



*Incorporating*



## Grilles & Diffusers

### Series CFLG-C

Computer room floor grilles - Extra heavy grade

- Certified to BS EN 13264:2001 extra heavy grade
- Airflow tested to BS EN 13030:2001
- Suitable for raised access floors with tile depths of 30mm and upwards
- Brushed aluminium finish as standard, nylon coating available
- 599mm x 599mm overall size units held in stock
- Spacing pips available to increase overall size, reducing gaps between adjacent units



## Series CFLG-C: Extra heavy grade

Designed from the outset to suit the majority of raised access floor systems, Series CFLG-C grilles are exceptionally slim, aesthetically pleasing, and feature rich.

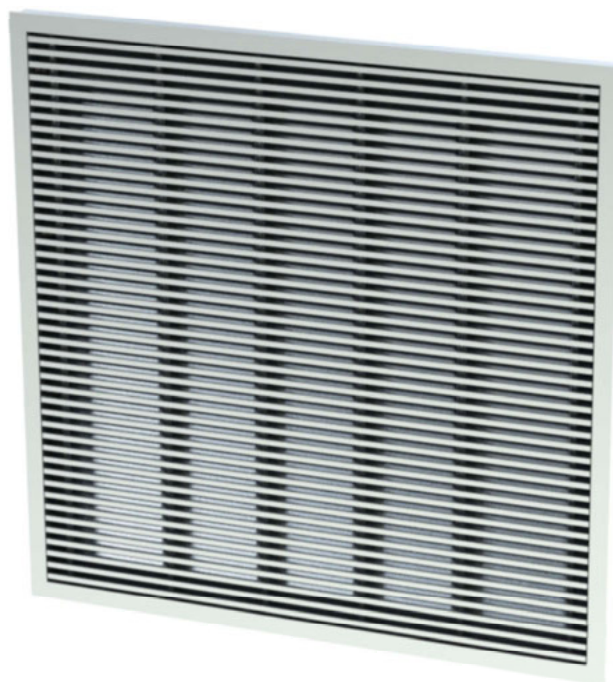
A tile depth of just 30mm is slimmer than that of many rival products, with the overall depth being just 60mm.

In terms of features and aesthetics, CFLG-C grilles are unmatched:

In response to customer feedback, we have designed the outer frame with a slanted edge. This aids fitting where adjacent tiles may not be perfectly lined up until late in the installation.

We also created an entirely new fixing system to ensure blade tops stay flush with the top of the frame. Fixing blades directly to the frame at multiple points also allowed the blade pack to be treated as integral to the frame during design, allowing the new CFLG-C extra heavy floor grille to be over half a kilogram lighter than its predecessor CFLG-B heavy grade model.

More subtle features also abound; the outer blade expansion bars are spaced further apart than those in the centre, ensuring they are all directly above either frame or mullion. This leaves all blade gaps unobstructed, and contributes to the overall look of the grille.



## Design features

<b>Material</b>	Extruded aluminium frame, blades and mullions
<b>Sizes</b>	599mm x 599mm overall (+ or - 0.5mm) - Held in stock 600mm x 600mm overall with addition of pips: See page 10 Other sizes available on request (Variations from 599mm x 599mm are untested)
<b>Frame</b>	18mm wide flange 60mm overall depth
<b>Minimum tile depth</b>	30mm: See page 10
<b>Core</b>	Non removable - 6mm blades on 12.5mm pitch
<b>Finish</b>	Standard: Brushed aluminium Optional: See pages 10 and 12
<b>Mass per unit (599mm<sup>2</sup>)</b>	11.2 kg 12.6 kg including opposed blade damper
<b>Free area</b>	39%

