



ENGINEERED SYSTEM SOLUTIONS

Products & Tailored System Solutions in Motion & Control



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**Hydraulic Valve Systems Europe -
Engineered System Solutions**

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ESS
YOUR ROBUST
ENGINEERING
PARTNER IN MOTION
AND CONTROL SYSTEMS.

ENGINEERED SYSTEM SOLUTIONS

As a vital part with two Centres of Excellence in the Parker's Hydraulic Valve Systems Division Europe, ESS is taking care of System Partnership, focusing added values using our best in class products.



~10,000
Products sold yearly



~\$38 Million
In global revenue



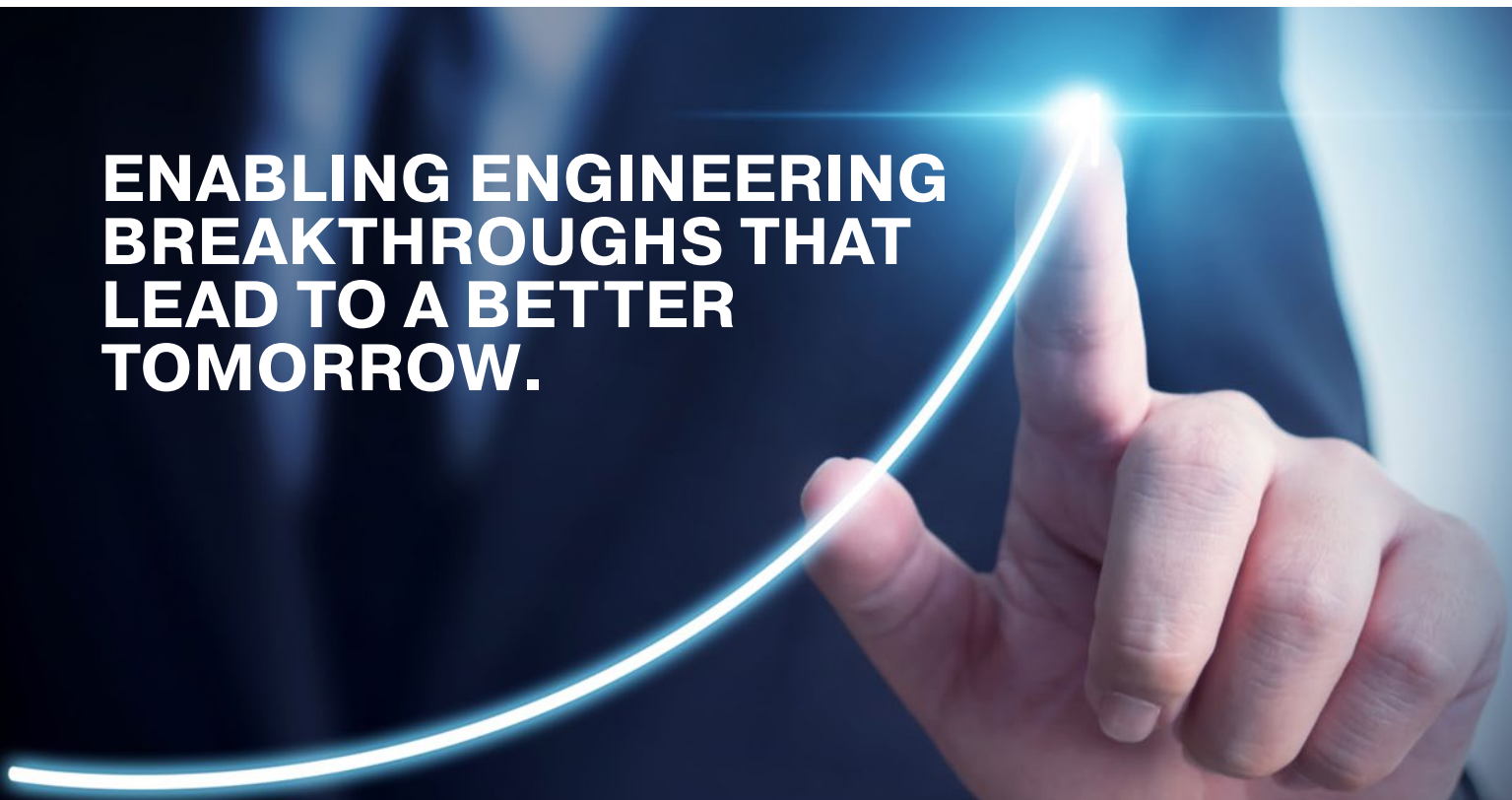
~1,000
Customer worldwide



~100
Team members in Europe



**ENABLING ENGINEERING
BREAKTHROUGHS THAT
LEAD TO A BETTER
TOMORROW.**





Designed and tested for robustness

As a system integrator design for robust solutions, FMEA is a standard engineering tool used together with the customer to prevent costly breakdown in the application. ESS products are tested in our state of the art test facilities.

We have a wide experience with shock analysis, strength & stiffness analysis and pressure tanks and reservoirs design optimisations. FEA techniques are often put in practice in both destructive and nondestructive testing.

Team work

Our project team works closely with the customer to obtain the most cost effective solution whilst ensuring quality & safety.

Parkers approach of high performance teams is rooted in the organization empowering people to make decisions and act adequately.

