



# **PROCESS SUPPORT SERVICES**

Primetals Technologies has Developed in depth process, metallurgical, production and operational knowledge and experience through the implementation of its technical solutions for Plate, Steckel and Aluminium mills. Coupling this with close links to universities, industry and research organisations enables us to offer this knowledge in the form of a variety of Process Support Services.

As an original equipment manufacturer and full-line supplier, Primetals Technologies offers true life-cycle support. We are the leader for comprehensive service solutions and can provide you with a unique range of products and services to maximise mill utilization and productivity over the long term, individually tailored to your needs.

## YOUR CHALLENGE

As Industrial producers of flat steel and aluminium products, you face increasing demands throughout your mill's entire life cycle. As a result you may need to:

- Increase productivity
- Increase quality
- Increase yield
- Produce new grades
- Produce new dimensions
- Monitor best practice through bench marking

#### **OUR SOLUTION**

Being a full line solution provider, the full process can be studied for improvement from start to finish. We have experience with state of the art and older technology. Our experienced team of Engineers can visit your plant and carry out a variety of studies:



Completion of the work roll change at Henan

- Recommend operational improvements
- Identify Key Performance Indicators
- Support for product and process development, to get to the end goal faster
- Make recommendations for upgrades and modifications



Tandem cold mill



Coiler mandrel outboard bearing support frame



Coil storage area at Novelis

# **PLANT STUDIES**

Coupled with offline modelling using our in house and proven commercial modelling packages, existing equipment can be studied. This gives the opportunity to establish what products the equipment is most suited to producing in terms of quality / grade, if there are niche high value added products that are not in the product mix that can be included, and which products are most cost effective.

Production can be observed and data analysed highlighting areas that can be improved to increase productivity. Examples of this include analyzing reversal times on mills, production scheduling, maintenance scheduling and general operation.

Key Performance Indicators (KPIs) can be identified to help monitor performance. Depending on the equipment this can be developed further to create recommended practice to react to variation in the KPIs. An example of this is how we can we establish ways to record, monitor and improve yield as shown in Figure 1 (right).

#### **PRODUCT DEVELOPMENT**

Primetals Technologies has extensive experience in product development, from the commissioning of new plants and new pieces of equipment in existing lines and developing new grades. A good example of this is the MULPIC® accelerated cooling system which can be easily installed into most plate mill lines and opens up a wide range of high strength, high value added products through the power and control of its cooling. In order to see the full benefits such as cost savings through reduced alloying, existing processes need adapting to suit. This adaptation is part of the package that Primetals Technologies can provide.

### **RECOMMENDATIONS FOR MODIFICATIONS**

If you are looking to expand, improve performance or enter new markets we can take the plant studies further. Based on either clients target products, or from our understanding of the market, we can make recommendations on what mechanical and control equipment is necessary to successfully produce the required products.



Figure 1 - Use of pyrometer data to calculate yield

## ADVANTAGES OF PROCESS SUPPORT SERVICES

- Added Value
- Improved Efficiencies
- Production Stability
- Reduced Costs

**Primetals Technologies Limited** A joint venture of Mitsubishi Heavy Industries and partners

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