

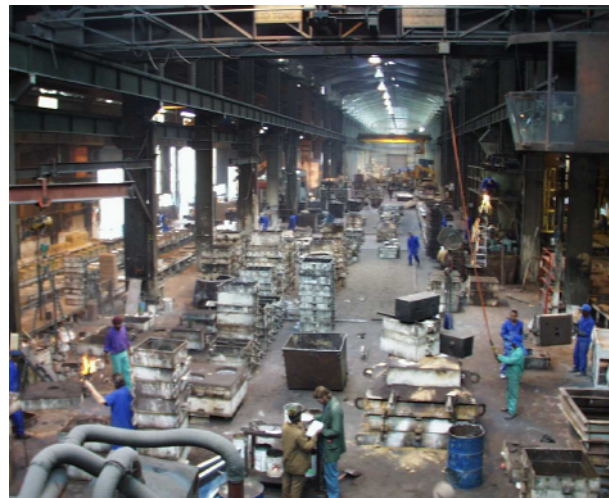
Preactor engineers Cool solution to Foundry's Hot Scheduling Problem



MIS Engineering (Pty) Ltd, trading as MITAK, is a general heavy engineers and founders based in Johannesburg, South Africa. They are one of the leading manufacturers of wear-resistant alloys used in crushing, grinding, pumping & materials handling equipment in South Africa. They produce in excess of 10,000 Tons per annum from four Furnaces and ten Moulding Bays. Operations include moulding, casting, fettling, heat treatment and machining.

With 25,000 different items registered in their SYSPRO system, seven operations defined per item on average, 2500 live customer orders at any point and a backlog in excess of six months on some processes MIS Engineering recognised that they needed a better way of scheduling their business. In particular they needed a more accurate way of promising realistic delivery dates to customers.

The scheduling process needed to take into account different moulding processes, constraints on floor space, manpower, moulding boxes and patterns and the importance of select customers and the prioritisation of part orders to cater for scrap discovered during a later process. The need for the scheduling system to integrate with their Syspro ERP system was also a key requirement.



Scheduling Solutions, the Network

Partner for Preactor International in Africa, met with MIS Engineering to better understand their needs. After a customised demonstration of the Preactor functionality showing how Preactor could meet their scheduling requirements, MIS Engineering selected the Preactor 400 APS version as ideal for their requirements.

Scheduling Solutions worked with MIS Engineering to develop a model of their business which included special rules to prioritise scrap and apply special scheduling sequences based on customer importance.



Due to the number of order operations that needed to be scheduled, it was decided to split the scheduling model into two. The first model catered for all orders in, and about to start, production.

The second model only scheduled the moulding operations for all orders in the scheduling horizon.

Preactor Viewers are used to give operations staff and management visibility of the production schedule.

The implementation and use of Preactor has resulted in a number of benefits:-

- Planning now takes minutes not days.
- MIS Engineering has complete visibility of the load by area across the whole factory.
- MIS Engineering are now able to make accurate delivery promises months in advance of actual delivery.
- As all areas are now using the same accurate schedule; departments are better co-ordinated and the tonnage produced per month has increased.
- As all areas are working on jobs in the correct sequence the manufacturing lead time has reduced.
- The delivery performance against dates promised has increased significantly compared to pre Preactor days.

Shaun Naidoo the Production Manager described the main benefits. "Preactor gives me the visibility to make accurate delivery promises and meet these in a changing environment". Chris Mollison of Scheduling Solutions commented "MIS Engineering is another example of a company whose management has recognised the need for and obtained significant benefits from implementing a Preactor scheduling solution".

