



Air Outlets

Gravity Shutter GR.SH



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GRAVITY SHUTTER GR.SH



TYPES

- GR-SH : GRAVITY SHUTTER

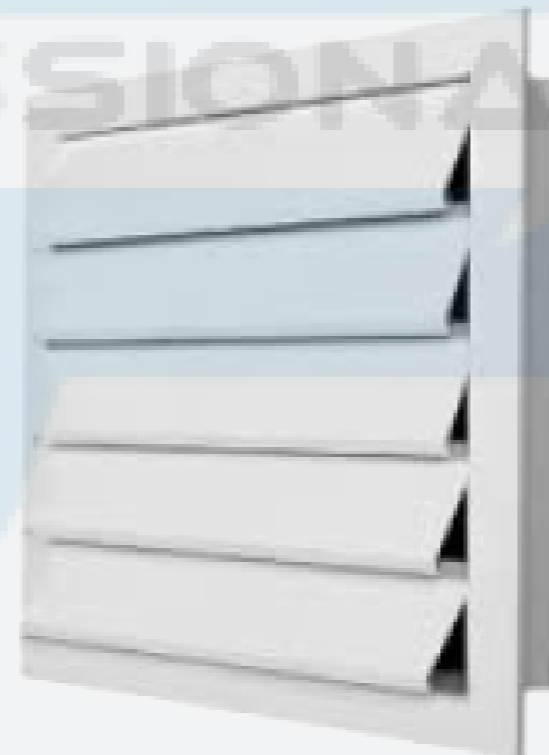
FEATURES

MATERIALS

- Extruded aluminium section frame
- Blade formed from aluminium profile
- Stub shafts formed from galvanized steel.
- Bearing section in plastic PVC pushes.

FINISH

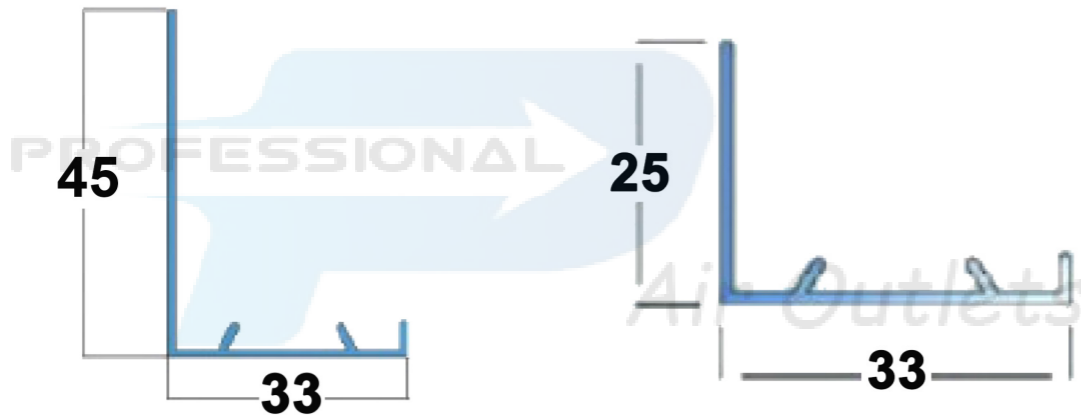
- Standard mill finish or powder coated.



