CSM MACHINERY

OAKLEY
INDUSTRIAL MACHINERY

XLO Heavy-Duty Rolling Mill

Reduction of large-diameter elements while achieving high magnesium oxide compression rate.



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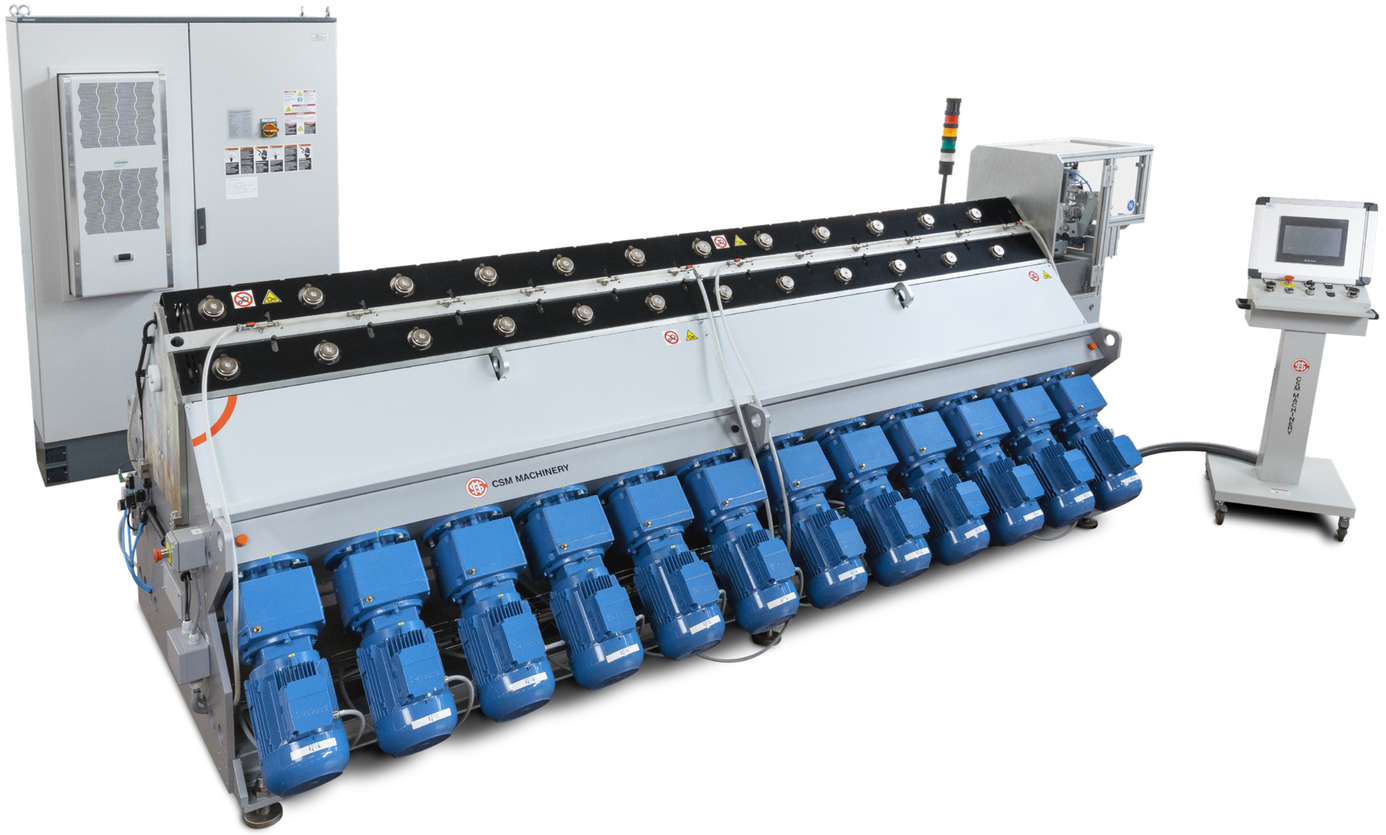
Machine composition

- Base frame with up to 24 gear motors (5kW each)
- Transmission shafts
- Bearing box assembly with rolls (steel roller)
- Integrated straightening device
- Control panel (HMI) with integrated software
- Lubrication system

The gearbox shafts are connected by transmission shafts.
The bearing box assembly is set for a specific diameter reduction and can be replaced in approximately 30 minutes to change to a new size.
The rolls are made of tool steel, all with the same diameter.
Their optimized profile prevents crease formation at the ends of the heating elements.
Guide bushings between each roll pair ensure correct element guidance throughout the rolling process.
After the final roll set, the tubes pass through a roll straightener (Turk's head) and are extracted by motor-driven rubber rolls positioned outside the mill.
The rolling mill is provided with advanced HMI software that enables real-time monitoring, control, and optimization, both locally and remotely.