Direct engineer to engineer contact with the customer enables us to be quick and efficient suiting the needs of the customer.

Certification

ESS is certified ISO 9001. We have a team of dedicated certification specialists on topics like: CE certification, ATEX, welding WPS & WPQ, Mill spec, and others.

We have extended experience with shock testing, sound & vibrations demands in all kind of applications.

Marine Certification is in our DNA, with a wide spread of type approved products.



Silent operation



Unbeatable efficiency



High speed capability



Consistent performance over lifetime



High pressure rating

MARKETS

ESS is strongly focused on defined markets to combine the best products in high end systems. Using our core knowledge of these markets, their applications and demands, Parker ESS Centres of Excellence support you with the best in class products tailored for your needs.



Defense

Robust, mission-critical hydraulic and control systems designed to withstand extreme conditions and ensure operational readiness in the most challenging defense applications.

In the defense market, our core products are powerpacks, manifolds, condition monitoring systems. Our Replenishment At Sea systems have been running successfully for decades.

Heavy industry

In mining, heavy steel forming machine tools, cement industry, ESS has a track record of most robust systems in the field. Our product offering is focusing on power packs, condition monitoring & controls.

Mobile equipment

Advanced mobile hydraulics and controls that provide superior power density, precision, and reliability for construction, agriculture, mining, and material handling machinery. Decades of experience with local truck builders & body builders.

Machine tooling

Precision hydraulic and pneumatic solutions that enhance accuracy, speed, and repeatability in machining processes, driving productivity and quality in manufacturing. Modular powerpacks to serve this market.

Light industry

Flexible and efficient systems tailored for packaging, semicon automation, and general industrial equipment — delivering dependable performance in compact, cost-effective packages.

Pulp & paper

Durable hydraulic and fluid control systems engineered to handle the rigorous demands of pulp processing and paper manufacturing, ensuring continuous operation and reduced downtime.

Marine

Marine-certified hydraulic and electronic solutions built to meet stringent maritime standards, enabling reliable performance in harsh offshore and shipboard environments.

Power generation

High-performance systems that support efficient and safe operations in conventional and renewable power plants, from turbine diverter damper control to auxiliary equipment hydraulics.

WHY PARKER ENGINEERED SYSTEM SOLUTIONS?

- ✓ Comprehensive portfolio — from pumps and valves to advanced control electronics and integrated systems.
- ✓ Global reach — local support backed by a worldwide network of experts from division and service centers.
- ✓ Continuous Innovation — driving advancements that improve performance, safety, and sustainability.

ESS DNV Container

In-house engineered

**PARKER Filtration**

Oil pressure & return filters, breathers & dryers

**PARKER IQAN**

Touchscreen & controller

**PARKER AC30**

Frequency drives

PARKER Cooler

Air Fluid Cooler



PARKER Monitoring

Pressure, level, temperature and cleanliness



PARKER PVplus

Variable piston pump



PARKER Connectors

(Quick) connectors, hoses & sensors

INDUSTRIAL POWERPACKS

Introducing Parker's industrial powerpack — engineered to deliver reliable hydraulic power in a compact, cost-efficient package, designed specifically for industrial applications.

INDUSTRIAL HPU LIGHT

Keys

- ✓ 200 litre oil volume
- ✓ 10 µm return filter Parker
- ✓ E-motor 11 kW
- ✓ Voltage 400 V AC
- ✓ Variable pump 20 cc
- ✓ Flow 30 l/min
- ✓ Primer only

Prepared options:

- o One or two level switch
- o Tank heater
- o Oil cooler
- o Industrial paint
- o Type certificate motor

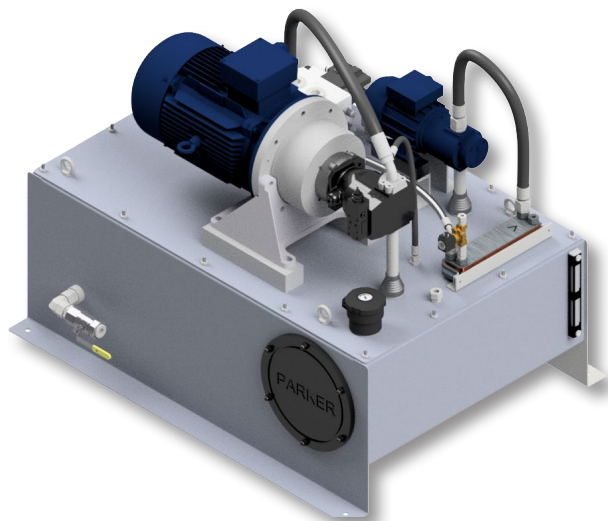


Design according actual machine directives enabling the system integrator to be CE certified.

