

Homogenizers for laboratory and pilot plant

Homogenizing, emulsifying, suspending, dissolving, ...

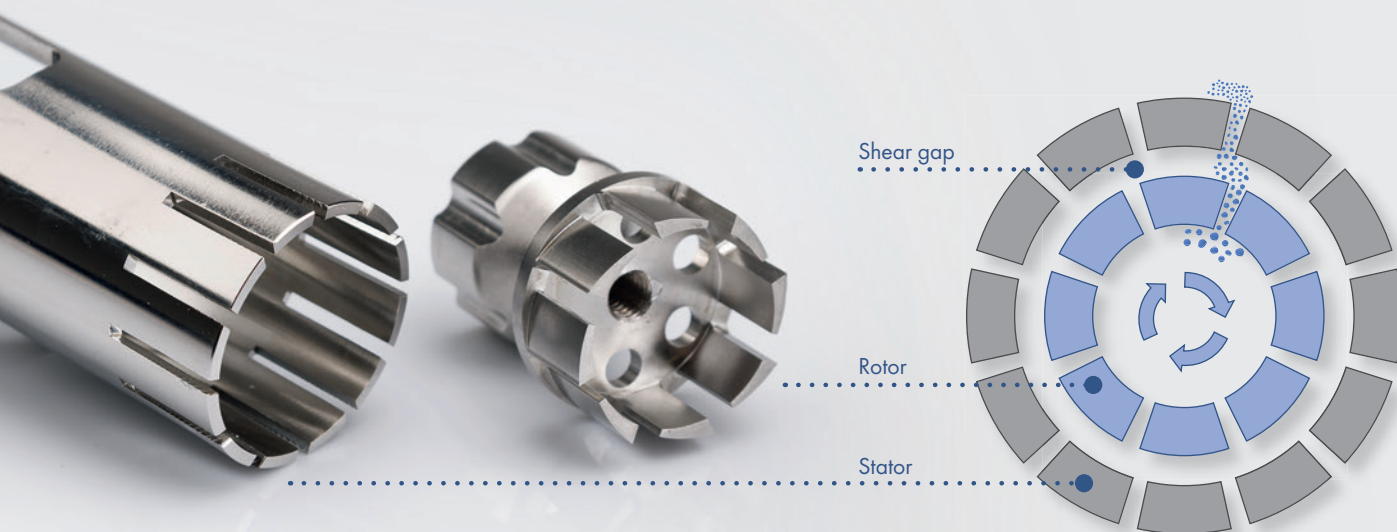
An emulsion is a finely distributed mixture of two liquids such as oil and water.

The rotor-stator system is designed to overcome the interfacial tension to enlarge the interfaces by input of high mechanical energy with the rotor-stator system.

A suspension is a heterogeneous material composition consisting of a liquid containing finely distributed solids. The solids can be further processed by the rotor-stator to form smaller particles.

In the rotor-stator system the product is sucked axially into the dispersion head and pressed radially through the slots of the rotor-stator system. As a result, the product is accelerated and exposed to high shear stress and shear rates. In addition, the turbulence in the shear gap extensively mixes the emulsion/suspension.

DISPERMAT® rotor-stator homogenizers are available as immersion or inline systems.



DISPERMAT® product overview homogenizers

SR Homogenizer

Modular rotor-stator dispersion system for the DISPERMAT® dissolvers.

Product volume:
0.5 – 200 litres

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- Vertical high capacity rotor-stator systems
- Designed to fit to a wide range of DISPERMAT® dissolvers
- High shear stresses and shear rates
- Easy cleaning



DISPERMAT® AS-B

Inline rotor-stator dispersion system with LC – technology.

Delivery of H₂O:
10.6 litres/minute

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- Infinitely variable speed adjustment
- Timer function including a display of the preselected and elapsed dispersion time
- Splash-proof and solvent-resistant membrane keyboard
- Digital displays for speed and timer



DISPERMAT® AS-C

Inline rotor-stator dispersion system including extensive process control. Ideally suited for research and development applications.

