

SERIES GA

Swirl Diffuser

PUBLICATION

DIFFUSERS 25

JANUARY 2024



Features

- Visual new swirl pattern design
- Circular faceplate and plenum specifically designed for modern ceilings
- Caters for volumes from 60l/s [Type A] up to 170l/s [Type B]
- High performance concealed impeller with swirl air distribution effect which allows delivery of high volumes of air into the conditioned space taking advantage of its rapid entrainment and mixing capabilities.



GILBERTS

SERIES GA

Fixed Swirl Diffusers

Introduction

Series GA provides a new extra dimension on the popular and effective swirl diffuser theme. Complimenting Gilberts existing swirl diffuser range the new GA series has been introduced to provide a stylish and dynamic range of architectural and design style swirl options which combine appealing aesthetics with cost effective design.

Primarily the diffuser is offered with a circular face plate design with a unique radial pattern air distribution core. The core pattern can even be altered to a wide variety of different swirl type patterns although performance would then need to be verified.

Each configuration provides a high performance swirl air distribution effect which allows them to deliver high volumes of air into the conditioned space taking advantage of its rapid entrainment and mixing capabilities.

The diffuser works well in exposed or plaster ceiling applications. When selecting for exposed applications please be aware that on the plenum shade differences can occur between galvanised sheet batches and some greying with exposure will also naturally occur over time.

Model Type A, with a built in air volume reduction plate caters for volumes up to 60 l/s. Type B with no reduction feature caters for air volumes up to 170l/s.

Performance Data

The performance tables that are illustrated in the brochure give tabulated performance for each listed size of diffuser, together with their design. The figures given relate to cooling, ventilation and heating applications and are given for a horizontal distribution.

The performance data for all Gilberts products is derived from a Gilberts plenum design and specification. Performance cannot be guaranteed where alternative plenum designs are used.

References Used

Pressure: All pressures are given in Pa (Newton per m²).

Throw: The horizontal distances are given for both 0.5 and 0.25 m/s terminal velocities

Sound: The NC values are peak values on the NC scale

Features

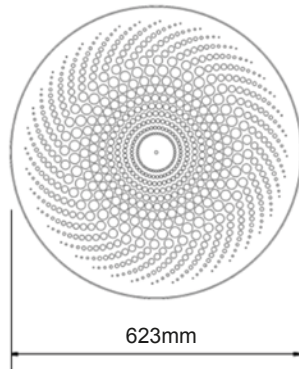
- Visual new swirl pattern design
- Circular faceplate and plenum specifically designed for modern plaster and exposed ceilings
- Caters for volumes from 60l/s [Type A] up to 170l/s [Type B].
- High performance concealed impeller with swirl air distribution effect which allows delivery of high volumes of air into the conditioned space taking advantage of its rapid entrainment and mixing capabilities.



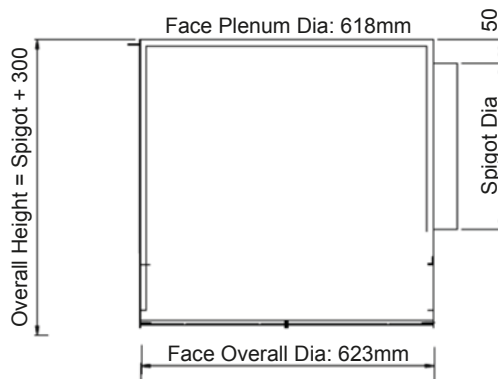
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Fixed Swirl Diffusers

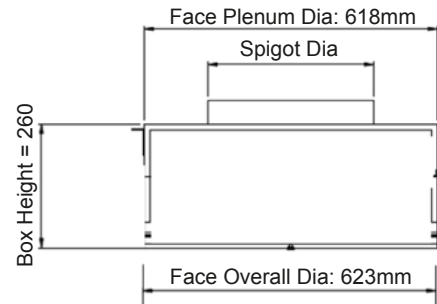
Size Guide



Diffuser with Side Entry



Diffuser with Top Entry



Sizing Data

Type A

AIR VOLUME	60	80	100	120
NOISE NC	20	25	25	30
PRESSURE PA	8	11	15	20
THROW (0.5/0.25 m/s)				
+ 10° K	0.9/1.5	1.1/1.7	1.5/2.1	1.8/2.4
+ 5° K	0.8/1.4	1.0/1.6	1.3/2.0	1.7/2.3
ISOTHERMAL	0.7/1.2	0.9/1.4	1.2/1.8	1.6/2.1
At -5° K	0.6/1.0	0.7/1.2	1.0/1.6	1.4/1.8
At -10° K	0.4/0.8	0.5/1.0	0.8/1.3	1.1/1.4

