

## **Quad Engineering to Supply Complete Hot/Cold Strip Laboratory Mill to Natural Resources Canada**

Natural Resources Canada's Canmet MATERIALS laboratory has placed an order with Quad Engineering Inc. for the turnkey supply and installation of a complete Hot/Cold Strip Laboratory Mill to be installed in Hamilton, Ontario. The mill will be used for product development and state-of-the-art research on the thermo-mechanical processing and development of modern steels and non-ferrous metals.

The mill, which will be single stand reversing with a combination 2Hi and 4Hi configuration, will be used for both hot rolling of slabs up to 275 mm thick, and cold rolling of hot band. The maximum mill speed will be 1.5 m/sec. The maximum width will be 350 mm and the maximum load capacity, 500 tons.

The cold rolling operation will be able to be conducted under strip tension by using tension reels on both sides of the mill. Top and bottom rolls are individually driven by VF drives to allow use of non-equal-size rolls. Cold-finished products will satisfy the dimensional tolerances of ASTM A568.

Quad Engineering will supply and install all mechanical, electrical, automation, hydraulics and utilities for the mill and its attached Accelerated Cooling System. The Accelerated Cooling System will be capable of continuous or step cooling of the hot band from 800°C to 500°C, with a cooling rate of 240°C per second for each mm of strip thickness.

The mill will be complete with hydraulic gap control, load cells, roll bending system, strip lubrication and roll change system. Quad's scope of supply also includes manipulators for discharge of slabs from reheat furnaces, entry and delivery pay-off and tension reels, and sample shears.

Plant commissioning, scheduled for March 2014, will build on CanmetMATERIALS' ability to service North American and global metal producers for full development of new products from alloy development and casting to final hot rolling and cold rolling.