

# User report

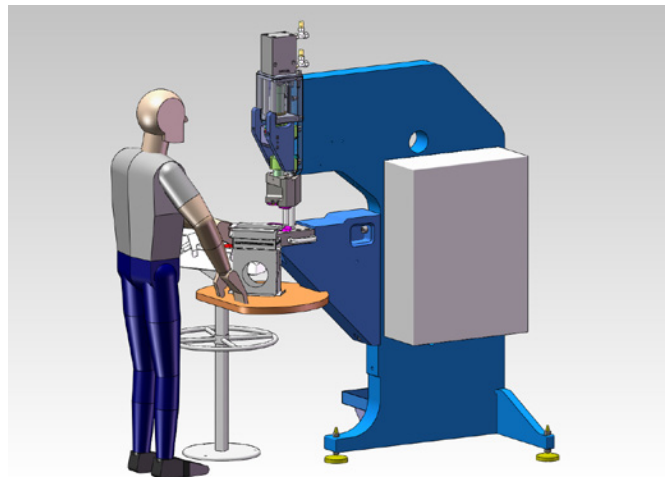
Ventilation/ducting industries



Clinching



Designation	C-shaped stationary machine
Type	DFG 500/150 H in special design
Ident no.	00000086783
Serial no.	900012108
Manufactured	06/2012
Order	584783
Number	1 piece
Other	



## Task:

A new joining method should replace the spot welding process. The challenge was to achieve the retention forces when joining thin into thick layer thicknesses. Furthermore dimensional accuracy and rectangularity were required, concerning narrow workpiece accessibility and variable component sizes as well as ergonomic aspects.

## Solution:

In close cooperation with the customer we realized an appropriate solution. The components were adapted by the customer who accepted a solution recommended by ECKOLD. By using special tool holders, including a defined workpiece positioning and four simultaneously working clinching points, the requirements related to the dimensional accuracy and rectangularity were fulfilled.

### Customer rating:

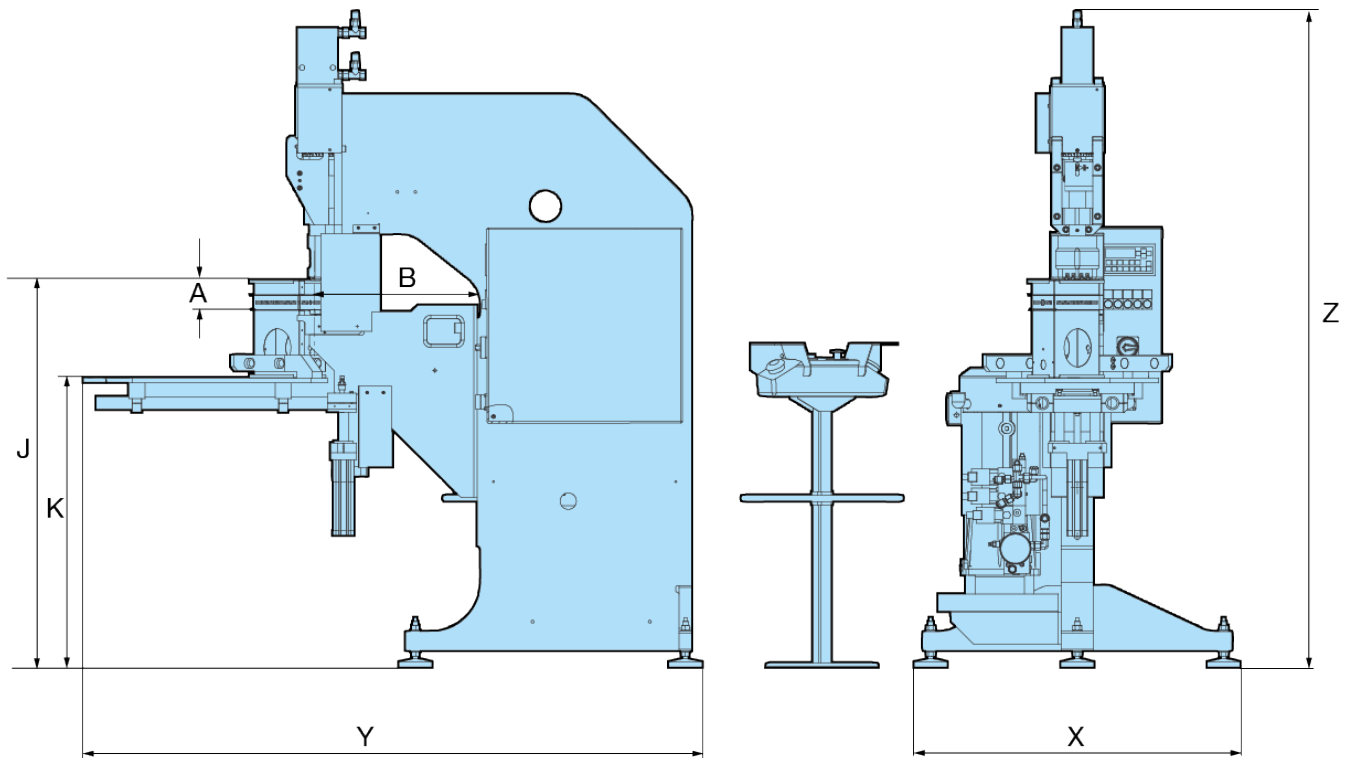
- good cooperation on realizing a solution
- reliable machine technology without malfunctions
- reliable technique => additional applications in production
- fast response time in service

