Four-sided chipping system with continuous log control
The ultra-compact four-sided chipping system cuts logs in one operation without having to turn the logs. The control determines the optimum cutting strategy for the cutting profile and system configuration; the shape of the wood, ovality and curvature are all taken into account. While being cut, the log is continually aligned and corrected in all dimensions in space.

Simple modernization
Just 8.7 m long, the machining center can be simply retrofitted into most systems. It is not necessary to expand the production area or move other machines – a straightforward and favorably priced way to boost the yield and production rate of a sawmill.

Highlights
- Four-sided complete machining in one operation
- Laser-optimized cant calculation
- Automatic suggestion for the cutting strategy:
  – Centered, straight cut
  – Diagonal alignment of the model
  – Curved sawing
- Continuous servo-hydraulic log control, where the log is prevented from turning
- Log diameters: 80 to 250 mm (small end)
- Min. log length: 250 cm
- Max. feed rate: 150 m/min
- Chipping: 4 x 160 kW
- Machine length: 8.7 m

The log is actively controlled and held – also between horizontal and vertical cuts. The compact design means that there is sufficient space to easily change tools.
Control and drive technology

- Engineering: TIA Portal
- Control: SIMATIC controller S7-1518F
- Chipping drives: 4 x 160 kW SINAMICS S120
- I/O system: ET200 SP

High computational performance – simple, maintainable system structure

Up to 150 drives (depending on the expansion stage) are involved in aligning and feeding the log. The machine is equipped with a very high performance and fail-safe controller to precisely control it – even at the full feed velocity. This also implements all of the safety functions. In conjunction with the very compact I/O system – achieving a lean system structure with a high degree of availability.