

User report

Computers electronics



Clinching



Designation	C-shaped stationary machine
Type	DFG 500/150 H in special design
Ident no.	0000082690
Serial no.	900012108
Manufactured	06/2011
Order	583852
Number	1 piece
Other	

Task:

Joining of tin-plated and silver-plated copper power rail parts which will be installed in fuse-switches afterwards. The previous method needed to be replaced by a reliable process. Process reliability, electrical conductivity and simultaneous multiple clinching were the relevant requirements.

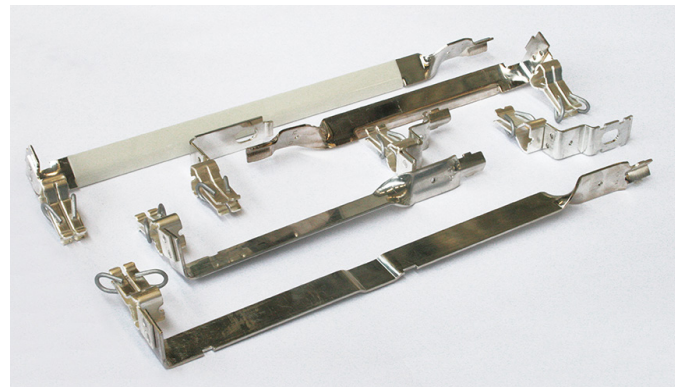
Solution:

The CONFIX technique met all requirements and was applied. As there could be manufactured just one point on specific components we also used a CON-FIX point with a torsional securing device. Reliability of the machine technique as well as a stable, reliable and fully developed process ensure a smooth production, especially due to our online process monitoring system.

Customer rating:

- fast response time in both sales and service
- reliable machine technology without malfunctions
- excellent process safety without malfunctions
- increase in quality due to process safety => less scrap and manual inspections due to the online process monitoring

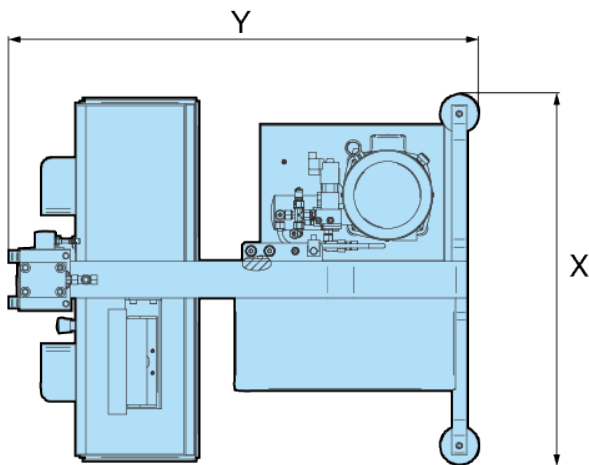
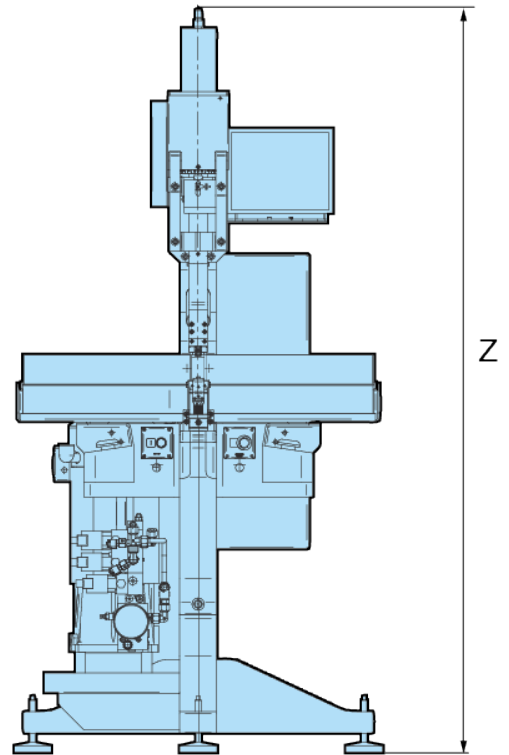
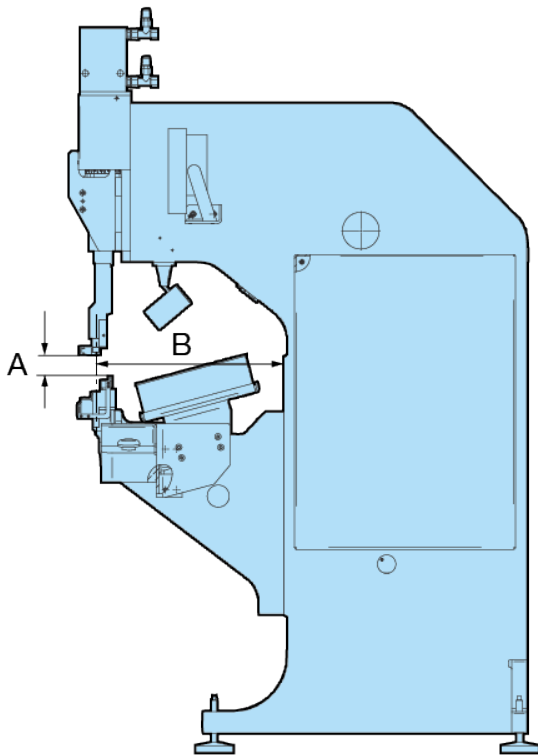
Component group	Power distribution components
Component	Power rails Feed brackets Connection angles
Handling	Stationary manual work station



