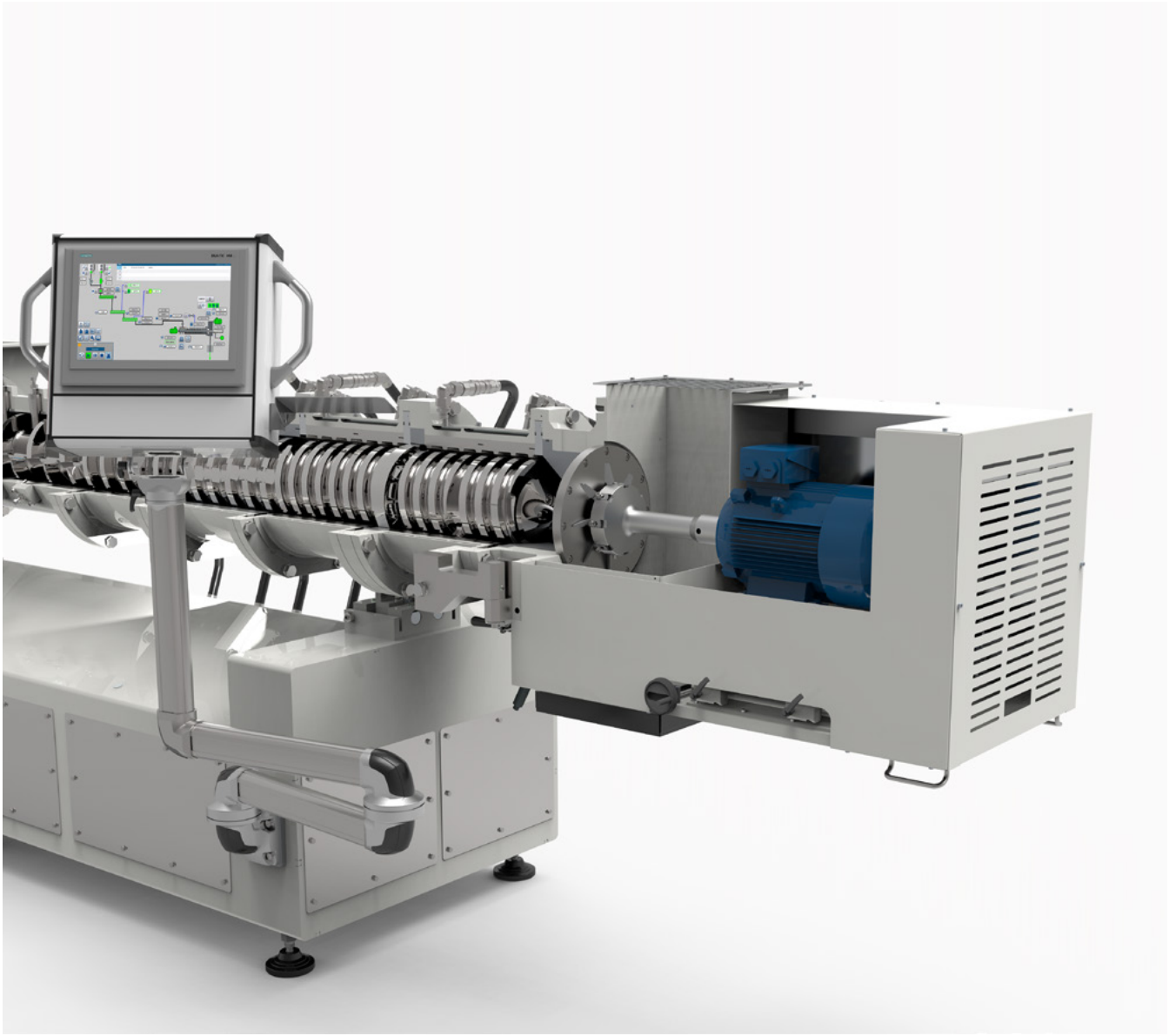
EXTRUDER

EXPANSION & SHAPING IN ONE MACHINE



AMANDUS KAHL ACCOMPANIES YOU

on your way to the right decision

AMANDUS KAHL is internationally renowned for the design and manufacture of extruders. They are an important factor for high-quality and hygienic feed production. Especially in the production of fish feed, extruders from AMANDUS KAHL are widely used. The extruder is also an ideal machine for the petfood and food industry, for example for the production of breakfast cereals.

