



# PRV & CURB MOUNTED FAN ACCESSORIES | Product Guide





## Introduction and Information

### Overview

Power Roof Ventilators and Curb Mounted Fans cover a wide variety of products and applications. Whether the unit is a gravity unit with no moving parts to 72-inch propeller upblast unit, the basic unit may require additional components to meet the installation requirements.

At minimum, a curb mounted fan will require....  
a...*curb!*

Specialized applications and systems like Restaurant Exhaust, High Temperature Exhaust, and Spark Resistant Construction will require more.

This document provides an overview of the available accessories. Refer to accessories' submittals for dimensional information, and the unit's product guide for more information.

### AMCA Spark Resistant Construction

Several Cook products are selectable with some level of AMCA Spark Resistant Construction. When selecting a product with spark resistant construction, Compute-A-Fan will pre-select the needed accessories and materials in order to comply with AMCA 99 Spark Resistant Construction Guidelines. The following are generalized requirements for each level.

#### AMCA Type A Construction (most stringent)

All parts of the fan in contact with the air or gas being handled shall be made of a nonferrous material.

#### AMCA Type B Construction

The fan shall have a nonferrous impeller and nonferrous ring about the opening through which the shaft passes.

#### AMCA Type C Construction (least stringent)

The fan shall be so constructed that a shift of the impeller or shaft will not permit two ferrous parts of the fan to rub or strike.

### Associated Products

ACE, ACRU

### High Temperature

Specific processes require exhausting air well above ambient temperatures. Additional construction features and accessories are needed to meet these requirements. Accessories like shaft cooler, vented bearing cover, or high temperature bearings and high temperature coatings are some of the accessories that may be required. Compute-A-Fan will pre-select the needed features to achieved the desired temperature rating.

### Associated Products

ACRU, LP, QMXE, QMXU, TCNU, VCR



RCG - ROOF CURB GALVANIZED  
RCA - ROOF CURB ALUMINUM

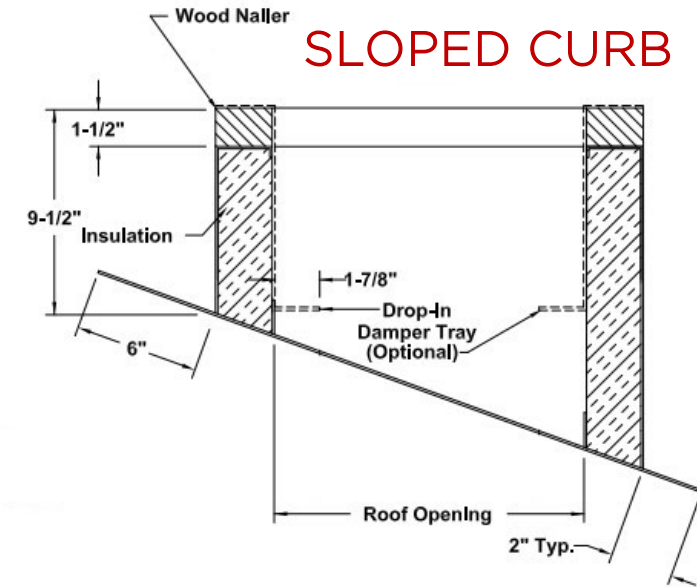
### Feature and Benefits

- 18 gauge galvanized or 0.080 aluminum
- Continuously welded corners
- Wood nailer
- 3 lb density acoustical/thermal insulation
- Standard 9 1/2" height (with 1-1/2" nailer)

### Options

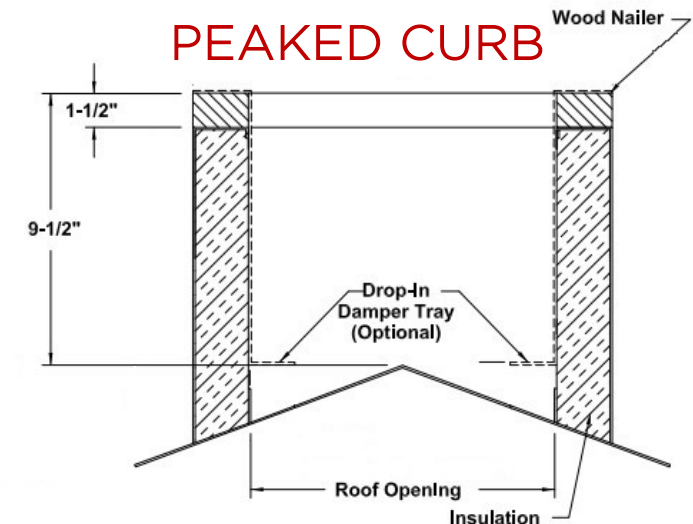
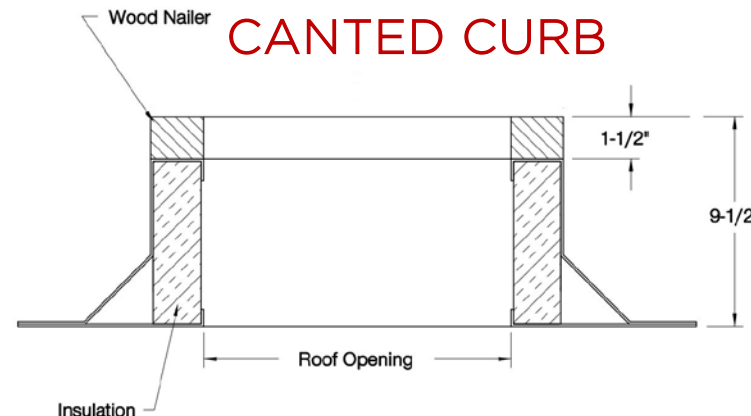
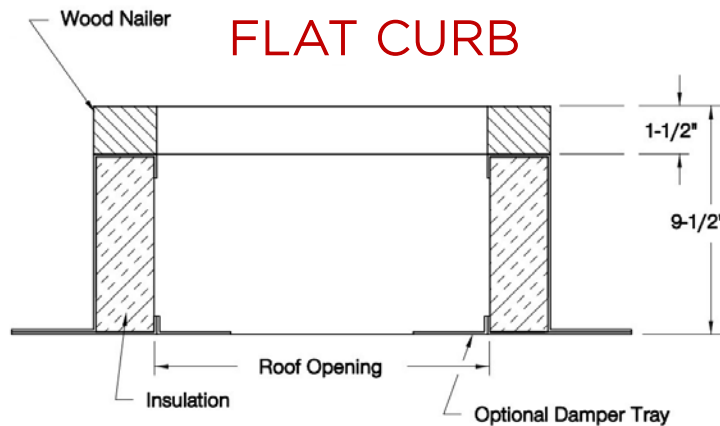
- Heavy duty construction\* (RCGH)
- Drop in damper tray
- Without wood nailer
- Special heights (up to 25.5")

\*Required on specific products or sizes



### Associated Products

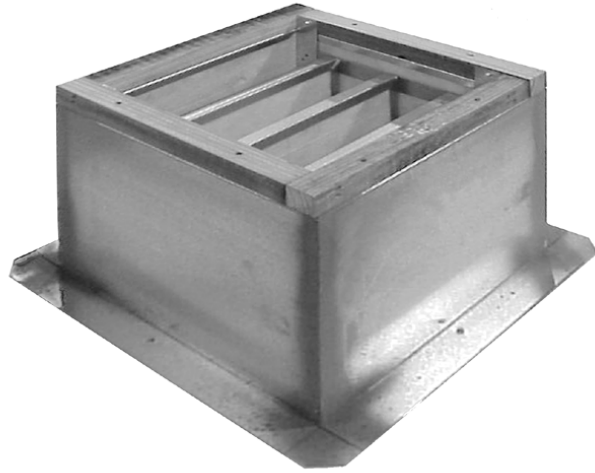
ACE, ACRU, ACSC, AQ, ASP, ASP-T, AU, CFS\*, CVR, CVR-S, Economizer, ETE, ETS, EU, FCE, FCRU, GI/GR, HEE, HEF, HER, HES, HLC, HXE, HXF, HXS, KSP, LEU, LEUMO, LP\*, LTU, LTUMO, LXU, LXUMO, PR, QMXE\*, QMXS\*, QMXU\*, REBE, REBS, SEP, SRSH, TCNU\*, TLC, TR, TRE, TU, UCV, VCR







