



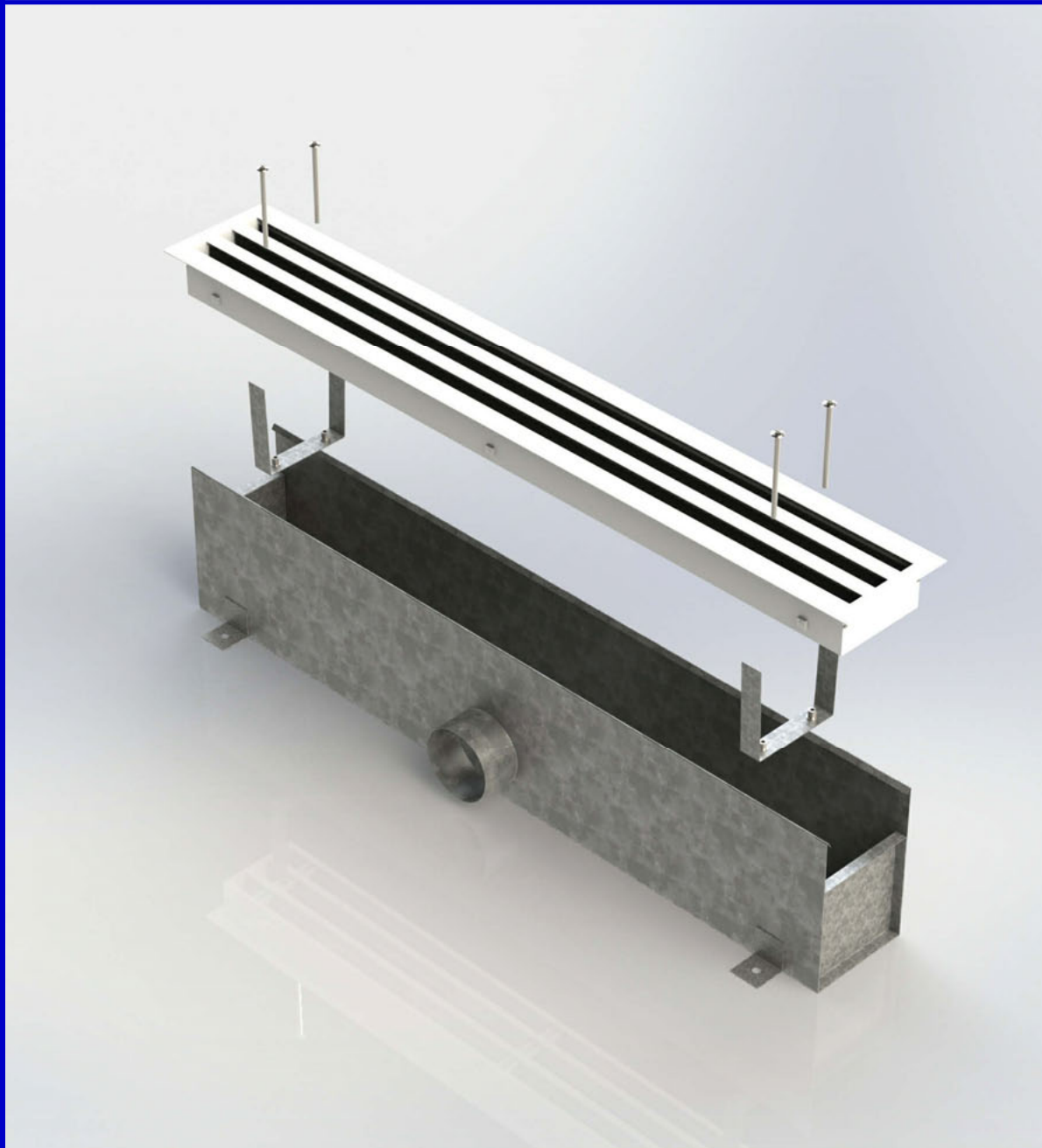
Incorporating



Grilles & Diffusers

Series LSD Linear slot diffusers

- Popular diffuser series suitable for both extract and supply functions
- Perfect for large open plan areas
- Can be supplied in sections to create runs of unlimited length
- Optional deflectors allow the adjustment of airflow direction
- Optional slot boxes allow fast installation and connection to ductwork



Series LSD

Series LSD linear slot diffusers are a consistently popular diffuser series, well regarded due to their modern understated appearance, high air handling capacity and ability to perform both supply and extract functions.

