

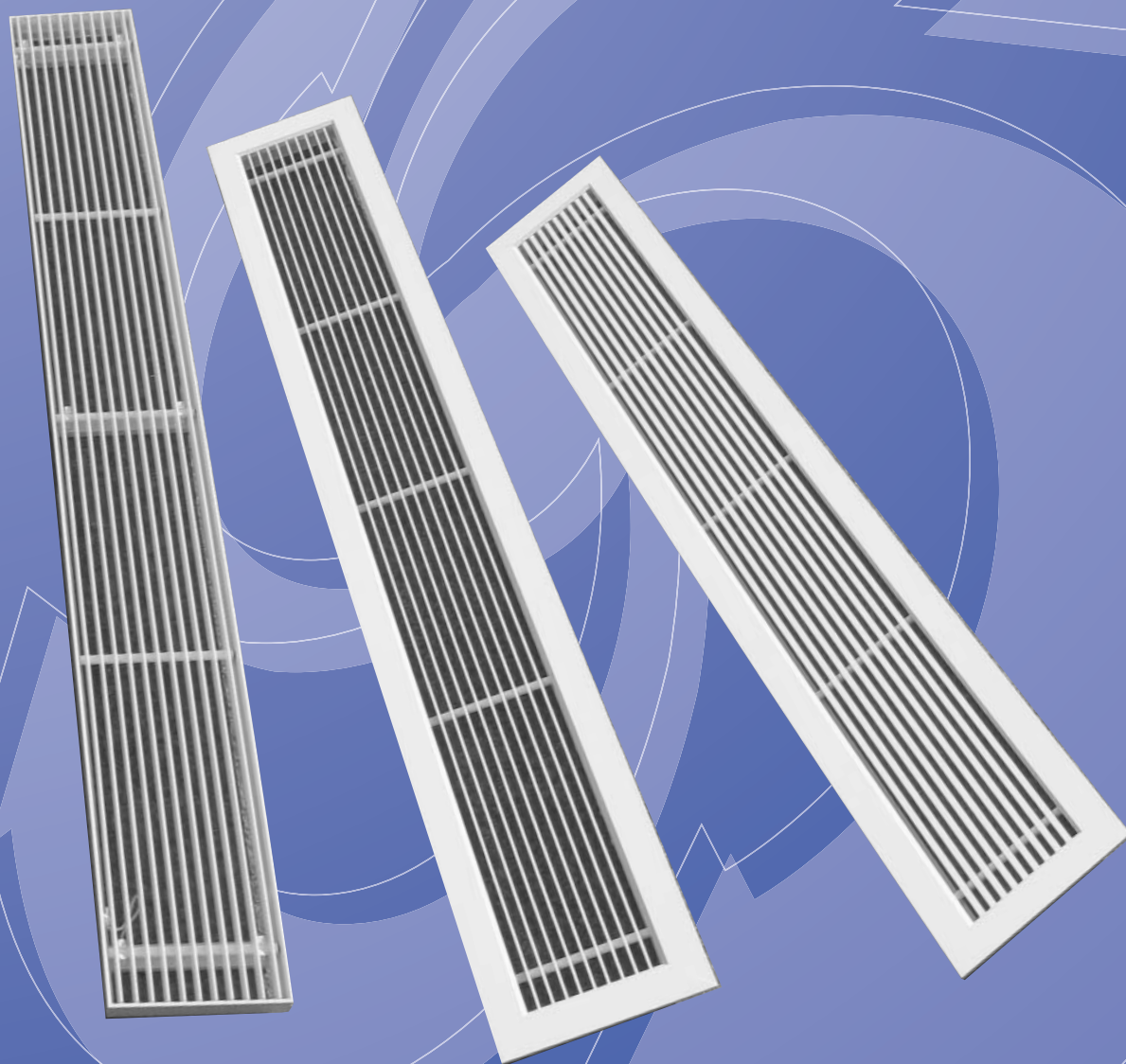
SERIES L

Fineline & Broadline
Linear Strip Grilles

PUBLICATION

GRILLES 12

JUNE 2015



Features

- Fineline or Broadline Appearances.
- 6 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

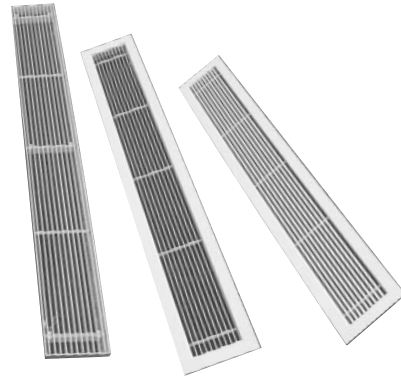
Introduction

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 6 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 1mm 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

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- 6 Different 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 6 unit types:

- TYPE LG:** Linear Strip Grille comprising Fineline 3mm or Broadline 6mm wide bars set on 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 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 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 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.

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 either screwdriver or permanent knob 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.