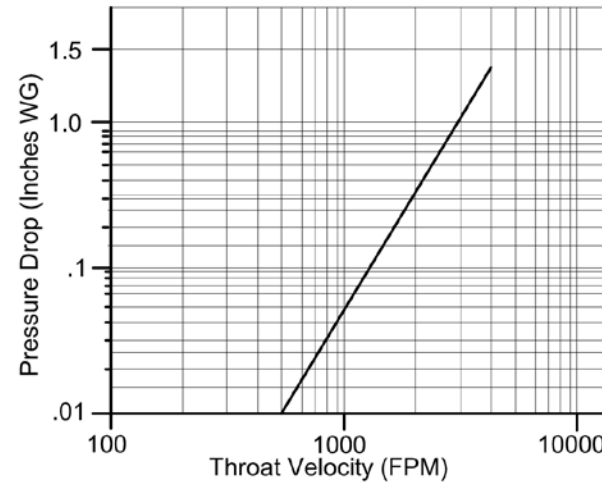
## Sound Attenuator Curbs



**RCG-AT - ROOF CURB GALVANIZED  
ATTENUATED**

**RCA-AT - ROOF CURB ALUMINUM  
ATTENUATED**

### PRESSURE DROP



### Feature and Benefits

- Curb - 18 gauge galvanized or 0.080 aluminum
- Insert - 20 gauge galvanized or 0.080 aluminum
- Continuously welded corners
- Wood nailer
- 3 lb density, 1-1/2" acoustical/thermal insulation
- Standard 9 1/2" height (with 1-1/2" nailer)

### Options

- Drop in damper tray -
  - Backdraft damper installation requires min 24" tall curb
  - Center pivot damper requires min 30" tall curb
- Without wood nailer
- Heavy duty construction\*
- Insert only

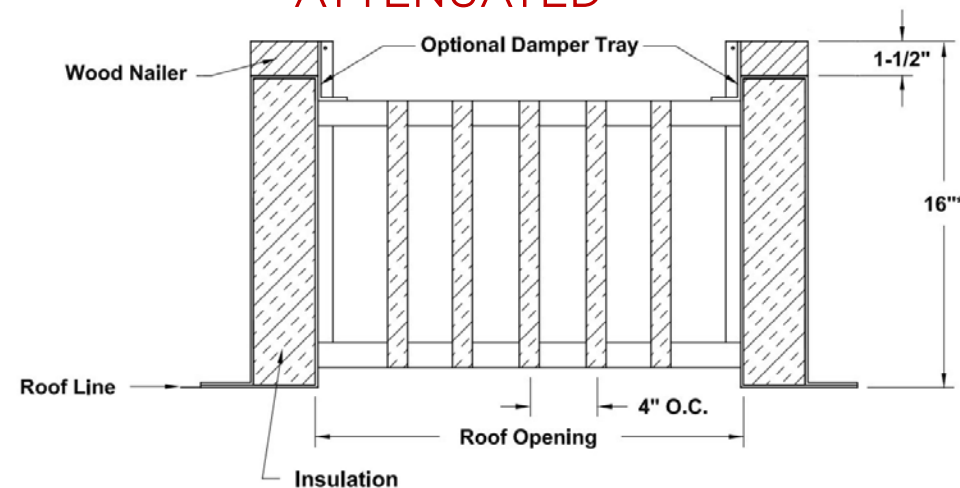
### SOUND ATTENUATION

#### AVERAGE SOUND LEVEL REDUCTION:

| OB1 | OB2 | OB3 | OB4 | OB5 | OB6 | OB7 | OB8 |
|-----|-----|-----|-----|-----|-----|-----|-----|
| -5  | -11 | -9  | -14 | -18 | -28 | -35 | -25 |

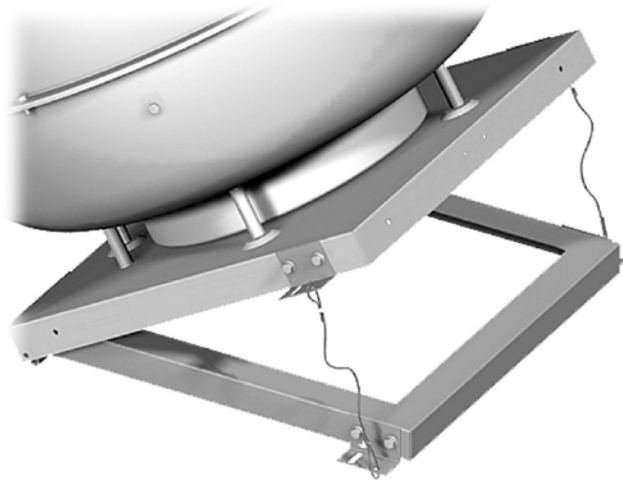
### Associated Products

ACE, ACRU, ACSC, AQ, ASP, ASP-T, AU, CFS\*, CVR, CVR-S, Economizer, ETE, ETS, EU, FCE, FCRU, GI/GR, HEE, HEF, HER, HES, HLC, HXE, HXF, HXS, KSP, LEU, LEUMO, LP\*, LTU, LTUMO, LXU, LXUMO, PR, QMXE\*, QMXS\*, QMXU\*, REBE, REBS, SEP, SRSH, TCNU\*, TLC, TR, TRE, TU, UCV, VCR

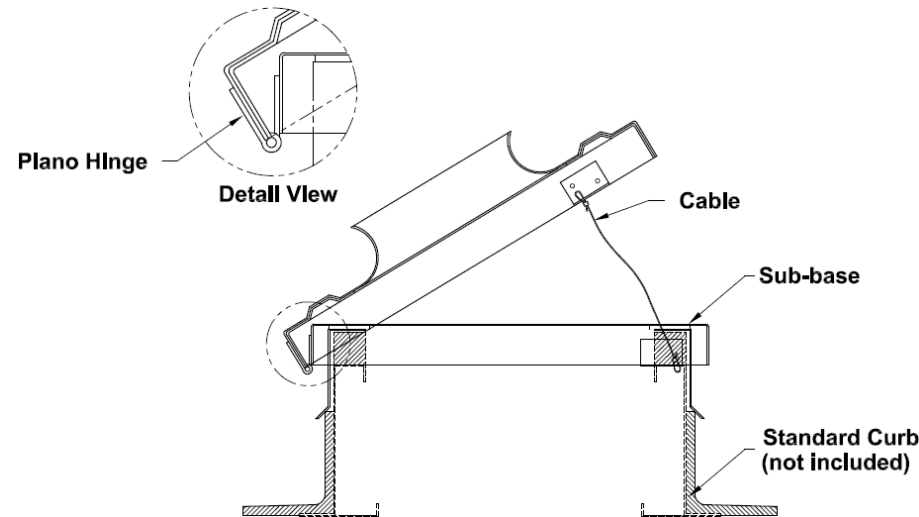




## Hinged Base Options



HINGED BASE



### Features and Benefits

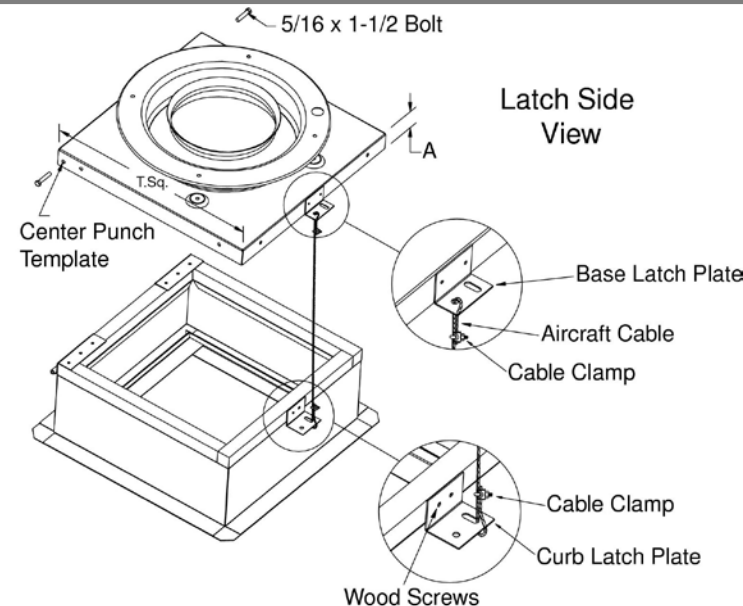
- Factory-welded subbase
- Provide easy access for cleaning and inspection
- Includes hinge, locking hasp, galvanized aircraft cable
- Weight limitation apply.

