Solutions for perfect pasta.
From grain to perfect pasta.  
Top quality from the innovation leader.

For over 115 years, Bühler has been developing commercial production lines for making fine pasta. Experience, knowledge, Swiss precision and a profound understanding of market needs have made Bühler a world-leading technology group: from the development, design and manufacture of industrial-scale pasta lines to professional project management as well as fast and reliable start-up.

Bühler’s tailor-made solutions set milestones in the food production industry. The Group has consistently developed new standards in the process chain from grain to finished pasta.

Consequently, Bühler pasta production lines not only incorporate generations of know-how in making top quality pasta, but also an understanding of the best way to handle the grain. Our finely tuned processes ensure that the product is gradually refined at each stage of the journey from grain to finished pasta. That means a responsible use of resources as well as improved profitability and new opportunities.

Bühler is a global company with more than 10,000 employees and a worldwide presence in over 140 countries. Around 40% of the world’s pasta is produced daily on Bühler lines.

We set ourselves high quality standards, covering everything from the processed material to smart and user-friendly design, combining a sense of tradition with modernity and ensuring success and peace of mind for our customers.

The high-temperature drying cycles developed by Bühler, which operate at up to 95 °C, and the perfect cleanliness and hygiene ensured by its Polymatik™ pasta press technology are milestones in the development of the food industry. Priomatik™ and Ecothermatik™ are the latest examples of successful developments for the global pasta market.

With our extensive customer service, which covers the entire lifecycle of our pasta lines, we are more than just service providers: We are partners for lifetime.

Advantages:

- Innovations in pasta since 1903
- State-of-the-art process technologies, from raw material to perfect pasta
- Bühler, partner for lifetime
Solutions for perfect pasta.
If you need the perfect solution for every recipe and raw material – Bühler offers two ways to produce the best dough possible: either the flexible Polymatik™ press, or the traditional Priomatik™ press. Both technologies employ gravimetric scales, so the raw materials needed for the given recipe are precisely weighed and fed into the process, guaranteeing the optimal development of the pasta structure. No matter what technology you choose, the result is always the best quality for excellent pasta.

**Dough preparation.**
**Where perfect pasta starts.**

---

**Priomatik™ press**

The Priomatik™ press is especially designed for processing coarse-sized semolina particles to achieve perfect hydration and allow an optimal dough formation.

For more information please see page 6.

---

**Polymatik™ press**

The Polymatik™ offers high flexibility while meeting the highest food safety requirements. In addition, thanks to fast recipe changes, downtime and waste can be reduced to a minimum.

For more information please see page 8.
The Polymatik™ offers high flexibility while meeting the highest food safety requirements. In addition, thanks to fast recipe changes, downtime and waste can be reduced to a minimum. For more information please see page 8.

**Benefits:**

- Match your individual product and raw materials requirements with Bühler’s specific press technology
- Constant dough properties thanks to gravimetric dosing
- Easy cleaning operations on both technologies for safe pasta production
Priomatik™ pasta press.  
Traditional process, with state-of-the-art technology.

The Bühler Priomatik™ press is the perfect solution for manufacturers who value traditional technology in pasta production.

Built especially for coarse semolina with longer hydration time.

Coarse semolina granules require more time to absorb the optimal quantity of water. With its trough mixer and adjustable retention times, the Priomatik™ ensures perfect performance for such raw materials characteristics. As the Priomatik™ is designed to process coarse semolina, it is also suitable for handling semolina with a wide particle-size distribution.

Optimally accessible components for cleaning and maintenance.

The concept of the Priomatik™ follows human-centered design strictly, achieving easy man-machine interaction. This delivers high accessibility for maintenance and cleaning, thus complying with today’s requirements for high food safety in modern pasta production.

Benefits:

- Traditional technology renewed for today’s customer requirements
- Perfect-looking pasta thanks to optimal hydration times for coarse semolina and wider particle-size distribution
- Food safety and easier operations thanks to optimized man-machine interactions
Polymatik™ pasta press.
For various raw materials – even gluten-free.

The Bühler Polymatik™ is the perfect solution for manufacturers who process a wide variety of raw materials with highest food safety requirements.

Key technology features.

The Bühler Polymatik™ has a smart and simple design: its co-rotating twin-screw mixer/kneader is the core feature to deliver a “first-in, first-out” and self-cleaning process. This guarantees an absolutely hygienic and safe pasta production. Semolina, flour and even gluten-free ingredient mixes are fed into the co-rotating twin-screw mixer/kneader and mixed with water. The raw materials are processed into a homogeneous dough in about 20 seconds, before extruding through the consecutive main screw and the pasta die. This minimal air exposure reduces oxidation of yellow pigments for pasta that is bright and golden. Steam and hot water injection can be added according to production needs for gluten-free pasta.

