

STAMPER



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ERNI connectors are used in devices in almost all industries: automotive, transport, LED, medicine, communication, consumer goods and general industrial applications. In addition to manufacturing a myriad of connectors, ERNI offers a strong service portfolio: their electronics manufacturing services (EMS) range from electronics development through the assembly of printed circuit boards using pressfit or soldering technology to inspection technology, electronic packaging and cable connector assembly. ERNI belongs among other things to the first producers of the DIN 41612 connector which is used worldwide.

Over 60 years of German-made quality.

ERNI Production & Co. KG is part of ERNI Electronics and belongs to the international ERNI Group of companies which was founded in 1947. At present the ERNI Group employs some 1100 people, achieving annual sales of around 160 million Euros. The headquarters of ERNI Production & Co. KG are situated in Adelberg in the German state of Baden-Württemberg. Since it was founded in 1956 it has also been a manufacturing base, thus ERNI has been offering their customers German-made quality products for over 60 years.

Outside of Germany, ERNI has another important manufacturing operation in Lamphun in Thailand, creating synergies that impact positively on the manufacturing process of various parts.

Bernd Leonberger, head of stamping technology at ERNI in Adelberg, is convinced that without the highest precision in manufacturing, it is not possible to compete in the electronic connector segment these days. „The requirements are steadily increasing. Whilst in 2004, tolerances of three-hundredths of a millimetre were acceptable, currently this figure is around one-hundredth of a millimetre or less. In order to maintain these values, we need high-performance stamping presses. And we have the best – from BRUDERER. It is not without reason that we heavily rely on BRUDERER presses in our stamping shop. And we have never been disappointed,” says Leonberger. The ever increasing demands made on connectors are the driving forces of ERNI's quality system. ERNI is pursuing a “zero defect” production, combined with continuous improvement of corporate processes.



Great future potential – stamping parts made by ERNI.

Highest precision with BRUDERER stamping technology.

ERNI exclusively uses BRUDERER stamping presses in the range of 250 to 500 kN, which together produce around 5 billion parts per year. In order to achieve these volumes, the high-performance stamping presses are in use around the clock on seven days a week throughout the year. „This is another reason why we relied on BRUDERER right from the word go,” adds Leonberger. „We have been working with BRUDERER stamping technology since 1984. And in all these years we have never had a mechanical defect, despite the fact that the machines are running day and night. No other manufacturer can offer us this level of quality.” Impressed by the reliability and high quality of the BRUDERER stamping presses, ERNI has decided to also opt for BRUDERER technology when it comes to feed units. All stamping presses in Adelberg will be retrofitted with BRUDERER servo feed units. „We need this,” says Leonberger, „because for the 0.8-size connectors, the BRUDERER BSV 75 offers exactly the precision required for these parts.”

Annual service and in-house press tools.

There are further practical reasons why ERNI has decided to work with one manufacturer's brand. „Our machine operators all encounter the same system. This simplifies the operation and at the same time increases the process reliability,” explains Leonberger. In order to maintain process reliability during continuous operation, comprehensive annual inspections and servicing of



The ERNI delegation during their pre-delivery inspection of the BSTA 280-88 B2 at BRUDERER Frasnacht. F.l.t.r. Sven Epple, Ronald Baiker (BRUDERER), Bernd Leonberger, Eric Klingler.

all BRUDERER stamping presses are carried out. In the course of this, everything is measured precisely and adjustments are made where necessary to ensure absolute accuracy, for example the ram position. Bernd Leonberger is convinced that this represents a worth-while investment for ERNI. „This is the only way to maintain such high precision throughout the complete production cycle in continuous operation.” It follows that all press tools are designed and constructed in-house. For as many as 1000 items, currently 200 press tools plus various conversion options are in use.

This exemplifies ERNI's comprehensive expertise in terms of toolmaking. For such high-precision products, a largely unmanned production can only work if all press tools are optimised down to the last detail.

ERNI currently employs 80 staff just in toolmaking alone in Adelberg, of which 16 are solely responsible for press tools and their maintenance, working in two shifts. „If you have a connector with a contact distance of just 0.8 mm, the punch only has a size of 0.2 mm x 0.8 mm in the die,” specifies Leonberger. „To achieve this requires the utmost precision and vast experience on the part of the toolmaker. And I am sure that these precision requirements for press tools will increase further in the future.”

Securing the future with precision and know-how.

In order to maintain their high standards, continuous training and further professional development is a key issue to ERNI. This not only applies to production, but extends to all departments and functions. For example, all employees of the Thai subsidiary ERNI Electronics Co. Ltd. are trained in Adelberg. By producing cables and connectors in Thailand, ERNI is well positioned for the international market and is therefore looking toward the future with confidence.

The trend towards ever smaller connectors continues. In the area of electromobility, the weight of the vehicles will be reduced further. At the same time, more and more connectors will be required. Already today, 1500 connectors are built into one car. The more accurate they have to be, the more likely it is that they have been produced by ERNI - manufactured on high-performance BRUDERER stamping presses. ■



Around the clock – production in Adelberg.

BRUDERER AG

Egnacherstrasse 44, CH-9320 Frasnacht
+41 71 447 75 00, info@bruderer.com

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