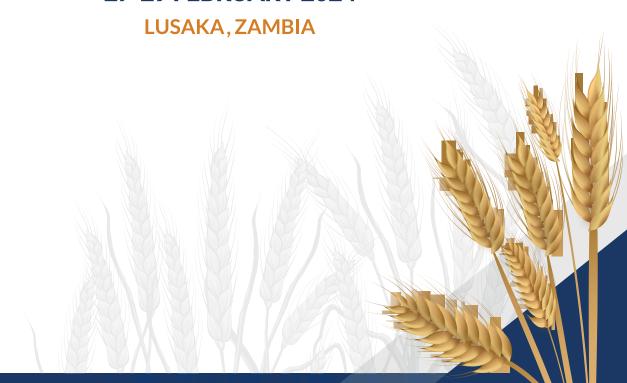


# AOMEA 2024 REGIONAL MILLING FORUM

Milling Operation for Ultimate Efficiency

27-29 FEBRUARY 2024



# Upcoming Event IAOM MEA Conference & Expo 2024





For Registration, Expo Booking & Sponsorship Please Contact:

info@iaom-mea.com







# IAOM MEA 2024 Regional Milling Forum Lusaka, Zambia Welcome Message

Dear Members of the International Association of Operative Millers - Mideast & Africa Region, Delegates of the milling companies, Ladies and Gentlemen,

For the first time, the IAOM MEA have chosen the Republic of Zambia as the destination to hold their annual forum. On behalf of the milling industry in Zambia, we welcome you.

As you know, IAOM MEA was first established in 1989 in Jordan. At that time, twenty-four millers from several countries were members of the association. Over time, millers from different nationalities joined the association and were united under one umbrella which is now known as the "International Association of Operative Millers Mideast & Africa".

The association aims to improve and educate all those who are willing to learn about the milling industry, storage, and handling. The association organizes forums that include teaching how to trade grains, appropriate storage, milling and operating technology, final product silos, quality control, etc. Specialized experts in the milling field, who are members of the Education Committee of IAOM MEA, are involved in organizing those forums. The association also supports millers in all countries of the Mideast and Africa. Providing them with skills and experience that help them develop the milling industry.

National Milling Corporation Limited welcomes you to the country we call home, Zambia and wishes you safe travels. We hope you enjoy your stay and manage to experience the friendly nature of the people and the unbeatable beauty of the wild spaces.

Yours sincerely,

Geoff Thomas
General Manager
National Milling Corporation Limited







# IAOM MEA Education Committee Chairman's Message

Dear Millers
Dear Mill-, Maintenance- and QC-Managers
Dear Delegates,

On behalf of the IAOM MEA Educational Committee, we would like to warmly welcome you to The International Association of Operative Millers Mideast & Africa (IAOM MEA) Regional Milling Forum 2024. This year, we are delighted to host the IAOM MEA Regional Milling Forum in Lusaka, Zambia! IAOM MEA acknowledges the importance of human capital; hence, we developed educational initiatives to educate and, more importantly, inspire Millers, Production, Maintenance and QC Managers throughout the region.

IAOM MEA also puts great emphasis on the advancement of technology and innovation. Furthermore, the Regional Milling Forum will dedicate networking time and space throughout the three-day program for local millers and international suppliers to interact.

Throughout the 3 days, the Zambia Forum will cover 3 main topics as follows:

#### • GRAIN HANDLING & SAFE STORAGE

Covering essentials for safe storage, silo design, grain conservation and know-how in operation.

#### • MILLING TECHNOLOGY AND BEST MILLING PRACTICE

Presents principles of milling flowsheets, key milling equipment, best milling practice, sieves & rolls care and calculation of mill extraction.

#### • FINISHED PRODUCT HANDLING AND QUALITY ASSURANCE

Highlighting flowsheet of a finished product silo, flour mixing concepts, flour improvement, quality analysis and essentials in flour quality.

We trust that this Forum will provide you with a complete guide to Milling Operations for Ultimate Efficiency!

Yours sincerely,

#### **Martin Schlauri**

IAOM MEA Education Committee Chairman







#### **VISION**



### **MISSION**



The International Association of Operative Millers Middle East and Africa Region (IAOM MEA) has established the Regional Milling Forums program, encompassing the Sub-Saharan African region, the Maghreb region, and the Middle East region. Annually, the IAOM MEA Regional Milling Forum will alternate within the MEA region, focusing on technical millers. This forum creates a tailored professional platform that addresses their specific market challenges.

The International Association of Operative Millers Middle East and Africa Region (IAOM MEA) aims to support local millers by offering superior quality papers that address technical and regional challenges. Additionally, we provide a networking space for exploring the latest technologies and solutions presented by international suppliers.

### WHO SHOULD ATTEND?

The IAOM MEA Regional Milling Forums are open to Technical and Operational Staff such as:

- Owners
- CEOs
- Head Millers
- Production Managers
- Quality Control Managers
- Maintenance Managers
- Machinery Suppliers
- Mill Supervisors
- Technical Staff







## THANK YOU TO OUR SUPPORTERS





















































### THANK YOU TO OUR MEDIA PARTNERS







**WORLD GRAIN**.



# **PROGRAM**









### DAY 1 - TUESDAY, FEBRUARY 27, 2024

#### **GRAIN HANDLING & SAFE STORAGE**

08:00 - 9:00	REGISTRATION & BADGE COLLECTION	
09:00 - 09:10	Welcome Message - Local Host	Geoffrey Thomas General Manager, National Milling Corporation Limited (Zambia)
09:10 - 09:15	IAOM MEA Regional Milling Forum Mission & Vision	Martin Schlauri IAOM MEA Education Committee Chairman
09:15 - 09:50	Essentials for Safe Storage	Martin Schlauri IAOM MEA Education Committee Chairman
09:50 - 10:30	Silo Design & Construction for Industrial Storage Plants	Martino Celeghini CEO, CESCO EPC GmbH (Germany)
10:30 - 11:00	MORNING COFFEE BREAK & NETWORKING	
11:00 - 11:45	Grain Handling & Safe Storage	Dwight Botha
		Sales Manager Sub-Saharan, AGI (South Africa)
11:45 - 12:30	Grain Cleaning & Conditioning	
		Sales Manager Sub-Saharan, AGI (South Africa)  Erhan Incioglu  Sales and Marketing Manager, Tanis Milling Technologies (Türkiye)
11:45 - 12:30	Grain Cleaning & Conditioning	Sales Manager Sub-Saharan, AGI (South Africa)  Erhan Incioglu  Sales and Marketing Manager, Tanis Milling Technologies (Türkiye)
11:45 - 12:30 12:30 - 13:30	Grain Cleaning & Conditioning  LUNCH BREAK & NETWORKING  Managing Flour Performance	Erhan Incioglu Sales and Marketing Manager, Tanis Milling Technologies (Türkiye)  Liezel Huysamen Application Technologist, SternIngredients







