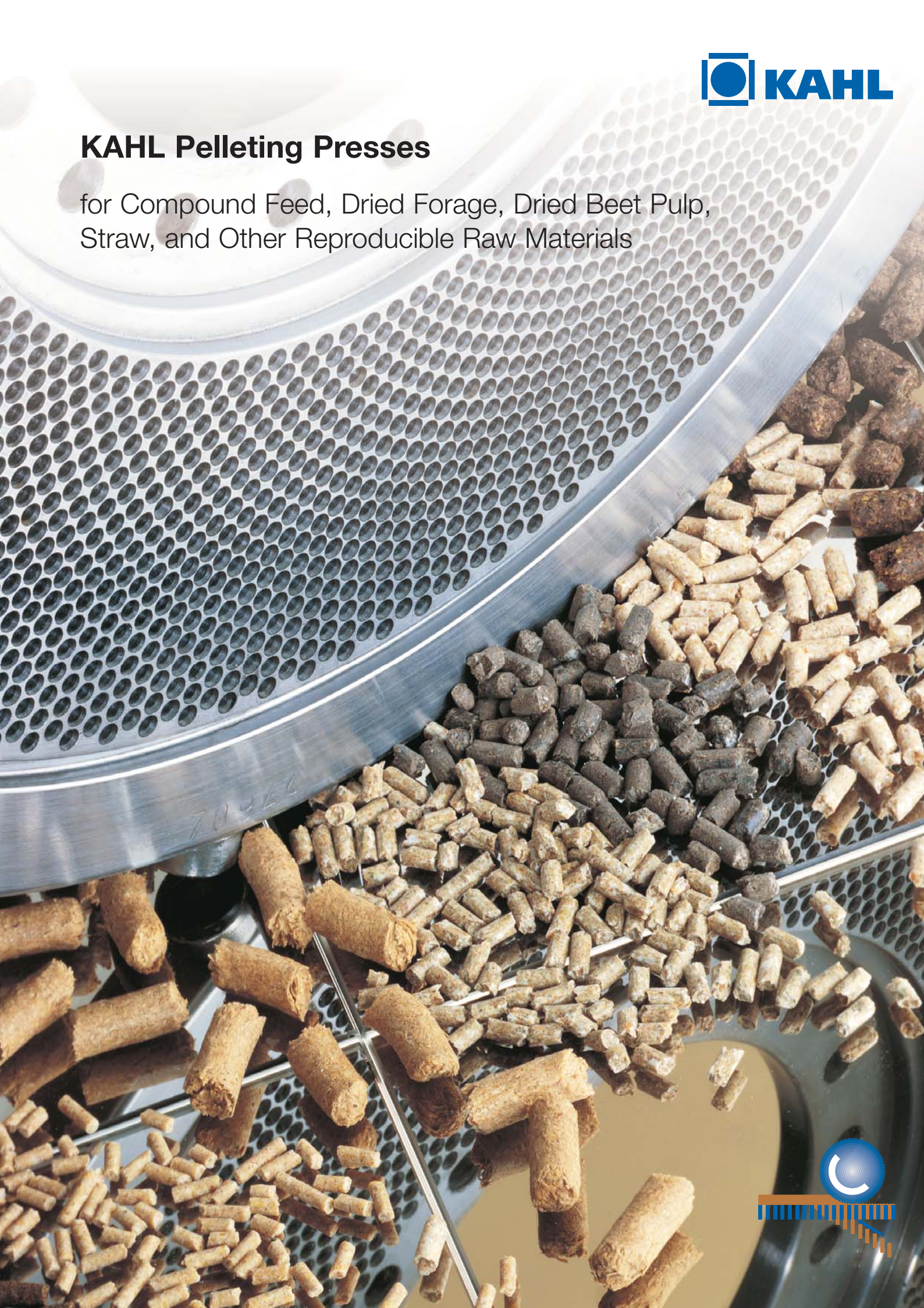
KAHL Pelleting Presses

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.

