

Mesavent.

COLMAN
Air Distribution

E N G I N E E R E D A I R P R O D U C T S

HINGED CORE FILTER GRILLES GFF SERIES



GFF
SERIES



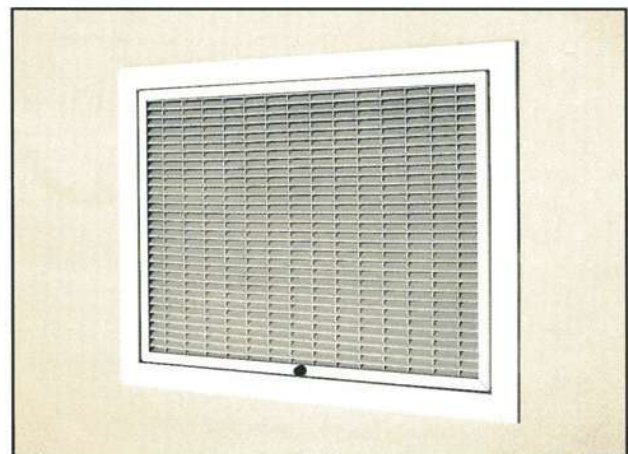
Application:

Colman Moducels model GF is a hinged core grille suitable for use with most types of panel, card and loose filter media. The hinged core allows easy access to the filter from the face of the grille which can also be supplied with a factory fitted filter frame, suitable for 12, 25 or 50mm filters as standard.

Description:

Model GF Hinged core grille has a 25mm wide aluminium frame which can be supplied with two standard core arrangements, (fixed) aluminium blade (F) and aluminium eggcrate (X) each having its own aesthetic and performance characteristics.

Each grille core is entrapped into a panel frame, which is then fitted to the perimeter flange by means of our newly developed hinge pin arrangement, which can be at the top or bottom of the grille, to suit the application. The core is held closed via a knurled head, sheet metal fastening screw, furnished opposite the hinge as standard.



Fixings:

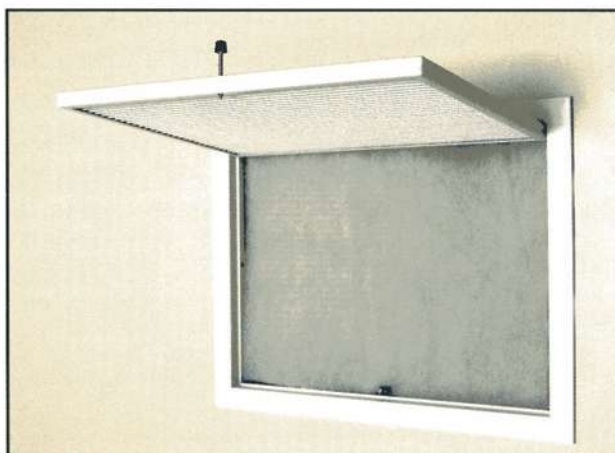
Standard fixing for our range of Hinged Filter Grilles is via screw fixing through the flange face or neck.

Finish:

Hinged Filter Grilles are available as standard, in powder coated 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 products are pre-treated utilising a six stage phosphate conversion process conforming to ISO 9171 prior to being powder coated in accordance with BS6496.

