

Metals Experience

Punching and
metalforming presses



Andritz Kaiser Servo Presses
2,500 – 8,000 kN



focus on performance



Looking to the future with experience and innovation

Experience

Andritz Kaiser is a byword for highest quality in punching and metal forming technology. Decades of experience and the technical finish of the punching and metal-forming equipment ensure exceptional precision levels, high productivity and reliability.

In addition to standard machines, Andritz Kaiser supplies custom-tailored solutions for all applications, from the press properly speaking to complete manufacturing lines with strip system and automation. The modular design offers universal application potentials but based on a high degree of standardisation of the main components. The engineering team is in charge of developing, designing and planning the equipment according to individual requirements.

High-quality punched and formed products are produced with currently far beyond 2,500 punching and metal-forming machines all over the world.



KSTU 3150-25-F3 SE

Focus on the facts

- Punching and metal forming equipment in a combination of cast iron and welded steel structure, split design (Monobloc design is optional)
- Powerful torque servomotors with electronic controls
- Energy storage and energy management system
- Flexible slide stroke in conjunction with mechanical stroke adjustment (patented system)
- Full pressing force starting from 1 stroke per minute
- 6-point programming of the movement curves
- Energetically optimized operation
- Tryout function with handwheel actuation
- Productivity increase and tool life data

Innovation

The development of the powerful torque servomotor with high driving torques and the control of these motors have revolutionized drive technology for punching and metal forming equipment.

Andritz Kaiser has used unconventional approaches in designing the servo press. The optimum punching and metal forming machine is based on a useful combination of proven design principles and drive technologies with the freedom degree of the torque servodrive.

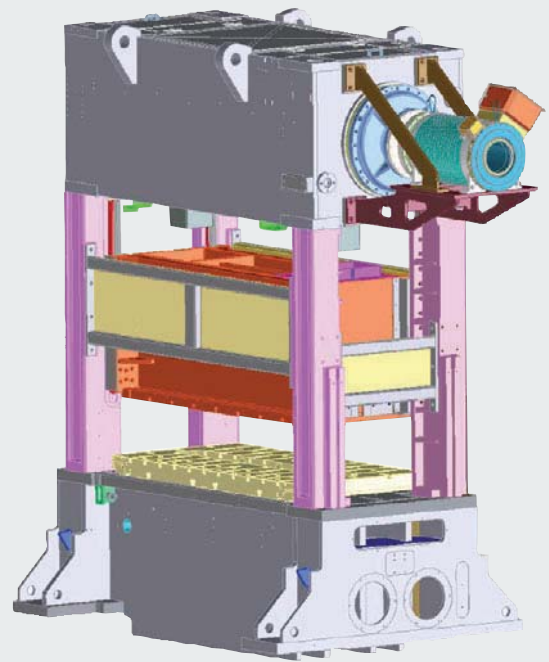
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Stable basic structure

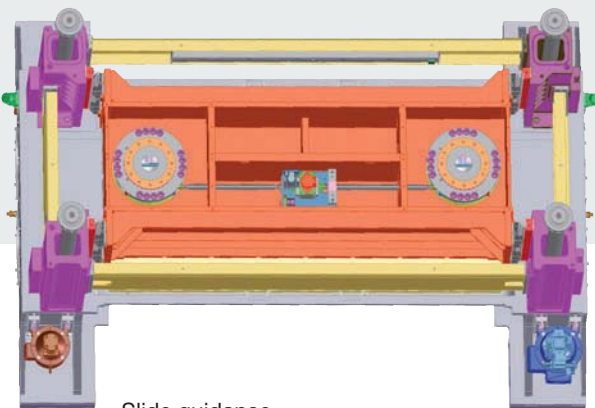
Structure and guidance

Punching and metal forming machines from Andritz Kaiser come in a combined cast iron / welded steel structure in a split design. The stable basic structure is characterized by considerably reduced elasticity values in comparison to the standard. The combination of various materials and their arrangement result in highest rigidity and optimum shock absorption behaviour. The eccentric shaft runs in four bearing assemblies. All bearing points are greased from a closed pressurized oil circulating system.

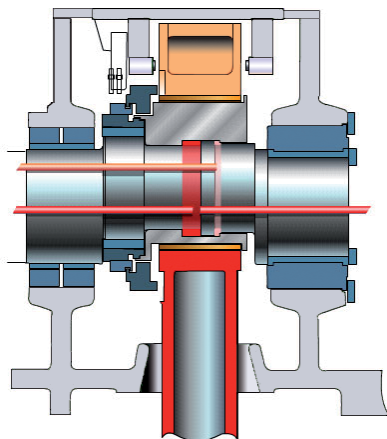
The slide guidance is based on the proven, clearance-free linear guiding system. Together with the rigid drive configurations, these guides ensure highest precision and tilting resistance during the slide movement.



Main machine body



Slide guidance



Stroke adjustment

Automatic stroke adjustment

All punching and metal forming operations require specific settings of the machine. Andritz Kaiser has integrated the proven mechanical stroke adjustment also in the drive section of the servo press.

