

SERIES GSJ

Adjustable Swirl Diffusers

PUBLICATION
DIFFUSERS 12
AUGUST 2026



Features

- Omni directional, swirl effect discharge.
- Horizontal or vertical projection.
- High induction effect.
- Perforated square, perforated circular or open face circular design.
- Standard or clip-in ceiling border options.
- Manual or automatic adjustment.



GILBERTS

SERIES GSJ

Adjustable Swirl Diffusers

Introduction

Complementing the GSF range of fixed Swirl Diffusers with the GSJ Series Gilberts introduce a modern and attractively styled range of adjustable Swirl Diffusers suitable for a multitude of ceiling supply applications.

As with the fixed Swirl the circular pattern of radial vanes featured on this unit provide the rotating air distribution effect typically associated with this type of diffuser. This allows the unit to introduce high volumes of air into the conditioned space, taking advantage of its rapid entrainment and intermixing characteristics.

As a result the unit can deliver high room air change rates as compared to conventional diffusers. Moreover with the interlinked blades all fully adjustable the unit can provide either horizontal or vertical projection by simple manual or automatic adjustment.

Features

- Omni directional, swirl effect discharge.
- Horizontal or vertical projection.
- High induction effect.
- Perforated square, perforated circular or open face circular design.
- Standard or clip-in ceiling border options.
- Manual or automatic adjustment.

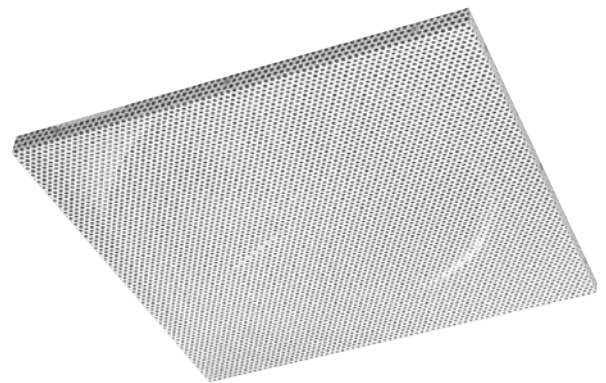
Available in 160, 250, 315, 450 and 630mm diameter the adjustable Swirl range comprises of 5 style options:

TYPE GSJA Standard Swirl Diffuser comprising of linked adjustable blades mounted in a circular housing frame.

TYPE GSJB Circular Swirl Diffuser with linked adjustable blades fitted into a square, perforated face, housing frame with 32mm flanges. The perforated fascia is hinged for easy access from the diffuser face.

TYPE GSJC Circular Swirl Diffuser with linked adjustable blades fitted into a borderless, perforated face plate.

Notwithstanding the performance potential, aesthetic aspects have also been considered. The circular profile of the GSJA type unit lends itself well to exposed ductwork and other contemporary applications but is arguably less appropriate in square ceiling grids. The GSJB and GSJC type however, which offer a perforated face diffuser type appearance, lend themselves particularly well in these instances always enabling a good balance between performance and aesthetics to be maintained for all applications. Newer models, such as the GSJD, adapted for clip-in ceiling type applications and the GSJE with a circular perforated face add further dimensions to swirl diffuser selection and application.



TYPE GSJD Circular Swirl Diffuser with linked adjustable blades fitted into a square, perforated fascia, adapted for clip-in ceiling applications.

TYPE GSJE Circular Swirl Diffuser with linked adjustable blades fitted into a circular, perforated fascia with removable core (630 dia. unit not available).

For extract applications complementary Exhaust Swirl Units GSXB, GSXC, and GSXE are available to match supply diffuser type options.

Fixed blade options are also available for extract or supply in areas without vertical requirement. See table on page 5 and Series GSF (Square & Circular).

A key feature on adjustable Swirl Diffusers is the ability to move from horizontal to vertical projection on demand. With GSJ Series this can be achieved in 2 ways.

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Adjustable Swirl Diffusers

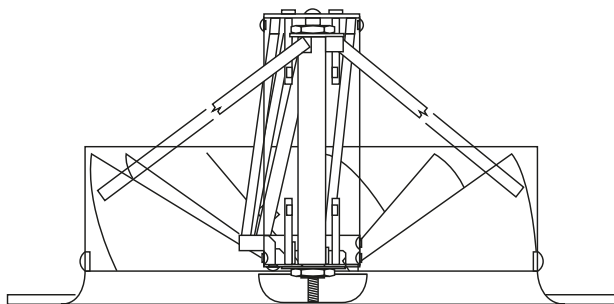
Options

MANUAL

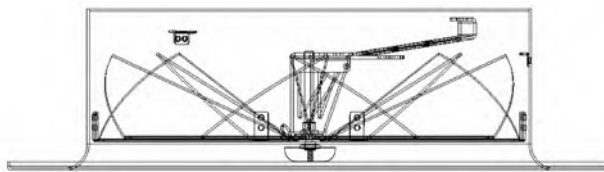
This type of manually adjustable diffuser allows variable control of the supply air jet by rotation of the central boss. The rotation of the central boss is converted by connecting mechanisms to re-position the swirl diffuser control vanes.

THERMAL

This option utilises thermally activated components which adjust the vanes dependant on air temperatures, thus delivering warm air in a vertical and cool air in a horizontal direction. Initial warm up of spaces is therefore quick and efficient with draughts being avoided during isothermal and cooling conditions. The main advantage of this control option is that it requires no external connection to any control system and is therefore completely self contained. Vertical projection is achieved when incoming air temperatures exceed 28° . Horizontal projection is achieved with incoming air temperatures below 24° . To ensure maximum efficiency it is recommended that the heating/cooling strategy falls 2° outside these boundaries i.e cooling/isothermal below 22° , heating above 30° .



Section Detail: GSJA160, 630 wax operated thermal model and all sizes of manual model.



Section Detail: GSJA 250, 315, 450 spring operated thermal model.

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Adjustable Swirl Diffusers

Performance Data

The performance tables that are illustrated in this brochure give tabulated performance data for each listed size of diffuser, together with their design. The figures given relate to Cooling, Ventilation and Heating applications and are given for both horizontal and vertical distribution of conditioned air.

References Used

PRESSURE: All pressures are in Pa (N/m²).

THROW: The horizontal and vertical distances for air streams are given at both 0.5 and 0.25 m/s terminal velocities and are based upon a ceiling effect for horizontal distribution and free field for vertical distribution.

SOUND: The NC values are peak values on the NC curves

The performance data for all Gilberts products is derived using a Gilberts top connection (TCB) plenum design and specification.

Performance cannot be guaranteed where alternative plenum designs are used.

Area to be served	Recommened Maximum NC Levels
Sound Broadcasting Recording Studios, TV (Audience Studios)	15 - 20 20 - 25
Lecture Theatres, Cinemas, Concert Halls, Boardroom/Ex Offices Lounge, Conference Room, Court Room, Churches, Private Bedrooms	25 - 30
Operating Theatres, Hospital Wards, Staff Room, Class Rooms, Ballroom, Banquet Room, Library, Bank, Museum, Offices	30 - 40
Restaurants, Department Stores, Computer Suite, Washroom Toilet	35 - 40
Laundries, Kitchens, Swimming Pools, Sports Arena	40 - 45
Garage, Light Engineering Workshop	45 - 50
Heavy Engineering Workshop	50 - 65

Selection Procedure

1. Adjustable Swirl Diffusers are mainly used in high ceiling air distribution systems where vertical projection of supply air is required during the heating cycle and horizontal projection of supply air during cooling.
2. Try if possible to construct in plan an imaginary square ceiling grid. This will enable the designer to position each diffuser at each square centre so that horizontal air distribution is even in all directions.
3. Establish the design maximum supply to room air temperature differential. Together with the supply air volume per diffuser select a suitable sized unit to vertically project the supply air into the occupied zone.
4. As this range of diffuser will automatically or manually adjust the supply air stream jet a check must be made to establish the horizontal projection during the cooling isothermal cycle against the distribution grid for that diffuser. Since these units are used for high ceiling applications an overblow situation can be acceptable.
5. Check pressure loss and NC levels from design charts to confirm acceptability. Where an NC level of <20 is required please check with our technical department.

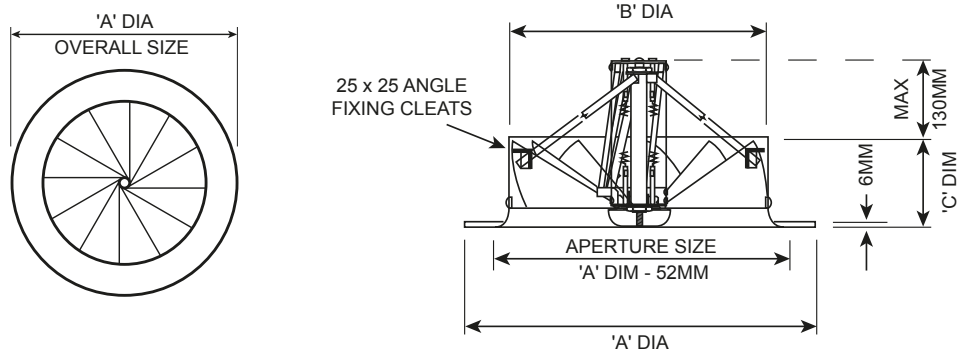
Gilberts Supply Diffusers have been tested within the range of +/- 10°C (as recommended in the HEVAC Guide to Air Distribution Technology). For any other temperature differential requirements please contact our Technical Department.