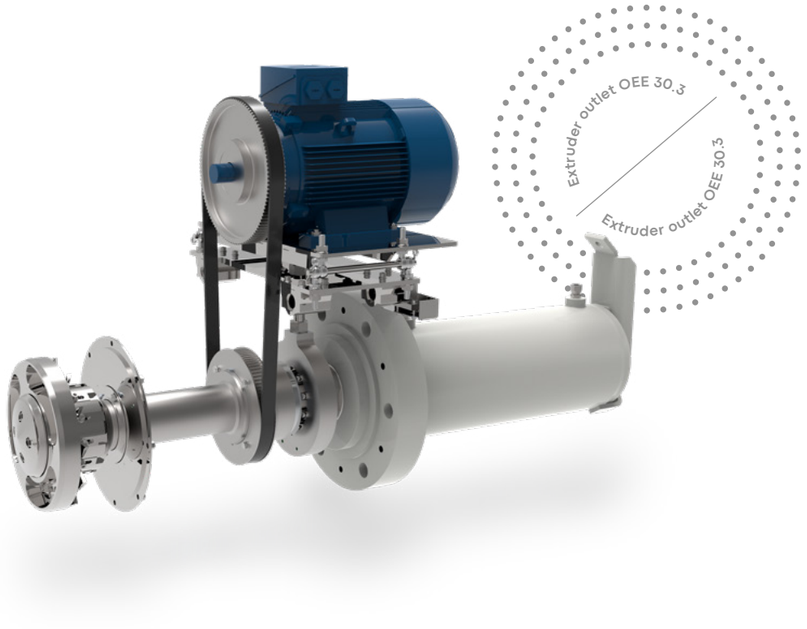
AMANDUS KAHL machines and plants have been internationally successful for decades, which is mainly due to constant innovation. The decision to invest in an extruder is also a decision in favour of quality, economic efficiency and hygienic treatment.

AMANDUS KAHL has been active in mechanical and plant engineering for more than 140 years. The focus is on machines and plants for the production and processing of feed such as compound feed, fish feed or pet food. The food industry, however, is no less important.

Founded in 1876, AMANDUS KAHL supplies key machines such as pellet mills, expanders, extruders or crushing roller mills that take feed quality to a whole new level.

At our site in Reinbek in Northern Germany, we not only design and manufacture, but also conduct research and development as well as product tests in our own pilot plant.

AMANDUS KAHL developed the extrusion technology in the 1980s.



AMANDUS
KAHL

CONTENTS

01
Extruder for fish feed
Page 04 – 05

02
Extruder for petfood
Page 06

03
Extruder for food products
Page 07

04
Machine sizes, advantages
Page 08 – 11

05
ESEP system
Page 12 – 13

06
Variants & options, plants
Page 14 – 15

EXTRUDER FOR FISH FEED

Production of floating or sinking fish feed with the KAHL extruder OEE NG

The extruder OEE NG (New Generation) comes in three different machine sizes covering an output range of up to 10 t/h in large-scale industrial applications.

