



SOLUTIONS
**HIGH
VOLTAGE**
electro mobility



komax

AUTOMATION EXPERTISE FOR HIGH VOLTAGE CABLES

The fast-growing market for electric and hybrid vehicles is generating increasing demand for high voltage cables. Production is largely carried out manually with extensive quality controls. To ensure efficient and economical processing of the rising quantities of shielded and unshielded high voltage cables, automating processes is becoming ever more important. Komax provides suitable solutions for automating the desired process steps. Building on the flexible, modular Lambda platforms, the individual solutions add various process modules as well as cable- and component-specific kits and quality tools. The solution features a workpiece fixture and the process stations can be rearranged according to requirements. For every type of high voltage cable and connection types in the field of electro mobility, Komax develops targeted automation solutions in close consultation with the customers.

MODULARITY

- Individual set-up of process modules according to customer requirements
- Profit from broad high voltage process know-how for different levels of automation



QUALITY

- Consistent quality
- Optional integration of quality check tools like crimp force monitoring (CFM)
- High purity of modules and products



PRODUCTIVITY

- Automated processing of high voltage cables
- Time savings with parallel automated process stations
- Single person operation possible
- Clearly arranged user interface

CABLE HANDLING

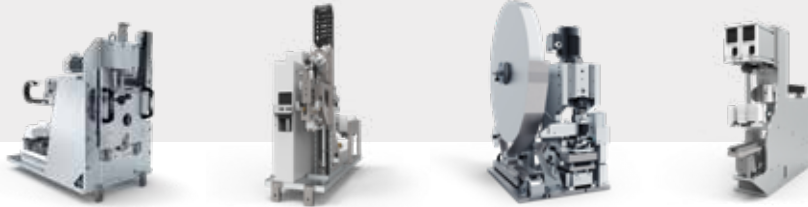
- Dedicated handling system for precise and gentle cable transport
- Suitable to connect with factory logistic system
- Optional active conveyor system to transport heavy cable sets

TRACEABILITY

- Optional Barcode Scanner for Material and Tool verification
- Ready for future connectivity to Komax digital products like Komax MES

LAMBDA PLATFORM

- Modular concept with standardized process modules – selectable degree of automation
- Economical and flexible automation
- Processing of single and multicore high voltage cables with and without shielding
- Consistent high quality can be achieved by interlinking the processes
- Versatile platforms for every stage of production and size



Standardized Process Modules

- Wide range of process modules for the processing of high voltage cables
- To be integrated individually on platforms



Lambda 2

- 2–3 process stations
- Short changeover time
- High flexibility



Lambda 4

- 6–15 process stations
- Parallel processing
- One-side cable processing



Lambda 6

- Up to 9 process stations
- One or two-side cable processing



Lambda 8

- Fully automated high voltage cable processing

THE INDIVIDUAL PROCESS STEPS ARE CONDUCTED QUICKLY AND PRECISELY ON THE KOMAX MACHINES.

Example process for a HPS 40-2 connector



Cable Cutting



Component Preassembly



Support Ring Assembly



Foil Removal



Jacket Stripping



Shield Cutting



Shield Folding



Insulation Stripping



Insulation Stripping



Untwisting & Forming



Filler Material Stripping



Terminal Crimping



Terminal Insertion



Shield Sleeve Crimping



Final Assembly

Our partners for further processes:
Forming: Laselec
Taping: Kabatec
Testing: TSK

Komax – leading the field now and in the future

As a pioneer and market leader in the field of automated wire processing, Komax provides its customers with innovative and sustainable solutions for any situation that calls for precise contact connections. Komax manufactures series and customer-specific machinery for various industries, catering for every degree of automation and customization. Its range of quality tools, test systems, and intelligent networking solutions complete the portfolio, and ensure safe and efficient production. Komax is a globally active Swiss company with development and production facilities on several continents. Komax uses its extensive distribution and service network, which includes local companies and their employees, to support customers across the world on site, thus ensuring the availability and value of their investments after equipment commissioning through standardized service processes.



Market segments

Komax offers outstanding competence and solutions for various areas of application and draws on them to generate the desired value-added for the entire process and optimize economic efficiency in line with customer requirements. The main markets of Komax are as follows: automotive, aerospace, industrial and telecom & datacom. With this breadth of experience, customers obtain expert knowledge for process optimization and access to the latest technologies.

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