

Quadro Ytron® HV-Emulsifier and Wet Mill

SUBMICRON HOMOGENIZING • HIGH SHEAR WET MILLING • MICRONIZATION



QUADRO YTRON® HV-EMULSIFIER AND WET MILL SERIES

High Velocity Submicron Homogenizing • High Shear Wet Milling and Micronization

UNIQUE HIGH SPEED DESIGN

The Quadro Ytron® HV Series can be optimized depending on the application and is available in two configurations; either as the HV-Emulsifier for submicron homogenizing, or as 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.



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.

PRECISE PROCESS SCALING

The HV Series of inline mills offer precise process scaling from lab formulation, to pilot and production processing with three different models ranging from 7.5 - 60 HP depending on desired capacity.

UNMATCHED SANITARY DESIGN

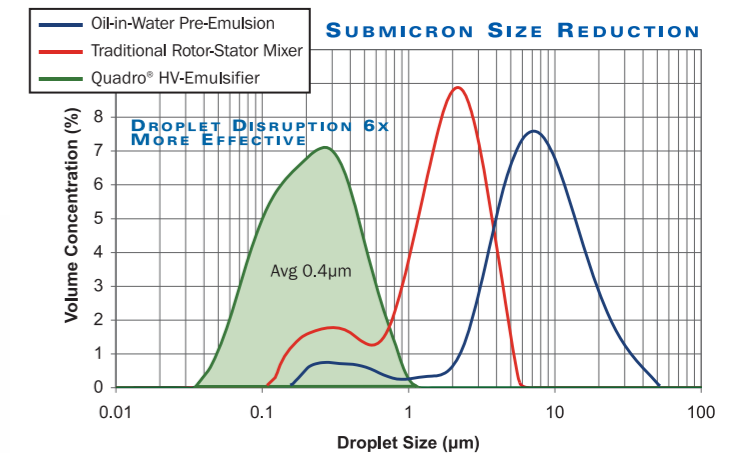
All models are fully drainable and assembled with quick connect sanitary clamps for ease of removal and cleaning. In addition, the series utilizes a unique high-speed sanitary mechanical seal that eliminates potential trap areas around the rotor shaft for improved CIP/SIP results.



SAVE ON SUBMICRON PROCESSING

Due to an exponential increase in shear energy as tip speed increases, the HV-Emulsifier can produce submicron emulsions without the subsequent processing of a high-pressure homogenizer.

High-pressure homogenizers commonly suffer from restricted capacity, high energy consumption, and frequent maintenance requirements, all of which add to the cost of processing. These industry issues can now be overcome with an HV-Emulsifier solution to maximize productivity while cutting the cost of production.



PERFORMANCE & ADVANTAGES

- High HV 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 dedicated containment
- Ideal choice for sensitive materials, as liquid removes heat generated by the mill
- Available in portable and multi-functional process skids to serve numerous mixing cells and reduce necessary capital



APPLICATION EXAMPLES AND MODEL SPECIFICATIONS

PHARMACEUTICAL	FOOD	COSMETIC	INDUSTRIAL
Drug Delivery Creams	Flavor Dispersions	Cream Emulsions	Ink Dispersions
API Wet Suspension Milling	Colorant Milling	Lotions	Printing Colors
Eye Drop Emulsions	Functional Foods	Multiple Emulsions	Wet Milling Pigments
Ophthalmic Suspensions	Omega-3 Emulsions	Pigment Dispersion	Graphite Slurries
Dermatological Ointments	Beverage Fortification	Sunscreens	Resin Suspensions
Topical Suspensions	Cream Sauces	Cosmeceuticals	Sizing Emulsions
Oral Suspensions	Condiment Emulsions		Polymer Milling
Antibiotic Preparations	Grain Suspensions		Coating Suspensions
Antacids	Beverage Pulp Milling		Battery Compounds
Radiopaque Suspensions	Soft Gel Supplements		
Barium Sulphate Suspensions			

SPECIFICATIONS		MODEL		
		HV0	HV1	HV3
Motor Size	(HP)	7.5	20 - 25	40 - 60
	(kW)	5.5	15 - 18.5	30 - 45
Capacity*	(gpm)	0.3 - 2.5	5 - 25	30 - 75
	(L/min)	1 - 9.5	20 - 95	110 - 285

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

SIZE REDUCTION • FLUID MIXING • PNEUMATIC TRANSFER



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