

MAXIMIXER

HOMOGENIZATION AND ANALYSIS SYSTEM



**AN INTEGRATED SYSTEM WITH
THREE SEPARATE MIXERS FOR
VARIABLE-SHEAR BATCH PROCESSING
AND A COMPUTER INTERFACE
FOR INSTANT ANALYSIS**

ARDE BARINCO INC

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TOTAL CONTROL FROM START TO FINISH



Maximixer from Arde Barinco is more than just a high-volume batch processor capable of varying mounts of shear.

It's an integrated system that lets you gather, analyze and control key process parameters.

THREE SEPARATE MIXERS

The Maximixer system consists of three main components: a process vessel with three independently-controlled mixers; an instrument panel that controls the temperature of the mix as well as the speed and direction of the mixers; and a PC or Lap-top to record key parameters you can use to ensure maximum efficiency and successful scale-up.

Because it provides precise control over the entire process, a Maximixer system can dispense, emulsify, blend, heat and cool even the most critical multi-component products. It's versatile enough to handle a wide range of viscosities - from fine-grain creams and lotions to toothpaste and hair gel.

And, like most Arde Barinco products, it will be custom-built to meet your specific needs.

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THREE SEPARATE MIXERS

At the heart of the Maximixer system is Arde Barinco's exclusive Reversible Homogenizer for high-shear batch processing. By pumping both up and down, this unique mixer will incorporate powders, disperse volatile fragrances and deaerate high-viscosity mixtures quickly and evenly.

It provides thorough top-to-bottom mixing even in tall, thin process vessels, so there's no need to purchase costly large-diameter vessels that take up valuable floor space.

The second mixer, a scraped-surface agitator, gently mixes shear-sensitive materials.

The third, an auxiliary mixer, can be any one of a variety of different types. Arde Barinco will install the one that's right for your application.

By varying the speed and direction of the three mixers, you can achieve four separate operating modes: dispersion, homogenization, deaeration and cleaning.

MIXER REVERSIBILITY

The reversibility of the mixers provides several major operating advantages that translate into savings of time, power consumption and capital costs.

DATA ANALYSIS

The Maximixer system measures important parameters including speed, energy consumption, viscosity pressure and temperature and records them against time. Then it sends this information directly to a personal computer or laptop, where it can be studied as tabular data, converted into charts and graphs, or printed out for future reference. By analyzing this data, process engineers can virtually ensure successful scale-up.

Maximixer's separate instrument panel lets you control the speed and direction of each mixer independently, allowing the system to operate in four different modes:

- Dispersion
- Homogenization
- Deaeration
- Cleaning



Buy With Confidence

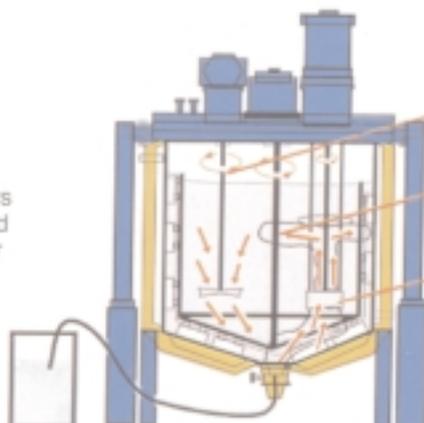
As with all our products, Arde Barinco will let you find out if the Maximixer is right for you by putting it through its paces at our fully-equipped testing facility. You're under no obligation to buy; just give us your production requirements and we'll be happy to run capabilities tests.

If you do decide to buy an Arde Barinco product, you'll get free technical support for the life of the machine — fast, friendly service drawing on more than four decades of mixing experience.

ONE MAXIMIXER, FOUR OPERATING MODES

DISPERSION MODE

Under vacuum, solid powders are drawn into the vessel and directly into the homogenizer mixing head.



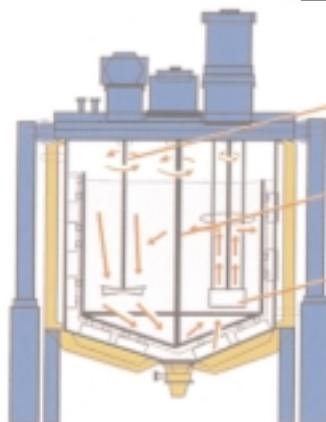
TURBINE ON DOWN MODE
MEDIUM SPEED

ANCHOR/SCRAPER ON
SLOW SPEED

HOMOGENIZER ON UP MODE
FULL SPEED

HOMOGENIZATION MODE

High-shear emulsification and dispersion occur in the homogenizer, while the anchor and auxiliary turbine provide excellent flow in all areas of the vessel.



