



# KINEMATICA

Homogenizing perfected.



## MEGATRON®

**INDUSTRIAL & PILOT PLANT LINE**

MEGATRON® MT-SV

In-Line dispersers for sterile processing

# MEGATRON® MT-SV

## In-Line dispersers for sterile processing.

The sterile manufacturing process of pharma, cosmetic, food and life science require dispersing technology especially designed for process safety and quality. Among these features are high-grade stainless steel materials with fine surface finishes, approved static and dynamic sealing systems, SIP and CIP cleaning possibility and fully compliance with the required cleanroom classification.

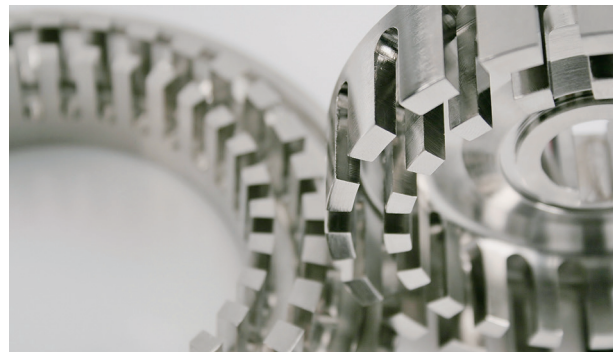
The MEGATRON® MT-SV in-line series meets all of the highest level of standards and applicable international guidelines for sterile production in cleanroom environments with a proprietary and unique design of the KINEMATICA Rotor/Stator dispersing technology perfected over the years in close cooperation with our global Pharmaceutical customers.

Applications such as Eye drops and a variety of other Injunctables can be effectively addressed by the MEGATRON® MT-SV line homogenizing technology that is characterized by the finest particle and droplet sizes and the narrowest degree of particles distribution.

MEGATRON® MT-SV industry-leading performances are achieved through Industry-widest range of rotor / stator combination geometries ranging from coarse to superfine as well as through an optimal shear rate.

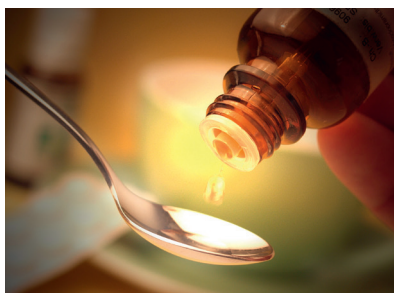
The MEGATRON® MT-SV line is available in four standard sizes depending on the desired Throughput.

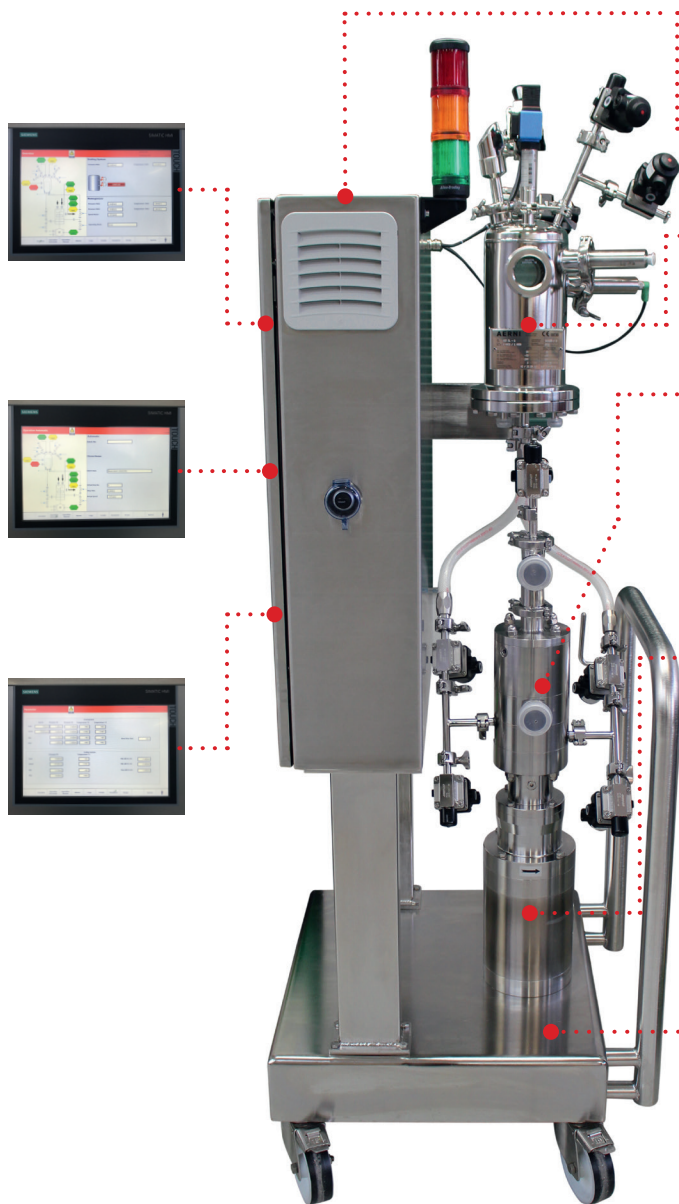
The KINEMATICA engineering team is at our customer disposal to meet different specifications by ensuring a seamless integration our MEGATRON® MT-SV into the production system by including all the required controls.



