

Production Type	Stamping Technology	CNC Stamping (Nibbling) & Reshaping	Lasering, CNC stamping (Nibbling) & Reshaping	Cutting to Length	Plate Shears	Special system for punching circular and rounded shapes	Flatbed Grinding
General Description / Machine	Precision punched parts, various blanking press models	CNC stamping, reshaping max. 35 mm (Trumpf TC2000R)	CNC punching and lasering, reshaping max. 25 mm (TruMatic6000)	Shear cutting method, modelled centre cuts possible	Shear cutting method, straight cuts	Punching without tool costs, defined circular blank and ring shapes	Flat grinding
Materials	Steels, Non-ferrous metals, Compound materials, Laminated sheet metals	Steels, Non-ferrous metals, Compound materials, Laminated sheet metals	Steels, Non-ferrous metals, Compound materials, Laminated sheet metals	Steels, Non-ferrous metals, Compound materials, Laminated sheet metals	Steels, Non-ferrous metals, Compound materials, Laminated sheet metals	Steels, Non-ferrous metals, Compound materials, Laminated sheet metals	Various steels
Material Thicknesses	<= 0.025 mm to ~ 4.0 mm (depending on shape and machine)	- Punching work: <i>Laminated sheet metals:</i> Aluminium alloys: 0.4 mm to 3.2 mm Non-rusting steel: 0.25 mm to 1.6 mm Carbon steel: 0.25 mm to 3.2 mm Brass: 0.25 mm to 3.2 mm <i>Solid materials:</i> 0.025 mm to 4.0 mm	- Lasering: Aluminium alloys: 1.0 mm to 3.0 mm Non-rusting steel: 0.3 mm to 4.0 mm Mild steel: 0.2 mm to 4.0 mm Punching work: see TrumpfTC2000R	0.025 mm to 0.4 mm	Metals, general: max. ~ 3.0 mm Non-rusting steel: up to 2.0 mm	<i>Laminated sheet metals:</i> <i>Aluminium alloys:</i> 0.4 mm to 3.2 mm <i>Non-rusting steel:</i> 0.25 mm to 1.6 mm <i>Mild steel:</i> 0.25 mm to 3.2 mm <i>Brass:</i> 0.25 mm to 3.2 mm <i>Solid materials:</i> 0.025 mm to ~ 3.5 mm	Heights up to 500 mm
Initial Formats	Tape material up to 310 mm wide, Bar material up to 295mm	1250 mm x 1250 mm	1250 mm x 1250 mm (max. 1250 mm x 2500 mm)	Coilware and blanks with max. width 400 mm	Sheeting with widths up to 2000 mm	Tape material and circular blanks up to 220 mm	Area 500 mm x 500 mm
Parts Sizes	Widths max. 295 mm Lengths max. 500 mm (Depending on the process demands of the product)	Max. 1250 mm x 1250 mm	1250 mm x 1250 mm (max. 1250 mm x 2500 mm)	Width max. 400 mm Lengths: freely selectable	Widths up to 2000 mm Length approx. 1250 mm	Diameter 4.5 mm to 214.5 mm	Length x Width x Height: 500 mm x 500 mm x 500 mm
Tolerances	Depending on shape of parts: <= 0.05 mm	Depending on material and parts sizes between 0.2 mm and 0.5 mm	Lasering: ~ 0.2 mm Nibbling: Depending on material and parts sizes between 0.1 mm and 0.5 mm	Depending on feed length: ~ 0.5 mm	0.2 mm	<= 0.03 mm	0.005 mm
Minimum Web Width	See VDI 3368	Laminated sheet metals: min. 2 x material thickness Solid materials: depending on shape of parts	Laminated sheet metals: min. 2 x material thickness Solid materials: depending on shape of parts	> 10 mm	> 20 mm	5 mm	
Economical Quantities	From 1,500 pieces	Single piece to medium series	Single piece to medium series	Single piece to medium series	Single piece to medium series	30 pieces to medium series	Single piece to medium series

Production Type	Gluing	Laminating	Sheet Metal Forming (Drawing and Punching)	Turning & Drilling	Cutting & Drilling	Arc Welding WIG, MIG & MAG; Plasma Welding	Resistance Butt Welding (Projection Welding)
General Description / Machine	Insoluble and soluble compounds in the form of full-surface and lateral adhesive connections of two or more components	Manufacture of products for wear protection, sealing, assembly or decoration purposes	Reshaping and punching of precision tapes with subsequent processing, reshaping machines and individual presses	Monforts (CNC), Weiler (manual)	DMU (CNC), Chiron (CNC), FP 3 (manual), Special machines for series production	Manual and semi-automated processes	Automated and semi-automated processes
Materials	Steels, Non-ferrous metals, Compounds, Laminated sheet metals	Steels, Non-ferrous metals, Compounds, Laminated sheet metals, Technical foils, Adhesive tapes	Steels, Non-ferrous metals	Aluminium alloys, High alloy steel, General construction steel, Compound materials	Aluminium alloys, High alloy steel, General construction steel, Compound materials	High alloy steel, General construction steel	High alloy steel, General construction steel
Material Thicknesses	0.025 mm to several millimetres	Metal thickness: min. 0.02 mm Adhesive film: from 0.04 mm	~ 0.5 mm to 4.0 mm Depends on product shape			Min. 0.5 mm	0.5 mm to 4 mm
Initial Formats	Max. 1000 mm x 500 mm	Initial formats, see above	Coil material and circular blanks up to max. 310 mm wide	Depends on product shape	Depends on product shape	Depends on product shape	Depends on product shape
Parts Sizes	Customer-specific	Initial formats, see above	Standard modules for 170 mm metal blanks. Considerably larger boards possible if single and follow-on composite tools are involved. Table length max. 2200 mm	Diameter 200 mm x 500 mm	400 mm x 350 mm	Customer-specific	Customer-specific
Tolerances		Process-specific	Depends on product shape	0.02 mm	0.02 mm		
Minimum Web Width			See VDI 3368				
Economical Quantities	Single piece to medium series	Small to large series	1,000 to over 1 million pieces	Small series	Small to medium series 1,000 to 500,000 pieces	Single piece to small series	Small to medium series 1,000 to 500,000 pieces