

ALANDALOSIA

FOR AIR OUTLET



CATALOGUE **NO 13**

SAND TRAP LOUVER



Air Outlet

Andalosalogia

OUR PRODUCTS

SELECTION GUIDE

- 1- SQUARE CEILING DIFFUSER
- 2- ROUND CEILING DIFFUSER
- 3- SWIRL DIFFUSER
- 4- PERFORATED CEILING DIFFUSER
- 5- LINEAR SLOT DIFFUSER
- 6- LINEAR CEILING DIFFUSER
- 7- LINEAR BAR GRILL
- 8- REGISTER
- 9- FLOOR & PERFORATED FLOOR GRILL
- 10- TRANSFER GRILL
- 11- ACCESS PANEL
- 12- LOUVER

13- SAND TRAP LOUVER

- 14- JET NOZZLE
- 15- BALL JET NOZZLE
- 16- DRUM JET NOZZLE
- 17- DISC VALVE
- 18- NON RETURN DAMPER (SHUTTER)
- 19- VOLUME DAMPER
- 20- FIRE DAMPER
- 21- SMOKE DAMPER
- 22- DUCT ACCESS DOOR

....



Air Outlet

Andalousia

INTERTEK

INTRODUCTION



Sand Trap Louver

Sand trap Louver is normally used as prefilter for fresh air intake of Air Handling Unit (AHU), Package Air Conditioning Units (PACU) and Roof Top Fresh Air Units (RTFAU).

Also for air conditioning systems and air intake in manufacturing plants.

It has a degree of separation of sand and large dust particles, even in cases of high dust concentration.

The sand trap louver is designed to separate large particles at low air velocities, thus avoiding excessive dust loading on conventional plant filters.

The vertically arranged sections and holes for sand drainage ensure the sand trap louver is self-cleaning and maintenance-free.

It is not intended as a substitute for conventional supply air filtration plant.

SPECIFICATIONS

MATERIAL

Basic construction either aluminium or galvanised steel .

FRAME

Formed galvanized steel sheet
Gauge 16 (1.5mm) thick
or extruded aluminium alloy (6063) profile
of (2 mm thick) .

BLADE

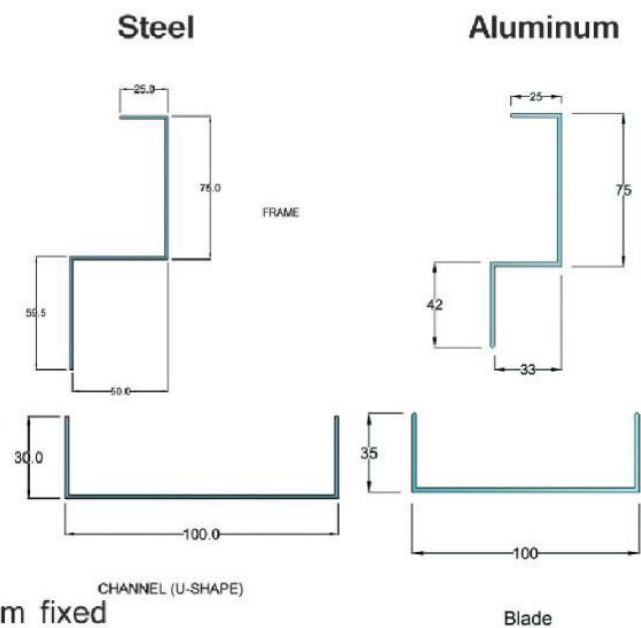
Formed galvanized steel sheet
Gauge 18 (1.2mm) thick
or extruded aluminium alloy (6063) profile
of (1.8 mm thick) .

SCREEN

Galvanized steel bird screen 12 X 12 X 1mm fixed
behind the blades .