### MT-SV STANDARD RANGE

Product	Ø Rotor	Throughput (Water)	Peripheral speed	Max. speed	Motor power
MT-SV 45	45mm	1000l/h	25m/s	10600rpm	up to 4.0kW
MT-SV 65	65mm	3000l/h	25m/s	7700rpm	up to 11.0kW
MT-SV 95	95mm	9000l/h	25m/s	5200rpm	up to 22.0kW
MT-SV 160	160mm	25000l/h	25m/s	3000rpm	up to 37.0kW





#### BUILDING BLOCKS

Control System	<ul style="list-style-type: none"> <li>- Manual to automated system and process control system set-ups including HMI Touch panels and SPS solutions</li> <li>- Cabinets made from stainless steel</li> </ul>
Sealing System	<ul style="list-style-type: none"> <li>- Sterilizable sealing pressure system with internal cooling coil for steam condensate production</li> <li>- Pressure, temperature and level surveillance</li> <li>- Manual or automatable valves for filling and sterilizing procedures</li> </ul>
Working chamber	<ul style="list-style-type: none"> <li>- Designed for CIP and SIP cleaning</li> <li>- Vertical processing chamber with optional cooling jacket and add-on injector attachment(s)</li> <li>- Sanitary TriClamp product and supply line connections</li> <li>- One or multiple rotor/stator stages in different types: coarse, medium, fine and superfine</li> <li>- Double mechanical shaft sealing for highest demands and long-life cycle</li> </ul>
Drive	<ul style="list-style-type: none"> <li>- Wear-free, water-cooled high-frequency three-phase AC motor, full stainless steel version</li> <li>- Direct coupling with closed and centered coupling housing for lowest wear at highest speed levels</li> </ul>
Skid	<ul style="list-style-type: none"> <li>- stationary or movable base frame set-ups, made from stainless steel</li> </ul>
Materials	<ul style="list-style-type: none"> <li>- All product wetted parts are made from 316L stainless steel and electropolished or per customer specification</li> <li>- Surface finish <math>\leq 0.8</math> Ra or better</li> </ul>
Documentation	<ul style="list-style-type: none"> <li>- TOP documentation</li> <li>- Full documentation for product wetted parts incl. material certificates EN 10204 / 3.1, welding documentation, surface measurement protocols, FDA certificates for O-rings and gaskets</li> <li>- Calibration certificates for measuring devices</li> </ul>
Qualification	<ul style="list-style-type: none"> <li>- According to cGMP / GAMP guidelines</li> <li>- According 2006/42/EC - machinery guideline</li> </ul>
Extensions	<ul style="list-style-type: none"> <li>- Process tanks, feeding systems, measuring devices, subsystems e.g. for cooling, vacuum, valve control</li> </ul>
Specialties	<ul style="list-style-type: none"> <li>- 2014/34/EU - Atex versions available</li> <li>- ASME versions available</li> </ul>

#### APPLICATIONS RANGE OVERVIEW

- Finest emulsions in various application areas
- Finest suspensions in various application areas
- Sterile production in cleanroom environments

#### SELECTED PHARMACEUTICAL PRODUCTS

- Infusion solutions
- Ointments and creams
- Vaccines
- Medications
- Eye drops
- Wet milling of APIs



# Our mission. Your solution.

Homogenizing perfected: for every industry.

Kinematica's broad portfolio of solutions can address almost every dispersing application for the pharmaceutical, cosmetic, chemical, food and life science industry. Innovative powder-induction systems, solutions for completely sterile environments, or fully-compliant ATEX architecture are just some examples of the broad portfolio that Kinematica can offer with true scalability from pilot-plant to large plant configurations.

Our state-of-the-art technology, in addition to a professional consulting and engineering suite of services, can address a variety of processes such as blending / mixing / stirring, emulsifying, deagglomerating, foaming, crushing and homogenizing with particle size reduction from a few micrometers down to nanometers in size: the proprietary design and innovative geometry of our aggregates / generators can downsize and provide perfect statistical particle distribution for the finest emulsions / suspensions and foam dispersions.



## HEADQUARTERS

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PHARMA



CHEMICAL



COSMETICS



FOOD



LIFE SCIENCE