## DAY 2 - WEDNESDAY, FEBRUARY 28, 2024

## MILLING TECHNOLOGY & BEST MILLING PRACTICE

08:30 - 09:00	WELCOME COFFEE BREAK	
09:00 - 09:45	Principles of Milling Flowsheets	Martin Schlauri IAOM MEA Education Committee Chairman
09:45 - 10:30	Key Milling Equipment	Peter Marriott General Manager, Omas Northern Europe Ltd (United Kingdom)
10:30 - 11:00	MORNING COFFEE BREAK & NETWORKING	
11:00 - 11:45	Best Milling Practice_ Wheat Milling	<b>Priscilla Bakalian</b> Head of Training, African Milling School Nairobi / Kenya
11:45 - 12:30	Optimal Sieve Effeciency & Maintenance	James Mazhandu Export Technical Sales Representative, Sefar Filter Pure Pty Ltd (South Africa)
12:30 - 13:30	LUNCH BREAK & NETWORKING	
13:30 - 14:15	Take Care for Your Rolls	Martin Schlauri IAOM MEA Education Committee Chairman
14:15 - 15:00	Key Equipment & Best Milling Practice_maize Milling	<b>Petri De Klerk</b> Manager Technology, Bühler AG (South Africa)
15:00 - 15:30	AFTERNOON COFFEE BREAK & NETWORKING	







### DAY 3 - THURSDAY, FEBRUARY 29, 2024

## FINISHED PRODUCT HANDLING & QUALITY ASSURANCE

08:30 - 09:00	WELCOME COFFEE BREAK	
09:00 - 09:45	Flowsheet of Finished Product Silo & Mixing Concept	<b>Priscilla Bakalian</b> Head of Training, African Milling School Nairobi / Kenya
09:45 - 10:30	Quality Analysis for Raw Materials & Final Milled Product	Malcolm Holman Managing Director, Agri-Enviro Solutions AES (South Africa)
10:30 - 11:00	COFFEE BREAK &NETWORKING	
11:00 - 11:45	Innovative Enzymes Technology	Salim Makhoul Head of Research, Development & Technical Sales, Crown Flour Mills S.A.L (Lebanon)
11:45 - 12:30	Optimizing Wheat Quality Changes with Flour Correction	<b>Joy Mwangi</b> R&D Technologist Consultant, AIT Ingredients (South Africa)
12:30 - 13:30	LUNCH BREAK & NETWORKING	
13:30 - 14:15	Quality Assurance: Food Quality & Security	<b>Zeki Demirtaşoğlu</b> General Director of Bastak Instruments, (Türkiye)
14:15 - 15:00	Flour Quality Performance with the use of Flour Correctors	Pierre-Edouard Molina Managing Director, EUROGERM (South Africa)
15:00 - 15:10	Closing & Conclusion	Martin Schlauri IAOM MEA Education Committee Chairman
15:10 - 15:30	Certificates Distribution Afternoon Coffee Break	IAOM MEA



# SPEAKERS LINEUP









# Martin Schlauri IAOM MEA Education Committee Chairman

#### Biography:

Martin Schlauri joined Buhler in 1980 after graduating as a Milling Technologist SMS. After completing assignments in process development and plant commissioning, he was made responsible for the flour milling business in various countries. Back at the headquarters in Switzerland, Martin Schlauri took over the management of the Grain Milling Training Centre and later headed Buhler's worldwide grain milling activities. From 2015 to 2020 Martin Schlauri was the Managing Director and teacher at the African Milling School in Nairobi, Kenya.

Since 2022, after retiring from Buhler company, Martin Schlauri has been working as a milling consultant and taking care of the Educational Mission of the IAOM MEA.

Presentation Title: Essentials for Safe Storage

Presentation Title: Principles of Milling Flowsheets

**Presentation Title: Take Care for Your Rolls** 









Martino Celeghini CEO Biography:

Dr Martino Celeghini is currently CEO and co-owner of CESCO EPC GmbH. He has gained professional experience in project management of large international projects in more than 4 years in the grain handling business at CESCO and more than 15 years in the railway industry business in international companies such as STADLER in Switzerland and Siemens in Germany.

He holds an Executive MBA from the University of St. Gallen in Switzerland and a PhD in Manufacturing Engineering from the University of Erlangen-Nuremberg.

# Presentation Title: Silo Design and Construction for Industrial Storage Plants Abstract:

This paper addresses the critical aspects of designing and constructing silos for grain storage and processing plants. The correct selection of silo design is paramount for successful investments, and the paper emphasizes the importance of considering structural, architectural, and management design criteria, as well as functional and operational design criteria during the plant design phase. The structural, architectural, and management design criteria encompass soil evaluation, adherence to local regulations, use of modular systems, and high-quality finishing with hot dip galvanization. The functional and operational design criteria involve identifying the purpose of the investment, creating a flowchart for plant processes, evaluating the nature of products to be stored, determining the number and tonnage of products, considering operational hours, and deciding on the level of automation. The subsequent section delves into silo design, categorizing silos into raw material storage silos and process silos. Raw material storage silos are further discussed in terms of filling and emptying cycles, material choice (concrete or corrugated steel sheet), and flat or hopper bottom design. Process silos, common in cereal and rice processing plants, are examined based on design considerations such as shape (cylindrical or prismatic), wall design, loading/unloading systems, battery layout, and loads resulting from stored products.





The paper underscores the importance of analyzing loads resulting from stored products, distinguishing between solid, liquid, and grains, and considering standards such as Euro Code and ANSI ASAE loads. Additionally, the discussion touches upon flow patterns, funnel flow, and mass flow, highlighting their impact on silo design.

The final section emphasizes the integrated design of silos and process structures, stressing the need for collaboration between silo and structure designers. The steel design solutions for silos and building in process plants are presented as a comprehensive approach, considering static cooperation, structural typology, foundation design, standardization, safety improvements, and future expansions. The use of prismatic silos in steel buildings is advocated for its positive impact on reducing investment costs and streamlining the entire construction process.

#### **Company Profile:**

CESCO EPC GmbH is an internationally operating company based in Konstanz, which designs and supplies industrial plants for grain logistics and processing with handling, storing and milling systems. The products and services offered by CESCO are mainly divided in four business areas: Inland Grain Terminals, Port Grain Terminals, Turnkey Plants and Dry Milling Plants. Our products are: conveyors, namely chain and belt conveyors, bucket elevators; silos, namely cylindrical, and prismatic, flat and hopper bottom up to very large capacity silos, with all accessories; process equipment, namely pre-cleaners and filters, dryers, steel structures for process dedicated buildings and structures for industrial plants in general, such as machinery towers, bridges, walkways. We offer a complete service starting from concept and detail engineering, procurement and manufacturing, erection and commissioning for new plants, or refurbishing and upgrading of existing plants. CESCO EPC has recently relocated its headquarter to Konstanz, on Lake Constance, on the border with Switzerland, where CESCO has also opened its new assembly and logistics hall.













Dwight Botha
Sales Manager Sub-Saharan
Biography:

Dwight Botha is hired as a Sales Development Manager and over the years he has assumed responsibility for overseeing all sales and market development operations in Sub-Saharan and East Africa. Successfully achieved and surpassed both established and new sales targets during his tenure.

#### Presentation Title: Grain Handling and Safe Storage

#### **Abstract:**

At AGI, we recognize the global demand, particularly in Africa, for skills development and training in optimal grain preservation practices, along with essential maintenance of associated equipment.

Grain handling and storage constitute a specialized yet risk-laden market, emphasizing the necessity for industry-wide awareness of safety factors. This presentation delves into critical topics such as common mistakes near grain storage facilities, effective housekeeping, dust explosion risks, entrapment in silos, pest control considerations, aeration techniques, grain drying, and the importance of proper sampling and grading. AGI is committed to empowering and educating our customers, fostering improved working conditions and sustaining lives and livelihoods worldwide.

Join our presentation to enhance your understanding of these crucial aspects.