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

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).

Free Area

Model	'K' Factor	Model	'K' Factor	Model	'K' Factor
LG/0/3, L/0/3, LH/0/3, LN/0/3	77%	LG/0/3.9, L/0/3.9, LH/0/3.9, LN/0/3.9	71	LG/0/6, L/0/6, LH/0/6, LN/0/6	48%
LG/15/3, L/15/3, LH/15/3, LN/15/3	77%	LG/15/3.9, L/15/3.9, LH/15/3.9, LN/15/3.9	63%	LG/15/6, L/15/6, LH/15/6, LN/15/6	46%
LG/40/3, L/40/3, LH/40/3, LN/40/3	51%	LG/40/3.9, L/40/3.9, LH/40/3.9, LN/40/3.9	40%	LG/0/6.19, L/0/6.19, LH/0/6.19, LN/0/6.19	64%
				LG/15/6.19, L/15/6.19, LH/15/6.19, LN/15/6.19	62%

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

References Used

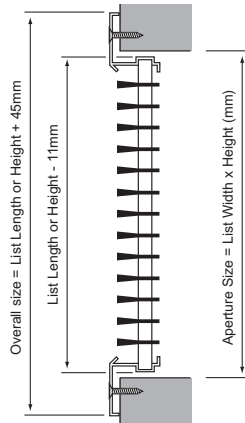
Selection Procedure



'Fineline'
Linear
Grilles
3mm Bars

TYPE LG - STANDARD BORDER
(STD SCREW FIXING ILLUSTRATED)

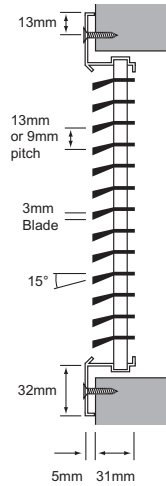
Grille - Straight Blades



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

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

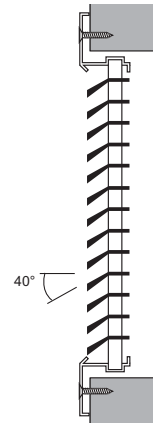
15° Blades



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

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

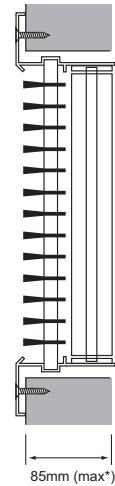
40° Blades



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

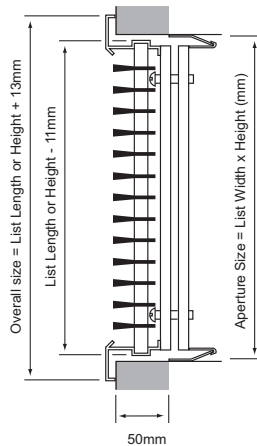
TYPE LG/40/3.9
40° DEFLECTION
3mm WIDE BARS
9mm PITCH

Grille c/w Damper



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

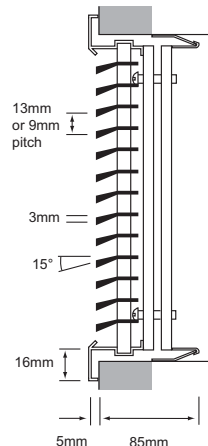
Grille - Straight Blades



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

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

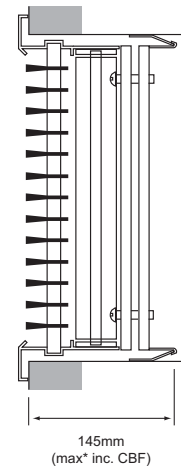
15° Blades



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



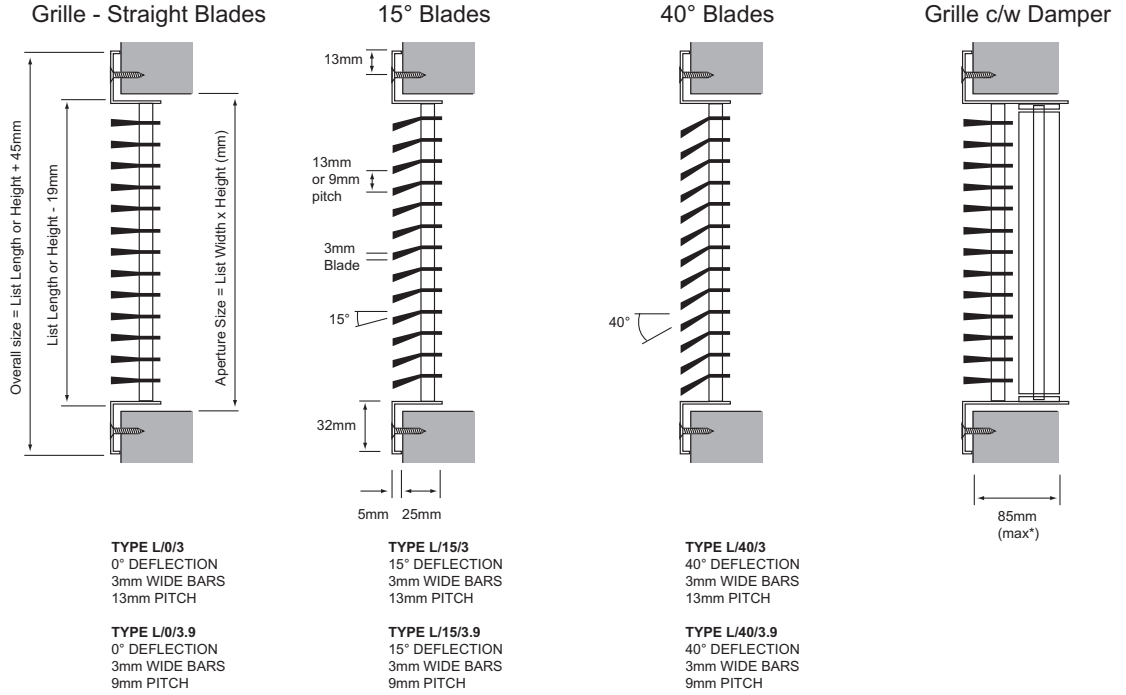
* Max depth - Depth may be lower depending on damper fitment. Please check where necessary

