

DESIGN CRITERIA

1. Related Sections: Section 26 05 00 applies.
2. Minimum Size: 1/2 inch except as indicated elsewhere in applicable Design Plates and other sections of this DeCA Commissary Design Guidance. 1 inch for telephone and data wiring.
3. Damp Locations: Use in damp locations; i.e., in concrete and in earth. In refrigerated storage and processing rooms, place PVC conduit minimum 48" AFF.
4. Electrical metallic tubing (EMT): Use in areas where rigid conduit is not required, except refrigerated storage and processing rooms. Use compression type fittings for 1/2" through 2". For sizes greater than 2", use rigid conduit. Do not use indenter type fittings. All fittings shall be steel; cast fittings are not allowed.
5. Intermediate Metal Conduit: IMC is permitted in all areas except refrigerated storage and processing rooms. Sizes shall be 1/2" through 4".
6. Rigid Metal Conduit: RMC is permitted in all areas except refrigerated storage and processing rooms. Sizes shall be 1/2" through 6". For power feeders inside buildings, size should normally not exceed 4". Higher ampacity circuits should be paralleled.
7. Rigid Polyvinyl Chloride Conduit: Use only in ground or in concrete with metal elbows, and exposed in refrigerated storage and processing cooler boxes. Size per NEC.
8. Flexible Conduit: Use to connect all motors and moving/vibrating electrical equipment.
9. Exposed conduits and boxes in finished areas shall be painted to match surroundings.
10. Conduit penetrations through insulated prefab cooler panels require sealing to prevent moisture migration through or around the conduit. The penetration should be a PVC nipple (to deter condensation at the outside end due to thermal conduction) with an access fitting (LB fitting or J-box) outside the cooler. Seal around the nipple to the cooler panel skin outside and inside of the cooler with silicone sealant. Fill the inside of the nipple around the wires with silicone sealant after the wiring is installed. Lay out conduit systems to minimize the number of cooler panel penetrations required. Refer to Design Plate # 26 27 26-1. For each system type, only penetrate the cooler panel one time and utilize surface PVC conduit in the cooler.
11. Conduit penetrations through fire walls require approved firestopping materials to preserve the fire rating of the wall.
12. Conduit penetrations through a vapor barrier wall must be sealed to prevent moisture-laden air from passing through the opening or the conduit. Consult with the architect for location of any vapor barrier walls.

END OF SECTION