



CAS

4-Stage Filter

Exhaust Systems

Caddy Corporation introduces CAS, a new multi-stage filter system designed specifically to control kitchen exhaust emissions. 3-stages of industry standard air filters deliver maximum performance at minimal operating cost. The 4th stage uses a unique bonded activated carbon to remove cooking odors.



Controlling your kitchen exhaust air is important to your neighbors, the environment and your bottom line. Exhausting at roof level can be cost prohibitive. An alternative is to install CAS and exhaust through a sidewall discharge. With 4 stages of quality air scrubbing, you can co-exist with the community, protect the environment and keep local code officials at bay. One piece factory construction assures unit integrity and unlike some field assembled scrubbers, installation is quick and simple. Duct connection and electrical power to the blower is all that's required. Reliability, high performance and low operating cost make CAS an excellent choice for light to moderate cooking applications.

Key Features

- Uses industry standard filters
- 14 gage, solid welded construction meets NFPA 96
- Blower/motor/drives out of airstream, meets NFPA 96
- Each filter stage is individually monitored
- One piece unit construction no field assembly
- Extruded aluminum & gasketed filter tracks
- Thermo-set powder painted, inside & outside
- On-Off disconnect is factory wired to blower motor
- SWSI or inline blower available to meet performance
- ETL listed to UL Standard 710
- Blower assembly is listed to UL 867
- Filters are UL 900, Class I
- Rigid 4" channel iron perimeter base



12,000 cfm CAS Rooftop Installation

CAS Unit Description

Caddy CAS kitchen exhaust unit has been developed to filter the smoke and grease particles and remove odor molecules from cooking exhaust air. CAS is available in a variety of sizes to meet the required exhaust air volume. Units are of one piece construction, furnished on a common channel iron base. Therefore, costly field assembly is avoided. CAS must be used downstream of an approved exhaust hood.

Smoke & Grease Filtration

CAS uses 3-stages of air filters, constructed specifically for the removal of particulate from cooking exhaust air. All filters are constructed with metal frames to avoid melting as with plastic frame filters.

Stage 1: Pleated prefilter, 24" x 24" x 4",
30% per ASHRAE 52.1
MERV 8 per ASHRAE 52.2

Stage 2: Headered bag filter, 24" x 24" x 22", 10 pocket
95% per ASHRAE 52.1
MERV 14 per ASHRAE 52.2

Stage 3: Rigid final filter, 24" x 24" x 12",
95% per ASHRAE 52.2: E1, E2, E3
MERV 16 per ASHRAE 52.2

All 3 filter stages are individually monitored by factory installed pressure switches. As a filter becomes loaded, a signal is transmitted to the CAS's remote mounted Filter Status Indicator to signal that particular filter needs servicing. There is no guesswork as to which filter needs attention.

Filter change out is easy. Simply open the hinged access door and slide the filters out. Replacement filters slide in on extruded aluminum filter tracks, custom made specifically for that filter. Doors can also be lifted off the hinges.

All CAS air filters are UL 900, Class I listed and do not have plastic frames which are known to melt in kitchen exhaust applications.

Odor Control

Downstream of the smoke and grease filtration sections, CAS uses state-of-the-art bonded carbon panels to adsorb the odor molecules. These disposable panels have been developed to reduce the labor and cost of using refillable carbon trays.

And there is no carbon dusting. Formulations are available with a variety of impregnates to enhance adsorption efficiency, relative to the type food being cooked.

Stage 4: Bonded carbon panel, 24" x 24" x 1" minimum
application rate 100 lbs./1,000 cfm

Blower

SWSI or tubular inline blowers are standard and are selected to meet the air delivery and sound performance specified. All units include high temperature flex connection and housed spring isolators. Blowers are UL 762 listed, Power Ventilators in Restaurant Service. Motor and drives are located outside of the airstream per NFPA 96. Special blowers are available.

Unit Construction

CAS is furnished in a rugged 14 gage steel housing. All joints are continuous welded to conform with NFPA-96. Inlet transition, 4-stage scrubber section, outlet transition and blower assembly are constructed as one piece furnished on a rigid channel iron base. One piece construction eliminates costly field assembly. Other brand scrubbers require as many as 5 modules be assembled on site! The base has lifting lugs for convenient rigging. 3 side access doors make servicing the filter stages a snap.

Access doors are on lift-off hinges and use high temperature gasket on the interior to prevent air bypass around the filter stages.

Fire System

CAS is available with either Ansul or Amerex brand systems. Detectors and nozzles are factory installed and pre-piped according to the respective manufacturers instructions.

Unit Operation

Once the CAS is set in place, ductwork and fire system connected and blower powered, the unit is ready for operation. The only routine service needed is replacing the filters. When a particular stage of filter becomes loaded with grease and smoke particulate a signal is sent from CAS to the filter indicator panel, located in the kitchen. An LED will light, signaling that a particular stage of filters needs attention. There are individual LED's for all 3 filter stages.