SERIES L

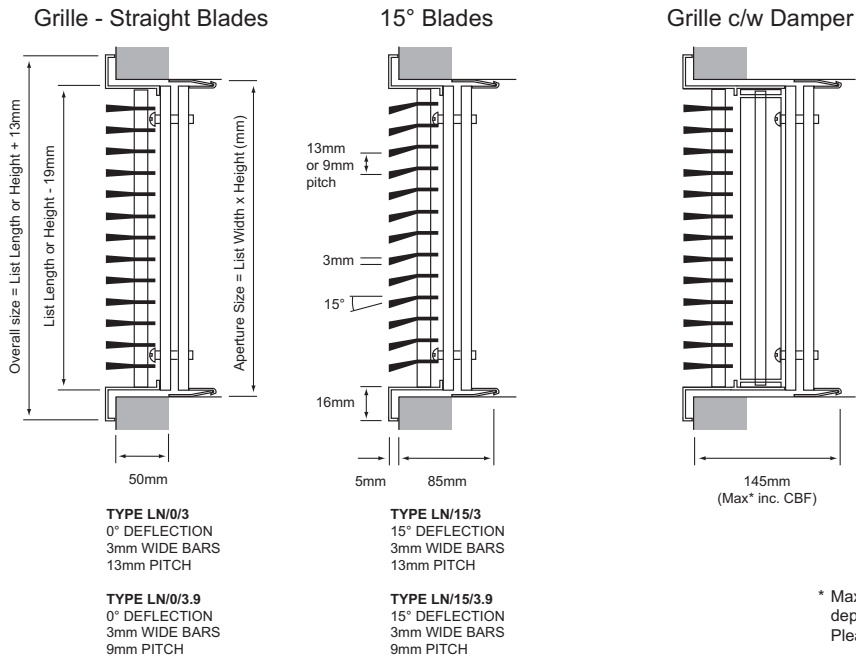
Fineline ® Broadline Linear Strip Grilles

‘Fineline’
Linear
Grilles
3mm Bars

TYPE L - FLUSH BORDER (STD SCREW FIXING ILLUSTRATED)



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



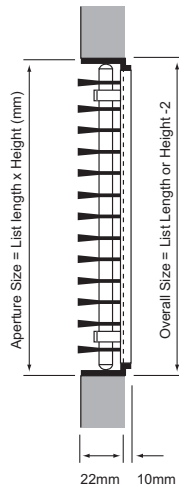
* Max depth - Depth may be lower depending on damper fitment. Please check where necessary



