



Incorporating



Grilles & Diffusers

Series LCD Linear ceiling diffusers

- Specialised linear bar grille designed for ceiling supply applications
- Large 45° blade profile ensures effective air distribution
- Available with one or two way blow formats
- Hinged and removable cores available

- Now available with plaster-in frame



Series LCD

Series LCD linear ceiling diffusers are a variant of standard linear bar grilles incorporating a larger blade profile, making them especially suitable for performing supply air functions.

The large format 45° blade directs supplied air across ceilings, making use of the coanda effect and increasing the effective range of the diffuser.

Linear ceiling diffusers are available in the following models:

- LCD1 - One way blow diffuser
- LCD2 - Two way blow diffuser (equal or unequal split)

A range of options including hinged and removable cores are also available for linear ceiling diffusers, for enhanced functionality.

Linear ceiling diffusers are also now available with a plaster-in frame design, please refer to pages 4 and 5 for more information.



Design features

| | |
|-------------------------------------|---|
| Material | Aluminium frame and core |
| Frame | Standard: 25F - 25mm flat Optional: 32BD - 32mm bevelled PLG - Plaster-in |
| Sizes | Minimum: 100mm x 50mm Maximum: 2900mm x 2900mm |
| Fixings | Standard: None Optional: See page 9 |
| Finish | Standard: Satin anodised (AA5) Optional: See page 12 |
| Mass/m² face area | 9.5kg 17.5kg including opposed blade damper |

Quality assurance

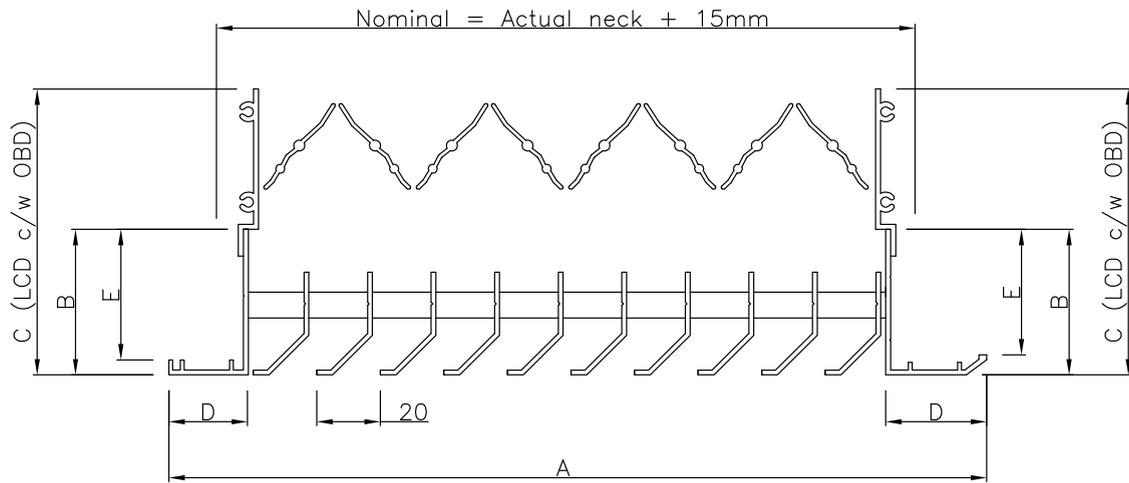
HVC Supplies (Stourbridge) Ltd is an ISO 9001 certified company.



