



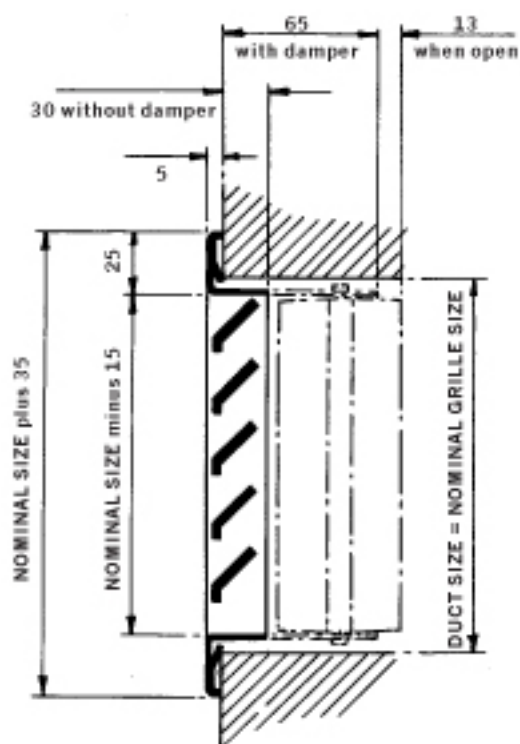
*air diffusion*  
**FNW**  
*Engineering Developments Ltd*

## **Return Air Grilles Type RIL & RPL**

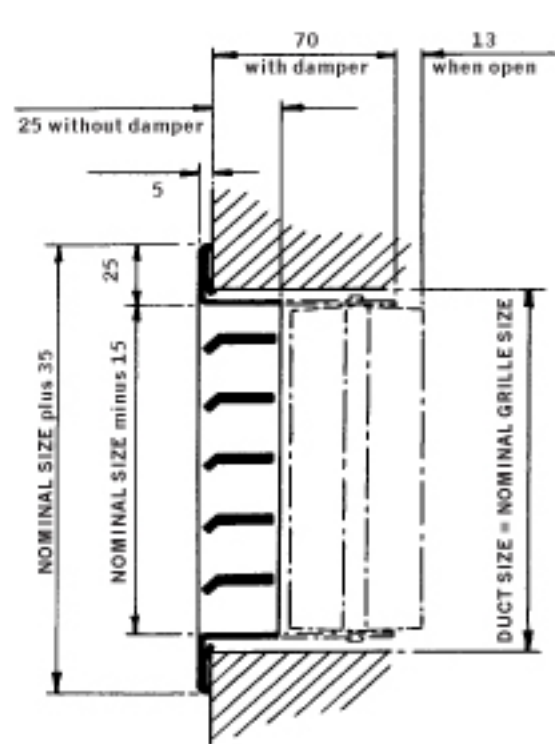
**New Street Skelmanthorpe Huddersfield HD8 9BL Telephone 01484 861233 Fax 01484 864928**

All products are manufactured in the UK at the above address

Grille Type RIL [with damper RIL/EF]



Grille Type RPL [with damper RPL/EF]



The Type RIL plastic faced steel Air Return Grilles consist of a single set of horizontally fixed louvres arranged with an inclination of 45° at 25 mm centres. If placed below eye level the grille becomes sight proof.

The Type RPL is similar, using the same section of louvre at 25mm centres, but with the louvres arranged on a parallel plane.

Both types of grille utilising a spot welded casing in zinc coated steel, over which self-coloured plastic extruded sections are assembled.