## Quality assurance

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



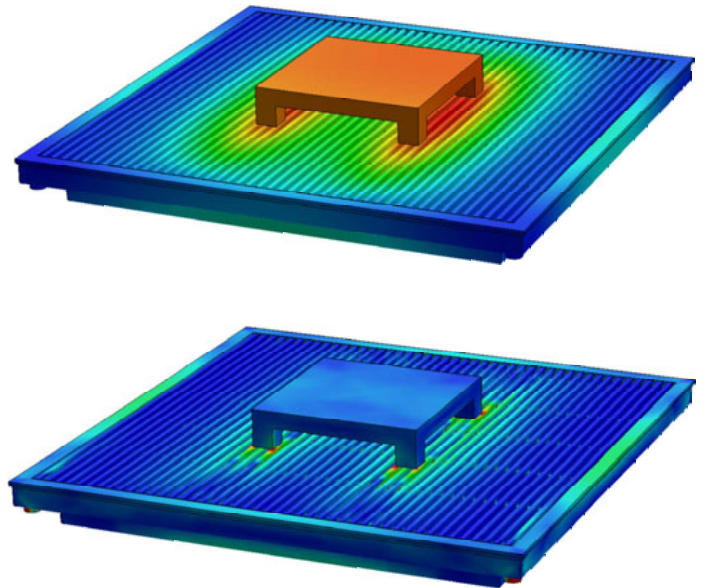
Assessed to ISO 9001  
Cert/Ref No. 1186

## Product design

Series CFLG-C computer room floor grilles have been entirely developed using FEA software.

Building a virtual representation of the grille, and then modelling the real world test enabled the testing of hundreds of design iterations for the frame, blade and mullion extrusions.

The designs were then fine tuned to give not only the required strength, but not be over-engineered so as to increase cost.



## Product testing: CFLG-C

### Structural testing

Series CFLG-C computer room floor grilles have been tested against:

**BS EN 13264:2001**  
Ventilation for buildings - Floor mounted air terminal devices

**Extra heavy grade achieved**

**Test report number F2536/7196**

The testing was carried out in February and March 2014 by Building Testing Ltd in Surrey, England.

Copies of the test report are available on request.



Testing & Inspection

## Airflow testing

Series CFLG-C computer room floor grilles have been tested against:

### BS EN 13030:2001

Ventilation for buildings - Terminals - Performance testing of louvres

This is a test normally employed for the evaluation of external louver systems and consists of an airflow test and a rain rejection test.

CFLG-C grilles have been tested against the airflow component of the standard.



### Test report number 58453/1

The testing was carried out in October 2014 by BSRIA in Bracknell, Berkshire, England.

Copies of the test report are available on request.

All figures relate to a standard 599mm x 599mm size unit, and the test sample was fitted with an opposed blade damper.

### Supply application (lower face to upper face)

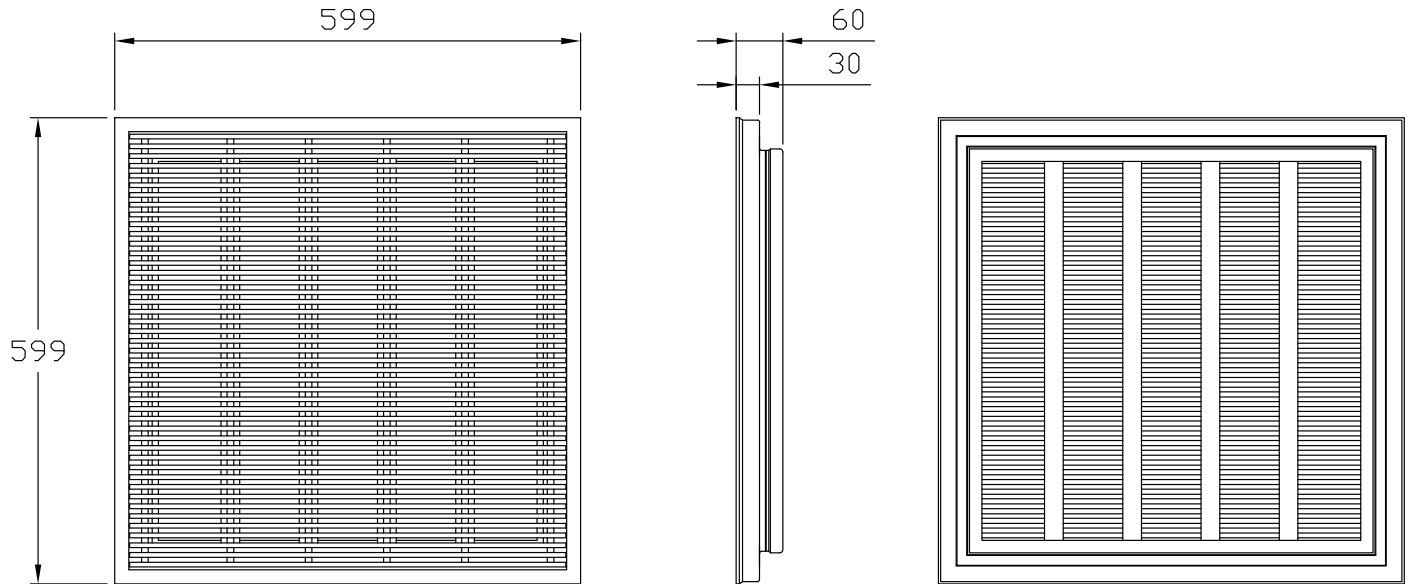
Average face velocity (m/s)	Pressure drop (Pa)	Airflow (m³/s)
0.21	0.40	0.076
0.22	0.55	0.080
0.39	1.50	0.139
0.44	2.00	0.160
0.44	2.05	0.158
0.65	4.60	0.240
0.66	4.70	0.237
0.88	8.00	0.315
0.87	8.20	0.313
1.31	18.20	0.470
1.31	19.00	0.472
1.74	32.70	0.628
2.18	51.00	0.785
2.63	74.70	0.947
2.74	81.35	0.987

