At Parker, we’re guided by a relentless drive to help our customers become more productive and achieve higher levels of profitability by engineering the best systems for their requirements. It means looking at customer applications from many angles to find new ways to create value. What ever the motion or control technology need, Parker has the experience, breadth of product and global reach to consistently deliver. No company knows more about motion and control technology than Parker. For further info call 1 800 C-Parker (1 800 272 7537)

**Parker’s Motion & Control Technologies**

### Aerospace
- **Key Markets**
  - Aftermarket services
  - Commercial transports
  - Engines
  - General & business aviation
  - Helicopters
  - Launch vehicles
  - Military aircraft
  - Missiles
- **Key Products**
  - Control systems & actuation products
  - Engine systems & components
  - Fluid conveyance systems & components
  - Fluid metering, delivery & atomization devices
  - Fuel systems & components
  - Fuel tank insert systems
  - Hydraulic systems & components
  - Thermal management
  - Wheels & brakes

### Climate Control
- **Key Markets**
  - Aerospace
  - Factory automation
  - Construction Machinery
  - Food & beverage
  - Industrial machinery
  - Life sciences
  - Oil & gas
  - Transportation
- **Key Products**
  - Accumulators
  - Advanced actuators
  - Co-controllers
  - Electronic controllers
  - Filter driers
  - Hand shut-off valves
  - Heat exchangers
  - Hose & fittings
  - Pressure regulating valves
  - Refrigerant distributors
  - Safety relief valves
  - Smart pumps
  - Solenoid valves
  - Thermostatic expansion valves

### Electromechanical
- **Key Markets**
  - Aerospace
  - Factory automation
  - Life science & medical
  - Machine tools
  - Packaging machinery
  - Paper machinery
  - Plastics machinery & converting
  - Primary metals
  - Semiconductors & electronics
  - Textile
  - Wire & cable
- **Key Products**
  - AC/DC drives & systems
  - Electro actuators, gantry robotics
  - & slides
  - Electrohydrostatic actuation systems
  - Electromechanical actuation systems
  - Human machine interface
  - Linear motors
  - Stepper motors, servo motors, drives & controls
  - Structural extrusions

### Fluid & Gas Handling
- **Key Markets**
  - Aerial lift
  - Agriculture
  - Bulk chemical handling
  - Construction machinery
  - Food & beverage
  - Fuel & gas delivery
  - Industrial machinery
  - Life sciences
  - Marine
  - Mining
  - Mobile
  - Oil & gas
  - Renewable energy
  - Transportation
- **Key Products**
  - Check valves
  - Connectors for low pressure fluid conveyance
  - Deep sea umbilicals
  - Diagnostic equipment
  - Hose couplings
  - Industrial hose
  - Mooring systems & power cables
  - PTFE hose & tubing
  - Quick couplings
  - Rubber & thermoplastic hose
  - Tube fittings & adapters
  - Tubing & plastic fittings

### Hydraulics
- **Key Markets**
  - Aerial lift
  - Agriculture
  - Alternative energy
  - Construction machinery
  - Forestry
  - Industrial machinery
  - Machine tools
  - Marine
  - Material handling
  - Mining
  - Oil & gas
  - Power generation
  - Reluct valves
  - Renewable energy
  - Truck hydraulics
  - Tuff equipment
- **Key Products**
  - Accumulators
  - Cartridge valves
  - Electrohydraulic actuators
  - Human machine interfaces
  - Hybrid drives
  - Hydraulic cylinders
  - Hydraulic motors & pumps
  - Hydraulic systems
  - Hydraulic valves & controls
  - Hydrostatic steering
  - Integrated hydraulic circuits
  - Power take-offs
  - Power units
  - Rotary actuators

### Pneumatics
- **Key Markets**
  - Aerospace
  - Conveyor & material handling
  - Factory automation
  - Life science & medical
  - Machine tools
  - Packaging machinery
  - Transportation & automotive
- **Key Products**
  - Accumulators
  - Air preparation
  - Brass fittings & valves
  - Manifolds
  - Pneumatic accessories
  - Pneumatic actuators & grippers
  - Pneumatic valves & controls
  - Quick disconnects
  - Rotary actuators
  - Rubber & thermoplastic hose & couplings
  - Structural extrusions
  - Thermoplastic tubing & fittings
  - Vacuum generators, cups & sensors

### Process Control
- **Key Markets**
  - Alternative fuels
  - Biopharmaceuticals
  - Chemical & refining
  - Food & beverage
  - Marine & shipbuilding
  - Medical & dental
  - Microelectronics
  - Nuclear Power
  - Offshore oil exploration
  - Oil & gas
  - Pharmaceuticals
  - Power generation
  - Pulp & paper
  - Steel
  - Water/wastewater
- **Key Products**
  - Analytical instruments
  - Analytical sample conditioning products & systems
  - Chemical injection fittings & valves
  - Fluoropolymer chemical delivery fittings, valves & pumps
  - High purity gas delivery fittings, valves, regulators & digital flow controllers
  - Industrial mass flow meters/ controllers
  - Permanent no-weld tube fittings
  - Precision industrial regulators & flow controllers
  - Process control double block & bleed
  - Process control fittings, valves, regulators & manifold valves

### Sealing & Shielding
- **Key Markets**
  - Aerospace
  - Chemical processing
  - Consumer
  - Fluid power
  - General industrial
  - Information technology
  - Life sciences
  - Microelectronics
  - Military
  - Oil & gas
  - Power generation
  - Renewable energy
  - Telecommunications
  - Transportation
- **Key Products**
  - Dynamic seals
  - Elastomeric o-rings
  - Electro-medical instrument design & assembly
  - EMI shielding
  - Extruded & precision-cut, fabricated elastomeric seals
  - High temperature metal seals
  - Homogeneous & inserted elastomeric shapes
  - Medical device fabrication & assembly
  - Metal & plastic retained composite seals
  - Shielded optical windows
  - Silicone tubing & extrusions
  - Thermal management
  - Vibration damping
Parker Hannifin Corporation
The Global Leader

Parker Hannifin is a leading worldwide diversified manufacturer of motion and control technologies and systems, providing precision engineered solutions for a wide variety of mobile, industrial and aerospace markets. The company’s engineering expertise spans the core motion technologies – electromechanical, hydraulic and pneumatic – with a full complement of fluid handling, filtration, sealing and shielding, climate control, process control and aerospace technologies. The company partners with its customers to increase their productivity and profitability.

