

MARATHON[®] ELEMENT[®]

**PALLET PRO™ ON-BOARD POWER SYSTEM AND
6 VOLT GROUP 27 DEEP CYCLE BLOC BATTERIES**



ELEMENT® PALLET PRO™ ON-BOARD POWER SYSTEM

Application

The Pallet Pro is an integrated valve-regulated lead acid battery and charging system designed for 24 volt electric walkie pallet trucks with loading capacities of up to 4,500 pounds.

Less Maintenance

Element batteries mean reduced maintenance. Most of the expense, time and safety concerns typically associated with conventional flooded battery maintenance are reduced under normal operating conditions, including cell watering, acid equalization, acid spills, corrosion and waste treatment systems.

System Design

GNB® Industrial Power's Pallet Pro houses a "smart" HF charger complete with auto stop/start capabilities and four, 6-volt Element deep cycle bloc batteries connected in series to provide a 24 volt system with up to 25% more capacity, at the 6 hour rate, than competitively published rates. The Element Direct Connect is a self-contained automatic battery charger, designed to match the battery and maintain peak performance. Proper battery charging is important and Element Direct Connect makes it fast and easy by ensuring that the truck, battery, and charger remain connected. No charging room or special AC outlets required – plug it into the closest 15A, 120V AC line and the Element Direct Connect will do all the heavy lifting. The AC charger cord and charger safety relay make charging safe and easy by disconnecting battery power to the truck when AC power is applied to the charger.

Pallet Pro Design

The Element deep cycle bloc batteries used in the Pallet Pro incorporate the proven Absolyte® technology used in larger industrial Element cells for just a fraction of the cost. Element batteries have a more robust design with lower internal resistance than traditional flooded batteries, providing higher voltage.

Battery Warranty

The Pallet Pro system is warranted for 18 Months or 300 equivalent cycles. For more specific information, visit gnb.com.

Automatic On-Board Charger

Because the on-board Delta-Q charger used with the Pallet Pro is fully automatic, operator guesswork is eliminated. Unlike other chargers, this charger uses the precise "I-E-I" charge profile to correctly determine the proper recharge time required. Charging begins with a constant 25 amp start rate until the batteries reach the appropriate gassing voltage. At this point, the charge adjusts to a constant voltage stage to minimize gassing, finishes off with a constant current to ensure a quick and complete charge, and finally shuts down automatically when the batteries are fully recharged. International versions are available.

Opportunity Charging Benefits

With the Pallet Pro, battery charging is simple and efficient, offering operators freedom from the charging limitations of conventional flooded batteries. Operators can take full advantage of extended breaks or downtime between shifts to opportunity charge their Pallet Pro, which translates into better use of operator time and increased productivity! Optimum Depth of Discharge for opportunity charging is between 30% - 70%. A minimum charge time of 1/2 hour and an additional cool down period is recommended for best results. Contact your local GNB sales representative for more information on appropriate procedures when incorporating opportunity charging into your battery program.



ELEMENT® PALLET PRO™ FEATURES AND BENEFITS

1. Element Valve Regulated Batteries

6 Volt Element® bloc batteries reduce the hazards and mess associated with typical flooded battery maintenance and allow opportunity charging benefits, with virtually no hydrogen gassing and minimal maintenance.

2. Metal Bracket Design

Additional shock absorption to minimize both horizontal and vertical battery movement. Batteries are secured inside the tray to help prevent potential damage from vibration.

3. 10 Gauge Steel Housing

Durable, 100% powder coated tray is longer lasting under a variety of conditions than painted-steel trays.

4. Automatic Start/Stop and LED Display

Eliminates operator guesswork on required recharge time and charging status, which helps ensure safe, simple, and reliable operation and helps protect against the harmful effects of over- and under-charging.

