Part 1 Products

1.1 RELATED SECTIONS

.1 Section 01 11 00 - General Requirements.

.2 Section 26 05 00 - Common Work Results for Electrical.

1.2 PRODUCT REQUIREMENTS

.1 Materials and finishes: provide adequate corrosion resistance.

.2 Provide materials, sizes and type of anchors, fastener and supports to carry the loads of equipment and conduit. Consider weight of wire in conduit when selecting products.

.3 Anchors and fasteners:

.1 Concrete Structural Elements: Use precast insert system, expansion anchors and preset inserts with the written permission from the base building structural engineer.

.2 Steel Structural Elements: Use beam clamps, spring steel clips, steel ramset fasteners, and welded fasteners.

.3 Concrete Surfaces: Use expansion anchors.

.4 Hollow Masonry, Plaster, and Gypsum Board Partitions: Use toggle bolts and hollow wall fasteners.

.5 Solid Masonry Walls: Use expansion anchors and preset inserts.

.6 Sheet Metal: Use sheet metal screws.

.7 Wood Elements: Use wood screws.

1.3 SUPPORT DEVICES

.1 Channels: U shape, size 41 x 41 mm, 2.5 mm thick galvanized steel, surface mounted, suspended or set in poured concrete walls and ceilings.

.2 Straps: Steel

.3 Rod hangers: 6mm galvanized steel

Part 2 Execution

2.1 INSTALLATION

.1 Install supporting devices to maintain headroom, neat mechanical appearance and to support equipment loads as required.

.2 Secure equipment to poured concrete with expandable inserts.

.3 Secure equipment to hollow masonry walls or suspended ceilings with toggle bolts.

.4 Secure surface mounted equipment with twist clip fasteners to inverted T bar ceilings. Ensure that T bars are adequately supported to carry weight of equipment specified before installation.

.5 Support equipment, conduit or cables using clips, spring loaded bolts, cable clamps designed as accessories to basic channel members.

.6 Fasten exposed conduit or cables to building construction or support system using straps.

.1 One-hole steel straps to secure surface conduits and cables 53 mm and smaller.

.2 Two-hole steel straps for conduits and cables larger than 53 mm.

.3 Beam clamps to secure conduit to exposed steel work.

.7 Suspended support systems.

.1 Support individual cable or conduit runs with 6 mm diameter threaded rods and spring clips.

.2 Support 2 or more cables or conduits on channels supported by 6 mm diameter threaded rod hangers where direct fastening to building construction is impractical.

.8 Where three or more conduits run in parallel, provide steel channel for conduit racks and install conduit on conduit racks. Size conduit racks to provide 25% spare capacity.

.9 Support riser conduit at each floor with clamp hangers.

.10 Provide metal brackets, frames, hangers, clamps and related types of support structures where indicated or as required to support conduit and cable runs.

.11 Ensure adequate support for raceways and cables dropped vertically to equipment where there is no wall support.

.12 Do not use shot driven pins.

.13 Do not use wire lashing or perforated strap to support or secure raceways or cables.

.14 Do not use supports or equipment installed for other trades for conduit or cable support except with permission of other trade and approval of Consultant prior to installation.

.15 Do not drill or cut structural members.

.16 Install fastenings and supports as required for each type of equipment cables and conduits, and in accordance with manufacturer's installation recommendations.

END OF SECTION