

Mesavent.

COLMAN
Air Distribution

ENGINEERED AIR PRODUCTS

JET FLOW DIFFUSERS GBJ SERIES



GBJ
SERIES

G SERIES JET FLO DIFFUSERS



Application:

Colman Air Distribution's model GBJ is a High Quality Jet Flo Diffuser designed for discharge applications such as Airport Terminals, Auditoria, Sports Arenas, Warehouses and Shopping Arcades.

Our GBJ is also suitable for vertical discharge applications requiring spot heating/cooling in areas such as entrances and concentrated areas of machinery which have high heat loads.

Description:

As standard, the units are supplied with one to four elements per assembly. Single element units can be supplied without mounting frames (model GCJ) and are suitable for direct mounting into a circular ductwork spigot.

Units which have more than one element are constructed in multiples of single elements banked together in one aluminium frame.

Each element provides easy adjustment of the direction of discharge up to a maximum of 30 degrees from the mid position in any plane and can be manually adjusted from the front of the unit.



Jet Flo diffusers can be supplied with sheet metal casing, with optional hand quadrant operated volume control dampers (model GBJ/S/T). The casing is manufactured from 0.8mm galvanised sheet steel and is supplied with the diffuser as complete assembly.

Fixings:

Standard fixing for models GBJ/S/T is via screw fixing through the face flange. Model GCJ when mounted directly onto a ducted spigot, would be fixed through the neck on site.

Finishes:

Our range of Jet Flo Diffusers is available as standard, powder coated in RAL 9010 Matt White. Please refer to the product coding section within this brochure for a list of other standard finishes. Special finishes are available upon request.

All diffusers are pre-treated utilising a six stage phosphate conversion process conforming to ISO 9171 prior to being powder coated in accordance with BS6496.

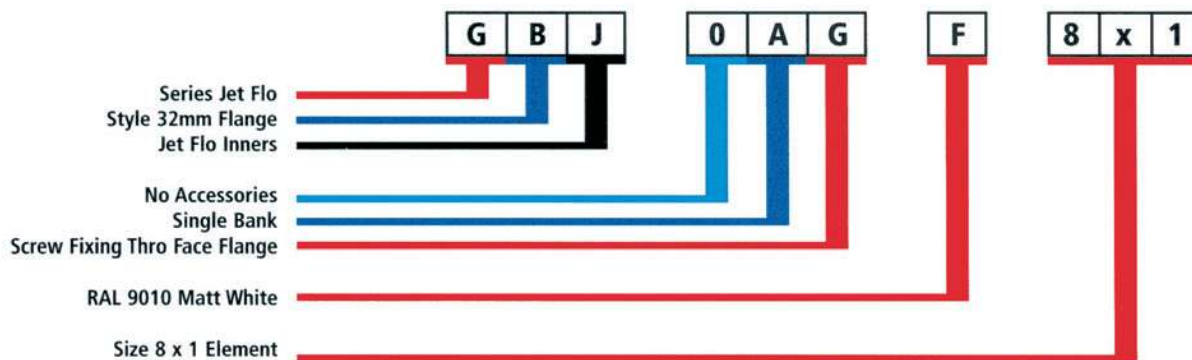
Options and Order Codes

Jet Flo Diffuser

1	2 FRAME	3 CORE	4 ACCESSORIES	5 ARRANGEMENT	6 FIXING	7 FINISH
	G C Circular Frame B 32mm frame Note See Product data sheet for frame sizes.	J Jet flo inners	0 None	0 None A 1 Bank Note 0 Only available with circular frame.	0 None G Screw fixing thro flange	0 Mill finish F Ral 9010 Matt white 8 Matt black C BS00E55 Gloss H BS00E55 Satin D BS00E55 Matt E Ral 9010 Gloss G Ral 9010 Satin 3 Ral 9006 Aluminium 1 Special colours

Note: The items shown in red print above and below in the code example are the standard option for this product. Unless shown otherwise on any quotation or order the units will be supplied in the configuration.

