

SECTION 230050

BASIC MECHANICAL MATERIALS AND METHODS

PART 1 - GENERAL

1.1 STIPULATIONS

- A. The specifications sections "General Conditions of the Construction Contract", "Special Conditions", and "Division 1 - General Requirements" form a part of this Section by this reference thereto, and shall have the same force and effect as if printed herewith in full.

1.2 RELATED DOCUMENTS

- A. Requirements specified in Division 23 Section "Basic Mechanical Requirements" apply to this Section.

1.3 SUMMARY

- A. This Section includes limited scope general construction materials and methods for application with mechanical installations as follows:
 - 1. Mechanical equipment nameplate data.
 - 2. Miscellaneous metals for support of mechanical materials and equipment.
 - 3. Prime painting of miscellaneous metals and pipe hangers.
 - 4. Joint sealers for sealing penetrations in all walls and floors, including regular walls, fire and smoke barriers, floors, and foundation walls.
 - 5. Access panels and doors in walls, ceilings, and floors for access to mechanical materials and equipment.

1.4 QUALITY CONTROL

- A. Installer Qualifications: Engage an experienced Installer for the installation and/or application joint sealers, access panels, and doors.
- B. Qualify welding processes and welding operators in accordance with AWS D1.1 "Structural Welding Code - Steel."
- C. Certify that each welder has satisfactorily passed AWS qualification tests for welding processes involved and, if pertinent, has undergone recertification.

1.5 SEQUENCE AND SCHEDULING

- A. Coordinate the shut-off and disconnection of utility services with the Owner and the utility company.

1.6 SUBMITTALS

- A. Material Safety Data Sheets (MSDS) for all applicable products to Montgomery County Environmental Health and Safety Office.

PART 2 - PRODUCTS

2.1 MECHANICAL EQUIPMENT NAMEPLATE DATA

- A. Nameplate: For each piece of power operated mechanical equipment provide a permanent operational data nameplate indicating manufacturer, product name, model number, serial number, capacity, operating and power characteristics, labels of tested compliances, and similar essential data. Locate nameplates in an accessible location.

2.2 MISCELLANEOUS METALS

- A. Steel plates, shapes, bars, and bar grating: ASTM A 36.
- B. Cold-Formed Steel Tubing: ASTM A 500.
- C. Hot-Rolled Steel Tubing: ASTM A 501.
- D. Steel Pipe: ASTM A 53, Schedule 40, welded.
- E. Nonshrink, Nonmetallic Grout: Premixed, factory-packaged, nonstaining, noncorrosive, nongaseous grout, recommended for interior and exterior applications.
- F. Fasteners: Zinc-coated, type, grade, and class as required.

2.3 JOINT SEALERS

- A. All penetrations of building assemblies (walls, partitions, floors, slabs, etc..) shall be sealed closed around the penetrating item and the building element. The sealant shall generally be installed from both sides of the assembly when both sides are accessible during construction. IN all applications sealants shall be installed in such a manner to resist the passage of smoke and sound.

PART 3 - EXECUTION

3.1 ERECTION OF METAL SUPPORTS AND ANCHORAGE

- A. Cut, fit, and place miscellaneous metal fabrications accurately in location, alignment, and elevation to support and anchor mechanical materials and equipment.
- B. Field Welding: Comply with AWS "Structural Welding Code."
- C. Attach to substrates as required to support applied loads.

3.2 APPLICATION OF JOINT SEALERS

- A. Install sealant, including forming, packing, and other accessory materials, to fill openings around mechanical services penetrating all floors and walls. Installation shall provide fire-stops with fire-resistance ratings at least equal to that indicated for floor or wall assembly in which penetration occurs. Comply with installation requirements established by testing and inspecting agency.

END OF SECTION 230050