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CONNECTOR MANUFACTURING COMPANY
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(Press 2 for Customer Service)



CMC[®] Utility Products

Solutions to Support the Utility Industry



THE HISTORY OF CMC[®]

Connector Manufacturing Company (CMC[®]) was established in the early 1940s and relocated to Cincinnati, Ohio, in 1976. CMC's founder and CEO, Bill Boehm, was active in the industry for more than 50 years. CMC[®] has a history of industry-renowned customer and technical service, along with a reputation of engineering excellence, quality, and reliability.

Here are some company facts:

- Acquired by Hubbell in 2013
- Serving the utility and OEM markets
 - Selling to the utility market almost exclusively through select distributors
- Based in Hamilton, Ohio, CMC[®] has three primary sites that total more than 285,000 square feet of production, warehouse, and office facilities with manufacturing facilities in:
 - Hamilton, Ohio
 - Greenville, Alabama
 - Juarez, Mexico
- 400-plus employees
- More than 125 BURNDY Factory Direct Sales Representatives and top manufacturing reps
 - BURNDY's team of on-the-ground sales reps personally delivers a sole focus on the entire CMC[®] and BURNDY family of products. This partnership ensures intricate product knowledge and open lines of communications that provide fast answers to any questions.



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Continuous Innovation For the Utility Industry

For more than 70 years, Connector Manufacturing Company (CMC®) has been dedicated to the engineering, design, and manufacture of quality products for the utility industry. Thanks to this long history, CMC® has a solid understanding of industry challenges and offers a broad range of solutions for overhead and underground applications that:

- Improve reliability
- Increase efficiency
- Reduce acquisition and operational costs

Tap our knowledge and you'll benefit from CMC's wide-reaching capabilities, such as:

- Complete in-house engineering and design
- A certified "third-party" test facility equipped to perform UL, ANSI, and CSA test requirements
- Customer service that consistently provides knowledgeable answers to our distributors and end-users

As a result, CMC® provides competitively priced connector, enclosure, and pole-line hardware solutions that minimize installation time while ensuring the highest level of quality and safety.



Leading the Industry

CMC® is proud of our market leadership. We're committed to listening to our customers' application challenges, and then providing overhead and underground innovations to solve these problems.

Need proof? CMC® was the first to market with the following industry leading products:

Pad Extension

Patented tin plated Pad Extension Adapters enable you to connect more conductors to transformers using NEMA two-hole terminal lugs. The terminal lugs are stacked allotting for more mounting positions, and slotted rails allow for adjustable heights for easy transformer reconnection and replacement. The lugs meet the performance requirements of ANSI C119.4 and are available in both aluminum and copper.

Stud Extension

Dual rated for copper and aluminum conductor, CMC® transformer stud extensions (adjustable in two inch increments for 5/8 and 1-inch studs) allow for faster, easier, and less expensive replacement of transformers. Adjustable, patented, slip-fit Keyhole™ stud mounts eliminate the need for splices when new bushing heights won't reach. Eliminate the risk and strain of cantilever forces on transformer bushings that cause premature leaking.

ESC Submersible Repair Splice

CMC's unique Submersible Repair Splice connector accommodates #12 - 350 kcmil conductors and is available up to 42-inches long for use in below-grade applications (e.g., submersible and direct burial).

Multi-Point Termination Enclosures with Mechanical Connectors

Unlike traditional termination enclosures, CMC's unique multi-connection secondary termination enclosure incorporates dual-rated aluminum bus bars with mechanical set-screw connections (in lieu of flat copper bus bars). These enclosures are also available with our labor-saving lay-in connector designs.



Single and Double Meter pedestals

CMC's line of meter pedestals offers a quick and convenient way to meter electrical use provided to the home.

SBA Prepackaged Stainless-Steel Bolt Assemblies with Belleville Washers

These bolt assemblies ensure proper termination techniques and, thanks to the Belleville washers, have a significantly increased contact surface area, which allows the connector to run much cooler than with lock washers.

PATENTED Sharkbite™ and Keyhole™ Slip-Fit Transformer Connector Designs

The patented Sharkbite™ stud-hole design features a single stud hole that fits both 5/8- and 1-inch studs, and is available in Z-bar and straight-bar configurations. CMC's design provides a much larger contact surface area, which allows the connector to run much cooler than other similar competitor designs (see page 5). In addition, our patented Keyhole™ connector design for 5/8-inch stud provides 15 times the contact surface area when compared with competitors' designs.

NACC/NSSC Clear Injection-Molded Connector/Lock-On Cover Styles

CMC® developed a unique injection-molded, clear, labor-saving design with "thru" conductor holes and thread caps, available in our pedestal and transformer connector product lines. This setup allows a 5/16 Allen* wrench to tighten the conductor screw without removing the cap from the connector.

PATENTED BRD/BRDD Submersible/Direct Burial Connectors

For direct burial or below-grade handholes, these connectors have a patented one-piece extruded aluminum body to accommodate #12 - 350 kcmil conductors. The extruded design makes a CMC® connector more conductive than our competitors' cast designs and provides a stronger, more durable product that holds up in harsh conditions. Each submersible connector we ship is individually packaged and spark tested to ensure reliability.

