

# KAHL Crown Expander

for the flexible production of shaped products and preconditioning of pellet mixtures



## Crown Expander OEK

- Two-in-one:  
Expanding and shaping
- Easy processing of feed mixtures
- Significant improvement of the flexibility of the expander process (SME control with hydraulically driven cone system)
- Coarse particles remain coarse particles, contrary to products being pelleted with pelleting presses
- Existing expanders can be easily upgraded to crown outlet expanders
- Low power consumption
- High throughputs
- Production of shaped products for all species of animals

## The crown expander technology improves the product quality and the efficiency of compound feed production

The expander technology is one of the best and most comprehensive conditioning methods for compound feed and individual components.

## Process Technology of the Crown Expander

The crown expander consists of a thick-walled mixing tube with replaceable liners and cantilevered shaft which is provided with proportioning, mixing and kneading elements.

During operation, pressure, intensity of kneading, product heating and energy intake can be controlled and programmed continuously without delay.

The maximum pressure is about 40 bar; the operating temperatures at the expander outlet are between 90 and 140 °C. At the outlet, the pressure drops spontaneously, the product expands, and a part of the added water evaporates (flash evaporation). Post-drying is not required. The particle size of the expanded product can be determined with knife / die.

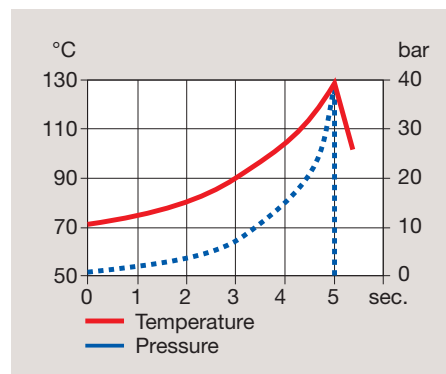


In 2011, the KAHL Crown Expander received the Victam Award as the most innovative product

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## Advantages Resulting from the Use of the Crown Expander:

- Improved pellet quality and higher press capacity
- Use of components which are difficult to process
- Addition of large quantities of liquids
- Inactivation of harmful substances
- Elimination of salmonellae
- Improvement of the feed value
- Production of Expandat®
- Reduction of the production costs



Pressure and temperature build-up with the KAHL expander technology

## Effects on Pelleting

Expanded mixtures increase the press capacity. Pellet hardness and fines can be influenced by changing the parameters.

## Starch Modification

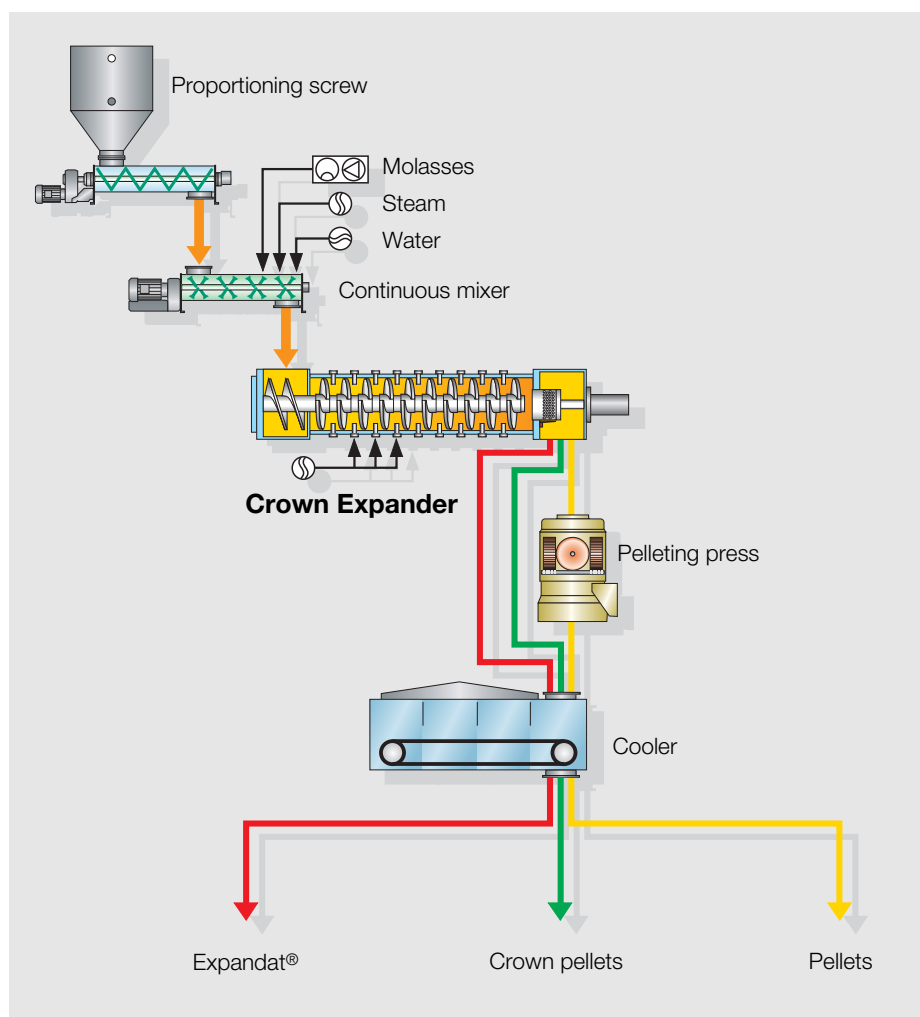
The treatment of grain components under pressure at a high temperature and moisture content modifies starch.

## Hygienic Treatment

Pathogenic germs, such as salmonellae or moulds, are eliminated by the treatment in the crown expander.

## Addition of Large Quantities of Liquids

Liquids, such as fat, molasses, vinasse and fish solubles, can be added to the expander in larger quantities.



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