A variety of semolina, flours, and gluten-free raw materials can be processed.

The Polymatik™ pasta press is extremely flexible: its configurable mixing and kneading elements can be adjusted to individual raw-material properties. That is why it is an ideal solution for semolina and flours from durum or common wheat, but also for other cereals and pulses. Even gluten-free ingredients such as corn, rice and quinoa can be processed thanks to the steam and hot water injection. The Polymatik™ is thus ideal for enabling pasta production with locally available grains other than wheat and for the production of higher value-added products like gluten-free pasta.

Fast recipe changes and virtually no cleaning.

The simplicity of the Polymatik™ system allows fast stopping and restarting. Product mixes can be changed very quickly because the “first-in, first-out” operation avoids mixing of different lots. This feature helps you keep downtimes to a minimum while changing recipes. Sanitation operations are simplified and reduced thanks to the self-cleaning of the mixer-kneader-system. In addition, the limited quantity of dough in the process chamber reduces waste at the end of production and ensures that the line can re-start quickly.

Benefits:

- Proven technology for flexible usage of wheat or gluten-free raw materials
- Shorter mixing times than traditional technology for brightly colored pasta
- Reduced downtime and waste thanks to fast recipe changes
- Increased food safety thanks to the self-cleaning mixer-kneader
Solutions for perfect pasta.
Drying long-cut and short-cut pasta. **Proven technology for premium pasta quality.**

The Bühler dryers for long-cut and short-cut pasta are reliable solutions if you are looking for state-of-the-art technology. They can be customized easily thanks to their modular design.

**Benefits:**
- Customizable drying parameters for a tailor-made al dente texture
- Consistently uniform pasta drying thanks to smart air distribution and heat insulation for perfect quality and structure stabilization
- Easy cleaning procedures thanks to accessibility throughout the line for a high level of food safety
In pasta production, steady performance correlates with pasta quality, especially for high temperature drying of long-cut pasta. The Bühler C-line™ provides renowned mechanical performance.
For more information please see page 14.

C-line™ short-cut pasta dryer

High temperature drying and customization of parameters, such as the speed of individual belts deliver top quality short-cut pasta. The Bühler C-line™ delivers recognized flexibility over a wide range of shapes.
For more information please see page 12.

Ecothermatik™ long-cut pasta dryer

Excellent pasta quality, an innovative drying concept, significant energy savings and a top stick transport system designed for capacities of more than 6,000 kg/h characterize Ecothermatik™, for long-cut pasta.
For more information please see page 16.
The Bühler C-line™ for short-cut pasta is a reliable solution for customers looking for traditional technology. The Bühler C-line™ can be customized thanks to its modular design concept, which is based on combinable, single drying elements. This proven technology provides premium pasta quality with maximum throughput and efficient floor space utilization.

**Shaking pre-dryer.**

The shaking pre-dryer is a clear example of Bühler’s approach to pasta machinery. A focus on food safety is demonstrated through the machine’s accessibility from the sides and the top, allowing easier cleaning. The modular design allows flexibility for various throughput applications. Optimal dust aspiration is achieved thanks to the smart positioning of fans in the main body and via the optional aspiration hood at the outlet of the shaking pre-dryer. The strong performance of the pre-dryer results in up to six percentage points of moisture loss, avoiding deformation and sticking of the pasta before it enters the dryer.

**Independent climate zones.**

With its independently controllable climate zones, the C-line™ short-cut pasta dryer allows fine-tuning of the process parameters between drying and stabilization. Independent belt-speed control increases the flexibility in adjusting layer depth and retention time for each shape of traditional short-cut pasta, but also for soup pasta and noodle-like products. As a result, the C-line™ offers the right drying conditions to produce premium-quality pasta.
Optimal air distribution and heat insulation.

Air distribution is key to a homogeneous process and perfectly structured pasta. In the Bühler C-line™, air is conveyed through the product layer only once for reproducible drying conditions with maximum process control. In addition to a technological advantage, the design of the dryers allows optimal operation of the fans with efficient electrical energy consumption. The optimal performance of the dryer panels, with highly insulating materials and signature curved shapes, is ideal for the air distribution within the drying zone and delivers perfect sealing tension.

