Series 500/600 Mixers - Designed for rugged, dependable service

The Lightnin Series 500/600 mixers offer the features and flexibility you want, so you’ll never have to buy more mixer than you need. For basic mixing applications, standard Series 500/600 mixers provide rugged, dependable service without having to pay for options you don’t want or won’t use. For more complex applications, Series 500/600 mixers have a host of options to help you tackle the most difficult processes. You and your Lightnin sales engineer will simply select the impeller, motor, gear drive and seals that best meet your unique mixing needs.

**SIMPLICITY**
Series 500/600 mixers feature fewer parts, resulting in simpler maintenance than other mixers. The integral open-tank mounting base is bolted directly to the mounting surface without the need for a separate mounting plate. All mechanical seal options are interchangeable for easy upgrade, and the Series 600 S includes a shaft coupling that allows seal change without removing the gear drive. Seal options cover a wide range of pressure and temperature requirements for wet- and dry-running applications.

**EFFICIENCY**
A wide selection of high-efficiency impeller types lets you pick the one that best fits your process. The robust rigid shaft connection means a larger effective upper shaft diameter for longer shaft length with no bottom steady bearing. Drive design accommodates English or Metric mixer shafts, mechanical seals and NEMA or IEC motors.

**RELIABILITY**
Time-tested, case-hardened gearing and all-ductile iron castings give Series 500/600 mixers unsurpassed strength and durability. Large bearings provide years of trouble-free service. An innovative dry-well design ensures no oil leakage even under the worst conditions. All Series 500/600 mixers are manufactured in Lightnin plants that are certified to ISO 9001 standards and come with Lightnin’s 100% process guarantee.

**VALUE**
By selecting only the features you need for your unique process, Series 500/600 mixers deliver the best value for initial cost and total cost of ownership.
**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.

**THEORY OF OPERATION:**

**Model 500-Q**

Case carburized and ground helical gearing for long life

Case carburized and match-lapped spiral bevel gearing for long life

Optimum bearing spacing/size for maximum lower shaft length and bearing life

Choice of C-flange, foot-mounted, metric D-flange motors

Ductile iron cast housing and pedestal optimizes strength and stiffness

Patented rigid shaft construction for longer allowable shafts to reach into deeper tanks without steady bearings

Innovative shielded dry well prevents oil leaks

Case carburized and match-lapped spiral bevel gearing for long life

Numerous seal options - lubricated, dry-running, gas lift-off, single or double - cover a wide range of pressure and temperature combinations

All seals have the same flange bolting dimensions, making them interchangeable for easy upgrade in the case of a process change

Removable coupling simplifies seal change out

Slotted pedestal accommodates seal lube lines

**OPTIONS:**

**Series 500/600**

Series 500-Q is for open tank installations.

Series 500-C is a low profile stuffing box unit for low cost sealing of tank contents.

Series 600-S is for mechanical seal applications. Seals can be changed without removing the gear drive.

**Model 500-Q**

**Model 500-C**

**Model 600-S**
TECHNICAL SERVICES

The dedicated Lightnin brand after sales support teams are on hand to offer advice and support. 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. Our team of highly experienced field service technicians is on call to support the on-site servicing of equipment, or supervise and train your maintenance staff in best practice care of equipment.

INSTALLATION AND COMMISSIONING

Proper installation of your Lightnin mixer is critical to its long term performance and reliability. To ensure that installation procedures are followed, a certified technician will:

- Audit the equipment
- Supervise job-site contractors
- Perform a final inspection

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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SPX FLOW, Inc. reserves the right to incorporate our latest design and material changes without notice or obligation.

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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