



# **Powering Your Critical Applications**

Where energy demands are high, operating environments are extreme, and the cost of failure is significant.

## **ABOUT US**

Founded in 1979, Electrochem is a leading provider of commercial power solutions. With expertise in chemical, mechanical, electrical and design engineering, our end-to-end consultative approach ensures we develop the right solution for your business. Our state-of-the-art, 82,000 sq. ft. manufacturing facility was built in 2008 for the sole purpose of high quality battery production. Specifically designed for optimal material flow throughout the production process, the facility also includes numerous built-in safety features to ensure safe operation and security of supply.



#### **MARKETS**

Electrochem specializes in providing power to critical applications in markets where failure is not an option. We are keenly focused on providing quality throughout the entire design and manufacturing process to ensure our products live up to our reputation for industry leading quality, reliability, and safety. Electrochem excels in designing ruggedized power solutions that can withstand the abuse our customer's applications are subjected to, ensuring the safe and successful completion of the missions they were designed to carry out, in the world's most demanding environments.

At Electrochem, we pride ourselves on our ability to provide power solutions for the most unique industries and applications in the world. The markets listed at below are a collective of just a few that we serve. If your particular application doesn't fall within one of these categories, it's likely that we've designed a power solution to meet a similar need.





- Military operations are conducted with critical equipment in some of the world's harshest environments.
  We're always ready for the next job no matter how difficult or complex; whether it be a solution for an F-16 flight data recorder, a survival radio for the Navy, or a diagnostic system for the Humvee.
- Electrochem also offers lithium cells and battery packs that hold National Stock Numbers (NSNs), which identify all of the standardized material items of supply as they have been recognized by the United States Department of Defense.



## **ENVIRONMENTAL**

- For more than 30 years, Electrochem's power solutions have been the first choice for environmental applications where battery power is crucial.
- Whether monitoring seismic activity at the bottom of the ocean or protecting a hazardous materials worker in the field, Electrochem has designed customized rechargeable and non-rechargeable battery solutions that are utilized in the most critical situations, where reliability is paramount.



#### **ENERGY**

- Electrochem is the premier supplier of total power solutions for the energy market, supporting numerous market segments such as downhole drilling, pipeline inspection and geophysical surveying.
- With ruggedized cells capable of temperatures eclipsing 200°C, our safe, reliable lithium battery solutions enable peak performance in extreme heat and pressure, pounding shock and vibration, and extremely corrosive environments.



## **OUR MISSION**

Electrochem is focused on enhancing lives worldwide by providing superior power solutions that enable the success and advancement of our customers' critical applications.

Electrochem Headquarters | Raynham, MA



#### **PRODUCTS**

Electrochem is unique in that we not only produce battery packs, but we also build our own lithium primary cells from the ground up, using proprietary designs and electrolytes. This gives us the added flexibility to design a power solution that can completely meet your needs. With a diverse portfolio of cells in various sizes, temperature ranges and rate capabilities, our team can design a custom battery pack that meets the unique criteria of your application, differentiating your product in the increasingly competitive global market.





## **PRIMARY LITHIUM CELLS**

- Produced in-house from the ground up, allowing us to evolve and adapt our cells to meet the ever changing needs of our customers.
- · Outstanding energy density and power output over a wide range of use conditions.
- Capable of withstanding high and low temperatures, sterilization, and vibration.
- Reliable power even when subjected to harsh environmental conditions.
- Protective circuitry, glass-to-metal hermetic seals, fuses and diode.



## ADVANCED BATTERY TECHNOLOGIES

- Wide Range Technology A single battery now delivers power across an unprecedented range of temperatures (20°C to 200°C) while providing improved power capabilities.
- High Temp Technology The world's first high temperature battery solution able to perform safely and reliably in conditions in excess of 200°C.
- Low Voltage Cut Off Our patented under voltage protection improves battery safety by ensuring there is no risk of over discharging individual cells in a battery pack.



## **CUSTOM PACKS & CHARGERS**

- Distinctive range of resources and experience ensures that our custom design is the exact fit for every application.
- Capable of creating battery packs to fit any form factor, from something as small and simple as a 3 cell stick pack to something as unique and complicated as a modular battery system consisting of over 1,300 DD cells.



## WHY CHOOSE ELECTROCHEM?

(§) **STABILITY:** Well known, prominent company with strong financial stability and extensive end-to-end capabilities via Integer.

REPUTATION: Distinctly acclaimed for quality and reliability with decades of experience within the industries we serve.

BEST-IN-CLASS: State-ofthe-art manufacturing facility with best-in-class production processes in place.

customization: Unusually broad range of cell types, sizes, and electrolytes with strong capability for custom cell and pack designs.



# **High Rate Lithium Cells**

Made for the most demanding applications, these cells are designed to provide extreme power under the most demanding conditions through the use of spiral-would technology.

SERIES	DESCRIPTION	TEMPERATURE RANGE	AVAILABLE CELL SIZES
всх	Utilizing a proprietary bromine chloride electrolyte, BCX Series cells deliver superior restart and pulse capabilities with dependable performance across a wide range of temperatures and discharge rates.	-55C to +85C	AA, Sub CC, C, D, TSD, DD
CSC	The enhanced sulfuryl chloride technology found in CSC Series cells delivers high pulse capability and dependable performance across a wide range of temperatures and discharge rates.	-20C to +93C	AA, 2/5 C, 1/2 C, C, D, TSD, DD
MWD	The advanced thionyl chloride technology in MWD Series cells makes them highly suited for dynamic, mechanically demanding applications.	OC to +150C	DD
PMX	Advanced sulfuryl chloride technology with extended temperature capabilities up to 165C.	-20C to +150C -20C to +165C	1/2 AA, AA, C, CC, DD
QTC	The proprietary thionyl chloride technology within our QTC Series cells makes them ideal for high-current, high-capacity applications.	-40C to +85C	DD
VHT	Specialized alloyed anodes allow the VHT Series cells to operate in temperatures up to 200°C.	+70C to +200C	AA, C

# **Moderate Rate Lithium Cells**

Specifically designed for reliable rate capabilities under extreme conditions, these cells provide higher power output under continuous and pulsed current.

SERIES	DESCRIPTION	TEMPERATURE RANGE	AVAILABLE CELL SIZES
MR	MR Series cells are ideally suited for high temperature environments where rugge-dized construction is needed to manage high shock and vibration.	-40C to +150C -40C to +165C +50 to +180C +70 to +200C	Sub C, C, 3/2 C, Sub CC, CC, D, TSD, DD

# Low Rate Lithium Cells

A simple but rugged design, these cells deliver performance far beyond that of similarly sized alkaline cells.

SERIES	DESCRIPTION	TEMPERATURE RANGE	AVAILABLE CELL SIZES
LR	Low cost and reliable, our thionyl chloride LR Series cells are perfect for low rate, low temperature applications.	-40C to +150C -40C to +165C -40C to +100C +50 to +180C +70 to +200C	Sub AAA, 1/2 AAA, 1/2 AA, AA, C, 3/2 C, CC, Sub CC, DD
PC	Our PC Series cells deliver high capacity with excellent performance across a wide temperature range in a PC form factor.	-55C to +85C -40C to +85C -20C to 93C	Coin