DFG 500 150 H

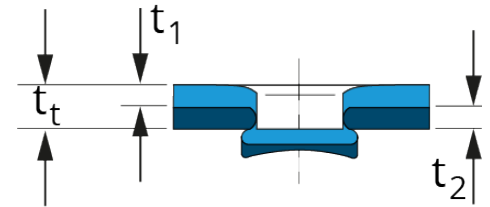
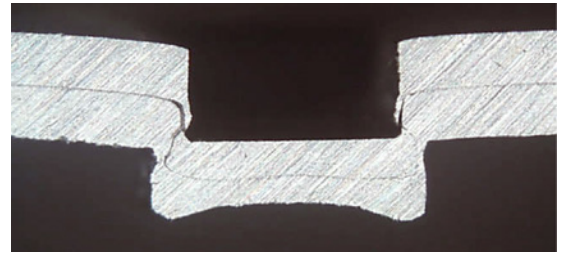


Name	c-shaped stationary machine
Type	DFG 500/150 H in special design
Ident no.	00000086783
Drive	hydraulic
Pressure force	max. 150 kN at 500 bar
Stroke length	100 mm
Connection	400 V / 3 Ph / 50 Hz
Weight	approx. 1400 kg

Opening width	[A]	[mm]	91
Throat, horizontal	[B]	[mm]	471
Height sheet plane	[J]	[mm]	1190
Max. table height	[K]	[mm]	890
Width	[X]	[mm]	1003
Length	[Y]	[mm]	1275
Height	[Z]	[mm]	2106