- ✓ **CE certified**
- ✓ **ATEX optional**
- ✓ **Standard press manifold for safety solutions for big presses**
- ✓ **Vibration dampers**

Our offerings can be expanded with:

- ✓ **Oil dryer systems NitroDry**
- ✓ **Cooling oil/water/air cooling**
- ✓ **Manifolds for controls**
- ✓ **Condition monitoring systems IPD**



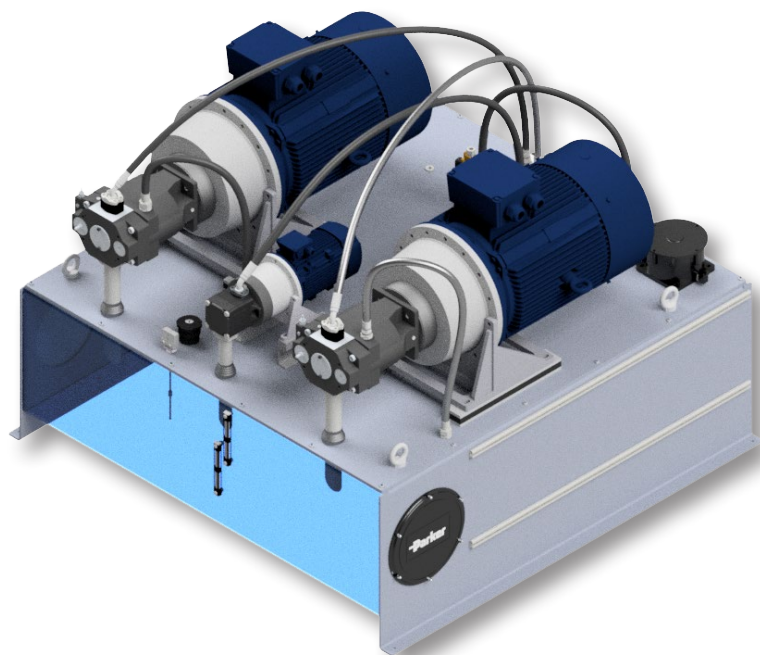
INDUSTRIAL HPU MEDIUM

Keys

- ✓ 800 litre oil volume
- ✓ 10 µm return filter Parker
- ✓ E-motor 55 kW
- ✓ Voltage 400 V AC
- ✓ Variable pump 140 cc
- ✓ Flow 210 l/min

Prepared options:

- o One or two level switch
- o Tank heater
- o Oil cooler
- o Industrial paint
- o Type certificate motor



INDUSTRIAL HPU HEAVY

Keys

- ✓ 2400 litre oil volume
- ✓ 10 µm return filter Parker
- ✓ E-motor 110 kW 2x
- ✓ Voltage 400 V AC
- ✓ Variable pump 270 cc 2x
- ✓ Flow 405 l/min 2x
- ✓ Primer only

Prepared options:

- o One or two level switch
- o Tank heater
- o Oil cooler
- o Industrial paint
- o Type certificate motor

Single source

Our broad product offering makes us the best and highest quality supplier for motion control systems. Parker cooler, filters, valves, pumps, connectors, pipes and other accessoires from one global partner Parker.

Industrial press manifolds

Our powerpacks can be executed with standard industrial press solutions. In this way, we provide press manufacturers with a high performance press control system that ensures safety. Safety is according machine directives CE.



Standard Press Manifold

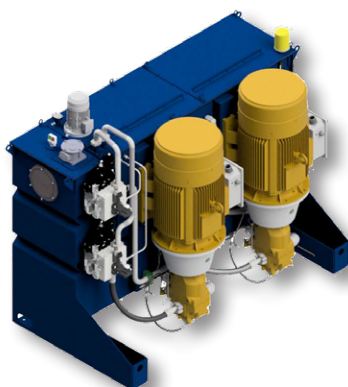
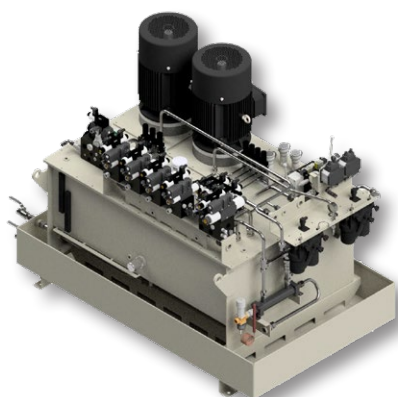
Requests & ordering

Contact Parker today to discuss your standard powerpack request. The presented three versions are available including step models, interface drawings and manuals.

In close cooperation we can offer tailored modular standard range for specific customer needs.

Tailor made industrial powerpacks

Don't hesitate to ask your Parker representative for ESS offering:



MARINE POWERPACKS

Introducing Parker's marine powerpack — engineered to deliver reliable hydraulic power in a compact, cost-efficient package designed specifically for marine applications.

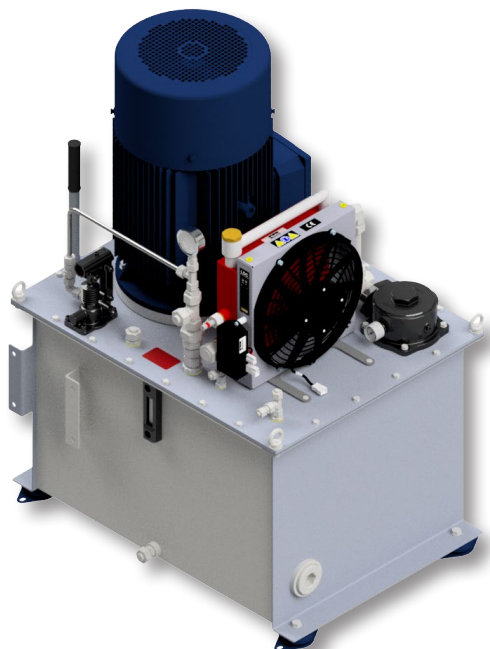
MARINE HPU LIGHT

Keys

- ✓ 200 litre oil volume
- ✓ 10 µm return filter Parker
- ✓ E-motor 11 to 29 kW
- ✓ Voltage 400/440 to 690 V AC
- ✓ Fixed pump 11, 17 to 30 cc
- ✓ Flow 15 to 43 l/min
- ✓ Primer only

