



## Louvre systems

### Series STL Sand trap louvres

*Incorporating*



- Performance tested to BS EN 13181:2001 by BSRIA
- 92.5% effective at 0.5 m/s drawn air velocity
- Lightweight, strong and corrosion resistant aluminium construction
- Polyester powder coated finish available
- Additional filters to increase effectiveness



## Series STL

Series STL sand trap louvres are specialist louvres, designed to be the primary filters for air intakes in areas where airborne sand and dust are prevalent.

Two banks of interlocking vertical blades catch up to 92.5% of sand and dust, which then drops down onto a sloped cill and is ejected through the louvre face by gravity.

The open ended blade design prevents clogging of the louvre, in contrast to the use of drain holes which are prone to becoming blocked.

Options include rear mounted volume control dampers, and polyester powder coating to any RAL or BS colour.

A range of additional filters can be fitted to further enhance efficiency, from medium efficiency G2 filters, right up to high efficiency F8 models. Installed in a removable aluminium frame, these filters are easy to maintain and improve the louvre's effectiveness.



## Design features

<b>Material</b>	Extruded aluminium
<b>Blade</b>	Vertically mounted channel 75mm face
<b>Core</b>	Fixed
<b>Frame</b>	Flanged as standard. Recessed and reversed optional
<b>Sizes</b>	Minimum: 300mm x 300mm
<b>Finish</b>	Mill aluminium as standard, polyester powder coating optional
<b>Mass/m<sup>2</sup> face area</b>	20 kg
<b>Free area</b>	Approx 38% (varies with size)

**Important note:**

Free area is not a reliable guide to performance.

It is possible to have two louvres with identical geometric free areas but different airflow characteristics.

Wherever possible use a tested airflow coefficient, as stated on the above or available in the test certificate for STL louvres which is available on request.

## Quality assurance

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



Assessed to ISO 9001  
Cert/Ref No. 1186

## BSRIA Testing

Series STL sand trap louvres have been tested against:

**BS EN 13181:2001**

The testing was carried out in September 2012 by BSRIA in Bracknell, Berkshire, England.

Copies of the test report are available on request.



## Performance

### Sand rejection performance

- 92.5% effective at 0.5 m/s draw velocity.
- 65% effective at 1.0 m/s draw velocity.

Based on this performance data, we recommend 1.0 m/s draw velocity is the maximum used when sizing sand trap louvres to assure good performance.

Sand is blown at the louvre at 20 - 25 m/s, measured in the sand injection tube.

The test louvre was of nominal size 1000mm x 1000mm.

Draw velocity (m/s)	Sand rejected
0.00	97.0%
0.50	92.5%
1.30	49.0%
2.01	21.5%
2.81	11.8%
3.53	7.2%

### Airflow performance

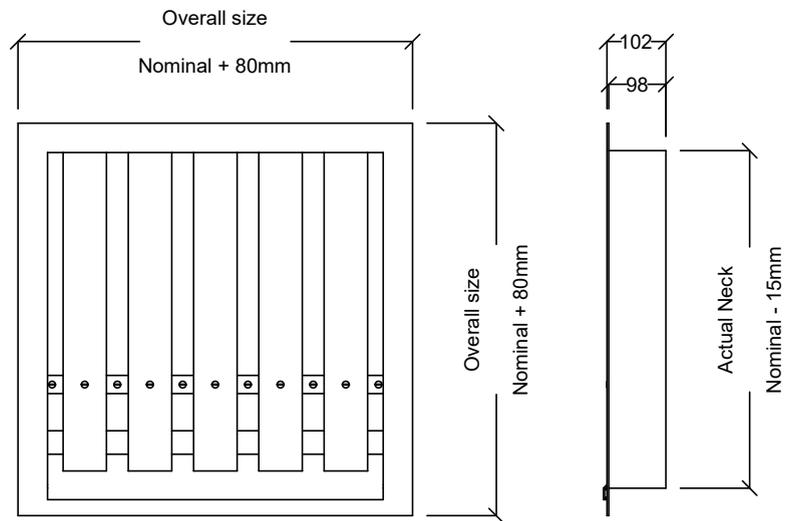
Mean coefficient of entry:

0.118 (Class 4)