Technical characteristics

Min. length of heating element	940 mm (37″)
Tolerance on the outer diameter after rolling	±0,07 mm (±0.003″)
Min. input element diameter	8 mm (.314″)
Max. input element diameter	31,75 mm (1.25″)
Rolling axis height from base	915 mm (36.02″)
Power supply	V 3F+PE, 480V ±10%, 50/60Hz
Dimensions • 24-stations version • 18-stations version • 12-stations version • 8-stations version	 4570 × 4480 × 2110 mm (180 × 176 × 83″) 4180 × 4480 × 2110 mm (165 × 176 × 83″) 3790 × 4480 × 2110 mm (149 × 176 × 83″) 3530 × 4480 × 2110 mm (139 × 176 × 83″)
Weight • 24-stations version • 18-stations version • 12-stations version • 8-stations version	 8950 kg (19731 lb) 6900 kg (15212 lb) 4675 kg (10307 lb) 3000 kg (6614 lb)
Installed power • 24-stations version • 18-stations version • 12-stations version • 8-stations version	 112 kVA 85 kVA 57 kVA 38 kVA
Rolling speed • 24-stations version	 9 ÷ 21 m/min (30 ÷ 70 ft/min)

AVAILABLE VERSIONS

MODEL	
146/24.000000	24-stations version
146/18.000000	18-stations version
146/12.000000	12-stations version
146/08.000000	8-stations version

Options

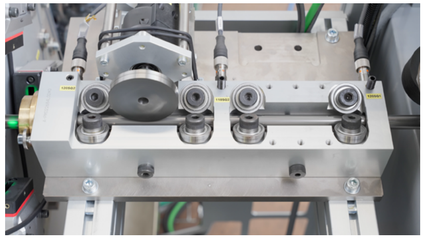
DIAMETER MEASURING UNIT

90° cross-laser system (X-configuration) provides high-precision measurement of diameter and ovality. Measurement data is acquired continuously and displayed in real time on the control panel, ensuring comprehensive quality monitoring.



LENGTH MEASURING UNIT

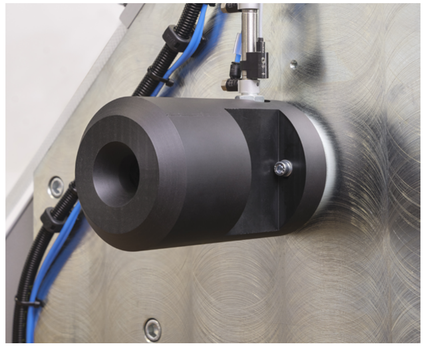
An encoder wheel measures the element length during processing. The system ensures accurate compliance verification with continuous real-time visualization.



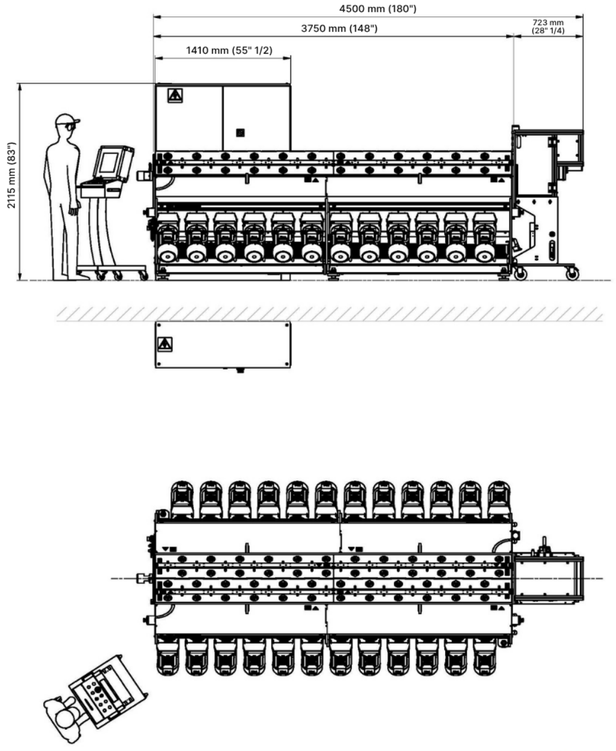
ANTI-COLLISION SYSTEM

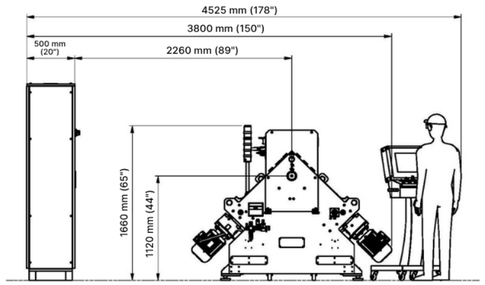
Designed to ensure controlled and sequential feeding. This system prevents product overlap during elongation.

- Elimination of collisions between elements
- Enhanced operator and machine safety
- Protection of critical machine components
- Reduction of downtime and material scrap



Layout


4500 mm (180")
3750 mm (148")
723 mm (28" 1/4)
1410 mm (55" 1/2)
2115 mm (83")


4525 mm (178")
3800 mm (150")
500 mm (20")
2260 mm (89")
1660 mm (65")
1120 mm (44")

