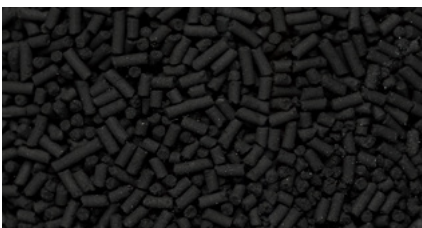


PELLET MILLS

CHEMICAL INDUSTRY





AMANDUS KAHL ACCOMPANIES YOU

on your way to the right decision



The flat die pellet mills of the 33 series are ideally suited to meet the requirements of the chemical industry.

For more than 40 years, AMANDUS KAHL has been building flat die pellet mills with which many powdery materials can be processed into low-dust pellets that can be easily dosed, stored and transported.

Regardless of whether masterbatches, plastic additives, detergents and cleaning agents, pigments, talc, tableting compounds, activated carbon or pharmaceutical raw materials are involved – pelleting significantly improves the handling of these substances. The combination of dies and pan grinder rollers specially adapted to the customer's process allows pellets with a diameter of 0.8–20 mm to be produced. The pellet quality can be adjusted by the design of the die according to customer requirements, so that not only diameter and length can be varied, but also bulk density, solidity and surface structure.



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POLYMER ADDITIVES

Pelleting perfectly adapted to the customer's requirements



↑ Various pellets from polymer additives

Further application possibilities

The flat die pellet mill shows its strengths especially with temperature-sensitive products. Due to a comparatively low speed of the pan grinder rollers, the process temperatures are lower than those of other compacting processes. At the same time, the pellet properties can be adjusted to your requirements.

- Masterbatches
- Vulcanization accelerators
- Rubber chemicals
- and many more



Do you have questions regarding the KAH technology?

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

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

The pellet mill 33–600 offers a large working area on the die. The gap control between pan grinder rollers and die ensures highest process reliability and product quality.

For applications in the chemical industry, the machine is designed according to GMP guidelines. With a compact drive and dust-tight design as well as the connection option for inerting, the pellet mill can be adapted to ATEX requirements.



GRAPHITE AND COAL

KAHL refines your coal: Graphite pellets are made from graphite particles and a binder.



↑ Pellets from graphite

Pelleting improves the dosability and energy density of coal and graphite. This is evident, for example, in applications in the steel and rubber industries.



INORGANIC FERTILISER

Pelleting fertilisers enables, among other things, a uniform distribution on the field.



↑ Mineral fertiliser

KAHL machines can be perfectly adapted to different mixtures. In addition, the pellet hardnesses can be adjusted. In this way, the fertiliser characteristics are adapted to different applications.



OUR PRODUCT DIVERSITY FOR THE CHEMICAL INDUSTRY

ABSORBENT
HERBICIDES
SODIUM BENZOATE
STARCH
IRON OXIDE
DISHWASHER DETERGENT
FERROUS SULPHATE
SODIUM CARBONATE
LIGNITE
METAL SALTS
POLYETHYLENE (PE)
KAOLIN
NYLON
FERTILISERS
CARBOXYMETHYLCELLULOSE
FERROMANGANESE
LITHIUM BENZOATE
PESTICIDES
SODIUM AND POTASSIUM BICARBONATE
COBALT RESIN
DICALCIUM PHOSPHATE
FLUE ASH
CALCIUM ACETATE
FERRO-SILICON
MAGNESIUM ACETATE
MAGNESIUM CARBONATE
ION-EXCHANGE RESINS
ACRYLIC POLYMER
CADMIUM SOAP
LIGNOPLAST
MAGNESIUM SULPHATE
CHROMIUM OXIDE
CALCIUM PHOSPHATE
POLYTETRAFLUOROETHYLENE (PTFE)
MOLYBDENUM CATALYST
PVC STABILISER
ISOCYANIC ACID
CHROMIUM OXIDE HYDROXIDE
PLASTIC ADDITIVES
ZIRCONIUM OXIDE
COLOUR DEVELOPER
NAPHTHALENE
POLYCARBONATE
POLYVINYL CHLORIDE (PVC)
CALCIUM HYDROSILICATE
NITROZELLULOSE
SILICON CARBIDE
CALCIUM SILICATE HYDRATE
POTASSIUM CARBONATE
SODIUM ACRYLATE
SODIUM TRIPOLYPHOSPHATE
STABILISERS
DICYANDIAMIDE
PARAFFIN
SODIUM TRIPOLYPHOSPHATE
MAGNESIUM SILICATE
IRON DUST
GLASS MELTING DUST
CALCIUM CARBONATE
FLUORSPAR POWDER
CORUNDUM
CALCIUM HYDROXIDE
CHALK
MAGNESIUM HYDROXIDE
UV STABILISERS
DIFLUBENZURON (INSECTICIDE)
CALCIUM SILICATE
CERAMIC POWDER
CALCIUM CARBIDE
CHARCOAL
SODIUM FORMATE
CALCIUM AMMONIUM NITRATE
PETROLEUM COKE
POLYACRYLIC
MAGNESIUM HYDROXIDE

