



Incorporating



Grilles & Diffusers

Series LG Linear 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

- Now available with plaster-in frame



Series LG

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

Available with different blade profiles and spacings, a variety of hinged and removable core methods, and a comprehensive range of finishes.

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 8 and 9 for more information.



Design features

Material	Extruded aluminium
Frame	Standard: 36B - 36mm bevelled Optional: 31F - 31mm 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 11
Finish	Standard: Satin anodised (AA5) Optional: See page 14
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 ISO 9001 certified company.



Assessed to ISO 9001
Cert/Ref No. 1186

Technical specifications

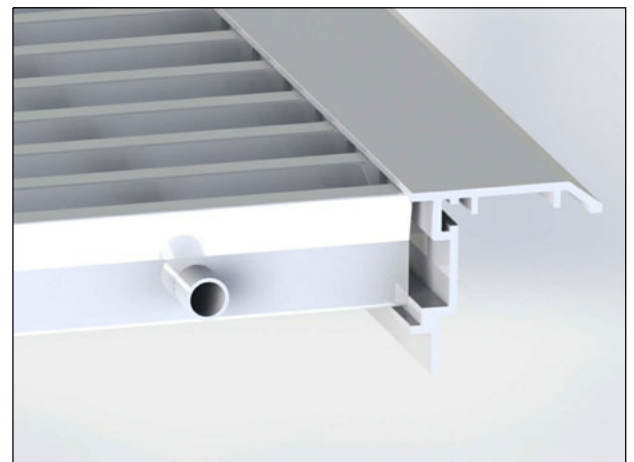
Series	Free area (approx.)	Mass/m ² face area (approx.)
LG0 - 3 - 12.5	76%	10.0 kg
LG0 - 3 - 20	85%	7.2 kg
LG0 - 6 - 12.5	52%	14.1 kg
LG0 - 6 - 20	70%	9.6 kg
LG15 - 12.5	74%	10.1 kg
LG15 - 20	83%	7.3 kg
LG45 - 12.5	54%	10.5 kg
LG45 - 20	63%	7.4 kg

Dedicated frame design

As part of our continual drive to improve quality, linear grilles now use a dedicated frame design, rather than the standard frames used widely within the range of HVC grilles.

Offering the significant advantage of supporting the blade ends, this gives a much stronger design, which is less prone to bowing. The blade and tube ends are also concealed giving a seamless design.

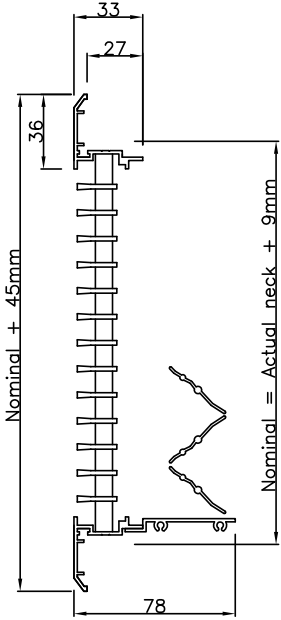
These frames, denoted the 36B (bevelled) and 31F (flat) are standard with all blade types (various options will require the use of other frames).



