

SERIES SK

Heavy Duty Steel Fixed Blade Grilles

PUBLICATION

GRILLES 13

AUGUST 2009



Features

- Heavy Duty All Welded Construction.
- Fineline 3mm Fixed Blade Construction.
- 0, 15 or 40 Fixed Blade Angle.
- Mild Steel or Stainless Steel.
- Galvanised or Stainless Steel Opposed Blade Damper.



GILBERTS



SERIES SK

Introduction

Gilberts SK Series provides a practical range of Heavy Duty mild or stainless steel fixed blade grilles suitable for many more robust application requirements such as car parks, factory premises, stairwells, outbuildings etc. Designed for supply or extract application all units comprise of a sturdy 3mm steel formed blade angled at 0° for supply or 15 and 40° for extract according to preference and set on a 19mm

Series Options:

Series SK 0 : Heavy duty fixed blade grille with straight 0° Blades
 Series SK 15 : Heavy duty fixed blade grille with 15° Blades
 Series SK 40 : Heavy duty fixed blade grille with 40° Blades

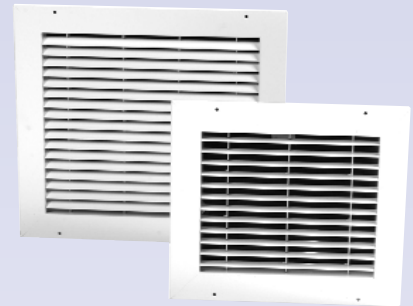
All units are available in sizes ranging from 100 x 100 up to 1200 x 600 in 25mm increments and can be fitted complete with screwdriver operated steel opposed blade volume control damper.

pitch. All blades are welded into castellated vertical supports which in turn are welded into the 50mm Flange border frame which provides an exceptionally strong grille structure. The mild steel units (with standard powder coat) are suitable for all internal non weather applications with the stainless steel unit suited to more aggressive environments

Standard fixing is Flange screw and the standard finish for mild steel units is Polyester powder white with other colours and finishes available on request. Stainless steel units are a plain stainless finish.

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Performance Data

All SK Series units can be sized and selected from the nomogram up to a maximum size of 1200 x 600. All data based on isothermal conditions, dampers fully open. SK 0° units generally used for supply applications. SK 15 and 40° units generally for extract.

K Factor (free area) on the SK Series is approx. SK0 -85%, SK15 - 82%, SK40 - 57%

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

References Used

Selection Procedure

From the proposed layout and application determine:

1. Volume of air to be handled at each outlet
2. Throw. To prevent overblow this should be 75% of the distance to the wall opposite or, if the outlets are opposed to one another, this should be one third of the distance between them.
3. Acceptable sound level from chart. Please note that data is only available down to NC20. For selection at lower noise levels please consult with our technical department.
4. Temperature differential between primary and room air.
5. Mounting height of outlet.

Example:

Select a suitable supply outlet for a sports arena 18m x 6m x 3m high, the outlet being located in the centre of the 18m wall. Duty 0.09m³/s per outlet. Throw 4.5m to terminal velocity of 0.5m/s. Acceptable sound level 30db'A'.

From sizing Nomogram : A SK0 type unit size 300 x150mm meets the requirements and the sound level is acceptable

