Spring Air
Engineering Energy Savings

The Truflow-TC

Commercial Kitchen Exhaust and Supply Demand Ventilation Hood Controller

RPD-P-TC

The average commercial kitchen exhaust system operates 12 to 18 hours per day. Today's kitchen systems exhaust at 100% capacity whenever they are turned on regardless of that number of appliances or amount of cooking that is going on under the hood. The cook will arrive at 7:00 a.m. in the morning and switch the system on for the day. The system is not shut off until the last person leaves the kitchen at the end of the day. The reality is that the amount of actual high capacity cooking is a very small part of the total operating day. Unfortunately the when the exhaust runs continuously at full volume all day so does the fresh air supply, heating and cooling fresh air to replace the exhaust from the kitchen. The Truflow-TC system is an economical way to reduce the amount of air exhausted from the kitchen to match the amount of cooking. As more appliances are used the exhaust and supply volume increases, as less appliances are used the exhaust and supply volume decreases. The RPD-P-TC is CSA certified UL listed, and housed in a stainless steel enclosure with a No.4-finish. The controller has panel mounted system on/off and HI toggle switches, and LED lights.

TRU-FLOW-TC Operation
Hood mounted T-Couples send a signal to increase the exhaust volume and modulate the exhaust fan drives. Concurrently the supply volume modulates relative to the volume of the exhaust fan(s). As more T-Couples signal that appliances are operating under the hood, the volume of the exhaust and supply fan increase.
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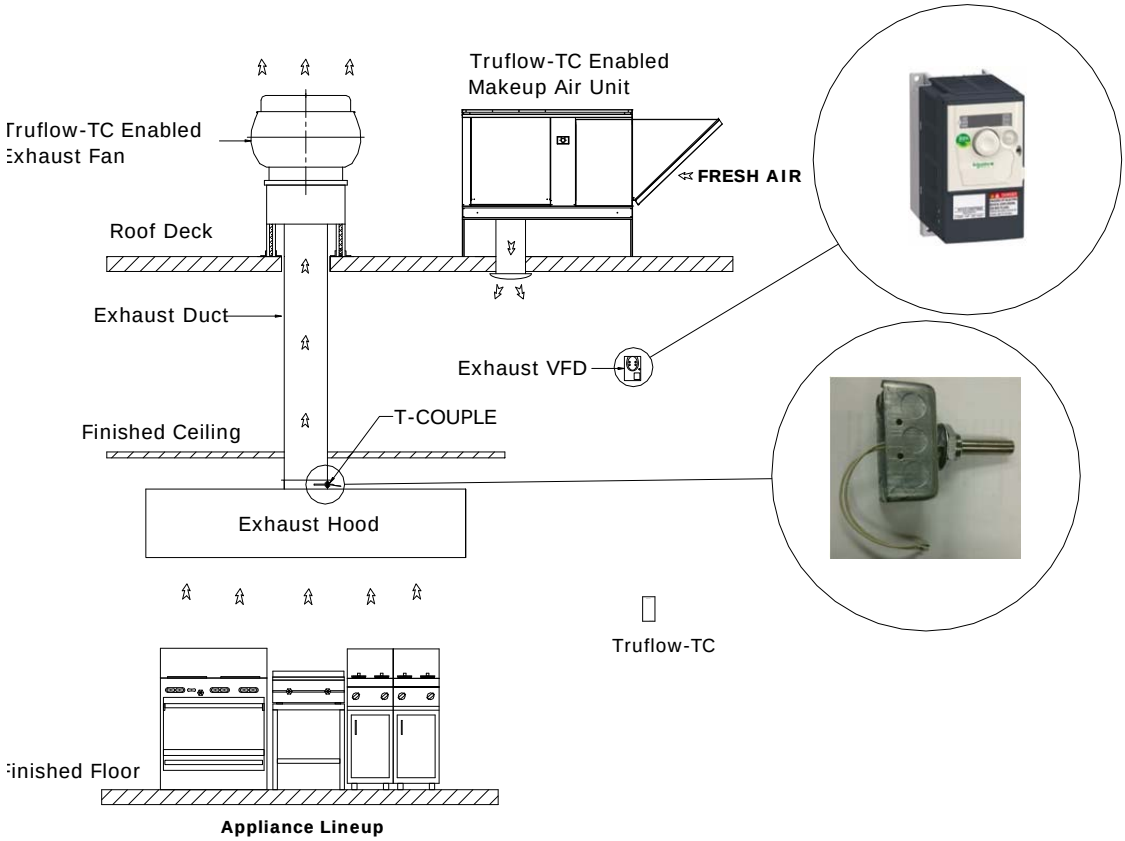
The Truflow TC System



Appliance Lineup

Simple operation
The TruFlow TC is easy to operate: simply turn it on and the system does the rest. It will monitor cooking activities under the hood and as the amount of cooking increases it automatically sends signals to the exhaust and supply fans to speed up.

