



Tubular-LM™ Low Maintenance
Motive Power Industrial Batteries
for Lift Truck Classes I, II and III



Tubular-LM Low Maintenance Batteries

Superior Design Delivers Daily Savings

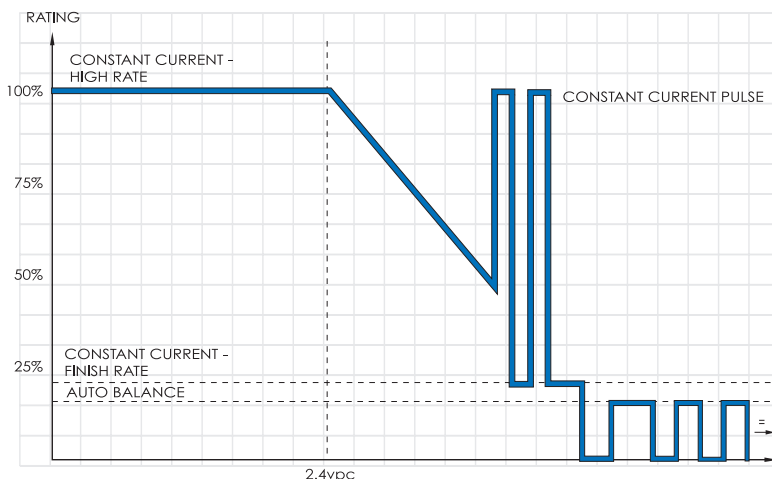
GNB® Industrial Power Tubular-LM Batteries Are:

- Designed to deliver consistent, reliable power using round tubular positive plate technology
- Designed to achieve 1800 cycles when operated to 80% Depth of Discharge (DOD)
- Designed with a low antimony positive grid to minimize gassing during charging
- Able to achieve a 45-day or 90-day watering interval (depending on the type of charger used)
- Available in three different model options to meet a variety of customer requirements from low cost to minimum maintenance
- Available in 85 and 125 Ahr positive plate sizes that result in battery heights of 22.63" and 30.5", respectively
- Approved for Fast Charging applications
- Warranty - See document GB4015

Chargers with I-W-P Profile Maximize Your Investment

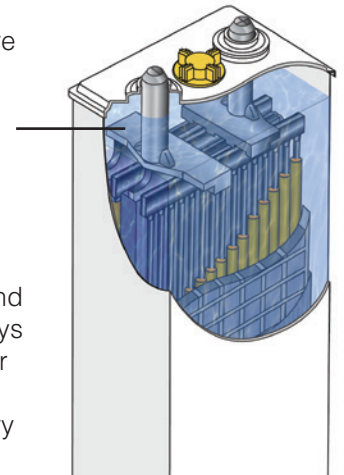
Superior Performance

- An advanced charge profile used for the Tubular-LM Gold and Platinum series batteries applies pulses of constant current to the battery during the constant power phase, which circulates the electrolyte within the cell to minimize stratification without excessive gassing
- The Tubular-LM advanced I-W-P profile optimizes amp-hour return, creating a highly efficient recharge



Designed to Achieve a 45-day or 90-day Watering Interval*

A new plate design provides over 70% more electrolyte headspace. This increased headspace, combined with low antimony positive grids and an optimized charging profile, reduces water loss during charging and translates into more days of run time before water addition (versus typical flooded flat plate battery designs).



* Based on 1 cycle per day (80% discharge) and 5 days per week operation

Multiple Options To Suit Your Need

- **Standard** – lowest cost for locations with dedicated battery managers, 45-day watering interval with the use of any charger with an I-E-I profile or 90-day watering interval with the use of a GNB charger with the advanced I-W-P charging profile
- **Gold** – Standard Option plus an electrolyte level sensor and a single point watering kit suitable for most water supply pressures; greatly reduces battery watering time
- **Platinum** – Gold Option plus a maintenance package that includes watering*, an annual battery inspection, cleaning, and routine maintenance adjustments. A cost effective option for locations that don't want to worry about battery maintenance

*Number of waterings depends upon charger type and battery usage.

Advanced Tubular Cell Design...

Vent Cap

- 1/4 turn, bayonette-style easy removal pattern saves time

Plates

- Tubular positive plate with non-woven gauntlet for reduced shedding and increased active material surface area
- Flat negative plate with dense paste formula and bottom boot for enhanced shorting protection

Separators

- Porous, polyethylene Sheet separates each plate
- Protect the plates and minimize shorting due to plate growth

Lifting Ears

Integral to the tray

Cell Jar

Polypropylene for strength and durability

Bridge

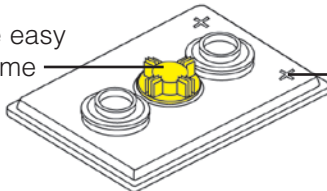
- Sediment bridge supports the plates, decreases the risk of shorting, and extends cell life
- Self-leveling

Tubular-LM batteries give you the freedom to choose the best level of power, performance, and reduced maintenance for your medium to heavy duty lift truck applications.



