



CMW

**ELECTRICAL
contacts**

**EXPERIENCE,
DEDICATION & QUALITY**



ELECTRICAL contacts

VISION, INNOVATION, SERVICE, EXPERTISE.

CMW enjoys a long history of manufacturing quality electrical contacts. Born of the Mallory Metallurgical Company, CMW chemistry, metallurgy, engineering and manufacturing capabilities are characterized by almost a century of experience, dedication and quality. With our focus on the future, CMW produces dozens of specialty contact materials to meet the diverse requirements of our customers including Silver, Silver alloys and other precious metals, Silver semi-refractory materials as well as Elkonite® materials containing Tungsten, Silver and Molybdenum.

CMW is the preferred source for custom electrical contacts. This customer confidence in product quality and dependable service reflects CMW's ability to deliver the best quality products at the right time. Our Sales and Engineering staff is available to help with any of your application, materials, production and shipping requirements. Our experienced Production and Quality Team is dedicated to manufacturing your contact parts and assemblies to the highest quality standards for on time shipping that will meet or exceed your quality expectations. From our application, process and metallurgical engineers to our supervisory and production associates to our quality assurance team, our experience is your best asset.

SUPERIOR MATERIALS. SUPERIOR PERFORMANCE.

CMW produced specialty contact materials are engineered to meet all customer specifications. Developed from Silver, Silver alloys and other precious metals, Silver semi-refractory materials and Tungsten, Silver and Molybdenum bearing Elkonite® materials, CMW® materials perform to the highest industry standards and customer expectations.

Some of our more widely recognized contact materials are our Silver Cadmium Oxide materials such as CMW® (previously Mallory) D54®, D54F®, D55 and D55F and our Elkonite® materials.

CMW® Silver semi-refractory materials have relatively high electrical conductivity as well as other desirable features, such as low stable contact resistance and excellent resistance to sticking and welding. These enhanced characteristics are the result of additions of cadmium oxide, nickel, carbon, magnesium, iron, or other elements/compounds.

The CMW Elkonite® family of unique composite materials consists of Tungsten, Molybdenum, or Tungsten Carbide combined with Silver or Copper. They are excellent contact materials for heavy duty switching applications. The high melting temperatures and high strength of the refractory metals give them a high resistance to arc erosion, welding, mechanical wear and deformation. The high conductivity metals provide good electrical and thermal conductivity and low contact resistance.



Please visit www.cmwinc.com for detailed material specifications.



CMW



CUSTOMIZED SOLUTIONS FOR EVERY APPLICATION.

CMW® electrical contacts are used in a wide range of applications to switch circuits from micro-amps to thousands of amps. Manufactured to your specifications, our contacts combine the capabilities of heavy plate copper blanking, forming, precious metal extrusion and working, powder metallurgy, brazing and machining.

- || **Aerospace** customers require high quality, dependable materials. Many common DC aircraft circuit breakers, relays, contactors and rotary switches require high-reliability CMW® materials for circuit protection, control, enabling and indicating alarm systems. Many CMW® Silver bearing Elkonite® materials, and Silver alloy and Silver Cadmium Oxide materials are often specified for these type of applications.
- || **Commercial and Industrial Controls, Relays and Switches** for controlling machines, automation, process controls and indicating alarm conditions often utilize CMW® Silver bearing Elkonite® materials as well as our high performance Silver Cadmium Oxide materials, Coin Silver and Silver Graphite materials.
- || **Power Transmission and Distribution** applications include load tap changers that often specify Elkonite® 1W3, 3W3, 5W3, 40W3 or 50W3 tips for arc resistance. Reclosers that eliminate contact bounce also require arc tolerant materials such as Elkonite® Silver Tungstens for in air applications and Elkonite® Copper Tungsten materials for in oil. Elkonite® 40W3 and 50W3 are frequently required for vacuum switchgear, breakers and interrupter applications to reduce current chopping. Also, a Silver Tungsten Carbide Elkonite® such as CMW Elkonite® 1060 can be used to put some Silver in the plasma arc, slowing the speed that the arc extinguishes.
- || **Transportation Industries** such as diesel-electric locomotives and mining equipment contactors and material handling trucks use high amperage, DC applications for electric motor control and switching. Most often specified are the CMW® Silver Cadmium Oxide family of materials with anti-welding properties such as CMW D54® and D55 which were developed specifically for best performance in these types of applications.



CMW

UNIQUE MANUFACTURING CAPABILITIES

We are ISO 9001:2000 certified. Our manufacturing expertise in powder metallurgy, wrought contact materials, furnace, induction, torch and resistance brazing, metal forming and machining allow us to provide world-class quality and our responsive service and application experience allow us to offer valuable solutions to many customers around the world.



CMW'S COMMITMENT: SUPERIOR QUALITY.

CMW enjoys a long history of producing superior quality in all its products. As an ISO 9001:2000 certified facility, CMW takes great pride in managing and continuously improving its robust quality system. CMW's quality system is focused on ensuring that quality is reinforced at every step of managing a customer order. Many of the products CMW manufactures involve a significant amount of critical detail that must be accommodated with the highest degree of accuracy.

CMW understands that customers must receive parts that adhere strictly to their specifications and standards. CMW's depth of professional experience, unique manufacturing processes, and demonstrated consistency come together to produce products of the highest quality. Document control, processing detail, first article inspections, in-process inspections, final quality inspections, corrective action and continuous improvement are all key elements of our product quality assurance system. Manufacturing quality into the products we make is a core tenet of our quality system.

Continuous improvement is ingrained in every element of CMW's business. From how we professionally engage our customers, to how we securely package product for shipment, every aspect of our business system is evaluated on a regular basis in order that we might realize improvements for the benefit of our customers' experience.

CMW actively encourages and expects every employee to participate in the process of improving all elements of the business with which they come into contact. CMW's employees understand that only by way of continuous improvement will they be able to keep the company's leading position in place in an ever-more competitive global economy. CMW employs professionals, including chemists, metallurgists and metallography technicians, and dedicates its facilities and equipment to the quality function of our business. CMW has a first-tier reputation for quality in all markets it serves and we are dedicated to continued investment in all of these assets to protect this reputation.

CMW wants our customers and prospective customers to know that commitment to their overall quality experience is of paramount importance. Customer satisfaction at all levels is our own expectation.



A DEDICATED PARTNER.

CMW's commitment to outstanding customer service provides each of our clients with confidence. We look forward to serving as your dedicated partner to craft solutions for your electrical contact needs.



**THE FORERUNNER
IN SPECIALTY METALS**

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