Delivery of H₂O:
10.6 litres/minute

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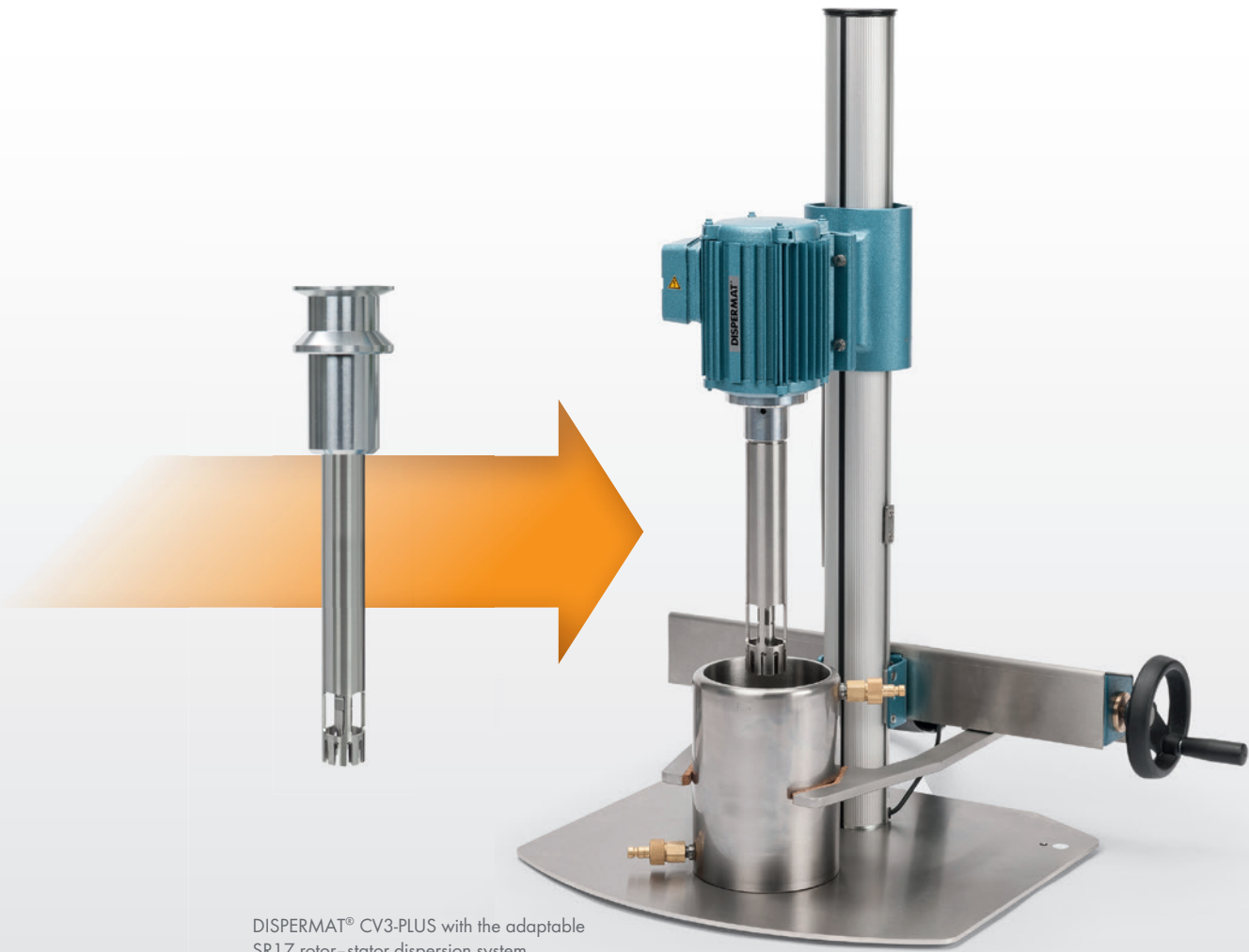
- Graphic display with a display for speed, torque, timer, power input, product temperature and circumferential velocity
- Data recording
- Deactivation function
- 100 settable PRESET data records
- Data interface for WINDISP® 7



