Leading in Optimised Pulse Processing.

Equipment and solutions.
Leading in Optimised Pulse Processing. 

**Equipment and solutions.**

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Bühler in partnership with processors.

An integral part of the pulse processing industry.

Bühler offers a comprehensive portfolio of process engineered, high-capacity processing machines and on-site services for processors worldwide. We understand the complexities and many variants of these commodities and as a leading global technology partner, we are able to deliver customised solutions that can provide performance, yield and efficiency superiority that maximise profitability.

Our commitment to this industry is further proven in our collaborative approach, offering innovative solutions for alternative pulse-based products, broadening the appeal of this nutritious food staple to the mass market. Comprehensive process solutions, developed through a network of Bühler application and research centres, located throughout many pulses producing countries have produced solutions that help processors create alternative foods such as pasta, flour and healthy snacks from pulses – reinventing pulses for the 21st century consumer.
Integrated solutions for optimised Pulses processing.

Bühler offers optimised, integrated solutions for Pulse Processing – from single products and technologies up to the complete process chain, including engineering, education and service.
Additional services

- Engineering, technology and project execution
- Research and development support
- Processing of by-products
- Education and training
- Local on-site service
Process highlight.
Handling and pre-cleaning.

Bühler offers comprehensive pre-milling solutions, which include pre-cleaning machines, storage and cleaning equipment.

**Pulses Reception and Handling**

Reliable high-performance bulk and bagged pulses reception plus conveying systems are a key contributor to success in production.

Additionally, for efficient transportation of pulse grains throughout a processing plant, chain conveyors, screws, belts and elevators can also be offered.

- Suitable for a capacity range up to 300 t/h
- Flexible modular systems to suit every plant requirement
- Heavy-duty, stable off-track detector and speed monitor
- Designed for hygienic operation
- High product reliability with long service life

**Drum Sieve**

Efficiently separates coarse impurities such as pieces of straw, bag tapes, paper, pieces of wood and leaves, successfully protecting downstream processing and conveying systems from machine damage.

- Available in four models for different capacity requirements
- Fast and easy drum change
- High degree of self-cleaning

**TAS™ Cleaner**

High separation efficiency, removing coarse, small and light impurities to maximise silo storage capacity, improve process flow and enhance process reliability.

- Available in four models
- Heavy-duty, designed for round-the-clock operation
- Convenient air volume regulation
- Low vibration, no need for extensive structural platforms
- Wear protection
Process highlight.
Drying systems.

Eco Dry™

Exclusively designed for pulses. Offers extremely gentle handling to significantly reduce thermal stresses to pulses, improving product quality and reducing losses.

- High capacity and reduced drying time through an optimised multiple stage process
- Low heat impact on pulses, reducing losses through product breakages as a result of stress cracking
- First in-First out delivers uniform and consistent drying results
- Elimination of variations in moisture levels in tempering bins
Process highlight.

Cleaning and grading.

**GrainPlus**
Engineered for the reception and storage of grains, the GrainPlus LKGA is an economical and compact screening machine, equipped with an optional inlet aspiration system for reduced dust and ease of maintenance.
- Easy access to screens for fast screen change and maintenance
- Combined inlet and outlet aspirations for highest cleaning performance

**Classifier**
Efficiently removes both coarse and fine impurities including field materials, wood, stones, soil and sand. An aspiration channel fitted to the Classifier MTRA removes low-density particles such as dust and loose husk.
- Available in three models for different capacity requirements
- Fast and easily changeable sieves, wear parts and absence of lubrication points
- Closed machine design prevents dust and safeguards food safety

**Destoner**
Designed to meet food safety requirements, the Destoner MTSC efficiently removes stones and other high-density impurities such as metal and glass.
- Available in three models to meet different capacity requirements
- Enclosed machine design for reduced dust emissions
- Sturdy design, can withstand the abrasiveness caused by raw products
- Most efficient destoner available in the industry. Double-deck models offer even better results for stones and glass removal

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**Precision Grader**
Incorporating a unique Bühler patented design, the Precision Grader DRGA provides an even product distribution with high precision slot width for accurate grading even during high capacity processing.
- Modular design for different capacity
- Efficient adjustment of screen revolutions for optimised separation
- Shaftless peripheral drive for easier control and changing of screens
- Easy to maintain - drums can be easily removed
4 Process highlight. Hulling systems.

PULSROLL™ DRHG Pulse Huller

Designed exclusively for hulling all major pulse varieties, the PULSROLL™ DRHG delivers consistent, uniform hulling performance at the highest of throughputs.

- High throughput with low power consumption
- Robust machine design
- Better yield and optimum finish on hulled pulses
- Safe and hygienic operation
- Easy to operate and optimise across all major pulse varieties.
Pulse Processing.
Process highlight.

Optical sorting.

**SORTEX A Range**

Bühler’s most sophisticated and versatile optical sorter, the innovative SORTEX A range is the first choice for pulse processors with the most challenging applications. Available in two technology model variants, the MultiVision™ and ColorVision™ – each model is purposely designed to meet individual sorting requirements.

- Exceptional sorting performance – removes subtle light and dark colour defects, spots, damaged or blemished grains and foreign materials
- PROfile™ (shape recognition) technology detects shape difference and many other hard to detect defects
- Available with up to 5 modules for a flexible sorting configuration

**SORTEX B ColorVision™**

Incorporates a combination of new and improved technologies in the design of its lighting, inspection and ejection systems, the SORTEX B ColorVision™ offers pulse processors optimised conventional sorting and proven performance of the SORTEX brand.