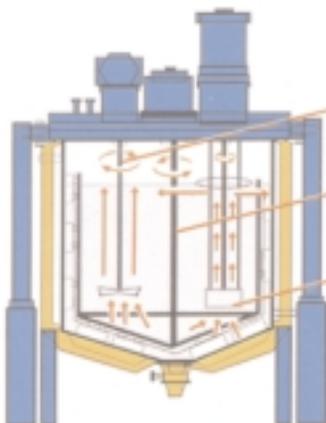
TURBINE ON DOWN MODE
FULL SPEED

ANCHOR/SCRAPER ON
FULL SPEED

HOMOGENIZER ON UP MODE
FULL SPEED

DEAERATION MODE

The homogenizer is run at a slow speed to pump bubbles and entrapped air up from the bottom of the vessel. The aerated mixture is spread by the baffle plate in a smooth laminar film at the surface, where efficient deaeration occurs.



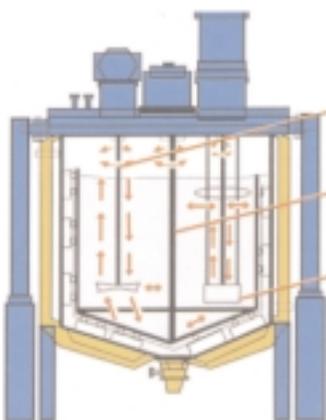
TURBINE ON UP MODE
SLOW SPEED

ANCHOR/SCRAPER ON
SLOW SPEED

HOMOGENIZER ON UP MODE
SLOW SPEED

CLEANING MODE

By operating in both directions, all surfaces of the agitators are subjected to positive cleaning action.



TURBINE ON FULL SPEED
REVERSING

ANCHOR/SCRAPER ON
FULL SPEED REVERSING

HOMOGENIZER ON
UP/DOWN MODE
FULL SPEED

ARDE BARINCO...

Innovation, Precision and Our Commitment to Help You Improve Your Process With Advanced Mixing Technology

Arde Barinco is a subsidiary of ARDE Inc., one of the nation's leading aerospace manufacturers and a key participant in the nation's space program. Our parent company's background in metallurgy, precision manufacturing and quality assurance forms a unique background for ARDE Barinco and its mixing technology.

Our engineering, manufacturing, quality and product support programs draw on these qualifications. You'll find them reflected in our per-

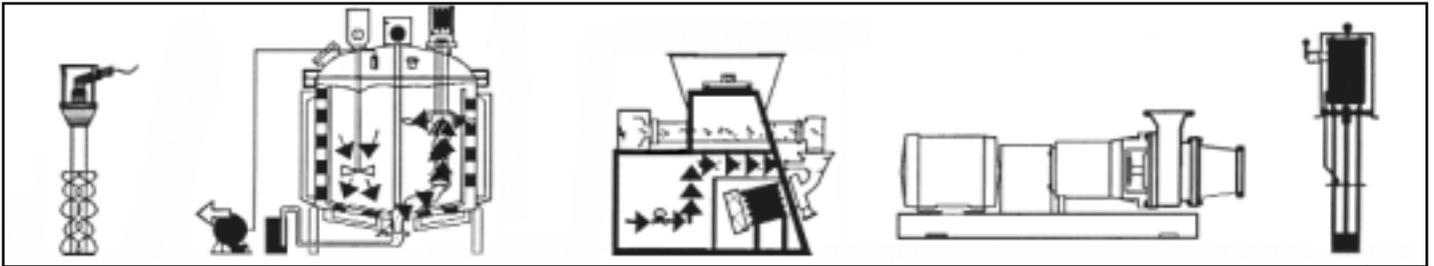
formance -- durable, reliable products and fast, customer-oriented technical support.

Equipment To Meet Your Needs

We're specialists in finding solutions to mixing problems -- and we bring a wide range of mixing technologies to bear. Our standard product line includes specialized equipment to mix hard-to-wet dry solids into fluids and to create fine-grain emulsions (droplet sizes of 1-2 microns).

We're ready to meet your needs with:

- Low Shear Solids/Fluid Dispensers ● Reversible Homogenizers
- Continuous In-Line Mixers ● Batch Processing Mixers ● Sanitary Mixers ● High-Viscosity Mixers
- Multi-Viscosity, Multi-Shear Mixing Systems with Comprehensive Process Analysis Capabilities
- Propellor Mixers ● Axial and Radial-Flow Turbines ● Anchor-Scraped Surface Agitators



Test Facilities and Rental Machines to Assure Your Satisfaction

We're committed to total customer satisfaction. The ARDE Barinco mixers in our 2,000 square foot pilot test facility are fully equipped to measure significant process parameters such as viscosity, solid particle size distribution, liquid emulsion droplet size distribution, percent solids, density, power consumption, pH, RPM, temperature, amperage draw, shear rate and shear stress.

On-line digital monitoring allows us to provide continuous, real-time feedback on many of these parameters. We'll videotape tests and demonstra-

tions to provide a visual record -- to give everyone in your operation a firsthand look at the process.



Our full inventory of rental equipment, available in most commonly used configurations, allows us to provide mixers for short-term use, to allow you to test them in your plant.

All ARDE Barinco equipment is sold with free lifetime technical support. If you have any questions or require assistance, we're always available.

Need more information? Contact us today.

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