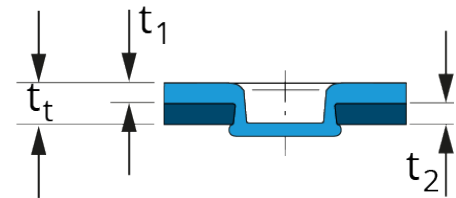
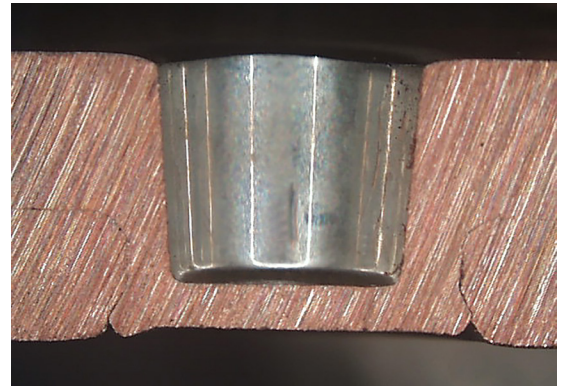
DFG 500/150 H

Name	c-shaped stationary machine
Type	DFG 500/150 H in special design
Ident no.	00000082690
Drive	hydraulic
Pressure force	max. 150 kN at 500 bar
Stroke length	100 mm
Connection	400 V / 3 Ph / 50 Hz
Weight	1438 kg

Opening width	[A] [mm]	58
Throat, horizontal	[B] [mm]	471
Width	[X] [mm]	1003
Length	[Y] [mm]	1275
Height	[Z] [mm]	2106