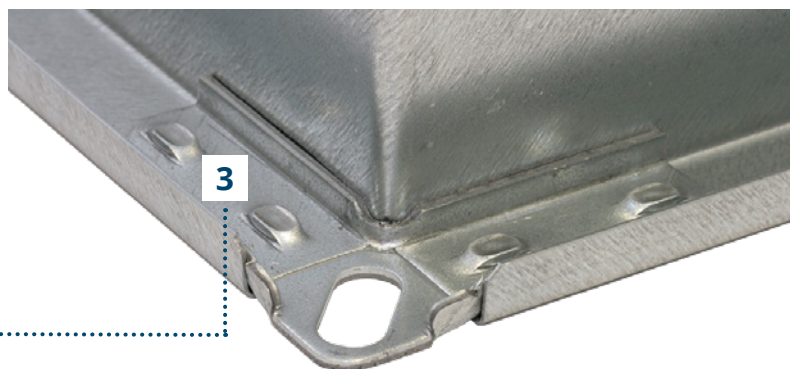
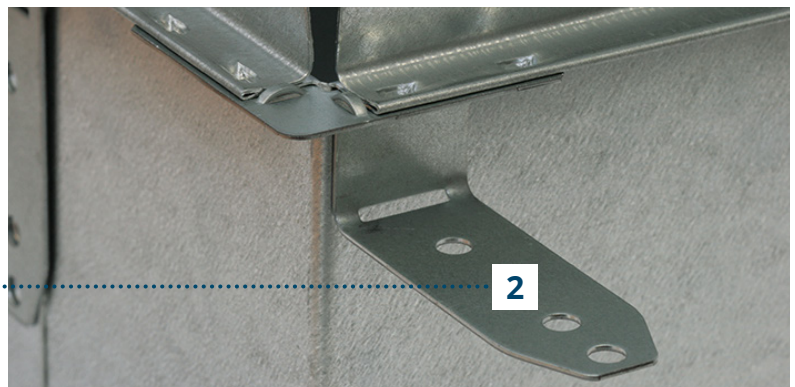
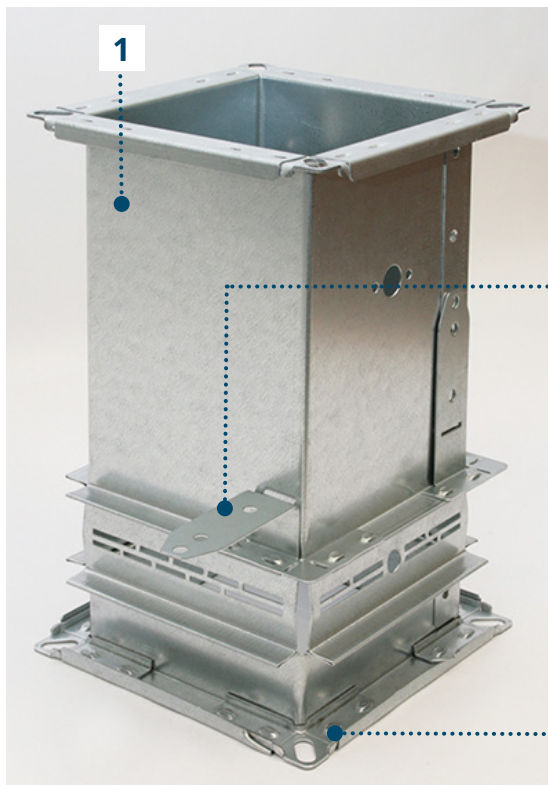


Joining task		1	2
Clinching variant		S-DF 4	S-DF 4
Component	$t_1$	corpus	corpus
Material	$t_1$	steel, galvanised	steel, galvanised
Punch-side layer thickness	$t_1$	0.8 mm	0.8 mm
Intermediate layer		-	-
Component	$t_2$	central angle	corner angles
Material	$t_2$	steel, galvanised	steel, galvanised
Die-side layer thickness	$t_2$	1.25 mm	2.0 mm
Number of clinching points		4/stroke	4/stroke