Moreover, the conveyor belts of C-line™ short-pasta dryers have a special S-shape with long-lasting durability. Air can flow properly between the belt elements to ensure air distribution throughout the pasta layer for uniform drying; irrespective of pasta shapes, bulk densities and belt loading.

Overall, the combination of these technological features provides uniform drying of the pasta with zero defects.

Cooler: efficient design with dew-point regulation.

The modular design of the belt cooler allows optimal regulation of the cooling process and ensures controlled completion of the drying process, and therefore consistent pasta quality. Electronic monitoring of the dew point eliminates any condensation, and gentle transportation with aluminum S-type elements keeps product abrasion to a minimum. Together, this guarantees dust-free and hygienic process conditions in the cooler, while also maintaining the right cooling performance. The variable belt speed allows the cooling time to be adjusted according to the bulk density of various pasta shapes.

Benefits:

- Customizable drying parameters through independently controllable climate zones and belt speeds for a tailor-made al dente texture
- Consistently uniform pasta drying with the synergistic effect of S-shape elements, smart air distribution and heat insulation for perfect quality and structure stabilization
- High-performance shaking pre-dryer, with a 6 pp reduction in moisture for the right pasta structure
- Automatic dew-point control in the cooler guarantees clean, dry and thus hygienic conditions and a high level of food safety
C-line™ long-cut pasta dryer.
Proven drying technology at its best.

The Bühler C-line™ for long-cut pasta is the perfect solution for customers looking for traditional long-cut pasta drying technology. Its drying climate zones are well defined and include pre-drying, drying and stabilization. The process ends with the moistening and cooling zones. This ensures controlled process parameters and finely-tuned, high-temperature drying cycles.

Line reliability.

The Bühler C-line™ is an efficient, industry-proven solution for your steady production. For example, only one motor runs the line mechanics: after the initial synchronization, the C-line™ will display easy control over time, even when restarting after cleaning or maintenance. In addition, the electronic control system ensures prompt information on line running status, because the stick transport is monitored by sensors placed in critical transfer spots. The Bühler C-line™ reliability maximizes your production time.

Constant process conditions.

The Bühler C-line™ ensures uniform drying conditions across the stick width thanks to state-of-the-art air distribution screens coupled with optimally sized and laterally positioned fans. This effect is maximized by the optimal performance of the panels: their highly insulating materials and signature curved shape is ideal for air distribution and optimal sealing tension. Overall these features result in uniform pasta drying with no defects or after-drying breakage over the line’s life cycle.
**Fresh-pasta cutter.**

After spreading, the pasta is accurately trimmed by the lower cutter thanks to adjustable height and optimized time allowed for this process step. This results in constant management of fresh rework and subsequently enables finely-tuned dry-pasta cutting.

**Humidification zone.**

The humidification zone prepares the pasta for the subsequent cooling step. Moisture is carefully increased in the outside layers to minimize the build-up of stress tensions during cooling. The moistening effect is obtained through proper management of air temperature and humidity, without direct water or steam addition.

**Cooler: efficient design, with dew-point regulation.**

Separated from the humidification zone, the Bühler long-cut pasta cooler offers smart heat exchange design and automatic dew point regulation: efficient cooling conditions avoiding risks of condensation, which could create visible spots on the pasta.

**Stacker.**

Ensuring our customers’ continuous operations is a focus in everything Bühler does. For example, in the stacker the system monitors the transfer of sticks to and from tiers with specially positioned sensors; these ensure that sticks always land simultaneously on both ends.

**Stick return.**

Stick-return systems are available in two versions: two or three tiers. Each tier is controlled independently and will supply sticks to the spreader without stopping the dry pasta cutting operations. The number of tiers can be selected according to the line capacity and to the need for full discharge of the sticks from line and stacker.

**Cutter.**

The Bühler dry pasta cutter reaches high capacities while maintaining accuracy and gentle product handling. For example, a narrow pitch for the discharge chain holds the pasta more precisely and the cutting length is more accurate. Intelligent design of the cut pasta conveyor shakes off any residual broken pieces, which are collected with the dry trimmings, while the cut pasta is conveyed towards the discharge side of the cutter.

**Benefits:**

- Customizable drying parameters thanks to independently controllable climate zones, including moistening, for a tailor-made al dente texture
- Consistently uniform pasta drying with the combined effect of state-of-the-art air distribution and heat insulation for perfect quality and structure
- Reliable mechanics and smart sensors for steady operation
- No condensation with automatic dew-point controls for flawless pasta
- Accurate pasta length through optimal cutting operations
Ecothermatik™ – long-cut pasta dryer.
Innovative drying technology with energy savings.

