



Specialist for connector
systems and stamped parts



www.mpe-connector.de

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Who we are and what we do

mpe initially focused on the development and manufacturing of connector systems. Over the years, mpe has expanded its product range and is now one of the well-known manufacturers of standard & customized connectors (including DIN41622 & device plugs & sockets), standard & customized heat sinks, cable assemblies and stamped parts.

Based on extensive experience from a multitude of customized solutions our design engineers can effectively realize your ideas. Latest CAD equipment is in place. From the initial stage of a new product design, we already have the optimized and most economic serial production in mind.

Relation to the binder group

binder is a family-owned company shaped by traditional values, employing around 2.000 people worldwide and is one of the leading specialists for circular connectors with its headquarters in Neckarsulm. The binder group includes the binder headquarters, nine international and globally active sales offices, seven production facilities, two system service providers and an innovation and technology centre.




binder produces a wide range of industrial connectors as well as mounting and cable connectors for automation technology. The strengths lie in the individual development, design and automated manufacturing of connectors based on customer specifications.






The product range of binder extends from subminiature connectors to multi-pin machine connectors. binder products are used in agricultural and construction machinery, signal equipment, machine tool construction, medical technology, measuring technology as well as sensor and automation technology.

Since 1960, binder has been synonymous with the highest quality.