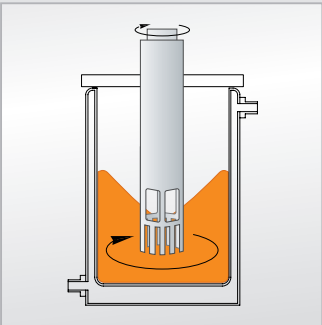


SR Homogenizer

Modular rotor-stator dispersion system for DISPERMAT® dissolvers



DISPERMAT® CV3-PLUS with the adaptable SR17 rotor-stator dispersion system



The SR rotor-stator accessory turns a standard DISPERMAT® dissolver into a high shear batch process homogenizer. With no bearing in the fluid, the SR rotor-stator is a highly efficient, zero maintenance and easy-to-clean accessory. Low-viscosity fluids are drawn into the narrow gap between the rotor and stator where the mechanical energy input is at its highest.



The SR homogenizer is connected to the DISPERMAT® by the convenient quick action coupling system or the DL dissolver shaft.

DISPERMAT® CA with the adaptable SR20 rotor-stator dispersion system



Modular rotor-stator systems

The SR17, SR20 and SR30 rotor-stator systems can quickly be connected to a DISPERMAT® by a quick action coupling. The DISPERMAT® dissolvers have powerful and safe drive systems (from 0.55 kW to 7.5 kW); the high-speeds of up to 20,000 rpm provide the required shear stresses and flow effects for processing the fluid within a very short time.

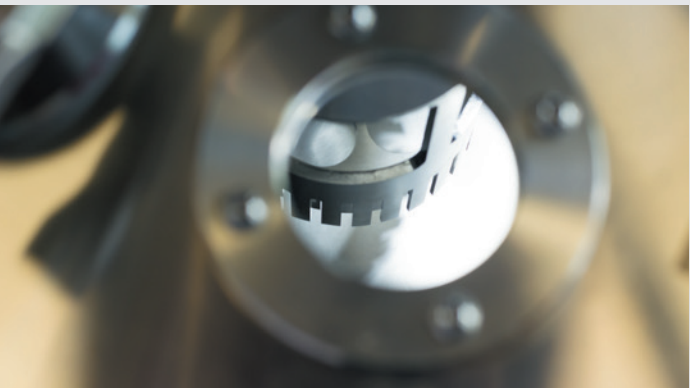
This short processing time makes sure that the product is not stressed

excessively. The infinitely adjustable drive speed from 0 allows convenient work. The bearing between the rotor and stator consists of especially high grade ceramic materials. The systems can be removed easily, cleaned simply and sterilized, if required.

In addition, the proven SR03 and SR04 bearing free rotor-stator systems are available.

SR rotor-stator type	Product volume litre	Recommended DISPERMAT® dissolvers type
SR03	0.5 - 5	LC30 - LC75 CV3-PLUS LC25-EX
SR04	0.5 - 15	CV4-PLUS LC110 - LC220 CN10 - CN40 CA20 - CA60 AE01 - AE06 AE01-EX - AE06-EX
SR17	0.5 - 5	LC30 - LC75 CV3-PLUS
SR20	0.5 - 15	CV4-PLUS LC110 - LC220 CN10 - CN40 CA20 - CA60 AE01 - AE06 AE01-EX - AE06-EX

SR



SR rotor-stator type	Product volume litre	Recommended DISPERMAT® dissolvers type
SR30	15 - 70	LC300 - LC400 CN50 - CN80 AE07 - AE10 AE07-EX - AE10-EX
SR35	20 - 200	CN90 - CN100 AE11 - AE12 AE11-EX - AE12-EX

Vacuum dissolver DISPERMAT® VL with the adaptable SR35 rotor-stator dispersion system