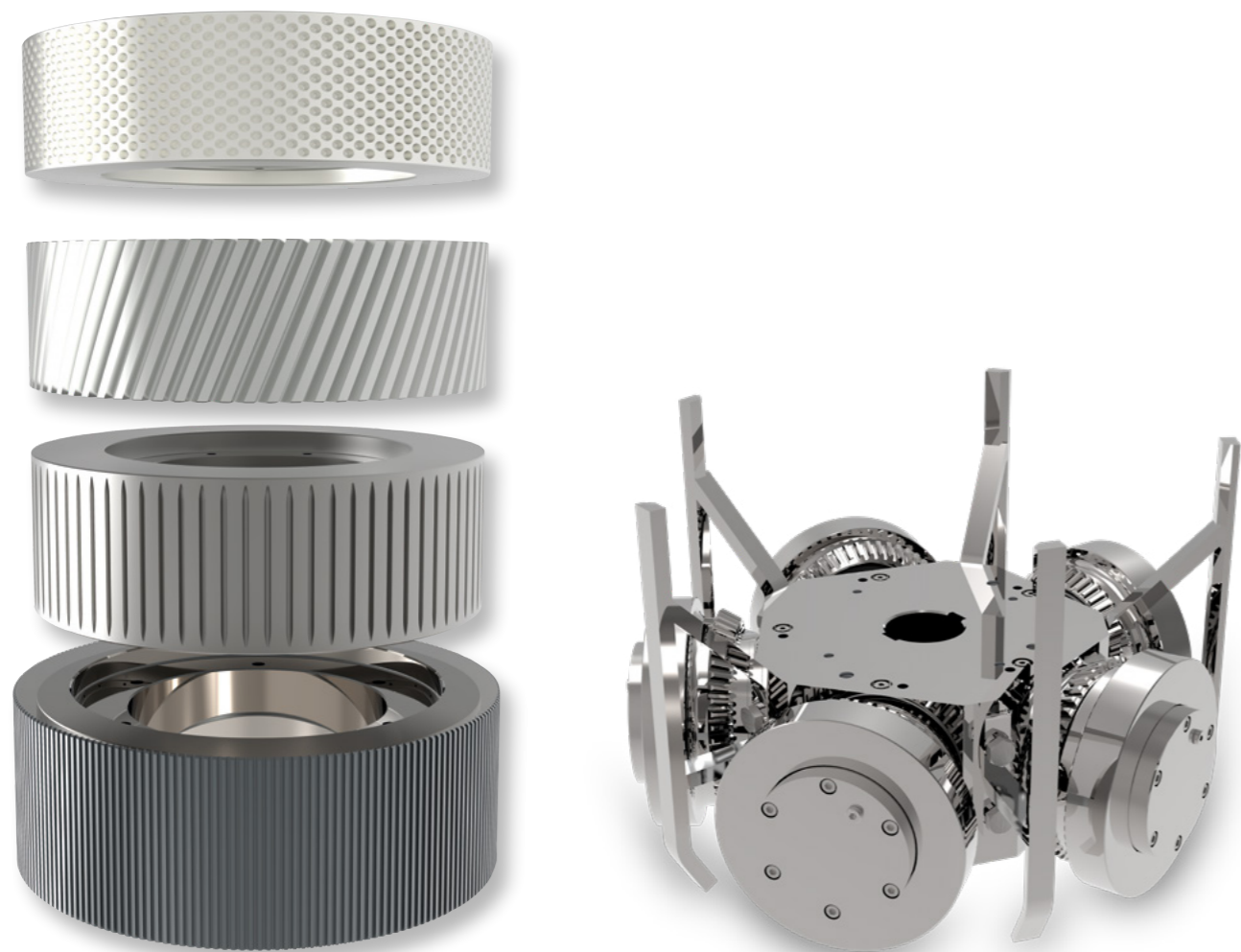


FIBROUS CALCITE
SODIUM PERCARBONATE
IRON-BRONZE MIXTURE
AMMONIUM SULPHATE
MAGNESIUM OXIDE
CALCIUM HYDRATE
KIESERITE
IODIDE STEARATE
SILICIC ACID
FORMALDEHYDE
LIGNITE XYLITOL
MAGNESIUM
NICKEL HYDROXIDE
LITHIUM CITRATE
DIMETHYL UREA
GAS CLEANING AGENT
ANTHRACITE
DYE (GLASS INDUSTRY)
SODIUM SULPHATE
IRON HYDROXIDE
GRAPHITE
CELLULOSE DUST
METAL OXIDE
CALCIUM OXIDE
LITHIUM CARBONATE
POLYESTER (UP)
POLYSTYRENE (PS)
ACETYLENE COKE
SODIUM PERBORATE
SODIUM SILICATE
EVAPORATED SALT
POLYPROPYLENE (PP)
CHOLINE CHLORIDE
CALCIUM SULPHATE
SOLVENTS
GLASS POWDER
AMMONIUM PHOSPHATE
COAL
MANGANESE OXIDE
CLAY
POLYFLUOROETHYLENE
STEARATES
VULCANIZATION ACCELERATORS
COLOURED PIGMENT
ZINC OXIDE
POLYIMIDE (PI)
NICKEL CARBONATE
PHOTOGRAPHIC SALTS
FLUORITE
POLYURETHANE (PUR)
CALCIUM CHLORIDE
CELLULOSE
QUARTZ SAND
AMINE DERIVATIVES
POLYVINYL ALCOHOL (PVA)
PHOSPHATE ORE / PHOSPHORIC ACID MIXTURE
QUARTZ POWDER
CALCIUM STEARATE
ALUMINIUM OXIDE
COKE
POTASSIUM SULPHATE
DIBENZAMIDE DIPHENYL DISULPHIDE
POLYETHYLENE TEREPHTHALATE (PET)
BENTONITE
CELLULOSE FIBRES
LICORICE EXTRACT
SODIUM CHLORIDE
NICKEL OXIDE
POLYAMIDE (PA)
COBALT OXIDE
POTASSIUM IODIDE
EVAPORATOR
FATTY ACID ESTERS
HEAT STABILISERS
STRONTIUM FERRITE
SODIUM ACETATE TRIHYDRATE
DIACETONE ACRYLAMIDE
SILICON DIOXIDE
FERRITE GRINDING SLUDGE
CATALYST
ACTIVATED CARBON
FERROCENE



PAN GRINDER ROLLERS AND DIES

Depending on the field of application, different hardening processes are required, all of which are carried out in KAHL's own hardening shop for pan grinder roller and die production



↑ Different pan grinder roller designs

↑ Pan grinder head

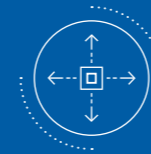


ADVANTAGES OF KAHL FLAT DIES



Advantages offered by the machine

- Dust-tight design
- Inerting options
- Cooled pelleting chamber
- Permanently lubricated bearings
- Long service life and low wear
- Low consumption of operating materials
- Low operating costs
- Fast and easy die change
- Low space requirement and footprint
- Low noise and low vibration
- Large pelleting chamber for products with low bulk density
- Large pan grinder rollers with low circumferential speed
- Adjustable roller gap due to hydraulic system and thus easier machine start
- Product feeding by gravity
- Low maintenance – remote diagnosis possible



Advantages for the products to be pelleted

- Depending on the product, direct pelleting without pre-grinding
- Highest flexibility in pelleting due to large variety of pelleting tools
- High pellet quality