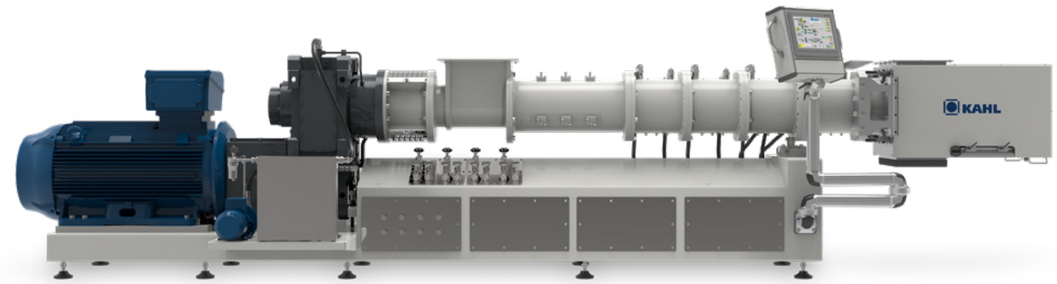
All sizes are available as individual machines or as turnkey extrusion lines. They include all process steps such as crushing, mixing, steam conditioning, extrusion, drying, oil coating, cooling and packaging.

The KAHL extruder OEE NG is produced in the sizes 15, 20 and 25 (screw in cm).

In combination with the KAHL vacuum coater, the fish feed produced can be refined with nutrients, oils, fats, enzymes, vitamins and many more.

Features of the machine

- → Fast knife and die change
- → Distance between knife and die adjustable during operation
- → Screw diameter ranging from 150 to 250 mm
- → Drive of up to 450 kW
- → Sinking fish feed up to 10 t/h
- → Floating fish feed up to 8 t/h



↑ Fish feed extrudate (on the left: 1.5 mm; on the right: 5 mm)

The first barrel section of the new extruder generation features the KAHL stop bolt technology. Thus, homogeneous product mixing and de-aeration are ensured right from the start. Special tools for compaction, cooking and kneading provide a high flexibility and a wide range of setting options. Exchangeable screw and barrel elements ensure an ideal adaptation to variable formulae and quality parameters.

EXTRUDER FOR PETFOOD

Petfood in different sizes and shapes – depending on requirements

Contrary to conventional extruders, the KAHL extruders of the series OEE can be equipped with a hydraulically adjustable die. Product and tool changes are simplified and accelerated significantly. There are hardly any product losses during the starting and stopping phase.

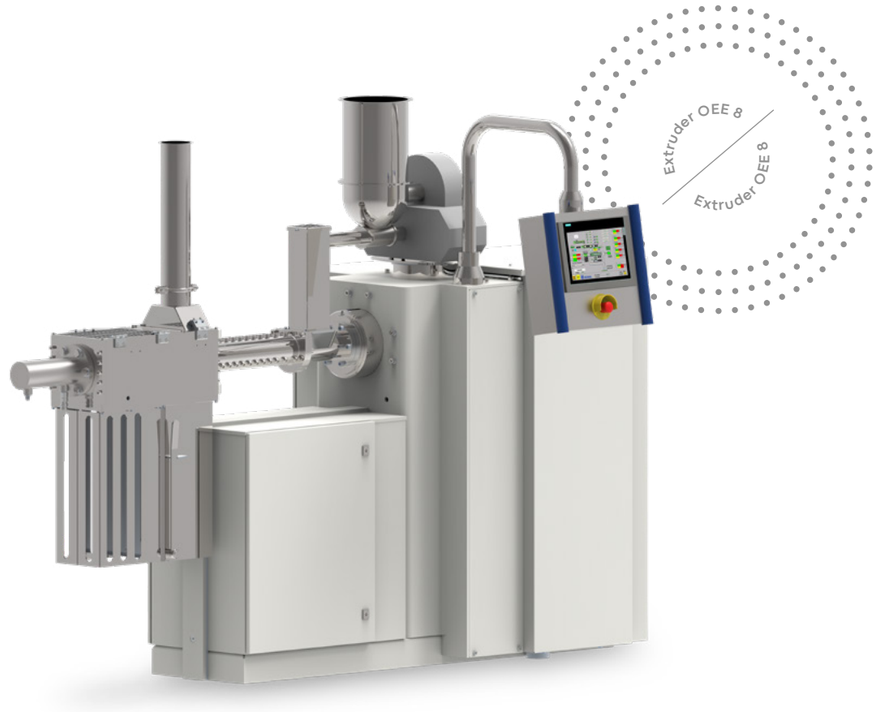
A quick die change enables the production of different shapes of petfood.

