

Quadro[®] HV-Emulsifier

SUBMICRON SIZE REDUCTION • EMULSIONS • DISPERSIONS • SUSPENSIONS



Shear
Energy

QUADRO® HV-EMULSIFIER SERIES

High velocity submicron size reduction technology that defines new limits in rotor-stator shear energy

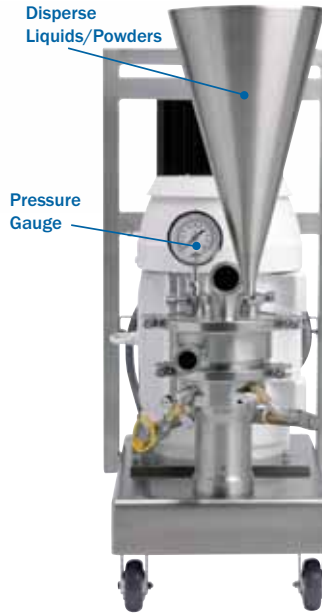
Introducing a new line in rotor-stator mixing devices, the Quadro® HV-Emulsifier defines new limits in shear energy and closes the gap in performance between traditional in-line mixers and high-pressure technology. To liquid processing industries interested in submicron size reduction, Quadro® HV-Emulsifier is the brand of mixer that offers more than thirty times the energy dissipation of a traditional rotor-stator system due to its high velocity rotor and unique tooling geometry.

30X THE SHEAR ENERGY AT 60M/S

With an exponential increase in shear energy as tip speed increases, the Quadro® HV-Emulsifier can generate more than 30x the process energy of a traditional rotor-stator mixer. Submicron droplet size reduction can now easily be achieved without the use of a high-pressure homogenizer.



**STANDARD
IN-LINE SETUP**



**OPTIONAL VACUUM VESSEL
RECIRCULATION SETUP**

KEY FEATURES & BENEFITS

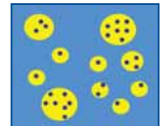
- energy optimized HV tooling operates at tip speeds up to 60m/s with the lowest power consumption in the industry
- connect to a vacuum vessel in recirculation to disperse and size reduce in a single-pass, reducing the number of necessary tank turnovers and saving valuable process time
- displace costly high-pressure homogenizer technology with an HV solution at 30% of the initial investment and 10% of the annual maintenance cost
- sanitary high-speed mechanical seal eliminates potential trap areas around the rotor shaft for improved CIP results

TYPICAL APPLICATIONS

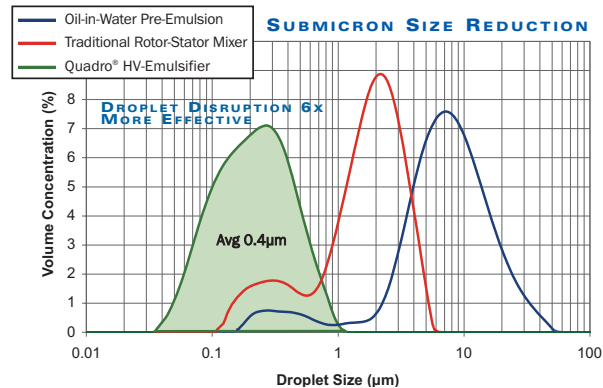
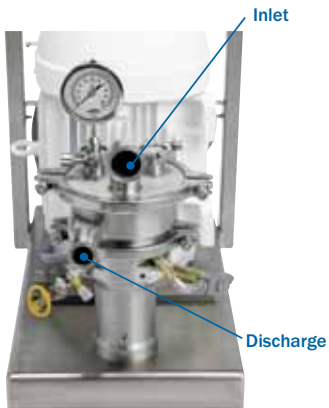
Pharmaceuticals: Drug Delivery Creams
Dermatological Ointments

Cosmetics: Creams & Lotions
Multiple Emulsions

Foods: Flavors & Colorants
Functional Foods



■ oil ■ water

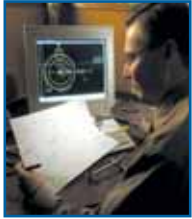


SPECIFICATIONS	MODEL		
	HV1	HV3	HV5
Motor Size (hp)	20 - 25	40 - 60	75 - 125
(kW)	15 - 18.5	30 - 45	55 - 90
Capacity* (gpm)	50	145	250
[Maximum] (l/min)	190	550	950

*Maximum capacities are based on water. Actual capacity may vary depending on rotor speed and product characteristics.

QUADRO PROCESS PRODUCTIVITY SOLUTIONS

For over 30 years, Quadro has made an unparalleled commitment to delivering the highest production efficiencies, product quality and consistency to market leaders in the Pharmaceutical, Food, Fine Chemical, Personal Care and Cosmetics industries worldwide.



With the engineering experience gained from developing reliable application-specific solutions for major processors in more than 80 countries, our knowledge of size reduction and dispersion is unmatched.

In fact, meeting the evolving needs of our customers drives the development of some of the industry's most advanced processing technologies and systems – such as the *Quadro® Comil®*, *Quadro® FlexSift*, *Quadro® Fine Grind*, *Quadro Ytron®* inline mixers, dispersers and emulsifiers, *Quadro® ShearFX*, *Quadro Vac®* vacuum transfer systems and *Quadro® HV-Emulsifier*.

Since 1976, Quadro has led the industry in research & development. Through the Quadro R&D Test Center we work



directly with our customers to run real-world tests of their processes on the latest Quadro equipment. The result has been technical breakthroughs that have changed the way many of our customers manufacture, and led to new global processing industry standards.

As the world's leading supplier of size reduction technology – with a vast global network of agents, distributors, OEMs and partners – Quadro provides a level of service and technical support that is unequalled in the industry. Our passion for technology is exceeded only by our dedication to meeting the needs of our customers.



SIZE REDUCTION • FLUID MIXING • PNEUMATIC TRANSFER



LOCAL REPRESENTATIVE



613 Colby Drive
Waterloo, ON, CA N2V 1A1



630 Dundee Road, Suite 400
Northbrook, IL 60062-2745

Canada & International T 519-884-9660
USA T 973-376-1266
All Locations F 519-884-0253

sales@quadro.com • www.quadro.com