

ALANDALOSIA

FOR AIR OUTLET



CATALOGUE **NO 12**

LOUVER



Air Outlet

Andalosal

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

....



Andaloesia

INTERTEK

INTRODUCTION

The external louver protects the external supply and exhaust openings of ventilation devices against moisture penetration , and direct ingress of rain , leaves and birds .

It prevents direct views into the protected area.

It is applied for improving the aesthetic impression of the exterior, which is increased by the surface finishing and the shape of blades.



MATERIAL

Louvers are made from extruded aluminum profiles for blade and frame .

CORE

Extruded aluminium blades fixed to the frame by mean of rivit scrow and key slot

SCREEN

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

FINSIH

Standard finish for alumunium mill or powder coated.

CONSTRUCTION

(1) LOUVER-Z -48

CONSTRUCTION

Frame

Extruded aluminum profile of thickness () mm.

Blades

Extruded aluminum profile of z shape and thickness () mm.

Bird screen

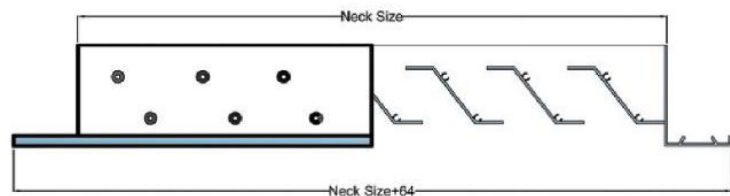
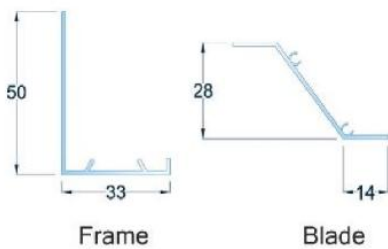
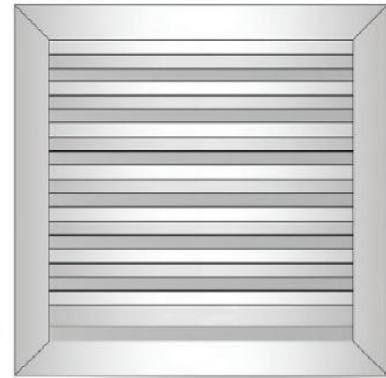
Galvanized bird screen 12*12*1 mm.

Size

Up to () m.

Filter

It can be supplied with removable and washable aluminum filter.



Blades are riveted to the both mating sides of the frame

Installation

Normal fixing are counter sunk face fixing holes or drilling through the inner frame on site.

(2) LOUVER-Z-44

CONSTRUCTION

Frame

Extruded aluminum profile of thickness () mm.

Blades

Extruded aluminum profile of z shape and thickness () mm.

Bird screen

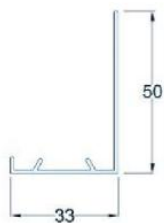
Galvanized bird screen 12*12*1 mm.

Size

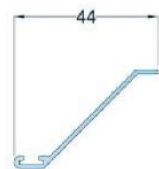
Up to () m.

Filter

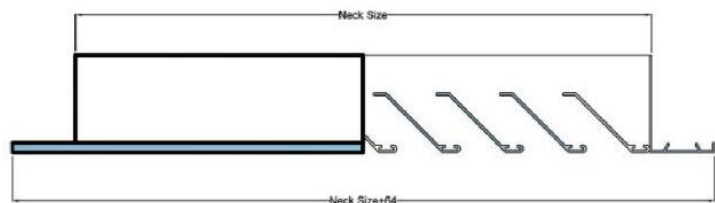
It can be supplied with removable and washable aluminum filter.