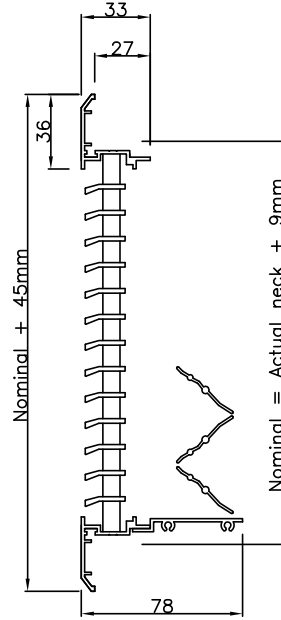
Technical drawings - 36B frame

Grilles only

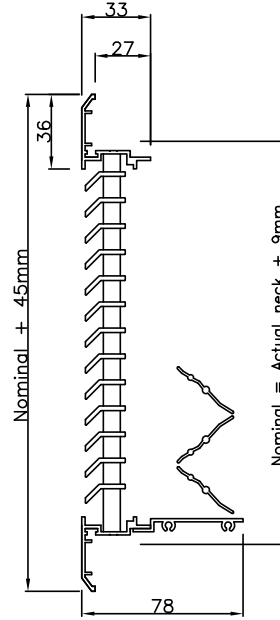
LG0 - 3 - 12.5 - 36B



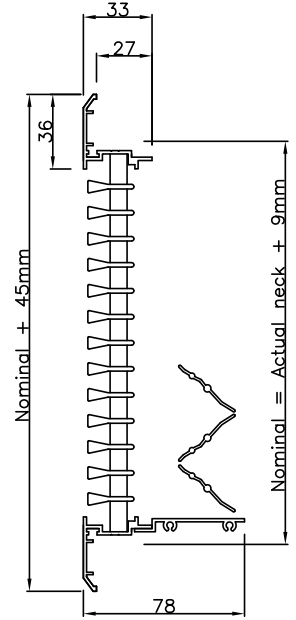
LG15 - 12.5 - 36B



LG45 - 12.5 - 36B

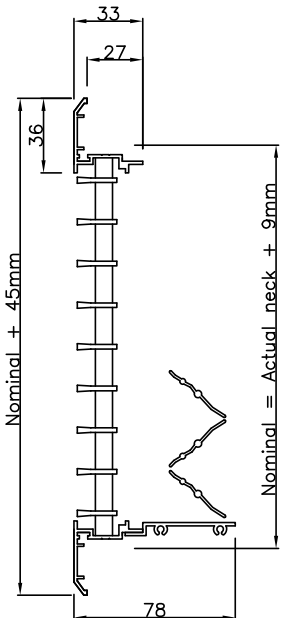


LG0 - 6 - 12.5 - 36B

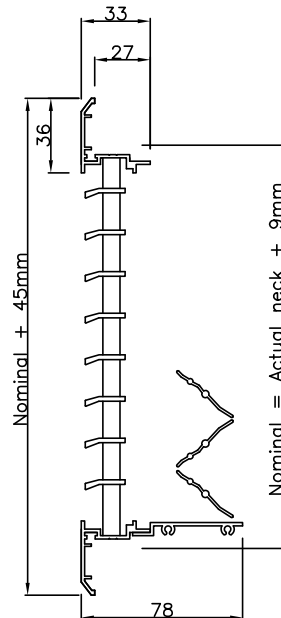


Grilles c/w opposed blade dampers

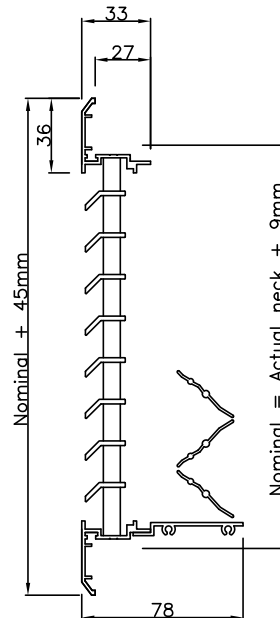
LG0 - 3 - 12.5 - D - 36B



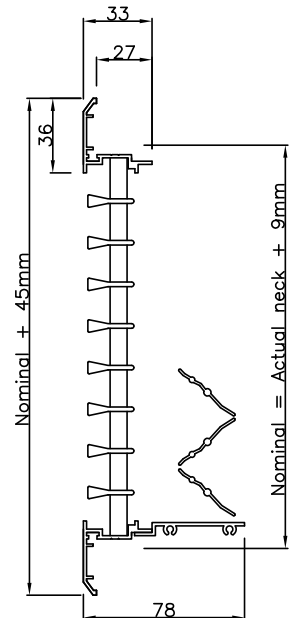
LG15 - 12.5 - D - 36B



LG45 - 12.5 - D - 36B

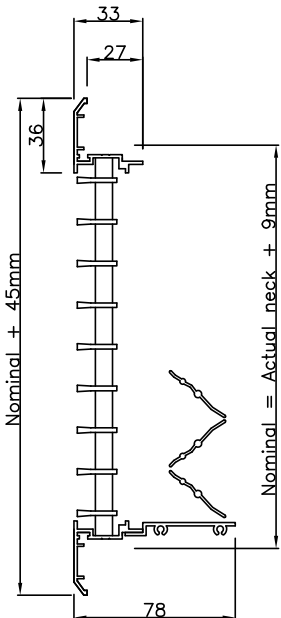


LG0 - 6 - 12.5 - D - 36B

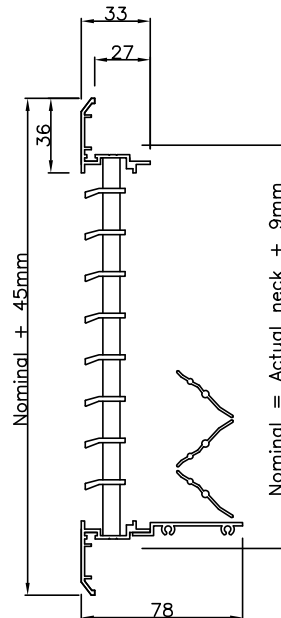


Grilles only

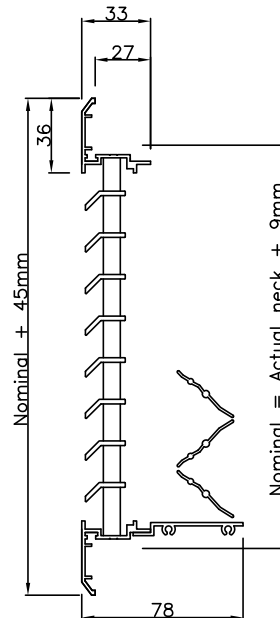
LG0 - 3 - 20 - 36B



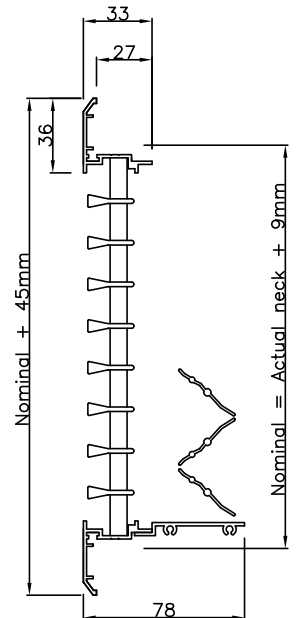
LG15 - 20 - 36B



LG45 - 20 - 36B

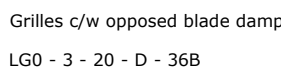


LG0 - 6 - 20 - 36B

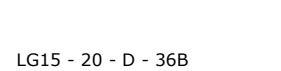


Grilles c/w opposed blade dampers

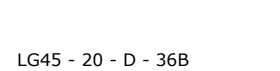
LG0 - 3 - 20 - D - 36B



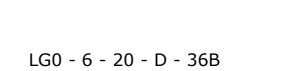