Linear slot diffusers are normally fitted into ceilings or at high level in sidewalls, and are particularly suitable for installation in large open plan areas like offices or shopping centres. Through the use of multiple sections of diffuser, runs of many metres can be created.

Available with 1 to 8 slots and with a full range of options including internal deflectors to enable throw direction adjustment, end caps and polyester powder coating to any RAL or BS colour.

Linear slot diffusers are normally supplied complete with a specially adapted plenum box and brackets to suit. This not only connects the diffuser easily and effectively to ductwork, but also provides a discreet fixing method, avoiding any visible face fixings.



Design features

Material	Extruded aluminium throughout
Frame	28mm flat at sides 20mm flat end caps
Sizes	1 to 8 slots Minimum length: 100mm Maximum length: Unlimited when made in sections Maximum section length: 2000mm
Fixings	Standard: None Optional: See page 6
Finish	Standard: RAL9010 matt Optional: See page 8 Stock units are powder coated RAL9010 matt

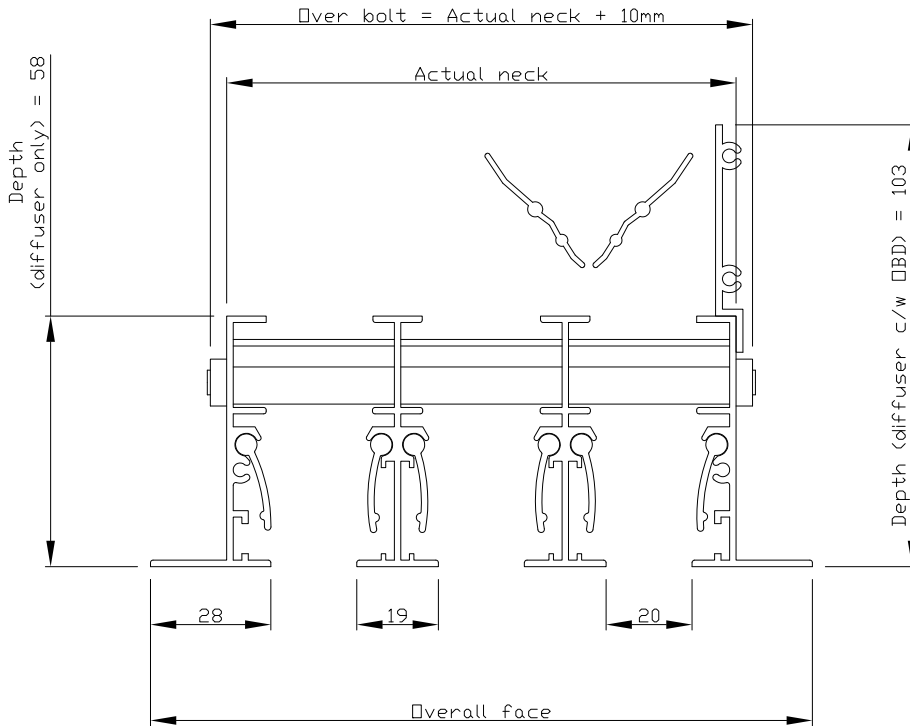
Quality assurance

HVC Supplies (Stourbridge) Ltd is an ISO 9001:2008 accredited company.



