



**Dedicated Products  
and Solutions for  
Hydraulic Presses**



**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 hydraulic press manufacturers. In this brochure we can only show you a small selection.

## CASE HISTORY: Parker's Pump Solution Helps keep the Presses Silent

A well established European manufacturer of hydraulically driven grape and fruit presses has discovered, with the support of Parker and the PVplus axial piston pump, that silence can be golden. With almost 100 years of manufacturing reputation and over 50 years experience in designing and manufacturing presses for the plastic and rubber industry, today this Parker customer builds hydraulic presses and automated press systems for many well known industries around the world.

Recent press manufacturing has incorporated the PVplus axial piston pump. Quiet operation and a unique control concept across all displacements also convinced the end users of the presses. When a new generation of presses were being developed a few years ago, the company talked to Parker and as a result tested the PVplus.

### Impressive silence

The quiet operation of the Parker pump in their press made them immediately enthusiastic. Today, this Parker customer takes delivery of complete subsystems for their presses, covering several functions. Besides the reduced sound levels, the system around the PVplus provides other advantages, such as improved reproducibility, free selection of force and velocity for all press motions, and reduced production cycle time.

The centre of this system is the PVplus variable displacement axial piston pump, used in frame sizes from 16 to 140 cm<sup>3</sup>/rev, as single or tandem pumps. The system provides a pressure/force cut off with an accuracy of  $\pm 0.75$  bar in a pressure range from 15 to 280 bar, resulting in a force tolerance of only 15 kN. The precise press control is achieved using a pump subsystem, including a pre-load and unload manifold with several built-in auxiliary functions.

### A universal and adaptive system solution

This Parker customer now have a universal and adaptive system that can be used across their entire range of presses. Due to the fast response of the PVplus system, they can provide velocities, which could only previously be dreamed of, in conjunction with increased energy efficiency.

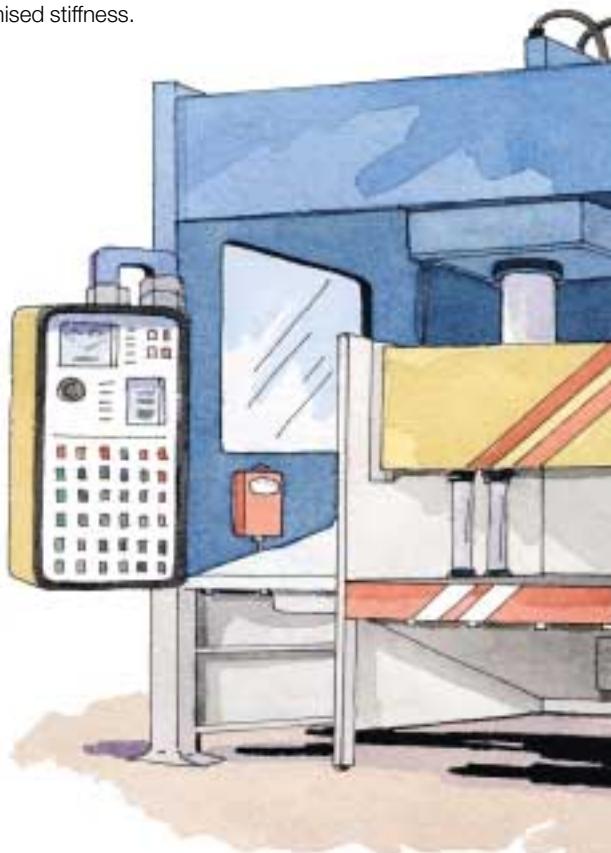
### Extended life

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 compressed air filters and membrane dryers provide solutions to effective air filtration in such industrial applications.