Prepared options:

- o One or two level switch
- o Tank heater
- o Oil cooler
- o Hand pump
- o Marine paint
- o Type certificate

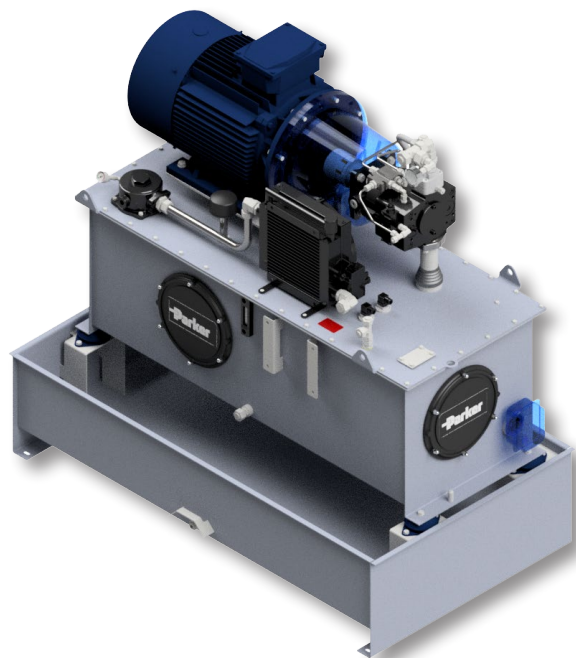


Design according marine class rules driving your valuable applications:

- ✓ **Tunnel thrusters**
- ✓ **Steerable thrusters**
- ✓ **Winches / cranes**
- ✓ **Rudder steering**
- ✓ **Retractable steerable thruster**
- ✓ **Auxiliary functions**

Our offerings can be expanded with:

- ✓ **Air panels for pressurised tanks**
- ✓ **N2 supply for inert pressurised tanks or gearboxes**
- ✓ **Oil drier systems NitroDry**
- ✓ **Cooling oil/water/air cooling**
- ✓ **Manifolds for controls**
- ✓ **Condition monitoring systems IPD**



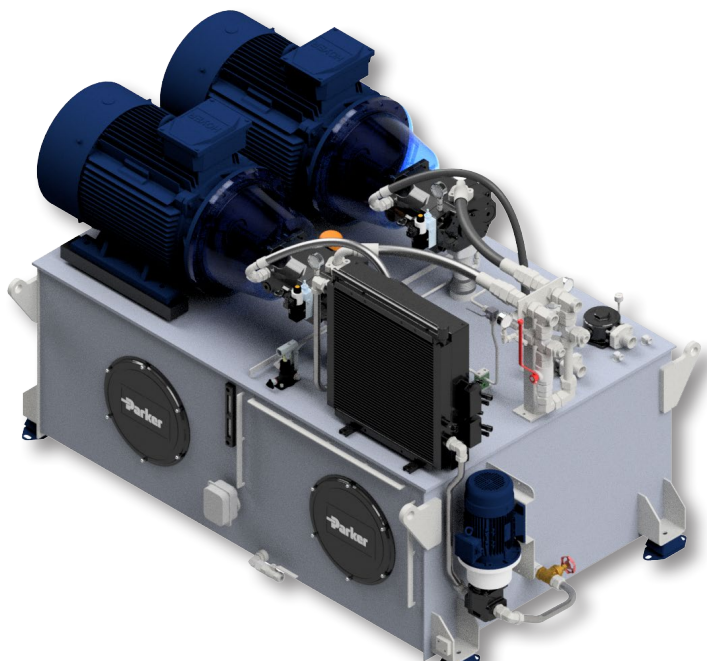
MARINE HPU MEDIUM

Keys

- ✓ 380 litre oil volume
- ✓ 10 µm return filter Parker
- ✓ E-motor 32 to 64 kW
- ✓ Voltage 400/440 to 690 V AC
- ✓ Variable pump 40 or 80 cc
- ✓ Flow 60 to 120 l/min
- ✓ Primer only

Prepared options:

- o One or two level switch
- o Tank heater
- o Oil cooler
- o Hand pump
- o Marine paint
- o Type certificate motor



MARINE HPU HEAVY

Keys

- ✓ 1000 litre oil volume
- ✓ 10 µm return filter Parker
- ✓ E-motor 80 to 175 kW
- ✓ Voltage 400/440 to 690 V AC
- ✓ Variable pump 140 or 270 cc
- ✓ Flow 210 to 405 l/min
- ✓ Primer only

Prepared options:

- o One or two level switch
- o Tank heater
- o Oil cooler
- o Hand pump
- o Marine paint
- o Type certificate motor
- o Extra motor-pump-set

Quality products

In our marine power packs we use high-end products: Parker PV pumps, gear pumps, sensors & filters.

Requests & ordering

Contact Parker today to discuss your standard power pack request. The presented three versions are available including step models, interface drawings and manuals.

