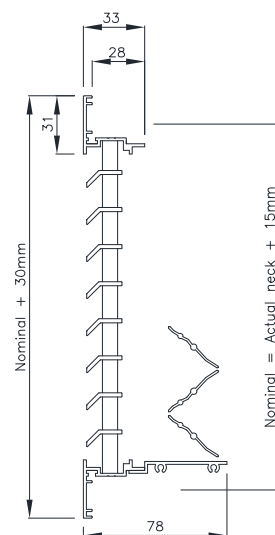
LG0 - 3 - 20 - 31F



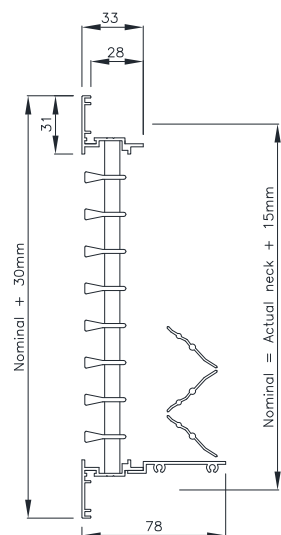
LG15 - 20 - 31F



LG45 - 20 - 31F



LG0 - 6 - 20 - 31F



Grilles c/w opposed blade dampers

LG0 - 3 - 20 - D - 31F



LG15 - 20 - D - 31F



LG45 - 20 - D - 31F



LG0 - 6 - 20 - D - 31F

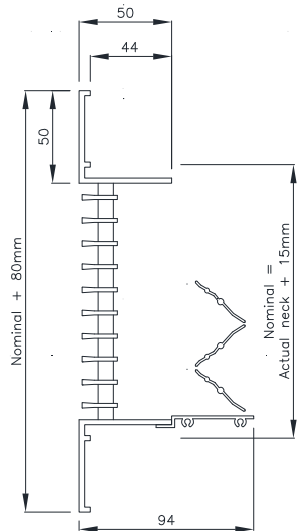


Technical drawings

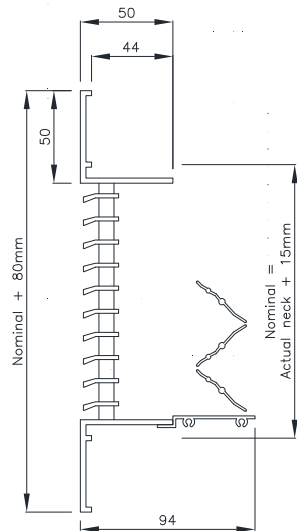
50FS frame - 50mm flat

Grilles only

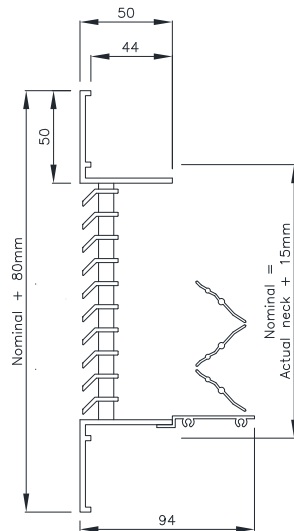
LG0 - 3 - 12.5 - 50FS



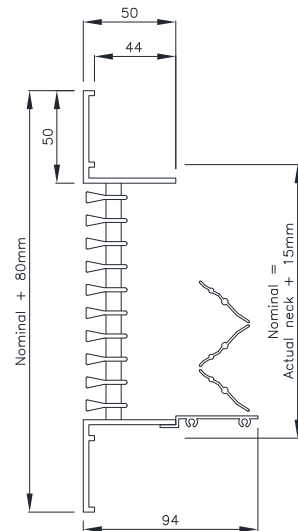
LG15 - 12.5 - 50FS



LG45 - 12.5 - 50FS

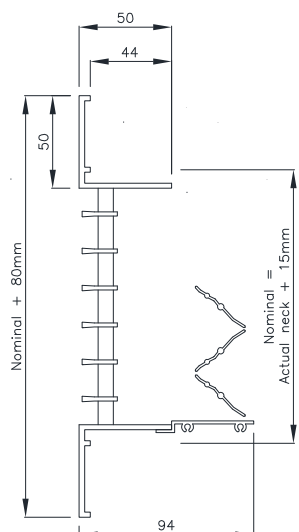


LG0 - 6 - 12.5 - 50FS

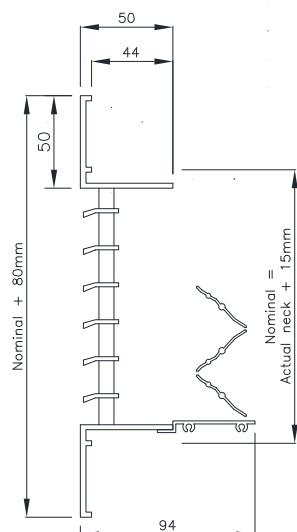


Grilles c/w opposed blade dampers

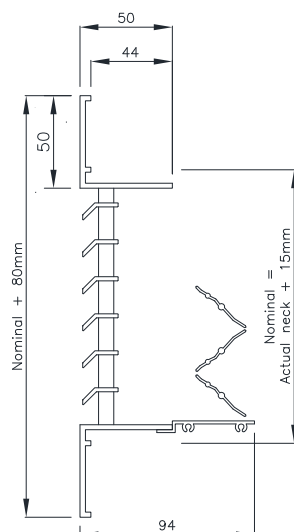
LG0 - 3 - 12.5 - D - 50FS



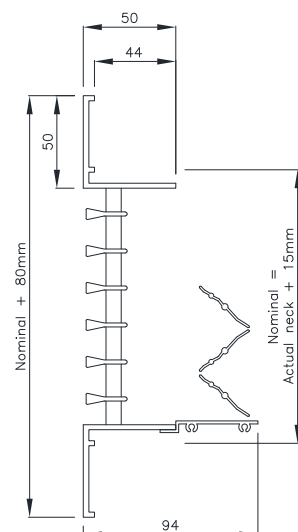
LG15 - 12.5 - D - 50FS



LG45 - 12.5 - D - 50FS

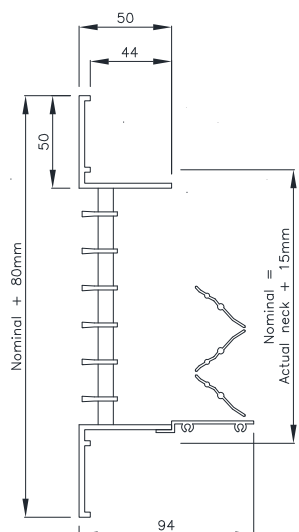


LG0 - 6 - 12.5 - D - 50FS

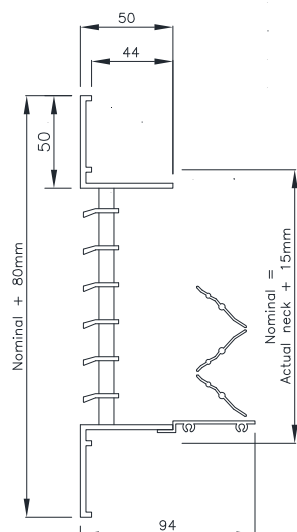


Grilles only

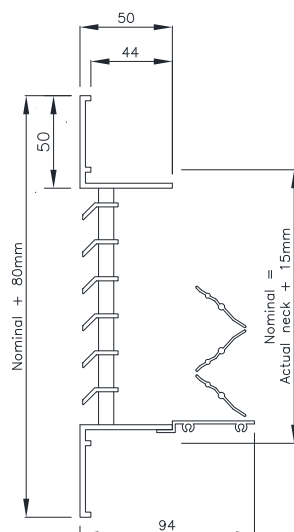
LG0 - 3 - 20 - 50FS



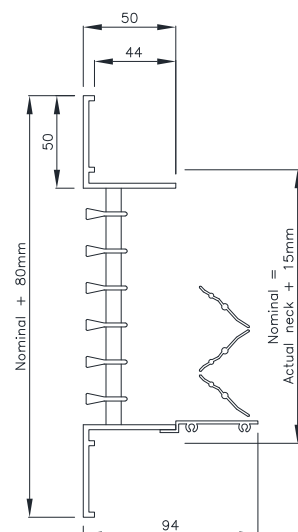
LG15 - 20 - 50FS



LG45 - 20 - 50FS

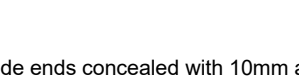


LG0 - 6 - 20 - 50FS

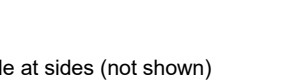


Grilles c/w opposed blade dampers

LG0 - 3 - 20 - D - 50FS



LG15 - 20 - D - 50FS



LG45 - 20 - D - 50FS



LG0 - 6 - 20 - D - 50FS



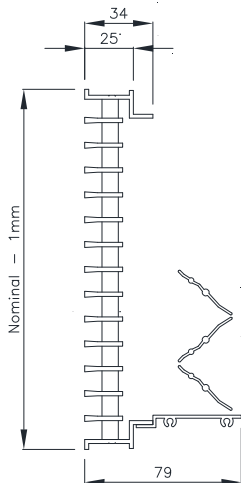
Blade ends concealed with 10mm angle at sides (not shown)