FINISH

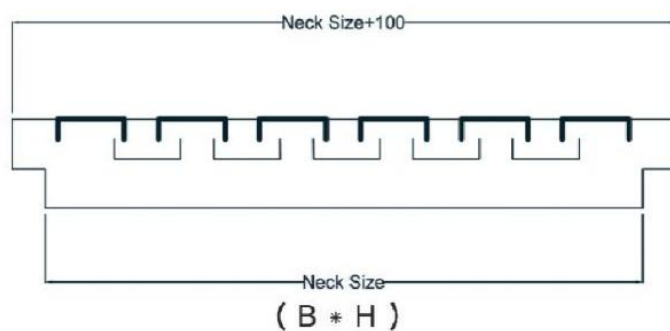
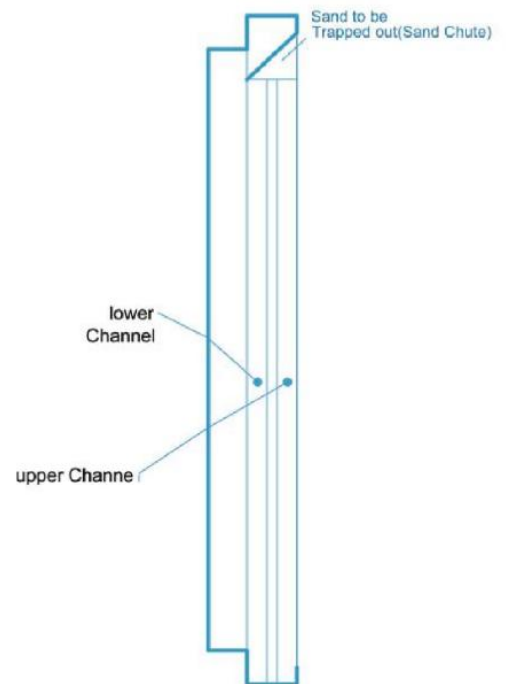
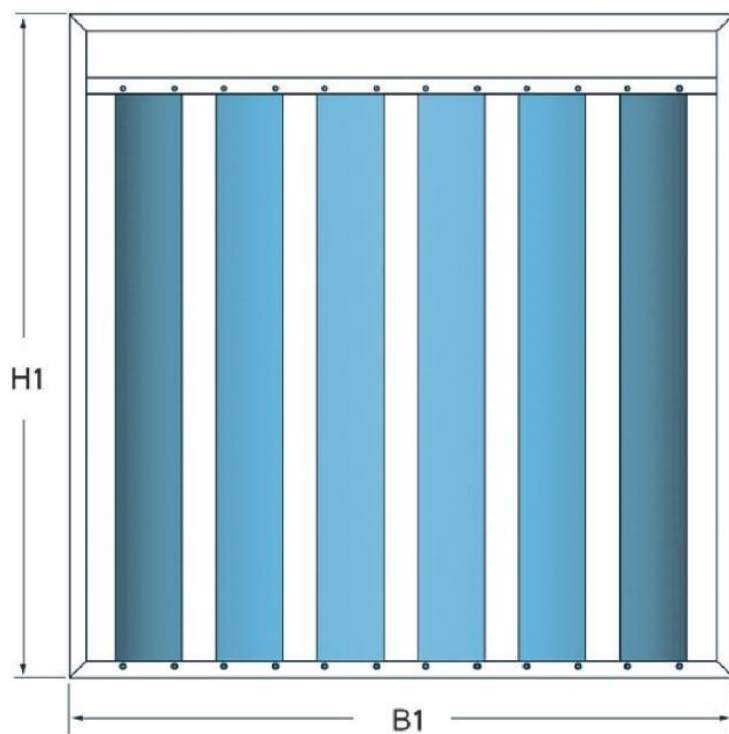
Standard finish for aluminium mill, steel galvanized
or powder coated .
RAL 9010 25% gloss, other RAL colours and of
gloss finish on request



