

W. F. Hirschman Co., Inc.

Main Office: Buffalo, N.Y.

New York, N. Y. PHILADELPHIA, PA.
205 East 42nd Street 1338 Spring Garden Street

MANUFACTURERS ROOF

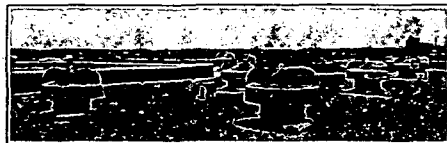
Works: Le Roy, N.Y.

BOSTON, MASS. DETROIT, MICH.
37 Pearl Street 97 W. Warren Ave.

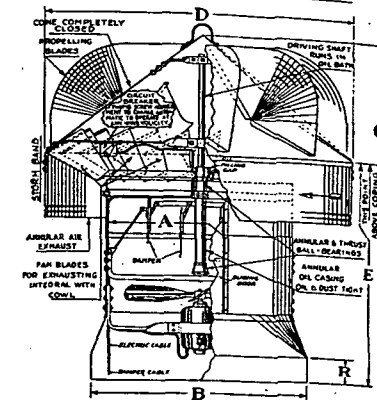
VENTILATORS

Principle of Operation of Wind-Electric Ventilator—When the wind is blowing sufficiently to remove the desired amount of air from the building being ventilated, the electric motor is still. Instantly, when the wind turbine moves below a previously determined number of revolutions, the electric motor starts automatically and carries the load. The entire apparatus is noiseless.

Special Advantages—Besides the regular automatic operation the motor may also be so connected as to give a maximum exhaust capacity (running full speed) by manual control.



Efficco Rotary Ball Bearing Ventilator Installation, Wind Driven (only). The Efficco Wind Electric Also Has the Same Artistic Lines and Pleasing Appearance. Lowest in Height of Rotary Ventilators by Over 60 per cent Average.



Detail of Efficco Wind Electric Rotary Ball Bearing Ventilator Full Automatic

NOTE.—Details of Wind Driven (only) Ventilator are identical with Exception of Motor Unit.

CAPACITIES OF EFFICCO ROTARY BALL BEARING VENTILATORS

Both Wind Electric and Wind Driven (only)—Cubic Feet of Air Exhausted per Minute

Wind Velocity, Miles per Hour	Bold Type is Regularly Furnished Wind-Electric Capacity											
	Temperature Difference in Degrees Fahrenheit in Building and Outside											
	0			10			20			30		
5	12-In. Ventilator				18-In. Ventilator				24-In. Ventilator			
	350	440	515	560	600	850	950	1040	1020	1600	1780	1900
10	430	525	600	625	910	1050	1200	1300	1490	1900	2100	2300
5	30-In. Ventilator				36-In. Ventilator				42-In. Ventilator			
	1560	2300	2690	2900	2300	3400	3810	4100	3150	4500	5010	5500
10	2300	3210	3490	3600	3250	4200	4720	5050	4390	5700	6300	6800
5	48-In. Ventilator				54-In. Ventilator				60-In. Ventilator			
	4000	5900	6700	7400	5100	7300	8450	9500	6500	9300	10600	11900
10	5900	7900	8900	9050	7850	9900	11000	11500	9200	12500	14000	14500

Efficco Wind Electric Ventilator Dimensions

Ventilator Sizes Corresponding to Those in Table Opposite	Dimensions in Inches—(See Diagram Above)					Thickness of Metal		Hp. of Motor
	A	B	C	D	E	Gauge C. I.	Cop- per, Oz.	
	Actual Size of Ventilator for Wind Elec. Type	Base	Height of Blades	Diam. of Storm Band	Height to Propeller Blades	Cowl	Base	
12	14	20	8	21 3/4	32	24	22	16
18	19	26	10	28 1/2	32	24	22	18
24	25	38	14	40	40	24	20	18
30	31	40	14	50	42	24	20	20
36	37	44	18	60	45	22	18	24
42	43	50	22	68	51	22	18	24
48	49	56	24	76	51	22	18	24
54	55	62	24	86	51	22	18	24
60	61	66	24	98	55	22	18	24

This apparatus is adjustable to exhaust various quantities of air within the limits of given sizes and is regularly supplied at capacities of 5 miles per hour wind and 10 deg. temperature difference rating. The Wind-Electric will exhaust minimum volume regardless of temperature difference or wind velocity. Other capacity can be supplied and the ventilator is adjustable to any constant capacity after installation.

