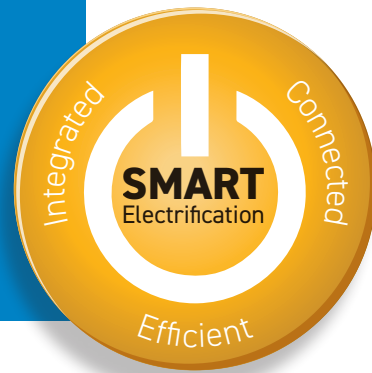




SMART ELECTRIFICATION

Integrated | Connected | Efficient

MOTION TECHNOLOGY THAT ENABLES A CLEANER TOMORROW



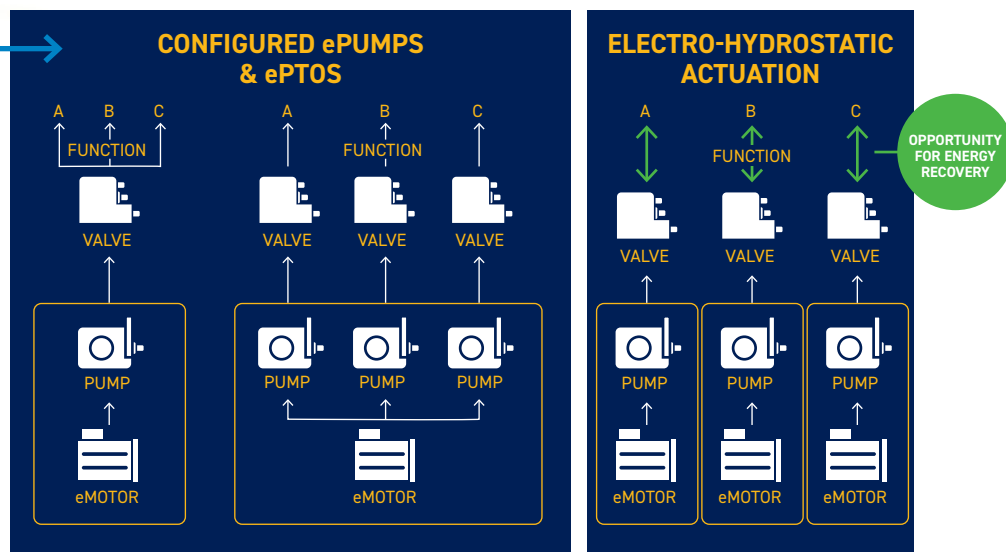
Built from the ground up to enable battery-powered electrified mobile machines, Parker's SMART Electrification products integrate the best of electric and hydraulic motion to provide integrated, efficient and connected motion control solutions for applications operating in the harshest environments.

Whether your application requires advanced hydraulic pump control, generator function or traction control for mobile machinery, Parker's SMART Electrification products are designed to work together as a system to optimize machine performance and ease of use.

SYSTEM ARCHITECTURES FOR ELECTRIFIED MACHINES

IMPROVING SYSTEM PERFORMANCE AND EFFICIENCY

Parker engineers understand the needs of mobile machines and can help design the right electro-hydraulic solution to maximize performance and efficiency.



SMART ELECTRIFICATION TECHNOLOGY PORTFOLIO

Integrated

Pre-engineered and tested ePumps utilize Parker's full range of technologies matched for optimal performance.

INTEGRATED technologies that deliver rugged hydraulic performance with precise electronic control. Parker brings decades of technology domain expertise and application know-how together to integrate motors, pumps and controls for electrified machines.



Configured ePumps



Integrated ePumps and ePTOs



Electrohydraulic Linear Actuators

Connected

Plug and play hardware and software solutions that makes precise system control seamless.

CONNECTED products and software that enable distributed and connected system control. Parker's IQAN and IQAN-Open machine control products seamlessly integrate motion, I/O, network-connected hydraulic valves, sensors, and displays.



Electronic Controls

Optimize machine functions and system performance



Displays

Real-time machine data visualization



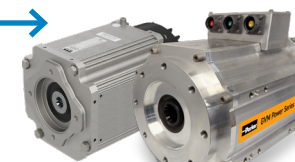
Sensors

Enhance machine safety and efficiency

Efficient

The heart of Parker's electrified portfolio includes proven PMAC electric motors paired with mobile inverters optimized for efficiency and functional safety.

EFFICIENT solutions that are designed and tested together for optimized system performance. From matched motors and inverters, to configured ePumps, Parker has the technology to enable better, more efficient mobile machines.



Electric Motors

GVM family of high efficiency mobile motors



Mobile Inverters

GVI family of mobile inverters with integrated functional safety



Thermal Management

QDC family of optimized fluid coolers



Leveraging Our Extensive **HYDRAULICS EXPERTISE** for a Total Systems Approach

Parker's SMART Electrification platform combines our extensive hydraulics expertise with more than 30 years of electric motor control experience to enhance the efficiency of on- and off-road equipment. Our systems approach integrates advanced hydraulic system design with efficient permanent magnet motor-inverter systems, optimizing performance and reducing energy consumption. This combination of technologies ensures robust, reliable solutions that meet the evolving demands of the industry while supporting sustainability goals in challenging environments.

Electrified System Solutions for **BEV AND HEV PLATFORMS:** Propulsion, Work Function and Generator Function

Parker's SMART Electrification platform provides solutions for propulsion, generator and work/ auxiliary functions, configured to the specific needs of the vehicle or machine, and across a broad battery voltage range, and applicable to both battery electric (BEV) and hybrid electric (HEV) platforms.

