



Advanced Mixing Technologies

**BATCH AND INLINE
MIXING EQUIPMENT FOR**

Blending

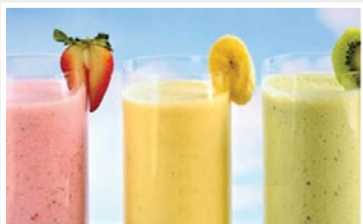
Emulsifying

Homogenizing

Dispersing

Wet milling

Powder Conveying & Inducting



Admix®

*Committed to adding value to
your production process*

The Admix mission is to be the premier provider of sanitary mixing and milling equipment for liquids and powders into liquids. As a food processing company, whether you make prepared foods, salad dressings, beverage emulsions, sugar slurries, poultry marinades, cereal coatings, tomato sauce, cheese products, fruit fillings, ice cream mix, or other products, Admix can improve your production process.

For the pharmaceutical and cosmetics/personal care industries, we deliver high quality oral suspensions, tablet coatings, antacid formulas, sugar and saline solutions, skin care products, shampoos, creams, lotions, sun care products, detergents, and fragrances.

Providing results and solutions through application expertise

Our portfolio of highly effective equipment, application experience, and customized solutions bring unparalleled value to every process. We are results oriented, with the reputation and resources to ensure that our mixers exceed your expectations.

Focused in industries that require the strictest sanitary practices, Admix has an installation base of over 5,000 mixers operating in over 2,000 production plants. Chances are we have already worked extensively with the ingredients that are crucial to your product's success, including Xanthan and other gums, soy and whey proteins, aspartame, sucralose and other sweeteners, Carbopol®, Methocel® and various viscosity enhancers.



Mixers for Sanitary Applications

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admix.com/equipment

Avicel® is a trademark of FMC Corporation
Carbopol® is a trademark of The Lubrizol Corporation
Opadry® is a trademark of BPSI Holdings LLC
Methocel® is a trademark of Dow Chemical Company

Benchmix™ & Pilot Plant

High Shear Lab Mixers

Ideal for product development and formula optimization

Our Benchmix is the most versatile, powerful benchtop lab mixer on the market. No other benchtop lab mixer combines power, speed and versatility all in one unit.

In many product development labs, new and modified formulas are successfully produced on the bench, but these results cannot be duplicated when scaling to actual production runs. Admix offers a process assurance warranty, so whether you're making lab batches of <2,000 ml or up to 80 liters in the pilot, you will get precise scalability from the lab through 10,000 gallons - GUARANTEED.

Benchmix benefits for your lab and process

- Bring new products to market faster
- All results can be accurately scaled to production volumes
- Complete versatility with multiple high shear heads, low speed impellers and props
- Models available from 0.5–3 HP at up to 12,000 RPM
- Process volumes from 1–20 liters
- Simple touch panel control with integrated on-screen help

Ideal for pilot plant and small production runs

Pilot plant units (Rotosolver RS-02 and Rotostat XP-02) operate up to 3,450 RPM with larger mix heads than our Benchmix models, providing the ideal tip speed and shear rate for many applications.

Pilot plant models are designed for batch sizes from 5–20 gallons (20–80 liters) depending on product viscosity, density and solids levels.



▶ Rotosolver RS-02
40"H x 22"W x 18"D

Benchmix.com

Rotosolver®

The Ultimate Energy-Saving High Shear Mixer

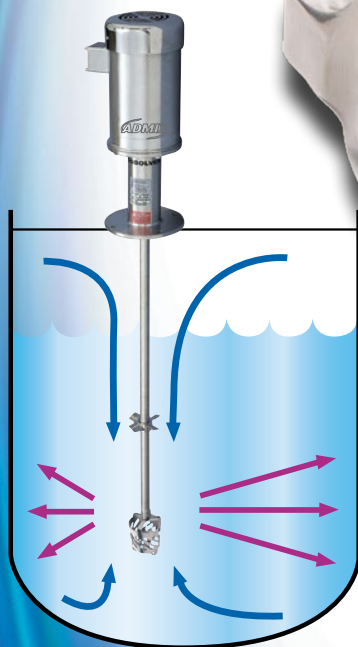
Rotosolver delivers performance & efficiency

The Rotosolver high shear mixer is a recognized industry leader, offering processors excellent performance and efficiency.

Less energy consumption: Mixing impeller designed to efficiently apply all energy to produce optimal shear and direct product flow.

Improved dispersion: Innovative design combines the shearing capabilities of a high speed toothed rotor and a slotted stator with high flow and circulation from the dual rotor blades. This unique head design provides a 4-stage mixing action delivering 100% dispersion in less time.

