

PART 1 – BREECHING, CHIMNEY & STACK**1.1 SCOPE: JEREMIAS HIGH PRESSURE EXHAUST SYSTEM**

- A. Manufacturer shall provide factory-built modular connector, manifold, and stack system tested and listed by Underwriters Laboratories Inc. (UL) for use with building heating equipment and appliances, which may produce exhaust gas at temperatures not exceeding 1400°F under continuous operating conditions, 1800°F under intermittent conditions, and 2100°F for 10 minutes when burning gaseous, solid, or liquid fuels as described in NFPA-37 and NFPA-211. UL Listings shall include:
 - a. UL-103 Building Heating Appliance Chimney
 - b. UL-103 Type HT (additional 2100°F burnout test for Solid Fuel)
 - c. UL-2561 1400°F Chimney
 - d. Additional UL-103 pressure testing for positive pressure applications up to 90 inches W.C. at 1400°F continuous (UL-2561 test conditions).
- B. Provide required insulation to achieve a minimum 1" clearance to combustibles for temperatures up to 1400°F continuous (UL-2561 test conditions).

1.2 CONSTRUCTION

- A. The double wall insulated exhaust system shall be constructed of stainless steel inner flue, fiber insulation, and stainless steel outer jacket. The materials and construction of modular sections and accessories shall be as specified by the terms of the product's UL listing.
 - a. 0.035" minimum thickness (0.020" minimum thickness for 3", 4", and 5" I.D.) 444 stainless steel inner liner.
 - b. 1¼" minimum thickness fiber insulation.
 - c. 0.025" minimum thickness 304 stainless steel outer jacket (3"- 24" I.D.); 0.035" minimum thickness 304 stainless steel outer jacket (26"- 36" I.D.).
 - d. Bellows joints shall be made from minimum 2-ply 321 stainless steel, lined with 444 stainless steel, and incorporate a 304 stainless steel outer jacket.
 - e. The entire exhaust system, including all accessories (connectors, hardware, anchor plate supports, guides, drains, and terminals), shall be of stainless steel construction.
- B. Inner flue shall have steel to steel male/female conical joints that do not require silicone sealant. The joints shall be secured and sealed by means of a locking band.
- C. Double-wall exhaust system shall be constructed so the installed joint does not incorporate any intermittent or continuous steel bridge between the inner and outer walls that conducts heat and causes hot spots in the assembled system.

- D. Exhaust system shall be designed to compensate for all temperature induced thermal expansion, installed to be gastight, and thus prevent leakage of combustion products into a building.
- E. Exhaust system is based upon Jeremias Model DWKL. Detailed manufacturer's submittal drawings shall be provided for approval prior to installation of the exhaust system.

PART 2 – EXECUTION

2.1 INSTALLATION

- A. Roof and wall penetrations shall be factory insulated and UL listed as not to require air ventilation for safe installation around combustible materials.
- B. Entire exhaust system from the appliance outlet to the termination point, including accessories shall be from one manufacturer, except where noted.

PART 3 – WARRANTY

3.1 WARRANTY

- A. The factory-built modular exhaust system shall be warranted against functional failure for Twenty-Five (25) years.
- B. Manufacturer shall provide ASHRAE flue sizing calculations, or certificate of vent equivalent feet, confirming the inner diameter is in complete compliance with appliance manufacturer's installation instructions.
- C. Manufacturer shall provide certificate of code compliance for all required local and national codes for the installation with the scheduled appliances.