### Associated Products

ACE, ACRU, AQ, HLC, PR, REBE, REBS, SEP, SRSH, TLC, TR, VCR



HINGED BASE KIT



### Features and Benefits

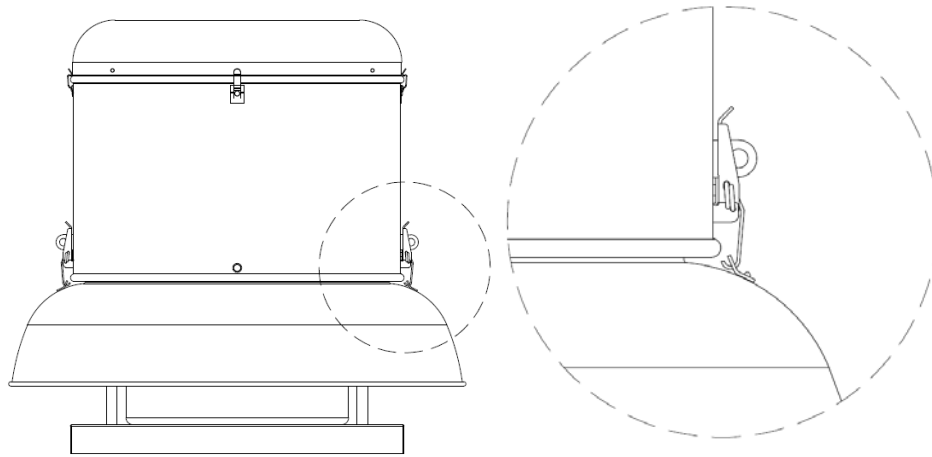
- Field installed option
- Provides easy access for cleaning and inspection
- Includes two hinge plates, two latch plates, hinge bolts, galvanized aircraft cable, and clamps

### Associated Products

ACE, ACRU, AQ, HLC, PR, REBE, REBS, SEP, SRSH, TLC, TR, VCR



## Access Options



### LOCKING HASP - TOPCAP

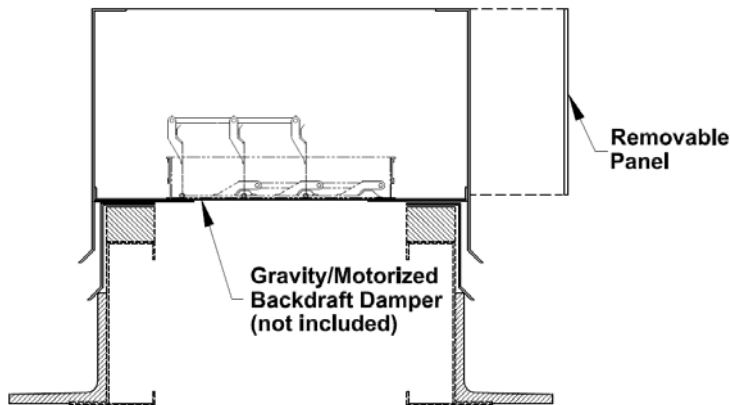
#### Feature and Benefits

- Provides additional security to prevent unauthorized access to motor compartment.
- Stainless latch and keeper fastened to unit with stainless steel rivets\*

\*Topcap lid is riveted to topcap cylinder

#### Associated Products

ACE, ACRU, ACW, VCR



### XB / HXB - EXTENDED BASE HEAVY DUTY EXTENDED BASE

#### Feature and Benefits

- Provides accessibility to damper and ductwork via removable panel
- Recommended for units unsuitable for hinged base option
- Aluminum construction for XB
- Galvanized construction for HXB\*
- Sized to fit standard Cook curbs

\* Required on specific products or sizes

#### Associated Products

ACE, ACRU, AQ, ASP, ASP-T, AU, CVR, CVR-S, ETE, ETS, EU, GI/GR, HEE, HEF, HER, HES, HLC, HXE, HXF, HXS, KSP, LP, PR, REBE, REBS, SEP, SRSH, TLC, TR, TRE

### Hurricane / High Wind

- Units were tested per Miami-Dade County's Testing Application Standards:
  - TAS-201
  - TAS-202
  - TAS-203
- Products received the following approvals:
  - NOA (Miami-Dade Notice of Acceptance)
  - Florida Building Commission

More detailed information is available in the *High Wind and Hurricane Fans Brochure*

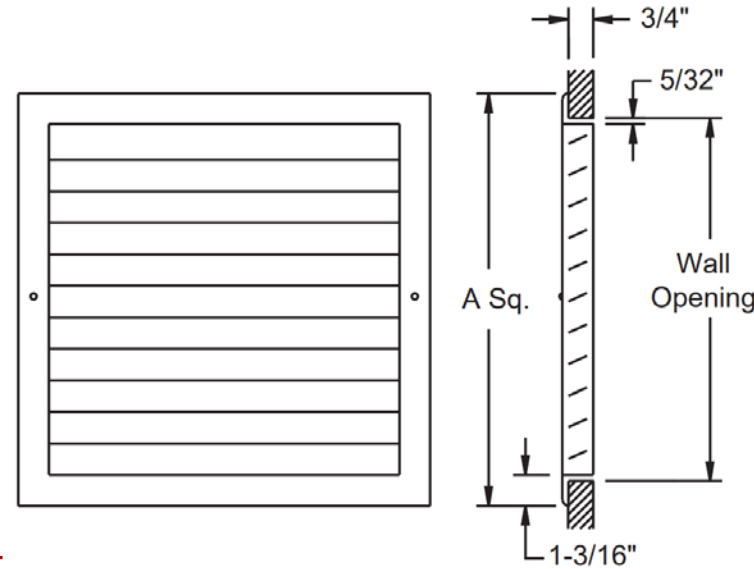
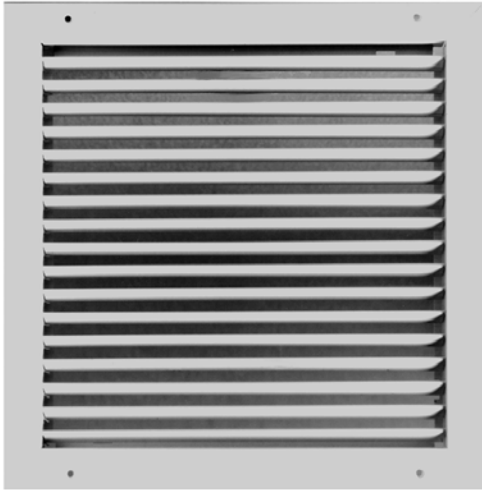
#### Associated Products

ACE, ACRU, ASP, GI/GR, HEE, HEF, HER, HES, HXE, HXF, HXS, VCR





## Grilles and Guards



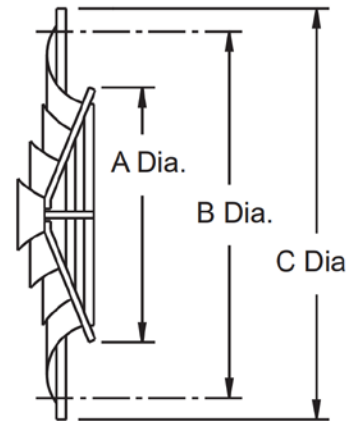
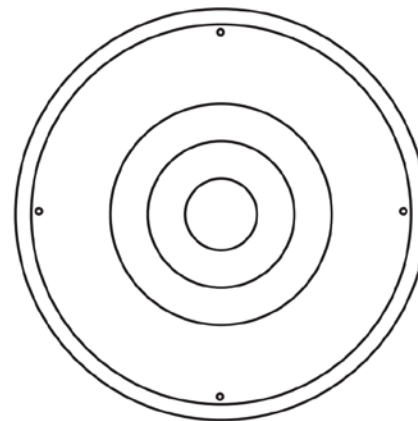
### Feature and Benefits