Easy-to-clean design ensures that conventional CIP procedures provide maximum cleanability. Meets or exceeds 3-A TPV #73-01, USDA-AMS and USDA-Dairy sanitary standards.



Flow pattern
Blue arrows = flow into the mixing head
Purple arrows = expulsion from the mixing head

Rotosolver.com



HIGH SHEAR

HIGH FLOW

- Increase overall shear rates
- 3-A compliant & easy to CIP
- Reduce batch times for increased capacity
- Retrofit available for existing installations
- Wet out & disperse Carbopol®, Methocel®, Opadry®, Avicel®, CMC, xanthan and guar gum, soy proteins, starches, pectin, carrageenan, and other tough hydrocolloids and ingredients

Rotostat®

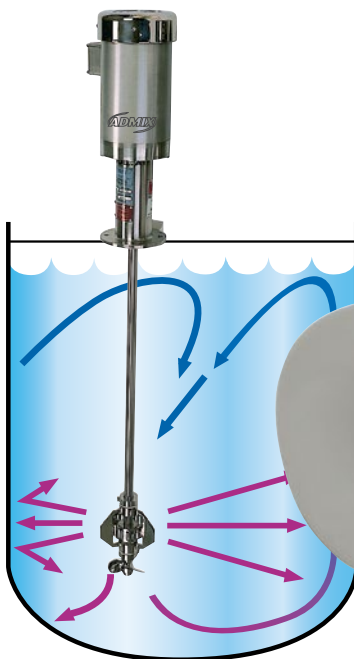
The Unconventional Rotor-Stator High Shear Mixer

Unmatched performance and efficiency

No other rotor-stator mixer provides the optimum shear and pumping rates of the Rotostat. The multi action of the high speed rotor, unique revolving stator and the large lower prop dramatically reduces dispersion and overall mix time to less than 10 minutes for many applications. This combination of mix heads results in lower power consumption and 100% product uniformity throughout the batch. Process viscosity can range from waterlike to over 50,000 cps without requiring auxiliary agitation.

Give your process a boost

- 100% lump-free dispersion, hydration, and emulsification
- Superb emulsion stability for extended shelf life
- Deagglomerate soft and hard particles within 60 seconds
- Easy, accurate scale up from benchtop to any production size model with our exclusive Mighty Mix™ parameters



▲ **Flow pattern:**
Blue arrows = flow into the mixing head
Purple arrows = expulsion from the mixing head

Rotostat.com

Rotomixx®

Cost Effective, Reliable Portable Batch Mixer

High Efficiency Impellers and All SS Construction

Rotomixx impellers combine 25+ years of hydrofoil blade technology into three distinct, high performance designs, including our 3-blade Jetfoil, our ultra sanitary J Prop, and our unique wide blade Maxifoil. All are designed to provide up to 200% more flow per horsepower over conventional impellers. Our gearbox, motor, bearing frame, shaft, and impeller are all 316SS. Available as a direct drive at up to 3450 RPM or gear drive down to 235 RPM.

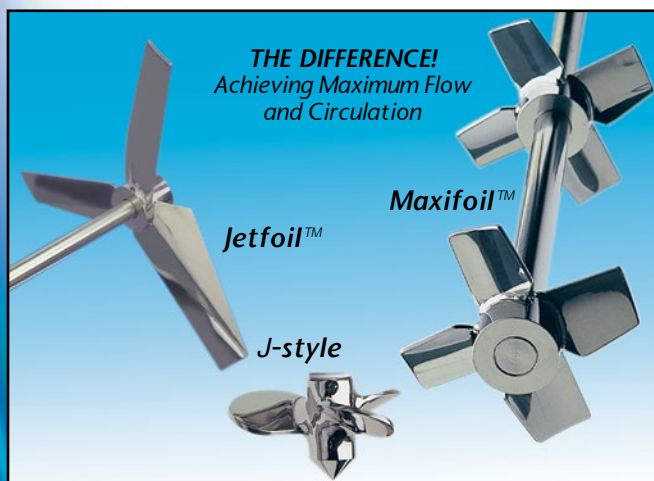
Design Advantages

- Total washdown capability with 3-A TPV (#73-01) compliance
- Superb corrosion resistance compared to other "paint-free" mixers
- Mounting options ranging from heavy-duty clamps to sanitary ferrules/clamps
- Available from 0.5–3 HP for 50–6,000 gallon tanks
- Replaces outdated painted portable mixers
- Validation documentation & factory acceptance testing (FAT) for GMP and FDA requirements

Gear driven models come standard with Jetfoil™ blades which offer a 200% increase in flow per horsepower over conventional pitch blade turbines.

