High Shear Homogenizer - Rotor-Stator Emulsifier - 10000-31000 rpm - 0.2 to 7000 ml, 5000 cP

Model **MSHMG-500CSWISS, MSHMG-500DSWISS** | Brand **Master Science**





The Master Science High Shear Homogenizer is a rotor-stator disperser for demanding dispersion, emulsification and homogenization work. A high-speed rotor inside a precision stator produces intense hydraulic shear, centrifugal extrusion and impact, breaking down and blending materials into a stable, uniform product.

KEY HIGHLIGHTS

- Intense shearing
- Large working range
- Corrosion resistance
- Fast head change

AT A GLANCE

10000 to 31000 rpm SPEED RANGE	**0.2 to 7000 ml (water)** PROCESSING CAPACITY
220 V, 50/60 Hz POWER SUPPLY	**Stepless** SPEED CONTROL

Request a Quotation
Contact us for pricing, configuration options and delivery details.

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Overview

Speed is regulated steplessly from 10,000 to 31,000 rpm, and the unit processes 0.2 ml to 7,000 ml (water) at viscosities up to 5,000 cP. It is available with a graduated speed dial or with a digital display, and over 20 interchangeable working heads let the Master Science High Shear Homogenizer serve pharmaceuticals, biochemistry, food, nanomaterials, coatings, adhesives, petrochemicals and many other industries.

Stirring alone cannot achieve fine, stable dispersions. The Master Science High Shear Homogenizer helps with:

Key Benefits

Intense shearing
Up to 31,000 rpm for fine, stable dispersions and emulsions.

Large working range
From 0.2 ml to 7 litres with suitable heads.

Corrosion resistance
316L stainless steel wetted parts and PTFE sleeve.

Fast head change
Quick-release coupling for easy assembly and cleaning.

For a model with timer and up to 10 L capacity, see our laboratory homogenizer.

Technical Specifications

GENERAL	
Brand	Master Science
Model Number	MSHMG-500CSWISS, MSHMG-500DSWISS
SKU	MSHMG-500CSWISS, MSHMG-500DSWISS
Brand	Master Science
Models	MSHMG-500CSWISS (graduated dial), MSHMG-500DSWISS (digital display)
SKU	MSHMG-500CSWISS, MSHMG-500DSWISS
Speed Range	**10000 to 31000 rpm**
Speed Control	Stepless
Processing Capacity	**0.2 to 7000 ml (water)**
General	Max. Viscosity: 5000 cP
Standard Working Head	25 mm stator head
Wetted Parts	316L stainless steel
Immersion Shaft Sleeve	PTFE
Process Type	Batch

ENVIRONMENT	
Operating Temperature	≤ 120°C
Ambient Conditions	5 to 40°C, max. 80% RH

POWER	
Power Supply	220 V, 50/60 Hz
Input Power	500 W

DIMENSIONS & WEIGHT	
Host Dimensions (L × Ø)	275 × 65 mm
Host Net Weight	3 kg (without head)

PROBLEMS THE MASTER SCIENCE HIGH SHEAR HOMOGENIZER SOLVES	
Coarse, unstable emulsions	High rotor speed and precision stator create fine droplets.
Agglomerated powders	Intense shear breaks up agglomerates quickly.
Corrosive or hot samples	316L steel, PTFE sleeve and 120°C rating handle harsh media.
Slow head cleaning	Quick-release coupling speeds up changeover.

The Master Science High Shear Homogenizer is used in

- **Pharmaceutical and biochemical formulation**
- **Food and daily chemical emulsions**
- **Nanomaterials, coatings and adhesives**
- **Silicone, polyurethane and asphalt processing**

Pesticide, petrochemical and heavy oil emulsification

Drive

- High-quality motor for smooth, quiet, long running
- Stepless speed control 10,000 to 31,000 rpm
- Graduated dial or digital speed display

Working Heads

- Over 20 interchangeable heads available
- Rotor-stator design for dispersion, emulsification and homogenization
- Quick-release coupling to the motor

Materials

- 316L stainless steel material-contact parts
- PTFE immersion shaft sleeve
- Operating temperature up to 120°C

Standard Accessories Included

- Homogenizer main unit
- Standard 25 mm working head

Optional Accessories

- Interchangeable working heads with 6 to 30 mm stators for different volumes and viscosities