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Adjustable Swirl Diffusers

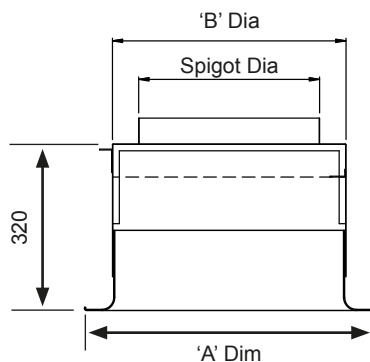
Type GSJA

Diffuser



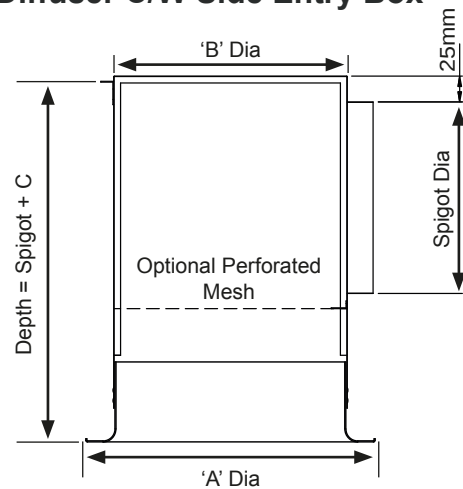
GSJA			
Size	A	B	C
160	240	158	90
250	330	248	100
315	425	313	110
450	560	448	155
630	740	628	220

Diffuser C/W Top Entry Box



GSJA - TCB		
SIZE	A	B
160	240	162
250	330	252
315	425	317
450	560	452
630	740	632

Diffuser C/W Side Entry Box



GSJA - SEB			
SIZE	A	B	C
160	240	162	320
250	330	252	320
315	425	317	320
450	560	452	320
630	740	632	320

Standard plenum boxes are circular profile (not square). Plenums fitted to diffuser (ref...NEK) are illustrated but plenums can be enlarged to fix at the diffuser flange (ref...FLN). Please refer to brochure 'Series TCB-C' for details.

The table below shows which GSF fixed blade diffuser matches with each GSJA model.

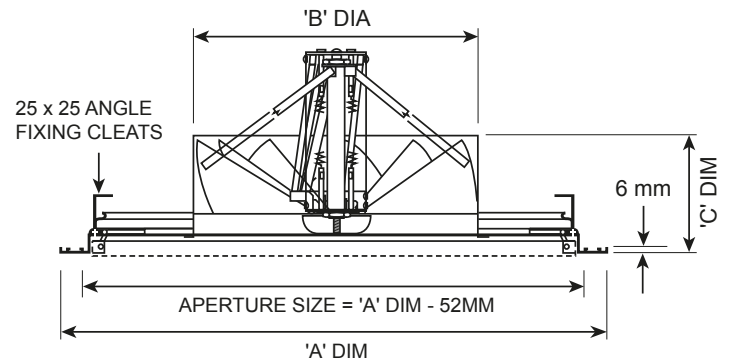
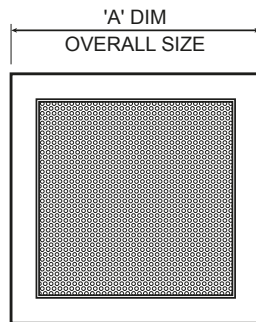
GSJA	160	250	315	450	630
Thermal	GSFA	GSFP			GSFA
Manual	GSFA				

SERIES GSJ

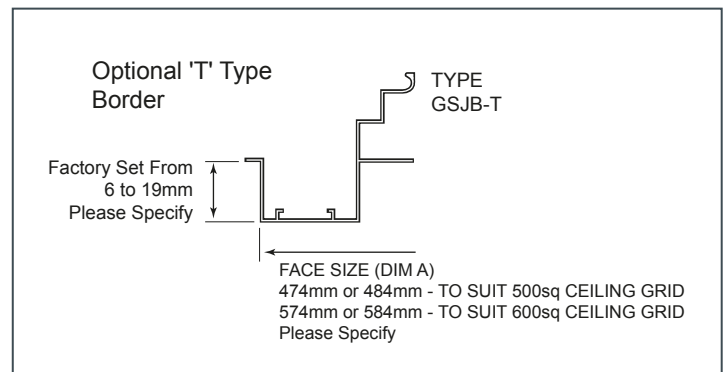
Adjustable Swirl Diffusers

Type GSJB

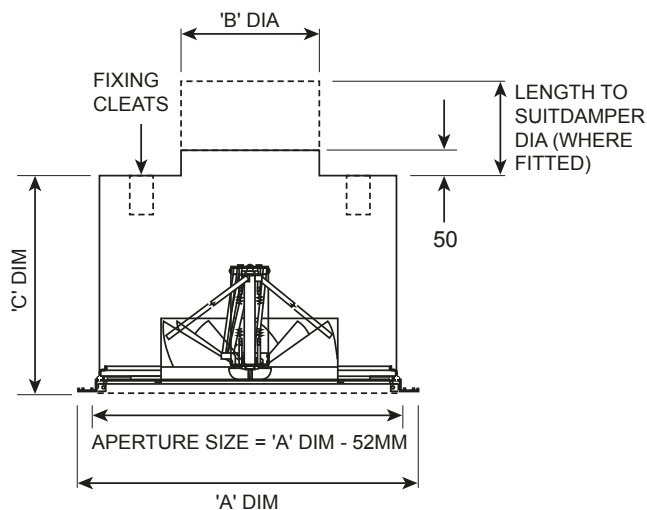
Diffuser



GSJB			
Size	A	B	C
160	300, 594, 600	158	119
250	594, 600	248	129
315	594, 600	313	110
450	594, 600	448	155

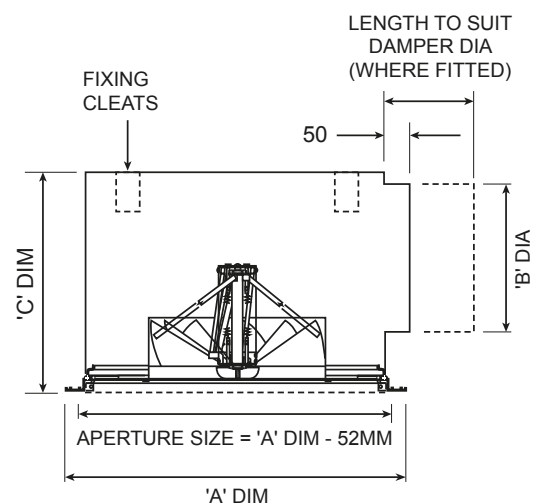


Diffuser C/W Top Entry Box



GSJB - TCB			
Size	A	B	C
160	300, 594, 600	125	275
250	594, 600	200	350
315	594, 600	250	400
450	594, 600	350	500

Diffuser C/W Side Entry Box



GSJB - SEB			
Size	A	B	C
160	300, 594, 600	125	275
250	594, 600	200	350
315	594, 600	250	400
450	594, 600	350	500

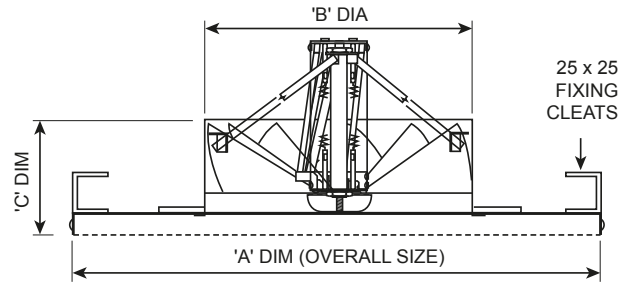
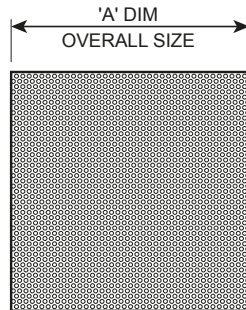
TYPE GSXB: Extract unit available without swirl assembly. Dimensions as above.

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Adjustable Swirl Diffusers

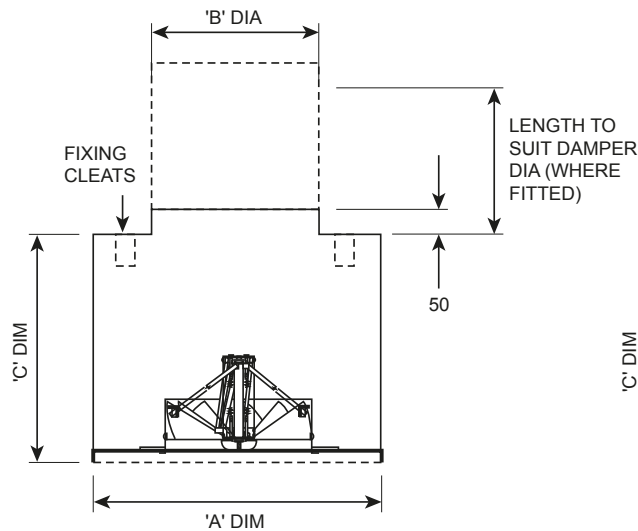
Type GSJC

Diffuser



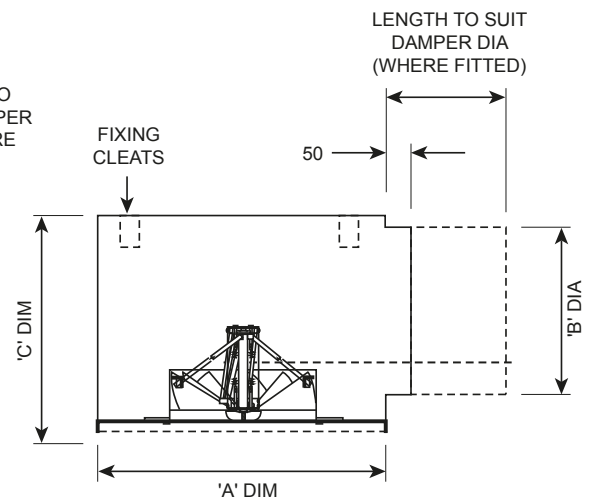
GSJC			
Size	A	B	C
160	294, 594	158	110
250	594	248	120
315	594	313	130
450	594	448	175

Diffuser C/W Top Entry Box



GSJC - TCB			
Size	A	B	C
160	294, 594	125	275
250	594	200	350
315	594	250	400
450	594	350	500

Diffuser C/W Side Entry Box



GSJC - SEB			
Size	A	B	C
160	294, 594	125	275
250	594	200	350
315	594	250	400
450	594	350	500

Installation - On Type GSJC diffusers the plenum is factory fitted. Combined diffuser/plenum assembly will require installation BEFORE the ceiling is erected.