Direct drive models come standard with special wide blade, high volume Maxifoil™ blades, or with custom, machined and threaded J-style props, which are polished and sealed against contamination, but removable when necessary for inspection.

Optional custom impellers and attachment methods are available based on your requirements.



Not all equipment shown meets 3-A compliance



Rotomixx.com

Rotomaxx™ II

High Torque, Right Angle Slow Speed Agitator



Premium 316SS
machined for greater
corrosion resistance

Motors are 300 series
stainless steel

Dual, single-lip seals
provide ultimate
cleanability

The only *all* stainless steel, low speed, large capacity agitator

The robust Rotomaxx II, with right angle helical bevel gearbox, is designed for the most demanding operating environments and stringent CIP, washdown, pressure washing, and steam cleaning conditions.

The modular design allows for multiple shaft diameter, gear ratio, and motor horse power combinations with flex couplings between the motor/gearbox and gearbox/drive shaft to protect the gear drive from shock loads and dampen vibrations while isolating shaft bending moment and deflection loads from the torque loads on the gearbox.

Impeller shaft length
available up to 144"

Jetfoil™ impeller technology
provides 200% greater pumping
rate over conventional axial
blade impellers

Rotomaxx II advantages

- ✓ Tank volumes to 60,000+ gallons
- ✓ Entire unit is designed for total wash-down duty for food, pharmaceutical and cosmetic industries
- ✓ Maintenance-free, greased-for-life, sealed bearings in bearing frame
- ✓ Premium high efficiency, ground helical bevel gearing provides 20-30% more efficient gearing than conventional worm gearing
- ✓ Synthetic food grade lubrication in gear drives
- ✓ Up to 15 HP input
- ✓ Output torque up to 6100 inch-pounds with 1.25 service factor

Rotomaxx.com



Dynashear®

Inline Dual Stage High Shear Mixer / Emulsifier

Designed for continuous processing – 24/7

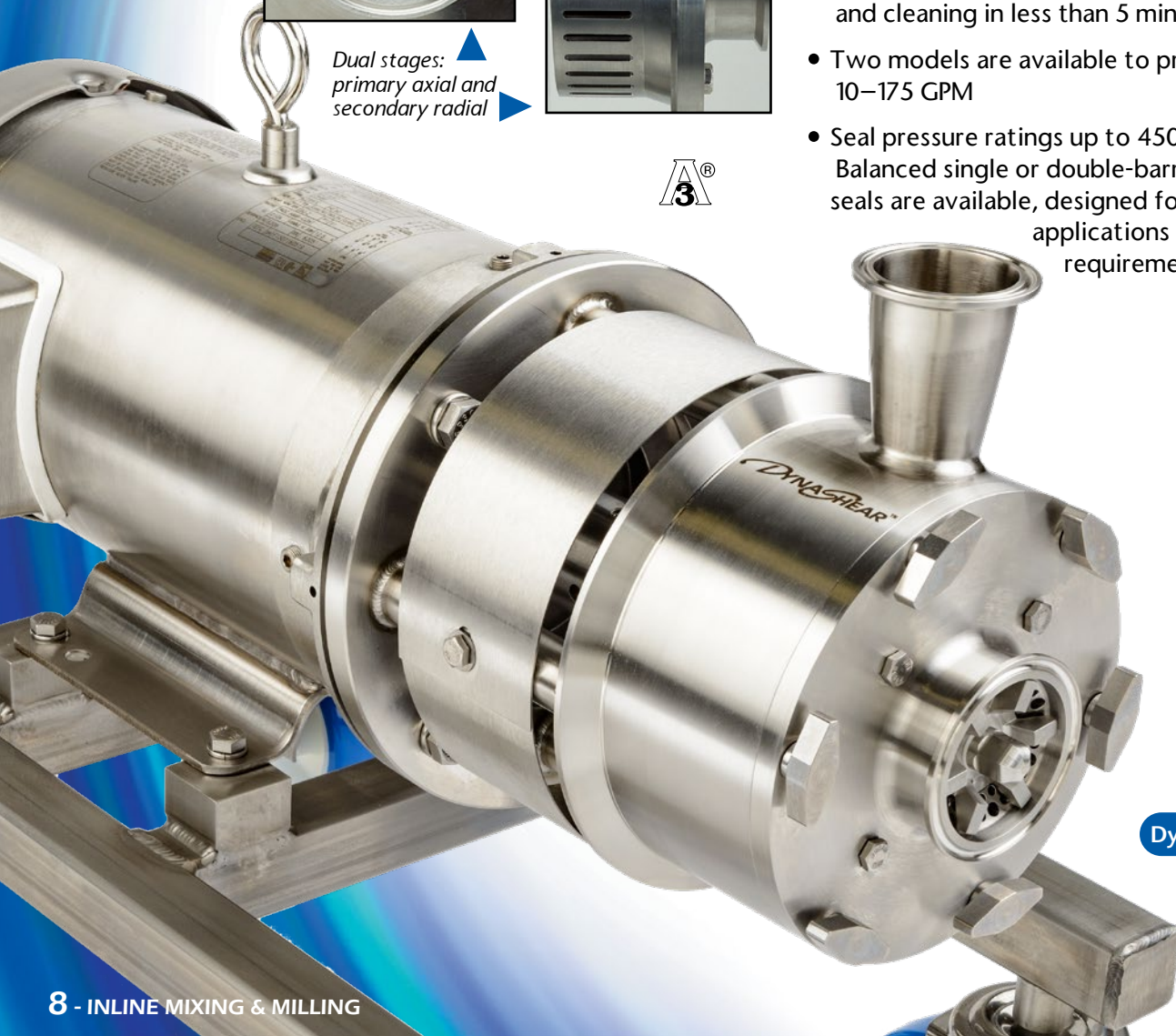
The Dynashear represents the latest technology for sanitary inline continuous processing, or batch processing with recirculation. The Dynashear will blend, dissolve, deagglomerate, disperse, and emulsify a wide range of fluids and semifluids, and is particularly effective for wetting out powders into a liquid. It is the first inline mixer featuring a tandem head design that combines the benefits of both an axial and a radial stage, creating excellent shear and flow characteristics. The result is a processing unit with droplet size reduction capability of 2–3 microns and a very narrow distribution, while providing flow capacities that are substantially higher than existing inline mixers.

