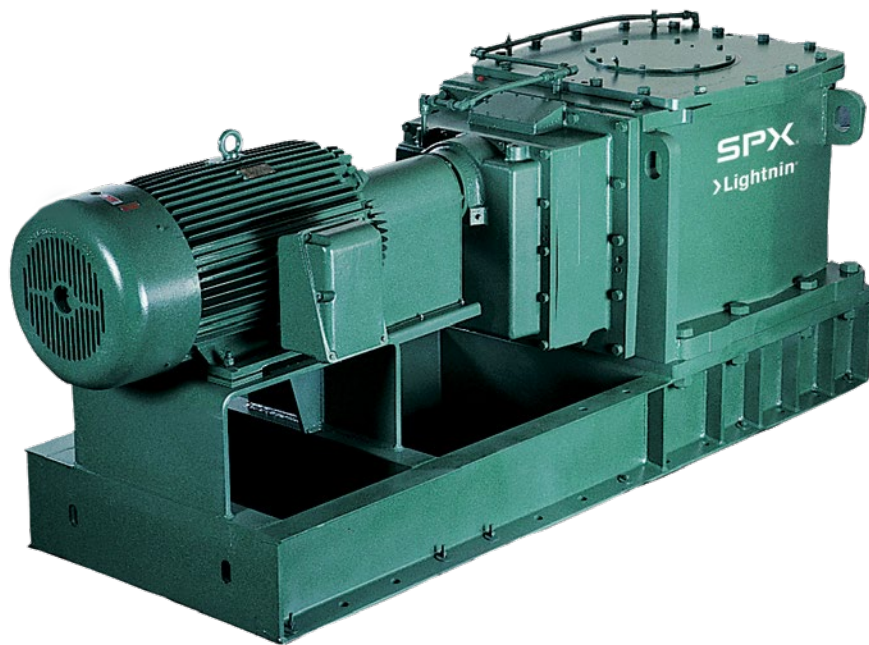


Series 700/800 Mixers

HEAVY-DUTY STANDARD DRIVE MIXERS



A World Leader in Industrial Mixing since 1923, Lightnin has 90 years of unrivaled experience in industrial mixing technology, process knowledge, and technological innovation. Lightnin enjoys a global reputation for durable, long-lasting mixers, agitators, aerators, and flocculators for fluid process systems. We offer a full spectrum of impeller designs for diverse applications. In addition, we offer a worldwide service network, mixer repair, gearbox repair, and replacement parts programs. Look to Lightnin for knowledge, technology, and service excellence.

SPX FLOW, Inc. (NYSE:FLOW) is a leading manufacturer of innovative flow technologies, many of which help define the industry standard in the market segments they serve. From its headquarters in Charlotte, North Carolina, it operates a sales and support network, centers of manufacturing excellence, and advanced engineering facilities, throughout the world. Its cutting-edge flow components and process equipment portfolio includes a wide range of pumps, valves, heat exchangers, mixers, homogenizers, separators, filters, UHT, and drying technology that meet many application needs. Its expert engineering capability also makes it a premium supplier of customized solutions and complete, turn-key packages to meet the most exacting of installation demands. Incorporating many leading brands, SPX FLOW has a long history of serving the food and beverage, power and energy, and industrial market sectors. Its designs and engineered solutions help customers drive efficiency and productivity, increase quality and reliability, and meet the latest regulatory demands. In-depth understanding of applications and processes, state-of-the-art Innovation Centers, and advanced pilot/testing technology further assist in optimizing processes and reducing timescales to reliably meet production targets. To learn more about SPX FLOW capabilities, its latest technology innovations and complete service offerings, please visit www.spxflow.com.

The Biggest, Heaviest Duty Standard Drives Made Specifically for Mixing

We gave this series the capacity to drive long overhung mixer shafts without steady bearings. We gave it the stamina to withstand severe bending and high-torque loads imposed by fluid forces in the tank. And that's something you can't expect from the large general purpose drives not designed for mixing, which others use. We make shafts for 700/800 mixers larger and stronger. We size the bearings far in excess of AGMA requirements. We conduct extensive research to document the limits of shaft and impeller performance under all service conditions.

As a result, you get longer service life with less maintenance. You get our performance guarantee. You get a mixer with an enviable track record, written by the thousands of 700/800 mixers produced in our state-of-the-art plant. You'll find our 700/800 mixers atop huge fermentation tanks in pharmaceutical production and in all manners of large scale chemical processing. You'll also find them in the dust and rock of minerals processing, as well as in the heavy sludge of waste treatment. Series 700/800 come in five case sizes, covering the range from 18.5kW to 1000kw (25HP to 1250HP). Both double and triple reduction drives are available, covering the full range of standard AGMA speeds from 230 rpm down to 11.4 rpm.