In close cooperation, we can offer tailored modular standard range for specific customer needs.

**QUALITY
IN SERIES**



PUMP ASSEMBLIES

Flexible system solutions

Parker's expertise covers both open loop and closed loop hydraulic systems, allowing you to tailor your marine hydraulic setup for optimal energy efficiency, precise control, and system integration. Our pump assemblies integrate seamlessly with your vessel's hydraulic network, delivering smooth operation and reduced maintenance.

Premium quality

Parker ESS delivers premium hydraulic pump assemblies, engineered to meet the demanding needs of the industrial and marine industry. Combining cutting-edge technology with robust design, our solutions ensure superior performance, reliability, and compliance with stringent marine standards.

Drive Controlled Pump

Experience the next level of hydraulic control with Parker's Drive Controlled Pump (DCP), with advanced frequency drive technology. Designed for applications demanding precise flow control, energy efficiency, and responsive performance, this solution delivers unmatched versatility and reliability.



DCP with asynchronous motor and vane pump



Marine certified

Our pump assemblies carry marine certifications that guarantee compliance with international maritime regulations and classification societies. Whether it's offshore vessels, commercial ships, or specialized marine applications, Parker's products meet the highest standards for safety, durability, and environmental protection.



AC20F inverter, tailored for the Drive Controlled Pump (DCP)

High-End Efficient Pumps

Parker PV series pumps

Known for their high efficiency and compact design, PV pumps deliver excellent volumetric efficiency and durability, ideal for space-constrained marine & industrial hydraulic systems.

Gold Cup pumps

The Gold Cup series offers exceptional performance and reliability for heavy-duty marine applications, engineered to withstand harsh environments and continuous operation.

Vane pump

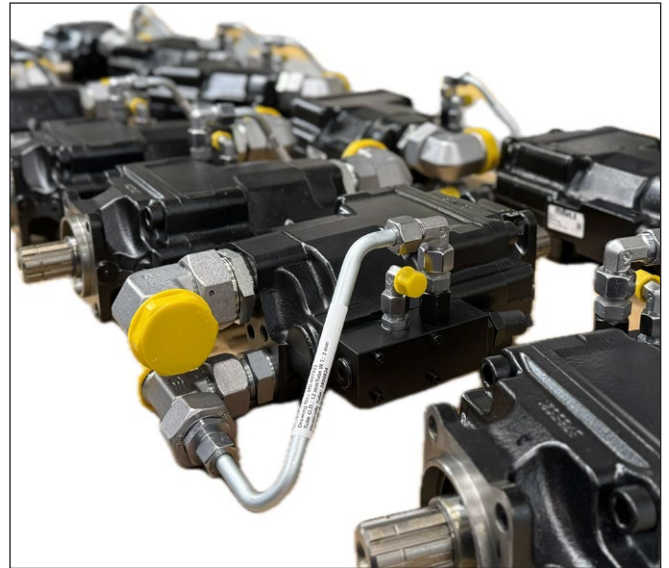
The T-Series vane pumps provide smooth, quiet operation with excellent volumetric efficiency and pressure capabilities. Designed for medium-pressure applications, these pumps are perfect for marine systems requiring reliable, low-noise performance and long service life.



DCP with asynchronous motor and axial piston pump

Why choose Parker modular motor-pump sets?