The Bühler Ecothermatik™ dryer is a revolutionary development for drying long-cut pasta. The underlying technology combines low energy consumption, top pasta quality and excellent user friendliness. This technology puts customers a step ahead: with market-leading technology that redefines process efficiency.

**High energy savings.**

A new drying technology and exhaust-air flow control enable in-process heat recuperation. This allows long-cut pasta to be produced using up to 40% less thermal energy.

The highly efficient blade geometries of the fans handle the required volume of circulating air while reducing electrical energy consumption up to 10%.

Up to 20% of cooling energy can be saved thanks to a re-designed and energy-optimized system for the thermal installations.

Since energy costs make up a significant portion of the total costs of long-cut pasta production, these remarkable savings result in higher profit margins.

The low energy consumption also contributes to improved environmental friendliness and increased sustainability in pasta production.

**Excellent pasta quality thanks to the rubbery state.**

The Bühler Ecothermatik™ employs a new drying concept: new climate-control technology and more humid drying air prevent the surface of the pasta from becoming glassy and the pasta remains in a rubbery state throughout the whole drying cycle. The pasta dough proteins are optimally integrated in such conditions, resulting in a firm pasta texture. In addition, the stresses caused by shrinkage are reduced to a minimum in the rubbery state. Therefore, the Ecothermatik™ produces completely stable pasta after just 75 minutes in the stabilization phase. In this phase, the pasta color can be adjusted by selecting different temperatures.

**User-friendly dryer-line.**

The Ecothermatik™ is easy to control and logical to operate. Low mechanical complexity reduces installation and maintenance costs. The generously sized elements not only ensure constant air circulation with low pressure drop, but also allow easy accessibility for cleaning and maintenance work. The reliable and mechanically synchronized stick transport ensures high operational reliability.

**State-of-the-art engineering.**

For the models above 3500 kg/h, Bühler has developed an innovative dual stick transport to reduce the chain speed in the most critical spots in the line, without any unguided stick movements. The pasta can be elevated more precisely within the multi-tier dryer, thus increasing reliability. The multi-tier design of the larger dryers fully exploits the reduced stabilization time, so that less floor space is required.

**Benefits:**

- Energy savings: Up to 40% less thermal energy, 20% less cooling energy and 10% less electrical energy
- Excellent pasta quality in terms of appearance, cooking characteristics and breakage resistance
- Easy operations and maintenance
- Enhanced mechanical performance
PastaSense™

Automatic and continual monitoring of raw material and pasta.

PastaSense™ is a quality monitoring system that continually records raw material and pasta characteristics in-line along the entire production process. Compared to infrequent, manual sampling, this solution allows for a quicker detection of quality deviations.

PastaSense™ monitors all relevant characteristics with impact on product quality, such as:

- protein, ash, moisture, dark spots and color of raw materials
- moisture and color of pasta

The system is completed by a digital dashboard and report function.

Benefits.

- Consistent product quality
- Minimized waste
- Reduced analytical workload
- Optimized processes
- Improved product traceability
Your benefits:

**Consistent product quality.**

Product quality is always under control. Every three seconds, PastaSense™ automatically measures the main parameters such as color, protein, ash and moisture content. Sensors can be positioned at the raw material feeding, as well as along the entire drying process (pre-drying, drying, stabilization, cooling).

**Minimized waste.**

Instead of infrequent manual checks, PastaSense™ continuously monitors all key parameters. In case of quality deviations, reaction times are shortened and production waste can be minimized thanks to an automatic alert function.

**Reduced analytical workload.**

Production personnel can reduce repetitive routine operations like manual sampling and product analysis, and focus on higher added-value activities.

**Optimized processes.**

PastaSense™ features a digital dashboard, which visualizes historic and current quality parameters. It compares different production lines and time periods for benchmarking and performance optimizations.

**Improved product traceability.**

The report function easily summarizes all measured characteristics from each production lot. Thus, traceability is enhanced and decisions about product releases can be taken in very little time.

The dashboard and report function are both available on an unlimited number of devices and can be accessed remotely.
Solutions for perfect pasta.

SORTEX® A ColorVision™ InGaAs.
Optical sorting for short-cut and soup pasta.

The SORTEX® A ColorVision™ InGaAs optical sorter is designed for pasta processors who aim for the highest standards of quality and food safety, demand the ultimate detection of foreign materials, as well as color and shape defects. Additional defects such as burnt and misshapen pasta, and dough residuals can also be removed.