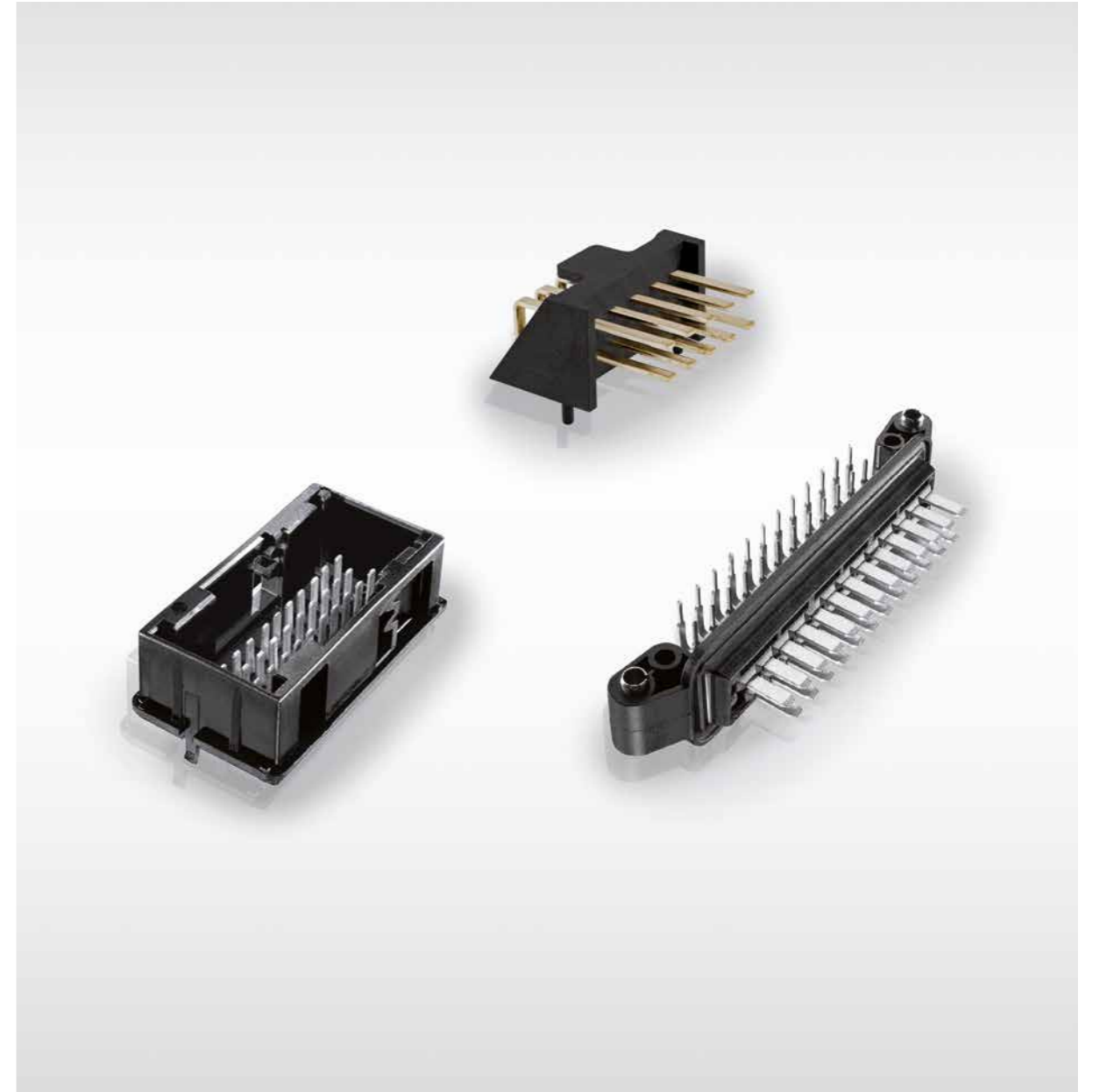
Core competencies of the binder group

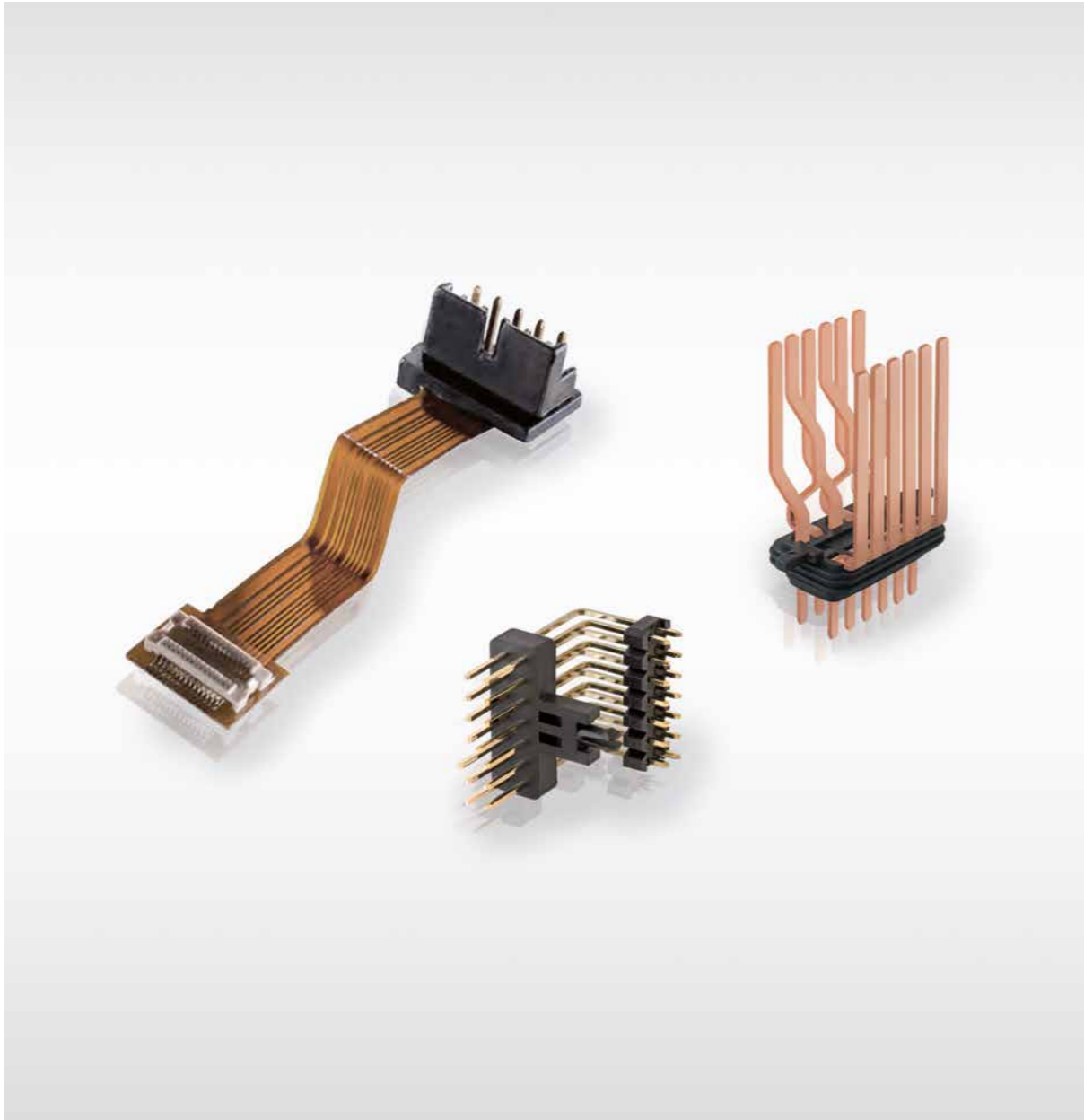
	Cable manufacturing, assembly and production technology	since 1995 www.binder-cableassemblies.hu
	Production of electronic assemblies and systems	since 1995 www.binder-ems.de
	Electronics development and production of electronic assemblies	since 2020 www.binder-electronic-solutions.de
	Surface finishing	since 2019 www.binder-galvanicsurfaces.de
	Research and printed electronics	since 2016 www.binder-itz.de