Example of Order Codes



SPECIFICATION:

Senior Air System range of Jet Flo Diffusers is manufactured from aluminium. The Inner jet assembly is spun from aluminum sheet to to grade O SIB. Where applicable the outer frame is produced from extruded aluminum section complying to BS Grade 1474/6063T6. Plenum boxes and volume control dampers are manufactured from high grade Z2 galvanised steel.

Performance Data

DATA BASIS - Model GBJ Jet Diffusers

- Data are for applications where air is discharged horizontally into free space at 11°C below room temperature, i.e. no surfaces limit the natural expansion of the jet stream. To achieve this condition, the distance between the centreline of the jet stream and the nearest building surface must be greater than 1/6 of the distance from the Jet-flo.
- Throw values are the distance between the face of the diffuser and the position where the mean velocity of the jet stream has reduced to 0.25m/s.
- If the air stream is attached to a surface for part of the throw, then that part of the throw will be increased by a factor of 1.4.
- Throw values of multi-jet units are based on all jets being set to give parallel discharge with the total volume distributed evenly between the individual jet-flo's.
- The individual Jet-flo's in a multi-jet can be adjusted to a spread pattern where the throw can be reduced to the single unit value. When adjusted to a full 30° pattern, the pressure drop can increase by 40% and sound level by 5dB.
- NC ratings are based on a microphone located 1.5m at 45° from the face of the diffuser in a free sound field. Deduct 6 for 3m, 10 for 4.5m and 12 for 6m.
- Note. GCJ only available in single element, use GBJ 1 element data.

For technical data other than horizontal discharge please consult your local Branch Sales Office for computer selection.