DIMENSIONS

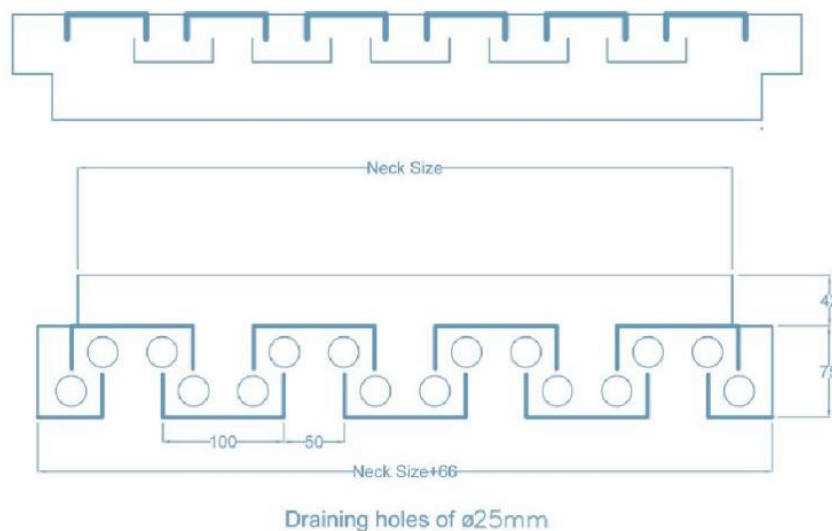
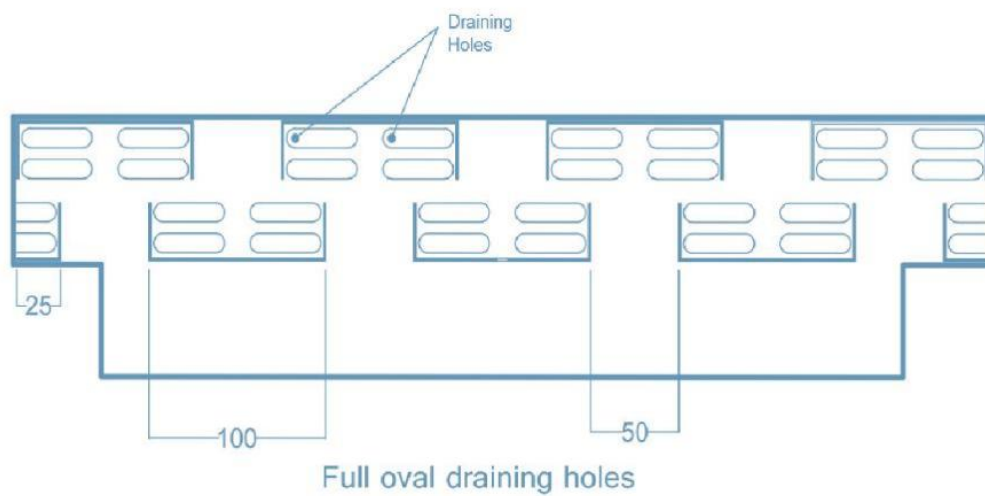
Standard sizes . single section

Width in mm	150	300	450	600	750	900	1050	1200	1350	1500	1650	1800
Height in mm	150	300	450	600	750	900	1050	1200	1350	1500	1650	1800



CONSTRUCTION

Two rows of vertically arranged channels sections to form a labyrinth for the air path. Base frame has drainage holes for the sand ensuring the louvre is self cleaning and maintenance free



