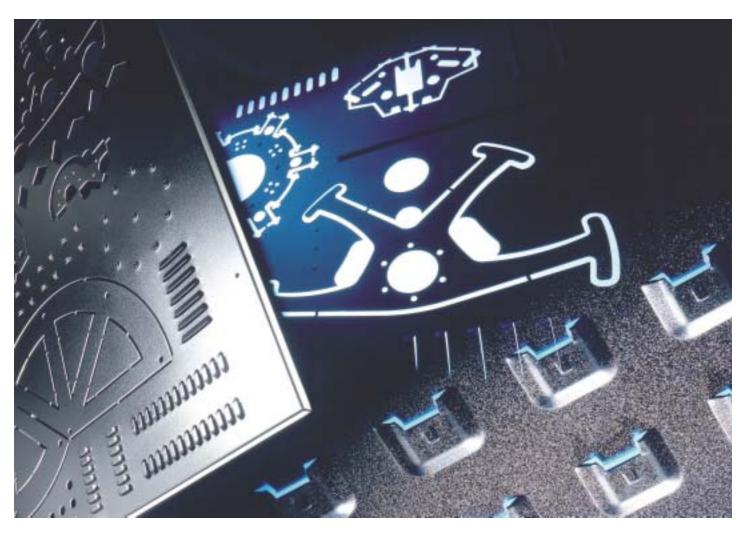
Compact Punching Machine



Punching, Nibbling and Forming with Rotation of all Tools

TRUMATIC 200 R



A compact classic



The goal of new production strategies is to coordinate tooling and material flow in order to reduce raw material requirements, work in process and inventories. This requires a productive and flexible machine concept. The TRUMATIC 200 ROTATION has been designed with these demands in mind. It offers the user high productivity and flexibility.

- A stable C-frame, consisting of a FEMcomputed welded construction, forms the basis of the machine.
- With 15 tool stations, the linear magazine sets the standard for economical production. The number of tools available can be greatly increased through the use of Multitools (multiple tools).
- Wear-free AC motors make for high axis travel speeds.
- Hydraulic punching head with 360° rotation of all tools. This reduces tool requirements and means that fewer tool changes are needed.

■ The rigid coordinate guide with bi-lateral drive, coupled with the hydraulic clamps, provides for precise and safe positioning of the workpiece.

Intelligent Head

Clutch-free, electro-hydraulic ram drive

Time and power-optimized punching process

- Automatic tool length compensation
- Stroke length compensation depending on sheet thickness

High process safety

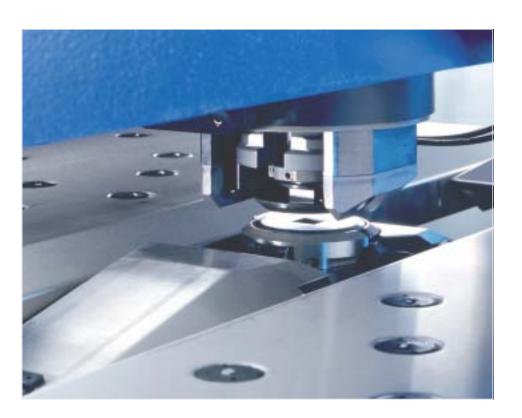
- Active punch retraction

Hydraulic tool clamping

- Precise alignment between punch and die
- Long tool life

Excellent tool guidance

- Hydrostatically guided ram
- Long guidance length
- High eccentric loads possible (notching, forming)



Integrated Linear Magazine

17 magazine station of which

- 15 stations for tools (number of tools can be greatly increased through the use of Multitools)
- 2 stations for clamps

