

THE WAY TO MAKE IT



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MAKING A CUSTOM OF CUSTOMISING

Komax Wire covers all the requirements of modern wire processing

Specific solutions for specific customers

There are applications in our industry for which Komax Wire cannot offer a suitable solution solely from its portfolio of standard machines.

Komax Wire responds to these special requests from customers with products and services from a special unit within its organisation: Value Added Engineering.

Our years of experience in wire processing have laid the groundwork for implementing a wide variety of applications in this area. At Komax Wire, specialists take responsibility for working out and satisfying a broad array of customer-specific requirements. Here too we consistently follow our guiding principle of "global local" and provide services for our customers locally if at all possible. That is why Komax Wire has facilities for customer-specific application engineering in Switzerland, Germany, the United States and China. Our goal is always the same: to add value for customers by giving them a total solution that is both optimum and economical.

New things are not new to us

Komax Wire has complete expertise in all aspects of wire processing, expertise that extends beyond classic types of processing to include alternative connection technologies and processes. We pick up on needs in the market so we can keep offering customers new solutions. Komax Wire has engineering skills in different disciplines considered basic prerequisites for ensuring goal attainment. Carefully planned experiments and tests are conducted in advance to determine feasibility and process risks so that stable process characteristics can be defined.

"The most important thing we can do is to listen carefully to customers. Only then can we understand their needs and apply our expertise to create perfect total solutions in keeping with our motto 'The Way To Make It'."



Marcel Wolfisberg,
Project Manager for Value Added Engineering



Komax Wire delivers both standard and purpose-built automation solutions for many aspects of wire processing

Broad range

Solutions at Komax Wire differ in how much of the total solution is application-specific. Tasks range from special blades for specific stripping processes or the integration of processing modules to the implementation of system installations for airbag harnesses, for example. In the process, we precisely determine and implement our customers' needs and requirements. Our motivation is to serve our customers as fully and competently as possible. The satisfaction of our customers is paramount to us.

Summary of the range:

- Customer-specific applications for all standard products
- Widest variety of loading tasks
- Customer-specific system installations



Together we are strong

An expert project team takes on the task and carefully carries it out as specified by the customer. With our transparent project management, the customer can follow project progress at all times. We naturally comply with all specifications with respect to quality, deadlines and costs and gear our processes to them. It is important to remain close and responsive to the customer at this stage, too. Key milestones are achieved together with the customer. Consequently, our customers can expect a quality product "made by Komax Wire". <

01 Coaxial cable processing on an Alpha 356 integrated on non-Komax presses

02 Integration of alternative processes. This example involves an ultrasonic welding module being integrated on a Zeta 633

03 Special solution for coiling two-pole flat cables in line with a Kappa 330

04 Production of special blades for processing aluminium conductors

05 Customer-specific system installation for processing airbag harnesses

06 The Zeta 656 performing specific component loading tasks in electrical cabinet construction



Your benefits

- Partner with years of experience in wire processing
- Complete solutions from a single company
- Customized solutions made to customer specification
- Minimized process risk thanks to the use of Komax standard machines

CLOSE TO CUSTOMERS THE WORLD OVER

Komax Wire has production plants in Switzerland, Germany, the United States and China and offers sales and service support in around 60 countries through its subsidiaries and independent agents.

