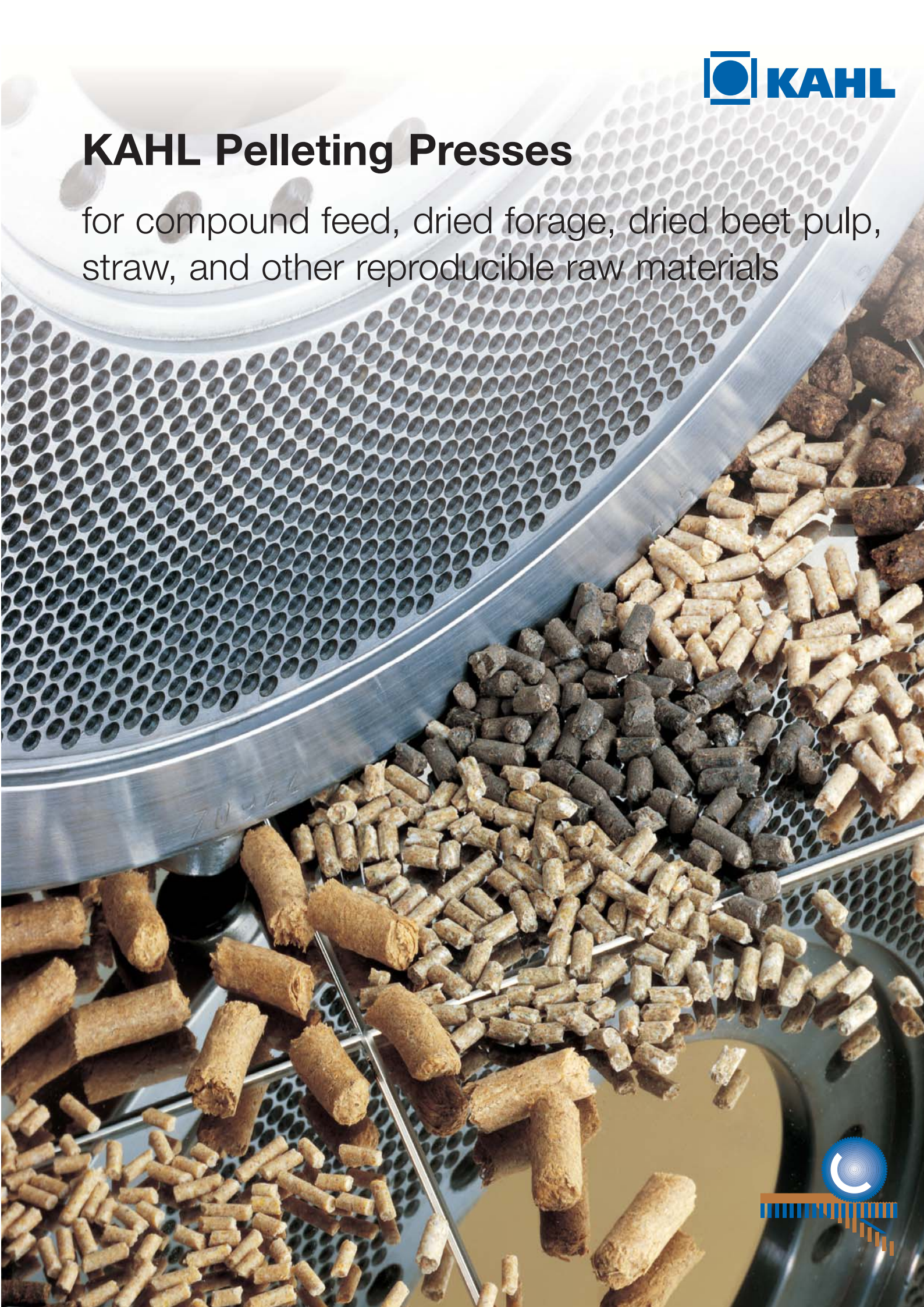


KAHL Pelleting Presses

for compound feed, dried forage, dried beet pulp, straw, and other reproducible raw materials



KAHL flat die pelleting presses are robust and powerful

For decades KAHL pelleting plants have been applied successfully for compacting organic products of different particle sizes, moisture contents, and bulk densities.