Technical drawings

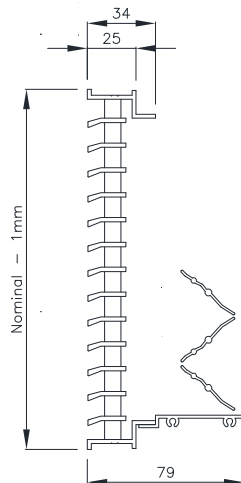
TF - Tray frame

Grilles only

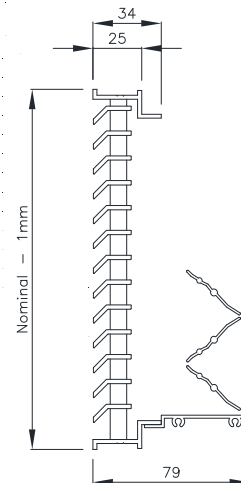
LG0 - 3 - 12.5 - TF



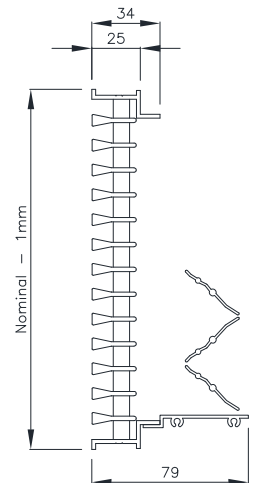
LG15 - 12.5 - TF



LG45 - 12.5 - TF

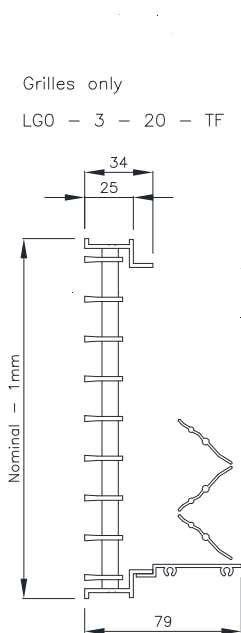


LG0 - 6 - 12.5 - TF

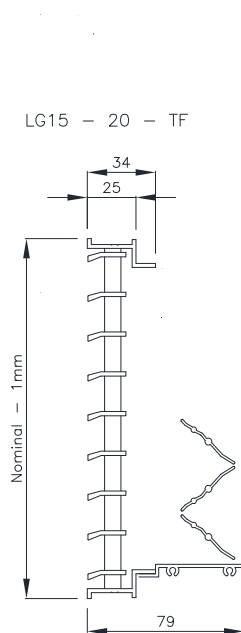


Grilles c/w opposed blade dampers

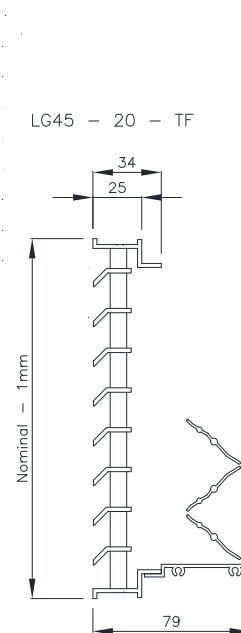
LG0 - 3 - 12.5 - D - TF



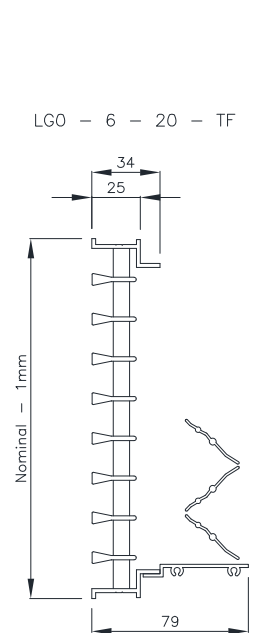
LG15 - 12.5 - D - TF



LG45 - 12.5 - D - TF

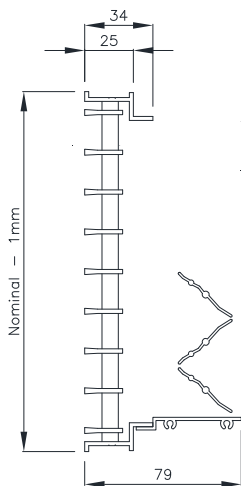


LG0 - 6 - 12.5 - D - TF

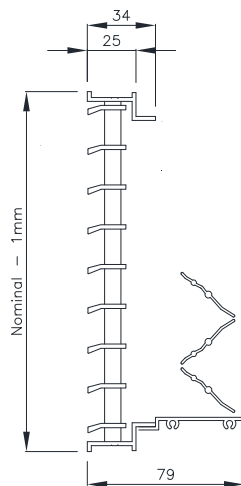


Grilles only

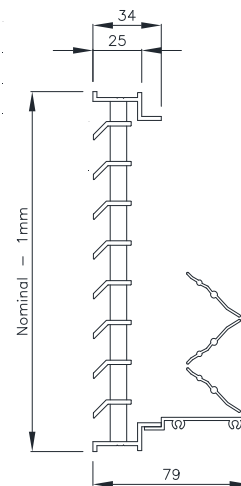
LG0 - 3 - 20 - TF



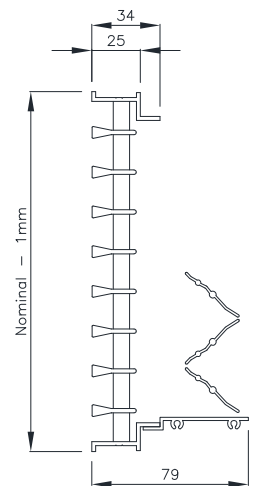
LG15 - 20 - TF



LG45 - 20 - TF



LG0 - 6 - 20 - TF