*Filter media to be supplied by others



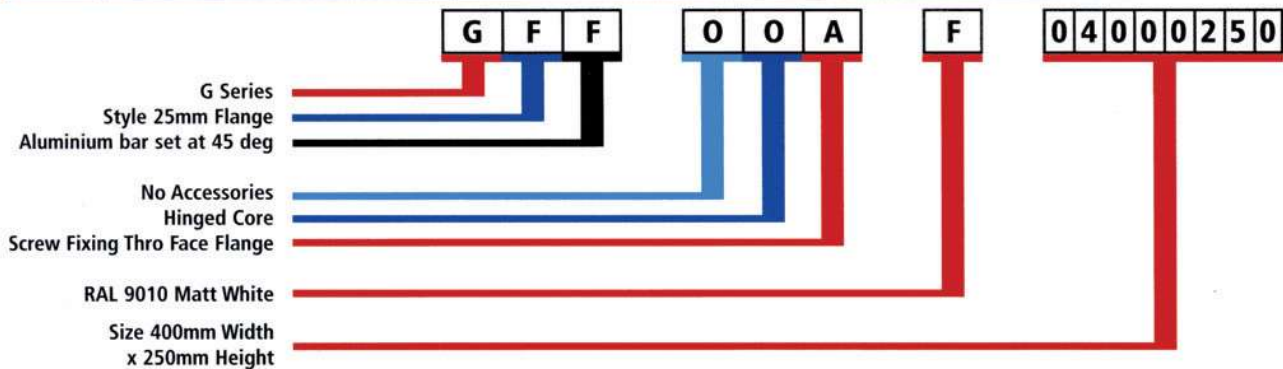
Options and Order Codes

Filter Grilles

1	2 FRAME	3 CORE	4 ACCESSORIES	5 ARRANGEMENT	6 FIXING	7 FINISH
G	F 25mm frame for hinged core Note: See product data sheet for further sizes. Note: Top hinge supplied as standard.	F Aluminium bar set at 45° X 12.5mm aluminium lattice	O None V Face operated volume control damper X Face operated volume control damper (painted matt black)	O None X 12mm filter frame to suit filter media c/w hinged core (filter by others) Y 25mm filter frame to suit panel filter c/w hinged core (filter by others) Z 50mm filter frame to suit panel filter c/w hinged core (filter by others)	O None A Screw fixing thro neck G Screw fixing thro flange	O 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



Filter Grille Core Areas

Height	F Frame Core Areas							Width				
	150	200	300	400	500	600	700	800	900	1000	1100	1200
75	0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.04	0.05	0.05	0.06	0.06
100	0.01	0.01	0.02	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.09	0.09
150	0.02	0.02	0.04	0.05	0.06	0.07	0.09	0.10	0.11	0.13	0.14	0.15
200		0.03	0.05	0.07	0.09	0.10	0.12	0.14	0.16	0.18	0.19	0.21
250			0.06	0.09	0.11	0.13	0.16	0.18	0.20	0.22	0.25	0.27
300			0.08	0.11	0.13	0.16	0.19	0.22	0.25	0.27	0.30	0.33
350				0.12	0.16	0.19	0.22	0.26	0.29	0.32	0.35	0.39
400				0.14	0.18	0.22	0.26	0.30	0.33	0.37	0.41	0.45
450					0.21	0.25	0.29	0.33	0.38	0.42	0.46	0.51
500					0.23	0.28	0.33	0.37	0.42	0.47	0.52	0.56
550						0.31	0.36	0.41	0.46	0.52	0.57	0.62
600						0.34	0.39	0.45	0.51	0.57	0.62	0.68

Performance Data

NR Ratings and Core Areas

F Core Return								
Air Volume m³/s	Face Velocity (m/s)							
	1.5		2		2.5		3	
	m²	NR	m²	NR	m²	NR	m²	NR
.075	.050	-	.038	23	.030	28	.025	31
.100	.067	-	.050	23	.040	28	.033	32
.125	.083	-	.063	24	.050	29	.042	33
.150	.100	-	.075	24	.060	29	.050	33
.175	.117	-	.088	25	.070	30	.058	34
.200	.133	-	.100	25	.080	30	.067	34
.250	.167	-	.125	26	.100	31	.083	35
.300	.200	19	.150	26	.120	31	.100	35
.350	.233	19	.175	27	.140	32	.117	36
.400	.267	20	.200	27	.160	32	.133	36
.450	.300	21	.225	27	.180	33	.150	37
.500	.333	21	.250	28	.200	33	.167	38
.550	.367	22	.275	28	.220	33	.183	38
.600	.400	22	.300	29	.240	34	.200	39
.650	.433	23	.325	29	.260	34	.217	39