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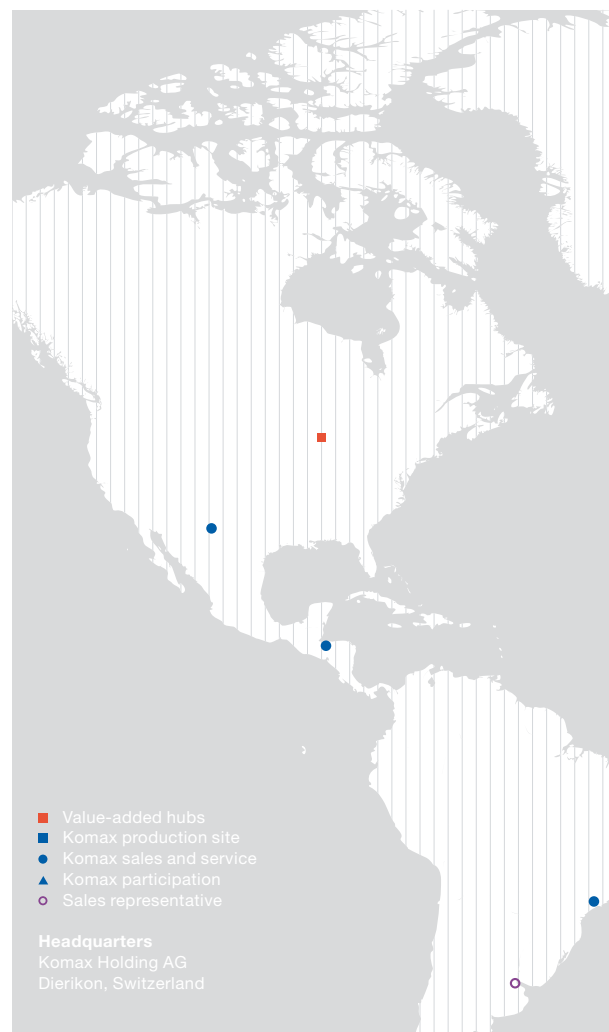
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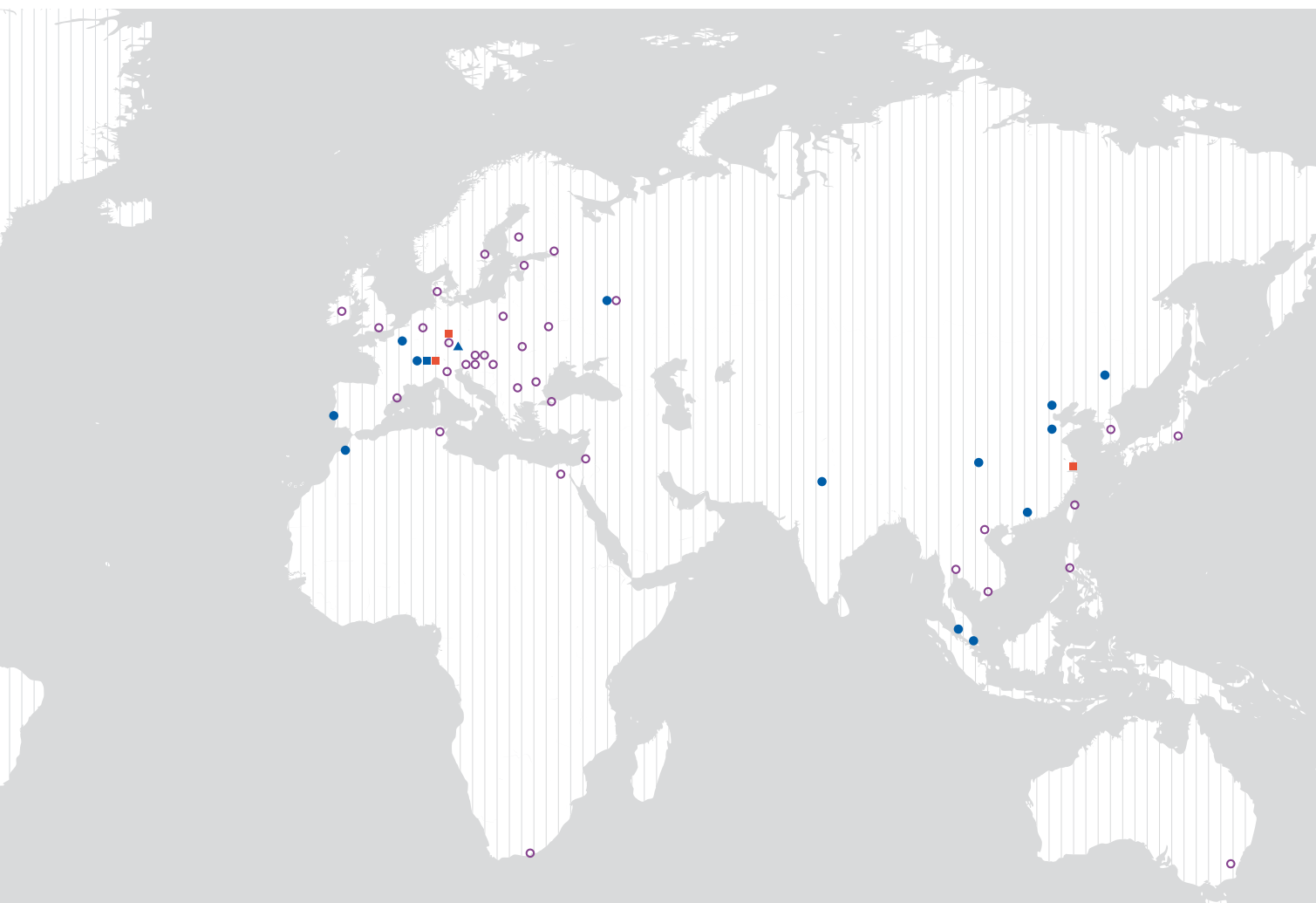
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KOMAX GERMANY, THE CAN DO COMPANY

Customer-specific solutions in wire processing

We love challenges

How do I attach non-crimped parts to a strand? That is the most frequently asked question. For example, the customer wants a contact crimped on a conductor and then subsequently welded to stabilise it. The first question that comes up is this: Why does the customer make this request? Background knowledge is crucial for finding a solution. It is obvious from the task description that a flow of high current will have to be handled reliably. Contact resistances have to be as low as possible and mechanical stability must also be ensured.

Performing the task

We can tackle this job with the help of a special module operating on the basis of a resistance welding module and with the help of a feed system for solder wire. The module must not be allowed to be too big and must incorporate sensor monitoring. The software must also cover the special functions. A model setup is used for all elaborate applications to minimise the risks. Once our specialists work through all the points, they implement the mechanical aspects of the task. At this juncture, the special module can be "wedded" to the fully automatic Komax machines.