Dynashear advantages – making your job easier and faster



Dual stages:
primary axial and
secondary radial

- Total washdown and CIP capability with 3-A TPV (#36-01) compliance
- Low maintenance design for minimum downtime – no bushings, wear sleeves, shims or bearing supports to wear out
- Disassemble and reassemble for inspection and cleaning in less than 5 minutes!
- Two models are available to process 10–175 GPM
- Seal pressure ratings up to 450 psi @ 400° F. Balanced single or double-barrier mechanical seals are available, designed for sanitary applications with CIP requirements



Dynashear.com

Admixer™

Inline Static Mixers and Blenders for Low Shear Processing

100% product uniformity and distribution at any viscosity level

The Admixer excels at processing any combination of miscible fluids regardless of flow rates, viscosity or density profiles. Where laminar flow conditions exist for thick fluids, complete homogeneity is achieved through geometrically precise flow division. In turbulent flow, the Admixer utilizes radial momentum and inertia reversal to eliminate stratification of flow, temperature and all processed materials.

No moving parts, no electrical requirements and easy installation

- Standard 316SS construction with 3-A TPV (#35-04) compliance
- Quick disconnect TriClamp® type ferrules for ease of assembly
- Standard design includes a 30Ra or better finish for elements and housing, with all welds completely ground, blended and polished
- Element assemblies are quickly removable for inspection and COP
- Off-the-shelf stock availability from 1–4" diameter
- Low maintenance and capital costs
- 50-90% less power consumption than mechanical mixers



TriClamp® is a registered trademark of Alfa Laval, Inc.

Ideal for low shear applications

- ✓ Juice thin down
- ✓ Fruit into yogurt
- ✓ Flavors & colorants
- ✓ Tomato sauces
- ✓ Chocolate syrups
- ✓ Vitamins
- ✓ Ice cream
- ✓ Carbonated beverages
- ✓ Create marbelizing
- ✓ Creams & lotions
- ✓ Fragrance blending
- ✓ Jams & jellies

Boston Shearpump®

Inline, High Volume Mixing and Texturizing of Viscous Slurries

The only shearpump with high throughput & adjustable shear capability

The Boston Shearpump is comparable to other shearpumps with the distinct advantage of substantially higher throughput and moderate to high shear rates, all provided within a 3-A TPV (#36-01) compliant, easy to clean-in-place design.