### Extract application (upper face to lower face)

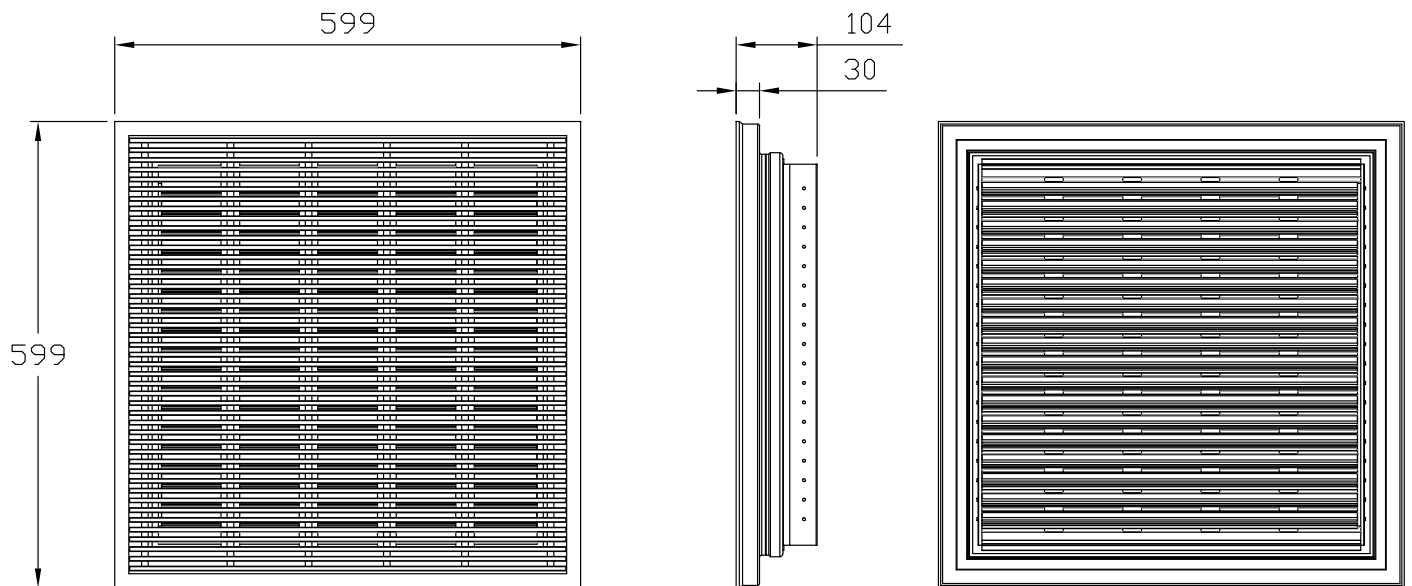
Average face velocity (m/s)	Pressure drop (Pa)	Airflow (m³/s)
0.21	0.40	0.076
0.22	0.50	0.079
0.38	1.60	0.138
0.44	1.90	0.157
0.44	2.00	0.159
0.66	4.30	0.237
0.87	7.65	0.315
1.31	17.10	0.471
1.74	30.90	0.626
2.18	49.00	0.785
2.62	70.60	0.943
2.74	77.50	0.985