After the application has been successfully set up and run in, the system can be installed at the customer's. Following intensive training from our employees and initial assistance with production, the fully automatic machine is shifted to serial production.

Competence in application design

Having been active in this field for many years, we have already created many specific special modules or adaptations of fully automatic Komax machines.

Here are a few examples:

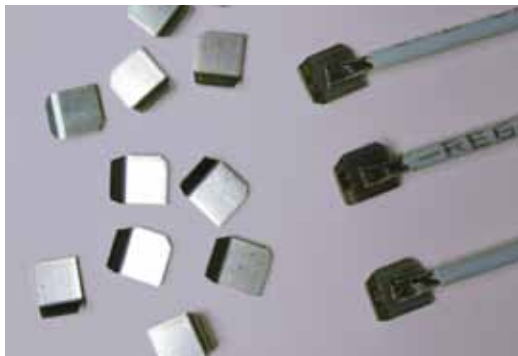
- Processing of conductors with Euro style sheath
- Highly flexible 10mm² strand (1024×0.08) with resistance compacting
- Silicone strand 25mm long, tin-coated on one side and fitted with a MIL crimp contact on the other side
- Feeding of bulk parts for welding onto a strand (in 10 different variations)
- Insertion operations in control cabinet construction or for white goods

And much more... <

"Komax Germany has been building special applications for our customers for many years. It wants to help to strengthen and retain Germany as a production location. The experienced specialists at Komax Germany find the right solution no matter what type of contacting is involved."



Matthias Klaus,
Managing Director of Komax Germany



Welding of bulk parts



Soldering with the resistance module



Soldering, sample 1



Soldering, sample 2



Soldering, sample 3

Your benefits

- Consistent quality
- Large output
- High availability thanks to minimal retooling
- Reliable monitoring of processes
- A single contact partner
- Highly economical so the investment pays off quickly

KOMAX USA: YES, WE CAN

Machine Customization to Meet Customers' Specific Requirements



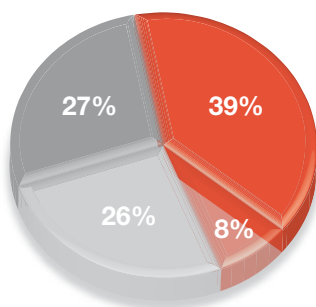
Peter Waas, Engineering Manager;
Rick Giebelhausen, MQA/Project Manager;
Patrick Boyer, H.M. Specialist/V.A. Project Manager

In 2008 Komax USA created the Value Added Engineering department to answer customer specific needs through machine customization. The department is presently composed of three people; Peter Waas Engineering Manager (Electrical / Software), Rick Giebelhausen MQA / Project Engineer (Mechanical) and Patrick Boyer H.M. Specialist / V.A. Project Manager. Since its creation, with the support of Komax Switzerland, the department quadruples its revenue and triples the number of special applications.

Areas of expertise

In 2011 resistance and ultrasonic welding accounted for 47% of the revenue and the remainder was split between solar, networking and other miscellaneous applications.

2011 Komax USA Value Added



- Resistance Welding
- Ultrasonic Welding
- Solar
- Networking & Other



Kappa 320 Spooler equipped with 2 inkjet heads, can spool up to 800m long wire of barrels



Gamma 333 PC equipped to ultrasonic weld bowl fed loose piece clip to 18AWG wire

Since the creation of the department, we have worked on a variety of interesting Value Added projects such as:

- Integrating an ultrasonic welder with vibratory bowl to one Gamma 333 PC. The project consisted of feeding, orientating, crimping and welding a loose piece terminal to a 18AWG wire. The final product was used in batteries for electric cars.
- Kappa 320 spooler; for this project we had to spool 800m (2,624ft) of 16 to 10AWG wires from a wire barrel onto a reel. The wire needed also to be marked every 610mm (2ft). The reel is than use by contractors for wiring buildings.
- Customized conversion software and Cell Controller to optimize jobs sent to the machines in the cells and provide statistical production feedback into Crystal Report.
- Customized software using a barcode scanner to retrieve data from a database server and then create and load the articles into TopWin.

Failure is not an option

With the success of the Value Added Engineering, we are receiving more complex projects such as splicing polyester core tinsel conductor wire to subdermal needle electrodes.

This is our way to staying the leader in the wire business by always striving to meet the customers' requirements and exceed their expectations. Our successes stand a reference for new applications and new customers. As we are saying in the USA, "Always imitated never duplicated". <

"Value Added Engineering is Komax USA way to staying the leader in the wire business by always striving to meet the customers' requirements and exceed their expectations; failure is not an option."



Patrick Boyer,
 H.M. Specialist/V.A. Project Manager

Your benefits

- Local partner providing turnkey solutions
- Years of experience, especially in custom software
- Listening to customer needs
- Cost effective

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