

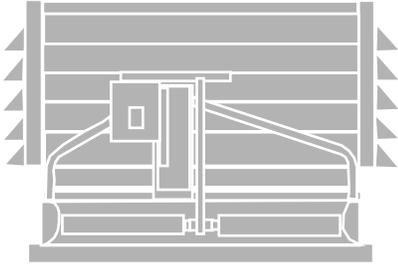
# PROPELLER ROOF



**COOK**

# Propeller Roof

## Propeller Roof Fans



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|  | Page |
|--|------|
| Introduction . . . . .                               | 2    |
| Propeller Information . . . . .                      | 3    |
| Standard Construction Features . . . . .             | 4    |
| <b>Specification and Dimension Data</b>              |      |
| AQD (Spun Aluminum Exhaust – Direct Drive) . . . . . | 5    |
| AQB (Spun Aluminum Exhaust – Belt Drive) . . . . .   | 6    |
| SEP (Spun Aluminum Exhaust and Supply) . . . . .     | 7    |
| ETE (Tiered Exhaust) . . . . .                       | 8    |
| ETS (Tiered Filtered Supply) . . . . .               | 9    |
| Accessories . . . . .                                | 10   |
| <b>Performance Data</b>                              |      |
| AQD / AQB / SEP . . . . .                            | 11   |
| ETE / ETS . . . . .                                  | 12   |

# Introduction

Loren Cook Company Propeller Roof fans are designed for industrial and commercial and industrial supply or exhaust applications. The fans are offered in both spun aluminum and architectural tiered aluminum construction and offer performance ranging from 1,000 to 40,000 CFM. All units are produced in an ISO 9001 certified facility and are listed by Underwriters Laboratories (UL 705) and listed for Canada (cUL 705).



## AQD/AQB

- AQD and AQB are spun aluminum units that utilize the Loren Cook “A Series” cast aluminum propeller.
- AQD is a direct drive unit available in 8 sizes from 12 to 48 inches. Performance ranges from 343 to 19,500 CFM with static pressures from 0 to 0.75 inches.
- AQB is a belt drive unit available in 5 sizes from 24 to 48 inches. Performance ranges from 1,165 to 16,700 CFM with static pressures from 0 to 0.50 inches.



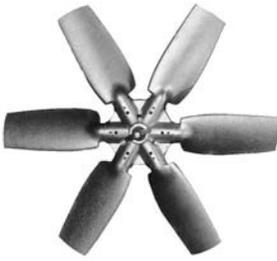
## SEP

- SEP is a spun aluminum unit that utilizes the Loren Cook “A Series” cast aluminum reversible propeller.
- SEP is electrically reversible in the field.
- SEP is a belt drive unit available in 5 sizes from 24 to 48 inches. Performance ranges from 1,017 to 20,800 CFM with static pressures from 0 to 0.50 inch.



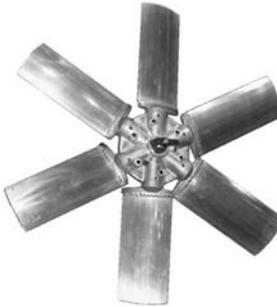
## ETE/ETS

- ETE and ETS are tiered aluminum units that utilize the Loren Cook “E Series” extruded aluminum airfoil propeller.
- ETE is a belt drive exhaust unit available in 7 sizes from 24 to 60 inches. Performance ranges from 1,218 to 42,100 CFM with static pressures from 0 to 0.50 inches.
- ETS is a belt drive supply unit available in 7 sizes from 24 to 60 inches. Performance ranges from 1,096 to 37,900 CFM with static pressures from 0 to 0.50 inches.



### **“A Series” - Cast Aluminum Airfoil Propeller**

- Designed for commercial or industrial applications where large volumes of air are required.
- Constructed with six cast aluminum airfoil blades and mounted in a cast aluminum hub.
- The optimum blade pitch for the chosen performance is determined at the factory and the blades are locked into place by a roll pin.



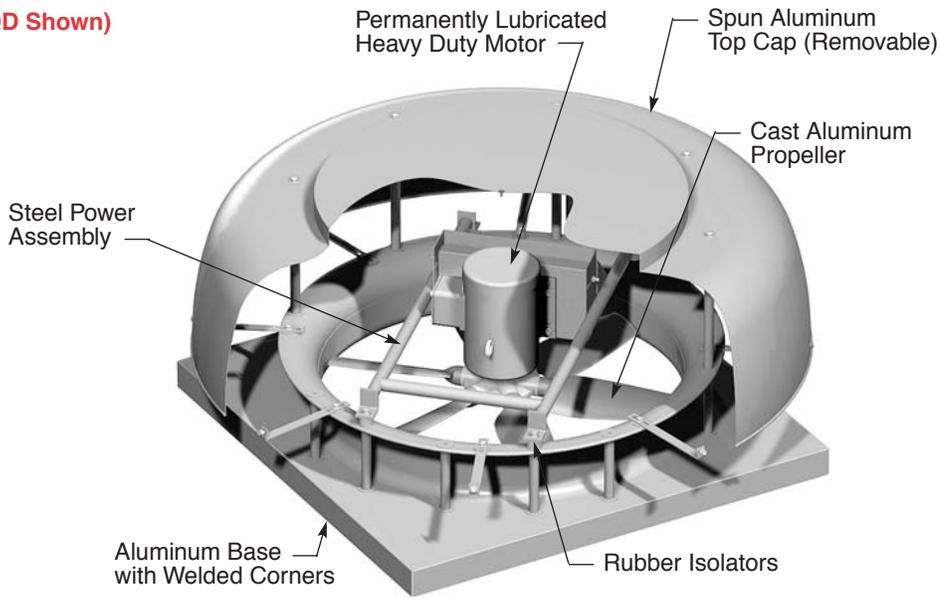
### **“E Series” - Extruded Aluminum Airfoil Propeller**

- Designed for commercial or industrial applications where large volumes of air are required.
- Constructed with six extruded aluminum airfoil blades and mounted in a cast aluminum hub.
- The optimum blade pitch for the chosen performance is determined at the factory and the blades are locked into place by a roll pin.
- “E Series” blade has a non-overloading characteristic such as is found in a centrifugal type wheel.