'Fineline'
Linear
Grilles
3mm Bars

**TYPE LH - REMOVABLE SPRING CLIP CORE
IN HOUSING FRAME**

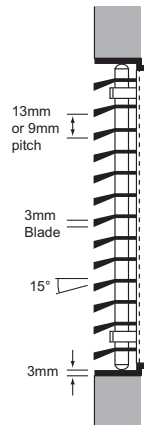
Grille - Straight Blades



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

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

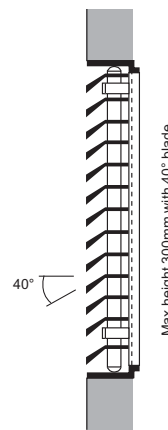
15° Blades



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

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

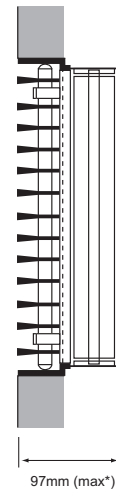
40° Blades



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

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

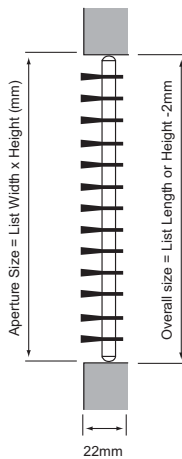
Grille c/w Damper



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

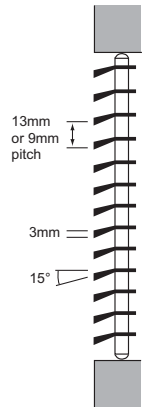
Grille - Straight Blades



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

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

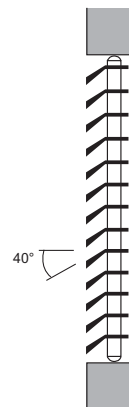
15° Blades



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

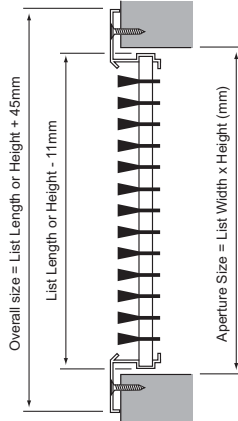
TYPE LC/40/3.9
40° DEFLECTION
3mm WIDE BARS
9mm PITCH

SERIES L

Fineline & Broadline Linear Strip Grilles

'Broadline' Linear Grilles 6mm Bars

Grille - Straight Blades

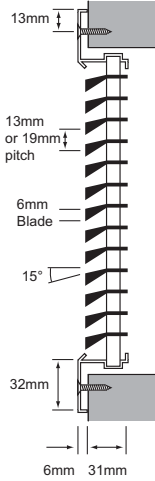


TYPE LG/0/6
0° DEFLECTION
6mm WIDE BARS
13mm PITCH

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

TYPE LG - STANDARD BORDER
(STD SCREW FIXING ILLUSTRATED)

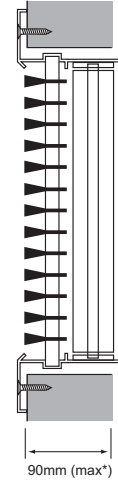
15° Blades



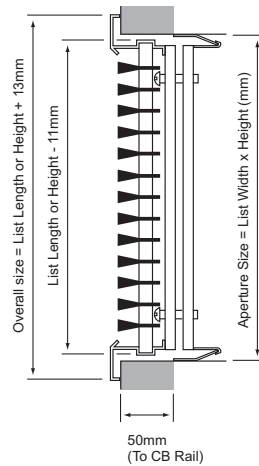
TYPE LG/15/6
15° DEFLECTION
6mm WIDE BARS
13mm PITCH

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

Grille c/w Damper



Grille - Straight Blades

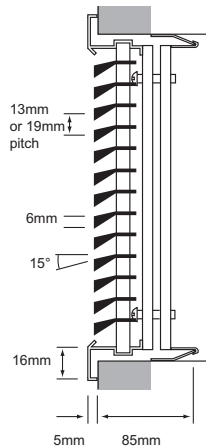


TYPE LGN/0/6
0° DEFLECTION
6mm WIDE BARS
13mm PITCH

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

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

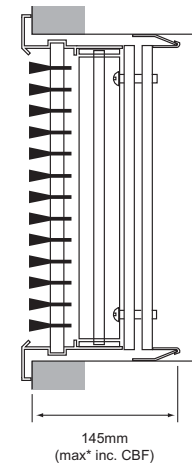
15° Blades



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

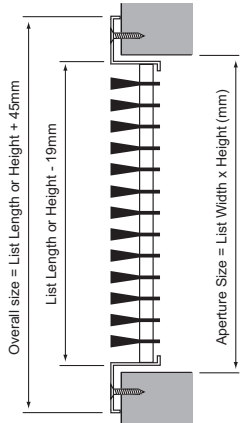


* Max depth - Depth may be lower depending on damper fitment. Please check where necessary



'Broadline'
Linear
Grilles
6mm Bars

Grille - Straight Blades

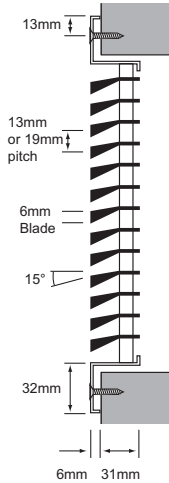


TYPE L/0/6
0° DEFLECTION
6mm WIDE BARS
13mm PITCH

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

TYPE L - FLUSH BORDER
(STD SCREW FIXING ILLUSTRATED)

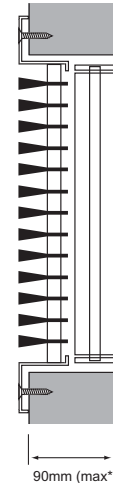
15° Blades



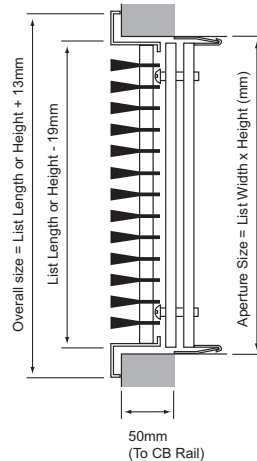
TYPE L/15/6
15° DEFLECTION
6mm WIDE BARS
13mm PITCH

