



### **FAQ** How do I ground a metal fence and swinging gate?

The fence around a substation or cell tower site must be grounded, and the gate must be connected to the fence itself.

To connect the ground conductor to the fence posts, bronze 'pipe grounding clamps' are usually employed; there are several styles. Product selection depends on factors such as pipe size, wire size, number of wires, style, ruggedness, availability, and economics. All the types discussed here provide wire-lay-in capability (the conductor can be laid in from the side rather than pulled through from the end). Bronze material is suitable for direct burial, which is usually required for the outdoor environment and for reliability.

- The G-DB Series HIGH-WING™ System accommodates pipe sizes from 1/2" thru 6" IPS, and a single wire from #10 - 4/0AWG copper; the wire hub can be oriented in any direction. The wire can be laid-in. This series has excellent availability and lowest cost. See catalog.
- Heavy duty C100 Series U-bolt clamps are most commonly used for fence grounding. They range from pipe sizes 1/4" - 4" IPS, and accommodate a single wire from #4 - 500MCM. The wire can be oriented either parallel or perpendicular to the pipe. This rugged series has good availability for common sizes, and higher cost. See Catalog.
- The extra heavy duty CG Series is similar, with sizes available through 16"IPS and wire size capability from #2 - 1000MCM. See catalog.
- For multiple-wire requirements, look to the CW, CZ, or CS Series. There is often a availability lead time for these styles. See catalog.

Some job specifications also call for connecting the grounding conductor to the fence wiring itself. A properly sized split bolt is effective for this connection.

### **FAQ** How do I connect to the swinging gate?

For the gate connection, FJ Series flat flexible jumpers can be connected to the fence post and the gate to allow the gate to swing. Connect to the fence post with a CF clamp; the clamp's flat "saddle" opening fits the jumper's flat ferrule and forces it against the pipe. In the standard CF series, both the saddle-opening and the flat ferrule have 1" width. See catalog. Select the appropriate size clamp for the post IPS and the gate IPS.

The standard length of Greaves' FJ Flexible Jumpers is 18 inches, and the standard 1" wide flat ferrules have mounting holes for two 1/2" bolts at NEMA standard 1-3/4" spacing. Other jumper lengths, widths, and amperage ratings can also be supplied. Additionally, the woven flat braid material is available in unterminated coils, as the FB series. See catalog

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