# Maximum Power & Productivity.

Deka®

MaxPowr®

MOTIVE POWER BATTERIES

QUALITY SYSTEM CERTIFIED
ISO 9001
IATF 16949
ENVIRONMENTAL SYSTEM CERTIFIED
ISO 14001

EastPenn

MADE IN U.S.A.
WITH U.S. AND IMPORTED MATERIALS

## MAX POWR® means:

- **MAXimizing oxide efficiency**
- **MAXimizing acid availability**
- **MAXimizing positive to negative ratios**
- **MAXimum kilowatt hour capacity**
- **MAXimum work per shift**
- **MAXimum POWeR-per-pound**

### Compare these features which are standard on every Deka battery:

- East Penn uses exclusive formation processes that ensures optimized power capacity, cell consistency, and long term reliability from every plate and ultimately each cell, in terms of amp- hour capacity and cycle life.
- Superior non-porous, precision-cast grids are designed for maximum current-carrying capacity exclusively for motive power applications. The grids are pasted with active material that delivers reliable performance throughout a long service life. All phases of plate production are computer controlled to meet rigid quality control specifications.
- Both the positive and negative plates are cured in temperature/humidity-controlled ovens to ensure optimum plate curing regardless of external environmental conditions.
- The positive plate is protected by a multiple-step retention system, including two layers of vertical mats consisting of fiberglass tape and interwoven glass fibers, a horizontal glass fiber mat, and a perforated retainer envelope. This ensures optimum active material retention for longer life, and provides increased plate insulation for added performance. The positive plates are also surrounded by deep channeled, microporous separators that provide a durable barrier between positive and negative plates, while allowing the free flow of electrolyte throughout the cell, optimizing performance and extending service life.
- No other industrial battery manufacturer can claim these and other features, plus ensure the highest quality material, workmanship and superior engineering technology. All of these important components make the Deka name synonymous with number one quality in the production of precision-built batteries.
- Manufactured in compliance with American National Standards Institute and Underwriters Laboratories Standard Number ANSI/UL583.
- Federal Specification Number W-B-133D.
- Complies with Industrial Truck Association Recommended Practices.

The MAX POWR line from DEKA can deliver up to 10% more amp-hours in the same size battery. This additional capacity means more work per shift when compared to other batteries of the same size. East Penn engineers have achieved this added capacity by optimizing active material efficiencies, balancing positive to negative plate ratios, and increasing the electrolyte concentration in order to provide the maximum power-per-pound in a motive power battery. The MAX POWR battery is available in a full range of sizes – from 6 through 36 cells up to 1700 amp-hours.

### FIVE QUESTIONS MOST ASKED ABOUT HIGH-GRAVITY BATTERIES

**1. How does raising the specific gravity improve the amp-hour per cube?**

The amp-hour capacity that can be obtained from a battery of a given size is determined by the amount of positive and negative plate active material, in proper balance, that reacts with the electrolyte during the discharge. By increasing the concentration of sulfuric acid, you can maximize active material utilization without increasing the overall dimensions of the cube.

**2. Does raising the specific gravity have an adverse effect on cycle life?**

Yes, however there are many other factors that have the same effect on battery life. One of these is overdischarging. If your battery power demand is such that conventional batteries are overdischarged in order to perform a full shift operation, then the added capacity achieved by higher specific gravity batteries may indeed attain full shift performance with no sacrifice in cycle life.

**3. Is special maintenance required for the "Max Powr" line?**

The basic maintenance procedures required for good preven-tative maintenance on standard batteries, such as scheduled watering, cleaning and equalizing charges, are sufficient to keep the "Max Powr" battery performing satisfactorily.

**4. Will I require a special charger for my "Max Powr" batteries?**

In some applications, your present charger may not have sufficient output to return a high gravity battery to its fully charged state in the time required. It may be possible to adjust your charger in order to achieve a satisfactory recharge. Your East Penn representative can advise you as to whether your present charger is compatible to the "Max Powr" battery or recommend the proper battery/charger package best suited to your application.

**5. Is a high-gravity battery right for my needs?**

First, you must determine the work load the battery is expected to handle. It is designed for those applications requiring added power to perform a full shift. Obviously, the "Max Powr" battery may not be right for all applications, but if your work schedule requires that extra 10% to perform a full shift operation, consult your Deka representative. He will be glad to assist you in determining if a "Max Powr" battery is right for your needs.

Battery Council INTERNATIONAL · MHEDA MEMBER · MHI Member Company · CLASSIFIED UL

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