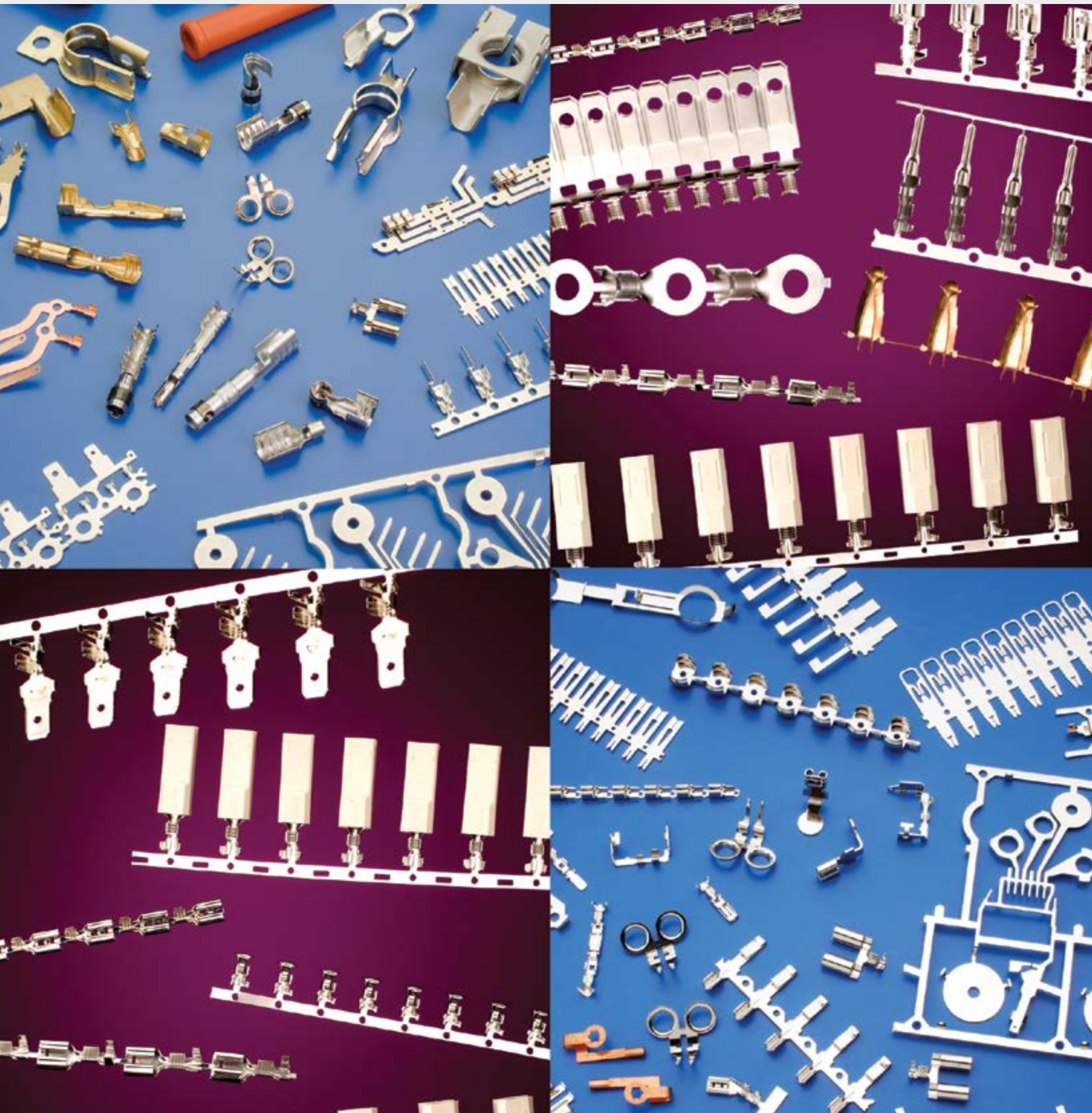


# ETCO







**ETCO**

Have an Engineering or Sales Question? For US Calls: 800.689.3826 // For International Calls: +1 941.756.8426 // e-mail: [info@etco.com](mailto:info@etco.com)



# HERITAGE

ETCO was incorporated in 1947 to take advantage of a patent by Rene Martines who founded the company with Joe Dunn

