

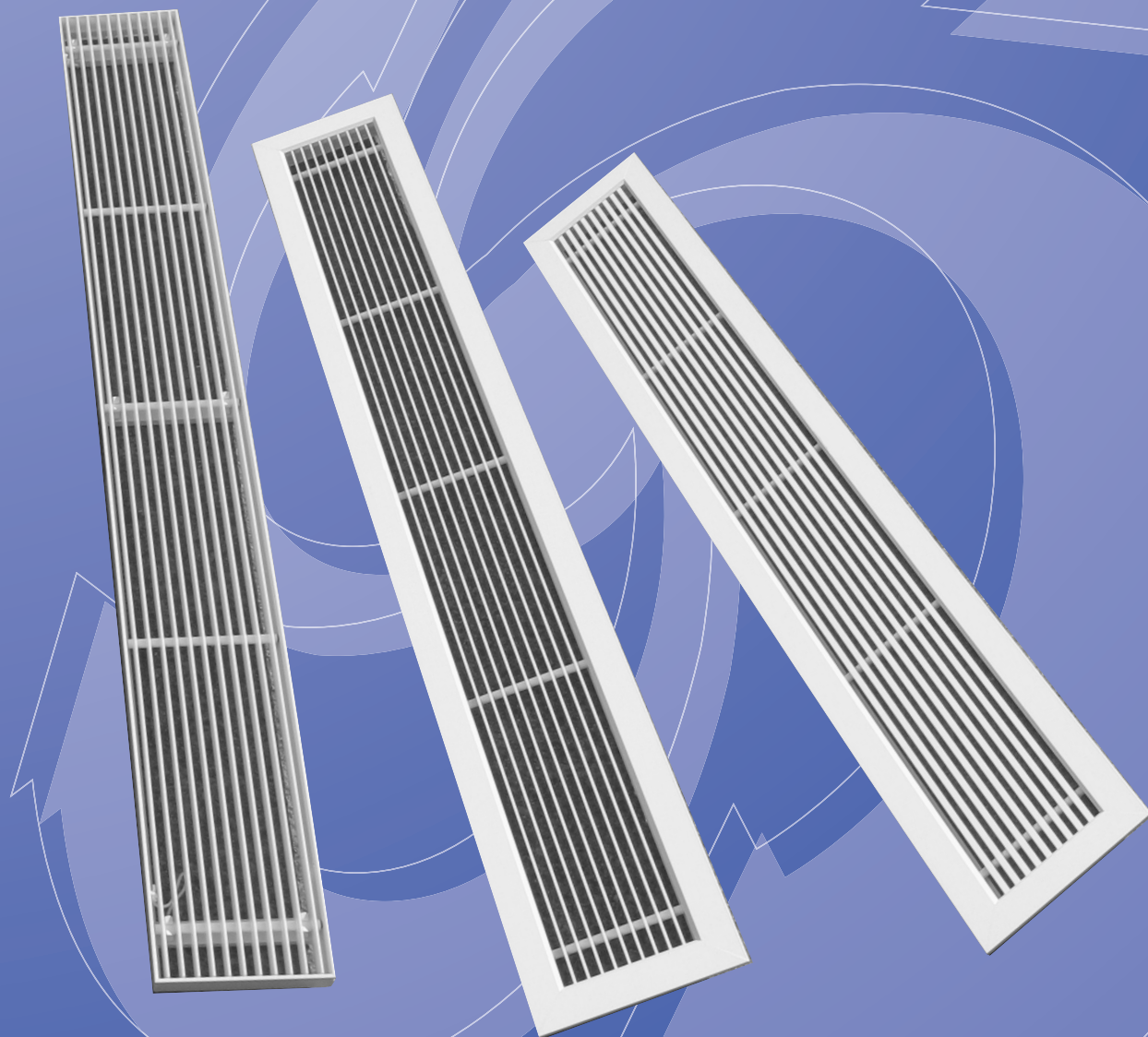
SERIES L

Fineline & Broadline
Linear Strip Grilles

PUBLICATION

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MAY 2016



Features

- Fineline or Broadline Appearances.
- 7 Different Frame Options.
- 0°, 15° or 40° Blade Angles.
- Single Units or Continuous Runs.
- Multiple Fixing Options.
- All Extruded aluminium Construction.



GILBERTS

SERIES L

Fineline & Broadline Linear Strip Grilles

Introduction

Gilberts L Series of Linear Grilles provides a range of multi function units designed for both supply and extract purposes and suitable for ceiling, sidewall and cill mounting applications. Attractively designed and styled the L Series is suprisingly flexible offering a choice of 'fineline' 3mm bars or 6mm 'Broadline' bars in a selection of 7 different border styles. Additional options can then be selected in terms of

differing blade angles and blade pitch on the core. Available heights range from 50mm rising in 12.5mm increments up to 600mm with lengths available up to 2 metres in a single unit. Over 2 metres, for continuous runs, units are supplied in sections and can be designed to incorporate additional features such as active/dummy sections and mitred corners.

Features

- Fineline or Broadline Appearances.
- 7 Different Border Frame Options.
- 0°, 15° or 40° Blade Angles.
- Single Units or Continuous Runs.
- Multiple Fixing Options.
- All Extruded aluminium Construction.

THE LINEAR STRIP GRILLE range comprises of 7 unit types:

TYPE LG: Linear Strip Grille comprising Fineline 3mm or Broadline 6mm wide bars set on a 13mm pitch in a 32mm flange border frame. Blades angled at 0°, 15° or on Fineline only 40°.

TYPE LGN: As LG Series except in a slimline 16mm flange border frame with concealed bracket fixing.

TYPE LC: Linear Strip Grille core only comprising Fineline 3mm or Broadline 6mm wide bars set on a 13mm pitch. Blades angled 0°, 15° or, on Fineline only, 40°.

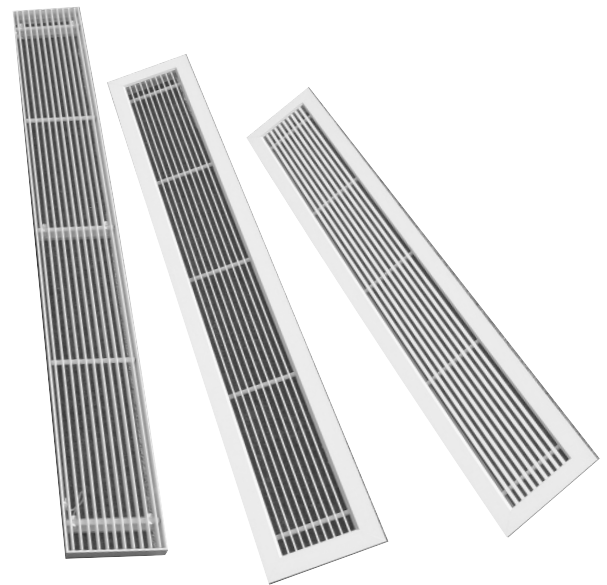
TYPE LH: Linear Strip Grille comprising Fineline 3mm or Broadline 6mm wide bars set on a 13mm pitch spring clip fixed in a housing frame. Blades angled at 0°, 15° or on Fineline only 40°. Sidewall or sill mounting applications only.

TYPE L: Linear Strip Grille as Type LG but with bars flush level with flange face. Ideally suited for horizontal cill type applications.

