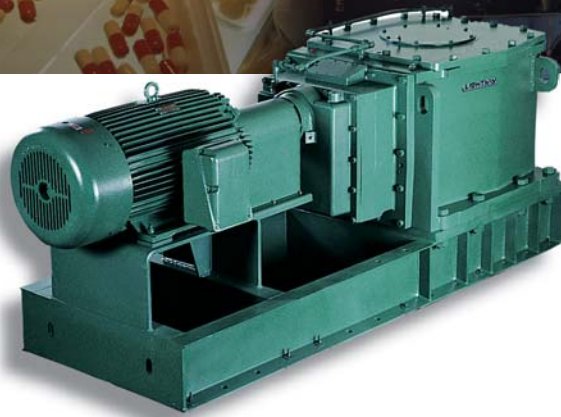


**LIGHTNIN**

AN SPX BRAND

# Series 700/800 Mixers

## LIGHTNIN Super Powers



**SPX**®

# The Biggest, Heaviest Duty Standard Drives Made Specifically For Mixing

## LIGHTNIN Series 700/800

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 25 through 1250 hp. Both double and triple reduction drives are available, covering the full range of standard AGMA speeds from 230 rpm down to 11.4 rpm.

## 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.

## 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.

## 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.

## High-efficiency Impellers to Match your Process Needs



### **A310: 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.



## LIGHTNIN Series 700/800

Features available on units up to 1250 hp.

### **Flex Protection.**

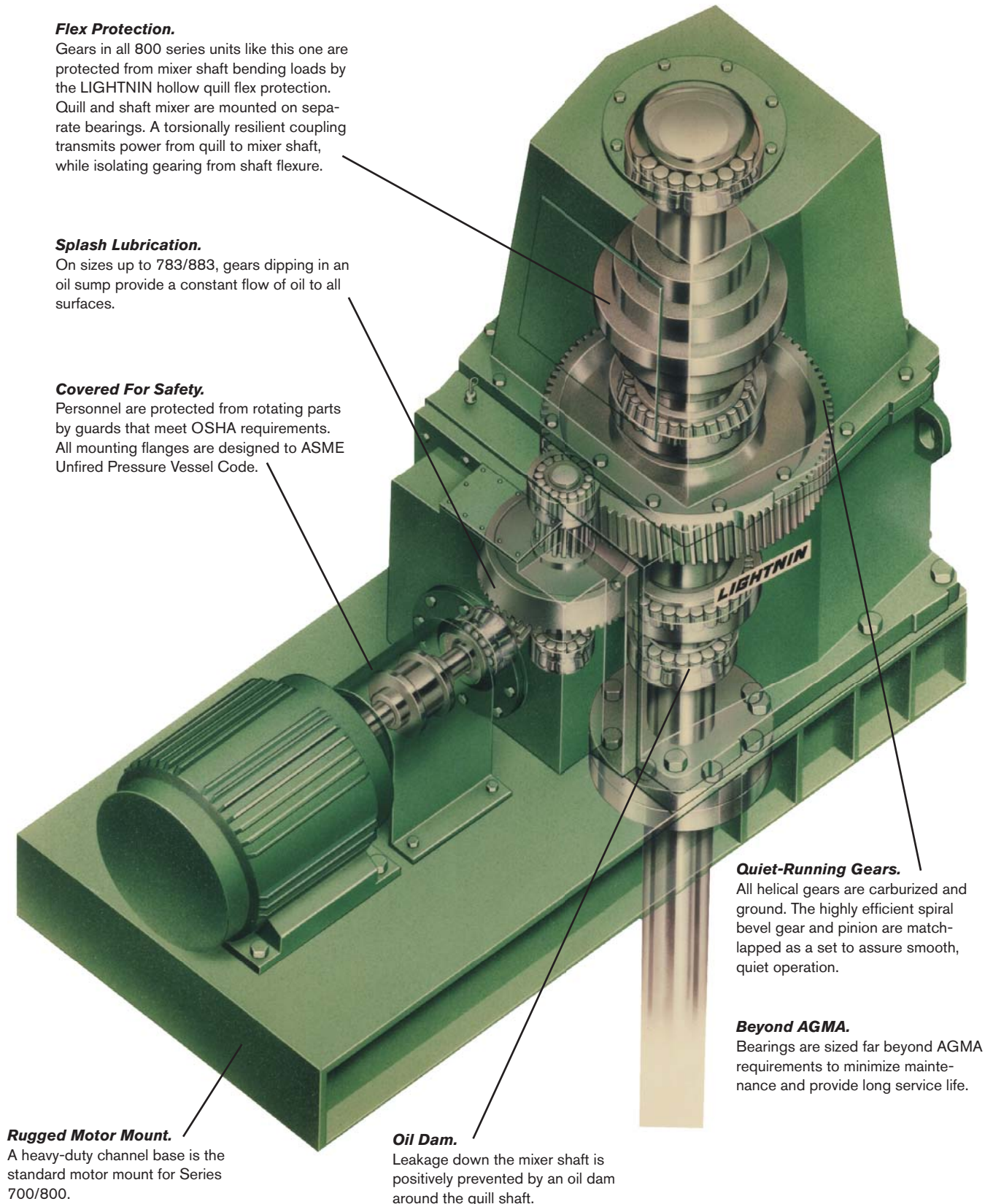
Gears in all 800 series units like this one are protected from mixer shaft bending loads by the LIGHTNIN hollow quill flex protection. Quill and shaft mixer are mounted on separate bearings. A torsionally resilient coupling transmits power from quill to mixer shaft, while isolating gearing from shaft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

