

SINO GRINDING

GRINDING OUT RESULTS



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Pieter Theunissen, Marketing Manager for Africa, and Mark Addison, General Manager of Sino Grinding (Americas) Inc, explain how Sino Grinding became the next global leader in grinding media and how it intends to remain as such

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SAG mill in action

It was more than a decade ago now that Paul Peng, at the time working for another company designing his own unique grinding media, decided it was time to go it alone and set up his own business. It was this calculated determination that led the creation of Sino Grinding.

“In the early days of the business,” explains Pieter Theunissen, Marketing Manager for Africa, “it specialised in the design of grinding media for use in SAG mills. It was this somewhat niche market that Paul identified as being one that was often missed entirely by the larger grinding ball manufacturers. What he subsequently did was design SAG mill grinding balls that could withstand high levels of impact and possessed good abrasion resistance. Upon testing these balls were found to be highly successful and it was from here that the business would go from strength to strength in the years that followed.”

Today the Sino Grinding Group of companies promotes its grinding media on a global level, providing its clients with regular on-site technical support, while proactively carrying out advanced research and development in order to bring new products to market to deal with specific problems. The group itself is made up of several companies, subsidiaries and representatives including, Sino Grinding Industries, Sino Grinding International, Beijing Sino Grinding International and Sino Grinding (Americas) Inc.

Since its formation Sino Grinding’s aims, when it comes to the work it does for its clients, have centred on four main focus areas, those being the said clients’ steel



consumption levels, the costs expended per quantity of ore milled, achieving grind by particle distribution improvements and increasing throughput levels.

“From day one,” states Mark Addison, General Manager of Sino Grinding (Americas) Inc, “we work continuously and tirelessly with our clients until we know that we have the right solutions to meet their requirements. We are not milling specialists who provide a general purpose product to the whole industry, rather we are specialist designers and as such we work to the targets and specifications set by our customers.”

What makes such a unique approach possible is Sino Grinding’s impressive range of seven different types and grades of forged SAG grinding media. This far outnumbers the industry average which tends to see commercial grinding ball manufacturers producing no more than two types of media. Sino Grinding’s grinding media range in size from 0.5” (13mm) up to 6.5” (165mm) and cover all different kinds of mill type.

“What our range of products allows us to do is match the environment that a customer is milling in to a particular solution,” Addison continues. “Further to this we provide technical services that including modelling the milling operations of our customers to

improve the whole process, choosing the correct grinding ball sizes and carrying out the initial ball charge calculation for the commissioning of new mills.”

One recent, and particularly impressive, example of how Sino Grinding is able to improve the grinding activities of its

customers can be found in Zambia at First Quantum Minerals’ Kansanshi Mine. Here the company has assisted in halving the operation’s consumption rates of mining media in kilograms per tonne, thus helping it to make considerable cost savings over an extended period of time.

With such successful examples already visible within the marketplace Sino Grinding is currently working to build upon this by conducting tests with a wide range of companies and mining operators throughout

Paul Peng listening for ball on shell impact

0.5”-6.5”
.....
The size range of Sino Grinding’s grinding media

the world, where the said industry figures have a first-hand opportunity to compare the products they currently use with those of Sino Grinding.

“During these tests,” Addison highlights, “one of

the first things we work towards is being able to provide a recommendation of what the best size of grinding ball product would be for a particular potential customer, then the selection of the Sino wide range of media grades begins. This is our starting point from which we can begin to modify

“WE TAKE HUGE PRIDE IN THE FACT THAT WE ARE NOT COPIERS, RATHER WE ARE INNOVATIVE DESIGNERS”



125mm Sino-4 grinding balls in a 6.5m SAG mill



Grinding balls



Examination of grinding balls

“OUR WIDE PRODUCT RANGE, UNIQUE CUSTOMER FOCUSED APPROACH AND DEDICATION TO QUALITY HAS PUT US AHEAD OF THE GAME AND THAT IS WHERE WE INTEND TO STAY”

said recommendation throughout the course of discussions with the customer. Time and again we have found this to be the best way of achieving the targets and aims that we are set.”

One of the other unique qualities that Sino Grinding boasts is the fact that it uses

a specially designed multi-hammer forging process. Much as has been the case with the chemical composition of the company’s grinding ball range, attempts have been made by competitors to replicate this process however no one has yet managed to get all the components right. “We take huge pride in

the fact that we are not copiers, rather we are innovative designers,” Theunissen enthuses. “Because of this we have managed to stay ahead of the curve and we estimate that we are still some years ahead of our nearest rivals when it comes to research and development.”

While Sino Grinding has always been committed to developing new products and solutions the same can’t necessarily be said about the vast majority of its competitors and this has resulted in an industry sector that, overall, has seen very little in the way of change for the last two decades. This however is something that the company expects to change in the not-too-distant future.

“Eventually the market as a whole will have to lift its quality levels,” Addison concludes. “This will happen slowly and while it does it is our own aim to be recognised as the go-to-guys when it comes to SAG milling and grinding ball solutions. Our wide product range, unique customer focused approach and dedication to quality has put us ahead of the game and that is where we intend to stay.” **BE**

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