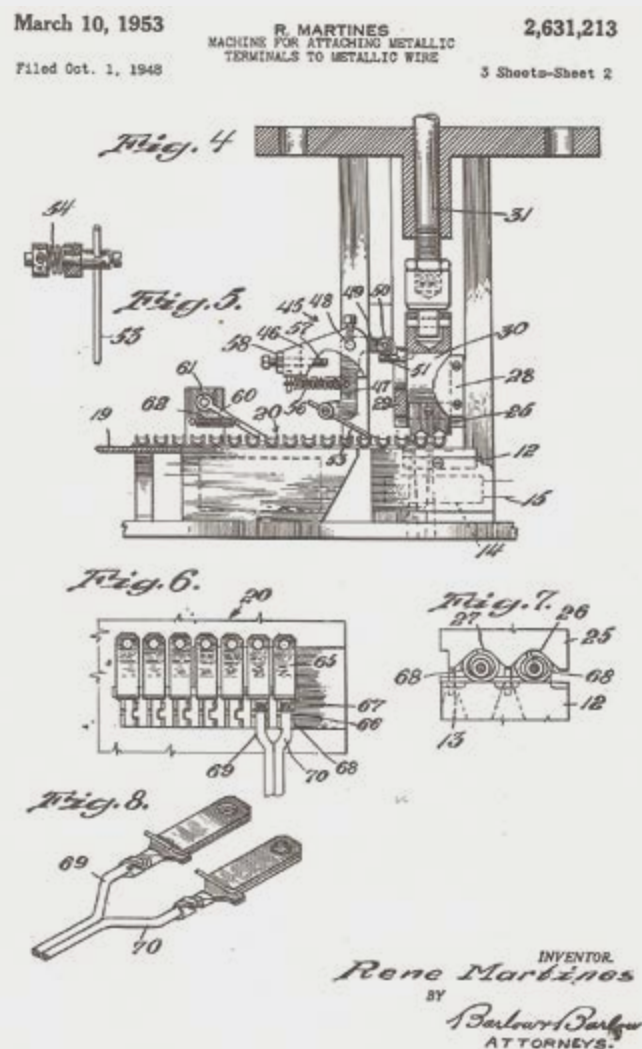
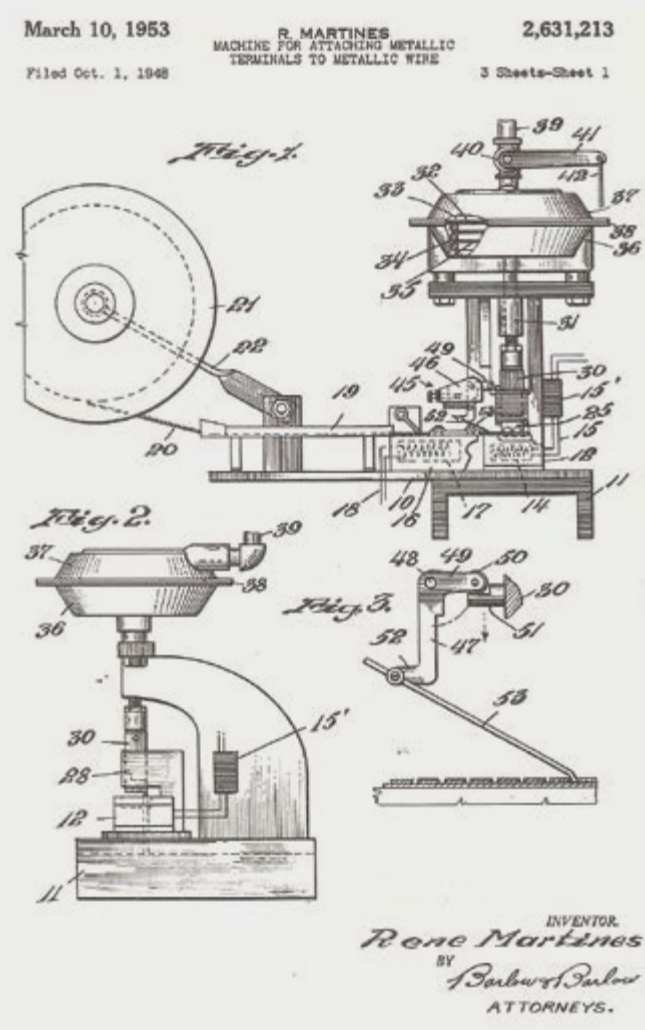
Rene's idea was to put blades as we call them (you know them as the part you plug into the wall – see photo) in a strip and on reels so they could be crimped to a wire two at a time instead of being soldered one at a time by hand. This increased production speed tenfold and reduced labor for our two major customers at the time – Belden Wire and Cable and American Insulated Wire Corp.

## Still a Good Idea

Today ETCO follows the same philosophy using it's ability to put product in strip form & design equipment to help our customer increase productivity.

## ORIGINAL PATENT DRAWINGS

ETCO's original patent. Note that the compression power was a Ford Air Brake so the crimp was squeezed (not smacked) to provide a superior connection.



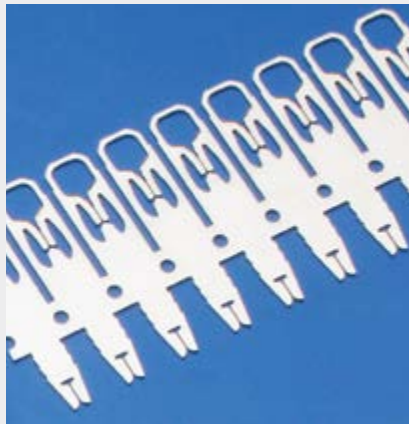


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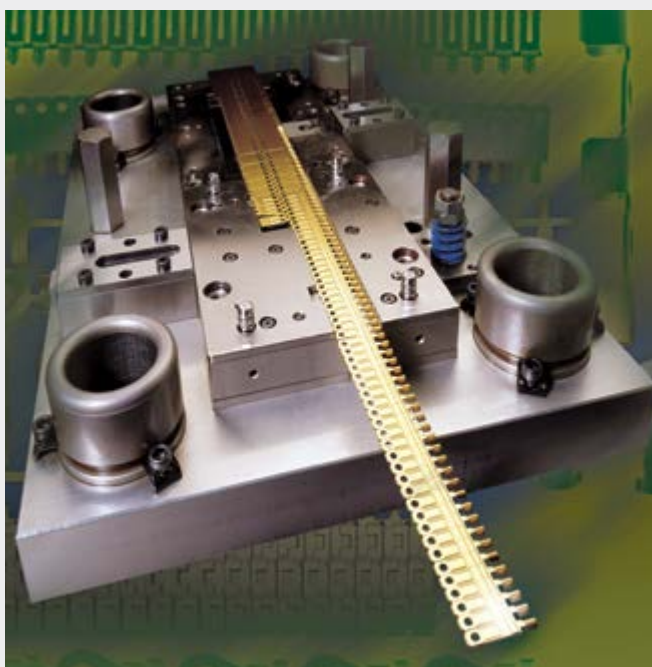
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# WELCOME TO ETCO

