



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



Solutions Provider for Global In-Plant Automotive

Components, Systems and Services



ENGINEERING YOUR SUCCESS.

Parker Hannifin Corporation

ENGINEERING YOUR SUCCESS.

A global, Fortune 300 company with sales of \$11 billion and over 427,000 customers in 46 countries, Parker Hannifin is the world's leading supplier of motion control components and system solutions serving the industrial, mobile, and aerospace markets.

Excellence is imprinted on our corporate DNA. We are the only global manufacturer offering customers a choice of hydraulic, pneumatic, electromechanical, fluid and gas handling and filtration technologies.

Customers rely on Parker for engineering excellence, world-class manufacturing and outstanding customer service to provide comprehensive application solutions that are second to none.

Parker's Value proposition

Parker's team of highly qualified applications engineers, product development engineers, and system specialists can turn Parker's unlimited breadth of motion control products into an integrated system solution to meet or exceed your expectations.

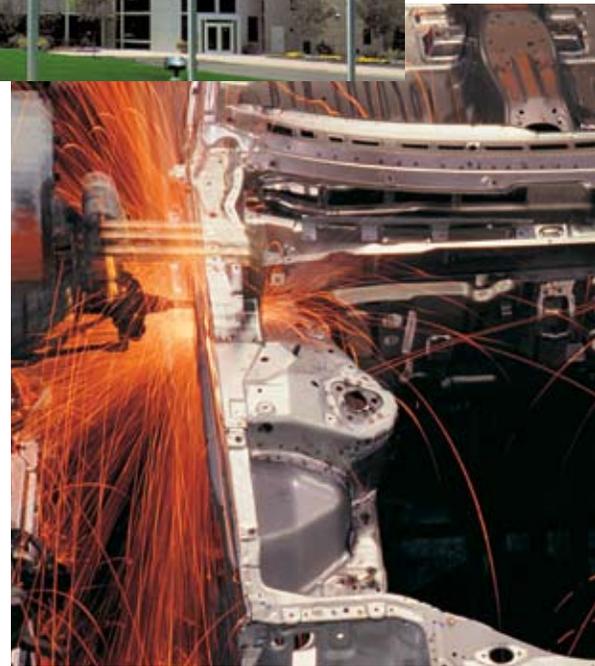
Beginning with a review of machine drawings, we work to reduce the proliferation of components with an eye towards lean inventory



Parker world headquarters
Cleveland Ohio, U.S.A.

management. Parker can provide the components, subsystems, and complete motion systems at any level of participation that you choose.

For today's customers, an outstanding total experience and the commitment to provide exceptional value is the benchmark by which many suppliers are evaluated. Parker delivers tangible and measurable benefits that are designed to reduce your total cost while increasing performance and productivity, eliminating your frustrations, and improving your profitability.



1st in Delivery, Field Sales and Distribution

Parker boasts the industry's largest global distribution network, with more than 12,000 organizations worldwide. And with 287 factories located strategically on five continents, we can maintain matchless on-time delivery.

Expect the industry's fastest response and delivery by customer request date. Our division general managers are evaluated and compensated



based on meeting your delivery expectations. Plus, Parker's army of engineers works hand-in-hand with you and our local distributors forming a partnership to ensure the best products, services, and application performance.

Parker Distribution offers the next level in premier customer service. Each location has significant on-hand inventory to keep your down time to a minimum. Additionally, many distributors have in-house design and fabrication capability to support your system and subsystem requirements.

Training Excellence

Parker's technical training is the best in the world offering hands-on classes, Web-based training, and comprehensive text books for employees, distributors, and customers. Parker also provides computer based training, PowerPoint presentations, exams, drafting and simulation software, and trainer stands.