Free choice of tool and clamp positions

Minimum clamp dead area

Good accessibility for setup

Quick, easy and safe setup



Parts Removal with System

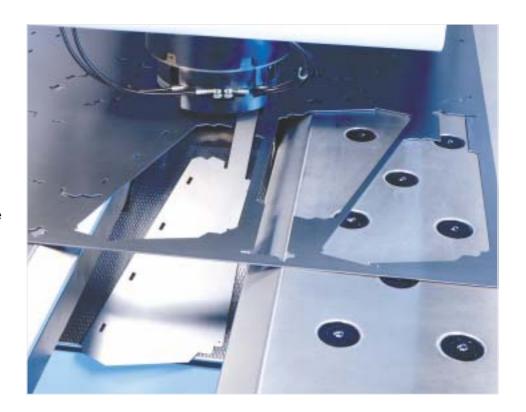
Variable removal

- Chute for parts up to 180 x 150 mm
- Can be upgraded up to 500 x 500 mm
- Directly into a parts container
- No operator intervention needed

High process reliability

- Vacuum assisted slug removal
- Removal possible with light barrier monitoring

Support table provides good workpiece support and operating safety



Application-Oriented Tool Ideas

TRUMPF Multitool

- Punching tool with 2, 4 or 6 stations, or 12-station embossing tool
- Increased tool storage capacity
- Faster tool change
- Fewer tool sets
- Short setup time

TRUMPF MultiCut tools

Large circular cutouts can be produced with just a few strokes

TRUMPF Slitting tools

- Fast processing of straight contours

3D Punching with Forming tools

- Programmable depth feed
- Numerous problem solutions (louvers, extrusions, beading etc.)



Operation Comfort

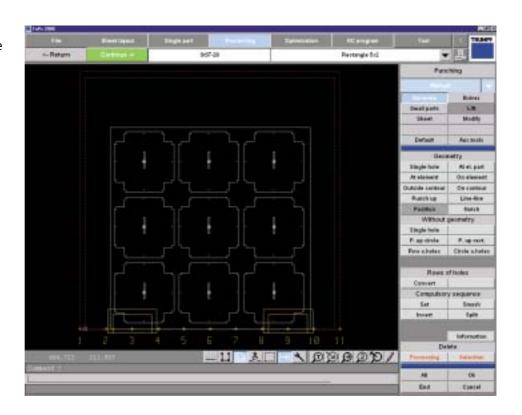
TRUMPF CNC Control CC 220S

- Large memory for part programs
- Powerful standard memory
- Low block cycle times for fast block processing
- Teleservice, especially with detailed diagnostic possibilities for the hydraulic system
- User-friendly PC operator panel
- Setup-friendly location of color panel close to linear magazine
- Air-conditioned switch cabinet



Technology-oriented programming system ToPs 2000

- Easy programming close to the machine in the workshop or externally in the office
- Interactive creation of programs while production is running
- Creation of drawings with easy-to-use geometry editor
- Flexible parts programming
- Semi-automatic processing functions
- Runs on PC
- Optional ToPs CAD converter enables import and use of CAD data



TRUMPF is certified in accordance with DIN EN ISO 9001 and VDA 6.4.

Working area X x Y 2070 x 1280 mm

Capacities

Max. sheet thickness6.4 mmMax. punching force165 kNMax. punching diameter76.2 mmMax. workpiece weight150 kg

Speeds

X axis
Y axis
Simultaneous (X and Y)
C axis
Max. stroke rate punching (E = 1)
Max. stroke rate marking
So m/min
97 m/min
97 m/min
97 m/min
97 m/min
1300 1/min
1300 1/min

Tools

Linear magazine 15 tools with 2 clamps

No. when Multitool is used 15 – 90 tools

Multitool 4/6

Tool change time 1.5 - 6.5 s

Accuracy¹

Positioning accuracy Pa $\pm 0.1 \text{ mm}$ Repeatability Ps $\pm 0.03 \text{ mm}$

Control Basis Bosch CC 220S

Color monitor 10.4"

Part chute

Max. part size 180 x 150 mm

Space requirements²

including safety light barriers 6000 x 5600 mm

Connected loads

Electrical 14 kVA Pneumatic 8 Nm³/h – 6 bar



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¹ The attainable accuracy in the workpiece depends, amongst other things, on the type of workpiece, its pre-treatment, sheet size and its position in the work area. In accordance with VDI/DGQ 3441, measured over a length of 1 meter.

² See installation plan for exact dimensions.