The product quality can be essentially influenced by the following process parameters

- → Grinding degree of the raw material
- → Conditioning
- → Selection of additives
- → Mechanical energy input (e.g. starch gelatinization and product quality can be influenced by means of the energy input)
- → Die geometry (product design)
- → Also for special applications

EXTRUDER FOR FOOD PRODUCTS

For the production of flakes or muesli pops and for refining cereals



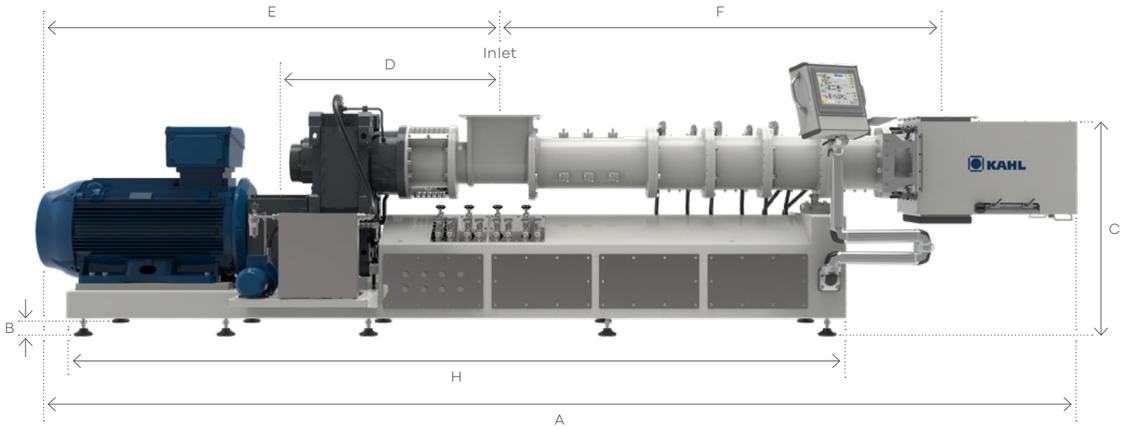
AMANDUS KAHL uses extruders for the production of cereals and snacks. The use of extruders enables products with the desired properties to be manufactured. For example, snacks can be produced using the conventional cooking process with subsequent flaking. In cereal production, the grain meals are first mixed with other ingredients before being conditioned if necessary and then extruded. In the extruder the components are kneaded and cooked, at the outlet they are shaped and cut.

EXTRUDER

Machine sizes

Standard version	OEE 15 NG	OEE 20 NG	OEE 25 NG
A Overall length* (mm)	5250	6230	7230
B Width of drive (mm)	1000	1000	1000
C Height (mm)	1460	1500	1500
D Coupling – inlet (centre) (mm)	1286	1286	1555
E Inlet – motor* (mm)	2556	2819	3235
F Inlet – outlet (centre) (mm)	1902	2520	3106
H Frame (mm)	3721	4484	5296
Motor (kW)	160	315	450
Weight (kg)*	2700	5400	8050