Optical sorting for short-cut and soup pasta.
This exclusive optical sorting range combines Bühler’s proprietary advanced technologies, to deliver a superior sorting accuracy and end-product quality.

For maximum yield, the SORTEX® A ColorVision™ InGaAs is equipped with SmartEject™ technology for the highest accuracy in ejection, minimising the loss of good pasta.

The SORTEX® A ColorVision™ InGaAs technology efficiently removes challenging foreign material of the same colour, offering top food safety for pasta producers.

SmartEject™ technology.
Fires precisely at the whole object to ensure efficient removal.

InGaAs technology.
Derived from a military satellite application, InGaAs technology can detect via infrared the defects which cannot be seen in the visible spectrum.

Broadband LED Lighting.
Flexible solid state LED lighting that improves illumination and enhances defect recognition.

SORTEX® ProSortX™ operating software.
Simplifies a wealth of configurable options with unmatched processing speed.

AnywayPRO™ Remote access for real-time monitoring.
Bühler engineers monitor the real time performance of the sorters from anywhere in the world.

Benefits:
- Delivering the highest product quality and maximum profitability
- Ultimate efficiency with state-of-the-art technology for superior detection
- Setting the standard for food safety globally
- Design, up to 5 chutes
SORTEX® A Technical details.

**SORTEX® A**

Dimensions.

<table>
<thead>
<tr>
<th>Machine</th>
<th>Width mm</th>
<th>Depth (Doors Open) mm</th>
<th>Depth (Doors Shut) mm</th>
<th>Height mm</th>
<th>Weight* kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>1000</td>
<td>2333</td>
<td>1708</td>
<td>2088</td>
<td>500</td>
</tr>
<tr>
<td>A2</td>
<td>1788</td>
<td>2333</td>
<td>1708</td>
<td>2088</td>
<td>927</td>
</tr>
<tr>
<td>A3</td>
<td>1788</td>
<td>2333</td>
<td>1708</td>
<td>2088</td>
<td>970</td>
</tr>
<tr>
<td>A4</td>
<td>2387</td>
<td>2333</td>
<td>1708</td>
<td>2088</td>
<td>1107</td>
</tr>
<tr>
<td>A5</td>
<td>2387</td>
<td>2333</td>
<td>1708</td>
<td>2088</td>
<td>1150</td>
</tr>
</tbody>
</table>

* Unpacked weight. Figures will vary based on machine specifications

Air and power requirements.

<table>
<thead>
<tr>
<th>Machine</th>
<th>Typical air requirements (L/s)* 72-102 psi (5-7bar)</th>
<th>Typical Power consumption (kW)** (200-240V; 50/60 Hz single phase)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>8</td>
<td>1.5</td>
</tr>
<tr>
<td>A2</td>
<td>16</td>
<td>2.3</td>
</tr>
<tr>
<td>A3</td>
<td>24</td>
<td>3.1</td>
</tr>
<tr>
<td>A4</td>
<td>32</td>
<td>3.4</td>
</tr>
<tr>
<td>A5</td>
<td>40</td>
<td>4.5</td>
</tr>
</tbody>
</table>

* Figures will vary based on contamination levels ** Figures will vary based on machine specifications

Expected sorting capacity.

<table>
<thead>
<tr>
<th>Machine</th>
<th>Typical capacity for short pasta* kg/h</th>
<th>Typical capacity for soup pasta** kg/h</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>1000</td>
<td>1300</td>
</tr>
<tr>
<td>A2</td>
<td>2000</td>
<td>2600</td>
</tr>
<tr>
<td>A3</td>
<td>3000</td>
<td>3900</td>
</tr>
<tr>
<td>A4</td>
<td>4000</td>
<td>5200</td>
</tr>
<tr>
<td>A5</td>
<td>5000</td>
<td>6500</td>
</tr>
</tbody>
</table>

*Typical Penne cut, 0.350 kg/dm³ **Soup cut, 0.450 kg/dm³
Global expertise. Local presence.  
**A lifetime of customer service.**

Bühler customer service provides assistance not only to keep your machines, plants and facilities running at a high operational level, but also to prolong lifetime, thus maximizing return on investment.

Bühler’s service includes:

- Local service stations
- Fast access to help in your language and time zone
- Competent service specialists throughout the entire product service life – from installation to commissioning and maintenance
- Genuine Bühler spare parts
- Innovative retrofit packages
- Preventive maintenance concepts
- Analysis and consulting
- Standardized and customized training and continuing education courses
Seamless service program.
For leading products and processes.