Advantages offered by AMANDUS KAHL

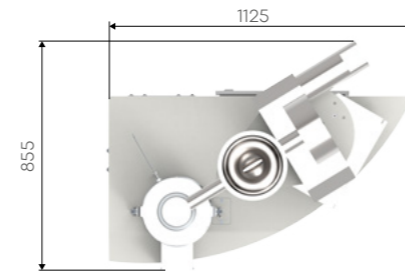
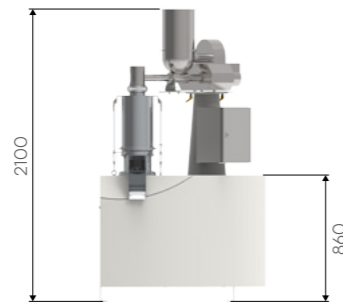
- High vertical range of manufacture
- Long-term service also after commissioning
- 8 different pellet mill sizes
- Product-specific design adaptations



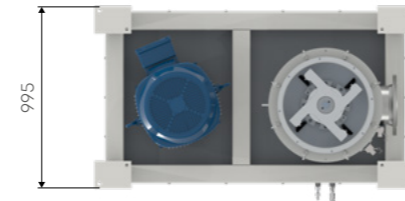
PELLET MILLS

Chemical industry

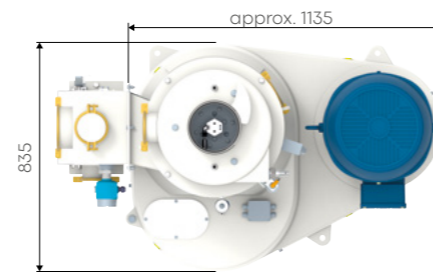
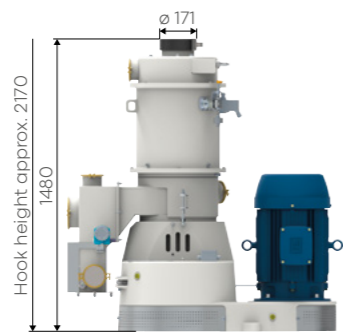
| Type | 14-175 |
|--------------------------|--------------|
| Die diameter mm | 175 |
| Roller diameter/width mm | 130/up to 27 |
| Number of rollers | 2 |
| Roller speed m/s | 0.5 to 0.8 |
| Drive motor kW/min-1 | 3 |



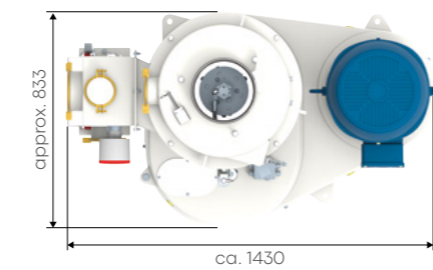
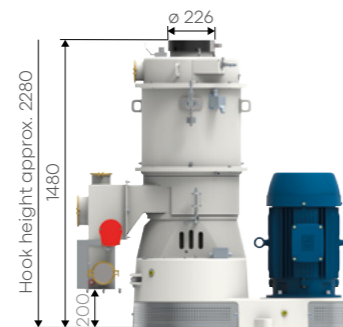
| Type | 25-500 |
|--------------------------|--------------|
| Die diameter mm | 500 |
| Roller diameter/width mm | 230/up to 75 |
| Number of rollers | 4 |
| Roller speed m/s | 1.7 |
| Drive motor kW/min-1 | 36/1500 |



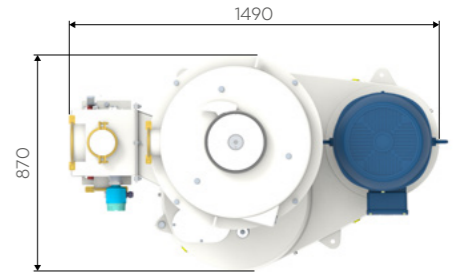
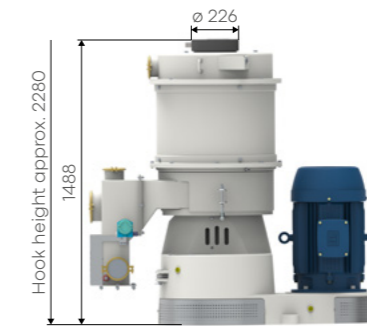
| Type | 33-390 |
|--------------------------|--------------|
| Die diameter mm | 390 |
| Roller diameter/width mm | 230/up to 75 |
| Number of rollers | 2 |
| Roller speed m/s | 2.5 |
| Drive motor kW/min-1 | 15-30/1500 |



