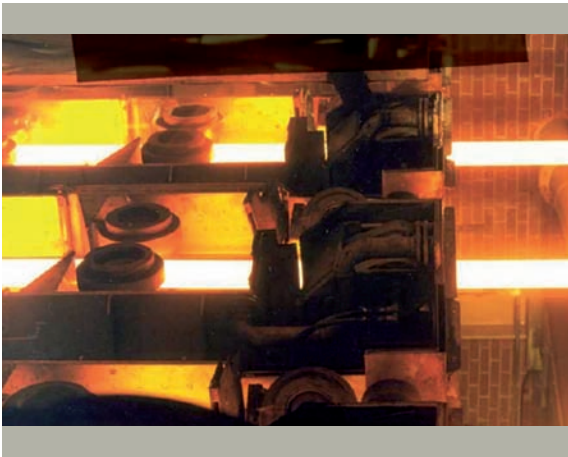


# Drive and Automation Solutions for Section Mills

Converteam is a world leading company in providing solutions for hot section mill control, with over 350 successfully commissioned section mills.

Converteam has worked with most international mill-builders, 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.

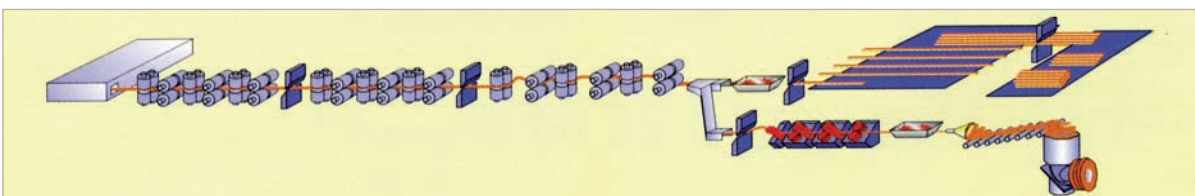
- Higher throughput
- Better quality
- Improved yield
- Higher availability
- Greater efficiency
- More market share

## Applications

Our references include mills of all types:

- Wire and rod, bar and light section
- Billet and medium section
- Rail and tube
- Beam and heavy section
- Continuous and semi-continuous mills
- Furnaces to finishing areas

Furthermore, we have handled projects involving all current mechanical and metallurgical technologies, such as: dynamic section change for mixed-product mills, interaxial AGC, low temperature rolling, controlled cooling, selective cooling strategies and many others.



# Drive and Automation Solutions for Section 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 section 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.

## Every aspect of section rolling

Converteam solutions deliver benefits at every level, from the simplest aspect of a standard wire and rod/bar mill up to the most complex problems in universal beam rolling:

- Wire and rod/bar mill interlocks: simple screen displays guide the operator quickly to the cause of a hold-up, reducing down-time.
- Interaxial beam mill AGC: Converteam's unique solutions for beam mill AGC produce better in-bar dimensional accuracy, reduced rolling delays and fewer cobbles.

### Converteam expertise:

#### Process management

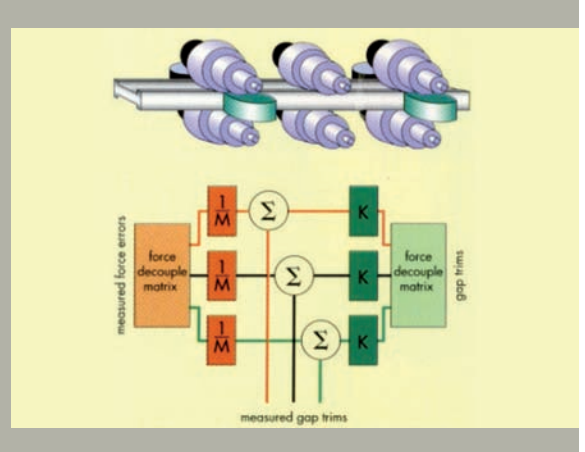
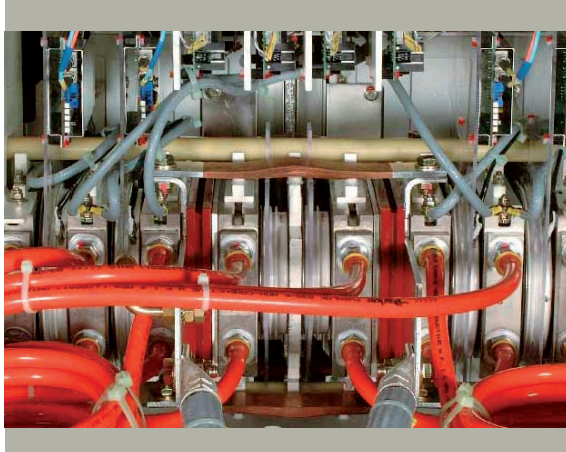
- Production scheduling and PDI management
- Batch/order tracking
- Cutting optimization
- Bundle/coil tracking & labeling
- Integrated quality control
- Operational/maintenance reporting...

#### Process control

- Product-dependent set-up
- Integrated dynamic control: minimum tension & looper control, cooling box/conveyer control, laying head pinch roll control
- Head and tail tracking high speed crop/cobble shear control...

#### Process support

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



## Consistent control concept

We view the control of any process as being composed of three main elements - management, control and support. This top level view can be expanded to a second level. This provides a consistent control concept, which applies across a wide variety of different processes.

Our approach makes it easier to think constructively about the tasks of controlling and managing the process. At the next level of structure are the specialized control modules with which we turn our know-how into real results and unequalled performance for our customers.

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