

ADMIXTURE

The Newsletter of Mixing Technology for Sanitary Processors

VOLUME 6, NUMBER 2

DynaShear™: New Technology for Fast, Precise Continuous High Shear Mixing

Since its introduction in the fall of 1999, the DynaShear has already proven to be a winner with food, cosmetic, pharmaceutical and chemical processors looking to improve the quality of their formulations. Designed as a high speed, high shear mixer and emulsifier for continuous processing, the DynaShear is beginning to set the standards for what an inline mechanical mixer should provide. It is constructed completely of 316SS (internals, housing, shafting, and base), its unique dual stage axial and radial heads provide greater throughput and flow, and the shear rates generated insure droplet and particle size reduction down to 2 to 3 microns with excellent distribution. Applications to date include handling Carbopol®, fruit reduction, pectin, oil emulsions, nonfat dry milk powder, soy, and similar powder/liquid formulas. Some processors are using DynaShear for a single pass continuous mix after powder addition

upstream, while others have found maximum results after recirculating back through a batch reactor for a 3 to 5 minute total blend time.

If you have been using Shearpumps but need additional flow capacity or shear characteristics, DynaShear may be the answer. If your existing batch process with a low speed mixer is taking too long to blend, or is not producing the desired product quality, DynaShear may be the answer. If your existing high shear mixers require too much maintenance and downtime, DynaShear may be the answer.

We invite you to find out how the DynaShear can improve your operation by visiting www.admix.com or by calling your local sales representative (listed on our website), or call our applications team at 1-800-466-2369 to request our informative brochure, or obtain design assistance.



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Admix Product Pick: Rotomixx®

Some customers call them "portable mixers", others refer to them as "fixed mount agitators", while still others may simply call them "small tank mixers". Nearly every mixer manufacturer makes one. Most suppliers only offer the fairly inexpensive painted versions, while some of the larger suppliers offer "all stainless" units for maximum sanitation and USDA/FDA requirements. Admix was one of the first suppliers to offer an all stainless portable mixer, and our Rotomixx has become a leader in

the industry. It is available as a clamp mount "portable" (although the all SS motor and mixer housing weighs in at over 100 lbs on some models making it a little less portable!) It is also available as a fixed mount for flange, nozzle or baseplate installations. We also have an excellent Tri-Clamp® ferrule mount for sanitary easy off installations. Does your existing supplier offer this?

You might think that all stainless means super expensive. This may be true for some of our competitors....not for Admix. Our direct drive, 1750 RPM models start at under \$3000! This is an all 316SS mixer with 304SS washdown motor!! Is it more than painted units? Yes, but you'll save in the long run when you never have to worry about corrosion or flaking. Plus...our unit is more efficient, beefier in design, and looks classy! Check out the table below for a few additional price comparisons, and call your local sales rep for more information if necessary!

Model	HP	SPEED	MOUNT	PRICE
RXDF-100	1.0	1750	Flange	\$2930
RXDC-100	1.0	1750	Clamp	\$3550
RXDS-100	1.0	1750	Sanitary Ferrule	\$3620
RXGF-050	.5	350	Flange	\$4017

Lets Get Technical!

Standards Insure Proper Sanitation

Admix is pleased to be associated with the Sanitary Standards Symbol Administrative Council and its 3A authorizations. Within the last several years, we have purposefully designed all new products or product upgrades to comply with the existing 3A standard for that particular piece of equipment. Four (4) of our six (6) primary products have received authorization under the following standards:

Rotosolver® Approved under Section 73-00
 Rotomixx® Approved under Section 73-00
 Admixer™ Approved under Section 35-00
 DynaShear™ Approved under Section 35-00

What this means to our customers is that you are utilizing a piece of equipment that has design features built into it assuring ease of cleaning and maximum sanitation capability. All four of the Admix mixers listed can in fact be cleaned-in-place (CIP) if required. Section 73-00 also insures that if the mixer is to be tank mounted, that proper installation and clearances are necessary to meet 3A requirements. Paragraph D11.1 states that the mixing device shall have a 4" opening between the mixer mounting and the tank opening, providing an access way to view and/or service any leakage from the mixer drive. In addition, a slinger or umbrella shield mounted on the shaft is necessary within this opening to cover the opening into the tank. The spacing between the umbrella shield and the drive must be at least 2 inches. The same specification also calls for a minimum one-inch annular clearance between the shaft and the opening into the tank. There are of course other requirements for compliance with this specification, and if you would like a copy of either Spec # 73-00 or 35-00, these are available by going to the 3A website at www.3-a.org and ordering either a hard copy or PDF file from the site.

If a Rotosolver or Rotomixx is to be purchased from Admix and installed into an existing or new tank not supplied by us, it is necessary to insure that all 3A requirements are fulfilled relative to the vessel or tank. Admix can assist on this to insure compatibility and compliance.