LG15 - 20 - D - 36B



LG45 - 20 - D - 36B



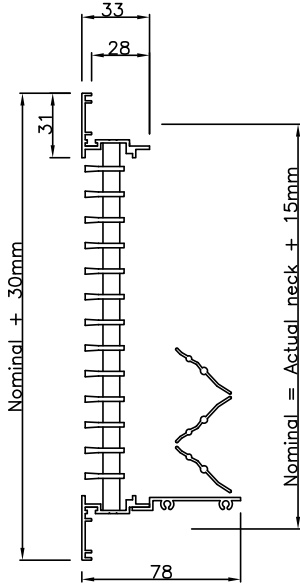
LG0 - 6 - 20 - D - 36B



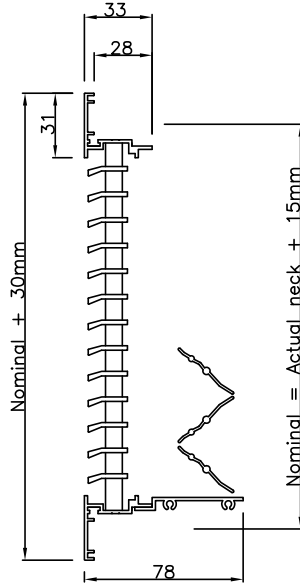
Technical drawings - 31F frame

Grilles only

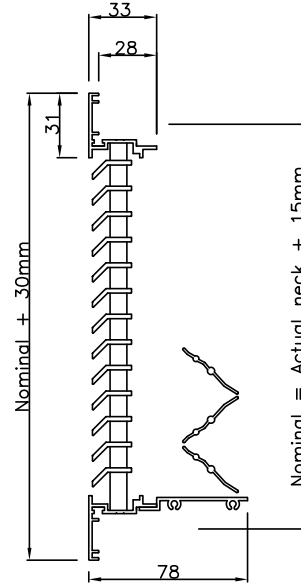
LG0 - 3 - 12.5 - 31F



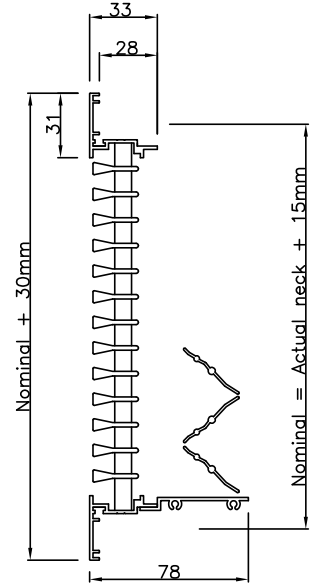
LG15 - 12.5 - 31F



LG45 - 12.5 - 31F



LG0 - 6 - 12.5 - 31F



Grilles c/w opposed blade dampers

LG0 - 3 - 12.5 - D - 31F

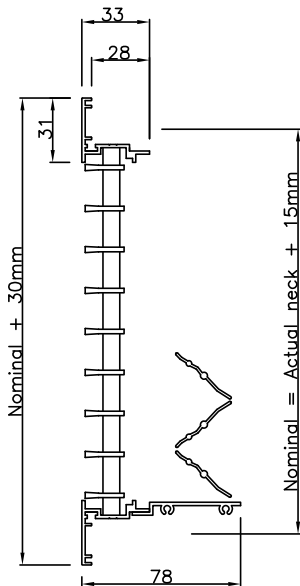
LG15 - 12.5 - D - 31F

LG45 - 12.5 - D - 31F

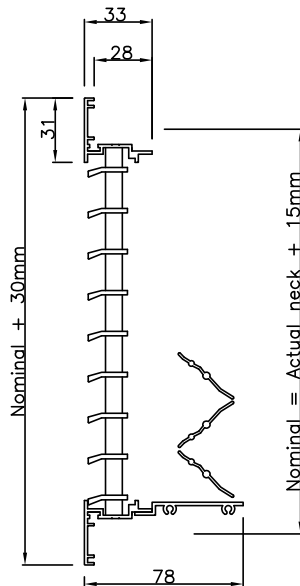
LG0 - 6 - 12.5 - D - 31F

Grilles only

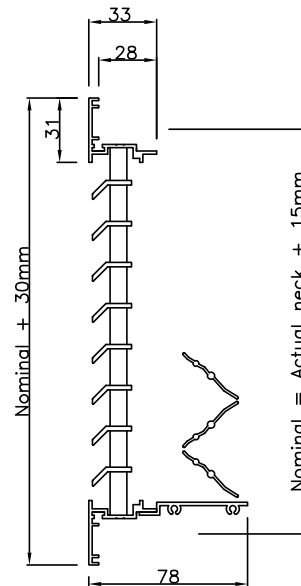
LG0 - 3 - 20 - 31F



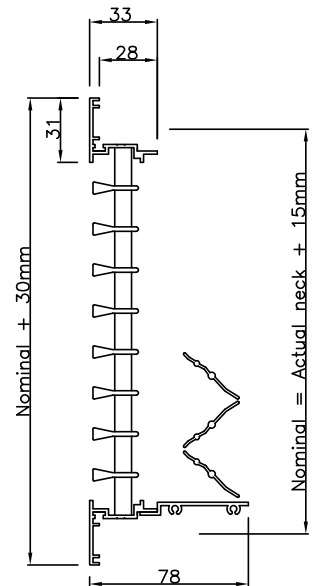
LG15 - 20 - 31F



LG45 - 20 - 31F



LG0 - 6 - 20 - 31F



Grilles c/w opposed blade dampers

LG0 - 3 - 20 - D - 31F

LG15 - 20 - D - 31F

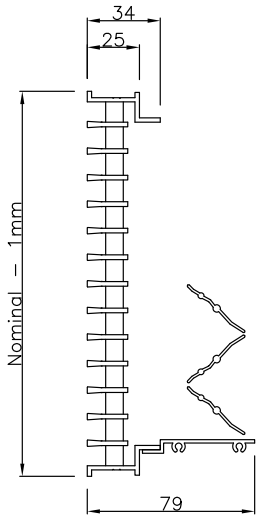
LG45 - 20 - D - 31F

LG0 - 6 - 20 - D - 31F

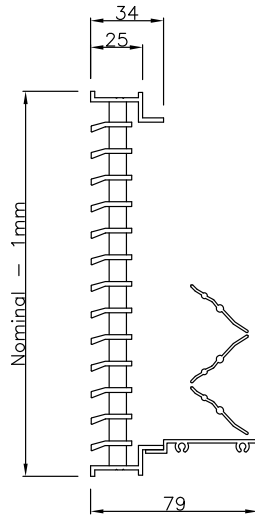
Technical drawings - TF (tray frame)

