

## Typical Applications and Specifications

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

		MODEL		
		Z1	Z3	Z5
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.



613 Colby Drive  
Waterloo, ON, CA N2V 1A1



832 Industrial Drive  
Elmhurst, IL 60126

Missouri Filter & Process Equip Co

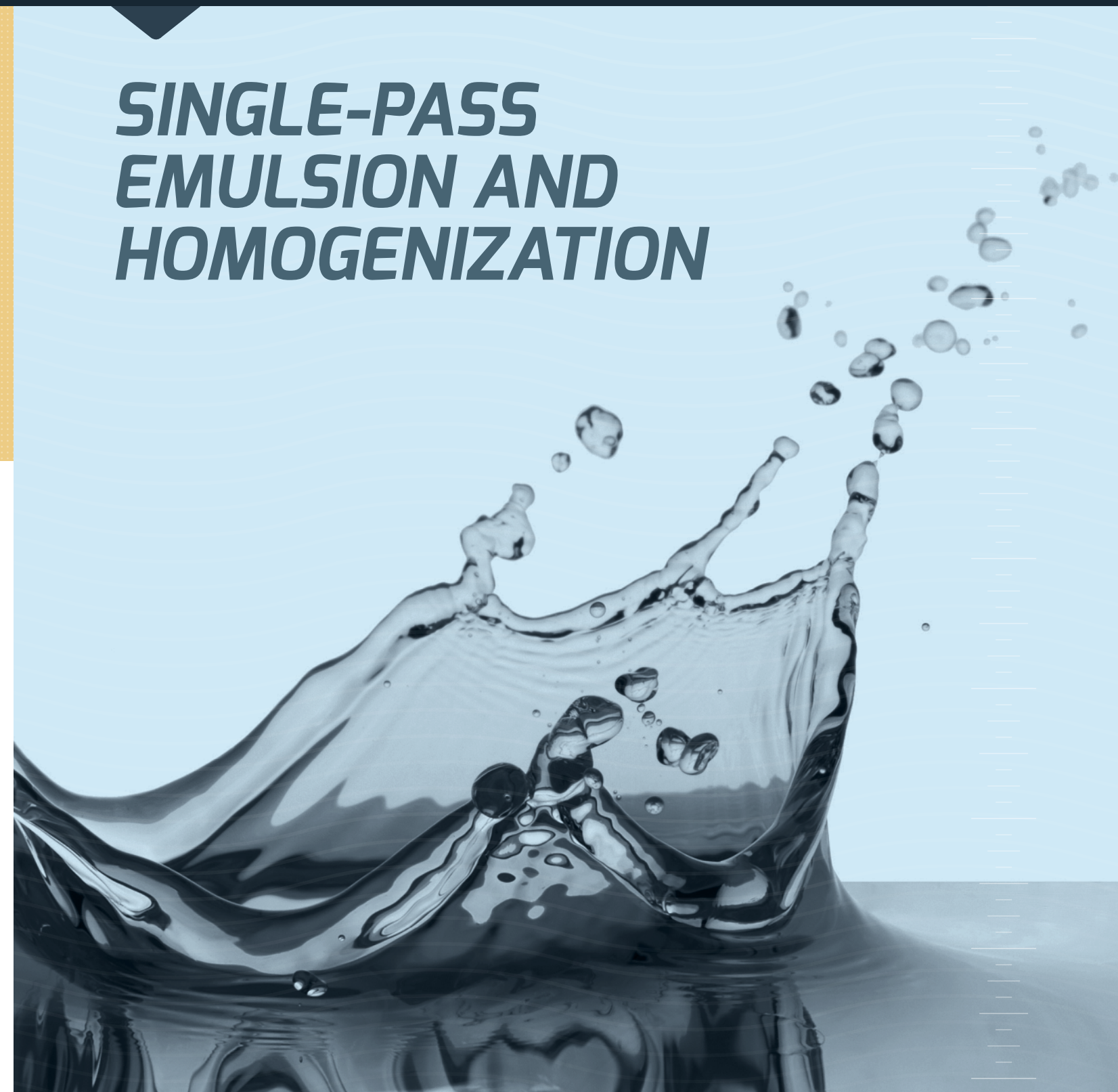
a.k.a. Mofilco

12025 Manchester Rd Ste 30G

St Louis MO 63131

314-821-4321 [mofilco@mofilco.com](mailto:mofilco@mofilco.com)

[quadrosales@idexcorp.com](mailto:quadrosales@idexcorp.com) [www.quadroliquids.com](http://www.quadroliquids.com)



## SINGLE-PASS EMULSION AND HOMOGENIZATION

# QUADRO® LIQUIDS PROCESSING Ytron Z Emulsifier

Unmatched performance. Exceptional service.

## 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.



### 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

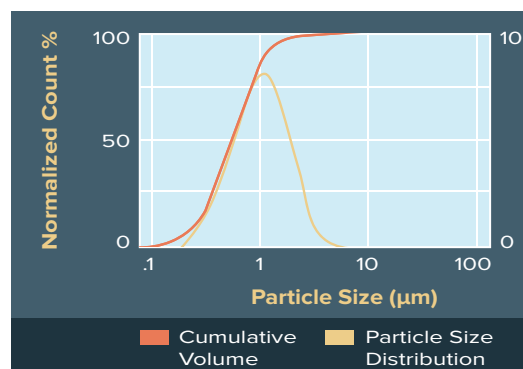
Rotor/stators for the Z Emulsifier are available in a variety of slot sizes which allows for a high degree of fine tuning. Through tooling selection aided by our application engineering team, as well as varying rotor tip speed, the amount of shear can be precisely controlled.

### 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  $d_{90}$  distributions between 1-5 micron.



Close tolerance tooling.



## FEATURES

- 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.
- 4 Single-speed drive with variable speed options.
- 5 Stainless steel base with portable, locking casters.



Unique three-stage tooling.

## 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.