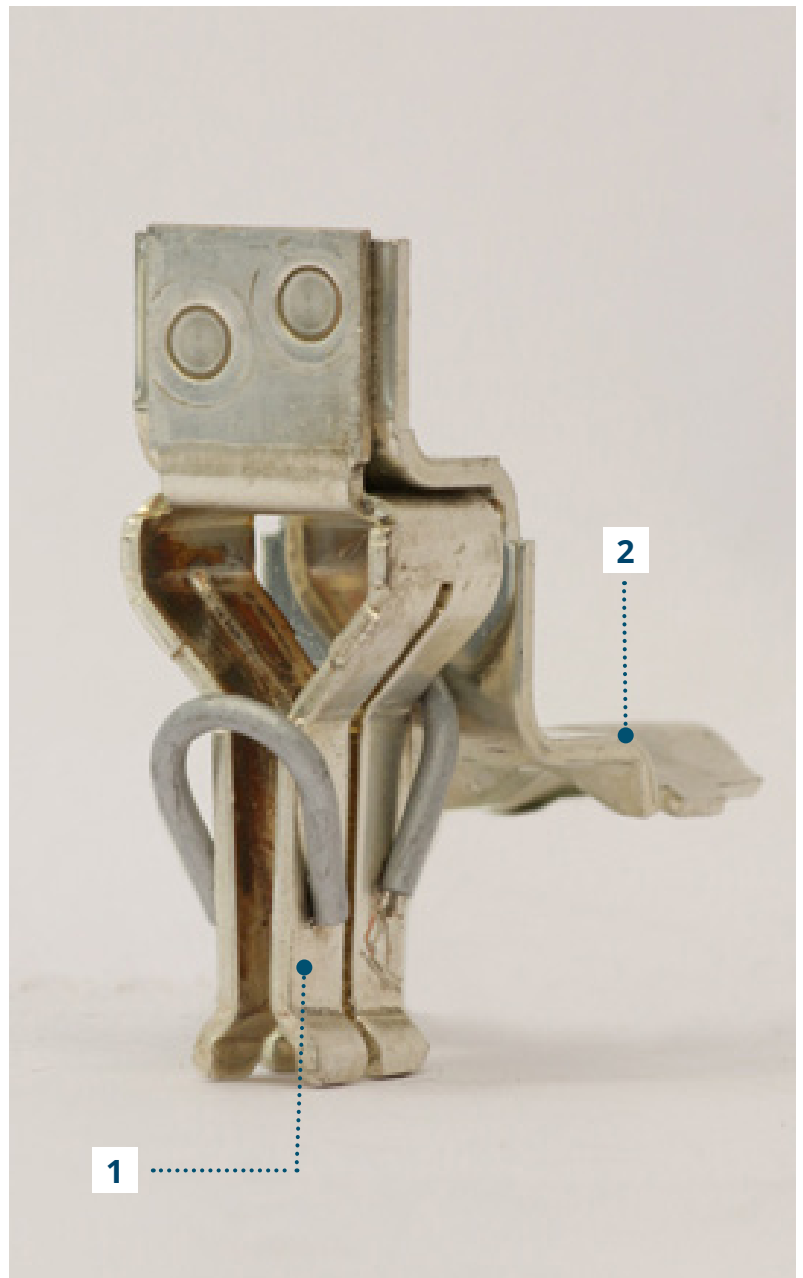
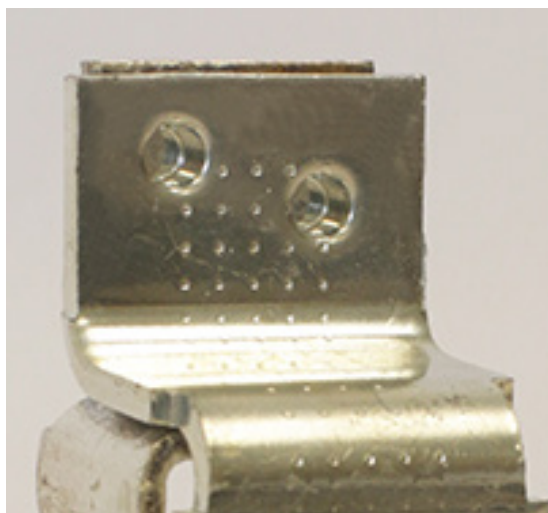
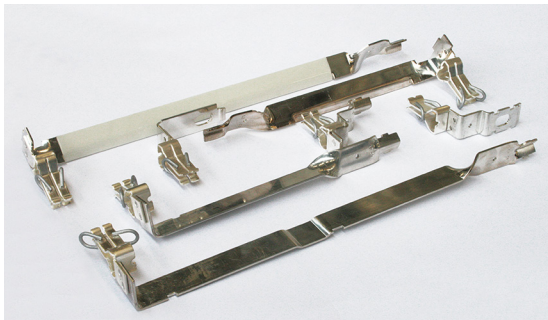


