

## Keeping ahead of the pack (22 May 2008 at 12:27)

Blackhawk de México is an excellent example of how changing manufacturing attitudes to meet contemporary requirements is making Mexico a world leader in casting production.

Started as a joint venture between two United States companies, Blackhawk and Emerson, Blackhawk de México is now a privately held ductile and grey iron foundry specialising in automotive-related production.

The original focus was mainly the production of grey iron castings for electric motors. As the plant was required to produce a wide variety of casting sizes and weights, three moulding lines were installed - two Sinto FBOIII and one Sinto FBOV, plus two ABP induction furnaces. Approximately two years after modernisation, the original owners decided to sell the plant, a Mexican industrial group named Quimmco thus acquired the company in late 2002.

In the following months a major transformation was undertaken and the process was changed to produce ductile iron. New automotive customers and castings were developed, the product mix changed from 100% grey iron to 85% ductile iron and 15% grey. Currently the automotive industry, mainly the heavy truck sector, represents 75% of total sales.

### Improving the knowledge base

One of the weaknesses of Blackhawk at that time was the lack of foundry knowledge. The average age of the employees was 29 and only a few people had more than 10 years experience working for a foundry. A training programme was developed and experts (primarily retired foundrymen) were hired to support shop floor, hands-on training.

The good news of having so many young people is that they are willing to learn, to change and try different ways. The new automotive customers, competition and globalisation dictated a new working culture in the company and all the people were eager to be part of the change. A lean manufacturing programme was initiated and numerous other changes implemented in order to respond to increasing market needs.

Examples of implemented changes include: installation of an automatic press-pour furnace, the introduction of a cold box process, commissioning of a 65 tonne holding furnace, CNC automatic grinding machines and new laboratory and inspection equipment.

The results are now highly significant, with output increasing from 400 to 1,450 tonnes per month whilst man-hours per tonne have been reduced by 50%. The company is now able to pour grey and ductile iron at the same time and may pour castings for 24 hours without melting during the peak hours when electricity is more expensive.

Blackhawk is currently exporting 25% of its production directly to the USA, 20% of output being supplied fully machined. The workforce is excited with all these changes and is evaluating new investments for growth. The good news is that everyone is willing and ready for more challenges.

Blackhawk de México, Santa Catarina, Nuevo Leon, Mexico; [www.quimmco.com](http://www.quimmco.com)

To subscribe and receive all the printed issues of Foundry Trade Journal, contact Yvonne Marriott on [yvonne@icme.org.uk](mailto:yvonne@icme.org.uk) or Tel: 44 (0) 121 601 6979.