

# *Propeller Power Roof Ventilators* *Belt Driven*



SkyMaster® Models EC & ECH



SYMBOL  
OF QUALITY



## CONSTRUCTION FEATURES

A low silhouette power roof ventilator having high air-flow capacities for efficient exhaust or supply ventilation.

### ACME MODELS EC AND ECH ROOF VENTILATORS

- **HEAVY GAUGE ALUMINUM** hood, housing and propeller.
- **GALVANIZED STEEL** is used for inner curb cap, a fundamental structural component.
- **STEEL FAN SHAFTS** have a corrosion resistant coating.
- **HEAVY DUTY STEEL** motor support and streamlined orifice plate are iron phosphate processed and finished with a baked acrylic epoxy.
- **CORROSION RESISTANT** fasteners are zinc plated with dichromate coating.
- **HOOD REINFORCING FRAMEWORK** of aluminum and steel.
- **HEAVY-DUTY** industrial grade belts are used for maximum service life.
- **OVERSIZED** sealed ball bearings.

### LOW CONTOUR LINES

Smart Trim Line design blends with latest architectural styling.

### WEATHER PROTECTED

Wide hood overhang for extra storm protection. Housing is of weather tight construction. Filters are recommended on supply ventilators to guard against moisture entrainment from high velocity wind driven rain or snow.

### MOTORS

Heavy-Duty type with sealed ball bearings and designed for continuous duty work load. Only highest quality motors of leading manufacturers are used and are available with many standard electrical characteristics and NEMA motor frame enclosures. Most models are available with two speed, single phase and three phase open dripproof and totally enclosed motors. Larger size motors are mounted on rails for convenient belt adjustment.

### EXTRA LARGE HOOD

Provides large opening area around full perimeter of hood for efficient air flow through ventilator when installed on a standard 8" high curb. Hoods of size 48 and larger are shipped knocked down for convenient handling. Easy assembly in field.



### DUPLEX SPLIT PILLOW BLOCK BEARING ARRANGEMENT



Permanently lubricated bearings are used in duplex split pillow block housing. The bearings remain in perfect alignment after shipment, installation and subsequent operation. Bearings are resiliently mounted in neoprene rings, providing extra protection and vibration isolation. The bearing assembly is rated at an L-50 life of 200,000 hours and features Acme's **5 year** limited warranty.

ECH72 models use heavy-duty self-aligning type pillow block bearings.

### TWO YEAR WARRANTY

All Acme models shown in this catalog carry a two year warranty.



Acme Engineering & Manufacturing Corporation certifies that the models shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.



U.L. 705 Listed



CSA Certified

Consult your Acme representative for availability.



---

## CONSTRUCTION FEATURES

---

### HEAVY-DUTY CONSTRUCTION

**Hood** is supported by rugged aluminum channels and support posts and reinforced by a frame work of heavy gauge aluminum channels.

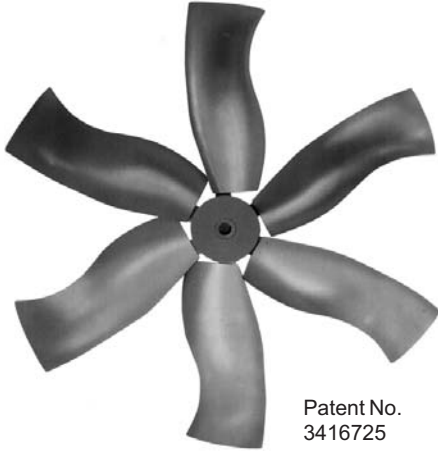
Entire perimeter of hood is reinforced by a formed angle for extra strength and rigidity.

**Welded tubular steel** frame supports the motor, propeller and drive assembly, iron phosphate processed and finished with baked acrylic epoxy.

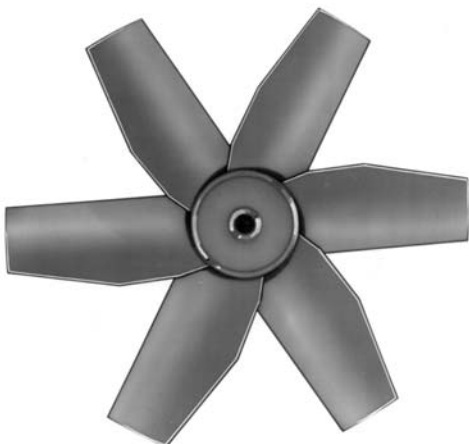
Entire weight of ventilator is carried on a specially designed inner curb cap made of heavy gauge galvanized steel that transmits weight directly to roof curb.