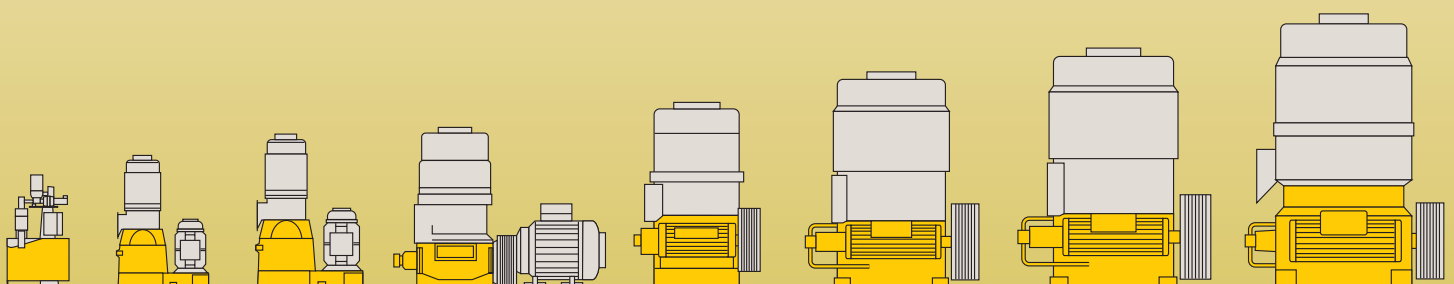
The product is pressed through a die by pan grinder rollers, formed into endless strands, and then cut to the desired particle length by means of knives.

We are constantly developing our machines in order to improve their capacities and economic efficiency. KAHL pelleting presses are particularly appropriate for products which are difficult to pellet.

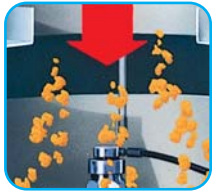
The current production range of KAHL presses consists of 12 different sizes

Die diameter	175 - 1,250 mm
Drive motor	3 - 400 kW
Roller diameter	130 - 450 mm
Pellet diameter	2 - 40 mm

The small presses are driven by slip-on gears, the big presses by low-noise and low-wear worm gears with preceding belt drives.



A convincing technology



1 The product is fed by gravity. **The large pelleting chamber avoids blockings.**



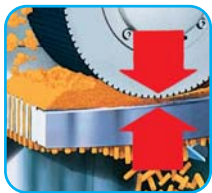
2 The low roller speed of approximately 2.5 m/s ensures a **good deaeration of the product.**



3 As a result of the low speed, the **press noise is below 70 dbA.**



4 The thick product layer between the pan grinder rollers and the large die surface results in **a high throughput**, even in case of products which are difficult to pellet.



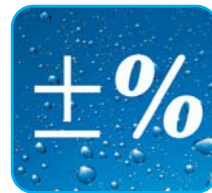
5 The roller gap can be adjusted during operation, thus the **pellet quality can be controlled.**



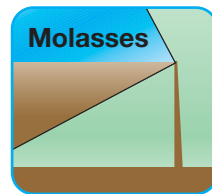
6 **Permanently lubricated roller bearings** with special seals prevent the product being pelleted from contamination by lubricating grease as well as grease losses.



7 Quick die changing **increases the availability** of the complete plant.



8 **Liquid variations** in the product are permissible.



9 Mixtures with high **levels of fat and molasses** can be effectively pelleted.



10 Each pelleting press is **tested before supply** under full-load simulation.



KAHL pelleting process for different applications and products

KAHL pelleting presses are designed for universal use on the widest possible range of products with regard to their structure, bulk density, binding strength, and particle size. Powdery, fibrous, lumpy, and pasty products can be processed into uniform pellets of different sizes.

The following products are mainly pelleted:

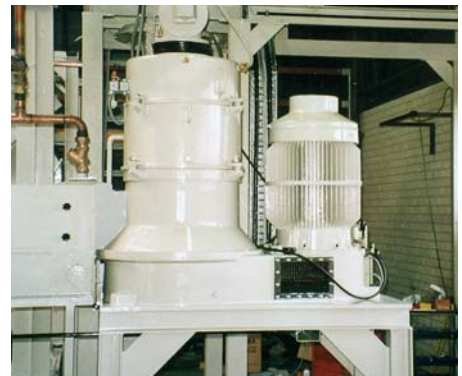
- Compound feed for all animal species
- Raw materials and mineral mixtures for the production of compound feed
- By-products in flour and oil mills, malt factories, and other food factories



Press production in the factory of KAHL



Pelleting plant with 4 presses



Pelleting press in a recycling plant

A special field of application for KAHL presses are the drying plants for green forage. The voluminous, chopped dried forage can be directly pelleted.



