



## SAMPLE SPECIFICATION INSULATED ENGINE EXHAUST SYSTEM MODEL IPIC

### PART 1 GENERAL

#### 1.1 SCOPE

- A. The provisions of Section \_\_\_\_\_, Mechanical General Specifications apply to all work in this Section.
- B. This Section includes specifications for furnishing and installing factory-built Engine Exhaust Systems.

#### 1.2 SUBMITTALS

Submit the following in accordance with Section \_\_\_\_\_.

- A. Catalog cuts
- B. Sizing calculations
- C. Installation drawings
- D. Installation instructions
- E. Sample of extended warranty

#### 1.3 QUALITY ASSURANCE

##### A. APPLICABLE STANDARDS

All products furnished under this Section shall conform to the requirements of NFPA 37 and NFPA 211. Products shall be listed to UL 103 and shall carry the appropriate UL and cUL listing mark or label.

##### B. WARRANTY

The Engine Exhaust System shall be warranted by the manufacturer against defects in material and workmanship for a period of twelve (12) years from the date of the original installation. Any portion of the exhaust system repaired or replaced under warranty shall be warranted for the remainder of the original warranty period.

## PART 2 PRODUCTS

### 2.1 ENGINE EXHAUST SYSTEM

- A. The engine exhaust system shall be of the double-wall, factory-built type for use with diesel engines or turbines as described in NFPA 37 which produce exhaust at temperatures not exceeding 1400°F continuously or 1800°F intermittently.
- B. The exhaust pipe sections shall be constructed of an inner wall and an outer wall with ceramic fiber insulation between the walls.

The inner wall shall be constructed of .035" thick type 304 stainless steel for diameters 6" through 36" and .048" thick for diameters 38" through 48".

*Optional: The inner wall shall be constructed of .035" thick type 316 stainless steel for diameters 6" through 36" and .048" thick for diameters 38" through 48".*

The outer wall shall be constructed of .024" thick aluminized steel for sizes 6" through 24" and .034" thick for sizes 26" through 48".

*Optional: The outer wall shall be constructed of type 304 or 316 stainless steel, .024" thick for all sizes.*

Inner and outer walls shall be connected by means of spacer clips, which maintain the concentricity of the annular space and allow unobstructed, differential thermal expansion of inner and outer walls.

- C. All exhaust pipe parts exposed to the weather shall be protected by one (1) coat of corrosion and heat resistant primer and one (1) coat heat resistant paint.

*Optional: All exhaust pipe parts exposed to the weather shall be 304 stainless steel.*

NOTE: In areas where fumes may be present in the vicinity of the exhaust system, Type 316 stainless steel outer wall is recommended.

- D. All supports, drains, roof penetrations, terminations, flange adapters, fittings and expansion joints required to install the exhaust pipe shall be included. Lined bellows joints shall be used to compensate for expansion. Provide relief valve where indicated on plans.

- E. All inner pipe joints shall be held together by means of formed vee bands and sealed with PO71, High Temperature Sealant.

Where exposed to weather, the outer bands shall be sealed to prevent rainwater from entering the space between the inner and outer walls.

- F. Screws shall be of the hex-head type with shoulder stops and tapered "lead-in" threads for easy starting.

Nuts for the inner and outer bands shall be retained by means of a free-floating cage to allow easy alignment.

- G. The exhaust system shall terminate three feet above the roof or as required by local codes.

## 2.2 AVAILABLE MANUFACTURERS

The Exhaust System shall be Model IPIC Insulated Pressure Industrial Chimney as manufactured by Metal-Fab, Inc.

## PART 3 EXECUTION

- A. Store delivered materials inside out of the weather. Protect materials from accidental damage or vandalism.
- B. Installation shall conform to the manufacturer's installation instructions, UL listing and state or local codes.
- C. Support exhaust system from building structure using rigid structural shapes for attachment of fixed point supports (Plate Support Assembly). Anchor supports to structure by welding, bolting, steel expansion anchors, or concrete inserts. Size of structural shapes shall be in accordance with manufacturer's recommendations.
- D. Protect incomplete chimney installations by attaching temporary closures over open ends of sections.
- E. Clean all exhaust system sections of dust and debris prior to final connection to appliances.