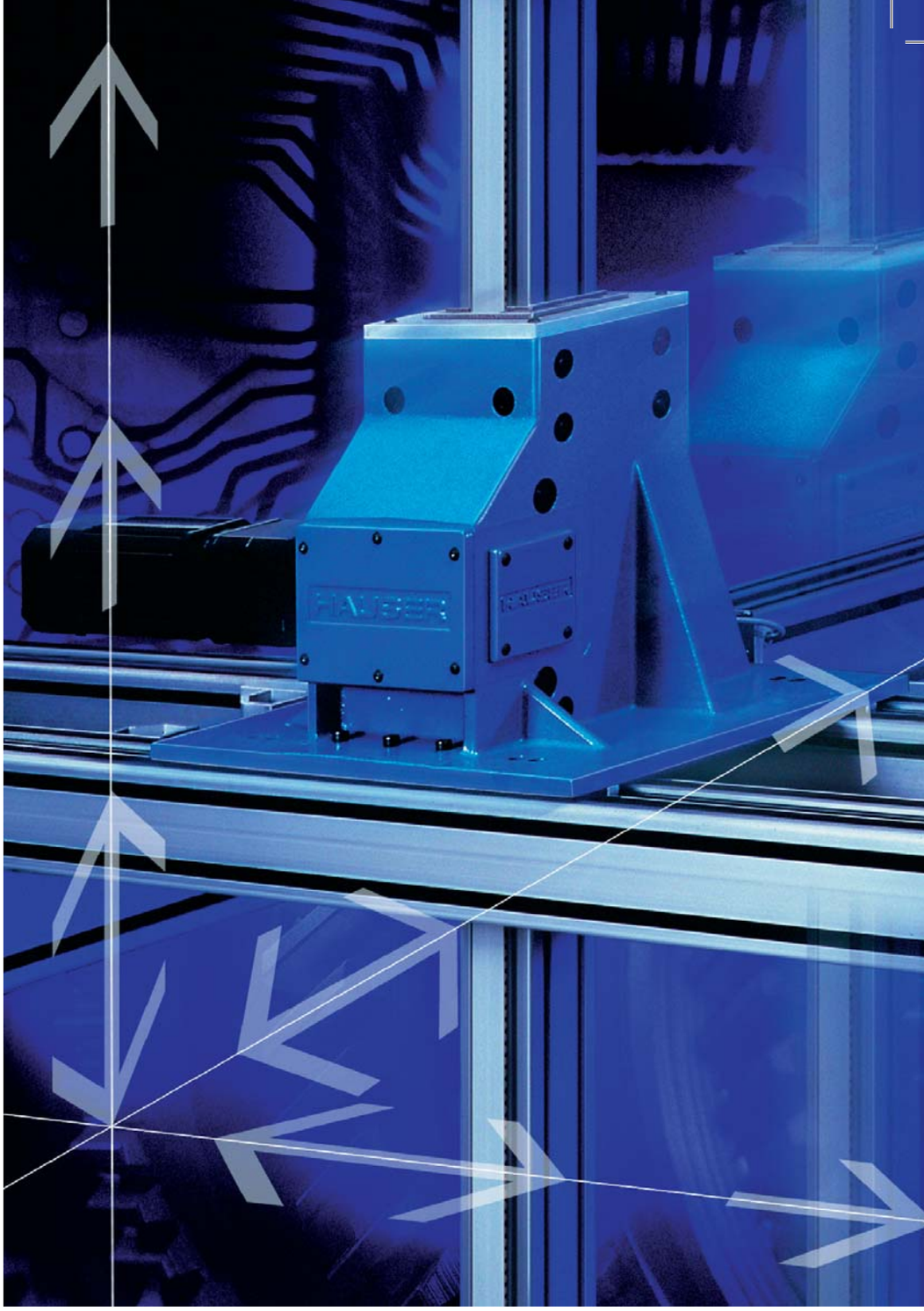
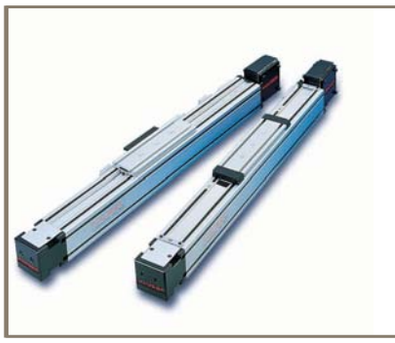
aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding



Automation systems from Parker

The integration of mechanical and electronic components



Parker

ENGINEERING YOUR SUCCESS.