Grilles only

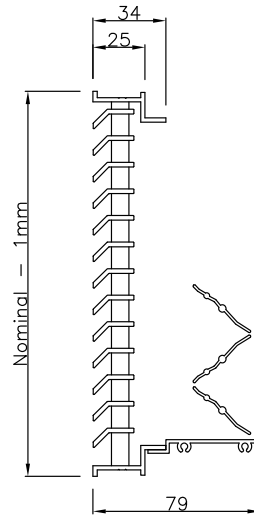
LG0 - 3 - 12.5 - TF



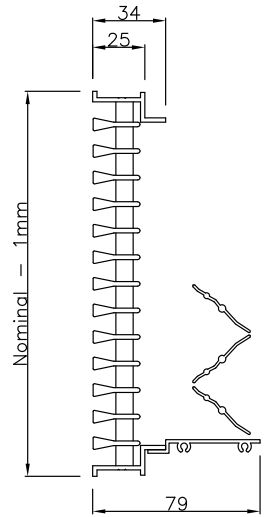
LG15 - 12.5 - TF



LG45 - 12.5 - TF



LG0 - 6 - 12.5 - TF



Grilles c/w opposed blade dampers

LG0 - 3 - 12.5 - D - TF

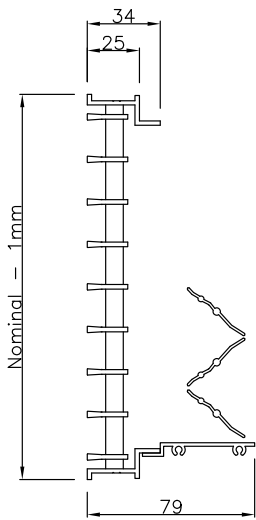
LG15 - 12.5 - D - TF

LG45 - 12.5 - D - TF

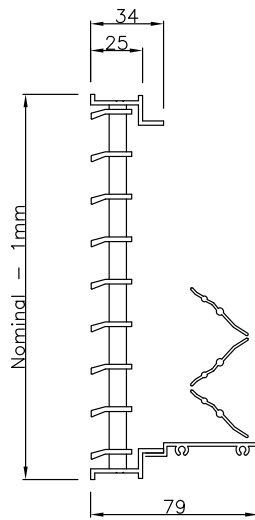
LG0 - 6 - 12.5 - D - TF

Grilles only

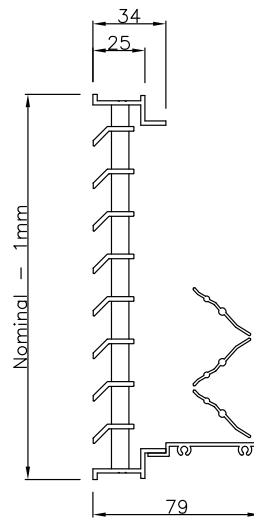
LG0 - 3 - 20 - TF



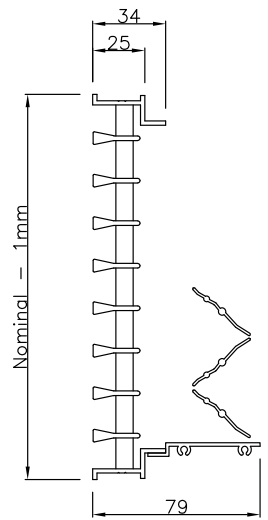
LG15 - 20 - TF



LG45 - 20 - TF



LG0 - 6 - 20 - TF



Grilles c/w opposed blade dampers

LG0 - 3 - 20 - D - TF

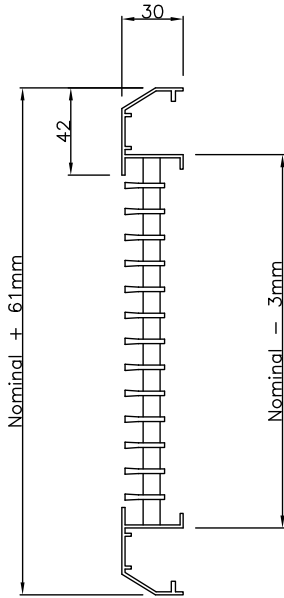
LG15 - 20 - D - TF

LG45 - 20 - D - TF

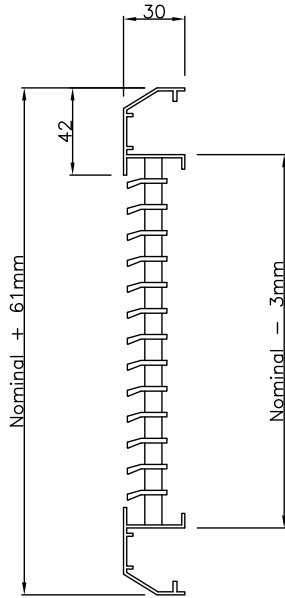
LG0 - 6 - 20 - D - TF

Technical drawings - SML (surface mounted frame)

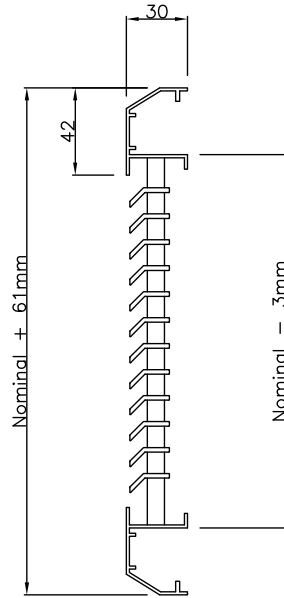
LG0 - 3 - 12.5 - SML



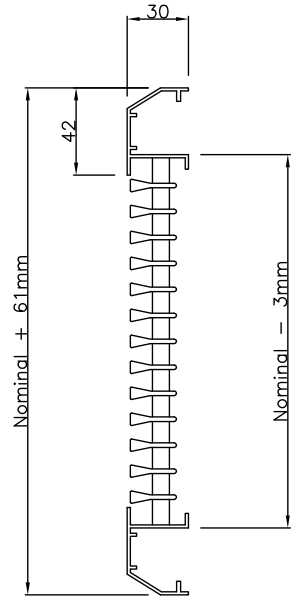
LG15 - 12.5 - SML



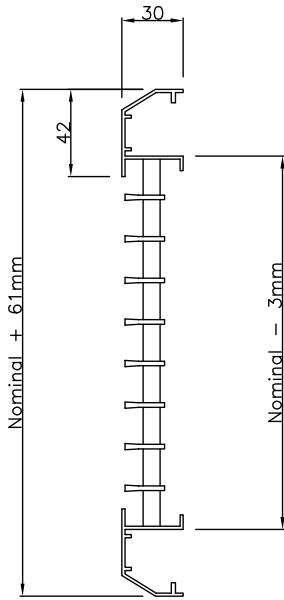
LG45 - 12.5 - SML



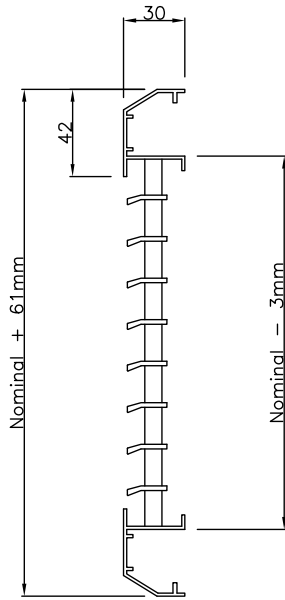
LG0 - 6 - 12.5 - SML



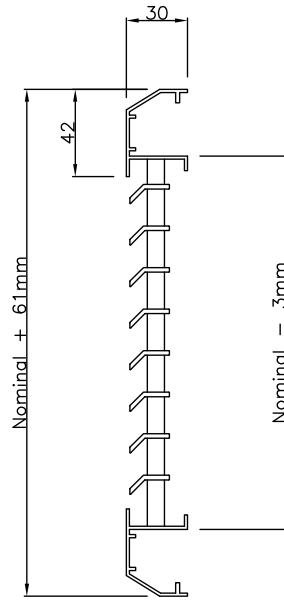
LG0 - 3 - 20 - SML



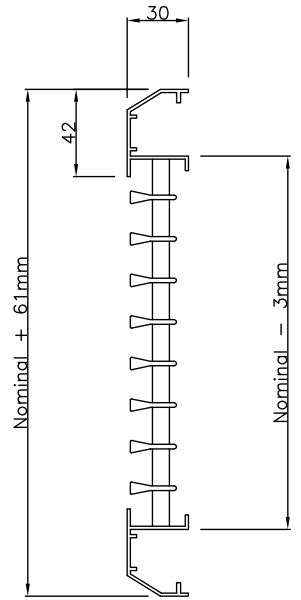
LG15 - 20 - SML



LG45 - 20 - SML



LG0 - 6 - 20 - SML



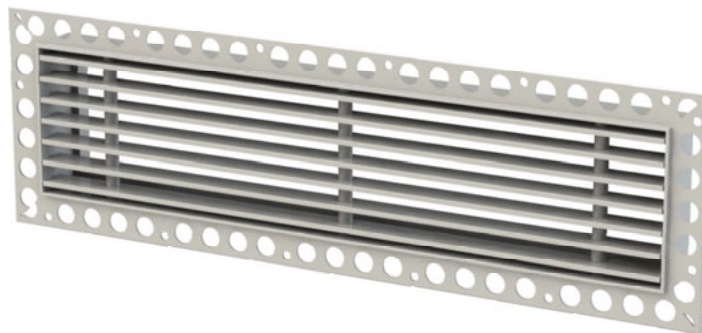
Plaster-in frame

In response to growing customer requests, we have introduced a new frame for linear bar grilles which is designed to be plastered in, giving a seamless appearance once installed.

The new frame has a 1.35mm thick, 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 quick release type removable cores.

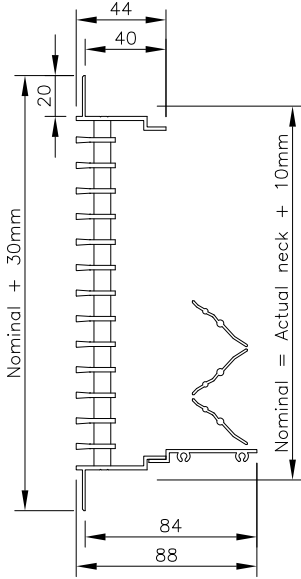
The new plaster-in frame uses the ordering code PLG.