### PROPELLERS

All propellers have six blades (size 42 and 48 ECH have 5 blades) to provide high air flow capacity. All welded heavy gauge aluminum is standard. Acrylic epoxy coated steel is optional. Precision balanced. Non-overloading design prevents motor overload when operated within static pressure range cataloged.



**MODEL EC** utilizes a revolutionary cambered-twist blade with a swept-back dihedral tip for exceptional propeller efficiency and high ventilator performance.



**MODEL ECH** utilizes a tapered circular-arc airfoil blade to achieve high air flow capacities. Blades on the larger size propellers are heavily reinforced.



Hood is easily removed for maintenance. **WARNING!** When hood is not secured to the unit base it may present a hazard in the presence of wind, and if removed secure at storage site.

### BIRD SCREENS

Constructed of  $\frac{1}{2}$ " x  $\frac{1}{2}$ " or  $\frac{1}{2}$ " x 1" heavy gauge galvanized hardware cloth.

### DISCONNECT SWITCH

Switch is mounted over knock-out in corner of orifice plate for safe accessibility and for convenient wiring to power source.

### FACTORY WIRED MOTOR

Provides big savings in installation time and costs. All motors except explosion resistant and motors shipped separately are factory wired to junction box. Standard wiring complies with National Electric Code and materials used are U.L. Listed.

### BELT DRIVE

All drives use heavy-duty type neoprene static conducting, oil and heat resistant belts. The belt drives are designed for 1.5 service factor. Drives are 1 or 2 belt combinations depending on horsepower. Only high quality cast iron sheaves are used. Variable pitch motor sheaves are available.