# Standard Construction Features

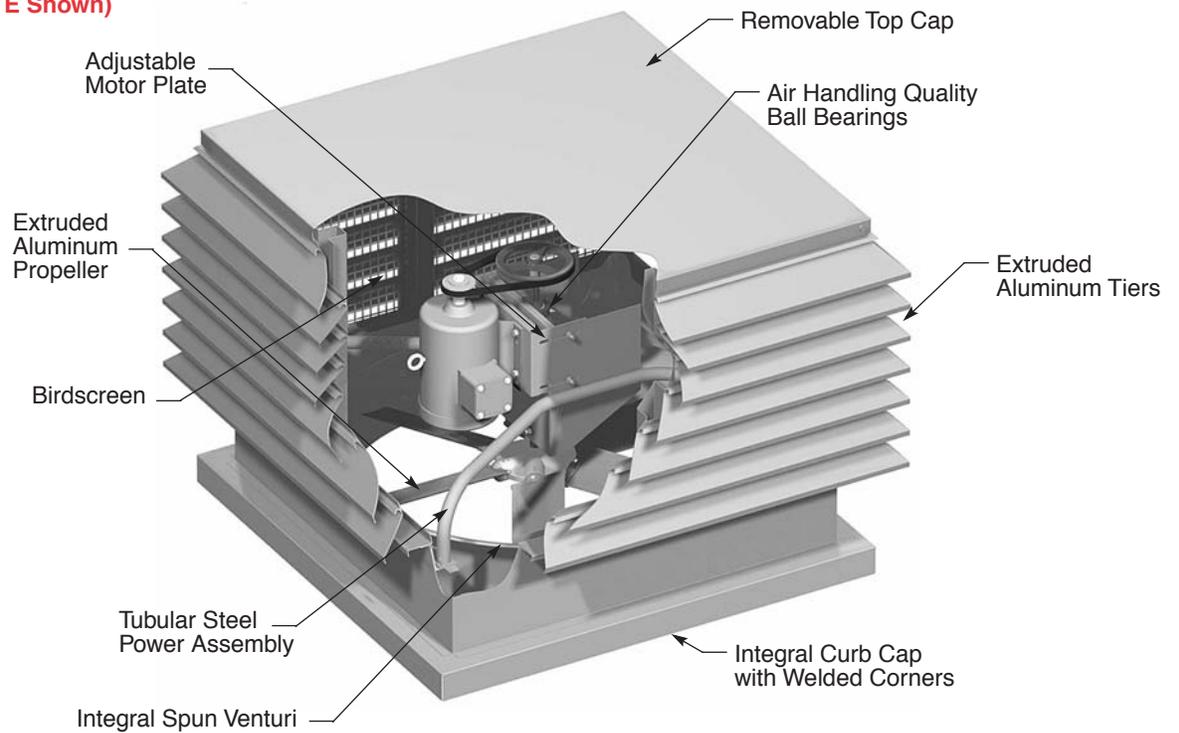
## AQD/AQB/SEP

(AQD Shown)



## ETE/ETS

(ETE Shown)



**Description** - Fan shall be a roof mounted, direct drive, cast aluminum propeller exhaust ventilator with spun aluminum top cap.

**Certifications** - Fan shall be manufactured at an ISO 9001 certified facility. Fan shall be listed by Underwriters Laboratories (UL 705) and listed for Canada (cUL 705).

**Construction** - The fan shall be of bolted and welded construction utilizing corrosion resistant fasteners. The spun aluminum structural components shall be constructed of minimum 16 gauge marine alloy aluminum, bolted to a rigid aluminum support structure. The aluminum base shall have continuously welded curb cap corners for maximum leak protection. The motor shall be mounted on a minimum 14 gauge steel power assembly, isolated from the unit structure with rubber vibration isolators. Unit shall bear an engraved aluminum nameplate and shall be shipped in ISTA Certified Transit Tested Packaging.

**Propeller** - Propeller shall be cast aluminum airfoil design with cast aluminum hub. The blade pitch shall be factory set and locked using set screws and roll pins. The hub shall be keyed and locked to the shaft utilizing two setscrews or a taper lock bushing. Propeller shall be balanced in accordance with AMCA Standard 204-96, Balance Quality and Vibration Levels for Fans.

**Motor** - Motor shall be heavy duty type with permanently lubricated sealed bearings and furnished at the specified voltage, phase and enclosure.

**Product** - Fan shall be model AQD as manufactured by Loren Cook Company of Springfield, Missouri.

## Roof Exhaust Fan Cast Aluminum Propeller Direct Drive

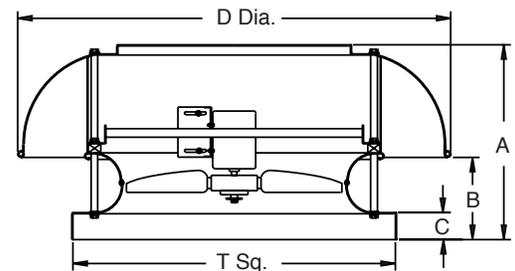


Model AQD is furnished standard with UL 705 and cUL 705 listing (Power Ventilator/ZACT) when furnished with factory supplied motor.

### AQD

| Size | A       | B      | C | D Dia. | T Sq. | Max. Motor Frame | Approx. Ship. Wt. - lbs. | Roof Opening Square* |
|------|---------|--------|---|--------|-------|------------------|--------------------------|----------------------|
| 12   | 14-9/16 | 5-1/8  | 2 | 28-1/4 | 20    | 48T              | 58                       | 15-1/2               |
| 16   | 16      | 6-1/8  | 2 | 33-1/4 | 28    | 56T              | 90                       | 23-1/2               |
| 20   | 18-3/8  | 7-1/8  | 2 | 43-1/4 | 32    | 143T             | 155                      | 27-1/2               |
| 24   | 21-5/8  | 9-1/8  | 3 | 47-1/2 | 36    | 145T             | 210                      | 31-1/2               |
| 30   | 26-1/4  | 9-1/4  | 3 | 52-1/2 | 42    | 184T             | 318                      | 37-1/2               |
| 36   | 27-1/4  | 9-3/4  | 3 | 62-1/2 | 48    | 184T             | 345                      | 43-1/2               |
| 42   | 32-3/4  | 10-1/4 | 3 | 74-1/2 | 54    | 215T             | 418                      | 49-1/2               |
| 48   | 32-3/4  | 10-1/4 | 3 | 74-1/2 | 60    | 215T             | 475                      | 55-1/2               |

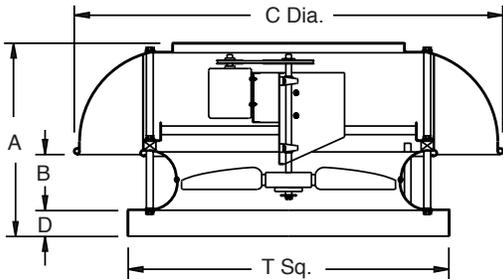
All dimensions in inches. Weights in pounds. \*Roof opening size for curbs supplied by Cook only.



## Roof Exhaust Fan Cast Aluminum Propeller Belt Drive



Model AQB is furnished standard with UL 705 and cUL 705 listing (Power Ventilator/ZACT) when furnished with factory supplied motor.



**Description** - Fan shall be a roof mounted, belt driven, downblast, cast aluminum propeller exhaust ventilator with spun aluminum top cap.