The Boston Shearpump is ideal for mixing solids or powders into viscous liquids that typical high shear mixers cannot handle. It is excellent for special mixing requirements where “texturizing” of high solids is needed, such as refried beans, cream cheese, salsa, processed cheese slices, mashed potatoes, pharmaceutical preps, polymers, detergents, and more. Where conventional shearpumps are only capable of 30 GPM, the Boston Shearpump is available in models for a flow range from 10–150 GPM.

Multiple specific purpose shear heads provide ultimate flexibility

- Standard shear head grades include coarse, medium, and fine
- Special purpose heads available for texturizing and blending without damaging or altering solids and desired consistency
- Model BSP24C standard with 7.5 HP motor, a 2” inlet and outlet, 10–30 GPM flow range, and our exclusive single mechanical quench seal rated for 700 psi
- Model 60C standard with a 25 HP motor, a 3” inlet / 2” outlet, 30–150 GPM flow range, and our exclusive single mechanical quench seal rated for 700 psi



▲ Shearpumps available with coarse, medium, fine, or other special purpose heads

BostonShearpump.com



Boston Shearmill™

High Intensity Wet Milling, Homogenizing, and Particle Reduction

Outperforms inline mixers, conventional shearpumps, and colloid mills

The Boston Shearmill is our ultimate machine for providing high to extreme shear rates and tip speeds for maximum droplet and particle size reduction. It can mill soft particles down to <1 micron, or hard particles down to 1-2 microns, often in just a single pass at high production rates. The Boston Shearmill often replaces colloid mills and homogenizers where submicron processing is not necessary.

Existing installations include tomato paste enhancement and standardization, ketchup and mustard production, salad dressings, mayonnaise, pet foods and treats, soups, sauces, flavor emulsions, pharmaceutical preps, polymers and more. All Boston Shearmills are standard with three sets of shear heads (rotor/stator), and each head has two distinct stages for a total of six work zones. This increase in residence time between the stages aids in creating tremendous mechanical and hydraulic energy for applying maximum shear forces into the product.

And specifically designed for mayonnaise and salad dressing production, the Admix MayoMill™ is built off this innovative technology and balances shear rate and flow to optimize product quality and consistency. See how at admix.com/mayomill.

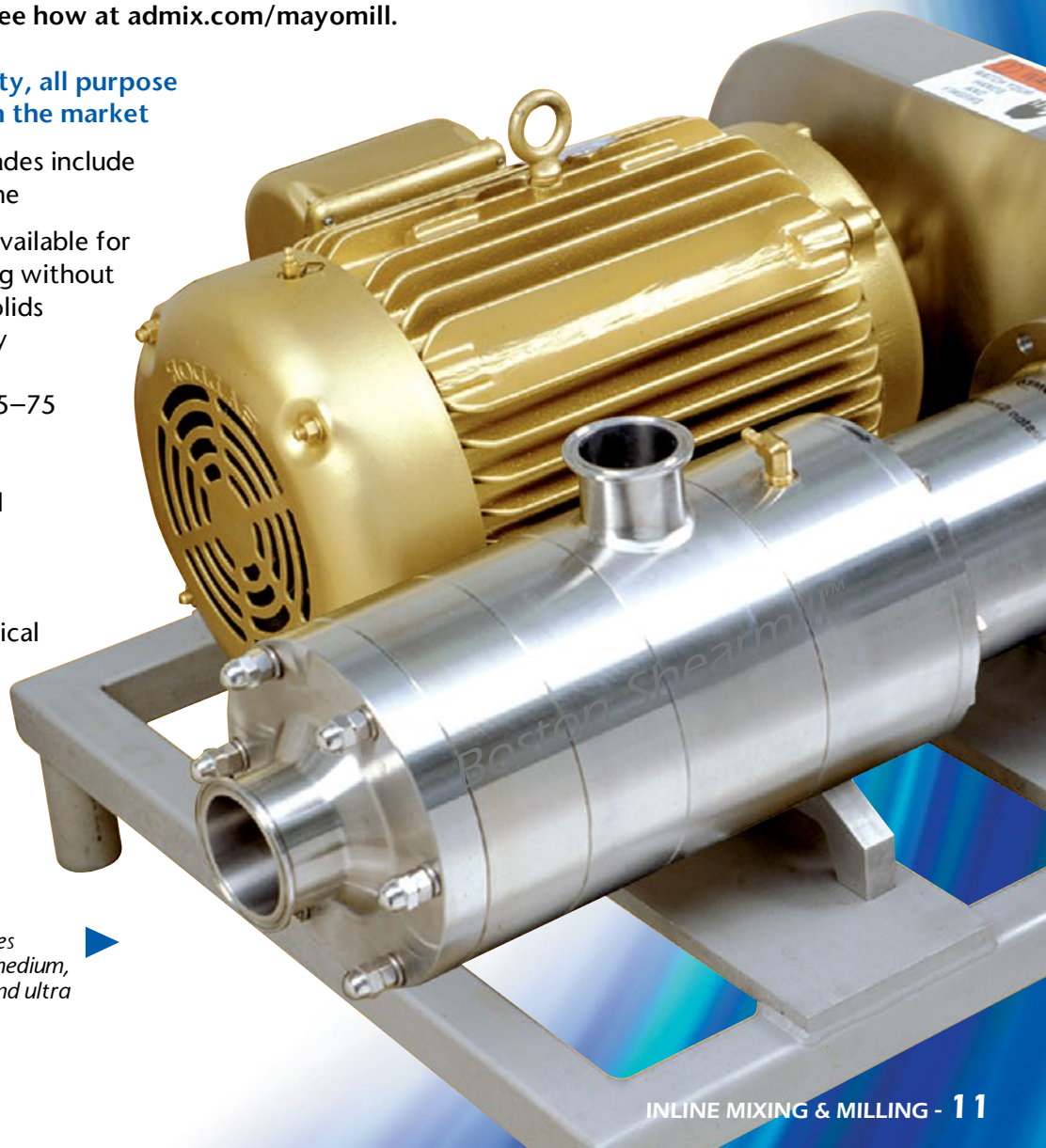
The best built, heavy-duty, all purpose inline milling machine on the market

