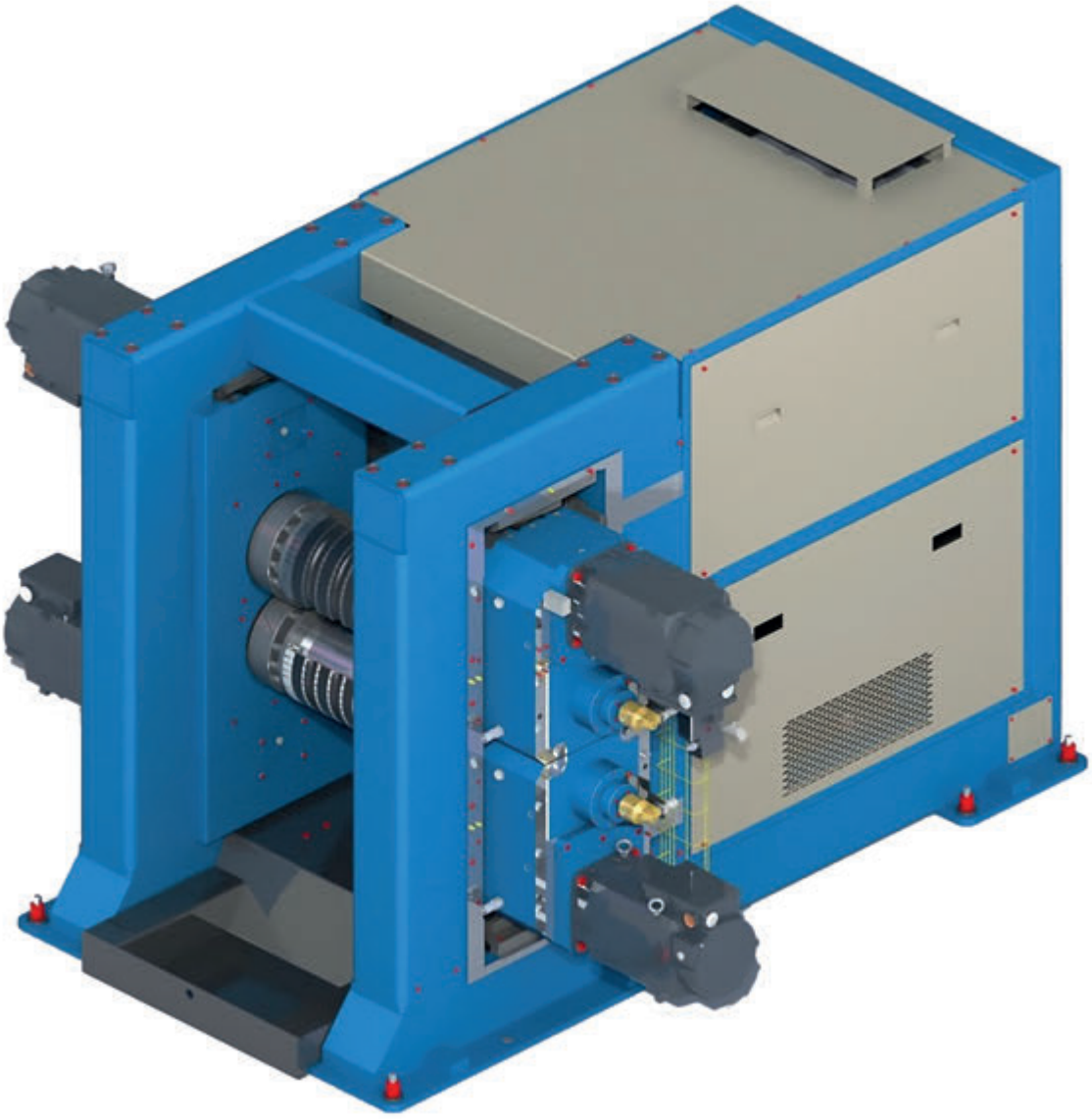
ECAI

K Automatic Forging Roll

Kappa



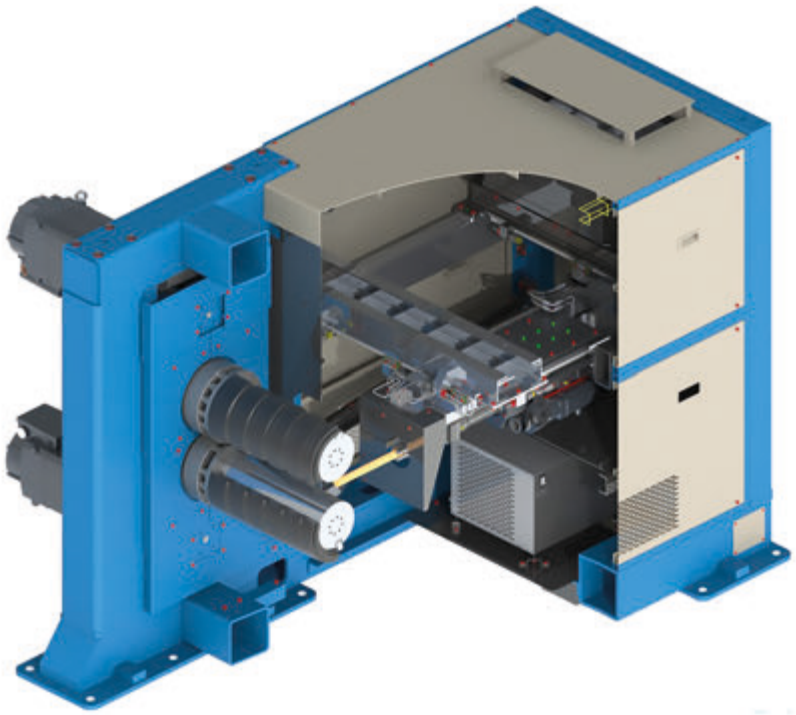
The Electromechanical Motion Force

Story:

Historically on forging rolls the transfer of the pieces between the various forging steps was carried out manually by an operator, then on automatic forging rolls, the transfer began to be carried out using manipulators and robots.

In 2020, ECAI completely redesigned this type of automatic forging roll , integrating a 2-axis magnetic field manipulator.

ECAI is constantly upgrading its design to always guarantee an innovative product.