Lab Services
The laboratories offer a broad range of analyses and testing of food and technical materials in order to innovate processes and improve equipment for our customers.

Spare and wear parts
Highest standards of reliability apply to original Bühler spare and wear parts. They are perfectly adjusted and ensure performance and production safety.

Training
At Bühler training centers – or at any site worldwide – specially trained experts pass on their hands-on expertise and knowledge to customers’ employees.

Revision
Bühler evaluates, over-hauls, adjusts or renews customer installations, including Bühler and non-Bühler machines.

Consulting
Strategic, plant performance, or energy consulting are just some of the consulting services to improve product quality, production processes and energy efficiency.

Repairs
Dedicated to minimizing downtime in the event of an incident: Fast and reliable technical repair service via the Bühler eTicket or the Bühler Helpline – worldwide, 24/7.

Maintenance
Packages are adjusted to fit production cycles to prevent downtime, loss in production efficiency or product quality, ranging from individual services to complete outsourcing of maintenance.

Retrofits
With individual upgrades and conversion kits time-worn Bühler machines will perform to current standards of technology and efficiency.
WinCos® for pasta production.
The solution for successful automation.

In the current demanding market conditions it is important to have effective production processes in place. The industry’s complex requirements demand a high degree of flexibility in the production. WinCos® is the intelligent, worldwide tried-and-tested manufacturing execution system for reliable, high-quality production of pasta. The modular structure of WinCos® allows it to be very flexible in its application. WinCos® can be adapted to suit the size and functionality needed in our customers’ plants.

**Convenient operation.**

The self-explanatory graphical interface makes operation very easy with WinCos®. Production can be planned and executed quickly and sustainably. The clear visualization makes effective monitoring of the plant easy. Operating errors are largely avoided, and operators can reliably intervene in production processes, thereby increasing the availability of the plant.

Furthermore, with the PocketPlant service, remote monitoring of the production lines becomes an easy task. The service can be used to monitor line status via a mobile app and provides active notifications of line errors to operators. This significantly reduces the time it takes to respond to a line error.

**Easy production planning for increased efficiency.**

With WinCos®, jobs and recipes can be processed in the ERP system and transferred directly to the control system of the production line. This results in easier planning and more efficient production.

The system’s comprehensive recipe management system allows for a consistent production at all times.

**Unrivaled production reliability and traceability.**

WinCos® documents the process continuously. Every change in parameters and settings is logged, along with a time stamp and operator identification. This enables complete traceability across the production steps – from raw material and recipe versions to production batches and finished product.

**Benefits:**

- Convenient operation
- Easy production planning for increased efficiency
- Unrivaled production reliability and traceability
- Performance improvements with OEE
- Proactive maintenance support
Performance improvements with “Downtime Analysis”.

The “Downtime Analysis” function of WinCos® helps prioritize actions and guides the team faster into the right direction. Any event during production can be categorized and grouped for faster diagnosis of KPI’s.

The continuous development of WinCos® based on new technologies, such as the Internet of Things, ensures that WinCos® keeps abreast of developments. This means that the system continually adapts to customer requirements.

Timing is everything in proactive maintenance.

Timely execution of maintenance and management of die lifetime are important factors in efficient pasta production.

WinCos® provides support with tracking motor running hours or die usage and proposals when best to act proactively. In this way, the production process is able to run smoothly without stops or delays.

Process experience and service for success.

As process specialist, Bühler has extensive experience in the planning, commissioning, and follow-up service of automation solutions. Bühler’s service team provides fast and direct local service – round the clock and worldwide.
Technical data.
C-line™ short-cut pasta dryers.

Short-cut pasta lines with one dryer module (1500–5200 kg/h)

Sample line shown has a capacity of 2000 kg/h.

Short-cut pasta lines with two dryer modules (5200–6500 kg/h)

Sample line shown has a capacity of 6000 kg/h.
Solutions for perfect pasta.

