

All fired up

Nutec sees efficiency as a prime driver

Rodrigo Gonzalez; VP Sales, Nutec Bickley, talks to AC about the challenges and successes of developing kiln technologies for a continually evolving customer base.

Asian Ceramics (AC): As we emerge from a global recession, how has Nutec fared during the last 18 months, and what lessons would you say the company has learned from what have been volatile economic conditions?

Rodrigo Gonzalez (RG): 2010 was a great year for us and we think this is largely due to what we learned during two very tough years in 2008 and 2009.

Even though, during the global recession, we faced some serious challenges, we managed to end on both 2008 and 2009 in profit; what was more important was that we recognized that the global market for kilns was changing and we created a strategy to adapt and develop to work within a changing marketplace.

In the past years many of our customers were looking for a recognized brand and a kiln with lots of features, without taking too much consideration of factors like kiln efficiency. Today, it is all about efficiency and performance, our engineering team are focused on designing kilns with the best performance in the world.

For example; with our latest design for sanitaryware kilns, our kilns uses on average about 25% less fuel, than those kilns supplied by our competitors. Our job now is to make the customer aware of this lower operational cost benefit, that they can derive throughout the whole life of our kiln.

(AC): Have you used the period to explore different markets, or has it changed the way you've developed your products and the technology you've sought to introduce?

(RG): As an engineering firm with access to both the metals and ceramics industries; we had the choice to attack many markets needing a huge range of products; but we have decided to focus our attention on those markets where we have the very best technology.

It is by having the best technology that we can offer the most efficient equipment in the market.

Our customers are looking for ways to reduce their operational costs and our technology is a perfect match for their needs.

(AC): How much have your normal, traditional markets changed, and how much focus are you putting on developing new frontiers?

(RG): Our markets have changed a lot in recent years, in the past our customers always focused their purchasing decisions on price and delivery time, we all understand that these are all important purchasing decisions; but today, all of our customers understand that more important than capital costs, are the costs of operation where we talk about fuel consumption, tighter temperature distribution and having the ability to use the waste energy of the kilns in other processes.

Since 2010 we've been working on enhancing our Research and Development capabilities; and as a result today, we have in house modelling software and equipment to model the behaviour of fluid dynamics inside a kiln, with this we can take very solid steps to make our technology even better. We've also launched a project to upgrade our Research and Development Centre at our head office; within this facility we will be able to explore a wide spectrum of theories and ideas, resulting in full testing and experimentation to ensure we are able to implement the best possible technology for heat treatment applications.

Since 2008, we have been working more progressively with a like minded organisation called Progetti from Italy. This has resulted in our ability to offer our customers a market leading way of gaining heat recovery from our kilns.

Together with Progetti, we can offer a unique process of, part heat recovery technologies in the firing process itself, and coupling that with the addition of the possibility of using energy from the kilns in other processes too; like slip heating, environmental control of casting halls, dryers, hot water for showers, and many other options.

(AC): Where do you see your most promising areas for growth in 2011 and 2012, and why?

(RG): The areas where we think we're going to have the higher growth rates are continuous casting refractories,

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fused silica, technical ceramics, high performance refractories, electro porcelain insulators and sanitaryware. In terms of regional growth, we think Asia is going to be our biggest area of growth.

This has been our belief and our reality in the past years and this is why we have committed our investments and resources to our businesses in India and China, where we not only have sales offices, but also manufacturing and service capabilities.

(AC): What is the underlying theme for all kiln technology you introduce? For example, is it driven by economic savings for the user, efficiencies, developing new products or improving quality? What are the main driving factors?

(RG): I guess all of them. It is by offering kilns which offer the lowest fuel consumption in the market that we offer economic savings for the user, by offering heat recovery not only on the kilns but throughout the whole process that we offer efficiency and by offering the best temperature distribution and process control where we help our customers on not only improving quality, but also ensuring quality repeatability.

Also by having three manufacturing centres, Mexico, China and India, is that we can offer our customers different options for manufacturing and lower costs on custom duties, logistics, etc.

(AC): How involved are your customers in shaping the technology and equipment you provide?

(RG): It is a fact that every new solution we develop is made having our customers in mind.

At Nutec Bickley, a big percentage of our business comes from repetitive customers, for us it is clear that making our customers life easier is key for them coming back every time they have a new project.

Every piece of equipment we design is exclusive to each individual customer, we will never try to force our customers into an existing design, as we understand that every company has different manufacturing philosophies and we adapt our technology to their specific needs.

(AC): What are the most important innovations you are working on at present, and what do you hope to introduce this year?

(RG): We have been working in some important innovations in the past months in all of our range of products. For example, we just re-defined our tunnel kiln for sanitary ware and together with all these innovations, we can achieve

less than 900Kcal / kg of ware with a decent load density.

On our high temperature kilns, we have developed a combustion and control system which at the lower part of the cycle ensures low hold temperatures (as low as 65°C), while still ensuring very tight temperature uniformities and just the required level of oxygen for binder burnout and on the higher part of the cycle the ability to have a very accurate air / fuel ratio to be able to reach temperatures of 1,800°C in the most efficient way.

This helps us on having the lowest fuel consumption together with the best quality parameters.

Other recent developments are the continuous development of our IMPS® (Integrated Multizone Pulsing System), our Jointless® Ceramic Fiber Insulation System, Our PFPS® (Power Failure Protection System).

Nutec Bickley is always investing in having better R&D capabilities as we believe this is going to be the basis for our growth in the future.

(AC): India has become one of the key ceramic destinations of the current decade, and with Toto now potentially setting up in Gujarat, another major company has moved there. Does the growth of multinational manufacturers suit a company like yours, or do you prefer more, small-mid-size companies to deal with?

(RG): We are a very flexible company, our references show that we have worked with some of the biggest companies in the ceramic industry, but if you take a look at our customer base you'll note that small-mid size companies are a big part of our business.

We like working with both type of companies, on one side, the big companies typically offer great challenges, global operations and the largest projects, and on the other side, it is very satisfying to be an important part of the growth of the small-mid size companies.

(AC): Finally, where do you see the company in 12 months' time: what would constitute a good year for the company?

(RG): In the past months we've not only developed our plan for 2011, but we now have a very clear idea where we want to be 5 years for now and what are the steps we need to take to get there.

Since the beginning of the year, we've worked very hard on the execution of our five year action plan.

If we manage to get the level of sales we have forecasted for 2011, which is a very aggressive goal by itself, and complete the steps towards, the future, we can say 2011 constitutes a good year for Nutec Bickley.