TYPE LN: Linear Strip Grille as Type LGN but with bars flush level with flange face. Ideally suited for horizontal cill type applications.

TYPE LHP: As Type LH but with special border suitable for all types of plaster fixing applications.

Manufactured throughout from extruded aluminium the L Series is available with a wide variety of ancillary items and fixing options. Opposed blade volume control is available with screwdriver operation and hinged doors or removable sections can even be incorporated into the grille to allow access to any equipment behind ie: radiator valves.



Standard fixing, as illustrated is typically screw through flange or lay in according to type, although alternative fixings such as concealed bracket, quick release or spring clip (for cill applications) can also be specified. Standard finish is a Polyester Powder White with other colours and finishes available on request.



References Used

Pressure: All pressures are in Pa (N/m²)
 Sound: Measured in average dbA level

Selection Procedure

Having determined the most suitable position of the linear grille to give the best effective distribution.

1. Determine the volume in m³/sec per metre length.
2. Establish the throw required to prevent overblow this should be approx. 75% of the distance to the wall opposite or if outlets are opposed to one another this should be approx. one third of the distance between them.
3. Check the acceptable sound level from the chart opposite.
4. From the selection Nomogram determine a suitable grille width to suit the above criteria.

Example:

Select a suitable supply linear outlet for an office measuring 8m x 6m x 2.8m high. The supply outlet is to be positioned at high level along the 6m wall. Duty 0.5m³/s, throw required is approx 6m. Max noise recommended 35dbA.

From Sizing Nomogram

Select an LG/0/3 Series 3m x 100mm in length. This equates to approx 0.166m³/s/m with a throw of (5 x 1.15 = 5.75), sound level (27 + 3 = 30).

Area to be served	Recommended Maximum NC Levels
Sound Broadcasting Recording Studios, TV (Audience Studios)	15 - 20 20 - 25
Lecture Theatres, Cinemas, Concert Halls, Boardroom/Ex Offices Lounge, Conference Room, Court Room, Churches, Private Bedrooms	25 - 30
Operating Theatres, Hospital Wards, Staff Room, Class Rooms, Ballroom, Banquet Room, Library, Bank, Museum, Offices	30 - 40
Restaurants, Department Stores, Computer Suite, Washroom Toilet	35 - 40
Laundries, Kitchens, Swimming Pools, Sports Arena	40 - 45
Garage, Light Engineering Workshop	45 - 50
Heavy Engineering Workshop	50 - 65

Free Area

Model

LG/0/3, L/0/3, LH/0/3, LHP/0/3, LN/0/3
 LG/15/3, L/15/3, LH/15/3, LHP/15/3, LN/15/3
 LG/40/3, L/40/3, LH/40/3, LHP/40/3, LN/40/3

'K' Factor

77%
 77%
 51%

Model

LG/0/3.9, L/0/3.9, LH/0/3.9, LHP/0/3.9, LN/0/3.9
 LG/15/3.9, L/15/3.9, LH/15/3.9, LHP/15/3.9, LN/15/3.9
 LG/40/3.9, L/40/3.9, LH/40/3.9, LHP/40/3.9, LN/40/3.9

'K' Factor

71%
 63%
 40%

Model

LG/0/6, L/0/6, LH/0/6, LHP/0/6, LN/0/6
 LG/15/6, L/15/6, LH/15/6, LHP/15/6, LN/15/6
 LG/0/6.19, L/0/6.19, LH/0/6.19, LHP/0/6.19, LN/0/6.19
 LG/15/6.19, L/15/6.19, LH/15/6.19, LHP/15/6.19, LN/15/6.19

'K' Factor

48%
 46%
 64%
 62%

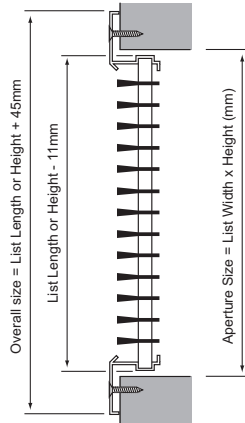
SERIES L

Fineline & Broadline Linear Strip Grilles

'Fineline' Linear Grilles 3mm Bars

TYPE LG - STANDARD BORDER (STD SCREW FIXING ILLUSTRATED)

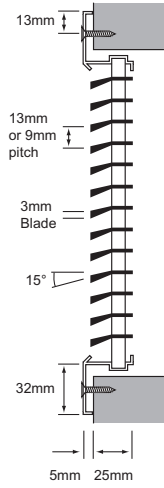
Grille - Straight Blades



TYPE LG/0/3
0° DEFLECTION
3mm WIDE BARS
13mm PITCH

TYPE LG/0/3.9
0° DEFLECTION
3mm WIDE BARS
9mm PITCH

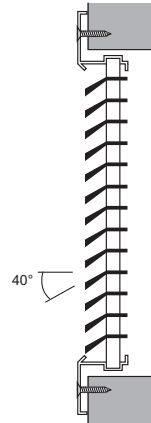
15° Blades



TYPE LG/15/3
15° DEFLECTION
3mm WIDE BARS
13mm PITCH

TYPE LG/15/3.9
15° DEFLECTION
3mm WIDE BARS
9mm PITCH

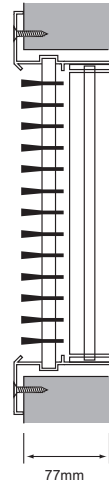
40° Blades



TYPE LG/40/3
40° DEFLECTION
3mm WIDE BARS
13mm PITCH

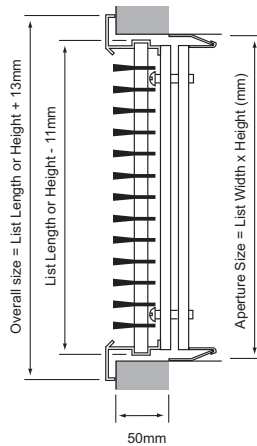
TYPE LG/40/3.9
40° DEFLECTION
3mm WIDE BARS
9mm PITCH

Grille c/w Damper



TYPE LGN - NARROW BORDER (STD CONCEALED BRACKET FIXING ILLUSTRATED)