Assessed to ISO 9001
Cert/Ref No. 1186

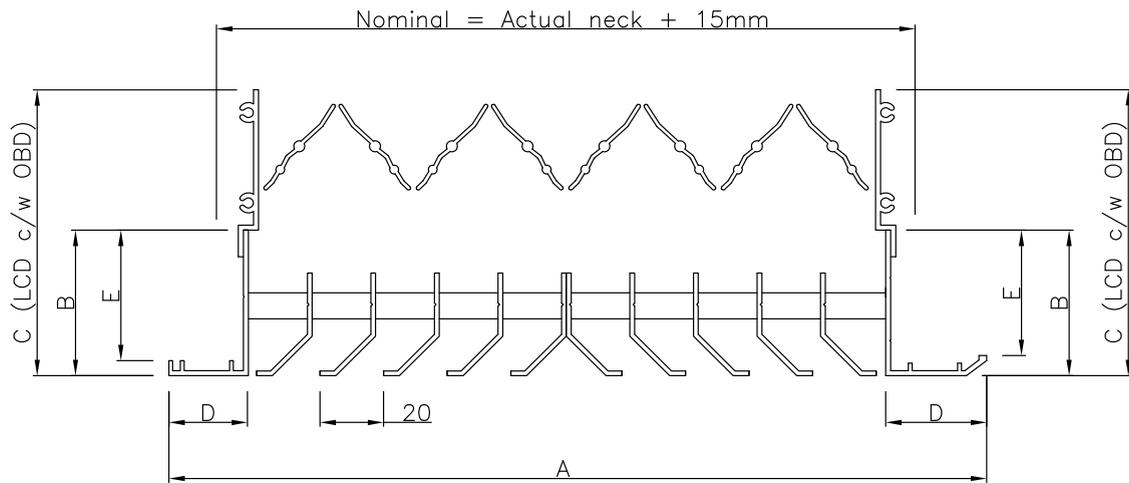
Technical drawings - Standard

LCD1



LCD2

LCD2 with equal split shown.
Unequal splits available on request.



25F: 25mm flat (standard)

| | |
|---|----------------|
| A | Nominal + 30mm |
| B | 46mm |
| C | 90mm |
| D | 25mm |
| E | 41mm |

32BD: 32mm bevelled large (optional)

| | |
|---|----------------|
| A | Nominal + 45mm |
| B | 46mm |
| C | 90mm |
| D | 32mm |
| E | 40mm |

Plaster-in frame

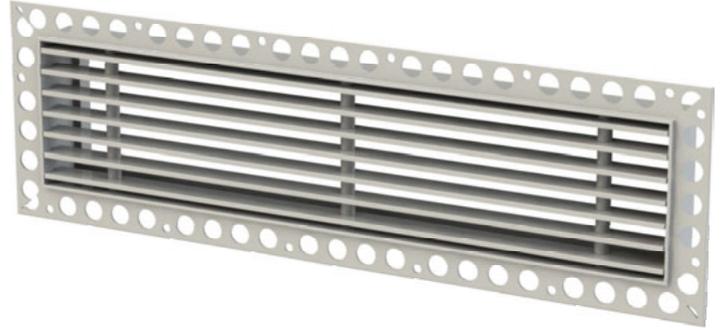
In response to growing customer requests, we have introduced a new frame for linear ceiling diffusers which is designed to be plastered in, giving a seamless appearance once installed.

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.

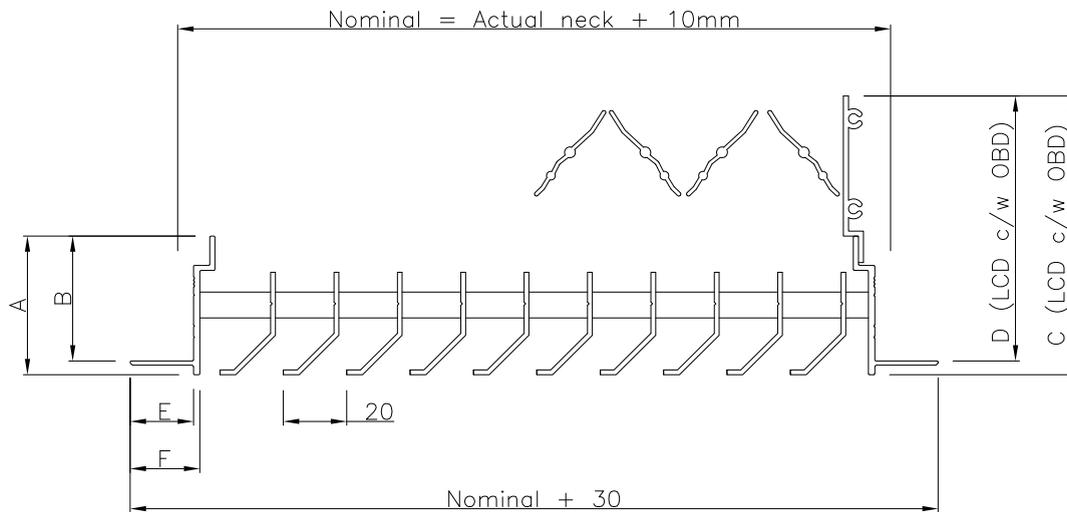
The new plaster-in frame uses the ordering code PLG.

