#### **Overview**

# Experience the Sta-Kon<sup>®</sup> advantage!

Thomas & Betts developed the first tool-applied solderless terminals and connectors more than 70 years ago in response to industry awareness of the need for better performance of electrical systems.

#### **Key Features and Benefits**

- Metal insulation grip sleeve is included on all-nylon terminal for strain relief
- · Long barrel selectively annealed
- UL® Listed E9809 unless otherwise specified



#### **Deep Internal Serrations**

After the insertion of a wire into the terminal's barrel, a deep, serrated interior ensures a large area of contact that lowers the resistance of a connection. With the mechanical force of the tool, the wire strands cold flow into the serrated interior. This guarantees electrical resistance lower than the wire to which it is applied. This feature also prevents pullout from vibration and mechanical strain. Deep internal serrations can be compared to the effective holding power of a well-treaded tire on a wet highway.

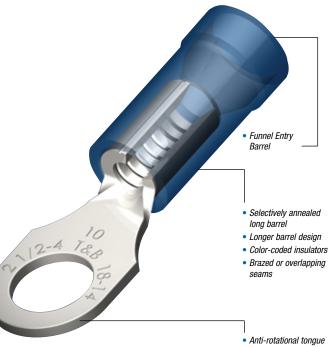
### **Funneled Terminal Barrel Entry**

This feature makes wire insertion faster and easier. A funneled barrel eliminates wire strand "hang up" upon insertion into the terminal's barrel. The loss of even a couple of wire strands can have negative results on electrical efficiency and resistance to mechanical strain.

## Sta-Kon<sup>®</sup> Long Barrel Design

If lowering electrical resistance, preventing wire pullout, eliminating a "missed" crimp and having an insulator that stays on the barrel during installation are your goals, then you must design a terminal with a long barrel. This also provides the insulator with additional surface area, holding tight to the barrel. Most competitive barrel lengths range from 20-50% shorter than Sta-Kon® terminals. The results are usually a stream of electrical failure, rework and added expense. Many competitive insulators come off during crimping due to a limited barrel length.

Note: Listed for solid wire up to #10 AWG, terminals only.



- · Hardened tongue
- · Complete wire and stud size identification



Deep Internal Serrations

Flat bottom box

Electro-tin plating

insertion force

Center reinforced spring

detent for minimum

· Compound Spring Rails

provide positive contact

after repeated insertions

#### **Overview**

Superior terminals for superior connections!

#### **Brazed or Overlapped Seam**

A long barrel design is of little value unless it is one solid piece. That is why Thomas & Betts brazes the seam on our vinyl-insulated Sta-Kon® terminals and overlaps the seam on nylon-insulated terminals. Many competitive terminals have butted seams. This means increased chances for wirestrand loss, poor resistance, wire pullout, and electrical failure. If the installer doesn't position the tool exactly on the correct spot on the barrel, there's likely going to be an improper termination. The butted seam can also fold due to tool-applied pressure piercing the terminals insulation from the inside out. With Thomas & Betts' brazed or overlapped seam, the installer can crimp anywhere along the barrel's surface. This provides up to 2.5 times the tensile strength of a butted seam terminal, guaranteeing proper electrical flow, void free.

#### Selective Annealing

Because of the mechanical strength of copper, an installer can experience fatigue associated with repeated installations. For this reason, Thomas & Betts puts its terminals through one more step called selective annealing. This process leaves the barrel soft enough to crimp and form around the wire. However, we "cold form" the tongue during the manufacturing process so it remains strong. This is done so the tongue can withstand repeated bends and bolt tightening strain common in most electrical installations. Many competitors attempt to accomplish similar goals by removing valuable material or using a softer copper, which has lower conductivity. This increases electrical resistance as well as the odds for shorting and downtime.



Strands enter as a homogeneous group and compact tightly under compression due to fully brazed seam



# **Anti-Rotational Tongues**

This is a unique feature to the Thomas & Betts ring tongue terminal. This design prevents terminal shorting by keeping the terminal secure in the terminal block. The installer can place a greater number of terminals closer together without worry.

### Proper Identification

We identify all terminals with Thomas & Betts initials, T & B. We also indicate wire and stud sizes. These markings are clearly visible on the surface of the tongue, taking any guesswork out of replacing or reordering additional parts. Our superior bright plating also assists in visibility.

# All Sta-Kon° Terminals are Deburred and Degreased

To ensure a Sta-Kon® terminal is properly plated and insulated, all our parts are put through a process that cleans and smooths the terminal of any manufacturing by-products — mainly grease, oils and sharp edges. Many competitive products do not put their product through such rigorous finishing.



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