

SECTION 16150

WIRING CONNECTIONS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes electrical connections to equipment

B. RELATED WORK:

1. Section 16123 – Building Wire and Cable

2. Section 16130 – Raceway and Boxes

1.2 REFERENCES

A. NEMA WD 1 (National Electrical Manufacturers Association) – General Requirements for Wiring Devices

B. NEMA WD 6 – Wiring Device, Dimensional Requirements

1.3 SUBMITTALS

A. Product Data: Submit manufacturer’s catalog information showing dimensions, construction, and configurations

1.4 CLOSEOUT SUBMITTALS

B. Project Record Documents: Record actual locations, sizes, and configurations of equipment connections

1.5 COORDINATION

A. Obtain and review shop drawings, product data, manufacturer’s wiring diagrams, and manufacturer’s instructions for equipment furnished under other sections.

B. Determine connection locations and requirements.

C. Sequence rough-in of electrical connections to coordinate with installation of equipment.

D. Sequence electrical connections to coordinate with start-up of equipment.

1.6 DELEIVERY, STORAGE AND HANDLING

- A. Materials: Materials shall be new and shall be delivered to the job site in the original package.

PART 2 - PRODUCTS

2.1 CORD AND PLUGS

- A. Attachment Plug Construction: Conform to NEMA WD 1.
- B. Configuration: NEMA WD 6: match receptacle configuration at outlet provided for equipment.
- C. Cord Construction: Type SO multi-conductor flexible cord with identified equipment grounding conductor, suitable for use in damp locations.
- D. Size: Suitable for connected load of equipment, length of cord, and rating of branch circuit overcurrent protection.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Verify equipment is ready for electrical connection, wiring, and energization..

3.2 EXISTING WORK

- A. Remove exposed abandoned equipment wiring connections, including abandoned connections above accessible ceiling finishes.
- B. Disconnect abandoned utilization equipment and remove wiring connections. Remove abandoned components if raceway servicing them is abandoned and removed. Provide blank cover for abandoned boxes and enclosures, which are not removed.
- C. Extend existing equipment connections using materials and methods, compatible with existing electrical installations, or as specified.

3.3 INSTALLATION

- A. Make electrical connections
- B. Make conduit connections to equipment using flexible conduit. Use liquid tight flexible conduit with watertight connectors in damp or wet locations.

- C. Connect heat producing equipment using wire and cable with insulation suitable for temperatures encountered.
- D. Provide receptacle outlet to accommodate connection with attachment plug.
- E. Provide cord and cap where field-supplied attachment plug is required.
- F. Install suitable strain-relief clamps and fittings for cord connections at outlet boxes and equipment connection boxes.
- G. Install disconnect switches, controllers, control stations, and control devices to complete equipment wiring requirements.
- H. Install terminal block jumpers to complete equipment wiring requirements
- I. Install interconnecting conduit and wiring between devices and equipment to complete equipment wiring requirements.
- J. Cold Room and Environmental Control Rooms: Cut and seal conduit openings in walls, floor, and ceilings.

3.4 ADJUSTING

- A. Cooperate with utilization equipment installers and field service personnel during checkout and starting of equipment to allow testing and balancing and other startup operations. Provide personnel to operate electrical system and checkout wiring connection components and configurations.

END OF SECTION