5. Optional Temperature Compensation

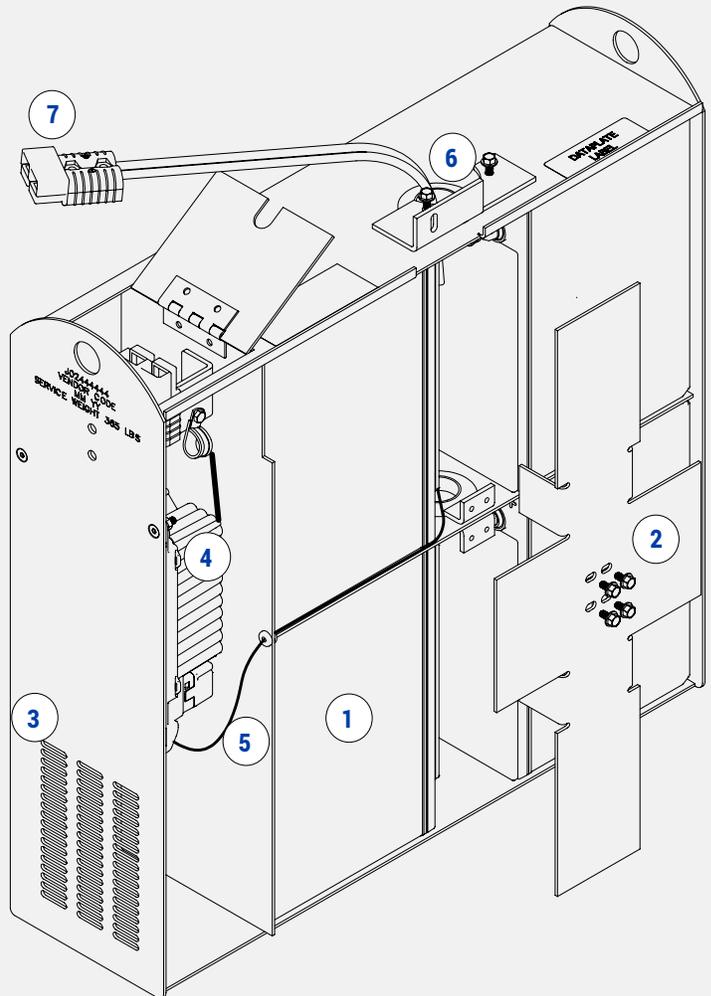
Helps to ensure that batteries are optimally charged even when they are cold or hot. To achieve precision charging, the PalletPro systems can be equipped to use temperature sensors along with specially designed charge algorithms, to compensate for fluctuating battery temperatures. This enables the PalletPro systems to adapt to different operating conditions.

6. Grommet Around Cable Exits

Rubber grommet protects against cable chafing after daily usage, which helps ensure safer operation than with rubberless grommets.

7. SB175 Connector and 35" Lead Length

Other connectors are available upon request.



SENSIBLE BATTERY RECYCLING

Exide is one of the world's largest secondary lead recyclers through a comprehensive approach to battery recycling called Total Battery Management (TBM®). TBM is an end-to-end process designed to divert harmful waste by following the battery's lifecycle from manufacturing and distribution all the way to collection and material reclamation. Trust Exide to responsibly recycle your spent lead-acid batteries.



**FIND THE RIGHT
BATTERY.**
Scan this QR code.

ELEMENT® 6 VOLT GROUP 27 DEEP CYCLE BLOC BATTERIES

Application

Valve-Regulated deep cycle bloc batteries designed for use in Pallet Pro systems, maintenance (scissor) lifts, wheel chairs, neighborhood electric vehicles (NEVs), golf carts, personnel carriers, and other small powered electric vehicles. These BCI Group 24 and Group 27 size batteries are engineered to provide full shift performance to an 80% depth of discharge (D.O.D.), equal to 1.90 volts per cell. Tests performed to measure battery life expectancy have resulted in battery life greater than 300 cycles.



Battery Warranty

Element Group 24 and Group 27 deep cycle bloc batteries are warranted for 90 days. When purchased as a replacement for a Pallet Pro system, GNB Industrial Power will honor the warranty remaining on the original system if longer than 90 days. Contact your local GNB Sales Representative for warranty details.

Direct Connect Convenience

Our Direct Connect pairing means that the truck, battery, and charger remain connected. The Element battery with integrated charger cannot be mistakenly plugged into the lift truck and fail to recharge its battery. The AC charger cord and charger safety relay assist with easy and safe charging by disconnecting battery power to the truck when AC power is applied to the charger. While the AC is connected - the lift is disabled, providing error proof safety. When the AC plug is disconnected – the lift automatically is reconnected to the battery and enabled for normal operator use.

Less Maintenance

Element valve regulated deep cycle bloc batteries mean reduced maintenance. Most of the expense, time and safety concerns typically associated with conventional flooded battery maintenance are reduced under normal operating conditions, including cell watering, acid equalization, acid spills, corrosion and waste treatment systems.

“Designed In” Quality Manufacturing

Quality manufacturing processes for the Element series of deep cycle bloc batteries incorporate some of the industry’s most advanced technologies including: 100% automated helium leak detection system, computer controlled “fill by weight” acid filler, and capacity testing of every unit.

Innovative Technology

Element deep cycle bloc batteries incorporate the proven Absolyte® technology used in larger industrial Element cells. Because of the Element design, there is virtually no gassing while charging under normal operating conditions, eliminating the need for special ventilation and a dedicated charging room.

Fully Recyclable

GNB 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.

ELEMENT® DEEP CYCLE BLOC BATTERY DESIGN

1. Absorbed Glass Mat Separator

Retains the electrolyte in a highly porous mat to help prevent leakage and promote efficient recombination. NO WATERING IS REQUIRED under normal operating conditions.

2. M6 Bolts, Brass Inserts, and Bolt-On Connectors

Reduced electrical resistance and increased voltage.