#### **Company Profile:**

For over 30 years, AGI's Europe, Middle East, and Africa (EMEA) division has been focused on providing manufacturing solutions that meet the unique needs of key grain, rice, feed and fertilizer producing areas of the world. From its headquarters in Ozzano dell'Emilia, Bologna, Italy, as well as its two state-of-the-art manufacturing facilities in Fiesso d'Artico and Este, Italy, AGI serves a wide range of customers in various industry sectors including farm, grain trading, milling and feed mills.

From initial design, to manufacturing, to installation, AGI has earned its reputation as a trusted partner for turnkey and full-system grain storage and handling solutions. AGI manufactures a complete assortment of equipment including silos, catwalks, ladders, platforms, bucket elevators, conveyors, temperature systems, sweeps, weighing, bagging, dryers, fertilizer, and feed solutions.













Erhan Incioglu
Sales and Marketing Manager
Biography:

Over 300 successful turnkey agro-processing projects in 14 years. Travelled 50+ countries. Created fully operating sales, sales after offices in 6 countries.

Long-term customer satisfaction. Highly motivated quality assurance, project management as well as technical support professional with 10+ years of experience and outstanding technical background. Proven ability to perform well under pressure with excellent technical leadership, communication, coordination and problem-solving skills.

# Presentation Title: Grain Cleaning & Conditioning Abstract:

The proposed topic for the forum holds substantial significance and relevance for millers attending the event.

In today's dynamic market landscape, the milling industry faces multifaceted challenges and opportunities. Understanding and implementing the latest innovations are pivotal for millers aiming to stay competitive, enhance productivity, and meet the evolving demands of consumers.

Primarily, addressing the techniques and technologies that bolster yield enhancement is critical. Increasing the yield directly impacts profitability, operational efficiency, and resource optimization within milling operations. It enables millers to extract maximum value from raw materials while minimizing waste, contributing significantly to sustainability efforts.





#### **Company Profile:**

TANIS MACHINE TECHNOLOGIES is a leading post-harvest agro-industrial machines manufacturer Company Since 1956 in TURKEY.

#### We manufacture, export, install and commission:

- ·Flour, semolina, wheat, maize milling plants
- ·Feed mills
- ·Seed production plants
- ·Oilseeds and pulses processing plants
- ·Storage and handling systems

With the latest modern technological methods with any capacity range designed as compact or concrete construction forms in 30,000 m2 closed area in Gaziantep industrial Zone / TURKEY We have obtained certificates our quality standards to ISO, CE, TUV, and TSE norms Exporting over 75 countries 6 International after-sales, spare parts and services offices available in ( Africa, the Middle East, Asia, and Latin America ) Stock spare parts in various regions. 2 years mechanical, 10 years spare parts and service, 20 years operational guarantee.

More than 300 completed turn-key project.

#### **Products and Services:**

- ·Complete turnkey wheat, maize flour, and semolina mills
- ·High-quality maize grits production lines in any capacity on a turn-key basis
- •Flaking and snack grits production lines
- •Color sorting machine and systems (SORTON BRAND by TANIS group)
- ·Steel storage silos for raw materials
- ·Oilseeds and pulses cleaning and processing plants
- ·Steel construction complete building for milling plants













Liezel Huysamen

Application Technologist

#### Biography:

My journey launched with a Bachelor's degree in Nutrition, specializing in therapeutic nutrition, with six years in diverse healthcare settings. I went on to earn an MBA, to expand the way for my successful career.

With a dual background, I had a crucial role in the success of an industrial bakery producing confectionery with Woolworths. Subsequently, I joined Chipkins Puratos, progressing in innovation to becoming General Manager with a monthly premix output of 2200 tons.

After 13 years of working with flour, I ascended to SternIngredients South Africa. In the recent three years, I'm leading our SISAF technical team as a Senior Application Technologist. My extensive experience uniquely allows me to contribute valuable insights on nutrition and to drive innovation for flour improvement.

# Presentation Title: Managing Flour Performance and Grist Costs with Enzymes Abstract:

# How can we still bake good quality bread with flour that fluctuates in quality or flour that has a low/weak gluten content?

All of this can be done by adapting the properties of flour by means of enzymes. The presentation will give insight into how bread is leavened and how to optimize this effect. This effect will be described in chemical scientific terms. The effect of enzymes during this process will be described. Then we will be looking at wheat of the world and their chemical composition. The question is asked, how can we substitute them? We will look mostly at sandwich bread and talk about the wheat properties to build the best bread. To aid these properties will specific enzymes be used to optimize the flour.





To further help the miller/baker will we look at how to handle each kind of flour (example - hard or soft wheat) to boost the best baking volume. The addition of various enzymes will be shown of a standard flour and breads will be baked with them. Then we will be looking at replacing hard wheat with soft wheat. We will show comparable baking results with the use of carefully selected enzymes and oxidation enzymes. We will show how the use of enzymes can help to adapt the grist and save money for the miller. Finally we will talk about composite flour. How that can be incorporated into wheat flour to still deliver an excellent baked bread.

#### The presentation is about:

The Baking Volume as Function of Gas Production and Gas Retention Exchanging Wheat Sources
Improving Flour for the bread of the region
Replacement of Hard by Soft Wheat
Baking bread with reduced gluten content flour

#### **Company Profile:**

#### Innovative ingredients for food industry.

Stern Ingredients South Africa is a part of the Stern-Wywiol Gruppe, a leading supplier of food ingredients globally. We offer customized and economical solutions for flour, bread improvement and fortification to our customers. Our technologists can provide support and suggestions to offer you the most individual and suitable solution from the portfolios of our specialist companies, focusing on the specific needs of companies in the region. We at Stern Ingredients South Africa regard ourselves first and foremost as a partner of our customers. Not until your production process is working smoothly do we consider our task finished. Comprehensive service is an important part of our business activity.

We show our customers how to improve the quality of their baked goods by taking specific measures. We bake products typical of their region and also introduce them to types of goods that are less common. Your partner for flour improvers, baking ingredients, micronutrient blend and enzyme technology in Southern Africa.













Ali Magboul CEO Biography:

Passion driven. Graduated from King Fahd University of Petroleum & Minerals in Dhahran as BSc in Electrical Engineering. Worked in Siemens Industry Saudi Arabia from 1998 to 2004, in Ocrim s.p.a

Siemens Industry Saudi Arabia from 1998 to 2004, in Ocrim s.p.a from 2005 to 2007. CEO of ASM Process Automation since 2007.

Our Goal is to be the market leader in Process Automation of F&B in the region.

#### **Presentation Title: Concept of Automation**

#### **Abstract:**

Maximizing efficiency and productivity, centralized plant automation with a unified dashboard streamlines operations, offering a plethora of benefits. Real-time monitoring allows instant identification of issues, minimizing downtime. Remote access empowers managers to make data-driven decisions, enhancing overall productivity. Cost savings arise from optimized resource utilization, reduced energy consumption, and preventive maintenance. Enhanced safety through automated protocols ensures a secure working environment. Quality control is elevated with consistent processes, reducing errors.

Scalability and adaptability are facilitated by the integration of diverse systems. A single dashboard fosters collaboration by providing a holistic view of operations, promoting cross-functional communication. Data analytics and trend analysis enable predictive maintenance, averting potential disruptions. Overall, centralized plant automation revolutionizes industrial processes, elevating efficiency, reducing costs, and ensuring a competitive edge in the rapidly evolving business landscape.