	Production of electronic assemblies and systems	since 2017 www.binder-introbest.de
	Turned parts	since 1979 www.binder-precisionparts.ch
	Customer-specific system solutions	since 2013 www.binder-solutions.com
	Diecast parts	since 1995 www.macrocast.ch
	Stamped and stamped bent parts	since 1979 www.mpe-connector.de

Core competencies and particularities

- Design-In support
- Development of customer-specific products
- Design and development of tools and production equipment
- Project management
- Quality
- Quality assurance
- Special assemblies
- Stamped parts





Custom solutions

Customer-specific connectors are of great importance. The product design is adapted precisely to the customer's requirements in order to reduce costs.

- Board-to-board and wire-to-board solutions starting from a pitch of 0.30 mm
- High-current applications up to 200 A
- Solutions for automotive, industrial, medical, and consumer electronics

All from one source

- Support in the early stages of pre-development, allowing the product to reach market maturity quickly.
- An in-depth value chain structure makes it possible to cover all necessary product requirements within our own group of companies.
- Many years of project management and design experience ensure that we are able to react with the necessary adaptations at any time.
- Assembly and shipping are also carried out in-house and provide high quality along the entire value chain.

Design and development

The design department implements your requirements using the latest 3D CAD systems.

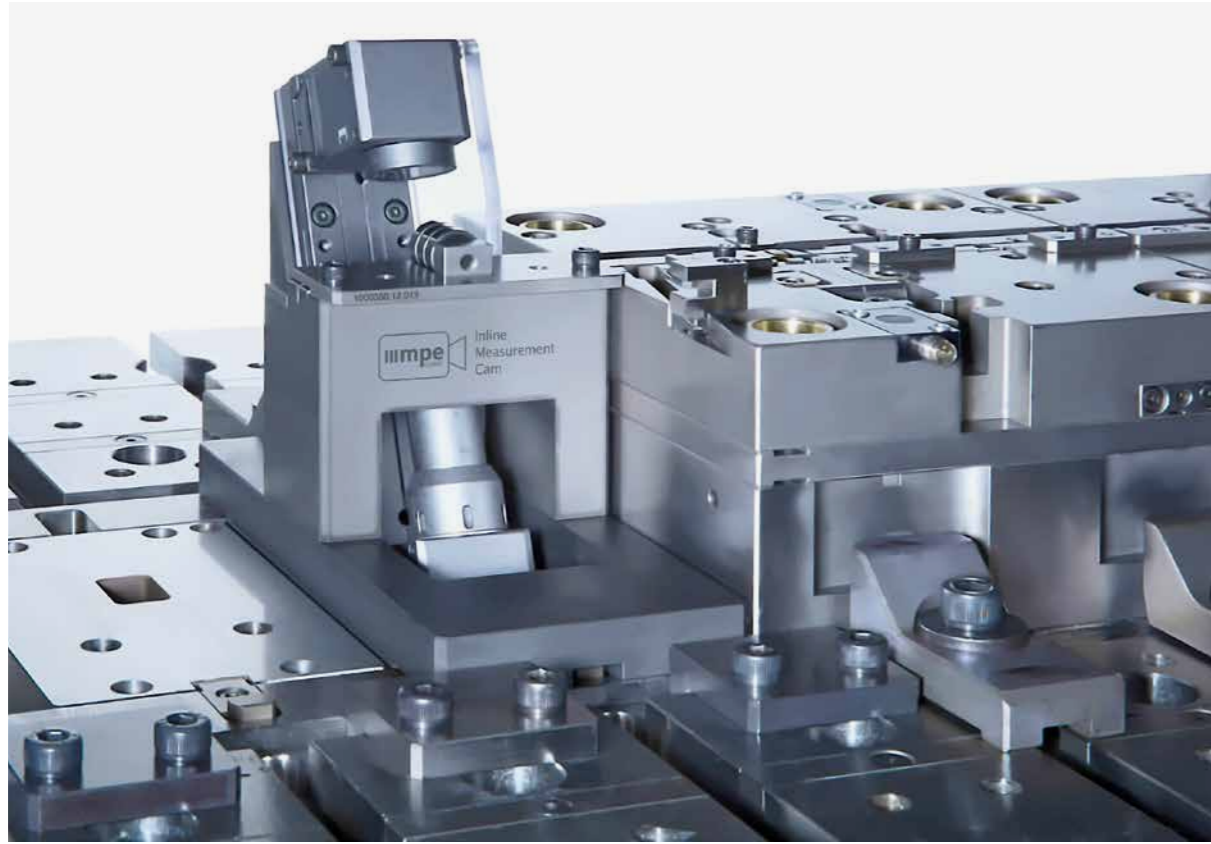
- Designs with VISI CAD incl. CAD data exchange in all common formats
- Design of highly complex tool systems and devices
- Development of measuring and testing systems to accompany production
- Comprehensive documentation

Project management

The main contact person is the respective project manager.

- Development of optimal solutions to your challenges through APQP
- Product optimization during development
- Analysis and optimization of manufacturing processes





Tool construction

In toolmaking, all tools from simple stamping or bending tools to complex progressive tools are manufactured and maintained.

- Use of high-performance molds in modular technology
- The entire process chain is realised in-house
- Our in-house apprenticeship as a tool mechanic ensures that our employees maintain and expand their expertise

Stamping technology and production

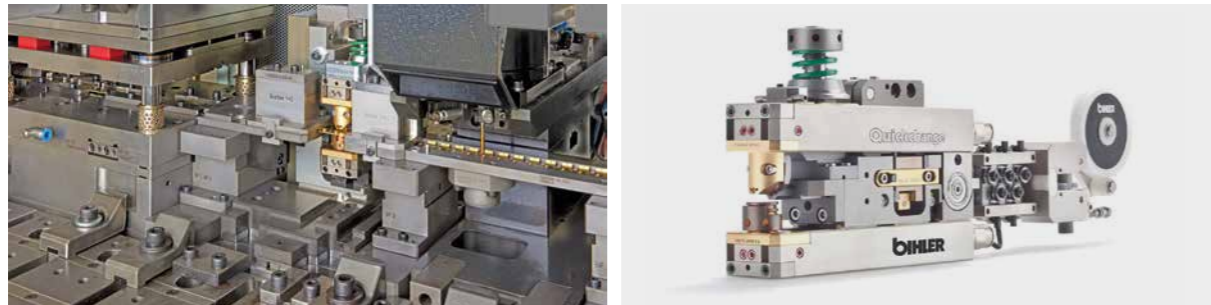
Our machinery is equipped with high-performance automatic stamping presses. By using inline process monitoring systems developed in-house, we avoid rejects for our customers.