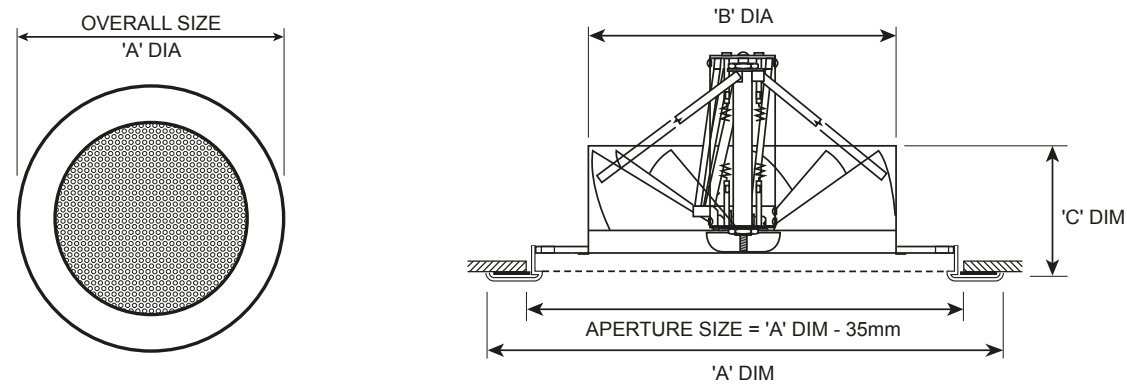
TYPE GSXC: Extract unit available without swirl assembly. Dimensions as above.

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Adjustable Swirl Diffusers

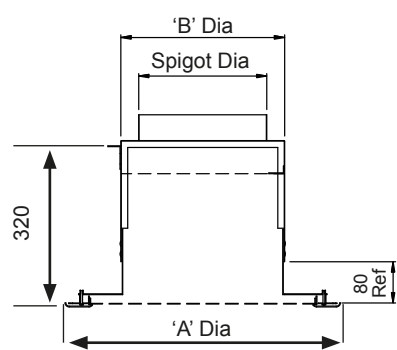
Type GSJE

Diffuser



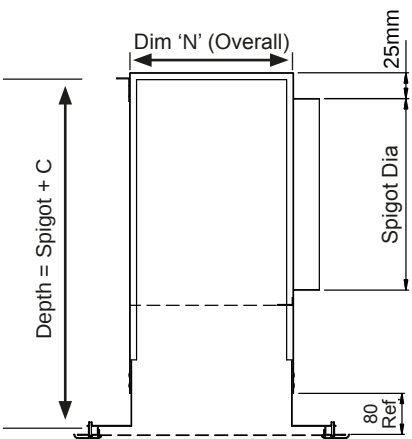
GSJE			
Size	A	B	C
160	378	158	112
250	468	248	122
315	533	313	132
450	667	448	177

Diffuser C/W Top Entry Box



GSJE - TCB		
SIZE	A	B
160	378	162
250	468	252
315	533	317
450	667	452

Diffuser C/W Side Entry Box



GSJE - SEB		
LIST SIZE	ø DIM N	C
160	162	320
250	252	320
315	317	320
450	450	320

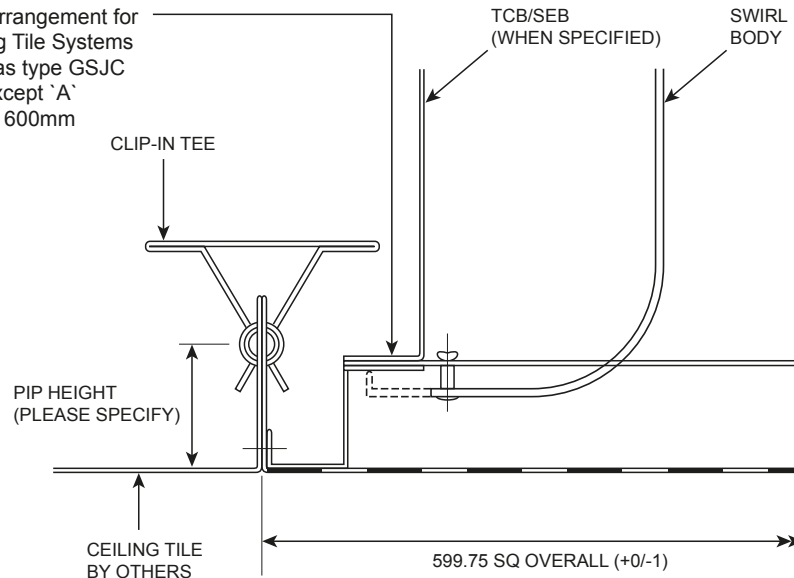
TYPE GSXE: Extract unit available without swirl assembly. Dimensions as above.

SERIES GSJ

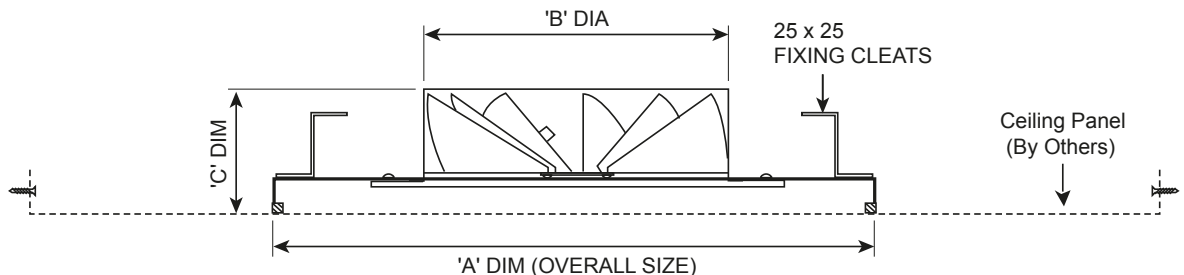
Adjustable Swirl Diffusers

Type GSJD

Alternative arrangement for clip-in Ceiling Tile Systems dimensions as type GSJC on page 6 except 'A' dimension is 600mm



Type GSJH

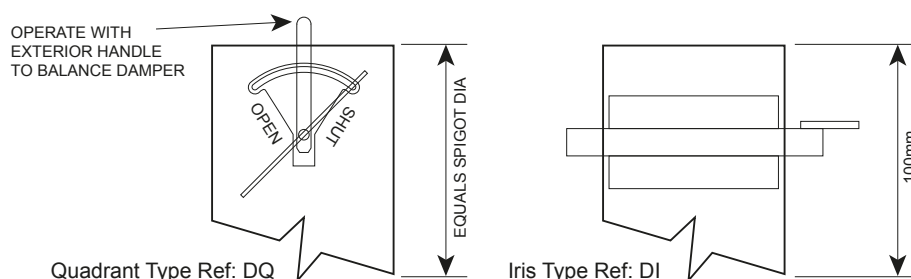


For full dimensional data see Type GSJC (Page 7).

The GSJH option offers a new dimension in ceiling diffuser design. For the ultimate in discretion the swirl diffuser (painted Matt Black) is mounted in a sub frame which is adapted for fitting concealed behind standard ceiling panels from popular ceiling manufacturers. The chassis for the diffuser is designed to provide both an air seal with the back of the ceiling tile face and the correct separation so that the diffuser can still provide an efficient high induction swirl air distribution effect. A minimum perforated tile free area of 40% applies. Please check with Gilberts Technical Department to ensure that the tile is suitable to achieve the correct air distribution.

Volume Control

Series GSJ offers 2 alternative methods of volume control. The principle means involves fitting of a manually operated flap type damper into the inlet spigot of the top or side entry plenum box. For a more sophisticated form of control however an iris damper can also be supplied. Full technical details on iris dampers are available in a separate data sheet.