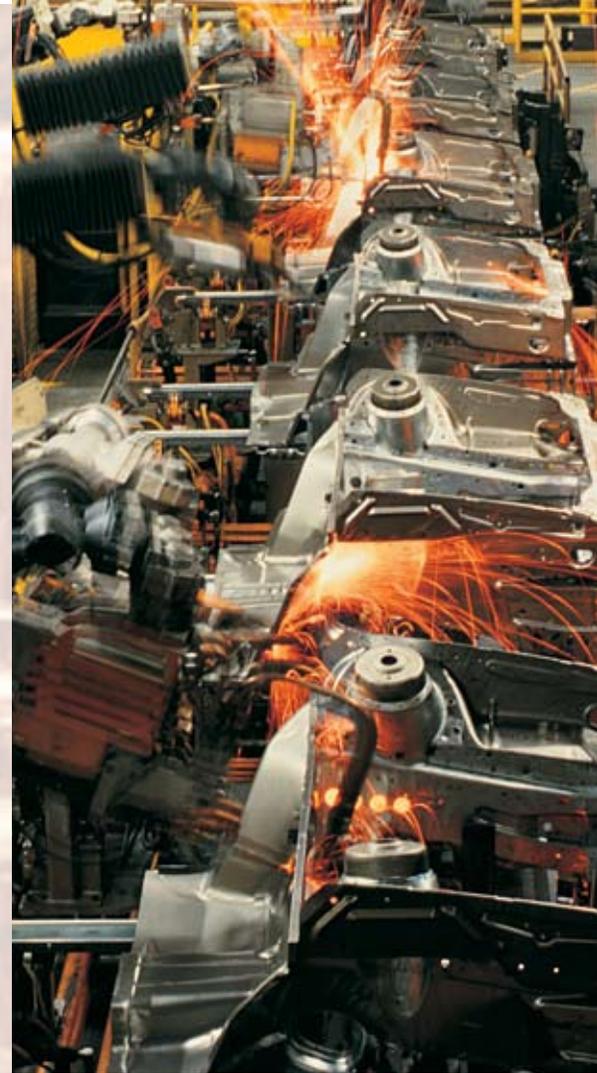
www.parker.com

Parker's newly re-designed Web Site is the industry's most comprehensive on-line resource for:

- **Product information**
- **Downloadable catalogs**
- **3-D design files**
- **Training materials**
- **Product configuration software**
- **RFQ capabilities**

24/7 Emergency Breakdown Referrals

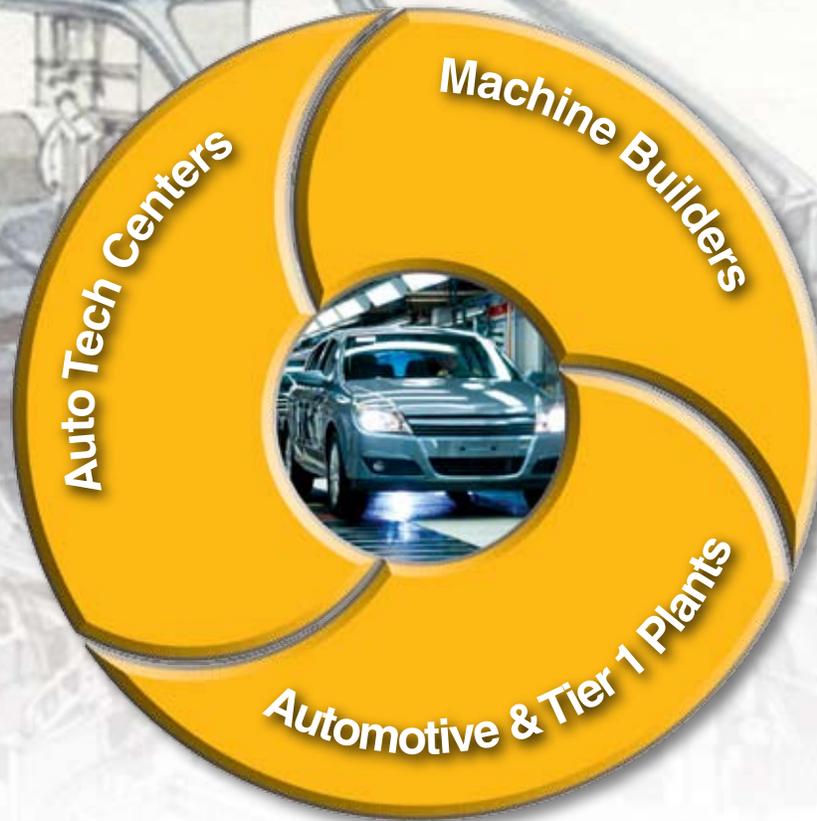
The Parker information center is available any time of the day or night at 1-800-C-Parker (USA), 44 1442 358429 (UK) or 00800 27 27 5374 (outside UK). Our operators will connect you with on-call representatives who will identify replacement parts or services for all Parker technologies. Talk to a real person!