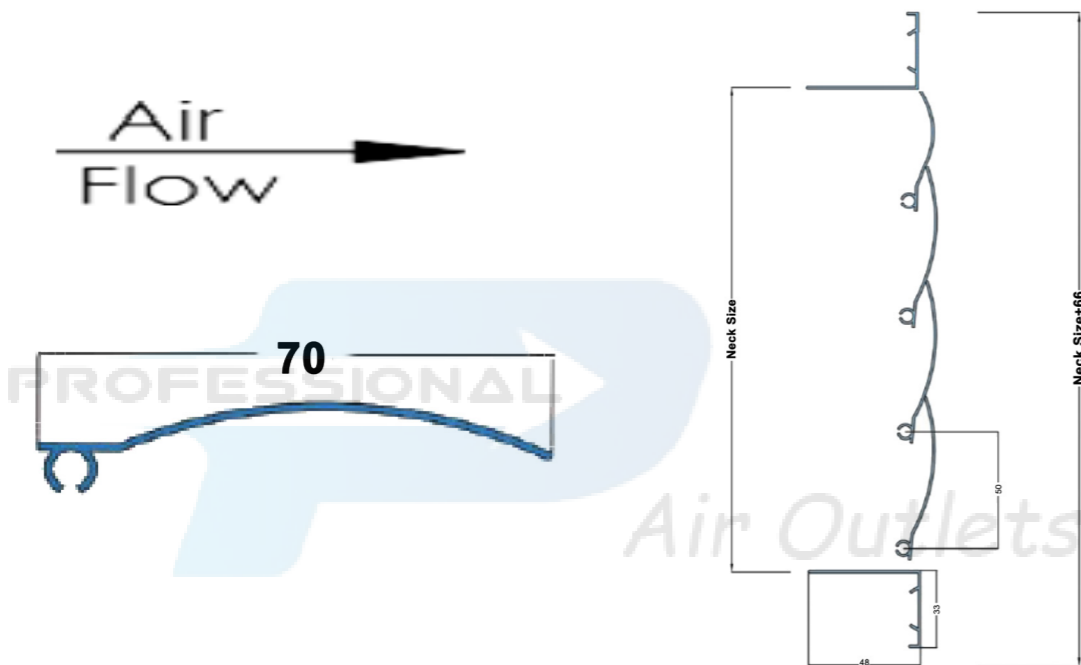
- A horizontal operable shutter are generally used in intake and discharge applications in residential, commercial and industrial ventilated systems. guarantee that the automatic opening of the blades will occur when the fan or system is switched on and equally will close when switched off in order to avoid passage of air when the system is closed, i.e. preventing the reverse of air flow. They are also used to maintain certain pressure in pressurized treated areas with respect to others, thus only when pressure is exceeding the designed limit, blades will automatically open to discharge or relieve the excessive air.
- Automatically, when the duct pressure is normalized, the blades drop to closed position by gravity effect.
- The specially designed blades have an overlapping lip which assures a tight closure while in closing position and to reduce noise.
- Usually used for external or internal wall mounting installations.
- Gravity Shatters are also commonly named as «Pressure Relief Dampers», «Over Pressure Dampers», «Back Draft Dampers» or according to the purpose of their use.

DIMENSIONAL DETAILS

FRAME



BLADE



PERFORMANCE DATA

LISTED SIZES & AREA FACTOR

Listed Height (inches)	Listed Width (inches)												
	12	14	16	18	20	24	30	36	42	48	54	60	72
12	0.81	0.96	1.10	1.25	1.40	1.64	2.08	2.47	2.91	3.30	3.74	4.13	4.96
16	1.08	1.27	1.47	1.66	1.86	2.18	2.77	3.29	3.87	4.44	5.02	5.49	6.60
20	1.36	1.60	1.85	2.09	2.33	2.75	3.48	4.13	4.87	5.52	6.25	6.91	8.30
24	1.62	1.92	2.21	2.50	2.79	3.29	4.16	4.95	5.82	6.61	7.48	8.27	9.93
28	1.89	2.23	2.57	2.91	3.25	3.83	4.85	5.76	6.78	7.69	8.71	9.63	11.56
32	2.16	2.55	2.93	3.32	3.71	4.37	5.53	6.57	7.74	8.78	9.94	10.99	13.19
36	2.44	2.87	3.31	3.75	4.19	4.93	6.24	7.42	8.73	9.91	11.22	12.40	14.89
40	2.70	3.19	3.68	4.16	4.65	5.47	6.93	8.23	9.69	11.00	12.45	13.76	16.52
44	2.97	3.50	4.04	4.57	5.11	6.01	7.61	9.05	10.65	12.08	13.68	15.12	18.16
48	3.25	3.83	4.42	5.00	5.59	6.57	8.32	9.89	11.64	13.21	14.97	16.54	19.86
52	3.52	4.15	4.78	5.41	6.04	7.11	9.01	10.71	12.60	14.30	16.20	17.89	21.49
56	3.78	4.46	5.14	5.82	6.50	7.65	9.69	11.52	13.56	15.39	17.43	19.25	23.12
60	4.06	4.79	5.52	6.25	6.98	8.21	10.40	12.36	14.55	16.52	18.71	20.67	24.82

