QUADRO® LIQUIDS PROCESSING

HV Emulsifier & Wet Mill

Typical Applications and Specifications

COSMETIC/ PERSONAL CARE	FOOD & BEVERAGE	PHARMACEUTICAL	INDUSTRIAL
Cream Emulsions	Flavor Dispersions	Drug Delivery Creams	Ink Dispersions
Lotions	Colorant Milling	API Wet Suspension Milling	Wet Milling Pigments
Multiple Emulsions	Functional Foods	Eye Drop Emulsions	Graphite Slurries
Pigment Dispersion	Omega-3 Emulsions	Opthalmic Suspensions	Resin Suspensions
Sunscreens	Beverage Fortification	Topical Suspensions	Sizing Emulsions
Cosmeceuticals	Condiment Emulsions	Oral Suspensions	Polymer Milling
	Grain Suspensions	Antacids	Coating Suspensions
	Beverage Pulp Milling		Battery Compounds

		MODEL		
		HV0	HV1	HV3
MOTOR SIZE	HP (kW)	7.5 (5.5)	20 - 25 (15 - 18.5)	40 - 60 (30 - 45)
CAPACITY*	gpm (lpm)	0.3 - 2.5 (1 - 9.5)	5 - 25 (20 - 95)	30 - 75 (110 - 285)
INLET FITTING	in (mm)	0.5 (13)	1.5 (38)	3 (75)
DISCHARGE FITTING	in (mm)	0.5 (13)	1.5 (38)	2.5 (64)

Capacities are based on water at max speed. Actual capacities may vary depending on rotor speed and product characteristics.

Powder Dispersion

Continuous Processing

Homogenization

Emulsification

Deagglomeration

QUADRO Leading Process Equipment Innovation

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QuadroHV2015

QUADRO Leading Process Equipment Innovation

SUBMICRON HOMOGENIZING, HIGH SHEAR WET MILLING, MICRONIZATION

QUADRO® LIQUIDS PROCESSING

HV Emulsifier & Wet Mill

Unmatched performance. Exceptional service.

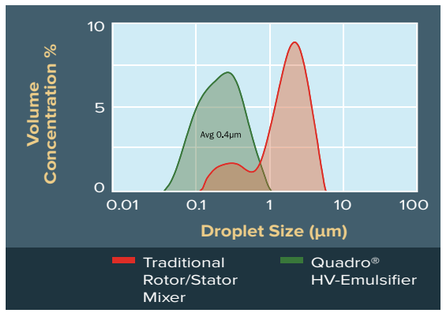
SUBMICRON HOMOGENIZING, HIGH SHEAR WET MILLING, MICRONIZATION

UNIQUE HIGH SPEED DESIGN

The Quadro® HV Series can be optimized for various applications and is available in two configurations; the HV Emulsifier for submicron homogenizing, and the HV Wet Mill for micronizing suspensions and slurries.

The unique high speed design of the HV Series enables accelerated rotor/stator velocities and an exponential increase in process shear energy. At a maximum rotational speed of 70m/s, the HV produces more than 55x the high shear energy of a conventional rotor/stator mill.

SUBMICRON SIZE REDUCTION



Save on submicron emulsification

The HV Emulsifier provides more process shear energy than a conventional rotor/stator mill due to accelerated tooling tip speeds. This significantly lowers capital costs compared to homogenizers or media mills, and is ideally suited for processing submicron emulsions.

Unmatched sanitary design

All 3 models ranging from 7.5-60HP are fully drainable and assembled with quick connect sanitary clamps for ease of removal. In addition, the HV Series utilizes a unique high-speed sanitary mechanical seal that eliminates potential trap areas around the rotor shaft for improved CIP/SIP results.

High value alternative to media milling

The HV Wet Mill defines new limits in high shear milling and closes the gap between traditional rotor/stator mixers and media mill technology. Wet suspension milling and micronization processes can now be accomplished without the use of difficult-to-clean and time consuming media mills.

PERFORMANCE & ADVANTAGES

- High capacities save significant process time over conventional high-pressure homogenizers and media mills
- Equipment cost is generally 70% less than homogenizers and dry powder mills
- Machines easily retrofit into existing facilities
- High shear wet milling often doesn't require additional containment
- Ideal choice for sensitive materials, as liquid dissipates heat generated by the mill
- Available in portable and multi-functional process skids to serve numerous mixing cells and reduce necessary capital