Parker is your partner when it comes to increased productivity and profitability. No matter what your needs, Parker is your single source provider of all your motion and control solutions. Parker – Engineering your Success.



Automotive Markets



ENGINEERING YOUR SUCCESS.

Parker Hannifin has established a unique organization to support the three critical areas of today's automakers.

Parker Hannifin activities are well coordinated between

the automotive tech centers, machine builders, and the actual automotive or Tier 1 manufacturing plants.

Parker Hannifin's automotive team provides professional program management,

continuity in specifications, engineering assistance, and is tasked in assisting our customers to achieve on-time start-ups and maximum production uptime.

Auto Tech Centers

Dedicated global specifications team working with auto company engineering centers.

- **Product Selection**
- **Design Assistance**
- **Program Management**
- **Specification Development**

Machine Builders & Integrators

World wide sales engineering team and distribution.

- **Program Continuity**
- **Product Selection**
- **Design Assistance**
- **Trouble Shooting**
- **On-Time Delivery**
- **Integrated Systems**

Automotive & Tier 1 Plants

World wide sales engineering team and distribution.

- **On-Sight Problem Resolution**
- **Design, Application Assistance**
- **Spare Parts Availability**
- **Cost Reduction Services**
- **Factory Floor Support**
- **Inventory Management**
- **In-plant Product Centers**



Automotive Applications

Powertrain Applications

- **Transfer Machine Lines**
- **Conveyors**
- **Final Assembly Line**
- **Engine/Transmission Test**
- **Gantry Robots (part delivery)**
- **CNC Machine Lines**
(connecting rod, cylinder head, crankshaft, camshaft, cylinder, block, valvebody, gear cutting)
- **Gauging**
- **Clamping Applications**
- **Robotics**



Body and Assembly Applications

- **Transfers**
- **Conveyors**
- **Robogates**
- **Hydroforming**
- **Hemmer Presses**
- **Paint Shops**
- **Final Assembly**
- **Resistance Welding**
(soft touch pneumatic weld controls, servo weld guns & controls)
- **Robots**
- **Tire Lines**
- **Fixtures**



Metal Stamping Applications

- **Underbody**
(frame, engine cradle, floor plan)
- **Bodysides**
(door frame, fender)
- **Closures**
(door, deck lid, hood/roof)
- **End of Arm Tooling**
(air economizing vacuum, cups & grippers)



Global Automotive Program Management

You can select the level that you want to engage Parker Automotive.

Parker's highly qualified Automotive Program Management Team, headquartered in Troy, Michigan USA, can turn Parker's global presence into a win-win for your program. At Parker, we can cover your equipment designs and purchases to ensure that your specifications and Parker products are maximized for performance.

