

Ventilators

W. F. Hirschman Co., Inc. Le Roy, New York

Manufacturers of
EFFICO

Rotary Ball Bearing (Oil Flooded) Roof Ventilators

Product—Effico Fan Equipped Rotary Ball Bearing (Oil Flooded) Roof Ventilators (Patented).

Construction and Principle of Operation—The Effico rotating cowl exterior is covered by wind propelled blades; the interior by suction blades. There are no moving parts. The Effico shaft rotates on ball bearings, fitted with clock precision in solidly enclosed dust-tight and oil-tight housings, and is flooded in inches of non-freezing oil (furnished by us); no oiling required for years (proven), and the Effico is absolutely noiseless.

Great Air Volume Exhaust at Low Wind—All Efficos will draw considerable air at a 1-mile breeze (an apparent calm) without stack or heat assistance. The 30-in. size will rotate (standing start) at 0.7-oz. pressure, 1/4 mile breeze. Cowl outlet is over 50 per cent larger than its stack area which is ample, as no wind enters ventilator to gain the so-called siphonage effect. Suction fan is same size as rotating cowl (note dimension chart). Thus each Effico is equipped with fan over 50 per cent greater in diameter than its stack area. Fan pulls air up stack at even the slowest turning movement and wind blowing across the outlet adds to its efficiency.

Symmetry—The Effico has artistic lines and pleasing appearance. Lowest in height of rotary ventilators by over 50 per cent average. Note dimension chart.

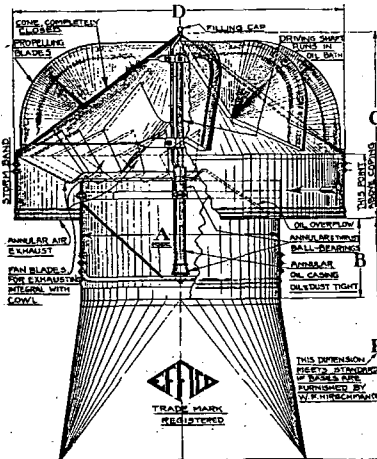
Weatherproofness—The Effico rotary ball-bearing ventilator operates during all kinds of weather—rain, ice, snow or sleet does not affect or hamper its exhausting. No drip pans or bird screens are needed.



Effico Rotary Ball-Bearing Ventilator Installation

Effico Standardized Ventilators

Dimensions, In.						Gage of Galvanized Steel		Net Weight Lb.		Code	Dimensions, In.						Gage of Galvanized Steel		Net Weight Lb.		Code
A	B	C	D	E		Cowl	Base				A	B	C	D	E		Cowl	Base			
6	4 1/2	5 1/2	13	...	26	26	18	14	14	Shack	30	12	27	52	32	22	20	140	20	20	Sank
10	4 1/2	11	16	20 1/2	26	26	18	14	14	Sachem	36	12	31	62	32	22	18	180	24	24	Sergeant
12	5	14	21 1/2	24	24	24	24	16	16	Scene	42	19	37	68	43	22	18	300	24	24	Serpent
18	13 1/2	27	23	24	24	38	16	16	16	Saturn	48	19	40	76	43	22	18	370	24	24	Serve
24	10	25	42	30	24	24	95	18	18	Shake	54	19	44	86	43	22	18	525	24	24	Sham
											60	19	48	98	43	20	18	650	...	...	Shawl
											66	25	53	103 1/2	49	20	18	700	...	...	Sunk
											72	30	57	114	54	20	18	750	...	...	Shop
											84	30	58	130	54	18	16	900	...	...	Slave
											96	30	63	153	60	18	16	1025	...	...	Shackel



Detail of Effico Rotary Ball-Bearing Ventilator

Capacities of Effico Rotary Ball Bearing Ventilators Cubic Feet of Air Exhausted Per Minute

Wind Velocity mi. per hour	Temperature difference in degrees Fahrenheit in building and outside											
	0				10				20			
5	295	365	430	465	500	740	850	925	900	1325	1500	1590
10	342	437	500	520	755	970	1070	1135	1325	1725	1900	2025
14	400	500	530	580	990	1080	1160	1270	1600	2000	2200	2300
	12-in. Ventilator				18-in. Ventilator				24-in. Ventilator			
5	1400	2080	2386	2600	2075	3000	3375	3650	2770	4090	4550	4950
10	2100	2925	3050	3250	2980	3880	4275	4550	3975	5175	5700	6000
14	2560	3200	3175	3525	3645	4365	4750	4935	4900	6000	6600	6900
	30-in. Ventilator				36-in. Ventilator				42-in. Ventilator			
5	3650	5300	6000	6500	4580	6600	7600	8200	5700	8300	9400	10200
10	5300	7100	7600	8100	6625	8625	9600	10000	8280	10900	12000	12700
14	6445	8050	8900	9200	8000	10000	11000	11600	10800	12600	13800	14500
	48-in. Ventilator				54-in. Ventilator				60-in. Ventilator			
5	8200	11800	13000	14800	11000	16300	18500	20000				
10	11900	15500	17000	18300	16300	21600	23600	25000				
14	14400	18000	19800	20800	19600	25000	27000	28500				

Above capacities are guaranteed and conservative. They are based on official test made at Carnegie Institute of Technology, Pittsburgh, Pa., and a great many by ourselves on special and regular installations.