- Extruded aluminum frame
- Fixed aluminum blade affixed to frame at 40° angle
- White powder coated finish

### Associated Products

ACW

SG - SQUARE INLET GRILLE



### Feature and Benefits

- Step-down diffuser design
- Steel construction
- White powder coated finish

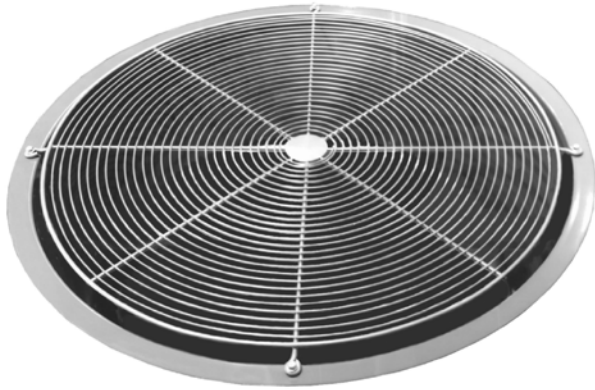
### Associated Products

ACW

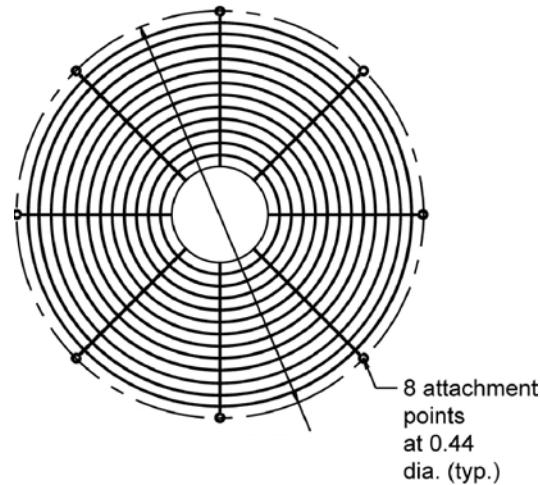
G - ROUND INLET GRILLE



## Grilles and Guards



**DISCHARGE GUARD**

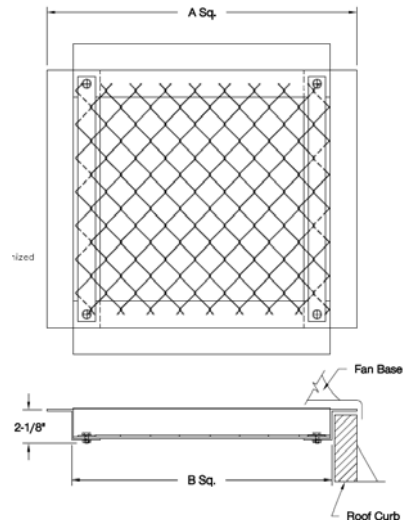


### Features and Benefits

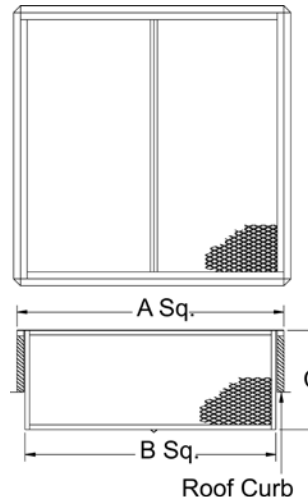
- Protects and prevents debris from entering discharge of the unit
- Standard construction plated steel
- Optional construction aluminum

### Associated Products

AU, EU, LEU, LEUMO, LTU, LTUMO, LUG, LXU, LXUMO, QMXU, TU, UCV



**INLET GUARD**



**INLET BASKET GUARD**

### Features and Benefits

- Protects and prevents debris from entering intake the unit
- Inlet Guard standard construction plated steel
- Inlet Basket Guard standard construction Lorenized steel
- Optional construction aluminum

### Associated Products

AU, EU, LEU\*, LEUMO, LTU\*, LTUMO, LUG, LXU\*, LXUMO, TU

\*Requires Inlet Basket Guard design

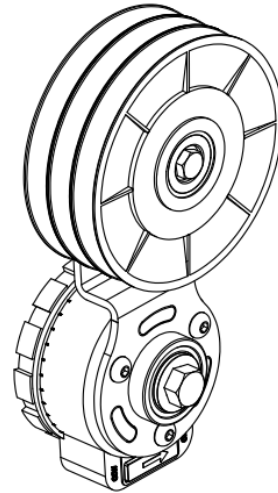




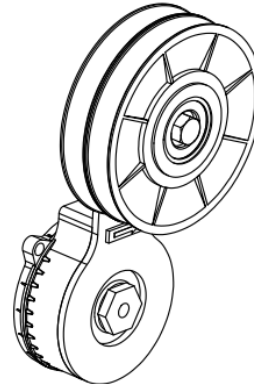
## Belt and Bearing Accessories



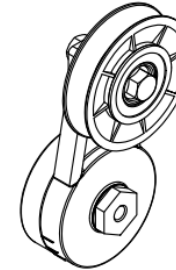
**AUTOMATIC BELT TENSIONER**



**RT 4000**  
15-20 HP



**RT 3000**  
5-10 HP



**RT 1000**  
1/6-3 HP

### Features and Benefits

- Maintains constant tension on the drive belt
  - Belts run 15-20° F cooler increasing belt life approximately 50%
  - Reduces start up and maintenance costs
- Simplifies and speeds belt replacement
  - Requires no skill and no tools

### Associated Products

ACE, ACRU, ASP, ASP-T, ETE, ETS, HEE, HEF, HES, HLC, HXE, HXF, HXS, KSP, LEU, LP, LTU, LXU SRSH, TLC, VCR



**EXTENDED LUBE LINES**

### Features and Benefits

- Provides quick and convenient way to lubricate bearings while the fan is operating
- No need to shut fan down
- More convenient access

### Associated Products

ACE, ACRU, AQ, AU\*, CVR\*, CVR-S\*, ETE, ETS, EU, FCE\*, FCRU\*, HEE, HEF, HER, HES, HLC, HXE, HXS, LEU, LEUMO, LP, LTU, LTUMO, LXU, LXUMO, QMXE\*, QMXS\*, QMXU\*, SEP, SRSH, TCNU\*, TLC, TU\*, UCV\*, VCR

\*Standard feature on these belt driven units.



**SPARE BELTS**

### Features and Benefits

- Factory supplied replacement belts
- Reduces down-time sourcing replacement
- Belts are the same type and size as originally specified and as installed on the unit.

### Associated Products

All Cook belt driven products

Bearing Information



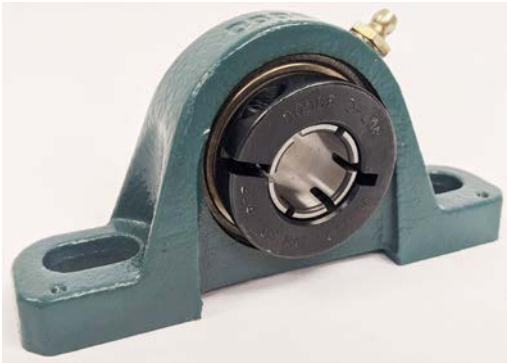
SET SCREW

Features and Benefits

- *Standard bearing*
- **Set screws** attach the bearing to the fan shaft via fastener points embedding into the fan shaft material
- Cook's Standard Bearing Life L-10 40,000 hours
- Cast housing resists flexing during installation and under operational loads
- Re-lubrication extends the life of the bearing

Associated Products

All Cook belt driven products



CONCENTRIC LOCKING

Features and Benefits

- **Concentric locking\*** applies clamp forces 360° around the fan shaft
- Cook's Standard Bearing Life L-10 40,000 hours
- Cast housing
- Re-lubrication bearing

Associated Products

CFS, CVR, CVR-S, QMXE\*, QMXS\*, QMXU\*, TCNU, UCV

\*Standard bearing on these products

What is bearing life and what does it mean?

