

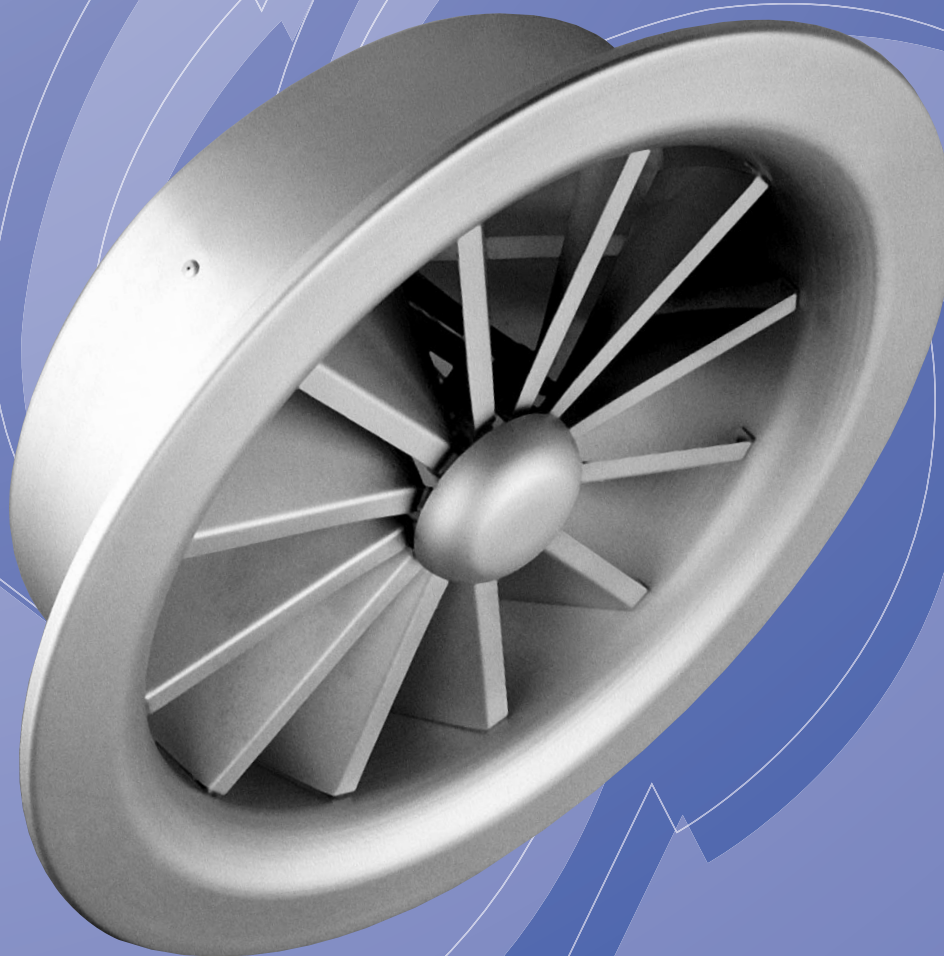
SERIES GSJ

Adjustable Swirl Diffusers
(Patented)

PUBLICATION

DIFFUSERS 12

JULY 2015



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

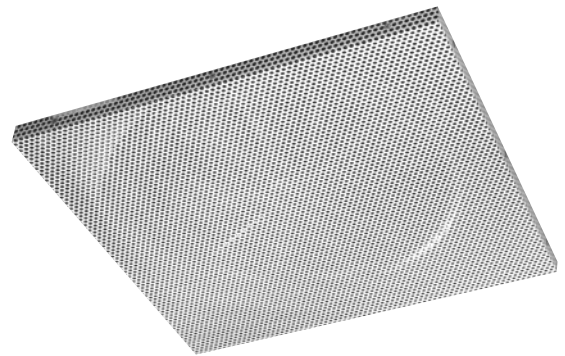
Complementing the GSF range of fixed Swirl Diffusers with the GSJ Series Gilberts introduce a modern and attractively styled range of adjustable Swirl Diffusers suitable for a multitude of ceiling supply applications.

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.

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.



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.
- 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.

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 4 ways.

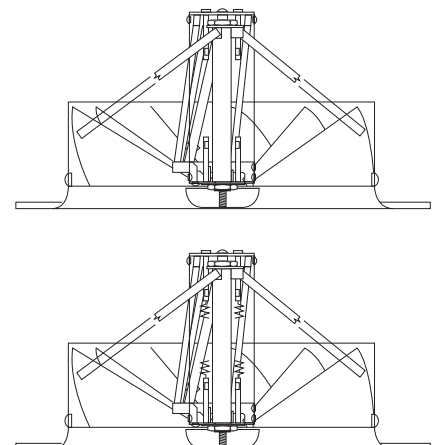
Options

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 control option utilises an internal and integral wax filled cylinder. The cylinder automatically expands and adjusts the air distribution vanes dependant upon supply 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 adjustable between approximately 18°C and 25°C by means of a central control screw. Below these values the control vanes progressively move to distribute the supply air in a horizontal direction. Direction of the supply air is therefore dependant upon supply air temperature. A supply air maximum temperature of 50°C should not be exceeded.



