

Pellet Mill Kubex™ T.

DPEE/DPEF



Kubex T pellet mill.

Designed by feed millers for feed millers.



Kubex T is the latest generation of the successful Bühler Kubex pellet mills. Developed in close cooperation with leading feed millers,¹ the Kubex T pellet mill is different from anything else in the industry. A specially designed drive system with up to 585 kilowatts powers the production of feed pellets with an unprecedented level of efficiency. The result is an output of up to 80 metric tons an hour² – despite the machine being more compact and easier to use and maintain than anything comparable on the market.

Application

The Kubex T pellet mill has been developed for high-capacity pelletizing of animal feeds. The machine can process even hard-to-pelletize raw materials with high fat or fiber content without any problems. The pellet mill is available as Kubex T12 with 1,200 mm die diameter and die widths

of 265 or 320 mm; or as smaller model Kubex T9 with a 900 mm die and die widths of 200, 260 or 300 mm.

Customer benefits

- Energy savings of up to 20%³
- Variable die speed
- Up to 585 kW motor power
- Belt- and gearless drive system
- 360° accessibility
- The world's most compact design

¹ Agravis / Germany, Lantmännen / Sweden, Le Gouessant / France, Veronesi / Italy.

² Max. capacity, based on poultry feed, 4 mm.

³ Measured values ranged from 10 to 30%.

The industry's first direct drive concept. Energy efficiency meets low maintenance.

Energy savings of up to 20%

The direct drive system is a major factor in the efficiency of the Kubex T pellet mill. It is the first such machine in the animal feed industry designed without a gearbox or V-belts. The motor is directly connected to the main shaft, significantly reducing transmission losses. This results in energy savings of up to 20% compared to conventional drive systems.

Variable die speed

The direct drive system also offers another important advantage: the circumferential die speed can be adjusted during production to suit any feed formulation. This allows formulation-specific optimization of production process and pellet quality, in many cases without requiring a die change. Running the mill at the optimized speed may also result in a longer lifetime of the die.

Up to 585 kW motor power

The Kubex T pellet mill is equipped with the industry's most powerful motors: The T12 model comes with 470 or 585 kW motor power, the smaller model T9 with 320 or 410 kW. In combination with large die diameters, this allows for ultimate production capacities of up to 80 t/h (T12) or 50 t/h (T9), respectively.

Belt- and gearless drive system

The absence of a gearbox and V-belts eliminates the need for time-consuming and costly maintenance work, increasing machine uptime and reducing operating costs. The motor is cooled by an integrated closed-circuit water cooling system, and an automatic central lubrication system doses the ideal amount of grease to the main, motor and press roll bearings.

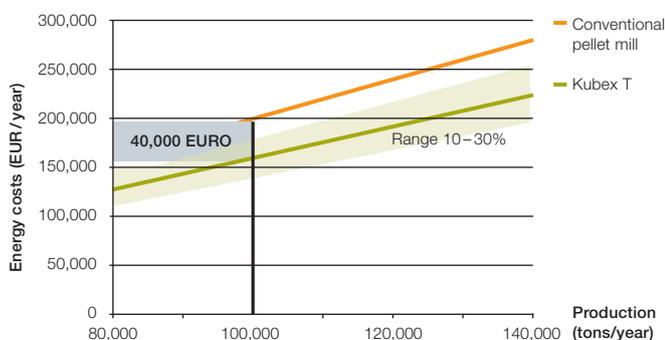
360° accessibility

Developed in close cooperation with leading feed millers and a renowned industrial designer, the Kubex T pellet mill sets a new benchmark for accessibility and hygiene. Thanks to large and wide-opening sliding doors on both sides of the machine, wear parts such as dies, press rolls and shear pins can quickly and easily be replaced. In addition, the slight overpressure in the machine housing prevents dust settlements in critical areas.

The world's most compact design

There is no other pellet mill that crams so much performance into such compact dimensions. The Kubex T provides almost twice as much capacity with the same footprint as conventional pellet mills. This makes Kubex T the perfect solution for feed millers looking to upgrade their existing pelleting lines to efficient technology, without costly building or process modification works.

