314 Outlet, Device, Pull, and Junction Boxes; Conduit Bodies; and Handhole Enclosures

INTRODUCTION TO ARTICLE 314—OUTLET, DEVICE, PULL, AND JUNCTION BOXES; CONDUIT BODIES; AND HANDHOLE ENCLOSURES

Article 314 contains installation requirements for outlet boxes, pull and junction boxes, conduit bodies, and handhole enclosures.

As with Article 312, conditions of use apply. If you're running a raceway in a hazardous (classified) location, for example, you must use the correct fittings and the proper installation methods. But consider something as simple as a splice. It makes sense you wouldn't put a splice in the middle of a raceway—doing so means you can't get to it. But if you put a splice in a conduit body, you're fine, right? Not necessarily. Suppose the conduit body is a "short radius" version (think of it as an elbow with the bend chopped off). You don't have much room inside such an enclosure, and for that reason you can't put a splice inside a short-radius conduit body.

Properly applying Article 314 means you'll need to account for the internal volume of all boxes and fittings, and then determine the maximum conductor fill. You'll also need to understand many other requirements, which we'll cover. If you start to get confused, take a break. Look carefully at the illustrations, and you'll learn more quickly and with more retention.

PART I. SCOPE AND GENERAL

314.1 Scope. Article 314 contains the installation requirements for outlet boxes, conduit bodies, pull and junction boxes, and handhole enclosures. Figure 314–1

314.3 Nonmetallic Boxes. Nonmetallic boxes can only be used with nonmetallic cables and raceways because there is no way to maintain the electrical continuity of the effective ground-fault current path [250.2 and 250.4(A)(3)].

Exception No. 1: Metal raceways and metal cables can be used with nonmetallic boxes, but only if an internal bonding means is provided in the box between all metal entries.

314.4 Metal Boxes. Metal boxes containing circuits that operate at 50V or more must be connected to an equipment grounding conductor of a type listed in 250.118 [250.112(I)]. Figure 314–2

314.5 Short-Radius Conduit Bodies. Short-radius conduit bodies, such as capped elbows, handy ells, and service-entrance elbows must not contain any splices or taps. Figure 314–3

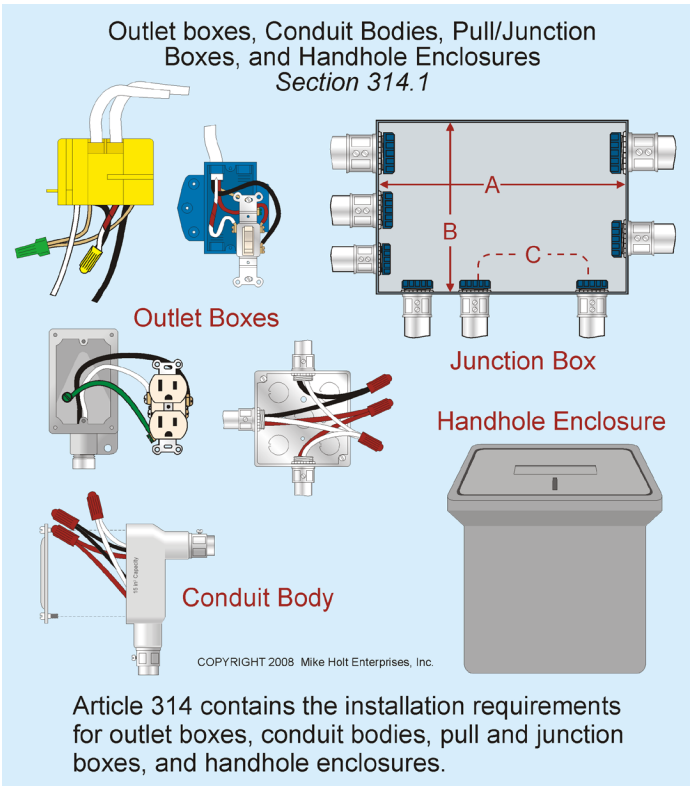

Figure 314–1