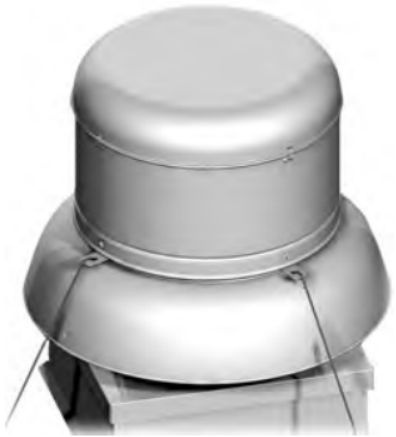
Bearing life is a statistical calculation based on a percentage of failures that occurred in laboratory conditions. In these laboratory conditions, controlled loads, specific speeds and proper lubrication were applied to sets of bearings. These bearings were run and timed until fatigue failure occurred. All bearings require lubrication and re-lubrication during their life until the bearing will eventually fail.

- **L-10** life means that 10% of a given set of bearings at a calculated speed and load will fail.
- **L-50** life is a statistical estimate of when 50% of a given set of bearings at a calculated speed and load will fail.
- **L-10** hours x 5 = **L-50** hours.
- Cook standard design is for a minimum of L-10, 40,000 or L-50, 200,000 hours at maximum catalog RPM.
- At a specific point of operation (RPM / Motor Hp) the actual bearing life may greatly exceed this advertised life.

| Time Period               | 24 hr / Day   | 24 hr / Day   | 16 hr / Day   | 16 hr / Day   | 12 hr / Day   | 8 hr / Day    |
|---------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Example                   | 7 Days / Week | 5 Days / Week | 7 Days / Week | 5 Days / Week | 5 Days / Week | 5 Days / Week |
| <b>L-10</b> 40,000 Hours  | 4.6 Years     | 6.4 Years     | 6.9 Years     | 9.6 Years     | 12.8 Years    | 19.2 Years    |
| <b>L-50</b> 200,000 Hours | 22.8 Years    | 32 Years      | 34 Years      | 48 Years      | 64 Years      | 96 Years      |



## Mounting and Protection



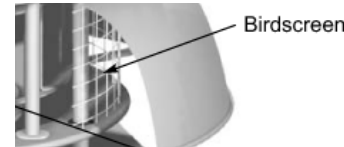
**TIE DOWNS**

### Features and Benefits

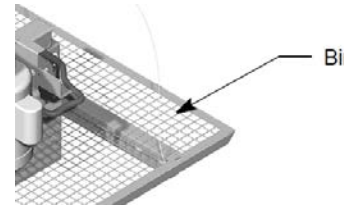
- Provide location for field attachment of fan to roof fan or supporting structure
- Helps protect against high windloads

### Associated Products

ACE, ACRU, ACW, ASP, ASP-T, HEE, HEF, HES, HXE, HXS, KSP, VCR



Birdscreen



Birdscreen

**BIRDSCREEN**

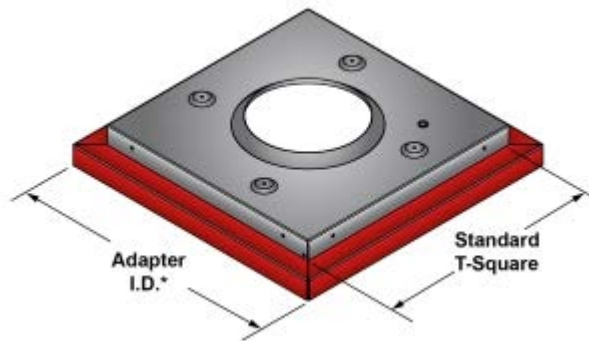
### Features and Benefits

- Prevent debris and birds from entering the unit.
- Galvanized coating
- Optional material aluminum, stainless steel or PVC coated
- Option to deduct birdscreen based on the application\*

\*Units Listed for UL Restaurant Exhaust are not provided with birdscreen

### Associated Products

ACE, ACRU, AQ, CVR, CVR-S, Economizer, ETE, FCE, FCRU, GI/GR, HEE, HER, HES, HLC, HXE, HXS, PR, QMXE, QMXS, REBE, REBS, SEP, SRSH, TLC, TR, TRE



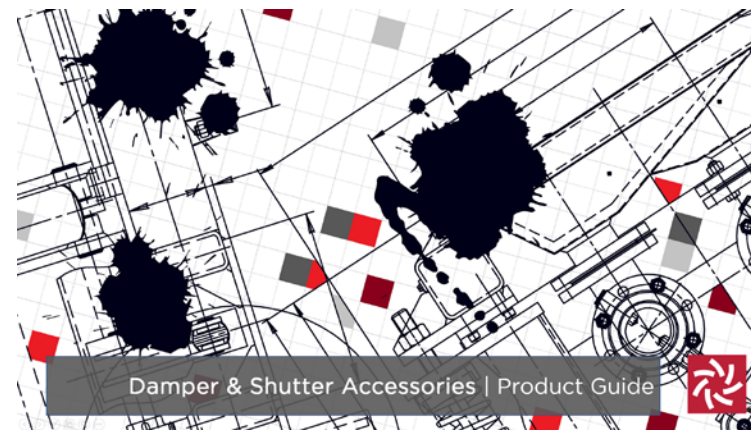
**CURB CAP ADAPTER  
(SPECIAL T-SQUARE)**

### Features and Benefits

- Factory welded to the unit's base to either increase or decrease the unit's curb cap dimension
- Used to match fan curb cap to an existing roof curb

### Associated Products

ACE, ACRU, AQ, CVR, CVR-S, HLC, PR, REBE, REBS, SEP, TLC, TR, UCV, VCR

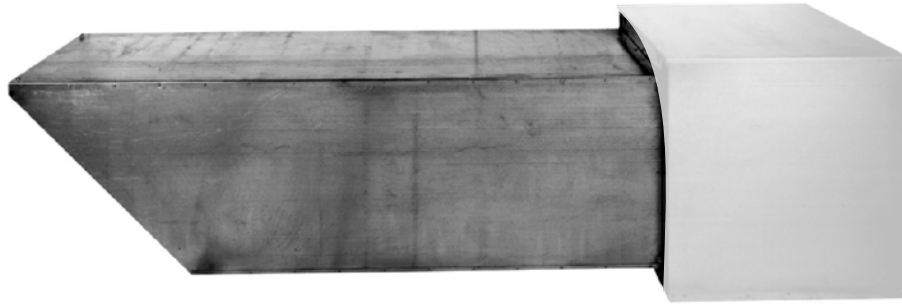


### Dampers & Shutters

- Cook offers a wide variety of gravity backdraft, motorized backdraft, control style and low leakage dampers
- More detailed information is available in the *Damper & Shutter Accessories Product Guide*



## Miscellaneous Accessories



INTAKE EXTENSION

### Features and Benefits

- Extend the fresh air intake away from exhaust fan discharge
- Required by some codes for restaurant installation
- See page (17) for more details
- Galvanized steel construction
- Standard with washable aluminum filter

### Associated Products

KSP



MITERED CORNERS

### Features and Benefits

- Enhances the architectural look of louvered penthouse units

### Associated Products

ASP-T, CFS, ETE, ETS, TLC\*, TRE

\*Units is standard with box corners



COMMON CURB CAP

### Features and Benefits

- Common side-by-side for exhaust and supply installation
- Continuously welded steel construction
- Typical installation for restaurant
- See page (17) for more details.

