

# KS EMULSIFIER DSE



## Innovative hygiene solution for the highest demands

The DSE series fully complies with the latest hygiene standards in the food industry. It offers the world's largest range of cutting systems and allows for the combination of different cutting principles in a single machine. The axially adjustable motor shaft enables precise, loss-free system adjustments during operation – ensuring optimal knife positioning and minimal wear.

### Drive Unit – Powerful & Hygienic

The modular stainless-steel drive unit (IP69, made in Germany) is ideal for wet environments. Hygienic water cooling and energy-efficient, low-noise continuous operation ensure maximum operational safety.

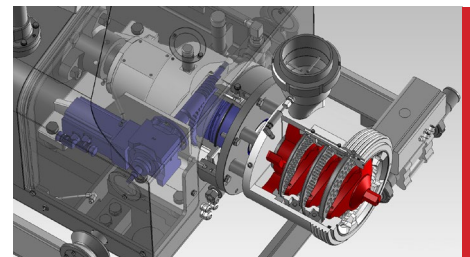
With up to 150 kW power, 50–4500 rpm at a constant 400 Nm torque, it offers maximum flexibility. Rapid deceleration from 4500 rpm to 0 in one second. Optional: energy recovery system.

### Versatile Cutting Unit

The FL175 DSE standard housing supports 1- to 3-stage cutting systems (e.g. RotaPlate, CUTFIX) without machine conversion. This enables homogeneous, high-quality products of any required fineness in a single process – with maximum performance and process reliability.

### Automatic Knife Adjustment AMN

The axially movable motor shaft ( $\pm 5$  mm) ensures precise, loss-free knife positioning with consistent product quality. Supports contact or non-contact cutting depending on the process. No performance loss throughout the adjustment range.

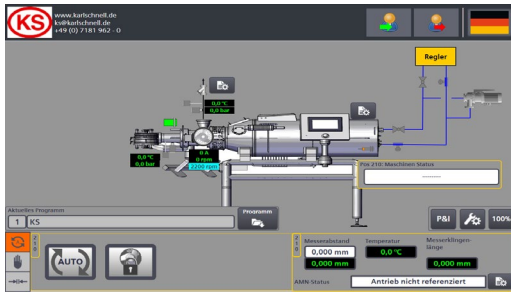


**KARL SCHNELL**  
PARTNER TO THE FOOD INDUSTRY



# KS EMULSIFIER DSE

THE HYGIENIC SOLUTION FOR YOUR PROCESS



## Precise Control with KS Smart Control

The intelligent control system monitors temperature and system status, defines shear positions, and regulates heat input. Includes cutting set elongation correction, wear monitoring with early alerts, knife re-sharpening function, and dry-run protection. User levels managed via RFID login. SPS-based and seamlessly integrable into existing lines.

## Modular Peripheral Components

All peripheral components are optimized for hygiene and user-friendliness. The modular design allows for configurations on rails or frames. Various optional features: cleaning aids, cooling systems, feed systems, etc.

## Separating Device FAV

During cutting, non-processable foreign bodies are ejected. Separation occurs before the first cutting stage based on hole plate diameter (sieve effect). Centrifugal force ejects solids via the FAV – improving product quality and protecting downstream stages.

## Optional Product Feeding

KS Feed Hoppers with integrated screw or various feed pumps ensure uniform product feed – even with high-viscosity materials – and boost production speed.

## Counterpressure Valve

The pneumatic pinch valve controls product flow and outlet temperature. By narrowing the flow cross-section, the product's dwell time – and thus the temperature – increases.

## Magnet Filter

Metallic contaminants (e.g. iron, steel, partially also martensitic stainless steel particles) are attracted by the magnetic field and adhere to the magnet surface. In continuous processes, magnets are cleaned manually at regular intervals.

## Essential Edition FL175 D

Emulsifiers of the D-Class combine all core functions in a particularly attractive package. They offer robust design with air-cooled motors (52/75/110 kW). They are fully compatible with all KS Cutting Systems and optionally equipped with AMN, speed control, and FAV.

Discover more innovative solutions

[www.karlschnell.de](http://www.karlschnell.de)

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