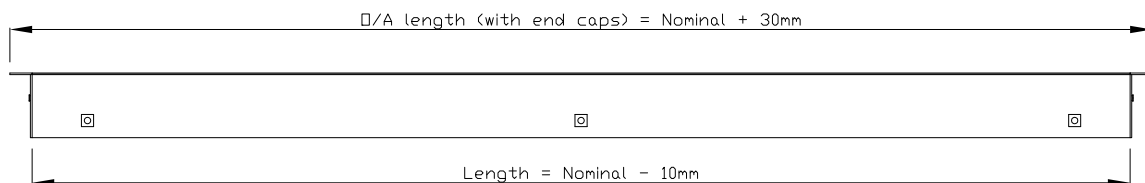
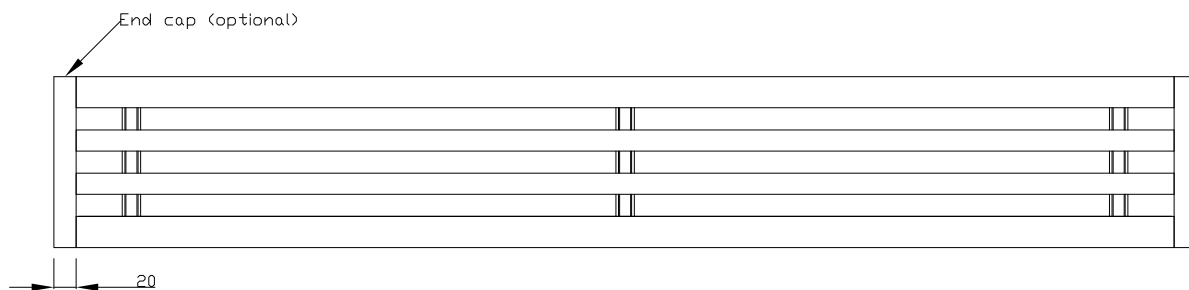
Assessed to ISO 9001:2008
Cert/Ref No. 1186