With focus primarily on business opportunities in the areas of energy, water, agriculture, environment, defense, life sciences, infrastructure and transportation Parker has been consistently increasing its presence in these sectors.

Parker has over $13.1 Billion in Revenue 864,000 Products Sold 465,000 Customers 60,000 Employees 13,000 Distribution/MRO Outlets 1,100 Markets 137 Divisions 312 Manufacturing Plants 48 Countries

Traded on the New York Stock Exchange under the symbol "PH", Parker is strategically diversified, value-driven and well positioned for global growth as the industry consolidator and supplier of choice. Parker’s Win Strategy focuses employees on financial performance, customer service and profitable growth, ensuring our company’s continued success.

Mumbai:
Parker in India is headquartered in Mumbai since 1993. With a full-fledged operation at Mahape Navi Mumbai for motion & control products & system and manufacturing capabilities for Hydraulic systems, Cylinders, Gear Pumps, Hydraulic Valves, Motors, our very Indigenized CNG Dispenser & Hose assemblies. We are today geared to cater to the challenges put forth by our customers.

Chennai:
State-of-the–Art Green field project is up and running at Mahindra world city, Chennai. The 10 acre manufacturing facility houses Racor Filters, Drives, Pneumatic Cylinders, Seals & other products & systems, aligned to the need’s of the Indian market.
# The Win Strategy™
**Our Vision: Engineering Your Success**

## Goals

<table>
<thead>
<tr>
<th>Engaged People</th>
<th>Premier Customer Experience</th>
<th>Profitable Growth</th>
<th>Financial Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STRATEGIES</strong></td>
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<td><strong>STRATEGIES</strong></td>
<td><strong>STRATEGIES</strong></td>
</tr>
<tr>
<td>• Environmental, Health &amp; Safety</td>
<td>• Quality Solutions On Time</td>
<td>• Organic Growth 150 bps → Market</td>
<td>• Simplification</td>
</tr>
<tr>
<td>• Entrepreneurial</td>
<td>• eBusiness Leadership</td>
<td>• 25%+ Market Share</td>
<td>• Lean Enterprise</td>
</tr>
<tr>
<td>• High Performance Teams &amp; Leaders</td>
<td>• Ease of Doing Business</td>
<td>• #1, #2 Position Each Group</td>
<td>• Strategic Supply Chain</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Grow Distribution &amp; Services</td>
<td>• Value Pricing</td>
</tr>
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</tr>
</tbody>
</table>

## Parker Culture

## #1 Motion & Control Company

## Goals

<table>
<thead>
<tr>
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<tr>
<td><strong>MEASURES</strong></td>
<td><strong>MEASURES</strong></td>
<td><strong>MEASURES</strong></td>
<td><strong>MEASURES</strong></td>
</tr>
<tr>
<td>• Zero Accidents</td>
<td>• 98%+ On-Time Delivery</td>
<td>• Organic Growth 150 bps → Market</td>
<td>• Top Quartile Diversified Industrial</td>
</tr>
<tr>
<td>• Speed Within Win Strategy</td>
<td>• Six Sigma Quality</td>
<td>• 25%+ Market Share</td>
<td>• Year-over-Year Growth in:</td>
</tr>
<tr>
<td>• Ownership: 80%+ in High Performance Teams</td>
<td>• Increase eBusiness Conversion Rate</td>
<td>• #1, #2 Position Each Group</td>
<td>• EPS</td>
</tr>
<tr>
<td>• Inclusive Environment</td>
<td>• Best-in-Class Lead Times &amp; Quote Speed</td>
<td>• Grow Distribution &amp; Services</td>
<td>• EBIT</td>
</tr>
<tr>
<td>• Engagement Survey → 74%</td>
<td>• Likelihood to Recommend → 30</td>
<td>50% DIST</td>
<td>• Cash Flow</td>
</tr>
<tr>
<td></td>
<td>• Customer Dashboards</td>
<td>50% OEM</td>
<td>• Division Net Earnings</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• 17% Operating Income</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• 21.4% RONA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• 17% ROIC</td>
</tr>
</tbody>
</table>

## Our Values

Winning Culture • Passionate People • Valued Customers • Engaged Leadership
### HYDRAULIC CYLINDERS

<table>
<thead>
<tr>
<th>Series</th>
<th>Standard</th>
<th>Pressure Range</th>
<th>Bore Sizes</th>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMI and HMD</td>
<td>ISO 6020/2 and DIN24554</td>
<td>210 bar</td>
<td>25-200mm</td>
<td>Tie rod cylinders for heavy duty</td>
</tr>
<tr>
<td>2H</td>
<td>NFPA standard, 210 bar</td>
<td>210 bar</td>
<td>38, 1-304, 8mm</td>
<td>Tie rod cylinders for heavy duty</td>
</tr>
<tr>
<td>3L and 3E</td>
<td>NFPA standard, 70 bar</td>
<td>70 bar</td>
<td>25.4-203.2mm</td>
<td>Tie rod cylinders for medium duty</td>
</tr>
<tr>
<td>3L</td>
<td>ISO 6022 standard, 250 bar</td>
<td>250 bar</td>
<td>50-320mm</td>
<td>'Roundline' cylinders for heavy</td>
</tr>
<tr>
<td>3E</td>
<td>CNOMO standard, 80 bar</td>
<td>80 bar</td>
<td>32-125mm</td>
<td>duty applications</td>
</tr>
<tr>
<td>SMA</td>
<td>ISO 6020/1 standard, 160 bar</td>
<td>160 bar</td>
<td>40-320mm</td>
<td>'Roundline' cylinders for heavy</td>
</tr>
<tr>
<td>MMB</td>
<td>ISO 6020/1 standard, 160 bar</td>
<td>160 bar</td>
<td>40-320mm</td>
<td>duty applications</td>
</tr>
</tbody>
</table>

### HYDRAULIC CYLINDERS - SPECIAL CYLINDERS

- Parker’s Cylinder Division designs and manufactures special cylinders to meet customers’ unique requirements.

### ELECTRICAL FEEDBACK AND POSITION INDICATORS

- Various types of electronic position & velocity feedback devices are offered for use with proportional and servo valves. Electrical and mechanical position indicators signal when end of stroke is reached.