Frame



Blade



Blades are rivited to the both mating sides of the frame

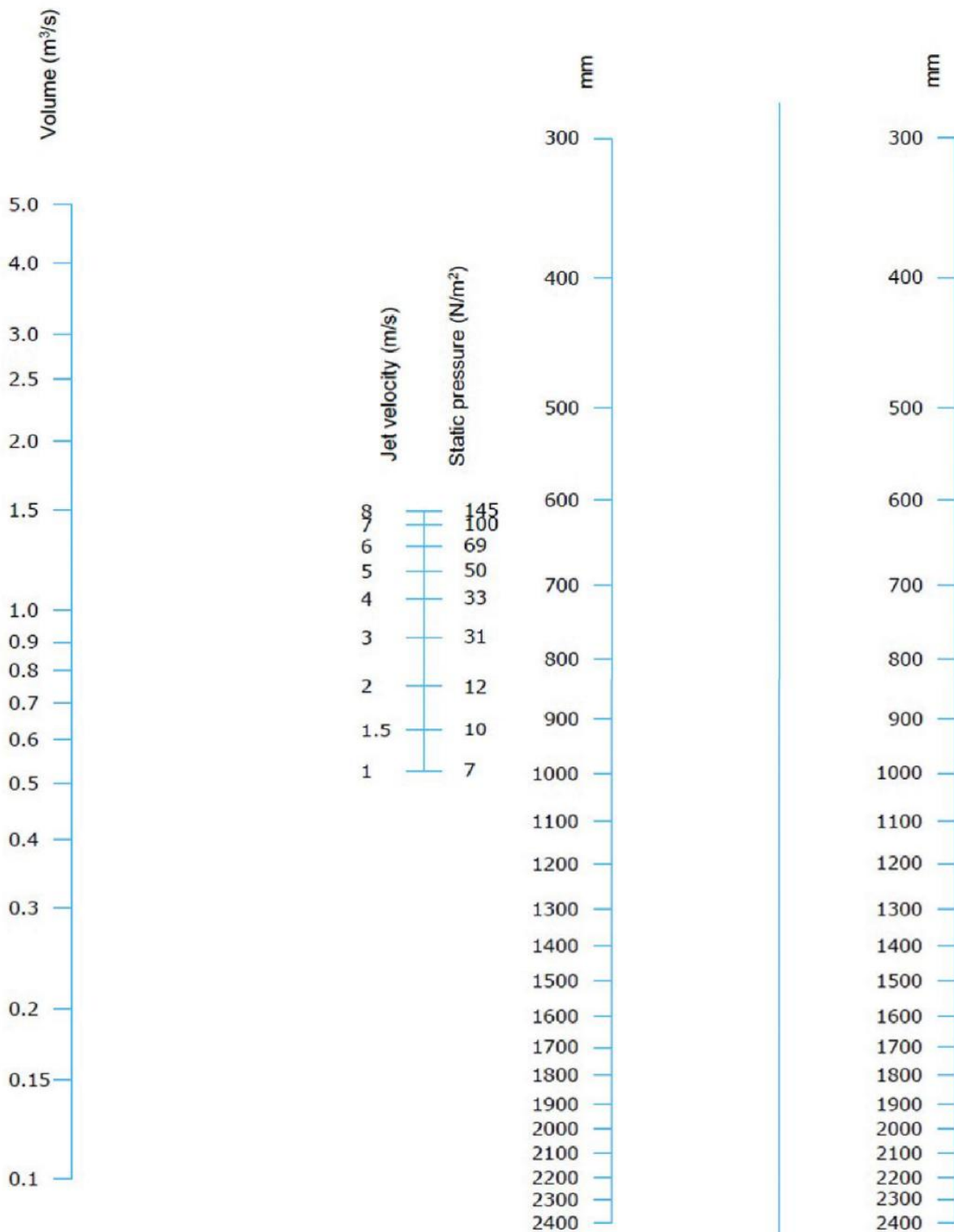
1

Installation

Normal fixing are counter sunk face fixing holes or drilling through the inner frame on site.

SELECTION DATA

**LOUVER-Z-48
LOUVER-Z-44**



(3) LOUVER-Z -105

CONSTRUCTION

Frame

Extruded aluminum profile of thickness () mm.

Blades

Extruded aluminum profile of z shape and thickness () mm.

Bird screen

Galvanized bird screen 12*12*1 mm.