Both are produced in standard sizes of 50mm size increments from 100x 100 upto and including 1200 x 600, but can be produced in any intermediate size both on length and height, mullions being provided to limit the maximum span of louvres to 600mm

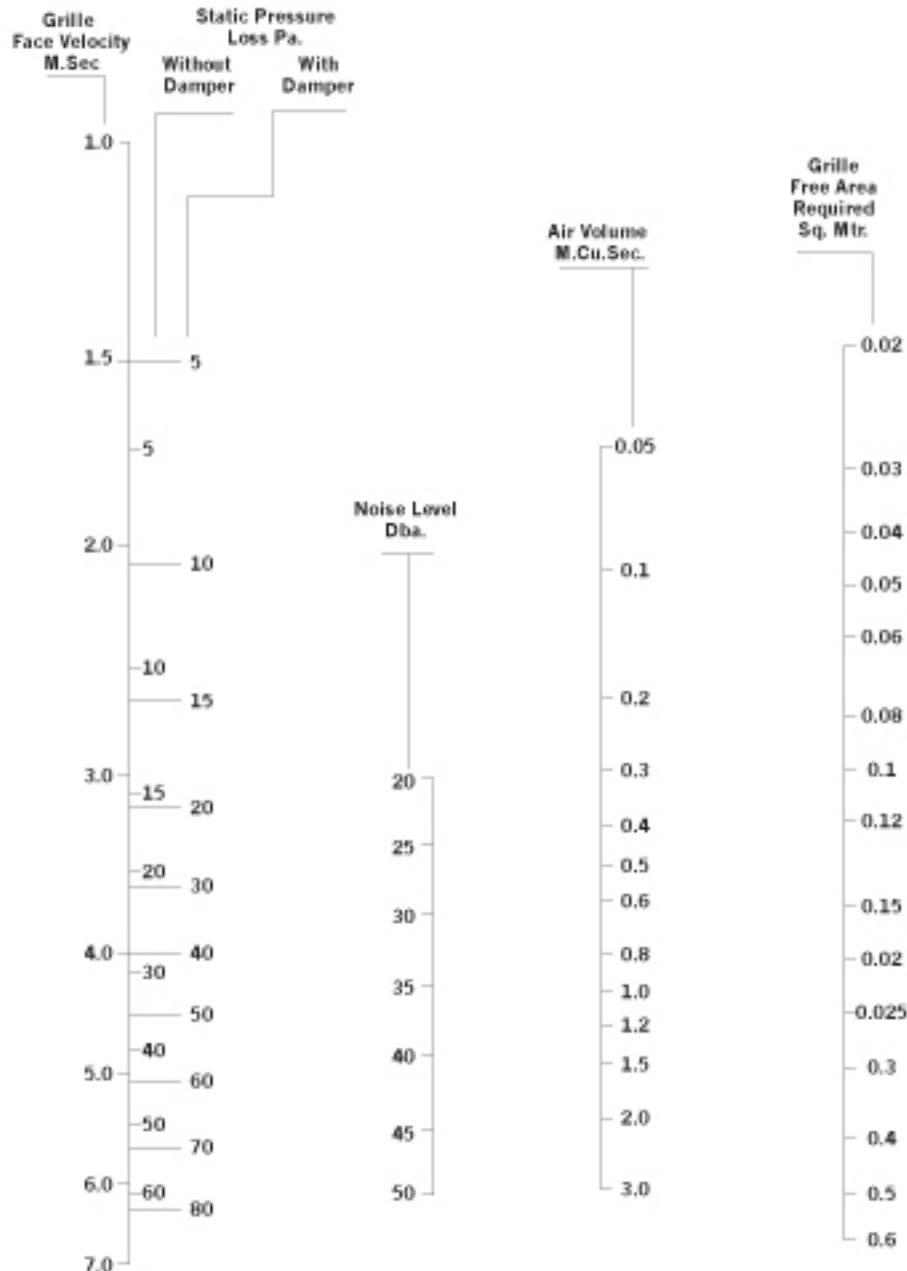
When specifying a grille size the length dimension must be stated first, i.e. Length x Height, thereby ensuring the louvres will be horizontal when the grille is fitted.

Standard Colours White Grey Cream Black.

Volume control dampers can be fitted behind each grille, should this be required 'EF' should be added to the grille designation chosen, type 'RIL' would become 'RIL/EF' when fitted with a damper.