Joining task		1	2
Clinching variant		CONFIX	CONFIX
Component	t_1	power rail	power rail
Material	t_1	copper, silver-plated	copper, silver-plated
Punch side layer thickness	t_1	3.0 mm	3.0 mm
Intermediate layer		-	-
Component	t_2	feed bracket	connection angle
Material	t_2	copper, silver-plated	copper, silver-plated
Die side layer thickness	t_2	2.5 mm	2.5 mm
Number of clinching points		2	2



Power distribution components

- 1 power rail
- 2 feed bracket / connection angle

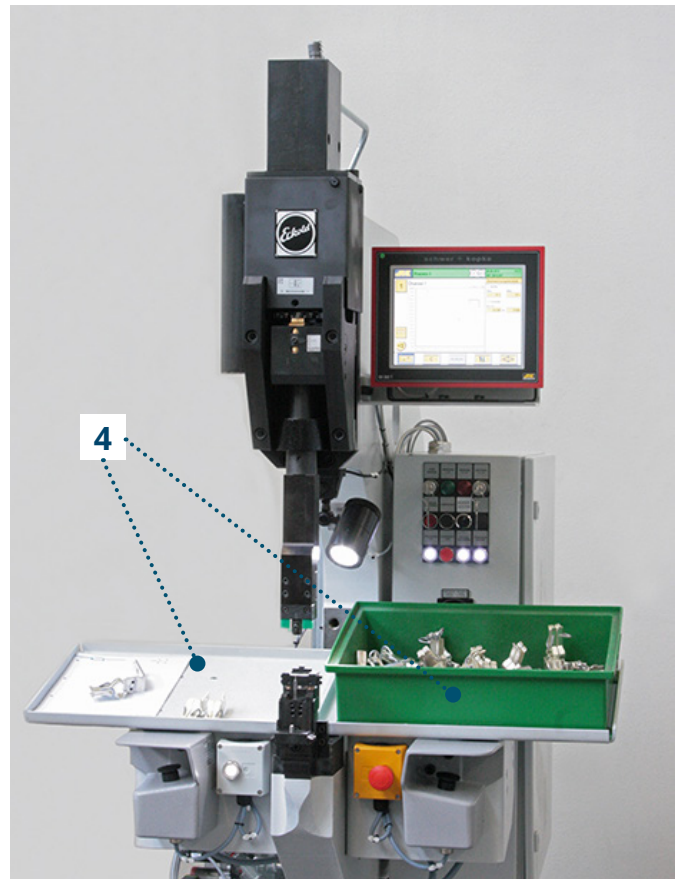
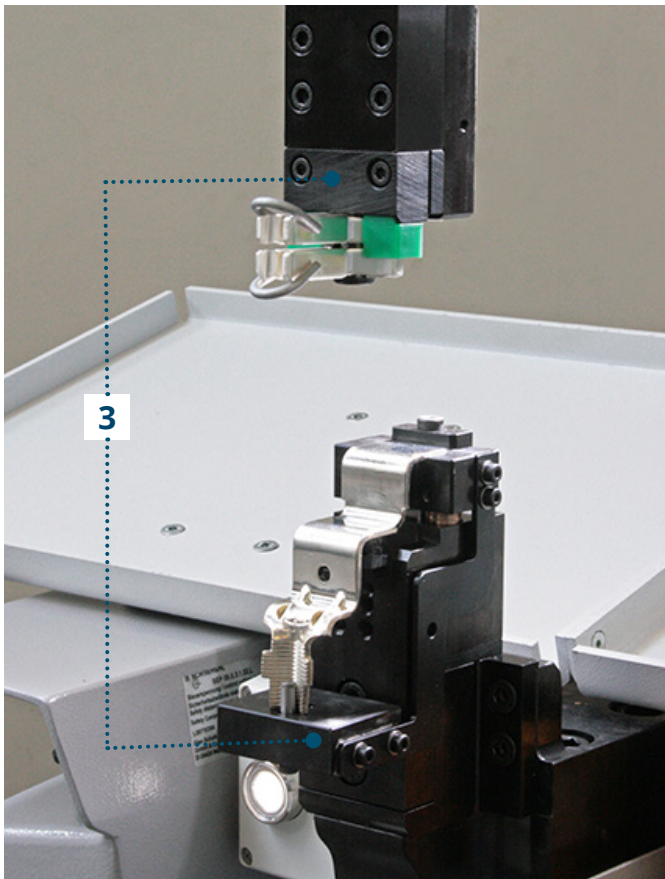
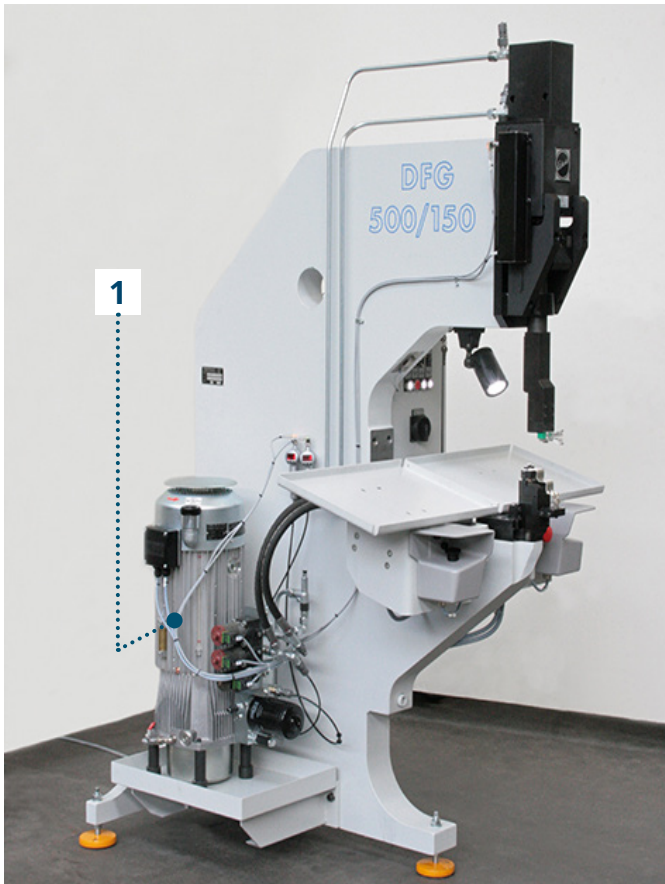