### SAFETY ROD LOCKING DEVICES

- Fail-safe locking device clamps piston rod if pressure is lost.
- For tie rod cylinders, bore sizes 32-160 mm.
- Load holding capacity 5-100 kN.

### PISTON ACCUMULATORS

- Working pressures up to 210 and 350 bar. Capacities up to 190 litres.
- Certification to all major standards.
- Piston accumulators improve efficiency by stabilising and supplementing pump delivery.

### BLADDER ACCUMULATORS

- Working pressure up to 420 bar.
- Capacities up to 50 litres.
- Certification to all major standards.
- Bladder accumulators improve efficiency by stabilising and supplementing pump delivery.
Hydraulic Valves, Pump, Motors, Cylinders and Remote Control Systems for Mobile Hydraulics

**Direction Control Valves for Constant Flow System (Open Center)**
Series Vg20 / Vg35, 1-12 sections, Flow up to 250 Lpm, Pressure Up to 240 bar. Manual and Remote operation. Integrated Valve Functions.

**Hydraulic Cylinders**
All types of cylinders are available in sizes upto max. diameter 200mm and stroke 2800mm. A large number of optional functions can be built into the cylinders to give many variants of both standard and customised units.

**Direction Control Valves for Constant Pressure System (Closed Center)**

**Truck Pump Series F1/F1 Plus/T1**

**Direction Control Valves for Load Sensing Systems**

**Cast Iron Gear Pumps - PGP**

**Hydraulic Remote Control Valves**
Series PCL4. A complete range of levers consisting of linear levers, 1 to 6 sections, joystick levers and foot pedals. Both straight and ergonomic handles are available.

**Fixed Pumps/Motors Series F11**

**Pneumatic Remote Control Valves**
Series VP04. A complete range of levers consisting of linear levers, 1 to 6 sections, joystick levers. Both straight and ergonomic handles are available.

**Fixed Pumps/Motors Series F12**

**Electro-Hydraulic Control System**
Series EHC and IOAN. A complete range of products consisting of levers, amplifiers, master units and different types of services tools. Both analog and digital concepts are available.

**Cast Iron Gear Pumps PGP600 series**
Hydraulic Pumps, Valves, Electronics and Power Units

**Directional Control Valves Series D**
5 sizes from NG 6 to NG 32. Flow up to 2000 l/min, 350 bar. Manifold mounting according to DIN, ISO, CETOP, NFPA. Electric, hydraulic, pneumatic and mechanical actuation.

**Low Watt Directional Control Valves**
Electrical connection to DIN 43650 or M12x1 and DESINA version. Especially suitable for Bus system due to low-current input. Services friendly through leakage free coil change.

**Proportional Valves Series D* FH**
5 sizes from NG 6 to NG 32. Flow up to 2000 l/min, 350 bar. Manifold mounting according to DIN, ISO, CETOP, NFPA. Interfaces with integrated electronics. High response for closed loop application.

**System Blocks**
Customised system control manifolds. Nominal sizes 10 to 100mm. Flow up to 10,000 l/min, 350 bar. Peak pressure 500 bar. Cast iron or steel block. Cartridge or manifold mounted valves.

**Digital Electronics for Valve Amplifier**
Digital and reproductible input signals, ramps, parameters. Double PWM amplifiers. Resolution of signal and actual valve < 0.05%. High safety, compliant with EMV specifications. RS 232 serial interface. For electrohydraulic axis regulators.

**Sandwich Type Manapak Valves**
4 sizes NG 6 to NG 25. Upto 350 bar. RM pressure relief valve. PRM pressure reduction valve, FM flow control valve, CM directly operated check valve, CPOM pilot-operated check valve.

**Pressure, Flow and Check Valves**
4 sizes for NG 6 to NG 32. Flow up to 350 l/min, 350 bar. Manifold mounting, mechanically adjustable, electrically dischargeable or proportionally adjustable through integrated or external electronics.

**Pressure Switches**
Flange and threaded connection. Switching pressure range 3-40, 10-100, 10-160, 20-250 bar. Pressure capability 315 bar. Adjustment with hollow hex screw or scaled knob. AC/DC power supply. Optional locking knob.

**Flow Control, Metering and Shut-Off Valves**
Manatrol colorflow series. 9 sizes from 1/8” to 2” BSP. Flow up to 600 l/min, 350 bar. Inline and manifold mounting.

**Pressure Intensifiers**

**Slip-in Cartridge Valves Series CE and C, 2 Way**
DIN 24342 8 sizes NG 16 to NG 100. Flow up to 10,000 l/min, 350 bar. Modular construction system for pilot valves and cartridges. Also as safety valves with position control.

**Threaded Cartridge Valves Series PTC**
Directional, pressure, flow and shut-off valves. Housing optional. 5 sizes up to 250 l/min, 210 bar. Solenoid or proportional actuation. Industrial and mobile applications.
Hydraulic Controls

High Performance Axial Piston Pumps
Series PV4, 11 sizes 16 to 270 cc/rev, 350 bar.
Speed max 2750 min⁻¹. Single and multiple pumps. Wide range of control options. Low noise. For industrial and mobile applications.

Medium Duty Axial Piston Pump P1 / PD series

Axial Piston Pumps
Series P2 and P3 wide range of control options. 4 sizes, 60 to 145 cc / rev, 137 bar. Speed upto 3000 min⁻¹ Low noise, modular design. Standard and Super charged version available. Single & multiple pumps.

Aluminium Gear Pumps - PGP 500 series Series 502 / 505 / 511 / 517.

Compact Power Units
Flow - 1 - 11 lpm
AC & DC motors. Single direction or bi-directional Reservoir Size 1-20 litres

Servo Valves Series BD
● 10 sizes from 1 GPM to 40 GPM
● 210 bar, >50 Hz
● Reduced contaminant sensitivity
● Linear flow gain characteristics
● Explosion proof and intrinsically safe options available
● High resolution
● FM, CSA, ATEX certification

Power Units to Customer Specifications
Complete systems with Capacity from 60 to 10,000 litres. Reservoirs to DIN specifications. Customised specials possible.