Admix maintains certificates for all of the authorized products and we would be pleased to furnish a copy for your files if needed.

Your Mixing Technology Partner For New Ingredients

It seems that every day we receive calls from customers and prospects asking if we have experience with a particular food, cosmetic or pharmaceutical ingredient. We have worked with over 100 different ingredients which may be found within a prepared food product, a cosmetic or personal care formulation, a pharmaceutical preparation and a host of other products. Ingredient technology has been very dynamic over the past 5 years, and continues to bring new challenges to formulators and equipment suppliers alike. The majority of our mixing technology focuses on two phase mixing of

a solid (powder) into liquids, creating either a dispersion, emulsion, suspension, hydration, deagglomeration, gel, or similar state. We maintain an extensive testing database for both in-house testing and field reports as they become available. The following table provides a short list of some of the more popular ingredients that you may be using. We can help you resolve the typical mixing problems that these ingredients can create. Let us be your mixing technology partner and remove the uncertainty associated with ingredient mixing!

Admix Team Members



Within each quarterly issue of the Admixture, we acknowledge the efforts of our employees who are helping to make Admix the leader in Sanitary Mixing and Blending.

David Wenzel (Product Manager) has over three years experience in high shear mixing and processing, and focuses on our DynaShear and VacuShear products. David is also our powder conveying and feeding guru with our Optifeed and Fastfeed eductors.

Scott Griffith is our Technical Services Manager, and supervises all activities in our lab, product development and test programs. With a Food Science Masters and 5 years Admix experience, Scott has the hands on ingredient expertise to resolve your mixing problem.



Your Mixing Technology Partner

ARE YOU HAVING TROUBLE MIXING THESE?

- Alginates
- Carrageenan
- CMC
- Gelatin
- Guar Gum
- Gum Acacia
- Gum Arabic
- Lecithin
- Maltodextrin
- Methocel
- Modified Food Starch
- Pectin
- Phosphates
- Salts
- Soy Proteins
- Sugars
- Syrups
- Xanthan Gum

ARE THESE PROBLEMS AFFECTING YOUR OPERATION?

- Fish Eyes
- Floating Powders
- Over Aerated Mixes
- Paint Chipping From Painted Surfaces
- Clogging Filters And Strainers
- Unmixed Agglomerates
- Severe Dusting
- Long Mix Times
- Inconsistent Product Quality
- Unstable Emulsions
- Cleaning/Sanitation Problems

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!
- Drastically Reduce Dusting and Aeration
- Pneumatic or Mechanical Conveying of Powders into Liquids

What's New at Admix...



Recently introduced literature and technical reports includes an article published in **Processing's** Mixing Handbook 2000 "High Shear Mixing Advances for Foods, Pharmaceuticals & Cosmetics", a recent Admix technical report entitled **How to Succeed with Mixer Scale-Up**, and the **Admix Primer on Beverage Blending and Mixing**. Please call or email us for copies of any of these publications.

Contact Our Experts

Admix has applications experts available to answer any and all of your Advanced Mixing Technology needs.

Call anytime:
Tel: 603-627-2340 or
1-800-466-2369
Fax: 603-627-2019
www.admix.com



Brian Gehrke (left), senior vice president of engineering, A&B Process Systems, and Peter Leitner, national sales manager, Admix, accept an Achievement Award for the VacuShear Liqui-Processor.



Field Report

Admix wins the 1999 Food Processing Award in the Processing Technology Category!

Admix captured this award with the VacuShear Sanitary Vacuum Liqui-processor, a partnership between Admix and A & B Process Systems of Stratford, Wisconsin. For more information, call for a copy of our last Admixture or VacuShear brochure, or visit www.vacushear.com.

Visit us at the International Expo for Food Processors (IEFP) in Chicago



Admix will be exhibiting its full line of sanitary mixing equipment including our recently introduced DynaShear In-line High Shear Mixer. All of our 3A authorized products will be on display, including the Rotosolver, Rotomixx and Admixer inline static mixer. **Call us for a FREE Registration form!** In addition, our VacuShear partners, A & B Process Systems will be adjacent to us, and we will have a full size VacuShear Vacuum Liqui-Processor along with a complete powder conveying and feed system. Booth #7060-A & 7060-B

Register for your free New Hampshire Maple Syrup!

We want to keep you informed, and need to keep our mailing list as current as possible...but we don't want to bother you if you do not find this publication useful! If you wish to keep receiving our newsletter, please register with us online at www.admix.com and receive a delicious container of 100% pure New Hampshire Maple Syrup! If you don't register, your name will be dropped at year-end. So...fire up your modem to register...and then fire up your griddle to make those blueberry pancakes to enjoy our syrup (or your choice of other gifts)! Or call us at 800-466-2369 to request future issues.



Advanced Mixing Technologies

234 Abby Road
Manchester, NH 03103

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container of
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