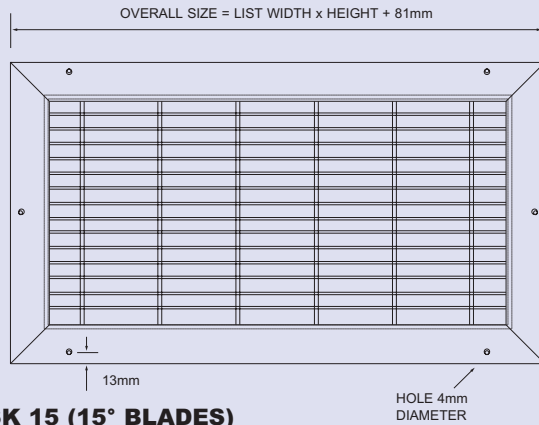
| SPACED SERVED | Sound Level db 'A' Scale | RECOMMENDED VELOCITIES | | | |
|--|-----------------------------|------------------------|-------------------|-------------------|-------------------|
| | | AIR | 0.05 | 0.25 | 1.0 |
| | | VOLUME | m ³ /s | m ³ /s | m ³ /s |
| Broadcasting & Rec. Studio | 20 - 25 | Velocity m/s | 2.0 | 1.5 | 1.0 |
| Board or Conference Rooms Churches, Concert Halls, Hospitals, Lecture Theatres, Offices, Hotels, Private Houses | 30 | Velocity m/s | 3.0 | 2.5 | 2.0 |
| Banks, Courtrooms, General Offices, Libraries, School Classrooms | 35 | Velocity m/s | 3.5 | 3.0 | 2.5 |
| Cinemas Departmental Stores, Restaurants | 40 | Velocity m/s | 4.0 | 3.5 | 3.0 |
| Computer Rooms, Supermarkets | 45 | Velocity m/s | 4.5 | 3.75 | 3.25 |
| Laundries and kitchens, Typing Pools, Light Engineering Factories, Sport Arenas | 50 | Velocity m/s | 5.0 | 4.25 | 3.5 |
| Heavy Engineering Factories | 60 | Velocity m/s | 8.0 | 6.5 | 5.0 |



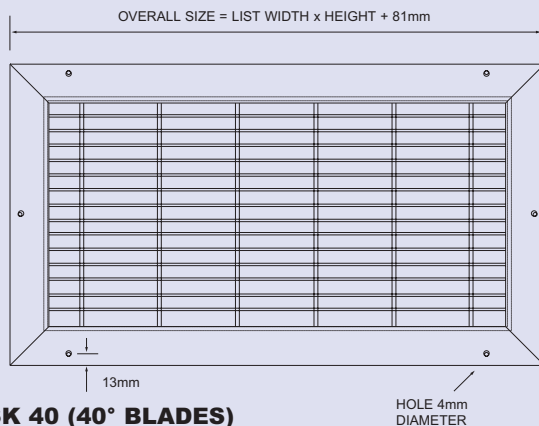
SERIES SK

Dimensional Data

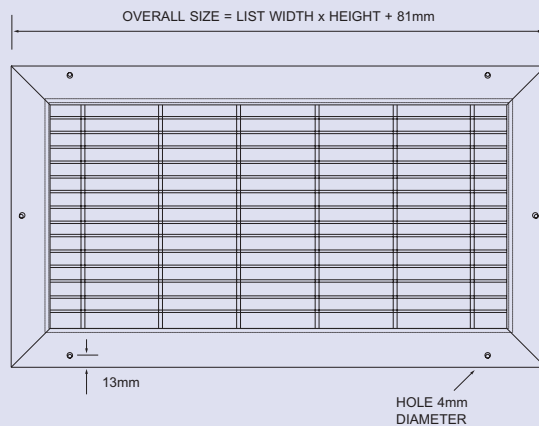
SK 0 (0° BLADES)



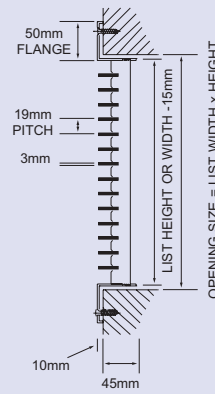
SK 15 (15° BLADES)