Low Speed Hydraulic Motors - Gerotor System
Displacement 45...960 cc/rev
Torque ..1490 Nm
Speed .... 940 min⁻¹
Pressure .... 280 bar
Performance ... 33 kW
Side loads ....30000 N

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Torque ..1490 Nm
Speed .... 940 min⁻¹
Pressure .... 280 bar
Performance ... 33 kW
Side loads ....30000 N
## Power Take Off

### Mechanical Transmissions
- Two-gear
- Economical workhorse
- Cast iron housing and tapered cone bearing
- Easy to interchange between transmissions
- 489 Series needs no adapter plate.

### Allison Transmissions
- Highest torque capacity of any PTO
- Compact design
- Three speed ratios

### Ford Transmissions
- 242/244 Series Super Duty transmissions
- 243 Series for Mitsubishi
- Controlled Compression Interface Gasket eliminates setting gear backlash.

### Heavy Duty Applications
- The only 8-bolt power shift PTOs on the market today
- 800 is compact in size; 852 is used on automatic transmissions
- Electric-over-hydraulic shifting and pressure lubrication

### Power Shift
- Standard housing (230, 270) and low profile housing (231, 271)
- 230/231 electric-over-air shifting, 270/271 hydraulically operated
- Optional pressure lubrication

### Allison Transmissions
- Helical gears for quieter operation
- Exclusive shimming gaskets
- Simplified plumbing
- Pressure lubrication standard

### Automatic Transmissions
- 236 fits virtually all currently produced transmissions
- 250 features latest technology for including Controlled Compression interface Gasket

### High & Low Speed Applications
- Two gear
- High torque capacity
- Three shift options
- Dual pump output available
### Danison & Calzoni Products

#### Axial Piston (Open and closed Loop)
**Variable Displacement P Series (Hydrostatic Transmission)**
Following integrated controls are available:
- Spring centred rotary servo and null adjustment
- Manual screw adjustment
- Electrohydraulic stroker
- Hydraulic stroker
- Adjustable displacement stop
- Brake and neutral by-pass
- Torque limiter
- Servo control with electronic feedback
- Pressure compensator
Displacement: 98-501 cm³/rev
Max Speed: 1800 - 3000 rpm
Max Pressure: 300 - 420 bar

#### Double Pumps
**Fixed Displacement**
**T6 Series**
Displacement: P1 5.8 - 269 cm³/rev
- P2 5.8 - 269 cm³/rev
Max Speed: 2200 - 3600 rpm
Max Pressure: P1 91 - 240 bar
- P2 240 - 320 bar

#### Triple Pumps
**Fixed Displacement**
**T6 Series**
Displacement: P1 47.6 - 269 cm³/rev
- P2 5.8 - 190.5 cm³/rev
- P3 5.8 - 100 cm³/rev
Max Speed: 2200 - 2500 rpm
Max Pressure: P1 240 bar
- P2 240 - 275 bar
- P3 275 - 300 bar

#### Radial Motors
**Fixed Displacement**
**MR/MRE-MRT/MRTE Series**
Displacement: 32 - 23034 cm³/rev
Max Pressure: 250 - 300 bar
Max Torque: 0.51 - 366.6 Nm/bar
Max Speed: 75 - 1400 rpm
**Dual/Variable Displacement**
**MRD/MRV Series**
Displacement: 152 - 5301 cm³/rev
Max Pressure: 250 - 300 bar
Max Torque: 2.42 - 86.01 Nm/bar
Max Speed: 160 - 1000 rpm

#### Remote Control
**R1 E 02 Series**
Max Flow: 3.81 l/min
Max Pressure: 350 bar
Mounting by subplate, foot, panel or cartridge.

#### DIN Cartridge Relief Valve
**CVD and CVG Series**
Max Flow: 300 - 600 l/min
Max Pressure: 350 bar
Cover versions available:
- with integrated pilot valve
- vent option for mounting of 4D01 directional valve
- option for mounting of an electrically controlled proportional relief valve (Vp01)
- option for mounting of an electrically controlled proportional relief valve with feedback (R1EP01)

#### Single Pumps
**Fixed Displacement**
**T-Series**
Displacement: 5.8 - 269 cm³/rev
Max Speed: 2200 - 3600 rpm
Max Pressure: 190 - 320 bar

#### Vane Motors
**Fixed Displacement**
**M Series**
Displacement: 11.7 - 222.0 cm³/rev
Max Pressure: 175 - 320 bar
Max Torque: 0.19 - 3.53 Nm/bar
Max Speed: 2500 - 6000 rpm

#### Double Pumps
**Fixed Displacement**
**T6 Series**
Displacement: P1 5.8 - 269 cm³/rev
- P2 5.8 - 269 cm³/rev
Max Speed: 2200 - 3600 rpm
Max Pressure: P1 240 - 320 bar
- P2 240 - 300 bar

#### Relief Valve
**Unloader Sequence Reducer**
**R4 and R5 Series**
Max Flow: 90 - 600 l/min
Max Pressure: 210 - 420 bar
Hydraulics Filters

**High Pressure Filters Models 18/28/38 P**

**Portable Filter Cart**
Parker filter carts are the ideal way to pre-filter and transfer fluids into reservoirs or clean the existing systems.

**Medium Pressure Filters Models 15P/30 P**
Max. working pressure 207 bar. ½" & 1" manifold porting Available in two bowl lengths. Disposable inorganic fibre media 2, 5, 10 or 20µ absolute. Visual or visual/electrical indicator.

**Portable Particle Counter CM20 Range**
Direct connection into a system allowing machine operators to take on-line dynamic fluid samples. Analysis range ISO 7 to 24 | NAS0 to 12 inclusive, 6 channel particle measurement. 300 test memory.

**Medium Pressure Filters Series 1145**

**Oil Purification System PVS 180/600/1200**
Removes dirt, water and air. Fully automatic operation. Compact and mobile, Filtration to 3 µ absolute. Condensate holding tanks. Air or water cooled condensers

**Top Tank Filters**
Max. working pressure 10 bar. Low weight, low installed height filter with surge responsive by pass valves features: optional dipstick, fill port and snap-in bowl adapter. Thread options ½", 1" & 1½" NPT (SAE options) Microglass III elements, 5, 10 or 20 µ Abs. (Beta 1000)

**Guardian Portable Filtration System**

**Multiflow Tank Mounted Filters**
Designed with integral visual indicator. Max. work. pressure 8 bar. Flows up to 600 l/min with extended elements. Sizes with 10, 25 and 50µ Abs. disposable element options. G1/2, G3/4, G11/4 and 2 SAE size 4 - Port options. Quick, easy and factory clean element change.