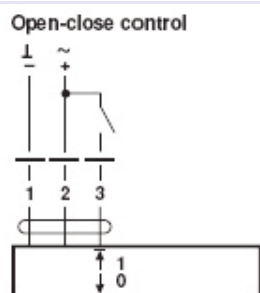


Options

ELECTRIC

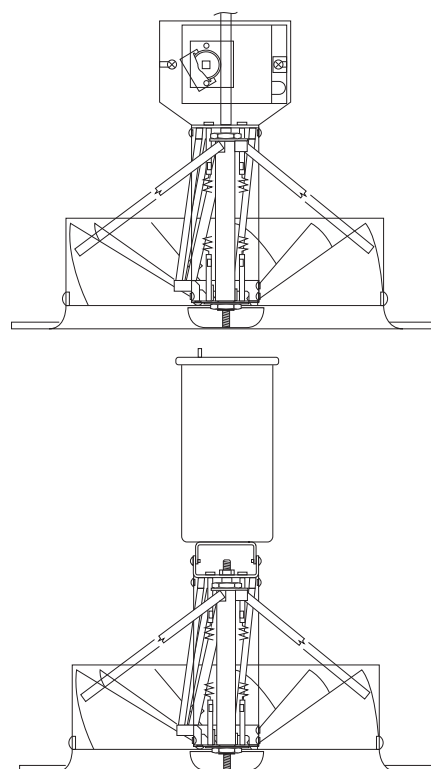
In this type of diffuser the adjustment of the supply air jet is controlled by means of a integral electric motor.

The motor is two position and as such, can move the air control vanes from vertical to horizontal and back in a direct operation. Units are supplied with a 24v AC/DC Belimo motor.



PNEUMATIC

A pneumatic cylinder is utilised in this model to control the operation of the air control vanes from vertical to horizontal and back in a direct operation. Pneumatic cylinders have two compressed air supply connection ports for operation in both directions. Units can therefore control the direction of the supply air jet via an external pneumatic control system. Compressed air pressure of 1 Bar required to operate unit. Maximum pressure 1.5 Bar.



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 plenum design and specification.

Performance cannot be guaranteed where alternative plenum designs are used.

Area to be served	Recommended 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.

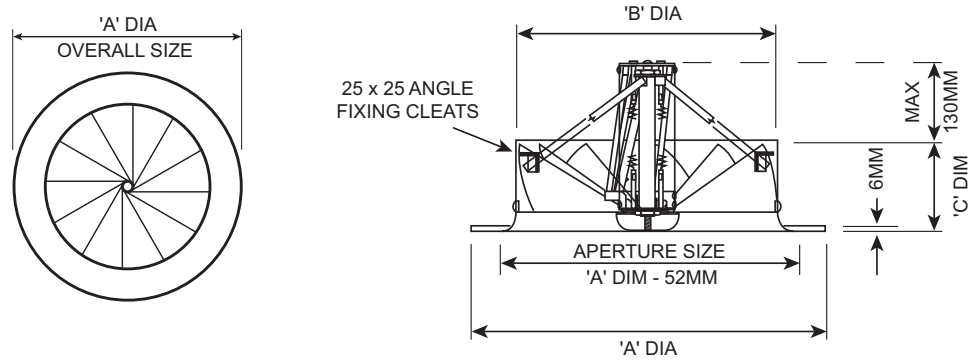
Gilberts Supply Diffusers have been tested within the range of +/- 10°C (as recommended in the HEVAC Guide to Air Distribution Technology). For any other temperature differential requirements please contact our Technical Department.

