



FAQ – BOLT STAR®

Q: How did the idea take shape?

A: BOLT STAR was the idea of two electricians and an engineer. Tired of fabricating a wood template for every light pole base and then discarding the material as construction waste, they realized there had to be a better way. The final form of the product evolved over 10 years and numerous sketches, designs and prototypes.

Q: How many reuses will I get from the product?

A: Like any construction tool, the answer depends on how well you take care of it. Some contractors spray the BOLT STAR template with TEMPLATE PROTECTOR™, a bio-degradable release agent or non-stick formula. It only takes 15-20 minutes to dry and lasts up to a week. TEMPLATE PROTECTOR makes cleanup easier, and prevents the buildup of harmful concrete. These contractors report getting a dozen or more reuses from BOLT STAR. Avoid using release agents or concrete dissolving agents that are acid-based or contain other toxic chemicals.

Q: Is BOLT STAR strong enough for the rigors of concrete construction?

A: YES. The average person perceives steel or wood to be stronger than BOLT STAR's high strength ABS or polycarbonate. This is a misperception. In extreme stress testing designed to simulate the downward forces on BOLT STAR during a cast-in-place pour, product engineers hung a whopping 1,000-lbs off a 7-foot rebar cage wired to the cage tie slots at the end of BOLT STAR's arms. This is so much weight that the rim of the forming tube collapsed at 800-lbs, not BOLT STAR! In further testing, the tool was driven over by a 6,000-lb SUV and it popped back up without damage. Check out the videos at: www.bolt-star.com

Q: How many BOLT STAR templates do I need?

A: This is the game-changer question when using Bolt Star, since the answer depends on how many bases you wish to pour each day. Unlike wood templates, you do not need one template for every base since BOLT STAR is reusable. Contractors who have a large parking lot full of bases will typically pour 8 to 10 pole bases a day – roughly the amount of concrete that is delivered in a 10-yard ready-mix truck. For example, if a project had 24 light pole bases to build and you desired to complete the job in 3 days, you would need only 8 BOLT STAR to setup, pour, wash down and move to the next 8 bases each day until all light poles were completed.

Q: Is BOLT STAR adjustable?

A: YES, as to paper template specifications for varying bolt sizes, bolt circle diameters and bolt square patterns. The bolt slots in BOLT STAR's arms accept up to 1" diameter bolts and adjust

to a range of bolt circle diameters or patterns from most major light pole manufacturers – more than 40 different templates. However, the arms themselves do not slide in or out to fit smaller or larger forming tubes. Our product engineers optimized BOLT STAR for maximum strength and reusability, which ruled out a sliding arm. An adjustable sliding arm exposed to the rigors of cast-in-place concrete also has increased risk of jamming after a few pours. Still, one big advantage BOLT STAR has over wood templates is not having to maintain a wood template for every time the paper template calls for a different bolt size, bolt circle or bolt square pattern.

Q: Can I fit two 2” conduits through the center opening?

A: The center opening of BOLT STAR is 4 1/8” ID and each 2” conduit is approximately 2 3/8” in outside diameter. Thus, two 2” conduits will not fit through the center opening.

Suggested work around: there is a minimum 1 ½ ” vertical clearance from top of form to bottom of the BOLT STAR template, so it is possible to cut the conduits about ½” below the bottom of the template. Next, tape the conduit openings. Conduits should still project at least 1” above the top of finished base, then add a coupler to extend the conduit after the pour.

Q: Our field crew cuts the forming tube onsite. Will Bolt Star still work if the rim of the tube is uneven, i.e., not a clean and level cut?

A: We recommend always setting forming tube in the hole with the machine cut edge UP. Cutting forming tube in the field is asking for problems. No need to increase the risk of bolts found out of alignment and/or the top of base being finished on a slant. Use Bolt Star’s bubble levels to ensure straight bolts and level bases. However, if the rim of the tube is cut at a slant, all bets are off – and that applies to the old wood template method as well!

Q: It seems expensive compared to making wood templates?

