TABLE A : Recommended Air Change Rates

Type of building	Air Changes per hour	Type of building	Air Changes per hour
Assembly hall	6-12	Factories (heavy)	10-30
Auditorium	4-12	Laundry	12-30
Bakeries	12-20	Paper Mill	8-30
Boiler room	15-60	Textile mill	4-12
Brewery	8-30	Packing room	8-30
Class room	10-15	Transformer room	12-30
Engine room	12-30	Paint shops	10-30
Factories (light)	6-12	Warehouse	4-6

TABLE B : PERFORMANCE DATA

WIND VELOCITY (MPH)			5			8			10		
TEMP DIFF°C			3	5	10	3	5	10	3	5	10
MODEL NO.	THROAT SIZE (IN)	STACK (HEIGHT FT)	EXHAUST CAPACITY IN CFM								
AV : 200	8	10	329	340	358	531	542	560	674	684	700
		20	343	356	378	534	556	578	524	598	720
		30	352	368	394	552	568	594	694	710	736
		40	361	378	406	560	578	608	702	720	750
AV : 300	12	10	519	542	580	817	840	878	1027	1050	1088
		20	546	574	620	844	872	918	1056	1084	1130
		30	566	600	656	864	898	954	1076	1110	1166
		40	580	620	686	877	918	984	1090	1130	1196
AV : 350	14	10	623	652	700	973	1002	1050	1222	1250	1296
		20	654	692	756	1004	1042	1106	1252	1290	1354
		30	681	728	806	1031	1078	1156	1277	1324	1402
		40	702	756	846	1052	1106	1196	1300	1354	1444
AV : 500	20	10	939	1000	1102	1436	1498	1600	1792	1854	1958
		20	1005	1084	1216	1503	1582	1714	1859	1938	2070
		30	1058	1154	1314	1556	1652	1812	1915	2010	2168
		40	1107	1216	1398	1605	1714	1896	1961	2070	2252
AV : 600	24	10	1163	1252	1400	1763	1852	2000	2187	2276	2424
		20	1257	1372	1564	1857	1972	2164	2282	2396	2586
		30	1339	1476	1704	1939	2076	2304	2363	2500	2728
		40	1407	1564	1826	2007	2164	2426	2428	2586	2850
AV : 760	30	10	1813	1952	2184	2755	2894	3126	3417	3556	3788
		20	1966	2144	2440	2908	3086	3382	3572	3748	4042
		30	2092	2306	2662	3036	3248	3602	3698	3910	4264
		40	2194	2440	2850	3136	3382	3792	3796	4042	4452
AV : 1000	40	10	3547	3818	4270	5388	5660	6114	6677	6948	7400
		20	3852	4200	4780	5694	6042	6622	6982	7330	7910
		30	4101	4520	5218	5945	6364	7062	7230	7650	8350
		40	4296	4780	5586	6137	6622	7430	7426	7910	8716

The data above to be used as a guide only

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فاكس : ٨٤٥ ٣٣ ٣٣ ٩٧١+
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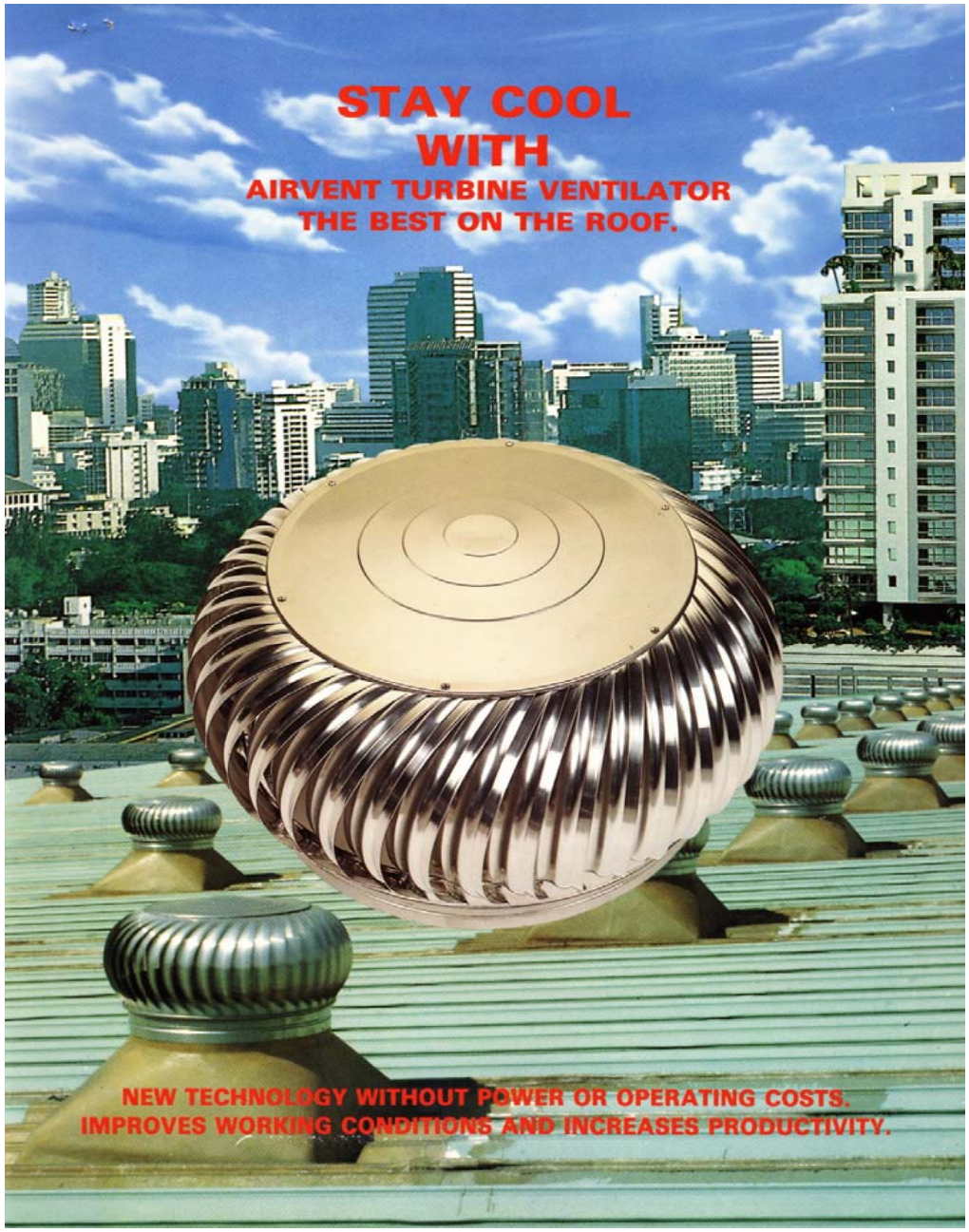
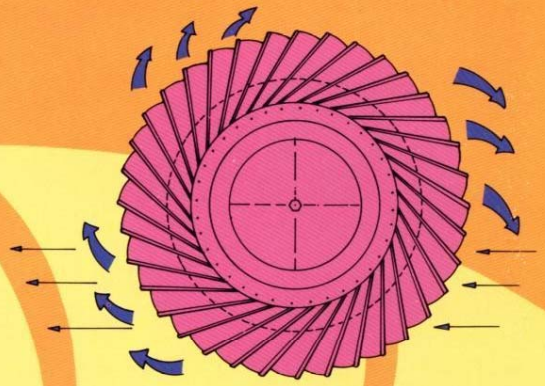


