SECTION 23 42 00 – NON-THERMAL PLASMIC DISINFECTION DEVICE

PART 1 - GENERAL

1.1 SUMMARY

1.1.1 This Section includes the following:

1.1.2 UL listed indoor air quality system Non-Thermal Plasmic Disinfection (NTPD) installed in [Air Handler] [Return Air Grille] [Supply Air Grille] [Ductwork]. I mounted inside the air handling units or packaged units; The disinfection module shall be installed before the particulate filter.

1.1.3 The disinfection device shall be capable of receiving 120v or 220v single-phase power.

1.1.4 Please see drawings for a schedule of sizes.

1.2 SUBMITTALS

1.2.1 Product Data: Manufacturer's literature for NTPD Systems indicated.

1.2.2 Dimensions, weights, capacities, and ratings.

1.2.3 Wiring diagrams and control panel.

1.2.4 NTPD system components and accessories.

1.2.5 Static pressure drop of the NTPD system into the air handling unit or air stream for each size of air handling unit scheduled.

1.2.6 Catalog cuts, engineering data sheets, list of unit numbers, NTPD output, and power

consumption.

1.2.7 Operation and Maintenance data: For NTPD systems to include in emergency operations and maintenance manuals:

1.2.7.1 Provide catalog cuts of equipment and components.

1.2.7.2 Include instructions for emitter replacement and component replacement.

1.2.7.3 Provide spare parts list.

1.2.7.4 Provide a wiring diagram.

1.2.7.5 Provide installation, operation, and maintenance manuals.

1.3 QUALITY ASSURANCE

1.3.1 System to be factory tested and the design, construction, and installation to be in accordance

with all state, local, federal, or other regulations having jurisdiction.

1.3.2 Competency of Supplier/Manufacturer/Installer

1.3.3 The supplier/manufacturer/installer of the NTPD system is to have a qualified service

Organization. The organization has a history of competent third-party testing that conforms to ASHRAE standard 241.

1.4 WARRANTY

1.4.1 The NTPD system shall be warranted to be free from defects in material and workmanship for five (5) years.

1.4.2 Operation of the system shall be a minimum of 10 years without replacement or major service.

PART 2 - MANUFACTURING

2.1 MANUFACTURERS

2.1.1 Basis-of-Design Product shall be Reviveaire Aireshield: Subject to compliance with requirements, acceptable manufacturers are:

1. Reviveaire LLC
2.
3.

2.2 NTPD DISINFECTION

2.2.1 Provide a non-thermal plasmic disinfection device for the control of Viruses, bacteria, and mold control inside each equipment it is installed in. The NTPD shall be designed to operate between 200 FPM and 500 FPM for a theoretical 99% air disinfection.

2.2.2 Construction. The NTPD System shall be of Aluminum, Stainless Steel, and plastic construction.

2.2.3 Safety protocols must be included to ensure no shock potential.

2.2.4 Air proving switch shall be included to ensure the NTPD disinfection device is de-energized if the airflow is shut off.

2.2.5 All exterior safety signage shall be permanently applied to the device with UL warning requirements.

2.2.6 Independent Testing. The device submitted shall be classified by UL (Underwriters

Laboratories). Also meets the UL Standards 867 as a minimum.

2.2.7 The NTPD device's power consumption shall be a maximum of 12 watts for the largest cross-sectional area.

The output power to the device shall be factory set at 5500 volts, with a capacity to be increased to 10,000 volts if required.

2.2.8 The NTPD device shall be designed to slide into a standard filter track without the need for modifications.

2.2.9 Service of the NTPD device shall be done with a factory supplied tool, not requiring any chemicals. Alternatively, the device can be washed down with water once the control panel is removed.

2.2.10 Warranty. NTPD Air Disinfection System, shall be warranted to be free of defects in

workmanship and material for a period of Five Years from the date of shipment.

PART 3 - EXECUTION

3.1 INSTALLATION

3.1.1 Install per manufacturer's recommendation.

3.2 TRAINING

3.2.1 Train Maintenance personnel to adjust, operate, and maintain the system.

3.2.2 Provide maintenance personnel a minimum of 3 hours of classroom and hands-on training.

3.3 MAINTENANCE

3.3.1 Each NTPD device has a fiber cleaning tool bit to match the diameter of the plasma pin and chamber.

3.3.2 The NTPD device shall be designed to be easily removable, requiring no tools. The device shall be designed to quickly release the power supply control box for servicing or cleaning.

3.3.3 No chemicals shall be required or used to clean the NTPD device.

3.3.4 Pre-filter mesh protective screen shall be designed in such a way to be removable, cleanable with water, and reinstalled without the need for any tools.

END OF SECTION 23 42 00