Technical drawings - Diffuser only

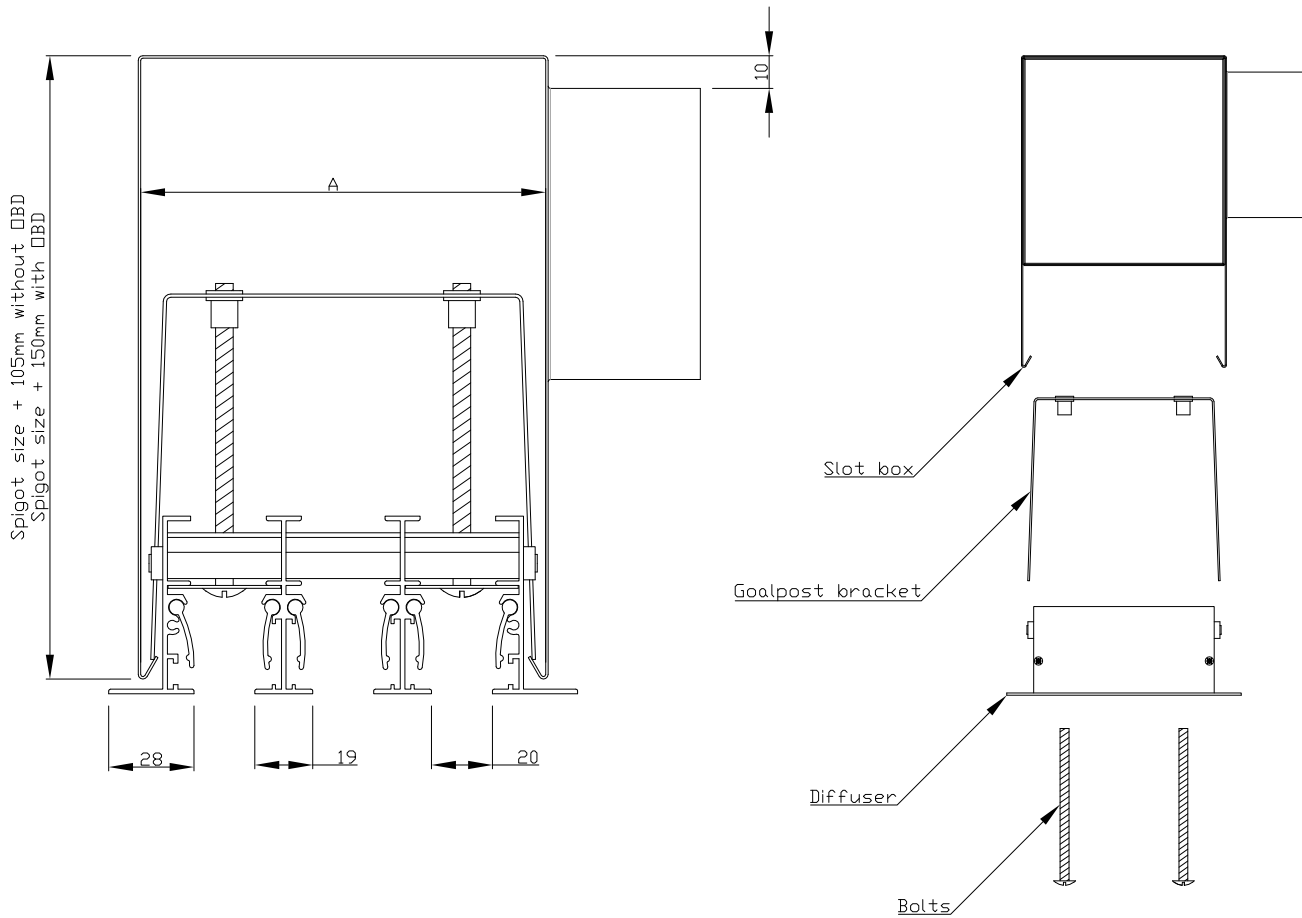


Number of slots	Actual neck (mm)	Overall face (mm)
1	41	76
2	80	115
3 (shown)	119	154
4	158	193
5	197	232
6	236	271
7	275	310
8	314	349

If the above sizes are not what you require, please contact us as slot widths can be modified.



Technical drawings - Diffuser c/w slot box



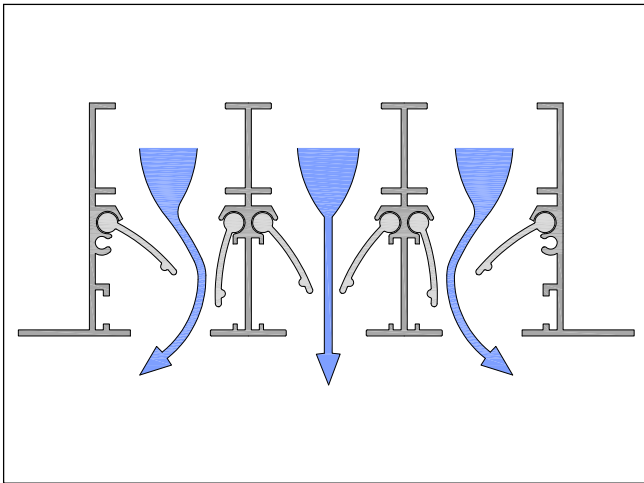
Number of slots	Dimension A (mm) Slot box inside width
1	55
2	94
3 (shown)	133
4	172
5	211
6	250
7	289
8	328

Options

Internal deflectors

If a linear slot diffuser is going to be used in a supply application, we recommend the specification of internal deflectors; matt black anodised aluminium profiles which sit discretely inside each slot.

Deflectors are manually adjustable through the diffuser face and allow the direction of airflow to be altered as required through the creation of low pressure zones underneath an extended blade.

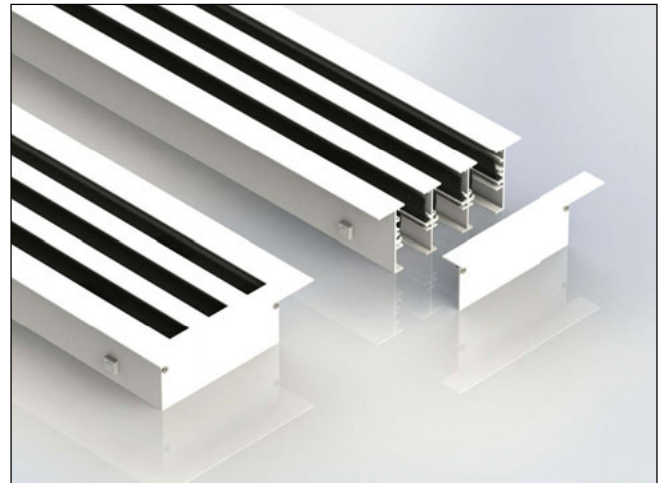


End caps

End caps incorporate a 20mm flange, and should be fitted at each end of a diffuser or diffuser run.