## Dimensional drawings

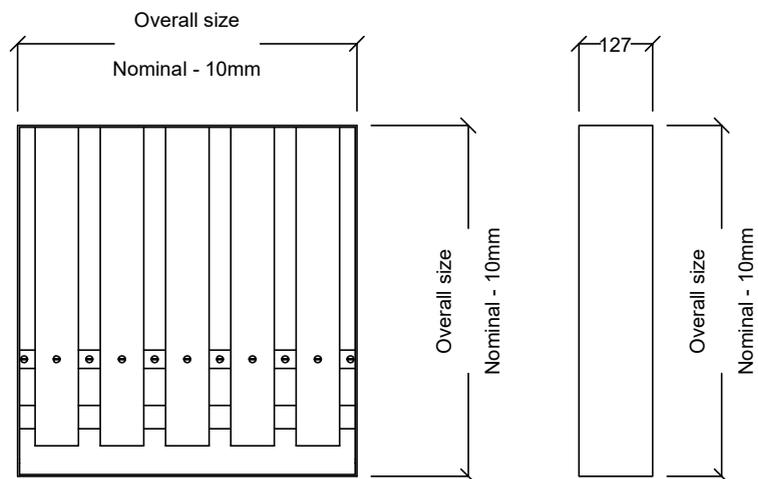
### STL: Flanged

- 50mm flange
- Louvre neck sits inside wall aperture



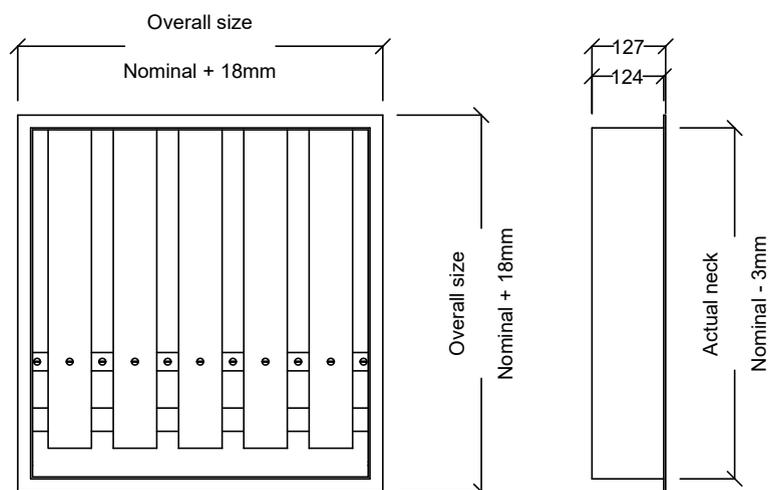
### STL - REC: Recessed

- Whole louvre sits inside wall aperture



### STL - REV: Reversed

- Sits proud of the wall



## Additional filters

Series STL sand trap louvres are available with a full range of disposable and replaceable filters.

A removable aluminium framework is bolted behind the louvre blades, holding the filter/s securely in place during normal working conditions.

Removal for maintenance simply involves undoing the bolts, allowing the frame and filter to come away from the louvre.

**STL c/w filter overall depth:** 125mm  
**STLR c/w filter overall depth:** 152mm

### Filter classification

Filters with a G rating are classified as primary filters, those with an F rating are classified as secondary.

The higher the number, the more effective the filter.



### Replaceable

Replaceable filters offer the advantage of a lower lifetime cost.

A galvanised steel pad holding frame is supplied. This has one side fitted with mesh, the other with a holding clip. Inside the frame your chosen filter media is fitted.

When clogged, oiled glass fibre and synthetic type filters need replacing completely, polyfoam filters can be washed.

The following medias are available for use with steel holding frames:

- **Oiled glass fibre (disposable):** G3/4
- **Synthetic (disposable):** G2 to G4, F5 to F8
- **Polyfoam (washable):** G2\* to G4\*

\* Equivalent to EN779



### Disposable

Disposable filters are cheaper up-front, but do require complete replacement upon becoming clogged.

Filters have a recycled cardboard frame, and are available in the following types:

- **Glass fibre:** G2/3
- **Synthetic:** G3



Filter ratings to EN779.

All filters are 22mm thick.

## Fixings

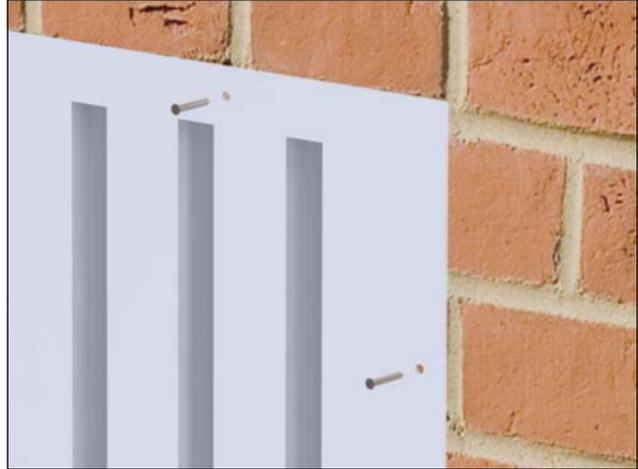
### Predrilled face fixing holes - FH

8mm fixing holes predrilled into the louvre frame before powder coating for quick and easy fitting on site.