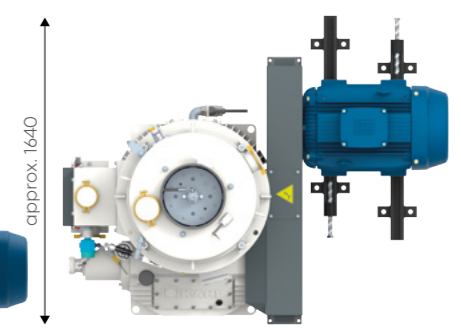
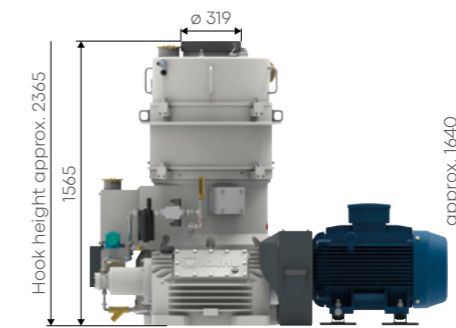
| Type | 33-500 |
|--------------------------|--------------|
| Die diameter mm | 500 |
| Roller diameter/width mm | 230/up to 75 |
| Number of rollers | 3 |
| Roller speed m/s | 2.5 |
| Drive motor kW/min-1 | 15-30/1500 |



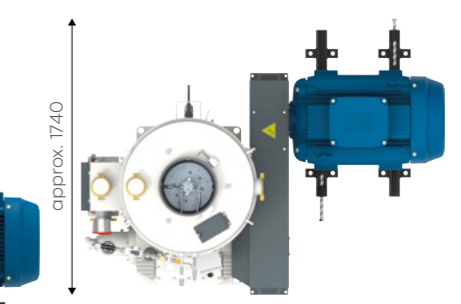
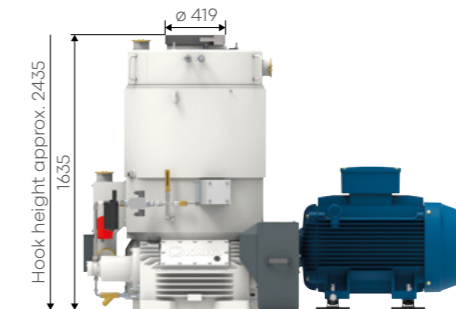
| Type | 33-600 |
|--------------------------|--------------|
| Die diameter mm | 600 |
| Roller diameter/width mm | 230/up to 75 |
| Number of rollers | 3-5 |
| Roller speed m/s | 2.5 |
| Drive motor kW/min-1 | 15-30/1500 |



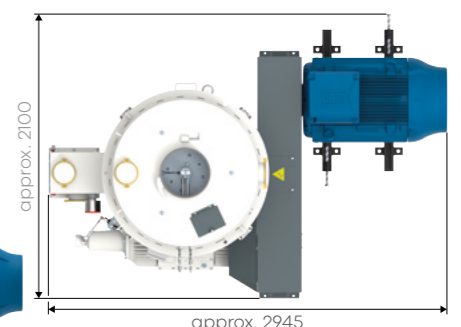
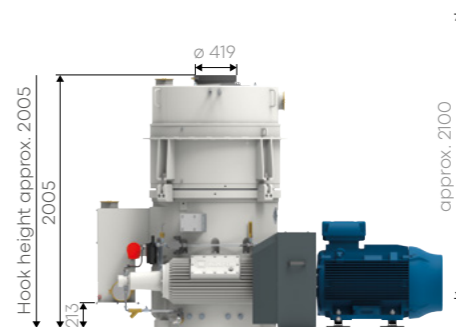
| Type | 38-600 |
|--------------------------|---------------|
| Die diameter mm | 600 |
| Roller diameter/width mm | 280/up to 100 |
| Number of rollers | 3-4 |
| Roller speed m/s | 2.5 |
| Drive motor kW/min-1 | 55-90/1500 |



| Type | 38-780 |
|--------------------------|--------------------------------|
| Die diameter mm | 780 |
| Roller diameter/width mm | 280/up to 100 or 350/up to 100 |
| Number of rollers | 3-5 |
| Roller speed m/s | 2.5 |
| Drive motor kW/min-1 | 75-110/1500 |