# PERFORMANCE DATA

## EXHAUST VENTILATORS

MODEL NO.	HP	RPM	MAX BHP	LICENSED CFM & SONES vs. STATIC PRESSURE																		EST. SHIP WT. LBS.
				0		.100		.125		.250		.375		.500		.625		.750		.875		
				CFM	SONES	CFM	SONES	CFM	SONES	CFM	SONES	CFM	SONES	CFM	SONES	CFM	SONES	CFM	SONES	CFM	SONES	
ECH24F	1/3	950	.39	4950	15.2	4480	15.2	4350	15.2	3460	16.4	2610	18.2									196
ECH24G	1/2	1091	.59	5680	19.2	5280	19.1	5180	19.1	4550	19.7	3610	25	2970	23							203
ECH24H	3/4	1248	.87	6500	24	6150	24	6060	24	5570	24	4930	25	4070	32	3500	30					206
ECH24J	1	1374	1.15	7160	27	6840	27	6760	27	6340	27	5830	28	5150	29	4380	37	3880	35			214
EC30E	1/4	434	.25	6230	8.4	4800	9.1															237
EC30F	1/3	508	.47	7290	11.1	6170	10.0	5830	10.7													240
EC30G	1/2	581	.60	8340	13.5	7370	13.1	7110	13.4	5080	14.5	3460	12.0									245
EC30H	3/4	665	.91	9550	15.5	8700	14.7	8490	14.6	7110	14.3	4880	15.2	3890	12.5							250
EC30J	1	732	1.21	10510	17.2	9740	16.4	9550	16.2	8520	16.1	6760	17.6	5030	17.2							256
EC36E	1/4	370	.26	7760	9.4	5810	9.1	5230	9.6													297
EC36F	1/3	431	.41	9040	11.3	7440	11.0	6990	11.6	4190	9.2											300
EC36G	1/2	495	.62	10380	14.6	9010	14.3	8640	14.1	6450	14.2	3880	10.8									307
EC36H	3/4	575	.97	12060	17.6	10890	18.5	10580	17.3	8940	18.5	6780	15.8	4650	15.2							311
EC36J	1	634	1.33	13300	21	12240	19.1	11970	20	10540	19.0	8830	22	6760	18.4							318
ECH36K	1 1/2	782	1.62	13670	25	12970	25	12790	25	11780	26	10550	28	9270	42	7990	38					411
ECH36L	2	861	2.16	15050	29	14410	29	14250	30	13380	30	12350	34	11190	41	10040	47	8880	38			427
ECH36M	3	987	3.24	17250	38	16700	38	16560	38	15830	38	15030	42	14100	47	13090	48	12080	47	11090	53	439
EC42F	1/3	342	.41	11400	8.5	8950	8.0	7800	8.5	3800	8.4											400
EC42G	1/2	385	.59	12820	10.7	10740	9.9	10170	10.0	6550	10.7											407
EC42H	3/4	442	.89	14720	14.2	12930	12.3	12460	12.3	9730	16.1	6420	13.2									411
EC42J	1	485	1.18	16150	15.5	14530	14.4	14110	14.2	11810	16.0	8780	16.5	5540	14.0							418
ECH42K	1 1/2	605	1.64	16690	18.8	15630	18.8	15350	18.9	13710	19.1	11790	26	9880	25							524
ECH42L	2	666	2.18	18380	22	17420	22	17170	22	15780	22	14100	23	12360	30	10580	26					521
ECH42M	3	763	3.27	21050	25	20220	26	20010	26	18880	27	17560	30	16060	32	14530	37	13040	35	11340	33	534
ECH42N	5	904	5.37	24940	36	24240	36	24070	35	23160	34	22170	36	21050	38	19810	43	18530	46	17240	52	548
EC48G	1/2	308	.59	15310	9.4	12300	10.6	11440	10.0	6160	8.7											556
EC48H	3/4	354	.89	17600	12.4	15030	12.6	14340	12.9	10010	11.6											560
EC48J	1	382	1.13	18990	15.5	16620	14.6	16000	14.2	12330	15.4	7980	12.7									567
ECH48K	1 1/2	485	1.62	19890	17.5	18360	18.5	17950	18.8	15460	21	12740	19.0									652
ECH48L	2	532	2.14	21810	21	20440	22	20070	22	17950	23	15460	29	12990	26							663
ECH48	3	611	3.25	25050	28	23860	26	23560	26	21880	29	19850	31	17670	30	15540	27	13090	27			669
ECH48N	5	723	5.33	29640	33	28640	33	28390	34	27070	34	25570	34	23850	36	22020	42	20180	44	18390	43	683
ECH54J	1	347	1.08	20500	11.8	18000	13.9	17200	14.1	12900	16.9											795
ECH54K	1 1/2	398	1.61	23160	15.5	21040	16.5	20450	17.9	16870	19.8	13050	16.5									810
ECH54L	2	438	2.13	25480	18.4	23590	19.4	23080	19.4	20010	22	16620	26									810
ECH54M	3	502	3.21	29210	23	27570	25	27150	25	24730	27	21820	29	18880	30	15660	25					817
ECH54N	5	595	5.33	34620	30	33250	30	32900	30	31040	34	28870	35	26410	37	23890	43	21440	40	18640	33	831
ECH60J	1	292	1.09	23600	10.7	20200	12.5	19200	12.5	13400	10.9											906
ECH60K	1 1/2	334	1.59	26580	13.7	23750	15.7	22910	15.7	18060	19.5											916
ECH60L	2	368	2.13	29290	16.3	26760	17.6	26060	18.8	21820	21	17330	16.3									941
ECH60M	3	421	3.18	33510	21	31330	22	30760	22	27380	24	23450	29	19500	22							950
ECH60N	5	499	5.30	39720	28	37900	28	37430	29	34890	31	31840	32	28510	35	25250	36	21650	31			956
ECH60P	7 1/2	571	7.89	45450	34	43870	34	43460	34	41360	36	38970	39	36220	42	33320	44	30440	51	27580	46	1070
ECH60R	10	628	10.91	50800	40	49500	40	49100	40	47200	42	45100	45	42700	47	40100	50	37500	52	35900	52	1085
ECH72K	1 1/2	246	1.62	34400	11.5	29500	13.3	28100	13.2	19900	11.5											1275
ECH72L	2	271	2.15	37900	13.3	33700	15.5	32300	15.5	25100	19.5											1300
ECH72M	3	310	3.12	42460	16.7	38870	18.4	37870	19.9	31880	21	25520	23									1300
ECH72N	5	368	5.20	50400	23	47430	25	46650	25	42190	27	36860	30	31540	32							1320
ECH72P	7 1/2	421	7.77	57660	28	55080	28	54420	30	50840	33	46530	34	41820	37	37180	38					1400
ECH72R	10	464	10.89	64900	34	62600	34	62000	34	58800	36	55200	38	50800	42	46000	44	42400	49	37800	39	1430
ECH72S	15	531	16.38	74200	43	72400	43	71800	43	69100	43	66200	46	62900	49	59300	50	55400	54	51900	55	1510

The brake horsepower capability of a fan motor is dependent on the degree of cooling the motor receives from the moving air stream over the motor. The motor loading beyond the motor name plate rating on Acme built fans does not overheat the motor and is within NEMA recommended limits. It is therefore not detrimental to the motor and is economically desirable.

Performance **certified** is for Installation Type A: Free inlet, Free Outlet Power Rating (BHP) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories).

The sound ratings shown for Models EC and ECH are loudness values in fan sones at 5 feet (1.524 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: Free Inlet fan sone levels.