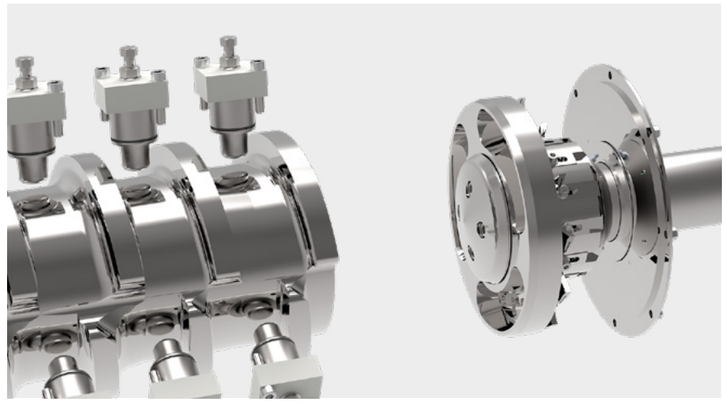
*Depending on the motor size



↑ OEE 25 NG

Deviations in the dimensions of the OEE 8

OEE 8	OEE 15.2	OEE 23.3	OEE 30.3
2690	5922	6439	7025
950	690	1020	1020
1930	1220	1400	1400
—	1816	1284	1284
1334	2904	2650	2855
670	1832	2728	2820
1831	1400	1822	1822
15 – 18.5	75 – 110	160 – 200	250 – 315
1050	3200	4850	5850



↑ Extruder outlet OEE 30.3

Do you have questions regarding the KAHL technology?

We will be happy to answer them and can be reached here:

info@akahl.de
+49 (0)40 727 71-0
akahl.com

ADVANTAGES OF THE KAHL EXTRUDER

Advantages offered by the machine

- → High robustness
- → Long service life and low wear
- → High durability
- → Low consumption of operating materials
- → Low lubricant requirement
- → Low operating costs
- → Fast and easy die change
- → Small footprint in spite of different lengths and versions
- → Low noise
- → Rapid emptying is possible
- → Fast and easy restart
- → Low maintenance – remote diagnosis possible

Advantages for the products to be extruded

- → No lubricant in the product
- → Maximum flexibility in extrusion
- → High quality of the extrudate

Advantages offered by AMANDUS KAHL

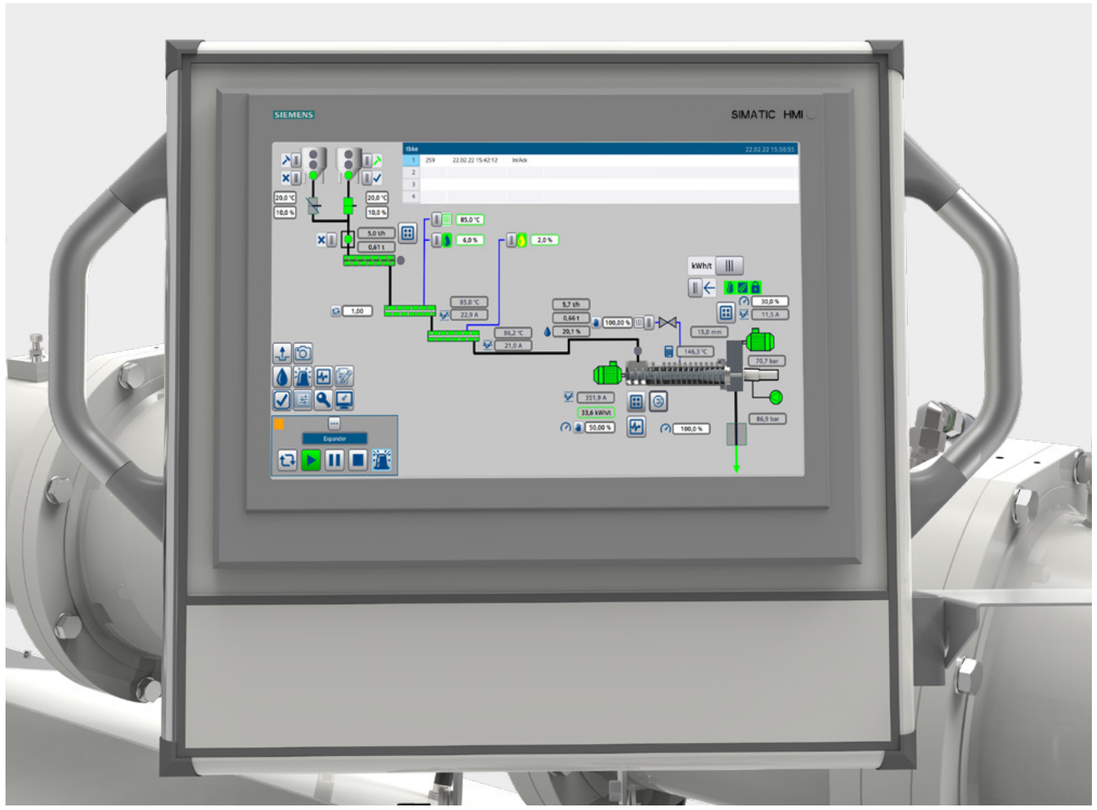
- → Spare and wear parts are manufactured on our own premises
- → High vertical range of manufacture
- → Long-term service also after commissioning (Support during production)
- → Decades of expertise
- → In-house engineering
- → State-of-the-art production facilities
- → Pilot plants for product testing
- → Made in Germany

