



***Dedicated Products
and Solutions for
Injection Moulding***



***Your Resource for Hydraulic
Components and System Solutions***

Dedicated Products and Solutions

The Parker range offers a large number of components exceptionally well suited for the needs of industrial applications such as injection moulding machine manufacturers. In this brochure we can only show you a small selection.

CASE HISTORY: Energy Efficiency in the Thermoplastics Industry

Thanks to Parker's adjustable axial piston pump PVplus, injection moulding machines made by a European customer manufacturing for the thermoplastics industry achieve energy efficiency and low noise level standards. This Parker customer manufactures some 250 injection moulding machines every year, ranging from 45 to 2,000 tons of clamping force.

Parker customers demand reliability

In machines of the past, the manufacturer used to install fixed-displacement or constant-volume pumps, which resulted in an excessive loss of energy. The migration to the adjustable displacement pump became necessary because their customers increasingly enquired about machines with more energy-efficient drive concepts. In addition, their customers also demanded the utmost in reliability. Parker's PVplus pump provided the answer the customer was looking for. Depending on the different clamping forces of the injection moulding machines, all construction sizes of the PVplus, ranging from 46 cm³ to 270 cm³ and special valve units, also made by Parker Hannifin, are now specified.

Efficiency & silence – the drive of the future

Parker's customer also discussed whether electric rather than hydraulic drive concepts should be considered, but were convinced that dynamics, power concentration and power limitation as well as the possibility of storing and branching power were clear advantages of the hydraulic concept that could be fully exploited in the machines. Clamping, holding, and all movements are now carried out hydraulically and, thanks to the sophisticated design of the new PVplus, also more silently than ever. The migration from constant pumps to an adjustable axial piston pump, including all the changes to the control system was not an easy task, but working together with Parker the step forward was worth the effort in order to offer their customers the drive concept of the future for injection moulding machines.

Extended life

Parker filtration products provide powerful solutions for powerful systems, adding life time and reliability to your machine. A wide range of filters, a comprehensive range of quality replacement elements and hydraulic tanks, together with advanced fluid contamination monitoring and portable particle counting equipment ensure system efficiency and fluid cleanliness. Additionally, Parker liquid process filters and compressed air filters provide solutions to coolant and air filtration and Nitrogen Generation technology can be applied in such industrial applications.

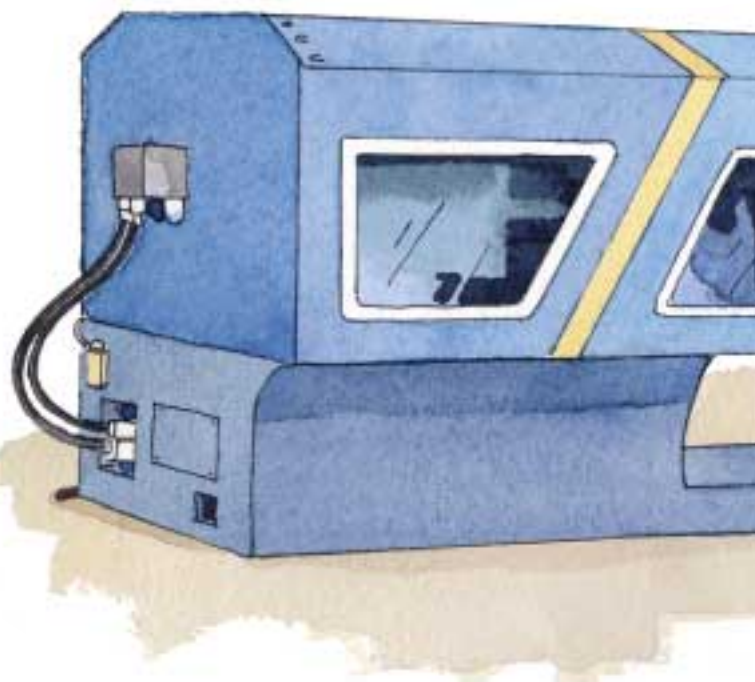
Accumulators – performance under pressure

Hydraulic accumulators improve system efficiency, prolong component life and reduce noise. In safety-critical systems they provide an emergency source of power, maintaining braking, closing valves and supporting loads.



Quiet power

From a comprehensive modular kit, users can compose the optimal pump configuration that best meets their own demands. The PVplus adjustable axial piston pump distinguishes itself in particular by its energy-efficient operation and low noise level that is based on low-pulsation operation in conjunction with a housing of optimised stiffness.



ons for Injection Moulding



Rotary actuators – delivering torque

Rack and pinion rotary actuators deliver constant torque in both directions of rotation. Standard rotations of up to 360° can be increased to up to five rotations or more on custom models. Fully enclosed, high-capacity bearings support radial and thrust loads, while compact dimensions make mounting easy.