## Technical drawings

### CFLG-C: Grille only



### CFLG-C-D: Grille complete with opposed blade damper



Overall size can be increased to 600mm x 600mm, with the addition of corner pips.  
See next page for more details.

**Manufacturing tolerance:** + or - 0.5mm

## Options

### Opposed blade dampers - Ordering code 'D'

Mounted on the underside of the grille, OBDs allow airflow to be trimmed to suit the location.

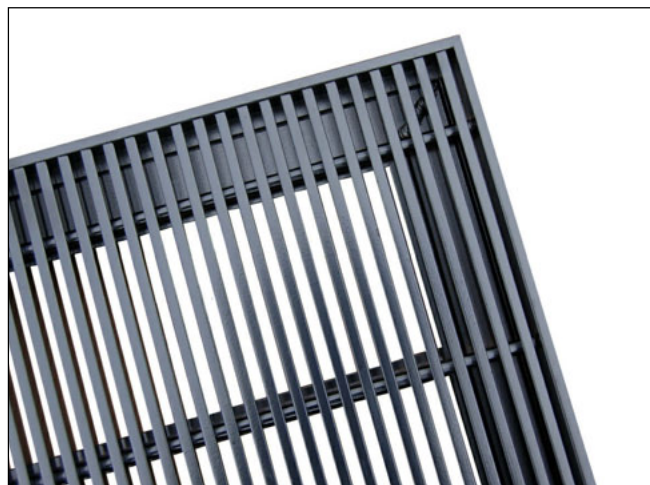
Adjustable through the grille face using a flat-head screwdriver.

OBDs are supplied in mill aluminium finish, regardless of grille finish.



### Nylon coating - Ordering code 'NC'

Nylon coating is a specialist powder coating process that gives a tougher, thicker coating than regular polyester powder coating.



### Tile depth

Please state the tile depth of your raised access flooring system when ordering either series CFLG grille.

We fit additional spacers under each corner to raise the grille face to the required height.

Minimum depth 30mm.



### Spacing pips - Ordering code 'Pips'

Standard CFLG grilles are sized 599mm x 599mm, + or - 0.5mm.

If required we can form 8 special pips 80mm in from each corner on CFLG-C grilles.

These pips take the grille overall size to 600mm x 600mm (+ 0.0, - 0.2mm), and are formed on the underside of the grille only, so are not visible from the face.



## Lifting tools

Purpose designed to enable safe and secure lifting, fitting, and removal of Series CFLG floor grilles.

Laser cut steel lifting arms with hooked ends latch around grille mullions securely, while 10mm steel bars act as both handles and spacers ensuring the lifter remains rigid.

Supplied in pairs so two people can lift each grille.



## Finish

Linished (brushed) aluminium

Nylon coated

Polyester powder coating to any RAL or BS colour



## Ordering codes

### Example

1 - 599 x 599 O/A - CFLG-C - D - 35mm - Pips - Linished - 1 x lifter pair

### Codes

1)	Quantity		
2)	Size (mm)	(Width x height)	Overall size (O/A)
3)	Series	CFLG-C	Extra heavy grade computer room floor grille
4)	Damper	D	Opposed blade damper fitted
5)	Tile depth	(Tile depth)	Tile depth the grille needs to suit
6)	Spacing pips	Pips	Spacing pips required
7)	Finish	Linished NC RAL... BS...	Linished (brushed) aluminium Nylon coated to... Polyester powder coated to RAL... Polyester powder coated to BS...
8)	Lifting tools	_ x lifter pair	Number of pairs of lifting tools required

Leave code section blank if no option is required.