Performance Data

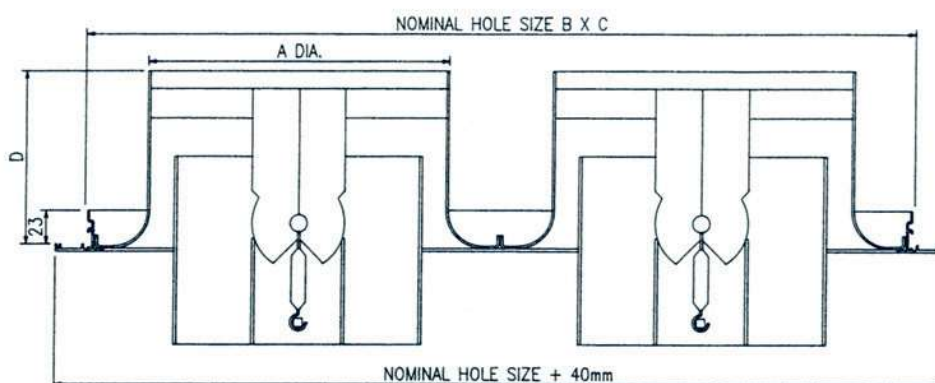
Model GBJ										
Air Volume m ³ / sec	Number of Elements	SIZE 8			SIZE 10			SIZE 14		
		Throw Metres	Pressure Drop N/m ²	NC	Throw Metres	Pressure Drop N/m ²	NC	Throw Metres	Pressure ³ Drop N/m ²	NC
0.10	1	7.0	16	-	-	-	-	-	-	-
0.15	1	9.0	35	21	-	-	-	-	-	-
0.20	1	13.0	63	29	-	-	-	-	-	-
	2	7.0	16	-	-	-	-	-	-	-
0.25	1	16.0	98	33	13.0	34	20	-	-	-
	2	9.0	25	19	-	-	-	-	-	-
0.30	1	22.0	142	37	15.0	49	24	-	-	-
	2	11.0	36	24	-	-	-	-	-	-
0.35	1	25.0	193	41	18.0	67	28	-	-	-
	2	12.0	49	28	-	-	-	-	-	-
0.40	1	-	-	-	20.0	87	32	15.0	20	18
	2	14.0	64	32	11.0	22	-	-	-	-
	3	10.0	28	17	-	-	-	-	-	-
0.45	1	-	-	-	23.0	110	38	17.0	28	24
	2	16.0	81	34	12.0	28	-	-	-	-
	3	12.0	35	24	-	-	-	-	-	-
	4	9.0	20	17	-	-	-	-	-	-
0.50	1	-	-	-	25.0	136	41	18.0	31	25
	2	18.0	100	36	13.0	34	16	-	-	-
	3	13.0	44	28	-	-	-	-	-	-
	4	10.0	25	22	-	-	-	-	-	-
0.60	1	-	-	-	30.0	196	46	20.0	65	32
	2	21.0	144	40	17.0	49	27	11.0	11	-
	3	15.0	63	32	12.0	20	-	-	-	-
	4	12.0	36	27	-	-	-	-	-	-
0.70	1	-	-	-	-	-	-	24.0	61	35
	2	23.0	196	44	19.0	67	31	15.0	15	18
	3	18.0	86	37	14.0	27	16	-	-	-
	4	14.0	49	31	-	-	-	-	-	-
0.80	1	-	-	-	-	-	-	25.0	79	38
	2	-	-	-	22.0	88	36	17.0	20	21
	3	20.0	113	39	15.0	35	19	-	-	-
	4	16.0	64	35	12.0	22	15	-	-	-
0.90	1	-	-	-	-	-	-	31.0	100	40
	2	-	-	-	25.0	110	41	19.0	25	26
	3	23.0	143	42	17.0	49	28	13.0	11	-
	4	18.0	81	37	13.0	29	17	-	-	-
1.00	1	-	-	-	-	-	-	35.0	124	43
	2	-	-	-	28.0	136	44	22.0	31	28
	3	29.0	176	45	19.0	53	31	15.0	14	17
	4	20.0	81	39	15.0	24	20	-	-	-
1.10	1	-	-	-	-	-	-	39.0	150	46
	2	-	-	-	30.0	165	46	24.0	38	31
	3	-	-	-	21.0	67	34	16.0	17	19
	4	21.0	121	40	16.0	41	24	-	-	-
1.20	1	-	-	-	-	-	-	42.0	179	48
	2	-	-	-	33.0	196	49	26.0	45	35
	3	-	-	-	23.0	80	37	18.0	20	21
	4	23.0	144	43	18.0	49	30	14.0	12	-
1.30	1	-	-	-	-	-	-	45.0	210	52
	2	-	-	-	36.0	230	52	28.0	53	37
	3	-	-	-	25.0	93	39	19.0	23	24
	4	25.0	169	45	19.0	57	32	15.0	14	19
1.40	1	-	-	-	-	-	-	50.0	243	54
	2	-	-	-	-	-	-	30.0	61	38
	3	-	-	-	27.0	108	41	21.0	27	28
	4	27.0	196	47	21.0	67	34	16.0	16	20
1.50	2	-	-	-	-	-	-	32.0	70	40
	3	-	-	-	29.0	124	44	22.0	31	31
	4	29.0	228	49	22.0	77	37	17.0	18	23
1.60	2	-	-	-	-	-	-	34.0	80	42
	3	-	-	-	31.0	141	47	23.0	35	34
	4	31.0	252	50	25.0	88	39	18.0	20	25
1.80	2	-	-	-	-	-	-	38.0	101	44
	3	-	-	-	35.0	178	50	26.0	45	36
	4	-	-	-	27.0	110	44	20.0	26	28
2.0	2	-	-	-	-	-	-	42.0	124	46
	3	-	-	-	38.0	200	52	29.0	55	39
	4	-	-	-	30.0	136	47	23.0	33	31
2.5	3	-	-	-	-	-	-	36.0	86	44
	4	-	-	-	37.0	213	53	26.0	51	39
3.0	3	-	-	-	-	-	-	44.0	124	48
	4	-	-	-	-	-	-	34.0	73	43
3.5	3	-	-	-	-	-	-	51.0	169	53
	4	-	-	-	-	-	-	40.0	100	48
4.0	3	-	-	-	-	-	-	58.0	200	56
	4	-	-	-	-	-	-	45.0	131	49
4.5	4	-	-	-	-	-	-	51.0	165	54

Dimensional Data

Jet Diffusers

GBJ

An aluminium jet assembly manufactured in 3 sizes with 1 to 4 elements per assembly. Each jet is easily adjustable up to a maximum of 30° from mid position, in any direction.



