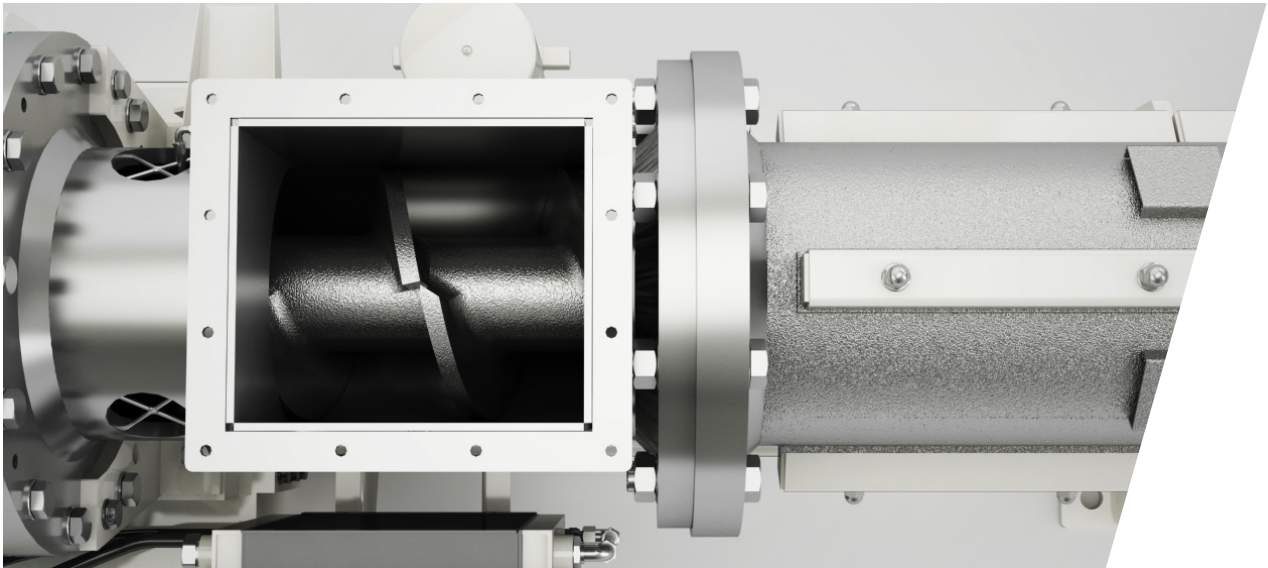




Whitepaper: Expander technology.

Expanders are an essential addition to your installation



Various scientific studies and proven results with customers such as UFA, Deuka, Fanon, Agravis, Vitelia, Mironovsky and others show that the expander technology is an essential addition for modern animal feed factories.

The use of the expander meets a wide range of needs of customers who need to be able to deliver different animal feeds for the different life stages of animals.

In addition to traditional meal and pellets, customers require crumbled feed, expanded pellet feed and mono-components treated with expander technology, e.g. for use in Total Mixed Ration (TMR) feed.

In terms of nutritional value, digestibility and feed utilisation, expander technology has yielded interesting results in high-yield cattle feed, broiler feed and pig feed.

A recent study by the well-known UFA-Bühl research centre shows that expanded feed provides better absorption than traditional meal.

Expander technology by Almex.

Almex has been a leading supplier of expander technology since the 1970s. The design of the famous Almex expander is reliable and particularly robust. In addition to these strong values, the machines are also known for their Active Disc system.

The Active Disc's slide makes it possible to add frictional heat to the product. This heat provides the expander with the power to eliminate heat-sensitive bacteria (such as salmonella), unlock feed composition and ensure product quality.

Input power is generally 8-15 kW per tonne. For special applications, such as bypass-protected protein, the input power can reach up to 50 kW per ton.

Ensuring proper counter flow cooling of the product is important in these applications. In the development phase of the AD system, the wishes of leading compound feed manufacturers were actively taken into account. As a result, our customers are very satisfied with the performance of our machines. The expander can be used in combination with a crumbler for the production of expanded crumbs or in a feed line with or without a pelletiser or with a bypass in the production line (Figure 1).

In situations requiring a retention time, an expander can be used in conjunction with an RTB (Retention-Time Barrel or retention time screw). Whereas in the past difficult raw materials could only be processed by means of a double pelleting line, this is now also possible with a single Pellet Mill in combination with an expander.

The expander, possibly in combination with vacuum coating technology, makes it possible to add more fats and liquids to the product.

By using an expander, pelletiser dies can be thinner and there is generally less wear on the pelletiser.

