

HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

1. GENERAL INFORMATION

1.1 This section applies to raceway and conductor supports.

2. DESIGN REQUIREMENTS

1.2 Raceway Supports: Comply with the NYCEC and the following requirements:

- a. Provide individual and multiple (trapeze) raceway hangers and riser clamps as necessary to support raceways.
- b. Support parallel runs of horizontal raceways together on trapeze-type hangers.
- c. Support individual horizontal raceways by separate pipe hangers or on pipe straps for wall mounting applications. Spring steel fasteners may be used in lieu of hangers only for 1 inch and smaller raceways serving lighting and receptacle branch circuits above suspended ceiling only. Hanger rods for spring steel fasteners shall be 1/4 -inch-diameter minimum threaded steel. Use spring steel fasteners that are specifically designed for supporting single conduits or tubing.
- d. In vertical runs, arrange support so the load produced by the weight of the raceway and the enclosed conductors is carried entirely by the conduit supports with no weight load on raceway terminals.

1.3 Conductor Supports: All conductors installed in vertical raceways shall be supported in accordance with NEC and the following requirements:

- a. Provide at intervals required by code consisting of circular type insulating wedges installed simultaneously with conductors. Supports shall be of the non-deteriorating insulating material manufactured specifically for the purpose.
- b. Supports shall be provided where conduit terminations are located and in accessible cable support boxes complete with removable covers.

1.4 Equipment Supports

- a. Floor-mounted equipment shall be bolted to concrete housekeeping pads.
- b. Wall-mounted equipment on masonry walls shall be mounted off the wall by 1/4" to allow for air circulation and supported by drill in anchors.

- c. Wall-mounted equipment on sheetrock walls shall be supported off the floor with supplemental channels or unistrut.

1.5 Seismic Restraints

- a. Provide seismic restraints on all conduits and equipment where required by New York City Building Code, Chapter 16.

3. CONSTRUCTION REQUIREMENTS

- 1.6 Conduits shall in all cases be substantially supported in an approved manner, but they shall not be fastened to or come in contact with any other pipes, ducts or other Work of a similar nature.
- 1.7 Supports, hardware, fittings and fasteners shall be protected with zinc coating or with treatment of equivalent corrosion resistance using approved alternative treatment.
- 1.8 Restore all fireproofing on steel beams that was disturbed by the installation of support hangers.
- 1.9 Do not drill or cut or punch holes in structural shapes and under no conditions shall any hangers, supports, bolts or rivets pierce ducts.

END OF SECTION