Size

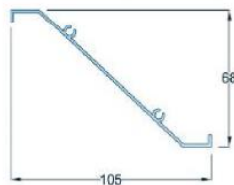
Up to () m.

Filter

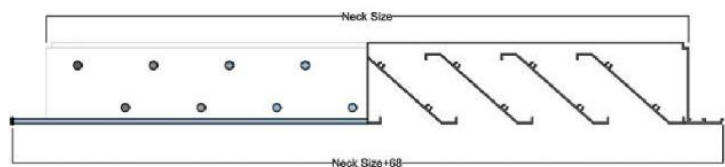
It can be supplied with removable and washable aluminum filter.



Frame



Blade



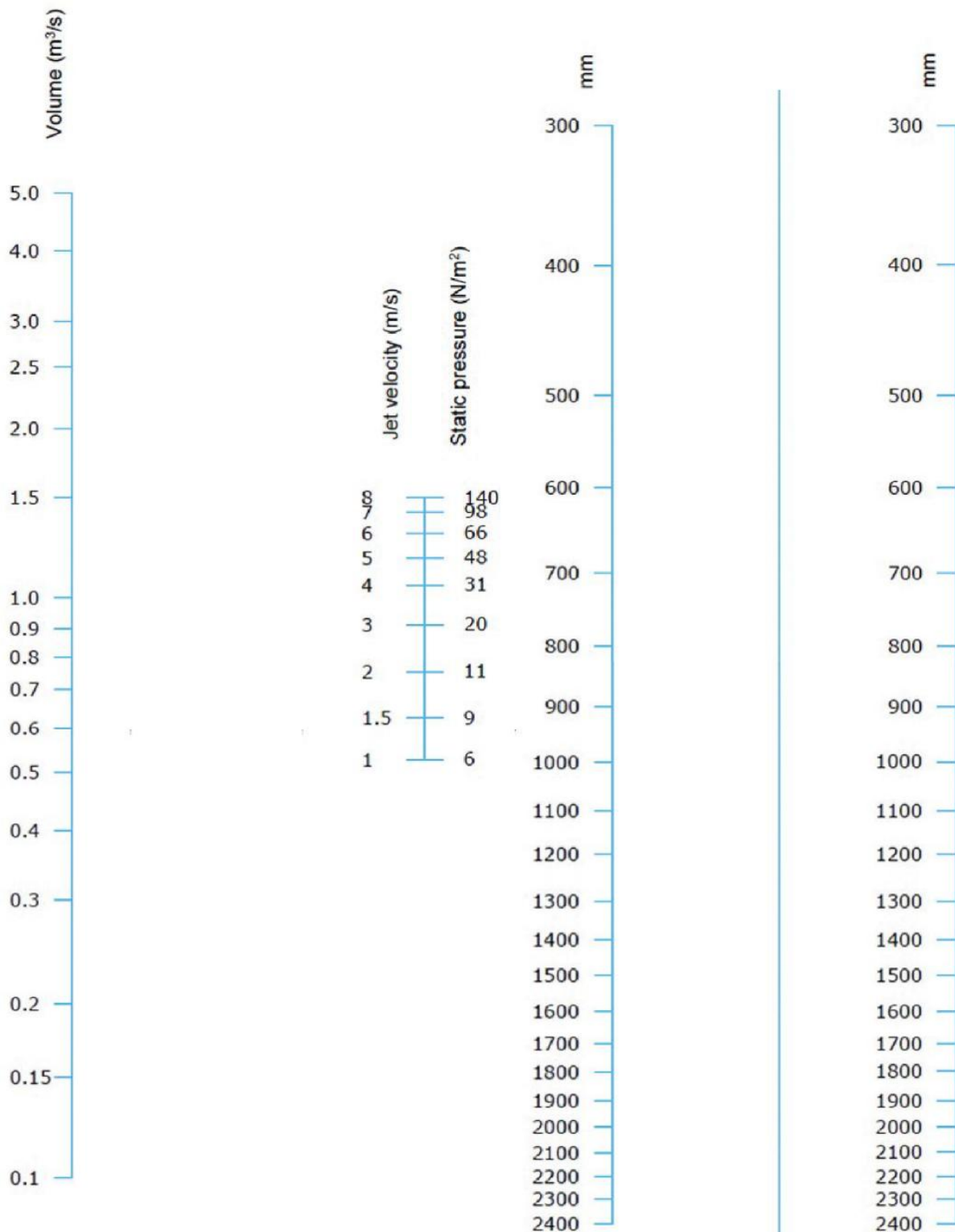
Blades are riveted to the both mating sides of the frame