Grilles c/w opposed blade dampers

LG0 - 3 - 20 - D - TF



LG15 - 20 - D - TF



LG45 - 20 - D - TF



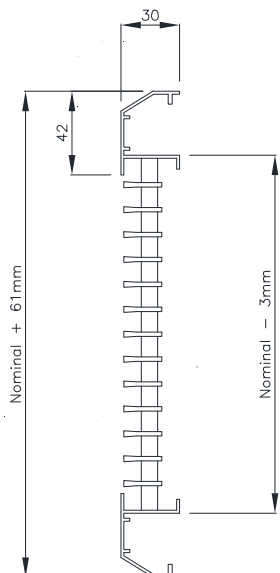
LG0 - 6 - 20 - D - TF



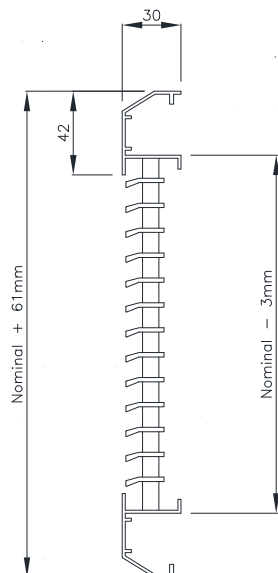
Technical drawings

SML frame - Surface mounted

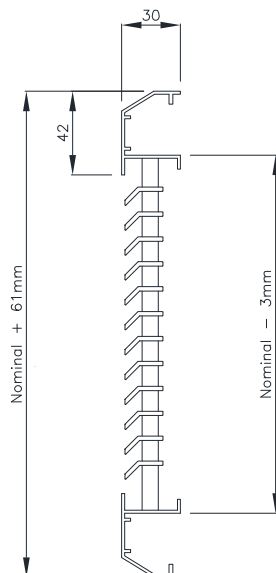
LG0 - 3 - 12.5 - SML



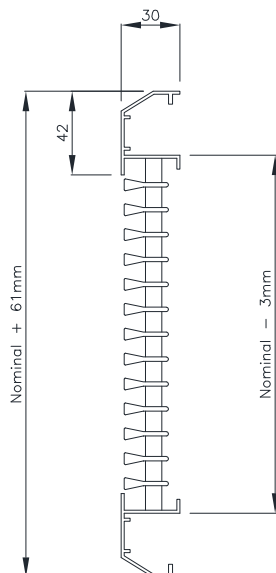
LG15 - 12.5 - SML



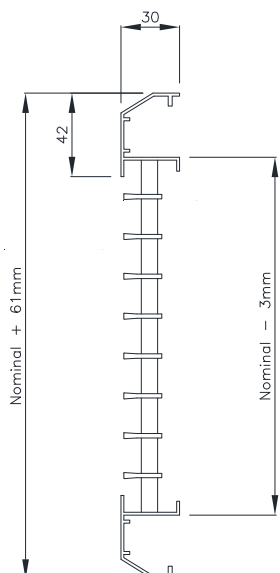
LG45 - 12.5 - SML



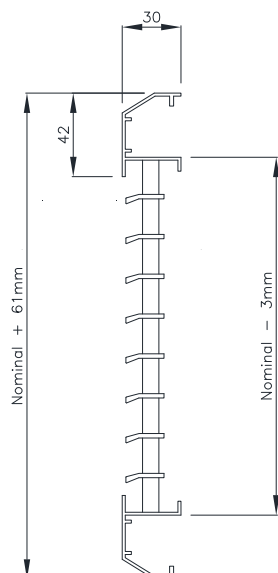
LG0 - 6 - 12.5 - SML



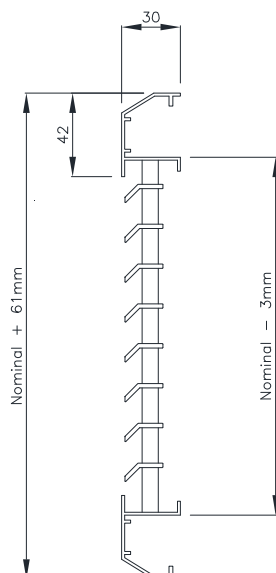
LG0 - 3 - 20 - SML



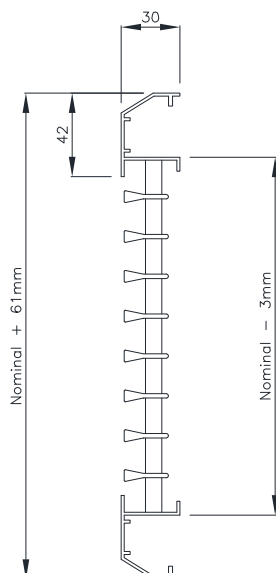
LG15 - 20 - SML



LG45 - 20 - SML



LG0 - 6 - 20 - SML



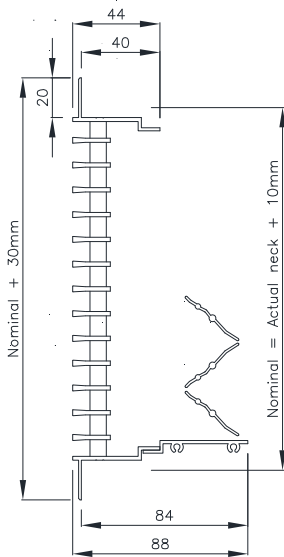
Opposed blade dampers are not available with this frame type
Countersunk fixing holes as standard