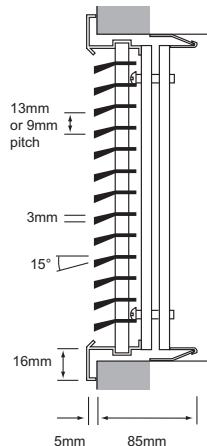
Grille - Straight Blades



TYPE LGN/0/3
0° DEFLECTION
3mm WIDE BARS
13mm PITCH

TYPE LGN/0/3.9
0° DEFLECTION
3mm WIDE BARS
9mm PITCH

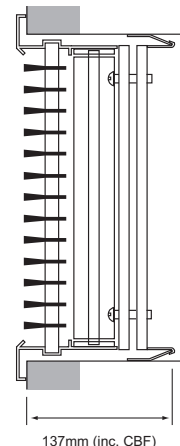
15° Blades



TYPE LGN/15/3
15° DEFLECTION
3mm WIDE BARS
13mm PITCH

TYPE LGN/15/3.9
15° DEFLECTION
3mm WIDE BARS
9mm PITCH

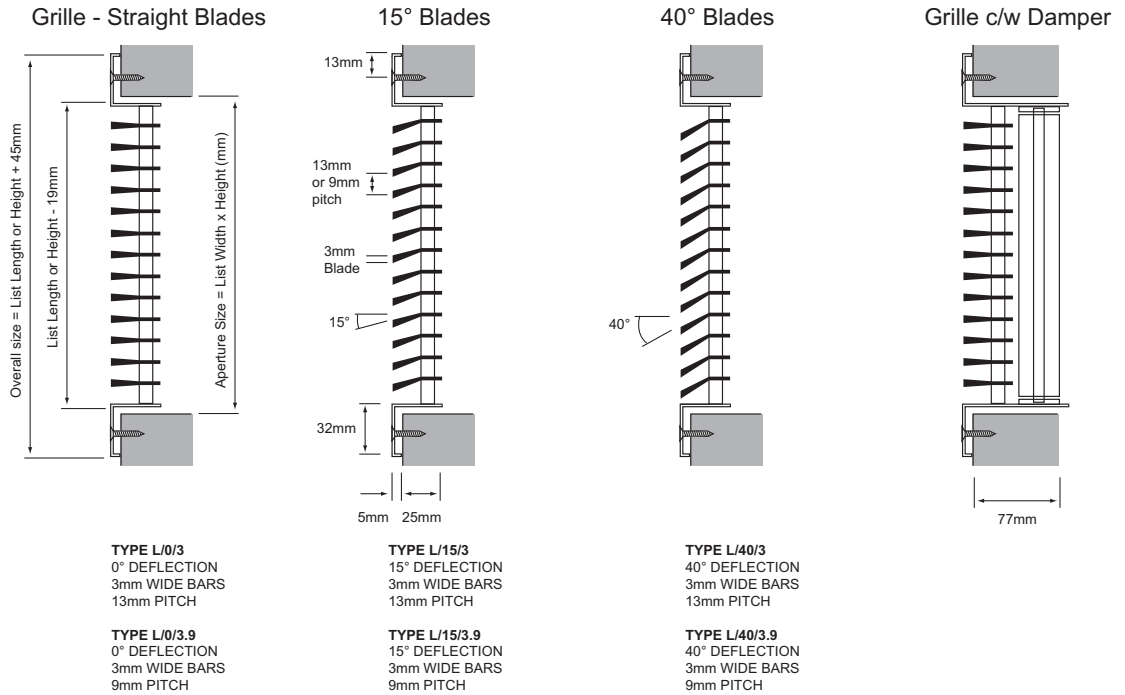
Grille c/w Damper



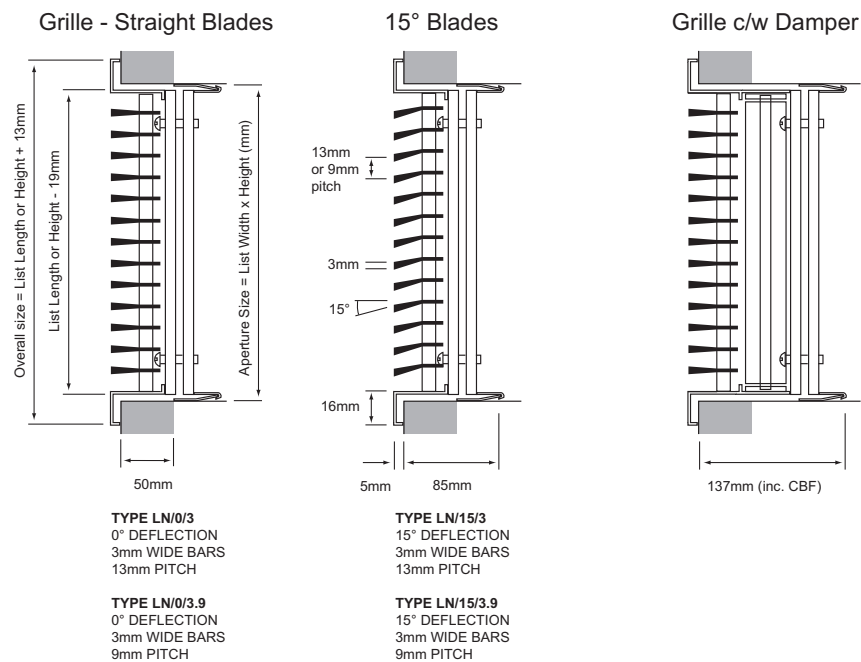


'Fineline' Linear Grilles 3mm Bars

TYPE L - FLUSH BORDER (STD SCREW FIXING ILLUSTRATED)



TYPE LN - NARROW FLUSH BORDER (STD CONCEALED BRACKET FIXING ILLUSTRATED)



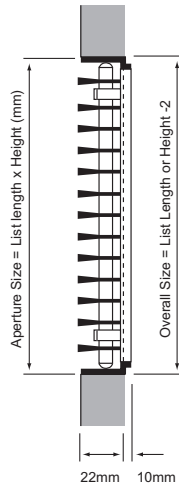
SERIES L

Fineline & Broadline Linear Strip Grilles

'Fineline'
Linear
Grilles
3mm Bars

TYPE LH - REMOVABLE SPRING CLIP CORE IN HOUSING FRAME

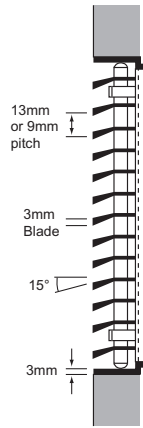
Grille - Straight Blades



TYPE LH/0/3
0° DEFLECTION
3mm WIDE BARS
13mm PITCH

TYPE LH/0/3.9
0° DEFLECTION
3mm WIDE BARS
9mm PITCH

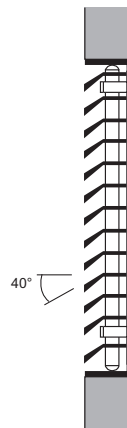
15° Blades



TYPE LH/15/3
15° DEFLECTION
3mm WIDE BARS
13mm PITCH

TYPE LH/15/3.9
15° DEFLECTION
3mm WIDE BARS
9mm PITCH

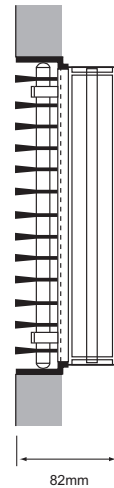
40° Blades



TYPE LH/40/3
40° DEFLECTION
3mm WIDE BARS
13mm PITCH

TYPE LH/40/3.9
40° DEFLECTION
3mm WIDE BARS
9mm PITCH

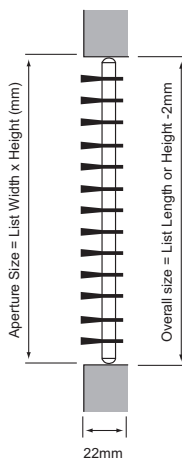
Grille c/w Damper



SIZE LIMIT: Spring clip core means sidewall or cill mounting only with a Max height limit of 300mm. Larger heights only available with a screw fix core.