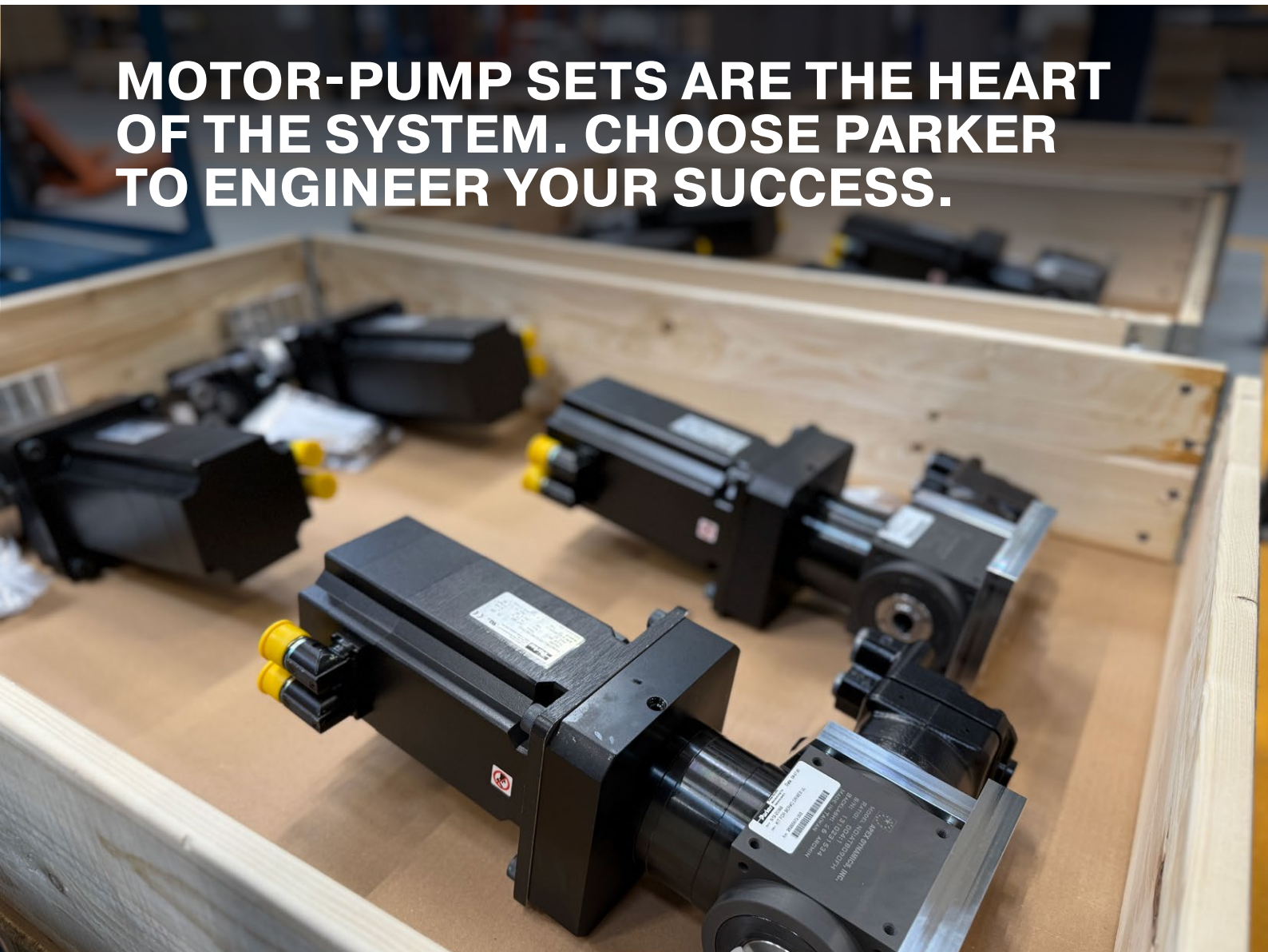
- **Engineering expertise**
Decades of experience delivering reliable hydraulic power solutions.
- **Customer-centric approach**
We collaborate closely with you to understand your needs and tailor the solution accordingly.
- **Quality & durability**
Built to Parker's renowned quality standards to withstand harsh environments and heavy use.
- **Scalable solutions**
From single units to complex multi-pump systems, modularity lets you scale as your requirements evolve.



Experience the advantage of hydraulic power designed just for you.

Contact Parker today to discuss your custom modular motor-pump set solution and take your operations to the next level.

MOTOR-PUMP SETS ARE THE HEART OF THE SYSTEM. CHOOSE PARKER TO ENGINEER YOUR SUCCESS.



EFFICIENCY

Efficiency system optimization

At Parker, we specialize in designing engineered systems that deliver peak efficiency by intelligently optimizing your hydraulic and electromechanical operations. Through advanced load curve analysis, strategic electrification, and meticulous component selection and sizing, we help you reduce energy consumption and operational costs — without compromising performance.

How we optimize efficiency

Load curve optimization

By analyzing your system's load profiles, we tailor solutions that match power delivery precisely to demand, eliminating wasteful over-sizing and unnecessary energy use.

Electrification strategies

Integrating electric drives and controls enables variable speed operation and smarter energy management, enhancing system responsiveness while lowering emissions.

In battery fed systems, efficiency of hydraulics is key. We see more and more that sizing of pipes, manifolds and valves is key for an efficient system.

Component selection & sizing

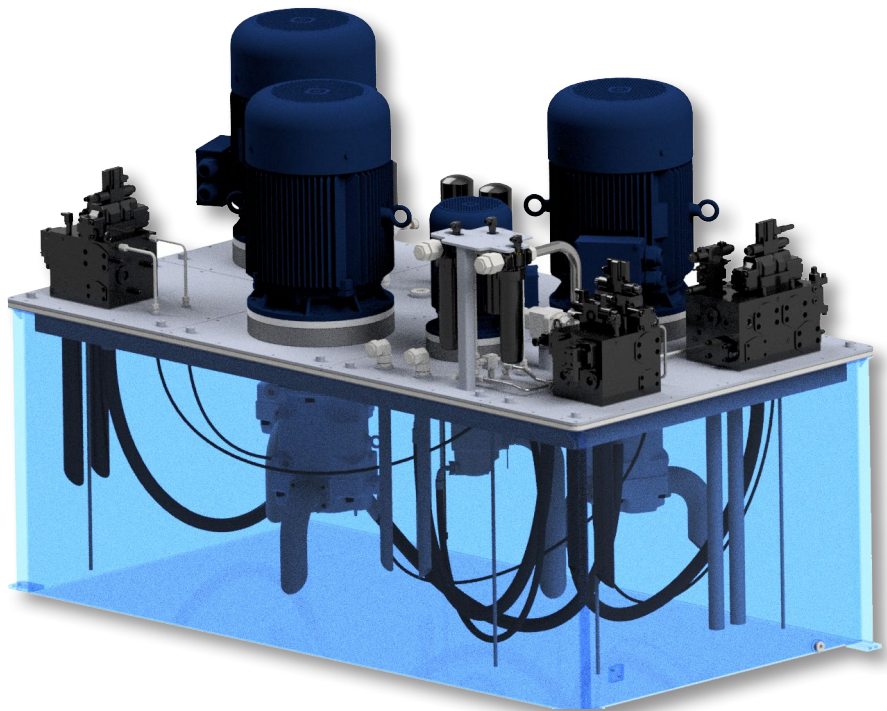
We carefully select and size pumps, motors, valves, and controls to minimize internal losses and maximize system reliability — ensuring every component contributes to your energy-saving goals.