Number and layout of fixing holes will be appropriate to louvre size. Arrangements can be specified.

Only available with flanged and reversed flange louvres.

Fixings are shown for illustration only.



### Rear mounted concealed fixing lugs - RFL

Fixing lugs will be welded to the rear of the louvre frame extending 50mm from the rear of the louvre neck.

These can be drilled and bolted through providing an easy to access, concealed fixing point.

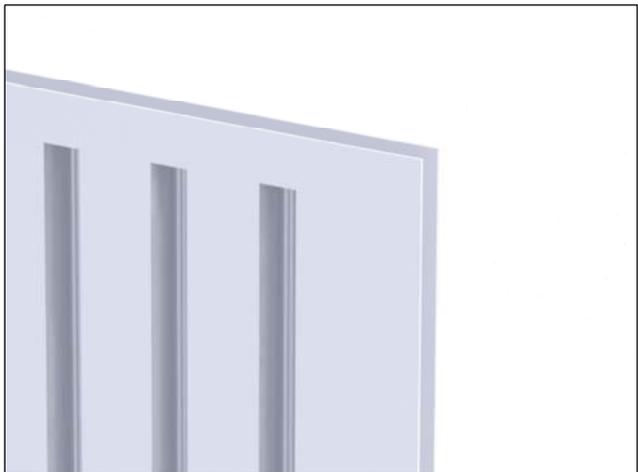
Supplied undrilled.

Fixings are shown for illustration only.



### Glazing bar - GZ (Required depth needed)

An additional frame can be fixed to the louvre neck giving a glazing bar frame of a specified depth.



## Volume control combination units

### Volume control

Sand trap louvres can be factory fitted with a rear mounted HVC-VCD aluminium volume control damper providing a sand trap louvre with guaranteed performance and a volume control damper in one easy to fit unit.

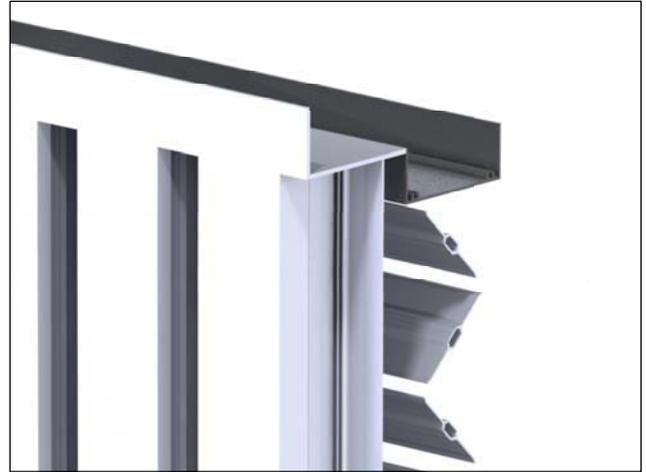
If required, HVC-VCDs can be replaced with shut off dampers. The same format damper, fitted with additional seals, these provide much greater levels of shut off than standard volume control dampers.

### VCD operation methods:

Plastic handle  
Locking quadrant  
Full range of Belimo actuators  
Pneumatic motors

Overall unit depth: 205mm  
Minimum wall depth: 200mm  
Mass/m<sup>2</sup> face area: 30kg

Only available with flanged and recessed louvres.



## Finish

Mill aluminium

Polyester powder coating to any RAL or BS colour



## Ordering codes

### Example

1 - 1000 x 1000 - STL - BS - FH - Replaceable, polyfoam, G4 - RAL9010

### Codes

1)	<b>Quantity</b>		
2)	<b>Size (mm)</b>	(Width x height)	
3)	<b>Series</b>	STL	Sand trap louvre
4)	<b>Frame design</b>	<i>(nothing)</i> REC REV	Flanged Recessed frame Reversed frame
5)	<b>Screens</b>	BS IS	Bird Screen (12mm x 12mm mesh) Insect Screen
6)	<b>Fixings</b>	FH RFL GZ	Predrilled face fixing holes Rear mounted fixing lugs Glazing bar. State depth required.
7)	<b>Filters</b>	<i>Disposable or replaceable</i> <i>Media type</i> <i>Grade to EN779</i>	(See page 5 for details)
8)	<b>Finish</b>	Mill RAL... BS...	Mill Aluminium (Standard) Polyester powder coated to RAL... Polyester powder coated to BS...