TYPE LC - CORE ONLY

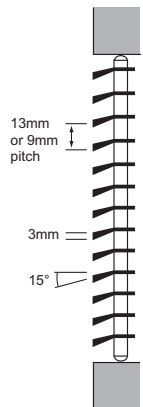
Grille - Straight Blades



TYPE LC/0/3
0° DEFLECTION
3mm WIDE BARS
13mm PITCH

TYPE LC/0/3.9
0° DEFLECTION
3mm WIDE BARS
9mm PITCH

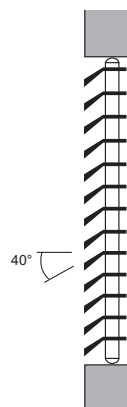
15° Blades



TYPE LC/15/3
15° DEFLECTION
3mm WIDE BARS
13mm PITCH

TYPE LC/15/3.9
15° DEFLECTION
3mm WIDE BARS
9mm PITCH

40° Blades



TYPE LC/40/3
40° DEFLECTION
3mm WIDE BARS
13mm PITCH

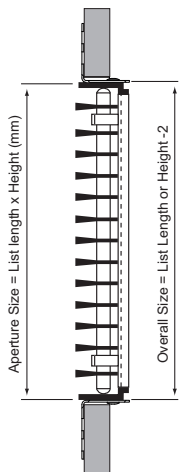
TYPE LC/40/3.9
40° DEFLECTION
3mm WIDE BARS
9mm PITCH



'Fineline' Linear Grilles 3mm Bars

TYPE LHP - PLASTER BORDER

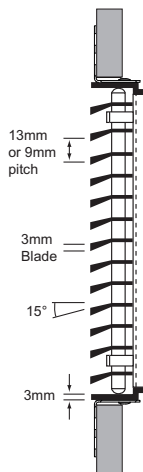
Grille - Straight Blades



TYPE LHP/0/3
0° DEFLECTION
3mm WIDE BARS
13mm PITCH

TYPE LHP/0/3.9
0° DEFLECTION
3mm WIDE BARS
9mm PITCH

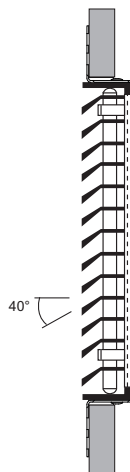
15° Blades



TYPE LHP/15/3
15° DEFLECTION
3mm WIDE BARS
13mm PITCH

TYPE LHP/15/3.9
15° DEFLECTION
3mm WIDE BARS
9mm PITCH

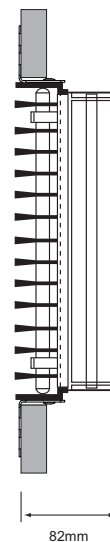
40° Blades



TYPE LHP/40/3
40° DEFLECTION
3mm WIDE BARS
13mm PITCH

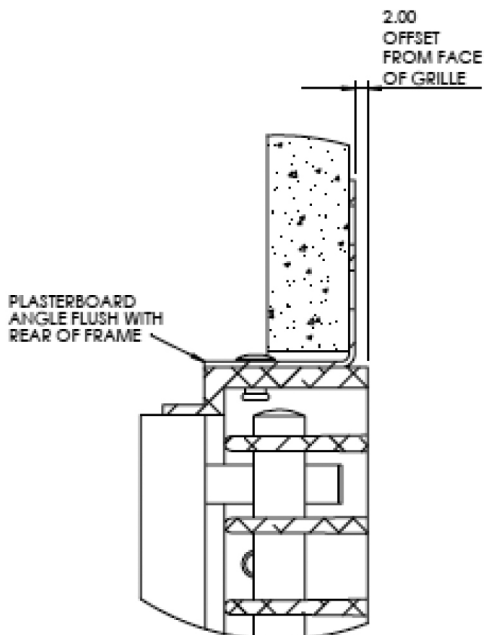
TYPE LHP/40/3.9
40° DEFLECTION
3mm WIDE BARS
9mm PITCH

Grille c/w Damper



SIZE LIMIT: Spring clip core means sidewall or cill mounting only with a Max height limit of 300mm. Larger heights only available with a screw fix core.

The special frame on Type LHP is designed for plaster and plaster board installations. The plaster fixing angles around the frame allow a 2mm skim of plaster to be applied right up to the edge of the grille face

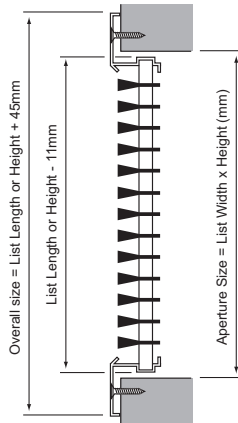


SERIES L

Fineline & Broadline Linear Strip Grilles

'Broadline' Linear Grilles 6mm Bars

Grille - Straight Blades

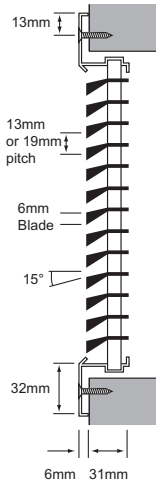


TYPE LG/0/6
0° DEFLECTION
6mm WIDE BARS
13mm PITCH

TYPE LG/0/6.19
0° DEFLECTION
6mm WIDE BARS
19mm PITCH

TYPE LG - STANDARD BORDER
(STD SCREW FIXING ILLUSTRATED)

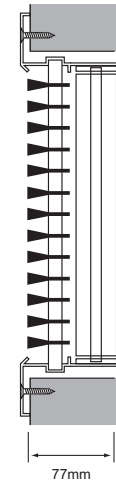
15° Blades



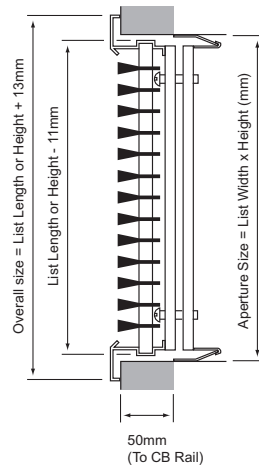
TYPE LG/15/6
15° DEFLECTION
6mm WIDE BARS
13mm PITCH

TYPE LG/15/6.19
15° DEFLECTION
6mm WIDE BARS
19mm PITCH

Grille c/w Damper



Grille - Straight Blades

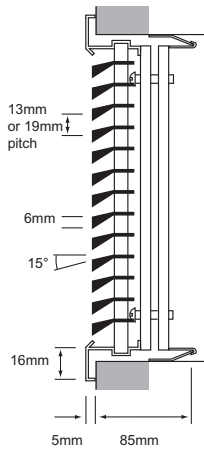


TYPE LGN/0/6
0° DEFLECTION
6mm WIDE BARS
13mm PITCH

TYPE LGN/0/6.19
0° DEFLECTION
6mm WIDE BARS
19mm PITCH

TYPE LGN - NARROW BORDER
(STD CONCEALED BRACKET FIXING ILLUSTRATED)

