Broner Metals Solutions

Newsletter

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The newsletter for steel and aluminium producers from Broner Metals Solutions – dedicated exclusively to business solutions for metals production

Inside this issue:

Broner completes Tracking & Order Scheduling Project for Plate Mill at ArcelorMittal Galati

New solution improves manufacturing agility, improves delivery and reduces inventory.

Broner has completed a project, which provides Tracking and Order Scheduling solutions, for the Heavy Plate Mill of ArcelorMittal Galati in Romania.

Broner has provided, a comprehensive management information and decision support system for the plate mills and their associated slab yards. This includes: real-time abilities to track and trace material as it moves through production; quality management; and state-of-the-art planning, scheduling and optimisation tools.

ArcelorMittal Galati are using Broner's Material Planner, Production Planner, Hot Mill Scheduler, Plate Combination, Schedule Editor, and MES execution products, which are fully integrated with Level 2 production control systems and SAP.

Some of the benefits that were noticed as outcome of the implementation of Broner solution are:

- Improvement of the Order Scheduling
- Improvement of Planning to meet delivery date
- Improvement of Capacity Loading for the production Centres
- Improvement of the method to Calculate the Slab Requirements
- Providing a tight integration of order tracking and scheduling
- Improvement of Shipment grouping and planning

Ability to react better to changes in customer demands and changes in production:

- By automated scheduling and re-scheduling capability
- By improved visibility of impact of changes
- Reduction of inventories (both finished goods and Work-in-Progress)
- By better management of physical stock in the slab yards
- By better allocation of excess slabs
- By better physical tracing and identification of plates
- By improved visibility of plate production and stock
- By improved Order Scheduling
- By improved Lot Completion (ie. ensuring that complete lots are produced on time, and thus reducing the quantity of incomplete lots at the ports).

Broner Metals Solutions expands in North America

Broner has established a separate subsidiary company, "Broner Metals Solutions North America LLC." in order to strengthen its operations in North America and to build on the long record of success that Broner has achieved in the Americas.

Broner has been operating and supporting customers in North America for more than 15 years during which time it has established a reputation

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Broner Metals Solutions expands in North America

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for managing the challenges and complexities of metals production and meeting business objectives in terms of customer satisfaction, productivity and cost.

Broner has a wide range of customers in North America, which includes: ArcelorMittal Dofasco; California Steel; Essar Steel Algoma; Norandal Aluminum; Severstal North America; and ThyssenKrupp Steel USA in Alabama.

Gerdau Special Steel Brasil selects Broner for enterprise-wide, multi-plant supply chain planning & scheduling project

Centralised, integrated solution covering all four special steels plants in Brazil, will improve customer service, optimise production and reduce inventory .

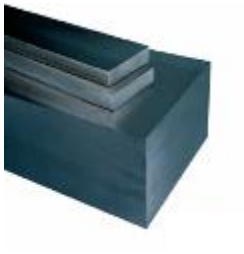
Broner Metals Solutions has been selected by the Gerdau Group, to provide a enterprise-wide, multi-plant, supply chain planning & scheduling capability for the four steel plants of Gerdau Aços Especiais Brasil (Gerdau AEB).

Gerdau AEB supply special steels to domestic and export markets. There are significant product overlaps between the geographically separated plants which enables the customer to be supplied from alternative plants.

The Broner solution will allow Gerdau to make centralised decisions for allocation of inventory and plant capacity to orders. Selection of the appropriate plant will be based on geographic location, available finished or semi-finished inventory, lead time considering the rolling campaign schedules at each site and cost, in order to provide the best solution for the customers. The Supply Chain solutions also includes specialised supply chain planning & scheduling solutions that optimise the schedule for each site and provide visibility of order fulfilment progress to the centralised customer services team.

Broner and Gerdau are building together on a strong relationship, started in 1995 when the first Broner Solution for Gerdau was installed in the Gerdau Piratini plant. Since then, Gerdau acquired the Villares plants around Sao Paulo (Pindamonhangaba, Sorocaba, and Mogi das Cruzes). Gerdau has since invested significantly in the business and systems integration of these plants. Thus, the next step is to integrate the planning and scheduling processes by implementing a standardadised solution, such as Broner.

In co-operation with Gerdau, the Broner solution will ensure that all of the plants' orders and constrained capacities are taken into account in a single business operation. The system will allow the team responsible for the acceptance of the order to more easily query the capacity plan to obtain a realistic due date and have the confidence that it will be achieved.