Parker - Automation

Progress through systems integration

To achieve efficient and cost-effective automation solutions, you need the expertise and experience of specialists.

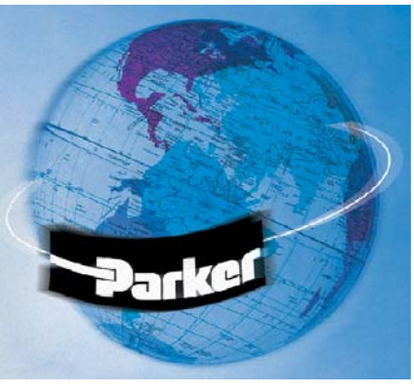
PARKER Electromechanical Automation (EME) has been developing and producing high-quality automation components and systems for over 30 years. Specialists from the fields of electronics, electrics, mechanics and systems technology work hand in hand towards success. The traditional integration of development, production and service at Parker enables resources to be utilised efficiently to achieve maximum cost-effectiveness. The specialists at Parker combine technological innovation with state-of-the-art automation concepts in an effective manner to create robust, practical solutions to automation problems.

You too can benefit from Parker System Integration.

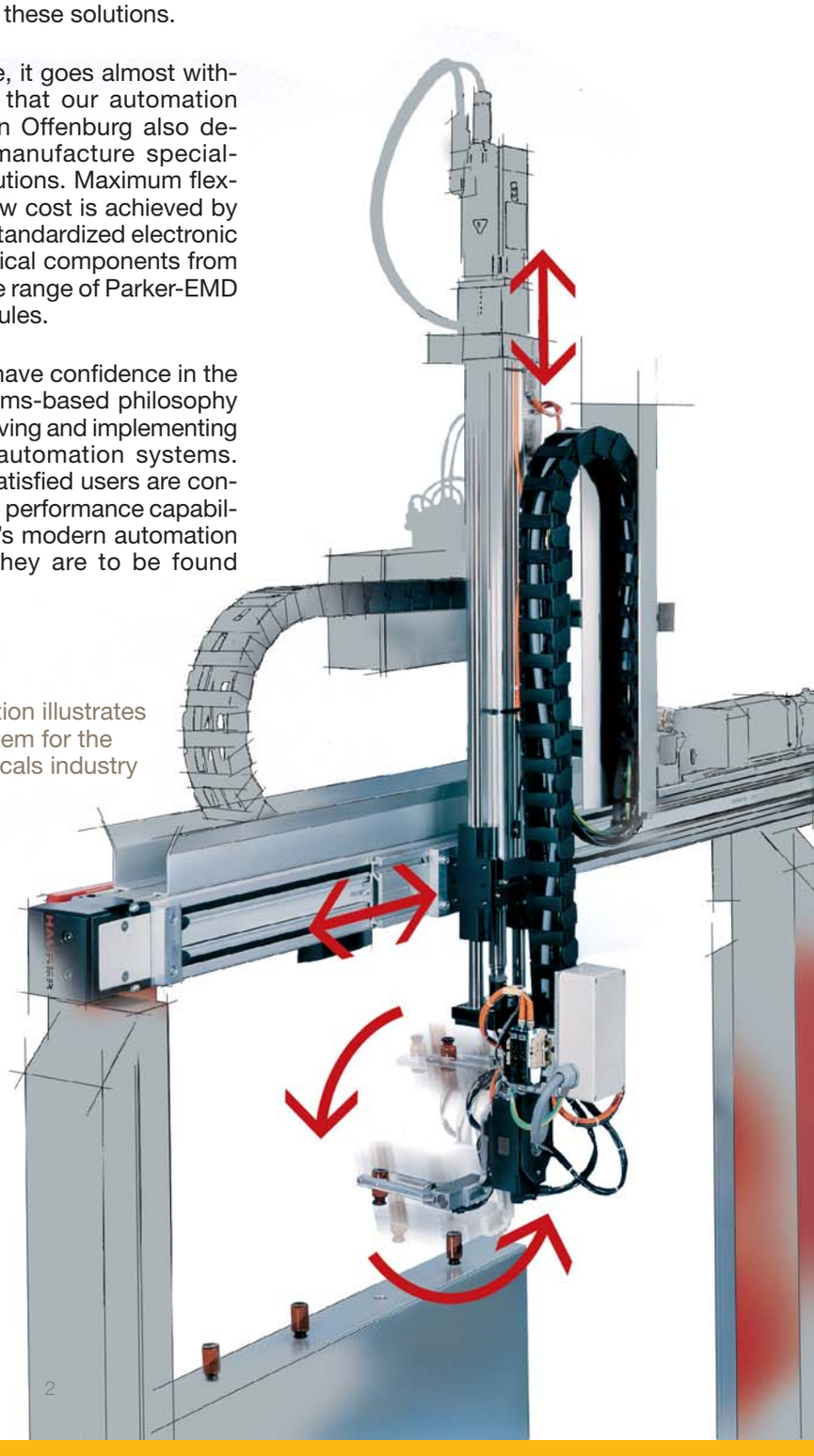
Our consistent policy of pursuing system-based concepts enables us to deliver a comprehensive range of cost-effective, standardized automation solutions. Linear and gantry robots, stock palettization units and handling systems for high-bay shelving are examples of just some of these solutions.