- Material thicknesses up to 2 mm
- Stamping and bending force from 25 to 50 tonnes
- Lifting speeds of 1600 rpm

Welding system for contact parts and assemblies

mpe's existing machinery was expanded to include a state-of-the-art welding system from Bihler for contact parts and assemblies. This system consists of a welding gun and thread forming unit with associated control unit. This technology opens up new possibilities:

- Resistance welding process integrated into the stamping process
- Welding of electrical contacts with wire or contact profiles (precious metal savings of approx. 30% compared to rivets)
- Thread forming directly in the stamping process
- The high-performance welding control B 20K offers the following advantages:
 - Measurement and monitoring of the resetting distance
 - Safety from mains fluctuations thanks to integrated mains-independent supply module and therefore no mains-related process fluctuations
 - Process parameters are measured and used for control and diagnostics, ensuring maximum process quality and quality documentation



Quality assurance

All order stages and production processes are analysed and monitored in accordance with the latest quality guidelines.

- ISO 9001 certified QM system
- State-of-the-art measuring equipment such as a digital measuring microscope with a resolution of 20,000 x 20,000 pixels
- Computerised 3D measuring machines
- X-ray fluorescence measuring device
- Fully automatic, production-accompanying monitoring systems

Prototypes

Where required, we produce samples, prototypes or pre-series parts with the necessary tooling and assembly equipment.



Examples of customised connectors

Here you can see a small selection of connector systems that have been developed by mpe in co-operation with customers.

All examples have been manufactured by mpe.



■ **Customised connector**
Pin adapter with custom moulded contacts



■ **Customised connector**
Interface connectors with flat contacts



■ **Customised connector**
Special pin header with leading contacts, locking device on the circuit board



■ **Customised connector**
Special plug connector, angled with suction surface and reinforced insulator

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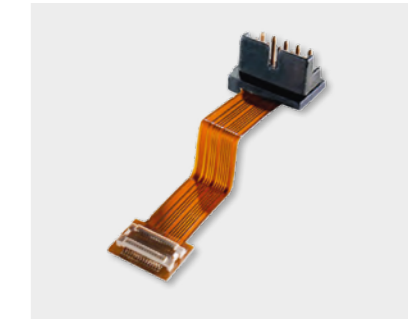
PHOTOS: © MEDIA-SUPPORT / CHRISTIAN SCHÜTTENBAUER



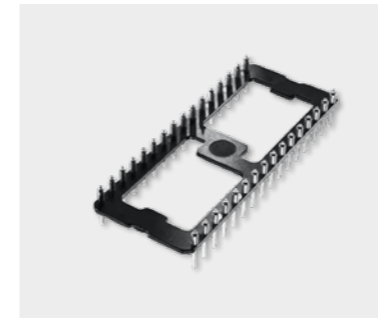
■ **Male connector with centring pins**
Customised pin header with centring pins and additional solder pads



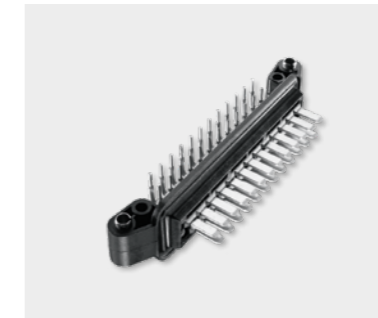
■ **Diagnostic connector**
Diagnostic connector for the automotive industry



■ **Programming adapter**
Programming adapter, adapted from 0.50 mm pitch to 2.54 mm pitch



■ **Contacting unit**
Contacting unit of an IC



■ **Customised connector**
Special connector for an ABS system in a motorbike



■ **Wire piercing**
Light point for LED external display, contacting via wire piercing



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mpe offers a broad product portfolio in the field of standard and customised connectors.

Jörn Bargholz
Managing Director of mpe



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