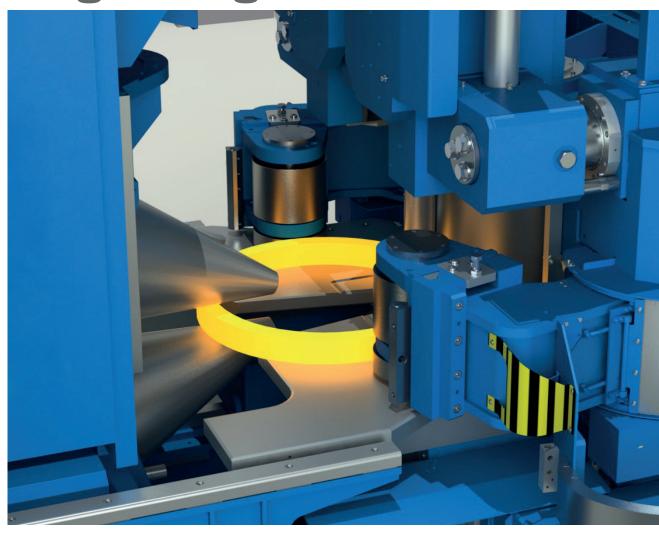




Sigma

Ring Rolling Mills



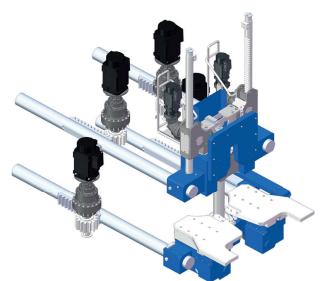
The Electromechanical Motion Force



Story:

Drawing on its experience, in 2005 ECAI® developed a new conceptin radial-axial ring rolling mills by replacing hydraulic cylinders with rack-and-pinion assemblies driven by servo motors. This innovative approach, now widely proven by a substantial number of machines in operation, has been a landmark development in the ring rolling field.

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



Description:

Our range of machines is suitable for the production of rings, discs and profiles. The radial and axial stands and the centring arms are moved by electromechanical drives, unlike traditional rolling mills that use hydraulic cylinders. This technology offers several advantages, including

- Quick installation in your workshop. All the rolling mills are assembled and tested in ECAI's workshop before delivery, so they can be up and running very quickly.
- Energy consumption is reduced by over 35% compared with a traditional hydraulic rolling mill.
- Reduced civil engineering costs compared with a traditional rolling mill.
- Elimination of all maintenance and environmental problems associated with hydraulics.
- Possibility ofhaving a temporary overload of 140%.

Control System:

Our RingLab® control system is highly intuitive, using graphic symbols instead of text.

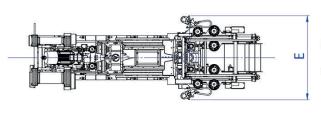
In most cases, only the dimensions of the blank and the final part need to be entered by the operator, with the system automatically calculating all the relevant parameters.

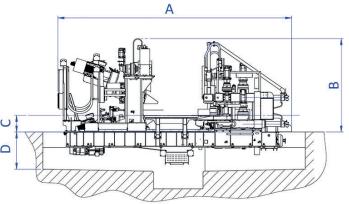
RingLab® is totally open to the outside world via files in CSV (Excel) format or its open SQL database, which can have exchanges with a higher level.

Thanks to RingLab® Supervisor, itis possible to track the recording of all rolling data (over 400 parameters). This can be done directly on the machine or on a computer connected to the machine.