SERIES GSJ

Adjustable Swirl Diffusers

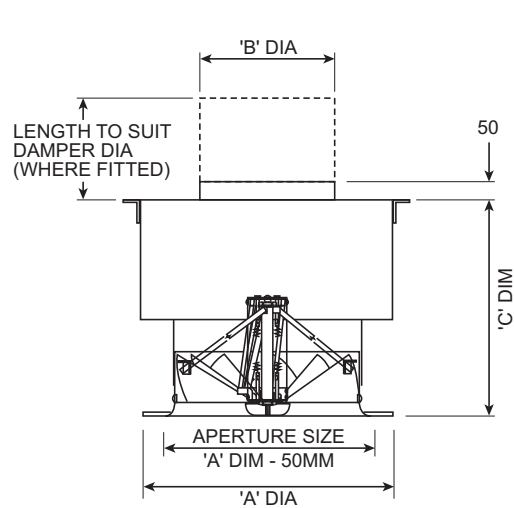
Type GSJA

DIFFUSER



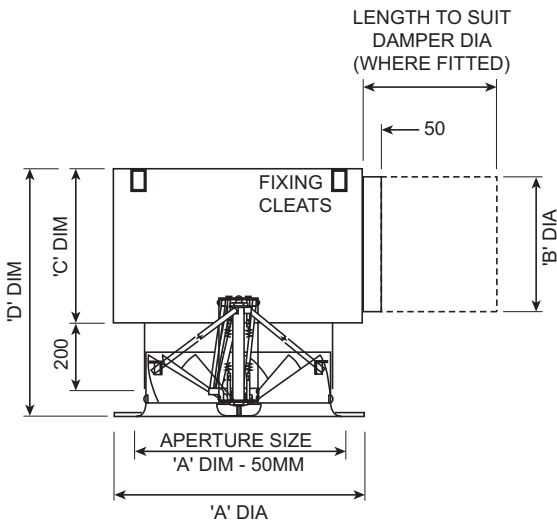
GSJA			
SIZE	A	B	C
160	240	158	90
250	330	248	100
315	425	313	110
450	560	448	155
630	740	628	220

DIFFUSER C/W TOP ENTRY BOX



GSJA-TCB			
SIZE	A	B	C
160	240	125	437
250	330	200	522
315	425	250	582
450	560	350	727
630	740	400	842

DIFFUSER C/W SIDE ENTRY BOX

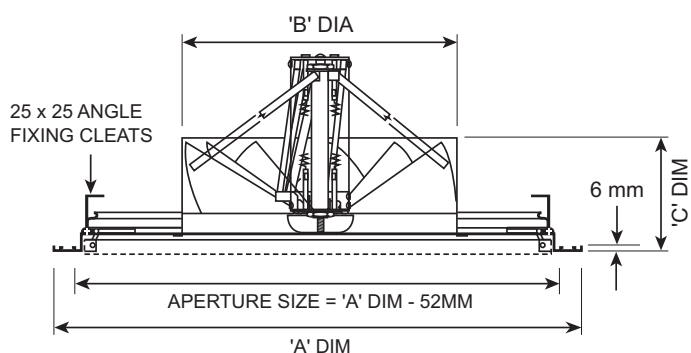
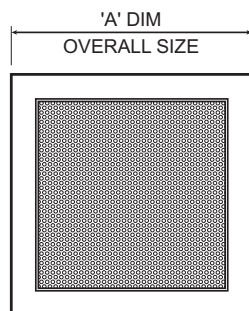


GSJA-SEB				
SIZE	A	B	C	D
160	240	125	187	437
250	330	200	262	522
315	425	250	312	582
450	560	350	412	727
630	740	400	462	842