### Associated Products

KSP, VCR

### Features and Benefits

- Convert side discharge unit to upblast unit
- Required for UL Restaurant Exhaust Listing and UL Smoke Control Listing

### Associated Products

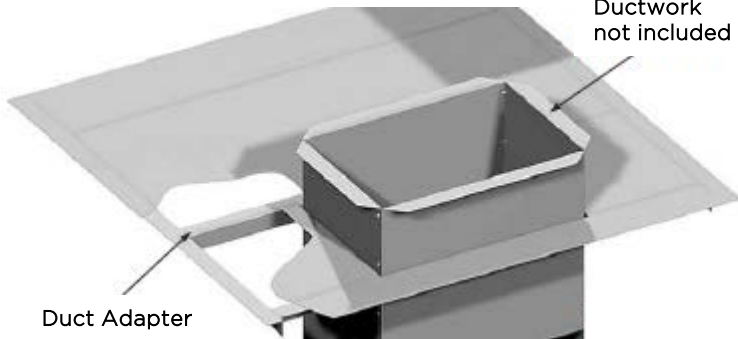
LP

OUTLET DIVERTERS





## Miscellaneous Accessories



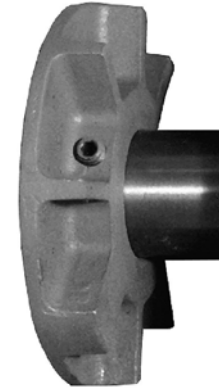
DUCT ADAPTER

### Features and Benefits

- Provide location and method to install ductwork
- Ductwork is installed before fan is placed on roof curb

### Associated Products

ASP, ASP-T, CFS, KSP



SHAFT COOLER

### Features and Benefits

- Cast aluminum construction
- Provided as temperature protection for bearings
- Use in conjunction with vented bearing cover

### Associated Products

TU



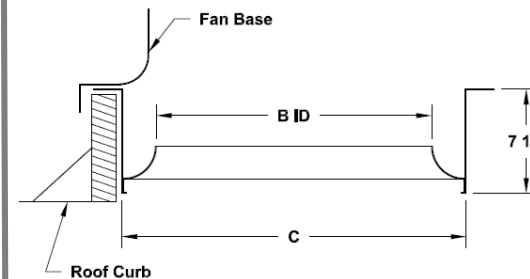
ALUMINUM HOOD

### Features and Benefits

- Standard galvanized hood is replaced with aluminum
- Reduces unit's overall weight
- Provide additional level of protection against corrosion

### Associated Products

Economizer, HEE, HEF, HER, HES, HXE, HXF, HXS



DRIP PAN

### Features and Benefits

- Installed below the fan to collect condensation or rainwater during severe weather conditions
- Lorenized steel construction

### Associated Products

AU, EU, LEU, LEUMO, LTU, LTUMO, LXU, LXUMO, TU



## Miscellaneous Accessories



**FOUR-WAY  
OUTLET DIFFUSER**

### Features and Benefits

- Field installed on the bottom of unit's plenum and provides improved air distribution
- Lorenized steel construction

### Associated Products

Economizer

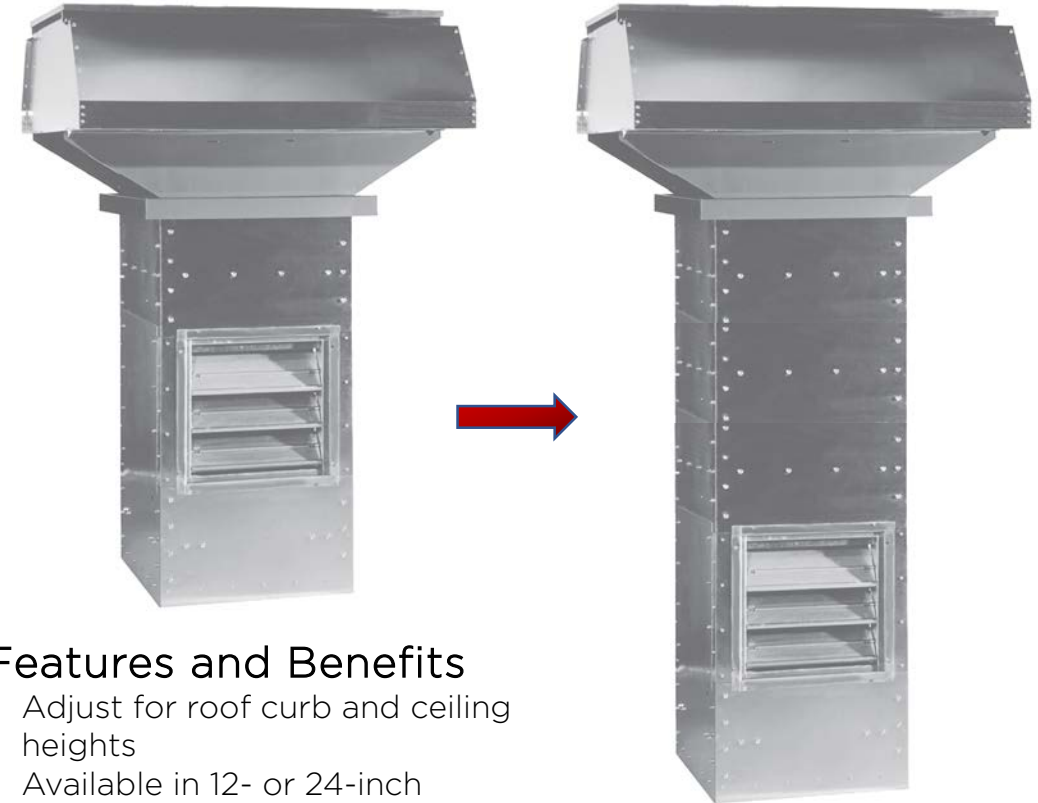


### Coatings

- Lorenized
- Epoxy powder
- The list goes on!
- What is right for your applications?
- More detailed information is available in the *Coating Brochure*



**COATINGS** BROCHURE



### Features and Benefits

- Adjust for roof curb and ceiling heights
- Available in 12- or 24-inch extension

### Associated Products

Economizer

**CABINET EXTENSION**



## Miscellaneous Accessories



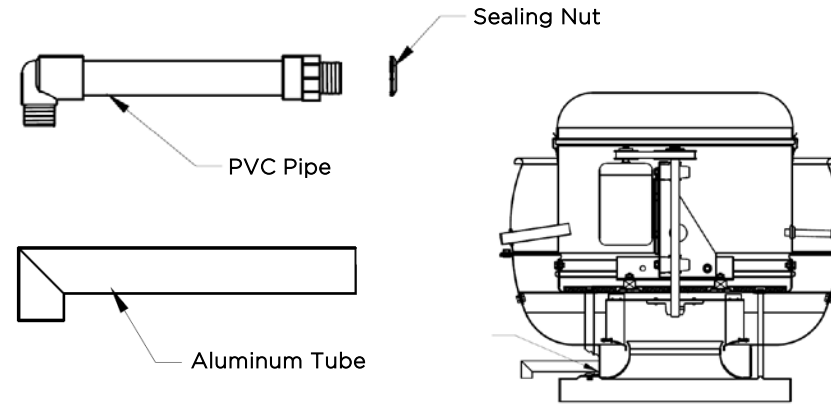
**FILTERS**

### Features and Benefits

- Washable aluminum filters provide basic filtration on fresh air supply units
- Filters are either 1" or 2"
- Optional media of fiberglass or polyester are available