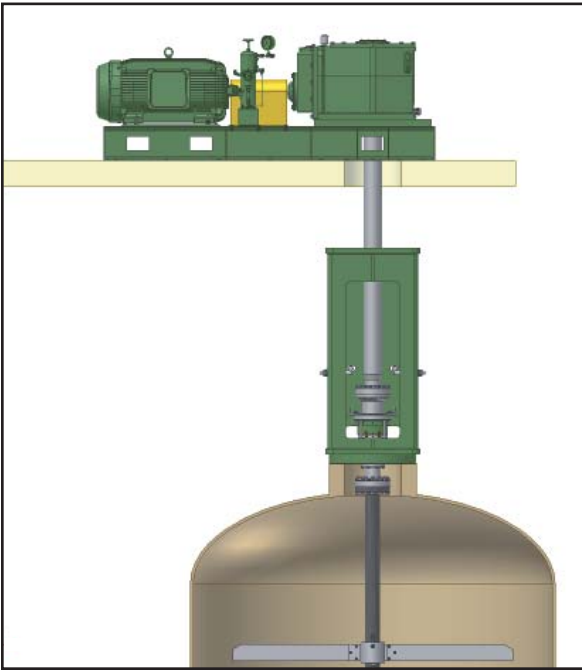
### **Quiet-Running Gears.**

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.

## 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.

## Service

SPX Process Equipment Services

- Repair Services
- Equipment Services
- PM/PDM Services
- Additional Services
  - Installation and Startup
  - Maintenance and Repair
  - Asset Management

For 24-hour response, call 1-888-MIX-BEST  
(U.S. and Canada)

## Call the SPX Process Equipment Experts

For more information about the LIGHTNIN 700/800 Series Mixers or to discuss your application, contact your local SPX Process Equipment Sales Representative.

Or visit our website at [www.spxpe.com](http://www.spxpe.com).

Or call 1-888-MIX-BEST (U.S. and Canada)

# SPX®

## PROCESS EQUIPMENT

Your local contact:



SPX Process Equipment, LIGHTNIN Operation  
135 Mt. Read Blvd., Rochester, NY 14611  
Phone: (888) 649-2378 (MIX-BEST), (U.S. and Canada) or +1 (585) 436-5550  
E-mail: [LIGHTNIN@spx.com](mailto:LIGHTNIN@spx.com)

For more information about our worldwide locations, approvals, certifications, and local representatives, please visit [www.spxpe.com](http://www.spxpe.com).

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