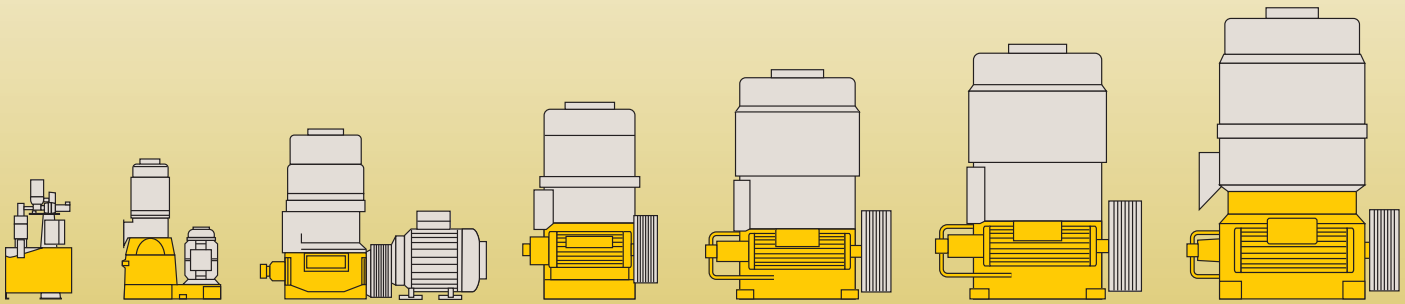
The product is pressed through a die by pan grinder rollers, formed into endless strands, and then cut to the desired particle length by means of knives.

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.



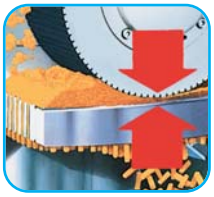
A Convincing Technology

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.

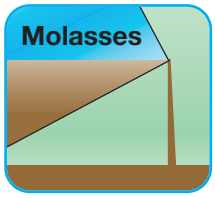


5 The roller gap can be adjusted during operation, thus the **pellet quality can be controlled**.

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.

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

Press production in the factory of KAHL.

Waste tyre recycling plant in Spain.

Pelleting press in a waste tyre recycling plant in Greece.

Wood pelleting plant in Australia.

Pelleting presses in a pelleting plant for domestic waste.

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.

4 pelleting presses in a wood pelleting plant.

Pelleting press for pelleting of sewage sludge in Nuremberg.

Pelleting presses in a recycling plant.

Wood pelleting plant.

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.

Wood pelleting plant in Hungary.

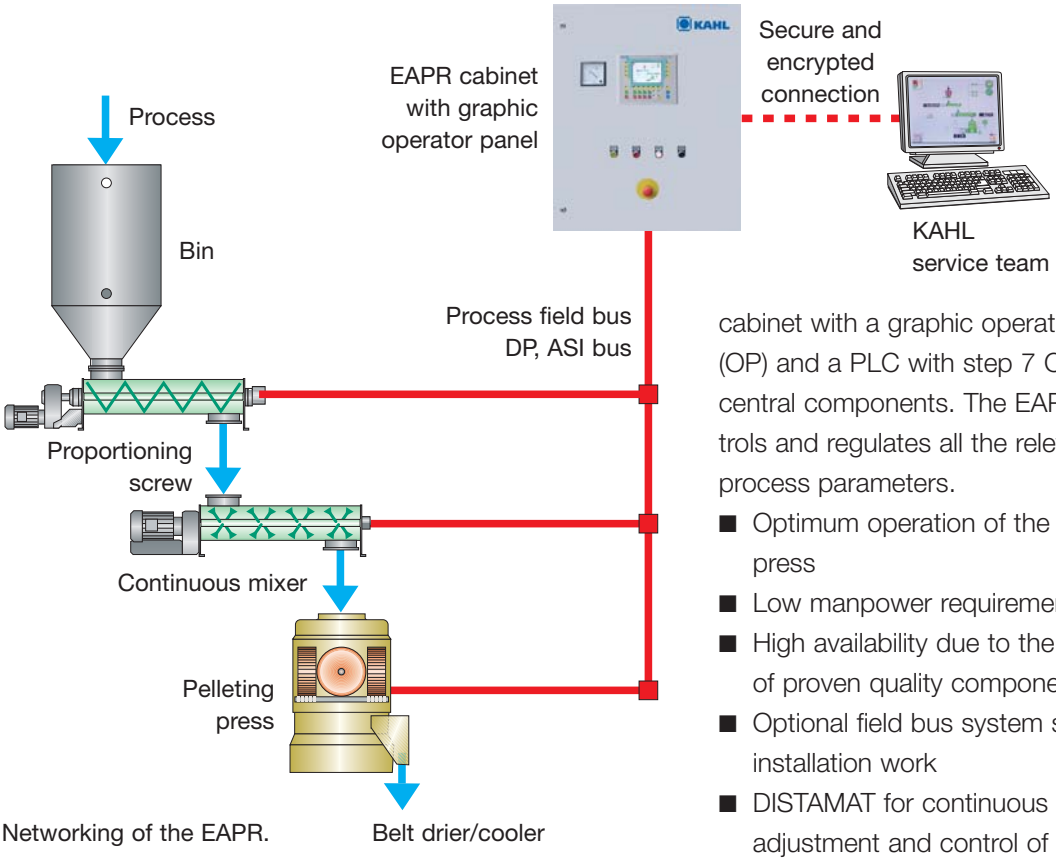
Modern press station in a sugar factory.