**Certifications** - Fan shall be manufactured at an ISO 9001 certified facility. Fan shall be listed by Underwriters Laboratories (UL 705) and listed for Canada (cUL 705).

**Construction** - The fan shall be of bolted and welded construction utilizing corrosion resistant fasteners. The spun aluminum structural components shall be constructed of minimum 16 gauge marine alloy aluminum, bolted to a rigid aluminum support structure. The aluminum base shall have continuously welded curb cap corners for maximum leak protection. The motor, bearings and drives shall be mounted on a minimum 14 gauge steel power assembly, isolated from the unit structure with rubber vibration isolators. Unit shall bear an engraved aluminum nameplate and shall be shipped in ISTA Certified Transit Tested Packaging.

**Propeller** - Propeller shall be cast aluminum airfoil design with cast aluminum hub. The blade pitch shall be factory set and locked using set screws and roll pin. The hub shall be keyed and locked to the shaft utilizing two setscrews or a taper lock bushing. Propeller shall be balanced in accordance with AMCA Standard 204-96, Balance Quality and Vibration Levels for Fans.

**Motor** - Motor shall be heavy duty type with permanently lubricated sealed ball bearings and furnished at the specified voltage, phase and enclosure.

**Bearings** - Bearings shall be designed and individually tested specifically for use in air handling applications. Construction shall be heavy duty regreasable ball type in a cast iron housing selected for a minimum L50 life in excess of 200,000 hours at maximum cataloged operating speed.

**Belts and Drives** - Belts shall be oil and heat resistant, non-static type. Drives shall be precision machined cast iron type, keyed and securely attached to the wheel and motor shafts. Drives shall be sized for 150% of the installed motor horsepower. The variable pitch motor drive must be factory set to the specified fan RPM.

**Product** - Fan shall be model AQB as manufactured by Loren Cook Company of Springfield, Missouri.

### AQB

| Size | A      | B     | C Dia. | T Sq. | Maximum Motor Frame | Approx. Ship. Wt. - lbs. | Roof Opening Square* |
|------|--------|-------|--------|-------|---------------------|--------------------------|----------------------|
| 24   | 24-7/8 | 6-1/8 | 47-1/2 | 36    | 143T                | 175                      | 31-1/2               |
| 30   | 26-1/4 | 6-1/4 | 52-1/2 | 42    | 145T                | 218                      | 37-1/2               |
| 36   | 27-1/4 | 6-3/4 | 62-1/2 | 48    | 145T                | 265                      | 43-1/2               |
| 42   | 32-3/4 | 7-1/4 | 74-1/2 | 54    | 182T                | 318                      | 49-1/2               |
| 48   | 32-3/4 | 7-1/4 | 74-1/2 | 60    | 184T                | 360                      | 55-1/2               |

All dimensions in inches. Weights in pounds, less motor. \*Roof opening size for curbs supplied by Cook only.

## Exhaust and Supply Roof Fan Cast Aluminum Propeller Belt Drive

**Description** - Fan shall be a roof mounted, belt driven, cast aluminum propeller, reversible exhaust and supply ventilator with spun aluminum top cap.

**Certifications** - Fan shall be manufactured at an ISO 9001 certified facility. Fan shall be listed by Underwriters Laboratories (UL 705) and listed for Canada (cUL 705).

**Construction** - The fan shall be of bolted and welded construction utilizing corrosion resistant fasteners. The spun aluminum structural components shall be constructed of minimum 16 gauge marine alloy aluminum, bolted to a rigid aluminum support structure. The aluminum base shall have continuously welded curb cap corners for maximum leak protection. The motor, bearings and drives shall be mounted on a minimum 14 gauge steel power assembly, isolated from the unit structure with rubber vibration isolators. Unit shall bear an engraved aluminum nameplate and shall be shipped in ISTA Certified Transit Tested Packaging.

**Propeller** - Propeller shall be reversible, cast aluminum airfoil design with cast aluminum hub. The blade pitch shall be factory set and locked using set screws and roll pin. The hub shall be keyed and locked to the shaft utilizing two setscrews or a taper lock bushing. Propeller shall be balanced in accordance with AMCA Standard 204-96, Balance Quality and Vibration Levels for Fans.

**Motor** - Motor shall be heavy duty type with permanently lubricated sealed ball bearings and furnished at the specified voltage, phase and enclosure.

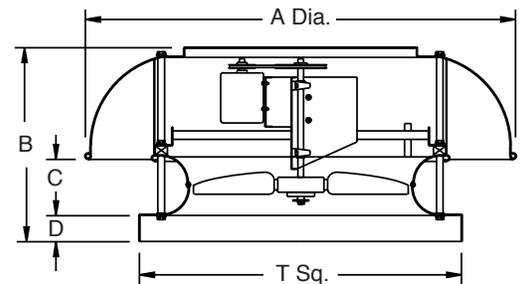
**Bearings** - Bearings shall be designed and individually tested specifically for use in air handling applications. Construction shall be heavy duty regreaseable ball type in a cast iron housing selected for a minimum L50 life in excess of 200,000 hours at maximum cataloged operating speed.

**Belts and Drives** - Belts shall be oil and heat resistant, non-static type. Drives shall be precision machined cast iron type, keyed and securely attached to the wheel and motor shafts. Drives shall be sized for 150% of the installed motor horsepower. The variable pitch motor drive must be factory set to the specified fan RPM.

**Product** - Fan shall be model SEP as manufactured by Loren Cook Company of Springfield, Missouri.



Model SEP is furnished standard with UL 705 and cUL 705 listing (Power Ventilator/ZACT) when furnished with factory supplied motor.



### SEP

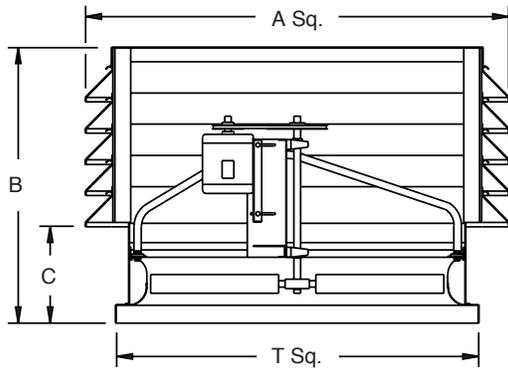
| Size | A Dia. | B      | C     | D | T Sq. | Approx. Ship. Wt. - lbs. | Roof Opening Square* |
|------|--------|--------|-------|---|-------|--------------------------|----------------------|
| 24   | 47-1/2 | 24-7/8 | 6-1/8 | 3 | 36    | 175                      | 31-1/2               |
| 30   | 52-1/2 | 26-1/4 | 6-1/4 | 3 | 42    | 218                      | 37-1/2               |
| 36   | 62-1/2 | 27-1/4 | 6-3/4 | 3 | 48    | 265                      | 43-1/2               |
| 42   | 74-1/2 | 32-3/4 | 7-1/4 | 3 | 54    | 318                      | 49-1/2               |
| 48   | 74-1/2 | 32-3/4 | 7-1/4 | 3 | 60    | 360                      | 55-1/2               |

All dimensions in inches. Weights in pounds, less motor. \* Roof opening size for curbs supplied by Cook only.