Please note: The image adjacent shows a linear bar grille which utilises the same frame type.



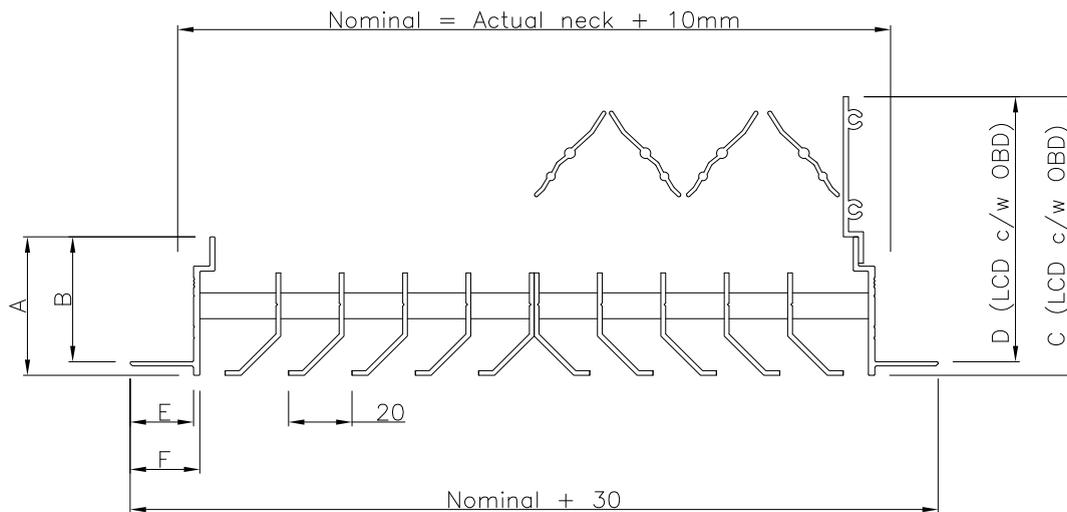
Technical drawings - Plaster-in

LCD1-PLG



LCD2-PLG

LCD2 with equal split shown.
Unequal splits available on request.



PLG: Plaster-in frame

| | |
|----------|------|
| A | 44mm |
| B | 40mm |
| C | 88mm |
| D | 84mm |
| E | 20mm |
| F | 22mm |

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.

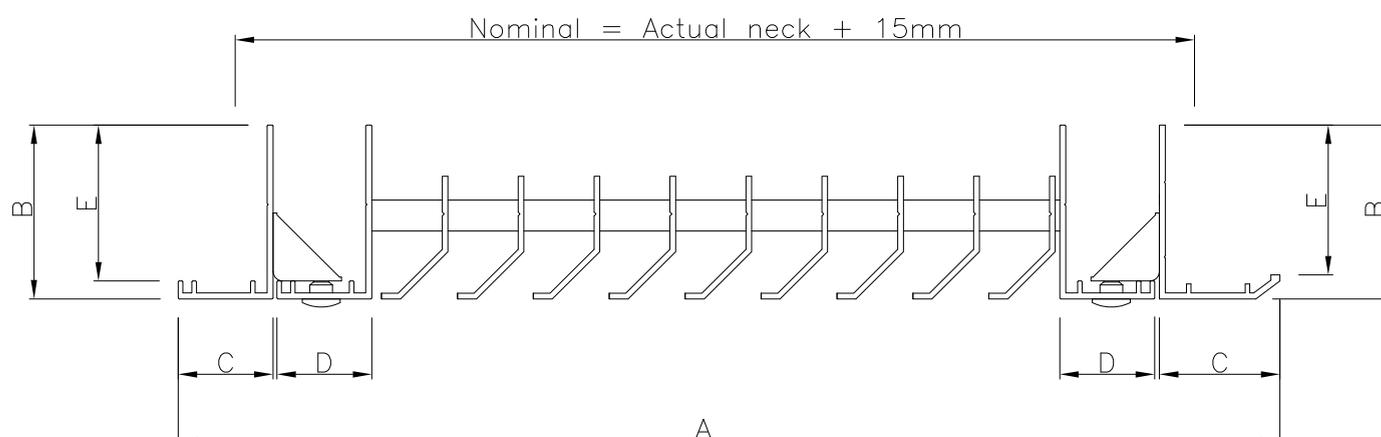
Other stud types are available for use with allen keys, or with a larger head for removal by hand.