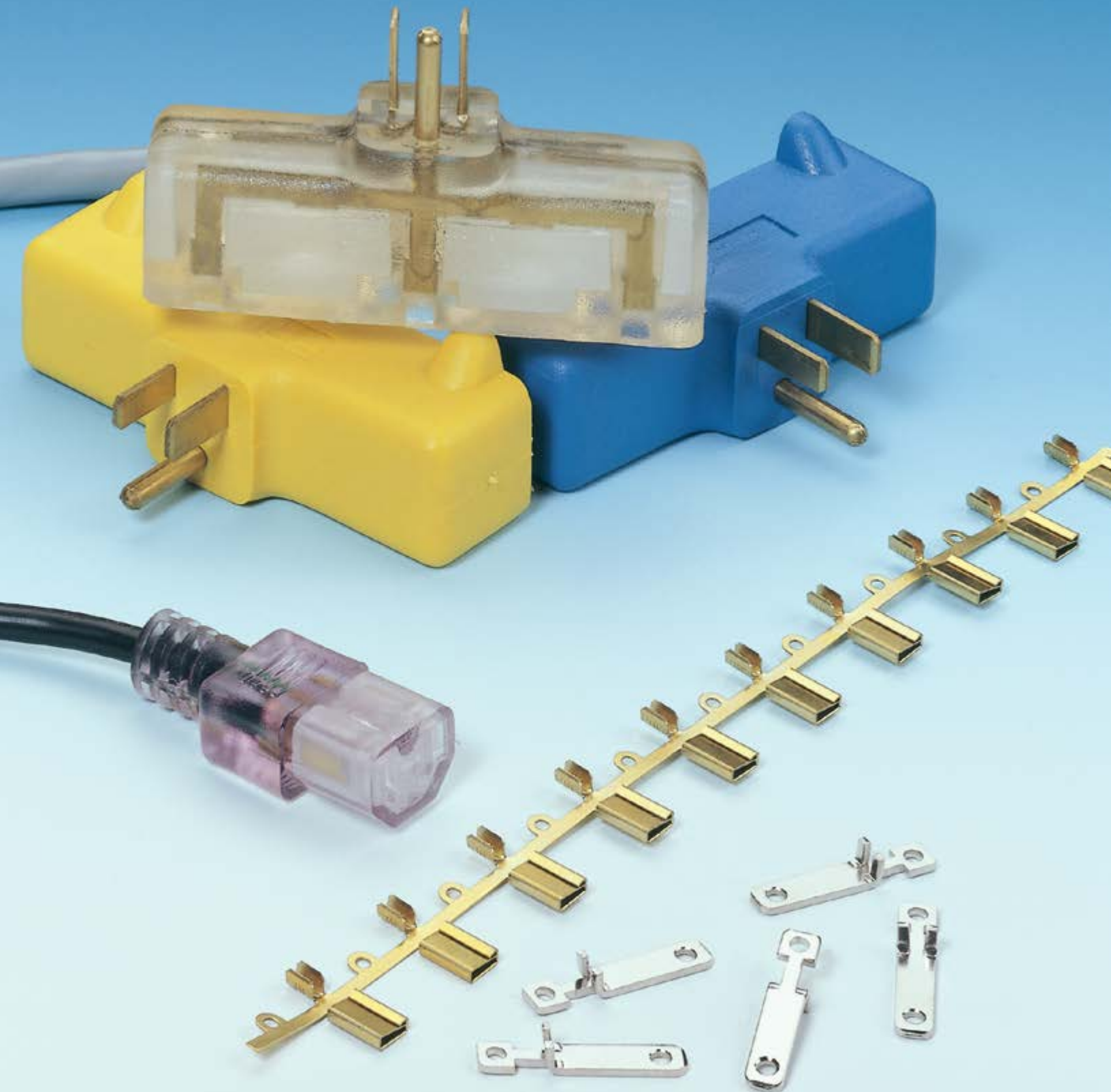


Founded in 1947, ETCO is a privately owned company. The Company manufactures precision stampings along with rubber and plastic molded products used by manufacturers in multiple industries including automotive, appliance, consumer electronics and more. ETCO has major customers in a variety of other industries within the USA and in over thirty countries throughout the world. ETCO has factories and a research complex in Bradenton, Florida and a factory and engineering center in Warwick, Rhode Island.



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 ETCO

## CORD PRODUCTS

Over the years, we found that many of our customers wanted more complex parts that were custom-designed but still suited for automation.