- Standard shear head grades include coarse, medium, and fine
- Special purpose heads available for texturizing and blending without damaging or altering solids and desired consistency
- Models available from 15–75 HP, providing product throughput from 5–165 GPM depending on feed rate and viscosity
- All models feature our exclusive single mechanical quench seal rated for 700 psi, and comply with 3-A TPV (#36-01) standards



BostonShearmill.com

Shear head grades include coarse, medium, fine, very fine, and ultra fine



Optifeed™ & PIC™ Systems

Ergonomic Atmospheric Powder Induction Technology

Designed to handle higher viscosities and higher powder feed rates

Admix powder induction systems provide rapid introduction and wetting out of dry solids and/or liquid ingredients. The Optifeed OES and PIC Systems can process 50–200 pounds/minute of dry or liquid materials depending upon system settings and process conditions. An integrated control valve enables system setting adjustments, without the need for a trained mechanic, allowing processors to take full advantage of the superior suction capabilities of this powder induction technology.

Process benefits

- ✓ Reduce operator injury
- ✓ Improve product quality
- ✓ Reduce the risk of accidents
- ✓ Increase ingredient functionality
- ✓ Reduce mix times
- ✓ Fast ingredient addition
- ✓ No more wasted ingredients
- ✓ Improve yields

PIC System



OES System



Standard OES system includes a 3.5 cubic foot powder hopper and modular frame at floor level for easy access to load ingredients

Standard PIC system includes a 3.5 cubic foot powder hopper, ergonomic waist-high work table, sanitary powder suction pump, powder valve, vacuum gauge, vacuum regulator valve, control box for pump and interconnecting piping

- ✓ Powder induction capacities up to 200 pounds/minute
- ✓ Viscosity capability of 2,500 cps and 78% maximum solids
- ✓ All 304/316SS construction with CIP capability
- ✓ Optional wand attachment available
- ✓ Integrated sanitary clamps, valves and piping
- ✓ Optional NEMA 4X controls for pump
- ✓ Pre-engineered models for quick shipment

Fastfeed™

Powder Induction & Dispersion Skid System

High performance ergonomic feeding and dispersion of dry ingredients into mix tanks

The Fastfeed is an integrated, skid-mounted inline powder induction and dispersion system using a specially designed powder suction pump and our DynaShear high shear mixing technology for rapid incorporation and wetting out of difficult powders.

The Fastfeed is unlike any other powder induction system, which typically relies on an eductor, venturi, or negative pressure generated by a high-speed mix head. The Fastfeed uses a high performance suction pump that vacuum conveys 3–450 pounds/minute of any powder or solid, including hard-to-handle gums, starches and carbomers. Designed to allow for continuous powder suction even as the viscosity and solids level increase.