## Fire damper

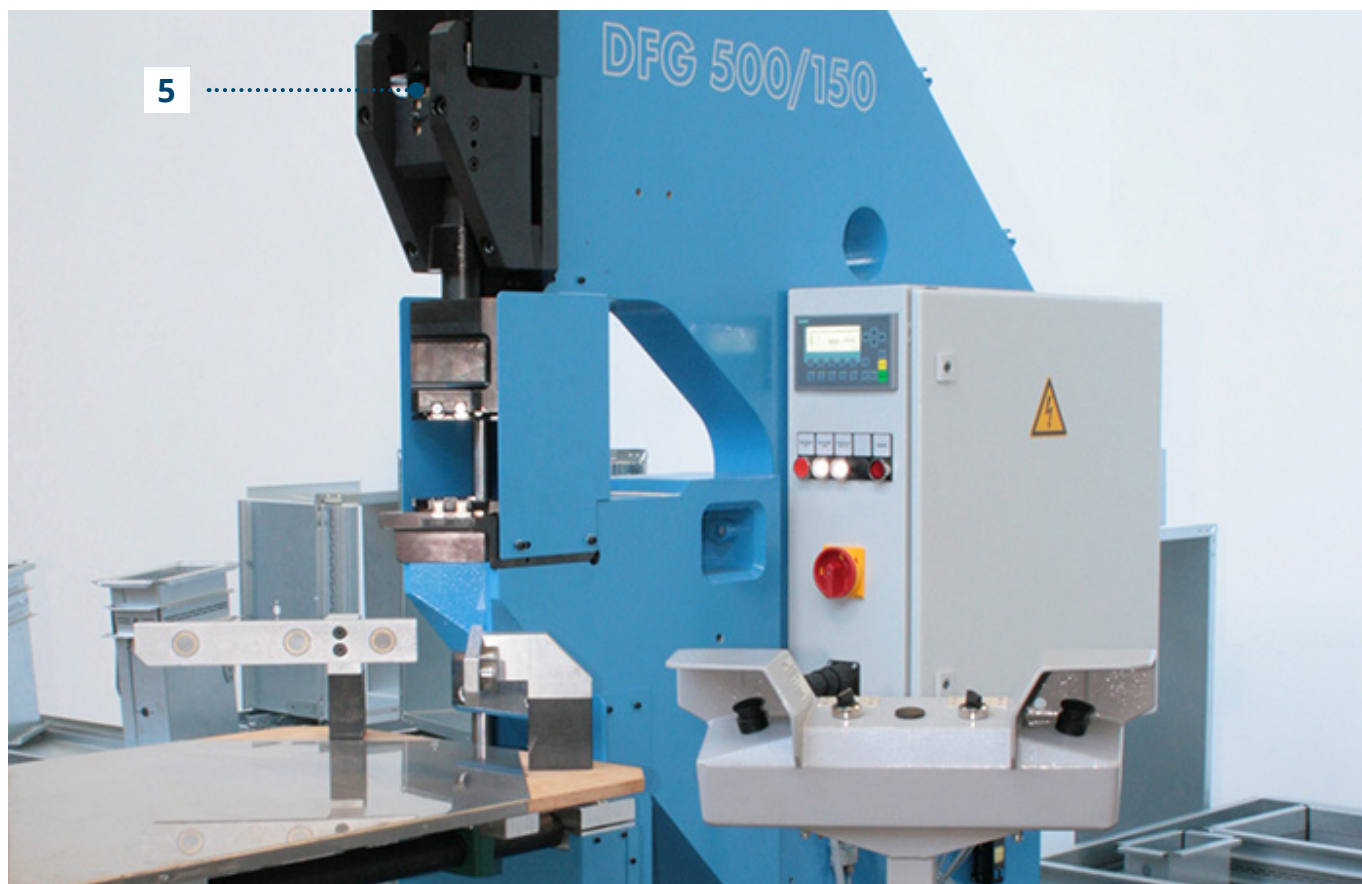
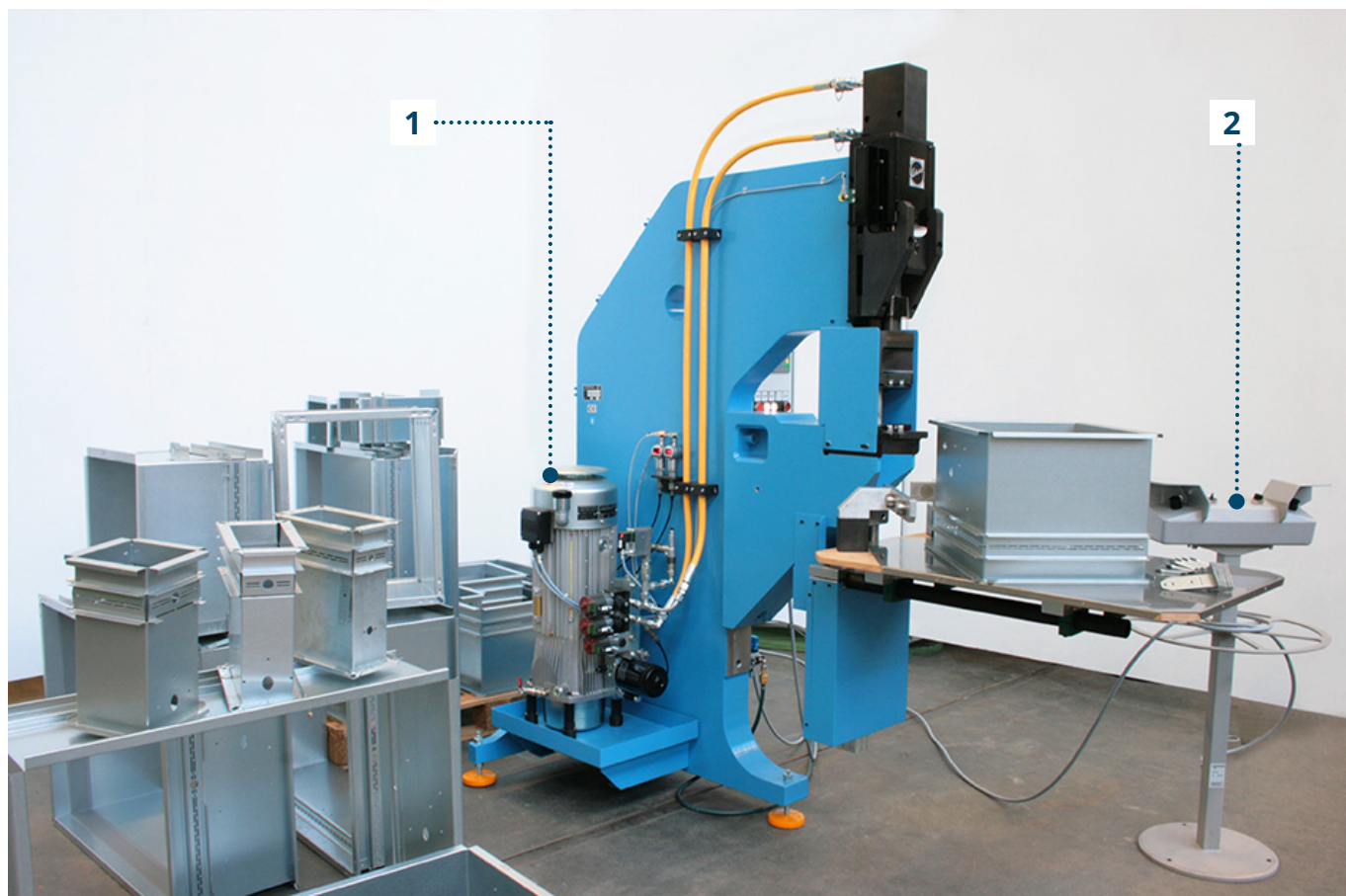
- 1 corpus fire damper
- 2 central angle for wall mounting
- 3 corner angle
- 4 various sizes





