

Parkegate to deliver upgraded Rogerstone hotline to Hindalco, Hirakud

The former Novelis Rogerstone line is to be dismantled, modernised and upgraded by Parkegate Engineering, UK and Converteam, to become the first can body stock hot line in India.

Parkegate have been awarded the contract as Mill Builder / Mill Engineers for the new Hindalco Hirakud can body stock hot line, to be located in Hirakud, Orissa, India. The new line will be based on the upgrade and modernisation of the former Novelis Rogerstone, UK hot line. Novelis are owned by Hindalco, and the Rogerstone site stopped production in early 2009, paving the way for Hindalco to transfer the assets within the group.

Parkegate's significant knowledge of the Rogerstone site, key process expertise relating to the hot rolling of aluminium over many decades, plus their personnel's relevant experience, was vital in securing the order for this project.

Parkegate won the project against stiff international competition.

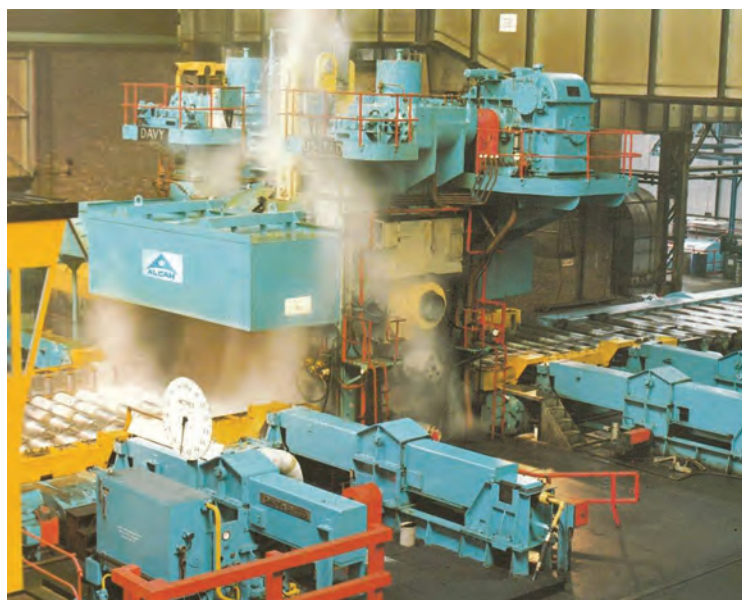
The upgrade and modernisation of the hot line will make it suitable for the production of 14-out can body stock material, to allow Hindalco to capitalise on the strong emerging beverage can market in the region. This prestigious project will become the first can body stock hot line in India.

Two phase project

The upgraded installation will be implemented in 2 phases. The hot line will initially be installed to suit production of 7 kg/mm (15 tonne) coils, up from 6 kg/mm at Rogerstone. Phase 2 of the project will see a close-coupled Edger installed at the Hot Reversing Mill (HRM), plus an additional 4th mill stand at the Hot Finishing Mill (HFM), and complete new coiler and coil handling equipment, to produce 10 kg/mm (21 tonne) coils, with thinner coiling gauge. After phase 2, the hot line throughput will be in excess of 300,000 tonnes per year. For Phase 1, Parkegate are working in partnership with Converteam, who are providing the new automation systems, plus new and upgraded electrical equipment.

Phase 1 mainly comprises the following items of equipment:

- Ingot laydown (downender) to receive vertical ingots from new soaking pit furnaces and load onto hot line
- HRM, rated for 5,000 tons rolling load, and with a nominal 2 x 3,000 kW direct twin drive
- Heavy duty crop shear, up to 100 mm thick
- Light duty shear, for strip head preparation
- 3-stand HFM and cooling equipment, rated for 3,000 tons rolling load, and with 2 x 4,000 kW (stands 1 and 2), and 4,500 kW (stand 3)
- Overall line length approximately 370 metres.



The hot reversing mill upgrade includes spraybars and a new coolant system

Phase 1 Upgrade

The whole hot line will be fully refurbished, in India, to as new condition, according to the specifications of Parkegate and under the supervision of Parkegate. The major items of plant are all subject to significant upgrade, according to the design and engineering carried out by Parkegate, as follows:



Parkegate are dismantling the 3-stand, hot finishing mill at Rogerstone to substantially upgrade to as new condition

- Ingot laydown to be a new machine suited to 15 tonne ingots
- HRM to be upgraded with new scratch brushes, fully-zoned roll coolant spraybars, and a new roll coolant system for increased flowrate
- Heavy duty crop shear to be relocated further from the HRM for increased slab size, upgraded with complete new underground scrap handling system, and fitted with a new crop pusher device and new entry centring guides
- Light duty shear for strip head preparation upgraded with complete new underground scrap handling system
- 3-stand HFM to have stands 1 and 2 existing fully-zoned roll coolant spraybars upgraded, and power increased from 3,000 kW to 4,000 kW on each stand, by upgrading existing motor and mechanical components. Stand 3 to have new

fully-zoned roll coolant spraybars on entry and exit, and power increased from 3,000 kW to 4,500 kW with new motors and upgraded mechanical components. Also fitted will be new interstand tensiometer units, a complete new roll coolant system and 2 new filters from Filtritech USA for increased flow rate

- The existing sections of roller table are to be relocated, together with some new sections to suit the planned production schedules.

New and upgraded equipment will be partly supplied from the US and Europe by Parkegate, and partly from India by Hindalco, to Parkegate drawings and specifications, under the supervision of Parkegate specialists.

The phase 1 hot line will receive 15 tonne ingots from new soaking pit furnaces, which will be rolled from

approximately 600 mm thick to 2.2 mm thick coiled material in 8 1/2 minutes. The coiling temperature will be in excess of 340°C, in order to guarantee the required specific metallurgical properties for the production of can body stock.

Schedule of the works

Dismantling of the existing equipment started in January 2010, and is scheduled to be complete by the middle of June 2010. Dismantling has been carried out by Hindalco's contractor, under the supervision of Parkegate.

Installation of the line in India is scheduled to start in October 2010, and the first production coil is expected to be rolled during 2011. Installation is due to be carried out by Hindalco's contractor under supervision. Parkegate and Converteam will be jointly responsible for the complete commissioning of the new hot line.

Parkegate are responsible for the complete civil design for the new hot line, which includes the preparation for the phase 2 project.

Parkegate have a team comprising in excess of 20 engineers working on the project, plus a permanent presence at the Rogerstone dismantling site, and a further team ready to continue with the Indian manufacture and refurbishment phase of the project, which is scheduled to start in July 2010. Based in Poole, UK, Parkegate Engineering provide a professional turnkey engineering service to the worldwide metals industry. Parkegate are a team of experienced process consultants and engineering designers with skills in all aspects of design, project management, manufacture and installation of rolling mill and process line plant. The engineering team has a vast number of years of collective experience in the metals industry.

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