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.

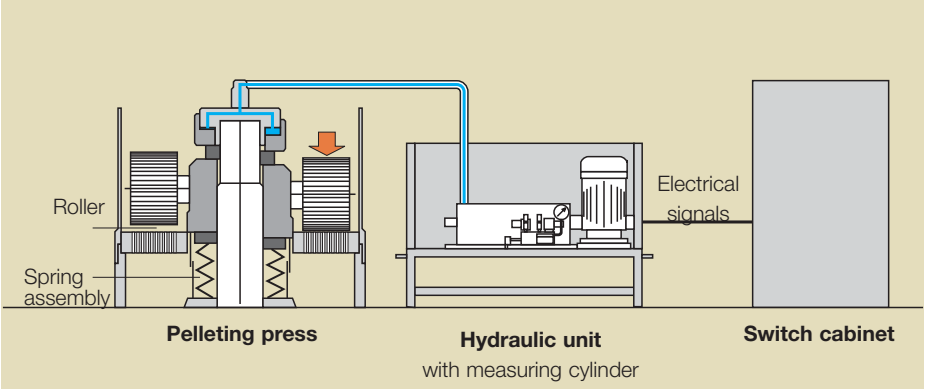
The EAPR is the pelleting press control system for an optimum, automatic operation of the flat die pelleting presses of the company KAHL. It consists of a local control



Networking of the EAPR.

cabinet with a graphic operator panel (OP) and a PLC with step 7 CPU 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 automatic distance control system DISTAMAT ensuring a constant roller gap provides an optimum pellet quality and increases the service lives of pan grinder rollers and die.

Intelligent Production "Just in Time"

State-of-the-art machining centres are used for the production of spare and wear parts.

New machining centre.

The roller bearings are provided with long-term lubrication and axial face seals.

The dies are produced by the latest automatic deep-hole gun drilling machines. They are hardened in our in-house die hardening shop.

Drilling machine.

Driven pan grinder rollers are appropriate for products with extreme sliding properties.

The KAHL Pilot Plants for Developing New Products and Processes

Our experimental departments are responsible for the development of new processes and machines. They are provided with extensive pilot plants with laboratory, production machines, and measuring equipment for the most important process stages of the conditioning technology.

The plants are 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.

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

SCHULE pilot plant with cooking plant for cereals, parboiling, food, bulgur, etc.

NEUHAUS NEOTEC pilot plant at Ganderkesee near Bremen for coffee processing, fluidized bed agglomeration, and roller mills.

KAHL chemical pilot plant.

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@akahl.de
www.akahl.de

1326 / 04.14 E