SERIES GSJ

Adjustable Swirl Diffusers

Technical Data

Performance | Series GSJA

Horizontal Distribution

Type GSJA

Size 160

NECK VELOCITY (M/S)		1.25	1.5	1.75	2.0	2.25	2.5	2.75	3.0
VOLUME FLOW RATE (M ³ /S)		0.025	0.030	0.035	0.040	0.045	0.050	0.055	0.060
PRESSURE DROP (Pa)	TOP ENTRY	9.5	14	17	23	29	35	42	48
	SIDE ENTRY	11	15	19	24	31	38	46	55
	STRAIGHT CONNECTION	6.4	9	12	16	20	25	30	36
THROW TO 0.25 M/S (M)	AT + 10 °C	1.0	1.6	2.0	2.4	2.5	2.6	2.8	3.0
	AT + 5 °C	1.2	1.4	1.6	1.8	2.0	2.4	2.6	2.8
	ISOTHERMAL	1.0	1.2	1.4	1.5	1.6	1.7	1.8	2.0
	AT - 5 °C	0.4	0.6	0.8	1.0	1.2	1.4	1.6	2.0
	AT - 10 °C	0.4	0.6	0.8	1.0	1.3	1.5	1.6	2.0
THROW TO 0.5 M/S (M)	AT + 10 °C		0.6	0.8	1.0	1.2	1.5	1.8	2.0
	AT + 5 °C	0.3	0.5	0.6	0.8	1.0	1.3	1.6	1.8
	ISOTHERMAL	0.3	0.5	0.6	0.8	1.0	1.2	1.5	1.8
	AT - 5 °C	0.3	0.5	0.6	0.8	1.0	1.2	1.5	1.8
	AT - 10 °C	0.3	0.5	0.6	0.8	1.0	1.2	1.5	1.8
NOISE LEVEL (NC)		20	20	20	20	25	25	30	35

Vertical Distribution

Type GSJA

Size 160

NECK VELOCITY (M/S)		1.25	1.5	1.75	2.0	2.25	2.5	2.75	3.0
VOLUME FLOW RATE (M ³ /S)		0.025	0.030	0.035	0.040	0.045	0.050	0.055	0.060
PRESSURE DROP (Pa)	TOP ENTRY	7	8	9	12	15	18	22	24
	SIDE ENTRY	8	9	11	13	17	21	26	31
	STRAIGHT CONNECTION	2	3	4	5	7	8	10	12
THROW TO 0.25 M/S (M)	AT + 10 °C	1.2	1.4	1.7	2.1	2.6	2.9	3.3	3.4
	AT + 5 °C	1.7	1.9	2.3	2.5	2.8	3.2	3.5	3.8
	ISOTHERMAL	1.9	2.2	2.6	3.0	3.3	3.7	4.0	4.4
	AT - 5 °C	2.2	2.6	3.0	3.4	3.7	4.0	4.4	4.8
	AT - 10 °C	2.8	3.2	3.6	3.9	4.3	4.6	4.9	5.2
THROW TO 0.5 M/S (M)	AT + 10 °C	0.6	0.8	1.0	1.3	1.6	2.0	2.4	2.8
	AT + 5 °C	0.8	1.0	1.3	1.6	2.0	2.4	2.8	3.2
	ISOTHERMAL	1.0	1.3	1.5	1.8	2.2	2.6	3.0	3.4
	AT - 5 °C	1.5	1.7	2.0	2.2	2.5	2.8	3.1	3.5
	AT - 10 °C	2.2	2.5	2.9	3.2	3.5	3.8	4.1	4.4
NOISE LEVEL (NC)		20	20	20	20	20	20	20	25

Horizontal Distribution

Type GSJA

Size 250

NECK VELOCITY (M/S)		1.25	1.5	1.75	2.0	2.25	2.5	2.75	3.0
VOLUME FLOW RATE (M ³ /S)		0.061	0.073	0.085	0.098	0.11	0.122	0.134	0.147
PRESSURE DROP (Pa)	TOP ENTRY	10	15	18	23	28	34	39	48
	SIDE ENTRY	12	16	19	24	30	38	45	50
	STRAIGHT CONNECTION	7	10	14	18	23	27	33	40
THROW TO 0.25 M/S (M)	AT + 10 °C	1.3	2.0	2.5	3.0	3.3	3.6	3.8	4.2
	AT + 5 °C	1.6	1.9	2.3	2.7	3.0	3.3	3.6	3.8
	ISOTHERMAL	1.4	1.6	1.8	2.0	2.2	2.5	2.7	3.0
	AT - 5 °C	1.3	1.5	1.6	2.0	2.0	2.3	2.7	2.9
	AT - 10 °C	1.4	1.8	2.1	2.4	2.6	2.7	3.0	3.1
THROW TO 0.5 M/S (M)	AT + 10 °C	0.7	1.0	1.3	1.6	1.8	2.1	2.4	2.6
	AT + 5 °C	0.7	0.9	1.2	1.4	1.7	2.0	2.2	2.4
	ISOTHERMAL	0.7	0.8	0.9	1.1	1.3	1.5	1.8	2.0
	AT - 5 °C	0.7	0.9	1.1	1.4	1.6	1.8	2.1	2.2
	AT - 10 °C	0.8	1.1	1.2	1.4	1.7	1.9	2.1	2.3
NOISE LEVEL (NC)		20	20	25	30	30	35	35	40

Vertical Distribution

Type GSJA

Size 250

NECK VELOCITY (M/S)		1.25	1.5	1.75	2.0	2.25	2.5	2.75	3.0
VOLUME FLOW RATE (M ³ /S)		0.061	0.073	0.085	0.098	0.11	0.122	0.134	0.147
PRESSURE DROP (Pa)	TOP ENTRY	4	6	7	8	11	13	17	20
	SIDE ENTRY	7	8	10	11	14	16	20	23
	STRAIGHT CONNECTION	2	4	4	5	7	8	10	12
THROW TO 0.25 M/S (M)	AT + 10 °C	1.3	1.5	1.8	2.0	2.3	2.6	2.9	3.4
	AT + 5 °C	1.6	1.9	2.2	2.5	2.8	3.2	3.5	3.8
	ISOTHERMAL	2.1	2.5	2.9	3.3	3.6	4.1	4.5	4.9
	AT - 5 °C	2.8	3.4	4.1	4.8	-	-	-	-
	AT - 10 °C	3.8	4.4	5.0	-	-	-	-	-
THROW TO 0.5 M/S (M)	AT + 10 °C	0.7	1.0	1.2	1.4	1.7	2.0	2.4	2.8
	AT + 5 °C	1.0	1.2	1.5	1.8	2.2	2.5	2.9	3.3
	ISOTHERMAL	1.4	1.7	2.0	2.4	2.7	3.2	3.6	4.0
	AT - 5 °C	2.2	2.7	3.3	4.0	4.6	-	-	-
	AT - 10 °C	3.0	3.7	4.3	5.0	-	-	-	-
NOISE LEVEL (NC)		20	20	20	20	20	25	30	35

SERIES GSJ

Adjustable Swirl Diffusers

Technical Data

Performance | Series GSJA

Horizontal Distribution

Type GSJA

Size 315

NECK VELOCITY (M/S)		1,25	1,5	1,75	2,0	2,25	2,5	2,75	3,0
VOLUME FLOW RATE (M ³ /S)		0,097	0,116	0,136	0,155	0,173	0,194	0,214	0,233
PRESSURE DROP (Pa) Static	TOP ENTRY	8	12	15	19	24	29	34	40
	SIDE ENTRY	9	13	16	21	26	31	36	42
	STRAIGHT CONNECTIONS	6	9	12	15	22	25	32	39
THROW TO 0.25 M/S (M)	AT + 10 °C	2,0	2,4	3,0	3,6	4,0	4,4	4,8	5,3
	AT + 5 °C	2,0	2,4	3,0	3,6	4,0	4,2	4,5	4,8
	ISOTHERMAL	1,8	2,0	2,4	2,6	3,0	3,3	3,6	3,8
	AT - 5 °C	2,1	2,5	2,8	3,0	3,2	3,4	3,6	3,8
	AT - 10 °C	2,4	3,0	3,5	3,8	3,9	4,1	4,2	4,5
THROW TO 0.5 M/S (M)	AT + 10 °C	1,0	1,5	1,8	2,2	2,4	2,8	3,0	3,2
	AT + 5 °C	1,0	1,2	1,8	2,0	2,4	2,6	2,8	3,0
	ISOTHERMAL	0,8	1,0	1,2	1,4	1,8	2,0	2,4	2,6
	AT - 5 °C	1,0	1,2	1,5	2,0	2,2	2,4	2,6	2,8
	AT - 10 °C	1,2	1,6	1,8	2,0	2,4	2,5	2,6	2,8
NOISE LEVEL (NC)		20	20	20	25	30	35	35	40

Vertical Distribution

Type GSJA

Size 315

NECK VELOCITY (M/S)		1,25	1,5	1,75	2,0	2,25	2,5	2,75	3,0
VOLUME FLOW RATE (M ³ /S)		0,097	0,116	0,136	0,155	0,175	0,194	0,214	0,233
PRESSURE DROP (Pa) Static	TOP ENTRY	3	4	5	7	8	10	13	14
	SIDE ENTRY	5	7	8	10	11	12	14	16
	STRAIGHT CONNECTIONS	2	3	4	5	7	8	10	13
THROW TO 0.25 M/S (M)	AT + 10 °C	1,2	1,5	1,8	2,1	2,4	2,7	3,0	3,4
	AT + 5 °C	1,6	1,9	2,2	2,6	2,9	3,2	3,5	3,8
	ISOTHERMAL	2,3	2,8	3,3	3,7	4,1	4,6	5,0	5,5
	AT - 5 °C	3,5	4,3	5,2	-	-	-	-	-
	AT - 10 °C	3,3	4,5	5,8	-	-	-	-	-
THROW TO 0.5 M/S (M)	AT + 10 °C	0,8	1,2	1,4	1,6	1,8	2,1	2,5	2,8
	AT + 5 °C	1,2	1,5	1,8	2,1	2,4	2,7	3,0	3,3
	ISOTHERMAL	1,8	2,1	2,5	2,9	3,3	3,8	4,2	4,7
	AT - 5 °C	2,9	3,8	4,7	-	-	-	-	-
	AT - 10 °C	4,0	5,0	-	-	-	-	-	-
NOISE LEVEL (NC)		20	20	20	20	20	20	25	30

