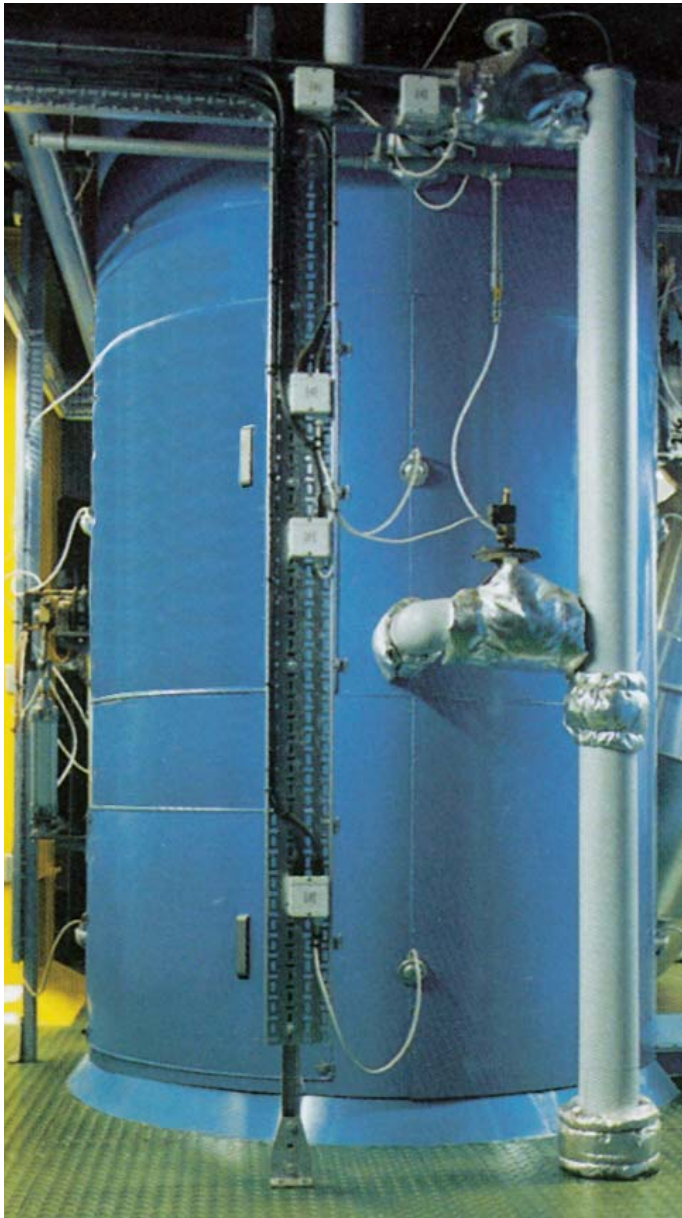


For the hygienic treatment of coarsely structured meal feed, such as layer or pig feed.



KAHL Hydrothermal Sterilizer

A commercial sterility is reached.

The feed is free from pathogenic bacteria, such as:

- coliform bacteria,
- E-coli bacteria,
- salmonellae,
- campylobacter,
- toxin-forming moulds.

The total aerobic count is reduced to a large extent.

With the hygienized compound feed a stabilized intestinal flora of the animal is ensured, diarrhoea is obviated, and a higher absorption and utilization of the feed nutrients is achieved. Consequently the animal health is increased and the quality of the animal products is improved.

The system consists of a conditioner, hydrothermal sterilizer, and cooler with thermic accessories and offers the possibility to sterilize layer or pig feed, for example.

KAHL Hydrothermal Treatment



- Biological
- Sterile
- Hygienic
- Decontaminated

Product safety for the feed producer, the farmer, and the final consumer

KAHL Hydro Sterilisator

The product heated to 85 °C in the short-term conditioner is fed continuously in the hydrothermal sterilizer. The cylindrical sterilizer consists of at least 2 sections with 2 slowly rotating agitators.

The sections are separated by a heated floor with special flap. With this design the principle "First in - First out" is ensured, the product is treated uniformly. The flap in the intermediate floor is actuated electropneumatically. In case of batch change an uninterrupted "flying change" is possible, without having to empty the complete machine.