"The single integrated solution will allow Gerdau to better manage the four separate plants as a single entity".

D. Mushin
CEO, Broner

The new solution will enable Gerdau AEB to:

- Reduce Sales lead-times by managing campaigns at each site to increase the frequency for product campaigns
- Improve Due Date promising and On-Time delivery
- Automate the scheduling process leading to increased efficiency and productivity and reduced sales lead times
- Increase agility to respond to changes in business or production priorities

This implementation builds on business process improvements by Gerdau to streamline their Sales and Operational Planning processes.

The Broner solution is a combination of the Broner Production Planner, Material Planner and Production Scheduler modules:

- Broner Production Planner performs multi-plant "through scheduling" function that optimises and

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Gerdau Special Steel Brasil selects Broner for enterprise-wide, multi-plant supply chain planning & scheduling project

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balances the flow of material through the supply chain, considering actual and forecast orders, inventories, equipment capacity, rolling campaigns, order grouping and process restrictions. It will consider all possible routes and interdependencies between the plants, to create a forecast of equipment utilisation, inventories and on-time delivery for the short to medium horizon based on actual and planned demand.

- The Broner Material Planner module is an automatic tool that decides which pieces should be used for which manufacturing orders, and what pieces need to be made when there is insufficient inventory to fully allocate the open orders. Allocation rules ensure the best compromise between yield and on-time delivery is achieved, while minimising finished and in-process inventory, thus reducing inventory costs.
- Once orders have been planned for production at a particular plant, the Broner Production Scheduler automatically creates the schedules for the rolling mill and the finishing lines in one process, taking into account the flow of material over time, and production constraints.

David Mushin, Broner Chief Executive said: “The single integrated solution will allow Gerdau to better manage the four separate plants as a single entity. A key part of the solution is for Broner to provide improved integration with SAP using a standardised interface based on modern message technology powered by TIBCO.”

Gerdau is the leading producer of long steel in the Americas and one of the largest suppliers of special long steel in the world. It has over 40,000 employees and an industrial presence in 14 countries with operations in the Americas, Europe, and Asia, which together represent an installed capacity of over 25 million metric tons of steel per year. It is the largest recycler in Latin America and around the world it transforms millions of metric tons of scrap into steel every year. Gerdau is listed on the stock exchanges of São Paulo, New York, and Madrid and has around 140,000 shareholders.

Inventory & Stockyard Management solution for Metals

Automated processes improve visibility and access to stock and WIP resulting in increased productivity, reduced lead times, improved on-time delivery.

The Broner Inventory Management module manages the many complexities of inventory and material movements, tracking, and storage within a metals plant.

Some typical stockyard issues that are solved include:

- The required slab is somewhere in the stockyard, but cannot be easily found, so the planning system must be changed to make a new slab
- A slab or plate is at the bottom of a pile and production is delayed while pieces are moved to gain access to it
- There is no real-time visibility of the exact details of what material is available and its location within each stockyard, leading to unbalanced stock and poorly located pieces.

Broner is providing a configurable solution with in-built understanding of the metals production process, leading to more efficient production activities by ensuring that the required material is readily available and accessible, and in the correct locations. This reduces the cycle-time of inter-process material movements, resulting in increased on-time deliveries, reduced delivery times and improved productivity.

The extensive capabilities include: storage location definition & management; material reception, stock placements and movements; and tracking, reporting and material accounting.

Designed to ISA 95 standards, the solution is fully integrated with planning/scheduling and MES Production and Quality management functions and has extensive integration with ERP, wireless terminals and yard automation. It may also be integrated with other yard management systems, where

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Inventory & Stockyard Management solution for Metals

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sophisticated graphical control is required.

With a complete record of all material movements, including raw materials, semis, work-in-progress and finished goods, Broner Inventory management is able to provide comprehensive reporting including location/stock reports, material accounting, mass balance and consumables consumption etc.

Inventory Dispatching Functions

Inventory Dispatching functions provide the capabilities for moving material within the plant in accordance with the requirements of the production processes managed by the Production & Quality Management and Inventory Execution functions. The functions provided are:

- Receive the latest production schedules & pick lists and use this information for timely retrieval and transport of pieces to their scheduled production line and to store pieces in stock yards such that those needed in the near future are not restricted by pieces needed later.
- Verify availability, status and location of materials to be moved
- Generate transportation orders for moving materials
- Send transportation orders to Inventory Execution functions or warehouse execution where present
- Receive messages from Inventory Execution functions or warehouse execution with new location and status, material movements or alternative material item
- Integrate to ERP to update ERP Inventory Accounting with stock movements.