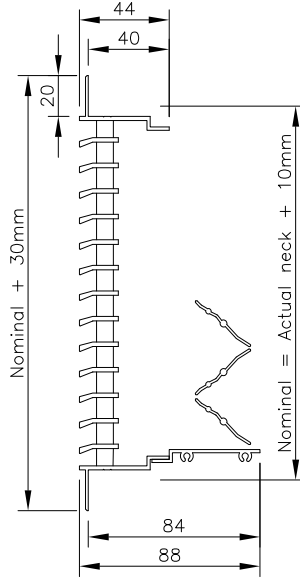
Technical drawings - PLG (plaster-in frame)

Grilles only

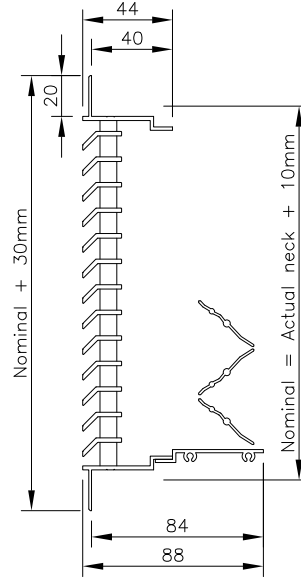
LG0 - 3 - 12.5 - PLG



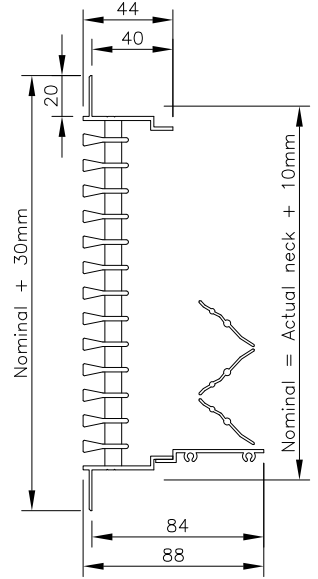
LG15 - 12.5 - PLG



LG45 - 12.5 - PLG

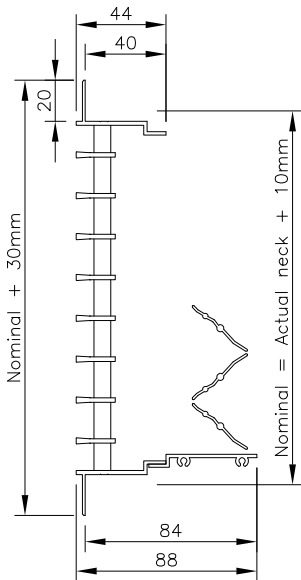


LG0 - 6 - 12.5 - PLG

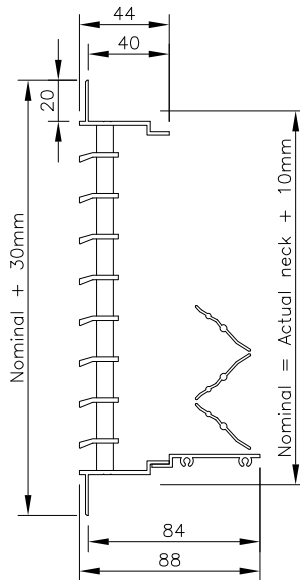


Grilles c/w opposed blade dampers

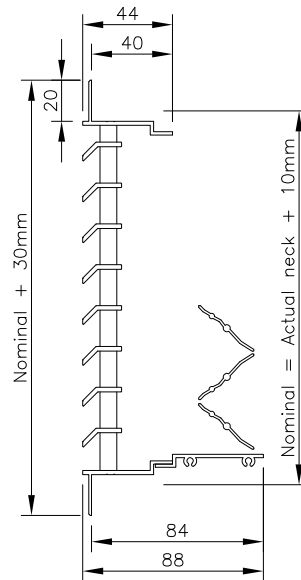
LG0 - 3 - 12.5 - D - PLG



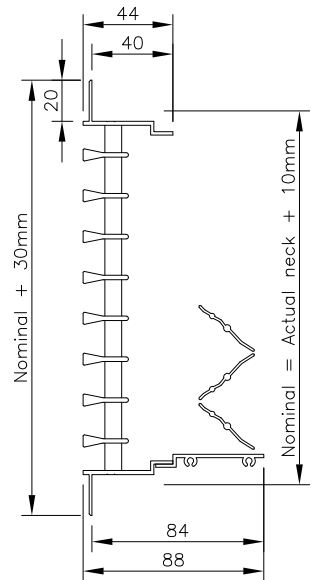
LG15 - 12.5 - D - PLG



LG45 - 12.5 - D - PLG

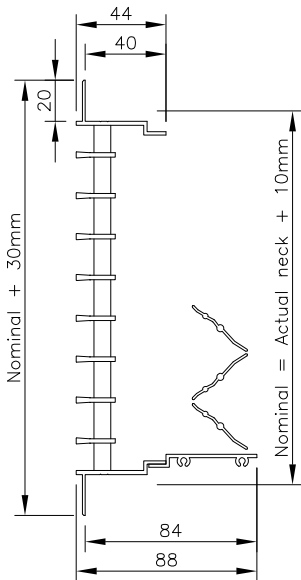


LG0 - 6 - 12.5 - D - PLG

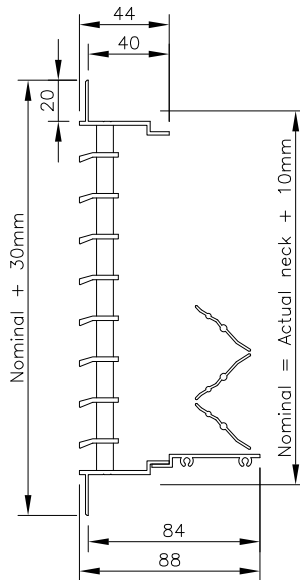


Grilles only

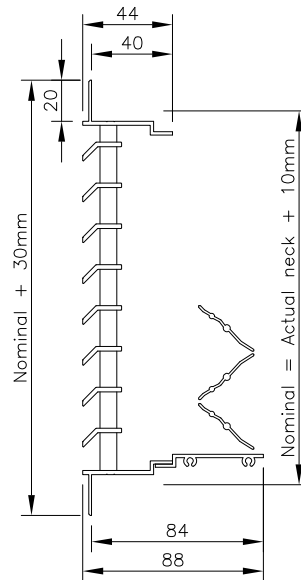
LG0 - 3 - 20 - PLG



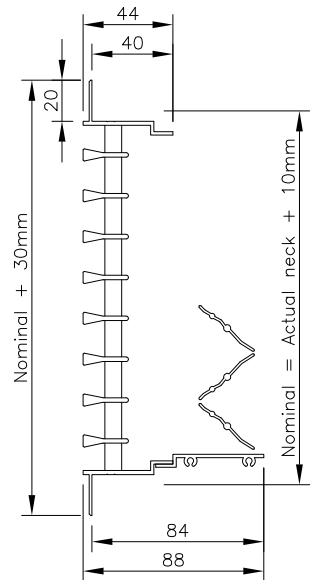
LG15 - 20 - PLG



LG45 - 20 - PLG



LG0 - 6 - 20 - PLG



Grilles c/w opposed blade dampers

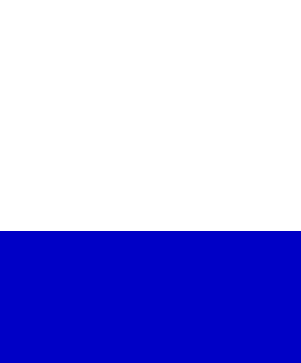
LG0 - 3 - 20 - D - PLG



LG15 - 20 - D - PLG



LG45 - 20 - D - PLG



LG0 - 6 - 20 - D - PLG



Removable core - Twin frame

Fitted with spring loaded quarter turn fasteners, the outer frame has angle brackets fixed to the inside of the neck.

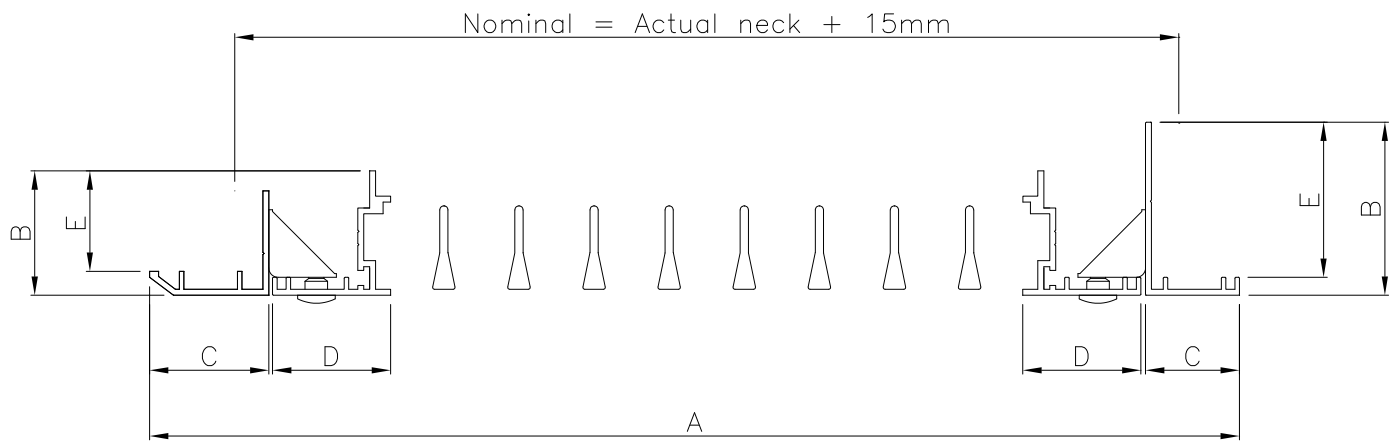
The inner removable frame holds the chrome plated slotted head studs, which are easily removed with a flathead screwdriver.

Other stud types are available for use with allen keys, or with a larger head for removal by hand.

Outer frame will be either 32BS 32mm bevelled frame or 25F 25mm flat, inner frame will be 31F 31mm flat.