### Associated Products

ASP, ASP-T, CFS, Economizer, ETS, GI, HEF, HXF, KSP, TRE



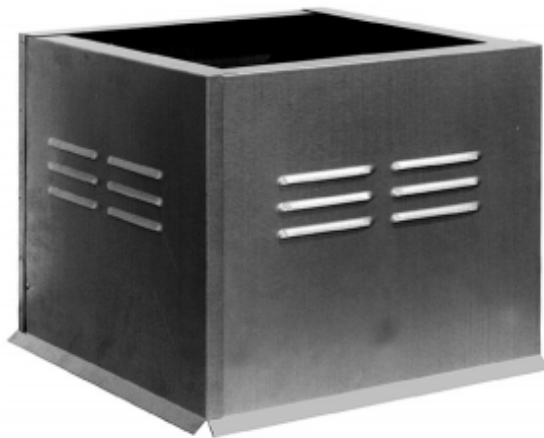
**DRAIN TUBE**

### Features and Benefits

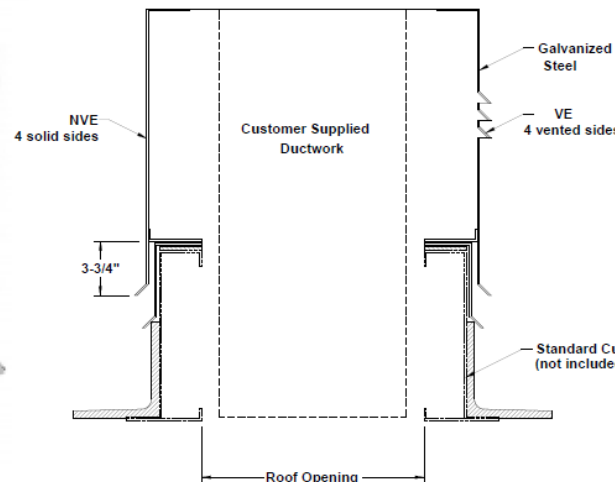
- Extends the drain away from unit
- PVC provided with threaded connection to grease collection container
- Aluminum tube is fully welded

### Associated Products

ACRU, VCR



**VE / VEH / NVE - VENTED EXTENSION (HEAVY DUTY)  
NON-VENTED EXTENSION**



### Features and Benefits

- Extends the curb height
- Vents in VE/VEH extension for dissipation of heat.
- Galvanized steel construction

### Associated Products

ACRU, LP\*, VCR

\*Require heavy duty construction

### Features and Benefits

- Provides access for spray or steam cleaning. Recommended used with hinged base option. (See page 5)
- Includes removable sealing plug

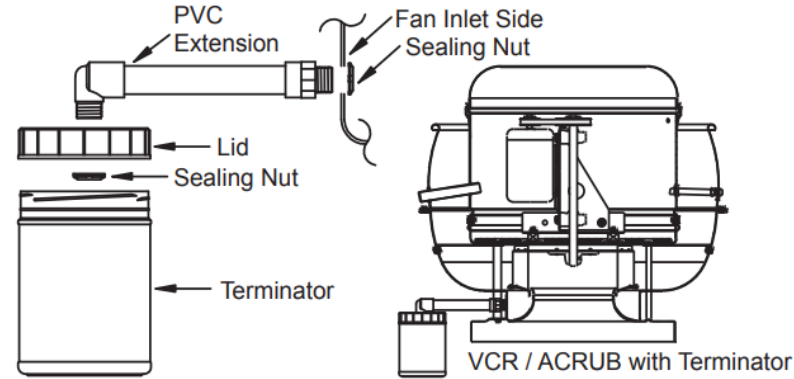
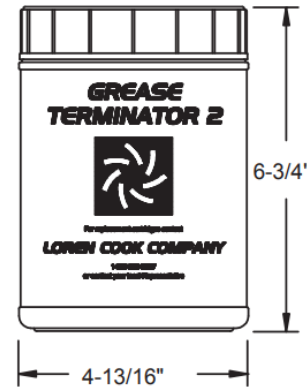
### Associated Products

ACRU, ACW, VCR

**CLEAN-OUT PORT**



## Grease Collection



### Features and Benefits

- Provides for collection of grease
- Canister made from high impact plastic.
- Canister is clear for monitoring grease amounts
- Fill fibers formulated to absorb grease while repelling water
- Shipped loose for field mounting

### Associated Products

ACRU, LP\*, VCR

\*Requires 2

## GREASE TERMINATOR



### Features and Benefits

- Provides for collection of grease
- Removable lid for cleaning
- Maximum capacity 1 liter per NFPA 96 code requirements.
- Welded aluminum construction
- Internal water baffle
- Shipped loose for field mounting

### Associated Products

ACRU, LP\*, VCR

\*Requires 2

## GREASE TROUGH - KEYWAY & HANGING

### Features and Benefits

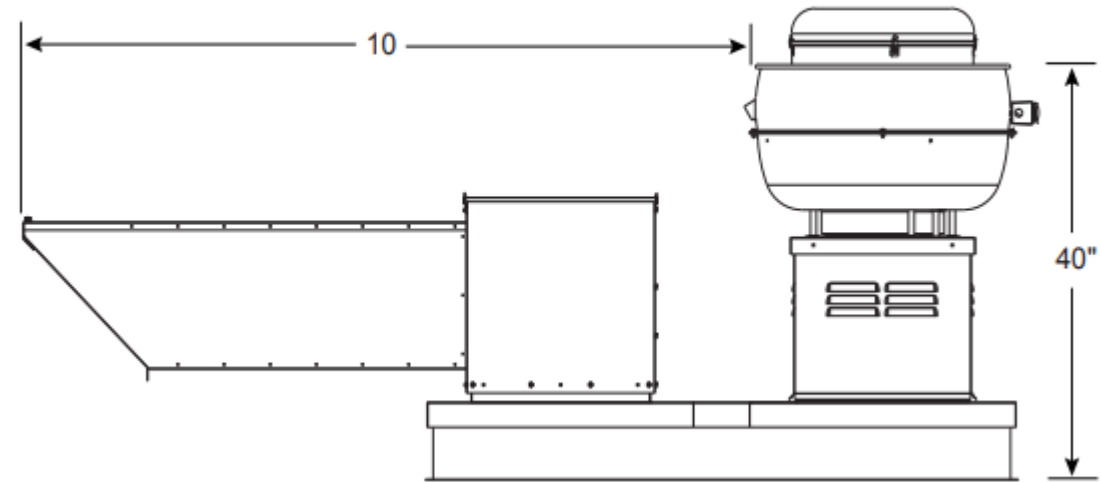
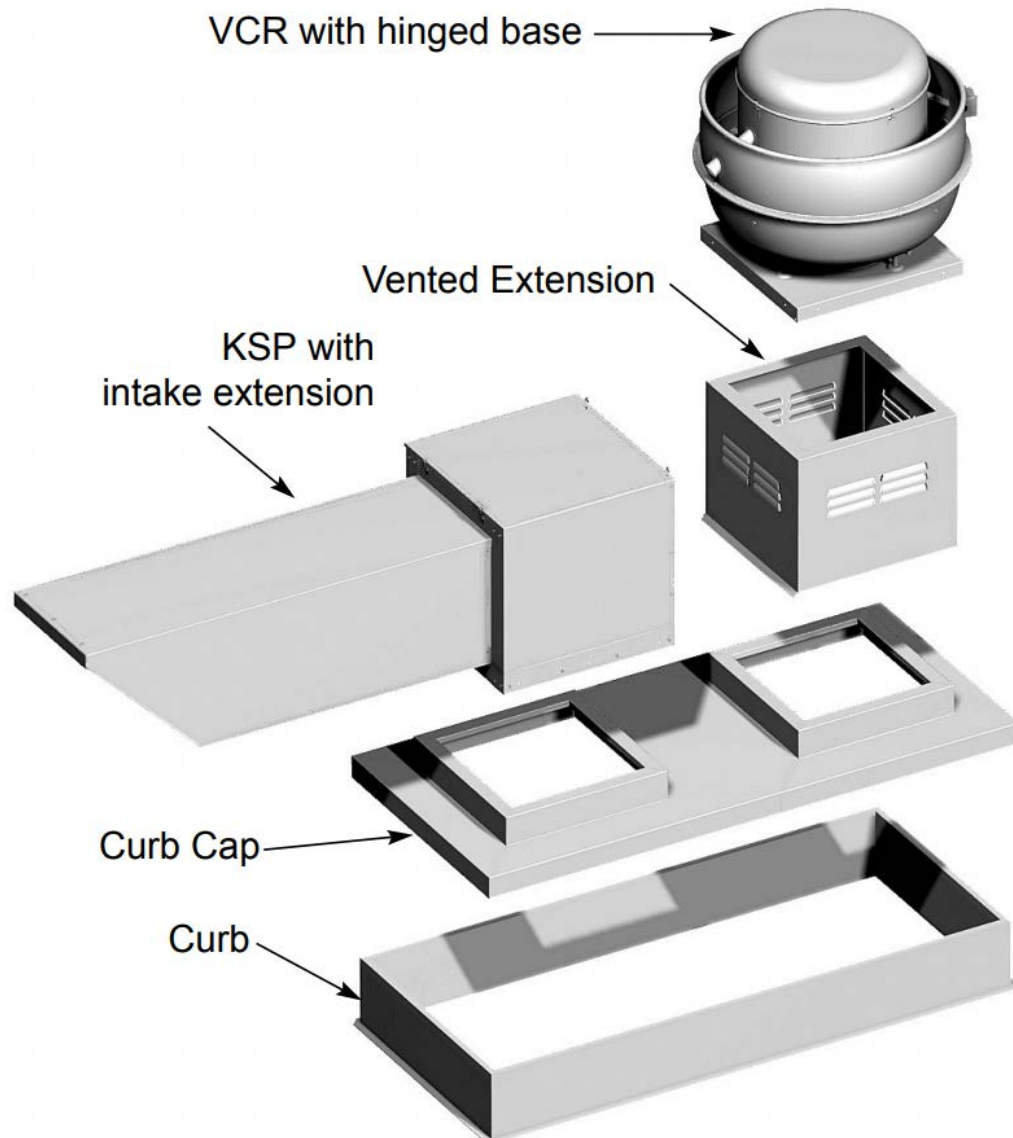
- Provides for a threaded connection for field installed piping
- 3/4 inch NPT aluminum pipe coupling fully welded to lowest point on the unit.

