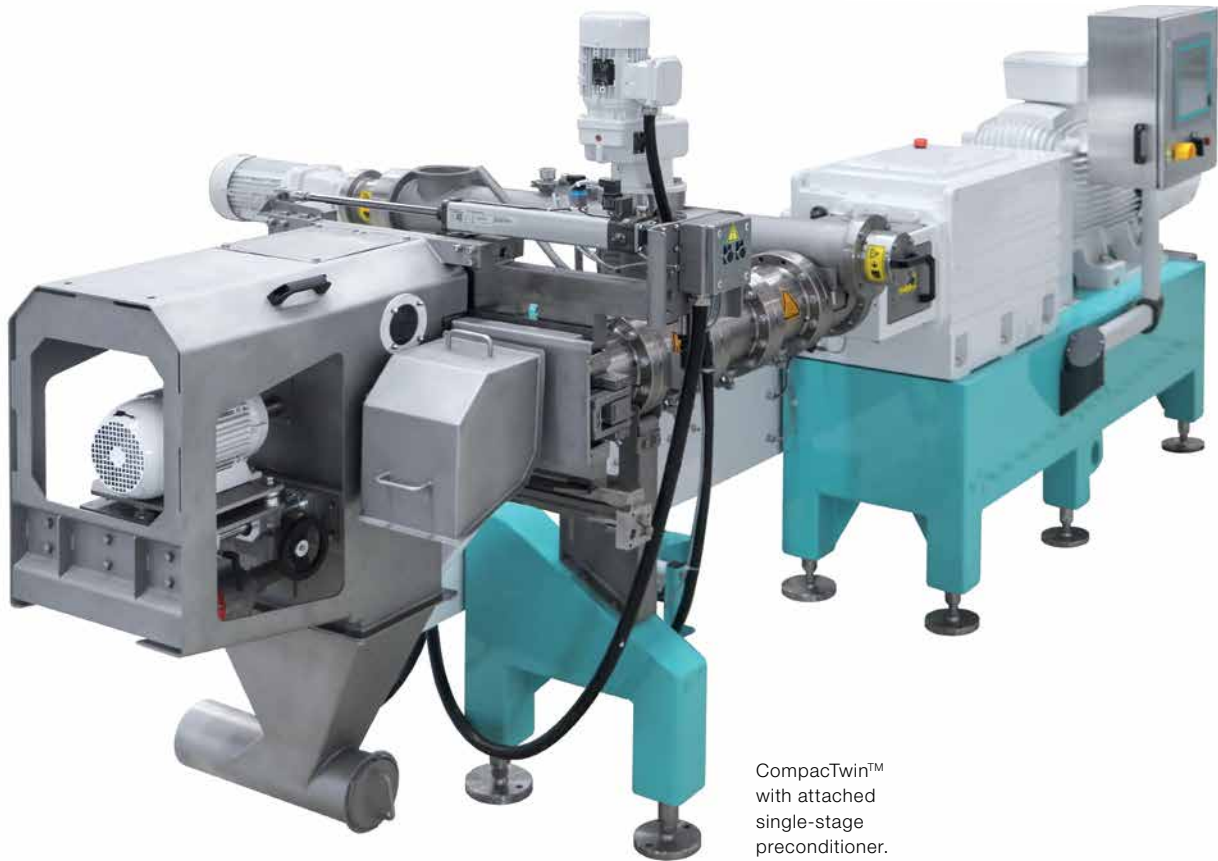


Twin-screw
extrusion system.



CompacTwin™

CompacTwin™ – the flexible twin-screw extruder. The economical solution for numerous industries.



CompacTwin™
with attached
single-stage
preconditioner.

Application examples.



Petfood

- Direct-expanded kibbles
- Semi-moist pet food
- Foods for small pets



Aquafeed

- Micropellets
- Floating feeds
- Sinking feeds
- Shrimp pellets



Ready-to-eat

- Direct expanded cereals
- Expanded flakes
- Indirect expanded flakes



Standard ingredients

- Modified flours and starches
- Bread crumbs
- Texturized proteins
- Reconstituted rice
- Fortified rice



Indian snacks

- 2D Snack pellets
- Direct expanded snacks



The cutting apparatus moves laterally to allow exchange of the knife head even during production.