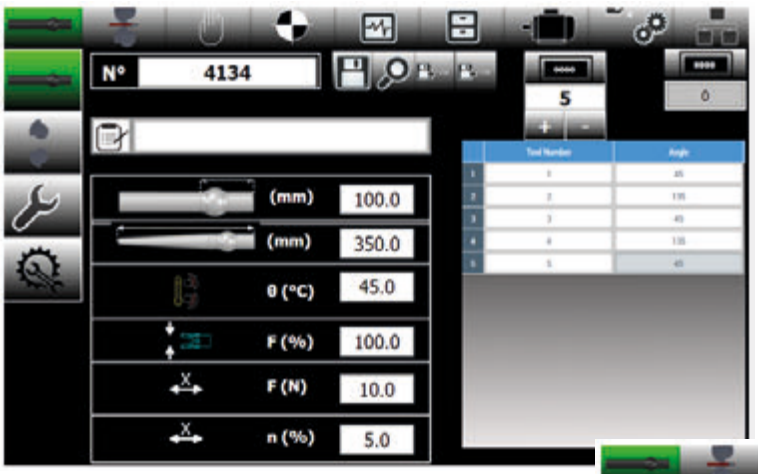


Description :

The principle of the automatic forging roll is to roll a round or square section of steel, alloy, aluminium, titanium, etc. in order to move the material along the longitudinal axis to obtain a preformed billet, which is a source of savings during press forging.

This rolling action is carried out by moving the piece successively, back and forth, between the rolling segments mounted on two motorised rollers. During these successive passes, the billet is positioned and synchronised in relation to the rollers by means of a manipulator.