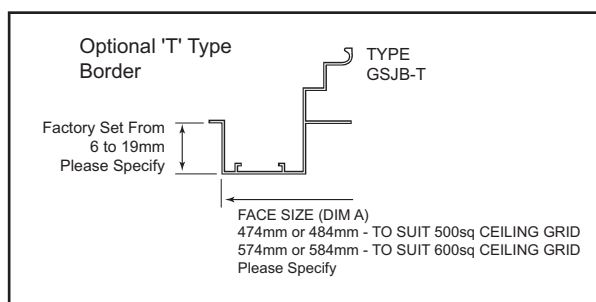


Type GSJB

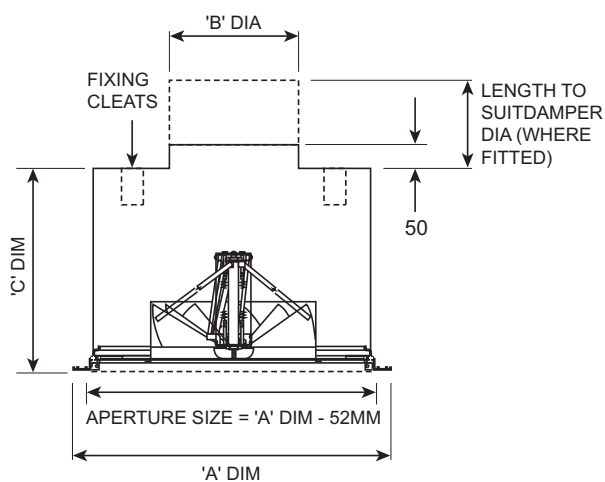
DIFFUSER



GSJB			
SIZE	A	B	C
160	300	158	119
250	594	248	129
315	594	313	139
450	594	448	184

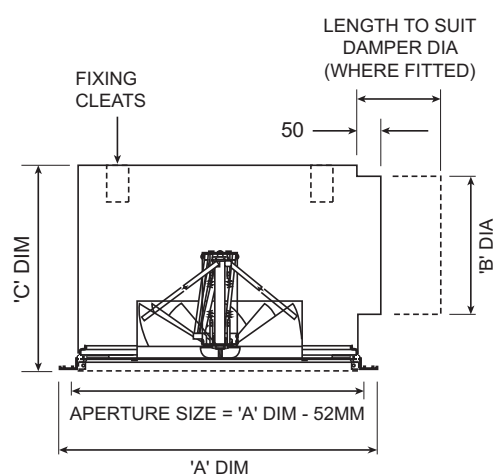


DIFFUSER C/W TOP ENTRY BOX



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

DIFFUSER C/W SIDE ENTRY BOX



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

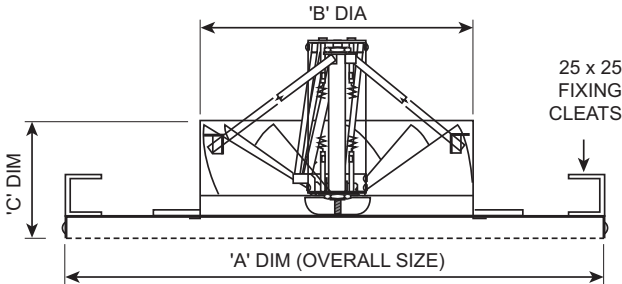
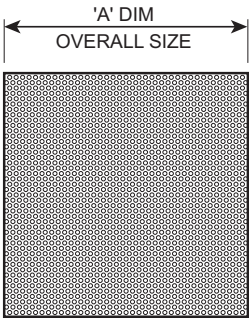
TYPE GSXB: Extract unit available without swirl assembly. Dimensions as above.

SERIES GSJ

Adjustable Swirl Diffusers

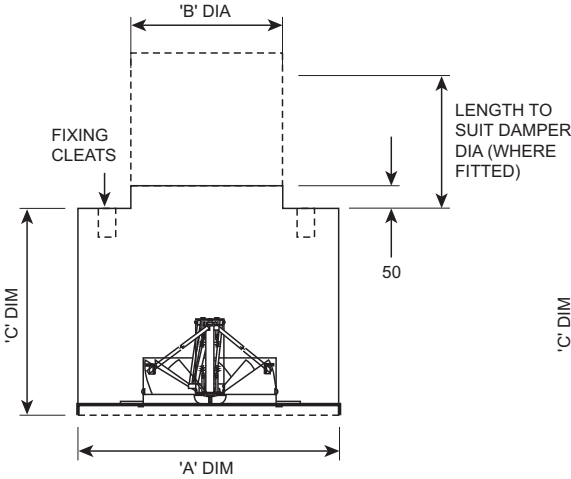
Type GSJC

DIFFUSER



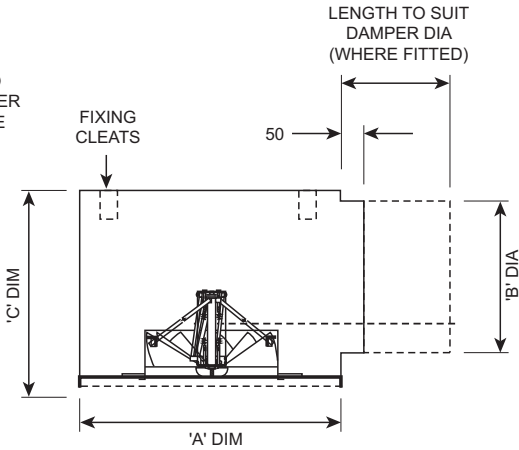
GSJC			
SIZE	A	B	C
160	294	158	110
250	594	248	120
315	594	313	130
450	594	448	175

DIFFUSER C/W TOP ENTRY BOX



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

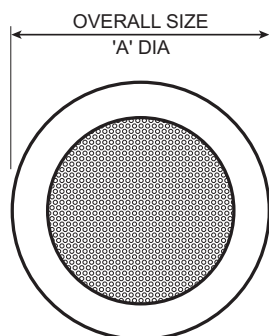
Installation - On Type GSJC diffusers the plenum is factory fitted. Combined diffuser/plenum assembly will require installation BEFORE the ceiling is erected.

