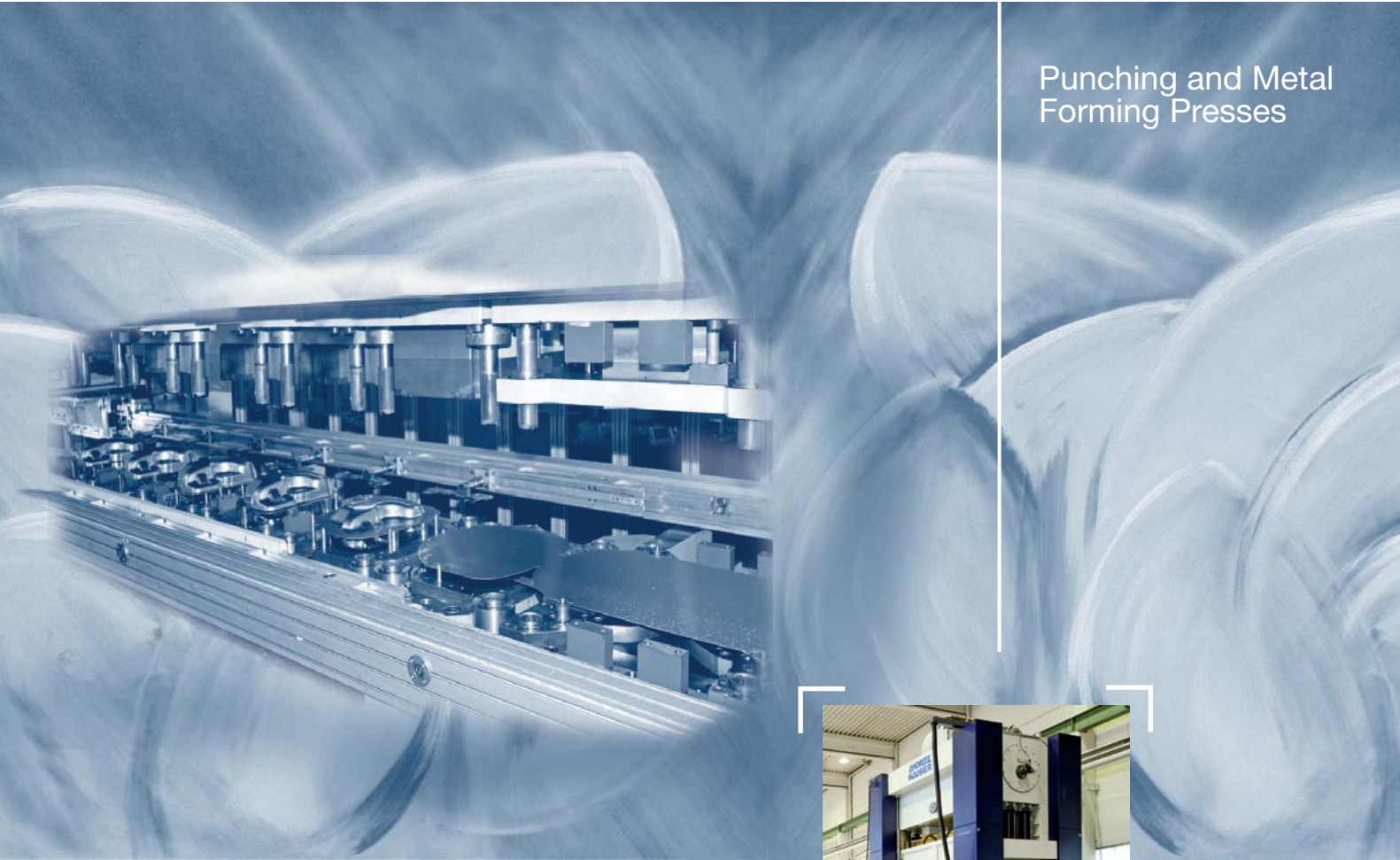


# Metals Experience

Punching and Metal  
Forming Presses



Andritz Kaiser series 151  
1600 – 10,000 kN



focus on performance

**ANDRITZ  
KAISER**

# Looking to the future with experience and innovation

## Experience and innovation

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 RK

## 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)
- Linear guiding with pre-stressed clearance-free roll guidance systems
- Eccentric shaft with 4 bearing assemblies (roller or plain bearings)
- Patented, automatic stroke adjustment
- Drive gear with oil-tight gear casing, pressure oil lubrication
- 5 different drive options  
D = direct drive, P = planetary gear box,  
R = wheel gear, RK = draw crank mechanism,  
SE = servo drive
- Lubrication oil, hydraulic and compressed air systems are integrated in the press uprights



