

SPECIFICATION

GENERAL

Furnish and install Tuttle & Bailey model RRV, single duct exhaust terminal units, to provide air flow control accuracy in constant and variable volume systems.

CONSTRUCTION

Casing

Unit casing shall be constructed of not less than 20 gauge galvanized sheet metal for general exhaust applications or 20 gauge, 316 stainless steel for more critical or corrosive applications.

Insulation

No Lining - The terminal unit is to be supplied with no acoustical or thermal insulation.

Sensor

The unit shall be equipped with an orifice sensor that samples duct differential pressure with two upstream pressure taps and two downstream pressure taps. The sensor shall be the Tuttle & Bailey Orifice Sensor which minimizes particulate collection often associated with other sensors used in contaminant exhaust air applications.

Damper Assembly

The damper assembly shall be constructed of two heavy-duty 20 gauge galvanized steel, flat metal blades, with a gasket sandwiched in between for low leakage (stainless steel does not have a gasket). Damper blade will have a maximum angular travel of 90° to provide improved linearity and flow characteristics. Damper shaft shall be stainless steel with a position indicator for easy identification of damper angle. Damper bearings shall be Teflon construction, provide noise free operation and require no lubrication.

Connections

All electrical components shall be UL/ETL recognized and installed in accordance with the National Electric Code. All electrical components are to be mounted in a NEMA 1 enclosure.

Control Options

1. Pneumatic: The terminals shall be equipped with pressure independent pneumatic controls which can be reset to modulate airflow within the cataloged airflow range. Each controller shall be field convertible for direct or reverse acting without recalibration. Control devices (controller & actuator) shall be provided by the terminal manufacturer. Control devices shall be factory calibrated. Flow measuring taps and flow curves shall be supplied with each terminal for field balancing airflow. All pneumatic tubing shall be UL listed fire retardant (FR) type.
2. Analog Controls: The terminal manufacturer shall provide pressure independent electronic analog controls which can be reset to modulate airflow within the cataloged airflow range. Matching thermostat shall have concealed cover latches to prevent tampering and adjustable stops for locking or limiting temperature setpoint slider movement. Air volume controller/actuator and thermostat are by terminal manufacturer. Control devices shall be factory calibrated. All pneumatic tubing shall be UL listed fire retardant (FR) type.
3. DDC, Factory Mounting of FMA Controls Supplied By Others: The terminals shall be equipped with pressure independent direct digital controls supplied by the control contractor and mounted by the terminal unit manufacturer.
4. Analog or DDC Controls, Field Mounted: Controls for the unit are to be supplied by the controls contractor and are to be mounted, calibrated, and tested in the field.



OPTIONS

Inlet/Discharge Options

1. Slip/Slip - The terminal unit shall have a slip inlet and outlet which allows the round ductwork to slip over the connection. Available with both galvanized and stainless steel construction.
2. Flange/Flange - The terminal unit shall have a flanged inlet and outlet which allows the round flanged ductwork to be connected to the unit. Available with both galvanized and stainless steel construction.
3. Bellmouth/Slip - The terminal unit shall have a Bellmouth inlet, a round inlet that flanges out with a smooth transition to be attached to another object, such as an exhaust hood and the discharge shall have a slip connection which allows the round ductwork to slip over the outlet. Available with stainless steel construction only.
4. Bellmouth/Flange - The terminal unit shall have a Bellmouth inlet, a round inlet that flanges out with a smooth transition to be attached to another object, such as an exhaust hood and the discharge shall have a flanged outlet which allows the round flanged ductwork to be connected to the unit. Available with stainless steel construction only.

Unit Accessories

1. The unit shall be supplied with a controls toggle disconnect switch. The switch will disconnect all power to the terminal unit.
2. Control enclosure shall be supplied with dust tight gasketing.
3. The unit shall be supplied with a transformer of Voltage defined on schedule.

