System solutions for extrusion, forming and cutting.
Quality travels the world. Therefore, Bühler Countlines realises plant and system solutions everywhere involved in the automated production of high quality confectionery and bakery products – as one of the leading industrial suppliers for the manufacture of all types of bars. Brand producers worldwide put their trust in Bühler system technology.

There is of course a great need for regular innovation and modernisation of the production in the intensely competitive confectionery business. So when you are looking for unusual product ideas, progressive automation or more efficient manufacturing solutions, you can make use of a competent development partner at your side. Whether fat or sugar masses, dough, caramel or chocolate masses, cereals and fruit pastes, whether extruded profiles or a slabbed mass – you can find an impressive manufacturing solution here for every type of mass and every product shape.

**Extrusion, forming, cutting**
Bühler specialises in machinery and system technology for the manufacture of high quality confectionery and bakery products.
The Bühler product range ensures that your product is shaped perfectly. It is always a matter of the ideal mix of performance and adaptability, meeting hygiene, ecological and economic standards and the sustainability of the installed systems.

- Perfect manufacturing quality with high output.
- Hygienic design.
- Green design with energy efficiency.
- Economic operating costs.
- Flexibility for product ideas.

Supported by the experience of numerous developments and installations around the world, Bühler is the perfect system supplier with a broad range of modular and total plant solutions. The experienced Bühler team effectively equips major companies in the confectionery and baked goods sectors with formpress and cutting technology formerly known under the brand name Bepex.

**Bühler formpress and cutting technology:**
- Formpress and cutting systems for all masses.
- Versatile production lines with working widths up to more than 2,000 mm.
- System technology with high quality components and integrated process technology.
- Unique comprehensive hygienic design.
- Maximum energy efficiency.
Innovative solutions along the value-chain. Leading process technology for premium products.

Forming and extruding
Precision does not know about any tolerance. Bühler has achieved a worldwide reputation with a range of form presses whose compression pressure can be precisely controlled for the pressure-sensitive or aerated masses of the most demanding branded products. The quality of the manufactured products is distinguished by the smallest dimension tolerances. In addition to maximum product quality, you thus achieve a proofed optimum resources efficiency.

Equalizing and slab forming
The following rule applies for bars: a perfect mass slab is the recipe for successful bar manufacturing – over the complete working width, with homogeneous density and elasticity suitable for production. Achieving exactly this objective, even under difficult environmental conditions, is the aim for a Bühler plant solution. The range of Bühler systems for the forming of challenging mass slabs that can themselves contain large-grained ingredients is distinguished by a basic manufacturing flexibility.
Cutting and fanning
Bühler proves its technology leadership worldwide in the downstream cutting process with machines that can be flexibly integrated, that can cut even sticky, tough or highly aerated masses precisely: longitudinally and transverse. The range of cutting machines is distinguished by a very large variety of working widths with various cutting modes for specific product and mass types. After cutting the product slab into individual strands, these are spaced apart by a flexible and hygienic fanning belt system.

Controlling
Integrated technology from Bühler with consistent operating philosophy: Process control with intuitive graphical interface. The control package is fit for the future and is based on Bühler process technology. The highest standards are set and maintained for the entire confectionery and bakery products production. The consistent operating philosophy with intuitive graphics and symbols is impressive in the daily work routine, both for the forming presses as well as for the cutting machines.
Best form for best sellers.
Forming and extruding.

Precision does not know about any tolerance. Bühler has achieved a worldwide reputation with a range of formpresses whose compression pressure can be precisely controlled for the pressure-sensitive or aerated masses of the most demanding branded products.

With Bühler formpresses, you are deciding on the flexibility of a modular system that keeps every option open for you. Depending on the model, you form masses into a slab or continuous extruded profiles: one, two or three layer strands, also filled. Diverse machine configurations allow optimum matching to the required products and production performance. The quality of the manufactured products is distinguished by the smallest dimension tolerances. In addition to maximum product quality, you thus achieve optimum resources efficiency.

**Formpressdrive FP HD**
The universal, hygienic design formpress drive provides the advantage of being able to install various forming presses on only one drive and only having to change the forming head for product change while the drive stays in the line. You thus achieve shortening of the change-over times. Error-free operation is guaranteed thanks to intuitive recognition of the forming heads and electronic roller gap adjustment. At the same time, you perform the cleaning of replaced forming heads outside the line while production continues running.

The servo motor drive operates exactly according to the selection of all parameters and does not need synchronisation nor mechanical torque limiters.