They act to contain the airflow within the diffuser, and finish off the installation aesthetically.

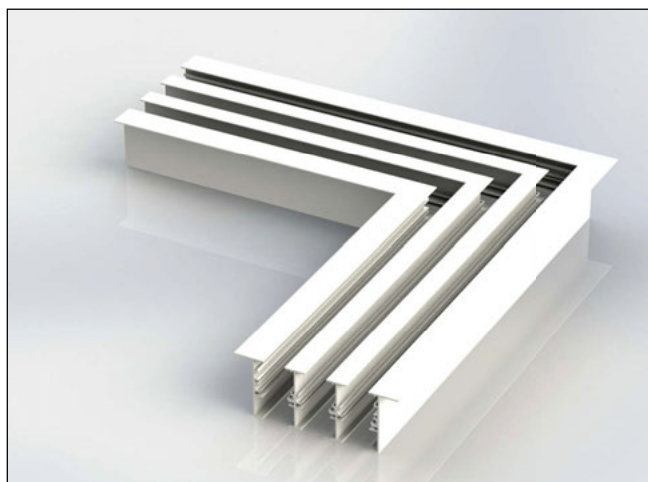
Supplied in the same finish as the diffuser and factory fitted.



Mitred corners

Mitred corners can be supplied for when the building design requires an unbroken length of diffuser, even through corners.

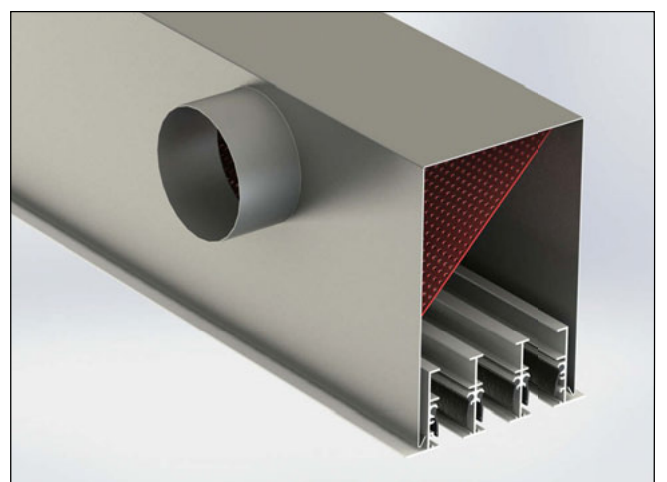
Mitred corners are normally supplied as a 90° angle, but can be manufactured to any angle if required.



Equalising plate

Fitted into slot boxes, equalising plates are made from perforated sheet steel.

They sit directly in front of the spigot at 45°, and force supplied air to spread out inside the box. This helps to ensure an equal airflow through the full length of the diffuser, rather than the majority of supplied air exiting the diffuser close to the spigot.



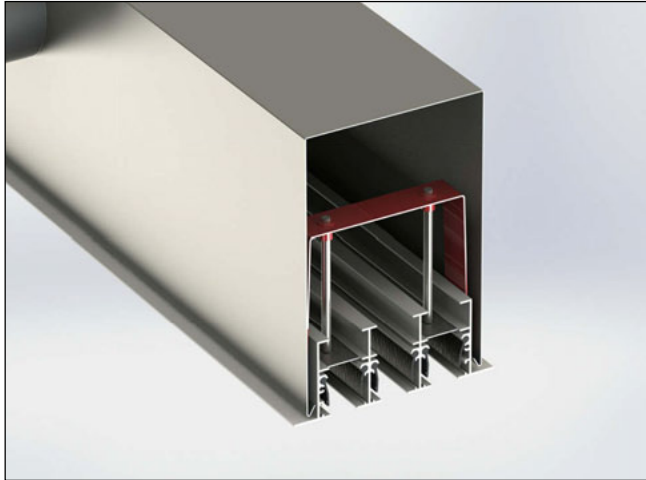
Fixings

Goalpost brackets

If a linear slot diffuser is to be used with a slot box, goalpost brackets are required.