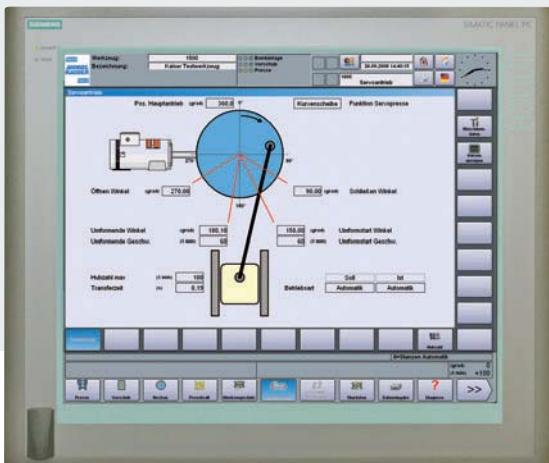
Advantages

- Increase of the pressing force at short strokes
- Increase of the number of strokes by a 360° movement
- Energetically optimized movement of the slide
- Simple actuation of the part transport and monitoring system

User-friendly

Flexible slide movement

The movement characteristics of servodrives are freely programmable, therefore the slide movement can be adapted to any metal forming challenge. The machine controls that Andritz Kaiser has newly developed enable the operator to generate a dedicated slide movement curve for the application in question on the basis of just 6 parameters. The software will calculate the slide movement within a few seconds, taking the mechanical and energetic values into account.



Visualisation via a 19" touch-screen

Tryout

The functionality and flexibility of a punching and metal forming machine with servodrive are ideally suited for running in new tools under production conditions. The slide position and speed of the servo press can be adjusted with a handwheel simply and sensitively for the tool being used and the specific metal forming task. The slide can stop in any position and reverse from there.

Efficient energy management

Energy management

For the operation of the servo press, Andritz Kaiser uses an electric energy buffer based on condensers. At increased productivity, the energy amount that the machine draws from the mains is comparable to that of conventional punching and metal forming machines.



Electric energy buffer



Handwheel

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Respond to any challenge

Drive

Andritz Kaiser servo presses are driven with one or several torque servomotors. The required driving torque and the related slide stroke determine the number of motors needed.

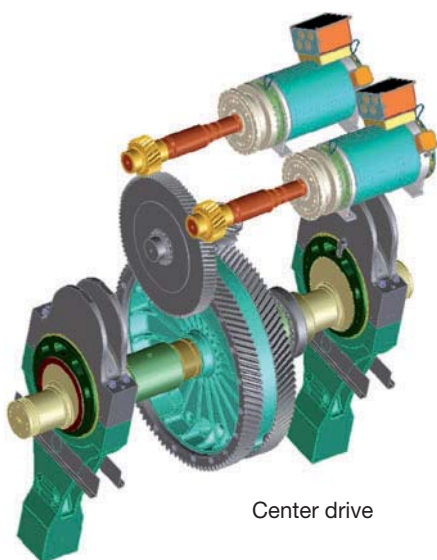
The motors are mounted either lateral with a planetary gear or centrally with a wheel gear.



Lateral drive



Servomotor



Center drive

Entwicklungskooperation
„Energiemanagement
für Servopressen“



Fraunhofer
Gesellschaft

SIEMENS

**ANDRITZ
KAISER**

gefördert durch das **BMWi**

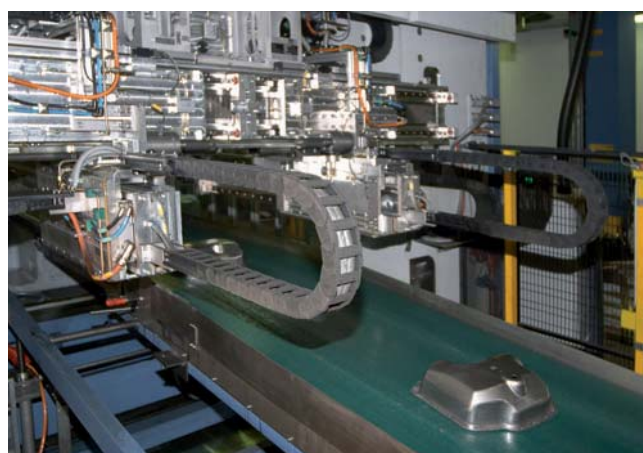
An extensive choice

Punching and metal forming equipment with servodrive (2-point link). Technical data

Designation	KSTU 2500-...-F3 SE	KSTU 3150-...-F3 SE	KSTU 4000-...-F4 SE	KSTU 5000-...-F4 SE	KSTU 6300-...-F5 SE	KSTU 8000-...-F5 SE
Press force (kN)	2.500	3.150	4.000	5.000	6.300	8.000
Table lengths (mm)	2.000 2.500 3.000	2.000 2.500 3.000	2.500 3.000 3.500	2.500 3.000 3.500	- 3.500 4.000	- 3.500 4.000
Main machine body	Split design (Monobloc optional)	Split design (Monobloc optional)	Split design (Monobloc optional)	Split design (Monobloc optional)	Split design	Split design
Drive	1 Torque motor	1 Torque motor	2 Torque motors	2 Torque motors	2 Torque motors	2 Torque motors
Average stroke number (strokes/min) (reduced deformation speed)	100	100	70	70	45	45
Max. stroke number (strokes/min) (based on sinus curve)	150	150	100	100	60	60
Tool installation height	600	600	700	700	800	800
Slide adjustment (mm)	150	150	200	200	250	250
Slide stroke (mm)	200	200	300	300	400	400
With additional mechanical stroke adjustment	50-200	50-200	100-300	100-300	100-400	100-400
Overall machine height	4.680	4.680	7.100	7.100	9.500	9.500

Further accessories

- Andritz Kaiser KETS 2D and 3D-CNC-transfer systems
- Andritz Kaiser KVV roll feeding systems
- Tool changing systems:
 - Roll blocks and tool clamping elements
 - Tool changing bracket
 - Retractable bolster plates
 - Push and pull systems
 - Tool changing shuttles
(with tandem or single carts)
 - Moving bolsters
(front to back, T-Track, ...)
- Strip lubrication systems
- Coil feeding and straightening lines
- Stacking systems, line controls
- Tools



Transfer system