SCALABLE Solutions

Parker's electrified solutions are designed for scalability, allowing manufacturers to utilize the same products and technology across multiple power levels and machine types. By integrating scalable solutions, Parker's SMART Electrification solutions enable the efficient implementation of specific specification requirements, ensuring optimal performance and sustainability that meets the needs of our OEM partners.

INVESTED in Quality, Reliability and Enhanced Efficiency

Parker's SMART Electrification products and solutions designed to meet stringent OEM quality and reliability standards, supported by extensive testing and application experience. Our control systems and supporting software maximize system efficiency through advanced motor control and hydraulic system design and control, increasing vehicle range and/or machine runtime on a single battery charge.

Design Starts with **SAFETY** and Cybersecurity

Parker's SMART Electrification product and solution designs begin with understanding our customers' functional safety and data security requirements. Our products and control systems are designed to meet both on- and off-road functional safety requirements and are thoroughly tested to those requirements both in-house and at third party testing facilities.

We Believe in **PARTNERSHIP**

Every machine has unique operational needs, and Parker partners closely with its customers to develop electrified solutions tailored to meet those needs. By leveraging our extensive engineering expertise and global testing capabilities, we collaborate with manufacturers to develop electrified motion solutions that ensure our customers, and their customers, succeed.

With our team of experts in on- and off-highway vehicles – including diesel-electric, hybrid and fully- electric systems – Parker is globally present and always close to our customers, with engineering and manufacturing facilities in the Americas, Europe, and Asia and a growing network of certified electrification integrator partners. This proximity enables flexible collaboration and efficient communication, saving time and reducing costs. Our local presence allows us to understand market-specific requirements and deliver tailored technological solutions that meet the unique needs of our customers.

GLOBAL MOBILE SYSTEMS CENTERS

Parker's Global Mobile Systems teams work with OEMs to develop innovative hybrid and fully electric solutions. The ability to optimize systems through whole-vehicle integration of both the electric and hydraulic elements makes Parker the global industry leader in intelligent motion and control for on- and off-road equipment.

The team prides itself on understanding how mobile machinery is used and misused in the field. Industry standards and regulations, both global and regional, are applied throughout the process. The result is exceptional value in areas that help OEMs maximize equipment efficiency for their end customers.

GLOBAL MOBILE SYSTEMS

Elk Grove Village, IL, USA

Borås, Sweden

PARKER MOBILE ELECTRIFICATION CENTERS

Offenburg, Germany

Marysville, OH, USA

MOTION TECHNOLOGY CENTER

Macedonia, OH, USA

MOTION TECHNOLOGY CENTER

Parker's Motion Technology Center (MTC) is a partnership between Parker's Aerospace and Motion Systems Groups. The engineers at MTC provide support in the areas of product development, system expertise and technology development for next-generation motion

technology systems that drive innovation for modern machines. MTC bridges the technology gap between higher risk, emerging technologies to lower risk near-term product development to optimize the efficiency of today's and tomorrow's electric machines.



PARKER MOBILE ELECTRIFICATION CENTERS

Parker Mobile Electrification Centers (PMEC) are your trusted partners in advancing mobile electrification solutions tailored to your specific needs. Our centers are staffed with highly trained professionals who specialize in system design, installation, maintenance, and repair, ensuring optimal performance and reliability for your equipment. With a commitment to

excellence, we offer customized training programs and ongoing technical support to enhance your operations. Elevate your mobile electrification capabilities with Parker – where expertise meets innovation. Additionally, our dedicated engineering support is available globally, ensuring you receive expert assistance whenever and wherever you need it.



APPLICATION EXPERTS

using application know-how to optimize machine performance and efficiency.

PRODUCT EXPERTS

bringing the best of electric and hydraulic motion technologies together for a better tomorrow.

TECHNOLOGY EXPERTS

dedicated to advancing new technologies for the electrification of mobile machines.



ELECTRIFICATION GROWTH TEAM

Parker's Electrification Growth Team (EGT) is dedicated to driving innovation and advancing electrification solutions across various industries. This specialized team focuses on developing cutting-edge technologies and strategies to support the transition to electric and hybrid systems. By collaborating with customers and leveraging Parker's extensive expertise, the Electrification Growth Team aims to enhance performance, efficiency, and sustainability in mobile and stationary applications. Their commitment to innovation ensures that Parker remains at the forefront of the electrification movement, providing tailored solutions that meet the evolving needs of the market.

ePTOs PROVIDE A COMPACT AND EFFICIENT SOLUTION. THESE SYSTEMS ENSURE RELIABLE OPERATION WITH SIMPLIFIED INTEGRATION, WITH OR WITHOUT ACTIVE COOLING, AND CAN BE ADAPTED TO BATTERY-ELECTRIC, HYBRID, AND ICE VEHICLES.

○ ————— → **ON-ROAD/OFF ROAD**



ON-ROAD: As commercial vehicle fleets electrify, the core purpose and operator expectations remain constant. Parker meets this challenge by providing high-performance solutions for hydraulic work functions and auxiliary systems, maximizing efficiency and battery utilization. Our thoughtful system design enhances productivity, improves operator safety, and reduces system noise, ensuring electrified vehicles meet operational demands.

OFF-ROAD: Parker has a long history of delivering solutions for off-road machinery, including propulsion and work functions. We collaborate with our customer partners to develop electrified machines that meet the performance expectations of construction, mining, material handling, and agriculture. By combining electric motion technology with advanced hydraulic system design, we maximize efficiency, extend machine runtime, and ensure safe operation in challenging environments.





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