### Quiet power

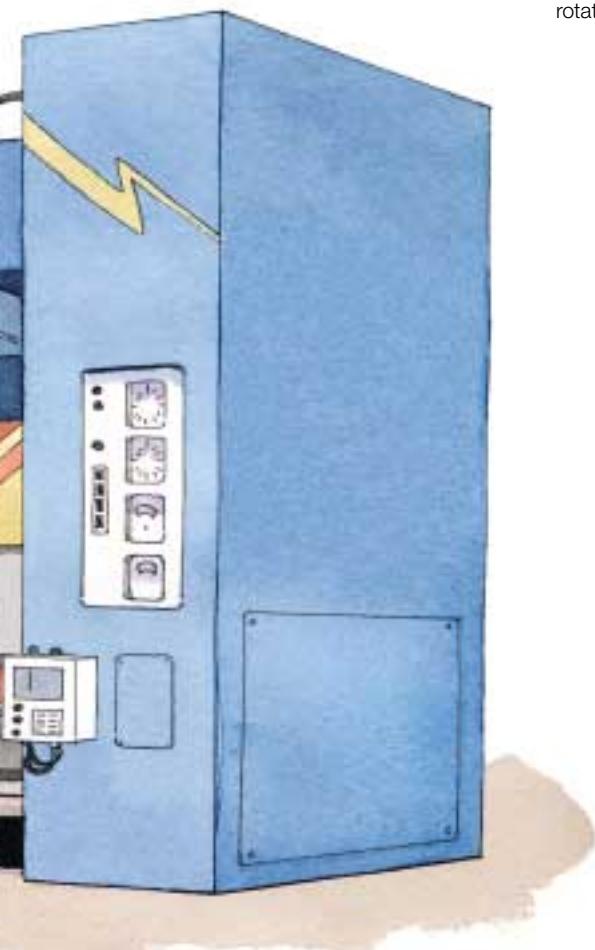
From a comprehensive modular kit, users can compose the optimal pump configuration that best meets their own demands. The PVplus adjustable axial piston pump distinguishes itself in particular by its energy-efficient operation and low noise level that is based on low-pulsation operation in conjunction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



# Components for Hydraulic Presses

## 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.



## 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.



The Parker block concept focuses especially on builders and suppliers of hydraulic presses for cold metal finishing. Thanks to multifunction modular design (which comply with EN693) they are also optimal for press retrofitting. Parker assembles the press control block with exactly the components defined by the customer.

## Custom built blocks



## Ingeniously simple – simply ingenious

The P\*D digital electronic amplifiers product line is complete. All Parker proportional valves can be operated with only 4 different digital modules. The ProPxD software, with integrated valve data base for easy set-up, is supplied free of charge.

## 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.



## High performance, high flow

The high performance, three-stage seated proportional TDL Cartridge throttle valve series conform to DIN 24342. They are driven by onboard closed-loop electronics, allowing extremely fast and accurate response. The poppet provides very precise flow control all the way up to 13,500 l/min.

## 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 ( $\pm 5\%$  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.



## Measuring devices

A broad range of sensors and adaptors are available in our SensoControl programme, all designed to meet global standards. A wide variety of mounting styles, pressure ranges and monitoring systems accommodate all types of application demands. Combined pressure and temperature sensor units are available.

## 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

serving approximately 400,000 customers world-wide.

## All from One Supplier

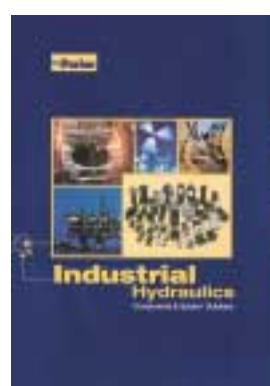
The Parker range of products and system solutions is constantly expanding and evolving, reaching ever higher levels of performance, functionality, reliability and durability. We are always striving to develop the real life performance of our components even further, to meet and exceed future demands, 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!

To order products, CDs or additional information:

In the USA, call 1-800-CPARKER  
E-mail: [c-parker@parker.com](mailto:c-parker@parker.com)  
[www.parker.com/hydraulics](http://www.parker.com/hydraulics)

In Europe, call 00800-27 27 53 74  
E-mail: [eurohyd@parker.com](mailto:eurohyd@parker.com)  
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