## 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.

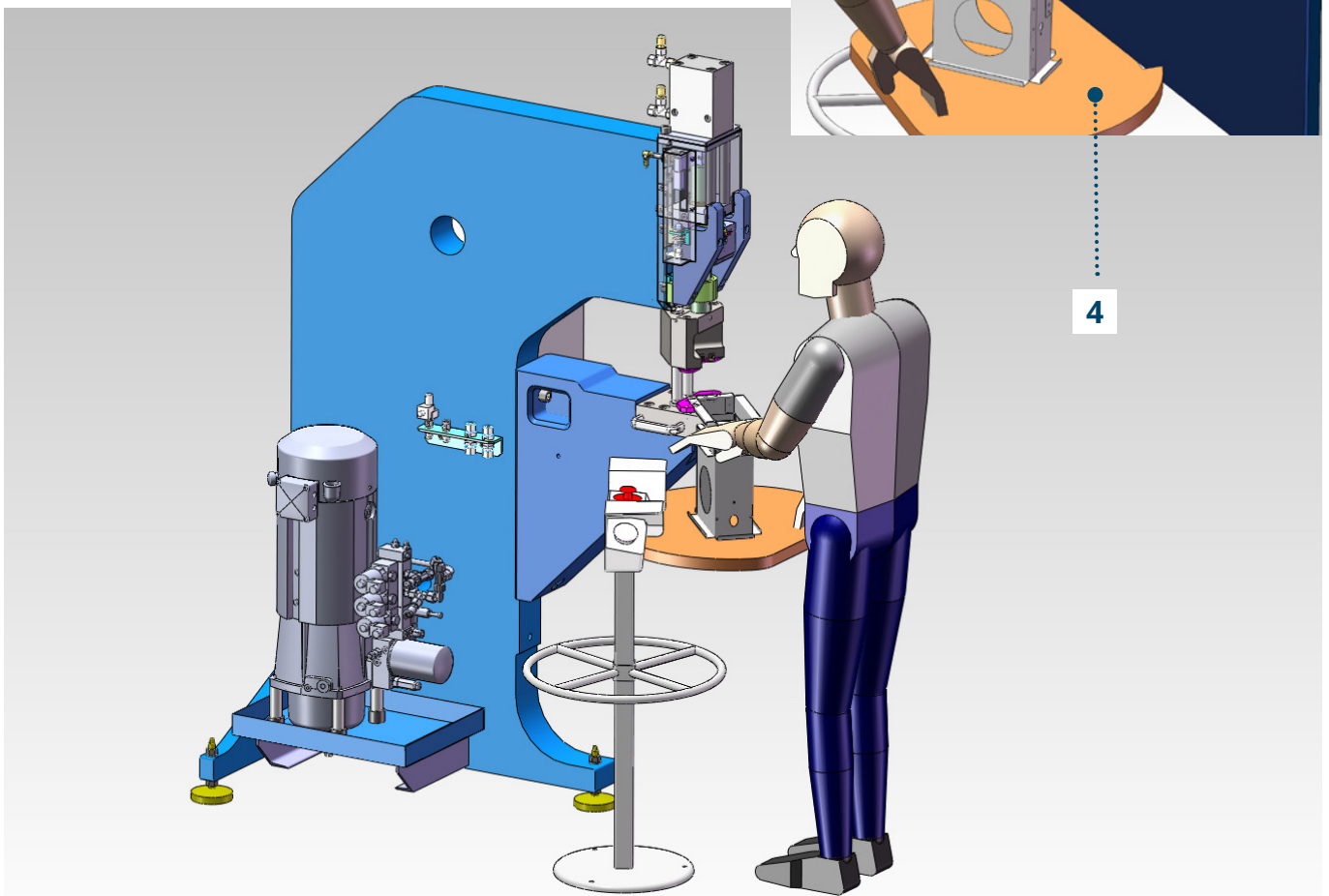
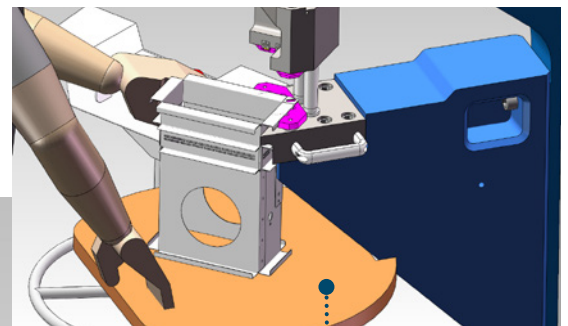
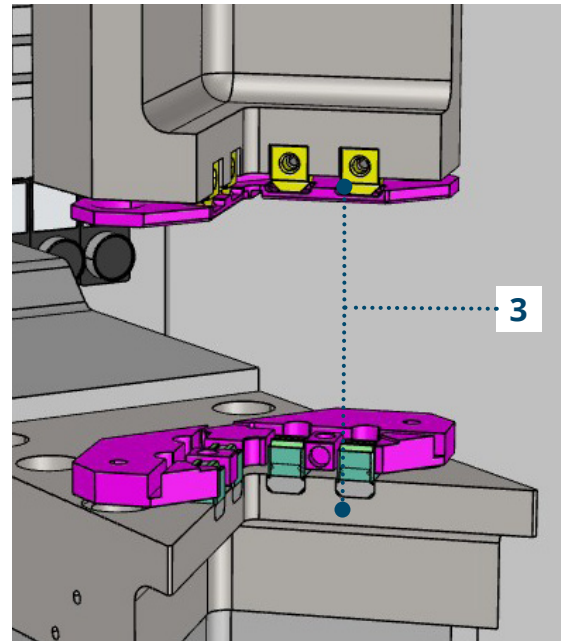


## Equipment adjusted to customers' requirements for an optimal series production

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

### Features:

- 1 hydraulic drive
- 2 two-hand safety control
- 3 specially adapted tool holders
- 4 height-adjustable table
- 5 adjustable stroke limitation





### Trading successful for over 80 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 from A to Z

- Test runs and analyses for customers
- Production of sample sheets / workpieces
- Feasibility studies for tool dimensioning
- Process planning and implementation of technical solutions
- Production at own factory
- Commissioning at customer premises
- Routine maintenance service
- Customer support for process optimisation
- – Assistance in teach-in process for robot positions
- – Production of microsections / assessment of clinching point quality
- – Online support
- Continuous assistance from commissioning to SOP
- Training of operators / maintenance technicians / machine experts

### Facts & figures

- Founded 1936
- Products in operation in more than 100 countries
- More than 25 sales partners worldwide
- Sales offices in Great Britain, Hungary, USA, Switzerland, Japan and the Czech Republic
- Certified according to ISO 9001:2015



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