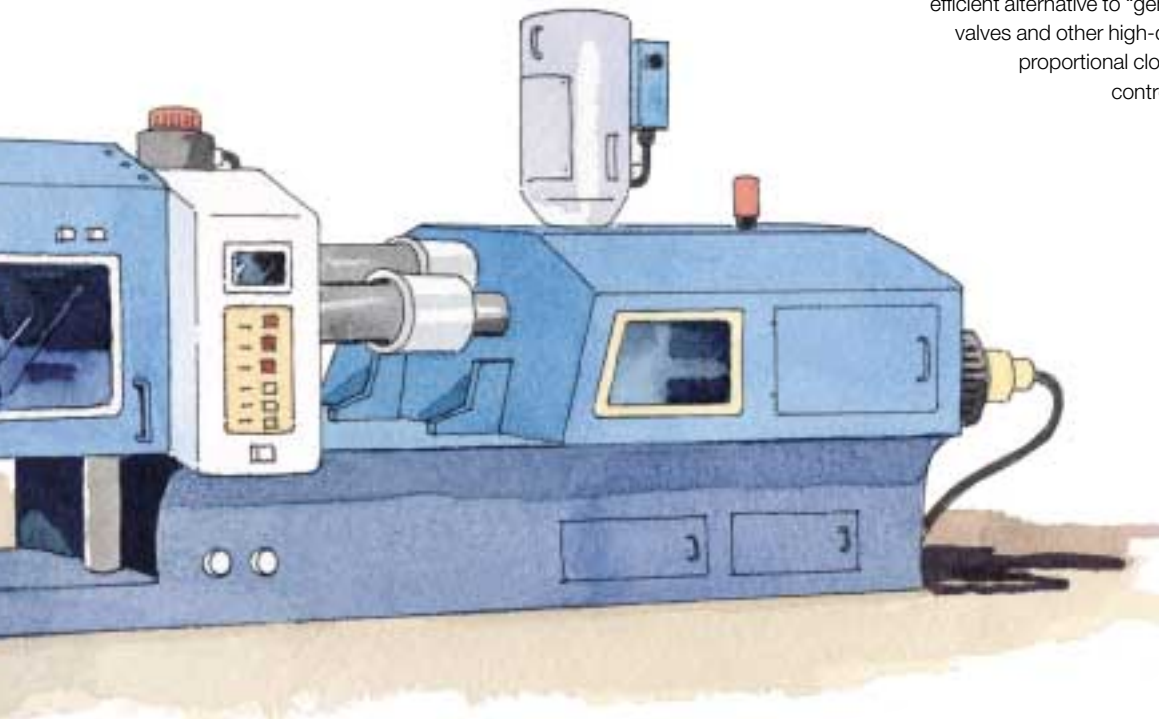


Precise pressure control

The single solenoid operated proportional relief valve series RE*W is characterised by very low hysteresis, very fast response and excellent repeatability. Typical applications include precise pressure control at relatively high flow rates.

A revolution in dynamics and force

The series DFplus® with VCD® drive technology is a new generation of proportional DC control valves. With a frequency response of -3dB@ 400Hz (±5% command signal), it is particularly suited for all applications with exact positioning and accurate pressure and speed control. The DFplus® is an efficient alternative to “genuine” servo valves and other high-dynamics proportional closed-loop control valves.



Cylinders – the moving force

Tie rod, mill type and welded roundline cylinders, available with sophisticated electronic feedback, provide high productivity, low maintenance and a long service life in some of the toughest industrial environments around.



Leak-free connections

The Parker „Dry Technology” programme offers a wide range of high performance leak-free products: Tube fittings, industrial and hydraulic rubber hoses, thermoplastic hoses, quick couplings, pneumatic tubes and pneumatic fittings for maximum security, protection and good economy.



Parker – Providing the Industry with Complete System Solutions



Parker's System Development Process

The System Development Process is a joint effort between Parker and the customer, designed to maximize the results of a systems evolution. It begins with communications and scope planning. The next step is baseline testing and benchmarking, to establish goals and objectives. The rationalization process calls upon brainstorming the technical strategy. The optimization process quantifies the customer's desired gains and allows for refinement. Validation is completed before production release.

Dedication to Excellence

By choosing Parker as your component supplier, you also get access to our vast experience in systems engineering. Our skilled engineers are always ready to assist, on site or at our own dedicated Systems Engineering Centre. The team members all

have years of experience in advanced system design and will be your partners all the way. Adding a highly qualified Parker systems engineer to your project team will help you to utilize Parker components in a way that offers significantly improved systems performance – and hence a more competitive product – at a reduced total cost.

The Scope of Parker

Parker Hannifin is a leading global motion-control company, dedicated to delivering **Premier Customer Service**. Parker is the only manufacturer to offer its customers a choice of hydraulic, pneumatic and electro-mechanical motion-control solutions. Our company has the largest distribution network in its field, with over 8,300 distributors

servicing approximately 400,000 customers world-wide.

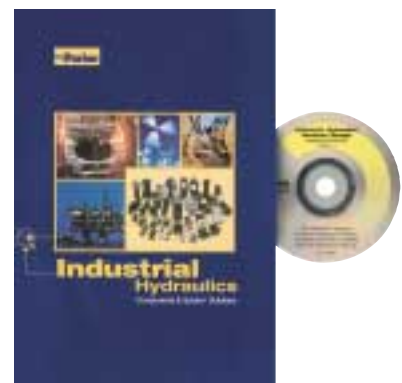
All from One Supplier

The Parker range of products and system solutions is constantly expanding and evolving, reaching ever higher levels of performance, functionality, reliability and durability. We are always striving to develop the real life performance of our components even further, to meet and exceed future demands, always backing them up with extensive training and field technical support around the clock, world-wide. This is just one of many ways in which we show our commitment to a truly Premier Customer Service, and this is why Parker is the only supplier you need when it comes to motion-control equipment.

We're Where You Are... Worldwide!

In the USA, call 1-800-CPARKER
E-mail: c-parker@parker.com
www.parker.com/hydraulics

In Europe, call 00800-27 27 53 74
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