Of course, it goes almost without saying that our automation specialists in Offenburg also develop and manufacture special-purpose solutions. Maximum flexibility with low cost is achieved by integrating standardized electronic and mechanical components from the extensive range of Parker-EMD system modules.

You can have confidence in the Parker systems-based philosophy when conceiving and implementing successful automation systems. Numerous satisfied users are convinced of the performance capability of Parker's modern automation solutions. They are to be found in the food production and pharmaceutical industries, automotive engineering, construction materials and prefabrication as well as in the fields of mechanical engineering and the plastics industry.



Parker – worldwide partner for automation systems



This application illustrates a 2-axis system for the pharmaceuticals industry

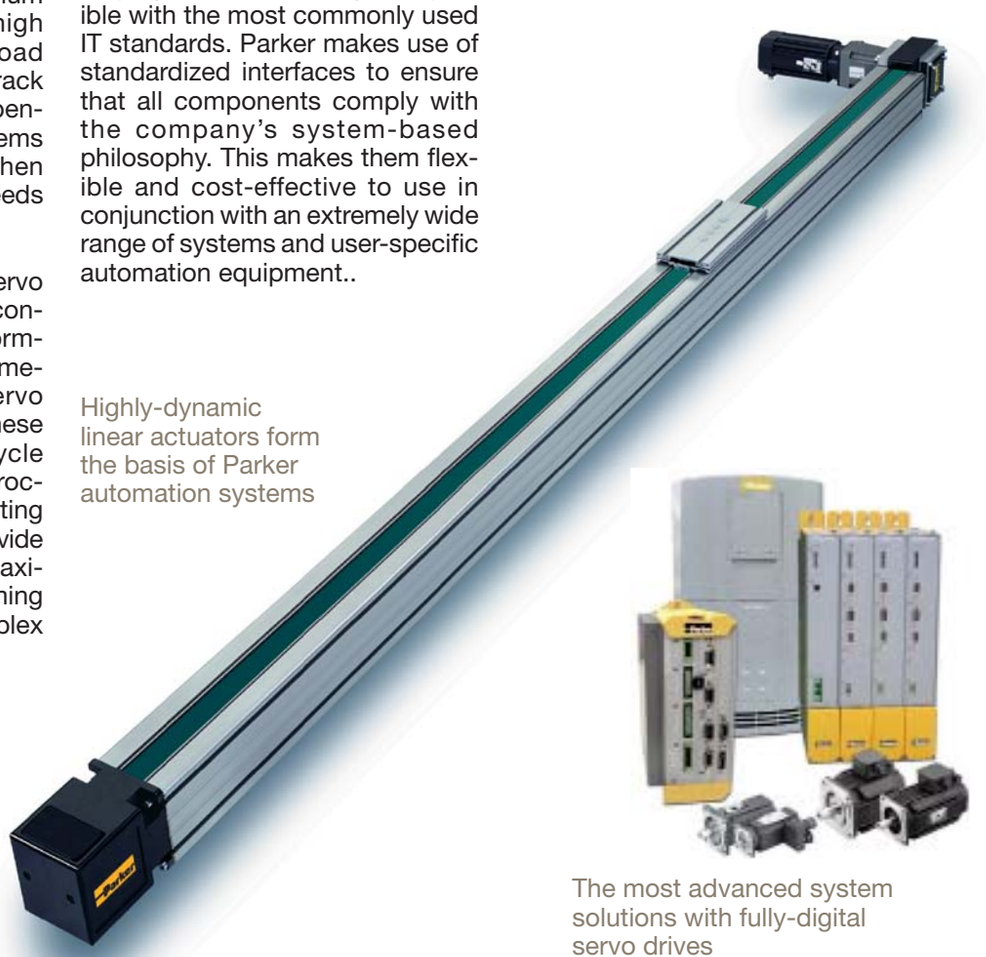
Components – Concepts – Systems

Modules for greater cost-effectiveness

Components developed and produced at Parker form the basis of eminently practical concepts and systems for automation purposes. The basic module is an aluminium linear actuator. To achieve high dynamic performance and load characteristics, there are belt, rack and screw drive options. The benefits of Parker automation systems are particularly convincing when moving heavy loads at high speeds over extended distances.

An extensive range of servo motors with fully-digital servo control deliver the necessary performance to our equipment. Real-time-capable bus systems link servo amplifiers and control units. These make possible very short cycle times, even for time-critical processes. Industrial computers acting as Man-Machine-Interfaces provide clear text dialogues, offering maximum convenience in programming and for the operation of complex automation systems

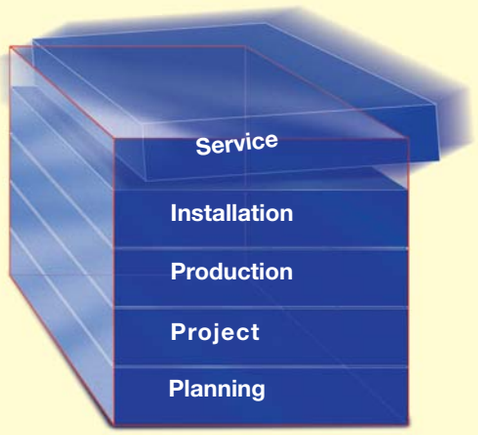
