

SPECIFICATION

ROOFTOP (RT/CC) SUPPLY/EXHAUST FAN SYSTEM

The Model RT/CC system shall consist of the following components, designed and furnished by a single manufacturer regularly engaged in the design and manufacture of commercial kitchen ventilation systems.

1. **SUPPLY AIR BLOWER**

The roof mounted supply air blower shall be a side inlet filtered air supply unit, with down discharge blower. The blower shall be double width, double inlet (DWDI), forward curved centrifugal blower, belt driven and selected to meet the total system static pressure requirements at design CFM. Static pressure calculations shall include inlet hood with filters hood and hood collar inlet loss, duct loss and fan/drive loss. Both the fan motor and the drives shall be selected to allow for final field balance of the system.

The Model R/T blower housing shall be constructed of minimum 18 gauge aluminized steel, painted with a weatherproof two-part epoxy. The filter intake section shall contain appropriate number of aluminum air intake filters, 1" washable type, to meet filter manufacturers recommended inlet velocities. The filter intake section shall be a separate section, to be field attached to the blower housing or to an air intake extension should site conditions require the use of an extension.

The Model R/T blower shall include a pre-wired master electrical panel, complete with motor overloads and contactors, for both the supply and the exhaust fan, relays, transformers as required, and a safety disconnect switch. Wiring shall be in compliance with appropriate NEC requirements, E.T.L. and local codes. Provisions shall be made for shutdown of the supply fan when the hood fire protection system is activated. This shall be in the form of a single relay, with all wiring and connection to the fire protection system by appropriate sub contractor. Interlock of fire protection system to building alarm system or any other system is the responsibility of others. The unit shall be equal in all respects to the Duo-Aire R/T model and be ETL listed as a unit assembly.

2. **COMMON CURB**

The common curb shall be designed to accept both the supply blower and the up blast exhaust fan, allowing for a single roof penetration for both the supply and exhaust ducts. It shall be constructed of a minimum 18 gauge aluminized steel, painted with a weatherproof two part epoxy. The common curb shall be designed to allow for an 18" duct extension above the roof and a final discharge of the exhaust fan to be at least 40" above the roof, as per NFPA 96.

The common curb shall include a curb cap for the exhaust duct, as well as any adaptors that may be required to allow for the proper installation of the exhaust fan.

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3. **EXHAUST FAN**

The exhaust fan shall be of the spun aluminum up blast design, U.L. listed for grease-laden atmosphere (U.L. 762). The fan shall be selected based on system required CFM, and total system static pressure to include grease filter, hood and hood collar loss, duct loss and fan motor/drive loss. Substantiating data must be furnished showing calculated designed system static pressures at time of submittal. The exhaust fan shall be complete with hinged base, grease collection device and a pre-wired disconnect switch for field wiring from the master electric panel.

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