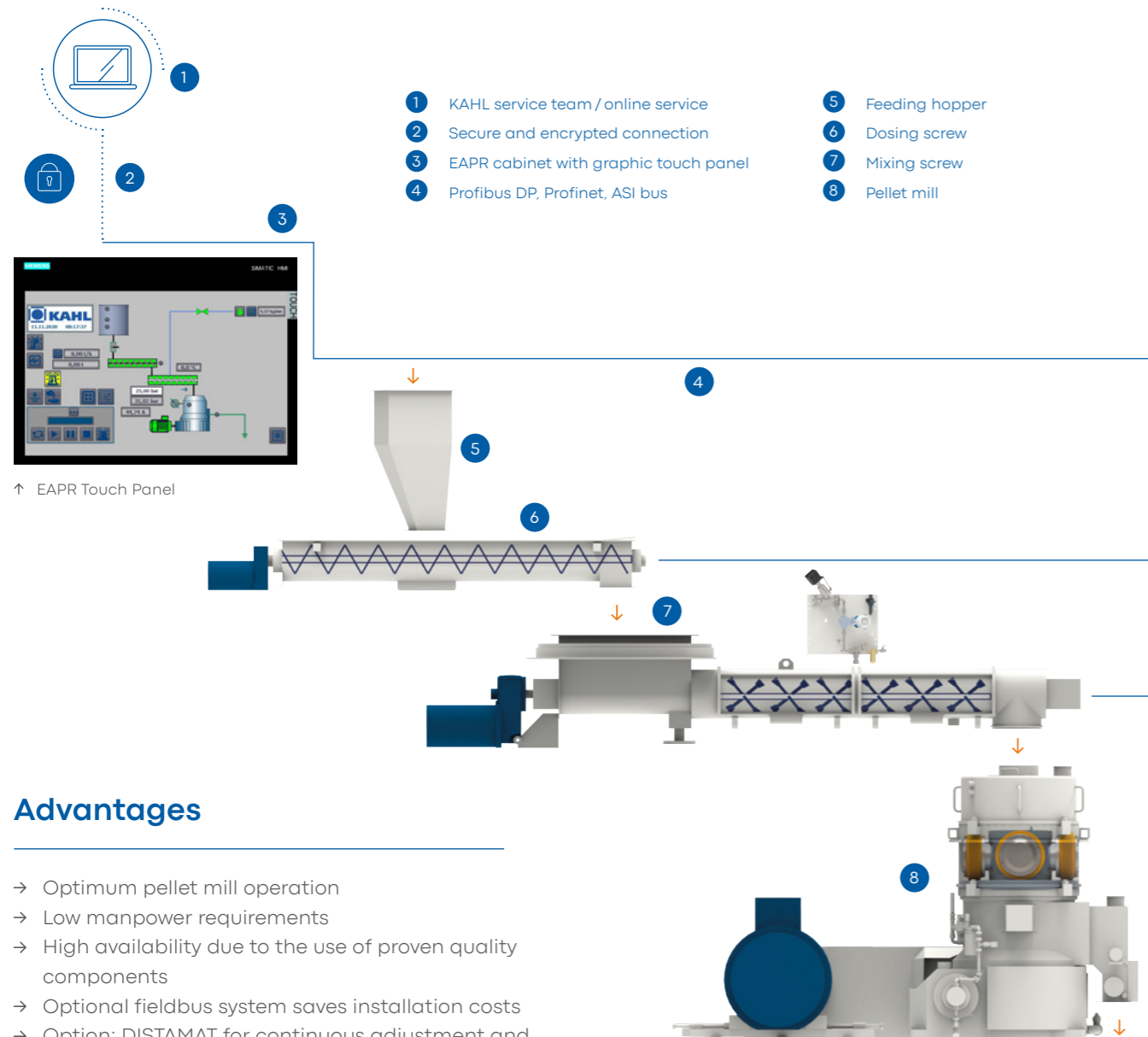
| Type | 39-1000 |
|--------------------------|--------------------------------|
| Die diameter mm | 1000 |
| Roller diameter/width mm | 350/up to 154 or 450/up to 154 |
| Number of rollers | 3-5 |
| Roller speed m/s | 2.5 |
| Drive motor kW/min-1 | 160-200/1500 |





AUTOMATION

Electronic automatic pellet mill regulation (EAPR)



Advantages

- Optimum pellet mill operation
- Low manpower requirements
- High availability due to the use of proven quality components
- Optional fieldbus system saves installation costs
- Option: DISTAMAT for continuous adjustment and control of the roller gap