### Configuration.

<table>
<thead>
<tr>
<th>Capacity (kg/h)*</th>
<th>Belt width (m)</th>
<th>Press</th>
<th>Shaking pre-dryer</th>
<th>Elevator</th>
<th>Dryer</th>
<th>Cooler</th>
</tr>
</thead>
<tbody>
<tr>
<td>1250</td>
<td>2,0</td>
<td>Polymatik™ TPXA 1 x 185/520</td>
<td>1 x 3/4</td>
<td>CJ-400</td>
<td>11/7</td>
<td>1/2</td>
</tr>
<tr>
<td>2000</td>
<td>2,0</td>
<td>Polymatik™ TPXO 1 x 210/600</td>
<td>1 x 3/4</td>
<td>CJ-400</td>
<td>11/9</td>
<td>1/3</td>
</tr>
<tr>
<td>3250</td>
<td>2,5</td>
<td>Prioromatik™ TPXZ 2 x 255/670</td>
<td>1 x 3/5</td>
<td>CJ-600</td>
<td>11/10</td>
<td>1/3</td>
</tr>
<tr>
<td>4000</td>
<td>2,5</td>
<td>Prioromatik™ TPXO 2 x 210/600</td>
<td>1 x 3/4</td>
<td>CJ-900</td>
<td>11/12</td>
<td>1/4</td>
</tr>
<tr>
<td>5500</td>
<td>2,5</td>
<td>Prioromatik™ TPXZ 2 x 255/670</td>
<td>2 x 3/5</td>
<td>CJ-1200</td>
<td>11/17</td>
<td>1/5</td>
</tr>
<tr>
<td>6500</td>
<td>2,5</td>
<td>Prioromatik™ TPXZ 2 x 255/670</td>
<td>2 x 3/5</td>
<td>2 x CJ-1200</td>
<td>11/11 - 9E/11</td>
<td>1/6</td>
</tr>
</tbody>
</table>

### Dimensions.

<table>
<thead>
<tr>
<th>Capacity (kg/h)*</th>
<th>Stick length (m)</th>
<th>Dimensions (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L1</td>
<td>L2</td>
</tr>
<tr>
<td>1500/ TTHD-7</td>
<td>2,0</td>
<td>29,6</td>
</tr>
<tr>
<td>1500/ TTHD-11</td>
<td>2,0</td>
<td>25,7</td>
</tr>
<tr>
<td>2000/ TTHD-7</td>
<td>2,0</td>
<td>35,4</td>
</tr>
<tr>
<td>2000/ TTHD-11</td>
<td>2,0</td>
<td>30,2</td>
</tr>
<tr>
<td>3250</td>
<td>2,5</td>
<td>35,3</td>
</tr>
<tr>
<td>4000</td>
<td>2,5</td>
<td>38,6</td>
</tr>
<tr>
<td>5500</td>
<td>2,5</td>
<td>47,3</td>
</tr>
<tr>
<td>6500</td>
<td>2,5</td>
<td>60,7</td>
</tr>
</tbody>
</table>
Technical data.

C-line™ long-cut pasta dryers.

Long-cut pasta lines with one dryer module (1250–3500 kg/h)

Sample line shown has a capacity of 1750 kg/h.

Long-cut pasta lines with two dryer modules (3500–5500 kg/h)

Sample line shown has a capacity of 5000 kg/h.
<table>
<thead>
<tr>
<th>Capacity (kg/h)*</th>
<th>Stick length (m)</th>
<th>Press</th>
<th>Spreader</th>
<th>Pre-dryer</th>
<th>Main dryer</th>
<th>Moistening zone</th>
<th>Cooler</th>
<th>Stacker</th>
<th>Cutter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1250</td>
<td>2.0</td>
<td>Polymatik™ 1 x 185/2000</td>
<td>2 sticks</td>
<td>1/3</td>
<td>3/6</td>
<td>1/1</td>
<td>1/1</td>
<td>5/6</td>
<td>single</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Priomatik™ 1 x 210/2000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1750</td>
<td>2.0</td>
<td>TPXO 2 x 210/2000</td>
<td>2 sticks</td>
<td>1/4</td>
<td>3/8</td>
<td>**</td>
<td>1/2</td>
<td>6/7</td>
<td>single</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TPVO 2 x 210/2000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2750</td>
<td>2.0</td>
<td>TPXZ 2 x 255/2000</td>
<td>4 sticks</td>
<td>1/7</td>
<td>3/12</td>
<td>**</td>
<td>1/3</td>
<td>7/9</td>
<td>single</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TPVZ 2 x 255/2000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3500</td>
<td>2.0</td>
<td>TPXO 2 x 210/2000</td>
<td>4 sticks</td>
<td>1/9</td>
<td>3/15</td>
<td>**</td>
<td>1/3</td>
<td>7/12</td>
<td>single</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TPVO 2 x 210/2000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3500</td>
<td>2.5</td>
<td>TPXO 2 x 255/2500</td>
<td>4 sticks</td>
<td>1/8</td>
<td>3/8 - 5/8</td>
<td>1/3</td>
<td>1/3</td>
<td>8/11</td>
<td>double</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TPVO 2 x 255/2500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4500</td>
<td>2.5</td>
<td>TPXZ 2 x 255/2500</td>
<td>4 sticks</td>
<td>1/8</td>
<td>3/8 - 5/8</td>
<td>1/3</td>
<td>1/3</td>
<td>8/11</td>
<td>double</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TPVZ 2 x 255/2500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5500</td>
<td>2.5</td>
<td>TPXZ 2 x 255/2500</td>
<td>6 sticks</td>
<td>1/10</td>
<td>3/10 - 5/9</td>
<td>1/4</td>
<td>1/4</td>
<td>9/12</td>
<td>double</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TPVZ 2 x 255/2500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Dimensions.**