Leave code section blank if no option is required.

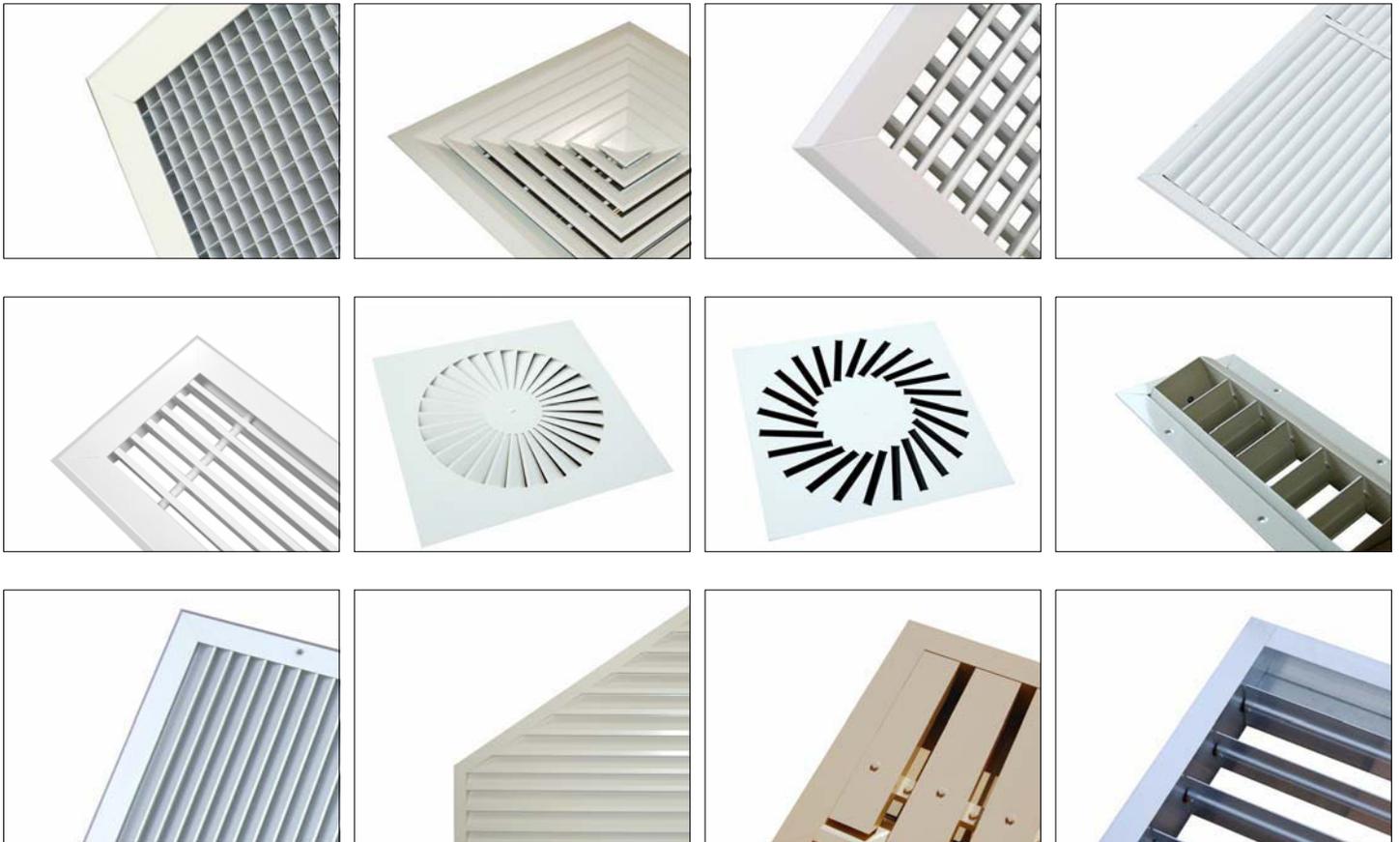
Unless stated, sizes are taken to be nominal, and will have a tolerance removed to aid fitting.  
Please see page 4 for more details.

## 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

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