Horizontal Distribution

Type GSJA

Size 450

NECK VELOCITY (M/S)		1,25	1,5	1,75	2,0	2,25	2,5	2,75	3,0
VOLUME FLOW RATE (M ³ /S)		0,198	0,238	0,278	0,318	0,357	0,397	0,437	0,477
PRESSURE DROP (Pa) Static	TOP ENTRY	4	6,5	7,8	9	12	17	20	24
	SIDE ENTRY	5	7	8	11	14	18	21	25
	STRAIGHT CONNECTIONS	4	6	7,4	10	13	16	18	20
THROW TO 0.25 M/S (M)	AT + 10 °C	2,8	3,0	4,0	4,8	5,5	6,2	7,0	7,8
	AT + 5 °C	2,4	2,8	3,6	4,0	4,6	5,2	5,8	6,2
	ISOTHERMAL	2,0	2,2	2,5	3,0	3,5	3,8	4,3	4,8
	AT - 5 °C	2,4	2,6	2,8	3,2	4,0	4,4	4,8	5,3
	AT - 10 °C	2,6	2,8	3,0	3,9	4,3	4,8	5,3	5,7
THROW TO 0.5 M/S (M)	AT + 10 °C	1,5	2,4	2,6	3,2	3,6	4,2	4,8	5,4
	AT + 5 °C	1,8	1,8	2,2	2,4	2,8	3,2	3,6	4,0
	ISOTHERMAL	0,8	1,0	1,2	1,5	1,8	2,4	3,0	4,0
	AT - 5 °C	1,2	1,5	1,8	2,0	2,4	2,6	3,0	3,5
	AT - 10 °C	1,7	2,0	2,4	2,8	3,0	3,5	3,8	4,2
NOISE LEVEL (NC)		20	25	25	30	35	35	40	40

Vertical Distribution

Type GSJA

Size 450

NECK VELOCITY (M/S)		1,25	1,5	1,75	2,0	2,25	2,5	2,75	3,0
VOLUME FLOW RATE (M ³ /S)		0,198	0,238	0,278	0,318	0,357	0,397	0,437	0,477
PRESSURE DROP (Pa) Static	TOP ENTRY	1,3	2,5	2,9	2,3	3,3	6,3	8	10,7
	SIDE ENTRY	1,8	3	3,1	4,3	5,1	7,3	9	11,7
	STRAIGHT CONNECTIONS	1,3	2	2,5	3,3	4,3	5,3	6	6,7
THROW TO 0.25 M/S (M)	AT + 10 °C	1,7	2,0	2,2	2,5	2,7	3,0	3,2	3,5
	AT + 5 °C	2,8	3,1	3,7	4,2	4,7	5,2	5,7	6,2
	ISOTHERMAL	3,5	4,3	5,2	6,0	6,8	7,6	-	-
	AT - 5 °C	5,0	6,0	7,0	-	-	-	-	-
	AT - 10 °C	6,0	7,8	-	-	-	-	-	-
THROW TO 0.5 M/S (M)	AT + 10 °C	1,5	1,8	2,1	2,2	2,4	2,7	2,9	3,1
	AT + 5 °C	2,0	2,5	3,0	3,5	4,0	4,5	5,0	5,5
	ISOTHERMAL	2,5	3,5	4,5	5,2	6,1	7,0	-	-
	AT - 5 °C	4,2	5,2	6,4	7,6	-	-	-	-
	AT - 10 °C	5,0	6,5	-	-	-	-	-	-
NOISE LEVEL (NC)		20	20	20	20	20	20	25	25

SERIES GSJ

Adjustable Swirl Diffusers

Technical Data

Performance | Series GSJA

Horizontal Distribution

Type GSJA

Size 630

NECK VELOCITY (M/S)	1.25	1.5	1.75	2.0	2.25	2.5	2.75	3.0
VOLUME FLOW RATE (M ³ /S)	0.390	0.467	0.546	0.623	0.701	0.779	0.857	0.935
PRESSURE DROP (Pa) Static	TOP ENTRY	6.5	10	13	17	22	28	33
	SIDE ENTRY	7	11	15	19	23	29	36
	STRAIGHT CONNECTIONS	6	8	12	15	20	24	29
THROW TO 0.25 M/S (M)	AT + 10 °C	5.0	5.7	6.4	7.2	7.9	8.7	9.4
	AT + 5 °C	4.6	5.2	6.0	6.8	7.5	8.3	9.0
	ISOTHERMAL	4.1	4.8	5.6	6.4	7.1	7.9	8.6
	AT - 5 °C	4.2	5.0	5.8	6.6	7.3	8.1	8.8
	AT - 10 °C	4.4	5.2	6.0	6.8	7.5	8.3	9.0
THROW TO 0.5 M/S (M)	AT + 10 °C	3.0	3.7	4.5	5.2	5.6	6.2	7.1
	AT + 5 °C	2.2	3.6	4.3	4.9	5.5	6.1	7.0
	ISOTHERMAL	2.4	3.6	4.0	4.7	5.4	6.1	7.0
	AT - 5 °C	2.4	3.4	3.9	4.4	5.0	5.7	6.4
	AT - 10 °C	2.5	3.0	3.4	3.9	4.5	5.1	5.8
NOISE LEVEL (NC)		20	20	25	30	40	40	45

Vertical Distribution

Type GSJA

Size 630

NECK VELOCITY (M/S)	1.25	1.5	1.75	2.0	2.25	2.5	2.75	3.0
VOLUME FLOW RATE (M ³ /S)	0.390	0.467	0.546	0.623	0.701	0.779	0.857	0.935
PRESSURE DROP (Pa) Static	TOP ENTRY	3	4	5	7	9	12	13
	SIDE ENTRY	3	5	7	9	10	13	17
	STRAIGHT CONNECTIONS	2	3	4	5	7	10	12
THROW TO 0.25 M/S (M)	AT + 10 °C	1.8	2.4	3.0	3.6	4.2	4.8	5.4
	AT + 5 °C	3.6	4.3	4.9	5.4	6.2	6.8	7.5
	ISOTHERMAL	5.0	6.0	7.0	8.0	9.0	10.0	-
	AT - 5 °C	6.5	8.0	-	-	-	-	-
	AT - 10 °C	8.5	-	-	-	-	-	-
THROW TO 0.5 M/S (M)	AT + 10 °C	1.6	2.1	2.6	3.2	3.8	4.4	4.8
	AT + 5 °C	2.6	3.2	3.8	4.5	5.1	5.7	6.3
	ISOTHERMAL	3.5	5.2	6.0	6.8	-	-	-
	AT - 5 °C	4.8	6.0	7.0	8.0	-	-	-
	AT - 10 °C	6.0	8.0	-	-	-	-	-
NOISE LEVEL (NC)		20	20	20	20	25	30	35

SERIES GSJ

Adjustable Swirl Diffusers

Technical Data

Performance | Series GSJB/GSJE

Horizontal Distribution

Type GSJB/GJSE

Size 160

NECK VELOCITY (M/S)		1.25	1.5	1.75	2.0	2.25	2.5	2.75	3.0
VOLUME FLOW RATE (M ³ /S)		0.025	0.030	0.035	0.040	0.045	0.050	0.055	0.060
PRESSURE DROP (Pa) Static	TOP ENTRY	11	16	19	25	31	37	44	50
	SIDE ENTRY	13	17	21	26	33	40	48	57
	STRAIGHT CONNECTIONS	7	10	14	18	22	27	32	38
THROW TO 0.25 M/S (M)	AT +10 °C	0.7	0.8	0.9	1.0	1.2	1.5	1.8	2.0
	AT +5 °C	0.7	0.8	0.9	1.0	1.2	1.5	1.8	2.0
	ISOTHERMAL	0.5	0.6	0.7	0.8	1.0	1.1	1.1	1.2
	AT - 5 °C	0.7	0.8	0.9	1.0	1.1	1.4	1.5	1.6
	AT -10 °C	0.7	0.8	0.9	1.0	1.1	1.4	1.5	1.6
THROW TO 0.5 M/S (M)	AT +10 °C	-	-	-	0.3	0.5	0.6	0.8	1.0
	AT +5 °C	-	-	-	0.3	0.5	0.6	0.8	1.0
	ISOTHERMAL	-	-	-	0.3	0.5	0.6	0.8	1.0
	AT - 5 °C	-	-	-	0.4	0.6	0.7	0.9	1.1
	AT -10 °C	-	-	-	0.4	0.6	0.7	0.9	1.1
NOISE LEVEL (NC)		20	25	25	30	30	35	40	45

Vertical Distribution

Type GSJB/GJSE

Size 160

NECK VELOCITY (M/S)		1.25	1.5	1.75	2.0	2.25	2.5	2.75	3.0
VOLUME FLOW RATE (M ³ /S)		0.025	0.030	0.035	0.040	0.045	0.050	0.055	0.060
PRESSURE DROP (Pa) Static	TOP ENTRY	6	9	10	13	16	19	22	24
	SIDE ENTRY	8	10	12	14	18	22	26	31
	STRAIGHT CONNECTIONS	3	4	5	6	8	9	11	13
THROW TO 0.25 M/S (M)	AT +10 °C	0.6	0.6	0.7	0.8	0.9	1.0	1.1	1.2
	AT +5 °C	0.7	0.8	1.0	1.1	1.2	1.3	1.5	1.6
	ISOTHERMAL	0.8	1.0	1.3	1.5	1.6	1.7	1.8	1.9
	AT - 5 °C	1.3	1.4	1.6	1.8	2.0	2.3	2.5	2.7
	AT -10 °C	1.4	1.6	1.8	2.0	2.3	2.5	2.7	3.0
THROW TO 0.5 M/S (M)	AT +10 °C	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7
	AT +5 °C	0.4	0.5	0.7	0.8	0.9	0.9	1.0	1.0
	ISOTHERMAL	0.4	0.6	0.8	1.0	1.1	1.1	1.2	1.2
	AT - 5 °C	0.7	0.8	0.9	1.0	1.2	1.4	1.6	1.8
	AT -10 °C	0.8	0.9	1.0	1.2	1.4	1.6	1.8	2.2
NOISE LEVEL (NC)		20	20	20	20	20	20	20	30

