

Drive and Automation Solutions for Hot Strip Mills

Converteam is a world leading company in providing solutions for hot flat-product mill control, with around 300 successfully commissioned hot strip and plate mills.

Converteam has worked with all the major international mill-builders (in the UK, France, Germany, Italy, China, Japan and the USA), forming close technical partnerships, becoming familiar with the mechanical design adopted by each and how to control it to best effect. We have provided solutions which complement the very latest technology in mechanical and hydraulic engineering and instrumentation disciplines.



Typical scope of supply

- Power distribution system
- Drive systems
- Process control system
- Level 1 and level 2 automation systems
- Operator and maintenance aids
- Utilities (ventilation, CCTV, fire protection, lighting...)
- Erection, cabling and commissioning on site
- Training

Benefits for our customers

We improve the performance of our customers, with solutions based on high-performance power electronics and automation.

This improvement is assessed against important metrics, such as product quality, plant availability and process efficiency.

- Greater efficiency
- Higher availability
- Higher throughput
- Better quality
- Improved yield
- More market share

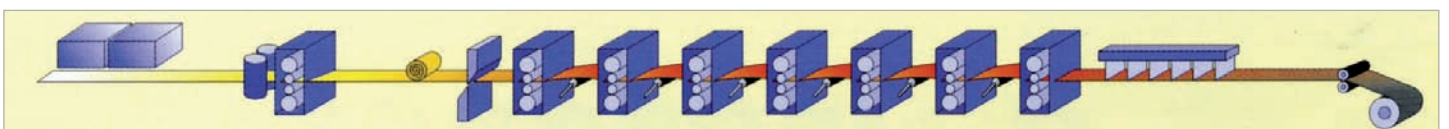
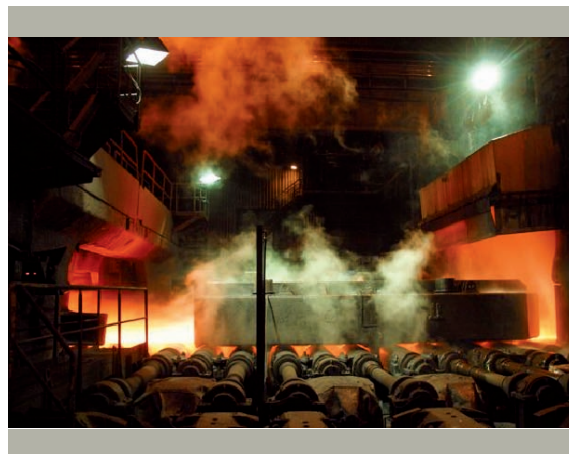
Applications

Our references include hot strip mills of all types:

- Semi-continuous strip mills
- Continuous strip mills
- Thin slab casting
- Steckel mills

Furthermore, we have handled projects involving all current mechanical technologies, such as:

- Coil boxes and "hot-connect" systems with furnaces hot-charged from continuous casters
- Thin slab casting
- Heavy-edger upgrades of roughing mills to roll a reduced range of incoming slab widths from continuous casters
- Hydraulic roll-shifting and roll-blending and many others
- Run-out table cooling control.



Drive and Automation Solutions for Hot Strip Mills

Complete drive solutions

Converteam's complete experience with drives and power technology leaves nothing to chance.

We are experts in all types of drive and actuator applications, with ready-made solutions for every area of the hot strip mill, from hot metal to finished coils.

Comprehensive monitoring and diagnostics built into our drives, together with our powerful HMI systems and networked databases, provide everything needed to integrate the plant drives into the control hierarchy and achieve perfect results.

Powerful models and control strategies

Converteam solutions are based on a practical blend of theory, simulation and experience, and are fully proven and tested with Converteam's own comprehensive off-line support environment:

- Process model library
- Optimizing calculations
- Process simulation models
- Real-time simulation

Furthermore, our solutions are based on key concepts: managed structure, re-usability, consistent model, modular economy, off-line support.

Converteam expertise:

Process management

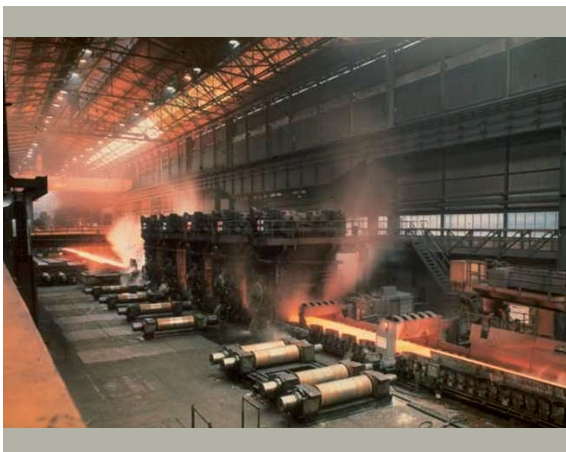
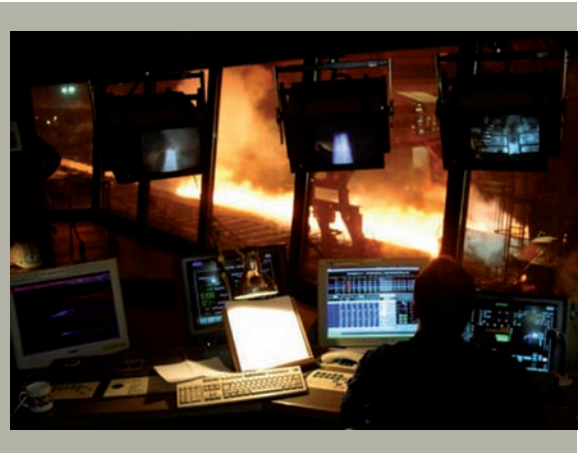
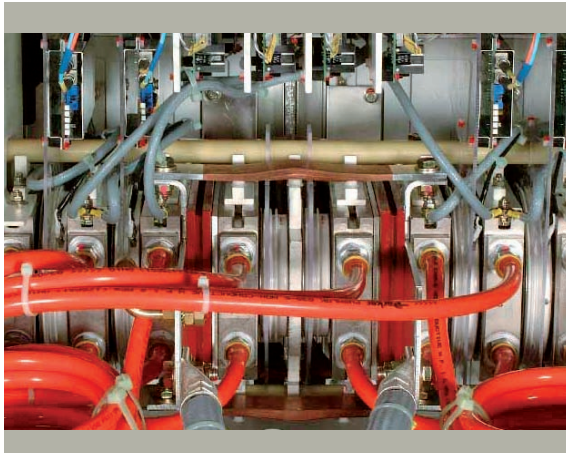
- Coil scheduling/loading (prime data acquisition, etc)
- Integrated mill/furnace pacing
- Product tracking
- Operational/maintenance reporting...

Process control

- Complete model set-up with on-line adaptation
- Integrated dynamic controls AGC, AWC...
- Coiler AJC (Automatic Jump Control)...

Process support

- Automatic roll change sequence
- Simulation tests/dummy bar
- Maintenance monitoring
- Fluid systems...



Continuous collaboration

We work hard to maintain our position at the leading edge of flat-product technology, with a program of constant technical advance:

- Continuous development: we have steadily developed and improved our setup and control models. We are one of those having a long experience at this level of sophistication.
- World-class contributions: Converteam contributes regularly to worldwide symposia and conventions on hot rolling.
- Technical partnerships: we have established a range of technical collaborations with major users and universities.