



Capwell Industries - Kenya

Milling and Grain were invited to join Mr Gorkem Alapala, Vice-Chairman of the Board for Alapala, to visit one of their completed wheat mills

by Darren Parris, Group president, Milling & Grain

Being one of the largest countries in East Africa, with a capacity of more than 1.75 million tonnes, Kenya is one of the leading corn-milling countries in Sub-Saharan. Kenya is also renowned for its wheat production. Kenya own a great deal of wheat stocks and produce a significant amount of wheat flour. With slightly more than 100 mills in Kenya the production capacity follows Pareto's principle in that the largest 19 mills, around 20 percent of all mill plants are producing around 80-to-90 percent of the total wheat milled.

Kenya's rapidly increasing population also means that their production rates for maize flour, wheat flour and rice have also

had to drastically increase to meet in-line with their consumption demands. Nairobi, Kisumu and Mombasa are considered the hubs of milling within Kenya and are the places that have become most subject to industrialisation.

Milling & Grain were very pleased to attend the 29th Annual IAOM MEA (International Association of Operative Millers, Middle East Africa) from 23-24th October 2018. On the evening of the 25th, we were even more pleased to have been invited by Mr Gorkem Alapala, Vice-Chairman of the Board for Alapala, to visit one of their completed mills.

Alapala

Alapala have a very rich and diverse history in machinery which all began in 1954, when Mr Mehmet Alapala began to



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Alapala's Similago II roller mill

produce the first wooden plansifter. By 1967, the plant began to utilise new-founded technologies and create more machinery for both flour and feed mills. Popularity soon proved how good Alapala's products were, as they made their first international exports in 1981, to Yugoslavia.

Soon, Alapala were delivering turnkey projects around the world. In 1989 they had already completed construction of flour plants in both Italy and Jordan. By 1998, they were producing plants with capacities of over 500 tonnes of product a day. Alapala offices had been established around the world and the company were yet still only continuing to grow.

In recent years, Alapala's innovative products have won many awards, such as Milling & Grain's coveted GRAPAS Innovations Awards in 2015 for their Similago II Roller Mill, as well as the Reddot Product Design Prize and Good Design prizes in the US. They are in the top 1,000 companies in Turkey for gross export numbers and currently export to over 100 countries worldwide.

Now, Alapala have a state-of-the-art production facility that is only further attesting to their success. Built in 2017, the factory spans 50,000-square metre and even features robotic automation. Alapala's quality service, economical solutions, expertise and innovation securely sets them as one of the world leaders in the milling industry.

Visiting the Capwell Industries mill

Founded in 1999, Capwell Industries Ltd produce all varieties of maize and wheat flour, rice, pulses, porridges, and cereal beverages for their consumers. Their most well-known product brands are Soko maize flour and Pearl Rice, both of which are recognised as premium-quality products in Africa.

Their products place a great emphasis on health and ensure to feed families with only the best, most nutritious and beneficial ingredients. They state themselves that their mission is to enhance the wellness of their customers through innovative products. Capwell products can be found throughout Africa at leading supermarkets, kiosks and mini outlets.

Capwell Industries' expertise and commitment has also been proven by their recent HACPP accreditation, a certification that proves their dedication to producing safe food. Even with this great achievement now completed, Capwell Industries are only continuing to pursue the next level up in gaining the ISO 22000 standard for further evidence of their impressive food safety measures.

Mr Gorkem Alapala, Vice-Chairman of the Board for Alapala invited myself and 12 African millers to have an exclusive tour



Alapala's Arion Purifier



of the new Capwell Industries mill for wheat flour. Alapala managed to build Capwell Industries' mill from foundation to complete mill in just under two years and the high-quality and attention to detail resonate throughout the building. The mill has the capacity to produce over 250-tonnes-per-day of flour and Project manager Mr Jagjit Singh was clearly very impressed with Alapala's build quality and machine performance.

Mr Singh explained "Alapala had ensured that Capwell Industries received only the best in innovative technology, ensuring each and every machine in the mill would provide them with a great end product of premium quality."

He elaborated further, "Three of their most impressive machines that had been installed into Capwell's mill were the Similago II,



Project Manager, Mr Jagjit Singh talking with Vice-Chairman of the Board for Alapala, Mr Gorkem Alapala







Alapala's Quadro Plansifter – DPAK



“Alapala proved to me their roller mill's efficiency and ease-of-use, with their ability to change each roll in under four minutes”

the Quadro Plansifter – DPAK and the Arion Purifier.” Discussing with the Mill Manager it was clear that his view was that these three innovations were incredibly impressive, and he emphasised that Alapala had supplied only the best technological innovations for Capwell Industries.

My interest having now been ignited in these three innovations, as we moved through the mill I quizzed the staff further to find out more about what made these machines so special to Capwell Industries.

Similago II

We first stopped on the roller floor, one of Alapala's many innovative solutions present within the Capwell Industries mill was the Similago II roller mill, this is their premium roller mill that won Milling & Grain's GRAPAS Innovations Awards in 2015 for its innovative technological revolutions.

