

Allied Furnace Consultants maintains robust growth through the recession

JULIAN KRAFT | SPECIAL CONTRIBUTOR

Boksburg-based Allied Furnace Consultants (AFC), an innovative young company specialising in the design and manufacture of Arc furnaces and associated equipment used in the production of ferroalloys, has been left unscathed by the economic recession thanks to the application of a business model that enables it to offer lower-priced quality products and faster deliveries than its rivals.

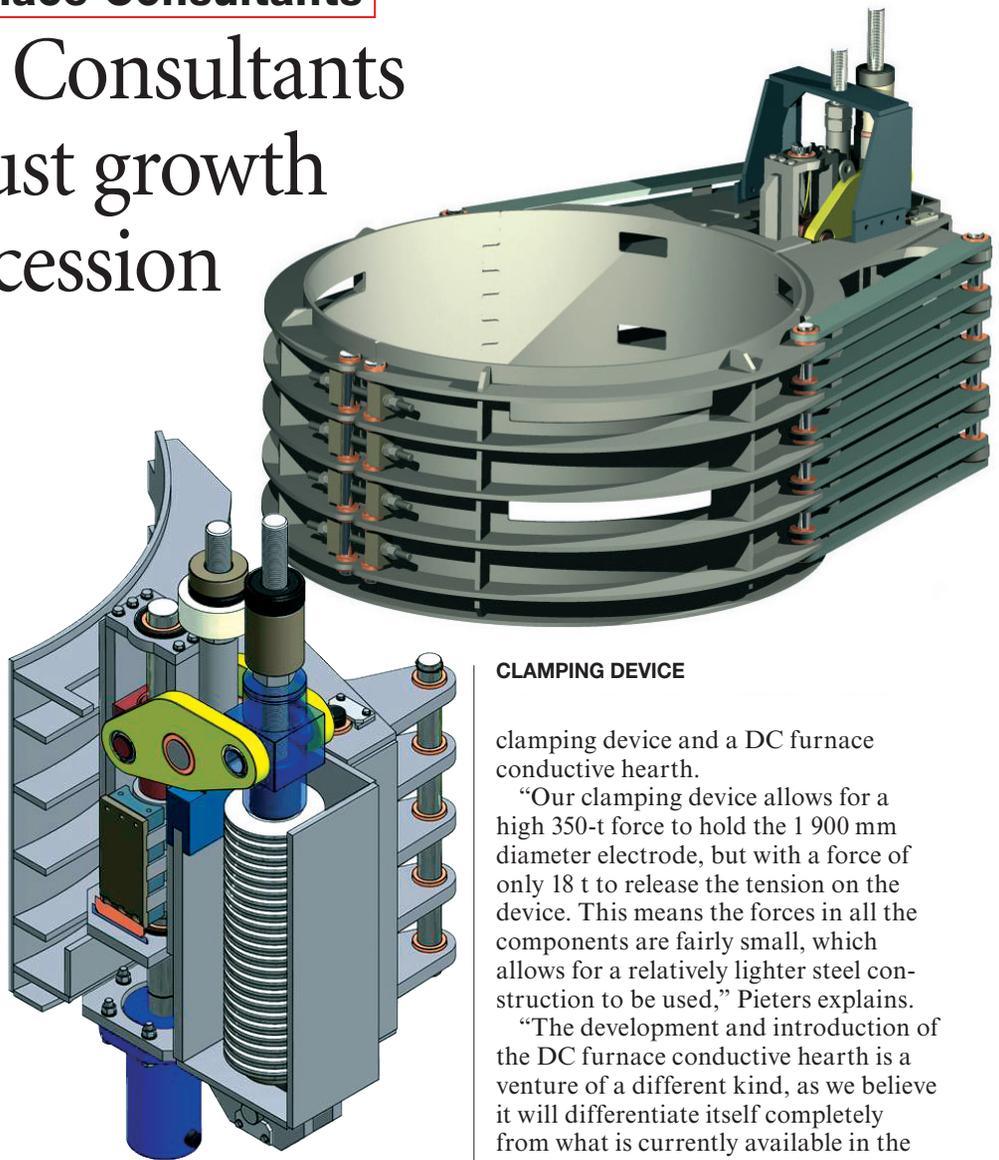
“Our penetration of the ferroalloys production market in the face of competition by long-established suppliers in this field was particularly marked in 2008, and we have sustained business at high levels since then,” comments AFC process and marketing director **Tertius Pieters**.

“This clearly demonstrates that ferroalloys producers appreciate what we have to offer, not only because of our competitively priced furnace equipment and good delivery times, but also on account of significant technological advances we have developed and introduced that lead to higher efficiencies and cost savings for customers.”

A distinguishing feature of AFC is that it focuses strictly on Arc furnace design, manufacture and supply and does not undertake large turnkey project management contracts incorporating activities outside this specialised field. Further, it fabricates furnaces and associated equipment inhouse, including the procurement and preparation of the raw material used in the fabrication process, instead of contracting out this work.

“The three legs of our business strategy – comprising our focused approach to our core business, the development of innovative technologies on an ongoing basis, and our self-reliance in fabricating our products inhouse – leverage off each other, resulting in a consistently top rate service to our customers,” Pieters notes.

Among the technological advances that the company has already launched into the market, after comprehensively testing them and proving their efficiency and usefulness, are radial grillage cool-



CUTAWAY VIEW OF CLAMPING DEVICE

ing designs, water-cooled roofs, lining monitoring systems and, most recently, unique water overflow launders for film cooling.

“These technological advances are all being put to good use in the industry locally and abroad,” Pieters comments.

“The lining monitoring system has developed into a matured system that also gives valuable process feedback and gives the operator much more comfort in decision-making. AFC has also spent a lot of time with regard to the interface with the operator to make it more exciting and user-friendly. The latest version will be installed at Assmang Manganese Cato Ridge Works Furnace 1 and Furnace 2.”

Other new technologies the company has developed that are still undergoing final testing before being launched into the market are an innovative electrode

CLAMPING DEVICE

clamping device and a DC furnace conductive hearth.

“Our clamping device allows for a high 350-t force to hold the 1 900 mm diameter electrode, but with a force of only 18 t to release the tension on the device. This means the forces in all the components are fairly small, which allows for a relatively lighter steel construction to be used,” Pieters explains.

“The development and introduction of the DC furnace conductive hearth is a venture of a different kind, as we believe it will differentiate itself completely from what is currently available in the market. This design will contribute immensely in reducing the capital cost of the associated equipment and structure, complemented by a very easy, cost-effective and short replacement time, which will add to the flexibility to smelt different alloys.

“Our contribution is a novel design to distribute current in a flat bottom DC furnace anode plate, in which the forces are optimised to reduce Arc deflection to a minimum. This has been successfully applied on a pilot scale carried out recently,” Pieters concludes.

AFC

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