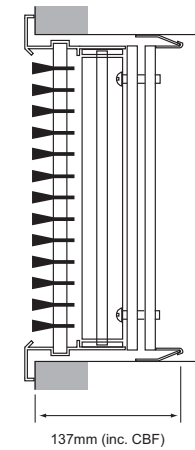
15° Blades



TYPE LGN/15/6
15° DEFLECTION
6mm WIDE BARS
13mm PITCH

TYPE LGN/15/6.19
15° DEFLECTION
6mm WIDE BARS
19mm PITCH

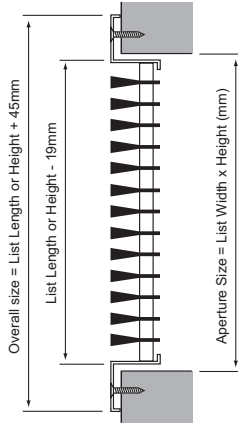
Grille c/w Damper





'Broadline' Linear Grilles 6mm Bars

Grille - Straight Blades

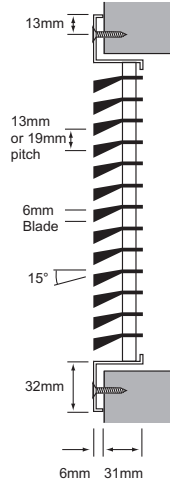


TYPE L/0/6
0° DEFLECTION
6mm WIDE BARS
13mm PITCH

TYPE L/0/6.19
0° DEFLECTION
6mm WIDE BARS
19mm PITCH

TYPE L - FLUSH BORDER
(STD SCREW FIXING ILLUSTRATED)

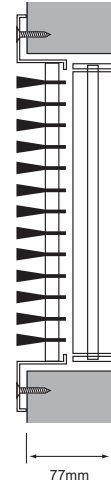
15° Blades



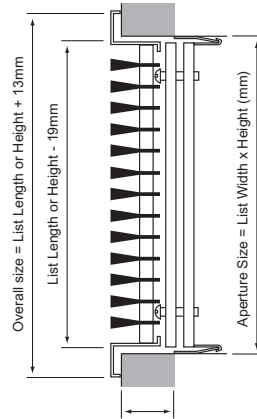
TYPE L/15/6
15° DEFLECTION
6mm WIDE BARS
13mm PITCH

TYPE L/15/6.19
15° DEFLECTION
6mm WIDE BARS
19mm PITCH

Grille c/w Damper



Grille - Straight Blades

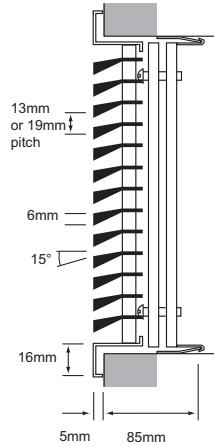


TYPE LN/0/6
0° DEFLECTION
6mm WIDE BARS
13mm PITCH

TYPE LN/0/6.19
0° DEFLECTION
6mm WIDE BARS
19mm PITCH

TYPE LN - NARROW FLUSH BORDER
(STD CONCEALED BRACKET FIXING ILLUSTRATED)

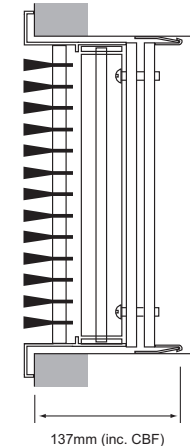
15° Blades



TYPE LN/15/6
15° DEFLECTION
6mm WIDE BARS
13mm PITCH

TYPE LN/15/6.19
15° DEFLECTION
6mm WIDE BARS
19mm PITCH

Grille c/w Damper

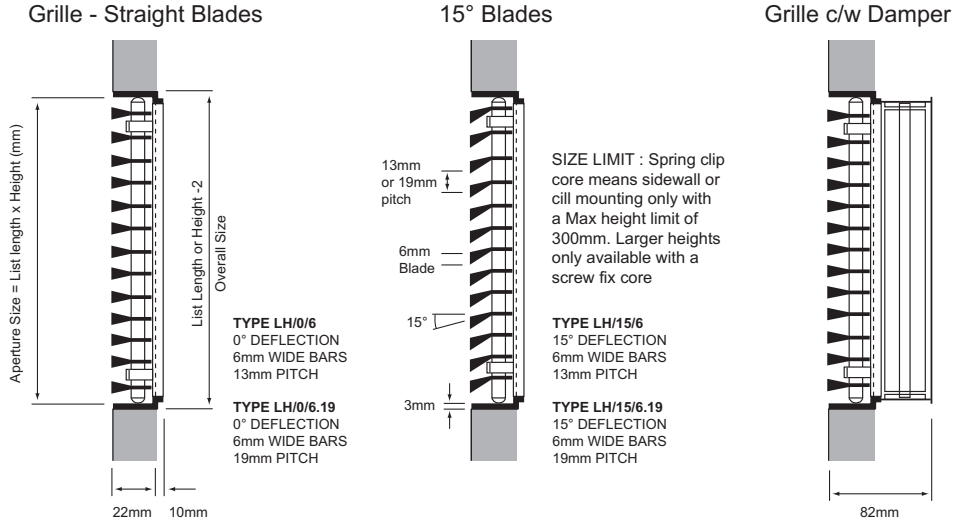


SERIES L

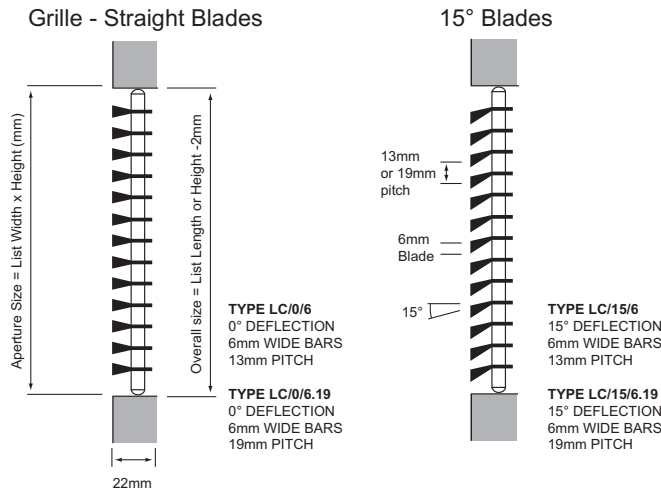
Fineline & Broadline Linear Strip Grilles