The supplied bolts should be slid through the factory fitted slider brackets in the diffuser, and then screwed loosely into the goalpost bracket. The diffuser and brackets should then be offered up into the prefitted slot box. The flared legs of the bracket will latch into the returns on the inside of the slot box.

The bolts can then be tightened to draw the diffuser up snugly into position.

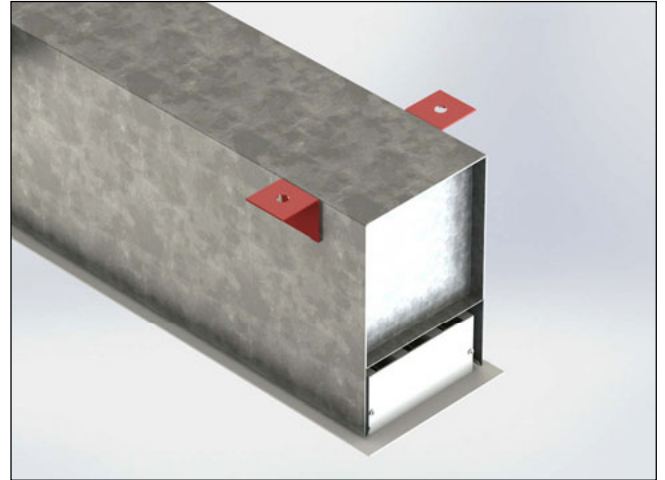


Fixing lugs - Slot box mounted

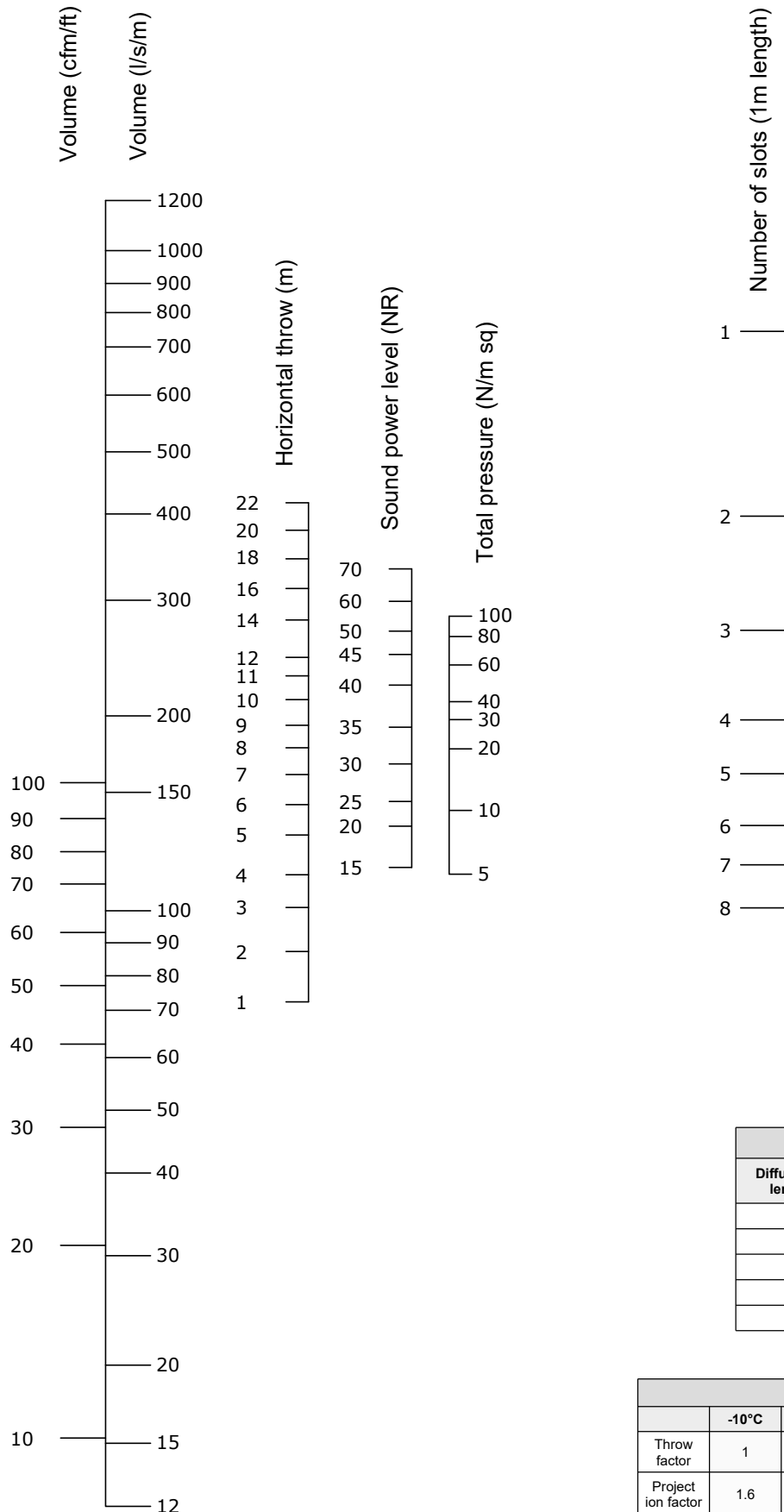
Fixing lugs can be factory fitted to the sides of slot boxes, enabling use with drop rod type fixing systems.