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

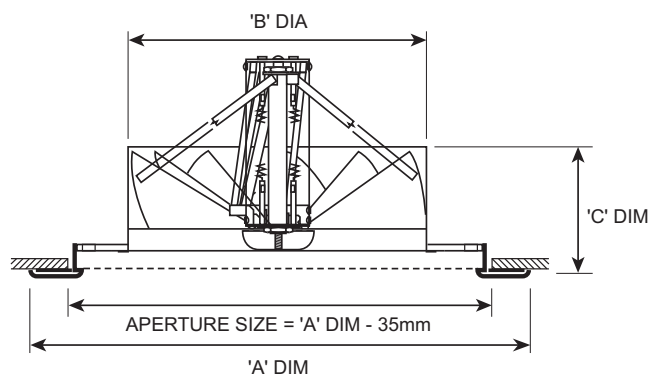


Type GSJE

DIFFUSER

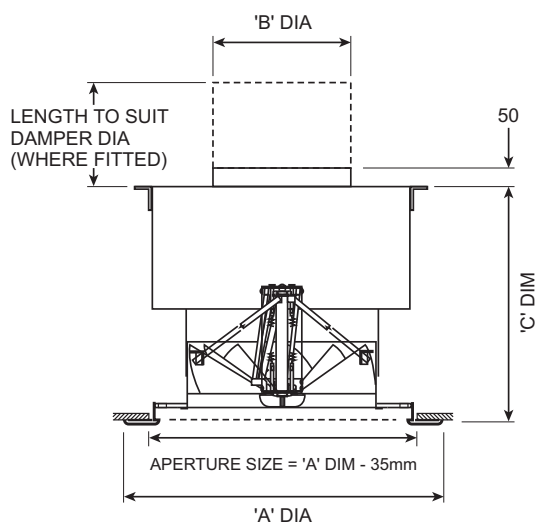


REMOVABLE FACE PLATE
USES BAYONET TYPE FIXING



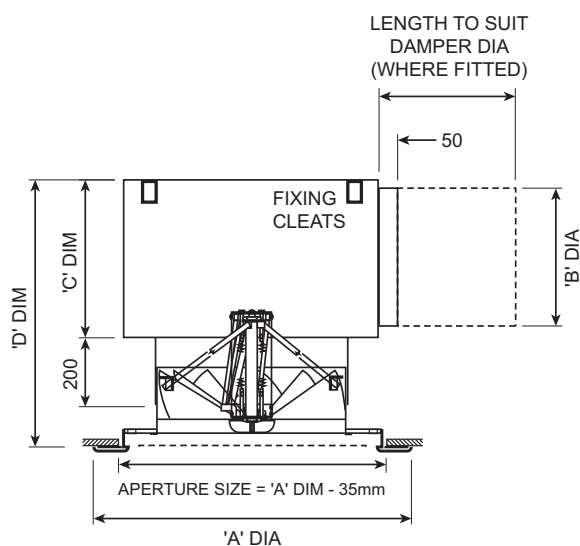
GSJE			
SIZE	A	B	C
160	378	158	112
250	468	248	122
315	533	313	132
450	667	448	177

DIFFUSER C/W TOP ENTRY BOX



GSJE-TCB			
SIZE	A	B	C
160	378	125	459
250	468	200	544
315	533	250	604
450	667	350	749

DIFFUSER C/W SIDE ENTRY BOX



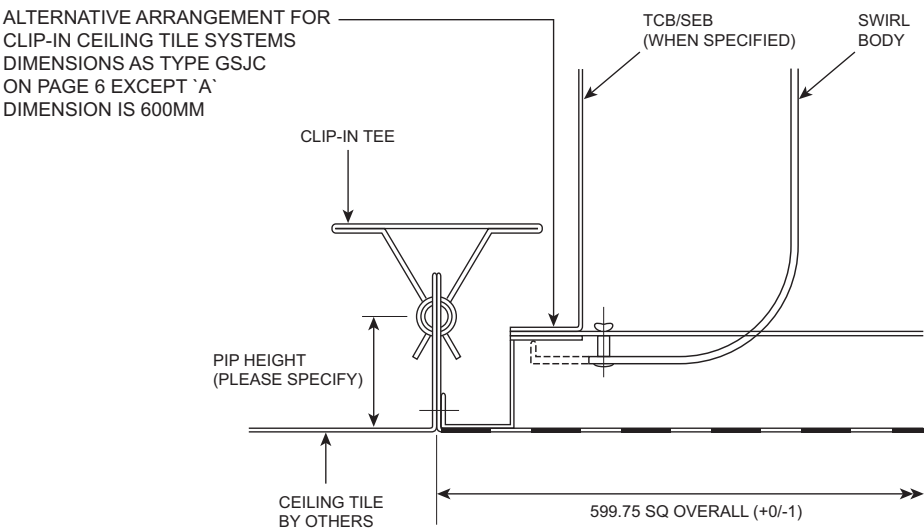
GSJE-SEB				
SIZE	A	B	C	D
160	378	125	187	459
250	468	200	262	544
315	533	250	312	604
450	667	350	412	749