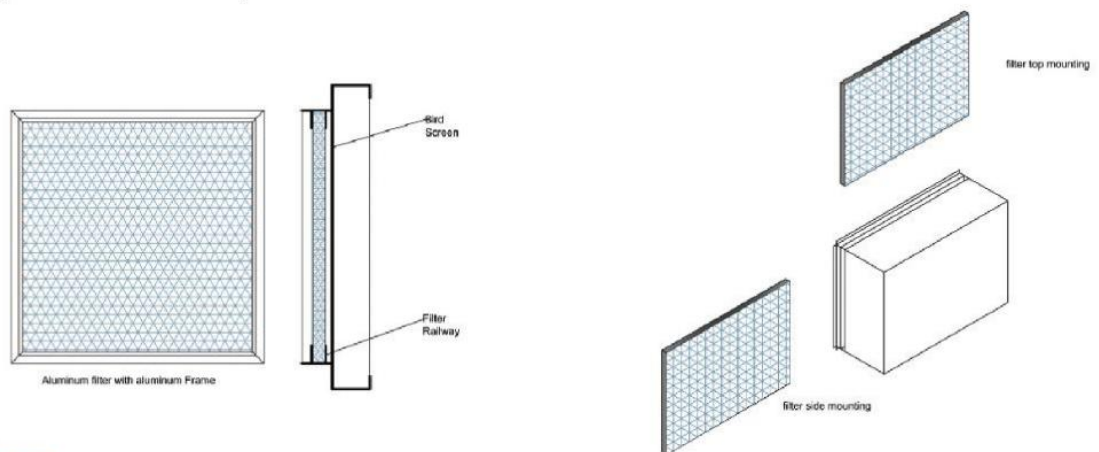
ACCESSORIES

FILTER

Aluminum Filter

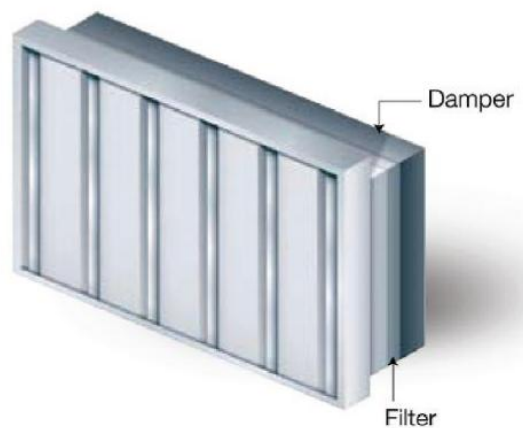
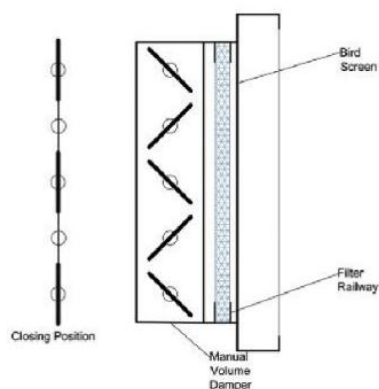
A permanent, removable and washable type which consists of an aluminum filter encloses the aluminum mesh media with different thicknesses of 1/2", 1" and 2" with the most popular face sizes.

The filter is to be inserted in a railway fixed inside construction. Insertion opening decided upon the client request .



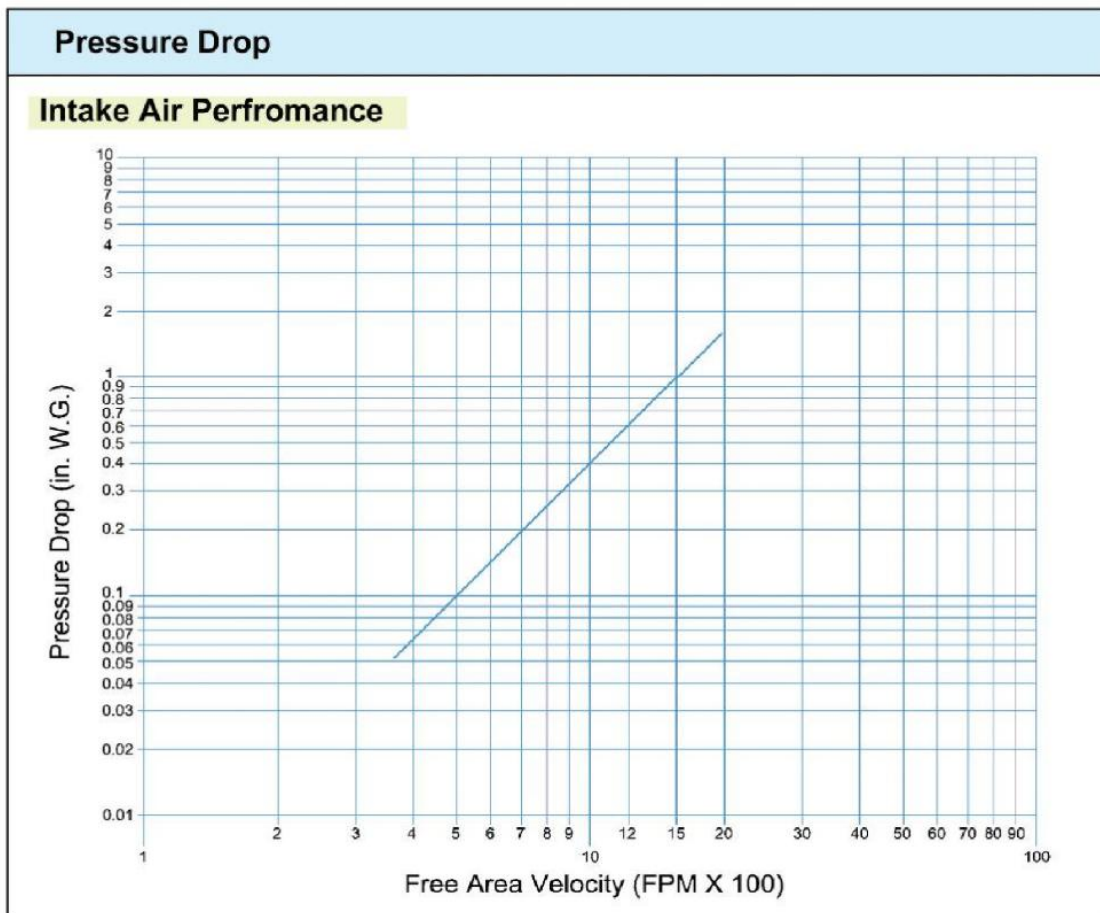
DAMPER

Manual control volume damper or motorized damper upon request



PERFORMANCE DATA

Particle Size	% of Efficiency
Up to 70 microns	50
71 to 200 microns	80
201 to 700 microns	90