'Broadline' Linear Grilles 6mm Bars

TYPE LH - REMOVABLE SPRING CLIP CORE IN HOUSING FRAME



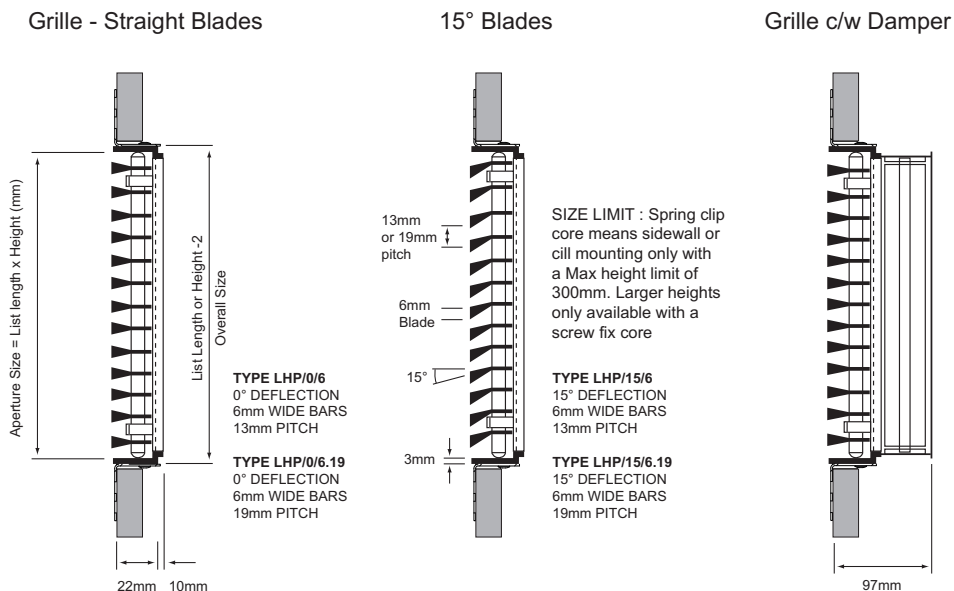
TYPE LC - CORE ONLY



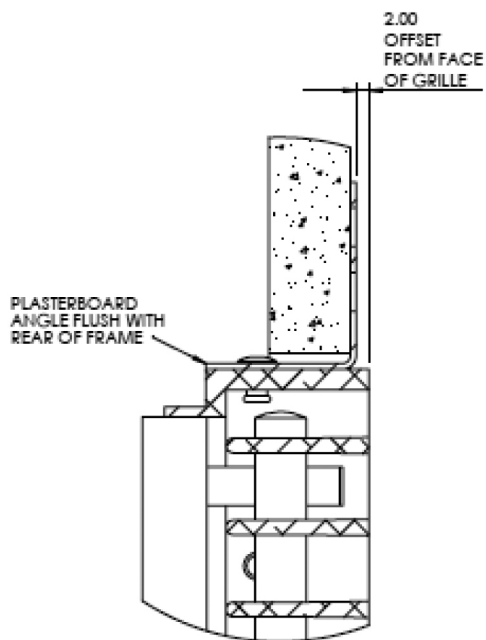


'Broadline' Linear Grilles 6mm Bars

TYPE LHP - PLASTER BORDER



The special frame on Type LHP is designed for plaster and plaster board installations. The plaster fixing angles around the frame allow a 2mm skim of plaster to be applied right up to the edge of the grille face



SERIES L

Fineline & Broadline Linear Strip Grilles

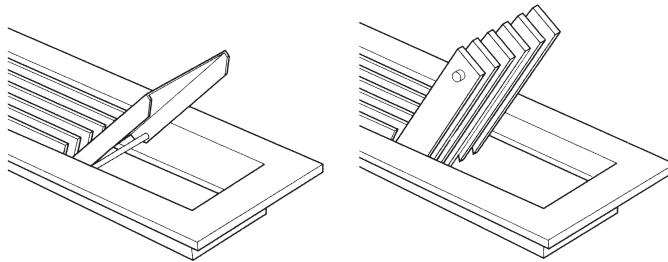
Hinged Access Doors

(Type L & LN only)

Type L and Type LN can be fitted with a hinged access door (150mm long) at the end of the grille. Two access door versions are available. The Type HB maintains the grille blade appearance whereas the Type HA is more identifiable as an access type cover. Due to the choice of blade angle options please specify left hand or right hand location when viewed from the grille face.

HINGED ACCESS DOOR (Type L & LN Only)

(Standard 150mm long)



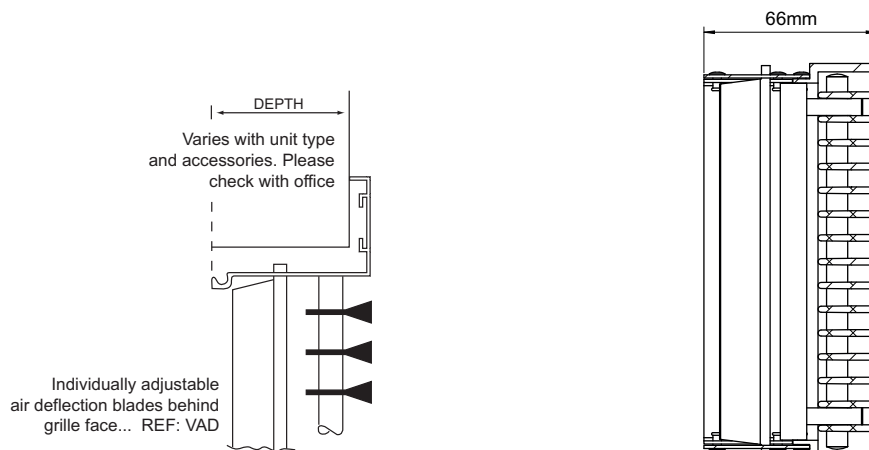
TYPE HA

TYPE HB

Vertical Air Deflection

(Type L, LN, LH & LHP only)

Vertical air deflection blades are available on select types of linear grille. The air deflection vanes provide a series of individually adjustable blades set in a second row immediately behind the linear grille blades. The adjustable aerofoil blades allow air control direction (left and right) through the grille face. Deflection vanes should be set in a position before grille installation.