The Similago II, is made of the highest-quality carbon steel, has the ability to perform high-capacity grinding continuously without pause, without any risk of wear or decrease in performance. The machine is also unique in that it can run completely silently, due to the special profiled transmission belt, tensioning pulleys and drive pulleys which drive the rolls differentially.

The machine is equipped with high technology electronic systems; the feed rate is automatically controlled by using a capacitance sensor in the feed box, which sends a signal via PLC to regulate the speed of feed rolls. There is a special mechanism which gives flexibility to the grinding rolls against oversized subjects, whereas pneumatic roll engagement/ disengagement system is used to monitor the positioning of grinding rolls. The machine also has control systems like rear roller speed monitoring etc. in order to ensure also the operational safety.

Each of the internal parts of the Similago II is made of stainless steel, in order to prevent any accumulation of condensation or raw materials and a clean environment is doubly assured as no greasing is required.

Roll changes can be carried out quickly and efficiently in just under 20 minutes, ensuring that these models have the minimum amount of down time out of all of Alapala's models. Maintenance is also easy, with no special tools required and no lifting devices needed for the roll sets, as they can easily be dismantled from the machine. And having recently visited the Alapala production plant in Turkey, I conducted my own crude roller change test and

a team of two Alapala staff were able to change a roll in three minutes 44 seconds.

The inspection glass for the Similago II consists of polycarbonate, which can also be easily removed for easy cleaning, ensuring that this roller mill complies with all sanitary standards.

Quadro Plansifter – DPAK

Moving through the plant, another one of Alapala's latest solutions present in the Capwell Industries mill was the Quadro Plansifter – DPAK. This innovative solution can be used for wheat, rye, oats, barley, corn and a variety of other food products.

The head miller continued “The Quadro Plansifter DPAK contains several superimposed sieves which are square in shape, in order to guarantee optimal sifting action and precise separation of the raw materials.” The oscillating drive system of plansifter is quite strong for heavy duty working conditions.

I noted that each sieve provided with the QUADRO Plansifter – DPAK is made of wood and coated with Formica.

Each plansifter also contains its own inlet and outlet boards, as well as control spouts and connection sleeves made of a special fabric that is permeable to the air. The insulation panels are internally-coated to prevent any condensation issues and a special Alapala-design pressure-clamping device ensures that the access doors close firmly and tightly.

Mr Singh explained that much like Alapala's Similago II, the Quadro Plansifter – DPAK emphasises easy maintenance. The special structure of the sifters ensures that insects cannot enter the machinery and take shelter, whilst the telero frames make installation and dismantling of the Quad Plansifter, quick and hassle-free.

Looking inside I noted up to 28 sifters can be fitted to the sifting cabin, and it was explained that it is possible to increase the sifting capacity by up to 22 percent, should the user incorporate ‘G’-type sifter boxes.

Mr Gorkem Alapala further detailed that “Alapala have ensured to cater to every customer need and have also made sure that the QUADRO Plansifter can also be easily transported, by breaking up simply into three pieces for efficient shipping and handling.”

Arion Purifier

Mr Gorkem Alapala continued as we entered the Purifier room, “The Arion Purifier is another feat of Alapala innovation that can

be used in both flour and semolina mills. The sieves housed inside the Arion Purifier separate the raw materials with great efficiency and intricacy.”

The Head Miller further explained “Regulating valves help control the aerodynamic air canal, which creates the ideal vacuum to flow the products through the purifier. This method holds the bran and other undesirable material, which are then removed and transferred to the discharge and collecting boxes below.”

I noted that the suction/exhaust chamber in the Arion purifier actually contains not one, but two aerodynamically designed chambers, both with independent regulation valves positioned above the sieves. This I was told creates an optimal air flow which always ensures peak performance of the purifier and sieves. The exhaust is also fitted with an adjustable butterfly valve.

Vibration mountings and vibratory motors are used to ensure that the Arion Purifier is especially efficient, and these fittings are also maintenance-free and very energy efficient.

Mr Gorkem Alapala also emphasised to me the importance of sanitation and hygiene with their Arion Purifier and that the system complied with all the prescribed hygiene standards, I was told each and every part of the machine consisting only of the best-quality materials to ensure easy and effective sanitation.

I noted that, compared to Alapala’s previous models and other purifiers, the Arion Purifier is clearly of a high-quality. This rendition of Alapala’s purifier has an increased capacity, compared to prior models, as well as a new adjustable-sifting speed. It can also work in silence, requires minimal maintenance, and boasts easy cleaning due to its innovative hygienic design. The sieves can easily be cleaned with brushes and are also easy to replace.

One very happy customer

Capwell expressed their deepest gratitude to Alapala for all their hard work constructing the mill and it is clear why Capwell Industries are so happy; the mill is a marvel and has been fitted with only the best machinery for the job. Alapala were clearly very committed to providing the best possible solution for their clients and this is a testament to their hard work and dedication.

