

## **SECTION PREFABRICATED, FIRE-RESISTANCE RATED GREASE DUCT FOR REMOVAL OF GREASE AND SMOKE LADEN VAPORS**

### **SPECIFICATIONS**

**TAG: Double Wall Grease Duct**

#### **PART 1 - GENERAL**

##### **1.1 SUMMARY**

- A. Factory-built double wall grease duct.

##### **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 requirements of the project and meet Federal, State, and Local codes.
- B. As the manufacturer continues product development, it reserves the right to change design and specifications without notice.

##### **1.3 QUALITY ASSURANCE**

- A. ETL listed and complies with safety standards UL1978, UL2221, CAN/ULC-S144 and testing has been extended to recognize ASTM E2336 and AC101 due to similar testing criteria.
- B. When installed in accordance with these instructions and National Fire Protection Association "NFPA 96"; Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations.
- C. UL 2221: Standard for Fire Resistive Grease Duct Enclosure Assemblies. Chapter 7 of this standard references a test labeled Internal Fire Test. Section 7.1.1 references two installation conditions, Condition A and Condition B. Condition A represents all installation condition except for installation within non-ventilated combustible enclosures. Condition B represents installation within a non-ventilated combustible enclosure.
- D. Model DW-3Z is classified under UL2221 (Test of Fire Resistive Duct Enclosure Assemblies) as an alternate to 2-Hr. fire resistive shaft enclosures with a minimum zero clearance to combustibles (sizes 5" to 36" diameter). Model 3Z is listed in accordance with the requirements for duct enclosure Condition A and B.
- E. Model DW-3R is classified under UL2221 (Test of Fire Resistive Duct Enclosure Assemblies) as an alternate to 2-Hr. fire resistive shaft enclosures with a reduced clearance to combustibles (sizes 5" to 24" diameter). Model 3R is listed in accordance with the requirements for duct enclosure Condition B.
- F. Model DW-2R is classified under UL2221 (Test of Fire Resistive Duct Enclosure Assemblies) as an alternate to 2-Hr. fire resistive shaft enclosures with a reduced clearance to combustibles (sizes 5" to 18" diameter). Model 2R is listed in accordance with the requirements for duct enclosure Condition B.

## **1.4 WARRANTY**

- A. All units shall be provided with the following standard warranties:
1. Grease duct systems are warranted to be free from defects in material and workmanship, under normal use and service, for a period of 20-years from the date of shipment.
- B. This warranty shall not apply if:
1. The equipment is not installed by a qualified installer per this installation guide; the operation manual should be kept with the equipment once installation is complete.
  2. The equipment is not installed in accordance with Federal, State, Local codes and regulations.
  3. The equipment design or sizing is not approved per MANUFACTURER'S specifications.
  4. The equipment is misused, neglected, or not maintained per the MANUFACTURER'S maintenance instructions.
  5. The equipment is exposed to elevated temperatures due to a fire originating in the building, hood, fan, vent, or kitchen appliances.
  6. The equipment is not operated within its published capacity.
  7. The equipment is operated, tested, or stored in the presence of chlorines, solvents, refrigerant vapors, caustic substances, halogenated compounds, or other conditions that could cause condensation of corrosive materials within or on the system.
  8. The equipment is substituted or connected with parts not manufactured per Original Equipment Manufacturer.
  9. The invoice is not paid within the terms of the sales agreement.
- C. 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 20-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.

## **PART 2 - PRODUCTS**

### **2.1. GENERAL**

- A. Intended for use with Type I kitchen hoods, which conform to the requirements of NFPA-96.

## **2.2. CONSTRUCTION**

- A. Inner duct section wall shall be constructed of .036" thick, 430 type stainless steel and be available in diameters 5" through 36".
- B. Outer Duct section wall shall be constructed of 430 stainless steel at a minimum of .024" thickness.
- C. Duct shall include 2 layers of Super Wool 607 Plus or Insulfrax Elite Blanket between the inner and outer wall insulation between the inner and outer wall.
- D. Duct sections shall be held together by the means of a formed V clamp. V clamps shall be of the hex-head type with flanged stops and tapered "lead in" threads.
- E. Duct joints shall be sealed with 3M Fire Barrier 2000+.
- F. Duct wall assembly shall be tested and listed at 3/4" or zero inch clearance, according to classifications.

## **PART 3 - EXECUTION**

### **3.1 EXAMINATION**

- A. Examine areas and conditions for compliance with requirements for installation tolerances and other conditions affecting performance of work.
- B. If unsatisfactory conditions exist, correct conditions prior to installation.

### **3.2 APPLICATION**

- A. Suitable for use in commercial cooking installations for the removal of smoke and grease-laden vapors.

### **3.3 INSTALLATION**

- A. Install in accordance with manufacturer's instructions, drawings, written specifications, manufacturer's installation manual, and all applicable building codes.
- B. Double wall grease duct systems and supports should not be used in caustic environments, consult the factory for additional information.

### **3.4 CONNECTIONS**

- A. Piping installation requirements are specified in other Division 23 Sections. Drawings indicate the general arrangement of piping, fittings, and specialties. Install the duct system to allow service and maintenance.
- B. Duct installation requirements are specified in other Division 23 Sections. Drawings indicate the general arrangement of ducts.