Note:

Manufacturing CONFIX joints the die side layer must be prepunched.

Universal, sturdy machine technology

Choosing from a series of universal c-shaped stationary machines the customized machine is adapted to the individual requirements of our customers and provided with appropriate features.



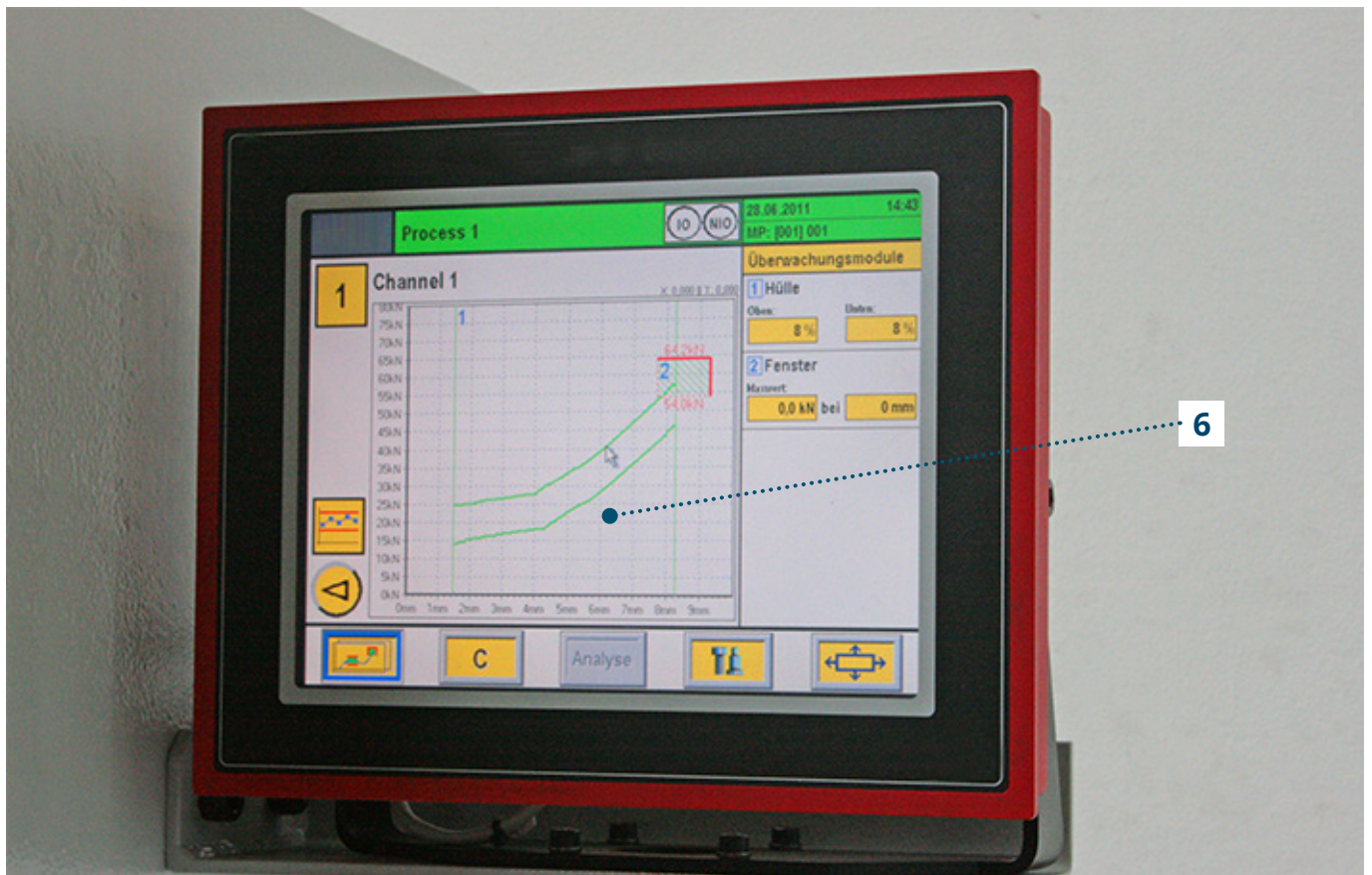
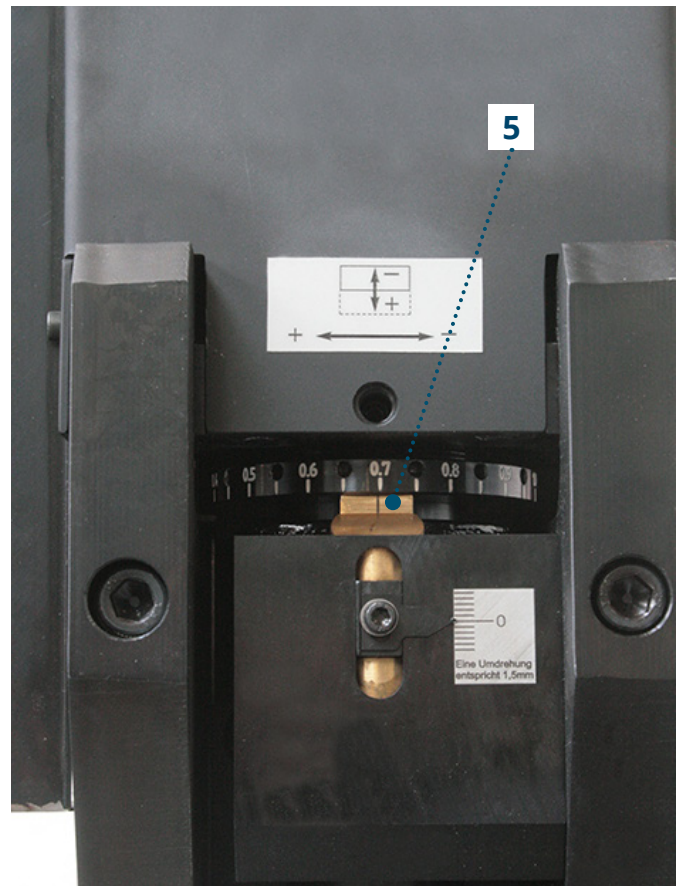
Equipment adjusted to customers' requirements for an optimal series production