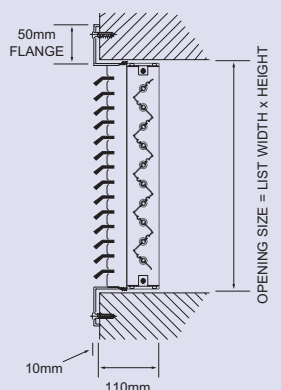
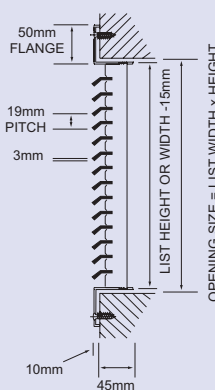
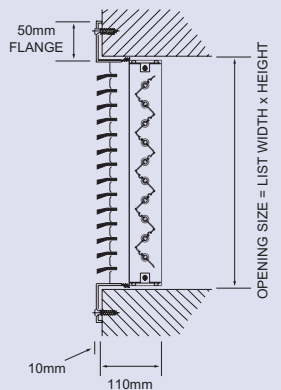
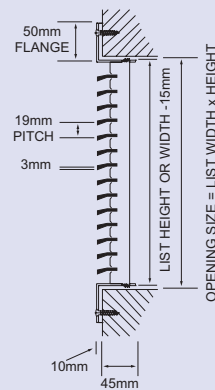
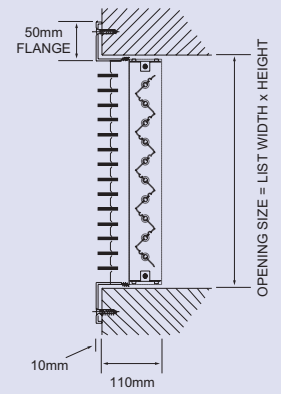
SK 40 (40° BLADES)