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

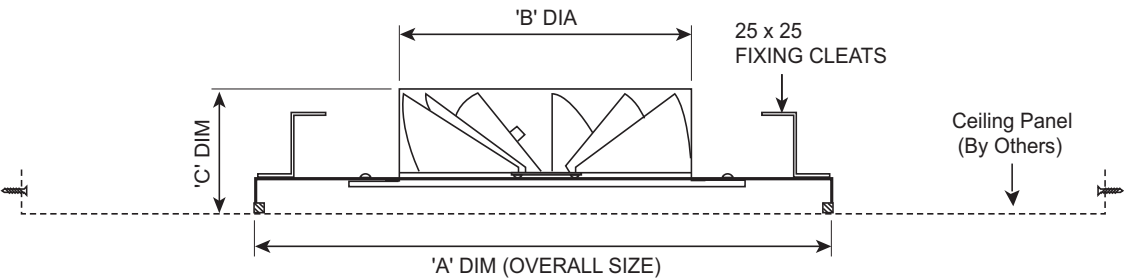
SERIES GSJ

Adjustable Swirl Diffusers

Type GSJD



Type GSJH

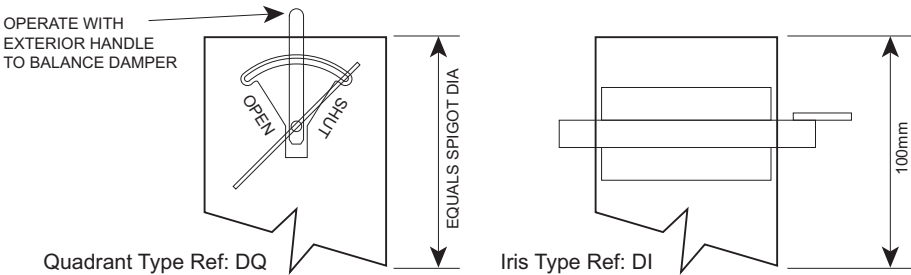


For full dimensional data see Type GSJC (Page 6).

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.





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
	SIDE ENTRY	11	15	19	24	31	38	46
	STRAIGHT CONNECTION	6,4	9	12	16	20	25	30
	AT + 10 °C	1,0	1,6	2,0	2,4	2,5	2,6	2,8
THROW TO 0.25 M/S (M)	AT + 5 °C	1,2	1,4	1,6	1,8	2,0	2,4	2,6
	ISOTHERMAL	1,0	1,2	1,4	1,5	1,6	1,7	1,8
	AT - 5 °C	0,4	0,6	0,8	1,0	1,2	1,4	1,6
	AT - 10 °C	0,4	0,6	0,8	1,0	1,3	1,5	1,6
THROW TO 0.5 M/S (M)	AT + 10 °C		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	1,3	1,6
	ISOTHERMAL	0,3	0,5	0,6	0,8	1,0	1,2	1,5
	AT - 5 °C	0,3	0,5	0,6	0,8	1,0	1,2	1,5
NOISE LEVEL (NC)	AT - 10 °C	0,3	0,5	0,6	0,8	1,0	1,2	1,5
	STRAIGHT CONNECTION	20	20	20	20	20	25	30
	SEB	20	20	20	20	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
	SIDE ENTRY	8	9	11	13	17	21	26
	STRAIGHT CONNECTION	2	3	4	5	7	8	10
	AT + 10 °C	1,2	1,4	1,7	2,1	2,6	2,9	3,3
THROW TO 0.25 M/S (M)	AT + 5 °C	1,7	1,9	2,3	2,5	2,8	3,2	3,5
	ISOTHERMAL	1,9	2,2	2,6	3,0	3,3	3,7	4,0
	AT - 5 °C	2,2	2,6	3,0	3,4	3,7	4,0	4,4
	AT - 10 °C	2,8	3,2	3,6	3,9	4,3	4,6	4,9
THROW TO 0.5 M/S (M)	AT + 10 °C	0,6	0,8	1,0	1,3	1,6	2,0	2,4
	AT + 5 °C	0,8	1,0	1,3	1,6	2,0	2,4	2,8
	ISOTHERMAL	1,0	1,3	1,5	1,8	2,2	2,6	3,0
	AT - 5 °C	1,5	1,7	2,0	2,2	2,5	2,8	3,1
NOISE LEVEL (NC)	AT - 10 °C	2,2	2,5	2,9	3,2	3,5	3,8	4,1
	STRAIGHT CONNECTION	20	20	20	20	20	20	20
	SEB	20	20	20	20	20	20	25