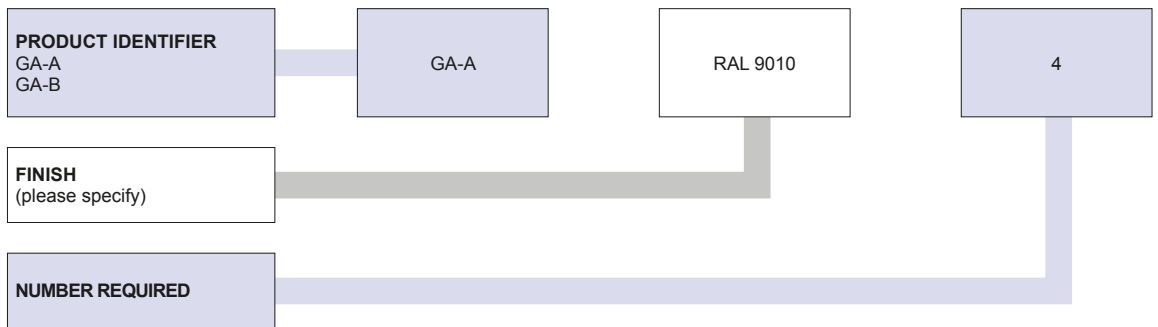
Type B

AIR VOLUME	110	130	150	170
NOISE NC	25	30	35	40
PRESSURE PA	11	15	21	30
THROW (0.5/0.25 m/s)				
+ 10° K	1.2/1.9	1.6/2.3	1.9/2.6	2.2/2.9
+ 5° K	1.1/1.8	1.5/2.2	1.8/2.5	2.1/2.7
ISOTHERMAL	1.0/1.6	1.4/2.0	1.7/2.3	2.0/2.5
At -5° K	0.8/1.4	1.2/1.8	1.5/2.1	1.7/2.3
At -10° K	0.6/1.2	0.9/1.5	1.2/1.8	1.4/1.9

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Fixed Swirl Diffusers

Ordering Specification (Diffuser)



Finish

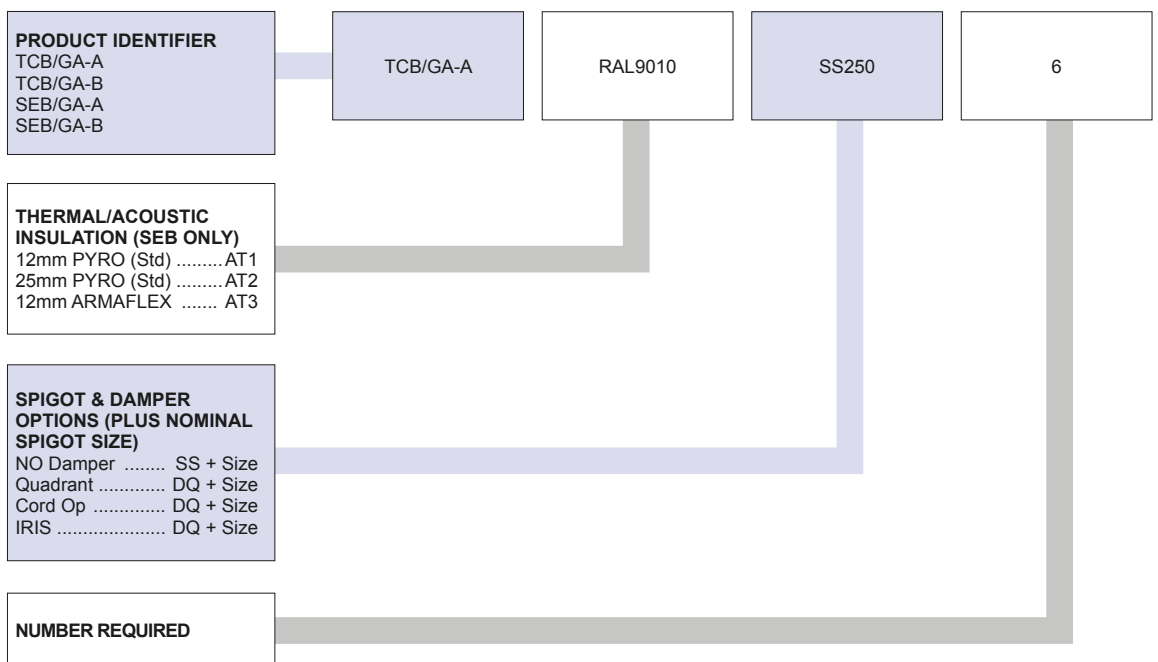
Standard Finish: Polyester Powder Coat White
RAL 9010 20% Gloss.

Special Finishes: PPC to Stock BS or RAL colour.

Fixing

All units are fixed to the plenum using a central screw that drives into a secondary bracket in the plenum box neck. The exposed screw head is finished to match the diffuser face to maintain aesthetics.

Ordering Specification (Plenum)



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