Pelleting plant for dried forage



Conditioned straw and complete feed mixtures with a high straw content are processed into pellets of large diameter using KAHL presses. It is also possible to pellet reproducible raw materials for further industrial processing or the generation of energy.



Pelleting presses in a sugar factory



Pelleting press with bio-reactor in a straw plant

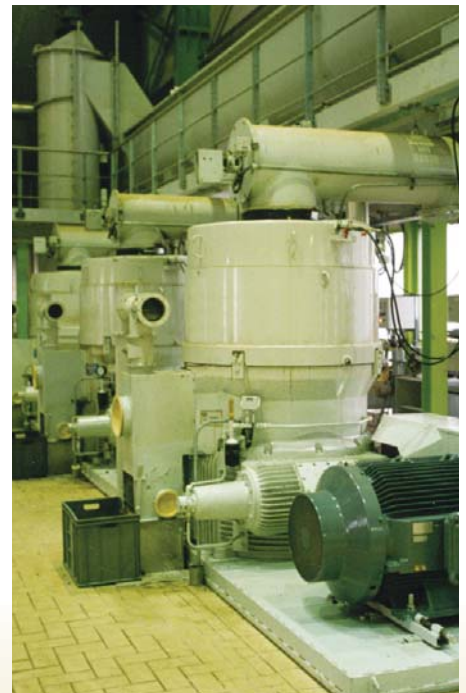


Pelleting press in a compound feed factory

For more than 20 years KAHL have been in a leading position with regard to the production of dried beet pulp presses for the sugar industry. The extreme demands of the sugar beet campaign require a robust design and a high operating safety of the presses.



Pelleting plant for dried beet pulp



Modern press station in a sugar factory



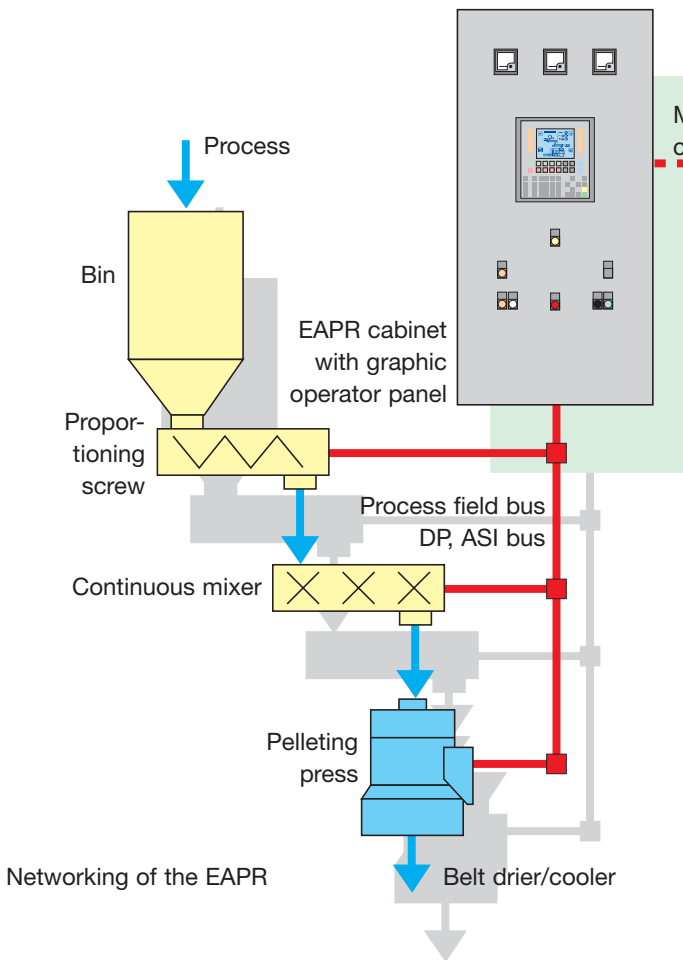
Automatization for optimum products



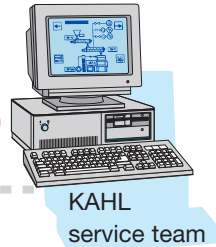
EAPR operator panel

Switch and control panels for all plant sizes are designed, built, and installed by KAHL. Our electrical engineers develop custom-made application software for ensuring a high degree of operating safety and efficiency.