ALLEN® is a registered trademark of APEX Brands, Inc. and is not affiliated with Hubbell Incorporated or its subsidiaries.



Our Products

Here is a look at some of CMC's leading product lines:

Connectors

At our core, CMC® is a connector manufacturer, producing mechanical and compression designs for utility companies, original equipment manufacturers, and commercial/industrial accounts. Drawing from more than 70 years of CMC® experience, our connectors are known industry-wide for:

- Compact design
- Range-taking capability
- Reliability
- Relatively easy installation
- Certification with Underwriters Laboratories and the Canadian Standards Association requirements for listing; ANSI C119.4 and C119.1; Western Underground Guide 2.5; and RUS certification, where applicable

These factors—together with our dedication to the highest quality ISO certified standards available and an unsurpassed service level—deliver maximum reliability.

Insulated Waterproof Splice Covers

The Splice Covers are pre-filled with a non-toxic silicone gel and are designed for all types of mechanical and compression splice connectors. The water and corrosion-proof design of the splice cover eliminates the need for time consuming multi-step products such as heat shrinks, primers, tapes, and epoxy packs. Whether you're looking for use in either outdoor or direct burial locations, the CMC® Insulated Waterproof Splice Covers guarantee:

- A locking mechanism that centers the splice in the box
- Visible splice examination
- Fast and easy installation with just one piece needed



Pedestal/Handhole Connectors

CMC® has developed a connector to fit any pedestal or handhole application. These insulated and uninsulated connectors are approved for above-grade applications and submersible and direct-burial designs for use below-grade. Each submersible connector we ship is individually packaged and spark tested to ensure reliability. Other features include:

- EPDM rubber insulation (direct burial and submersible designs)
- PVC insulation (above-grade designs)
- Clear plating
- Fast and easy installation
- Dielectric strength of 240 volts per mil
- Dual-rating for use with aluminum or copper



Overhead Connectors

There are approximately 6,000,000 miles of overhead distribution lines powering communities across the United States. CMC® manufactures all types of overhead connectors to tap, terminate, and splice in these difficult overhead distribution applications. Some of our most common designs include:

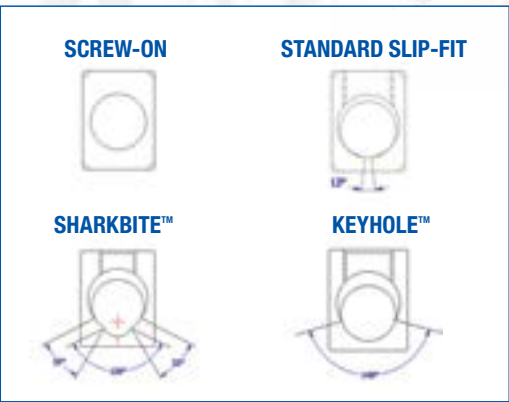
- Aluminum and bronze hot-line clamps
- Multi-tap eyebolt connectors
- Parallel groove clamps
- Multiple service tap connectors



Transformer Connectors

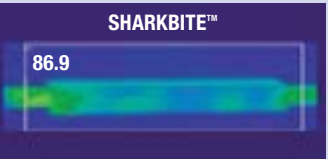
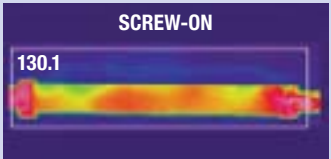
We built our name on delivering high-quality transformer connectors and industry-leading designs for single-phase and three-phase transformer applications. If you're looking for connectors for general purpose, heavy duty, or stud-mounted applications, CMC® delivers:

- Clear-plated connectors for low contact resistance
- * The Sharkbite™ stud-mount design provides one hole for both 5/8 and 1-inch studs with 120 and 64 degrees of surface contact respectively. This is 5 to 10 times more contact surface than the industry standard slip fit designs and allows for up to a 20 percent cooler hot spot temperature.
- * The Keyhole™ stud-mount design for a 5/8 or 1-inch stud allows 140 degrees of contact surface (nearly 11 times more than competing slip fit designs and a 30% cooler hot spot temperature).
- Hot Line Clamps for installing or removing distribution tap connections
- Stacked and lay-in designs for three-phase padmount applications