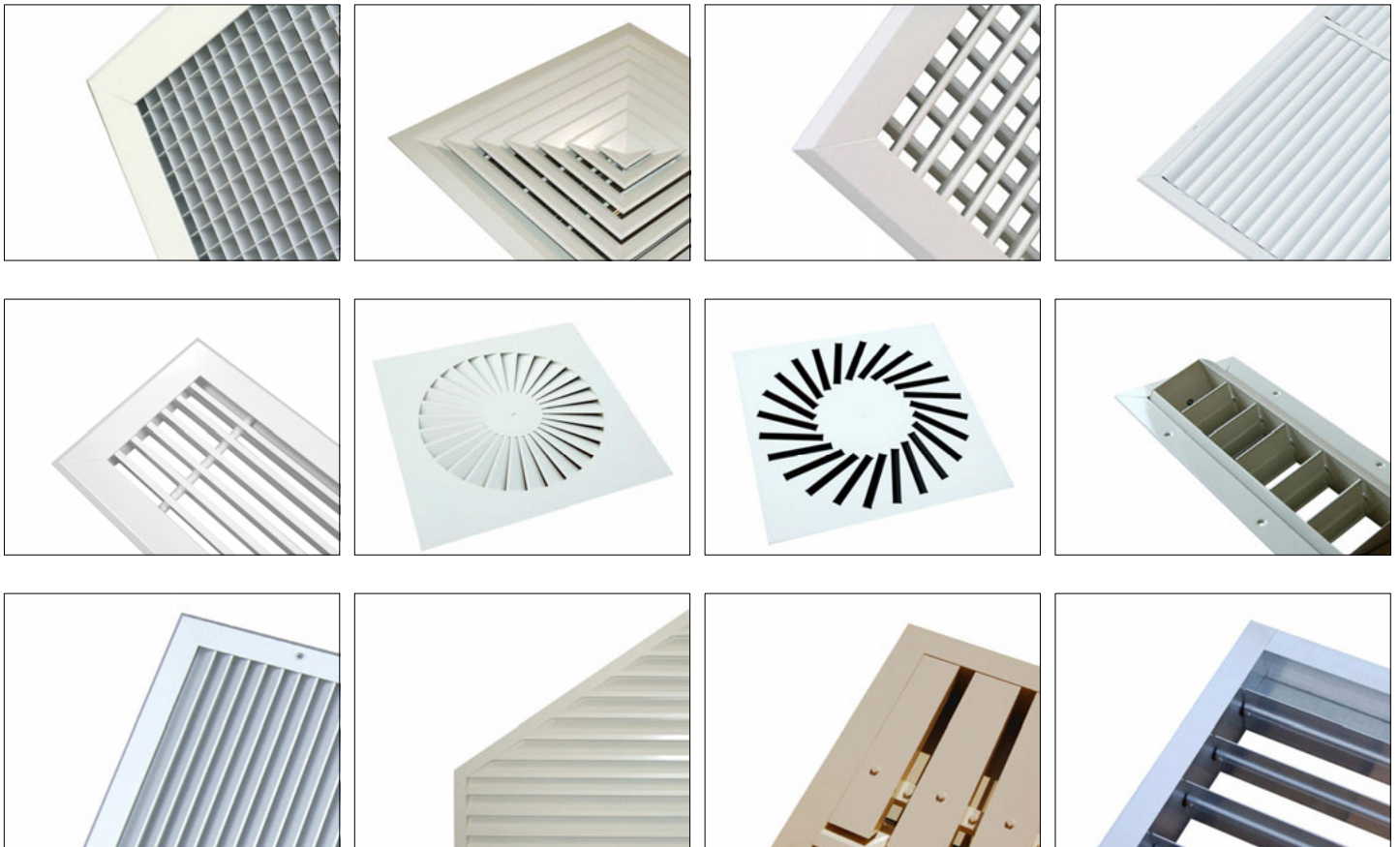
Opposed blade dampers are supplied in mill aluminium finish regardless of grille finish.

## 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](http://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

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](mailto:sales@h-v-c.com)

[www.h-v-c.com](http://www.h-v-c.com)

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