The EAPR is the pelleting press control system for an optimum, automatic operation of the flat die pelleting presses of the company KAHL. It consists of a local control cabinet with a graphic operator panel



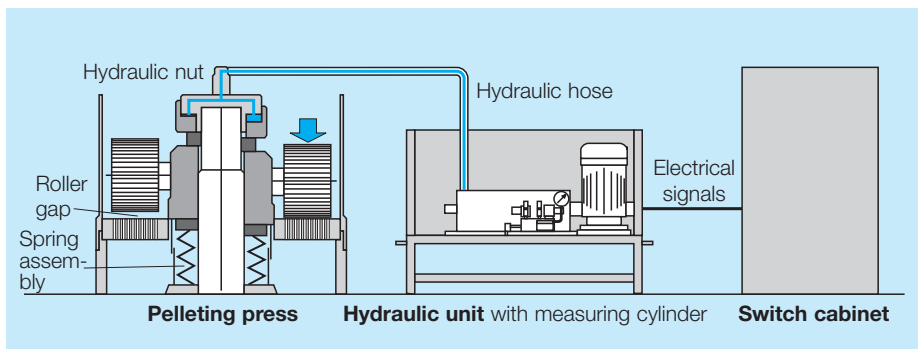
Modem connection



KAHL service team

(OP) and an S7-PLC by Siemens as central components. The EAPR controls and regulates all the relevant process parameters.

- Optimum operation of the pelleting press
- Low manpower requirements
- High availability due to the use of proven quality components
- Optional field bus system saves installation work
- DISTAMAT for continuous adjustment and control of the roller gap (option)



The distance automatism DISTAMAT ensuring a constant roller gap provides an optimum pellet quality and increases the service lives of pan grinder rollers and die.



Intelligent production acc. to DIN EN ISO 9001

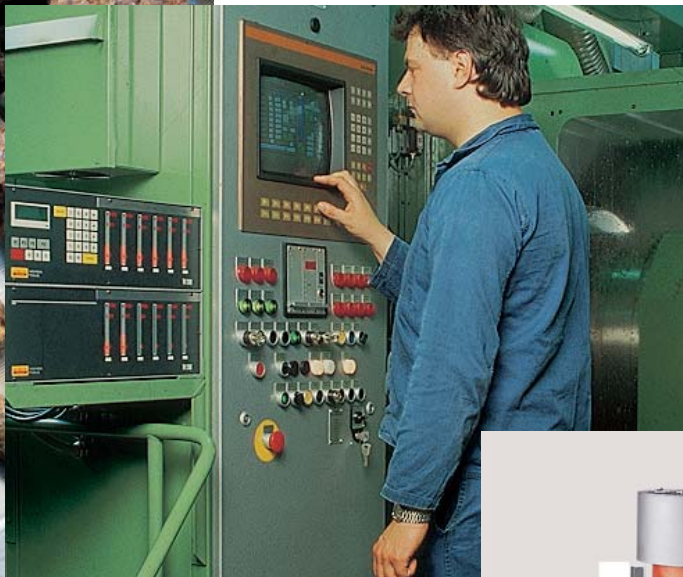
For the production of pan grinder rollers of different diameters, widths, and profiles a flexible production line with robot-shuttle is available. Consequently a trouble-free spare parts supply is ensured.



Production line for pan grinder rollers using a robot-shuttle



Roller bearing with long-term lubrication and axial face seal



Automatic deep-hole gun drilling machine for dies

The dies are produced by the latest automatic deep-hole gun drilling machines. Hardening is carried out in our specialized department within the company.



Driven pan grinder rollers for products with extreme slipping properties

The KAHL pilot plant for developing new products and processes

Our experimental department is responsible for the development of new processes and machines. It is provided with an extensive pilot plant with laboratory, production machines, and measuring equipment for the most important process stages of the conditioning technology.

Pelleting tests for the compound feed industry are now almost exclusively carried out using the annular gap expander. The combination of the annular gap expander and press offers the feedstuff and the food industry new possibilities for conditioning and hygienic treatment of mixtures and by-products together with a considerable increase of the press capacity.

The plant is available to prospective buyers and customers who want to have their own products tested. On the basis of the results achieved plant designs and offers can be prepared.



Pilot plant with proportioning unit, continuous mixer, hydrothermal reactor, annular gap expander, extruder OEE, flat die pelleting press, belt drier/cooler, Rotospray, crumbler



AMANDUS KAHL GmbH & Co. KG

Dieselstrasse 5-9

D-21465 Reinbek / Hamburg

Phone: +49 (0)40 727 71 - 0

Fax: +49 (0)40 727 71 - 100

info@amandus-kahl-group.de

www.akahl.de