



1 The Ladle Metallurgical Furnace (LMF) (photo: Dean Carruthers) 2 Hot work supervising a ladle filling the BCCM Tundish (photo: Dean Carruthers) 3 The Billet Continuous Casting Machine (BCCM) 4 trands being cast in the BCCM

Project ATOM

Project Location: Glenbrook, Auckland

Beca Ltd for New Zealand Steel

Disciplines: Project Management, Construction Management, Structural Engineering, Mechanical Engineering, Electrical Engineering, Instrument and Control Systems Engineering



Project ATOM fundamentally changed the way steel is produced for the New Zealand Market. The steel plant at Glenbrook is now able to flex production between steel slab (for flat products) and steel billet (for long products) as the market demands.

BlueScope acquired the rolling mills of Pacific Steel as part of their commercial strategy for New Zealand steel. Project ATOM involved the construction of two new process units which enabled the steel to be manufactured in a different way and thus realise the benefits of this acquisition. These units were:

- A Ladle Metallurgical Furnace (LMF)
- A Billet Continuous Casting Machine (BCCM)

The project required very close co-operation and planning with steel plant operations and construction. The key to the safe, efficient delivery of the project was the use of a detailed 3D model for planning and communication.

Under time pressure to get the new facilities safely into commercial production, the project was delivered by an integrated team of Beca, New Zealand Steel and contractor personnel. The new plant was successfully commissioned in time to produce billets to meet the business needs of supplying steel to Pacific Steel.

Beca provided the majority of engineering, project management, procurement, and construction management of the new facilities. New Zealand Steel has used the services of Beca for over forty years at the steel mill and Project ATOM is another example of successful collaboration in this long term relationship.

Judging & Copyright Statement

This project is a Finalist entry in the 2016 INNOVATE NZ Awards of Excellence competition. The winners will be announced on Friday 2 September, 2016.

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