



Trane U.S. Inc.
7100 S Madison St
Willowbrook, IL 60527
Phone: (630) 734-3200

May 10, 2024

North Boone CUSD 200
17641 Poplar Grove Rd
Poplar Grove, IL
61065
U.S.A.

Site Address:
Manchester Elementary; Poplar Grove
Elementary; Capron Elementary; North
Boone Middle School
U.S.A

Attention: Jim Nolen

Project Name: VUVE (50) & HUVC (5) Unit Ventilator Start Ups

Trane is pleased to present our proposal to perform the following work on the equipment listed below at your facility. The services in this proposal will be performed using Trane's Exclusive Service Procedures to ensure you get full benefit of our extensive service experience, coupled with the distinct technical expertise of an HVAC equipment manufacturing leader. Our innovative procedures are environmentally and safety conscious and aligns expectation of work scope while providing efficient and productive delivery of services.

Scope of Service:

- **Factory Start Up of qty 55-unit ventilators (VUVE x 50 ; HUVC x 5)**

GENERAL CHECKS

- Ensure the unit has been installed level.
- Ensure supply-air and return-air ducts have been connected.
- Ensure damper operator motors and connecting linkage have been installed.
- Verify damper operation and linkage alignment.
- Check that air filters are in place and positioned properly.
- Remove any debris from the unit interior.
- Remove all foreign material from the drain pan and check drain pan opening and condensate line for obstructions.
- Inspect electrical connections to the unit and unit controllers.
 - Connections should be clean and secure.
 - Compare the actual wiring with the unit diagrams.
- Reference the appropriate controller manual for more details about starting units with factory-mounted controls.
- Check piping and valves for leaks. Open or close the valves to check for proper operation. Drain lines should be open.

FAN-RELATED CHECKS

- Rotate fan wheel manually to confirm it turns freely in the proper direction.
- Verify the fan and motor are aligned.

COIL-RELATED CHECKS

- Ensure coil and condensate drain piping connections are complete.
- Check the piping and valves for leaks.
 - Open or close the valves to check operation.
 - The drain lines should be open.
- Remove all foreign material from the drain pan and check the pan opening and condensate line for obstructions.
 - For steam coils, slowly turn the steam on full for at least 10 minutes before opening the fresh air intake on units with fresh air dampers.

ELECTRICAL CHECKS

- Check all electrical connections for tightness.
- Verify motor voltage and amps on all phases with the unit nameplate ratings to ensure unit operates correctly.

DUCTWORK CHECKS (if applicable)

- If using return ductwork to the unit, secure it with three inches of flexible duct connector.
 - Extend discharge duct upward without change in size or direction for at least one and one half fan diameters.
 - Use a 3-inch flexible duct connection on discharge.
 - Ensure trunk ductwork is complete and secure to prevent leaks.
 - Verify that all ductwork conforms to NFPA 90A or 90B and all applicable local codes
- **ONCE UNIT PRE-CHECKS ARE DONE TRANE WILL REQUIRE A CONTROLS TECHNICIAN FROM JOHNSON CONTROLS TO BE ON-SITE TO OPERATE THE UNITS TO MAKE THEM FUNCTION IN PROPER TEST MODE AS NEEDED.**

VERIFY SEQUENCE OF OPERATION

- When 24 Vac power is initially applied to the controller, the following sequence occurs:
 1. The Power Marquee LED turns on as red, then flashes green, and then turns a solid green.
 2. All outputs are controlled OFF and all modulating valves and dampers close.
 3. The controller reads all input local values to determine initial values.
 4. The random start timer begins (refer to the following section, "Random Start," p. 69).
 5. The random start timer expires.
 6. Normal operation begins, assuming there are no generated diagnostics. If any points are in fault or alarm mode, the Power Marquee LED flashes red.

- Refer to IOM start up pages in **UV-SVX005D-EN** and **UV-SVX004D-EN**, on specific controls and accessories included that are required in start-up
- Verify sequence of operation is correct.
- Note any incorrect readings in service report (voltage, amperage, CFM, water inlet/outlet temps, etc.)
- Confirm OA damper operation and air mix ratio
- Check Freeze stat operation
- Complete service report on each unit
- Write up new proposal on repairing any issues caused by improper installation

Exclusions- Diagnostics and troubleshooting, improper installation repair work, re-wiring, re-locating sensors, BAS controls, unit re-programming, power upgrades, re-piping, boiler work or anything not listed in the scope above or in the unit IOM start up basic for a standard factory start-up and checklist.

Total price.....\$37,309.00

We are committed to providing you with solutions that make your buildings work better. When you work with Trane you get the full benefit of our global service experience coupled with the distinct technical expertise of a leading HVAC equipment manufacturer.

We thank you for giving us an opportunity to quote on this service and hope we have a chance to work with you and your staff in the future.

Sincerely,

Charles Passarelli

Service Account Executive
Chicago/Central Illinois
Trane Commercial HVAC North America

7100 S. Madison Street
Willowbrook, IL 60527
USA

+1 630 734 3200 Office
+1 630 418 8128 Cell

Customer Acceptance

This proposal is valid 30 days from the proposal date and is subject to Customer's acceptance of the attached Trane Terms and Conditions.

Authorized Representative

Printed Name

Title

Purchase Order

Acceptance Date