SERIES L
Fineline and Broadline
Linear Strip Grilles

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 L Series of Linear Grilles provides a range of multi-functional 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 surprisingly flexible offering a choice of ‘fineline’ 3mm bars or ‘Broadline’ 6mm 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 2.4 metres in a single unit. Over 2.4 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 Bar Grille comprising Fineline 3mm or Broadline 6mm wide bars set on a 13mm pitch in a 32mm flange border frame.
- **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.
- **TYPE LHS**: Linear Strip Grille comprising Fineline 3mm or Broadline 6mm wide bars set on a 13mm pitch spring clip fixed in a housing frame sidewall or sill mounting applications only.
- **TYPE L**: Linear Strip Grille as Type LG but with bars flush level with flange face.
- **TYPE LN**: Linear Strip Grille as Type LGN but with bars flush level with flange face.
- **TYPE LHSP**: Linear Strip Grille 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 it: 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.
SERIES L
Fineline and Broadline Linear Strip Grilles

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 (5m x 1.15 = 5.75m), pressure drop 10Pa, sound level (27 + 3 = 30dBA).

Free Area

<table>
<thead>
<tr>
<th>Model</th>
<th>Area to be served</th>
<th>Recommended Maximum NC Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>LG/0/3, L/0/3, LHS/0/3, LHSP/0/3, LN/0/3, LC/0/3, LGN/0/3</td>
<td>Sound Broadcasting, Recording Studios, TV (Audience Studios)</td>
<td>15 - 20</td>
</tr>
<tr>
<td>LG/15/3, L/15/3, LHS/15/3, LHSP/15/3, LN/15/3, LC/15/3, LGN/15/3</td>
<td>Lecture Theatres, Cinemas, Concert Halls, Boardroom/Ex Offices Lounge, Conference Room, Court Room, Churches, Private Bedrooms</td>
<td>20 - 25</td>
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<tr>
<td>LG/40/3, L/40/3, LHS/40/3, LHSP/40/3, LN/40/3, LC/40/3</td>
<td>Operating Theatres, Hospital Wards, Staff Room, Class Rooms, Ballroom, Banquet Room, Library, Bank, Museum, Offices</td>
<td>25 - 30</td>
</tr>
<tr>
<td>LG/0/3.9, L/0/3.9, LHS/0/3.9, LHSP/0/3.9, LN/0/3.9, LC/0/3.9, LGN/0/3.9</td>
<td>Restaurants, Department Stores, Computer Suite, Washroom Toilet</td>
<td>30 - 40</td>
</tr>
<tr>
<td>LG/15/3.9, L/15/3.9, LHS/15/3.9, LHSP/15/3.9, LN/15/3.9, LC/15/3.9</td>
<td>Laundries, Kitchens, Swimming Pools, Sports Arena</td>
<td>40 - 45</td>
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<tr>
<td>LG/40/3.9, L/40/3.9, LHS/40/3.9, LHSP/40/3.9, LN/40/3.9, LC/40/3.9</td>
<td>Garage, Light Engineering Workshop</td>
<td>45 - 50</td>
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<td>LG/0/6, L/0/6, LHS/0/6, LHSP/0/6, LN/0/6, LC/0/6, LGN/0/6</td>
<td>Heavy Engineering Workshop</td>
<td>50 - 65</td>
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<td>LG/15/6, L/15/6, LHS/15/6, LHSP/15/6, LN/15/6, LC/15/6, LGN/15/6</td>
<td>Operating Theatres, Hospital Wards, Staff Room, Class Rooms, Ballroom, Banquet Room, Library, Bank, Museum, Offices</td>
<td>30 - 40</td>
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<td>Restaurants, Department Stores, Computer Suite, Washroom Toilet</td>
<td>40 - 45</td>
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</table>

Area to be served | Recommended Maximum NC Levels
<table>
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<tr>
<td>LG/0/3, L/0/3, LHS/0/3, LHSP/0/3, LN/0/3, LC/0/3, LGN/0/3</td>
<td>77%</td>
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<tr>
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<td>77%</td>
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<tr>
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<td>66%</td>
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<td>LG/15/3.9, L/15/3.9, LHS/15/3.9, LHSP/15/3.9, LN/15/3.9, LC/15/3.9</td>
<td>63%</td>
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<td>64%</td>
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<td>LG/15/6.19, L/15/6.19, LHS/15/6.19, LHSP/15/6.19, LN/15/6.19</td>
<td>62%</td>
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</table>
SERIES L
Fineline and Broadline Linear Strip Grilles

‘Fineline’
Linear Grilles
3mm Bars

TYPE LG - STANDARD BORDER
(STD SCREW FIXING ILLUSTRATED)

Grille c/w Damper

Grille - 0° Blades
15° Blades
40° Blades

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

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

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

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

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

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

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

Grille - 0° Blades
15° Blades
Grille c/w Damper

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

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

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

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

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

Aperture Size = List Length x Height (mm)
Overall size = List Length or Height + 13mm

5mm 97mm 141mm
SERIES L
Fineline and Broadline Linear Strip Grilles

‘Fineline’
Linear Grilles
3mm Bars

**TYPE L** - FLUSH BORDER
(STD SCREW FIXING ILLUSTRATED)

**TYPE LN** - NARROW FLUSH BORDER
(STD CONCEALED BRACKET FIXING ILLUSTRATED)
‘Fineline’
Linear Grilles
3mm Bars

TYPE LHS - Removable Spring Clip Core In Housing Frame

Grille - 0° Blades

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

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

15° Blades

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

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

40° Blades

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

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

Grille c/w Damper

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

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

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

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

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

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

TYPE LC - CORE ONLY

Grille - 0° 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

Grille c/w Damper

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

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

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

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

SIZE LIMIT: Spring clip core suitable for 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 allowing 2mm skim of plaster to be applied right up to the edge of the grille face.
‘Broadline’
Linear Grilles
6mm Bars