Note :

For sizes not shown, the approximate area factor can be calculated using the formula below:

$$* \text{Area Factor} = \frac{0.875 (\text{Height}) \times (\text{Width} - 1.5)}{144}$$

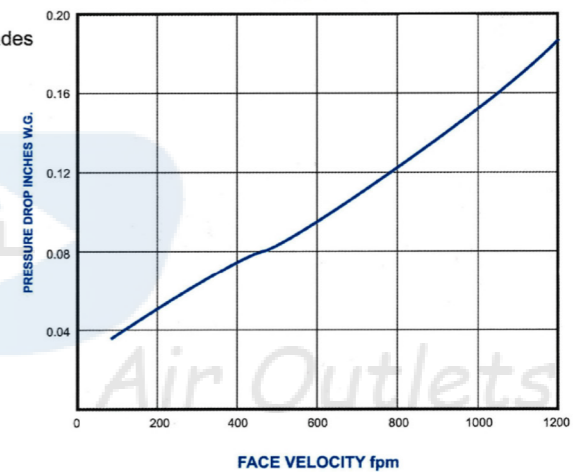
To calculate the volume (CFM) multiply the area factor by the face velocity.

$$\text{CFM} = \text{Area Factor} \times \text{Face Velocity}$$

* Area Factor calculation assumes gravity shutter blades 100% open.

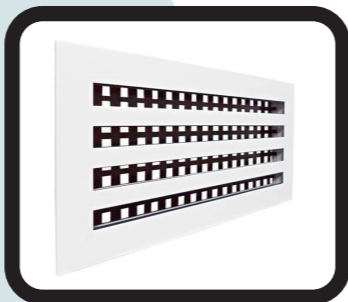
Air Flow Resistance Diagram

Pressure Loss

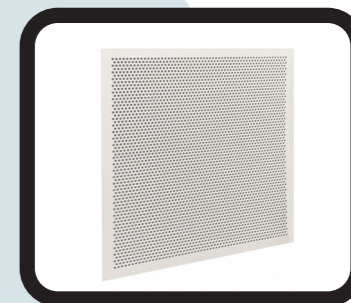




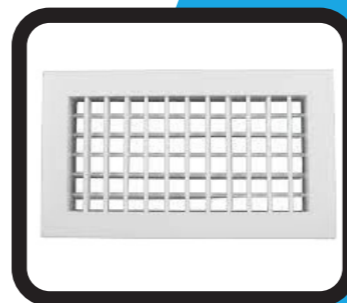
Linear Slot Diffusers LSD



Perforated Ceiling Diffusers PCD



Linear Bar Grilles LBG

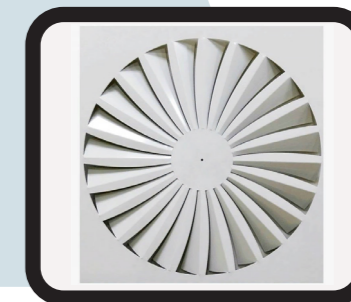


Grilles And Registers SR

External Louvers EX-L



Swirl Diffusers SW-D



Square Ceiling Diffusers SCD



Volume Control Dampers VCD

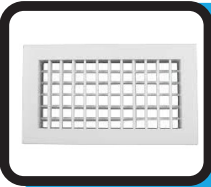


Jet Nozzles JN

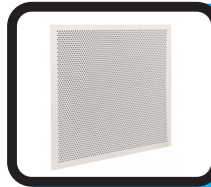


Curtain Fire Dampers FD-C





GRILLES AND REGISTERS



**PERFORATED CEILING
DIFFUSERS**



**SQUARE & RECTANGULAR
& Circular CEILING
DIFFUSERS**



GRAVITY SHUTTERS



**LINEAR BAR
GRILLES®ISTERS**



TRANSFER GRILLES



**Linear Slot
Diffusers**



DISC VALVES



EXTERNAL LOUVERS



SWIRL DIFFUSERS



SAND TRAP LOUVERS



**VOLUME CONTROL
DAMPERS**



JET NOZZLES



**CURTAIN FIRE
DAMPERS**



JET DIFFUSERS



**SMOKE MOTORIZED
DAMPERS**

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