#### **Company Profile:**

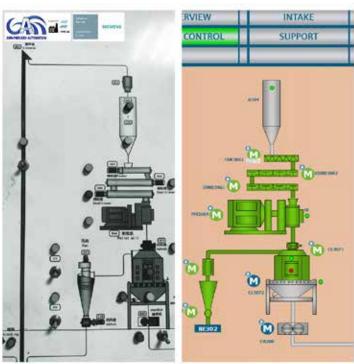
#### Welcome to Digital World

Having a digital plant involves leveraging technology to optimize plant operations, enhance efficiency, and monitor performance. It integrates IoT sensors, data analytics, and automation to streamline processes, improve resource allocation, and ensure product quality. Digital plants enable real-time monitoring of production parameters, predictive maintenance, and remote control, enhancing agility and responsiveness to market demands. With digitalization, businesses can achieve cost reductions, minimize downtime, and increase sustainability through optimized resource utilization.

Embracing a digital plant framework empowers organizations to adapt to evolving market dynamics swiftly and maintain a competitive edge in today's fast-paced industrial landscape.

ASM (Automation Solutions for Manufacturing) offers cutting-edge technology enabling digital industry transformation through high-performance know-how, efficient production, and innovative solutions. For more information; sales@ASM.net or visit us www.ASM.net













### Peter Marriott General Manager

#### Biography:

Peter has recently been appointed as the General Manager of Omas Northern Europe where he heads the regional milling activities of Omas.

He has spent his entire working life in the milling industry, first as a miller commissioning plants in Europe, Africa, Middle East and Asia. After serving his technical milling apprenticeship, he moved to project sales, living in Japan where he served the needs of the Japanese and Korean industries. He also spent over ten years living in the USA responsible for the North American milling market. Now residing in Manchester UK, in addition to his Northern European responsibilities, Peter is supporting the sales network of Omas' unique technology such as Flexy Mill, Flour Extraction Booster and patented KERS energy recovery systems in Africa and the Middle East.

### Presentation Title: Key Milling Equipment

#### **Abstract:**

The consumption of organic grain and multigrain bakery products has increased. The most used products for producing and mixing flours can be grouped into two categories. The first group includes various types of grains, such as durum wheat, soft wheat, rye, kamut, spelt, barley, oat, buckwheat and corn. With these grains, it's possible to obtain wholemeal and non-wholemeal flours suitable for making bread, dried pasta, fresh pasta, biscuits, desserts, pizza and other standard products. The second group includes some legumes, such as peas, chickpeas, lentils, broad beans and beans. The flours obtained after grinding these legumes are used for producing dry flours, with which you can make soups, hummus, or crackers, for producing alternative food or even substitutes such as vegan steaks.

Omas Industries aims to reinvent the art of milling thanks to the "Flexy Mill", the innovative solution for a quick, flexible and quality grinding.





Omas Flexy Mill allows you to modify grinding parameters during the grinding process while maintaining the quality of the finished product. We removed the pulleys and idler belts that allowed the two pairs of cylinders to grind. Thanks to permanent magnet torque motors coupled with inverters, it is possible to adjust every roller and thus modify many different parameters. With Omas Flexy Mill, the miller can increase or decrease the peripheral speed of both grinding rollers, change the grinding ratio, change the rollers' operating position, adjust the grinding gap, create grinding recipes that can be saved in the machine.

All these operating parameters impact grinding operations as much as the gap adjustment, and now that we can change them all, grinding will be quicker and more flexible. So we can adapt the mill to various types of grains and legumes, without compromising grinding performances and product quality.

#### **Company Profile:**

Omas Industries is a company founded in 1966 by Adriano Nalon in San Giorgio delle Pertiche, near Venice in Italy. The aim of the Omas Group is to become one of the world leaders in the milling industry.

The growth in the years to come is driven by significant investments in R&D, thanks to which the company is able to develop high-tech flour milling machines and cutting-edge "turn key" plants.

From the conception of the plant to the final realization: Omas projects are tailored to every specific need. Today, Omas boasts worldwide operating plants and is recognized as a reliable partner that can provide the best solution to any problem.













Petri De Klark Manager Technology

#### Biography:

Petri de Klerk, Manager of Technology Southern Africa Region, Bühler AG, Johannesburg, South Africa Petri joined Bühler in 2010 in the Technology department. In 2012 he started with the commissioning team as junior head miller.

For the next 4.5 years, he commissioned various processes in Africa. In 2016/17 he got the opportunity to support China with various projects and in 2018 was promoted to team leader in China. Thereafter got the opportunity to lead the team in Johannesburg in 2020.

# Presentation Title: Key Equipment and Best Milling Practice\_Maize Milling Abstract:

Maize milling is the process where raw maize is cleaned and milled into the desired finished product. The process is a gradual and selective process, where each step works towards a high extraction with the correct finished product specification. The process starts with the selection of raw materials, which has a great influence on the end product. Some maize are harder which produces a good quantity of grits, others have a white coloration where they can create a very bright flour. To have the correct end product, the proper selection of raw material is essential. The cleaning of the maize plays a very important role to achieve the desired finished product as well. The milling process for maize has two aims, separation of the endosperm from the husk and germ and the sizing of the finished product. There are a variety of milling diagrams to achieve different types of finished products. The first step of the process after cleaning/dampening is the degermination of the maize, which is designed around the finished product desired, and the raw material used to achieve this final product. This process has the main target of separating the germ from the endosperm.

After the raw material has been degerminated, depending on the finished product to be achieved, it will be sent to roller mills for further processing (sizing). There the product will ground into a desired granulation range. This granulation range is then sent to plansifters and purifiers to be sorted through size and density, where the product is then distributed to the next roller mills according to their specifications.





In between this separation and grinding process there are aspiration channels where they will remove the husk from the product streams, as husks contribute to a lower quality of the end product. This process is then repeated towards the end of the mill until the finished product specifications are achieved. The end products from the mill are then sent to their respective storage bins for either further processing, packaging or bulk outloading depending on the market requirements for them and the plant capabilities to have these processes.

#### **Company Profile:**

Bühler is driven by its purpose of creating innovations for a better world, balancing the needs of economy, humanity, and nature. Bühler has developed a pathway to achieve a 60% reduction of greenhouse gas emissions in its operations by 2030, meaning Greenhouse Gas Protocol Scopes 1 & 2, against a 2019 baseline. It has committed to having solutions ready to multiply by 2025 that reduce energy, waste, and water by 50% in the value chains of its customers. Two billion people each day enjoy foods produced on Bühler equipment; and one billion people travel in vehicles manufactured using parts produced with Bühler technology. Countless people wear eyeglasses, use smart phones, and read newspapers and magazines – all of which depend on Bühler process technologies and solutions. Having this global relevance, Bühler is in a unique position to turn today's global challenges into sustainable business. Bühler contributes to safely feeding the world and is doing its part to protect the climate, producing solutions that make cars, buildings, and machinery more energy efficient.

Bühler spends up to 5% of turnover on research and development annually. In 2022, some 12,700 employees generated a turnover of CHF 3.0 billion. As a Swiss family-owned company, Bühler is active in 140 countries around the world and operates a global network of 105 service stations, 30 manufacturing sites, and Application & Training Centers in 23 countries.















Priscilla Bakalian Head of Training

#### Biography:



Priscilla Bakalian is currently the Head of Training at the African Milling School in Nairobi. She teaches milling technology subjects as well as leads the school's development and training operations. She is also the owner of Bakalian Flour Mills, a 4th generation family-run mill located in Beirut, Lebanon.

