# BOLT STAR Reusable Bolt Template

The BOLT STAR® reusable bolt template is becoming the new industry standard for cast-in-place pole bases. BOLT STAR eliminates the need to make wood templates Made of ABS plastic, BOLT STAR is engineered to hold anchor bolts and electrical conduits needed to erect a light pole securely in place while supporting the rebar cage during the pour of a round concrete pole base. The structural bases are commonly specified for parking lot and outdoor area lighting, street lighting, security camera poles, street signs and flag poles.

BOLT STAR eliminates the labor intensive task of fabricating a "bolt template" out of wood for every pole base. The easy -to-install tool delivers a 57% more efficient construction process that cuts set up time in half and ensures a consistent , accurate, high-quality base. There is no need to measure, cut or drill holes. Other advantages: 1) crews can trowel-finish the entire top of the base immediately after the pour without removing the BOLT STAR template. This ensures that bolts are held securely in position while the concrete sets up, lowering the risk of costly rework due to bolts shifting out of alignment; 2) adjustable bolt slots give contractors the flexibility to adjust to manufacturer's specifications for a particular pole, in the field if necessary and accommodating bolt sizes from 5/8" to 1" in diameter and up to 36" in length, and bolt circle patterns ranging from 7" to 14"; and 3) the rebar cage is kept centered in the concrete form.

BOLT STAR saves 20-30 minutes on each pole base, reducing construction waste plus lowering the risk of bolts shifting out of alignment. Bolt Star's wide arms promote faster pours with ample room for a vibrator. BOLT STAR is available in 18-inch and 24-inch sizes. A 30" and 36" product are undergoing development.

Contractors report getting six reuses from Bolt Star. In extreme stress-testing to simulate the downward forces on BOLT STAR during a cast-in-place pour, product engineers hung up to 1,000 pounds off a 7-foot rebar cage that was wired to the cage tie slots at the end of BOLT STAR's arms. The rim of the concrete forming tube collapsed at 800 pounds, but BOLT STAR was undamaged. In further testing, a 6,000-pound SUV was driven over BOLT STAR with no damage. BOLT STAR's arms were not designed to be adjustable to provide the product with the maximum strength and durability required during cast-in-place concrete pours.

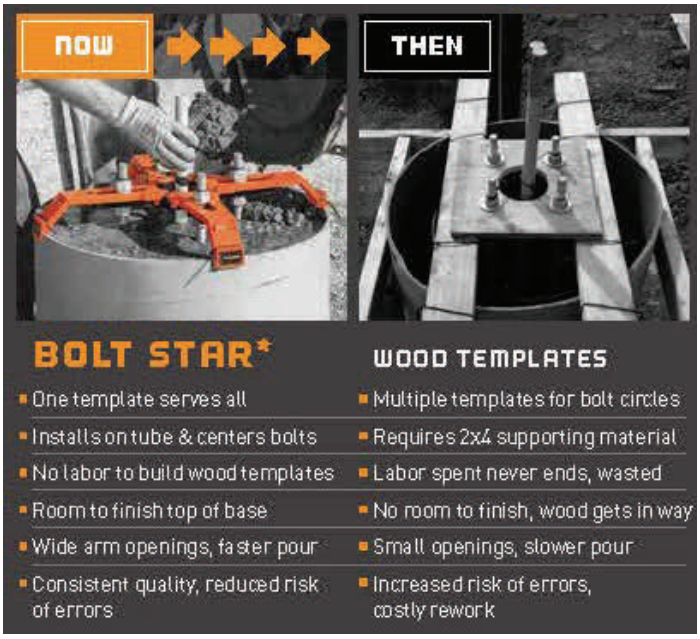
The amount of labor and materials expended in building a wood template for each pole base varies from $50 to $100 or more depending on labor rates. BOLT STAR cuts the labor portion in half, and no additional materials are required to build future bolt templates since BOLT STAR is reusable.

BOLT STAR fits on the outer diameter of nested round concrete forming tubes using the Xtender™ adaptor accessory. Manufacturers of round concrete forming tubes in some regions ship a "nominal" or larger outer diameter tube that is "nested" or slipped over the outside of standard 18" or 24" tubes to save on freight costs and storage space. These larger outer diameter tubes range in size from 19" to 19.4" nested over the 18" tube, and between 25.2" to 25.5"nested over the 24" tube. The Xtender snaps on to the end of each BOLT STAR arm and extends it to fit these larger outer diameter nested tubes.

Bolt Star requires minor assembly: inserting a bolt through each of BOLT STAR's four arms and threading a nut on the other end. The bolts come with each BOLT STAR and keep the arms secured to the hub. The Xtender adaptor slips up and snaps on to the end of each arm with no fasteners required. The 30" and 36" BOLT STAR versions are in the design stage.

BOLT STAR is the first new product of Sacramento-based Construction Innovations. The inventors are electricians and engineers who refined the idea for this innovative product over 10 years. The product underwent an intensive two-year period of development and testing through a collaborative effort with Rex Moore Electrical Contractors & Engineers. Just eight months after shipments began in 2013, BOLT STAR was being used by contractors in 42 states. BOLT STAR has a national distribution network of 400 locations. BOLT STAR won two prestigious awards last year: the 2014 Top Products award by Electrical Products & Solutions Magazine and a category winner in the 2014 Product of the Year contest sponsored by EC&M magazine.






Without Bolt Star—14 steps