Optimized hydraulic powerpack design — efficiency meets sustainability

We engineer hydraulic powerpacks that deliver superior performance through cutting-edge design optimization focused on efficiency, durability, and environmental responsibility.

Optimizing oil volume with advanced tank design

Our innovative tank designs minimize oil volume without compromising system performance, reducing material use and weight. This not only lowers costs but also decreases environmental impact by reducing fluid consumption and waste. Smart use baffles make sure air is de-aerated for optimal component life time.



Green solutions for a sustainable future

We integrate eco-friendly practices in every stage of powerpack design — from selecting recyclable materials to enhancing energy efficiency — helping you meet today's environmental standards and tomorrow's sustainability goals.

Structural excellence through finite element analysis (FEA)

Using advanced FEA techniques, we optimize frame strength and stiffness to ensure robust, lightweight powerpack structures that withstand harsh operating conditions while minimizing excess material and weight.

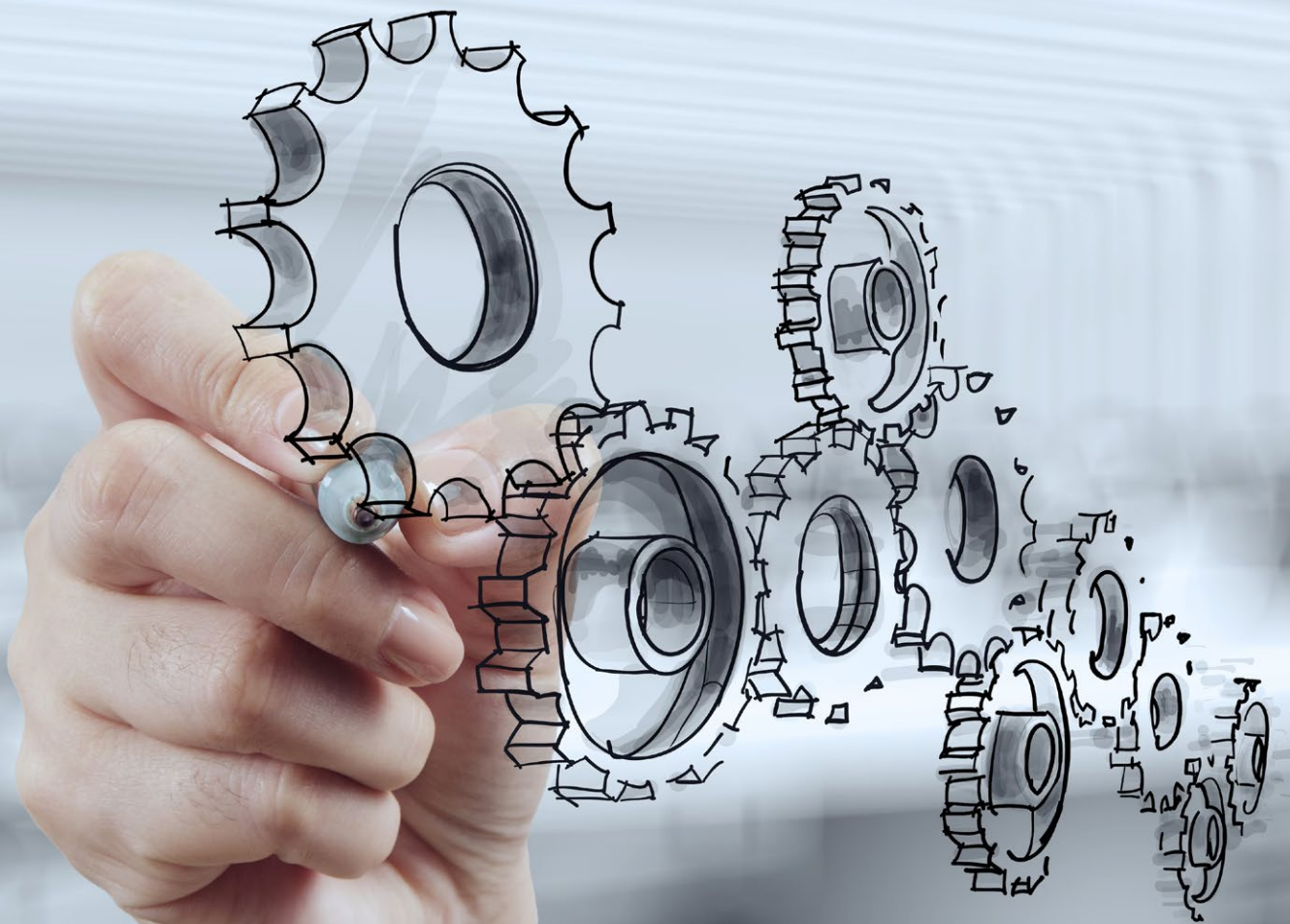
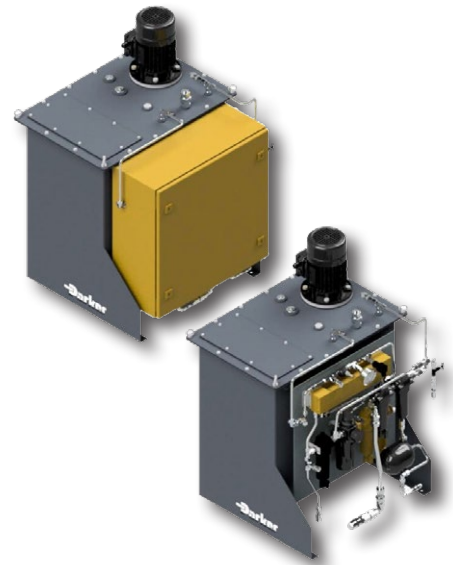
Heat calculation and cooling optimization