Technical drawings

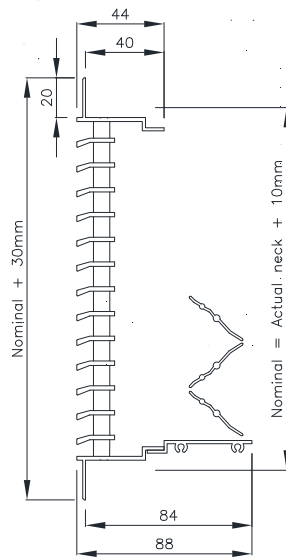
PLG frame - Plaster-in

Grilles only

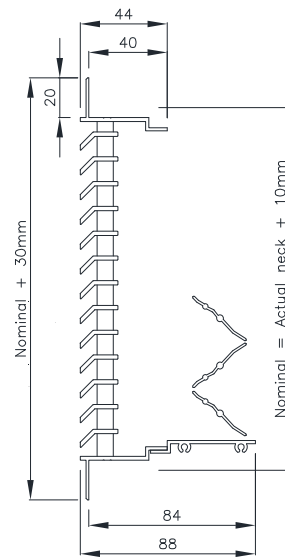
LG0 - 3 - 12.5 - PLG



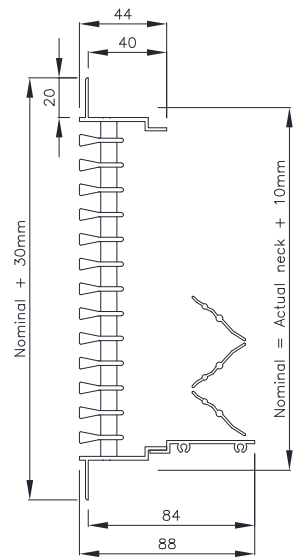
LG15 - 12.5 - PLG



LG45 - 12.5 - PLG



LG0 - 6 - 12.5 - PLG



Grilles c/w opposed blade dampers

LG0 - 3 - 12.5 - D - PLG

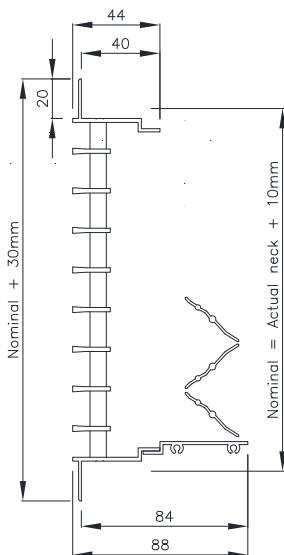
LG15 - 12.5 - D - PLG

LG45 - 12.5 - D - PLG

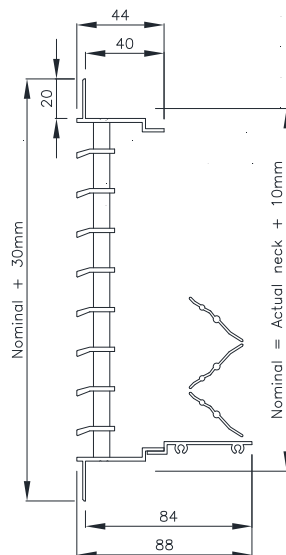
LG0 - 6 - 12.5 - D - PLG

Grilles only

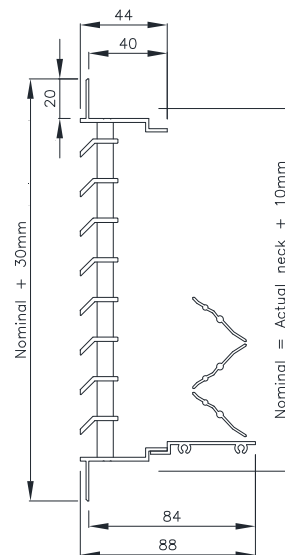
LG0 - 3 - 20 - PLG



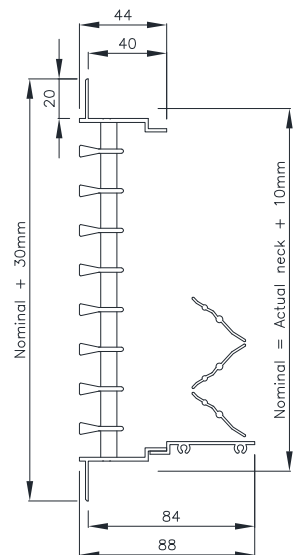
LG15 - 20 - PLG



LG45 - 20 - PLG



LG0 - 6 - 20 - PLG



Grilles c/w opposed blade dampers

LG0 - 3 - 20 - D - PLG

LG15 - 20 - D - PLG

LG45 - 20 - D - PLG

LG0 - 6 - 20 - D - PLG

Options

Removable core - Twin frame

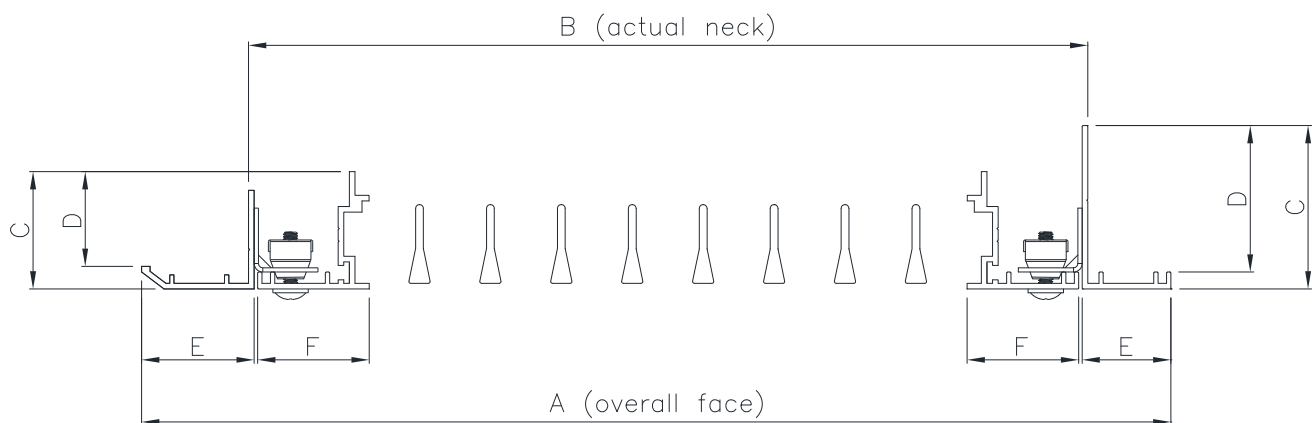
The most robust removable core type, twin frame removable core grilles have an outer frame which is fitted to the building substrate, and an inner frame which can be fully removed.

Zinc plated M4 cross-headed machine screws in the inner core mate with cage nuts held by angle brackets inside the outer frame.

Cage nuts give far greater tolerance to screw misalignment than regular nut-inserts, thus ensuring cores can always be refitted easily.

Ordering code: RC-CN

Notes: Safety wire fitted as standard