The sound ratings shown for Models EC-S and ECH-S are loudness values in fan sones at 5 feet (1.524 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: Free Outlet fan sone levels.



# PERFORMANCE DATA

## SUPPLY VENTILATORS

MODEL NO.	HP	RPM	MAX BHP	LICENSED CFM & SONES vs. STATIC PRESSURE																		EST. SHIP WT. LBS.
				0		.100		.125		.250		.375		.500		.625		.750		.875		
				CFM	SONES	CFM	SONES	CFM	SONES	CFM	SONES	CFM	SONES	CFM	SONES	CFM	SONES	CFM	SONES	CFM	SONES	
ECH-S24F	1/3	950	.36	4830	17.7	4450	18.8	4340	19.5	3320	21	2510	16.6									196
ECH-S24G	1/2	1091	.55	5550	21	5230	22	5140	22	4500	26	3500	24	2860	20							203
ECH-S24H	3/4	1248	.81	6350	27	6070	27	6000	27	5560	29	4800	32	3960	28	3370	25					206
ECH-S24J	1	1374	1.07	6990	31	6740	30	6670	31	6310	33	5790	36	4950	38	4260	32	3740	29			214
EC-S30E	1/4	434	.22	6130	11.1	3890	9.7	3440	9.4													237
EC-S30F	1/3	508	.36	7170	14.9	5500	13.4	4870	13.1	3010	12.0											240
EC-S30G	1/2	581	.52	8210	18.9	6910	17.4	6410	17.1	4340	16.0											245
EC-S30H	3/4	665	.80	9390	24	8350	22	8000	22	5730	21	4530	19.8									250
EC-S30J	1	732	1.08	10340	28	9430	26	9150	26	7200	24	5640	24	4550	23							256
EC-S36E	1/4	370	.22	7740	11.6	5190	9.9	4050	11.2													297
EC-S36F	1/3	431	.38	9020	14.1	7040	12.0	6410	11.8	3200	11.9											300
EC-S36G	1/2	495	.55	10360	18.9	8760	17.9	8230	18.1	4810	14.9											307
EC-S36H	3/4	575	.87	12030	26	10740	23	10340	23	7880	19.7	5160	17.8									311
EC-S36J	1	634	1.19	13270	28	12130	27	11800	26	9800	23	6680	20	5270	25							318
ECH-S36K	1 1/2	782	1.58	13570	34	12890	33	12710	32	11720	32	10340	31	8400	32	6690	30					411
ECH-S36L	2	861	2.10	14940	38	14320	37	14160	37	13310	36	12260	35	10780	36	8950	38	7410	37			427
ECH-S36M	3	987	3.08	17120	50	16590	47	16450	48	15750	48	14950	47	14000	46	12740	45	12210	47	9470	48	439
EC-S42F	1/3	342	.39	11400	13.4	8300	11.9	7100	10.7													400
EC-S42G	1/2	385	.58	12790	16.5	10260	14.8	9470	14.7	5100	13.0											407
EC-S42H	3/4	442	.89	14690	23	12640	19.7	11960	19.3	7330	15.5	4280	17.0									411
EC-S42J	1	485	1.13	16110	24	14320	23	13760	22	10230	20	6750	16.5									418
ECH-S42K	1 1/2	605	1.73	16350	30	15482	29	15265	28	13696	28	11631	28	9651	25							524
ECH-S42L	2	666	2.31	17999	36	17209	34	17011	33	15808	33	14027	32	12159	31	10278	29					521
ECH-S42M	3	763	3.50	20620	47	19933	46	19761	46	18903	46	17552	45	15970	44	14292	46	12832	45	10899	47	534
ECH-S42N	5	904	5.63	24430	61	23849	58	23704	56	22977	58	22251	56	21059	56	19778	55	18370	55	16984	57	548
EC-S48G	1/2	308	.55	15280	13.7	11510	11.4	10190	10.6													556
EC-S48H	3/4	354	.85	17560	16.8	14490	16.2	13510	15.4	7600	11.0											560
EC-S48J	1	382	1.05	18950	22	16220	19.3	15320	19.5	9230	13.6											567
ECH-S48K	1 1/2	485	1.54	19740	24	18260	23	17850	23	15180	23	10850	21									652
ECH-S48L	2	532	2.08	21650	28	20310	27	19960	27	17840	27	14480	25	10830	25							663
ECH-S48M	3	611	3.28	24870	34	23710	35	23410	34	21770	34	19600	35	16480	35	12990	32	11360	29			669
ECH-S48N	5	723	5.09	29430	54	28450	50	28210	52	26920	50	25450	48	23630	47	21170	48	18330	46	15370	42	683
ECH-S54J	1	347	1.02	20300	17.3	17800	16.8	17000	16.8	11000	15.2											795
ECH-S54K	1 1/2	398	1.59	22990	22	20930	21	20350	21	16050	19.3	11030	17.7									810
ECH-S54L	2	438	2.10	25300	25	23450	24	22950	24	19710	24	14430	23									810
ECH-S54M	3	502	3.22	28990	32	27400	31	26990	31	24610	31	21050	33	16220	29	13460	26					817
ECH-S54N	5	595	5.07	34370	42	33030	42	32690	42	30880	42	28710	41	25740	43	21950	41	17910	39			831
ECH-S60J	1	292	1.06	23500	15.7	20000	15.2	18900	15.2	11000	12.5											906
ECH-S60K	1 1/2	334	1.51	26390	19.3	23620	18.9	22800	18.9	16380	20											916
ECH-S60L	2	368	2.07	29080	23	26610	22	25930	23	21020	24	14470	23									941
ECH-S60M	3	421	3.11	33260	28	31150	27	30580	27	27190	27	21790	25	16340	24							950
ECH-S60N	5	499	5.28	39430	39	37660	39	37200	37	34720	38	31520	37	26900	34	21370	35	18500	31			956
ECH-S60P	7 1/2	571	7.59	45110	49	43580	49	43180	49	41140	47	38790	47	35820	47	31820	50	27240	47	22980	44	1070
ECH-S60R	10	628	10.93	50500	58	49100	58	48800	58	46800	55	44700	55	42400	56	39600	56	36100	59	31700	56	1085
ECH-S72K	1 1/2	246	1.57	34200	16.6	29300	15.9	27700	16.0	16300	12.9											1275
ECH-S72L	2	271	2.02	37600	18.9	33300	18.4	32100	18.4	22300	13.7											1300
ECH-S72M	3	310	3.01	42150	24	38650	23	37680	24	30840	26	21270	22									1300
ECH-S72N	5	368	5.00	50040	32	47140	32	46380	30	41960	31	35140	34	26420	29							1320
ECH-S72P	7 1/2	421	7.74	57240	41	54730	41	54090	39	50590	40	46120	40	39680	36	31850	32	27270	33			1400
ECH-S72R	10	464	10.49	64400	48	62200	48	61600	48	58400	46	54700	48	50100	46	43900	44	37100	39	31200	39	1430
ECH-S72S	15	531	16.26	73700	62	71800	62	71300	62	68700	60	65500	61	62700	61	58500	60	53500	63	47500	60	1510