1

Installation

Normal fixing are counter sunk face fixing holes or drilling through the inner frame on site.

SELECTION DATA LOUVER-Z-105



(4) LOUVER-AIRFOIL

CONSTRUCTION

Frame

Extruded aluminum profile of thickness () mm

Blades

Extruded aluminum profile of airofoil shape and wall thickness of () mm

Airfoil style blades and high free area to provide maximum resistance

Bird screen

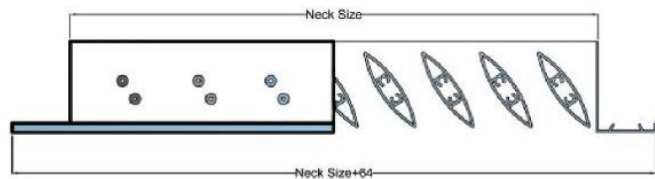
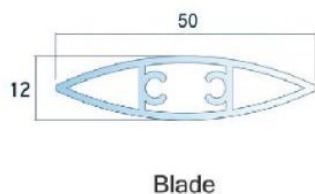
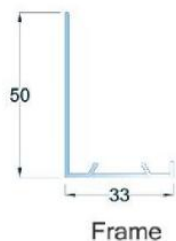
Galvanized bird screen 12*12*1 mm.

Size

Up to () m.

Filter

It can be supplied with removable and washable aluminum filter.



Blades are riveted to the both mating sides of the frame

1

Installation

Normal fixing are counter sunk face fixing holes or drilling through the inner frame on site.

PERFORMANCE DATA AIR FOIL LOUVERS

PRESSURE REQUIREMENTS

Velocity FPM	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
Exhaust	.005	.011	.019	.031	.044	.063	.081	.101	.123	.153	.180	.210	.249	.283
Intake Pt.	-.007	-.017	-.029	-.047	-.065	-.094	-.121	.150	.184	-.228	-.269	-.312	-.371	-.422

Note: pt total pressure in inches of water.

Velocity, fpm velocity corresponding to effective pressure Area.

$$\text{CFM} = \text{velocity} \times \text{effective pressure Area}$$

EFFECTIVE PRESSURE AREA FT²

HEIGHT inches	WIDTH - inches												
	12	14	16	18	20	22	24	26	28	30	32	34	36
12	.300	.346	.400	.452	.505	.557	.610	.663	.716	.769	.821	.874	.927
14	.355	.419	.483	.547	.611	.675	.739	.803	.866	.930	.994	1.06	1.12
16	.417	.492	.567	.642	.717	.792	.867	.942	1.02	1.09	1.17	1.24	1.32
18	.479	.565	.651	.737	.823	.910	1.00	1.08	1.17	1.25	1.34	1.43	1.51
20	.541	.836	.735	.832	.930	1.03	1.12	1.22	1.32	1.42	1.51	1.61	1.71
22	.603	.711	.819	.928	1.04	1.14	1.25	1.36	1.47	1.58	1.69	1.79	1.90
24	.664	.784	.903	1.02	1.14	1.26	1.38	1.50	1.62	1.74	1.86	1.98	2.10
26	.726	.857	.987	1.12	1.25	1.82	1.51	1.64	1.77	1.90	2.03	2.16	2.29
28	.788	.930	1.07	1.21	1.35	1.50	1.64	1.78	1.92	2.06	2.20	2.35	2.49
30	.850	1.00	1.16	1.31	1.46	1.61	1.77	1.92	2.07	2.23	2.38	2.53	2.68
32	.912	1.08	1.24	1.40	1.57	1.73	1.89	2.06	2.22	2.39	2.55	2.71	2.88
34	.973	1.15	1.32	1.50	1.67	1.85	2.02	2.20	2.37	2.55	2.72	2.90	3.07
36	1.04	1.22	1.41	1.59	1.78	1.97	2.15	2.34	2.52	2.71	2.90	3.08	3.27