## Tiered Exhaust Fan Extruded Aluminum Propeller Belt Drive



Model ETE is furnished standard with UL 705 and cUL 705 listing (Power Ventilator/ZACT) when furnished with factory supplied motor.



**Description** - Fan shall be a tiered aluminum hooded, roof mounted, belt driven, propeller exhaust fan.

**Certifications** - Fan shall be manufactured at an ISO 9001 certified facility. Fan shall be listed by Underwriters Laboratories (UL 705) and listed for Canada (cUL 705).

**Construction** - The fan shall be of bolted construction utilizing corrosion resistant fasteners. Hood shall be tiered extruded aluminum. The motor, bearings and drives shall be mounted on a welded tubular steel power assembly. The power assembly shall be rigidly secured to the fan housing. The fan housing shall include a minimum 14 gauge base with integral spun venturi and continuously welded curb cap corners. Unit shall bear an engraved aluminum nameplate and shall be shipped in ISTA Certified Transit Tested Packaging.

**Coating** - The steel fan components shall be Lorenized<sup>®</sup> with an electrostatically applied, baked polyester powder coating. Each component shall be subject to a five stage environmentally friendly wash system, followed by a minimum 2 mil thick baked powder finish. Paint must exceed 1,000 hour salt spray under ASTM B117 test method.

**Propeller** - Propeller shall be extruded aluminum airfoil design with cast aluminum hub. The blade pitch shall be factory set and locked using set screws and roll pin. The hub shall be keyed and locked to the shaft utilizing two setscrews or a taper lock bushing. Propeller shall be balanced in accordance with AMCA Standard 204-96, Balance Quality and Vibration Levels for Fans.

**Motor** - Motor shall be heavy duty type with permanently lubricated sealed ball bearings and furnished at the specified voltage, phase and enclosure.

**Bearings** - Bearings shall be designed and individually tested specifically for use in air handling applications. Construction shall be heavy duty regreasable ball type in a cast iron housing selected for a minimum L50 life in excess of 200,000 hours at maximum cataloged operating speed.

**Belts and Drives** - Belts shall be oil and heat resistant, non-static type. Drives shall be precision machined cast iron type, keyed and securely attached to the wheel and motor shafts. Drives shall be sized for 150% of the installed motor horsepower. The variable pitch motor drive must be factory set to the specified fan RPM.

**Product** - Fan shall be model ETE as manufactured by Loren Cook Company of Springfield, Missouri.

### ETE

| Size | A Sq.  | B      | C      | No. Tiers | T Sq. | Maximum Motor Frame | Approx. Ship. Wt. - lbs. | Roof Opening Square* |
|------|--------|--------|--------|-----------|-------|---------------------|--------------------------|----------------------|
| 24   | 40-3/4 | 34-1/4 | 12-1/2 | 2         | 36    | 182T                | 290                      | 31-1/2               |
| 30   | 46-3/4 | 34-1/4 | 12-1/2 | 3         | 42    | 184T                | 355                      | 37-1/2               |
| 36   | 52-3/4 | 41-1/4 | 12-1/2 | 3         | 48    | 215T                | 455                      | 43-1/2               |
| 42   | 58-3/4 | 45     | 16-1/4 | 4         | 54    | 215T                | 585                      | 49-1/2               |
| 48   | 64-3/4 | 52     | 16-1/4 | 4         | 60    | 254T                | 710                      | 55-1/2               |
| 54   | 70-3/4 | 56-1/2 | 17-1/4 | 5         | 66    | 256T                | 850                      | 61-1/2               |
| 60   | 76-3/4 | 63-1/2 | 17-1/4 | 6         | 72    | 256T                | 985                      | 67-1/2               |

All dimensions in inches. Weights in pounds, less motor. \* Roof opening size for curbs supplied by Cook only.

**Description** - Fan shall be a tiered aluminum hooded, filtered, roof mounted, belt driven, propeller supply fan.

**Certifications** - Fan shall be manufactured at an ISO 9001 certified facility. Fan shall be listed by Underwriters Laboratories (UL 705) and listed for Canada (cUL 705).

**Construction** - The fan shall be of bolted construction utilizing corrosion resistant fasteners. Hood shall be tiered extruded aluminum. The motor, bearings and drives shall be mounted on a welded tubular steel power assembly. The power assembly shall be rigidly secured to the fan housing. The fan housing shall include a minimum 14 gauge base with integral spun venturi and continuously welded curb cap corners. Filters shall be washable expanded aluminum media with two inch formed aluminum frame. Unit shall bear an engraved aluminum nameplate and shall be shipped in ISTA Certified Transit Tested Packaging.

**Coating** - The steel fan components shall be Lorenized<sup>®</sup> with an electrostatically applied, baked polyester powder coating. Each component shall be subject to a five stage environmentally friendly wash system, followed by a minimum 2 mil thick baked powder finish. Paint must exceed 1,000 hour salt spray under ASTM B117 test method.

**Propeller** - Propeller shall be extruded aluminum airfoil design with cast aluminum hub. The blade pitch shall be factory set and locked using set screws and roll pin. The hub shall be keyed and locked to the shaft utilizing two setscrews or a taper lock bushing. Propeller shall be balanced in accordance with AMCA Standard 204-96, Balance Quality and Vibration Levels for Fans.

**Motor** - Motor shall be heavy duty type with permanently lubricated sealed ball bearings and furnished at the specified voltage, phase and enclosure.

**Bearings** - Bearings shall be designed and individually tested specifically for use in air handling applications. Construction shall be heavy duty regreasable ball type in a cast iron housing selected for a minimum L50 life in excess of 200,000 hours at maximum cataloged operating speed.

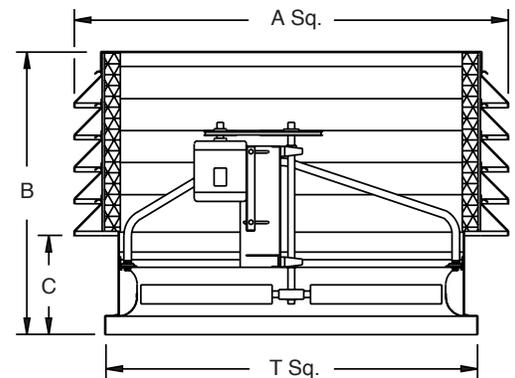
**Belts and Drives** - Belts shall be oil and heat resistant, non-static type. Drives shall be precision machined cast iron type, keyed and securely attached to the wheel and motor shafts. Drives shall be sized for 150% of the installed motor horsepower. The variable pitch motor drive must be factory set to the specified fan RPM.