Performance **certified** is for Installation Type A: Free inlet, Free Outlet Power Rating (BHP) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories). The brake horsepower capability of a fan motor is dependent on the degree of cooling the motor receives from the moving air stream over the motor. The motor loading beyond the motor name plate rating on Acme built fans does not overheat the motor and is within NEMA recommended limits. It is therefore not detrimental to the motor and is economically desirable.

The sound ratings shown for Models EC and ECH are loudness values in fan sones at 5 feet (1.524 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: Free Inlet fan sone levels.

The sound ratings shown for Models EC-S and ECH-S are loudness values in fan sones at 5 feet (1.524 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: Free Outlet fan sone levels.



## OPTIONAL COATINGS

### PAINTED FINISHES

Aluminum and galvanized components remain unpainted as a standard finish, but when required, are processed through the finishing system to apply decorative or special coatings. A high turbulence oven is used to produce a baked on finish for most special coatings. Decorative coatings are not baked on.

### DECORATIVE COATINGS

Acme offers 16 popular colors for decorative finishes utilizing an industrial grade enamel applied to the exterior of the hood, housing and curbcap base. Special colors are available upon request. See your Acme representative for complete color selections.

### SPECIAL COATINGS

Products receiving special coatings have components painted before assembly. Fasteners are not painted.

### ACRYLIC EPOXY

This product provides a more durable surface.

### HERESITE (AIR DRY)

A phenolic coating with greater resistance to most organic and inorganic acids.

### INSULMASTIC

A black asphalt based mastic that provides some condensation control, sound deadening and corrosion resistance.

**NOTE:** For any coating selected the user assumes the responsibility for the corrosive agent, its concentration, temperature, moisture content and the ultimate effect on the coating and the equipment.