Minimum width/height 150mm
Recommended for grilles 300mm high and above
Outer frame 25F/32BS/50FS
Inner frame 31F



32BS: 32mm bevelled (standard)	
A	Nominal + 45mm
B	Nominal - 15mm
C	33mm
D	27mm
E	32mm
F	31mm

25F: 25mm flat (optional)	
A	Nominal + 30mm
B	Nominal - 15mm
C	46mm
D	41mm
E	25mm
F	31mm

Options

Removable core - Tube clips

Sprung tube clips are mounted on mullions running behind the blade pack.

To install the core, align the blade tubes with the clips and push the core into place.

Ordering core: RC-TC

Notes: For wall mounting only, not for use in ceilings
Safety wire fitted as standard
Recommended for grilles below 300mm high
Outer frame 25F/32BD/50FS



Removable core - Quick release

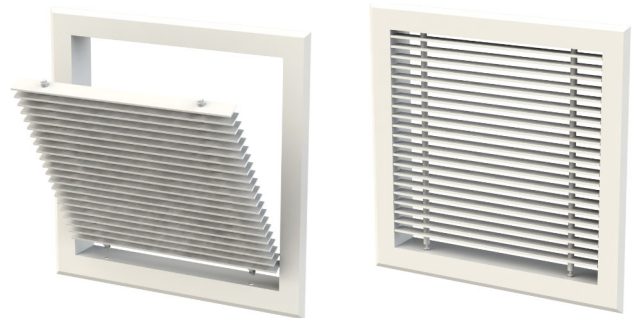
Quick release removable core grilles have spring loaded pins in one end of the core tubes, with a locator pin at the other end.

While fitted the springs force the pins into locating holes in the frame, holding the core in place.

To remove the core, compress the springs, pulling the locator pins out of the holes, and pull the core away.

Ordering core: RC-QR

Notes: Safety wire fitted as standard
Minimum height 100mm
Recommended for grilles 100mm - 300mm high
Outer frame 25F/32BS/50FS



Options

Hinged core

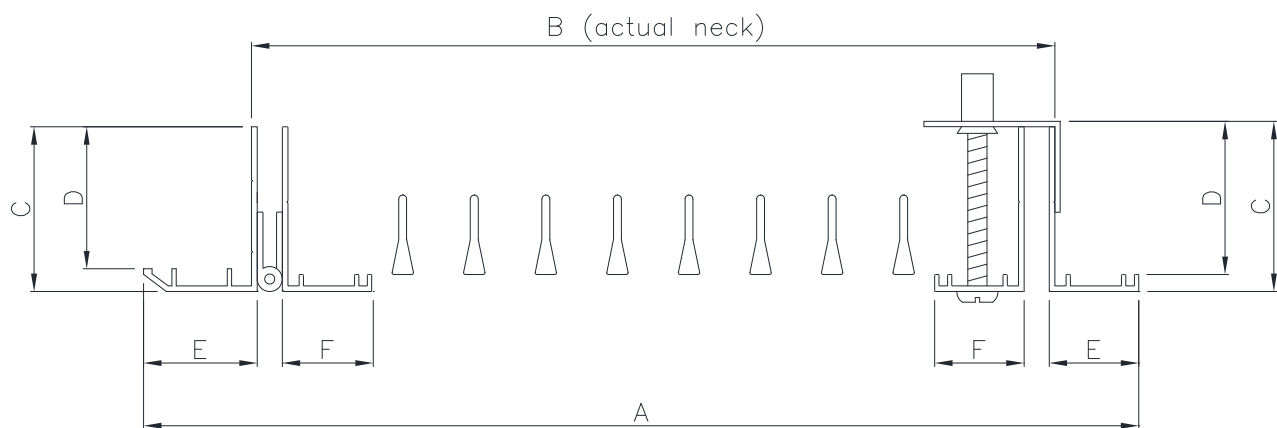
Having the grille core mounted on a hinge may be preferable to it being fully removable.

