

PART 1 - GENERAL

1.1 RELATED WORK .1 Electrical General Requirements: Section 26 05 00

PART 2 - PRODUCTS

- 2.1 EQUIPMENT
- .1 Clamps for grounding of conductor, size as required to grounding electrodes.
 - .2 Rod electrodes, copper clad steel, 21 mm diameter, 3 m long.
 - .3 System and circuit, equipment, grounding conductors, bare stranded copper, un- tinned, soft annealed, size as indicated.
 - .4 Insulated grounding conductors: green, type RW90 in all conduits. Minimum size: #14 AWG or as indicated in Table No. 16 of C.E.C., whichever is larger.
 - .5 Ground bus: copper, size as indicated complete with insulated supports, fastenings and connectors.
 - .6 Non-corroding accessories necessary for grounding system, type, size, material as indicated, including but not necessarily limited to:
 - .1 Grounding and bonding bushings.
 - .2 Protective type clamps.
 - .3 Bolted type conductor connectors.
 - .4 Thermit welded type conductor connectors.
 - .5 Bonding jumpers, straps.
 - .6 Pressure wire connectors.
 - .7 Copper crimp type compression connectors, (long barrel, two hole).
 - .8 Copper crimp type compression connectors (cable to cable, cable to ground rod, etc.)
- 2.2 MANUFACTURERS .1 Acceptable manufacturers: FCI - Burndy Corporation, Erico Inc., Thomas & Betts, Ilsco.
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PART 3 - EXECUTION

3.1 INSTALLATION
GENERAL

- .1 Install complete permanent, continuous, system and circuit, equipment, grounding systems including, conductors, connectors, accessories, as indicated, to conform to requirements of Engineer, and local authority having jurisdiction over installation.
- .2 Install connectors in accordance with manufacturer's instructions.
- .3 Protect exposed grounding conductors from mechanical injury.
- .4 Make buried connections and connections to electrodes using exothermic welding process or inspectable copper crimp type compression connectors.
- .5 Use mechanical connectors for grounding connections to equipment provided with grounding lugs.
- .6 Soldered joints not permitted.
- .7 Make grounding connections in radial configurations only, with connections terminating at single grounding point. Avoid loop connections.
- .8 Provide insulated copper bonding conductor in all conduit runs.

3.2 ELECTRODES

- .1 Bond separate, multiple electrodes together.
- .2 Use copper conductors, size as indicated, for connections to electrodes.

3.3 EQUIPMENT
GROUNDING

- .1 Install grounding connections to typical equipment included in, but not necessarily limited to following list: Service equipment, cable trays, transformers, frames of motors, Motor Control Centres, motor starters, control panels, distribution panels, outdoor lighting, fuel tanks, process equipment, instrumentation, building steel work and air ducts.

- 3.4 FIELD QUALITY CONTROL
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- .1 Perform tests in accordance with Section 26 05 00.
- .2 Perform ground continuity and resistance tests using method appropriate to site conditions and to approval of Engineer and local authority having jurisdiction over installation.
- .3 Perform tests before energizing electrical system.