

SPECIFICATION

MODEL CAS – LOW PROFILE VENTILATOR – PACKAGE SYSTEM

Low profile style ventilator to be wall or equipment mounted as required, and shall be sized as shown on plans. Ventilator shall be Duo-Aire Model CAS, exhaust and supply low profile ventilator. Equipment furnished shall be ventilator only or system to include:

Ventilator ETL Listed to U.L. Std. 710, ductwork U.L. Listed, exhaust fan (U.L. Listed) and curb, supply fan with master electric panel and curb.

1. **LOW PROFILE VENTILATOR**

Ventilator shall be constructed of minimum 18 gauge 300 series stainless steel. All external seams shall be continuously welded, ground and polished to match original finish. There shall be no overlap of seams allowed. Construction shall be in complete compliance with requirements of N.F.P.A. 96, U.L. Std. 710 and bear the NSF seal.

The ventilator shall include a filter rack of the same material as the inner shell and shall be furnished with a full complement of U.L. aluminum grease filters, installed at not less than a 45° angle. Filters are to be easily removable for cleaning, filter housing to drain into a full-length grease trough, complete with grease cup, and the grease trough and cup are to be easily removable for cleaning.

The ventilator shall include a fully welded exhaust collar, with exhaust collar sized to maintain a minimum exhaust air flow velocity of 1500 FPM.

The outer (supply air) shell shall be constructed of minimum 18 gauge 304 series stainless steel. The outer shell shall be continuously welded, top, front and back. The supply air space created between the fully welded exhaust shell and the fully welded supply air shell will be a minimum of 3” top and back with a minimum 6” supply air slot along the front perimeter. The supply air slot shall include an internal perforated metal diffuser, full insulation of one inch foil backed insulation for non-tempered hoods and a full complement of aluminum air foil louvers for directional air control. The use of grills or linear bar diffusers, with or without opposed blade dampers, will not be acceptable.

The ventilator shall be furnished with a full-length bracket, welded to top and bottom of the ventilator for fastening the ventilator to the wall.

2. **DUCTWORK – U.L. LISTED CONCENTRIC SUPPLY AND EXHAUST DUCT PACKAGE**

Duct shall be U.L. Listed for 1” clearance to combustible materials. Duct will be sized to meet

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minimum air flow requirements as established by national codes. Model CAS will include up to 48" vertical concentric duct with supply duct fabricated of 18 gauge 300 series stainless steel around 18 gauge stainless steel exhaust duct; additional duct above 48" will be 18 gauge aluminized steel supply and 18 gauge stainless steel exhaust.

Installation of the ductwork, including, but not limited to, welding of joints, support from structure, enclosing in fire rated assembly if required, clearance from combustibles, penetrations of walls, ceilings or other rated assemblies and compliance with all applicable codes is the sole responsibility of the installing contractor.

3. **OR, DUCTWORK – PARALLEL, NON-CONCENTRIC**

The duct for the Duo-Aire low profile ventilator shall be constructed to meet the requirements of NFPA 96, as well as all applicable local and state codes. The duct shall be sized to maintain the same air flow velocity as the exhaust collar. The duct shall run as directly as possible to the outside of the building and shall terminate in a manner consistent with all local and state codes.

Installation of the ductwork, including but not limited to, welding of joints, support from structure, enclosing in fire rated assembly if required, clearance from combustibles, penetrations of walls, ceilings, or other rated assemblies, and compliance with all applicable codes is the sole responsibility of the installing contractor.

4. **EXHAUST FAN AND CURB**

The exhaust fan shall be sized to remove the required quantity of exhaust air at full system static pressure. The fan selected shall not exceed 85% of full load at operating conditions. Design exhaust CFM shall be determined by applicable codes and the local code official having jurisdiction.

The roof exhaust fan shall be of the belt drive, up blast, vertical discharge type and shall be listed to meet the requirements of U.L. 762. The fan shall be complete with a hinged base, external grease collection device and external disconnect switch to specified voltage.

The roof curb shall be of a design compatible with the type of roof to which it is to be mounted and shall be sized to insure that the point of termination of the exhaust duct is at least 18" above the surrounding roof structure and the point of discharge of the exhaust fan is at least 40" above the surrounding roof structure.

A complete static pressure calculation sheet, showing design exhaust CFM as well as hood, filter, collar entry, duct and fan loss static pressures and a computerized fan selection printout from the fan manufacturer shall be furnished as a part of the submittal documents for approval.

5. **SUPPLY FAN AND CURB**

The supply fan shall be Duo-Aire model RT (non-tempered) or Duo-Aire Model CAA (tempered). (See appropriate specification sheet).

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