CompactTwin™ – wide range of applications

The twin-screw extruder has been designed for a wide variety of applications in many different industries. The system ensures easy and reliable production of breakfast cereals, snacks, food ingredients, high-quality pet foods, and a number of other products, like fishfeed.

The CompactTwin™ is based on proven Bühler extrusion technology. It incorporates newly developed components as well as existing elements from proven machine series. The extruder has been designed for a maximum process pressure of 150 bar and a temperature of 250 °C.

The extruder is available in three sizes: 62, 93 and 125 mm screw diameter with a throughput capacity up to 3000 kg/h for food applications and 8000 kg/h for feed applications. The modular design and the lean concept of the system enable particularly easy operation and maintenance in addition to highly sanitary operation.

The lean design of the CompactTwin™ is especially suitable for trouble-free production of high volumes of a given product and product formula. The functional control system of the extrusion system allows dependable production and enables easy selection of the production parameters of the feeder, preconditioner, and extruder.

Design allowing flexible expansion

The proven cutter, which can be moved to the side, enables the operator to exchange the knife head even during ongoing operation, which ensures a consistently high quality of the end products. The attachable hydraulic screw extraction device allows smooth removal of the shafts.

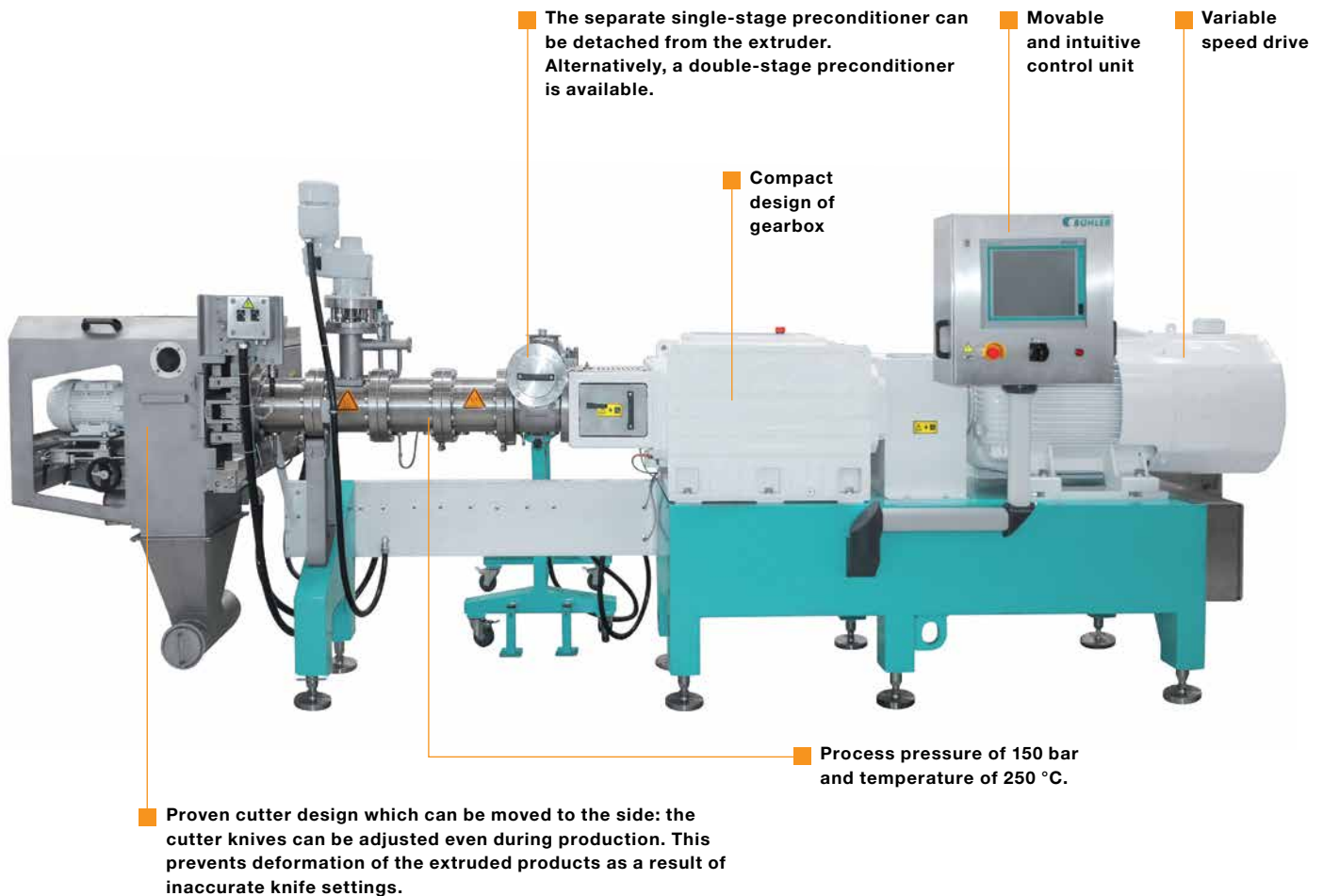
The barrel is newly designed. Wear elements in these barrels are easy to exchange. As a standard, the two-piece barrel is with tempering bores. The barrel of the process unit will be heated or cooled by a separate temperature control unit.