Ordering code for type shown here: RC-QT



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

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

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.

32BD 32mm bevelled frame or 25F 25mm flat frames only.

For wall mounting use only.
Not recommended for use in ceilings.

Ordering code for type shown here: RC-TC



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.

32BD 32mm bevelled frame or 25F 25mm flat frames only.

Safety cord fitted as standard.

Not available on grilles of nominal height less than 100mm.

Ordering code for type shown here: RC-QR



Hinged core

Enabling the core to hinge outwards may be preferable to it being fully removable.

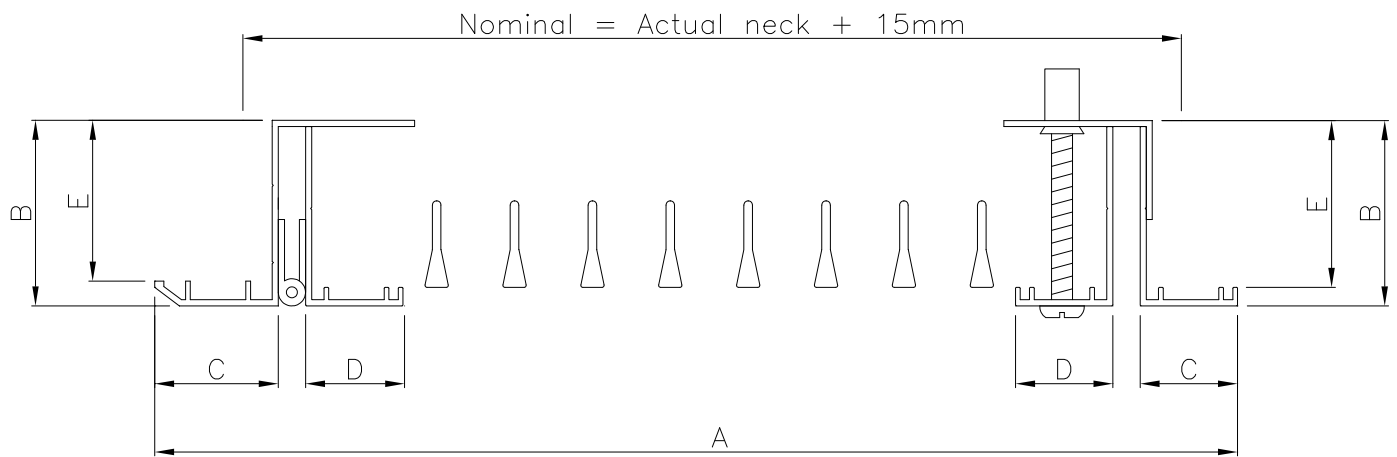
The full length piano hinge at one side is discreet, and gives minimal loss of core area.

The inner core is held in place by one or more M6 panhead bolts mating with nutserts mounted to a concealed rear frame extension.

Chrome plated cam fasteners are optional instead of bolts.



Ordering code for type shown here: HC-BLT



32BZ: 32mm bevelled Z (standard)	
A	Nominal + 45mm
B	48mm
C	32mm
D	30mm
E	41mm

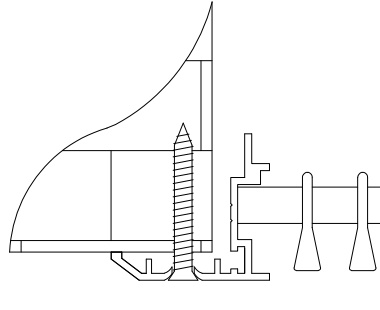
25F: 25mm flat (optional)	
A	Nominal + 30mm
B	48mm
C	25mm
D	30mm
E	43mm

Fixings

Countersunk fixing holes: Code suffix FH

For extremely simple fitting, countersunk fixing holes can be punched into the outer frame.

