



# MAX POWR™

## INDUSTRIAL BATTERIES

**MAX POWR™**  
means:

- **MAX**imizing oxide efficiency
- **MAX**imizing acid availability
- **MAX**imizing positive to negative ratios
- **MAX**imum kilowatt hour capacity
- **MAX**imum work per shift
- **MAX**imum **POWeR**-per-pound



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 **MAX**imum **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.

QUALITY SYSTEM  
CERTIFIED TO  
**ISO 9001**  
**ISO/TS 16949**



MADE IN U.S.A.



# MAX POWR™ BATTERIES

## Compare these features which are standard on every Deka Battery...

- Superior non-porous grids are designed for maximum current-carrying capacity throughout long service life. These grids are precision cast from a lead alloy which is specially formulated and produced exclusively for motive power application. The grids are pasted with computer-controlled active material to deliver consistent reliable performance year after year. All phases of plate production are monitored and controlled to insure that each step meets rigid quality control specifications.
- Humidity plate curing of both the positive and negative plates in temperature/humidity-controlled curing ovens insures optimum plate curing regardless of external environmental conditions. This results in consistently superior performance and reliability.
- Exclusive open tank formation allows us to closely monitor and carefully control the plate during the most important charge it will receive in its battery life – the formation charge. Open tank formation provides for precision temperature control on all tanks in the circuit during this critical phase of capacity development, thus insuring maximum performance from every plate in terms of amp-hour capacity and cycle life. When cells have been formation-charged in batteries, the temperature may vary based on the number of plates per cell, the number of cells, and cell location in the battery. In comparison, open tank formation provides uniform plate development which translates into uniform performance of each cell in the battery throughout cycle life. This method is the only one which allows 100% inspection of each plate after this most critical phase of capacity development prior to assembly into a cell.
- No other industrial battery manufacturer can claim these and other features, plus insure the highest quality material and workmanship backed by superior engineering technology. All this makes the Deka name synonymous with quality in the production of precision-built batteries which are second to none.

## 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 preventative 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.

## **EAST PENN manufacturing co., inc.**

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