

Aluminium Rolling Process Models

Reduce costs quickly and easily with Innoval's fast-running analytical models

Our Process Improvement team has drawn upon the many years of process and materials expertise within Innoval Technology to create a suite of models which could optimise almost every aspect of aluminium rolling.

By entering simple parameters that are readily available from machine specifications or operating procedures, our models provide the user with information on variables that cannot easily be measured such as internal process temperatures. Effectively, the models allow the user to 'see inside' a process while it is running.

As a result of this 'internal vision', optimising a rolling process to **INCREASE PRODUCTIVITY**, **IMPROVE QUALITY** or **SAVE ENERGY** becomes much quicker and simpler.

Each model is constructed according to our client's process, taking into account equipment configurations and product dimensions. We also support the client to obtain data for calibrating the models.

"We have used Innoval rolling expertise and process models for various R&D projects. The support we received from Innoval's engineers was excellent."

Bruno Magnin, Research Unit Manager Rolling & Finishing, Constellium, Centre de Recherches de Voreppe, France.

value through
innovation



Our models

We believe our models are the most accurate available to the aluminium rolling industry. This is because they have been built using the comprehensive knowledge and understanding of aluminium that is unique to Innoval Technology, as well as the physics of the process.

All our process models are available for use under a license agreement.

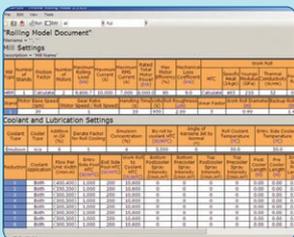
www.innovaltec.com/processmodelsoverview.htm

Innoval Ingot Preheating Model



The Innoval Ingot Preheating Model, once calibrated to the specific preheating process, can be used to make significant financial savings in this energy-intensive process.

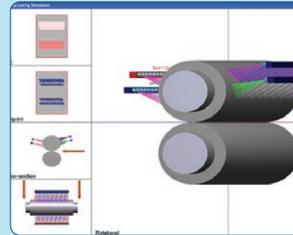
Innoval Rolling Model



The Innoval Rolling Model can be used to set up new rolling pass schedules, to simulate the rolling of new products and to design new or upgraded mills that are fit for purpose.

It is a physics-based model which predicts rolling loads, motor power and torque, roll gap friction, strip and roll temperatures and strip profile and flatness.

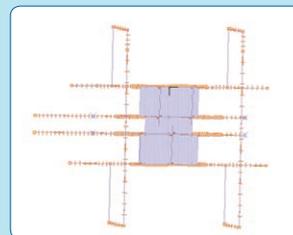
Innoval Spray Impact Model



The Innoval Spray Impact Model can be used to design new spray systems for existing or new mills.

The result is a cooling system optimised for the specific products on the mill which will provide excellent control of profile and surface quality in hot rolling, and flatness in cold rolling.

Innoval Mill Vibration Model



The Innoval Mill Vibration Model can be used to understand mill vibration issues such as 3rd octave gauge chatter and 5th octave roll/strip marking.

This vital tool assists in the solution of vibration problems faced by the entire metal rolling industry.

Innoval Coil Heating & Cooling Models



The Innoval Coil Heating & Cooling Models are used to reduce energy consumption and shorten coil annealing cycle times. They can also be used to design coil cooling systems to reduce work-in-progress.

Who are Innoval Technology?

We provide high quality consultancy and technical support to investors, manufacturers and end-users of aluminium, and other metals, across a broad range of industry sectors. Our clients are rolling, extrusion, forging and finishing companies, and their suppliers and customers, throughout the world.

Innoval Technology, Beaumont Close, Banbury
Oxon OX16 1TQ UK

Tel: + 44 (0) 1295 702800

Fax: + 44 (0) 1295 702898

Email: enquiries@innovaltec.com

www.innovaltec.com