To achieve comprehensive data communication with higher level controllers and PLC systems, a tried-and-tested bus system is employed which is fully compatible with the most commonly used IT standards. Parker makes use of standardized interfaces to ensure that all components comply with the company's system-based philosophy. This makes them flexible and cost-effective to use in conjunction with an extremely wide range of systems and user-specific automation equipment..



Highly-dynamic linear actuators form the basis of Parker automation systems

The most advanced system solutions with fully-digital servo drives

Step by step to the ultimate success of your project:
Parker is a reliable partner at every level of planning and implementation of complex projects.



Productivity – the systematic approch

Standardized gantry robots

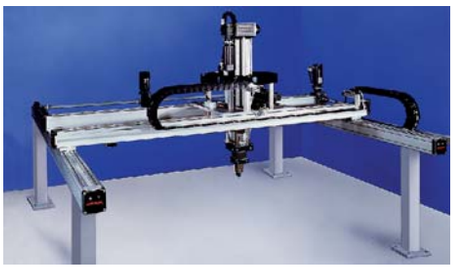
Linear gantries - the ideal way of loading and unloading machines, con-veyor belts and pallets. They combine the highest standards of cost-effectiveness with seamless automation.

Standardized gantries arranged around a production area form the key to comprehensive automation of the ma-terial flow to production equipment, transport and packag-ing equipment.

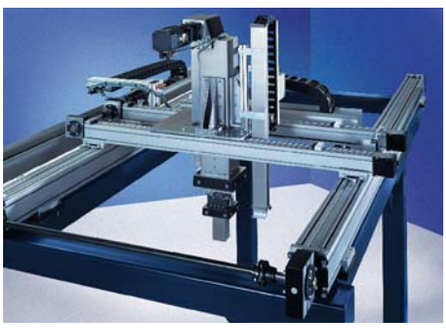
Since they are able to move into any position within the working area, it is also possible to integrate measuring and testing stations. Their cost-effective design delivers economical solutions to automation problems.

Depending on the requirements, the gantry robots can use standard grippers or specially developed grippers for de-fined tasks. This enables them to grip anything from the proverbial egg and flexible rub-ber or plastic parts to robust, heavy steel components in a completely reliable manner. Decades of ex-perience in dealing with the widest imaginable variety of workpieces and materials enables the Parker specialists in Offenburg to develop the optimum gripper for each han-dling function.

