

**-Grease Duct-**

**PART 1 – GREASE DUCTS**

**1. SCOPE**

- 1.1. The pre-fabricated grease duct and components shall be listed as a Grease Duct by Underwriters Laboratories (UL) in the United States and Canada according to UL/ULC standard for use with commercial cooking equipment, as described in NFPA 96, which produce exhausted grease laden vapors at a maximum temperature of 500°F under continuous firing.
- 1.2. The duct shall be listed for temperatures of 500°F under continuous firing and 2000°F in brief forced firing according to UL-1978.
- 1.3. The factory built grease duct system shall be made in accordance with NFPA 96.

**PART 2 – CONSTRUCTION**

**2. CONSTRUCTION**

- 2.1. Each CIX section shall be made of two steel cylinders separated by 1, 2 or 4 inch of high temperature AES Wool insulation. The published clearance to combustibles shall be the result of UL/ULC listing of the standard.
- 2.2. Each CAX section shall be made two steel cylinders separated by 1 inch of air insulation. The published clearance to combustibles shall be the result of UL/ULC listing of the standard.
- 2.3. The inner wall (flue) shall be constructed from 304 or 316 stainless steel, 0.035 inch thick. The outer wall (casing) shall be constructed from galvalume, 304 stainless or 441 stainless steel, 0.024 inch thick.
- 2.4. Non-stainless steel surfaces exposed outside are recommended to be protected by a minimum of one base coat of primer and one finish coat of corrosion resistant paint suitable for high temperature. All primer and paint must be supplied by the contractor and shall be equivalent to series V2100 as manufactured by Rust-Oleum. An outer wall (casing) made of 304 or 316 stainless steel does not need to be painted.
- 2.5. The inner wall (flue) shall be laser or plasma welded.
- 2.6. All section joints shall have a self-centering sleeve to ensure proper alignment at the inner wall (flue).
- 2.7. All section joints are connected and sealed with a factory supplied locking band at the inner wall (flue) only. Use appropriate sealant as specified in the manufacturer's installation manual. Each section joint outer wall (casing) shall have a closure band.
- 2.8. The chimney shall be designed to compensate for thermal expansion.
- 2.9. System shall be designed to provide access for inspection and cleaning of each change of duct direction, permit drainage of grease residue through a duct section and enable the system to allow various types of fire suppression equipment to be installed into the grease ductwork.

### **PART 3 – INSTALLATION**

#### **3. INSTALLATION**

- 3.1. The installation shall be in accordance with the manufacturer's installation instructions and recommendations and shall conform to all applicable state and local codes.
- 3.2. All section joints are held in place by one mechanical locking band and sealed with appropriate sealant.
- 3.3. Ducts expanding above roof surfaces must terminate as outlined in local building codes or as specified by NFPA 96.
- 3.4. The entire stack system from the appliance to the termination, including all accessories, except as noted, shall be from one manufacturer.
- 3.5. Roof/Wall penetrations shall be suitable for the specified roof construction and shall comply with the manufacturer's installation instructions.

### **PART 4 – WARRANTY**

#### **4. WARRANTY**

- 4.1. The manufacturer shall warranty the chimney for *fifteen (15) years* from date of delivery for functional failure and failure due to condensate in the vent system. See manufacturer's warranty for details.
- 4.2. The sizing of the complete vent system shall be guaranteed by the manufacturer and a copy of the sizing calculations submitted to the engineer for review and approval prior to the contractor placing an order and release.
- 4.3. The manufacturer shall submit a venting drawing for approval showing all vent system components. The contractor must position all venting components, equipment, water and gas piping to accommodate the vent system design.

### **PART 5 - PRODUCTS**

#### **5. MANUFACTURERS**

- 5.1. Specification requirements shall be met by using Security Chimneys Secure Stack Pro Models CAX1, CIX1, CIX2, CIX4 exhaust flue or equivalent as approved by the engineer. Equivalent submittals shall demonstrate that the alternate material is in compliance with all specification requirements.