Horizontal Distribution

Type GSJB/GJSE

Size 250

NECK VELOCITY (M/S)		1.25	1.5	1.75	2.0	2.25	2.5	2.75	3.0
VOLUME FLOW RATE (M ³ /S)		0.061	0.073	0.085	0.098	0.11	0.122	0.134	0.147
PRESSURE DROP (Pa) Static	TOP ENTRY	10	15	19	25	32	39	48	52
	SIDE ENTRY	12	16	22	30	38	47	54	68
	STRAIGHT CONNECTIONS	8	11	16	20	26	32	41	48
THROW TO 0.25 M/S (M)	AT +10 °C	1.1	1.3	1.4	1.7	2.0	2.3	2.7	3.0
	AT +5 °C	1.0	1.2	1.4	1.5	1.7	2.0	2.3	2.6
	ISOTHERMAL	0.7	0.9	1.0	1.2	1.4	1.6	1.7	1.8
	AT - 5 °C	1.0	1.2	1.4	1.5	1.7	1.9	2.0	2.1
	AT -10 °C	1.1	1.3	1.5	1.7	1.8	2.0	2.2	2.3
THROW TO 0.5 M/S (M)	AT +10 °C	0.3	0.5	0.7	0.9	1.1	1.2	1.5	1.7
	AT +5 °C	0.3	0.5	0.6	0.7	0.8	1.0	1.2	1.4
	ISOTHERMAL	-	-	0.3	0.5	0.7	0.8	1.0	1.2
	AT - 5 °C	-	-	0.3	0.6	0.9	1.0	1.2	1.4
	AT -10 °C	-	-	0.5	0.7	1.0	1.1	1.3	1.5
NOISE LEVEL (NC)		20	20	30	30	35	35	40	45

Vertical Distribution

Type GSJB/GJSE

Size 250

NECK VELOCITY (M/S)		1.25	1.5	1.75	2.0	2.25	2.5	2.75	3.0
VOLUME FLOW RATE (M ³ /S)		0.061	0.073	0.085	0.098	0.11	0.122	0.134	0.147
PRESSURE DROP (Pa) Static	TOP ENTRY	5	8	9	11	13	16	18	19
	SIDE ENTRY	7	9	11	13	15	18	21	28
	STRAIGHT CONNECTIONS	2.8	3.8	4.8	5.8	8	9	11	13
THROW TO 0.25 M/S (M)	AT +10 °C	0.5	0.7	0.8	1.0	1.2	1.3	1.4	1.6
	AT +5 °C	0.7	0.9	1.1	1.2	1.4	1.6	1.8	2.0
	ISOTHERMAL	1.3	1.5	1.8	2.0	2.4	2.6	2.8	3.0
	AT - 5 °C	1.9	2.2	2.5	2.8	3.0	3.3	3.4	3.6
	AT -10 °C	2.1	2.4	2.7	3.0	3.3	3.6	3.8	4.2
THROW TO 0.5 M/S (M)	AT +10 °C	0.3	0.4	0.5	0.6	0.8	0.9	0.9	1.0
	AT +5 °C	0.4	0.5	0.7	0.8	0.9	1.0	1.1	1.2
	ISOTHERMAL	0.8	0.9	1.1	1.3	1.4	1.5	1.7	1.8
	AT - 5 °C	1.2	1.4	1.6	1.8	2.1	2.3	2.6	2.9
	AT -10 °C	1.6	1.8	2.1	2.4	2.7	3.0	3.3	3.8
NOISE LEVEL (NC)		20	20	20	20	20	20	20	30

SERIES GSJ

Adjustable Swirl Diffusers

Technical Data

Performance | Series GSJB/GSJE

Horizontal Distribution

Type GSJB/GJSE

Size 315

NECK VELOCITY (M/S)		1.25	1.5	1.75	2.0	2.25	2.5	2.75	3.0
VOLUME FLOW RATE (M ³ /S)		0.097	0.116	0.136	0.155	0.175	0.194	0.214	0.233
PRESSURE DROP (Pa) Static	TOP ENTRY	10	14	17	21	26	31	36	42
	SIDE ENTRY	11	15	18	23	28	33	38	44
	STRAIGHT CONNECTIONS	8	11	14	17	24	27	34	41
THROW TO 0.25 M/S (M)	AT + 10°C	1.5	1.8	2.0	2.4	2.8	3.2	3.6	4.0
	AT + 5°C	1.4	1.7	1.9	2.0	2.2	2.6	2.9	3.3
	ISOTHERMAL	1.0	1.2	1.4	1.6	1.9	2.1	2.3	2.5
	AT - 5°C	1.4	1.7	1.9	2.1	2.3	2.4	2.5	2.6
	AT - 10°C	1.6	1.9	2.1	2.5	2.6	2.7	2.9	3.0
THROW TO 0.5 M/S (M)	AT + 10°C	0.6	1.0	1.2	1.5	1.7	1.9	2.2	2.4
	AT + 5°C	0.6	0.7	0.9	1.1	1.2	1.4	1.6	1.7
	ISOTHERMAL	0.4	0.6	0.7	0.8	1.0	1.1	1.3	1.5
	AT - 5°C	0.4	0.6	0.7	0.9	1.1	1.2	1.4	1.6
	AT - 10°C	0.5	0.7	0.9	1.0	1.3	1.5	1.7	2.0
NOISE LEVEL (NC)		20	25	30	30	40	45	45	50

Vertical Distribution

Type GSJB/GJSE

Size 315

NECK VELOCITY (M/S)		1.25	1.5	1.75	2.0	2.25	2.5	2.75	3.0
VOLUME FLOW RATE (M ³ /S)		0.097	0.116	0.136	0.155	0.175	0.194	0.214	0.233
PRESSURE DROP (Pa) Static	TOP ENTRY	4.7	6.7	7.7	9.7	10	13	13.3	14.7
	SIDE ENTRY	5.7	7.7	8.7	11.7	12	15	15.3	16.7
	STRAIGHT CONNECTIONS	2.7	3.7	4.7	5.7	8	9	11.3	13.7
THROW TO 0.25 M/S (M)	AT + 10°C	0.5	0.8	1	1.2	1.4	1.6	1.8	2.0
	AT + 5°C	0.7	1.0	1.2	1.4	1.7	1.9	2.1	2.4
	ISOTHERMAL	1.8	2.1	2.5	2.8	3.2	3.5	3.8	4.2
	AT - 5°C	2.6	3.0	3.4	3.8	4.0	4.3	4.4	4.5
	AT - 10°C	2.8	3.2	3.6	4.0	4.4	4.7	5.0	5.5
THROW TO 0.5 M/S (M)	AT + 10°C	0.2	0.5	0.6	0.8	0.9	1.0	1.1	1.2
	AT + 5°C	0.3	0.6	0.7	0.9	1.0	1.2	1.3	1.4
	ISOTHERMAL	1.2	1.3	1.5	1.6	1.8	1.9	2.1	2.2
	AT - 5°C	1.8	2.1	2.4	2.7	3.0	3.3	3.7	4.0
	AT - 10°C	2.4	2.8	3.2	3.6	4.0	4.5	4.9	5.4
NOISE LEVEL (NC)		20	20	20	20	20	25	25	25

Horizontal Distribution

Type GSJB/GJSE

Size 450

NECK VELOCITY (M/S)		1.25	1.5	1.75	2.0	2.25	2.5	2.75	3.0
VOLUME FLOW RATE (M ³ /S)		0.198	0.238	0.278	0.318	0.357	0.395	0.437	0.477
PRESSURE DROP (Pa) Static	TOP ENTRY	5	7	9	12	16	20	24	28
	SIDE ENTRY	6	8	11	14	19	24	29	34
	STRAIGHT CONNECTIONS	6	9	12	15	20	25	29	35
THROW TO 0.25 M/S (M)	AT + 10°C	2.4	2.7	3.1	3.6	3.8	4.2	4.5	4.8
	AT + 5°C	2.1	2.4	2.7	3.0	3.2	3.5	3.8	4.0
	ISOTHERMAL	1.8	1.9	2.1	2.4	2.5	2.7	2.9	3.0
	AT - 5°C	1.7	1.8	2.0	2.3	2.4	2.6	2.7	3.0
	AT - 10°C	1.7	1.8	2.0	2.3	2.4	2.6	2.7	3.0
THROW TO 0.5 M/S (M)	AT + 10°C	0.9	1.2	1.4	1.7	2.0	2.2	2.4	2.5
	AT + 5°C	0.8	1.1	1.3	1.5	1.7	2.0	2.2	2.5
	ISOTHERMAL	0.8	1.0	1.3	1.5	1.6	1.8	2.0	2.1
	AT - 5°C	0.7	1.0	1.2	1.3	1.5	1.6	1.8	2.0
	AT - 10°C	0.7	1.0	1.2	1.3	1.5	1.6	1.8	2.0
NOISE LEVEL (NC)		20	25	35	40	40	45	50	55

Vertical Distribution

Type GSJB/GJSE

Size 450

NECK VELOCITY (M/S)		1.25	1.5	1.75	2.0	2.25	2.5	2.75	3.0
VOLUME FLOW RATE (M ³ /S)		0.198	0.238	0.278	0.318	0.357	0.397	0.437	0.477
PRESSURE DROP (Pa) Static	TOP ENTRY	2.3	3	3.7	4.7	6.7	8.7	10	10.7
	SIDE ENTRY	3.3	4	5.7	6.7	9.7	12.7	15	16.7
	STRAIGHT CONNECTIONS	1.3	2	2.7	3.7	4.7	5.7	7	8.7
THROW TO 0.25 M/S (M)	AT + 10°C	0.9	1.0	1.1	1.3	1.5	1.7	1.8	2.0
	AT + 5°C	1.2	1.5	1.6	1.7	1.9	2.1	2.2	2.4
	ISOTHERMAL	1.8	2.1	2.5	2.8	3.2	3.5	3.8	4.2
	AT - 5°C	2.6	3.0	3.4	3.8	4.0	4.3	4.4	4.5
	AT - 10°C	2.8	3.2	3.6	4.0	4.4	4.7	5.0	5.5
THROW TO 0.5 M/S (M)	AT + 10°C	0.4	0.5	0.6	0.8	0.9	1.0	1.1	1.2
	AT + 5°C	0.7	0.9	1.0	1.1	1.2	1.3	1.4	1.5
	ISOTHERMAL	1.2	1.3	1.5	1.6	1.8	1.9	2.1	2.2
	AT - 5°C	1.8	2.1	2.4	2.7	3.0	3.3	3.7	4.0
	AT - 10°C	2.4	2.8	3.2	3.6	4.0	4.5	4.9	5.4
NOISE LEVEL (NC)		20	20	20	20	20	20	25	30

