

## SECTION 16170

### MOTORS

#### 1. Materials

- 1.1 All motors required to operate equipment shall be furnished by the division that furnished the equipment, unless otherwise specified.
- 1.2 The electrical contractor shall furnish and install the protective device, feeder and starter for each motor, unless otherwise specified on drawings and/or specifications.
- 1.3 The control system necessary to operate the motor, including conduit, wires, and control devices, shall be furnished and installed by the contractor responsible for the furnishing and operation of such equipment, unless otherwise specified on drawings and/or specifications.

#### 2. Execution

- 2.1 All wiring to motors shall be installed by approved methods as indicated on drawings and/or specifications.
- 2.2 Wiring raceways shall be continuous to motor terminal boxes. There shall be no exposed power wiring at the motor connection.
- 2.3 Feeder conduit dropped from above shall be securely fastened in place using a pipe flange fixed to the floor or clamping the conduit to a mounting support fixed to the floor. Only rigid metallic conduit shall be used.
- 2.4 The type of support for feeder conduits dropped from above shall be as indicated on drawings. When not indicated the support shall be as follows:
  - a. Pipe flange fixed to the floor type may be used when the maximum distance does not exceed.
    - 8 feet conduit up to ¾ inch
    - 12 feet conduit up to 1 ½ inches
    - 14 feet conduit 2 inches and larger
  - b. A channel used as mounting support when maximum distances exceed the indicated above. The conduit shall be adequately clamped to the support.

- 2.5 Where motors have conduit terminal boxes, feeder conduits shall be connected to them with a minimum of twelve (12) inches of liquid-tight flexible conduit.
- 2.6 All motor with sliding base mounting shall have not less than eighteen (18) inches and no more than six (6) feet of liquid-tight flexible conduit connection rigid feeder conduit to motor terminal box.
- 2.7 All motors shall be grounded with individual grounding conductors.
- 2.8 Copper conductors shall be used for grounding motor frames unless otherwise shown on drawings.
- 2.9 The electrical contractor shall connect and test all the motors under the supervision of the contractor responsible for the furnishing and operation of such equipment.
- 2.10 The electrical contractor shall install overload relay heater elements and ascertain that size of the heater element corresponds to the motor full load current.
- 2.11 The electrical contractor shall connect motors for correct rotation before they are connected to the driven load.