<table>
<thead>
<tr>
<th>Capacity (kg/h)*</th>
<th>Stick length (m)</th>
<th>Dimensions (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L1</td>
<td>L2</td>
</tr>
<tr>
<td>1250</td>
<td>39,0</td>
<td>38,0</td>
</tr>
<tr>
<td>1750</td>
<td>44,4</td>
<td>43,4</td>
</tr>
<tr>
<td>2750</td>
<td>58,2</td>
<td>56,8</td>
</tr>
<tr>
<td>3500</td>
<td>69,6</td>
<td>68,6</td>
</tr>
<tr>
<td>3500</td>
<td>61,8</td>
<td>60,8</td>
</tr>
<tr>
<td>4500</td>
<td>75,8</td>
<td>74,3</td>
</tr>
<tr>
<td>5500</td>
<td>86,4</td>
<td>85,0</td>
</tr>
</tbody>
</table>
Technical data.

**Ecothermatik™ long-cut pasta dryers.**

**Ecothermatik™ single-tier dryer (1250–2000 kg/h)**

Sample line shown has a capacity of 1750 kg/h.

**Ecothermatik™ multi-tier dryer (3500–5500 kg/h)**

Sample line shown has a capacity of 5500 kg/h.
## Configuration.

<table>
<thead>
<tr>
<th>Capacity (kg/h)*</th>
<th>Stick length (m)</th>
<th>Press</th>
<th>Spreader</th>
<th>Pre-dryer and main dryer</th>
<th>Stabilization zone</th>
<th>Moisten- ing zone</th>
<th>Cooler</th>
<th>Stacker</th>
<th>Cutter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1250</td>
<td>2,0</td>
<td>TPVO</td>
<td>2 sticks</td>
<td>1/6 - 1/5</td>
<td>1/5</td>
<td>1/1</td>
<td>1/1</td>
<td>5/6</td>
<td>single</td>
</tr>
<tr>
<td>1750</td>
<td>2,0</td>
<td>TPVO</td>
<td>2 sticks</td>
<td>1/8 - 1/7</td>
<td>1/7</td>
<td>1/1</td>
<td>1/2</td>
<td>6/7</td>
<td>single</td>
</tr>
<tr>
<td>3500</td>
<td>2,5</td>
<td>TPVO</td>
<td>4 sticks</td>
<td>1/6 - 3/8</td>
<td>2/8</td>
<td>1/3</td>
<td>1/3</td>
<td>7/10</td>
<td>single</td>
</tr>
<tr>
<td>4500</td>
<td>2,5</td>
<td>TPVZ</td>
<td>4 sticks</td>
<td>1/5 - 3/11</td>
<td>2/9</td>
<td>1/3</td>
<td>1/3</td>
<td>8/11</td>
<td>double</td>
</tr>
<tr>
<td>5500</td>
<td>2,5</td>
<td>TPVZ</td>
<td>6 sticks</td>
<td>1/6 - 3/13</td>
<td>2/11</td>
<td>1/4</td>
<td>1/5</td>
<td>9/12</td>
<td>double</td>
</tr>
</tbody>
</table>

## Dimensions.

<table>
<thead>
<tr>
<th>Capacity (kg/h)*</th>
<th>Stick length (m)</th>
<th>Dimensions (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>L1</td>
</tr>
<tr>
<td>1250</td>
<td>2,0</td>
<td>49,0</td>
</tr>
<tr>
<td>1750</td>
<td>2,0</td>
<td>59,5</td>
</tr>
<tr>
<td>3500</td>
<td>2,5</td>
<td>56,0</td>
</tr>
<tr>
<td>4500</td>
<td>2,5</td>
<td>64,8</td>
</tr>
<tr>
<td>5500</td>
<td>2,5</td>
<td>72,8</td>
</tr>
</tbody>
</table>