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

Grille c/w Damper



Grille - Straight Blades

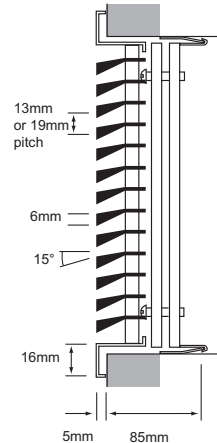


TYPE LN/0/6
0° DEFLECTION
6mm WIDE BARS
13mm PITCH

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

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

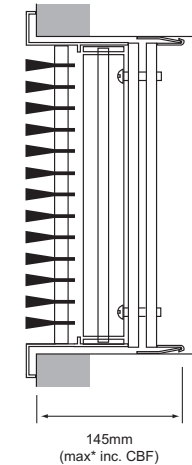
15° Blades



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



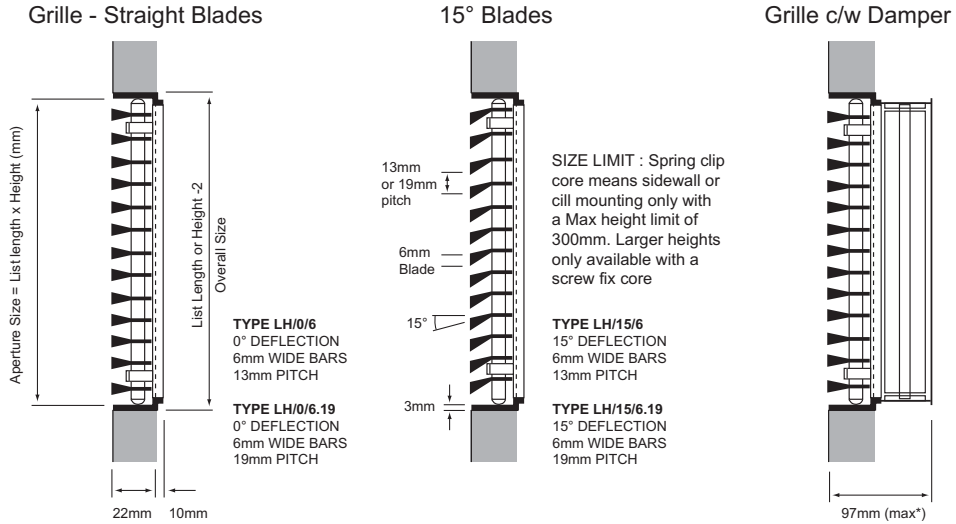
* Max depth - Depth may be lower depending on damper fitment. Please check where necessary

SERIES L

Fineline & Broadline Linear Strip Grilles

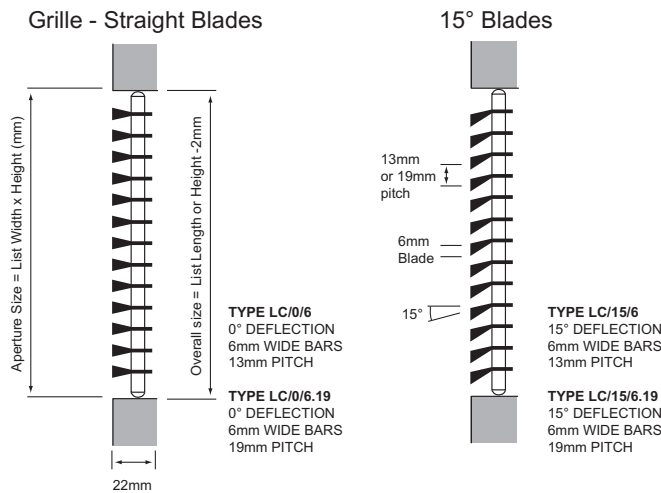
'Broadline'
Linear
Grilles
6mm Bars

TYPE LH - REMOVABLE SPRING CLIP CORE IN HOUSING FRAME



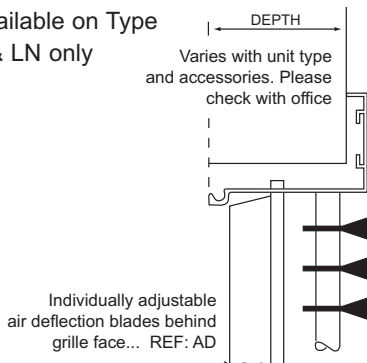
* Max depth - Depth may be lower depending on damper fitment. Please check where necessary