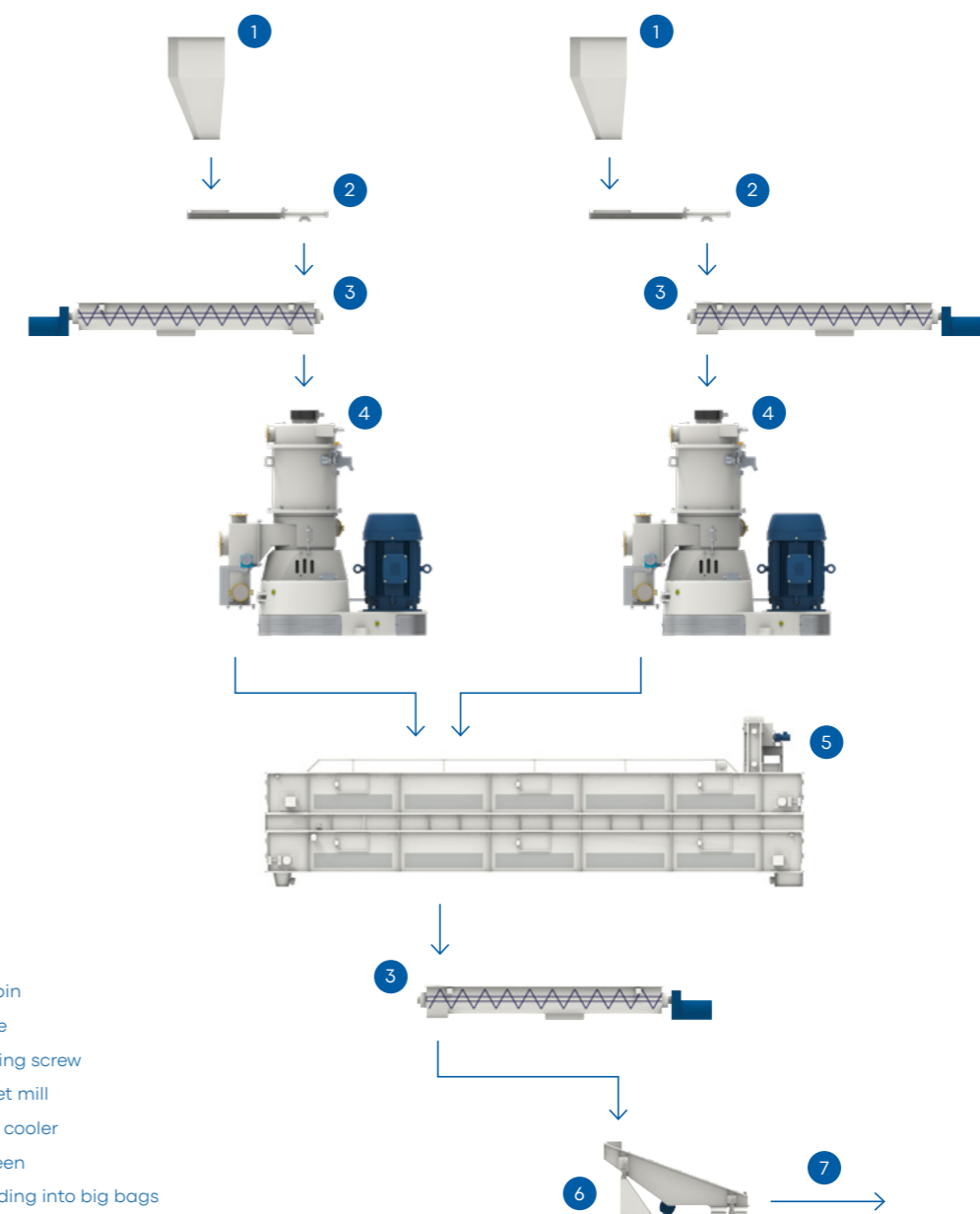
Switch and control plants for all plant sizes are programmed by AMANDUS KAHL and installed in the respective hardware product. Our electronics engineers develop customised user software to ensure a high level of operational reliability.

The control system EAPR ensures optimum, automatic operation of the flat die pellet mills made by KAHL. The EAPR controls and regulates all relevant process parameters.



PLANTS

Pelleting plants for the chemical industry



Further information on chemical plants
from AMANDUS KAHL



Service hotline
+49 (0)40 228 542 00



Visit our online shop
shop.akahl.de

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