Type L & LN

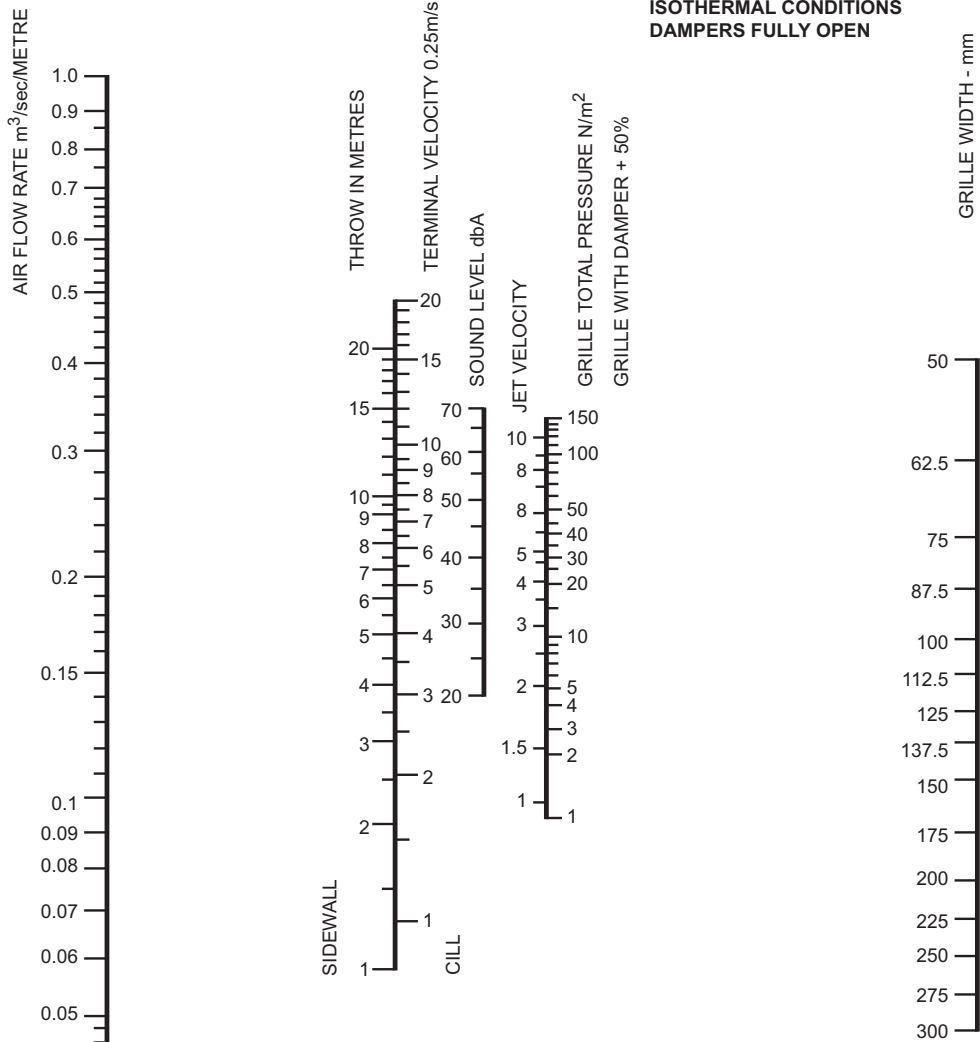
Type LH & LHP



'Fineline' Linear Grilles

SERIES L3 13mm Pitch

ALL DATA BASED ON
1.33 LONG UNIT
ISOTHERMAL CONDITIONS
DAMPERS FULLY OPEN



PRESSURE CORRECTION FACTORS

GRILLE TYPE	TOTAL PRESSURE
0° Straight Blades	AS SCALE
15° Blades	x1.12
40° Blades	x1.18

SOUND CORRECTION FACTORS

DIFFUSER LENGTH IN METRES	DECIBEL CORRECTION
0.33 - 1.0	-1
1.66 - 2.0	+1
2.33 - 3.0	+2
OVER 3 METRES	+3

THROW CORRECTION FACTORS

DIFFUSER LENGTH IN METRES	THROW CORRECTION
0.33	x .5
0.66 - 1.0	x .95
1.66 - 2.0	x 1.05
OVER 2 METRES	x 1.15

NB: Units with a 15° blade deflection are not suitable for medium to high velocities on extract. Please check with the office.

SERIES L

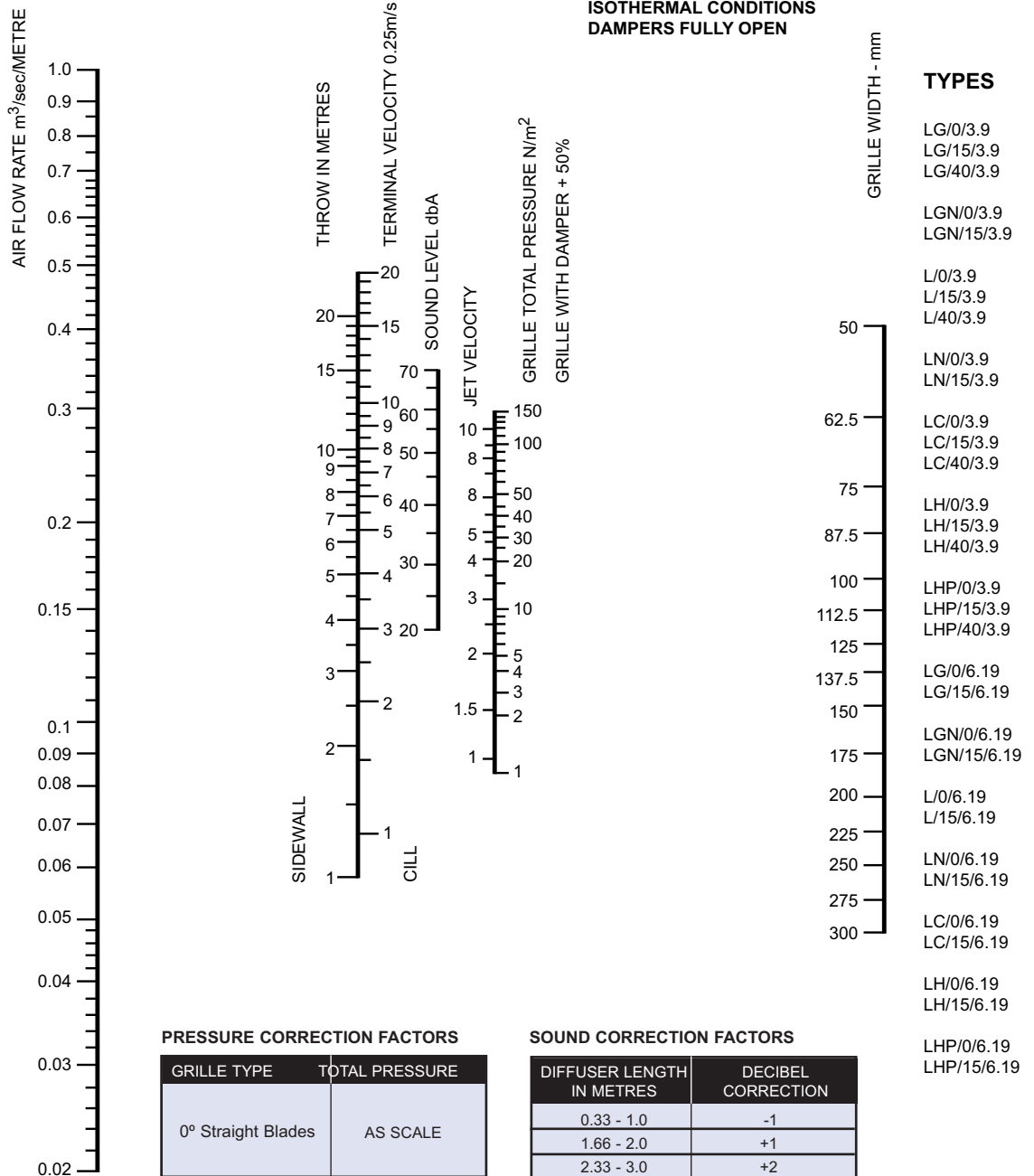
Fineline & Broadline Linear Strip Grilles

'Fineline'
& 'Broadline'
Linear
Grilles

SERIES L3 L6

L3 with 9mm Pitch
L6 with 19mm Pitch

ALL DATA BASED ON
1.33 LONG UNIT
ISOTHERMAL CONDITIONS
DAMPERS FULLY OPEN



TYPES

- LG/0/3.9
- LG/15/3.9
- LG/40/3.9

- LGN/0/3.9
- LGN/15/3.9

- L/0/3.9
- L/15/3.9
- L/40/3.9

- LN/0/3.9
- LN/15/3.9

- LC/0/3.9
- LC/15/3.9
- LC/40/3.9

- LH/0/3.9
- LH/15/3.9
- LH/40/3.9

- LHP/0/3.9
- LHP/15/3.9
- LHP/40/3.9

- LG/0/6.19
- LG/15/6.19

- LGN/0/6.19
- LGN/15/6.19

- L/0/6.19
- L/15/6.19

- LN/0/6.19
- LN/15/6.19

- LC/0/6.19
- LC/15/6.19

- LH/0/6.19
- LH/15/6.19

- LHP/0/6.19
- LHP/15/6.19

PRESSURE CORRECTION FACTORS

GRILLE TYPE	TOTAL PRESSURE
0° Straight Blades	AS SCALE
15° Blades	x1.25
40° Blades	x1.35