Outer frame will be either 32BD 32mm bevelled frame (optional) or 25F 25mm flat (standard), inner frame will be 25F 25mm flat.

Please note: Images to the right show a Series LG linear bar grille.



Ordering code for type shown here: RC-QT



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

| 32BD: 32mm bevelled large (optional) | |
|--------------------------------------|----------------|
| A | Nominal + 45mm |
| B | 46mm |
| C | 32mm |
| D | 25mm |
| E | 40mm |

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.

Safety cord fitted as standard.

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

Please note: Images to the right show a Series LG linear bar grille.



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.

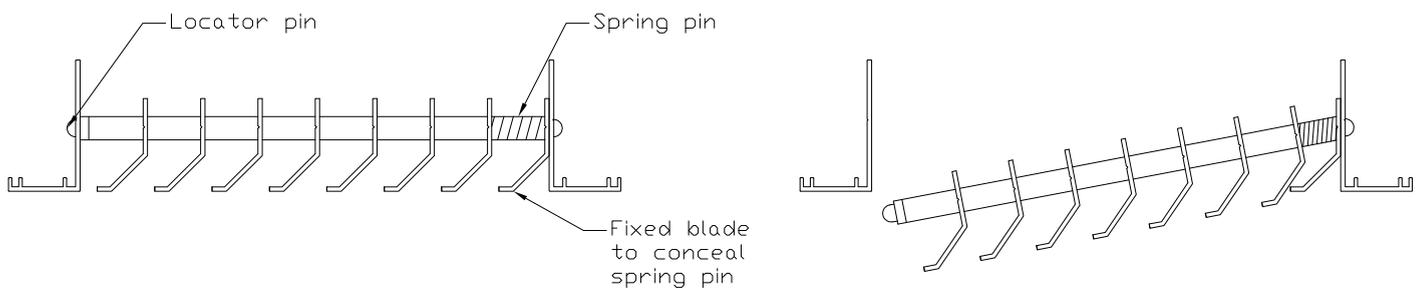
To remove the core, compress the springs, pulling the locator pins out of the holes, and pull the core away.

Safety cord fitted as standard.

Please note: Images to the right show a Series LG linear bar grille.



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.

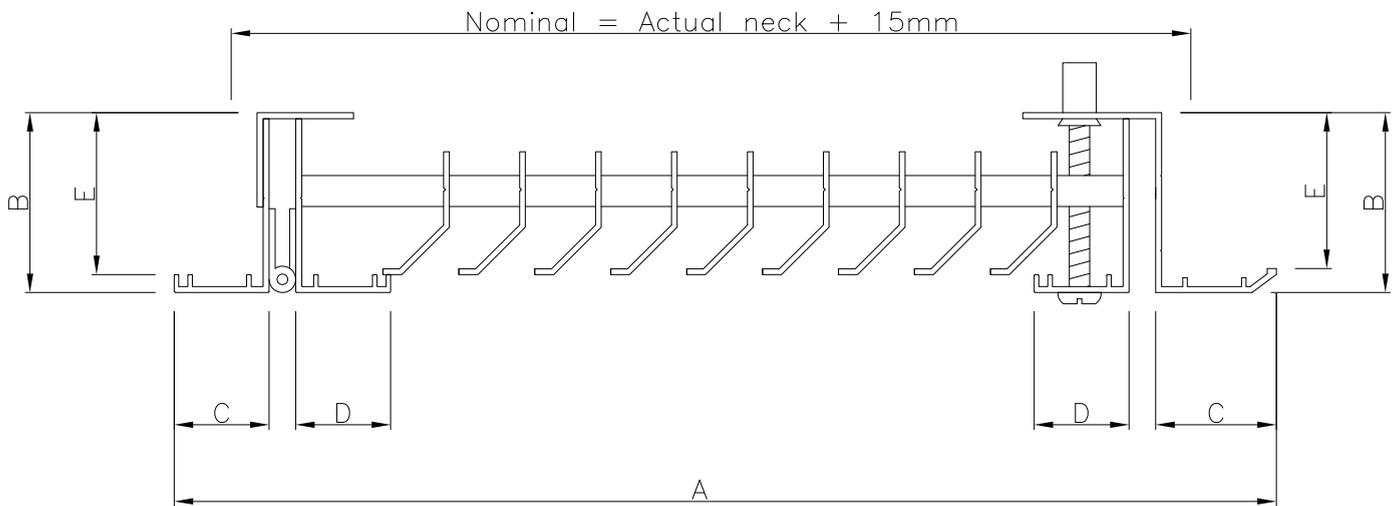
The inner core is held in place by one or more M6 panhead bolts mating with nutserts mounted to a concealed rear frame extension.

