

PART 1 - GENERAL

- 1.1 REFERENCES .1 Canadian Standards Association (CSA International)
- .1 CAN/CSA C22.2 No. 18-98(R2003), Outlet Boxes, Conduit Boxes, Fittings and Associated Hardware, A National Standard of Canada.
 - .2 CSA C22.2 No. 45-M1981(R2003), Rigid Metal Conduit.
 - .3 CSA C22.2 No. 56-04, Flexible Metal Conduit and Liquid-Tight Flexible Metal Conduit.
 - .4 CSA C22.2 No. 83-M1985(R2003), Electrical Metallic Tubing.
 - .5 CSA C22.2 No. 211.2-M1984(R2003), Rigid PVC (Unplasticized) Conduit.
- 1.2 WASTE MANAGEMENT AND DISPOSAL .1 Separate waste materials for reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
- .2 Place materials defined as hazardous or toxic waste in designated containers.
 - .3 Ensure emptied containers are sealed and stored safely for disposal away from children.

PART 2 - PRODUCTS

- 2.1 CONDUITS .1 Rigid metal conduit: to CSA C22.2 No. 45, galvanized steel threaded.
- .2 Rigid metal conduits epoxy coated.
 - .3 Electrical metallic tubing (EMT): to CSA C22.2 No. 83, with couplings.
 - .4 Rigid pvc conduit: to CSA C22.2 No. 211.2.
 - .5 Flexible metal conduit: to CSA C22.2 No. 56, liquid-tight flexible metal.

- 2.2 CONDUIT FASTENINGS
- .1 One hole steel straps to secure surface conduits 53 mm and smaller.
 - .1 Two hole steel straps for conduits larger than 53 mm.
 - .2 Beam clamps to secure conduits to exposed steel work.
 - .3 Channel type supports for two or more conduits at 1.5 m on centre.
 - .4 Threaded rods, 6 mm diameter, to support suspended channels.

- 2.3 CONDUIT FITTINGS
- .1 Fittings: to CAN/CSA C22.2 No. 18, manufactured for use with conduit specified. Coating: same as conduit.
 - .2 Ensure factory "ells" where 90 degrees bends for 27 mm and larger conduits.
 - .3 Set-screw steel connectors and couplings for EMT.

- 2.4 FISH CORD
- .1 Polypropylene.

PART 3 - EXECUTION

- 3.1 MANUFACTURER'S INSTRUCTIONS
- .1 Compliance: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and datasheets.

- 3.2 INSTALLATION
- .1 Install conduits to conserve headroom in exposed locations and cause minimum interference in spaces through which they pass.
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- 3.2 INSTALLATION
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- .2 Conceal conduits except in mechanical and electrical service rooms, areas with exposed ceilings, or otherwise as noted.
 - .3 Use rigid galvanized steel threaded conduit and epoxy coated where exposed to mechanical injury and as noted.
 - .4 Use electrical metallic tubing (EMT) except in cast concrete and not subject to mechanical injury.
 - .5 Use rigid pvc conduit underground.
 - .6 Use flexible metal conduit for connection to motors in dry areas.
 - .7 Use liquid tight flexible metal conduit for connection to motors or vibrating equipment in damp, wet or corrosive locations.
 - .8 Minimum conduit size for lighting and power circuits: 21 mm.
 - .9 Install EMT conduit from branch circuit panel to junction box in sub-floor immediately below operations room.
 - .1 Run flexible conduit from junction box to receptacle outlet boxes in sub-floor.
 - .10 Bend conduit cold:
 - .1 Replace conduit if kinked or flattened more than 1/10th of its original diameter.
 - .11 Mechanically bend steel conduit over 21 mm diameter.
 - .12 Field threads on rigid conduit must be of sufficient length to draw conduits up tight.
 - .13 Install fish cord in empty conduits.
 - .14 Run 2 27 mm spare conduits up to ceiling space and from each flush panel.
 - .1 Terminate these conduits in 152 x 152 x 102 mm junction boxes in ceiling space.
 - .15 Remove and replace blocked conduit sections.
 - .1 Do not use liquids to clean out conduits.
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