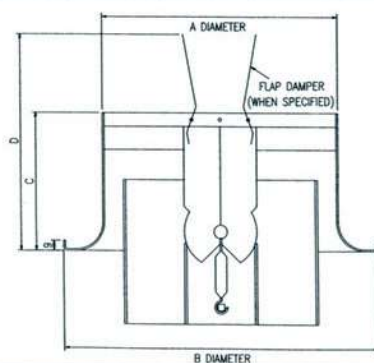
UNIT SIZE	No. OF ELEMENTS	A ϕ	B	C	D
8	1	203	292	292	116
	2		571	292	116
	3		851	292	116
	4		1130	292	116

UNIT SIZE	No. OF ELEMENTS	A ϕ	B	C	D
10	1	254	343	343	128
	2		673	343	128
	3		1003	343	128
	4		1333	343	128

UNIT SIZE	No. OF ELEMENTS	A ϕ	B	C	D
14	1	356	444	444	154
	2		876	444	154
	3		1308	444	154
	4		1740	444	154

GCI

An aluminium single jet assembly with circular flange for fitting directly into round duct. The jet is easily adjustable up to a maximum of 30° from mid position in any direction.



UNIT SIZE	A	B	C	D
8	206	275	120	185
10	257	325	132	225
14	360	425	160	275

PRODUCT RANGES

GRILLES	DIFFUSERS	LOUVRES
Linear Bar	Linear Slot	External
Ceiling	Louvre Face	Circular
Sidewall	Sidewall	Door
Floor	Perforated Face	Screens
Computer Floor	Circular	Penthouse
Cill	Swirl	Sand Louvres
Single & Double Deflection	Ceiling	Roof Louvres
Egg Crate	Sidewall Fixed & Adjustable	
Hinged Core	Jet Flow / Nozzle	
Door Transfer	Repus Displacement Ventilation	
Security and Prison		
Supply and Extract Valves		

BESPOKE SERVICE

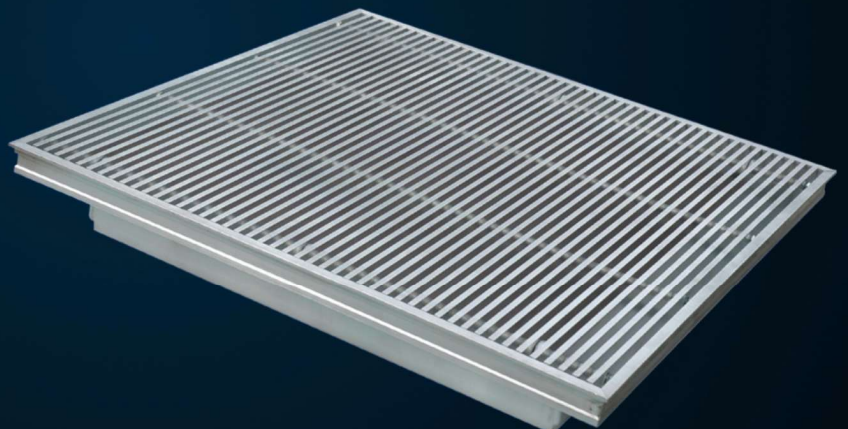
We offer a bespoke design service where standard products do not fit the requirements of the build, we also supply products in special colours and finishes including bronze, brass, gold and chrome to meet Architectural design specifications.

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