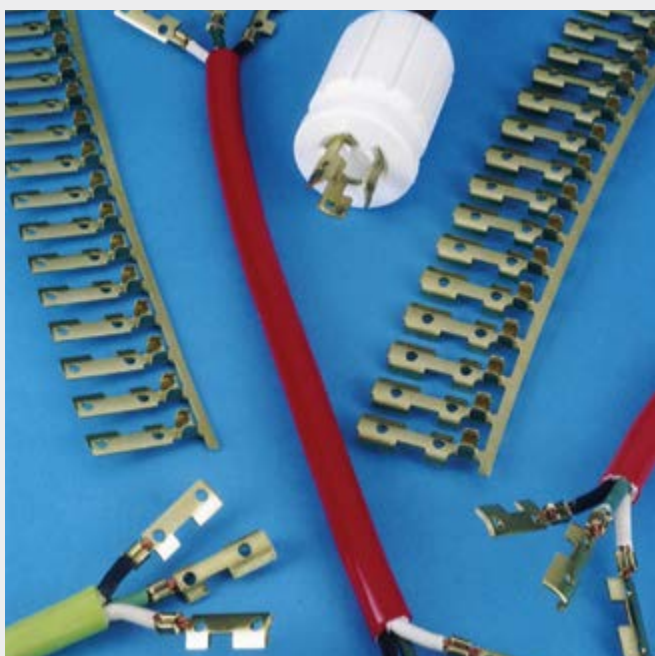
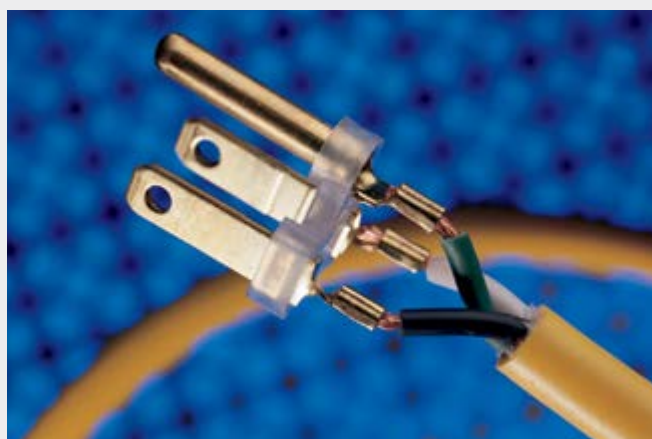
Major power cord manufacturers around the world use ETCO's cord products. These products include blades, pins and female contacts for 110 and 220 volt cords including preassembled male and female inserts for automated and semi-automated production.

ETCO offers several larger gauge products (twist locks, range cord, and hospital grade blades) in both loose piece & strip form. This allows heavy cord manufacturers flexibility in their wire termination & manufacturing processes.

ETCO also manufactures a full line of quality application/attaching equipment in-house. The seamless combination of ETCO's cord products with ETCO applicators results in the highest possible throughput and efficiency on your production floor.

We have earned a reputation for delivering quality products, on time and at a competitive price.

*For more information visit: <http://www.etco.com/cord/>*









# IGNITION WIRE SETS - TERMINALS

In 1979, ETCO built two factories in Florida to apply its advanced automation techniques to ignition components for the automotive industry.

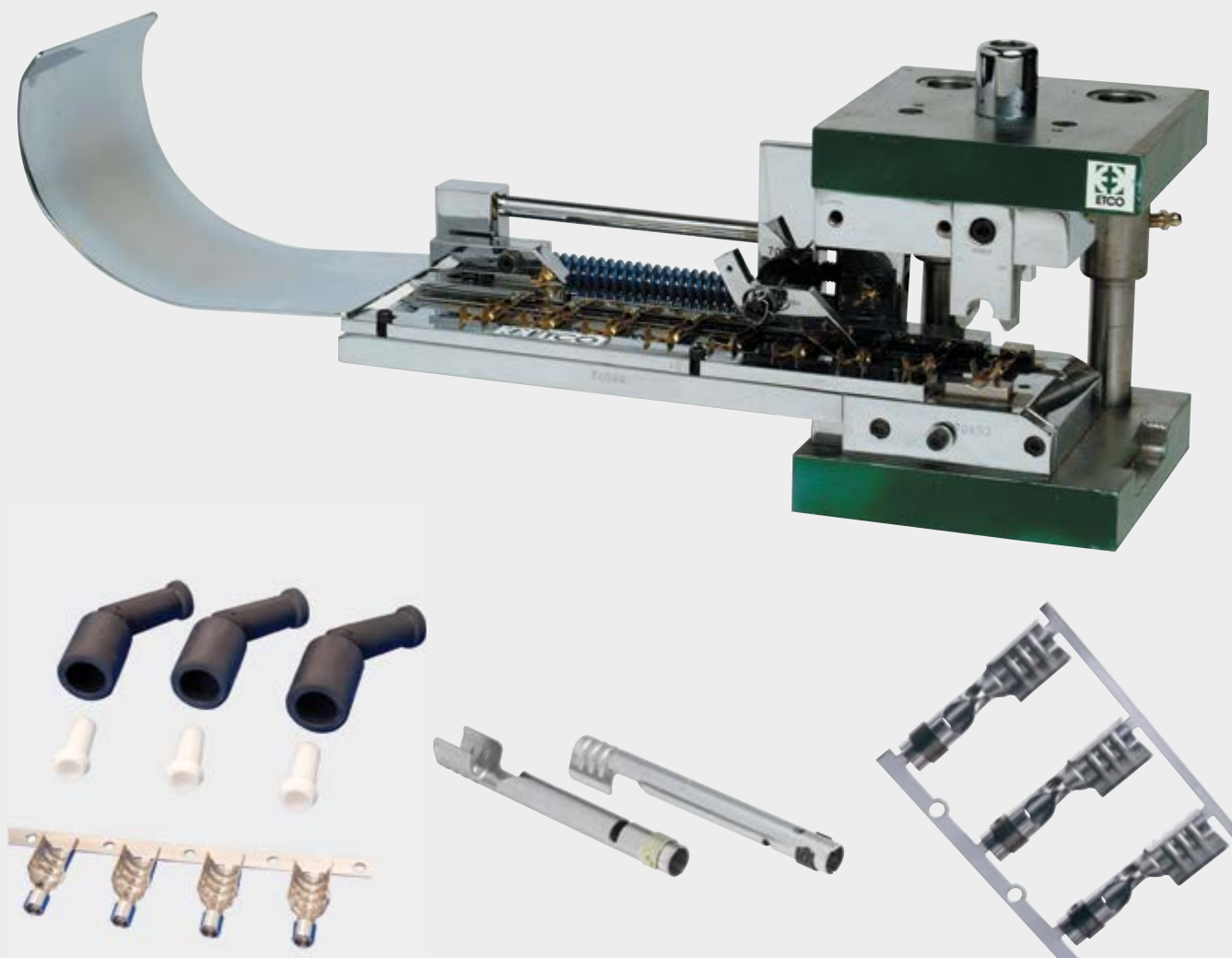
ETCO's ignition components division supplies original equipment manufacturers (OEM) and aftermarket customers with high quality spark plug and distributor terminals. These components are supplied on reels in strip form and can be terminated using ETCO applicators at the customer's facility.