TYPE LC - CORE ONLY



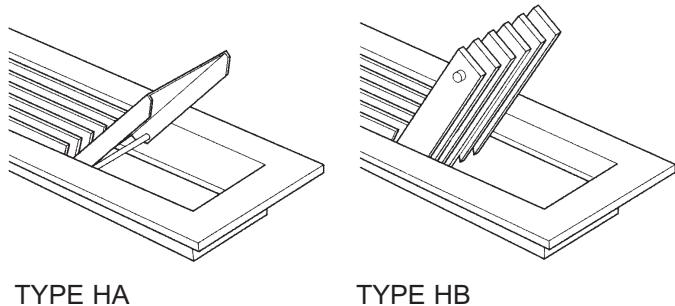
VERTICAL AIR DEFLECTION

Available on Type L & LN only



HINGED ACCESS DOOR (Type L & LN Only)

(Standard 150mm long)

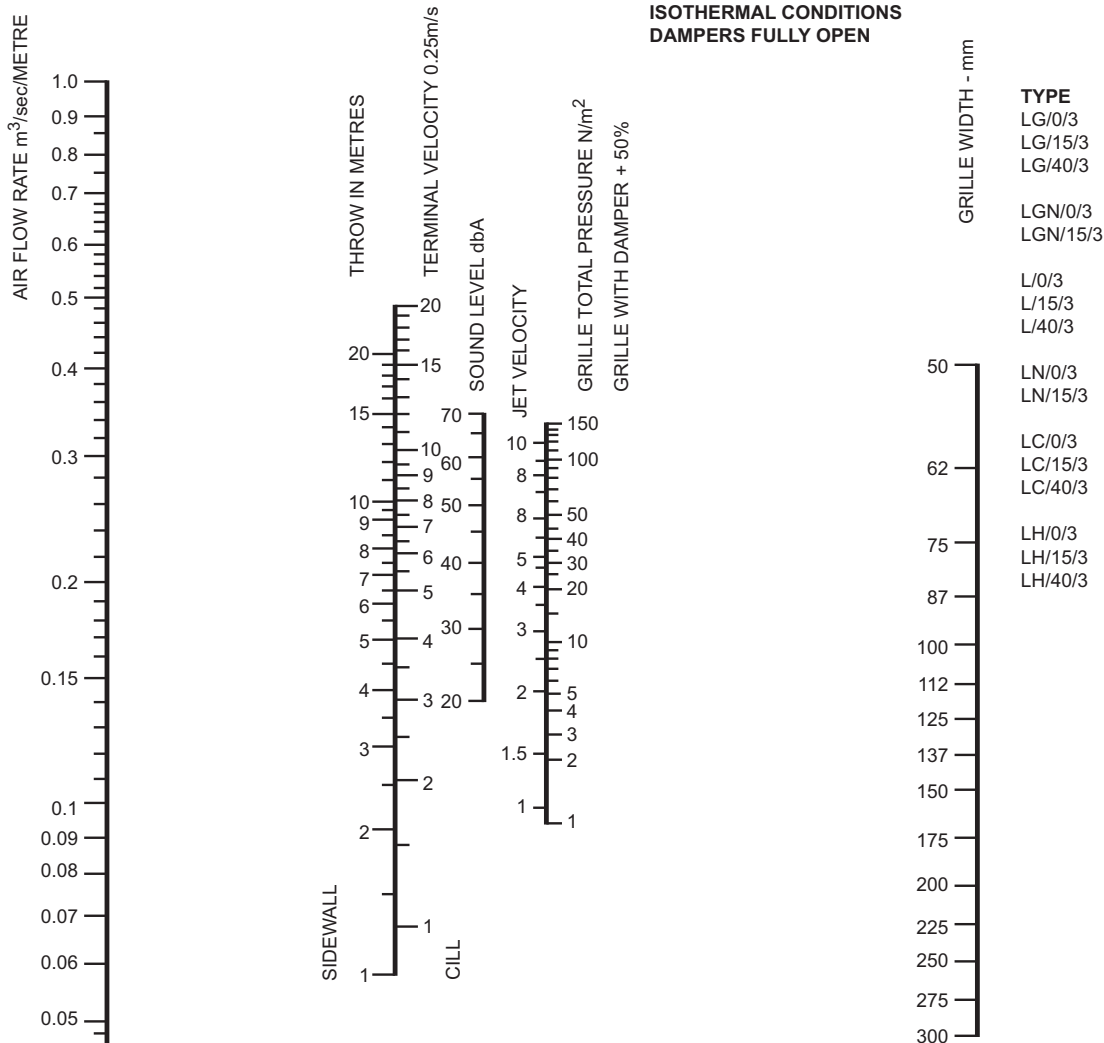




'Fineline'
Linear
Grilles

SERIES L3
13mm Pitch

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



PRESSURE CORRECTION FACTORS

GRILLE TYPE	TOTAL PRESSURE
LG/0/3 LGN/0/3 L/0/3	LN/0/3 LH/0/3 LC/0/3 AS SCALE
LG/15/3 LGN/15/3 L/15/3	LN/15/3 LH/15/3 LC/15/3 x1.12
LG/40/3 L/40/3	LH/40/3 LC/40/3 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.