Unmatched versatility

- Adjustable powder feed rates with regulating valves
- Produce completely dispersed, uniform product in a single pass on most applications
- Safely dump powder from floor level
- Portable design for easily maneuvering to any mixing area
- Standard hopper vibrator prevents bridging of powder
- Make any size batch (10–50,000 gallons), simply keep the inlet flooded from the mix tank



Lift Stands

Mobile or Fixed Stands with Pneumatic or Hydraulic Operation

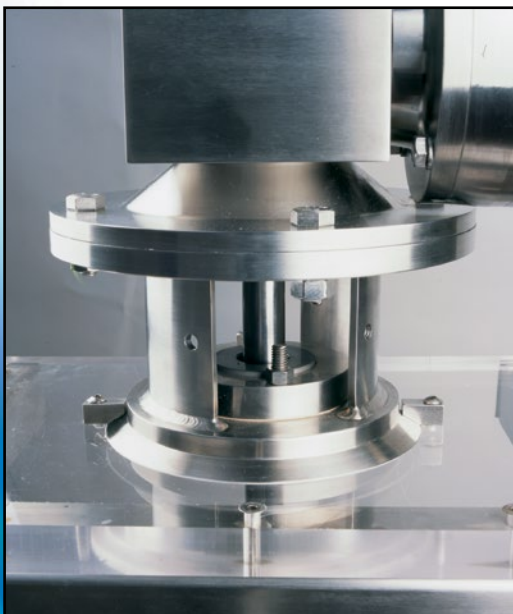
A complete line of lift stands for mounting smaller mixers for mobile tank-to-tank mixing, or wall mounted for using mobile totes and portable tanks



- Standard mobile lift stands available in two models for versatility in clearing tank height while maintaining proper mix head position, maximum lift height of 100"
- Wall stands available in two sizes with a maximum stroke differential of 50"
- Instant height adjustment with pneumatic controls mounted on the stand, or manual slower adjustment with a hydraulic cylinder lift
- All stands constructed of 304SS or carbon steel with white epoxy washdown paint. Lift cylinders are white epoxy, with paint-free and 304SS alternatives in some sizes
- Optional mounting brackets, swivel mounts, controls and materials of construction

Seal Technology

A Complete Series of Flush, Dry Running, Vacuum, and Gas Seals

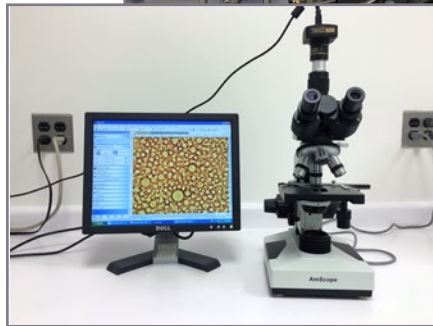


- Double mechanical, water flush cartridge seals for 400 psig or full vacuum at 400°F
- Double mechanical, gas charged seals for high purity pharmaceutical applications. Rated for 100 psig and full vacuum at 300°F
- Single mechanical, dry running cartridge seals for 200 psig at 400°F. Suitable for low speed Rotomixx and RotoMAXX only
- Exclusive single mechanical, high pressure quench seal operates up to 700 psi, and allows for over 100 psi back pressure to increase product dwell time. Suitable for Boston Shearpump and Shearmill
- Sanitary clamp mounted lip seals compatible (4" or 6") to existing ferrules (T or I type)
- Solid 316SS pedestals for 3-A TPV compliance of 4" spacing of mixer drive and tank

Customized Solutions

As a premier manufacturer of hygienic and industrial mixing equipment for over 33 years, we understand your business and are committed to delivering solutions to your toughest mixing challenges.

Our experienced teams can assist you with your formulation and process to improve productivity, maximize yields, and lower ingredient costs by customizing a high-performance mixing system that meets your particular needs.



Control Documentation

Extra Capacity and Cleanability Built into Every Detail

- The mechanical integrity of our mixers and components is evident in their oversized shafting, heavy-duty precision fit bearing frames, high efficiency motors, and easy-to-disassemble cartridge-type seals. These all contribute to reduced downtime and maintenance
- All mixing equipment and components are put through multiple inspections and a final operational testing program with full documentation supplied upon request
- Most products 3-A TPV compliant, ensuring ease in cleaning and servicing
- Outstanding corrosion resistance with 316SS standard on most product lines, including motors and bearing frames, which are typically painted steel with our competitors



Laboratory & Process Support

Your Process Success Starts Here!

Admix recognizes that product development and process justification are critical to the success of your operation, and we are confident we can provide the resources you'll need to solve your toughest mixing challenge and validate your purchase.

Laboratory & Pilot Plant Capabilities

Pre-test and simulate your mixing requirements with free testing and analysis in our 2,500 square foot test laboratory and pilot plant. We invite you to send us samples of your challenging ingredients so we can customize a solution based on our lab testing. We also encourage people to visit our facility for a demonstration of our mixers applied to their process, conveniently located just 5 minutes from the Manchester-Boston Regional Airport.