Chrome plated cam fasteners are optional instead of bolts.

Please note: Images to the right show a Series LG linear bar grille.



Ordering code for type shown here: HC-BLT



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

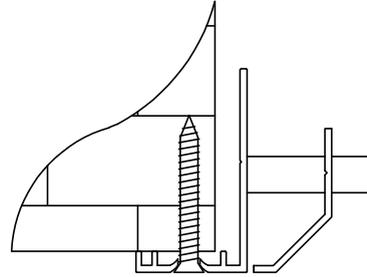
| 32BZ: 32mm bevelled Z (optional) | |
|----------------------------------|----------------|
| A | Nominal + 45mm |
| B | 48mm |
| C | 32mm |
| D | 25mm |
| E | 41mm |

Fixings

Countersunk fixing holes: Code suffix FH

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

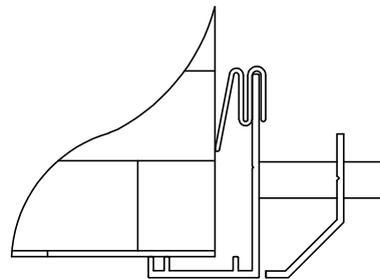
Self tapping screws in the same finish as the grille are provided as standard.



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.



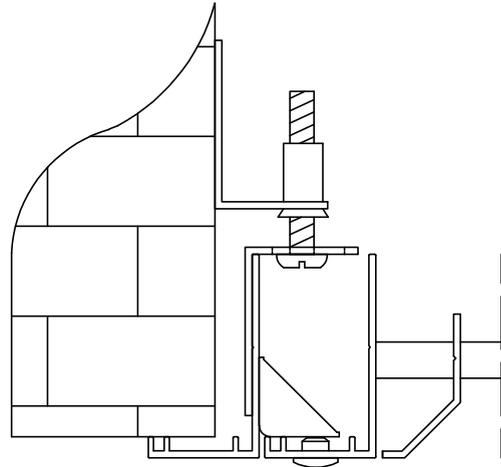
Concealed fixings: Code suffix CF

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.