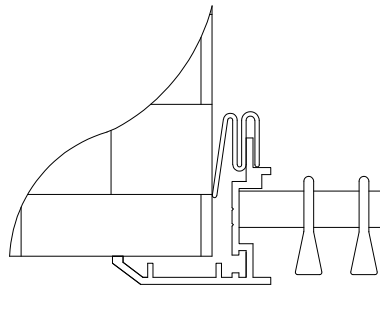
Self tapping screws in the same finish as the grille are provided as standard.



Push-in clip method: Code suffix PC

These sprung clips are compressed when the grille is pushed into place. The outward force provided then holds the grille securely in place.

This fixing method is not suitable for use in ceilings.



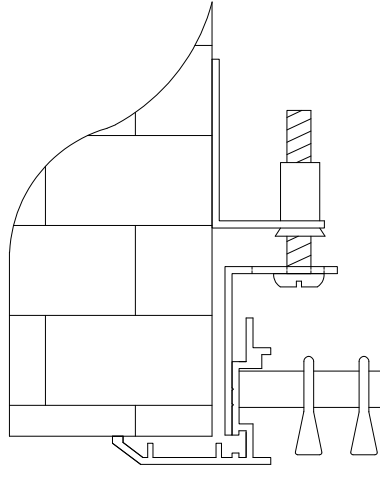
Concealed fixings: Code suffix CF

Recently redesigned, concealed fixings comprise 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.

Please note: A removable core should be specified if concealed fixings are required with an LG45-12.5 (45 degree blades on 12.5mm pitch)



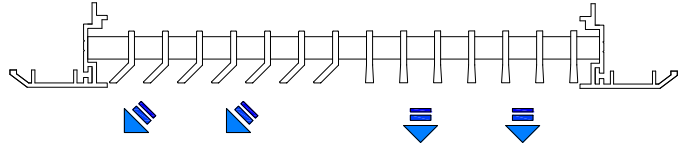
Customisations

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.

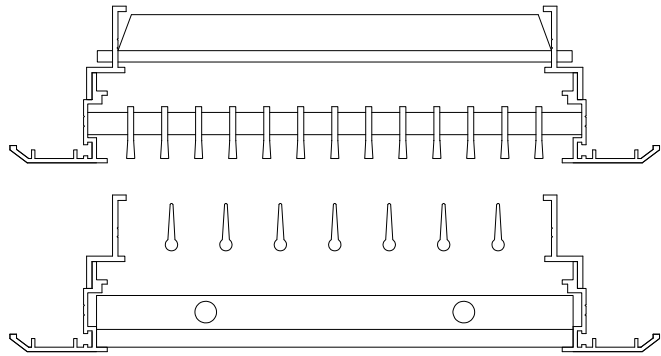
Please discuss any requirements for this option with HVC.



Single deflection blades: Code suffix RSD

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

Please note: Surface mounted grilles cannot use this option.

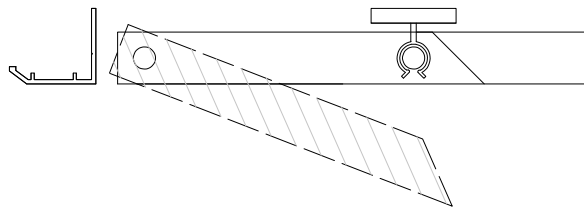


Hinged access blades / panels

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.

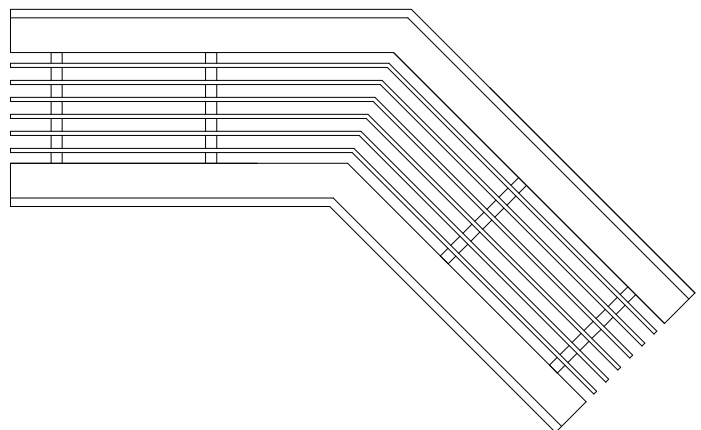
Please discuss any requirements for this option with HVC.



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

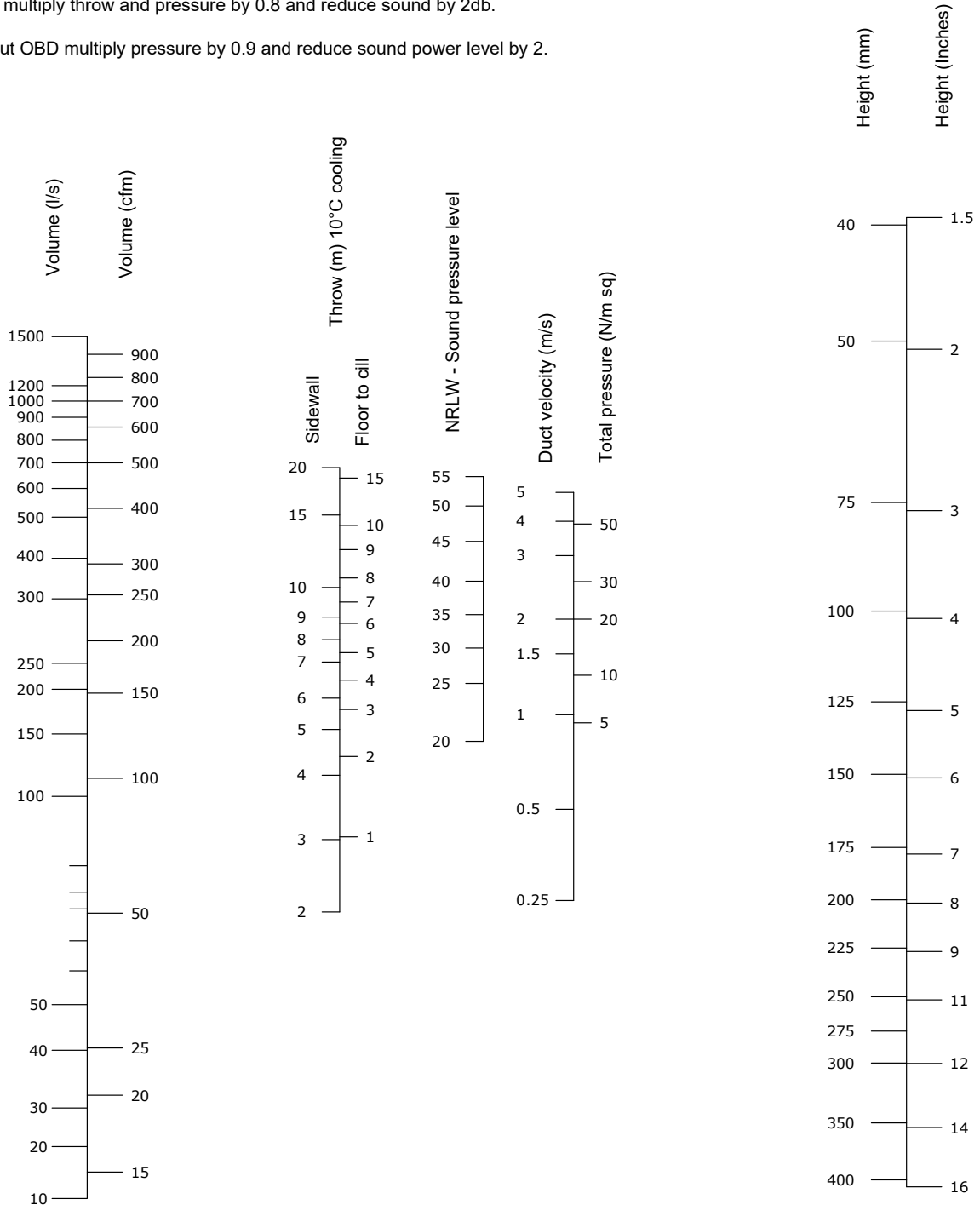
Figures based on 1m wide LG0-3-12.5 fitted with OBD.