**Product** - Fan shall be model ETS as manufactured by Loren Cook Company of Springfield, Missouri.

## Tiered Filtered Supply Fan Extruded Aluminum Propeller Belt Drive



Model ETS is furnished standard with UL 705 and cUL 705 listing (Power Ventilator/ZACT) when furnished with factory supplied motor.



### ETS

| Size | A Sq.  | B      | C      | T Sq. | No. Tiers | No. Filters | Max. Motor Frame | Approx. Ship. Wt. - lbs. | Roof Opening Sq.* | Filter Size       | Filter Area (sq. ft.) |
|------|--------|--------|--------|-------|-----------|-------------|------------------|--------------------------|-------------------|-------------------|-----------------------|
| 24   | 40-3/4 | 34-1/4 | 12-1/2 | 36    | 2         | 4           | 182T             | 324                      | 31-1/2            | 18-7/8 x 29-3/8   | 13.1                  |
| 30   | 46-3/4 | 34-1/4 | 12-1/2 | 42    | 3         | 4           | 184T             | 402                      | 37-1/2            | 18-7/8 x 35-3/8   | 16                    |
| 36   | 52-3/4 | 41-1/4 | 12-1/2 | 48    | 3         | 8           | 215T             | 515                      | 43-1/2            | 19-5/8 x 25-7/8   | 24                    |
| 42   | 58-3/4 | 45     | 16-1/4 | 54    | 4         | 8           | 215T             | 663                      | 49-1/2            | 22-5/8 x 25-7/8   | 28                    |
| 48   | 64-3/4 | 52     | 16-1/4 | 60    | 4         | 8           | 254T             | 800                      | 55-1/2            | 25-3/8 x 32-7/8   | 40.9                  |
| 54   | 70-3/4 | 56-1/2 | 17-1/4 | 66    | 5         | 16          | 256T             | 956                      | 61-1/2            | 18-3/16 x 28-5/8  | 49                    |
| 60   | 76-3/4 | 63-1/2 | 17-1/4 | 72    | 6         | 16          | 256T             | 1132                     | 67-1/2            | 21-11/16 x 31-1/2 | 65.9                  |

All dimensions in inches. Weights in pounds, less motor.  
\* Roof opening size for curbs supplied by Cook only.

# Accessories

## Disconnect Switches

**NEMA 1** - Indoor general purpose.

**NEMA 1 (Lockable)** - Indoor general purpose with locking capability.

**NEMA 3R** - Exterior mount, rain-tight.

**NEMA 4** - Water-tight and dust-tight.

**NEMA 7 and NEMA 9** - Lockable, indoor, explosion proof.



**NEMA 1**



**NEMA 1 (Lockable)**



**NEMA 3R**

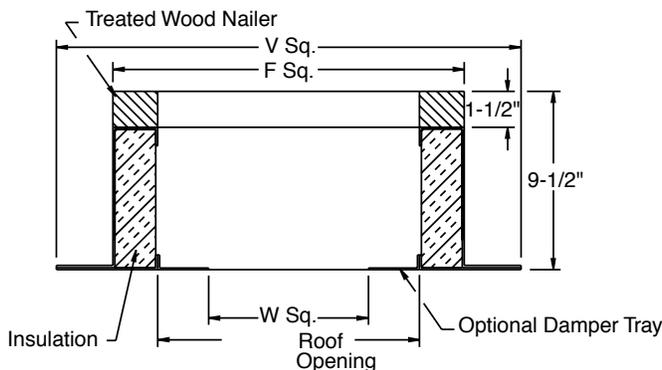


**NEMA 4**



**NEMA 7  
NEMA 9**

## RCG/RCA Roof Curb



| Size | Catalog Number |          | F Sq.  | V Sq.  | W Sq.  | Roof Opening |
|------|----------------|----------|--------|--------|--------|--------------|
|      | Galvanized     | Aluminum |        |        |        |              |
| 12   | RCG-18         | RCA-18   | 18-1/2 | 22-1/2 | 11-3/4 | 15-1/2       |
| 16   | RCG-26         | RCA-26   | 26-1/2 | 30-1/2 | 19-3/4 | 23-1/2       |
| 20   | RCG-30         | RCA-30   | 30-1/2 | 34-1/2 | 23-3/4 | 27-1/2       |
| 24   | RCG-34         | RCA-34   | 34-1/2 | 38-1/2 | 27-3/4 | 31-1/2       |
| 30   | RCG-40         | RCA-40   | 40-1/2 | 44-1/2 | 33-3/4 | 37-1/2       |
| 36   | RCG-47         | RCA-47   | 47-1/2 | 51-1/2 | 40-3/4 | 44-1/2       |
| 42   | RCG-52         | RCA-52   | 52-1/2 | 56-1/2 | 45-3/4 | 49-1/2       |
| 48   | RCG-58         | RCA-58   | 58-1/2 | 62-1/2 | 51-3/4 | 55-1/2       |
| 54   | RCG-64         | RCA-64   | 64-1/2 | 68-1/2 | 57-3/4 | 61-1/2       |
| 60   | RCG-70         | RCA-70   | 70-1/2 | 74-1/2 | 63-3/4 | 67-1/2       |

All dimensions in inches. Weights in pounds.

## Additional Accessories

- Inlet Basket Guard
- Dampers
- Bird Screen (AQB, AQD, SEP)
- Extended Base
- Hinged Base
- Lube Lines
- End Switch (Dampers)
- Reversing Switch (SEP)
- Anti-Condensate Coating
- FSC (Size 12 AQD)
- Flat Base (AQB, AQD, SEP)

## Optional Coatings

**Lorenized®** is an electrostatically applied, baked polyester powder coating. Each component shall be subjected to a five stage environmentally friendly wash system, followed by a minimum 2 mil thick baked powder finish. Coating must exceed 1,000 hour salt spray under ASTM B117 test method.

**Cook Epoxy Powder** is an electrostatically applied, baked epoxy powder coating. Final coating thickness is 2.5 - 3.5 mils. For outdoor applications an optional UV resistant topcoat is available to prevent cosmetic chalking of the coating.

**Cook Phenolic Epoxy Powder** is an electrostatically applied, baked phenolic epoxy powder coating. Final coating thickness is 2 - 4 mils. For outdoor applications an optional UV resistant topcoat is required to prevent deterioration of the coating.

Refer to the corrosion resistance guide in the Compute-A-Fan software for a listing of the coatings above and their resistance to a variety of chemicals. Additional special coatings are available.