**Filter Elements ParFit and Microglass III**
Interchangeable with leading manufacturers' products. ISO standards. Competitively priced. High quality elements used as standard such as 18P, 28P and 38P. High efficiency with exceptional contaminant holding capacity.

**Spin-On Filters 12 PS, 22 PS, 32 PS and 42 PS**

**Spin-On Filters**
- Low pressure filters
- Designed for
  - Max Pressure - 10 Bar
  - Flow Rate - 190LPM
  - Thread Options -
    - 12AT - 3/4" NPTF SAE -12
    - 30AT - 1 1/4" NPTF SAE-20
Hydraulics Filters

Flopac® - Pleated Cartridges
These are manufactured with premium grade phenolic impregnated cellulose filter media for long service life, high flow rate & low pressure drop Rating - 0.5 micron to 30 micron.

Process Filters

Wound depth series - XTL & Honey Comb:-
a) Honey Comb™ - Superior wound quality cartridge Rating - 0.5 micron to 100 micron
b) XTL™ - (extended life with high dirt holding capacity) Rating - 1.0 micron to 30 micron.

Flopac® - Pleated Cartridges
These are manufactured with premium grade phenolic impregnated cellulose filter media for long service life, high flow rate & low pressure drop Rating - 0.5 micron to 30 micron.

Hydraulic Reservoir Accessories
Consistent quality, technical innovation. IP65 certified Filler Breathers. 10 & 40µ metal filler breathers. Spin-on Air Breathers for airborne contamination removal. Diffuser and suction strainer ranges. 3 sizes of high visibility, fluid level temperature gauges.

Poly-Mate™ - Pleated Polymate Cartridges incorporate unique combinations of Polypropylene melt blown and spun bonded media to provide high surface area and nonfibrous releasing filtration. Rating - 0.5 micron to 30 micron Back washable pleated cartridges are also available.

Glass Mate™
These are absolute rated with proprietary glass fiber media Rating - 0.5 micron to 40 micron.

Probond™
Resin bonded Series unique, proprietary design to maximise particle removal and service life in viscous fluid filtration Rating - 2.0 micron to 150 micron.

Megabond™
Absolute rated cartridges with fixed pore structure, thermally bonded polypropylene fibers. Rating - 1 micron to 120 micron.

Durabond™
Rigid thermally bonded cartridge with high strength Rating - 1 micron to 100 micron.

Abso Mate™
These are absolute rated with proprietary melt blown media and are all polypropylene cartridges Rating - 0.2 micron to 70 micron.
Process Filters

**Ecobond™**
Most economical high purity cartridges with graded density matrix of polypropylene fibers. Rating: 0.2 micron to 50 micron.

**Tetpor Air**
Gas sterilisation
0.2 micron
- Assured biosecurity with absolute rated filtration
- High flow rates with low pressure drops
- Steam sterilizable to 142°C (287.6°F)
- Unique prefilter layer
Tetpor Air sterilisation filter cartridges offer exceptional filtration performance whilst providing the highest level of biosecurity throughout the process industry.

**Proclear GF Prefilter**
0.2 micron
- Excellent dirt holding capacity
- Non-fibre releasing glass microfibre media
- Long service life for maximum throughput
- MURUS and DEMICAP’s can be gamma-irradiated and autoclaved
PROCLEAR GF filters are designed for reliable and economical removal of particulate and microorganisms from pharmaceutical fluids.

**Propor BR**
0.2 micron
- Brevundimonas diminuta retention of LRV >5 for efficient bioburden reduction
- Additional prefilter layer gives excellent throughput to blockage
- Low binding for minimal product loss
- MURUS and DEMICAP’s can be gamma-irradiated and autoclaved
PROPOR BR filters have been specifically designed for the fast and cost-effective bioburden reduction of pharmaceutical solutions.

**Proclear HC**
High capacity sterilising-grade
0.2 micron
- Optimized membrane configuration allows up to ten times the throughput compared to single layer membrane products
- Integral prefilter layer can condense filter trains for greater processing economy
- Incorporates a fully validated and integrity testable 0.2 micron membrane for assurance of sterility
- Low binding for minimal product loss
- PROPOR HC sterilizing grade filters have been specifically designed for the effective and economical processing of difficult to filter solutions.

**Filter Bags**
- Perform at high flow rates and is made of
  - Polyester
  - Polypropylene
  - Viscous Rayon
  - Multifilament Polyester
  - Nomex

**Tetpor Air**
Gas sterilisation
0.2 micron
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Process Filters

Proclear GP Prefilter
0.5 - 0.6 micron
- Dual layer media or increased capacity and assurance
- Maximizes retention for protection of downstream membranes
- Ideal for difficult to filter solutions
- MURUS and DEMICAP’s can be gamma-irradiated and autoclaved

Proclear GP filters combine glass microfibre and polypropylene media to provide maximum protection to downstream filter membranes and equipment.

Tetpor HP
Low binding sterilising-grade
0.2 micron
- Exceptionally low binding membrane to prevent costly product loss and process down time
- Incorporates a fully validated and integrity testable 0.2 micron membrane for assurance of sterility
- Fast flowing membrane for increased process efficiency

TETPOR HP filter cartridges have been specially designed to minimize protein and preservative binding in the sterilization of pharmaceutical and multi-dose ophthalmic solutions.

High Flow Tetpor II
Gas sterilisation
0.2 micron
- Steam sterilizable up to 225 cycles at 142 °C (287.6 °F)
- Unrivalled flow rates combined with low pressure drops
- Fully validated to ASTM E38-05 for liquid bacterial challenge
- Fully validated to aerosol and viral challenge

HIGH FLOW TETPOR II gas sterilization filters have been developed to benefit from technological advances within the manufacture of PTFE membranes. This new generation of filter sets the standard with an unrivalled combination of efficiency, flow rate and strength.

Propor SG
Sterilising - Grade
0.1 - 0.45 micron
- Up to 3.5 times higher flow rates than competitive sterilizing grade filters
- Fully validated and integrity testable membrane for assurance of sterility
- Low binding for minimal product loss
- MURUS and DEMICAP’s can be gamma-irradiated and autoclaved

PROPOR SG sterilizing grade filters feature a microbially retentive polyethersulphone membrane for fast, reliable and cost-effective sterile filtration of pharmaceutical fluids.