Especially when dealing with complex material flow operations, careful coordination is vital. To uti-lize gantry robots in a cost-effective manner, programming them must be a quick and easy task. Dig-ital servo controllers and industrial computers serve as operating and programming terminals and are all integral components of the over-all concept. Users benefit from turnkey equipment which can be installed rapidly and put into service without delay. Parker gantry robots assure productivity and reliability from day one.

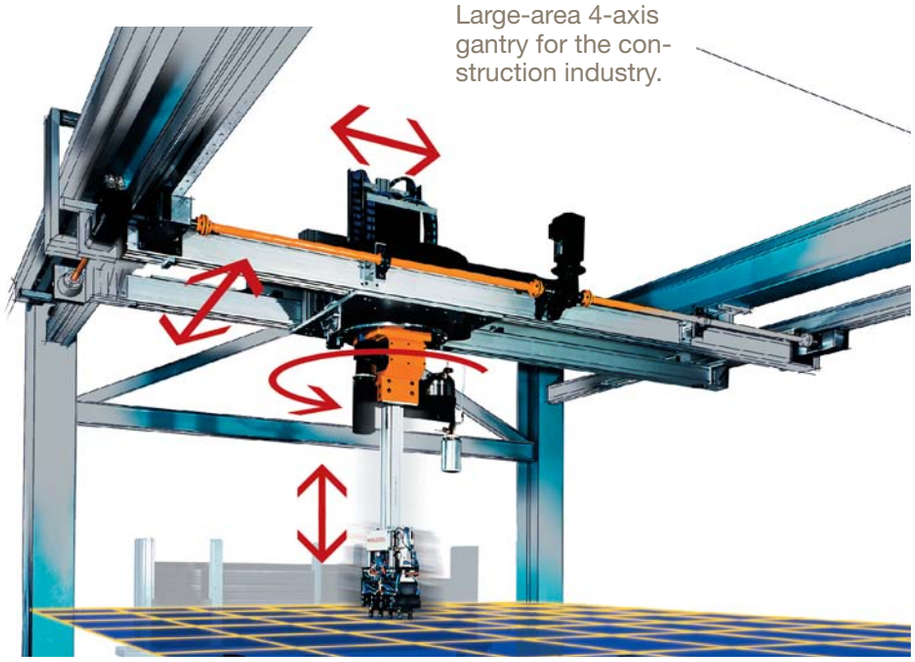


4-axis gantry with vertical telescopic axis



Retrieval gantry for machine tools

Large-area 4-axis gantry for the con-struction industry.



Performance table: The standard at a glance

Line gantry	Axis	Type	Travel [m]	Velocity [m/s]	Acceleration [m/s²]	Load-bearing capacity [kg]
HLP 100/80	X	HLE 100	5	1,5	3	
	Z	HZR 80	1,5	1,5	5	30
HLP 100/100	X	HLE 100	5	1,5	3	
	Z	HZR 100	2	1,5	5	70
HLP 150/100	X	HLE 150	9	2,5	3	
	Z	HZR 100	2	1,5	5	150
Room gantry						
HRP 100/100/80	X	HLE 100	5	1,5	3	
	Y	HLE 100	3	1,5	3	
	Z	HZR 80	1,5	1,5	5	30
HRP 100/100/100	X	HLE 100	5	1,5	3	
	Y	HLE 100	3	1,5	3	
	Z	HZR100	1,5	1,5	5	70
HRP 150/100/80	X	HLE 150	9	2,5	3	
	Y	HLE 100	3	1,5	3	
	Z	HZR 80	1,5	1,5	5	30
HRP 150/150/100	X	HLE 150	9	2,5	3	
	Y	HLE 150	5	2,5	3	
	Z	HZR 100	1,5	1,5	5	150

Other dimensions and performance data are available on request

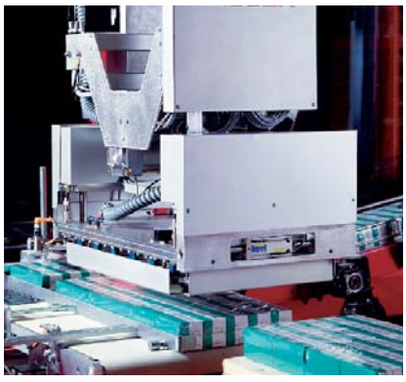
Efficient solutions

Palletizing robots made to measure

Speed and flexibility are the most important factors in a palettizing opera-tion. Short throughput times at high travel and positioning speeds can be achieved using these palettizing robots. Flexibility primarily demands an open control system which offers clear text dialogues, making it easy to program for various palettizing tasks. These benefits are combined in an ideal manner in the superb palettizing systems supplied by Parker.