**AQD - Direct Drive**

| Fan Size | Model Number | HP    | Max. BHP | RPM  | Tip Speed | Sones | CFM vs. Static Pressure |       |       |       |       |       |       |
|----------|--------------|-------|----------|------|-----------|-------|-------------------------|-------|-------|-------|-------|-------|-------|
|          |              |       |          |      |           |       | 0.000                   | 0.125 | 0.250 | 0.375 | 0.500 | 0.625 | 0.750 |
| 12       | 1210AQ*      | 1/25  | 0.03     | 1050 | 3298      | 5.5   | 702                     | 343   |       |       |       |       |       |
|          | 1215AQ*      | 1/20  | 0.08     | 1550 | 4869      | 11.1  | 1037                    | 833   | 549   | 311   |       |       |       |
| 16       | 1611AQ       | 1/6   | 0.12     | 1140 | 4775      | 11.7  | 1843                    | 1576  | 962   | 541   |       |       |       |
|          | 1617AQ       | 1/3   | 0.43     | 1725 | 7225      | 24    | 2789                    | 2619  | 2447  | 2207  | 1578  | 1386  |       |
| 20       | 2011AQ       | 1/3   | 0.34     | 1140 | 5969      | 18.7  | 3584                    | 3156  | 2712  | 2116  |       |       |       |
| 24       | 2411AQ       | 3/4   | 0.79     | 1140 | 7162      | 19.5  | 6191                    | 5701  | 5212  | 4750  | 4094  | 3013  |       |
| 30       | 3011AQ       | 1-1/2 | 1.15     | 1140 | 8953      | 28    | 8889                    | 8263  | 7592  | 6672  | 5750  | 4618  | 3587  |
| 36       | 3611AQ       | 1-1/2 | 1.54     | 1140 | 10744     | 41    | 11385                   | 10629 | 9807  | 9021  | 8209  | 7059  | 5925  |
| 42       | 4208AQ       | 2     | 2.32     | 860  | 9456      | 34    | 17628                   | 16516 | 15413 | 14030 | 12344 |       |       |
| 48       | 4808AQ       | 3     | 2.80     | 860  | 10807     | 45    | 19500                   | 18468 | 17404 | 16218 | 14679 |       |       |

\* Not available in three phase. Performance shown is for installation type A: free inlet, free outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Sones shown apply to the highest cataloged CFM at each fan RPM.

**AQB - Belt Drive**

| Fan Size | Model Number | HP    | Max. BHP | RPM | Tip Speed | Sones | CFM vs. Static Pressure |       |       |       |       |  |
|----------|--------------|-------|----------|-----|-----------|-------|-------------------------|-------|-------|-------|-------|--|
|          |              |       |          |     |           |       | 0.000                   | 0.125 | 0.250 | 0.375 | 0.500 |  |
| 24       | 24 AQB       | 1/6   | 0.16     | 645 | 4052      | 9.7   | 3151                    | 2385  | 1165  |       |       |  |
|          |              | 1/4   | 0.21     | 742 | 4662      | 12.6  | 3625                    | 2977  | 1836  |       |       |  |
|          |              | 1/3   | 0.32     | 820 | 5152      | 15.2  | 4007                    | 3413  | 2611  | 1651  |       |  |
|          |              | 1/2   | 0.48     | 942 | 5918      | 19.3  | 4603                    | 4079  | 3572  | 2450  | 1866  |  |
| 30       | 30 AQB       | 1/4   | 0.24     | 560 | 4398      | 8.1   | 5099                    | 3641  | 1785  |       |       |  |
|          |              | 1/3   | 0.30     | 620 | 4869      | 9.8   | 5645                    | 4415  | 2434  |       |       |  |
|          |              | 1/2   | 0.47     | 712 | 5592      | 12.7  | 6483                    | 5449  | 3648  | 2493  |       |  |
|          |              | 3/4   | 0.72     | 819 | 6432      | 16.3  | 7457                    | 6571  | 5523  | 3591  | 2844  |  |
| 36       | 36 AQB       | 1/3   | 0.27     | 451 | 4250      | 7.8   | 6360                    | 4270  |       |       |       |  |
|          |              | 1/2   | 0.46     | 517 | 4872      | 10.1  | 7290                    | 5902  | 3267  |       |       |  |
|          |              | 3/4   | 0.74     | 596 | 5617      | 13.2  | 8404                    | 7247  | 4956  | 3229  |       |  |
|          |              | 1     | 1.03     | 657 | 6192      | 15.8  | 9264                    | 8196  | 6559  | 4470  | 3012  |  |
| 42       | 42 AQB       | 1/2   | 0.49     | 403 | 4431      | 8.6   | 9415                    | 6720  | 2775  |       |       |  |
|          |              | 3/4   | 0.68     | 464 | 5101      | 11.3  | 10840                   | 8523  | 4932  |       |       |  |
|          |              | 1     | 0.98     | 512 | 5629      | 13.6  | 11961                   | 9861  | 6842  | 4111  |       |  |
|          |              | 1-1/2 | 1.49     | 588 | 6465      | 17.5  | 13737                   | 11907 | 10062 | 6780  | 4635  |  |
| 48       | 48 AQB       | 3/4   | 0.74     | 388 | 4875      | 10.5  | 11978                   | 9425  | 5183  |       |       |  |
|          |              | 1     | 0.96     | 428 | 5378      | 12.7  | 13212                   | 11039 | 7082  |       |       |  |
|          |              | 1-1/2 | 1.47     | 492 | 6182      | 16.5  | 15188                   | 13589 | 11025 | 7209  |       |  |
|          |              | 2     | 2.03     | 542 | 6810      | 19.5  | 16732                   | 15369 | 13063 | 9642  | 6968  |  |

Performance shown is for installation type A: free inlet, free outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Sones shown apply to the highest cataloged CFM at each fan RPM.