ETCO's ignition components are available in stainless steel, nickel-plated steel, zinc plated steel and brass. Today, our ignition components can be found in automobiles, trucks, motorcycles, RVs, off-road vehicles, watercraft and farm & lawn equipment.

ETCO's most popular vibration-resistant spark plug terminals have been a staple on the NASCAR track and are the choice of top professional drivers from around the world. The tempered spring clip which provides a tactile feel when pushed onto a spark plug and seats, assures a reliable connection.

*For more information visit: <http://www.etco.com/iwst/>*

## ETCO AUTOMOTIVE APPLICATOR





**ETCO**



## IGNITION WIRE SETS - BOOTS

ETCO's molded products pair perfectly with ETCO's ignition terminals. Customers can rapidly produce the highest quality ignition wire assemblies utilizing ETCO applicators and booters.

Industry leading molded insulators are designed and manufactured at ETCO's Bradenton, Florida complex. The rubber used to create a finished boot is the result of perfected compounding methods and superior ingredients. They are all mixed, tested and molded in-house to exceed industry standards and engineered to customer specifications. If you need an insulator for a high volume application, share the details with an ETCO sales representative and we will be happy to provide you with a custom proposal.

ETCO insulators, boots and connectors are offered in many shapes and angles. These products fit applications ranging from those used in major racing associations and OE daily drivers to chainsaws and off-highway equipment. Boot selections include straight boots and angled boots for automobiles, watercraft and garden equipment.

All types of ignition systems used to power internal combustion engines benefit from the use of ETCO's engineered ignition boots. These ignition systems include, electronic, distributor-less, coil on plug, coil near plug and magneto.

Boots can be manufactured using compounds tailored to different heat ratings from a standard 350°F to ultra high 600°F.

All ETCO ignition boots are processed for high voltage applications and dielectrically tested to 30kV.

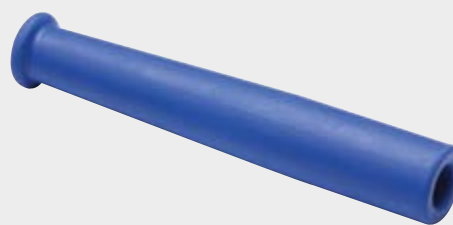
ETCO boots are available in many colors.

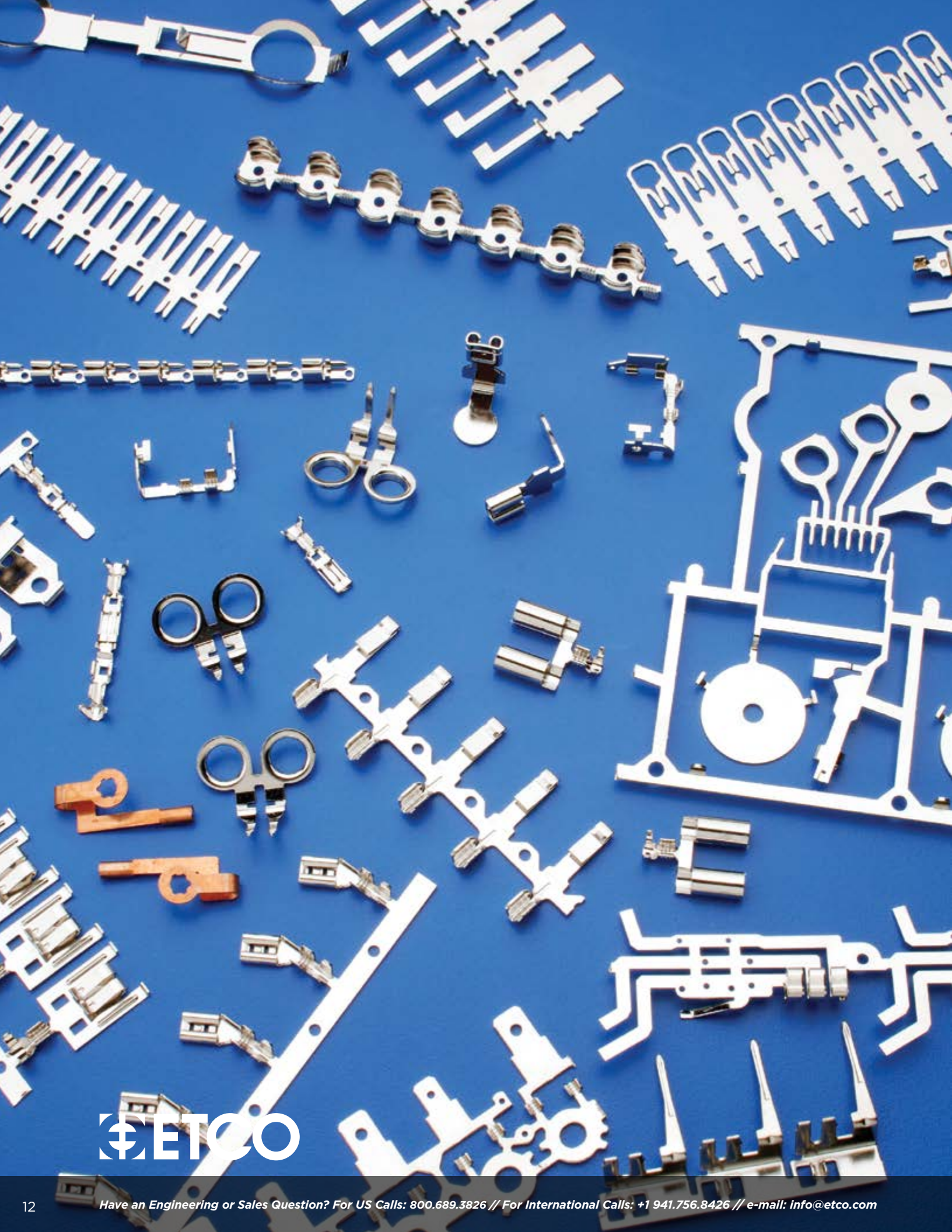
*For more information visit: <http://www.etco.com/iwsb/>*