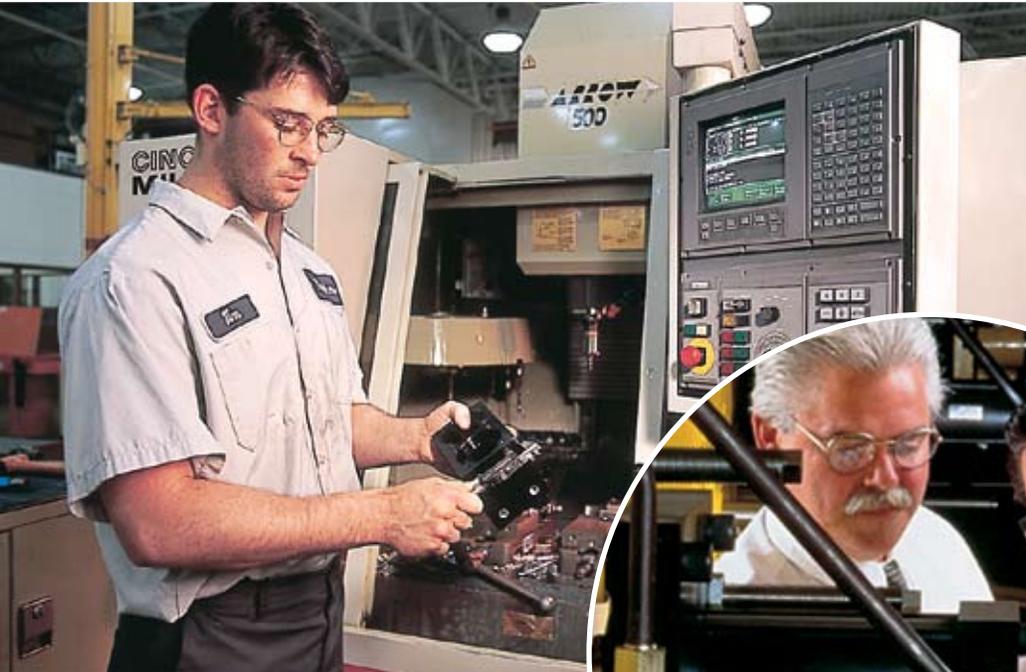
We currently have program managers working in every major automotive country in the world. Our capabilities and experience cover everything from machine audits, product selections, drawing approval and training, to machine buy off, spare parts recommendation and installation support.

Partnership Opportunities

Automotive companies that specify Parker Hydraulics, Pneumatics, Filtration, Fluid Connectors and Electromechanical products enjoy the highest levels of Parker's expertise including program management, training and engineering support. Parker's 80 years of application experience and focus on the automotive market gives us unique insights into helping automotive plants achieve flawless new program launches. Automotive companies' commitments to Parker range from a single line item to providing entire motion control solutions.

Depending on the automotive company's level of commitment, Parker can range from being a quality components supplier, shipping on time, to a complete cradle to grave program manager.

Adjacent are some of the value propositions that Parker can offer.



Parker Expertise

- **Product Selection Assistance:** Based on application requirements.
- **Field Sales Engineers and Distributors:** Local, technical and engineering assistance.
- **Quality Standards:** ISO/TS 16949:2002.
- **Simultaneous Engineering:** Validate applications by reviewing drawings and bills of material.
- **Training:** For engineers and skilled trades.
- **Vendor Line-up Meetings:** To review machine builder applications.
- **Documented Cost Savings:** Parker C.A.R.E.S (Cost Avoidance, Reduction and Engineered Solutions).
- **Spare Parts Inventory:** Recommendations & ongoing management.
- **Start-Up Assistance:** During installation and commissioning.
- **Machine Performance Audits:** For continuous machine and process improvement.
- **Zero Leak Programs:** Using genuine Parker parts.
- **Compressed Air Energy Reduction Services:** To identify cost savings.
- **Technology Training:** Classroom, training stands, CD or Web-based training on hydraulic, pneumatic, and electromechanical technology.
- **Program Books:** Approved products for machine builders.
- **Extended Warranties:** Warranties may be extended with use of Parker filtration.
- **Program Management:** All aspects of projects from cradle to grave.
- **Drawing Review and Approval.**
- **In-plant Engineering Staff:** Ongoing standards, specifications, equipment purchases, troubleshooting, warranty and training.