**Rotary bar roller press DP**
Many different masses such as dough, protein masses, caramel, fruit pastes or chocolate masses can be formed with the DP rotary bar roll presses. The positive displacement technology of the rotary bar achieves an homogeneous mass flow over the entire working width of the machine, shaped under many different pressures for easily flowing chocolate fillings to highly viscous protein masses. The DP operates according to the „First in – First out“ principle with minimal shear effect of the mass which ensures fine product qualities. Temperature control of the complete forming head always keeps the mass optimally conditioned for a homogeneous product and production free of interruptions.

**Double rotary bar roller press DDP**
This co-extrusion system expands the range of the DP rotary bar roller press by the ability to form two different masses jointly in one product strand. Thus filled, chequered or also multi-layer product strands and slabs can be produced. There are hardly any limits for the distribution of the individual masses which meets the requirement for unique product designs with high differentiation potential.

**Triple rotary bar roller press DP 3**
With this co-extrusion system, you even expand the forming options of the DP rotary bar roller press to three different masses in one work operation. Thus even further differentiated filled, chequered or multi-layer product strands and slabs can be produced. With the perspective of unique product designs for intensely competitive markets – manufactured with greatest possible quality with maximum efficiency.

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**Hygienic Design by Bühler:**
- Consistent hygienic design according to GMA and EHEDG.
- Minimisation of the number of components for easy dismantling, almost without tools.
- General prevention of product accumulations.
- Systematic, time saving cleaning process possible.
- Certified food grade materials and surfaces.
- Easy access for maintenance to all components, machine parts in the COP area can be moved for cleaning.
- Prevention of accumulation of solids or liquids.
- Exclusion of hollow spaces or niches.
- Relocation of components in separate energy block outside the product area.
Bühler formpresses:

- Universal drive for quick change between the formats.
- Powerful motors with high torque for a wide range of products.
- Robust design for reliable production and long term security of investment.
- Exact and homogeneous product shaping reduces excess weight, raw material and energy consumption.
- Good accessibility enables easy and safe operation, maintenance and cleaning.
- Consistent hygienic design according to the guidelines of EHEDG and GMA.
- Cleaning of the formpress units outside the line (COP) on the optional cleaning trolley.

**All types of bars**
Unique product designs with high variability – recipe for success of the world market leaders.
Surface, contour and consistency.
Slab form for branded products.

The following rule applies for bars: a perfect mass slab is the best recipe for success – over the complete working width, with homogeneous density and elasticity suitable for production. You achieve exactly this objective with a Bühler system solution, even under difficult environmental conditions.

The range of Bühler systems for the forming of challenging mass slabs that can themselves contain large-grained ingredients is distinguished by a basic manufacturing flexibility. And there is a range of additional equipment available for your customer-specific specialisations.

**Smooth roller former GP M**
The hygienic design smooth roller former GP M has been specially designed for the gentle forming of product slabs made of pressure-sensitive masses, for muesli or fruit bars. It shows its performance here for uniform mass flow over the complete working width with homogeneous density distribution. Equipped with a 3-roller system, you can individually control the product distribution and density roller by roller. The roller diameters are specifically designed for gentle and flow of cereal masses.

**Smooth roller former GP N**
Slabs made of pressure-sensitive aerated masses such as for nougat bars are the domain of the smooth roller former GP N. The receipt of the pronounced aeration volume for uniform mass flow puts high technical requirements on the slab former. This task is solved perfectly by the 3-roller system, which you control using the product distribution and density appropriately for the production. The roller diameters convert the gentle flow of aerated masses and their controlled cooling into best quality.

**Additional roller units**
Special additional units make the application range of Bühler forming presses more flexible for many different production environments and expand the range of end products.

**Hygienic equalizing roller EGW**
An already formed product slab can be further smoothed using temperature-controlled equalizing rollers on the surface. The rollers are built on the infeed table of the cooling tunnel and can be moved to any position. The exactly parallel vertical adjustment defines the product height. Depending on the type of mass, Teflon-coated rollers or surfaces made of polished stainless steel can be selected.

**Hygienic contour roller**
Contour rollers directly before the cutting process of the individual strands give products a unique shape. Triangular, trapezoid or semicircular cross sections are thus possible.

**Roller former W**
Formed products from masses such as dough, peanut butter, grated coconut, fudge caramel, complicated by populating with large-grained contents of nuts, cereals or pieces of chocolate need the gentle and flexible form processing by the roller former W. In addition to traditional rectangular bars, it also realises round and oval shapes. The mass is dosed gently and with high precision into cavities from a feeding hopper and ejected on the underside of the roll former on a conveyor belt or in product sleeves.