NATURAL ECONOMICAL EFFECTIVE VENTILATION ALL YEAR ROUND WITHOUT POWER OR OPERATING COSTS. IMPROVES WORKING CONDITIONS AND INCREASES PRODUCTIVITY. AN ENERGY SAVER FOR A BETTER TOMORROW.

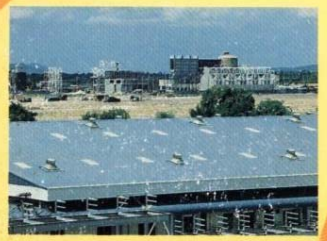
HOW DOES IT WORK.



The turbine ventilator operates by utilising the velocity energy of the wind to induce air flow by centrifugal action. The centrifugal force caused by the spinning vanes creates a region of low pressure area which draws air out through the turbine. Air drawn out by the turbine is continuously replaced by fresh air from the outside. The slightest breeze will cause the turbine to spin and even after the breeze has stopped, the fly wheel effect of the rotor cage will use its stored energy to continuously remove air giving rise to ventilation. Suction is maintained even at low wind velocities.

FEATURES :

- Rigid roll formed curved vanes
- Weatherproof and stormproof
- Rotor shaft and bearing assembly concealed in aluminium or stainless steel casing. Easily field replaced
- Virtually maintenance free
- Light weight and durable
- 10 years warranty
- Available in aluminium and stainless steel



THE BENEFITS OF A NATURAL VENTILATION SYSTEM

Factories, warehouses, workshops and even community buildings are frequently constructed without an efficient natural ventitation system for the benefit of occupants.

And, if the interior of the building gets hot and stale, there's always doors or windows that can be opened to provide for the ventilation.

However, stale and hot air doesn't disperse by itself and opening doors or windows is simply not sufficient to provide adequate ventilation in most buildings.

But, by installing AIRVENT Turbine Ventilators, you can provide an efficient and cost effective system of natural ventilation for the benefit of the building's occupants.

These wind driven Ventilators, unlike doors or windows, draw air upwards, creating a convection current, and in the process they extract stale air, together with air which has become hot due to the building's exposure to long hours of sunlight and from manufacturing processes within the building.

As the stale and hot air is extracted by the ventilators, it is replaced by fresh air at ambient temperature entering through doorways and openings thus completing the convection cycle current and improving the internal environment.

Needless to say, fresh air makes people feel more energetic whilst stale air causes people to feel tired and on hot days the air movement over the body causes evaporation to occur which is the natural way of cooling down and reducing heat stress on the body.

Airvent Turbine Ventilator also help to prevent condensation by extracting moist condensate forming air, and in the case of fire will extract smoke and fumes thus preventing the building from becoming smoke filled and allowing the occupants to escape to safety.

SELECTION PROCEDURE

1) Determine volume of space to be ventilated
   Volume (ft^3) = L × W × H
   Where L = Length, W = Width, H = Height of building
2) Select Air Change Rate from Table A
3) Calculate required ventilation rate Q (cfm)

$$Q\ (cfm) = \frac{\text{Volume } (ft^3) \times \text{Air change Rate}}{60}$$

4) Determine number of ventilators = $\frac{\text{Ventilation Rate Q}}{\text{Exhaust Capacity}}$

Example :
Building dimensions with L = 100 ft, W = 60 ft, H = 20 ft
Volume (ft^3) = 120000 ft^3
Air change Rate selected = 12 per hour

$$\text{Ventilation rate Q} = \frac{120000 \times 12}{60} = 24000\ CFM$$

Refer Table B, Select suitable Model from table is AV-600
Exhaust capacity = 1972 CFM
Under wind velocity of 8 mph, temp diff of 5 degrees, stack height = 20 ft
Selection is 12 Nos. of AV-600