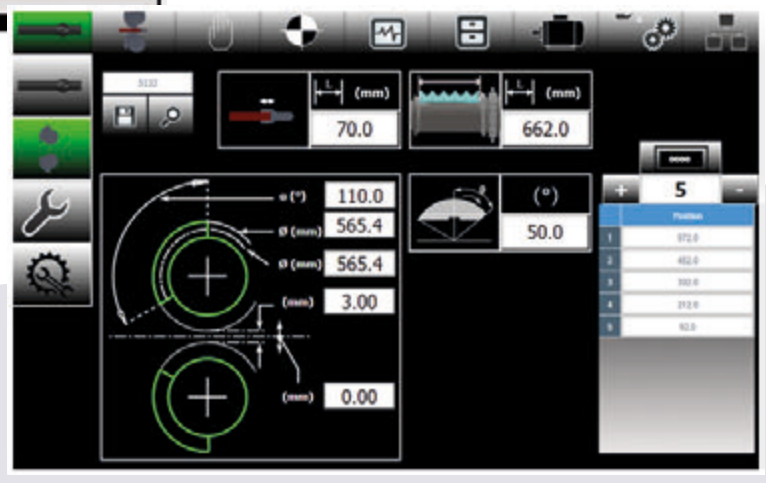
The undeniable advantage of ECAI forging rolls is that they have a manipulator with 2 magnetic field axes. The magnetic fields are used to position and synchronise the speed of the manipulator without any mechanical linkage which avoids time-consuming adjustment operations. Furthermore, the gripper is rotated by a servomotor, enabling it to be positioned angularly over 360°.

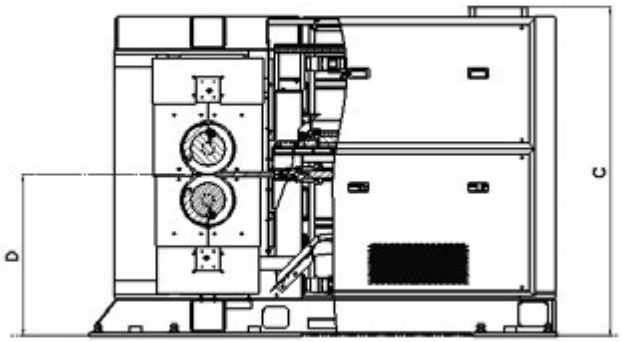


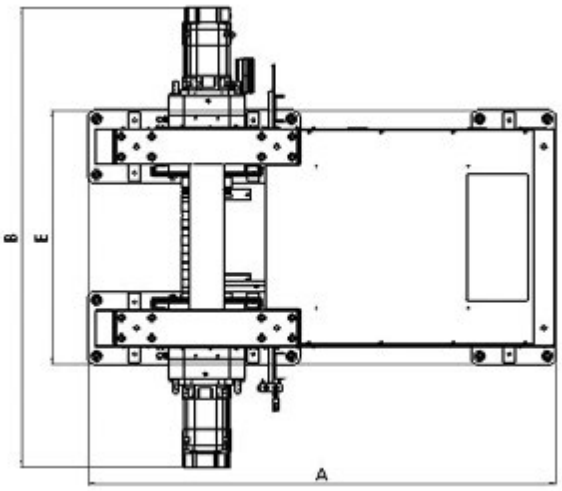
Control System:

Thanks to its intuitive control system, adjustments to the forging roll and the manipulator can be made from the control desk. The system records all the data needed for a better control of the rolling process: speeds, torques, forces, etc.

This allows a rapid change of production, thanks to the rolling recipes stored in the control system..







Kappa	40	55	75	100	125	150
Maximal speed of rollers (rpm)	70	70	65	55	40	30
Diameter of rolling segments (mm)	300	370	460	560	680	930
Usable width of the rolling segments (mm)	400	500	570	700	850	1000
Maximal rolling length (mm)	420	520	650	790	960	1310
Maximal material thickness (□ / ○) (mm)	40	55	75	100	125	150
Roll adjustment (mm)	12	15	17	20	25	25
Weight (t)	11	15	20	30	50	100
Power consumption in operating mode S1 (KVA)	10	15	25	35	60	95
Max. consumption in operating mode S9 (KVA)	145	205	330	470	860	1370
Machine length A (mm)	3 900	4450	5300	5 750	7100	8700
Machine overall width B (mm)	2 650	3090	3580	4 300	5080	6010
Machine height C (mm)	2000	2450	2850	3 100	3550	4300
Pass line height D (mm)	980	1200	1350	1 450	1650	2000
Machine structure width E (mm)	1 500	1650	1900	2 150	2450	2800

Key Benefits:

- **Low maintenance**
- **Intuitive operation**
- **High production capacity**
- **Rapid production changeover**

Our machines are built to high quality standards using components manufactured exclusively in Europe.

All our machines benefit from a remote connection to ensure rapid assistance to our customers.

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