SERIES GSJ

Adjustable Swirl Diffusers

Technical Data

Performance | Series GSJC/GSJD

Horizontal Distribution

Type GSJC/GJSD

Size 160

NECK VELOCITY (M/S)		1.25	1.5	1.75	2.0	2.25	2.5	2.75	3.0
VOLUME FLOW RATE (M ³ /S)		0.025	0.030	0.035	0.040	0.045	0.050	0.055	0.060
PRESSURE DROP (Pa) Static	TOP ENTRY	11	16	19	25	31	37	44	50
	SIDE ENTRY	13	17	21	26	33	40	48	57
	STRAIGHT CONNECTIONS	7	10	14	18	22	27	32	38
THROW TO 0.25 M/S (M)	AT + 10°C	0.7	0.8	0.9	1.0	1.2	1.5	1.8	2.0
	AT + 5°C	0.7	0.8	0.9	1.0	1.2	1.5	1.8	2.0
	ISOTHERMAL	0.5	0.6	0.7	0.8	1.0	1.1	1.1	1.2
	AT - 5°C	0.7	0.8	0.9	1.0	1.1	1.4	1.5	1.6
	AT - 10°C	0.7	0.8	0.9	1.0	1.1	1.4	1.5	1.6
THROW TO 0.5 M/S (M)	AT + 10°C	-	-	-	0.3	0.5	0.6	0.8	1.0
	AT + 5°C	-	-	-	0.3	0.5	0.6	0.8	1.0
	ISOTHERMAL	-	-	-	0.3	0.5	0.6	0.8	1.0
	AT - 5°C	-	-	-	0.4	0.6	0.7	0.9	1.1
	AT - 10°C	-	-	-	0.4	0.6	0.7	0.9	1.1
NOISE LEVEL (NC)		20	25	25	30	30	35	40	45

Vertical Distribution

Type GSJC/GJSD

Size 160

NECK VELOCITY (M/S)		1.25	1.5	1.75	2.0	2.25	2.5	2.75	3.0
VOLUME FLOW RATE (M ³ /S)		0.025	0.030	0.035	0.040	0.045	0.050	0.055	0.060
PRESSURE DROP (Pa) Static	TOP ENTRY	6	9	10	13	16	19	22	24
	SIDE ENTRY	8	10	12	14	18	22	26	31
	STRAIGHT CONNECTIONS	3	4	5	6	8	9	11	13
THROW TO 0.25 M/S (M)	AT + 10°C	0.6	0.6	0.7	0.8	0.9	1.0	1.1	1.2
	AT + 5°C	0.7	0.8	1.0	1.1	1.2	1.3	1.5	1.6
	ISOTHERMAL	0.8	1.0	1.3	1.5	1.6	1.7	1.8	1.9
	AT - 5°C	1.3	1.4	1.6	1.8	2.0	2.3	2.5	2.7
	AT - 10°C	1.4	1.6	1.8	2.0	2.3	2.5	2.7	3.0
THROW TO 0.5 M/S (M)	AT + 10°C	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7
	AT + 5°C	0.4	0.5	0.7	0.8	0.9	0.9	1.0	1.0
	ISOTHERMAL	0.4	0.6	0.8	1.0	1.1	1.1	1.2	1.2
	AT - 5°C	0.7	0.8	0.9	1.0	1.2	1.4	1.6	1.8
	AT - 10°C	0.8	0.9	1.0	1.2	1.4	1.6	1.8	2.2
NOISE LEVEL (NC)		20	20	20	20	20	20	20	25

Horizontal Distribution

Type GSJC/GJSD

Size 250

NECK VELOCITY (M/S)		1.25	1.5	1.75	2.0	2.25	2.5	2.75	3.0
VOLUME FLOW RATE (M ³ /S)		0.061	0.073	0.085	0.098	0.11	0.122	0.134	0.147
PRESSURE DROP (Pa) Static	TOP ENTRY	10	5	19	25	32	39	48	52
	SIDE ENTRY	12	16	22	30	38	47	54	68
	STRAIGHT CONNECTIONS	8	11	16	20	26	32	41	48
THROW TO 0.25 M/S (M)	AT + 10°C	1.1	1.3	1.4	1.7	2.0	2.3	2.7	3.0
	AT + 5°C	1.0	1.2	1.4	1.5	1.7	2.0	2.3	2.6
	ISOTHERMAL	0.7	0.9	1.0	1.2	1.4	1.6	1.7	1.8
	AT - 5°C	1.0	1.2	1.4	1.5	1.7	1.9	2.0	2.1
	AT - 10°C	1.1	1.3	1.5	1.7	1.8	2.0	2.2	2.3
THROW TO 0.5 M/S (M)	AT + 10°C	0.3	0.5	0.7	0.9	1.1	1.2	1.5	1.7
	AT + 5°C	0.3	0.5	0.6	0.7	0.8	1.0	1.2	1.4
	ISOTHERMAL	-	-	0.3	0.5	0.7	0.8	1.0	1.2
	AT - 5°C	-	-	0.3	0.6	0.9	1.0	1.2	1.4
	AT - 10°C	-	-	0.5	0.7	1.0	1.1	1.3	1.5
NOISE LEVEL (NC)		20	20	30	30	35	35	40	45

Vertical Distribution

Type GSJC/GJSD

Size 250

NECK VELOCITY (M/S)		1.25	1.5	1.75	2.0	2.25	2.5	2.75	3.0
VOLUME FLOW RATE (M ³ /S)		0.061	0.073	0.085	0.098	0.11	0.122	0.134	0.147
PRESSURE DROP (Pa) Static	TOP ENTRY	5	8	9	11	13	16	18	19
	SIDE ENTRY	7	9	11	13	15	18	21	28
	STRAIGHT CONNECTIONS	2.8	3.8	4.8	5.8	8	9	11	13
THROW TO 0.25 M/S (M)	AT + 10°C	0.5	0.7	0.8	1.0	1.2	1.3	1.4	1.6
	AT + 5°C	0.7	0.9	1.1	1.2	1.4	1.6	1.8	2.0
	ISOTHERMAL	1.3	1.5	1.8	2.0	2.4	2.6	2.8	3.0
	AT - 5°C	1.9	2.2	2.5	2.8	3.0	3.3	3.4	3.6
	AT - 10°C	2.1	2.4	2.7	3.0	3.3	3.6	3.8	4.2
THROW TO 0.5 M/S (M)	AT + 10°C	0.3	0.4	0.5	0.6	0.8	0.9	0.9	1.0
	AT + 5°C	0.4	0.5	0.7	0.8	0.9	1.0	1.1	1.2
	ISOTHERMAL	0.8	0.9	1.1	1.3	1.4	1.5	1.7	1.8
	AT - 5°C	1.2	1.4	1.6	1.8	2.1	2.3	2.6	2.9
	AT - 10°C	1.6	1.8	2.1	2.4	2.7	3.0	3.3	3.8
NOISE LEVEL (NC)		20	20	20	20	20	25	25	30

SERIES GSJ

Adjustable Swirl Diffusers

Technical Data

Performance | Series GSJC/GSJD

Horizontal Distribution

Type GSJC/GJSD

Size 315

NECK VELOCITY (M/S)		1.25	1.5	1.75	2.0	2.25	2.5	2.75	3.0
VOLUME FLOW RATE (M ³ /S)		0.097	0.116	0.136	0.155	0.175	0.194	0.214	0.233
PRESSURE DROP (Pa) Static	TOP ENTRY	10	14	17	21	26	31	36	42
	SIDE ENTRY	11	15	18	23	28	33	38	44
	STRAIGHT CONNECTIONS	8	11	14	17	24	27	34	41
THROW TO 0.25 M/S (M)	AT + 10 °C	1.5	1.8	2.0	2.4	2.8	3.2	3.6	4.0
	AT + 5 °C	1.4	1.7	1.9	2.0	2.2	2.6	2.9	3.3
	ISOTHERMAL	1.0	1.2	1.4	1.6	1.9	2.1	2.3	2.5
	AT - 5 °C	1.4	1.7	1.9	2.1	2.3	2.4	2.5	2.6
	AT - 10 °C	1.6	1.9	2.1	2.5	2.6	2.7	2.9	3.0
THROW TO 0.5 M/S (M)	AT + 10 °C	0.6	1.0	1.2	1.5	1.7	1.9	2.2	2.4
	AT + 5 °C	0.6	0.7	0.9	1.1	1.2	1.4	1.6	1.7
	ISOTHERMAL	0.4	0.6	0.7	0.8	1.0	1.1	1.3	1.5
	AT - 5 °C	0.4	0.6	0.7	0.9	1.1	1.2	1.4	1.6
	AT - 10 °C	0.5	0.7	0.9	1.0	1.3	1.5	1.7	2.0
NOISE LEVEL (NC)		20	25	30	30	40	45	45	50