### STRAIGHT BOOTER



### HIGH TEMPERATURE BOOTS (up to 600F)





**ETCO**



# CUSTOM PRODUCTS & EQUIPMENT

Show us your problem and we'll engineer a solution.

ETCO has been working with OEM, Tier I, II & III suppliers since 1947. We are a single source solution for all of your electrical connections.

Our in-house engineering department provides customers with turnkey solutions including design, development, rapid prototyping, production and custom automated assembly machinery.

All of our dies and tools are engineered in-house to maintain tight tolerances from a wide range of alloys in a variety of configurations from 0.008" to 0.070" thick with tolerances to +0.002."

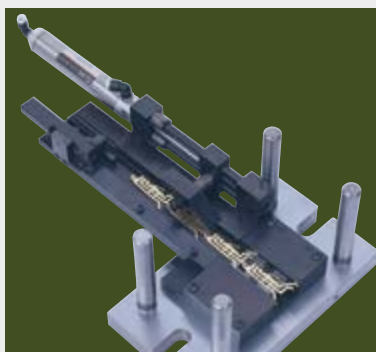
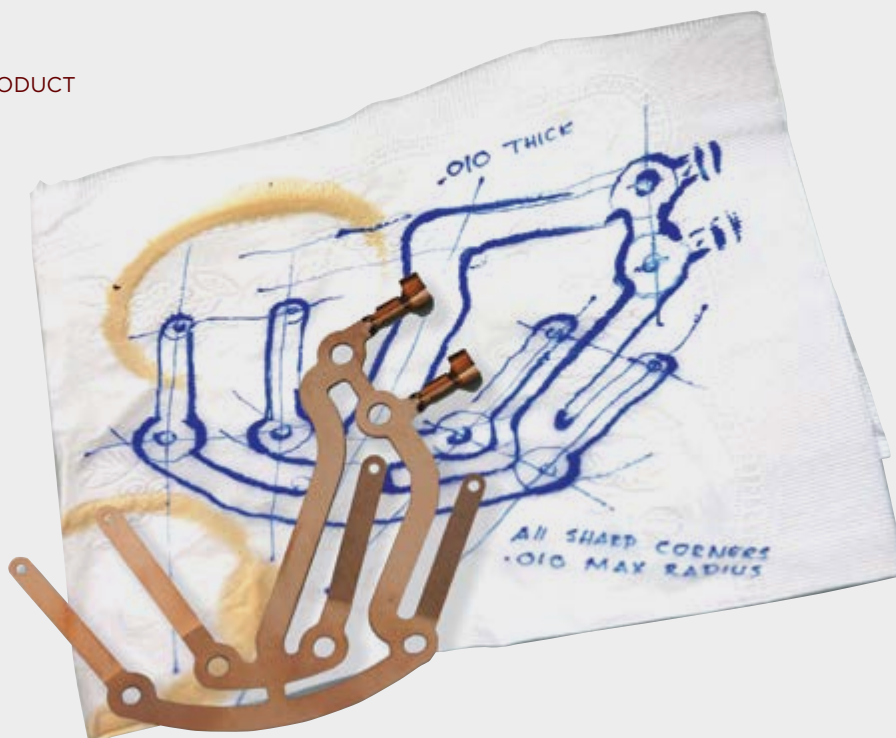
The Florida & Rhode Island facilities have over 20 high-speed Bruderer stamping presses ranging from 10 to 60 tons. We can provide a range of custom stampings from reel-to-reel terminals to complex large loose piece automotive lead frames.

