

Information and Products for Constant Operation





With any electrical equipment or wiring installation operating at line voltages in continuous operation, cable and component damage or incorrect installation that permits moisture or contamination can lead to equipment failure, arcing and potential fire hazard. In your food or beverage processing plant, the quality of the electrical system may be compromised by materials not suited to the application or poorly designed components that do not match the performance of machinery or other processing equipment. Additionally, it's important to provide your maintenance team with the information and training necessary to correctly install critical structural systems for safe processing and packaging.

Food producers are seeking increased return from invested capital and drive for greatest efficiency, operating round-the-clock for maximum output and ROI. While working to preclude the loss of an asset during normal operations, many plants develop predictive maintenance



Predictive maintenance schedules demand exacting tolerances and highest performance from the components used.

systems that quantify available information to perform "just-in-time" maintenance on a piece of equipment. Predictive maintenance is the lowest cost of any type of maintenance (compared to preventative or run-to-failure), but is dependent on fine-tuning information about performance changes and relies on the integrity of the initial installation. For this reason, it is important to choose the best products for your installation and partner with a resource that supports your maintenance needs.

Thomas & Betts provides food and beverage producers with the electrical products needed to maintain the quality and consistency demanded in the competitive marketplace.

Ocal® Blue PVC coated conduit and fittings represent a complete corrosion protection package for your entire conduit system. This extensive product line includes the largest number of items in stock along with corrosion-resistant supports and patching compounds. T&B's Ocal Blue Conduit offers industry-exclusive performance listings, additional coating enhancements for effective protection against corrosion, custom colors and local installation training and certification for maintenance staff. Ocal PVC coated conduit and fittings offer corrosion protection that will extend the life of your electrical raceway system for many years and countless maintenance cycles.

Power equipment also depends on liquidtight fittings designed to handle the unique connection demands of flexible cord and power cable applications. Exceptional mechanical strain relief is needed in addition to a dependable seal against dust, oil, and other liquids. Where flexible cord or cable is exposed to intermittent or constant moisture and subjected to mechanical strain, choosing a watertight strain relief type electrical connector can make the difference between planning your next maintenance schedule or revenue loss due to equipment failure on the production line. Trust only liquidtight fittings by Thomas & Betts in your next installation.

T&B offers a complete line of grid-ground compression connectors, designed for direct burial. The large variety of connectors provide electrical continuity for the integrity of the grounding circuit and can be installed in various climate conditions. These range-taking products will reduce the number of connectors and dies needed for your installation and meet all applicable standards (IEEE837, UL467, CSA 22.2).

The following pages show how T&B products are the best solution to providing safe, effective power to the equipment in the processing and production areas of your plant.



In food and beverage processing plants, the quality of the electrical system may be compromised by materials inferior for the application. T&B provides components and

systems that consistently meet and exceed UL and NEMA requirements and perform reliably for long-term, continued use in a variety of operational environments.



Ocal™ Blue PVC coated conduit and fittings represent a complete corrosion protection package for your entire conduit system. This extensive product line includes the largest number of items in stock along with corrosion resistant supports and patching compounds. Ocal PVC coated conduit and fittings ensure corrosion protection that will extend the life of your electrical raceway system for many years of constant use.

- UL Listed with both the zinc coating and the PVC coating investigated and listed per UL 6.
- Full-undisturbed zinc coating under the PVC coating, fulfilling the requirement of NEMA RN-1 for undisturbed zinc coating.



Stainless Steel T&B Liquidtight Flexible Metal Conduit Fitting is designed to stand up to demanding, wet or corrosive environments, and anywhere high performance is a requirement.

- Safe-Edge® ground cone design accepts variations in raceway convolutions and provides a positive bond.
- Continuous sealing ring completely surrounds the conduit to ensure a liquidtight seal.
- Stainless steel material for longer life and exceptional appearance.
- T&B blue colored insulated throat molded from special high temperature and caustic-rated 105°C (221°F) rated thermoplastic.



XtraFlex® Liquidtight Flexible Conduit insures fast, easy installations and long-lasting, high performance in a variety of environments. Constructed of PVC, available in black and gray.

- Fast installation – even in tight, cramped spaces.
- Smooth outer jacket – approved for outdoor use, sunlight resistant and oil resistant. Smooth inner diameter allows easy wire pulling.
- Tested to CSA and UL requirements.
- Marked at one-foot intervals for fast, easy measuring.
- Temperature Range: -18°C to +105°C (-2°F to +221°F)
— Black
-18°C to +80°C (-2°F to +176°F)
— Gray



- Specify the raceway system to be NEMA 6P listed for submersion.



Flexible cord or cable is used to connect electrical equipment to power sources or controls, often in areas where vibration and cable tension push power connections to their limits. It's important that tension is not trans-

mitted to joints or terminal screws. T&B offers fittings and accessories that prevent sharp bends and provide liquidtight protection.



SPECIFICATION

The **BULLET® Nonmetallic Fitting** provides a reliable liquidtight seal that combines high pullout resistance and ease of installation. Installations are performed quickly and easily because BULLET® liquidtight fittings can be installed without disassembly. BULLET® nonmetallic fittings are resistant to numerous caustics and solvents.

- Rugged low-profile nonmetallic body and gland construction provides space savings.
- Captive sealing "O" ring features predetermined compression to provide a reliable seal at enclosure.
- NEMA 6P listing for temporary and cold submersion.
- Specify the raceway system to be NEMA 6P listed for submersion.



The **Ranger® Series Nonmetallic Liquidtight Cord Connector** takes twice the cable range of most ordinary strain relief connectors. T&B's Ranger Connectors allow you to reduce your inventory and save time, with one connector that can do the work of two. The sturdy nylon material adds corrosion resistance to your installation

- Extended range with superior strain relief.
- Reduced overall size, fits into tighter spaces.
- Gland nut designed to restrict cable bending.
- Cord Range: Straight – 0.125" to 0.950" 90° – 0.125" to 0.750"
- Hub Size Range: Straight – 1/2" to 1" 90° – 1/2" to 3/4"

Metallic Conduit



Flexible metal conduit is also permitted for use on industrial machinery where temperatures exceed the limits of liquidtight flexible conduit.



Liquatite® Flexible Conduit – Nonmetallic. *This non-metallic liquidtight conduit is ideally suited for continuous flexing situations. It is often specified in “Power Track” or cable carrier installations and on industrial robots. It does not contain a metal core which could fatigue from repeated flexing or vibration.*



Conduit Fittings

Liquidtight Flexible Type A Conduit Fittings provide a liquidtight, dust tight connection between flexible, nonmetallic conduit and a box or an enclosure. Features high mechanical pullout and positive seal against water, oil and dust.

- Nylon insulated throat.
- T&B sealing ring to seal knockouts.
- Steel or malleable iron.
- UL Listed.
- NPT hub threads to seal in female threads.



T&B Wiremesh Grips *provide high gripping strength for adequate cable support and strain relief without damage to the cable sheath. Grips are ordered separately and fit with your existing inventory of T&B connectors and liquidtight strain relief connectors. There's no need to duplicate inventory.*

- Compression of a tapered neoprene bushing, assures the watertight integrity of the fittings.
- Prevents severe cord bends and pullouts.
- Used in aluminum and/or steel fittings.
- Made from stainless steel wiremesh, aluminum retaining rings.