## OPTIONAL ACCESSORIES

### FILTER EQUIPPED SUPPLY VENTILATORS

#### HORIZONTAL FILTERS

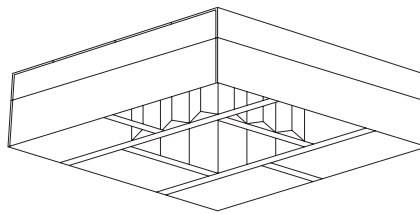
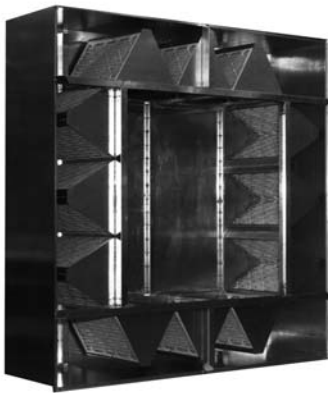
Available with built-in filter frames for 1" or 2" filters mounted in horizontal position around perimeter of hood inlet. Hoods are approximately the size of next larger supply ventilator. Filter sizes shown are actual maximum outside dimensions that filters must have to fit properly. Birdscreens not available with filter frames.

#### VERTICAL FILTERS

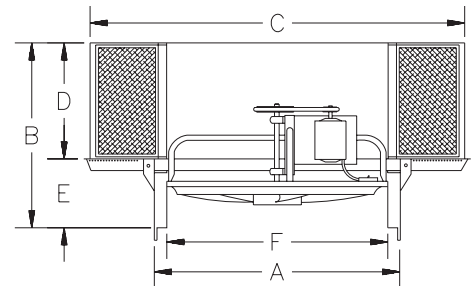
The unique vertical filter option is an outstanding compliment to the ECH power roof ventilator. Compared to standard models the ECH with vertical filters offers up to 80% more filter area. The vertical design allows rain and snow moisture to drain better and maintain the integrity of the filter translating into a longer filter life.

FAN SIZE	FILTER QUANTITY AND SIZE
	HORIZONTAL FILTERS
24	4 -10 <sup>1</sup> / <sub>2</sub> x 16 & 4 -10 <sup>1</sup> / <sub>2</sub> x 27 <sup>3</sup> / <sub>4</sub>
30	4 -12 <sup>1</sup> / <sub>2</sub> x 19 & 6 -12 <sup>1</sup> / <sub>2</sub> x 21 <sup>3</sup> / <sub>4</sub>
36	4 -15 x 22 & 6 -15 x 25 <sup>1</sup> / <sub>2</sub>
42	4 -16 <sup>1</sup> / <sub>2</sub> x 26 & 8 -16 <sup>1</sup> / <sub>2</sub> x 21 <sup>7</sup> / <sub>8</sub>
48	4 -18 <sup>1</sup> / <sub>2</sub> x 29 & 8 -8 <sup>1</sup> / <sub>2</sub> x 24
54	6 -20 <sup>1</sup> / <sub>4</sub> x 22 & 8 -20 <sup>1</sup> / <sub>4</sub> x 27
60	6 -25 x 27 <sup>1</sup> / <sub>4</sub> & 12 -21 <sup>1</sup> / <sub>2</sub> x 27 <sup>1</sup> / <sub>4</sub>

Dimensions shown in inches.



VERTICAL FILTER RACKS



VERTICAL FILTER

FAN SIZE	A	B	C	D	E	F	FILTER	FILTER QUANTITY	TOTAL FILTER AREA
	in	in	in	in	in	in	in		in
42	54	41	79	26 ½	14 ½	48	14 x 25	24	8400
48	60	43 ½	90	26 ½	17	54	16 x 25	24	9600
54	68	53	100	33 ½	19 ½	60	16 x 16	48	12288
*60	76	59 ½	112	37 ½	22	68	20 x 20 16 x 20	24 24	17280
*72	88	68 ½	134	41 ½	27	80	20 x 25	48	24000

\*60" and 72" Models have split hoods for shipping.





## OPTIONAL ACCESSORIES

### BACKDRAFT DAMPERS

Large oversized design for low air velocity, quiet operation. All aluminum multi-blade construction. Precision balanced full opening blades on all dampers. Wide damper flange for installation flush to ceiling opening or to mounting frame in roof opening. Mounts inside Types SF or RF prefabricated curbs. Available as automatic or motor operated for exhaust ventilators. Only motor operated are available for supply ventilators.



### DAMPER BOX

For easy mounting of damper inside field constructed roof curb. Required for Acme sound curbs, but not required when Acme prefabricated curbs are used.



### VARIABLE PITCH SHEAVES

Most units are available with variable pitch motor sheaves for adjusting fan speed to obtain desired fan performance. Precision selected so that when set at maximum speed fan will not exceed cataloged rating and will not overload the motor.