The full length piano hinge at one side is discreet and gives minimal loss of core area. An M6 panhead machine screw in the inner core, mating with a nut-insert at the rear of the outer core hold the grille closed.

Chrome plated cam fasteners are optional instead of bolts.

Ordering code: HC-BLT (bolt type, standard)
HC-CAM (cam fastener type, optional)

Notes: Minimum width/height 150mm



32BD: 32mm bevelled (standard)	
A	Nominal + 45mm
B	Nominal - 15mm
C	46mm
D	40mm
E	32mm
F	25mm

25F: 25mm flat (optional)	
A	Nominal + 30mm
B	Nominal - 15mm
C	46mm
D	41mm
E	25mm
F	25mm

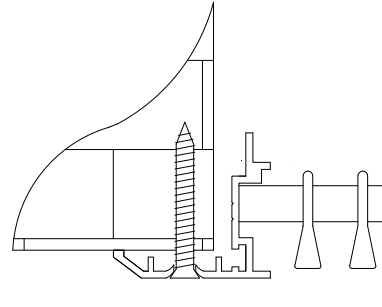
Fixings

Countersunk fixing holes: FH

Countersunk fixing holes can be punched into the outer frame.

Self tapping screws in the same finish as the grille are provided as standard.

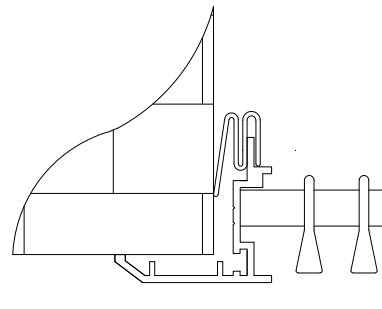
Notes: Not with 'TF' or 'PLG'
Standard with 'SML'



Push-in sprung clips: SC

Sprung clips which are compressed between the aperture and grille neck, holding the grille in place.

Notes: Not for use in ceilings
Not with 'TF', 'SML' or 'PLG'
Not with rear mounted opposed blade dampers
Formerly 'PC'



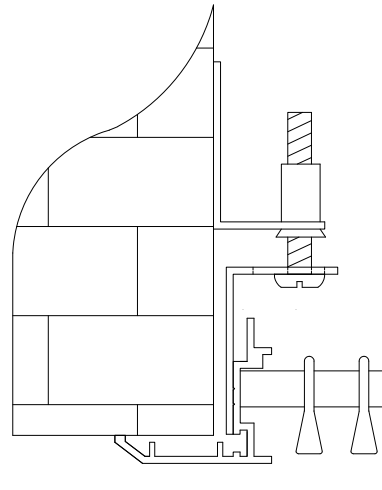
Concealed fixings: CF

Comprising two small lengths of aluminium angle, one with a punched slot, the other with a factory fitted nutsert.

The punched bracket should be fitted to the grille neck, and the bracket with nutsert fixed to the inside of the plenum, duct or builderswork opening.

Factory supplied bolts can then be used to pull the grille securely into place.

Notes: Not with 'TF', 'SML' or 'PLG'



Burgess tiles

Linear bar grilles can be factory fitted into Burgess tiles for easy installation into these systems.

Fitting into other ceiling tile systems is possible. Please contact us for more information.

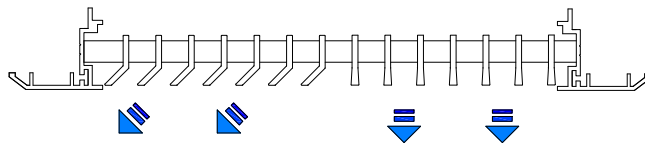
Further options

Multiple way blows

To increase functionality, all three 3mm blade types can be used in a single grille.

For example: When used just inside an entrance, 50% of the grille can be used with 0° blade to provide an air curtain, and the rest can use either 15° or 45° blade to direct air into the room.

Please discuss any requirements for this option with HVC.



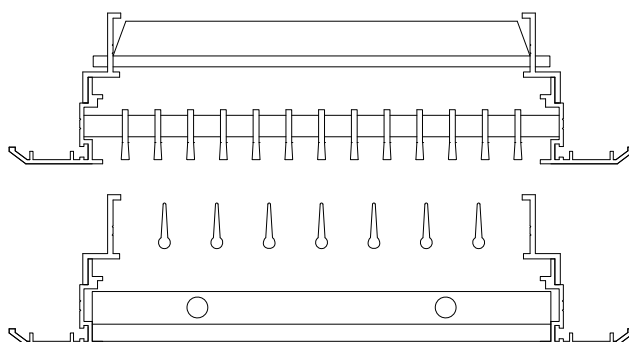
Rear mounted deflection blades

A bank of single deflection type blades can be mounted behind the LG grille blades. Enabling throw adjustment in one plane.

Dampers if required are mounted behind the deflection blades.

Ordering core: RSD

Notes: Overall depth no damper - 57mm
Overall depth c/w damper - 103mm
Both when using 31F/36B frame

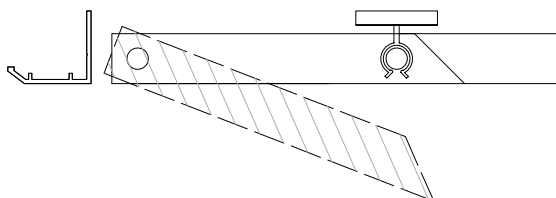


Hinged access sections/panels

To allow access through the grille face, without having to opt for a fully removable core or removing the whole grille, blades or a panel can be hinged enabling access through the core.

The section swings out to 90°, and integrated tube clips prevent the panel swinging out unexpectedly if mounted in a wall or ceiling.