Although possessing excellent non-corrosive properties in their standard form, this can be enhanced further when grilles are to be installed in corrosion causing atmospheres, by polyester powder coating the zinc coated frames prior to the assembly of the plastic extruded sections and the damper unit (if fitted) similarly treated with all moving parts manufactured in stainless steel.

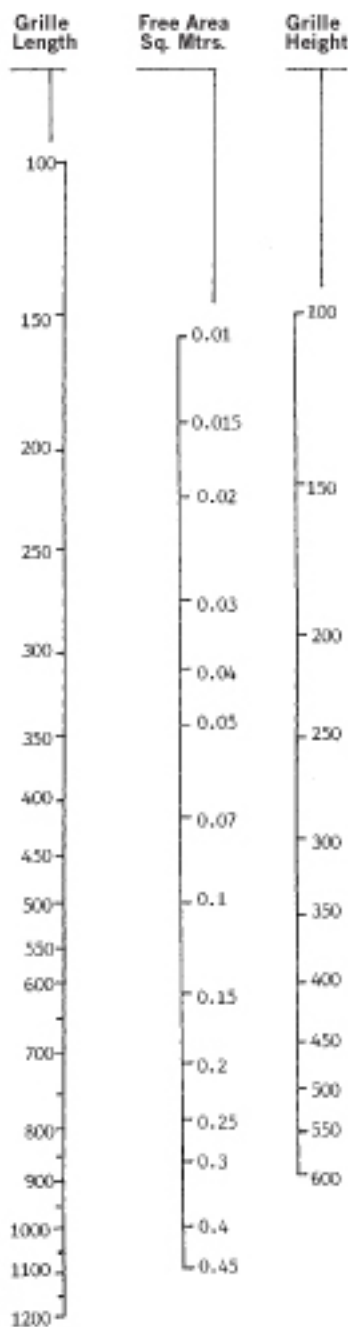
## PERFORMANCE DATA



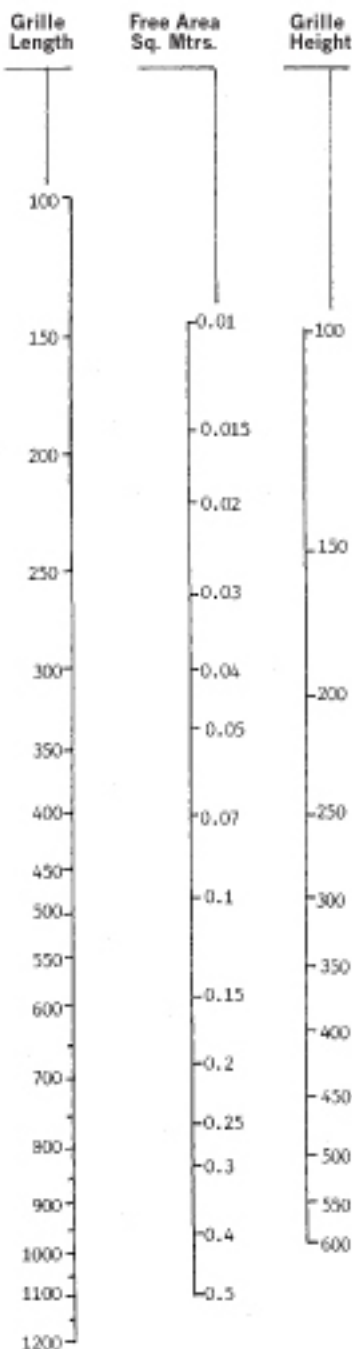
Assuming the Air Volume and Face Velocity required are the known factors of the grille in question then from the above nomogram, place a rule intersecting these values and the Free Area of the grille required to fulfill those conditions can be read off. Having determined the Free Area it is necessary 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 RIL & RIL/EF*  
 AVERAGE FREE AREA 60%



*Grille Types RPL & RPL/EF*  
 AVERAGE FREE AREA 72%



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.