

SECTION 26 27 16

SPECIFICATIONS

TAG: Electrical Cabinets and Enclosures - Self Cleaning System (SCS)

PART 1- GENERAL

1.1 SUMMARY

- A. The Self Cleaning System (SCS) panel provides plumbing and electrical controls for Self Cleaning Hoods when the design does not allow for a utility cabinet at the end of a hood.

1.2 SUBMITTALS

- A. The manufacturer assumes no liability for the use or results of use from this document. Specifications are to be reviewed by the engineer to confirm the project's requirements and meet Federal, State, and Local codes and regulations.
- B. As the manufacturer continues product development, it reserves the right to change design and specifications without notice.
- C. The manufacturer shall supply complete computer-generated submittal drawings, including hood section view(s) and hood plan view(s). These drawings must be available to the engineer, architect, and owner for their use in construction, operation, and maintenance.

1.3 QUALITY ASSURANCE

- A. Control package shall be listed by ETL and complies with UL508A Standard and CAN/CSA C22.2, No. 14-05 Standards.

1.4 WARRANTY

- A. All units shall be provided with the following standard warranty:
 - 1. This equipment is warranted to be free from defects in materials and workmanship, under normal use and service, for a period of 2-years from date of shipment.
- B. The manufacturer shall not be liable for incidental and consequential losses and damages potentially attributable to malfunctioning equipment. Should any part of the equipment prove to be defective in material or workmanship within the 2-year warranty period, upon examination by the manufacturer, such part will be repaired or replaced by manufacturer at no charge. The buyer shall pay all labor costs incurred in connection with such repair or replacement. Equipment shall not be returned without manufacturer's prior authorization, and all returned equipment shall be shipped by the buyer, freight prepaid to a destination determined by the manufacturer.
- C. Refer to Manufacturer's Operation, Installation, and Maintenance (OIM) Manual for detailed descriptions of what is and is not covered, and contact information for warranty claims.

PART 2- PRODUCTS

2.1 GENERAL

- A. The SCS Control Panel includes a Human Machine Interface (HMI) control for Self Cleaning operation. The HMI, located on the front of the panel, allows for user-friendly programming including multiple wash zones and programmable schedule.
- B. The LCD screen shows descriptive plain text explaining the functions or values. The LCD screen interface will be installed on the face of the hood, on the face of the utility cabinet, or on the face of a wall mounted control enclosure.

2.2 CONSTRUCTION

- A. Control enclosure will be NEMA 1 rated and listed for installation inside of the exhaust hood utility cabinet. Control enclosure may be constructed of stainless steel or painted steel.
- B. The panel consists of a plumbing compartment and an electrical controls compartment. These two compartments are separated and water-tight to prevent any damage to the electrical components in the electrical compartment. All plumbing shall be standard brass pipe fitting.
- C. Drain for use with outdoor PCU-ESP Units (Optional).

2.3 PLUMBING CABINET

- A. The manifold will include a combination pressure/temperature gauge, shock absorber, pressure reducing valve, water solenoid valve, surfactant pump, surfactant tank, surfactant check valve, and ball valve.
- B. The panel will be available in 3/4", 1", and 1.5" manifold size, and will allow for a backflow preventer.
- C. All surfactant injection will be done before the water solenoid.
- D. A backflow preventer is required for every system that uses hot water wash.
- E. Hot Water Wash Zone Scheduling (Optional).
- F. For cold water mist applications, a backflow preventer is suggested for use.

2.4 ELECTRICAL CABINET

- A. The controls shall include a smart processor and a CAS HMI screen for control of Self Cleaning operation.
- B. The CAS HMI shall be located on the front of the panel and shall allow for user-friendly configuration of different options including multiple wash zones, wash time and 7-day/24-h programmable schedule for the fans and wash cycle.
- C. The panel allows for optional Building Management remote Control, Pollution Control Unit pressure switch connection for filter change indication, electric gas valve connection with integrated Reset Relay logic, thermostatic control of the fans and Integration with Demand Ventilation Controls.

2.5 BUILDING MANAGEMENT SYSTEM

- A. The SCS can be controlled with an external BMS system or through CASLink web interface.

2.6 OPTIONS

- A. UDS Interlock
- B. 120V Elec. Gas Valve Coverage
- C. External Audible FIRE Alarm
- D. HD Stainless Room Sensor
- E. Gas Follows Fans
- F. Shunt Trip Follows Fans
- G. Relay On/Off with Exhaust
- H. Exhaust Off in Fire
- I. Exhaust Continue in Fire
- J. Lights Continue in Fire
- K. Supply On in Fire

- L. Auxiliary Temperature Sensors
- M. Zone Scheduling
- N. Fans On During Schedule
- O. External Interlock
- P. Independent Light Control Enable
- Q. Light Dimming

PART 3- EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions under which the system is installed. Do not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable to Installer.

3.2 INSTALLATION

- A. Install in accordance with manufacturer's instructions, drawings, written specifications, manufacturer's installation manual, and all applicable building codes.