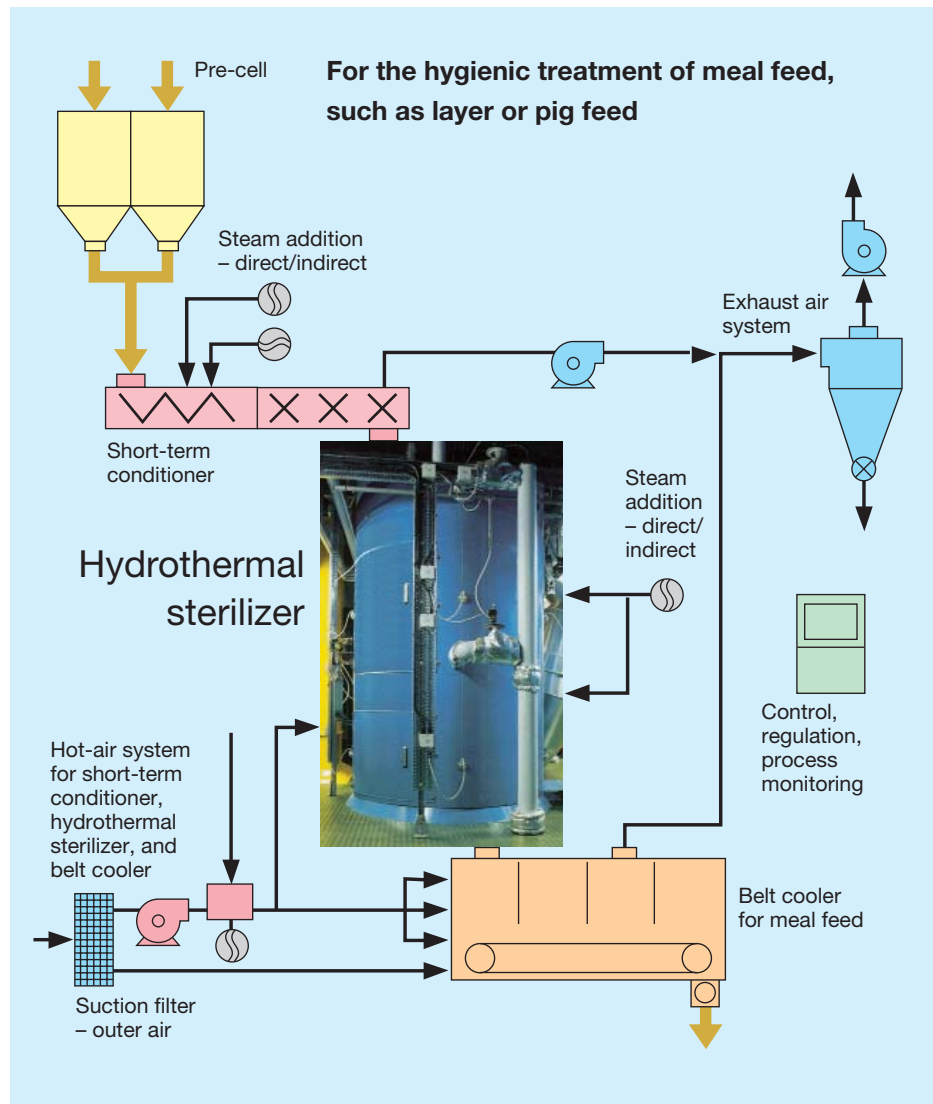
The slowly rotating agitators produce an additional agglomeration effect. The fines are bound to larger particles. Due to the large openings in the machine regular cleaning with steam and disinfectants is possible.

Treatment parameters:

Temperature:	85 - 90 °C
Treatment time:	6 - 10 minutes
Treatment moisture:	abt. 16 %

This treatment does not damage the nutrients.

In order to prevent a contamination and/or recontamination of the complete plant, the following measures have been provided for: The taken-in outer air is filtered. Before production



Process Sequence KAHL Hydrothermal Sterilizer

start the system is heated by means of hot air (100 - 120 °C), in the hydrothermal sterilizer additionally by indirect heating of the floors. Thus germs are eliminated before the product is fed into the plant. Condensation, particularly in the cooler and in the exhaust

air system, is avoided. Heating is also effected before interruptions of operation and shutdowns for drying moisture nests.

The complete system including cooling is monitored via a PLC control unit.



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