Sigma	40-32	63-50	80/63	125/100	160/125
Ring Ø (mm)	160 / 1.500	180 / 2.000	200 / 2.500	300 /3.000	360 / 3.800
Ring Height (mm)	20 / 220	25 / 320	30 / 400	35 / 500	35 / 600
Radial Force (nom./maxi)(t)	40 / 56	63 / 88	80 / 112	125 / 175	160 / 224
Axial Force (nom./maxi)(t)	32 / 45	50 / 70	63 / 88	100 / 140	125 / 175
A (mm)	8000	9100	10500	11700	12900
B (mm)	3300	4100	4650	4900	5400
C (mm)	600	700	800	800	800
D (mm)	1500	1500	1600	1700	1800
E (mm)	3200	3400	3900	4100	4500
Sigma	200/160	250/200	320/250	400/320	500/400
Sigma Ring Ø (mm)		250/200 400 / 5.200	320/250 450 / 6.000	400/320 500 / 7.000	500/400 500 / 8.000
	380 / 4.600				
Ring Ø (mm)	380 / 4.600 40 / 700	400 / 5.200	450 / 6.000	500 / 7.000	500 / 8.000
Ring Ø (mm) Ring Height (mm)	380 / 4.600 40 / 700	400 / 5.200 45 / 800	450 / 6.000 50 / 1.000	500 / 7.000 50 / 1,250	500 / 8.000 50 / 1.500
Ring Ø (mm) Ring Height (mm) Radial Force (nom./maxi)(t)	380 / 4.600 40 / 700 200 / 280	400 / 5.200 45 / 800 250 / 350	450 / 6.000 50 / 1.000 320 / 450	500 / 7.000 50 / 1,250 400 / 560	500 / 8.000 50 / 1.500 500 / 700
Ring Ø (mm) Ring Height (mm) Radial Force (nom./maxi)(t) Axial Force (nom./maxi)(t)	380 / 4.600 40 / 700 200 / 280 160 / 224	400 / 5.200 45 / 800 250 / 350 200 / 280	450 / 6.000 50 / 1.000 320 / 450 250 / 350	500 / 7.000 50 / 1,250 400 / 560 320 / 450	500 / 8.000 50 / 1.500 500 / 700 400 / 560
Ring Ø (mm) Ring Height (mm) Radial Force (nom./maxi)(t) Axial Force (nom./maxi)(t) A (mm)	380 / 4.600 40 / 700 200 / 280 160 / 224 13500	400 / 5.200 45 / 800 250 / 350 200 / 280 15700	450 / 6.000 50 / 1.000 320 / 450 250 / 350 17200	500 / 7.000 50 / 1,250 400 / 560 320 / 450 19500	500 / 8.000 50 / 1.500 500 / 700 400 / 560 21500
Ring Ø (mm) Ring Height (mm) Radial Force (nom./maxi)(t) Axial Force (nom./maxi)(t) A (mm) B (mm)	380 / 4.600 40 / 700 200 / 280 160 / 224 13500 5850	400 / 5.200 45 / 800 250 / 350 200 / 280 15700 6350	450 / 6.000 50 / 1.000 320 / 450 250 / 350 17200 6700	500 / 7.000 50 / 1,250 400 / 560 320 / 450 19500 7600	500 / 8.000 50 / 1.500 500 / 700 400 / 560 21500 8350

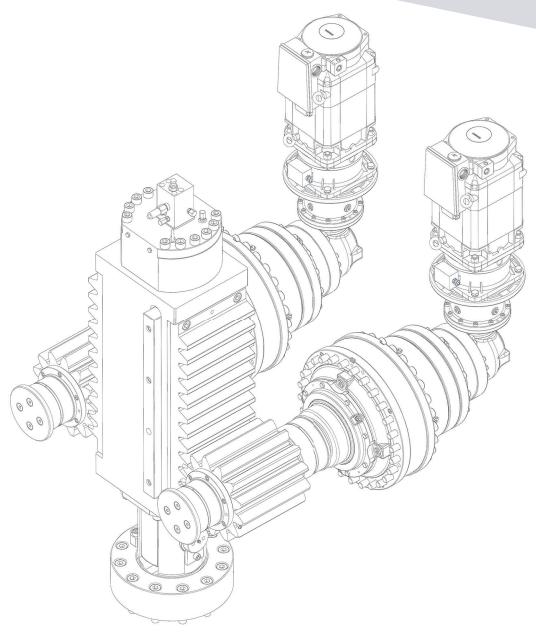
Key Benefits:

- Reduced civil engineering costs
- Energy efficiency
- Intuitive operation
- Easy maintenance

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.









800 Boulevard Jean Rostand 42 650 Saint Jean Bonnefonds France

Phone: +33 4 77 53 96 00

rolling@ecai.fr www.ecai.fr