

# NEW LASER OFFERS EXPANSION FOR ELECTRICAL PANEL MANUFACTURING COMPANY

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After a sheet is cut, the laser's dual-pallet material handling system will move in the other pallet. While doing this, the pallet table drags the cut scrap under the sheet to a central area for easy evacuation.

## A NEW VISION

*Gary Koester had a vision to be the best producer of specialty electrical panel enclosures in the market-place. To make this dream a reality, he had to invest in high-production equipment and processes that few other companies could or would implement.*

*Koester Metals Inc., Defiance, Ohio, was founded 1975 by Jack and Bill Koester. It was purchased by Jack Koester in 1980 and finally sold to his son, Gary Koester, who is now president and CEO.*

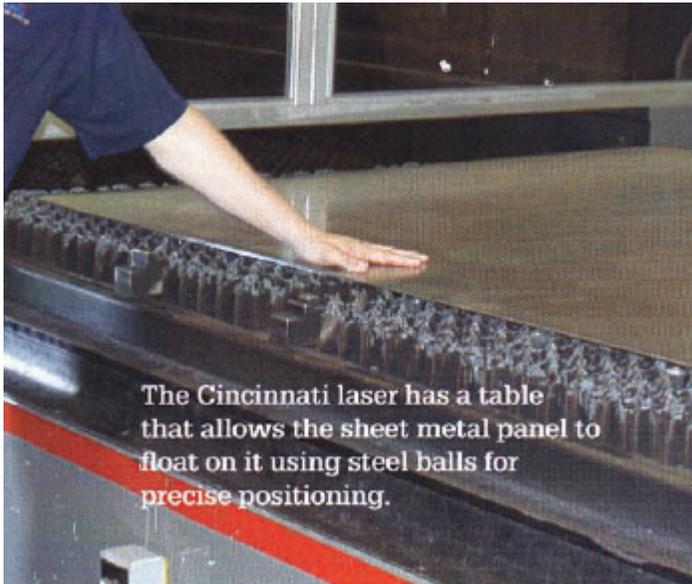
KMI's foundation is providing high-quality sheet metal enclosures and fabricated components, as well as value-added production, custom sheet metal cabinetry, and special powder and painted coating services.

KMI is also pursuing green powder coating technology for cleaning and curing all types of metal parts.

Through the years, Gary Koester has invested in high-production sheet metal fabricating equipment, such as a fully automated punching system and high-production lasers, to give customers a one-stop shop for all of their custom panels.

### **Fortunate Foresight**

"The sheet metal marketplace is always changing, more now with the economy," says Matt Koester, Gary's son and project manager. "You always have to find the competitive edge. Whether it's on a



laser, where every part you produce saves seconds by having the right one, or investing in other productive equipment.”

Gary Koester always has technology on his mind and strives for continuous operational improvement.

“The key is being able to justify these operations, find the efficiencies and bring them back to your customers,” says Matt Koester. “Because of our efficiencies, we’re able to reduce the impact of economies of scale, which is substantial. We’re no longer doing 1,000- part runs, but we can create one or two for a reasonable price, comparable to a 1,000-part order. This gives us an edge with our customers by meeting their needs better and allowing them to pass savings along to their customers.”

Before KMI bought a laser system, it started with a CNC punch and used manual cutting equipment, such as shears, to prepare sheet metal blanks that would be later bent into parts of an electrical panel enclosure.

“Our team started investigating laser at the time,” says Matt Koester. “It offered an opportunity to be faster and more flexible over the punch press to get a panel door produced. With a laser, we didn’t have to change tools for different jobs, and it didn’t require standard and special tools that you often need with a punch press.”

KMI bought an 8 ft. x 10ft. automated bed laser. When it needed more capacity, the company bought a small retrofitted 5ft. x 10ft. CO2 laser.

“It’s definitely been a workhorse for the past 12 years,” says Matt Koester. “At the time of purchase, it was a great machine, but it no longer has the capabilities that the newer lasers offer. That’s when we decided to buy a small laser retrofitted with a Rofin resonator. We had troubles with the resonator and decided not to pursue getting it to work any longer. With our production levels, we decided that we still needed another laser to get the product out the door. To do this, we bought a new CINCINNATI CL-840 4kW CO2 laser with 6ft. x 12ft. automated bed. Now, we’re able to get more product out the door than we ever imagined.”

### Searching for Efficiencies

To find the best laser available for the company’s needs, Matt Koester went to FabTech and other equipment shows to see what was available in the market. After looking at many laser systems, he says the CINCINNATI was the best match.

“We were able to view CINCINNATI’s lasers in operation at various other manufacturing facilities before we bought one,” he says. “The capacities and efficiencies that we got were unimaginable.”



“With our new CINCINNATI laser, we’re able to do all our production in far less time, and if we need to, we can add extra shifts,” he continues. “It gives us the flexibility of not having to buy another laser for our new facility in Indiana.”

Matt Koester decided to try and cut structural steel (a 2 in. U-shaped channel) in addition to flat sheet steel because the CINCINNATI laser’s Z-axis had enough travel to

get over it. This allowed KMI to cut holes and slots that it normally did on an ironworker.

This saved the company production time, and it was able to get more precise parts by using the laser. CINCINNATI worked with Matt Koester to develop a method to do this.

“The CINCINNATI laser has helped us with easy changeovers

for different steel sheet grades,” he says. “The interface between the machine and CNC controller is fabulous. It looks like you’re working on your laptop. It has a touchscreen, and all the icons and programming capabilities are intuitive. For many of our other machines, you need to be computer savvy to program them, but that’s not the case with the CINCINNATI laser. We use Nesting software and do the programming offline.

“This laser allows us to cut the types of things that we never cut before,” he continues. “It’s really added to our flexibility in capabilities at the shop. Also, with CINCINNATI, I’ve never had a phone call that went unanswered for service, and they’re always willing to work with us on the new things that we’re trying to do with it.”

Another thing that CINCINNATI lasers has given KMI is a better edge quality to all cut pieces. Its older laser was limited in its ability to offer a smooth, clean-cut edge. It produced what the industry called laser edge on the majority of parts, says Matt Koester.

“CINCINNATI’s technology has eliminated this rough edge, giving us a clean edge on thicknesses of materials that we weren’t able to get before,” he says. “This allows us to eliminate downstream processes and the labor needed to get a proper edge quality for painting.”

Both flexibility and productivity are important to KMI. Often, the company will do one cabinet enclosure. A large order might be six to eight large enclosures at one time. It has to have the ability to make a profit on just one enclosure.

“If we’re dealing with a strong OEM, we could have blanket orders for a year and a half project,” says Matt Koester. “This could be 200 units. So these become standards, allowing us to capitalize on making the efficiencies of the machines work.”

Koester says the company is looking to re-establish itself in the modified standard enclosure business. It builds cabinets and components in sizes that will fit in someone’s hand up to 40 plus ft. long.