Proclear PP Prefilter
0.5 - 0.6 micron
- Graded density polypropylene media for high capacity
- Extremely robust to withstand aggressive conditions
- All polypropylene construction
- MURUS and DEMICAP’s can be gamma-irradiated and autoclaved

PROCLEAR PP filters are designed for a wide range of prefiltration duties within the production of pharmaceuticals and are particularly suited to applications where chemical compatibility is an issue.

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- Low binding for minimal product loss
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PROPOR SG sterilizing grade filters feature a microbially retentive polyethersulphone membrane for fast, reliable and cost-effective sterile filtration of pharmaceutical fluids.

Propor LR
Retention of diminutive Organisms
0.1 micron
- Fully correlated against Ralstonia picketti and integrity testable
- Increases retention efficiency whilst maintaining existing 0.2 micron rated system size
- Up to 2.5 times higher flow rate than competitive 0.1 micron rated filters
- MURUS and DEMICAP’s can be gamma-irradiated and autoclaved

PROPOR LR filters have been specifically designed for high flow and effective removal of Ralstonia picketti and other diminutive organisms.
Tetpor Liquid
High resistance sterilising - grade
0.1 - 1.0 micron
- Superior chemical resistance of PTFE membrane combined with polypropylene hardware
- Integrity tested prior to despatch
- Validated to ASTM F838-05 methodology
- Comprehensive range of end cap configurations for retrofitting
TETPOR LIQUID filters are particularly suitable for sterilization and particulate removal from aggressive chemicals (including acids, bases and solvents) within a wide range of critical processing industries.

Small & Large - Scale Disposable Filtration
Parker domnick hunter provides a range of scaleable filtration solutions like capsules etc. Products within the range are constructed using the same materials of construction and our technical support team can advise on methods for the most accurate prediction of large-scale product binding and leachables.

Domnick Hunter

OIL-X EVOLUTION
High Efficiency Compressed Air Filters
OIL-X EVOLUTION has become the leading technology for compressed air filtration, providing the exact balance between air quality, energy efficiency and low lifetime costs.
- Industry leading design
- World-wide approvals for safety and reliability
- Meets or exceeds the requirements for delivered air quality shown in all editions of ISO8573-1, the international standard for compressed air quality
- Fully tested in accordance with ISO12500-1
- Performance independently validated by Lloyds Register
- The only filter range to offer a one year air quality guarantee
- 10 years guarantee on filter housings
- World-wide Parker support network
- OIL-X EVOLUTION - often copied, never matched

Cartridge filtration
Parker microfiltration products set the highest standards for filtrate quality, product reliability and cost effective use. Parker products provide optimal solutions for food and beverage applications. Parker products are available in lengths from 4 to 40 inches and configurations to retrofit all commonly installed filter housings. Products are offered in membrane and depth media with a full range of cartridges, minicartridges and capsules to meet production, pilot and laboratory-scale requirements. Removal ratings from 0.02 to >800 μm are available.

OIL-X EVOLUTION
High Efficiency Bulk Liquid Removal GRADE WS
OIL-X EVOLUTION WS Water Separators have been designed for the efficient removal of bulk liquid contamination from compressed air. OIL-X EVOLUTION WS Water Separators have been designed from the ground up with the key design focus concentrated in critical areas such as airflow management, separation efficiency at all flow conditions, minimal pressure losses and independently validated performance.
OIL-X 50 Series
Intermediate Pressure Filters Grade
The removal of impurities within a compressed air system is vitally important in order to prevent contamination of downstream processes and products. OIL-X 50 Series intermediate pressure filters combine the well proven OIL-Xplus filter elements with specially designed housings to provide high efficiency filtration for applications up to 50 bar g (725 psi g). Available in various filtration grades and connection sizes, they provide a level of protection tailored to your application.

Typical Applications
- PET bottling
- Air blast circuit breakers
- Ship borne air distribution systems
- Ship borne engine starting
- Pressure testing of pipelines

Breathing Air Purifiers
Comply with European Pharma copoeia and International Breathing Air Standards. Breathing Air Purifiers provide air 1,000,000 times cleaner than the air we breathe. With a wide variety of purification products available, ranging from a simple respirator offering basic protection against low levels of dust particles to self it is essential that the inhalation risks be fully assessed and a suitable purification product selected. Breathing air purifiers are designed to offer the user protection against some or all of the contaminants that may be present in a compressed air fed breathing air system.

Typical Applications
- High pressure cylinder filling - Shot blasting
- Tank cleaning - Tunnelling
- Pharmaceutical Manufacturing - Spray painting
- Medical and hospital air - Offshore / Marine
- Asbestos removal

OIL-X EVOLUTION
High Efficiency Medical Vacuum Filters
OIL-X EVOLUTION MV Medical Vacuum Filters are designed for critical applications involving the removal of liquid, solid and bacterial contamination from the suction side of vacuum pump systems, preventing damage to the pump and the potential biological infection of the surrounding environment. The vacuum removal systems found throughout hospitals in area’s such as general wards, operating theatres, dental departments, pathology departments, pharmacy laboratories, and mortuary / post mortem rooms will usually be connected to either a large centralised vacuum plant or a smaller, localised vacuum pump or network. Parker Domnick Hunter MV Medical Vacuum filters can be installed to protect these systems no matter where they are located.

Compressed Air Refrigeration Dryers
Clean, dry compressed air to ISO 8573.1 Class 1.4.1 Energy efficient. Low running costs. Environmentally friendly refrigerant and components.
Compressed Air & Gas Treatment

Balston Compressed Air filters
- Filter silencers
- Regulators
- Automatic drains
- Lub icators
- Membrane Air Dryers
- Balston steam filters

Balston Hydrogen generators
Hydrogen gas is produced by electrolytic dissociation of water. Purity of gas is guaranteed to be 99.99999+ % consistency. This eliminates need for expensive, dangerous and high pressure cylinders of H2 in the laboratory.

Balston Ultra High Purity generator
Produces continuous supply of high purity nitrogen gas from existing compressed air. The purity is as high as 99.9995%, exceeding the specification of UHP cylinder gas.