An industrial computer acts as a Man-Machine-Interface. A graphical display of the approaching palettizing samples on a screen allows for easy and comfortable programming. The sequential programs are generated and monitored automatically by the integrated, fully-digital servo control unit.

To provide reliable transport for pallets, packaging and workpieces made from every conceivable material in a wide range of shapes, the palettizing systems are equipped with application-specific grippers. If various tasks need to be handled in an automatic sequence, gripper changeover systems give short retooling times and ensure maximum flexibility.

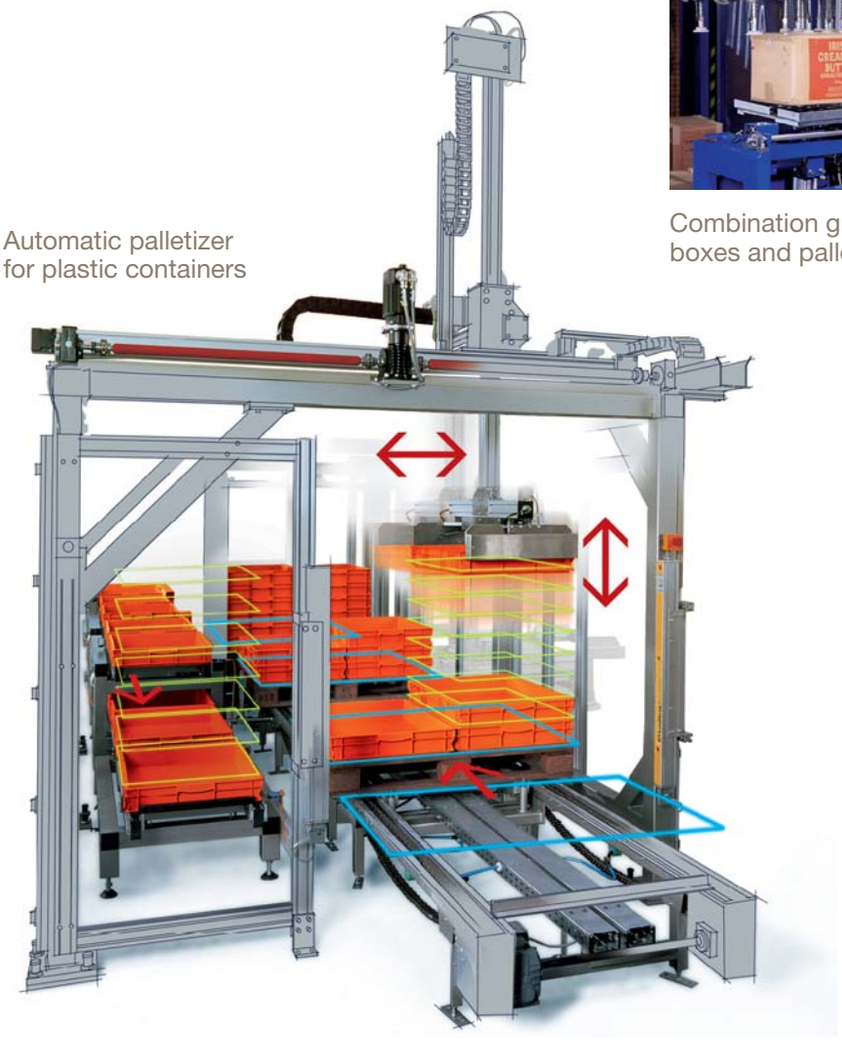


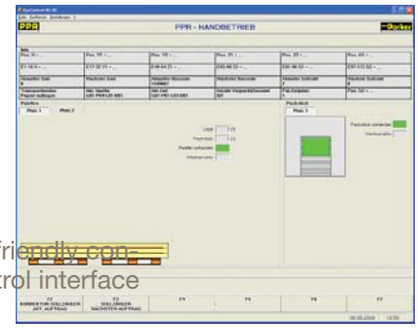
Multifunction gripper

Palletizing application in the pharmaceutical industry

Combination gripper for boxes and pallets

Automatic palletizer for plastic containers





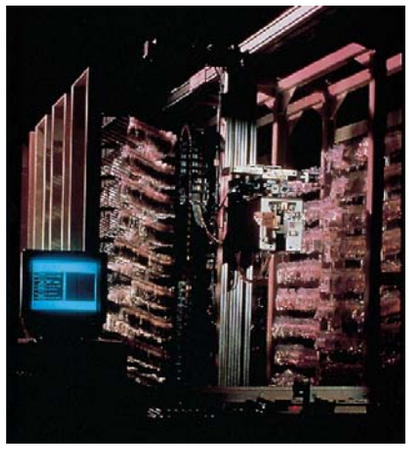
User-friendly control interface

Stock control at the touch of a button

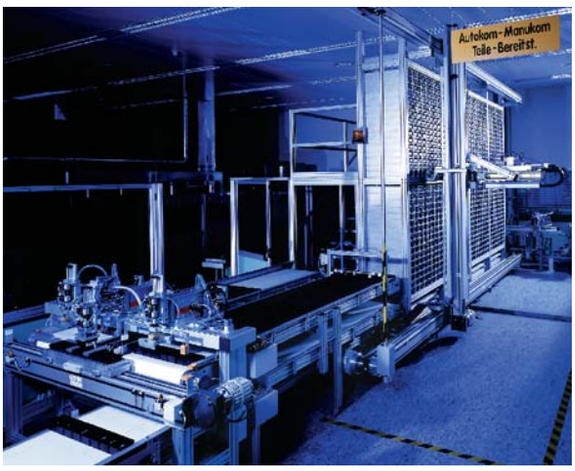
Shelf-picking units

Any modern inventory management system capable of coping efficiently with stock movement needs to have good quality high-bay stock handling equipment. Nowadays, cost-effective, automated high bay stock handling systems are able to deal with a broad range of tasks and require very