SECTION HEADING

ELEC 1220: Conduit Installation

Description

Conduit Installation describes the raceway types used to conceal wiring, learn to bend, install, support, calculate raceway size and number of wires permitted in a conduit, hand and hydraulic Benders are introduced, and identify fittings and other materials used in installing a Raceway system.

Credits

4

Topics to be Covered

1. Installing and identifying of all the different types of raceway systems: EMT, PVC, IMC, Rigid, and fittings.

2. Installing and identifying of all the different types of flexible raceway systems: steel flex, seal tight, carflex PVC, MC and fittings.

3. Selecting the proper size raceway for the number of conductors installed.

4. Selecting the correct box size for conduit installation.

5. Calculating straight and angle pulls for box fill

6. Calculating Plan Dimensions.

7. Applying Conductor derating factors.

8. Calculating box fill with conductors.

9. Use of the NEC for all installations, selecting, and calculations

Learning Outcomes

1. Exhibit safe work practices

2. Apply the National Electrical Code (NEC)

3. Perform and the use of properly using power tools for conduit installation

4. Identify the different service types

5. Identify all drawings and symbols

6. Identify the layout of different conduit installations according to the NEC

7. Understand how to splice conductors properly

8. Identify and properly install EMT, PVC, IMC, and rigid fittings

9. Identify and properly install flexible fittings

10. Identify and properly install conduit bodies with covers

11. Install surface mounted raceway

12. Layout of all raceway systems

Credit Details

Lecture: 1

Lab: 3

OJT: 0