Effective thermal management is critical for reliable operation. Our precise heat calculations guide the design of optimized cooling systems, ensuring your powerpack maintains ideal temperatures for maximum efficiency and longevity.



Bio-degreable oils

ESS has decades of experience and testing with biodegreable oils. Our NitroDry dryers can be added to the systems to get perfect oil condition.



CONTROLS

Advanced control expertise at your fingertips

Harness the power of in-house control know-how with Parker's integrated system solutions, designed to deliver precise, reliable, and robust control for your hydraulic and electromechanical applications.

Seamless integration of premium Parker products

AC30

Parker frequency drives: Advanced variable speed drives that optimize motor control for energy efficiency and smooth operation.



AC Variable Frequency Drives, kW Rated - AC30 Series

D1FP

High responsive Parker valves: fast, precise valve control designed to meet the most dynamic hydraulic demands.



Direct Operated Proportional Directional Control Valve - Series D1FP

TPQ

Ultra-precise high-flow cartridge solutions from Parker: engineered for exceptional flow capacity and accuracy in compact, modular designs.



3-Way High-Response Valve - Series TPQ

Intuitive software with user-friendly interface

Parker's control systems come with easy-to-use, intuitive software interfaces designed for fast programming, quick diagnostics, and effortless customization — reducing commissioning time and simplifying operator training.



Master Display module - IQAN-MD5

Smart control with IQAN technology

Leveraging IQAN controllers and integrated touchscreen interfaces, our systems provide intuitive operation, real-time diagnostics, and adaptive control — simplifying user interaction while maximizing system performance.



Master controllers - IQAN-MC41

Our engineered solutions are built to withstand harsh conditions, delivering reliable performance in complex marine vessels and industrial machinery alike. By smartly combining hydraulic power with intelligent electronics, we create systems that are both cost-effective and durable.

Optimized control loops for motion precision

We specialize in control loop optimization to ensure smooth, accurate motion control across your machinery. Our expertise enhances system responsiveness, stability, and energy efficiency, delivering superior operational performance.

ESS is there to help you find the most cost effective solution with the accuracy needed. IQAN controller can be used as the most cost effective solution for pressure & flow control. For more accuracy, AC30 controller is the second solution available. As a third option, Parker can supply a servo motor controller for even more accuracy.

Focus on robustness and reliability

Designed to perform reliably in harsh environments, Parker's control solutions emphasize robust control architectures that withstand vibration, temperature extremes, and electrical noise — ensuring continuous, troublefree operation.

Monitoring & sensing

At Parker, we specialize in designing engineered systems that deliver peak efficiency by intelligently optimizing your hydraulic and electromechanical operations. Through advanced load curve analysis, strategic electrification, and meticulous component selection and sizing, we help you reduce energy consumption and operational costs.

Expert in-house engineering

Our dedicated team of in-house engineers provides expert support and development services for programmable logic controllers (PLC) and programmable automation controllers (PAC) software — ensuring your automation systems perform at their best.

Support for industry-standard PLC -

Whether you use leading PLC brands or require integration with existing systems, our engineers bring deep expertise to support, troubleshoot, and enhance your control software — minimizing downtime and maximizing efficiency.

Advanced development with Parker PAC

For complex, high-performance automation tasks, we offer tailored software solutions using Parker's own PAC (programmable automation controllers) platform. Designed for scalability and precision, our PAC solutions empower your operations with sophisticated control and seamless system integration.



Parker Automation Controller - PAC





Parker Hannifin is the world's leading diversified manufacturer of motion and control technologies and systems. Strong competitive advantages, a clear strategy and goals, consistent execution and performance and many opportunities for growth, have allowed the company to consistently deliver strong shareholder returns.

To meet your needs in motion and control, Parker provides expertise in nine major technologies. Within these technologies, Parker offers the widest range of products and systems available from any single supplier, including filters, hoses, fittings, valves, vessels, pumps, motors, drives, electronics, controls, cylinders and seals. Thanks to the product breadth, you can rely on Parker as a single source supplier.

Our engineers are ready so support. Contact your local Parker sales representative.



Performance

Efficiency, pressure drop, speed, energy recovery



Total cost of ownership

Less maintenance & downtime



Quality

Runtime, reliability & durability



Delivery

Short lead time, just in time with right amount.



Vision

Engineering your success



Sustainability

Parker's interconnected portfolio of technologies make the world cleaner, smarter and safer.



Safety

Zero safety incident



Ethics

Whether we are interacting with customers, our partners, or each other, Parker operates in a manner that is respectful, ethical, and guided by character.