**SERIES L**
Fineline and Broadline Linear Strip Grilles

**TYPE LG - STANDARD BORDER**
(STD SCREW FIXING ILLUSTRATED)

Grille - 0° Blades

Grille - 15° Blades

Grille c/w Damper

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

Grille - 0° Blades

Grille - 15° Blades

Grille c/w Damper

---

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Deflection</th>
<th>Blades</th>
<th>Width</th>
<th>Height</th>
<th>Pitch</th>
<th>Details</th>
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<tbody>
<tr>
<td>LG/0/6</td>
<td>0°</td>
<td>0°</td>
<td>6mm</td>
<td>13mm</td>
<td>6mm Wide Bars</td>
<td>13mm Pitch</td>
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<td>LG/0/6.19</td>
<td>0°</td>
<td>0°</td>
<td>6mm</td>
<td>19mm</td>
<td>6mm Wide Bars</td>
<td>19mm Pitch</td>
</tr>
<tr>
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<td>6mm</td>
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<td>6mm Wide Bars</td>
<td>13mm Pitch</td>
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<td>15°</td>
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<td>6mm Wide Bars</td>
<td>19mm Pitch</td>
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<td>13mm</td>
<td>6mm Wide Bars</td>
<td>13mm Pitch</td>
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<td>0°</td>
<td>6mm</td>
<td>19mm</td>
<td>6mm Wide Bars</td>
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<td>15°</td>
<td>15°</td>
<td>6mm</td>
<td>13mm</td>
<td>6mm Wide Bars</td>
<td>13mm Pitch</td>
</tr>
<tr>
<td>LGN/15/6.19</td>
<td>15°</td>
<td>15°</td>
<td>6mm</td>
<td>19mm</td>
<td>6mm Wide Bars</td>
<td>19mm Pitch</td>
</tr>
</tbody>
</table>
SERIES L
Fineline and Broadline Linear Strip Grilles

‘Broadline’ Linear Grilles 6mm Bars

‘Broadline’ Linear Grilles 6mm Bars

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

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

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

TYPE LN/15/6.19
15° DEFLECTION
6mm WIDE BARS
19mm PITCH
‘Broadline’
Linear Grilles
6mm Bars

TYPE LHS - Removable Spring Clip Core
In Housing Frame

Grille - 0˚ Blades

15˚ Blades

Grille c/w Damper

TYPE LHS/0/6
0˚ DEFLECTION
6mm WIDE BARS
13mm PITCH

TYPE LHS/0/6.19
0˚ DEFLECTION
6mm WIDE BARS
19mm PITCH

TYPE LHS/15/6
15˚ DEFLECTION
6mm WIDE BARS
13mm PITCH

TYPE LHS/15/6.19
15˚ DEFLECTION
6mm WIDE BARS
19mm PITCH

SIZE LIMIT: Spring clip core suitable for 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 - 0˚ Blades

15˚ Blades

TYPE LC/0/6
0˚ DEFLECTION
6mm WIDE BARS
13mm PITCH

TYPE LC/0/6.19
0˚ DEFLECTION
6mm WIDE BARS
19mm PITCH

TYPE LC/15/6
15˚ DEFLECTION
6mm WIDE BARS
13mm PITCH

TYPE LC/15/6.19
15˚ DEFLECTION
6mm WIDE BARS
19mm PITCH
‘Broadline’
Linear Grilles
6mm Bars

SERIES L
Fineline and Broadline Linear Strip Grilles

The special frame on Type LHP is designed for plaster and plaster board installations allowing 2mm skim of plaster to be applied right up to the edge of the grille face.
Series L
Fineline and 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)

**Vertical Air Deflection (Type L, LN, LHS & LHSP 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.
‘Fineline’
Linear
Grilles

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.

<table>
<thead>
<tr>
<th>DIFFUSER LENGTH IN METRES</th>
<th>DECIBEL CORRECTION</th>
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</thead>
<tbody>
<tr>
<td>0.33 - 1.0</td>
<td>-1</td>
</tr>
<tr>
<td>1.66 - 2.0</td>
<td>+1</td>
</tr>
<tr>
<td>2.33 - 3.0</td>
<td>+2</td>
</tr>
<tr>
<td>OVER 3 METRES</td>
<td>+3</td>
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</table>

<table>
<thead>
<tr>
<th>DIFFUSER LENGTH IN METRES</th>
<th>THROW CORRECTION</th>
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<tbody>
<tr>
<td>0.33</td>
<td>x .5</td>
</tr>
<tr>
<td>0.66 - 1.0</td>
<td>x .95</td>
</tr>
<tr>
<td>1.66 - 2.0</td>
<td>x 1.05</td>
</tr>
<tr>
<td>OVER 2 METRES</td>
<td>x 1.15</td>
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</table>
‘Fineline’ & ‘Broadline’ Linear Grilles

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<td>+2</td>
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<tr>
<td>OVER 3 METRES</td>
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‘Broadline’
Linear Grilles

SOUND CORRECTION FACTORS

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THROW CORRECTION FACTORS

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<td>OVER 2 METRES</td>
<td>x 1.15</td>
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</table>
Ordering Specification

**FIXING**

LG & L Series: Flange screw fixing using self tapping screws.

LGN & LN Series: Concealed bracket fixing. Typically for 'lay in' application no fixing provided as standard.

LC Series: Screw fix through frame

LHS 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 up to 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

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GILBERTS (BLACKPOOL) LTD
Gilair Works, Clifton Road, Blackpool, Lancashire FY4 4QT.

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e-mail: sales@gilbertsblackpool.com
Web: www.gilbertsblackpool.com

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