**SEP (Intake or Exhaust)**

| Fan Size | Model Number | HP    | Max. BHP | RPM  | Tip Speed | Sones | CFM vs. Static Pressure |       |       |       |       |  |
|----------|--------------|-------|----------|------|-----------|-------|-------------------------|-------|-------|-------|-------|--|
|          |              |       |          |      |           |       | 0.000                   | 0.125 | 0.250 | 0.375 | 0.500 |  |
| 24       | 24 SEP       | 1/6   | 0.16     | 666  | 4184      | 10.2  | 3072                    | 1874  | 1017  |       |       |  |
|          |              | 1/4   | 0.22     | 766  | 4812      | 13.3  | 3533                    | 2712  | 1653  |       |       |  |
|          |              | 1/3   | 0.33     | 847  | 5321      | 16.1  | 3906                    | 3200  | 2175  | 1426  |       |  |
|          |              | 1/2   | 0.49     | 972  | 6107      | 20    | 4483                    | 3888  | 2814  | 2277  | 1611  |  |
|          |              | 3/4   | 0.74     | 1119 | 7030      | 26    | 5161                    | 4656  | 4063  | 3071  | 2605  |  |
| 30       | 30 SEP       | 1/4   | 0.24     | 517  | 4060      | 6.9   | 4657                    | 2772  | 1414  |       |       |  |
|          |              | 1/3   | 0.30     | 572  | 4492      | 8.4   | 5153                    | 3416  | 2040  |       |       |  |
|          |              | 1/2   | 0.48     | 657  | 5160      | 10.9  | 5918                    | 4768  | 3179  | 1996  |       |  |
|          |              | 3/4   | 0.73     | 756  | 5937      | 14.1  | 6810                    | 5849  | 4167  | 3244  | 2276  |  |
|          |              | 1     | 0.99     | 834  | 6550      | 16.9  | 7513                    | 6657  | 5497  | 4202  | 3200  |  |
| 36       | 36 SEP       | 1/3   | 0.33     | 422  | 3977      | 6.9   | 6569                    | 3844  | 1865  |       |       |  |
|          |              | 1/2   | 0.44     | 484  | 4561      | 8.9   | 7534                    | 5253  | 3094  |       |       |  |
|          |              | 3/4   | 0.71     | 557  | 5249      | 11.6  | 8670                    | 7052  | 4755  | 3057  |       |  |
|          |              | 1     | 0.99     | 615  | 5796      | 13.9  | 9573                    | 8147  | 5741  | 4296  | 2990  |  |
|          |              | 1-1/2 | 1.47     | 706  | 6653      | 17.9  | 10990                   | 9780  | 8242  | 6240  | 4861  |  |
| 42       | 42 SEP       | 1/2   | 0.48     | 373  | 4101      | 7.4   | 9219                    | 5532  | 2885  |       |       |  |
|          |              | 3/4   | 0.65     | 429  | 4717      | 9.7   | 10604                   | 7976  | 4719  |       |       |  |
|          |              | 1     | 0.95     | 473  | 5200      | 11.7  | 11691                   | 9461  | 6344  | 4026  |       |  |
|          |              | 1-1/2 | 1.44     | 543  | 5970      | 15.2  | 13421                   | 11551 | 8249  | 6482  | 4551  |  |
|          |              | 2     | 1.96     | 599  | 6586      | 18.1  | 14805                   | 13139 | 10943 | 8327  | 6389  |  |
| 48       | 48 SEP       | 3/4   | 0.74     | 353  | 4435      | 8.70  | 13024                   | 8436  | 5000  |       |       |  |
|          |              | 1     | 1.09     | 390  | 4900      | 10.6  | 14389                   | 11211 | 7038  | 4171  |       |  |
|          |              | 1-1/2 | 1.65     | 447  | 5617      | 13.8  | 16493                   | 13857 | 9640  | 6860  | 4662  |  |
|          |              | 2     | 2.04     | 493  | 6195      | 16.6  | 18190                   | 15852 | 11598 | 9483  | 6773  |  |
|          |              | 3     | 3.26     | 566  | 7112      | 21    | 20883                   | 18889 | 16566 | 12543 | 10781 |  |

Performance shown is for installation type A: free inlet, free outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Sones shown apply to the highest cataloged CFM at each fan RPM.

# ETE/ETS Data

## ETE - Exhaust

| Fan Size | Model Number | HP    | Max. BHP | RPM  | Tip Speed | Sones | CFM at Static Pressure |       |       |       |       |
|----------|--------------|-------|----------|------|-----------|-------|------------------------|-------|-------|-------|-------|
|          |              |       |          |      |           |       | 0.000                  | 0.125 | 0.250 | 0.375 | 0.500 |
| 24       | 24 ETE       | 1/6   | 0.16     | 678  | 4260      | 9.7   | 3456                   | 2494  | 1218  |       |       |
|          |              | 1/4   | 0.25     | 780  | 4900      | 12.1  | 3976                   | 3068  | 2522  |       |       |
|          |              | 1/3   | 0.33     | 862  | 5416      | 14.3  | 4394                   | 3566  | 2998  | 1763  |       |
|          |              | 1/2   | 0.51     | 990  | 6220      | 17.9  | 5047                   | 4333  | 3696  | 3299  | 1983  |
|          |              | 3/4   | 0.77     | 1139 | 7156      | 22    | 5807                   | 5189  | 4554  | 4127  | 3785  |
| 30       | 30 ETE       | 1/4   | 0.25     | 557  | 4374      | 11.0  | 5239                   | 3901  | 2073  |       |       |
|          |              | 1/3   | 0.33     | 615  | 4830      | 12.8  | 5785                   | 4544  | 3516  |       |       |
|          |              | 1/2   | 0.50     | 707  | 5552      | 15.8  | 6650                   | 5549  | 4610  | 3594  |       |
|          |              | 3/4   | 0.77     | 813  | 6385      | 19.7  | 7647                   | 6681  | 5798  | 5035  | 4068  |
|          |              | 1     | 1.03     | 897  | 7045      | 23    | 8437                   | 7559  | 6727  | 5999  | 5314  |
| 36       | 36 ETE       | 1/3   | 0.33     | 454  | 4278      | 11.2  | 7379                   | 5422  | 2649  |       |       |
|          |              | 1/2   | 0.50     | 521  | 4910      | 14.0  | 8468                   | 6706  | 5250  |       |       |
|          |              | 3/4   | 0.76     | 599  | 5645      | 17.3  | 9736                   | 8174  | 6832  | 5494  |       |
|          |              | 1     | 1.02     | 661  | 6229      | 20    | 10744                  | 9319  | 8032  | 6913  | 4489  |
|          |              | 1-1/2 | 1.55     | 759  | 7153      | 25    | 12337                  | 11090 | 9904  | 8862  | 7894  |
| 42       | 42 ETE       | 1/2   | 0.50     | 403  | 4431      | 12.3  | 10401                  | 7800  | 4661  |       |       |
|          |              | 3/4   | 0.77     | 464  | 5101      | 15.5  | 11976                  | 9650  | 7723  | 3930  |       |
|          |              | 1     | 1.02     | 511  | 5618      | 18.2  | 13189                  | 11052 | 9219  | 7355  | 3589  |
|          |              | 1-1/2 | 1.55     | 587  | 6454      | 22    | 15150                  | 13274 | 11552 | 10065 | 8332  |
|          |              | 2     | 2.08     | 647  | 7114      | 26    | 16699                  | 14992 | 13370 | 11947 | 10618 |
| 48       | 48 ETE       | 3/4   | 0.76     | 400  | 5026      | 15.5  | 14353                  | 11770 | 8647  | 3452  |       |
|          |              | 1     | 1.01     | 441  | 5541      | 18.3  | 15824                  | 13534 | 10871 | 7403  |       |
|          |              | 1-1/2 | 1.56     | 507  | 6371      | 23    | 18192                  | 16250 | 14008 | 11579 | 8309  |
|          |              | 2     | 2.07     | 558  | 7012      | 26    | 20022                  | 18277 | 16307 | 14194 | 11765 |
|          |              | 3     | 3.14     | 641  | 8055      | 32    | 23000                  | 21497 | 19866 | 18073 | 16228 |
| 54       | 54 ETE       | 1     | 1.01     | 362  | 5117      | 16.6  | 18495                  | 15298 | 11484 |       |       |
|          |              | 1-1/2 | 1.54     | 416  | 5881      | 21    | 21253                  | 18554 | 15422 | 11711 |       |
|          |              | 2     | 2.08     | 459  | 6488      | 24    | 23450                  | 21042 | 18273 | 15301 | 11566 |
|          |              | 3     | 3.12     | 526  | 7436      | 30    | 26873                  | 24802 | 22501 | 19998 | 17361 |
|          |              | 5     | 5.27     | 626  | 8849      | 39    | 31982                  | 30257 | 28432 | 26434 | 24327 |
| 60       | 60 ETE       | 3     | 3.12     | 441  | 6927      | 27    | 30906                  | 28143 | 25013 | 21665 |       |
|          |              | 5     | 5.27     | 525  | 8246      | 36    | 36793                  | 34502 | 32033 | 29315 | 26508 |
|          |              | 7-1/2 | 7.91     | 601  | 9440      | 45    | 42119                  | 40128 | 38048 | 35794 | 33391 |

