

HMG

Homogenizer

The HMG Homogenizer is used for homogenization of immiscible fluids such as typical oil-in-water or water-in-oil emulsions. A special care has to be given to avoid dry running of this instrument.



HMG attached directly to UAM



Operation Mode

The function of the HMG Homogenizer is based on the turbulent flow via a piston pump through a channel with predefined structure. This arrangement generates a static mixing effect, which allows the homogenization of immiscible liquids.



Different modes available

The HMG Homogenizer can be operated in two modes:

- » Small Batch Mode: Through manual filling of the hopper. Once a batch is finished it can be emptied from the outlet nozzle.
- » Semi-Continuous: For bigger batches. The HMG Homogenizer can be externally connected to a bigger vessel. This option requires the feed to be pre-mixed and preheated in order to get high yield.

For heating, an electric heater with a thermostat is integrated in this instrument. The HMG Homogenizer can be attached directly to the UAM Universal Motor Drive, which affords a smooth and stepless speed tuning. All contact parts are made of GMP Compliant materials and can be sterilized in accordance with GMP

Advantages

- » Used for blending & mixing of a wide range of immiscible fluids
- » Efficient solution for R&D and small and medium batch production
- » Corrosion resistant, medical & food grade contact parts

Features

- » Versatile applications for immiscible liquids
- » Powerful & compact
- » GMP compliant

Standard Scope of Supply

The HMG (part. no. 40-01175) comes with the following standard scope of supply:

- » Output Nozzle (part. no. 426-4412390)
- » Complete Fittings (part. no. 426-4412213)
- » Heating Matrix (part. no. 4262005)
- » Thermostat (part. no. 426-2000)

Application Specifications

Parameter	Specification
Operation principle	Pre-heating and static mixing / homogenization; homogenization of immiscible fluids such as oil-in-water or water-in-oil mixtures (Liquid/Liquid)
Process range	<ul style="list-style-type: none"> » Batch process » Semi-continuous process
Feed characteristics	» Miscible and immiscible liquids that are free flowable in heating range (max. 40°C)
Range of applications	Pharmaceutical, herbal & alternative medicine, chemicals & fine chemicals, food, agriculture, cement & ceramics, cosmetics and detergents, paints & pigments

Technical Specifications

Parameter	Specification
Special precautions	Only wet running
Hopper Total Volume	1.5 l
Operation capacity	Up to 1 l Depends on feed properties, instrument and process parameters
Max. Operation Capacity	5-45 rpm
Operation Modes	» Batch: hopper operation for small batch production » Semi-continuous: external operation for big batches
Heating	Electrical
Heating range	Max. 40 °C
Instrument dimensions	Approx. 470 x 680 x 300 mm (width x depth x height)
Packaging dimensions	Approx. 480 x 680 x 800 mm (width x depth x height)
Net / Gross weight	Approx. 10 / 13 kg

We reserve the right to make technical changes without any prior notice.