### Associated Products

ACRU, VCR

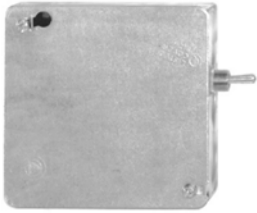
## WELDED DRAIN COUPLING





### Typical NFPA 96 Installation

- In addition to grease collection accessories, Cook provide a complete solution for restaurant ventilation installations
- Provide the minimum dimensions to meet NFPA 96 requirements
- Exhaust fan must be installed so that the outlet of the fan is a minimum of 40" of roof surface
- Welded duct must terminate a minimum of 18" from roof surface
- Discharge of exhaust fan must be 10' horizontally or where space prohibits, 3' above the supply fan intake



**NEMA 1**



**NEMA 1  
(Lockable)**



**NEMA 1 Heavy Duty**

### NEMA Enclosures Types\*

#### NEMA 1

Indoor use only. Provides protection against personnel access and against ingress of foreign objects like falling dirt.

#### NEMA 3

For either indoor or outdoor use. Provides protection against personnel access and against ingress of water (rain, sleet, and snow), *windblown dust* and will not be damaged by external formation of ice.

#### NEMA 3R

For either indoor or outdoor use. Provides protection against personnel access and against ingress of water (rain, sleet, snow), and will not be damaged by external formation of ice. Windblown dust protect is not part of the rating.

#### NEMA 4

For either indoor or outdoor use. Provides protection against personnel access and against ingress of water (rain, sleet, snow, splashing water, and hose directed water), windblown dust and will not be damaged by external formation of ice.

#### NEMA 4X

For either indoor or outdoor use. Provides protection against personnel access and against ingress of water (rain, sleet, snow, splashing water, and hose directed water), windblown dust and will not be damaged by external formation of ice. Also provide an additional level of protection against corrosion.

#### NEMA 7‡

Enclosures constructed for indoor hazardous classified locations as Class I, Division 1, Groups A, B, C, or D.

#### NEMA 9‡

Enclosures constructed for indoor hazardous classified locations as Class II, Division 1, Groups E, F, or G.

Additional features and terms:

**Lockable** – Provided with means of locking the device to prevent from being energized.

**Heavy duty** – As known as ‘knife blade’. Visible bars or blades that operate to close the switch circuit.

\*Adapted from National Electrical Manufacturers Association, NEMA Standards Publication 205 (Current)

‡ NEMA enclosure rating types can be combine to achieve the required rating for the environment. Example NEMA 3R, 7/9 for outdoor hazardous locations.



**NEMA 3**



**NEMA 4**



**NEMA 7 / 9**



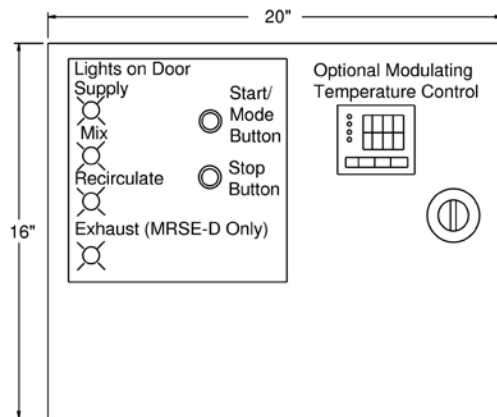
5 AMP FSC 10 AMP FSC

### Features and Benefits

- Used to manually vary or set direct drive fan speed
- Available for 115 and 230V shaded pole and PSC motors (except 1140 or 1725 RPM)

### Associated Products

ACE, ACRU, AQ, HLC, KSP, LP, REBE, REBS, TLC, VCR



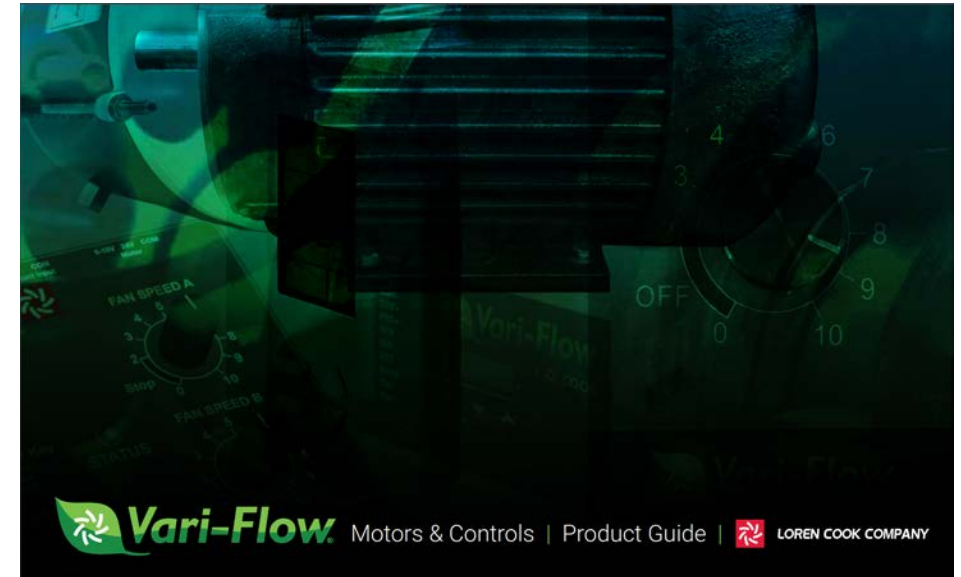
ECONOMIZER  
CONTROL PANEL

### Features and Benefits

- Optional control panel provide single point control
- Industrial enamel coated enclosure
- Includes motor starters and protectors

### Associated Products

Economizer



### Vari-Flow Motors & Controls

- Vari-Flow motors and controls are ideal when simple, demand-based control is required.
- Energy savings and controllability have never been easier
- Includes pressure, temperature, humidity, CO2, VOC and 2-speed control
- SimpliDrive - Cook's pre-installed, pre-wired, pre-programmed VFD is compatible with the entire line of Vari-Flow controls
- More detailed information is available on the Vari-Flow product pages and in the *Vari-Flow Product Guide*



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