As a C-level flour mill executive at Bakalian, Priscilla's experience was anchored in overseeing all the technical operations and improvements at the mill (600 MT). She was also in charge of customer technical support as well as researching and creating new finished products. Her love for education began with the design and development of in-house training programs for company staff in Cereal Science and Milling Technology. In 2018, she co-founded Bakalian Bakelab, a flour applications academy, and has designed and delivered baking and bread technology workshops for 100+ bakers. She majored in Food Science and Management at the American University of Beirut and is a graduate of the Swiss School of Milling. In 2023, she received her Feed Processing Engineer diploma from the Swiss Institute of Feed Technology. Priscilla is fuelled by a passion for optimizing and problem-solving and aims to improve the milling industry and community through education. She focuses on challenges revolving around sustainability and operational efficiency.

### Presentation Title: Best Milling Practice\_Wheat Milling

#### **Abstract:**

Milling from wheat to flour is a gradual and selective process. The ultimate purpose is to separate the endosperm from the bran. This is done by break rolls in different steps. Each break roll (break passage) is producing a specific amount of semolina and flour in different granulations. The product after the break rolls is classified in the break sifter and the semolina thereafter purified with the purifier and reduced to flour by the reduction rolls or separated as a finish product. The amount of semolina at a specific granulation is key for the performance of a mill. It has an impact on balancing the load at the subsequent machines (purifiers, reduction rolls etc.). Targets are the separation of semolina with low ash content and maximum yield of flour extraction with required quality.

Key words: milling process, break and reduction passage, semolina, yield.





# Presentation Title: Flowsheet of Finished Product Silo & Mixing Concept Abstract:

In most cases mills produce few standard flours. The market however requires specific flours and a variety of specialty flour. A flour silo allows to check the quality of each flour produced and blend the different flour types to specific flours as per the market demand. Specific flour in most cases is high priced and thus generates a higher margin to the milling company. To produce such specific flours, it requires appropriate flour handling, blending and mixing plants. Millers differentiate in flour blending and flour mixing.

Flour blending is applied if different kinds of flour are produced with few minor and micro ingredients. Flour blending is done by continuous blending, either volumetric or gravimetric and is usually applied for big quantities of the same kind of flour.

For flour mixing, flour and all the components such as flour improvers, ingredients and mixing of additives (vitamins, iron, soy flour, flakes, flavorings, etc.) are precisely weighed by batch weighers and homogeneously mixed in a batch mixer. Batch mixing is recommended in the production of special flour such as cake mixes (ready-to use flour mixtures), multi grain bread and high ratio ready-mixers. Homogeneity must be achieved within the shortest time possible. The material being mixed must be handled gently, i.e., low friction, no kneading, no size reduction, etc. Food Safety is a key factor which requires magnet control sifters or metal detectors and speck monitoring in various areas of premix or ready-mix flours.

Key words: blending, mixing, batch mixer, food safety.









### James Mazhandu Export Technical Sales Representative

#### Biography:

Technical Sales Representative for Africa Exports at Sefar (Pty) Ltd (South Africa) Technical Sales Representative for Africa Exports at Sefar (Pty) Ltd (South Africa) Technical Sales Representative for Africa Exports at Sefar (Pty) Ltd (South Africa).

Qualification in Lithography, Diploma in Marketing, Selling, Sales Management and PR from the London Chamber and Commerce and Export Management qualification from the Johannesburg Chamber of Commerce. Previous experience in the printing industry in South Africa and neighbouring countries like Zambia, Zimbabwe, etc.

# Presentation Title: Optimal Sieve Effeciency & Maintenance Abstract:

Most flour Mills are doing the stretching of the sieves themselves in-house. Some of them are providing the frames to a machine builder to do the Re-screening. Stretching a sieves need a lot of experience and knowledge. Correct stretching will increase your yield during sifting and will increase the lifetime of your sieve. The key machine in a flour Mills plant to stretch the sieves is a Stretching unit device.

#### What are the main points they have to consider before and during stretching?

- ·Selection of the right Polymer? (Polyester or Polyamide)
- ·How to choose the right sieves (GG, Milling XX / N, Milling forte, XXX / HD)?
- •The hardness of the wheat and the constitution of the endosperm requires to choose the correct sieve fabrics
- •The two crucial decision factors are high sieving efficiency or long lifetime
- ·Preparation and gluing
- ·https://www.sefar.com/en/573/News-Detail.htm?Article=2281594
- •Polyamide absorbs up to 3.5 4.4% humidity

#### What can be done to counteractive?

- -Correct selection of glue (high viscosity or low viscosity glue) and correct handling of the glue
- -Use an electronic meter for measuring the tension of sieve during stretching





#### •Why the flour sieves has to be change approximately once in a year?

- -The surface of the sieves will become smooth
- -Increase energy consumption (Milling pneumatic) because the product is moving to the next passages (over sifting) instead is going to the end product
- -The flour Mills are losing yield of 1st quality flour
- -Losing capacity t/h

#### •Why the tension is very important during sifting?

- -Correct tension that's mean more yield of 1st quality flour
- -Increase lifetime of the sieve
- -Save energy
- -Reduce downtime

#### Benefit of this education session for the Millers are:

1. Understanding about different kind of fabric types for the Milling Industry

2.Understanding how do the correct stretching (preparation and gluing) with the right chosen sieves according to his final product

3. How he can increase lifetime of the sieves and frames

4. How to reduce downtime

5. How to reduce energy consumption

6. How to increase the yield of 1st quality flour

7.Relationship between long lifetime and sieving efficiency / capacity

#### **Company Profile:**

#### Sefar - Filter Technology

Leading in technical fabrics for around 190 years, Sefar has been setting standards worldwide as a problem solver with an absolute customer focus. Sefar AG produces precision fabrics, filter components and ready-made products for filtration/separation, high-precision screen printing fabrics as well as innovative, functional fabrics for a wide variety of applications. Today, SEFAR NYTAL is the brand name for all products Sefar produces and sells to the milling industry. Our products are available as ready-made articles as well as rolled goods for all types of sieving machines. We are able to supply millers with all products from one source for sieving, grading, and dust removal as well as connector sleeves, sieve cleaners and tensioning equipment for all major equipment used within the flour milling industry such has plansifters, purifiers, centrifugal sifters and bag houses.











Malcolm Holman Managing Director

#### Biography:

Malcolm Holman is an accomplished Managing Director at Agri Enviro Solutions, where he leads the company's efforts in supplying solutions for sustainable agriculture, environmental conservation, and the grain and milling industries.

With over 26 years of experience in the field, Malcolm has demonstrated exceptional leadership and expertise, driving the company's growth and positioning it as a frontrunner in the industry within Southern, Central and East Africa.

# Presentation Title: Quality Analysis for Raw Materials and Final Milled Product Abstract:

This topic will enlighten the attendees to the most recent and relevant technologies used in modern milling operations. It will furthermore highlight the significance of grading and evaluating incoming raw materials to assist in gristing decisions and final product quality.

The proposed topic will also address the measurement of final product rheology, rheological significance and understanding the role of testing rheologically and not merely for 'numbers'.

I would like to present this topic in tracing the product to be milled from field to mill to final product bagging and second transformation of the milled product (baked goods).

It is essential for millers and mill owners/managers to understand the significance of Quality Control in ensuring a quality final product and, most of all, final product consistency.