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.



Finishes

Mill aluminium

Linished (brushed) aluminium (frame face and blade tops only)

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 grille, 0° blades Linear grille, 15° blades Linear 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
7) Frame	36B 31F TF SML PLG	36mm bevelled frame (standard) 31mm flat frame Tray frame Surface mounted Plaster-in
8) Fixings	FH CF PC	Countersunk fixing holes (screws supplied in same finish) Concealed fixings Push-in clips (not for use in ceilings)
9) Core type	RC-QT RC-QR RC-TC HC-BLT HC-CAM	Removable core - Twin frame type (standard method, not available with 'TF' or 'PLG') Removable core - Quick release type (optional, not available if nominal height < 100mm, not with 'SML') Removable core - Tube clip type (optional, not recommended for use in ceilings, not with 'SML') Hinged core - Bolt type (standard method, not available with 'TF', 'SML' or 'PLG') Hinged core - Cam fastener (optional, not available with 'TF', 'SML' or 'PLG')
10) Deflection blades	RSD	Rear mounted single deflection blades
11) Finish	SAA Mill Linished RAL... BS...	Satin anodised (standard, not available if frame type is 'TF' or 'PLG') Mill aluminium (standard on) Linished (brushed) aluminium (only frame and blade tops) 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.

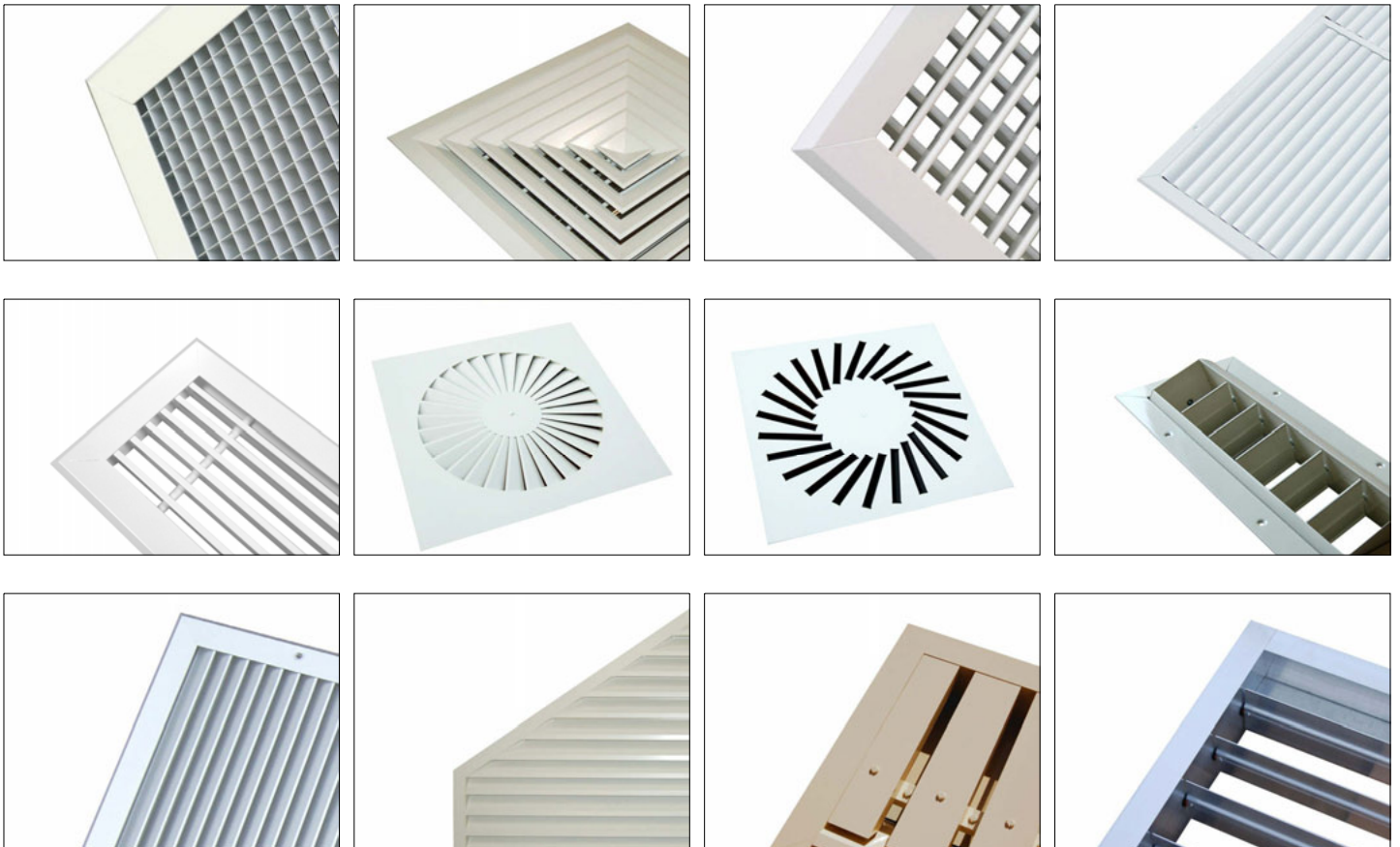
Leave code section blank if no option is required.

HVC & NCA products

HVC offer 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





HEVAC

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Assessed to ISO 9001
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HVC Supplies (Stourbridge) Ltd
Jason House
Amblecote
West Midlands
DY8 4EY
United Kingdom

Tel: +44 (0)1384 376555
Fax: +44 (0)1384 392555

sales@h-v-c.com

www.h-v-c.com

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