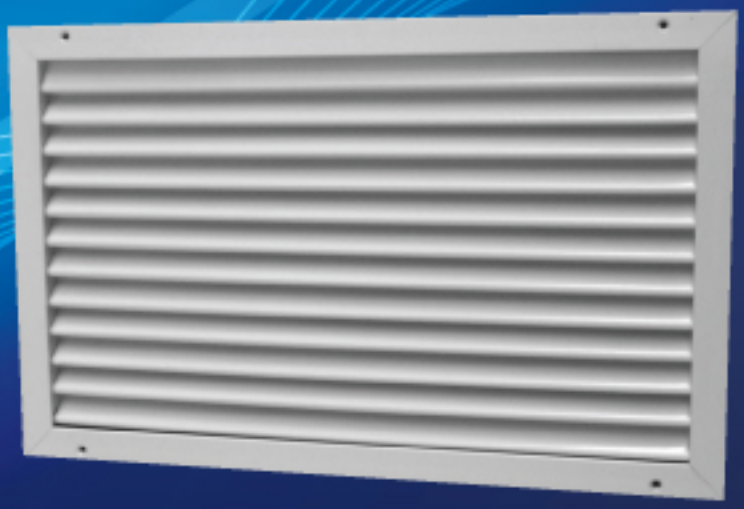

air diffusion
FNW
Engineering Developments Ltd

Air Return Grilles Types RLL and PLL

New Street Skelmanthorpe Huddersfield HD8 9BL Telephone 01484 861233 Fax 01484 864928

All products are manufactured in the UK at the above address

air diffusion
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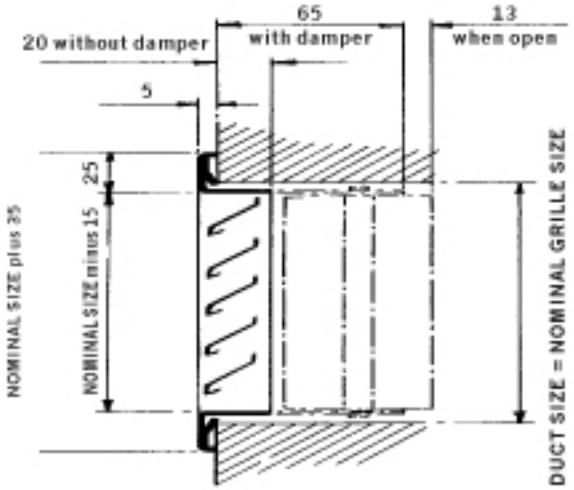
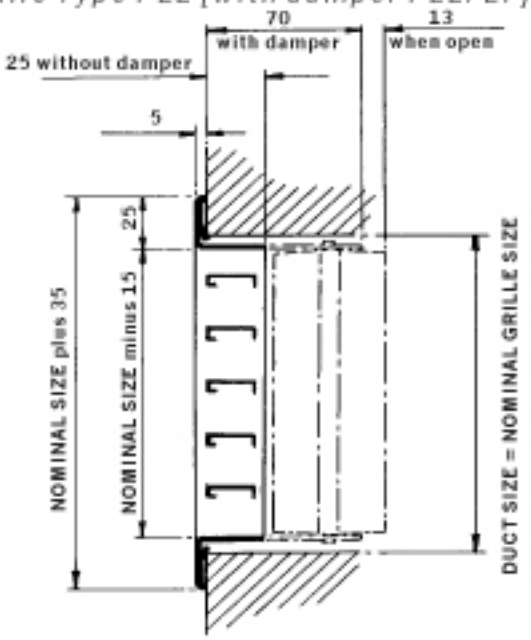
Manufacturers of Air Diffusion Products Since 1969

Grille Type RLL [with damper RLL/EF]



Grille Type PLL [with damper PLL/EF]



TYPE RLL is a linear grille consisting of a single set of horizontally fixed louvres at an inclination of 45 at 25mm centres as standard, but it is possible to either increase or decrease the centre distance, or the louvre inclination, either for aesthetic or to increase the 'free area' of the grille.

TYPE PLL is similar using the same section of louvre but arranged in a parallel plane, again the standard 25mm centre distance can be varied to suit customer requirements.