WE NOT ONLY COVER THE PLANNING OF THE COMPLETE LINE, BUT ARE ALSO AVAILABLE FOR CONSULTATION AND INTENSIVE TRAINING OF THE OPERATORS.

IN ADDITION, WE ALSO SUPPLY SPARE PARTS AND ARE THEREFORE YOUR PARTNER FAR BEYOND THE PURCHASING PROCESS.

AUTOMATION

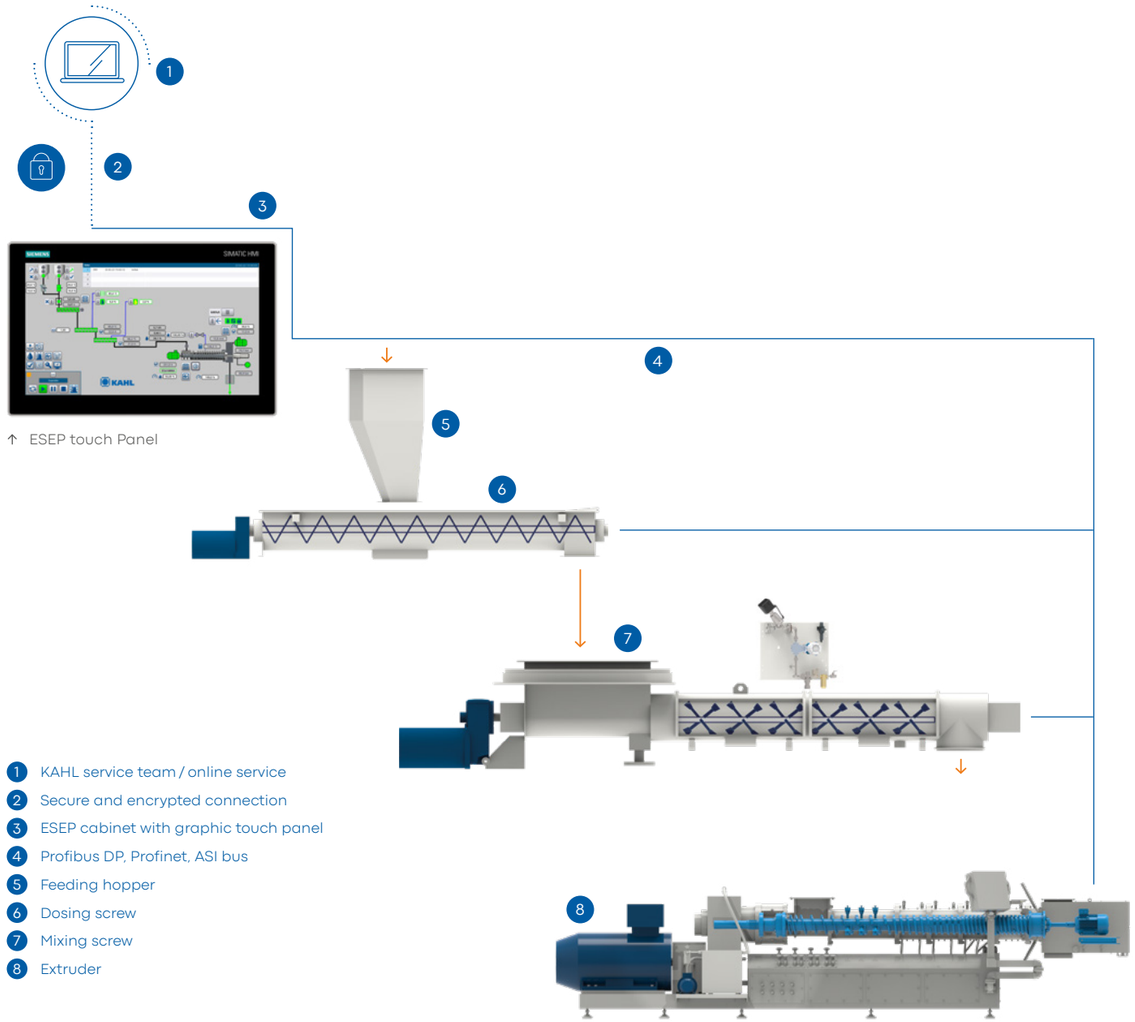
Electronic control system of the extruder (ESEP)