#### **Company Profile:**

AE Solutions (Pty) Ltd "AES" is a privately-owned business and specialized supplier of laboratory and scientific analytical equipment throughout South Africa, Southern, Central and East Africa and the greater SADC region. Our agencies have been specifically selected and most have been aligned with us for more than 35 years. All are world-renowned and are international leaders in their fields of expertise.

We have, since 1982, and always will be able to offer our customers total solutions to their physical and analytical testing requirements. We offer instrumentation and solutions to the grains-, flour-, feed-, food-, environmental-, water-, mining-, plastics/rubber and industrial industries with full installation and training.

This, coupled with comprehensive application support, after sales support and training, has ensured our success throughout the years.

Specialist expertise within the "AES-team", as well as a network of available external experts offer the customers a total solution service. This pool of expertise allows the best use of cutting edge technologies and innovation under a wide range of circumstances.













### Salim Makhoul Head of Research, Development & Technical Sales

#### Biography:

A vivid professional with more than 25 years of experience in the flour and milling industry, Salim has been part of various business lines, ranging from milling engineering, lab and quality control, to advanced baking and enzymatic flour treatment.

He is also a lecturer at the Faculty of Pharmacy at University Saint-Joseph, Beirut since 2013. Diploma: Milling engineer Swiss school of milling. Advanced milling courses in Kansas state university Diploma Master baker in Weinheim Academy.

## Presentation Title: Innovative Enzymes Technology

#### **Abstract:**

- -How enzymes can serve in flour consistency.
- -The reaction of enzymes of: amylase, xylanase, glucose oxidase and lipase in wheat flour dough and bread enzymes.
- -The impact of wheat blend variation on the flour quality and how the enzymes can help to overcome this issue.
- -The technical coordination between the millers and the bakers in order to finetune both processes and flour quality.
- -The development of tailored made flour with the help of single enzymes, and the role of each enzyme on the development.

#### Please find below some examples:

- -Datem replacement: Datem is highly functional and a well trusted material in baking.
- -Lipase are also highly functional.
- -Working comparably to DATEM in most common baking processes.
- -Interfacial stability at the end of proof is believed to underpin stability.
- -In particular Datem and lipase restrict zonal collapses when the dough is shocked by handling and or in baking.





#### **Company Profile:**

"Introducing Crown Bake—a proud extension of the legacy of Crown Flour Mills Lebanon.

In 1952, Crown Flour Mills started with the modest daily capacity of 40 tons of wheat. Now it is one of the leading mills in the Middle East with a monthly capacity of more than 15,000 tons of wheat.

Emerging our expertise in milling science and enzymatic technology, Crown Bake excels in baking solutions and flour treatment, rooted in innovation and comprehensive support. Our dedication lies in blending science with craftsmanship to produce tailored, adaptable, convenient and cost-efficient products.

Thanks to our strong distribution network, we are able to serve customers ranging from one-store shops to multi-unit chains, across the entire MENA region and GCC.

Our product range includes diverse bakery mixes, precision-crafted bread improvers and specialized flour treatments—each designed for superior performance.

At Crown Bake, every partnership is personalized, guaranteeing tailored guidance and unparalleled client success".













Joy Mwangi R&D Technologist Consultant

#### Biography:

Joy Mwangi is a Research & Development Technologist, Milling and quality assurance expert with a degree in Microbiology and a Diploma in Milling technology from the Africa milling school, with 13 years of experience in the Milling, Baking industry, Quality assurance and food safety. Currently working with AIT South Africa as an R&D technologist and Milling consultant.

# Presentation Title: Optimizing Wheat Quality Changes with Flour Correction Abstract:

According to the latest reports by FAO Wheat production has dropped by 3-3.5% compared to the previous season, this means the stocks are going to be much less available for most millers globally and yet the utilization by millers has not reduced, this has seen wheat prices shoot to their highest records. Due to the low yield challenges globally experienced in the last wheat harvest season as a result of drought challenges in various wheat producing countries/regions and the impact of war in Ukraine and Russia, Most millers have been faced with the challenge of utilizing readily available wheats which have lower baking quality while the available good quality wheat has exorbitant prices.

As an ingredient company we have developed innovative solutions Focused on gluten strengthening and boosting combined with skills in milling, we have developed a list of process controls focused to parameters guiding our milling partners that will help bridge the gap of lower stocks availability and still give them consistent quality product for their customers and while remaining profitable as well as have a competitive edge.





#### **Company Profile:**

AIT ingredients is an affiliate of one of the leading European agricultural French group INVIVO- SOUFFLET, whose mission is to Foster the agricultural and food transitions to a resilient Agro system, we deal in international grain trade, Agriculture, Garden center pet supplies food retail, Malting Barley value chain, Milling ingredients baked goods and Wine With over 14,500 employees and 12 billion Euros of turn over. AIT Ingredients Division is the Ingredients and Biotechnology expertise of INVIVO -Episens, with a mission to improve naturally food for everyone and everywhere in the world by formulating innovative and responsible solutions, we have a turnover of over 87M euros, 278 employees in this division with six industrial sites and 4 bake houses.













#### Zeki Demirtaşoğlu General Director Biography:

BASTAK founder Zeki Demirtaşoğlu, born in Çankırı in 1971, received his high school education at Mehmet Rüştü Uzel Chemistry High School. Later, he won the Department of Food Engineering at Ankara University, Faculty of Agriculture.

After graduating from the Department of Food Engineering,

he received a master's degree in microbiology. Demirtaşoğlu, who foresees that the biggest economic contribution to our country in this process is to develop production and production methods, established Bastak Teknoloji Sistemleri Ltd Şti in Ankara in 1999. Flour and wheat quality control laboratory devices such as enzyme meters, humidity devices, gluten washing devices, and sampling devices were added to the product portfolio in time. Today, 43 kinds of quality control devices and 35 kinds of flour additives are produced.

## Presentation Title: Quality Assurance: Food Quality & Security Abstract:

In the world food industry, scientific and technical advancements have significantly accelerated, leading not only to an increase in the nutritional values of food products but also to the assurance of their technical standards and safety. Ensuring food quality and control is crucial in this context. The raw materials for various food items such as flour, semolina, bran, milling products, gluten, bran, and starch are derived from wheat and wheat products. It is estimated that there are around 15 species and approximately 30,000 varieties of wheat. Differentvarieties of wheat and milling products with specific characteristics contribute to the production of commercially valuable items such as bread, pasta, biscuits, cakes, crackers, and cookies. Quality control from the raw material stage is the first step in the processing process. Careful selection and examination of grains, seeds, oilseeds, and legumes coming from the fields are the key to maintaining quality standards in subsequent stages. Moisture content analysis, one of the most commonly used basic analyses in the processing and control of food, is crucial, as it is a significant factor affecting the shelf life of food. An increase in moisture content beyond a certain level leads to an increase in microbial activity.

Determining and testing the quantity and quality of proteins accurately and rapidly during the final processing of raw materials into finished products is crucial for both producers and consumers. The proteolytic and amylolytic enzyme activities play a significant role in determining the quality of flour, which is the mainstay of our diet and the foundation of the milling industry.





Analysis of dough rheology provides essential information in the food industry, helping determine differences in the quality of flours, select appropriate raw materials, and identify changes in the dough during fermentation. In conclusion, these analyses in the food industry contribute not only to product quality but also to optimizing processing processes. They support the mission of providing consumers with healthy, tasty, and high-quality products in the production of quality-controlled baked goods.