Balston Zero Air generators
Complete systems with highly reliable components, engineered for easy installation, long term performance and ensures a consistently flat base line. The outlet hydrocarbon concentration shall be less than 0.1 ppm.

Balston TOC gas generator
 Produces carrier / combustion gas, from existing compressed air supply, eliminating need for high pressure cylinders of oxygen.

Finite® High pressure compressed gas filters
These filters remove excessive amount of liquid aerosols and solid particulate contamination. Pressure upto - 5000 psi

Finite® International H-series compressed air and gas filters
- Coalescing particulate & adsorption
- Flowrate 10 - 1600 SCFM
- 1/4” - 3” NPT, BSF & BSPT parts

“J” Series High Pressure Compressed Gas Filters
- Housings provide much needed filtration protection for high pressure systems.
- Filter elements are metal reinforced for demanding applications.
- Threaded head-to-bowl design makes servicing easy.
- Assemblies are supplied with drain ports making bowl sump draining an easy task.

Balston Compressed Air filters -
- Low pressure fuel filter coalescer
- High pressure fuel filter coalescer
- Pressure upto 5000 psi & 50 SCFM

Balston Zero
Generators
Complete systems with highly reliable components, engineered for easy installation, long term performance and ensures a consistently flat base line. The outlet hydrocarbon concentration shall be less than 0.1 ppm.

Balston TOC gas generator
 Produces carrier / combustion gas, from existing compressed air supply, eliminating need for high pressure cylinders of oxygen.
Gas Generation

Explosion Proof Zero Air Generator
- Produces up to 1,000 cc/min of high purity zero grade air.
- Eliminates dangerous, expensive, and inconvenient gas.
- Low maintenance, safe.
- Certified by CSA

Parker also offers-
- FTIR Purge gas generators
- NMR Gas Generators
- ICP Nitrogen Generators
- ELSO Gas Generators
- Compressed Air Dryer (Up to -73°C)
- AAS Gas Purifier
- Gas Generator Accessories

PSA Nitrogen Generator
- Most effective source of on-site Nitrogen. N2 flowrates from 200 to 1,25,000 SCFH and purifies up to 99.99% are available.
- A Catalyst De-Oxo Module can be added to address applications requiring N2 purities up to 99.99995%.
- Nitrogen product gas booster compressors are available for high pressure applications.

LCMS - Nitrogen Generators
- Low and mid flow generators
- Eliminates the need for nitrogen cylinders in lab
- Some models requires no electricity
- Compact Design
- Phthalate-free, no organic vapours

Membrane Nitrogen Generator

NitroFlow® Basic
- Requires a source of electrical power to produce nitrogen, as have built-in compressors.
- Available either as nitrogen generators or Nitrogen-CO2 mixed gas generators.
- Maximum compressor life due to low-pressure nitrogen generation.

Tyre Saver
- Designed for filling car tyres and inflate large vehicle tyres delivering range:
  - From 3-40 Nm3/hr
  - Ø 95% purity and 10 bar[g].
- Automatic swith-off
- High quality compressed air filtration, coarse, fine and carbon filters
- Digital data management and control, with data logging and remote control functions
- Modular design, easy to connect and expandable
- High quality integrated filtration, plus easy access for maintenance

NitroFlow®
- Digital touch screen controller.
- Low pressure range with integrated compressors. High pressure range for connection to house air.
- Modular system. Module sets can be added to increase capacity.

Standard OEM membrane module sets
- A complete range of membrane module sets
- Possibility to integrate your own nitrogen source.
- Different sizes and membrane performance available.

NitroSource®
- Digital data management and control, together with data logging and remote control
- Functions Modular design, easy to connect and easily expandable
- High quality integrated filtration, plus easy access for maintenance
Spin-on Filters
- Diesel Fuel Filter
- And Water Separator.
- Maximum Protection in Minimum space.
- Re-usable collection Bowl.
- Available in 2, 10 or 30 microns.

Aquabloc™ Elements
- Stops water & removes solid contamination.
- Range is available of primary, secondary and final filtration.

API / Industrial Separators
- Qualified API/IP supplier.
- Cartridges to fit most industry vessels.
- Teflon coated screen.
- pH range from 5 to 9.

FBO Fuel Dispersion Systems
- Available in 1, 5, 10, 25 microns
- Flow upto 100 gpm.
- Super absorbent chemically treated filter media.

Fuel Monitors
- Qualified API/IP 1583 supplier.
- Qualified for less than 1 micron.
- Designed to fit existing monitor vessels.

API / Industrial Coalescers
- Qualified API/IP 1581/83 supplier.
- Coalescer removes emulsified water & particulates from Jet Stream / Hydrocarbon fluids.
- Micron rating 0.5, 1, 2, 5, 10.

Fuel Dispensing Systems
- Available in 1, 5, 10, 25 microns.
- Flow upto 100 gpm. Super absorbent chemically treated filter media.

Filter Vessels
- ASME Loaded Vessels available.
- Designed for low pressure drop.
- Vessels for all filtration applications.

Crankcase Ventilation Filter systems
- Removes oil mist from Crank case emission.
- prior to the engine air intake.
- Replaceable filter media.
- Removable Oil Collection system.

F. S. Cartridge Micro Filter
- Qualified API/IP 1590 supplier.
- Designed to fit existing filter housing.
- Micron rating 1, 5, 10, 25.
Fluid Connectors

Parker O-Lok O-Ring Face Seal Fittings (ORFS)
Soft seal fittings provide leak free connections for high pressure hydraulic systems. Excellent where reliability, versatility and ease of assembly are important factors.

EO-2 Fittings
EO-2 version is equipped with soft seal to prevent leakage. Suitable for applications involving high vibrations & pressure peaks.

EO-2 Progressive Ring Fittings
For use in high pressure industrial applications. Available in various sizes & configurations for utmost flexibility.

EO-DUR Stainless Steel Fittings
EO-DUR fittings with specially coated nuts are ideally suited for use in chemical, process & offshore industries.

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Non-Welded Technology
Parflange F37 non-welded piping systems utilize standard SAE Code 61/62, ISO 6162 and ISO 6164 flange interfaces. Parflange F37 is fully complemented with Parker’s fabrication equipment and a broad range of interconnect components, valves, clamps and seamless tubes. The Parflange F37 system utilizes two core connection technologies to achieve leak-free non-welded connections: F37 Flare and F37 Retaining Ring.