little intervention by human operators. Here are a few examples: retrieving small parts to make up an order, moving raw semi-finished materials into and out of stock, perhaps via buffer stock areas located beside production, storing documentation and other data in archives.

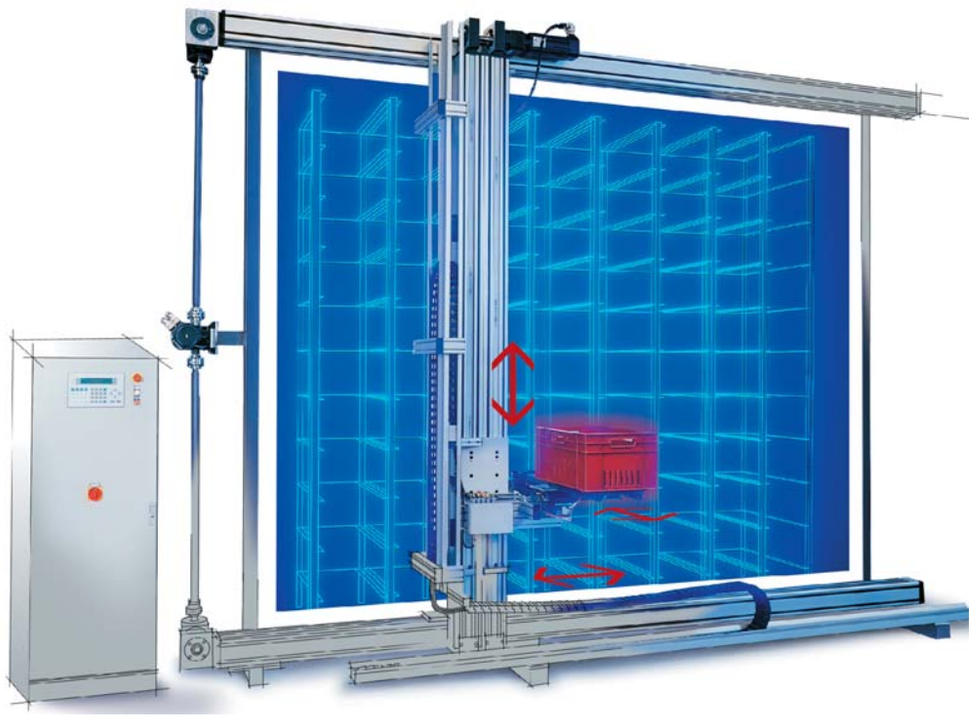
In order to achieve rapid stock transfer, high-bay stock handling euqipment must be able to cover extended distances at high speeds and at a high dynamic. Parker high-bay stock handling systems meet these requirements, and are equipped with belt or rack drive units powered by high-performance servo motors and fully digital servo controllers. Telscopic or push/pull-type lifting systems are able to move a tremendously wide variety of units into and out of stock. Integrated PC control units enable goods moving into and out of stock in the automated high bay storage areas to be monitored and documented reliably. Since they run under the Windows operating system, they have no problem in being incorporated into standard computer networks (e.g. Novell via Ethernet). This capability enables them to exchange data with superorvisory host systems, demonstrating the outstanding benefits of the Parker systems-based philosophy. High-bay stock handling equipment from Parker has the in-house material flow situation firmly under control.