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
	SIDE ENTRY	12	16	19	24	30	38	45
	STRAIGHT CONNECTION	7	10	14	18	23	27	33
	AT + 10 °C	1,3	2,0	2,5	3,0	3,3	3,6	4,2
THROW TO 0.25 M/S (M)	AT + 5 °C	1,6	1,9	2,3	2,7	3,0	3,3	3,6
	ISOTHERMAL	1,4	1,6	1,8	2,0	2,2	2,5	2,7
	AT - 5 °C	1,3	1,5	1,6	2,0	2,0	2,3	2,7
	AT - 10 °C	1,4	1,8	2,1	2,4	2,6	2,7	3,0
THROW TO 0.5 M/S (M)	AT + 10 °C	0,7	1,0	1,3	1,6	1,8	2,1	2,4
	AT + 5 °C	0,7	0,9	1,2	1,4	1,7	2,0	2,2
	ISOTHERMAL	0,7	0,8	0,9	1,1	1,3	1,5	1,8
	AT - 5 °C	0,7	0,9	1,1	1,4	1,6	1,8	2,1
NOISE LEVEL (NC)	AT - 10 °C	0,8	1,1	1,2	1,4	1,7	1,9	2,1
	STRAIGHT CONNECTION	20	20	20	25	30	30	35
	SEB	20	20	20	25	30	30	35

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
	SIDE ENTRY	7	8	10	11	14	16	20
	STRAIGHT CONNECTION	2	4	4	5	7	8	10
	AT + 10 °C	1,3	1,5	1,8	2,0	2,3	2,6	2,9
THROW TO 0.25 M/S (M)	AT + 5 °C	1,6	1,9	2,2	2,5	2,8	3,2	3,5
	ISOTHERMAL	2,1	2,5	2,9	3,3	3,6	4,1	4,5
	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
	AT + 5 °C	1,0	1,2	1,5	1,8	2,2	2,5	2,9
	ISOTHERMAL	1,4	1,7	2,0	2,4	2,7	3,2	3,6
	AT - 5 °C	2,2	2,7	3,3	4,0	4,6	-	-
NOISE LEVEL (NC)	AT - 10 °C	3,0	3,7	4,3	5,0	-	-	-
	STRAIGHT CONNECTION	20	20	20	20	20	25	25
	SEB	20	20	20	20	20	25	30

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)	STRAIGHT CONNECTIONS	20	20	20	20	25	30	35	35
	SEB	20	20	25	30	35	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)	STRAIGHT CONNECTIONS	20	20	20	20	20	20	25	25
	SEB	20	20	20	20	20	20	25	30

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)	STRAIGHT CONNECTIONS	20	20	20	20	20	20	25	25
	SEB	20	20	20	20	25	25	30	30

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)	STRAIGHT CONNECTIONS	20	20	20	20	20	20	20	20
	SEB	20	20	20	20	20	20	25	25



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	40
	SIDE ENTRY	7	11	15	19	23	29	36	45
	STRAIGHT CONNECTIONS	6	8	12	15	20	24	29	36
THROW TO 0.25 M/S (M)	AT + 10 °C	5.0	5.7	6.4	7.2	7.9	8.7	9.4	10.2
	AT + 5 °C	4.6	5.2	6.0	6.8	7.5	8.3	9.0	9.9
	ISOTHERMAL	4.1	4.8	5.6	6.4	7.1	7.9	8.6	9.5
	AT - 5 °C	4.2	5.0	5.8	6.6	7.3	8.1	8.8	9.7
	AT - 10 °C	4.4	5.2	6.0	6.8	7.5	8.3	9.0	9.9
THROW TO 0.5 M/S (M)	AT + 10 °C	3.0	3.7	4.5	5.2	5.6	6.2	7.1	7.8
	AT + 5 °C	2.2	3.6	4.3	4.9	5.5	6.1	7.0	7.7
	ISOTHERMAL	2.4	3.6	4.0	4.7	5.4	6.1	7.0	7.7
	AT - 5 °C	2.4	3.4	3.9	4.4	5.0	5.7	6.4	6.9
	AT - 10 °C	2.5	3.0	3.4	3.9	4.5	5.1	5.8	6.4
NOISE LEVEL (NC)	STRAIGHT CONNECTIONS	20	20	25	30	35	40	40	45
	SEB	20	20	25	30	40	40	45	50

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	16
	SIDE ENTRY	3	5	7	9	10	13	17	21
	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	6.0
	AT + 5 °C	3.6	4.3	4.9	5.4	6.2	6.8	7.5	8.1
	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	5.2
	AT + 5 °C	2.6	3.2	3.8	4.5	5.1	5.7	6.3	6.9
	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)	STRAIGHT CONNECTIONS	20	20	20	20	25	30	30	35
	SEB	20	20	20	20	25	30	35	40

SERIES GSJ

Adjustable Swirl Diffusers

Technical Data

Performance

SERIES GSJB/GSJE

Horizontal Distribution
Type GSJB/GSJE 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	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)	STRAIGHT CONNECTIONS	20	20	20	25	25	30	30	35
	SEB	20	25	25	30	30	35	40	45