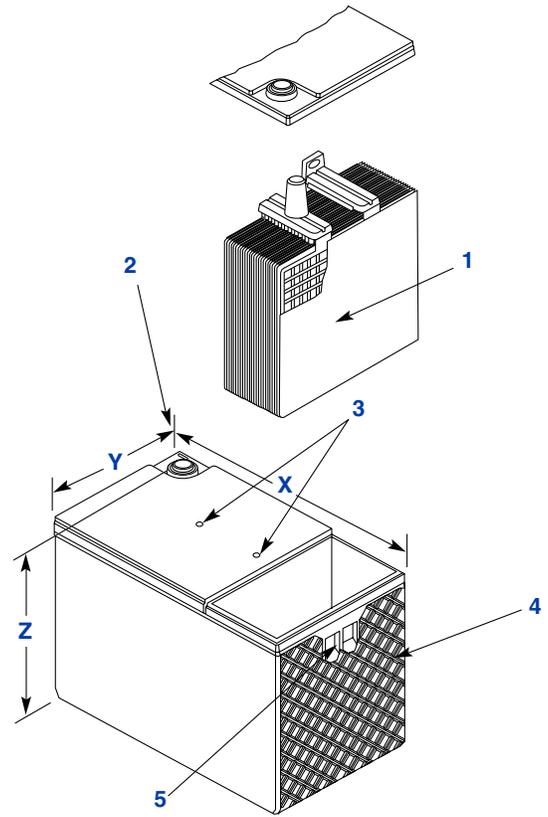
3. Self-Resealing Pressure Relief Valve and Flash Arrestor

Relief valves control internal pressure for efficient recombination during recharge. The safety vent opening pressure is 2.5-5.5 psi. Anti-flame design prevents sparks from entering the cell.

4. Reinforced Polypropylene Container and Cover

Side rib pattern for extra support.

5. Lead Calcium Alloy Negative Plate

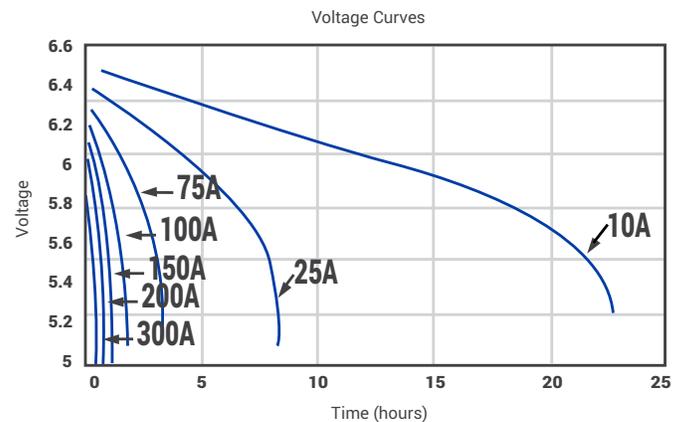
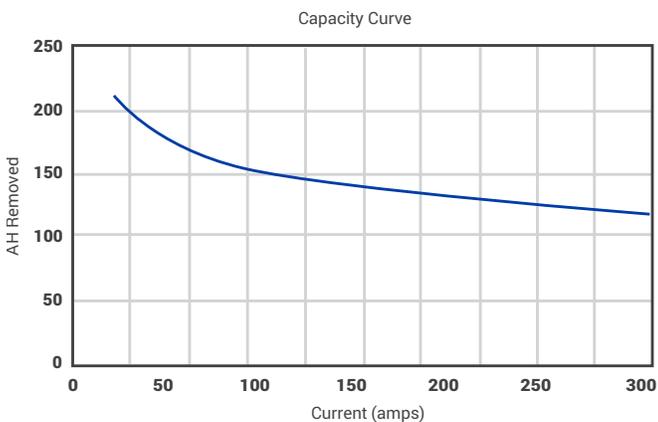


ELEMENT® DEEP CYCLE BLOC BATTERY SPECIFICATIONS

Battery Part Number	Battery DC Volts	20 Hour Rate		Capacity 6 Hour Rate		3 Hour Rate		Battery Dimensions (inches/mm)			Nominal Weight ² (lbs./kg)
		Amp Hours	Kilowatt Hours	Amp Hours	Kilowatt Hours	Amp Hours	Kilowatt Hours	X Length	Y Width	Z Height ¹	
M83CHP06V27	6	220	1.3	195	1.15	175	1.03	12.05 306	6.85 174	8.8 224	75 34

ELEMENT® M83CHP6V27 DISCHARGE CHARACTERISTICS

(at 25°C/77°F)





POWERING THE WORLD **FORWARD**

YOUR PARTNER FOR STORED ENERGY SOLUTIONS.

Exide Technologies, with operations in more than 80 countries, is one of the world's largest producers and recyclers of lead-acid batteries. We provide a comprehensive and customized range of stored electrical energy solutions. Based on over 120 years of experience in the development of innovative technologies, Exide Technologies is an esteemed partner of OEMs and serves the spare parts market for industrial and automotive applications.

GNB Industrial Power – a division of Exide Technologies – offers an extensive range of storage products and services, including solutions for telecommunication systems, railway applications, mining, photovoltaic (solar energy), uninterrupted power supply (UPS), electrical power generation and distribution, fork lifts and electric vehicles.

Exide Technologies takes pride in its commitment to a better environment. An integrated approach to manufacturing, the distribution and recycling of lead-acid batteries has been developed to ensure a safe and responsible life cycle for all products.

GNB® Industrial Power

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