Commissioning system for the pharmaceutical industry



Small parts commissioning for electronic components



Shelf-picking unit with telescopic lifting equipment

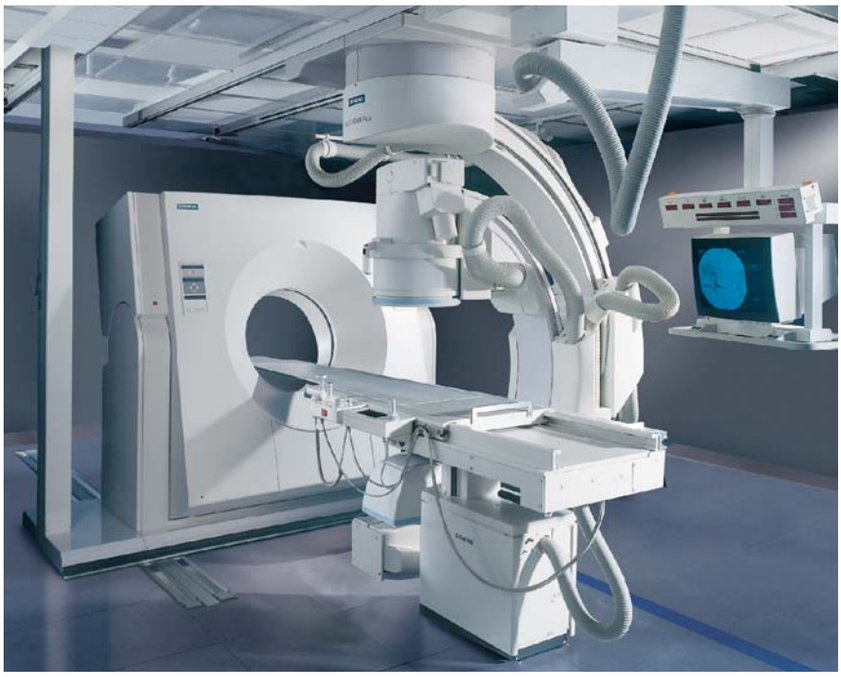
Basic technical data

Type	Payload Gmax [kg]	Length Lmax [m]	Height Hmax [m]	Vx [m/s]	Vy [m/s]	Performance max DS/h
RBGA.ZR	50	12,0	4,0	3,0	1,5	200
RBGB.ZS	50	40,0	8,0	2,5	1,5	120

Other dimensions and performance data are available on request

Open and closed-loop control

Automation systems



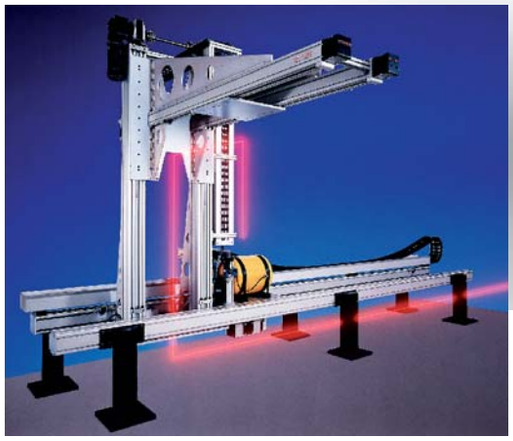
There is virtually no limit to the number of ways in which Parkers mechanical and electronic components can be combined to create customer-specific automation systems. A perfectly matched, modular and high-performance range of components allows the equipment to be employed in every major industrial sector.

Equipment for moving computer-tomographs

Parker has developed high-performance industrial plotters for working over large surface areas, for example when cutting film, applying sealants and adhesives, milling grooves, marking out, plotting and scribing metal sheets and wooden panels. The user-friendly, PC-assisted programming interface provides a solution for every contouring problem. Reflecting in a mirror axis, rotating, enlarging, reducing, spline interpolation, DXF file transfer - using these features, you can work quickly and simply on just about every concept.

Universal plotter system

Laser-cleaning of rotor blades



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