One of our strongest arguments: a tour of our plant

Do you wish to become our customer or do you have a technical production challenge for us?
Then we invite you to visit us to experience our working procedures and core values.
We are looking forward to the opportunity of convincing you.

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Kummer
Präzision mit System.

Connection technology for electric mobility

Precision stamped parts for the powertrain 100 V - 900 V and wiring system 12 V - 48 V

Kummer
Präzision mit System.

Made possible by experience: reliable plug connectors

One-stop shop solutions: development with stamping and plastic overmoulding in a single process.

The advantages at a glance

- Comprehensive material expertise with plastics and metal.
- 40 years of experience with precision stamped parts with large and small scale series production.
- Production of complete assemblies in a closed process sequence with stamping and overmoulding in a single operation.
- Product solutions for high voltage and low voltage plug connectors
- In-house tool making and design departments for project planning and realisation of complex technical requirements

Expertise partner for the development process: in-house toolmaking and design departments for quick results.

Our in-house toolmaking enables the very quick realisation of prototypes and pilot series. With over 40 years of experience in the field of precision stamping Kummer has a high degree of expertise with materials – for metal connectors and for overmoulded housings. Depending on the application area, we have the expertise for the respectively used material.

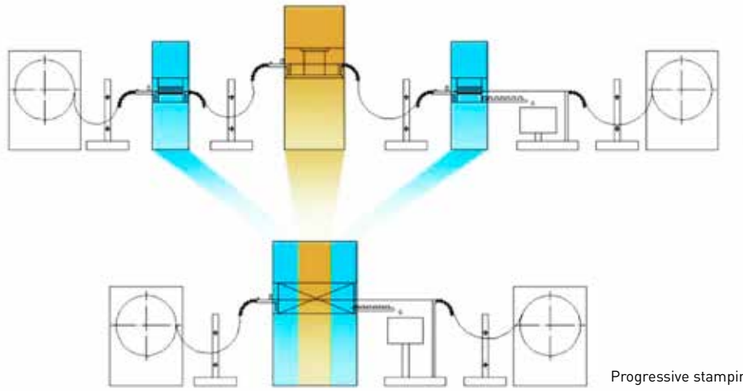
Robots are used to achieve excellent economy.

High quality through a closed production chain: progressive stamping-moulding

Progressive stamping-moulding represents unique expertise only to be found at Kummer. In this process, a number of production steps known from conventional reel-to-reel production are combined together in a single production process. As a result, the whole process offers greater reliability, improved economy and higher quality. The stamping and the following overmoulding then no longer take place in separated processes, but in a single closed, compact production unit.

Large-scale series can be quickly and efficiently realised using a progressive stamping-moulding process. As the production chain is almost closed, it is easily possible to meet the highest quality requirements.

Compact and quick with high process reliability: progressive stamping-moulding



Reel-to-reel process

Progressive stamping-moulding

Solder-free connector alternative from signal current to charging current: the EloPin® from Kummer

The EloPin® is the reliable method used for the reliable contacting of printed circuit boards. The EloPin® is in fact a modified needle eye press-fit zone which functions as a mechanical connector. The solder-free connection of the EloPin® is particularly suitable for application areas with high ambient temperatures or difficult access. With over 10 years of production expertise, Kummer is one of the most experienced manufacturers of these connector pins. Suitable EloPin® dimensions for electric mobility are 04-06 for signal and control currents and 12-20 for charging currents.

Hybrid component with overmoulded EloPin®, press-in socket and cooling element

	Strip thickness	Printed circuit board final hole	Printed circuit board thickness (x1)
EloPin® 04-06	0.4 mm	0.6 mm	1.0 mm
EloPin® 12-20	1.2 mm	2.0 mm	1.5 mm

EloPin®	04 – 06	06 – 10	08 – 145	08 – 16	12 – 20
Insertion force, max.	100 N	100 N	160 N	160 N	200 N
Insertion force, typical	20 – 60 N (x1)	65 N	115 N	85 N	160 N
Push-out force, min.	20 N	30 N	40 N	50 N	50 N
Push-out force, typical	35 – 70 N (x1)	60 N	135 N	105 N	110 N
Contact resistance, max.	1 mOhm	1 mOhm	1 mOhm	1 mOhm	1 mOhm
Contact resistance, typical	0.05 mOhm	0.01 mOhm	0.01 mOhm	0.01 mOhm	0.01 mOhm
Current carrying capacity (x2)	not tested	approx. 8 A	approx. 25 A	approx. 25 A	approx. 45 A