**Nozzle cutting system for DP/DDP/DP3**
The constructive solution for the idea of manufacturing end products quickly, space saving and efficiently in one work operation is to portion the product strand directly at the nozzle. The nozzle cutting system implements this approach. Combined with a belt lifting device, sensitive products such as biscuit pre-forms or chocolate masses land gently piece by piece on the conveyor belt.

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**Process optimisation by Bühler:**
- Process-integrated mass preparation.
- Expansion of the variety of masses and recipes.
- Acceleration of the processes.
- Assurance of the productivity and reliability.
- Reduction of operating costs.
- Improvement of the manufacturing flexibility.
- Intelligent process automation.
Bühler smooth roller former GP:
• Gentle product processing without loss of volume.
• Precise forming increases product yield and reduces lateral waste.
• Exact and homogeneous product density reduces excess weight and raw material consumption.
• Robust design for reliable production and long-term security of investment.
• Good accessibility enables easy and safe operation, maintenance and cleaning.

Homogeneous slab
From the recipe to the manufacture – Bühler makes the difference.
High cut in high speed. 
From the slab to the bar.

Bühler proves its technology leadership worldwide in the downstream cutting process with machines that can be flexibly integrated, that can cut even sticky, tough or highly aerated masses precisely: Longitudinally and transverse.

The range of the Bühler cutting machines is distinguished by a very large variety of working widths with various cutting modes for specific product and mass types. What combines them is their basic consistency for hygienic design, impressive reliability concepts and minimal spare parts management.

Strand slitter SG HD
For strand cutting, the slab is cut into continuous strands using a circular knife shaft. The strand slitter SG takes over this task with a gentle, straight cut. Depending on the consistency, this process is optionally performed on a cutting anvil roller or on the conveyor belt itself for sensitive products. Pneumatic lifting of the circular knife shaft makes the production start and product handling and cleaning easier.

Fanning belt FA EB HD
After cutting the product slab into individual strands, these are spaced apart. This fanning system prevents the strands sticking together, makes the packaging easier in individual cases or prepares them for covering with chocolate. The flexible and hygienic fanning belt is equipped with double V-belts made of plastic that conduct the product specifically into the downstream transversal cutting machine. They are easy to clean.

Different product widths can be set by replacement of the rollers which makes a fast product change possible. Many belt widths from 12 mm can be selected. The guide rollers are made from a single piece which is particularly relevant for allergen-free cleaning. The tiltable tensioning unit of the belts also opens up access to critical places and thus enables easy cleaning and maintenance.

Transversal cutting machines MS HD
The MS cutting machine has been specifically developed for high-precision cross cutting to the required product length of continuous strands or slabs. It provides the choice of individual cutting modes such as Continuous, Start-Stop or Pinch-Cut without requiring mechanical conversions. Almost everything between 10 and 200 cuts can be selected. Five servo axes master the perfect cut for every type of confectionery product. By using additional tools, it is possible to manufacture rhombus, pillow and dome shapes. And the modular design opens up the base model to specific adaptations such as the use of ultrasound cutting technology or product removal so that the machine can still be upgraded and retooled even after several years.

High performance cutting machine HS
The world of the HS high performance cutting machine begins where a normal transversal cutting machine reaches the limit. With cutting speeds of up to 1000 cuts/min, even the smallest products can be cut precisely and maximum conveying speeds mastered effortlessly.

Manufacturing efficiency by Bühler:
• Optimum resource efficiency thanks to exact forming and cutting.
• Smallest possible dimension and weight tolerances.
• Modular system in the system technology.
• Reduction of set-up times.
• Integrated control concept.
• 24/7 production thanks to stable design and materials.
• Low friction drives for low wear and energy saving conveyor paths.

Perfect cut
Bühler plays an important role on your way to optimum bar production.
Bühler cutting machines and fanning belt:

- Exact cutting using servo technology for maximum product quality.
- Various cutting modes for greatest product variety, gentle even for sensitive and sticky products.
- Continuously adjustable cutting and belt speed.
- High cutting frequencies up to 1000 rpm.
- Cutting and conveyor belt speed are synchronised with each other: maintenance of cutting length also for change of belt speed.
- Numerous retrofitting options make the system upgradable for the future.
- Robust design for reliable production and long term security of investment.
- Good accessibility enables easy and safe operation, maintenance and cleaning.
- Easy to maintain thanks to simple tension of the entire belt set.
- Belt scrapers, also from the inside of the belt, for high cleanliness and reliability.
- Working widths from 100 mm to 3,000 mm.