X Core Return

X Core Return								
Air Volume m³/s	Face Velocity (m/s)							
	2		2.5		3		4	
	m²	NR	m²	NR	m²	NR	m²	NR
.05	.025	-	.02	-	.017	16	.013	25
.075	.038	-	.03	-	.025	18	.019	26
.10	.05	-	.04	-	.033	18	.025	28
.125	.063	-	.05	-	.042	19	.031	29
.15	.075	-	.06	-	.05	21	.038	29
.175	.088	-	.07	16	.058	21	.044	30
.20	.10	-	.08	17	.067	22	.05	30
.25	.125	-	.10	17	.083	23	.063	31
.30	.15	-	.12	18	.10	24	.075	32
.35	.175	-	.14	19	.117	24	.088	33
.40	.20	-	.16	20	.133	25	.10	34
.45	.225	-	.18	20	.15	25	.113	34
.50	.25	-	.20	21	.167	26	.125	35
.60	.30	-	.24	21	.20	27	.15	35
.70	.35	-	.28	22	.233	27	.175	36
.80	.40	-	.32	23	.267	28	.20	37
.90	.45	-	.36	23	.30	28	.225	37
1.00	.50	16	.40	24	.333	29	.25	38
1.25	.625	17	.50	25	.417	30	.313	39
1.50	.75	17	.60	25	.50	31	.375	39
1.75	.875	18	.70	26	.583	31	.438	40
2.00	1.00	19	.80	27	.667	32	.50	40

Pressure Drop - Pa			
Face Vel (m/s)	Core Style		
	E Core	F Core	X Core
0.5	1	1	1
1	3	3	2
1.5	8	7	4
2	14	13	7
2.5	21	22	12
3	31	30	17
3.5	42	42	23
4	55	53	29
4.5	69	71	37
5	85	88	46

This table should be used with the above core area chart which relates nominal size of grille to core area.

Dimentional Data

Hinged Core and Filter Grilles

GFF-O	No Filter Media
GFF-X	Media up to 12mm
GFF-Y	25mm Panel Filter
GFF-Z	50mm Panel Filter

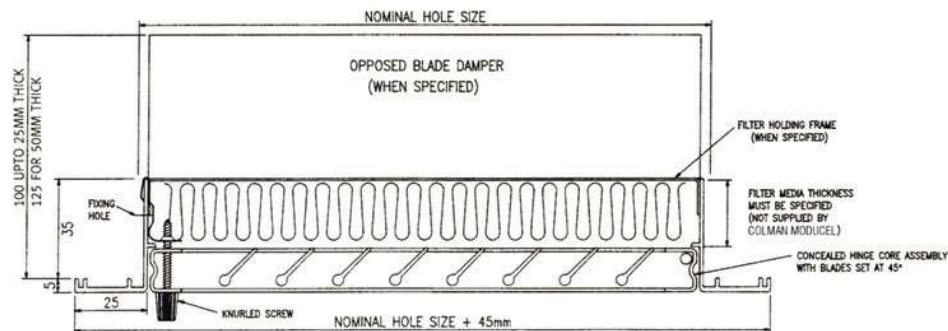
Note:
Select panel filter 25mm less than nominal grille size.

Panel filter and filter media not supplied by Colman Modulcel.

Minimum Size 150 x 150
Maximum Size 1200 x 600

An aluminium core assembly with horizontal blades set at 45° fixed into a steel U channel, hinged on concealed pins and held in position by a knurled head screw.

Note:
Top hinge supplied as standard.



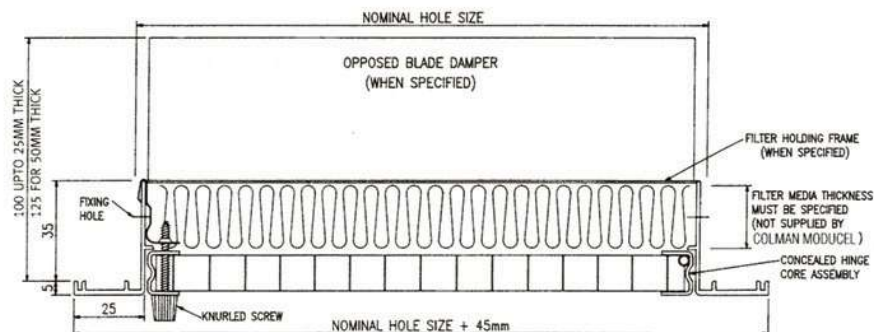
GFX-O	No Filter Media
GFX-X	Media up to 12mm
GFX-Y	25mm Panel Filter
GFX-Z	50mm Panel Filter

Note:
Select panel filter 25mm less than nominal grille size.

Panel filter and filter media not supplied by Colman Modulcel.

Minimum Size 150 x 150
Maximum Size 1200 x 600

An aluminium lattice core assembly with 12.5mm square openings fixed into a steel U channel, hinged on concealed pins and held in position by a knurled head screw.



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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