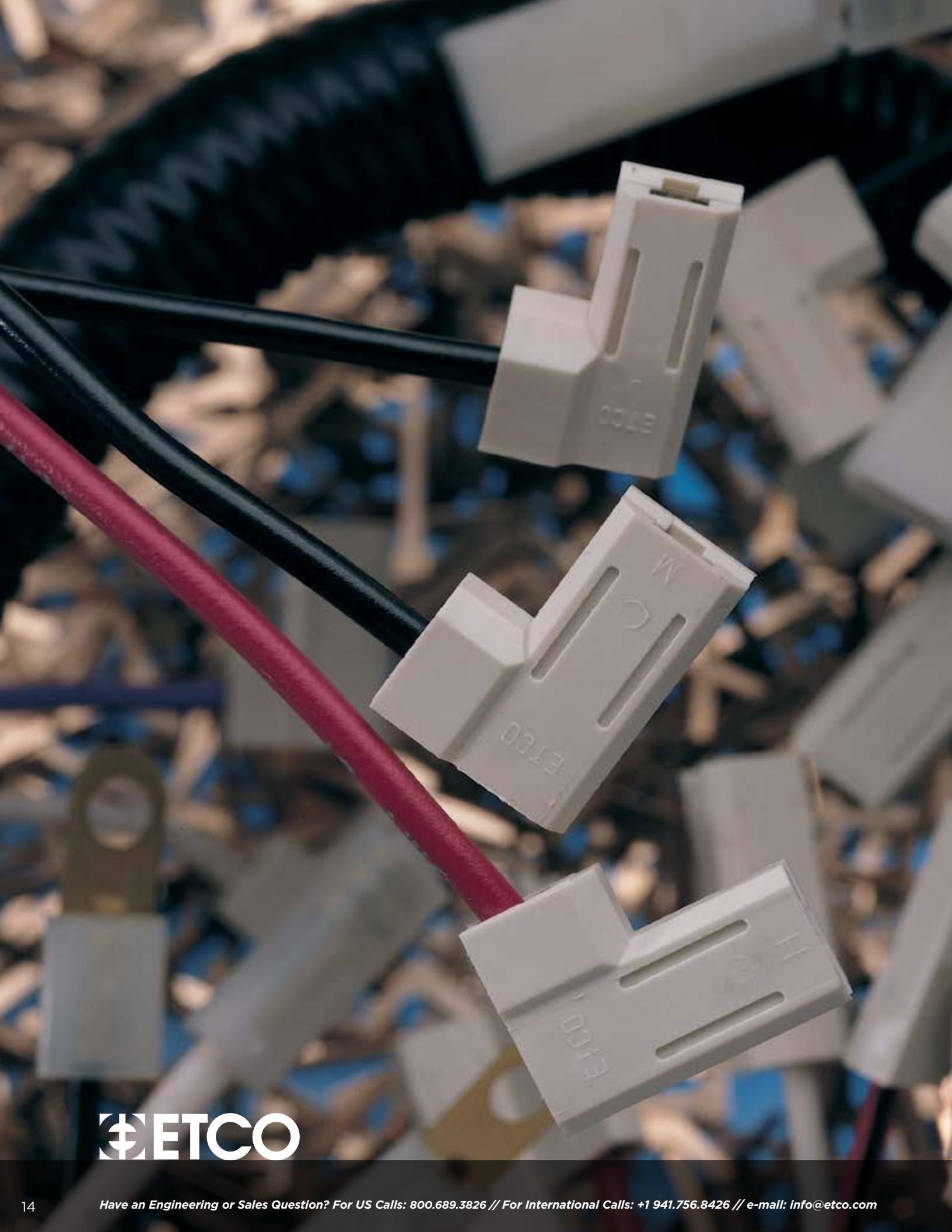
We work closely with our customers to ensure the most cost effective material, plating, and packaging is selected for their product needs.

Our expert die makers make high quality tools with state-of-the-art EDM and CNC machines.

For more information visit: <http://www.etco.com/cpe/>

## FROM SKETCH TO FINAL PRODUCT







# INSULATED PRODUCTS

ETCO is the pioneer of the fully automated, insulated "F" crimped connector using a metal carrier strip. To this day, ETCO's solutions are an industry standard for insulated wire termination products.

ETCO's insulated disconnects feature a fire-retardant nylon insulator that is self-extinguishing and V-O rated per UL 94.