Switch and control plants for all plant sizes are programmed by AMANDUS KAHL and installed in the respective hardware product. Our electronics engineers develop customised user software to ensure a high level of operational reliability.
The control system ESEP ensures optimum, automatic operation of extruders made by KAHL. It controls and regulates all relevant process parameters.

Advantages

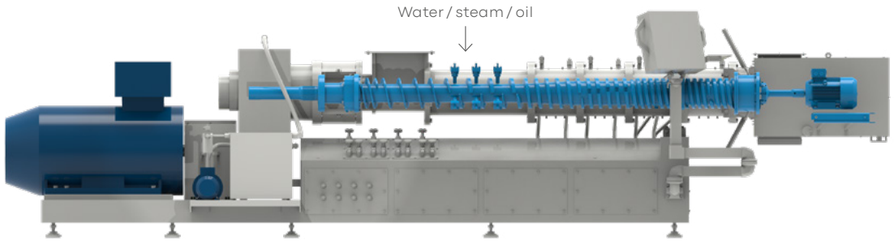
- → Full automation of the complete extruder line
- → Constant product quality at high throughput capacities
- → Improved monitoring of the production process
- → High availability due to the use of proven quality components
- → Low manpower requirements
- → Remote maintenance is possible



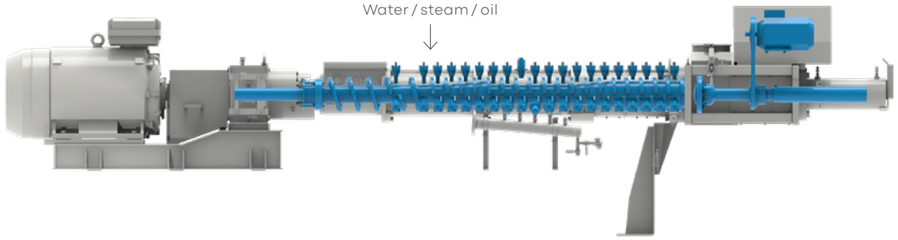
↑ ESEP touch Panel

1. KAHL service team / online service
2. Secure and encrypted connection
3. ESEP cabinet with graphic touch panel
4. Profibus DP, Profinet, ASI bus
5. Feeding hopper
6. Dosing screw
7. Mixing screw
8. Extruder

