



THESE WHEELS ARE MADE FOR WELDING

Welding

Welding machine manufacturer uses Bishop-Wisecarver products and support to deliver reliably smooth motion in extreme application conditions.

CUSTOMER & APPLICATION:

WELDING MACHINE EXPERTS DESIGN VERSATILE, AUTOMATED MULTI-AXIS SYSTEM

Mavrix Welding Automation (New Berlin, WI) designs and builds standard and custom machines for special purpose welding and fabrication. They serve customers around the world in the agriculture, aggregates, oil & gas, mining, recycling, and steel manufacturing industries.

Mavrix's design philosophy centers around modular equipment grouped into product families that can be mixed and matched to fit their customers' needs. Reliability and serviceability are paramount for this critical capital equipment.

One of their new automated welding machines requires smooth motion on 3 axes: vertical positioning, lateral travel, and oscillation that weaves the weld (in the above image, these respective axes are visible from left to right).

CHALLENGE:

EXTREME HEAT AND DEBRIS DEMAND DURABILITY

Glen Senger, President of Mavrix, believes Mavrix can never sacrifice quality in their equipment; their customers need robust and durable machines that are built to last. This means incorporating motion systems capable of high duty cycles with little maintenance. An oscillator, for example, may have an 80% duty cycle every day.

Providing smooth motion in the harsh welding environment necessitates a resistance to extreme heat, grit, and chalky smoke particles that stick to every surface.

"Traditional carriages and rails just don't hold up in this world."

- Glen Senger, President of Mavrix Welding Automation

In addition to smooth motion and environmental resistance, Mavrix design engineers need the flexibility to buy readily available components and engineer custom fixtures. These custom motion axes may be up to 65 feet long to tackle large weld jobs.





DualVee® guide wheels and track use self-cleaning wiping action to clear away debris as the system runs.



For maximum design flexibility, DualVee® guide wheels and track are available in a variety of sizes and materials as standard. Individual track lengths up to 22 feet are easily butt joined for even longer systems.

SOLUTION:

VEE GUIDE WHEEL TECHNOLOGY EXCELS IN HARSH & EXTREME WELDING ENVIRONMENTS

To meet the challenges of this application, Mavrix specified DualVee® guide wheels and track for each axis. As the vee profile wheels run on the matching angled track, the rolling interface wipes away dust, debris, and weld spatter. Self-cleaning action, durable construction, and sealed bearings that are lubricated for life make DualVee® last a long time with little maintenance.

Bishop-Wisecarver's accurate online CAD models and expert application engineers are available to ensure each solution meets the application needs. According to Glen Senger, "Online ordering is a piece of cake, and the Customer Service Reps are fantastic!"

CHALLENGE SOLVED:

DURABLE MOTION TAILORED TO WELDING

Bishop-Wisecarver's motion solutions excel in the most harsh and extreme environments - including welding operations. High temperatures, destructive contaminants, and demanding duty cycles can't keep DualVee® from running smoothly for years to come.

Bishop-Wisecarver's engineering and support services make it easier than ever to find a solution for your toughest motion challenges. Moreover, we support your business before *and* after implementation; as an American manufacturer, many of our products are available with lead times that fit into tight installation and maintenance windows.



We take pride in being an exceptional service provider and a trusted business partner. Our goal is to give you more than innovative products- we want to work with you to find the best motion product for your exact application needs.

CONTACT US TO DISCUSS YOUR SPECIFIC GUIDED MOTION NEEDS

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QUANTIFIABLE RESULTS:

RELIABLE SOLUTIONS, SATISFIED CUSTOMERS

Bishop-Wisecarver is known for the dependability of our products and support. We provide Mavrix and their customers with the peace of mind that their systems will last.

The benefits of not worrying about capital equipment failure may be intangible, but Mavrix has seen concrete results from trusting Bishop-Wisecarver products: over two decades of reliable motion.

"The first and ONLY time I had to replace a Bishop-Wisecarver product in 20+ years of using them..."

A customer was using 4/0 cable and welding at 500 amps. The live welding wire became free from the feed cable striking the DualVee wheel. It was so bad that it blew the shield and bearings out of a DualVee wheel!

We pride ourselves on how long our equipment lasts. Some of the machines run for 25-30 years."

- Glen Senger, President of Mavrix Welding Automation