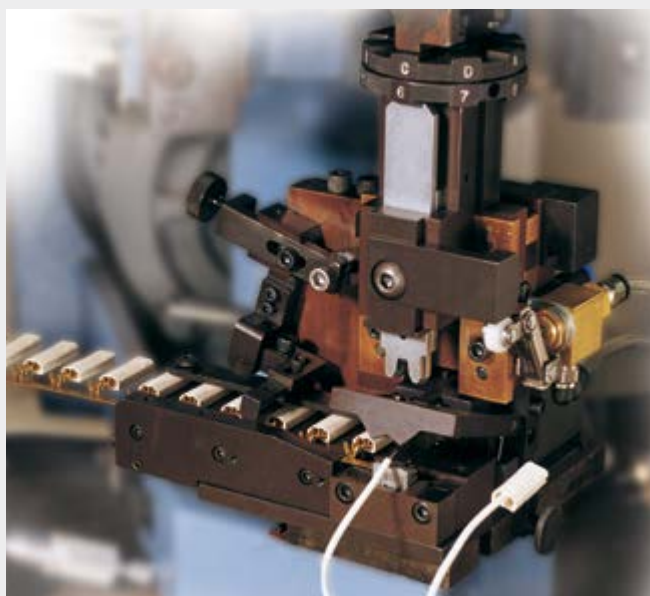
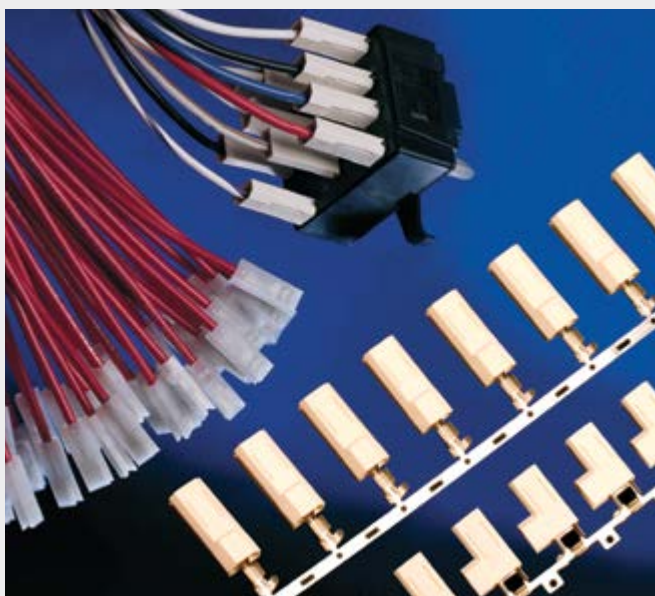
ETCO's metal carrier strip revolutionized the point to point harness applications, eliminating the sharp plastic edges left on the traditional insulator block. The unique design of the insulator block eliminates all possibilities of the male connector being inserted under the female during assembly.

Available in straight and flag styles to mate with .110" x .020", .187" x .020", and .250" x .032" NEMA male tabs, ETCO's insulated disconnects & males replace heat shrink tubing in many applications.

Insulated products are offered in strip form and are produced to UL and NEMA specifications. They are designed for application by automated wire processing equipment.

This product line includes proven "F" crimps to the wire and insulation ears which result in a dependable, superior performing crimp and strain relief. ETCO's insulated terminals eliminate the bent back wire strands associated with a closed barrel connection. This is accomplished by guaranteeing that the wire strands are placed properly in the ear section.

For more information visit: <http://www.etco.com/ip/>



OUR MOST RECENT INNOVATION IS THE CLOSED BACK F CRIMP INSULATED PRODUCT THAT FULLY PROTECTS THE CONNECTION FROM ALL ANGLES.





**ETCO**



## STANDARD PRODUCTS & EQUIPMENT

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ETCO's extensive, high quality, off-the-shelf products range from electrical terminals to multiple wire termination solutions.

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With two state-of-the-art stamping facilities in the United States, ETCO has been producing top quality products since 1947. If you need electrical terminals for automatic crimping to wire, pick-and-place machinery or other automated assembly equipment, ETCO has what you need.

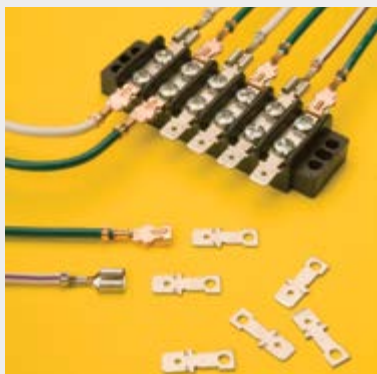
We manufacture a full line of electrical terminals for automotive, appliance, marine, electronic, industrial, HVAC and medical applications. ETCO's standard electrical terminals feature over 1,500 connector products including rings, spades, disconnects, pins, males, blades, circuit board contacts, receptacles, and splices.

For customer convenience and selection, our terminals are offered in brass, tinned brass, nickel plated steel, copper plated steel, tinned steel bearing bronze, phosphor bronze, and beryllium copper, and range from .008 to .070 thick material.

All ETCO parts are fully supported by wire application equipment manufactured in house. ETCO's Mini-Applicator can be used with automatic equipment and stand-alone bench presses such as TE/AMP, Molex, JAM, Mecal, KM, Artos, and Komax. Our applicators and parts allow manufacturing line workers to set it and forget it.

Our parts are shipped around the world using the fastest most cost efficient methods based on customer preference. ETCO provides flexible shipping solutions and customer support to meet your supply chain needs.

*For more information visit: <http://www.etco.com/spe/>*







## ETCO QUALITY

ETCO Incorporated has a reputation for consistently providing the highest quality products. We are a TS16949, IATF 16949 and ISO 9001 registered manufacturer, so you can be confident that we can handle your most technically challenging designs. ETCO continuously monitors key process parameters to assure that all our products are defect-free.

The vast majority of ETCO's customers require ISO certification or TS certification. We hold all of our employees to high standards in regards to individual manufacturing and quality certifications.

Our independent auditors are consistently impressed by our employees' knowledge and professionalism. We are audited by UL eight times a year and we always meet or exceed requirements. At ETCO, we hold our suppliers to the same rigorous standards as our employees. We examine incoming raw materials rigorously, and we can trace every finished part to its original source and lot number.

The end result is quality material coming in and quality products going out. This helps our customers' production lines run as efficiently as possible, which is one more reason our customer retention rates are unmatched in the industry.

ETCO products undergo thorough testing and conform to industry leading standards, including SAE's rigorous J2031 and J2032 standards. Products that fulfill industry organizational testing standards are marked with logos from UL, CSA, or ROHS. For more information on our quality standards and testing, contact ETCO at [info@etco.com](mailto:info@etco.com).

For more information visit: <http://www.etco.com/quality>





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Made in the USA