SELECTION PROCEDURE

EXAMPLE: Exhaust requirements for 1500 CFM with a pressure of 0.123 " H₂O

1- From the pressure requirements table, it show that a 1000 fpm velocity results an exhaust pressure of 0.123" H₂O

2-Determine the effective pressure Area = $\frac{\text{CFM}}{\text{Velocity}} = \frac{1500}{1000} = 1.5 \text{ ft}^2$

3- from the table , the 1.5 ft² requirement is Suitable for
The following sizes; 32" x 20" high, 26" x 24" high, etc.

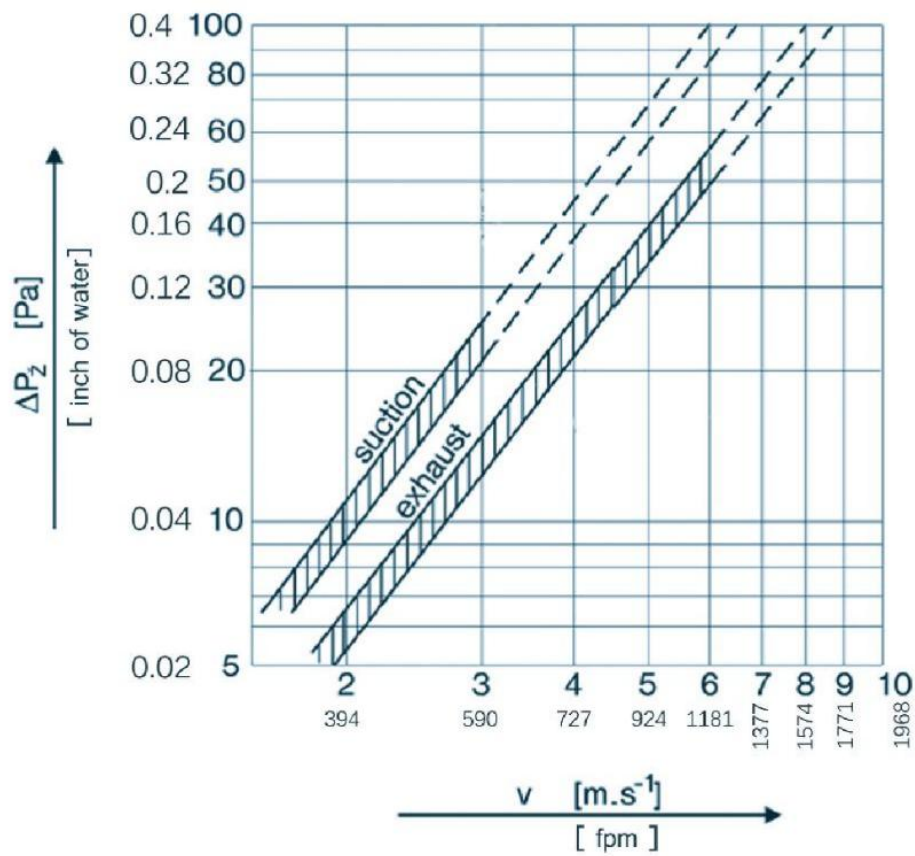
Note:

For other sizes not shown in the table, the approximate effective pressure area can be calculated by this equation:

$$\text{Effective pressure area} = (0.5 H - 0.104) (W - 0.073) (0.8)$$

Where H (height) in ft
w (width) in ft

PRESSURE LOSSES



For louvers are provided with bird screen pressure losses will increase by 10 %