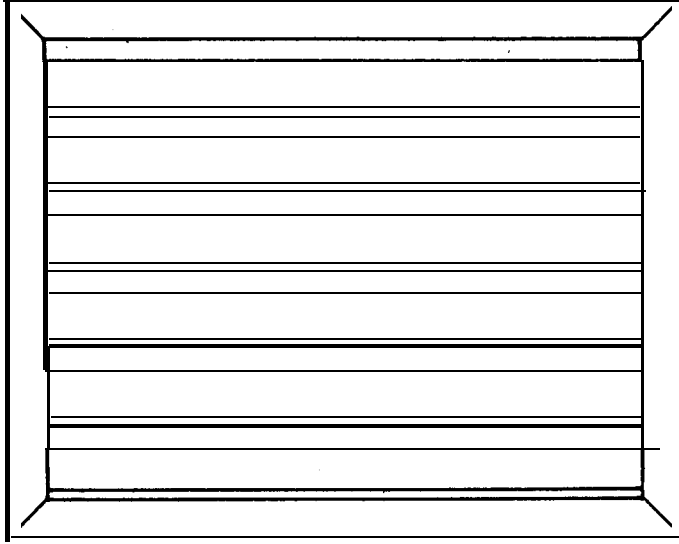
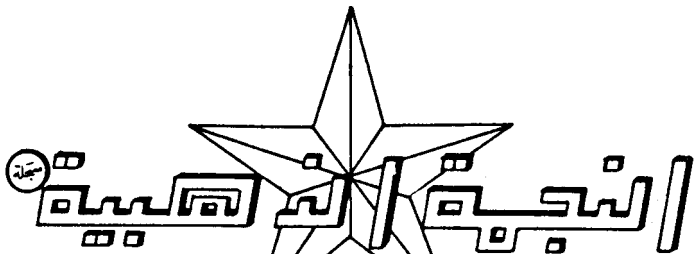


SAUDI AIR CONTROL SYSTEM
INDUSTRIAL REGISTRATION NO.353



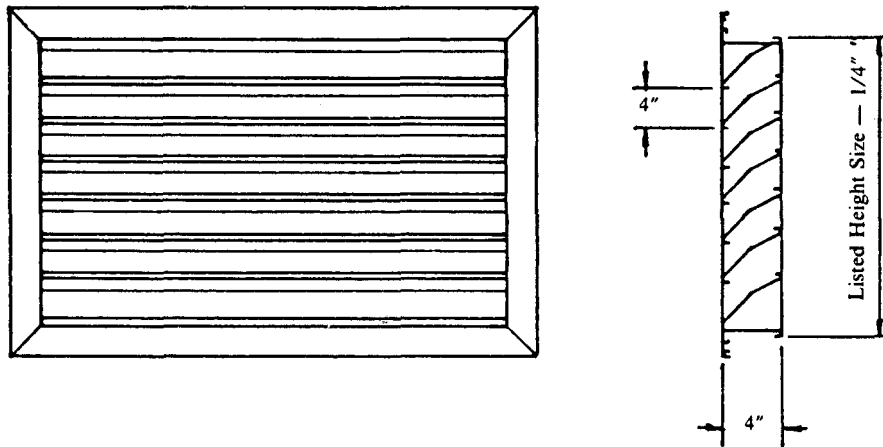
EXTRUDED ALUMINUM OUTSIDE AIR LOUVERS



الصنع السعودي لصناعة فتحات وشوابع توزيع الهواء

ترخيص صناعي رقم ٣٥٣ / ص

4 INCH HORIZONTAL OUTSIDE LOUVERS



OUTSTANDING FEATURES :

Designed for both intake and exhaust applications. Flanged frame style.

Frames and blades are made of 2 mm. thick heavy extruded aluminum constructions. Blades extrusions has a single weather stop at its upper edges. Blades are fastened to frame by means of stainless steel screws. Standard finish: Anodized. Other colors (Optional). Optional accessories: Type S 1 - Aluminum Bird Screen, 1/2" X 1/2", 0.063 dia. wire. Type S 2 - Aluminum Insect Screen. 18-14 mesh.

PRESSURE REQUIREMENTS

VELOCITY FPM	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
EXHAUST Pt	.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. CFM = Velocity X Effective Pressure Area.