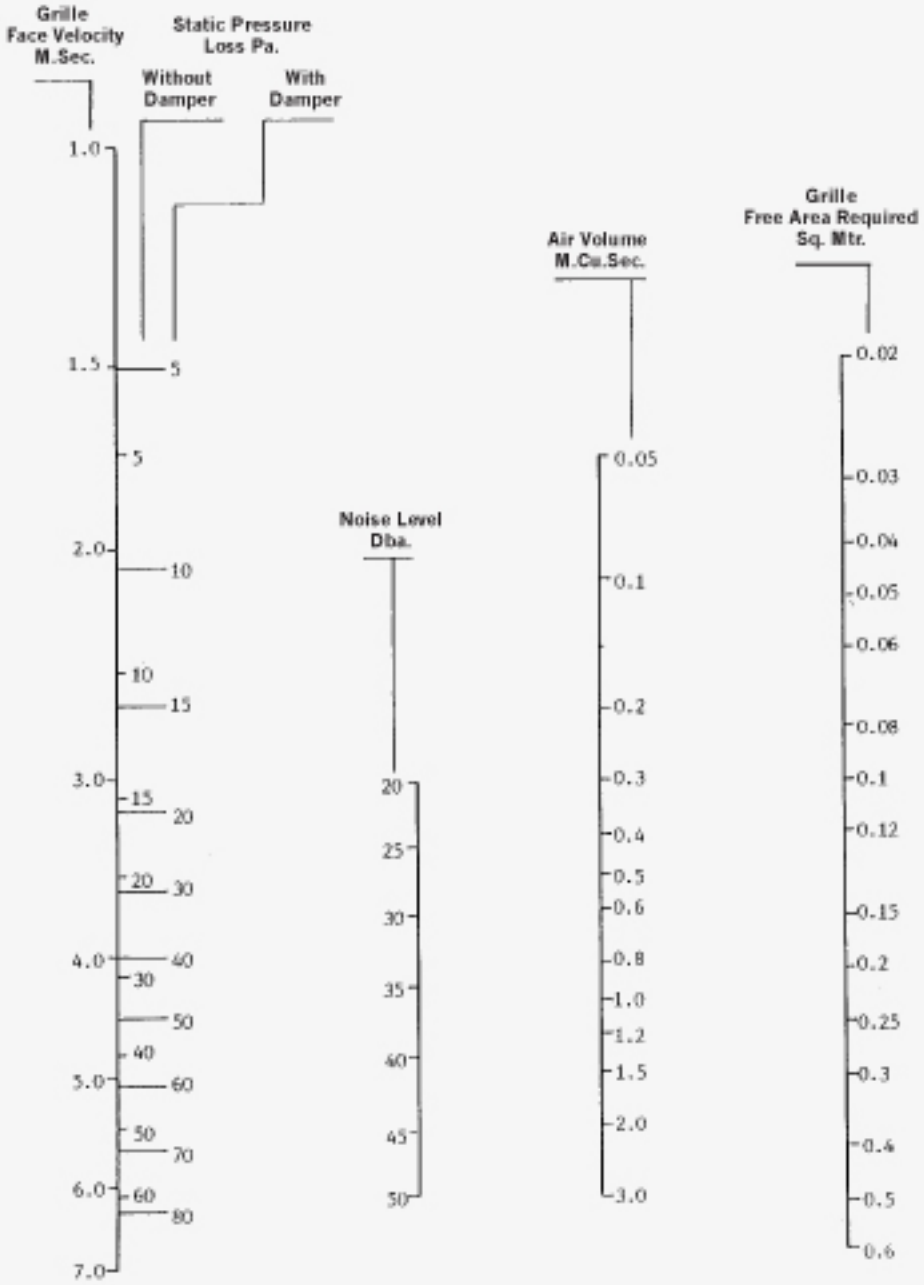
Both types of grille being manufactured in zinc coated steel of welded construction, and polyester powder coated, self coloured plastic extruded flange facing being assembled over the steel flange to become a fixed part of the casing.

SIZES
Produced in standard sizes of 50mm size increments from 100 x 100mm up to and including 1200 x 600mm, but can be manufactured up to a length of 2000mm, but millions are provided to limit the span of louvres to a maximum of 1200mm.
Both grille types can be produced in any intermediate size of the 50mm increment on both length and height.
When specifying a grille size the length dimension must be stated first, ie length x height, thereby ensuring that the louvres will be horizontal when the grille is fitted.