GRILLE



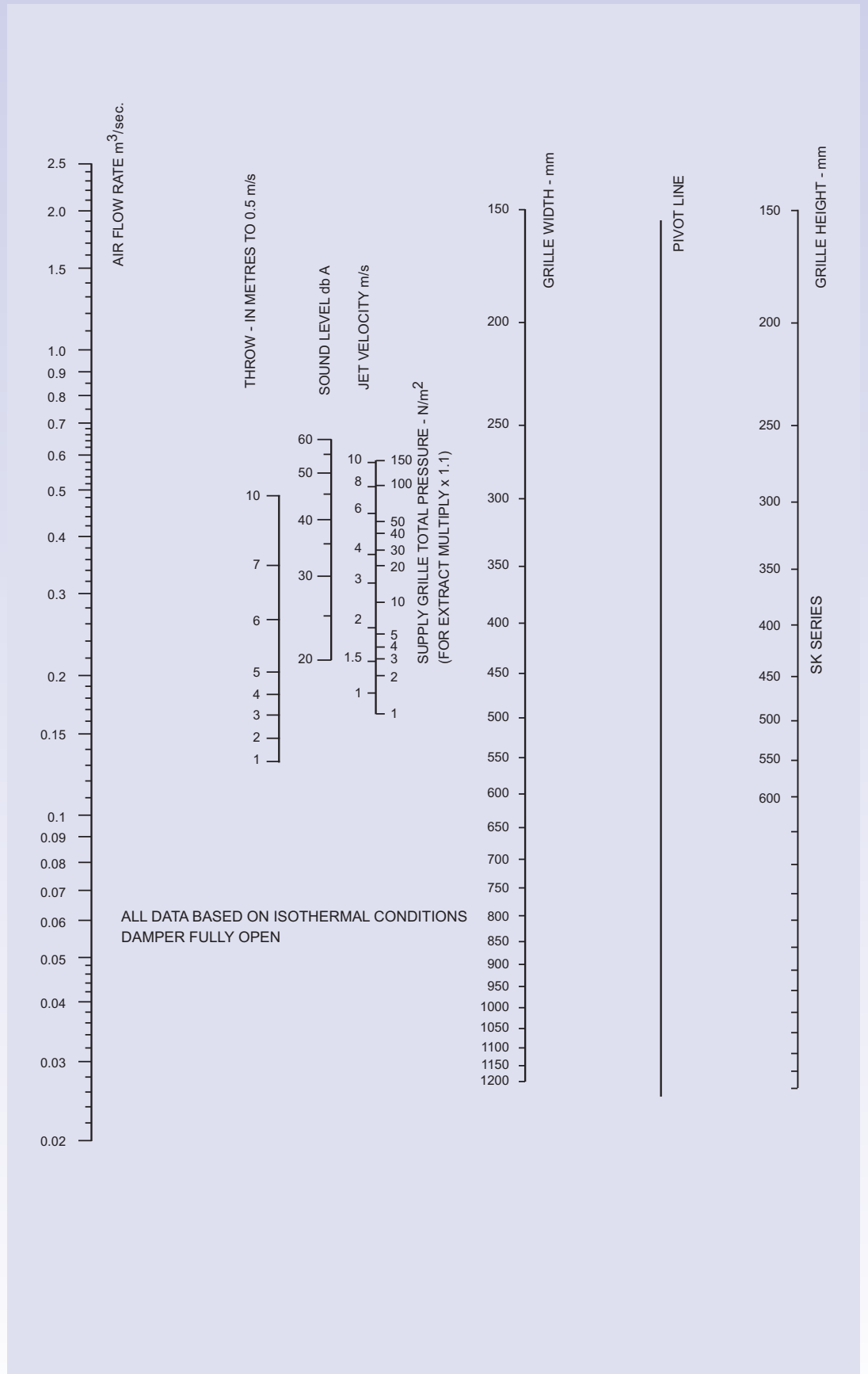
GRILLE C/W DAMPER





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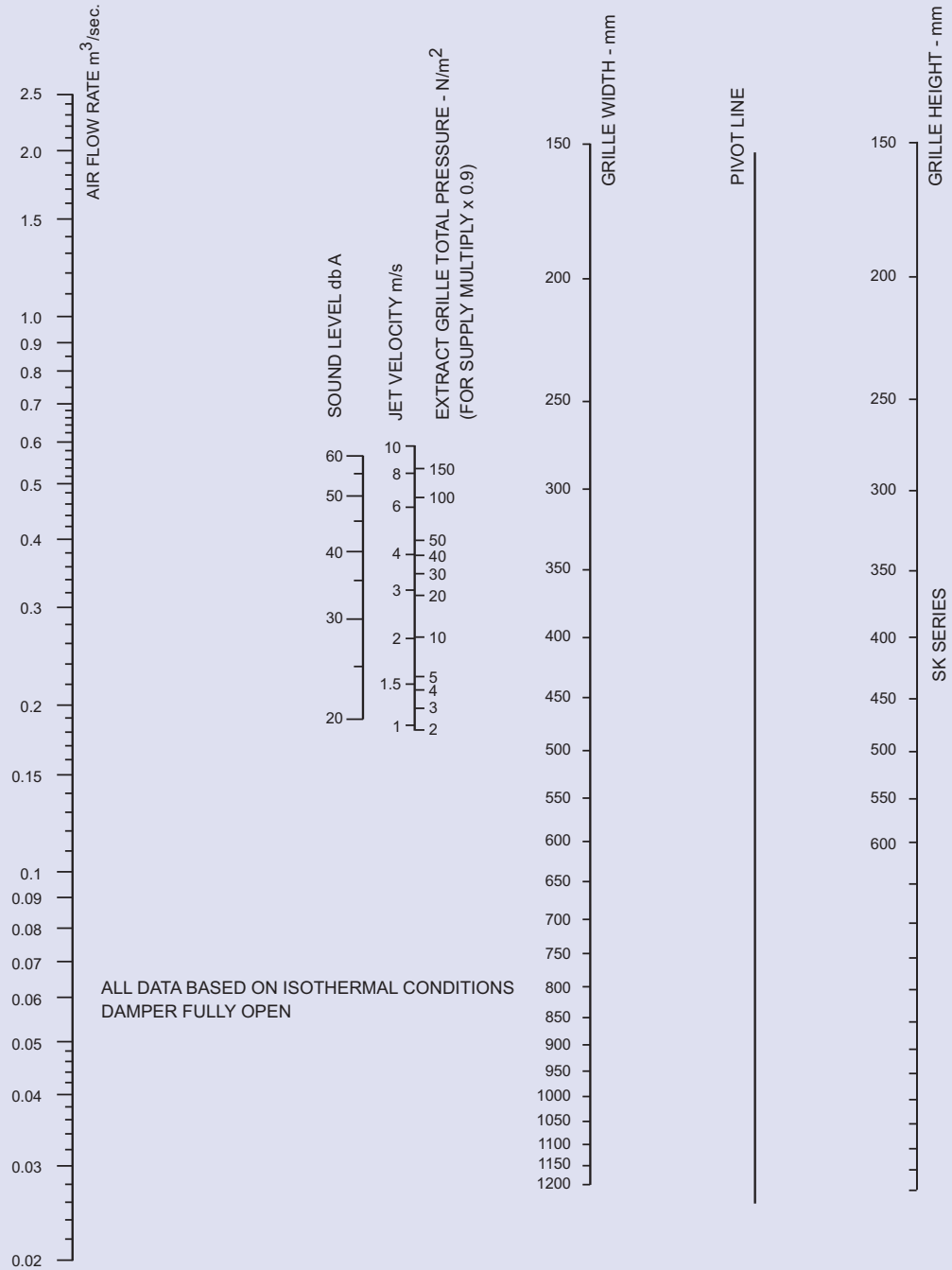
Supply Sizing Nomogram