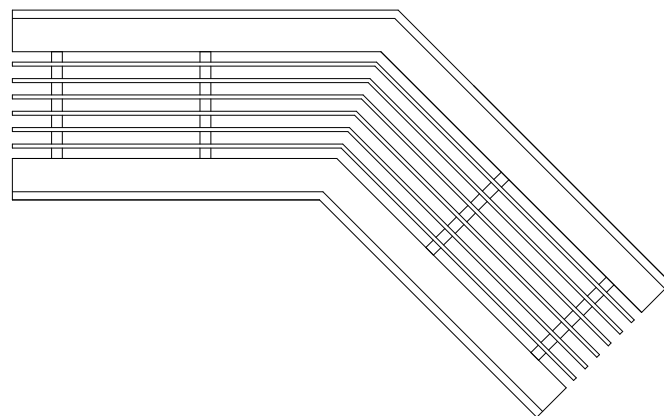
Please discuss any requirements for this option with HVC.



Mitred sections

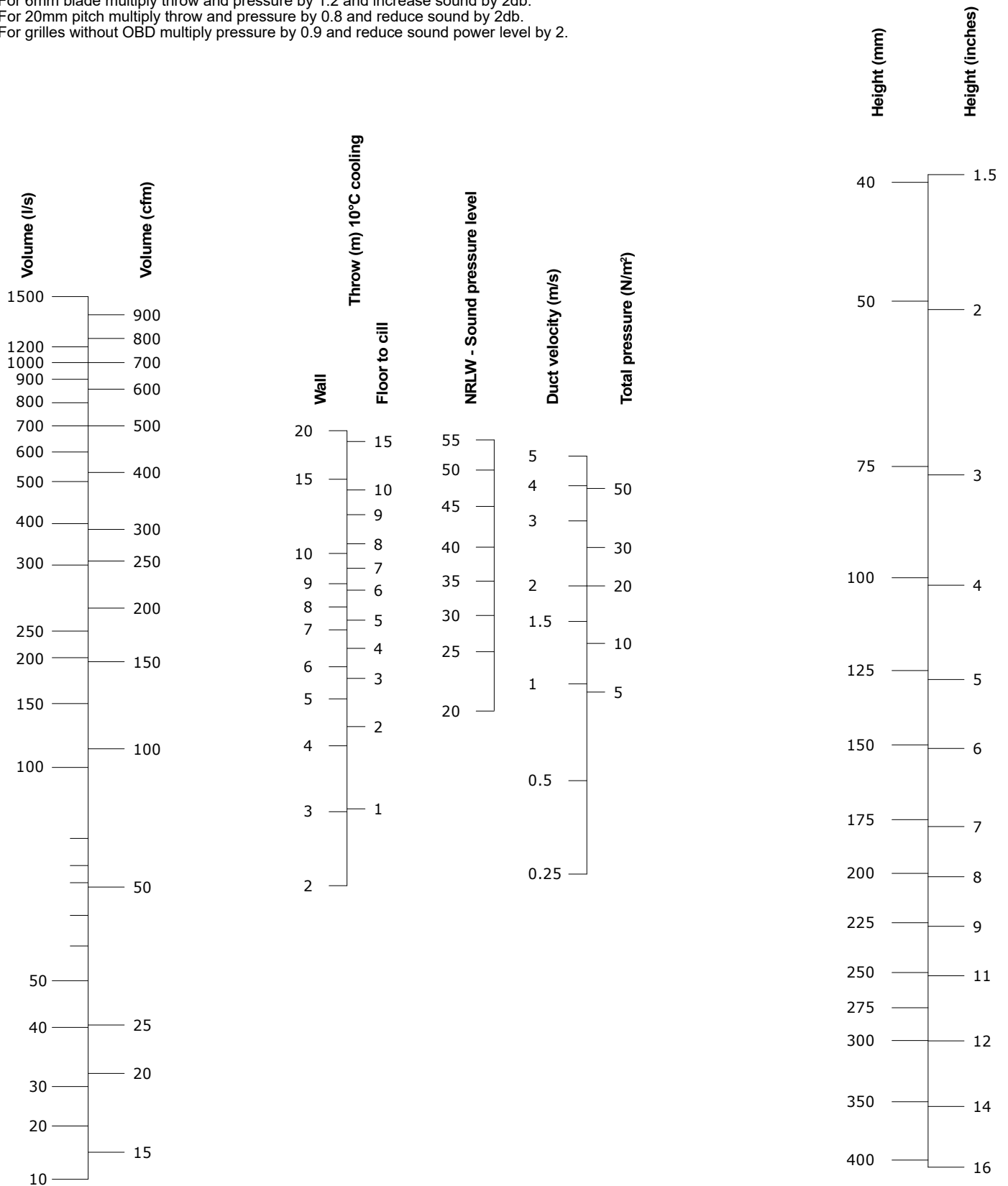
For truly bespoke installations, mitred sections can be made to suit corners. Whether these are a standard 90° corner for ceiling fitting, or an internal or external corner for sidewall fitting at an angle other than 90° we can manufacture them.

Please discuss any requirements for this option with HVC.



Selection data

Figures based on 1m wide LG0-3-12.5 fitted with OBD.
10°C cooling application with grille not more than 0.5m below ceiling.
For 6mm blade multiply throw and pressure by 1.2 and increase sound by 2db.
For 20mm pitch multiply throw and pressure by 0.8 and reduce sound by 2db.
For grilles without OBD multiply pressure by 0.9 and reduce sound power level by 2.



Finish

Mill aluminium

Satin anodised aluminium

Polyester powder coating to any RAL or BS colour



Ordering codes

Example

1 - 400 x 400 - LG0 - 6 - 20 - D - 36B - FH - RAL9010 - 1S

1)	Quantity		
2)	Size (mm)	(Width x height)	
3)	Series	LG0 LG15 LG45	Linear bar grille, 0° blades Linear bar grille, 15° blades Linear bar grille, 45° blades
4)	Blade thickness	3 6	3mm blade 6mm blade (only available with LG0)
5)	Blade pitch	12.5 20	12.5mm blade pitch 20mm blade pitch
6)	Damper	D	Opposed blade damper fitted (not with 'SML')
7)	Frame	36B 31F 50FS TF SML PLG	36mm bevelled (standard) 31mm flat 50mm flat Tray frame Surface mounted Plaster-in
8)	Fixings	FH CF SC BT	Countersunk fixing holes (screws supplied in same finish) Concealed fixings Push-in sprung clips Burgess tile compatible frame For other tile systems please contact us
9)	Core type	RC-CN RC-QR RC-TC HC-BLT HC-CAM	Removable core - Twin frame type Removable core - Quick release type Removable core - Tube clip type Hinged core - Bolt type Hinged core - Cam fastener See pages 10-12 for full details on removable and hinged cores
10)	Deflection blades	RSD	Rear mounted single deflection blades
11)	Finish	SAA Mill RAL... BS...	Satin anodised (not with '50FS', 'TF' or 'PLG') Mill aluminium Polyester powder coated to RAL... Polyester powder coated to BS...
12)	Sections	_S	Number of sections required. If left blank this will be confirmed on order acknowledgment.

