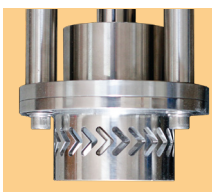
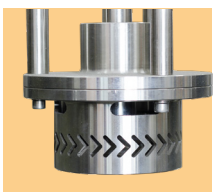
Batch High Shear Mixer (BHSM)

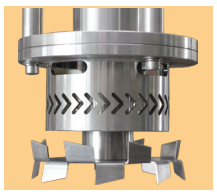
Figure 1 : Batch High Shear Mixer with patented "V"design rotor/stator. for fast emulsifying action.



Single Vortex Emulsifying



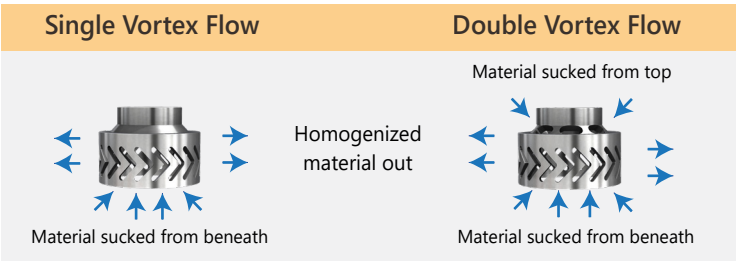
Double Vortex Emulsifying



Dispersing

Multimix Batch High Shear Mixer (BHSM) Series is specially designed for mixing application of oil and water phases in order to produce a homogenous emulsion without separation. It is also widely used for a faster and more efficient dispersion especially when gum such as Carbopol needs to be incorporated without agglomeration problem due to "fish eye".

At the core of each HSM unit lies the precision engineered rotor & stator with either single or double vortex design which is key in high shear mixing for efficient emulsifying or homogenizing processes.



Main Advantages

- Wide capacity ranging from 50 Litres up to 5000 Litres
- Homogenous emulsion and dispersion without fish-eye and agglomerates problems
- Maximum shearing force with 'V' type rotor/stator design
- Stronger and faster vortex flow with double vortex stator and surface propellers
- Stable emulsions and suspensions
- Interchangeable impellers with modular design allows for easy cleaning
- Flexibility of using a single mixer for multiple batches/ vessels

BATCH HIGH SHEAR MIXER

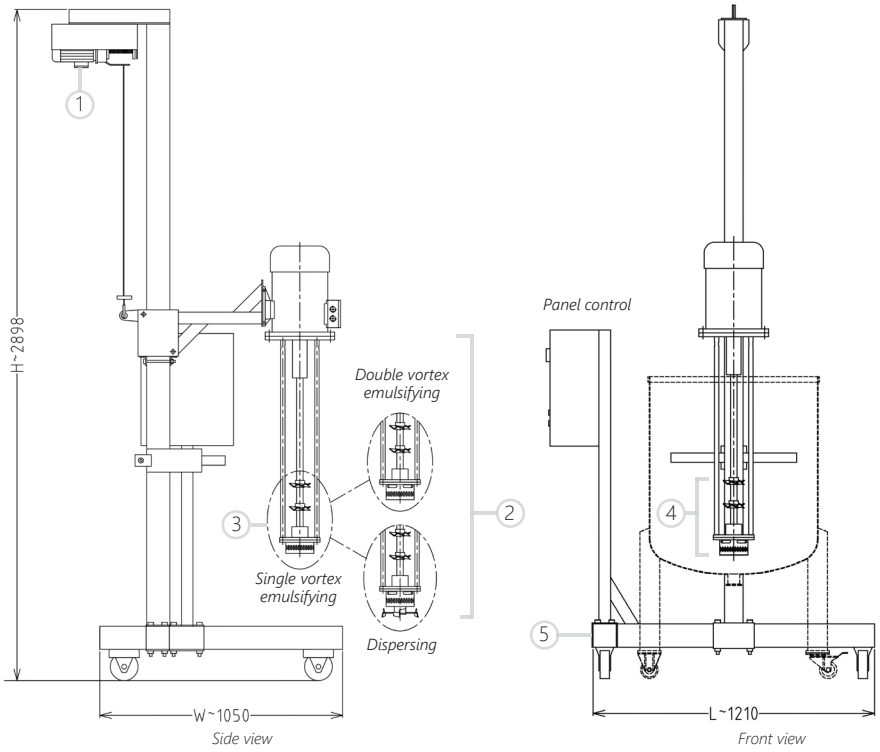


Figure 2: Batch HSM 110 model with panel control and electrical lifting.

1. Ergonomically designed

The motorized lifting system enables the mixing head to be effortlessly raised and lowered.

2. Safe, durable and long-lasting

All wetted parts are in grade 316 stainless steel (GMP compliant).

3. Production and user friendly

Its impellers are quickly and easily interchangeable which helps to minimize machine setup time allowing multiple batches to be manufactured with different mixing techniques in a day.

4. Fine, stable emulsion and dispersion

Within the shaft lies a Teflon bush to endure stable shearing even at high speed. As the rotor turns at a high speed within the stationary stator, materials are drawn from below and sheared through the precision-engineered clearance between the ends of the rotor blades and inner wall of stator, producing very fine droplets which are important in keeping an emulsion stable.

5. Higher mobility

The machine base is fitted with four caster wheels so that the unit can be effortlessly transported around the factory. Once in place, the wheels can be locked as security measure.

	BHSM
Power supply	Three phase, 380V/415V, 50/60Hz
Nominal speed	1000rpm and above
Impeller design	'V' type rotor & stator (single or double vortex) / disperser blade
Clearance of rotor/stator	0.25 – 0.5mm
Bush material	Teflon
Wetted parts material	Food and medical grade stainless steel 316L
Machine base	Mobile with caster wheels and safety locking mechanism

Model	BHSM 103	BHSM 105	BHSM 110	BHSM 125	BHSM 130	BHSM 150
Mixing capacity (H2O)	100 Litre	200 Litre	1000 Litre	2000 Litre	3000 Litre	5000 Litre
Motor in HP (equivalent kW)	3HP (2.2kW)	5HP (3.7kW)	10HP (7.5kW)	25HP (18.5kW)	30HP (22.5kW)	50HP (37.5kW)
Speed range (variable speed electronically controlled)	3000rpm	3000rpm	3000rpm	3000rpm	1500rpm	1000rpm
Shaft length	750 mm	850 mm	1100 mm	1300 mm	1400 mm	1600 mm

Add-Ons (optional)

A. Panel control with frequency inverter

B. Powered lifting with electrical motor

C. Stainless steel mobile jacketed vessel

D. Interchangeable impellers e.g. disperser blade

E. Customizable shaft length as per existing tank depth

F. Explosion proof motor (EEX D II T4) and remote control station

G. Safety features e.g limit switch

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