Our lab is completely equipped to test any formula from two liters to 200 gallons, under precise conditions and strictly in confidence to your specifications. We can demonstrate not only our top entry dispersers and emulsifiers, but also our series of inline high shear mixers and our powder induction and processing equipment.

Comprehensive Scale-Up Techniques

Our scale-up techniques are the most comprehensive in the industry and performance is guaranteed for in 1-2 liter benchtop testing to full-scale production models. Our technical application engineers will provide a summary of the expected process characteristics and results for both the lab and full production batches, up front and in writing before you commit. A video of your test is available upon request.



Analysis instruments available

- Malvern particle size analyzer
- Brookfield viscometer model RVDV-1+ with helipath stand
- Endress+Hauser magnetic flowmeter
- Bostwick consistometer
- Hegman grind gauge
- Accumet pH meter



Customer Service

Employee Owned – Customer Focused

Admix employees bring a unique perspective and attitude to servicing our customers. As a shared ownership company, we know that success is dependent upon your satisfaction when working with us on any inquiry or order. We trust that when you communicate with our employee owners, you sense our enthusiasm and commitment to meet or exceed your expectations.

What is Customer Service at Admix?

- A “live” hello when you call
- Our substantial inventory allowing for overnight delivery of critical components
- Dependable follow-up on every equipment order that ensures you are satisfied with our performance, and that you have received all the documentation, technical guidance and start-up assistance necessary
- A responsive website - admixon.com - providing 24/7 access to technical, application, and service tips
- Our field service team ready to assist with equipment start-up and commissioning
- A comprehensive rebuild program that offers a 48-hour turnaround cycle to refurbish your Admix product
- Factory-trained experts available to provide in-plant training for your maintenance personnel or equipment and process audits



Admix - Your Mixing Technology Partner

We appreciate the investment you make in our mixing, milling and powder induction solutions and want to ensure that Admix is a reliable and responsive resource.

We pledge that partnering with us will be a positive experience and that our continuous improvement efforts and dedication as employee owners genuinely make a difference.



The ESOP Association



Admix is a proud member of the ESOP Association and NCEO

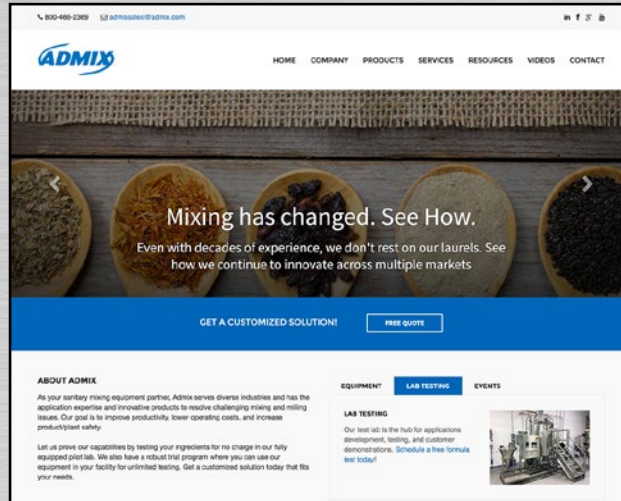
Your Mixing Technology Partner

Are you having trouble mixing these ingredients?

- Alginates
- Aspartame
- Avicel®
- Carbopol®
- Carrageenan
- CMC
- Gelatin
- Guar gum
- Gum arabic
- Lecithin
- Maltodextrin
- Methocel®
- Milk, whey & cocoa Powder
- Modified food starch
- Pectin
- Phosphates
- Salts
- Soy products
- Sucralose
- Sugars
- Syrups
- Xanthan gum

Do these problems affect your operation?

- Fisheyes or lumps
- Floating powders
- Over aerated mixes
- Paint chipping from painted mixer drives
- Clogging filters and strainers
- Unmixed agglomerates
- Severe dusting
- Long mix times
- Inconsistent product quality
- Unstable emulsions
- Cleaning and sanitation problems
- Excessive scrap or rework
- High mixer maintenance costs



Get a customized solution at
admix.com/quote

Here's how Admix can help

- High intensity 1-minute dissolving or dispersing of powders
- 100% product uniformity
- Thorough hydration of gums within minutes - not hours!
- Particle size reduction down to 0.5 microns
- Drastically reduce dusting and aeration
- Pneumatic or mechanical conveying of powders into liquids

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