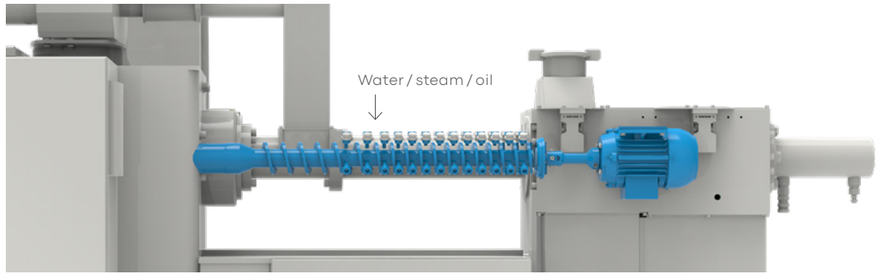
VARIANTS & OPTIONS



↑ Extruder OEE 15 / 20 / 25 NG



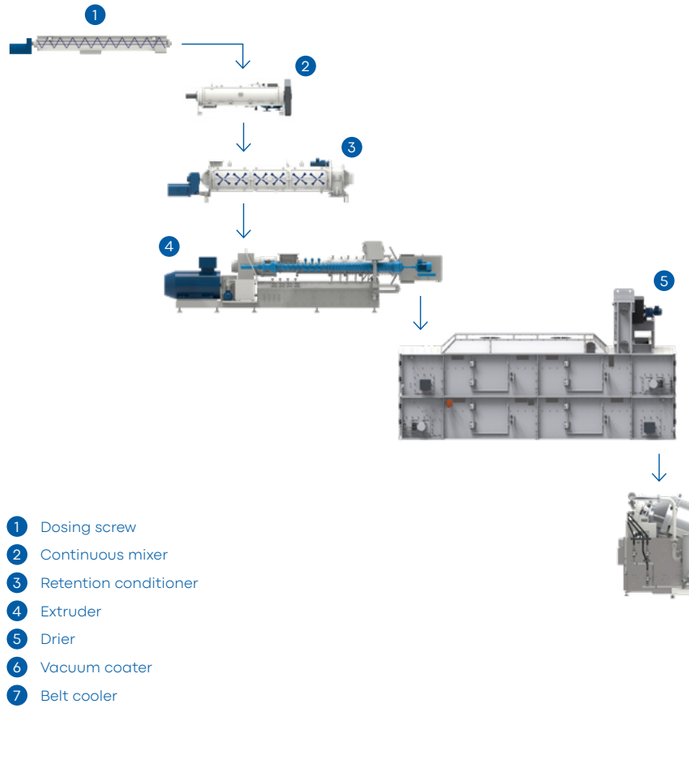
↑ Extruder OEE 15 / 23 / 30



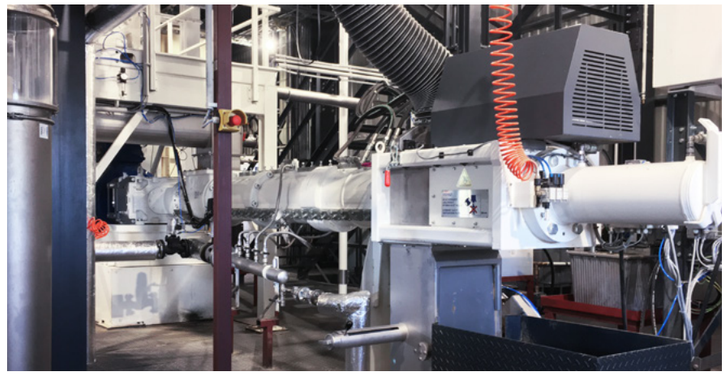
↑ Laboratory extruder OEE 8 (sectional view)

PLANTS

Example of an extruder line



1. Dosing screw
2. Continuous mixer
3. Retention conditioner
4. Extruder
5. Drier
6. Vacuum coater
7. Belt cooler



↑ Extruder in a petfood plant in Hungary

Learn more about our petfood plant in Hungary

Scan the QR code now

KAHL

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Visit our online shop
shop.akahl.com

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