#### **Company Profile:**

Bastak Technology Systems Inc. has been manufacturing high-tech quality control devices in the fields of food, flour, grain, seeds, oilseeds, pulses, and feed for 25 years in Turkey's first and only patent-approved and practical model robotic sampling systems located in the first and only R&D Center approved by the Ministry of Industry and Technology. Our company, in accordance with ICC No. 189 and 192 standards, prioritizes food safety and quality while producing 35 types of flour additives, contributing to the future of both the world and humanity.

Located in Ankara/Kahramankazan, Bastak Instruments operates in a total area of 10,000 m², with 7,000 m² of enclosed space, equipped with the world's most advanced machinery park and state-of-the-art production lines. With 195 engineers and 265 employees, our company conducts quality control of devices produced in accordance with international world standards and ensures quality control using CMM devices with precision below 1 micron in performance tests carried out in 80 countries. Bastak Instruments has been featured in the ICC booklet with Draft Standard 192 and Draft Standard 189 in the last two years, making it the company with the highest number of quality control devices in the ICC booklet. Our method is taught and our devices are used primarily in universities, research institutes, educational institutions, state laboratories, and all public and private sector organizations and laboratories in the United States, Europe, Canada, and all other countries worldwide.













Pierre-Edouard Molina Managing Director

#### Biography:

Pierre-Edouard MOLINA holds a Master Degree from Ecole d'Ingenieur de Purpan (EIP) in Toulouse, France. After joining Eurogerm group in Morocco in 2008, he was Export Area Manager for Southern Africa.

In 2013, he moved to South Africa to become the Managing Director of Eurogerm South Africa. His area of expertise is on the wheat flour correction and bread improvers after 16 years in the wheat flour industry focusing on technical developments and sales for millers and plant bakeries.

# Presentation Title: Flour Quality Performance with the Use of Flour Correctors Abstract:

Flour quality consistency is key for millers. Supplying the right quality to the customers in particular plant bakeries is essential to guarantee breads and buns production in terms of volume and aspect. The use of flour correctors is necessary due to the variation of the wheat qualities in order to be consistent. Using the right ingredients such as baking enzymes and oxidizing agents like ascorbic acid is necessary to achieve the desirable level of baking quality. Monitoring the quality in terms of the rheology but also the baking quality is also of great importance to make sure that the flour meets the customers specifications. Specific laboratory tests but also baking methods can be put in place at the mill to ensure the effectiveness of the flour corrector. In terms of baking enzymes, a presentation of the main baking enzymes will be made to ensure that millers and quality controllers understand the main effect of each of them and how they help with the final product.





#### **Company Profile:**

Eurogerm South Africa is a subsidiary of Eurogerm group created in 2013 in Durban; the company formulates bread improvers, flour correctors for the baking and milling industry and specializes in specific ingredients to enhance flour, bread, biscuits, pastas, confectionery items. Highly dedicated to its customers in Sub-Saharan countries, we manufacture tailor-made products according to our customers specifications. The expertise of the company is on the ingredients, formulation, blending, sensory and specific analysis. Bespoke products are created to set you apart in the marketplaces.









### **ALTINBİLEK**®

Altınbilek group is one of the leading manufacturers of Grain Storage – Conveying Equipment & Feed - Flake Milling Systems in the World, The group was founded in 1974. Since than, The Group has flourished with its advanced manufacturing technology and in a short time its reputation becomes very well known in the global market. As of today by having a total area of 120.000 square meter enclosed area, The Group has succeded to establish projects in 136 countries in 4 continents. As a manufacturing group we implement TURN-KEY Projects as mentioned below;

Kindly visit our web page and learn more about us www.abms.com.tr

- Grain Handling & Storage Silos
- Feed Mills
- · Flake Mills
- · Square & Cylindrical Silos for Finished Product
- Seed Cleaning & Processing Systems
- · Wharehouse Conveying Equipment
- · Plant Automation & Electrical Control PLC & PC Control











#### **ANA MILLING SYSTEMS**

With our extensive experience and advanced technological applications, we have consistently invested in enhancing the value of our brand for more than three decades, serving over 500 mills worldwide. Our primary focus is on the global manufacturing and distribution of comprehensive solutions, including turn-key facilities for Semolina Mill & Wheat Flour Mill, Maize flour & Semolina Mill, and Animal Feed production. Additionally, we offer systems for processing Maize, Barely, Rye, Flake, and other grains, along with Modular Container Compact Model, Horizontal & Vertical systems, Automation Systems, Bakery Flour Dosing Systems, and Industrial Coffee Grinding systems. Our unwavering commitment lies in prioritizing the production of top-quality milling equipment and ensuring the successful and efficient execution of projects.

#### **VISION**

To provide the products and services, which serve best to the demands of our customers. To ensure the full satisfaction of our valued customer by total quality management approaches and to be respected and sought – after brand in every country of the world with our approved experience.

#### **MISSION**

To adopt the quality that humanity deserves as a way of life and to contribute to the development of this understanding throughout the world by accepting it as the infrastructure of the progress process. Not limiting the quality, constantly striving for innovation and change. To create a long - term solution and partnership with our customers via good references.











As AYBAKAR, we are manufacturing milling machinery and equipment for wheat flour mills, semolina mills and maize mills. Established in 1932, Ankara/TURKEY, Aybakar is one of the major grain milling systems producers in the world. We established more than 650 flour mills all over the world. Our accumulated know-how does not only cover grain milling but also powder handling and grain handling.

- -Milling machinery and equipment
- -Grain Milling Technology
- -Flour Milling
- -Maize Milling
- -Semolina Milling

Following the request of one of our milling customers, we made a raw material handling system for pasta lines and since then we accumulated a lot of references in the field of raw material handling and preparation for pasta lines, biscuit lines and noodle lines.

- Scrap pasta recovery systems
- Continuous feeding and mixing systems for pasta lines
- Batch mixing and weighing systems for noodle and biscuit lines
- Automation and integration of these systems to production lines
- Pneumatic flour and semolina conveying systems
- Storage silos for flour and semolina
- Truck discharge systems
- Control sifting of raw materials
- Aspiration and dust management systems













DEPART is the member of Alapala Group and deals in food industry such as spare parts, after sales services & innovative solutions for milling and pasta industry, telescopic conveying systems, color sorters & rice machinery, primary & end of line packaging systems. We export to 80 countries with more than 900 customers around the world which we serve with our wide sales and service network.

We know how important it is to keep your production equipment running. We provide services to the whole world not only for spare parts but also after sales services with DESERVE brand which has been created under the roof of DEPART. Our expert engineers in the field provides various and professional services. Our aim is to be a one stop shop for supporting our customers with all their needs.

We are also distributors of worlds leading producers like Axor, Satake, Duetti, Profrog, Filip, Verdi, ISG Pack, DM Packaging Group, Siat, Zanin in many countries in order to supply best quality spares, components and machines to our customers.

For detailed company information, product range and online service details please check our web site **www.departspares.com** or find our Lusaka warehouse; Mungwi Road, Plot# 1938, Warehouse#1938.











Imas was established in 1989, and today moves rapidly through its vision to be one of leading global brands in grain and feed milling technologies. The synthesis of know how and experience for over 30 years with the new approach, larger team, upcoming investments, creates our 'New Synergy'.