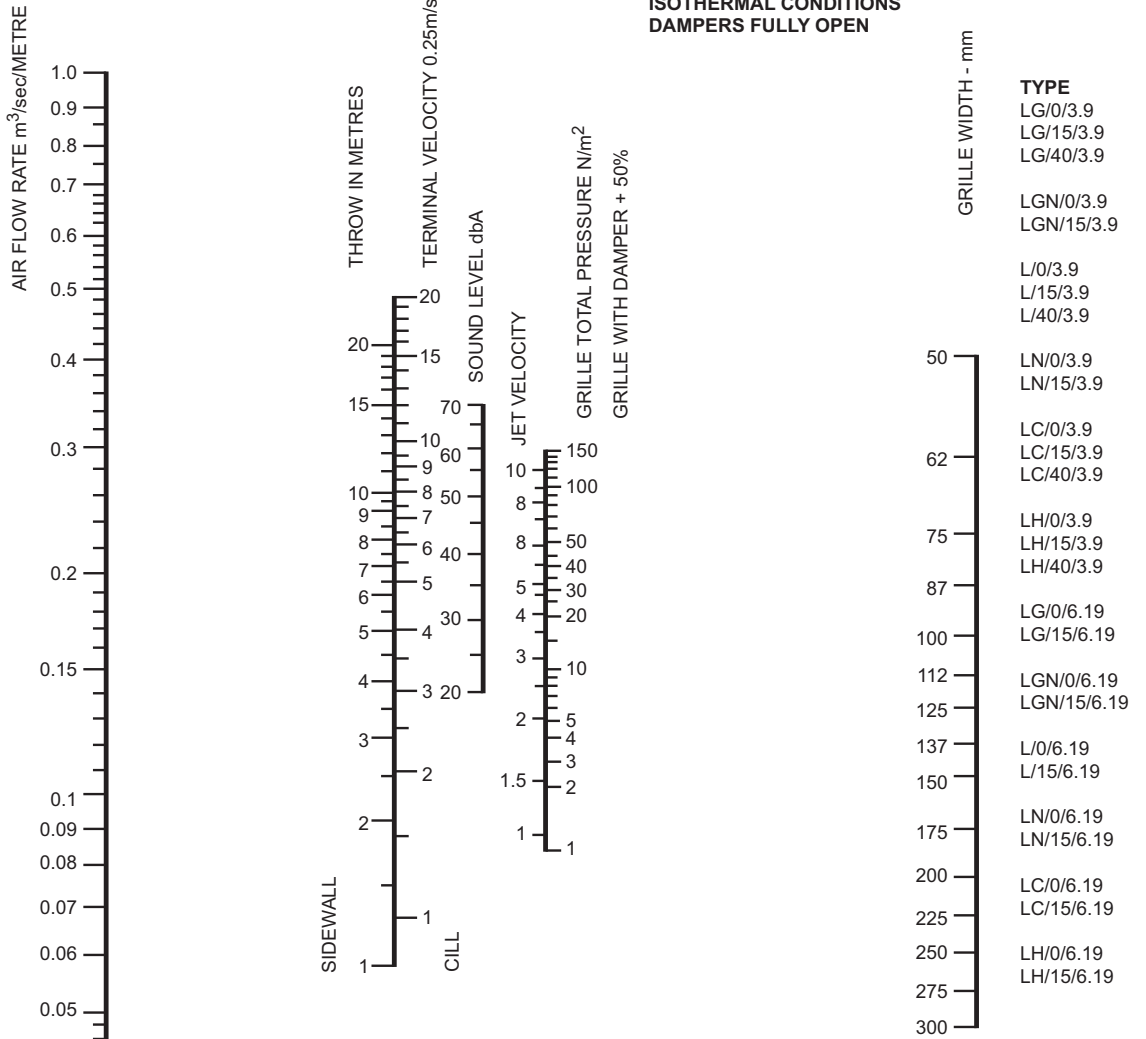
SERIES L

Fineline & Broadline Linear Strip Grilles

'Fineline'
& 'Broadline'
Linear
Grilles

SERIES L3 L6

L3 with 9mm Pitch
L6 with 19mm Pitch



PRESSURE CORRECTION FACTORS

GRILLE TYPE		TOTAL PRESSURE
LG/0/3.9	LG/0/6.19	AS SCALE
LGN/0/3.9	LGN/0/6.19	
L/0/3.9	L/0/6.19	
LN/0/3.9	LN/0/6.19	
LC/0/3.9	LC/0/6.19	
LH/0/3.9	LH/0/6.19	
LG/15/3.9	LG/15/6.19	x1.25
LGN/15/3.9	LGN/15/6.19	
L/15/3.9	L/15/6.19	
LN/15/3.9	LN/15/6.19	
LC/15/3.9	LC/15/6.19	
LH/15/3.9	LH/15/6.19	
LG/40/3.9		x1.35
L/40/3.9		
LC/40/3.9		
LH/40/3.9		