Standard Colours White Grey Cream Black

Volume control dampers can be fitted behind each type of grille should this be required EF should be added to the grille designation chosen, a type RLL grille becoming RLL/EF when fitted with a damper. Both types of grille can be treated for use in corrosion causing atmospheres, the zinc coated louvres and casing are polyester powder coated as standard, the damper unit [if fitted] is similarly treated with all moving parts manufactured in stainless steel. For ultimate protection, both types of grille can be manufactured in stainless steel, either supplied in a natural dull polished finish or polyester powder coated as above.

PERFORMANCE DATA

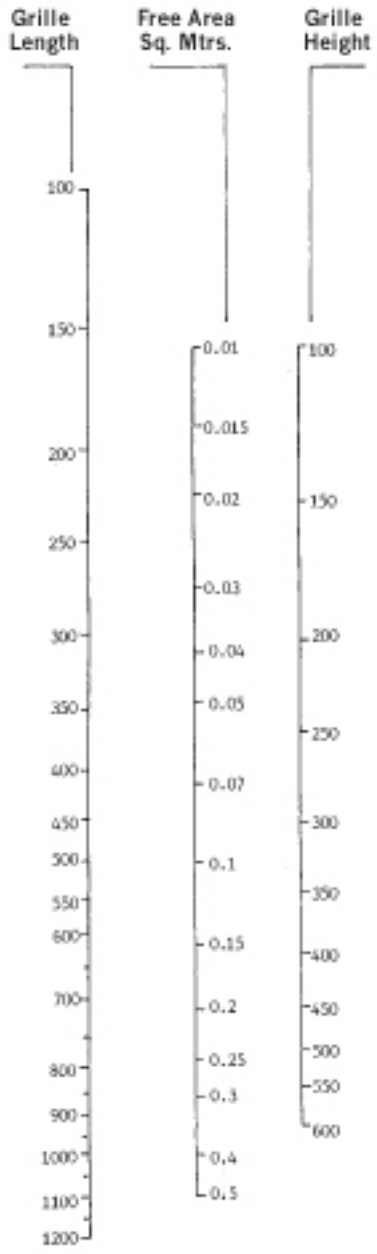


Assuming the Air Volume and Face Velocity required are the known factors of the grille in question then from the above nomogram, place a rule intersecting these values and the Free Area of the grille required to fulfill those conditions can be read off.
Having determined the Free Area it is necessary that the type of grille is known before this can be converted into its respective length and height dimensions.
References should be made to the sizing nomogram overleaf for the appropriate grille type selected.

SIZE SELECTION

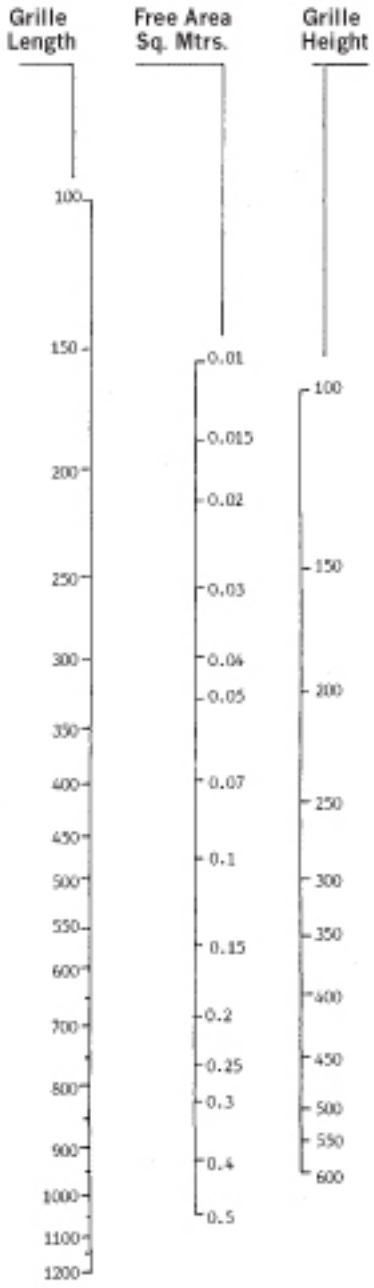
Grille Type RLL

AVERAGE FREE AREA 62%



Grille Type PLL

AVERAGE FREE AREA 74%



Having determined the Free Area of the grille to fulfill the conditions of volume and velocity from the Return Air Grille selection nomogram, this can be converted into its respective length and height dimensions by referring to the appropriate nomogram above.

The same Free Area value should be selected and by placing a rule so as to intersect this value and pivoting it about this point, a suitable grille length and height dimension can be read off.