PART 1 – GENERAL

1.1 SUMMARY

Factory built, double wall rectangular grease duct, UL listed for 2-hr fire-resistance and zero-clearance to combustibles.

1.2 REFERENCE STANDARDS – Comply with latest edition

A. Underwriters Laboratory Inc. (UL)

1. UL 1978 – *Standard for Grease Ducts*
2. UL 2221 – *Standard for Safety for Tests of Fire Resistive Grease Duct Enclosure Assemblies*

B. ASTM E814 - *Standard Test Method for Fire Tests of Penetration Firestop Systems*

C. NFPA 96 – *Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations*

D. International Mechanical Code (IMC)

E. International Building Code (IBC)

F. International Association of Plumbing and Mechanical Codes (IAPMO) Uniform Mechanical Code

1.3 QUALITY ASSURANCE

A. Obtain listed system components from a single manufacturer.

B. Comply with NFPA 96, unless otherwise indicated, or comply with local authority having jurisdiction.

C. Grease duct system shall be installed in accordance with the manufacturer's listings and written instructions.

1.4 WARRANTY

A. Listed grease duct shall have a limited warranty starting at the date of installation.

PART 2 – PRODUCTS

2.1 AVAILABLE MANUFACTURERS

A. **Van-Packer Company**

2.2 LISTED GREASE DUCT

A. The grease duct shall be insulated, double-wall factory built type for use with Type I kitchen hoods, as described in NFPA 96, for the transportation of grease laden vapors from commercial cooking operations.

B. Product Description:

1. Factory prefabricated, double-wall type, listed and labeled to UL 1978 and UL 2221.
    a. Systems not successfully tested to UL 2221 are not permitted.
2. 2-hr fire resistance rated with zero clearance to combustibles.
3. Rated for continuous operation at 500°F and for intermittent operation at 2000°F.

4. All components of the grease duct system, including duct supports, guides, fittings, cleanouts, expansion joints and through penetration firestops, shall be provided by a single manufacturer to ensure the system meets the requirements of the UL listing.
5. The grease duct system, along with its supports and through penetration firestops, shall have an “F” rating of at least 2-hrs and a “T” rating of at least 2-hrs as proven by test to ASTM Standard E814.
6. Access doors shall be provided, spaced and located in accordance with the requirements of NFPA 96.
7. The grease duct sections shall be constructed of a stainless steel liner and metal shell with ceramic fiber insulation in the annular space.
    a. The liner (inner wall) shall be constructed of Type **(304 or 316)** stainless steel.
    b. The liner (inner wall) thickness for all sizes is 0.035"
    c. The shell shall be constructed of **(Aluminized Steel or Type 304, 316 or 430)** stainless steel.
    d. Shell (outer wall) thickness, where all sides are 36” or less, are 0.025”.
    e. Shell (outer wall) thickness, where any side exceeds 36”, are 0.035”.
    f. The duct shall include a 3” thickness of ceramic fiber insulation between the liner and shell.
        i. Systems with exposed duct insulation are not permitted.

PART 3 – EXECUTION

3.1 INSTALLATION OF FACTORY BUILT GREASE DUCT

A. Inner Pipe Joints shall be held together by formed bolted flanges and sealed with P/N 101087A sealant.

B. Connection to hood will be made with a hood collar provided to hood manufacturer to assure proper fit with duct.

C. Connection to curb mounted fans shall be by means of a fan adapter plate provided by the duct manufacturer.

D. Support duct in accordance with Van-Packer’s installation instructions.

E. All supports and guides shall be designed for installation with no required welding.

F. Store grease duct components inside or covered adequately to protect them from weather or accidental damage.