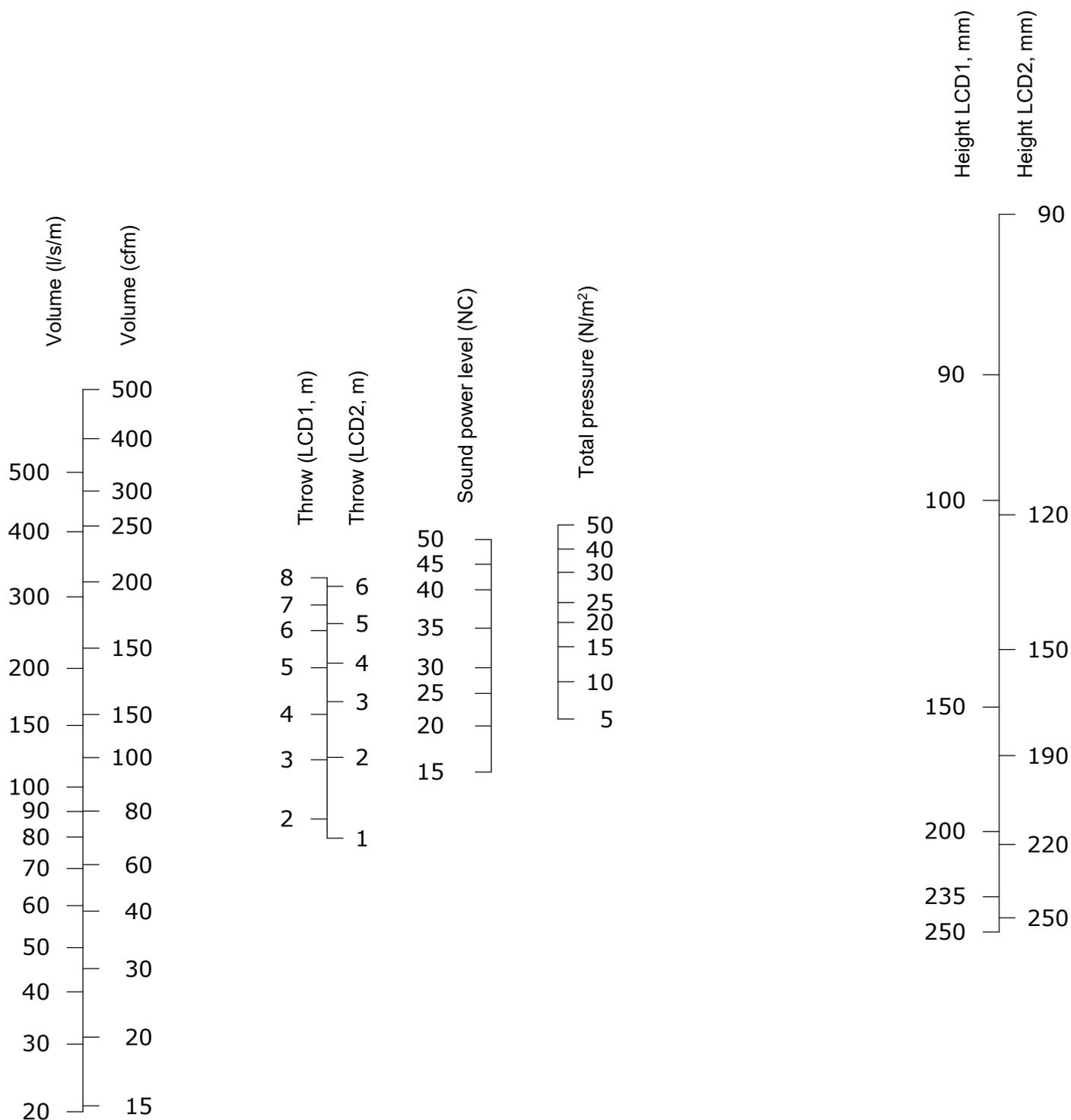
Factory supplied bolts can then be used to pull the grille securely into place.

Please note: A removable core should be specified if concealed fixings are required with an LCD.



Selection data

Diffuser width 1000mm.



Notes

Finishes

Satin anodised aluminium

Mill aluminium

Polyester powder coating to any RAL or BS colour



Ordering codes

Example

1 - 1000 x 300 - LCD1 - D - 25F - FH - RC-QT - RAL9010

Codes

| | | | |
|----|------------------|---|---|
| 1) | Quantity | | |
| 2) | Size (mm) | (Width x height) | |
| 3) | Series | LCD1 LCD2 | Linear ceiling diffuser - 1 way blow Linear ceiling diffuser - 2 way opposite blow (split assumed to be equal unless stated) |
| 4) | Damper | D | Opposed blade damper fitted |
| 5) | Frame | 25F 32BD PLG | 25mm flat frame (standard) 32mm bevelled frame Plaster-in |
| 6) | Fixings | FH CF PC | Countersunk fixing holes (screws supplied in same finish) Concealed fixings (removable core required with this option) Push-in clips (not for use in ceilings) |
| 7) | Core type | RC-QT RC-QR RC-TC HC-BLT HC-CAM | Removable core - Twin frame type (standard method, not with 'PLG') Removable core - Quick release type (optional) Removable core - Tube clip type (optional, not recommended for use in ceilings) Hinged core - Bolt type (standard method, not with 'PLG') Hinged core - Cam fastener (optional, not with 'PLG') |
| 8) | Finish | SAA Mill RAL... BS... | Satin anodised (standard, not with 'PLG') Mill aluminium (standard with 'PLG') Polyester powder coated to RAL... Polyester powder coated to BS... |