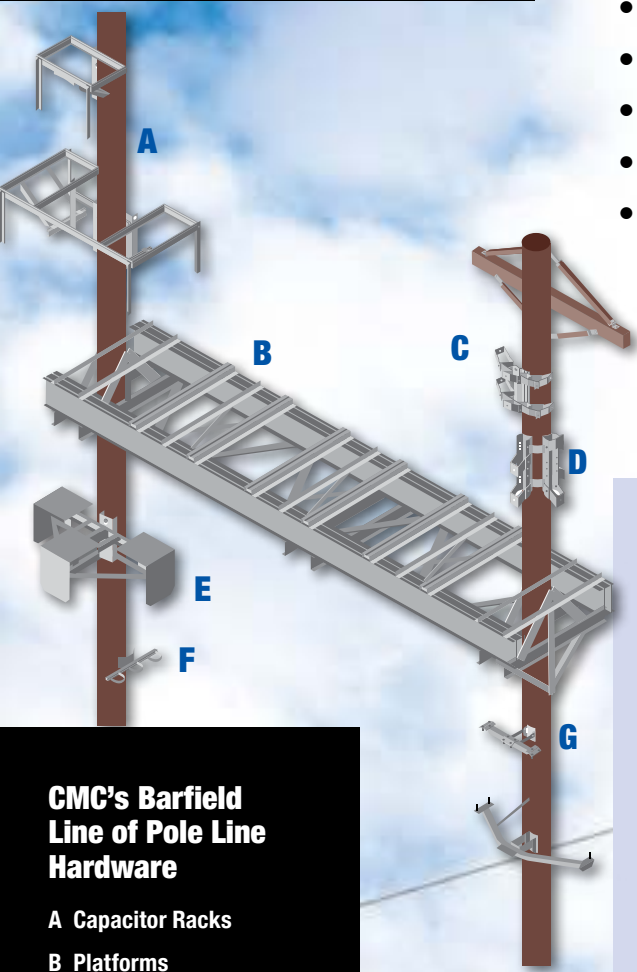
* Lower Operating Temperatures Lower the Energy Loss and Extend Equipment Life

Third-party test lab results and certified thermographic images show a dramatic difference in hotspot temperatures between standard slip-fit and screw-on connectors versus CMC's patented Sharkbite™ and Keyhole™ designs.



CMC's Extensive Customization Capabilities

The CMC® Technical Services Department works with our engineering and design team to take a customer's idea and turn it into a customized, delivered product in six weeks. Our teams utilize 3D neutral files in CAD; CAM and PDM; plus numerical simulation, FEA analysis, and rapid prototyping to deliver the right product to each of our customers. Learn more by contacting CMC® Technical Services at 513-860-4455.



CMC's Barfield Line of Pole Line Hardware

- A Capacitor Racks
- B Platforms
- C Cross Arm Braces
- D Winged Cluster Mounts
- E Primary Meter Mounts
- F Conduit Stand Off Brackets
- G Cutout Arrestor Brackets

Barfield Products

CMC's Barfield brand of products specializes in the manufacturing of enclosures and pole-line hardware for the utility industry. Customers have depended on us to provide custom-engineered solutions and industry-leading lead times for more than 40 years.

Aluminum and Steel Enclosures

Our most common enclosure types are as follows:

- Sectionalizing enclosures
- CT enclosures
- Instrument transformer enclosures
- Substation equip enclosures
- General-purpose enclosures
- Fiber-optic enclosures
- Outdoor metering enclosures
- Terminal and junction boxes



(Barfield CT enclosures solve tough wire-management issues)

Surpassing Industry Standards

CMC's Ohio headquarters is home to one of the industry's most comprehensive third-party testing facilities in the United States. The CMC® lab is qualified under the ISO Guide 17025-2008 certification requirements for lab accreditation. Our team of skilled lab technicians performs tests that include:

- **Electrical** (current cycle, fault current, static heat)
- **Mechanical** (sustained load, pullout, secureness, fatigue)
- **Environmental** (freeze/thaw, salt spray)
- **Metallurgical** (grain structure, heat treatment, failure analysis)

CMC® is also involved in the standard development process with UL, CSA, ANSI, CANENA, NFPA, ESFI, and NEMA Committees—this is designed to ensure that CMC's products safely meet the challenges and requirements out in the field.



Aluminum Platforms

Barfield's aluminum platforms offer a lightweight, maintenance-free, and lower-cost method for mounting transformers, regulators, switches, and other heavy equipment. Barfield platforms are manufactured from extruded 6061-T6 aluminum, and can be adjusted for equipment size and location from either on the ground or while in the air. Each platform contains adjustable hat-channel crossmembers that can slide into position and lock into place. Other features include:

- Easy and simple, fully adjustable assembly
- Manufactured from high-strength aluminum alloy
- Corrosion resistant
- Low installed cost
- Shipped on wheels for easy transportation

If you need a different configuration than our more than 70 standard platforms offer, we can customize a platform to your needs. Our platforms are assembled before delivery, unless you request otherwise.



Aluminum Equipment Mounts

Barfield manufactures aluminum mounts for all types of equipment on wood, concrete, or steel poles. All mounts are manufactured from high-strength and corrosion-resistant extruded 6061-T6 aluminum alloy components in through-bolt or banded designs. Barfield manufactures mounts for the following:

- Cutouts
- Disconnect switches
- Power fuses
- Arrestors
- Capacitors
- Combination cutout-arresters
- Terminations
- Flange terminations
- Supporting cable
- Supporting conduit
- Elbow switching stand



(BAD-1PLK stainless-steel band)



(Stainless-steel-banded cluster mounts)