Depending on the application there is a choice between a single- or a double-stage preconditioner.

Various additional accessories available:

- Oil addition systems
- Forced feeding
- Venting spouts
- Density control units, especially for aquafeed
- Slurry systems

Modular technology ensures success. Performance features at a glance.



User-friendly automation system for efficient and safe production



The CompacTwin™ is equipped with a user-friendly and easy-to-understand touch-screen control system. Safety circuits prevent damage due to improper use. Emergency situations will lead to fully automatic self-stopping of the extruder.

Customer benefits

- Dependable production and fast selection of recipes or processing parameters for feeder, preconditioner and extruder
- Quick and easy operation of extruder which leads to constant and reproducible quality of the end product

Single-stage preconditioner.



Single-stage preconditioner mounted on movable base.



No scrapers are needed.

The newly developed single-stage preconditioner is a hygienic and economical solution designed for processes which do not require long retention times in the preconditioner. It is the ideal solution for fast and efficient moistening and heating of the raw material.

Inside the preconditioner, the raw material is fluidised and uniformly mixed with steam or added liquids. A new configuration of the preconditioner relative to the extruder eliminates the need for an additional transition between

the two machines. The preconditioned product is fed directly into the extruder.

The system is mounted on a separate, traveling base and can be quickly and easily attached to the extruder. It is connected to the control system and the power supply through a plug-in coupling. This user-friendly concept allows the preconditioner to be detached without effort from the extruder for cleaning. The shaft of the preconditioner can easily be extracted from the tube.

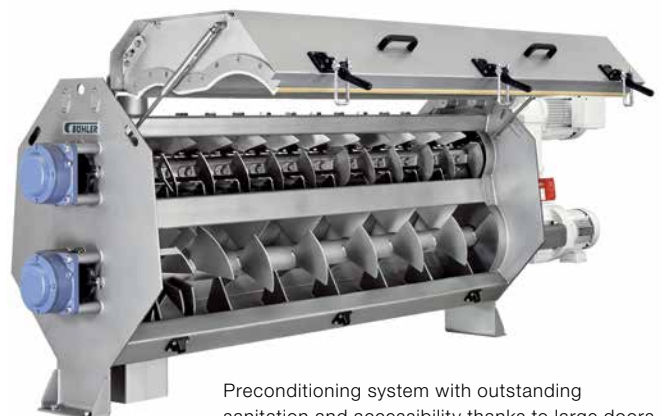
Double-stage preconditioner.

The double-stage preconditioner provides a separation of the mixing zone from the retention zone. This ensures optimal, intensive mixing at high screw speeds and gentle retention across a narrow time range at a low screw speed.