Manual work station in consideration of ergonomical requirements and safety aspects.

Features:

- 1 hydraulic drive
- 2 two-hand safety control
- 3 interchangeable tool holders
- 4 component storage surface
- 5 adjustable stroke limitation
- 6 visualisation of online process monitoring

The process monitoring system is based on a force/displacement measurement. The results are visualised via envelope or window method on a touch screen. 16 measurement programmes can be saved.



Trading successful for over 85 years

Since our company was established in 1936 by Walter Eckold, the only aspect of our business not to change from that year to this has been our commitment to our customers. Our priority remains to provide our customers with economical and environmentally viable cutting edge technological solutions to their ever changing manufacturing processes.

During our 80 years of trading we have amassed a knowledgeable highly skilled engineering workforce in our specialist areas of shaping and joining sheet metal. These specialist skills enable us to quote from one off standard pieces of equipment to fully tailor-made automated robotic systems. A full range of all our specialist techniques can be found in all sheet metal, craft and industry work-places. Join with us, the successful sheet metal experts, to shape your future metalworking solutions.

Service von A-Z

- Tests and analyses for our customers
- Creation of sample sheets/components
- Preparation of feasibility studies for the design of moulds
- Concept development and constructive realisation of the technical solution
- Production in our own factory
- Commissioning at the customer's premises
- Carrying out regular maintenance
- Support with optimisations in the customer's process
 - Support with the robot position teaching process
 - Creation of micrographs / evaluation of clinching point quality
 - Online support

Start-up support after commissioning up to SOP

Training of system operators/maintenance staff/experts

Data and facts

- Founded in 1936
- Products in use in over 100 countries
- Over 25 sales partners worldwide
- Sales companies in Great Britain, Hungary, USA
- Certified according to ISO 9001:2015
- Certified according to ISO 14001:2015



Eckold technics GmbH & Co. KG

Walter-Eckold-Str. 1
37444 St. Andreasberg
Germany
Tel.: +49 5582 802 0
www.eckold.de
info@eckold.de

Eckold GmbH & Co. KG

Walter-Eckold-Str. 1
37444 St. Andreasberg
Germany
Tel.: +49 5582 802 0
www.eckold.de
info@eckold.de

Eckold Limited

15 Lifford Way
Binley Industrial Estate
Coventry CV3 2RN
Great Britain
Tel.: +44 24 764 555 80
www.eckold.de
sales@eckold.co.uk

Eckold Kft.

Móricz Zsigmond rkp.
1/B. fszt. 13.
9022, Győr
Hungary
Tel.: +36 70 943 311 8
www.eckold.hu
info@eckold.hu

Eckold Corporation

2220 Northmont Park-
way, Suite 250
Duluth GA 30096
USA
Tel.: +1 770 295 0031
www.eckoldcorp.us
info@eckoldcorp.us