A: Actually, the tool typically pays for itself on the first job and keeps paying dividends thereafter. Consider this: the amount of labor and materials expended to build a single wood template can vary from \$50 to \$100 or more depending on labor rates. *And, you will need to build a wood template for each and every pole base.* With BOLT STAR, there is no build time and no additional materials are required. While wood templates are often discarded as construction waste, *BOLT STAR is reusable.* Factor in a 57% more efficient process, consistent quality and a lower risk of bolts shifting and BOLT STAR’s value proposition far outweighs the conventional wood template method. The cost to fix 3 or 4 problem bases can run into the thousands of dollars. With BOLT STAR get it right the first time, every time!

Q: Will BOLT STAR fit on the outer diameter of nested round concrete forming tubes?

A: YES, using the Xtender™ Adaptor. Manufacturers of round concrete forming tubes in some regions ship a standard size 18”, 24” or 30” tube that is “nested” within a larger diameter 19”, 25” or 31” tube to save on freight and storage costs. It’s deceiving because these larger outer tubes are labeled as standard sizes. The Xtender snaps on to the end of each BOLT STAR arm and extends it to fit the larger outer diameter tube sizes. Xtender is interchangeable between the 18”, 24” and 30” BOLT STAR, and can be purchased separately as an accessory item or together with BOLT STAR as a kit in the “Nested Editions”.

Q: Does BOLT STAR fit a square form or building foundation form?

A: YES, using the BOLT STAR Square Foundation Edition with a 30" BOLT STAR and special Square Form Adaptor included in the kit. The 30" Square Foundation Edition fits 24" or larger forms, and will accommodate up to 1" diameter anchor bolts and between 5" to 10" square bolt patterns. The Square Form Adaptor is interchangeable with the 18", 24" and 30" BOLT STAR, and can be purchased separately as an accessory item.

Q: Do you make a 16" or 20" BOLT STAR?

A: Not exactly, but we now have a solution for the 16" and 20" sizes. For the 16", use an 18" BOLT STAR with a Square Form Adaptor and attach the template to the H-frame wood form. Similarly, for the 20" round form simply use a 24" BOLT STAR with a Square Form Adaptor attached to the H-frame wood form. See photo of the 20" BOLT STAR solution on the Bolt Star website under PRODUCTS tab, "Bolt Star Tools" menu.

Q: Do you make a 30" or 36" BOLT STAR?

A: A 30" street light and parking lot version was released in July 2016. Heavier duty Roadway and Traffic Signal 30" & 36" versions are in the design stage. No official release date yet.

Q: What assembly is required?

A: Very minor. Assembly involves inserting a small bolt through each of BOLT STAR's four arms and threading a nut on the other end. The bolts come with every BOLT STAR and keep the arms secured to the hub. Assembly instructions in English, Spanish and French are provided. The Xtender and Square Form adaptors slip up and snap on to the end of each BOLT STAR arm.

Q: What type of warranty comes with the product?

A: 180-day warranty from date of purchase on defects only that are not due to ordinary wear and tear.

Q: Where is BOLT STAR made?

A: **In the USA!** All BOLT STAR products are manufactured in the United States by Bolt Star LLC based in Sacramento, California.

Q: What is the BOLT STAR story?

A: BOLT STAR was invented by two electricians and an engineer. Tired of building wood templates and the inherent problems that come with that method, they refined the idea for this innovative product over a ten-year period, all the time knowing that "there had to be a better way." The product underwent an intensive two-year period of development and testing through a collaborative effort with Rex Moore Electrical Contractors & Engineers, an EC&M Top 50 electrical contractor.

Q: Who is the manufacturer of BOLT STAR?

A: Bolt Star LLC with headquarters in Sacramento, California.

- Founded in 2012 by former construction company owners and industry professionals
- Bolt Star LLC designs, manufactures and distributes tools for the construction industry
- Mailing Address: 4120 Douglas Blvd #306-527, Granite Bay, CA 95746-5936
- Contact: **1-844-380-STAR (7827)** **www.bolt-star.com**