The overlapping flight geometry configuration in the mixing zone as well as in the retention zone ensures thorough scraping of all internal surfaces in contact with the product. Beside allowing a very narrow retention (dwell) time range, it also enables complete emptying of the preconditioner after production.

The design of the double-stage preconditioner is such that the material inlet is vertically positioned exactly above the outlet. A large number of connections for

supplying steam and adding liquids are available in the mixing zone. The machine is installed on the supports provided at both ends.



Preconditioning system with outstanding sanitation and accessibility thanks to large doors

Service for demanding customers. Available worldwide, reliable and fast.



When customers need spare parts or support from a technician, Bühler stands ready.

Customers can rely on Bühler when it comes to service and maintenance of their extrusion systems. Thanks to company representatives the world over, specialists are always within reach when needed. A central spare parts service also ensures that required components are always at the ready for fast shipment.

Customized maintenance, retrofitting and reconditioning packages ensure that your Bühler equipment is always state of the art. The advantage: customers can operate profitably and reliably even with older systems. Training options tailored specifically to production personnel ensure smooth machine operation that results in excellent product quality with optimum throughput.

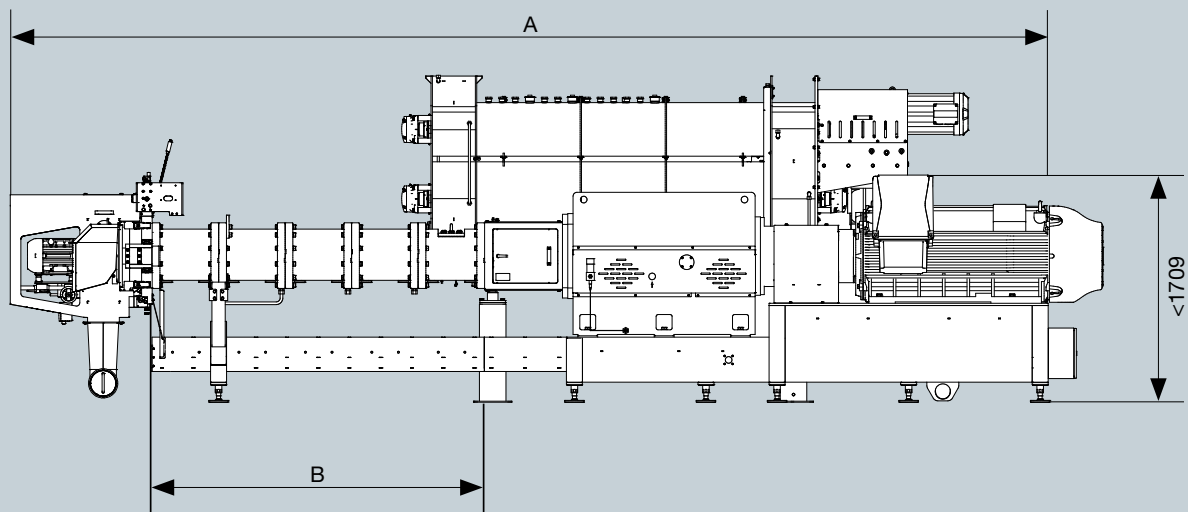
Bühler is represented on every continent, maintains its own production, development, and service locations

worldwide, and is quickly on site when customers need good service. Special service offerings like barrel wear measurement service enable optimum system output and training courses keep personnel abreast of current technologies and safety standards – for labor law regulations as well as food safety.

In our pilot plants in Switzerland, China and the USA customers can conduct trials on standard machines and can learn about the possibilities of extrusion.

Technical data.

CompacTwin™.



Extruder with process length 20D	A	B	Extruder screw diameter	Throughput subject to product	Maximum electric power
CompacTwin™ 62	4618 mm	1240 mm	62 mm	max. 1000 kg/h	max. 132 kW
CompacTwin™ 93	6282 mm	1860 mm	93 mm	max. 4000 kg/h	max. 250 kW
CompacTwin™ 125	7812 mm	2501 mm	125 mm	max. 8000 kg/h	max. 450 kW

The CompacTwin™ is available with several process lengths.

All data are approximate values. Subject to technical changes without notice.

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