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

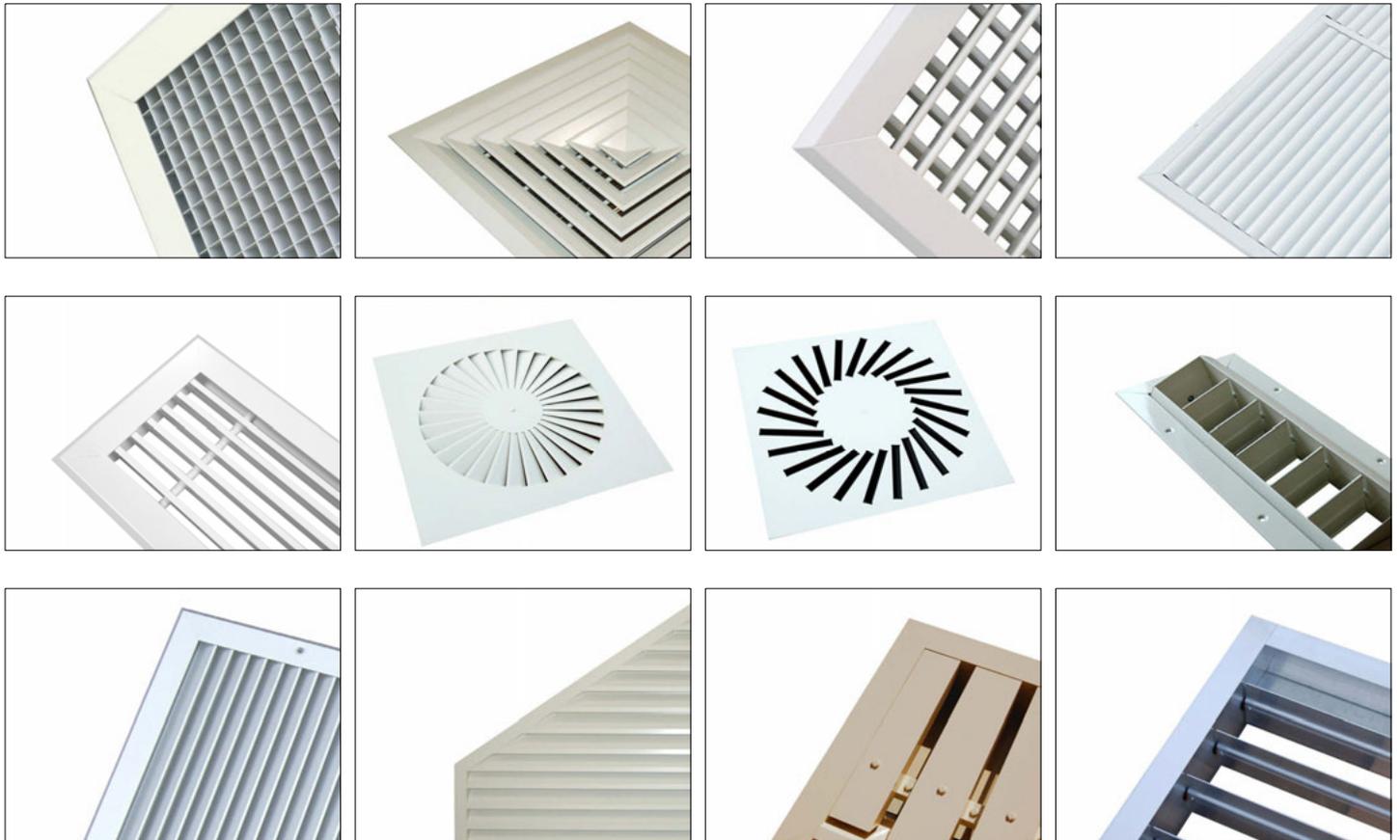
Leave code section blank if no option is required.

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





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