

SECTION 26 05 33: RACEWAY & BOXES

1. GENERAL

- A. Minimum conduit $\frac{3}{4}$ inch
- B. Die-cast fittings are not allowed for EMT conduit.
- C. Aluminum fittings are not acceptable with rigid steel conduit.
- D. Use compression connectors for EMT conduit where installed in wet, dirty and dusty environments.
- E. Wiring for lighting circuits to be run separate from receptacle circuits and power feeders.
- F. Surface Raceway:
 - 1. Minimum size is WireMold 700-series
 - 2. All material and color to be specified; where not otherwise specified, use white, which is preferred color
 - 3. Manufacturers:
 - WireMold
 - Hubbell
- G. Plastic boxes for outlets are not allowed.
- H. Floor Boxes:
 - 1. Gasketed type
 - 2. UL listed to meet scrub water exclusion requirements
 - 3. Provide with ADA covers
- I. During design review, coordinate with FM Operations the locations to allow for proper servicing and access to other equipment.

2. APPLICATIONS

- A. Following is a summary of raceway types and applications:
- B. Aluminum conduit and Intermediate Metal Conduit (IMC) are not allowed.
- C. Metal Clad Cable (Type MC): Refer to section 26_05_10 — Conductors and Cable
- D. Surface Raceway: interior dry locations, for branch circuit feeders, control circuits, fire alarm, telecommunications, audiovisual, building automation and security systems run exposed on walls and ceilings.

E.

TYPE	APPLICATION(S)
Galvanized Steel RMC & PVC coated RMC	<ul style="list-style-type: none"> • Power circuits above 600 volts run above ground or exposed in building • Exposed exterior and outdoor locations and building roofs for power feeders, controls and low-voltage wiring systems • Underground conduit penetrations up through concrete floor slabs for power feeders, controls & low-voltage wiring systems • Exposed areas subject to impact damage • PVC-coated within lab areas where exposed to chemicals • PVC-coated conduit color to be consistent throughout the project
Fiberglass-Reinforced Epoxy (FRE)	<ul style="list-style-type: none"> • In lab areas where exposed to chemicals • Exposed exterior and outdoor locations, building roofs for power feeders, controls & low-voltage wiring systems
Electrical Metallic Conduit (EMT)	<ul style="list-style-type: none"> • Interior dry locations for power feeders, branch circuit feeders and control circuits • Homeruns for MC cable branch circuit wiring back to panelboards • Interior dry locations for fire alarm, telecommunications, audiovisual, building automation and security systems
Flexible Metallic Conduit (FMT)	<ul style="list-style-type: none"> • Interior dry locations for final connections (36" or less) to vibrating equipment, light fixtures, and other equipment • Within plenums or other spaces used for environmental air; provide grounding conductor
Flexible Non-Metallic Conduit (Liquid-tight)	<ul style="list-style-type: none"> • Exterior and interior damp and wet locations for final connections (36" or less) to vibrating equipment, light fixtures and other equipment; provide grounding connector • Do not use in plenums or other spaces used for environmental air

Non-Metallic Conduit (PVC Schedule 40 & Schedule 80)	<ul style="list-style-type: none"> • Schedule 40: In-slab locations, underground locations, concrete encased, for low and medium-voltage power feeders, branch circuit feeders, control circuits, telecommunications and fire alarm circuits. • Schedule 80: underground locations, direct-buried, for irrigation and low voltage control and security system wiring.
Surface Raceway	<ul style="list-style-type: none"> • Interior dry locations, for branch circuit feeders, control circuits, fire alarm, telecommunications, Audiovisual, building automation and security systems run exposed on walls and ceilings

3. OUTLET & JUNCTION BOXES

- A. Concealed Dry Locations:
 - 1. Sheet metal boxes. Provide flush mounting outlet box in finished areas; provide hinged enclosure for large pull boxes.
- B. Exposed Dry Locations: Provide hinged enclosure for large pull boxes