Vertical Distribution

Type GSJC/GJSD

Size 315

NECK VELOCITY (M/S)		1.25	1.5	1.75	2.0	2.25	2.5	2.75	3.0
VOLUME FLOW RATE (M ³ /S)		0.097	0.116	0.136	0.155	0.175	0.194	0.214	0.233
PRESSURE DROP (Pa) Static	TOP ENTRY	4.7	6.7	7.7	9.7	10	13	13.3	14.7
	SIDE ENTRY	5.7	7.7	8.7	11.7	12	15	15.3	16.7
	STRAIGHT CONNECTIONS	2.7	3.7	4.7	5.7	8	9	11.3	13.7
THROW TO 0.25 M/S (M)	AT + 10 °C	0.5	0.8	1	1.2	1.4	1.6	1.8	2.0
	AT + 5 °C	0.7	1.0	1.2	1.4	1.7	1.9	2.1	2.4
	ISOTHERMAL	1.8	2.1	2.5	2.8	3.2	3.5	3.8	4.2
	AT - 5 °C	2.6	3.0	3.4	3.8	4.0	4.3	4.4	4.5
	AT - 10 °C	2.8	3.2	3.6	4.0	4.4	4.7	5.0	5.5
THROW TO 0.5 M/S (M)	AT + 10 °C	0.2	0.5	0.6	0.8	0.9	1.0	1.1	1.2
	AT + 5 °C	0.3	0.6	0.7	0.9	1.0	1.2	1.3	1.4
	ISOTHERMAL	1.2	1.3	1.5	1.6	1.8	1.9	2.1	2.2
	AT - 5 °C	1.8	2.1	2.4	2.7	3.0	3.3	3.7	4.0
	AT - 10 °C	2.4	2.8	3.2	3.6	4.0	4.5	4.9	5.4
NOISE LEVEL (NC)		20	20	20	20	20	25	25	30

Horizontal Distribution

Type GSJC/GJSD

Size 450

NECK VELOCITY (M/S)		1.25	1.5	1.75	2.0	2.25	2.5	2.75	3.0
VOLUME FLOW RATE (M ³ /S)		0.198	0.238	0.278	0.318	0.357	0.395	0.437	0.477
PRESSURE DROP (Pa) Static	TOP ENTRY	6	8	11	14	19	24	29	34
	SIDE ENTRY	6	9	12	15	20	25	29	35
	STRAIGHT CONNECTIONS	5	7	9	12	16	20	24	28
THROW TO 0.25 M/S (M)	AT + 10 °C	2.4	2.7	3.1	3.6	3.8	4.2	4.5	4.8
	AT + 5 °C	2.1	2.4	2.7	3.0	3.2	3.5	3.8	4.0
	ISOTHERMAL	1.8	1.9	2.1	2.4	2.5	2.7	2.9	3.0
	AT - 5 °C	1.7	1.8	2.0	2.3	2.4	2.6	2.7	3.0
	AT - 10 °C	1.7	1.8	2.0	2.3	2.4	2.6	2.7	3.0
THROW TO 0.5 M/S (M)	AT + 10 °C	0.9	1.2	1.4	1.7	2.0	2.2	2.4	2.5
	AT + 5 °C	0.8	1.1	1.3	1.5	1.7	2.0	2.2	2.5
	ISOTHERMAL	0.8	1.0	1.3	1.5	1.6	1.8	2.0	2.1
	AT - 5 °C	0.7	1.0	1.2	1.3	1.5	1.6	1.8	2.0
	AT - 10 °C	0.7	1.0	1.2	1.3	1.5	1.6	1.8	2.0
NOISE LEVEL (NC)		20	25	35	40	40	45	50	55

Vertical Distribution

Type GSJC/GJSD

Size 450

NECK VELOCITY (M/S)		1.25	1.5	1.75	2.0	2.25	2.5	2.75	3.0
VOLUME FLOW RATE (M ³ /S)		0.198	0.238	0.278	0.318	0.357	0.397	0.437	0.477
PRESSURE DROP (Pa) Static	TOP ENTRY	2.3	3	3.7	4.7	6.7	8.7	10	10.7
	SIDE ENTRY	3.3	4	5.7	6.7	9.7	12.7	15	16.7
	STRAIGHT CONNECTIONS	1.3	2	2.7	3.7	4.7	5.7	7	8.7
THROW TO 0.25 M/S (M)	AT + 10 °C	0.9	1.0	1.1	1.3	1.5	1.7	1.8	2.0
	AT + 5 °C	1.2	1.5	1.6	1.7	1.9	2.1	2.2	2.4
	ISOTHERMAL	1.8	2.1	2.5	2.8	3.2	3.5	3.8	4.2
	AT - 5 °C	2.6	3.0	3.4	3.8	4.0	4.3	4.4	4.5
	AT - 10 °C	2.8	3.2	3.6	4.0	4.4	4.7	5.0	5.5
THROW TO 0.5 M/S (M)	AT + 10 °C	0.4	0.5	0.6	0.8	0.9	1.0	1.1	1.2
	AT + 5 °C	0.7	0.9	1.0	1.1	1.2	1.3	1.4	1.5
	ISOTHERMAL	1.2	1.3	1.5	1.6	1.8	1.9	2.1	2.2
	AT - 5 °C	1.8	2.1	2.4	2.7	3.0	3.3	3.7	4.0
	AT - 10 °C	2.4	2.8	3.2	3.6	4.0	4.5	4.9	5.4
NOISE LEVEL (NC)		20	20	20	20	20	20	25	30

SERIES GSJ

Adjustable Swirl Diffusers

Ordering Specification Diffuser

TYPE GSJA to GSJH	GSJC	160	594			M	SB	PPC RAL 9010 20% Gloss Standard Finish	15
LIST SIZE (Dia mm)									
OVERALL SIZE (mm) (Applies to GSJB and GSJC only)									
TEGULAR DROP DEPTH (GSJBT only) TD + Depth									
PIP HEIGHT (mm) (GSJD Only)									
CONTROL OPTIONS Manual..... M Thermal T									
SUPPORT BRACKETS (required without plenum)..... SB									
FINISH (please specify)									
NUMBER REQUIRED									

Suspended Ceilings

All items installed into suspended ceilings must be supported independently of the grid. Any feature offered to suit ceiling type, is for alignment purposes only.

Fixing

Standard fixing is drill through the neck into adjacent ductwork however support brackets can be also specified for drop rod support (rods by others). Alternatively an internal fixing where drop rods can locate inside the plenum can be provided which can be useful in plaster ceilings.

Please contact head office for details.

Finish

Standard Finish: Standard finish for all units is a PPC White RAL 9010 20% gloss.

Note: Internals finished Matt Black on GSJB and GSJC types.

Special Finish: PPC to stock BS or RAL colour.

SERIES GSJ

Adjustable Swirl Diffusers

Ordering
Specification
Circular
Plenum

SERIES TCB-C/GSJA or GSJE SEB-C/GSJA or GSJE	SEB-C GSJA	AT1	315	NEK	BH500	BB	DQ 150 DIA	TSO	DQ 150 DIA	15
THERMAL/ACOUSTIC INSULATION (SEB ONLY) 12mm Pyro (standard) .. AT1 25mm Pyro AT2 12mm Closed cell* AT3										
TO FIT DIFFUSER SIZE (List Size + Overall Size)										
FIXING POINT Neck NEK Flange..... FLN										
BOX HEIGHT (Where Different From Standard)										
MATT BLACK FINISH (internal & external)..... BB										
SPIGOT & DAMPER OPTIONS (Plus NOMINAL Spigot Size): No Damper SS + SIZE Quadrant DQ + SIZE Cord Operated. DC + SIZE Iris DI + SIZE										
TWIN SPIGOT OPTIONS: Opposite TSO										
2nd SPIGOT & DAMPER OPTION (see above)										
NUMBER REQUIRED										

Exposed Plenums

Please advise where plenums are exposed. **Galvalike®** is the default finish for exposed plenum boxes. A unique powder coated finish formulated to best match British galvanised material, whilst protecting the products from finish variation and moisture damage etc. Plenums may also be powder coated to suit grille/diffuser finish. For alternative plenum finishes, please contact head office.

Thermal/Acoustic Insulation [AT1, AT2 and AT3]

Plenum box can be fully lined with 12mm [standard] or 25mm Pyrosorb thermal/acoustic insulation. Alternatively 12mm closed cell* can also be specified.

**Class '0' fire-rated, closed cell, elastomeric PVC nitrile foam.*

SERIES GSJ

Adjustable Swirl Diffusers

Ordering Specification Square Plenum

TYPE REQUIRED TCB/GSJB to D SEB/GSJB to D	SEB/ GSJC	AT1	160 - 594	BH500	BB	DQ 150 dia	TSO	DQ 150 dia	15
THERMAL/ACOUSTIC Insulation (SEB only) 12mm PyroAT1 (Standard).....AT2 12mm PyroAT2 12mm Closed cell*AT3									
TO FIT DIFFUSER SIZE (List + Overall Size)									
BOX HEIGHT (Where different from standard)									
MATT BLACK FINISH (internal & external) (If thermal/acoustic insulation not required) BB									
1ST PLENUM DAMPER OPTIONS No DamperSS + size Quadrant DQ + size Cord Operated . DC + size Iris DI + size									
TWIN SPIGOT OPTIONS Adjacent TSA Opposite TSO									
2ND PLENUM DAMPER OPTIONS See Damper Options									
NUMBER REQUIRED									

Exposed Plenums

Please advise where plenums are exposed. **Galvalike®** is the default finish for exposed plenum boxes. A unique powder coated finish formulated to best match British galvanised material, whilst protecting the products from finish variation and moisture damage etc. Plenums may also be powder coated to suit grille/diffuser finish. For alternative plenum finishes, please contact head office.

Thermal/Acoustic Insulation [AT1, AT2 and AT3]

Plenum box can be fully lined with 12mm [standard] or 25mm Pyrosorb thermal/acoustic insulation. Alternatively 12mm closed cell* can also be specified.

**Class '0' fire-rated, closed cell, elastomeric PVC nitrile foam.*

GILBERTS

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