Intercell Connector

- Solid, one-piece, burn-on lead design provides excellent current carrying capabilities



Jar Cover

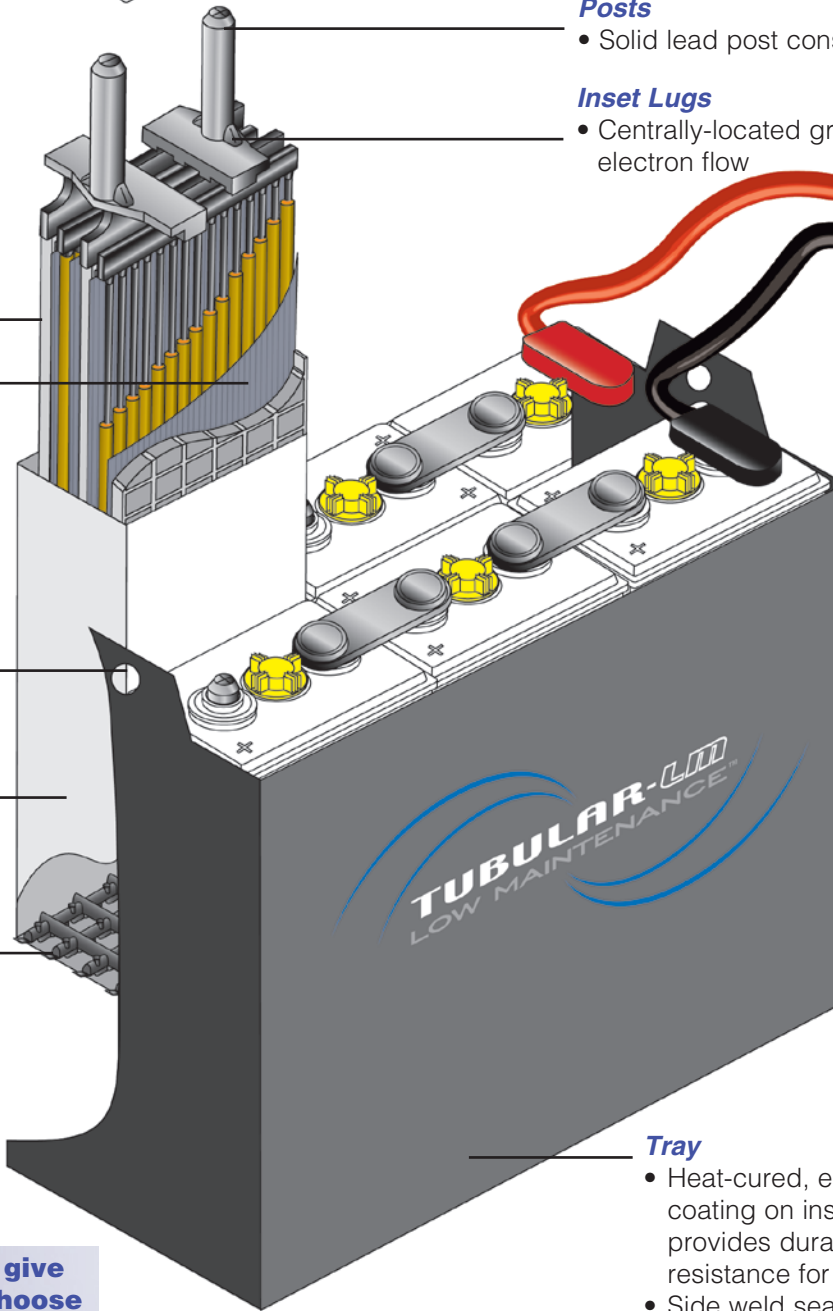
- High integrity thermo-bond seal for leak protection
- Features a rubber grommet post seal

Posts

- Solid lead post construction

Inset Lugs

- Centrally-located grid tabs permit direct electron flow



Cable and Connector

Color-coded for fast, correct installations

Tray

- Heat-cured, electrostatic, epoxy powder coating on inside, outside and bottom provides durability and corrosion resistance for long life
- Side weld seam retains tray shape and keeps cells in place

...Means Longer Run Time.

GNB Industrial Power – The Industry Leader.



GNB Industrial Power, a division of Exide Technologies, is a global leader in motive power battery and charger systems for electric lift trucks and other material handling equipment. With a strong manufacturing base in both North America and Europe and a truly global reach (operations in more than 80 countries) in sales and service, GNB Industrial Power is best positioned to satisfy your power needs locally as well as all over the world.

Based on over 100 years of technological innovation, the Motive Power group leads the industry with the most recognized global brands, such as GNB® FLOODED

CLASSIC®, GNB® FLOODED CLASSIC PLATINUM™, TUBULAR-HP® HIGH PERFORMANCE, TUBULAR-LM™ LOW MAINTENANCE, ELEMENT® and GNB® FUSION™. They have come to symbolize quality, reliability, performance and excellence in all the markets served.

GNB Industrial Power takes pride in its commitment to a better environment. Its Total Battery Management program, an integrated approach to manufacturing, distributing and recycling of lead acid batteries, has been developed to help ensure a safe and responsible life cycle for all of its products.

GNB Industrial Power

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