This avoids the need to drill holes into the box itself on site.

Lugs protrude 40mm from each side of the box, and have centrally prepunched holes of 10mm diameter.



Selection data



Throw values based on a 10°C cooling application, to a terminal velocity of 0.5m/s, to give an average room velocity of 0.18 m/s with a room height of 2.7m when mounted flush with an unobstructed ceiling.

Exhaust correction factors	
NR	-10
Pressure loss	0.8

Correction factors		
Diffuser active length (m)	Horizontal flow multiplier	Sound level correction
0.5	0.7	-3dB
1	1	As nomogram
1.5	1.1	+2dB
2	1.2	+3dB
3	1.3	+5dB

Temperature correction factors						
	-10°C	0°C	+5°C	+10°C	+15°C	+20°C
Throw factor	1	1.1	1.15	1.2		
Project ion factor	1.6	1.25	1.15	1	0.73	0.62

Finishes

Mill aluminium

Polyester powder coating to any RAL or BS colour



Ordering codes

Example

1 - 2000 long - LSD3 - DEF - EQ - EC - GPB - RAL9010 c/w 1 - 2000 long - SESB - 1 of 200 dia - SBD - FL - INS

Codes - Diffuser

1)	Quantity		
2)	Length (mm)	Length in mm	Length of the diffuser (taken to be nominal unless stated)
3)	Series	LSD1 - 8	Linear slot diffuser with 1 - 8 slots
4)	Damper	D	Opposed blade damper fitted
5)	Internal deflectors	DEF	Internal deflectors fitted (recommended if diffuser is to be used for supply)
6)	End caps	EC	End caps fitted
7)	Goalpost brackets	GPB GPBP	Goalpost brackets included (required if being fitted to a slot box) Goalpost brackets to suit a plasterboard ceiling included
8)	Finish	RAL9010 Mill RAL... BS...	RAL9010 white (standard) Mill aluminium Polyester powder coated to RAL... Polyester powder coated to BS...

Codes - Slot box

1)	Quantity		
2)	Length (mm)	Length in mm	
3)	Series	SESB TESB	Side entry slot box Top entry slot box
4)	Spigots	Quantity and size	State quantity of spigots and size required
5)	Spigot mounted damper	SBD	Single blade flap damper factory fitted into spigot - Locking quadrant control as standard
6)	Equalising plate	EQ	Equalising plate fitted inside plenum
7)	Fixing lugs	FL	Fixing lugs factory fitted for use with drop rod fixing system
8)	Internal insulation	INS	Self adhesive black pyrosorb type insulation fitted to internal surfaces of box
9)	Internals painted black	IN-BLACK	Internal surfaces of box painted matt black