Easy and inexpensive installation
The TruFlow TC installs in the same amount of time as a standard controller, so you will not incur any additional installation costs. The Truflow TC can be used with any make up air system.

Extend the life of your equipment
Truflow TC not only saves you on energy expenses, but it can also help extend the life of your equipment by demanding exhaust only when it is really required.

Cost Effective
The Truflow TC is an inexpensive solution for a demand control ventilation package, maximizing the ROI (return on investment) for any kitchen.
The TruFlow TC is an economicaly way to provide demand ventilation to any restaurant

Specification
The Truflow-TC commercial kitchen demand ventilation controller
Spring Air Systems Model No. RPD-P-TC (Kitchen 1 and two exhaust fans, up to 4 hoods)

The commercial kitchen demand ventilation controller shall be a Spring Air Systems Truflow-TC. (Model RPD11-P-TC) The Truflow-TC shall provide demand ventilation operation for a commercial kitchen ventilation system having two exhaust fans operating up to 4 hoods. The panel shall be CSA certified and supplied in an 18GA stainless steel enclosure with No. 4 finish for surface wall mounting. The Truflow-TC operates with an integral PLC to provide daily reduction of the commercial kitchen exhaust and supply, and real-time temperature based control. The panel provides System on/off and HI Exhaust switches, plus LED pilot lights for System On, Hi Supply and HI Exhaust. Rotating the Systems ON/OFF switch starts the exhaust and supply fans at low speed. Rotating the HI switch sends all fans to the maximum volume. The HI switch time is adjustable in the panel. In the event of a surface fire the exhaust fans drive to high speed and the supply drive shuts off.

(for SV supply only)
Hood mounted T-Couples send a signal to increase the exhaust volume and modulate the exhaust fan drives. Concurrently the supply drive modulates relative to the volume of the two exhaust fan drives. As more T-Couples signal that appliances are operating under the hood, the volume of the exhaust and supply fans increase.

(for SC supply only)
Hood mounted T-Couples send a signal to increase exhaust volume and modulating the exhaust fan drives. Concurrently the supply unit is sent a 4-20milliamp signal proportional to the volume of the two exhaust fan drives. As more T-Couples signal that appliances are operating under the hood, the volume of the exhaust and supply fans increase.

Remote Wiring Connections:
- The RPD-P-TC panel is wall mounted panel – 5 amp max.
- Three (3) wires, 24V in shielded cable from the RPD-P-TC panel to exhaust fan drive.
- Two (2) wires, from control RPD-P-TC,.120V to each T-Couple mounted in each hood
- Power wiring from breaker panel to the RPD-P-TC panel, 120V/1/60 – 15 amps.
- Two (2) wires from the RPD-P-TC panel to the shunt trip – dry contact (shunt trip provide by electrical contractor)
- Two(2) wires from the surface fire suppression micro switch n/o switch – 120V/1/60
- Three phase power wiring from breaker panel to exhaust fans variable speed drives.
- Two (2) wires, dry contact from the RPD-P-TC panel to the makeup air unit for on/off using dry contact in the
- Three phase power wiring from exhaust fans variable speed drives to the exhaust fans disconnect.
- (for SC supply only)
- Three (3) wires, 4-20milliamps in shielded cable from the RPD-P-TC panel to the supply unit.
- (for SV supply only)
- Four (4) wires, 24V in shielded cable from the RPD-P-TC panel to the supply fan variable speed drive.
- Three phase power wiring from breaker panel to supply fan variable speed drive.
- Three phase power from supply fan variable speed drive to supply fan motor.

Options:
Thermal-start: In the event the exhaust fans are not manually turned on the thermal start option will turn the exhaust fans on when the T-couple hits the operating temperature.