

Waste Handling – a Parker Focus on System Solutions in Harmony with Nature

Market Knowledge and Solutions

Parker's commitment to the refuse industry is clearly demonstrated by the products, the solutions and the customer service provided, always with environmental awareness in focus. Parker has successfully integrated products that address the needs of the refuse industry for over fifty years. Innovative products like Hydraulic Overspeed and Pressure control, Pack-at-idle systems, variable pack systems, integrated manifolds and complete electro-hydraulic systems are just a few examples.

Total System Capabilities

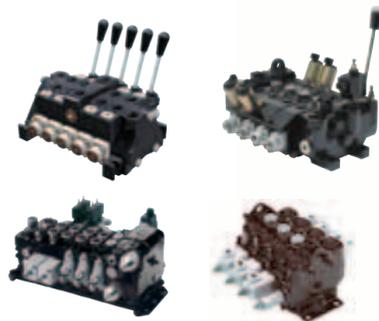
Parker has a dedicated team (MST, our Mobile Systems Team) of Waste Handling specialists to design systems, sub-systems and solutions to meet the most demanding requirements. Among the many immediate benefits realised are; increased productivity, reduced production time, reduced fuel consumption and emissions, reduced noise and reduced down time. The Parker Kanban, Bread-Man, Kitting and pre-assembling services are equally important Customer Service factors which cut inventories, purchase routines and production cost to an absolute minimum.

Certified Electronics

Parker is the global leader in electro-hydraulic motion control products. IQAN is a user-friendly, comprehensive control system specifically designed for the mobile industry, fulfilling the latest standards for safety and environmental protection. IQAN provides the user with application software tools to build up the complete system. The modules communicate via Can Bus, allowing different gateways to other systems. All of Parker's extensive knowledge and experience in motion control on mobile units is built into IQAN, providing optimum control and flexibility as well as on-board and remote diagnostics capabilities.

Hydraulic valves with integrated functions for efficient production

Section-built open centre as well as load sensing valves for maximum flexibility. Integrated functions such as low spill emergency stop (in case of hose rupture), packer cylinder compounding system, tamper free sweeper blade roll-back relief valve, ejector barrier set-back sequence valve, hopper door maximum speed adjustment and maximum flow regulator – all of which save on materials, production time and purchase logistics.



Intelligent control systems for improved packing

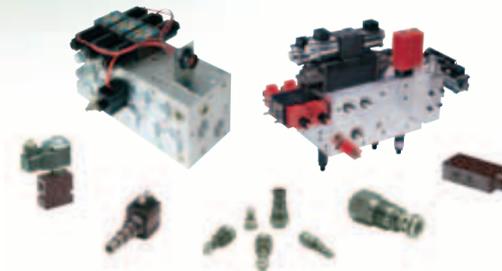
The IQAN system with user-friendly software is specifically developed for the mobile machine market, allowing the designer to integrate all machine functionality in a simple way, focusing on time-to-market and machine management. Being of modular design, there are no input or output limitations. IQAN controls and supervises the complete working hydraulics with all necessary interlocks, such as: fork levelling, packing system interlocks, side loader arm control, rear end loader bin hoist control. It also provides a weighing interface and communicates with on-board computers. The graphic display is used to optimize the loading operation by e.g. monitoring the packing cylinder position and load. The display is also used for alarm, service logging and faultfinding functions.

Mobile Systems Team



Custom designed cylinders with integrated functionality

Cylinders, purpose-built to customer requirements, are designed to the specific needs of extremely demanding applications. Available with features such as hardened piston rod, through-rod feeding and position sensors for, e.g., the pack- and sweep cylinders. Also available with integrated valve functions, (over-centre valves or lock valves) and end position damping for functions such as hopper door opening. A variety of rod eyes and bearing types completes the picture.



Tailor made integrated functionality

Having the widest range of cartridge valves in the industry enables Parker to custom design complete valve blocks to fulfill every possible need in the Refuse Trade. Either stand-alone units or flanged to a control valve, they form a vital part in a system solution.