# Andritz Kaiser Punching and Metal Forming Presses

## Solid basic structure

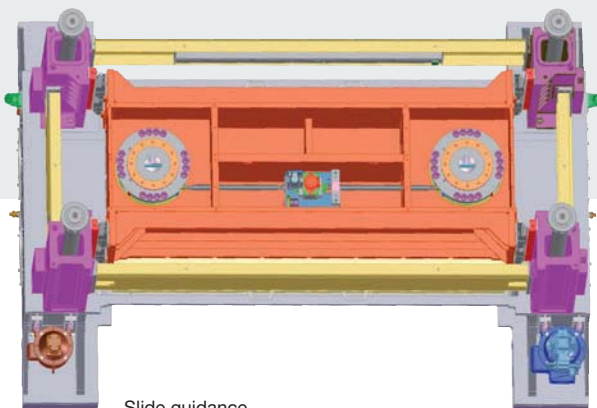
### Structure

Punching and metal forming machines from Andritz Kaiser are built in combined cast iron / steel welded construction, in split design. The solid basic structure is characterized by considerably reduced elasticity values in comparison to the standard value. The combination of various materials and their arrangement result in highest rigidity and optimum shock absorption behaviour. Monobloc design in steel welded construction is optionally available.

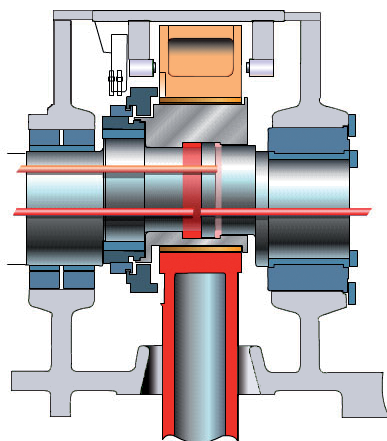
The eccentric shaft runs in four bearing assemblies. All bearing points are lubricated from the central pressure oil circular lubrication system.



Machine frame



Slide guidance



Automatic stroke adjustment

### Slide guidance

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.

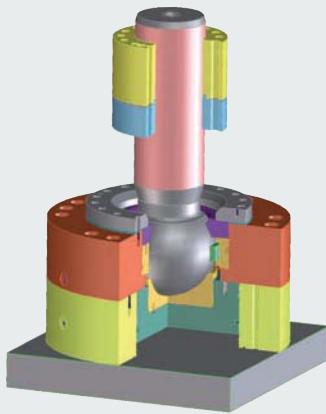
### Automatic stroke adjustment

The hydraulically operated stroke adjustment uses a denture clutch, with teeth distributed round the entire circumference (360°). Counter-balancing of the rotating mass forces (optionally also oscillating mass forces) is adjusted automatically to the stroke used, which ensures optimum smooth running of the machine.

# Safety first

## Overload protection

The combined electronic-hydraulic overload and release device affords optimum protection both for the press and the tools. The device combines the advantages of electronic press force measuring and readout device with the hydraulic overload protection unit. The cut-off force can be pre-selected for each side using the electronic system.



Overload protection

# User friendly

## Controls

Andritz Kaiser press controls are based on Siemens SIMATIC S7 and designed for the requirements of every-day operation. They have been tried and tested in long-term operation. The clearly displayed operating and setting data, error messages and user interface on the colour monitor comply with the latest technology. Many options like cam shaft control, tool data memory are basically integrated in the control software.

Available upgrades for the controls are:

- Long distance machine remote diagnosis (Teleservice)
- Data communication with peripheral systems
- Tool protection device
- Press force control with graphical envelope detection



PC 677 touch with 19" TFT colour display (option)



Installation profile

## Supply systems integrated in the installation profile

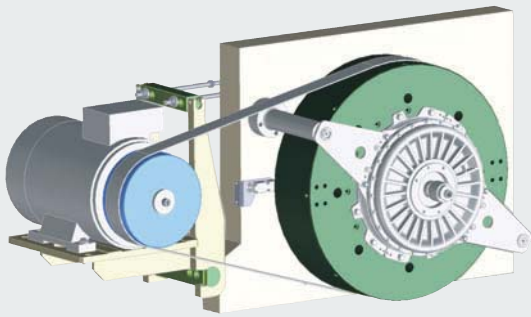
The supply systems for lubrication oil, hydraulic and compressed air systems are integrated in the installation profile left and right of the press uprights. This solution saves space round the press line and the maintenance can be done very easily.

# Andritz Kaiser Punching and Metal Forming Presses

## Respond to any challenge

### Direct drive

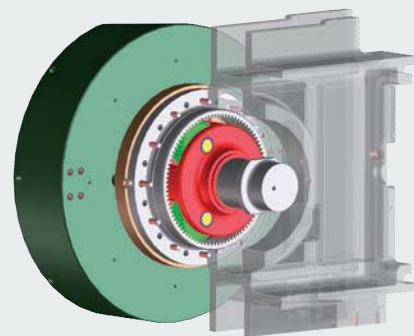
The drive system is based on a frequency-controlled asynchronous motor with heavy-duty drive belts to transfer the power to the flywheel. Flywheel, clutch and brake system form a compact unit.