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

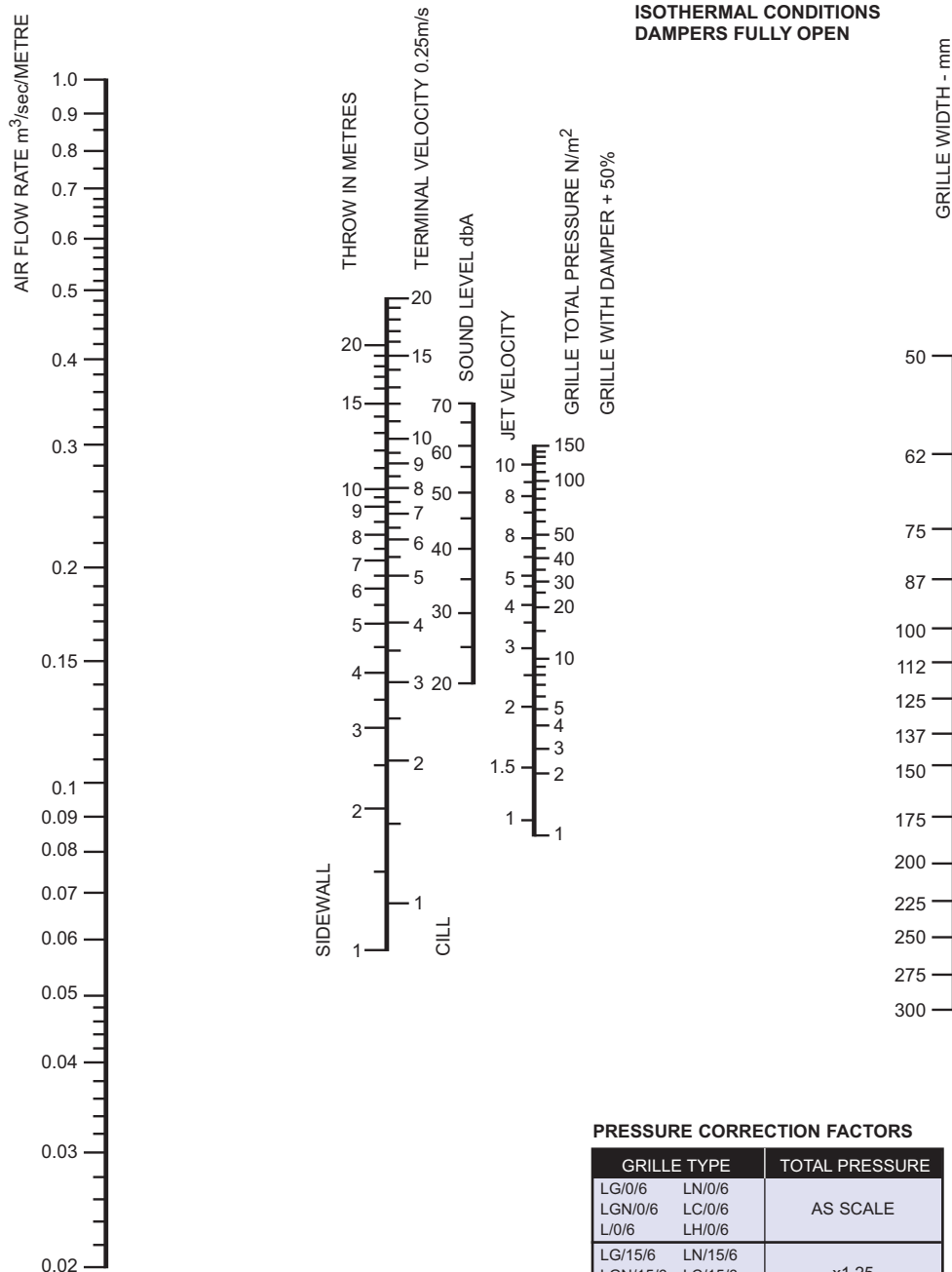
DIFFUSER LENGTH IN METRES	THROW CORRECTION
0.33	x .5
0.66 - 1.0	x .95
1.66 - 2.0	x 1.05
OVER 2 METRES	x 1.15



'Broadline' Linear Grilles

SERIES L6

13mm Pitch



PRESSURE CORRECTION FACTORS

GRILLE TYPE		TOTAL PRESSURE
LG/0/6	LN/0/6	AS SCALE
LGN/0/6	LC/0/6	
L/0/6	LH/0/6	
LG/15/6	LN/15/6	x1.25
LGN/15/6	LC/15/6	
L/15/6	LH/15/6	

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	L	15	3	9	AD	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....AD											
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 Knob Operated Damper.....DK 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

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 1mm 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.
Shadowline finish - inners matt black and face mill brush finished.

GILBERTS

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