### PREFABRICATED CURBS

Heavy gauge galvanized steel or aluminum roof curbs for easy installation of ventilator over roof openings. Replaces conventional field constructed curbs for steel, concentrate or wood roofs.

Available as self-flashing type (SF) or as roofed over flashing type (RF) with built-in cant strip. Acoustically lined and thermally insulated with 1 1/2" thick, rigid fire resistant sound absorbing glass fiber to reduce condensation. Damper shelf in base of curb for easy backdraft damper installation.

## TYPICAL SPECIFICATIONS

Low silhouette roof exhaust or supply fan shall be propeller belt drive square hood type.

The precision balanced **propeller** shall be all aluminum with die-formed circular-arc airfoil blades attached to a special die-formed spherical hub of model ECH or unique cambered-twist blade with a swept-back dihedral tip for high airflow capacity for model EC.

The fan **housing** shall be constructed of aluminum with a heavy gauge steel inner structural member to transmit weight directly to curb and shall be designed to hold 12" of wet snow and withstand a 65 MPH wind load. The **hood** shall have a reinforced support system with internal drain trough.

Pre-lubricated ball bearings shall be used in the duplex split pillow block housing (except ECH72 which has unitary pillow block) for accurate alignment and rated for a L-50 life of 200,000 hours. Bearings are resilient mounted in neoprene rings providing protection and vibration isolation.

Sealed ball bearing **motors** shall be adjustable on the motor base.

**Drives** shall be cast iron pulleys with static conducting oil and heat resistant belts and shall be designed for 1.5 service factor.

The fan shaft shall have a protective coating for resistance against corrosion.

**Birdscreen** shall be made from heavy gauge wire and attached to the hood inlet perimeter.

A standard **disconnect switch** shall be factory installed and wired from fan motor to junction box. (Except explosion resistant)

Standard **wiring** shall comply with National Electric Code and materials used shall be U.L. Listed.

All fans shall bear the **AMCA Certified Ratings Seal** for Sound and Air performance.

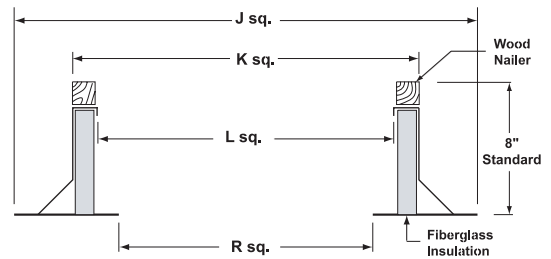
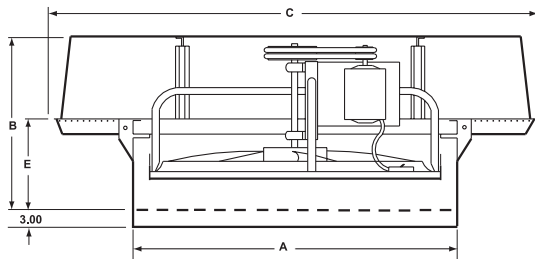
Each fan shall have a permanently affixed manufacturer's **nameplate** containing the model number and serial number for future identification.

**Thermal overload protectors** shall be standard for (explosion resistant) motors.

Fans shall be covered by a 2 year limited warranty with 5 year limited warranty on duplex split pillow block bearing and shaft.

Fans shall be Model EC or ECH as manufactured by Acme Engineering and Manufacturing Corporation of Muskogee, Oklahoma.

## DIMENSIONAL DATA



Fan Model	A	B	B ■	C	C ■	E	Roof Opening*	Damper Model	Curb Model
ECH24	34.00	24.00	24.00	48.00	58.00	12.97	29.5 x 29.5	AR28	C32.5
EC30	40.00	24.25	25.75	58.00	68.00	13.75	35.5 x 35.5	AR34	C38.5
EC36	46.00	27.00	29.00	68.00	79.00	15.00	41.5 x 41.5	AR40	C44.5
ECH36	46.00	27.00	29.00	68.00	79.00	15.00	41.5 x 41.5	AR40	C44.5
EC42	54.00	28.50	33.50	79.00	90.00	17.50	49.5 x 49.5	AR48	C52.5
ECH42	54.00	31.00	33.50	79.00	90.00	17.50	49.5 x 49.5	AR48	C52.5
EC48	60.00	36.00	38.00	90.00	100.00	20.00	55.5 x 55.5	AR54	C58.5
ECH48	60.00	36.00	38.00	90.00	100.00	20.00	55.5 x 55.5	AR54	C58.5
ECH54	68.00	40.50	42.50	100.00	112.00	22.50	63.5 x 63.5	AR62	C66.5
ECH60	76.00	45.00	49.00	112.00	134.00	25.00	71.5 x 71.5	ARH70	C74.5
ECH72	88.00	54.00	N/A	134.00	N/A	30.00	83.5 x 83.5	ARH82	C86.5

■ For Supply Units with Filter Frames.  
Dimensions are shown in inches.  
\*Recommended maximum.