PRODUCT BENEFITS AND FEATURES

- **Full Spectrum of Impellers to Optimize Results:** Included are the A310 for flow-controlled applications, the A320 for high-viscosity requirements, the A315 for handling gas alone or gas and solids together, as well as the A6000 for applications requiring the special benefits of composite construction.
- **Guaranteed Performance:** Together, we design your rugged 700/800 mixer, selecting impeller type, shaft length and other specifications to optimize process results. Then, we guarantee your Lightnin Mixer to perform the job for which it is recommended.
- **Tested 100%:** Every large Lightnin mixer drive is tested under load on an advanced dynamometer. Test check gear contact patterns, noise readings, thermal data and lubrication. We welcome you to watch us test your mixer. Our goal always: Deliver factory-assembled, ready-to-go packaged units with interchangeable parts that will provide you the most efficient performance at the best possible cost.

HIGH-EFFICIENCY IMPELLERS TO MATCH YOUR PROCESS NEEDS:



A510: General Purpose

New laser-designed impeller delivers true axial flow, high flow-per-horsepower, and can be custom-fit to your application.



A315: Gas-Liquids-Solids

Improves yield by up to 50% in shear-sensitive processes such as fermentation. The A315 is the optimum impeller for applications involving mass transfer and solids suspension.



A320: High-Viscosity

Fluid foil design reduces blend time by half and delivers better axial motion for 50% power saving compared to conventional pitch-blade turbines.



A6000: Low Viscosity

For flow-controlled applications in hostile environments. Maintains flow and reduces power to 45% of conventional pitched-blade impellers. Structural composite is lightweight and extremely resistant to corrosion.

THEORY OF OPERATION:

Features available on units up to 1000kW (1250HP)

Flex Protection

Gears in all 800 series units like this one are protected from mixer shaft bending loads by the Lightnin hollow quill flex protection. Quill and shaft mixer are mounted on separate bearings. A torsionally resilient coupling transmits power from quill to mixer shaft, while isolating gearing from shaft flexure.

Splash Lubrication

On sizes up to 783/883, gears dipping in an oil sump provide a constant flow of oil to all surfaces.

Covered For Safety

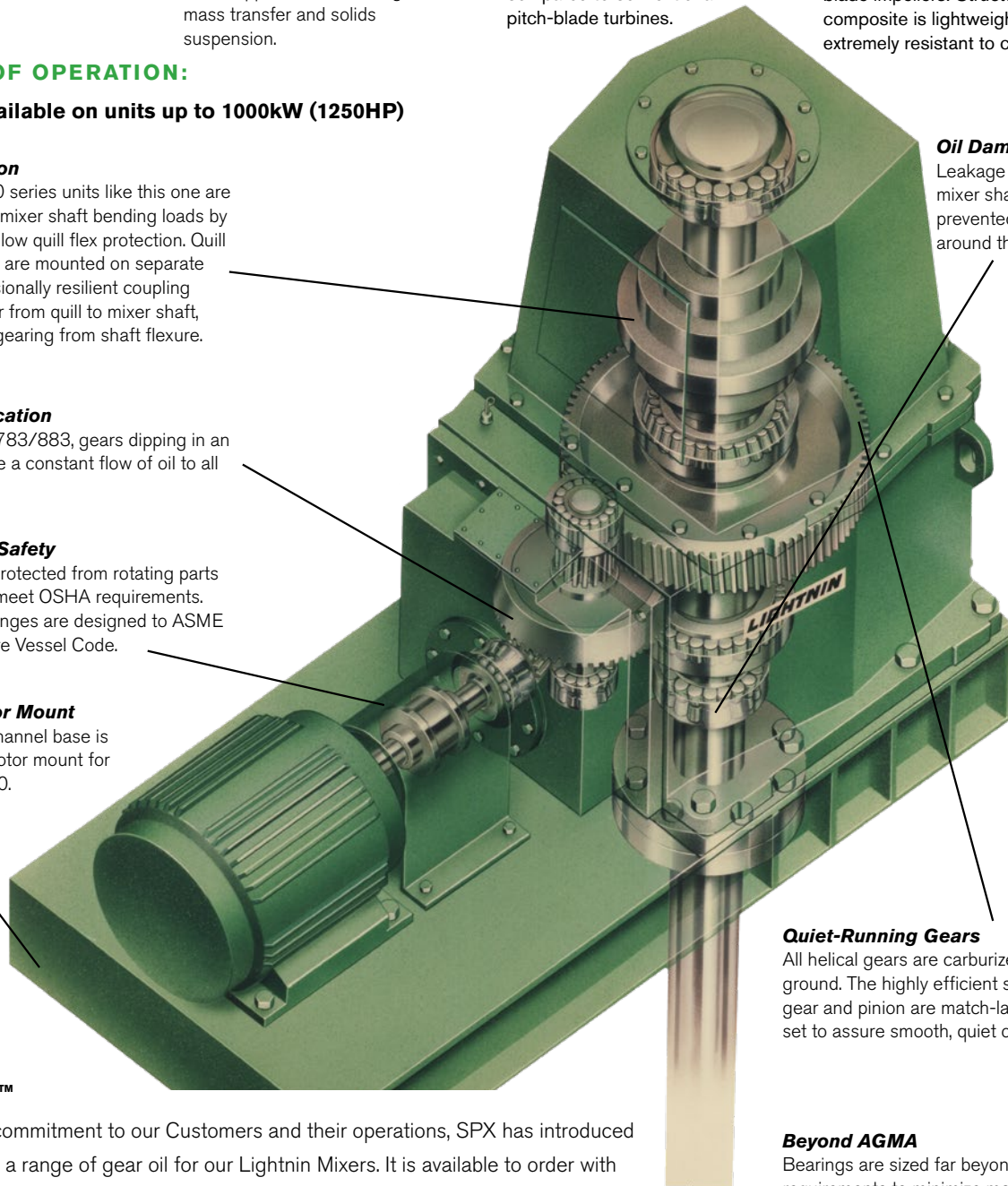
Personnel are protected from rotating parts by guards that meet OSHA requirements. All mounting flanges are designed to ASME Unfired Pressure Vessel Code.