Direct drive

### Planetary gear drive

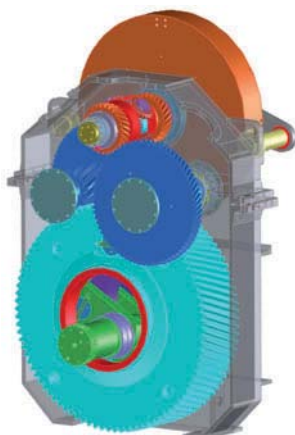
For high work capacity and reduced number of strokes, Andritz Kaiser punching and metal forming presses in the "P" series are equipped with a planetary gear. The flywheel, clutch, brake and gearing form a compact drive unit with axial coupling to the eccentric shaft. The "PS" series combines the high working capacity with an increased number of strokes.



Planetary gear drive

### Draw crank mechanism

The draw crank mechanism opens a further "chapter" of punching and metal forming technologies. The drive may be with fixed stroke or automatic stroke adjustment. The special arrangement and design of the drive reduce the slide's impact speed, including the upper tool, and open new perspectives for the punching and metal forming process. More than 150 presses with this draw crank drive are delivered to customers.

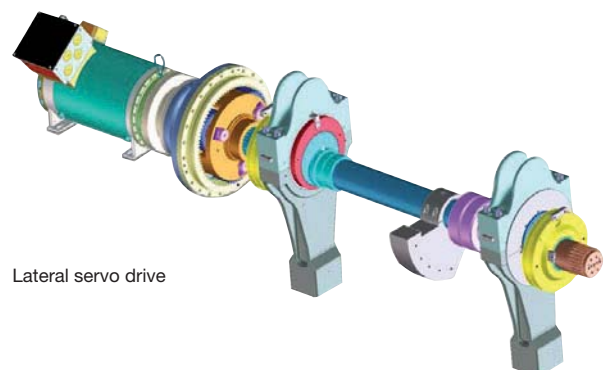


Schleppkurbel-antrieb

### Servo 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. With the servo drive technology the slide speed are exact adjustable to the production requirements. The innovative combination of the servo drive technology with the automatic stroke adjustment enables a 360° rotation of the eccentric shaft at any stroke height. The performance of the press will be increased in two aspects:

- more than 60% in comparison to standard mechanical presses
- more than 25% in comparison to presses with *orbital stroke*



Lateral servo drive

# An extensive choice from 630 kN up to 25,000 kN

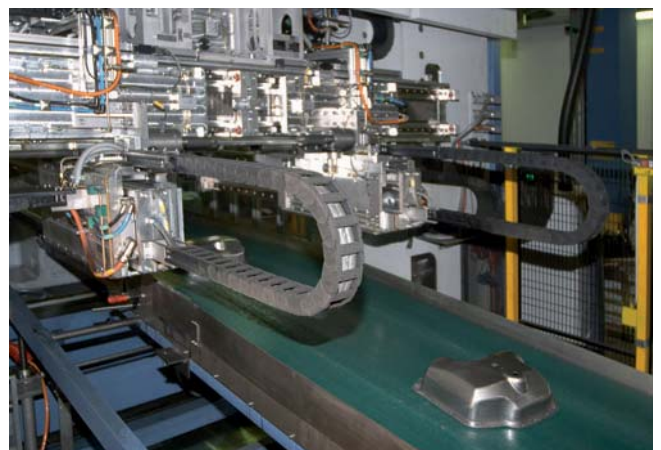
## Punching and metal forming presses – series 151 (2-point link)

Designation	F2 ...	F3 ...	F4 ...	F5 ...
Press force (kN)	1.600 - 2.000	2.500 - 4.000	4.000 - 5.000	6.300 - 10.000
Length of press table (mm)	1.250 1.500 1.750 2.000	2.000 2.500 3.000	2.500 3.000 3.500	3.000 3.500 4.000
Machine frame	Monobloc	Split design (Monobloc optional)	Split design (Monobloc optional)	Split design
Drive system*	D / P / RK / SE	P / R / RK / SE	P / R / RK / SE	R / RK / SE
Minimum speed (spm) (depending on drive version)	30	15	15	10
Maximum speed (spm) (depending on drive version)	400	150	100	60
Shut height	500	600	700	800
Slide adjustment (mm)	125	150	200	250
Slide stroke (mm)	20 - 160	40 - 200	100 - 300	100 - 400
Total machine height (mm)	4.010	5.800	7.100	8.800

\* D = direct drive, P = planetary gear box, R = wheel gear, RK = draw crank mechanism, SE = servo drive  
For more information on presses with 630 up to 25,000 kN see series 150.

### Further accessories

- Andritz Kaiser KETS 2D and 3D-CNC-transfer systems
- Andritz Kaiser KVV roll feeding systems
- Tool changing systems:
  - Rollblocks 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