EFFECTIVE PRESSURE AREA - FT²

HEIGHT Inches	WIDTH — Inches												
	12	14	16	18	20	24	30	36	42	48	54	60	72
12	.24	.29	.34	.38	.43	.52	.65	.79	.93	1.07	1.20	1.34	1.61
16	.39	.47	.54	.61	.69	.83	1.05	1.27	1.50	1.71	1.93	2.15	2.60
20	.54	.64	.74	.91	.95	1.15	1.45	1.75	2.06	2.36	2.67	2.97	3.58
24	.69	.82	.95	1.08	1.20	1.46	1.85	2.24	2.62	3.01	3.40	3.78	4.56
28	.84	1.00	1.15	1.31	1.46	1.78	2.25	2.72	3.19	3.66	4.13	4.60	5.54
32	.98	1.17	1.35	1.54	1.72	2.10	2.65	3.20	3.75	4.30	4.86	5.41	6.52
36	1.13	1.34	1.56	1.77	2.00	2.41	3.04	3.68	4.32	4.95	5.59	6.23	7.50
40	1.28	1.52	1.76	2.00	2.24	2.72	3.44	4.16	4.88	5.60	6.32	7.04	8.48
44	1.43	1.70	1.96	2.23	2.50	3.04	3.84	4.64	5.45	6.25	7.05	7.86	9.46
48	1.58	1.87	2.17	2.46	2.76	3.35	4.24	5.12	6.01	6.90	7.78	8.67	10.44
52	1.72	2.05	2.37	2.70	3.02	3.66	4.63	5.61	6.58	7.55	8.52	9.49	11.43
56	1.87	2.22	2.58	2.93	3.28	3.98	5.03	6.09	7.14	8.19	9.25	10.30	12.41
60	2.02	2.40	2.78	3.16	3.54	4.30	5.43	6.57	7.71	8.84	9.98	11.12	13.39
64	2.17	2.58	2.98	3.39	3.80	4.61	5.83	7.05	8.27	9.49	10.71	11.93	14.37
68	2.32	2.75	3.19	3.62	4.05	4.92	6.23	7.53	8.83	10.14	11.44	12.74	15.35
72	2.47	2.93	3.39	3.85	4.31	5.24	6.63	8.01	9.40	10.79	12.17	13.56	16.33

SELECTION PROCEDURE

EXAMPLE :

Exhaust requirements for 2000 CFM with a pressure of 0.031" H₂O.

1. From the pressure requirements table, it shows that a 500 fpm velocity results an exhaust pressure of 0.031" of H₂O.
2. Determine the Effective Pressure Area.

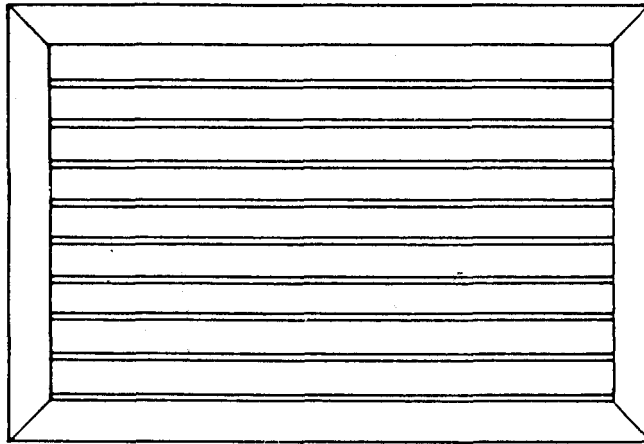
$$\text{Effective Pressure Area} = \frac{\text{CFM}}{\text{Velocity}} = \frac{2000}{500} = 4 \text{ ft}^2$$

3. From the Table, the 4 ft² requirement is suitable for the following sizes: 54" wide X 28" high, 48" wide X 32" high, etc.

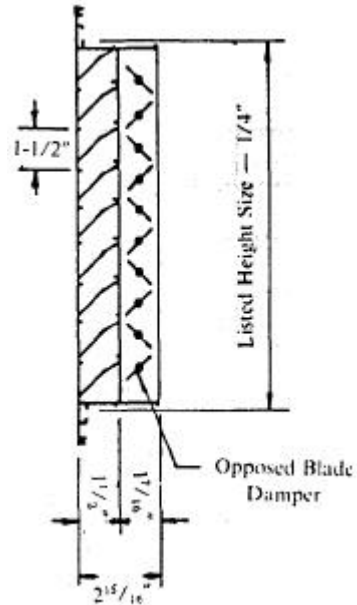
NOTE: For other sizes not shown in the Table, the approximate. Effective Pressure Area can be calculated by this equation:

$$\text{Effective Pressure Area} = (0.5H - 0.22625) (W - 0.112), \text{ Ft}^2 \text{ Where : H} \\ = \text{Height, ft. and W} = \text{Width, ft.}$$

**OUTSIDE AIR LOUVERS WITH
CONTROL DAMPER**



MODEL GOLCD



OUTSTANDING FEATURES :

- Designed for both intake and exhaust applications.
- Flanged frame style.
- With Opposed Blade Damper. Damper is rear-operated.
- Blades are fastened to frame by means of stainless steel screws.
- Frame and blades are made of extruded aluminum constructions.
- Standard finish : Anodized. Other colors (Optional).
- Optional accessories : Aluminum Insect Screen,.18-14 mesh.

PRESSURE REQUIREMENTS

VELOCITY FPM	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
EXHAUST Pt	.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. CFM =
 Velocity X 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	.638	.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	1.38	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

NOTE : Damper is at 100% open position.

SELECTION PROCEDURE

EXAMPLE :

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

1. From the pressure requirements table, it shows that a 1000 fpm velocity results an exhaust pressure Of 0.123" of H₂O.
2. Determine the Effective Pressure Area.

$$\text{Effective Pressure Area} = \frac{\text{CFM}}{\text{Velocity}} = \frac{1500}{1000} = 1.5 \text{ ft}^2.$$
3. From the Table, the 1.5 ft², requirement is suitable for the following sizes: 32" wide X 20" high, 26" wide X 24" high, etc.

NOTE: For other sizes not shown in the Table, the approximate. Effective Pressure Area can be calculated by this equation:

$$\text{Effective Pressure Area} = (0.5H - 0.104) (W - 0.073) (0.8). \text{ Where :}$$

H = Height, ft. and W = Width, ft.