Vertical Distribution
Type GSJB/GSJE 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	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)	STRAIGHT CONNECTIONS	20	20	20	20	20	20	20	25
	SEB	20	20	20	20	20	20	20	30

Type GSJB/GSJE 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	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)	STRAIGHT CONNECTIONS	20	20	25	25	30	30	35	35
	SEB	20	20	30	30	35	35	40	45

Type GSJB/GSJE 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	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)	STRAIGHT CONNECTIONS	20	20	20	20	20	20	20	30
	SEB	20	20	20	20	20	20	20	30



Technical Data

Performance

SERIES GSJB/GSJE

Horizontal Distribution

Type GSJB/GSJE

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)	STRAIGHT CONNECTIONS	20	20	25	25	30	35	35	40
	SEB	20	25	30	30	35	40	45	50

Vertical Distribution

Type GSJB/GSJE

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)	STRAIGHT CONNECTIONS	20	20	20	20	20	25	25	30
	SEB	20	20	20	20	20	25	25	25

Type GSJB/GSJE

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)	STRAIGHT CONNECTIONS	20	25	35	40	40	45	50	50
	SEB	20	25	35	40	40	45	50	55

Type GSJB/GSJE

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)	STRAIGHT CONNECTIONS	20	20	20	20	20	20	25	30
	SEB	20	20	20	20	20	20	25	30

SERIES GSJ

Adjustable Swirl Diffusers

Technical Data

Performance

SERIES GSJC/GSJD

Horizontal Distribution
Type GSJC/GSJD 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)	STRAIGHT CONNECTIONS	20	20	20	25	25	30	30	35
	SEB	20	25	25	30	30	35	40	45

Vertical Distribution
Type GSJC/GSJD 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)	STRAIGHT CONNECTIONS	20	20	20	20	20	20	20	25
	SEB	20	20	20	20	20	20	20	25

Type GSJC/GSJD 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)	STRAIGHT CONNECTIONS	20	20	25	25	30	30	35	35
	SEB	20	20	30	30	35	35	40	45

Type GSJC/GSJD 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)	STRAIGHT CONNECTIONS	20	20	20	20	20	25	25	30
	SEB	20	20	20	20	20	25	25	30



Technical Data

Performance

SERIES GSJC/GSJD

Horizontal Distribution

Type GSJC/GSJD

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)	STRAIGHT CONNECTIONS	20	20	25	25	30	35	35	40
	SEB	20	25	30	30	40	45	45	50

Vertical Distribution

Type GSJC/GSJD

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)	STRAIGHT CONNECTIONS	20	20	20	20	20	25	25	30
	SEB	20	20	20	20	20	25	25	30

Type GSJC/GSJD

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)	STRAIGHT CONNECTIONS	20	25	35	40	40	45	50	50
	SEB	30	35	35	40	45	50	50	55

Type GSJC/GSJD

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)	STRAIGHT CONNECTIONS	20	20	20	20	20	20	25	30
	SEB	20	20	20	20	20	20	25	30

SERIES GSJ

Adjustable Swirl Diffusers

Ordering Specification DIFFUSER

TYPE: GSJA to GSJH	GSJC	160	594	TD8	PIP19	M	PPC RAL 9010 20% GLOSS (STANDARD FINISH)	15
LIST SIZE (Dia mm)								
OVERALL SIZE mm (Applies to GSJB and GSJC only)								
REGULAR DROP DEPTH MM (GSJBT ONLY) TD + DEPTH								
PIP HEIGHT (mm) (GSJD only)								
CONTROL OPTIONS: Manual.....M Thermal.....T Electric.....E Pneumatic.....P								
FINISH (Please Specify)								
NUMBER REQUIRED								

Ordering Specification PLENUM

TYPE REQUIRED: TCB/GSJA to E SEB/GSJA to E	SEB/GSJC	AT1	EP	160-594	BH500	BB	DQ 150 dia.	TSO	DQ 150 dia.	15
THERMAL/ACOUSTIC insulation (SEB ONLY) 12mm Pyro (Standard).....AT1 12mm Pyro.....AT2 12mm Armaflex.....AT3										
PLENUM BOX FIXING TYPE: External (Standard).....EP Internal.....IP										
TO FIT DIFFUSER SIZE (List + Overall Size)										
BOX HEIGHT (Where different from standard)										
MATT BLACK INTERNALS OPTION: (If thermal / acoustic insulation not required).....BB										
1st PLENUM DAMPER OPTIONS: No Damper.....SS + 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										

Fixing

Standard fixing for all units is external via drop rods (by others) to 20 x 9mm elongated slots in 25 x 25mm angle cleats at the rear. Alternatively an internal fixing can be specified to take drop rods inside the plenum box.

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.

GILBERTS

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