### RF and SF TYPES

FAN SIZE	CURB MODEL	J	K	L	R
24	C32.5	40 1/2	32 1/2	29 1/2	26 1/2
30	C38.5	46 1/2	38 1/2	35 1/2	32 1/2
36	C44.5	52 1/2	44 1/2	41 1/2	38 1/2
42	C52.5	60 1/2	52 1/2	49 1/2	46 1/2
48	C58.5	66 1/2	58 1/2	55 1/2	52 1/2
54	C66.5	74 1/2	66 1/2	63 1/2	60 1/2
60	C74.5	82 1/2	74 1/2	71 1/2	68 1/2
72	C86.5	94 1/2	86 1/2	83 1/2	80 1/2

These are typical drawings for dimensional purposes only, which are correct within limits suitable for normal installation requirements and do not necessarily show actual construction.

### CENTRIFUGAL EXHAUSTERS



### CEILING AND CABINET EXHAUSTERS



### IN-LINE CENTRIFUGAL FANS



### IN-LINE AXIAL FANS



### PROPELLER ROOF FANS



### PROPELLER WALL FANS



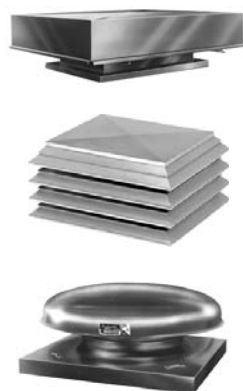
### UTILITY BLOWERS



### SUPPLY AIR FANS



### ROOF VENTS



### PLENUM FANS



### BACKWARD INCLINED/AIRFOIL CENTRIFUGAL FANS



### CENTRIFUGAL INDUSTRIAL EXHAUSTERS



**LIMITED WARRANTY** Acme Engineering and Manufacturing Corporation extends this limited warranty to the original purchaser and warrants that products described herein shall be free from original defects in workmanship and materials for two years from date of shipment (except for Acme's exclusive duplex split pillow block bearings and shaft 5 years from shipment, belts one year from shipment, and polyethylene tubing at 90 days from shipping), provided same have been properly handled, stored, installed, serviced, maintained and operated. Refer to Form MS149 for complete limited warranty terms and conditions. This form is available to anyone at [www.acmefan.com](http://www.acmefan.com). The Company's warranty is in lieu of all other warranties, express or implied, arising by law or otherwise, including without limitation the implied warranties of merchantability and fitness for a particular purpose, which are hereby expressly disclaimed and waived.

Acme products are designed and manufactured to provide reliable performance but they are not guaranteed to be 100% free of defects. Even reliable products will experience occasional failures and this possibility should be recognized by the Purchaser and End User. If these products are used in a life support ventilation system where failure could result in loss or injury, the Purchaser and End User should provide adequate back-up ventilation, supplementary natural ventilation or failure alarm system, or acknowledge willingness to accept the risk of such loss or injury.

**WARNING** DO NOT use in HAZARDOUS ENVIRONMENTS where fan's electrical system could provide ignition to combustible or flammable materials unless unit is specifically built for hazardous environments. Comply with all local and national safety codes including the National Electrical Code (NEC) and National Fire Protection Act (NFPA). Guards

must be installed when fan is within reach of personnel or within eight (8) feet (2.5 m) of working level or when deemed advisable for safety.

**DISCLAIMER** The Company has made a diligent effort to illustrate and describe the products in this literature accurately; however, such illustrations and descriptions are for the sole purpose of identification, and do not express or imply a warranty that the products are merchantable, or fit for a particular purpose.

**INDEMNITY** Purchaser acknowledges various warnings by the Company regarding the products and its installation and use. If the Company incurs any claims, lawsuits, settlements, or expenses (including attorney fees) for any loss, injury, death or property damage including, but not limited to, claims arising out of the Purchaser's or any end user's installation or use of the products, the Purchaser shall indemnify and hold the Company harmless.



### ACME ENGINEERING & MANUFACTURING CORP.

P.O. Box 978, Muskogee, Oklahoma 74402  
Telephone: 918-682-7791 Fax: 918-682-0134  
[www.acmefan.com](http://www.acmefan.com) e-mail: [acmefan@acmefan.com](mailto:acmefan@acmefan.com)

Member Air Movement and Control Association International, Inc.