Fixed and variable displacement pumps for direct coupling

High pressure rated piston pumps as well as vane and gear pumps for direct PTO mounting, designed for high efficiency at low speed, giving low noise operation. They allow 'packing on the move' with unchallenged drivability as well as providing lower oil temperature, reduced emissions and improved fuel economy.



'Green' filters for increased productivity with reduced life cycle cost

The long term durability and reliability of a hydraulic system very much depends of the cleanliness of the hydraulic oil. The comprehensive Parker range of high pressure filters, return line filters and breather filters is available with 'green elements'. Half a century of experience in choosing the optimum filter combination for each application, guarantees minimum machine down time and life cycle cost. With CM20 6-channel and laser models, Parker's portable particle monitors are the global leaders in fluid contamination monitoring.



Accumulators for energy saving

Parker offers a comprehensive range of CE-approved accumulators which maintain high pressure over the working period. Accumulators are the only practical way of storing or diverting energy on a mobile machine. Used for either recovering the kinetic energy from retarding the truck or storing energy using smaller pumps, they are quickly becoming a vital part in helping end-users fulfilling their environmental preservation programs.



Auxiliary Power Products

Chelsea Power Take-Offs are available for all refuse industry applications, from constant mesh to Shift-on-the-Go PTO's. Utilize a low profile Parker PTO and Piston pump combination to optimize the installation envelope.

Fluid connectors for environmentally conscious industries

Tailor made to each specific application after a complete machine analysis, the hoses and connectors represent a vital link in a hydraulic system. A correctly dimensioned and specified layout gives not only safe and fast assembly for lower production cost but also reduced pressure drop for higher efficiency, leakage free systems for reduced environmental contamination, reduced service cost and reduced down time. Excellent world-wide availability is offered throughout the whole range. Push-in connectors further reduce production time.



Quality components, quality support, quality result!



With skilled back-up from our Mobile Systems Team your chances of winning will improve.

As you can see from this brochure, there is a Parker product – or several Parker products – to choose for any refuse application. Choosing Parker as your supplier means more than just cost-saving one-stop shopping for quality components at competitive prices – you also get access to our vast experience in systems engineering.

Partners all the way

Our Mobile Systems Team is ready to assist in developing and fine-tuning the hydraulic systems for your machines, on site or at our own dedicated Systems Engineering

Centre. The team members all have years of experience in advanced system design in the refuse industry and will be your partners all the way, suggesting different system solutions until you are satisfied with the performance of your prototype machine.

By adding a highly qualified Parker systems engineer to your project team, you can utilize Parker components in a way that offers significantly improved systems performance – and hence a more competitive product – at a reduced total cost.

New state-of-the-art technology

The Parker range of products is constantly 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. This is just one of many ways in which we show our commitment to **Premier Customer Service**.

Parker – Providing the Refuse Industry with Complete System Solutions



Parker's System Development Process

The Mobile Systems 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 Mobile Hydraulics

The Mobile Systems Team of Parker is dedicated to the development of mobile hydraulic systems and solutions. Our Borås, SE technology centre was designed to provide a centralized location for engineering, systems development, systems testing

and complete customer training and technical support. Parker's multi-bay facilities provide opportunities to evaluate, redesign and refit any piece of mobile equipment with the latest hydraulics technology. Shop and field-testing are also part of our capabilities.

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, providing

the most complete product offering in the Refuse Industry today.

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 **Premier Customer Service**, and this is why Parker is the only supplier you need when it comes to motion-control technology for the refuse industry.

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
www.parker.com/hydraulics

In Europe, call 00800-27 27 53 74
E-mail: eurohyd@parker.com
www.parker.com/eurohyd



anything  Possible.

Parker Hannifin Corporation
Mobile Systems Team
501 78 Borås
Sweden
Tel.: +46 33 700 52 00
Fax: +46 33 12 11 43
www.parker.com/eu

Bulletin HY02-8021/UK
2M 08/04 S&S
© 2004
Parker Hannifin Corporation
All rights reserved. Subject to change without notice.



System Solutions for The Refuse Industry



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