FREE AREA CHART

OUTER FRAME SIZE (W1 inches)

	16	24	28	36	40	48	52	60	64	68	76	84	88	92	100	104
16	0.31	0.47	0.62	0.78	0.94	1.09	1.25	1.40	1.56	1.72	1.87	2.03	2.19	2.34	2.50	2.65
24	0.53	0.79	1.05	1.32	1.58	1.85	2.11	2.37	2.64	2.90	3.16	3.43	3.69	3.96	4.22	4.48
28	0.64	0.95	1.27	1.59	1.91	2.22	2.54	2.86	3.18	3.49	3.81	4.13	4.45	4.76	5.08	5.40
36	0.85	1.28	1.70	2.13	2.55	2.98	3.40	3.83	4.25	4.68	5.10	5.53	5.95	6.38	6.80	7.23
40	0.96	1.44	1.92	2.39	2.87	3.35	3.83	4.31	4.79	5.27	5.75	6.23	6.71	7.18	7.66	8.14
48	1.17	1.76	2.35	2.93	3.52	4.43	4.69	5.28	5.87	6.45	7.04	7.63	8.21	8.80	9.39	9.97
52	1.28	1.92	2.56	3.20	3.84	4.48	5.12	5.76	6.40	7.05	7.69	8.33	8.97	9.61	10.25	10.89
60	1.39	2.08	2.78	3.47	4.17	4.86	5.55	6.25	6.94	7.64	8.33	9.03	9.72	10.41	11.11	11.80
64	1.50	2.24	2.99	3.74	4.49	5.24	5.98	6.73	7.48	8.23	8.98	9.73	10.47	11.22	11.97	12.72
68	1.60	2.41	3.21	4.01	4.81	5.61	6.42	7.22	8.02	8.82	9.62	10.42	11.23	12.03	12.83	13.63
76	1.82	2.73	3.64	4.55	5.46	6.37	7.28	8.19	9.10	10.01	10.91	11.82	12.73	13.64	14.55	15.46
84	2.03	3.05	4.07	5.09	6.10	7.12	8.14	9.15	10.17	11.19	12.21	13.22	14.24	15.26	16.28	17.29
88	2.14	3.21	4.28	5.36	6.43	7.50	8.57	9.64	10.71	11.78	12.85	13.92	14.99	16.07	17.14	18.21
92	2.25	3.37	4.50	5.62	6.75	7.87	9.00	10.12	11.25	12.37	13.50	14.62	15.75	16.87	18.00	19.12
100	2.46	3.70	4.93	6.16	7.39	8.63	9.86	11.09	12.32	13.56	14.79	16.02	17.25	18.49	19.72	20.95
104	2.57	3.86	5.15	6.43	7.72	9.00	10.29	11.58	12.86	14.15	15.44	16.72	18.01	19.29	20.58	21.87

NOTE:

See Table 1 for the equivalent neck size (W X H).

SELECTION EXAMPLES

For normal operation condition the sand trap louvers should be selected for a maximum free area velocity of 600 feet per minute (FPM).

Examples :

Given:

Airflow: 2658 CFM

Assumed free area velocity: 600 FPM

Calculate for free area, neck size and pressure drop.

1. Free Area = $2658 \text{ CFM} / 600 \text{ FPM} = 4.43 \text{ ft}^2$.
2. From Free Area Chart the outer frame size is 48in X 48in (b1 X H1).
3. From Table neck size is 1100mm X 1100mm (b X H).
4. Pressure drop = 0.151 in. W.G. (38Pa).

Note:

For optional screens the pressure drop is additive and to be calculated separately.

Outer Frame Size (in.)	Neck Size (mm)
B1 X H1	B X H
16 X 16	300 X 300
20 X 20	400 X 400
24 X 24	500 X 500
28 X 28	600 X 600
32 X 32	700 X 700
36 X 36	800 X 800
40 X 40	900 X 900
44 X 44	1000 X 1000
48 X 48	1100 X 1100
52 X 52	1200 X 1200
56 X 56	1300 X 1300
60 X 60	1400 X 1400
64 X 64	1500 X 1500
68 X 68	1600 X 1600
72 X 72	1700 X 1700
76 X 76	1800 X 1800
80 X 80	1900 X 1900
84 X 84	2000 X 2000
88 X 88	2100 X 2100
92 X 92	2200 X 2200
96 X 96	2300 X 2300
100 X 100	2400 X 2400
104 X 104	2500 X 2500