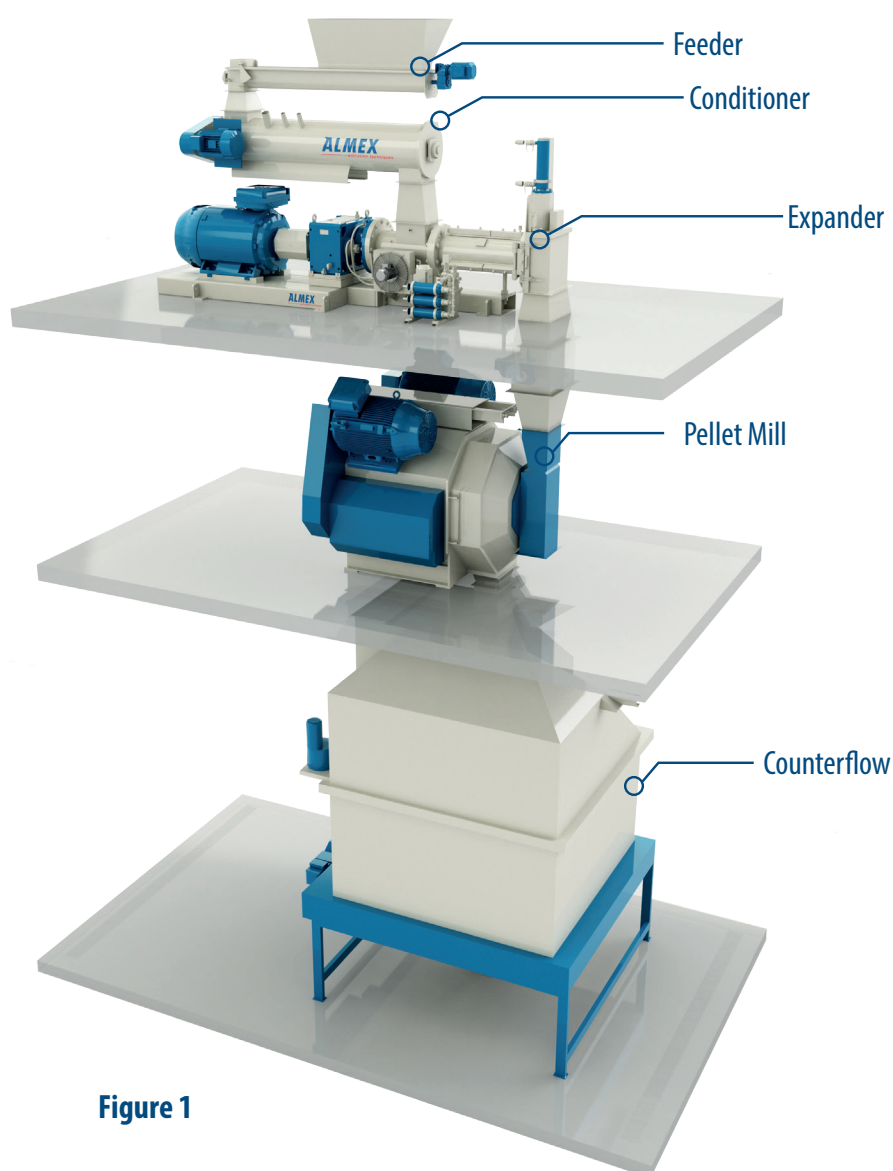


Figure 1

The right thermal treatment, starting with the first kilo

Producing hygienic compound feed with guaranteed quality is becoming increasingly important. In the food chain, compound feed companies are also subject to increasingly stringent requirements in order to be able to guarantee the hygiene and traceability of their feed.

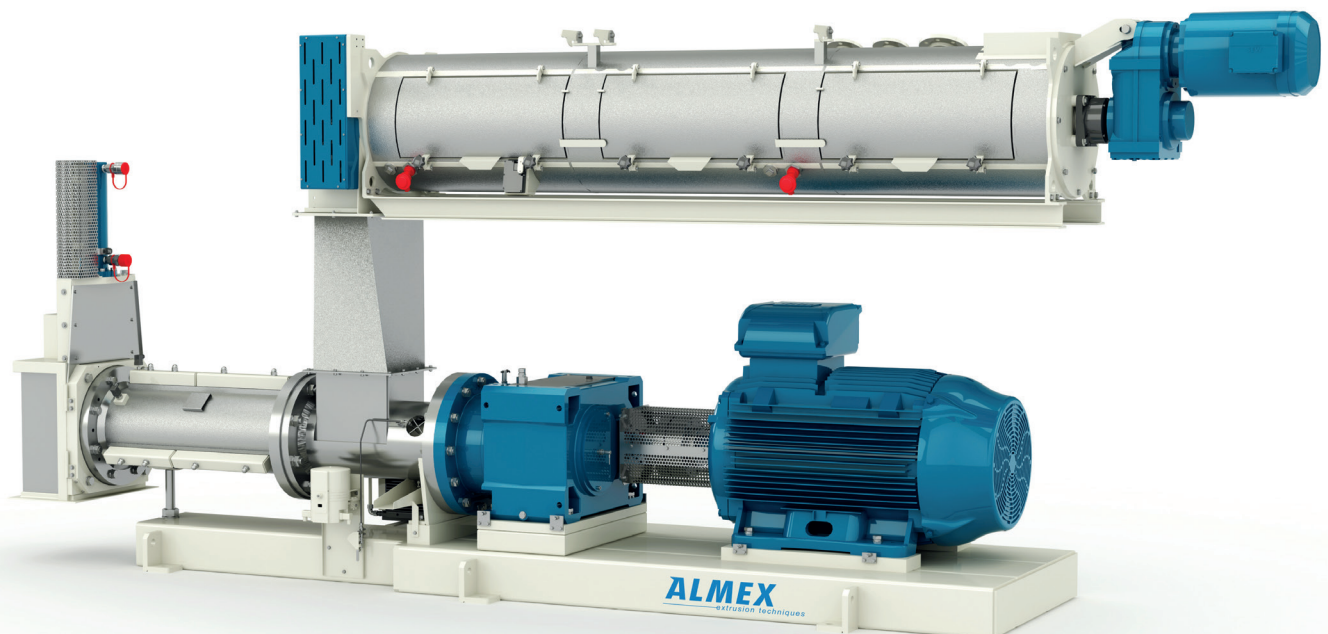
Correct conditioning is essential to generate good pellet quality. To ensure that the mash receives the desired thermal treatment at the right temperature, a PTN Hot Start

Conditioner (TCS) is highly advisable.

The TCS has a closed, insulated and pre-heated mixer body, which heats up the mash with dry, super-heated steam.

The main axis can rotate in two directions.

The paddles, which are dimensioned and adjustable in height and angle, generate a homogeneous mixture.





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