Important: Size will be taken to be nominal (hole internal) unless stated otherwise.

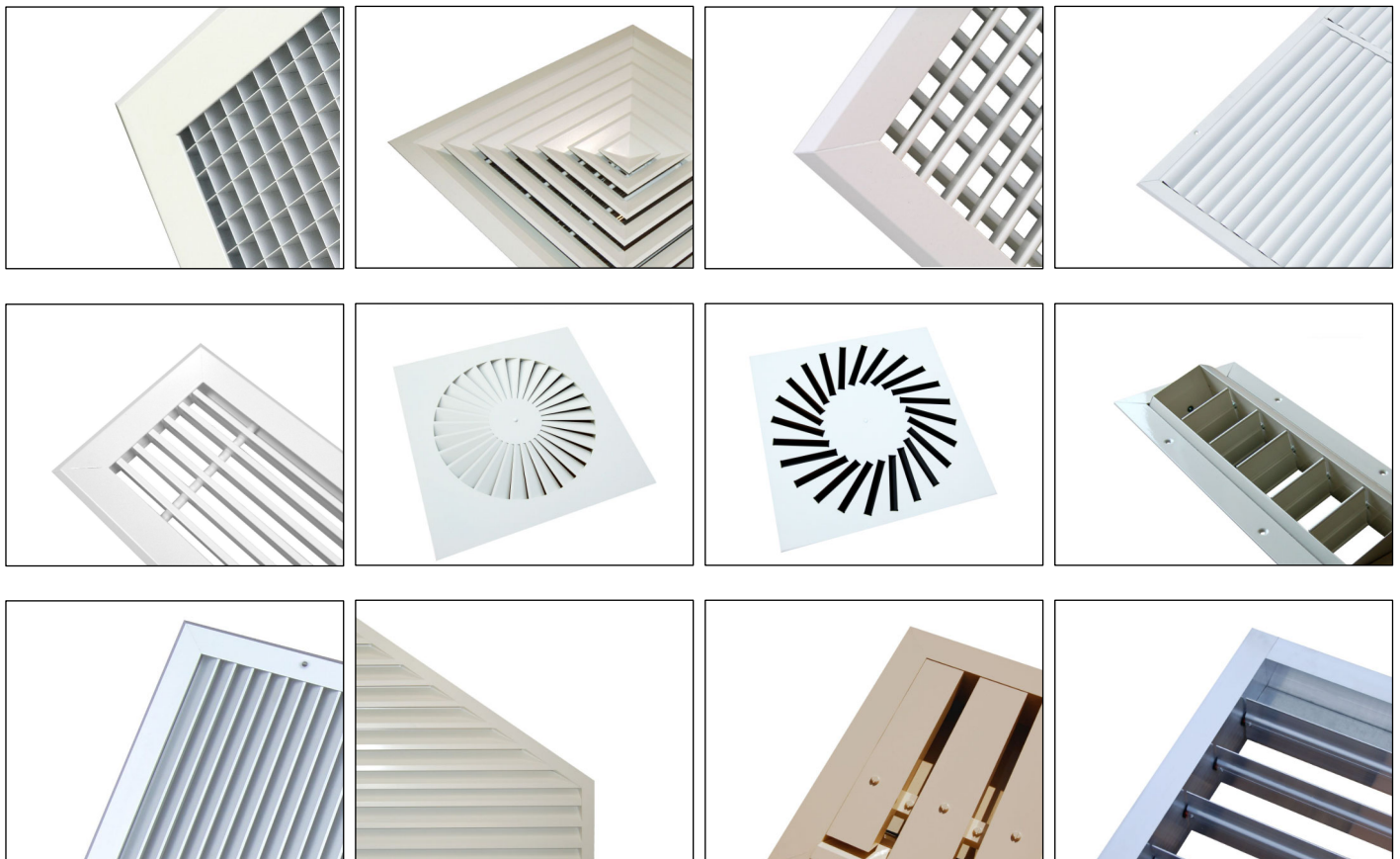
Leave code section blank if no option is required.

HVC & NCA products

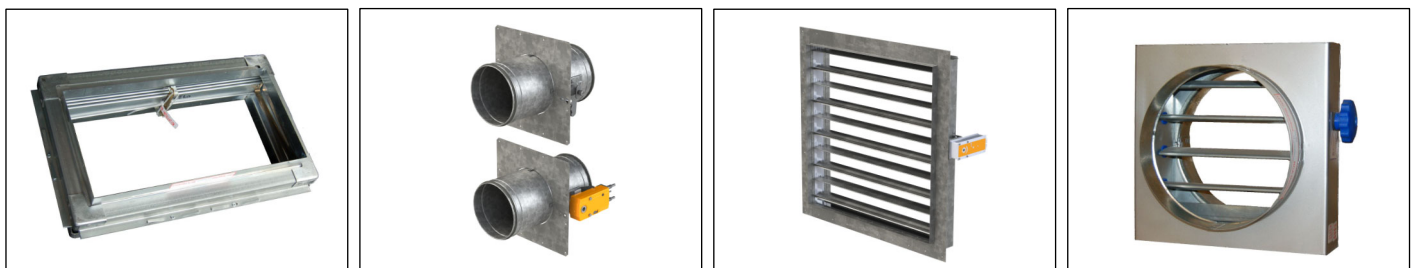
HVC offers the significant advantage of manufacturing both in duct and duct terminal equipment, making us a one stop shop for all your HVAC needs.

The products shown below are a selection, not an exhaustive list. Go to www.h-v-c.com for details on all HVC and NCA products.

HVC: Grilles, diffusers, louvres and volume control dampers



NCA: Fire and volume control dampers





Assessed to ISO 9001
Cert/Ref no. 1186

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