Ventilators

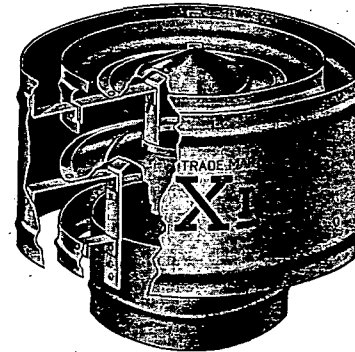
The Iona Ventilator Company, Inc.

2821 W. Dauphin St.

PHILADELPHIA, PA.

Designers and Manufacturers of Ventilators for 20 years
"XIT" and "IONA" Ventilators Adapted to Factories,
Schools, Theatres, Hospitals, Public and Farm Buildings.

"XIT" VENTILATORS



Vent Size In.	Out-side Dia. In.	Height In.	Gauge Iron or Metal	Approx. Finished Weights Lbs.	Gauge Cop- per Oz.	List Prices
6	10 1/2	8 1/4	26	5	16	\$ 12.00
7	12 1/2	10 1/4	26	6	16	14.00
8	14 1/2	11	26	8	16	16.00
9	16 1/2	12	26	10	16	18.00
10	18 1/2	13 1/2	24	12	16	20.00
12	21 1/2	15 1/2	24	16	16	24.00
14	25 1/2	17 1/2	24	28	16	28.00
15	26 1/2	18 1/2	22	34	18	32.00
16	28 1/2	19 1/2	22	43	18	36.00
18	30	22 1/2	22	50	18	40.00
20	34	24	22	55	18	44.00
22	38 1/2	26	22	61	18	48.00
24	43	28	22	84	20	52.00
26	46	30	22	105	20	56.00
28	50	32	22	131	20	65.00
30	54	34	22	146	20	80.00
32	57	36	22	160	20	100.00
34	60	38 1/2	22	178	20	120.00
36	64	42	20	238	20	180.00
40	71 1/2	45	20	275	20	190.00
42	75	48	20	305	20	200.00
44	79	51	20	350	20	240.00
48	86	57	18	615	24	300.00
54	97	63	18	757	24	360.00
60	107	69	18	880	24	420.00
66	118	75	18	980	24	480.00
72	129					

Four basic principles are incorporated in the design and construction of "XIT" Ventilators:

1. Largest area of vertical exits from head.
2. Greatest total exit area from head.
3. No external air can enter ventilator head.

4. Principle of action or suction is like that of chimney or stack, which is doubled by a second or internal band, making two points of suction, always to the lee side of head thereby greatly increasing action through ventilator.

Guaranteed exhaust and storm proof.

Liberal discounts.

Damper and base prices on request.

EXHAUST DATA CARD OF "XIT" VENTILATORS

Temp. Inside and Outside	Wind Velocity Mi. per Hour	Cubic Feet of Air Through Ventilator per Hour									
		12	14	16	18	20	24	30	36	40	48
70°	3	20,546	27,783	36,352	45,960	50,804	81,811	127,008	193,287	225,792	326,044
70°	5	24,460	33,075	43,276	54,714	60,480	97,036	151,200	218,198	268,800	388,147
70°	10	34,244	46,305	60,536	79,599	84,672	125,850	211,680	305,477	376,320	543,405
70°	15	47,941	64,827	84,750	111,438	118,540	176,190	296,352	427,667	526,848	760,767
70°	20	67,117	90,757	118,650	156,013	165,956	246,664	414,892	598,733	737,587	1,065,073

Increase in velocity of wind over five miles, increases exhaust 8 per cent per mile. Higher inside temperature increases exhaust 1 7-10 per cent per degree. In elevation over 25 feet, exhaust increase varies as square root of height.

"IONA" VENTILATORS

Vent Size In.	Out-side Dia. In.	Height In.	Gauge Iron or Metal	Approx. Finished Weights Lbs.	Gauge Cop- per Oz.	List Prices
6	10	6	26	3	16	\$ 3.40
8	14 1/2	7	26	4	16	4.65
10	18	9	24	6	16	5.75
12	21	10	24	8	16	6.75
14	24	12	22	14	18	13.00
16	27	13	22	20	18	20.00
18	31	14	22	26	18	27.00
20	34	15	22	30	18	33.00
24	42	18	22	42	18	40.00
30	51	23	20	75	20	65.00
36	62	27	20	118	20	120.00
42	72	31	18	182	20	190.00
48	82	35	18	275	20	240.00
54	94	38	18	300	24	300.00
60	104	43	18	335	24	360.00
72	130	60	18	630	24	480.00