## ETS - Supply

| Fan Size | Model Number | HP    | Max. BHP | RPM  | Tip Speed | Sones | CFM at Static Pressure |       |       |       |       |
|----------|--------------|-------|----------|------|-----------|-------|------------------------|-------|-------|-------|-------|
|          |              |       |          |      |           |       | 0.000                  | 0.125 | 0.250 | 0.375 | 0.500 |
| 24       | 24 ETS       | 1/6   | 0.16     | 678  | 4260      | 9.6   | 3111                   | 2244  | 1096  |       |       |
|          |              | 1/4   | 0.25     | 780  | 4900      | 12.2  | 3579                   | 2762  | 2270  |       |       |
|          |              | 1/3   | 0.33     | 862  | 5416      | 14.5  | 3955                   | 3210  | 2698  | 1587  |       |
|          |              | 1/2   | 0.51     | 990  | 6220      | 18.4  | 4542                   | 3900  | 3327  | 2969  | 1784  |
|          |              | 3/4   | 0.77     | 1139 | 7156      | 23    | 5226                   | 4670  | 4099  | 3714  | 3407  |
| 30       | 30 ETS       | 1/4   | 0.25     | 557  | 4374      | 10.9  | 4715                   | 3511  | 1866  |       |       |
|          |              | 1/3   | 0.33     | 615  | 4830      | 12.8  | 5206                   | 4090  | 3165  |       |       |
|          |              | 1/2   | 0.50     | 707  | 5552      | 16    | 5985                   | 4994  | 4149  | 3236  |       |
|          |              | 3/4   | 0.77     | 813  | 6385      | 20    | 6882                   | 6012  | 5218  | 4532  | 3662  |
|          |              | 1     | 1.03     | 897  | 7045      | 24    | 7593                   | 6802  | 6054  | 5399  | 4783  |
| 36       | 36 ETS       | 1/3   | 0.33     | 454  | 4278      | 11.2  | 6641                   | 4880  | 2385  |       |       |
|          |              | 1/2   | 0.50     | 521  | 4910      | 14    | 7621                   | 6035  | 4725  |       |       |
|          |              | 3/4   | 0.76     | 599  | 5645      | 17.5  | 8762                   | 7356  | 6149  | 4946  |       |
|          |              | 1     | 1.02     | 661  | 6229      | 20    | 9669                   | 8386  | 7229  | 6221  | 4039  |
|          |              | 1-1/2 | 1.55     | 759  | 7153      | 25    | 11103                  | 9981  | 8914  | 7976  | 7104  |
| 42       | 42 ETS       | 1/2   | 0.50     | 403  | 4431      | 12.3  | 9361                   | 7020  | 4195  |       |       |
|          |              | 3/4   | 0.77     | 464  | 5101      | 15.6  | 10778                  | 8684  | 6950  | 3537  |       |
|          |              | 1     | 1.02     | 511  | 5618      | 18.3  | 11870                  | 9945  | 8297  | 6620  | 3229  |
|          |              | 1-1/2 | 1.55     | 587  | 6454      | 23    | 13635                  | 11945 | 10397 | 9058  | 7500  |
|          |              | 2     | 2.08     | 647  | 7114      | 26    | 15029                  | 13492 | 12032 | 10752 | 9556  |
| 48       | 48 ETS       | 3/4   | 0.76     | 400  | 5026      | 15.6  | 12918                  | 10593 | 7783  | 3107  |       |
|          |              | 1     | 1.01     | 441  | 5541      | 18.5  | 14242                  | 12180 | 9784  | 6663  |       |
|          |              | 1-1/2 | 1.56     | 507  | 6371      | 23    | 16373                  | 14625 | 12607 | 10421 | 7478  |
|          |              | 2     | 2.07     | 558  | 7012      | 27    | 18020                  | 16449 | 14676 | 12775 | 10589 |
|          |              | 3     | 3.14     | 641  | 8055      | 33    | 20700                  | 19347 | 17880 | 16265 | 14606 |
| 54       | 54 ETS       | 1     | 1.01     | 362  | 5117      | 16.6  | 16645                  | 13768 | 10336 |       |       |
|          |              | 1-1/2 | 1.54     | 416  | 5881      | 21    | 19128                  | 16698 | 13880 | 10540 |       |
|          |              | 2     | 2.08     | 459  | 6488      | 25    | 21105                  | 18938 | 16445 | 13771 | 10409 |
|          |              | 3     | 3.12     | 526  | 7436      | 31    | 24186                  | 22322 | 20251 | 17998 | 15625 |
|          |              | 5     | 5.27     | 626  | 8849      | 40    | 28784                  | 27231 | 25589 | 23791 | 21895 |
| 60       | 60 ETS       | 3     | 3.12     | 441  | 6927      | 28    | 27816                  | 25329 | 22511 | 19498 |       |
|          |              | 5     | 5.27     | 525  | 8246      | 37    | 33114                  | 31052 | 28829 | 26384 | 23857 |
|          |              | 7-1/2 | 7.91     | 601  | 9440      | 47    | 37907                  | 36115 | 34242 | 32214 | 30052 |

Performance shown is for installation type A: free inlet, free outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream. Sones shown apply to the highest cataloged CFM at each fan RPM.



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