Pneumatics

www.parker.com/inplantauto/pneu

- **Cylinders**
 - ISO, NFPA and JIS standard cylinders
 - Aluminum and steel
 - Non-lube and lubricated
 - Low profile
 - Compact
 - Round body miniature cylinders
- **Rodlock Actuators**
 - ISO, NFPA and round body designs
- **Grippers**
- **Pneumatic Valves**
 - Inline, ISO standard manifold valves
 - Serial interface controls
- **Air Preparation**
 - Pneumatic filters
 - Regulators
 - Lubricators and injection lubricators



- **Other Actuators**
 - Rodless cylinders
 - Slides
 - Vane, rack & pinion rotary actuators
- **Soft Touch Welding Actuators and Controls**

Hydraulics

www.parker.com/inplantauto/hyd

- **Cylinders**
 - ISO, NFPA and JIS standard cylinders
- **Accumulators**
 - Top repairable
 - Piston and bladder styles
- **Power Units**
 - Automotive custom
 - Global standard overhead power units
 - Low noise
- **Industrial Valve & Controls**
 - Servo and proportional control valves
 - Stack valves
 - Cartridge valves
 - Ball valves
- **Rack & Pinion Rotary Actuators**



- **Pressure Intensifiers**
- **Pumps**
 - Gear and piston pumps
- **Hydraulic Motors**
- **Pressure Switches and Gauges**
- **System Diagnostics**

Electromechanical

www.parker.com/inplantauto/em

- **Electric Actuators**
 - o Rod and rodless actuators
 - o Linear motors
 - o Belt drive actuators
 - o XYZ gantry systems
- **Stepper & Servo Motors, Drives, and Controllers**
- **Human Machine Interface**
 - o Touch screen panel controls
- **Weld Guns Actuators & Controls**



Fluid Connectors

www.parker.com/inplantauto/fc

- **Hose and Tubing**
 - o High Pressure Worldwide Hydraulic hose
 - o Air Brake, CNG/LPG & engine hose
 - o Push-Lok® hose & fittings
 - o Hose for dry air applications
 - o UL flame-resistant robotic welding hose
 - o UL flame-resistant monowall and jacketed robotic weld tubing
 - o Nylon/Urethane tubing
 - o PTFE tubing for paint spray guns
- **Hose Assemblies**
- **Fittings**
 - o ISO 1179 standard fittings
 - o PrestoWeld fittings
 - o Global Connect fittings
 - o Seal-Lok™ fittings
 - o EO/EO2 fittings
 - o BSPP style fittings
 - o Chromium-6 (Cr6) free
 - o Locking ball valves



- **Quick Couplings**
 - o Service master diagnostic tool and diagnostic quick couplers
 - o Pneumatic and hydraulic couplers with inch or BSPP threads

Filtration

www.parker.com/inplantauto/flt

- **Hydraulic and Lubrication Filters**
 - o Medium and high pressure
 - o Return line filters
- **Filter Elements**
- **Reservoir Breathers**
- **Fluid Condition Monitoring**
 - o Particle counters
 - o Moisture sensors
 - o Portable filter carts
 - o Purification systems
- **Supply Side Compressed Air Filtration**
 - o Inline particulate, coalescing, and adsorption filters with ports up to 3"
 - o Conversion elements for competitive interchange
 - o Zero loss drains for air receivers and tanks
- **Demand Side Compressed Air Filtration**
 - o Coalescing and particulate filters and elements
 - o Ultrafiltration Systems
 - o Reverse osmosis systems
 - o Anolite systems and cells



Training

www.parker.com/training

Parker is recognized as the industry leader in the development and presentation of training materials and programs. Parker's Involvement Training covers hydraulic, pneumatic and electromechanical technologies. Our focus is that of non-commercial and involves state-of-the-art methodology.