Rugged Motor Mount

A heavy-duty channel base is the standard motor mount for Series 700/800.

Oil Dam

Leakage down the mixer shaft is positively prevented by an oil dam around the quill shaft.



Quiet-Running Gears

All helical gears are carburized and ground. The highly efficient spiral bevel gear and pinion are match-lapped as a set to assure smooth, quiet operation.

Beyond AGMA

Bearings are sized far beyond AGMA requirements to minimize maintenance and provide long service life.

LightninLube™

As part of our commitment to our Customers and their operations, SPX has introduced LightninLube™, a range of gear oil for our Lightnin Mixers. It is available to order with your new equipment or as a maintenance item throughout the life of your equipment. LightninLube is manufactured to AGMA Standard 8005-D94. Our synthetic oils are designed to give you a wide operating range and are available in ISO 100, ISO 150, ISO 220 and ISO 320 grades.

Contact our Service department or your Sales Representative to discuss your needs.

Series 700/800 Mixers

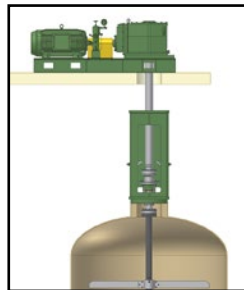
**HEAVY-DUTY STANDARD
DRIVE MIXERS**

SPXFLOW

SUPPORT FOR HEAVY MIXERS

Large Series 700/800 mixers are optimally supported independently from the mixing tank. Mixers of closed tank configuration can be mounted on their own beams or on the plant floor above the tank. Either way, only a separate seal or stuffing box need be mounted on the tank and supported by it.

Mounting on upper floor. Note how hydraulic lifts can simplify servicing the seal.



TECHNICAL SERVICES

With more than 90 years experience in the manufacture and supply of agitation equipment, we know what parts need to be on hand to support our customer base so that your downtime is minimized. The Lightnin brand after sales support teams are on call to offer advice, support on-site installation and commissioning, servicing of equipment, or supervise and train your maintenance staff in best practice care of equipment.

SERVICE SUPPORT & REFURBISHMENT

The equipment audit is specifically designed to identify potential mechanical problems before they occur. Using many forms of modern technology and drawing on our mixer manufacturing experience, our technicians can identify the onset of bearing and gear failures, misalignment and system problems without the need to interrupt production. Factory gearbox exchange and refurbishment programs offer a fast and cost-effective route to extending equipment life.

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Design features, materials of construction, and dimensional data, as described in this bulletin, are provided for your information only and should not be relied upon unless confirmed in writing. Please contact your local sales representative for product availability in your region. For more information, visit www.spxflow.com.

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www.spxflow.com/lightnin/contacts/where-to-buy/
or use your SmartPhone and the QR Code.

