Typical Applications and Specifications

QUADRO® LIQUIDS PROCESSING Ytron Z Emulsifier



COSMETIC/ PERSONAL CARE	FOOD & BEVERAGE	PHARMACEUTICAL	CHEMICAL
Perfumes	Yogurt	Antibiotics	Asphalt Emulsions
Toothpastes	Salad Dressings	Topical Creams & Gels	Fungicides & Insecticides
Hair Dyes	Mayonnaise	Ointments	Toners
Creams & Lotions	Cheese Sauce	Injectables	Pigments
Shampoos	Condiments	Suppositories	Lacquers
Soaps	Creams	Nutritional Drinks	Resins
	BBQ Sauce	Oral Suspensions	
	Spreads		

		MODEL		
		Z 1	Z 3	Z 5
POWER (Maximum)	HP (kW)	10 (7.5)	25 (18.5)	60 (45.0)
CAPACITY*	gpm (lpm)	30 (115)	100 (380)	300 (1150)
RPM		6000	3600	1800
ROTOR & STATOR SETS		1 to 3	1 to 3	1 to 3
OPERATING PRESSURE	psi (bar)	0 - 120 (0 - 8)	0 - 120 (0 - 8)	0 - 120 (0 - 8)
INLET & DISCHARGE FITTING	in (mm)	1.5 (38)	2 (50)	3 (75)

*Actual capacities may vary depending on inlet pressure, tooling selection and product characteristics.











Continuous Processing

Emulsification



Powder Dispersion

Homogenization

Local Representative

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SINGLE-PASS **EMULSION AND** HOMOGENIZATION

QUADRO® LIQUIDS PROCESSING

Ytron Z Emulsifier

SINGLE-PASS EMULSION AND HOMOGENIZATION

HIGH SHEAR PROCESSING

The Quadro Ytron® Z Emulsifier delivers unparalleled consistency and control of high shear process applications such as immiscible phase emulsifying/homogenizing, wet grinding, deagglomeration and fine solids dispersing.

Unmatched performance. Exceptional service.

High differential velocities

Incorporating up to three sets of toothed rotor/stator heads, the Z Emulsifier processes product while passing multiple shear zones in a single pass. The result is consistent, repeatable quality at capacities exceeding conventional multi-pass technology.

Tooling flexibility

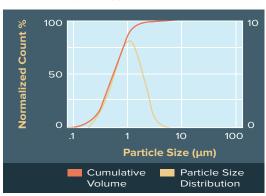
Rotor/stators for the Z Emuslifier are available in a variety of slot sizes which allows for a high degree of fine tuning. Through tooling selection aided by our application engineering team, as well as varying rotor tip speed, the amount of shear can be precisely controlled.

Scalable throughput

Four sanitary models are available from pilot plant capacities to >300 gpm (1136 lpm). Throughput can be scaled without altering product characteristics, texture or particle size distribution with the unique implementation of Quadro's turbulent kinetic energy model.

ENHANCED YTRON Z PERFORMANCE

In a single-pass, the Z Emulsifier achieves tight particle size distribution with typical d₉₀ distributions between 1-5 micron.







Close tolerance tooling.

FEATURES

- 5 QUADRO YTRON 1 Sanitary design with clamped housing, easily dismantled for cleaning; CIP and SIP options available. Meets 3A® standards.
 - 2 All stainless steel construction.
 - 3 Single and double mechanical seals provide for high-temperature, high-pressure performance.
 - Single-speed drive with variable speed options.
 - Stainless steel base with portable, locking casters.



DYNAMIC PRINCIPLES

- · Product enters housing axially under pressure, typically fed from a processing pump.
- One or more liquid phases and suspended particles are then pumped through 1, 2 or 3 sets of toothed rotor/stators.
- · Controlled, high-intensity shear is delivered equally to all fluid elements.