Features
- Individually Adjustable Blades.
- 1, 2, 3 or 4 Way Air Pattern.
- 8 Air Pattern Options.
- Wide Flexible Size Range.
- All Extruded aluminium Construction.
SERIES GC
Curved Blade Grilles

Introduction
Gilberts GC Series provides a range of established curved blade 'eyelash' type grilles for ceiling or sidewall supply and extract applications. All units comprise of individually adjustable curved blades set on a 19mm pitch in a 32mm wide flange border frame. 8 different core, air distribution patterns ranging from one to four way throw can be selected for extreme flexibility in air pattern control.

All units are available complete with screwdriver operated, rear mounted opposed blade volume control damper and special fixings such as concealed bracket or quick release. Standard finish on the GC Series is a Polyester Powder White. Other special colours and finishes are available on request.

Performance Data
All GC Series units can be sized and selected from the nomogram up to a maximum size of 1200 x 1200. All data based on isothermal conditions, with damper fully open.

References Used

Selection Procedure
First establish the position where terminals can be sited. Refer to data showing core patterns and select the suitable direction pattern required. Knowing the volume and throw for each diffuser, sub divide the volume by the number of air patterns per diffuser to arrive at a volume per direction. From the appropriate sizing nomogram select as a one way blow outlet per section and establish the following:

1. Throw. To prevent overblow, this should be 75% of the distance to the wall opposite or, if outlets are opposed to one another, this should be one third of the distance between them.
2. 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.

EXAMPLE:

Two way opposite blow required
Throw 5 metres max. (75% being 3.75m)
Differential Temperature = -6°C cooling
A. Taking total volume and dividing this by two for both directions = 0.1m³/s per direction.
B. From selection nomogram note 0.1m³/s at 3.8 metres throw and a size of 300 x 300mm
C. Pressure drop = 2 Pa (N/M²), sound level below 20 dbA and jet velocity 1.8m/s
D. As unit is for two way opposite discharge select 600 x 300mm GC2/1 unit

Dimensional Data

Performance Data

References Used

Selection Procedure

EXAMPLE:
SIZING NOMOGRAM

ALL DATA BASED ON ISOTHERMAL CONDITIONS
DAMPER FULLY OPEN
1 WAY THROW

AIR FLOW RATE m³/sec

TERMINAL VELOCITY 0.25 m/s
THROW IN METERS
TERMINAL VELOCITY 0.75 m/s
SOUND LEVEL dB
JET VELOCITY m/s
GRILLE TOTAL PRESSURE N/ m²
GRILLE WITH DAMPER +50%

GRILLE WIDTH - mm
GRILLE HEIGHT - mm
## Ordering Specification

### Finish
- **Standard Finish**: Polyester Powder Coat White RAL 9010 20% Gloss
- **Special Finishes**: Polyester Powder Finish to stock BS or RAL colour. (Dampers Mill finish Aluminium)

### Fixing
- Standard flange screw fixing using self tapping screws provided.
- Concealed Bracket and Quick Release Fixing available on Request.

### Size Range
- Available sizes range from 100 x 100 up to 1200 x 1200, in 1mm increments.
- (minimum 250 width on 3 and 4 way units).
- For other sizes please contact Head Office.

### Options
- Special fixing, border and damper options detailed separately in grille options and accessories data.

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**Example**: GCH 300 x 200/CB/DO/BB PPC 9010 20% Gloss

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**Gilberts (Blackpool) Ltd reserve the right to alter the specification without notice. For our latest product data please visit www.gilbertsblackpool.com. The information contained in this leaflet is correct at time of going to press © 2018.**