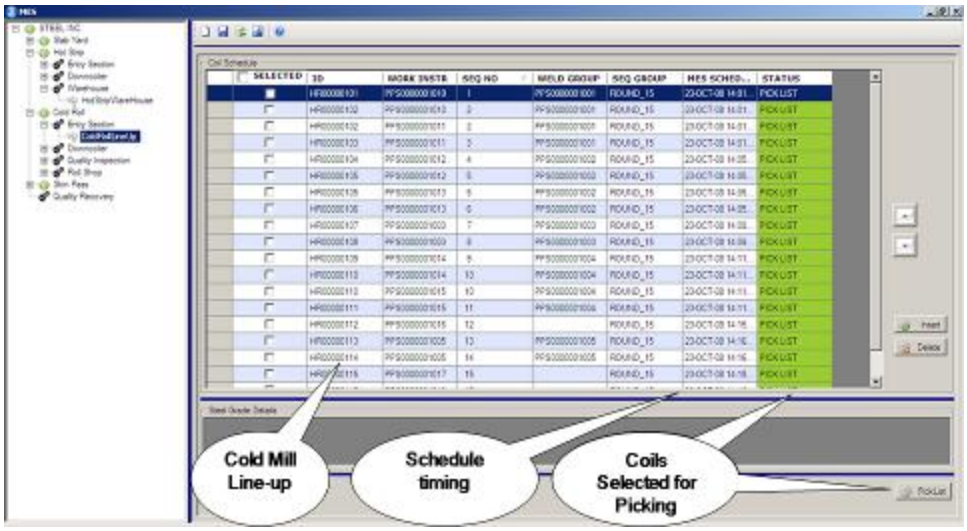
Inventory Execution Functions

The following functions support the execution of the transportation orders generated by the Inventory dispatching functions:

- Record all inventory activities - stocks, locations and movements
- Stock Location management. Allow users to define details of all stockyards, locations , zones, piles, stacks, inventory batches etc, whether permanent or temporary
- Stock Placement Rules. Assign rules for the destination location for material movements, such as: piling/ stacking rules (same heat, rolling campaign, dimensions etc); reserved stack yard area/zones; stock yard restrictions (weight/racks/inventory type), etc
- Screens for use on shop floor RFID wireless terminals, crane screens, handheld terminals etc. For example: display transportation orders waiting to be executed; allow operator to confirm location or enter new location; allow allocation of alterative material item to the one scheduled; exception handling – report damage, lost coil etc
- Integration to Yard automation devices such as bar code scanners, label/tag printers, crane positioning systems, weighbridges scales etc.

The example below is a standard inventory dispatching/ execution screen configured for a cold mill, and showing the coils being picked and confirmed for retrieval.

As soon as the user presses the pick-list button, a transportation order is generated automatically and will be displayed on the Inventory dispatching / execution screens in the stock yards where these selected items are currently located.



Inventory Tracking Functions

Inventory tracking keeps records of all movements for each item and the current status of stock yards. Therefore, each piece can be tracked at any moment and material accounting can be calculated for finished product, WIP product, or scrap. An Inventory Reconciliation function reconciles a list of physical inventory against MES data-

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Inventory & Stockyard Management solution for Metals