#### The leading milling machinery exporter of Türkiye

Imas achieved to be the 2023 year's export leader of Türkiye in both grain and feed milling machinery categories, and building turnkey projects worldwide with more than 500 references in 5 continents and over 100 countries.

#### Imas on Istanbul Stock Exchange

Being the only milling machinery manufacturer of Türkiye having public offering, means that company shares (IMASM) are traded on Istanbul Stock Exchange since April 2022.

#### Imas among R&D Leaders of Türkiye

Imas is today among Top 250 R&D Leaders of Türkiye since 2015, and moreover Top 10 R&D Leaders of Turkish machinery industry in all industrial segments.

#### Completing one of the largest flour mill projects in Africa

Imas builds one of the largest milling complexes in Nigeria for BUA Group, a turnkey flour mill project with 3x800 TPD total capacity and equipped with latest technologies.

#### Leading innovations in the industry

Imas R&D and Engineering team achieved to develop an alternative roller mill chassis construction material to the steel or cast iron, namely Polymer Base Construction® with the use of polymeric composites as being the first in milling industry.

#### **Contact Details:**

#### **Imas Machinery**

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### **MYSILO**<sup>®</sup>

Mysilo established in 2000, and with 40 years of experience in the branch of steel manufacturing it has earned in Mysilo's organization in order to produce grain storage and conveying equipments and since its establishment Mysilo became an innovative, constantly developing, specialist and a pioneer company in its prime that carried out more than 5000 projects for more than 4000 clients from 120 countries and 5 continents. Since the day it was established, Mysilo took its place among the most esteemed companies in the field in Turkey and the Wor.d due to its persistant performance and sustainability in growth that it put forward, There are three companies in the Mysilo Group; Siloport Grain Storage Systems Inc. Co. manufacturer, Silopark Construction & Machine Industry Inc. Co. Contracting and sales operations in Turkey, Mysilo Grain Storage Systems Inc. Co. overseas operations Middle East.

R & D department consisting of the expert engineers assure the continuous improvement and professional appliances at every stage of production related to quality. A quick and perfect production is guaranteed by the updated manufacturing lines according to the latest technology consisted by CNC, laser cutting, robotic welding and injection systems and along with the high quality raw material supplied from the world's best steel factories. One of the features making Mysilo different than the competitors is providing the design and product solutions according to the different standards and static calculations.

A quick, practical and effective quality system is being applied in accordance with ISO 9001-14001, OHSAS 18001 quality certificates for all processes from the raw material supply till the shipment of the goods. The conformity tests for the supplied steels or other materials are applied on high sensitive basis in the laboratories of our quality assurance department. The quality certificates from the suppliers have been re-checked and the records are archived precisely.

The main target of Mysilo is adding value to the customers and providing the best solutions for the product paid for. In the proposed solutions, the corporate values as innovation, flexibility, quality, customer focusing, teamwork and the consistency are the key factors.











Hebei Pingle Flour Machinery Group Co., Ltd, was founded in 1991. The company is a group enterprise with diversified operations and focuses on the wheat flour milling machinery, maize flour milling machinery, grain transportation, storage machinery producing, and also involved the fields of flour milling research, industrial intelligence, project contacting, international trade, overseas investment, etc.

In China, Pingle is a large-scale and technologically leading suppler of grain machine engineering equipment, and makes its market cover all over the whole country; in global, Pingle actively expands its overseas layout to make the market cover more than 50 countries and regions across the 7 continents and establishes the overseas branches, such as Pingle Grain Machinery (Brazil) Co., Itd., Pingle Grain Machinery (India) Co., Itd. and Pingle Grain Machinery (Kenya) Co., Ltd.

As a leading enterprise in China's grain machine industry, Pingle has always been committed to providing a better life for people with high-quality products and services. Presently, Pingle serves nearly 10.000 customers and has become a well-known excellent supplier of grain machine engineering equipment at home and abroad.

In 2001, the Company has passed the ISO9001 international quality management system certification, ISO14001 environmental management system certification and ISO 45001 occupational health and safety management system certification. Since 2013,the Company has been continuously recognized as a national high-tech enterprise, and now has more than 300 patents, including 36 invention patents and strong technological innovation strength, The company's technology center has been recognized as the "Hebei Grain Processing Equipment Technology Innovation center", "Hebei Provincial Enterprise Technology center" and "Grade A industrial Enterprise R&D institution of Hebei Province" Pingle has won the "top Ten Brands of Grain Machine in China", and many other honorary titles. In the future, Pingle Group will continue to focus on its main business, take the revitalization of national brand as its duty, aim at "creating a century-long famous enterprise", accelerate the high-quality development of enterprise, and make every effort to build a world-class grain machine enterprise with international competitiveness!













UGUR PROMILLING established in 1955 in Çorum, Turkey. Ugur Promilling is one of the biggest flour milling machinery producers in the world. Today Ugur Promilling uses the latest technology production system in its enclosed 40.000 sqm area and exports products to over 120 countries. Ugur Promilling has completed 500 + Project complete turnkey projects all over the world.











U.S. Wheat Associates (USW) is the export market development organization for the U.S. wheat industry. USW promotes the reliability, quality and value of all six U.S. wheat classes to wheat buyers, millers, bakers, food processors and government officials in more than 100 countries around the world.

Its mission is to "Develop, maintain, and expand international markets to enhance wheat's profitability for U.S. wheat producers and its value for their customers."

Funding is made possible through checkoff dollars, goods and services from 17 state wheat commissions and cost-share grants from the USDA's Foreign Agricultural Service. USW does not buy, sell, or process wheat; we do help make it easier for everyone else who does. USW proudly represents the hard-working farm families that take great care in producing the highest quality wheat in the most sustainable ways possible to honor their family legacies and ensure greater value for their customers at home and abroad.

USW works to help wheat buyers, millers, bakers, wheat food processors, and government officials understand the quality, value, and reliability of all six classes of U.S. wheat by working directly with overseas buyers to answer questions and resolve issues in purchasing, shipping or using U.S. wheat through regional and country offices, trade delegations to the United States, regular crop and market condition updates, quality surveys and other activities. USW also sponsors participation in webinars, technical courses, workshops and in-person seminars to help strengthen milling, storage, handling and end-product industries. Other activities include personalized consulting in milling, baking, snack food and pasta production and grain storage and handling. USW also regularly gathers and analyzes relevant market data.

USW shares information with buyers on trade policy, wheat grade standards or specifications that may affect price and future wheat production, trade and consumption projections.

Our Sub-Saharan Africa region is covered by our office in Cape Town, South Africa and may be reached via InfoCPT@uswheat.org

Our MENA region is covered by our office in Casablanca, Morocco and may be reached via InfoCSA@uswheat.org

# FUTURE OF FLOUR Arabic Edition

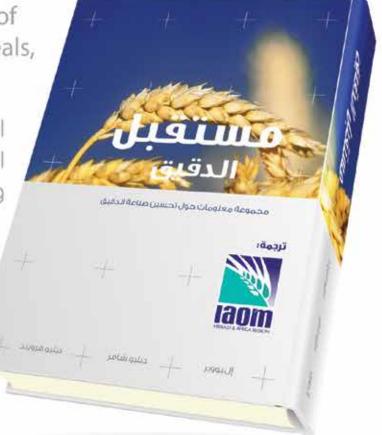
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<sup>\*</sup> The Malala Fund supports local education projects and global initiatives promoting girls' secondary education in Pakistan, Nigeria, Jordan, Lebanon, Sierra Leone, and Kenya.



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