Action Directory



The Parker information center (24 hrs)

1-800-C-Parker (USA)

44 1442 358429 (UK)

00800 27 27 5374 (outside of UK)

Email

inplantauto@parker.com

Web Site

www.parker.com/inplantauto



WARNING - USER RESPONSIBILITY

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from Parker-Hannifin Corporation, its subsidiaries and authorized distributors provide product or system options for further investigation by users having technical expertise.

The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided from Parker or its subsidiaries or authorized distributors.

To the extent that Parker or its subsidiaries or authorized distributors provide component or system options based upon data or specifications provided by the user, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the components or systems.

OFFER OF SALE

The items described in this document are hereby offered for sale by Parker-Hannifin Corporation, its subsidiaries or its authorized distributor. This offer and its acceptance are governed by the provisions stated in the detailed "Offer of Sale" elsewhere in this document.



Sales Offices

North America

United States – Troy, Michigan
Tel: 248-589-2400

Mexico – Toluca
Tel: +52 722 275 4200

Asia Pacific

Australia – Castle Hill
Tel: +61 2 9634 7777

China – Beijing
Tel: +86 10 6561 0520

China – Guangzhou
Tel: +86 20 3878 1583

China – Hong Kong
Tel: +852 2428 8008

China – Shanghai
Tel: +86 21 5031 2525

India – Mumbai
Tel: +91 22 55 90 7081/85

Japan – Tokyo
Tel: +81 3 6408 3900

Korea – Hwaseong
Tel: +82 31 379 2200

Malaysia – Kuala Lumpur
Tel: +60 03 5638 1476

Singapore – Jurong
Tel: +65 6887 6300

Taiwan – Taipei
Tel: +886 2 2298 8987

Thailand – Bangkok
Tel: +662 717 8140

United Arab – Abu Dhabi
Tel: +971 2 6788587

South America

Argentina – Buenos Aires
Tel: +54 11 3327 44 4129

Brazil – Sao Paulo
Tel: +55 12 3954 5100

Pan American Division
Tel: +001 305 470 8800

Venezuela – Caracas
Tel: +58 212 238 5422

Africa

South Africa – Kempton Park
Tel: +27 11 9610700

Egypt
Tel: +20 2 5194018

Europe

Austria – Wr.Neustadt
Tel: +43 2622 23501

Belgium – Nivelles
Tel: +32 67 280 900

Czech & Slovak Republics – Klecany
Tel: +420 284 083 111

Denmark – Ballerup
Tel: +45 43 560400

Finland – Vantaa
Tel: +358 9 4767 31

France – Contamine
Tel: +33 4 50 25 80 25

Germany – Kaarst
Tel: +49 2131 4016-0

Greece – Athens
Tel: +30 210 933 6450

Hungary – Budapest
Tel: +36 1 220 4155

Ireland – Dublin
Tel: +353 1 293 9999

Italy – Corsico, Milan
Tel: +39 02 4519 21

Netherlands – Oldenzaal
Tel: +31 541 585000

Norway – Langhus
Tel: +47 6491 1000

Poland – Warsaw
Tel: +48 22 573 24 00

Portugal – Leça da Palmeira
Tel: +351 22 999 7360

Romania – Bucharest
Tel: +40 21 252 1382

Russia – Moscow
Tel: +7 095 234 0054

Slovenia – Novo mesto
Tel: +386 7337 6650

Spain – Madrid
Tel: +34 91 675 7300

Sweden – Spånga
Tel: +46 (0) 8 5979 5000

Switzerland – Bolligen
Tel: +41 31 917 18 50

Turkey – Istanbul
Tel: +90 212 482 91 06

UK – Warwick
Tel: +44 1926 317 878

Ukraine – Kiev
Tel: +380 44 220 7432