It pays to be energy-efficient



Given a formulation-specific energy consumption of 20 kWh/t, energy costs of 0.1 EUR/kWh and an output of 100,000 tons, expected energy savings are 40,000 EUR – year by year.

User-friendly die change concept



The screws of the die are easily accessible from the clean motor compartment. Two large sliding doors on both sides of the machine provide full access to the pellet mill's inner section and offer plenty of work space.

Added value machine options. Features to increase line productivity.

The Kubex T already comes as standard with a variety of machine and design features to maximize throughput, uptime, maintenance and safety. These include:

- automatic central lubrication system for main, motor and press roll bearings
- several wear sensors for preventive maintenance
- auxiliary drive, facilitating maintenance work
- control connection box for easy connection to plant control systems
- machine housing with slight overpressure, preventing dust settlements
- front door and inlet section built in stainless steel
- pellet mill inlet including permanent magnet, inspection port, product bypass
- automatic overload flap, electronically actuated
- scraper knives mounted on pellet mill door, easy to adjust from the outside
- manual roll gap adjustment

In addition, there are also plenty of options available to suit the specific needs of individual customers:

Optional machine features

- Optimized Operation System (OOS)
- Anti Blocking System (ABS) for press rolls
- Automatic roll gap adjustment
- Optiflow for continuous feeding
- Heating mats

Optimized Operation System (OOS)

The OOS ensures smooth machine running and facilitates preventive maintenance. Sensors for monitoring of press roll and pellet temperatures indicate wear and process disruptions in an early stage and protect the machine against damage. Maintenance becomes predictable and spare parts can be ordered in due time.

Anti blocking system (ABS) for press rolls

The ABS prevents roll slippage and thus protects the machine against blockages and damage. This allows the operator to run the machine closer to its upper limit and to increase line productivity.



Automatic roll gap adjustment

Based on the feed formulation, the optimum distance between the press rolls and the die is automatically adjusted during the production process – for maximum pellet quality and throughput and minimum energy consumption and component wear.

Optiflow for continuous feeding

The Optiflow system ensures continuous feeding of mash and protects the machine against current surges and fluctuations. This reduces specific power consumption, increases pelleting capacity and extends the life cycle of the motor and the whole pellet mill.

Heating mats

Heating pads on the door of the pelleting chamber prevent condensation, and so prevent the formation of deposits and reduce the risk of cross-contamination.

Automation and customer service. Leverage our intense knowledge and network.

“Plug and play“ installation

The control connection box which comes as standard makes the machine easy to connect to any plant control system. The box processes and controls all signals from the pellet mill’s components, such as die speed, greasing and temperature monitoring of bearings, machine and operator safety and many more. It leverages Bühler’s extensive process expertise, thereby saving the operator a lot of set-up time. A Profibus system sends all signals to the plant control system for monitoring and control of the complete pellet mill.



The final element of the “plug and play” system is an integrated motor controller which is specially aligned to the drive system and helps to ensure that the motor runs at maximum efficiency. The power supply for the pellet mill can simply be connected to this panel.

Global service network

High-quality spare and wear parts are key factors for operating the pellet mill at its maximum performance. Only genuine Bühler parts meet Bühler’s renowned quality standards. Bühler itself manufactures dies, press rolls, scrapers, distributor flights, knives, shear pins and all other spare and wear parts to the highest standards of quality and precision.



Spare and wear parts are always available quickly when needed. Bühler’s comprehensive inventory of parts, global distribution organization and network of service experts mean rapid delivery is assured – anywhere in the world.

Technical data

Model	Capacity ² (t/h)	Die diameter (mm)	Die width (mm)	Motors (kW)	Dimensions			Footprint (m ²)	Weight (kg)
					Length (m)	Width (m)	Height (m)		
Kubex T9	up to 50	900 mm	200/260/300	320/410	3.41	1.70	1.68	5.80	11,000
Kubex T12	up to 80	1,200 mm	265/320	470/585	3.64	2.06	2.11	7.50	18,000

Bühler AG
CH-9240 Uzwil, Switzerland
T +41 71 955 11 11
F +41 71 955 28 96
www.buhlergroup.com