SOUND CORRECTION FACTORS

DIFFUSER LENGTH IN METRES	DECIBEL CORRECTION
0.33 - 1.0	-1
1.66 - 2.0	+1
2.33 - 3.0	+2
OVER 3 METRES	+3

THROW CORRECTION FACTORS

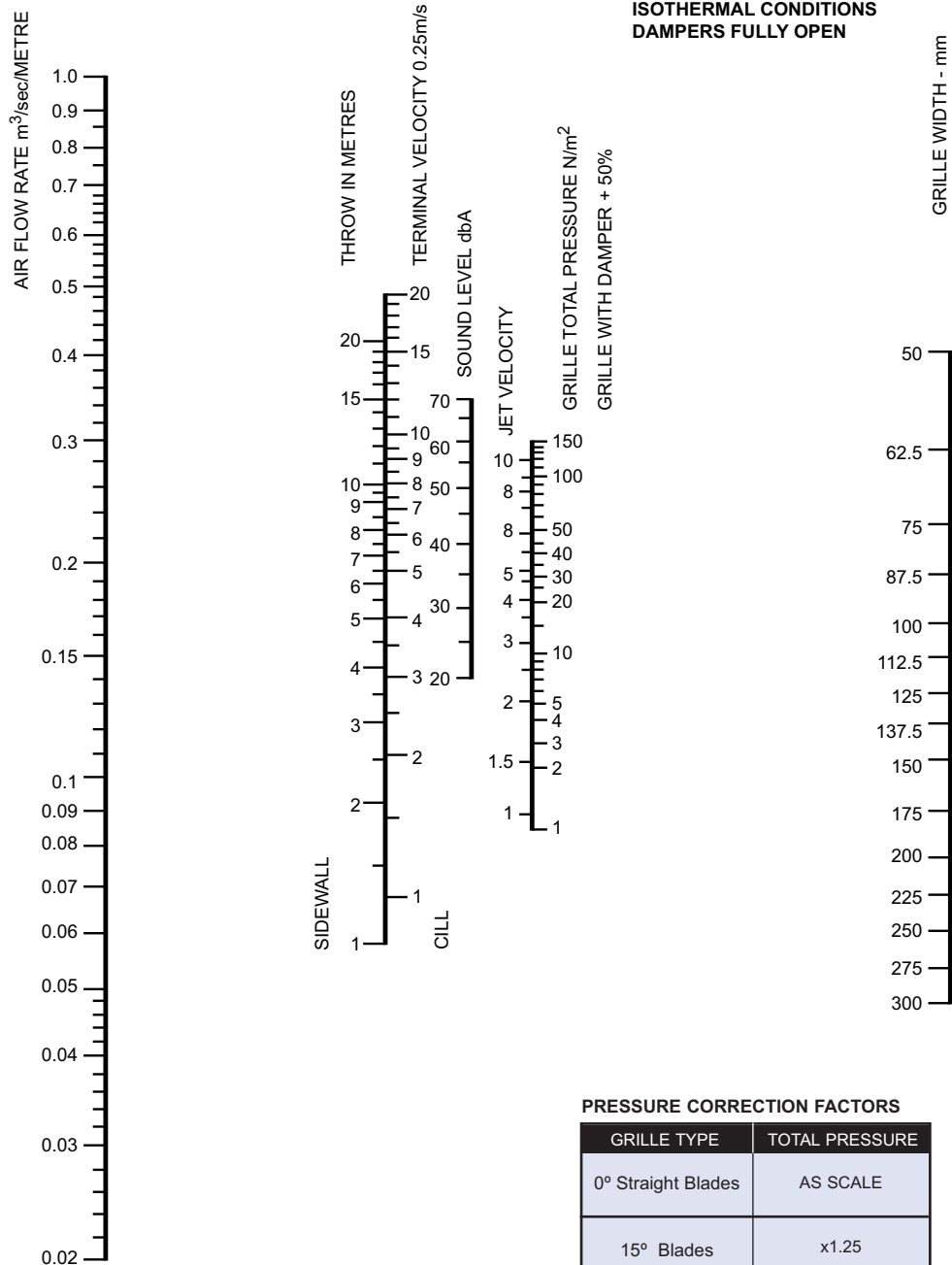
DIFFUSER LENGTH IN METRES	THROW CORRECTION
0.33	x .5
0.66 - 1.0	x .95
1.66 - 2.0	x 1.05
OVER 2 METRES	x 1.15



'Broadline' Linear Grilles

SERIES L6 13mm Pitch

ALL DATA BASED ON
1.33 LONG UNIT
ISOTHERMAL CONDITIONS
DAMPERS FULLY OPEN



TYPES

- LG/0/6
- LG/15/6
- LGN/0/6
- LGN/15/6
- L/0/6
- L/15/6
- LN/0/6
- LN/15/6
- LC/0/6
- LC/15/6
- LH/0/6
- LH/15/6
- LHP/0/6
- LHP/15/6

PRESSURE CORRECTION FACTORS

GRILLE TYPE	TOTAL PRESSURE
0° Straight Blades	AS SCALE
15° Blades	x1.25

SOUND CORRECTION FACTORS

DIFFUSER LENGTH IN METRES	DECIBEL CORRECTION
0.33 - 1.0	-1
1.66 - 2.0	+1
2.33 - 3.0	+2
OVER 3 METRES	+3

THROW CORRECTION FACTORS

DIFFUSER LENGTH IN METRES	THROW CORRECTION
0.33	x .5
0.66 - 1.0	x .95
1.66 - 2.0	x 1.05
OVER 2 METRES	x 1.15

SERIES L

Fineline & Broadline Linear Strip Grilles

Ordering Specification

SERIES: LG, LGN, LC, LH, L, LN, LHP	L	15	3	9	VAD	HA	1800 x 150	DO	CB	PPC RAL 9010 20% GLOSS (STANDARD FINISH)	15
BLADE ANGLE: 0°, 15° or 40°											
BLADE WIDTH: Fineline.....3 Broadline.....6											
BLADE PITCH: (Standard.....13) Optional Fineline.....9 Optional Broadline.....19											
Vertical Air Deflection...VAD											
HINGED ACCESS DOOR- 150mm Long (plus side facing towards on 15 & 40 degree grilles): Type A.....HA Type B.....HB Type A (left hand).....HAL Type A (right hand).....HAR Type B (left hand).....HBL Type B (right hand).....HBR											
Size (mm - Length x Height)											
Accessories Opposed Blade Damper.....DO For Matt Black finish on damper add ref. BB i.e: DO/BB											
SPECIAL FIXING OPTIONS: Concealed Bracket.....CB Spring Clip.....SC Quick Release.....QR Leg Bracket.....LB											
FINISH (Please Specify)											
NUMBER REQUIRED											

Fixing

- LG & L Series: Flange screw fixing using self tapping screws.
- LGN & LN Series: Concealed bracket fixing.
- LC Series: Typically for 'lay in' application no fixing provided as standard.
- LH Series: Screw fix through frame
- LHP Series: Plaster in to opening

Other optional fixings include concealed bracket and quick release fixings.

Spring Clip push fit fixings are available but are only suitable for Cill applications.

Size Range

Available heights range from 50mm rising in 12.5mm increments upto 600mm with lengths available up to 2 metres in a single unit.

Finish

- Standard Finish: Polyester powder coat white RAL 9010 20% gloss.
- Special finishes: Polyester powder finish to stock BS/RAL colour. Stove enamel to BS or RAL colour
Shadowline finish - inners matt black and face mill brush finished.

GILBERTS

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