



## SUCCESS STORY

# Hydro Aluminium: Successful strategy at the Slim Works continues



Following implementation of the PSImetals production management system at Hydro Aluminium's Slim Works in Italy, 50 additional facilities were incorporated into the current operation. Clearly structured processes now ensure the greatest possible transparency and reliable enforcement of the strategic parameters in the entire works, right down to the individual machines.

Hydro Aluminium is one of the world's leading manufacturers of rolled aluminium products. They are used, for example, for packaging in the lithographic and automobile industry or in building construction. In Europe, Hydro also operates a rolling mill in a production network in Italy. The Slim Works is located in Cisterna, approx. 60 kilometres south of Rome. With a capacity of 130,000 tons per year, it primarily supplies the local market.

In recent years, extensive investments have been made in state-of-the-art plant technology and automated solutions in order to expand capacity. The 4Production advisory team accompanied the process with industry-specific IT solutions and knowledge of the complex production processes at Hydro. Following implementation of the PSImetals production management system, a new high bay warehouse with intensive cooling and a new cold mill were integrated.

### Hybrid team with one goal

The incorporation of 50 additional facilities has now occurred as the next step. From foundry to finishing, all stations, e.g. ovens, saws, milling, or shearing, are now combined in the system.

They are in part new or modernised and work manually, fully or semi-automatically, such as the refurbished hot rollers. Various primary materials like scrap, ingots or primary alloys also had to be factored in.

The PSImetals now ensures optimum intermeshing of these diverse facilities. In addition, the 4Production team's long-standing know-how ensured smooth integration. The combined experience of all participants was already integrated during the critical engineering phase.



Line 1 smelting furnace at the Slim Works

### Optimum predictability

Following successful implementation, the Works now has a forward-looking material flow and shop floor management. Detailed and sequence planning are carried out automatically or manually. The intuitive user guidance shows the planner all of the work operations and material and order data. In the case of changes, restrictions and availabilities are checked and the effects on delivery time are displayed.

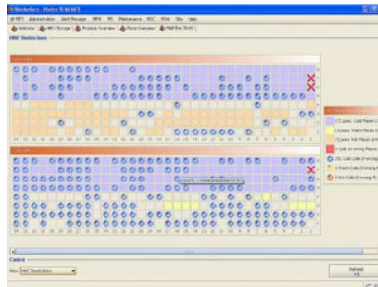




The fact that various scenarios can be played through by just pressing a button enhances speed and flexibility. All important information, such as set-up times and down times, is available directly via monitor. Automatically created reports deliver key workload, quality, and performance figures.

#### The highlights

- Optimum use of the plant investment
- Direct realization of business requirements right down to the production level
- Transparent stock and production information
- Improvement of process safety and reliability
- Highest availability thanks to a fail-proof system
- Ongoing interplay of Hydro Rolled Products' IT strategy with PS/metals



Screen representation: occupancy data and temperature zones in the high bay warehouse.

**"Finally all the production information is available in real time: what is being and has been produced, and when, where, and how. We use these data directly for more efficient control."**

*Christian Muckermann, Production Manager at Hydro Aluminium's Slim Works*

#### Enterprise-wide co-ordination

Facilities integration at the Hydro Slim Rolling Mill in Italy was already conceived for the connection to Hydro's world-wide integrated SAP interface. Since the solution has already been tested on the central SAP server in Hamburg, the upcoming restructuring will take place quickly and without complication. In addition, a technical hotline ensures continual support while guaranteeing 24 X 7 availability.

#### Outlook

Investments and optimisations at the Slim Works continue, as does the strategic partnership with 4Production. In the next step, the ribbon roller will be modernised and fully automated. With new components such as cooling, control, measuring devices, and automation systems, it will provide the PS/metals with valuable data. From this, the best defaults for various materials will be determined during the engineering phase. Optimum adjustments for the cold roll process should then occur automatically during ongoing operation.

Metal bookkeeping, accounting (ERP/SAP), and stocks (MES) will also be able to exchange data with the manufacturing execution system in the future.

The clearly structured processes at the Slim Works provide the best preconditions for Hydro in Italy to score against the competition through service competence and quality.

#### 4Production AG

4Production, a 100% subsidiary of PSI AG, specialises in the planning and control of the production processes in the metals industry. PSI AG is the most focussed solution provider in the metals industry worldwide.

Customers include among others: Aleris, Aurubis, Corus, Georgsmarienhütte, Hydro, Novelis, Salzgitter und ThyssenKrupp.

4Production AG  
Carlo-Schmid-Str. 12  
52146 Würselen  
Germany  
Phone: +49-2405 41350  
Fax: +49-2405 413520  
info@4production.de  
www.4production.com  
www.psi.de