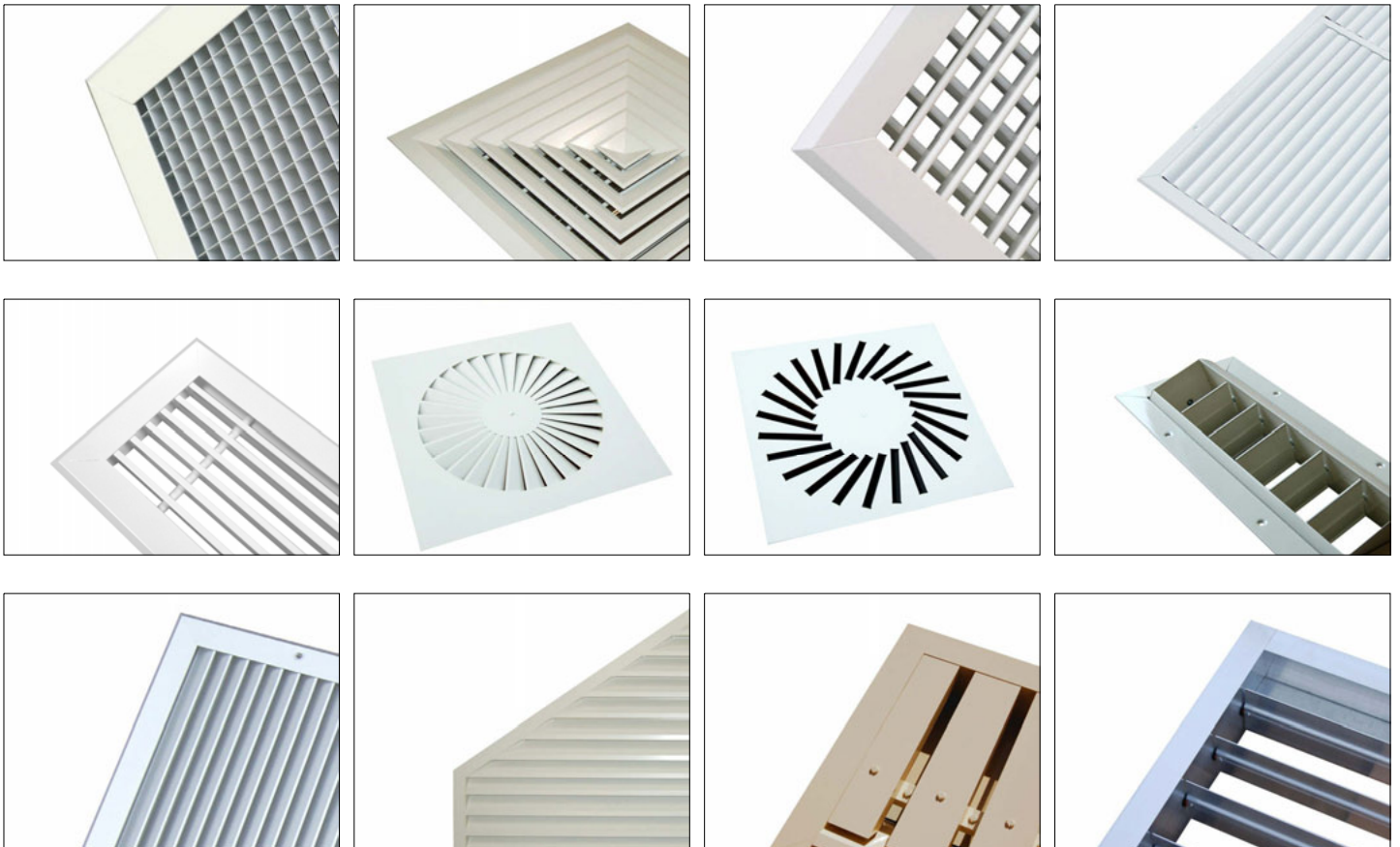
Leave code section blank if no option is required.

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

BSRIA
Member



Assessed to ISO 9001:2008
Cert/Ref No. 1186

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