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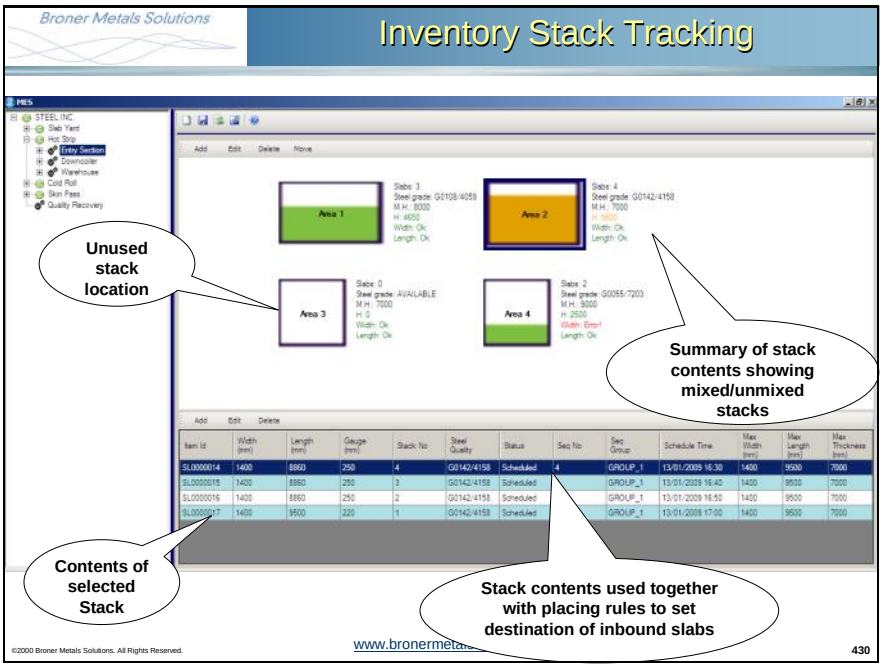
base. Typical reports can show:

- Real-time location of individual material items or groups of items with common characteristics (manufacturing order, heat no, dimensions, hold code etc)
- Real time stock image tracking
- Stockyard contents reports
- Transaction order reports/displays (pick lists) for manual stock yard operation
- History of movements for each piece



The Inventory Display screen provides a graphical view of all the available stack locations for each warehouse area to help operators quickly to see the material available to them. It allows users to retrieve detailed information about the contents of each stack and employs placing/picking configurable rules to suggest transportation orders to the operator.

The selection of a suitable stack for a piece is normally based on certain grouping characteristics, like Steel Grade, Width, etc. MES may be configured with certain rules for each warehouse area to automatically suggest stacking/picking options to the shop floor operators. The suggestion takes into account the priority of each piece for processing / dispatching among other criteria.

25 Year Service Award

In September 2010, Tim Banks, Customer Support Manager of Broner Metals Solutions Ltd celebrated 25 years service.

Tim Banks joined the company in 1984 when Broner was initially called “Broner Consultants”. He has transitioned with the company through company acquisitions, company re-brandings, Industry and economic up and down turns, and is now the 2nd longest serving member of staff.

During Tim’s career at Broner, he has built a wealth of experience working in roles including Software Engineer, Project Manager, Services Manager and now heads up the Broner Customer Support Team.

Tim has worked on numerous projects and been involved in sales activities in countries worldwide including USA, Japan, Canada, South Africa, Brazil to name a few and has built some strong relationships with Broner customers.

Tim Banks says “ My career at Broner has been both varied and challenging. I look forward to continuing supporting Broner customers and providing customer satisfaction in the years ahead”

Broner prides itself as a company for its high retention of staff members. David Mushin, CEO of Broner Metals Solutions says “Tim is a highly valued member of the Broner Team who brings a wealth of experience to the company *and his* knowledge is valued by his peers”

Broner Sponsors Parkinson Ocean Challenge

On March 8th at 9:00pm ex-Marines Chris and Mathew Cleghorn (Tim Hurn, Broner's Business Development Director's Son-in law) arrived starved, exhausted but euphoric into the English Harbour in Antigua having completed the 3100 mile non-stop row from Gran Canaria. The journey was completed in 64 days and 12 hours and was the third fastest crossing by pairs.

The challenge pushed the brothers to the limits of physical and mental endurance. During the rowing challenge the brothers lost more than 3 stone in weight, suffered steering failure, capsized, lost all food supplies and had to be re-supplied of food on 3 occasions with the help of Falmouth Coastguard!

Chris and Mat said:

"Arriving in English Harbour in Antigua can only be described as the most euphoric and proud moment of our lives. It has been a fantastic journey and we are grateful to everyone who supported us throughout". "If our journey across the pond has made just one more person aware of Parkinson's disease and the daily suffering the sufferers have to endure then we have succeeded in our goal".

Paul Jackson-Clark, our Director of Fundraising, comments "This is a phenomenal achievement and we are honored that Mat and Chris chose to row the Atlantic for Parkinson's UK".

Broner Metals Solutions were very proud to support this fantastic project. If you would like to make a donation please visit :http://parkinsonsoceanchallenge.co.uk/.

All the money raised by this project will be donated to Parkinson's UK to support their research projects.

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