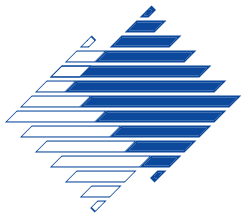




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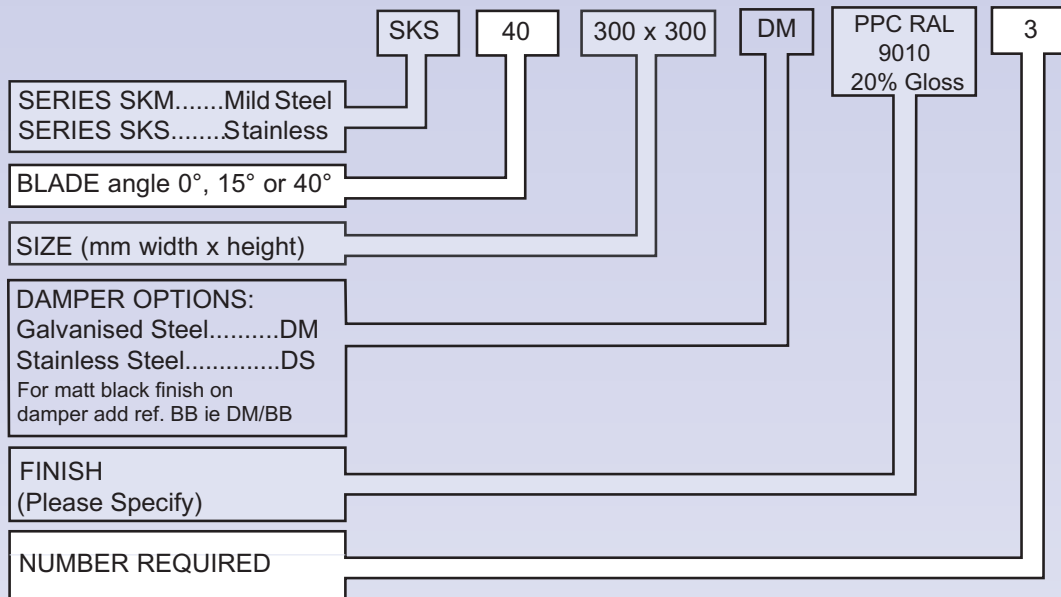
Extract Sizing Nomogram





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Ordering Specification



Example: SKM/O 300x200/DM PPC RAL 9010 20% Gloss

FINISH

Standard : Mild Steel Units - PPC White RAL 9010 20% Gloss
 Stainless Steel Units - Plain
 Stainless Finish

Special : PPC to Stock BS or RAL colour
 Stove Enamel to BS/RAL colour

FIXING

Standard flange screw fixing using self tapping screws.

SIZE RANGE

Available sizes range from 100 x 100 up to 1200 x 600, in 25mm increments. For other sizes please contact Head Office.

Contact

GILBERTS

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