- Designed for high performance, everyday mainstream sorting
- Removes colour and spot defects
- Improved technologies for consistent and reliable performance in everyday sorting
Additional services.
Automation and process control.

Engineering and Project Management
Providing a complete solution including equipment, technology and services is one of the key factors of our success. Bühler technologists and process engineers have the process know-how and local in-depth knowledge to give advice on how you can utilise your processing plant to the fullest.

Automation and Process Control
Bühler automation systems deliver ease of operation in processing plants. Processors can opt to incorporate a modular system or a fully automated plant to control and monitor plant production - improving plant processes, efficiency and equipment performance.

Research & Development and Technology Support
Bühler’s leadership in pulses processing stems from our continuous research, development, equipment technology and consultation services. We invest in the future, developing the latest solutions from our world-class research facilities to give our customers the competitive edge.
Global Education and Training

Remain competitive with Bühler education and training courses. Understand current processing trends and market development, have a better understanding of your machines and be the first-to-know of new Bühler technologies – all can help you optimise the use of your equipment and plant performance to maximise your growth potential. Our extensive range of courses are structured to suit various responsibilities within a processing plant including owners, managers and operators. Courses are available on-site or through Bühler Competence Centres located in various regions and countries, offering localised in-depth knowledge conducted by Bühler specialists.

Application Centres

Bühler application centres are located throughout the regions, many in pulses processing geographies, to offer customer services such as product trials, sampling and a convenient location to visit for machine trials. Various application centres now also serve as Bühler competence centres, housing some of the world experts in food technology, engineers and product developers, leading to new applications and technologies.

Global Service Stations

Bühler is present in over 140 countries with 30 of its branches serving as Bühler Service Stations. In addition to a full portfolio of equipment and a single point of contact, as available in all Bühler offices, Service Stations offer roll conditioning services, sales of spare parts, maintenance and service repairs, locally – minimum downtime and reduced costs.
Additional services.

Alternative pulse-based products.

Pulse flour

The particle size and finish of a pulse flour varies and is imperative to the success of its final application - used in sweets and savouries, as a replacement core ingredient in breads and cakes or processed into pasta and extruded healthy snacks.

Bühler’s comprehensive milling solutions such as the roller mills and plansifters offer a uniform and precise grind, accurately removing unwanted oversized fractions, to deliver a homogeneous finished flour product.

Pulse pasta, noodles and healthy snacks

Processing pulses into pasta, noodles and healthy snacks uses advance processes which may include cooking, mixing, kneading and extrusion. By working in partnership with processors and investing in research and development programs, Bühler can offer customised-solutions, engineered to meet the change in consumer trends and food choice, maximising a business growth potential.
Several good reasons for pulse processing with Bühler.

With over 150 years experience in food processing we have expert knowledge in pulse processing, realising many successful projects in every major pulse processing geography. Our comprehensive machine portfolio, supported by our turnkey capabilities, ensures unprecedented levels of processing capacity and product quality.

Dedicated pulse research and Competence Centres house some of the world’s experts in pulse processing, developing unique, value-added innovations and solutions to bring processors smarter, lower cost and more sustainable processing. With a presence in over 140 countries, our global reach gives you unparalleled access to our wide range of capabilities, successfully delivering equipment, service and support locally.
The best references are satisfied customers.

Hangzhou Wahaha Group

The completion of a turnkey installation at the Hangzhou Wahaha Group’s Eight Porridge production plants in Haining has allowed one of China’s largest and most prestigious food and beverage manufacturer to make dramatic improvements to the quality of its end product and reduce processing costs. Replacing its existing, largely manual cleaning and sorting process, the new Bühler cleaning and grading plant includes two compact and advanced lines, each of which can clean and grade various of its raw materials. Each line incorporates Bühler’s de-stoners, sifters, metal detection and optical sorters, with one currently dedicated to rice and the other for beans and pulses.

"Our investment in Bühler’s advanced technology and custom-designed solutions has surpassed our expectation. It has drastically reduces our customer complaints about foreign body contamination, operating costs and ensured us, consistent quality"

Spokesman from Hangzhou Wahaha

Shivam Protein

Shivam Protein started as a trading organisation over 60 years ago and moved into processing so that it could guarantee its product quality and food safety on hulled and split pigeon peas. To achieve this, the company needed to reduce manual labour in its plants and seeked the help of Bühler - a company that can offer a comprehensive machine portfolio backed by full turnkey service. The project which included plant design, installation, testing and integrating full processes resulted in a state-of-the-art, fully integrated automated plant for Shivam Protein. A complete line, which included cleaning, grading, drying, hulling, splitting and optical sorting was commissioned. Shivam Protein have reported positive results.

"Yield is up by 2% when compared to existing mill while labour and power costs per tonne of output reduced significantly."

Mr. Ashok Jethwani, Owner of Shivam Protein.
In the region – for the region:
Centres of competence, training and service.

With a presence in over 140 countries, our global reach gives you unparalleled access to our wide range of capabilities, successfully delivering equipment, services and support locally. Furthermore, Centres of Competence located throughout the world, many in major pulse producing markets, houses some of the world’s best pulse technology and nutrition experts.
They are well placed to develop regional pulse processing and added-value technology solutions that meet distinct local requirements in handling, processing and storage.

Bühler Centre of Competence, research, manufacturing, training and service station for pulse processing:
- Application Centre
- Research Centre
- Production and Engineering
- Training Academy
- Service Stations

**South Asia**
Bangalore – India

**South East Asia**
Bangkok – Thailand
Ho Chi Minh City – Vietnam
Jakarta – Indonesia
Singapore – Singapore

**China**
Wuxi
Shenzhen