For F Electric Ventilator Non-Automatic see second page following:

"Efficco" Wind-Driven Roof Ventilators

The Efficco Ventilator consists of a wind-driven head to which suction blades are permanently connected (on the underside) making an efficient exhaust fan. Rotation of the head creates an exhaust suction in the throat of the ventilator. There are no moving parts.

Bearings.—Efficco Bearings are full ball bearings, are solidly enclosed and oil-flooded (also dust and acid proof). They are as sturdy as the best automobile bearings, and will run in a dry state for years, but we oil-flood them as an extra precaution.

Efficco Internal Louver Unit Ventilators

The Efficco internal louver unit comprises the Efficco rotary ball bearing ventilator head constructed with a specially short base, or neck. In this base is built a circular multiple blade louver damper. The damper is carefully balanced and heavily constructed. The blades lap and are fitted in a circular frame. It is adaptable for manual control, but is intended for a thermostatic control system. The roof base is very low, is part of this unit and is supplied with either the square or round base.

The roof base and the ventilator head are connected by means of angle iron companion rings, which give solidity and facilitate the taking down of the ventilator when required. Each ventilator neck has also a tight fitting door to give free access to the louvers and to the operating motor. The operating motor is suspended underneath the damper to a cross brace. The object of the specially low base and the low roof base is to make the entire unit as low to the roof as possible.

Efficco Louver Dampers

Made of stretcher leveled sheet steel. The pneumatic damper motor is supplied and installed with these units unless not desired. (Note specifications below).

Electric Remote Control

Also supplied to operate any of our dampers.

Efficco Louver Unit

Low Height. The Efficco louver unit sets very low (note dimensions at right).

Height above Copping

Louver Unit "C" dimension should be above coping. Note above.

Heads Only. Efficco Heads without dampers are also supplied.

CAPACITY—Exhaust capacity same as Efficco Head—note opposite page, for F Electric Ventilator see next page.

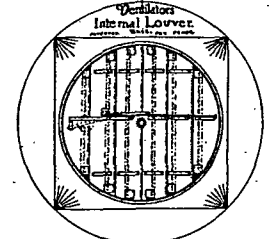
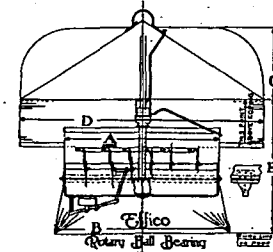
Suggested Specifications

The roof ventilators shall be of the sizes as shown in plans, [square base] [round base] style to be made of [Tuncan] [Copper]. (The pneumatic damper motor to be supplied with these units). They shall be the Efficco Internal Louver Unit Ventilators as manufactured by the W. F. HIRSCHMAN CO., INC., Buffalo, N. Y.

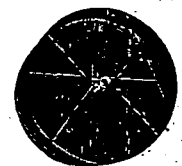
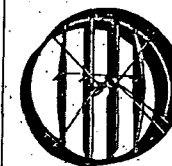
Efficco Louver Unit Sizes and Dimensions

Dimensions, Inches					Galvanized Steel		Copper, Oz.	Code for Telegraphy
A	B	C	D	E	Gauge	Net Wt., Lb.		
18	20	10	28 1/2	23	24	24	90	16
24	30	14	40	30	22	22	140	18
30	36	14	50	32	22	20	190	20
36	42	18	60	32	22	18	225	24
42	48	22	68	43	22	18	350	24
48	54	24	76	43	22	18	400	24
54	60	24	86	43	22	18	600	24
60	66	24	98	43	20	18	710	24
66	72	30	103 1/2	49	20	18	800	24
72	80	30	114	54	20	18	880	24
84	92	36	130	54	18	16	1050	24
96	116	45	153	54	18	16	1200	24

For round bases, "E" dimension remains the same. For capacities note preceding page.



Patented May 20, 1922; March 20, 1928.



Open Closed
The Multiple Circular Louver Damper in Neck of Ventilator