Eomat PRO
Assembly machine for the cost-effective production of tube lines with EO fittings. The machine is designed for assembly of Parker EO-2 and Progressive Ring fittings, according to DIN EN ISO 8483-1 (DIN 2352), with common tube materials (steel, stainless steel, copper, nylon).

Eo-Karrymat
Presetting Machine
Portable pre-assembly device for EO tube connections.

Eomat PRO
Assembly machine for the cost-effective production of tube lines with EO fittings. The machine is designed for assembly of Parker EO-2 and Progressive Ring fittings, according to DIN EN ISO 8483-1 (DIN 2352), with common tube materials (steel, stainless steel, copper, nylon).

Eomat ECO
Mobile assembly machine for EO hydraulic fittings to DIN EN ISO 8434-1. The EOMAT ECO is a portable machine for the assembly of EO-2 and EO Progressive Ring fittings. This electro-hydraulic unit is simple to operate; the assembly pressure is set on the digital display. The equipment is simple to use, robust and easy to move. The EOMAT ECO is an ideal piece of equipment for hydraulic service.

Eomat UNI
Universal assembly machine for hydraulic tube fittings. The EOMAT UNI is an electro-hydraulic machine for the assembly of: EO-2EO Progressive Ring PSR/DPR and Triple-Lok® 37° flared tube fittings.

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Universal assembly machine for hydraulic tube fittings. The EOMAT UNI is an electro-hydraulic machine for the assembly of: EO-2EO Progressive Ring PSR/DPR and Triple-Lok® 37° flared tube fittings.
**Fluid Connectors**

**Prestoplok 2**
Push-in Fittings - Thermo plastic Body
Prestoplok 2 is an instant fitting for plastic tubing.

**Check Valves**
Check valves for in line mounting or cartridge systems. Several unique features (double seat, no seal, guided poppet, oil retention groove in the poppet and poppet-guide cushion) that ensure years of trouble-free operations.

**Brass Adaptors**
Comprehensive range of adaptors for versatile connections.

**2-way Ball Valves for Pneumatics and Low Pressure**
2-way ball valves designed for pneumatic systems and other low pressure applications.

**Presto-NTA**
Air Brake Fittings

**Tubes and Tube Bends**
Seamless EO tubes and tube bends according to DIN 2391. Material: St 37.4 steel and 1.4571/1.4541 stainless steel

**EO Non-Return Valves**
Non-return valves with sealing by using a 90° cone with a seal of synthetic material. Valve has a lift stop for safe free outlet.

**EO Tube Clamps**
Sizes:
- series A: 6 to 55 mm tube o.d.
- series B: 6 to 42 mm tube o.d.
- series C: 8 to 220 mm tube o.d.
Material: Polypropylene, Polyamide 6, Aluminium

**EO Shut-Off/High Pressure and 2-way Bal valves**
Shut-off and High Pressure Valves
Product range:
- series L from 6 to 35 mm tube o.d.
- series S from 6 to 38 mm tube o.d.

**EO Push-Lok Hose**
Parker Push-Lok hoses for low-pressure applications, - robots in the automotive industry, packaging machines, pneumatic tooling etc.
Easy assembling without clamps. Also available in “free of any wetting disturbance solvents”
Fluid Connectors

**Polyflex/Parflex High Pressure Thermoplastic Hoses**
Pressure range up to 70 Mpa, with outstanding flexibility, low volumetric expansion, small bend radius, light weight. Single or multiple lines with crimped couplings.
Construction: Thermoplastic materials with reinforcement of fibre or steel wire braids or spirals.

**Polyflex Products for Beverage and Domestic Applications**
Beverage Industry:
Single line food quality tubing made of (LDPE, PVC, PVDF, PA and EVAL) multi layered extruded tubing “Python” thermally insulated multicore bundles, thermoplastic “TrueSeal” fittings and associated products.

**Polyflex Thermoplastic Ultra High Pressure Hoses**
Pressure range from 70 Mpa to 400MPa, low volumetric expansion.
Applications: Hydraulic tools, tension elements, test rigs, metal forming and off-shore. Crimped couplings of special steel with maximum operating safety.

**Polyflex Ultra High Pressure Thermoplastic Hoses for Water Jetting Technology**
For pressure up to 400 Mpa, low volumetric expansion, excellent impulse resistance.
Application: High pressure cleaning, tube cleaning, concrete repair, sewer cleaning and repair, water jet cutting, crimped couplings in special steel of maximum operating safety.

**Polyflex Thermoplastic Hoses for Surface Finishing**
Low and high pressure applications, excellent chemical resistance against paints and solvents, electric conductivity throughout service life.
Application: Paint Spraying, 2 Component equipment. Crimped couplings of free-cutting or stainless steel.

**Polyflex/Parkflex PTFE Hoses**
With Excellent resistance against aggressive media.
Application: chemical Industry, low and high pressure plants for expanded plastics, technical gases. Crimped couplings for assembly at your work shop according to Polyflex/ Parkrimp assembly system.

**Polyflex Products for Offshore Technologies**
Single line hoses and hose umbilicals for On-and Off-shore applications. Long length, high temperature, light weight hoses for Subsea Controls.

**Parker PAGE Hose**
Parker PAGE Hose, are leaders in the design and manufacturing of Fluoropolymer and Fittings
Application: Chemical Transfer, Cooling Lines, Oil & Gas Transfer, Food & Beverage, Air & Gas Transfer, Pig Tails, Robotics, Hot Glue Applicators, Compressor Discharge, Paint Lines, Powder Coating, Trim Lines, Powder Coating, Trim Tabs, Dispensing Sealants,
Fluid Connectors

Parflex Multitube®
Multitube’s bundles offer protection to the individual tubes while being routed through a plant or facility. We offer a wide range of choices for metal and plastic tubes, tubing lengths, jacket materials and colour options. Specialised Other testing and third party certifications are available upon request. Pdts offered are Metal tube products, Plastic tube bundles, Steam and electric trace bundles, Temptube, Light & heavy trace, Self-regulating low and high temperature heated bundles, Continuous and intermittent steam purge bundles, Analyzer heated and unheated bundles.

Quick Connect Couplings for Industrial & Process Industries
Couplings with ball or screw-locking mechanism available in broad range of materials and seal compounds. Used in hydraulic & fluid handling applications.

High Pressure Quick Couplings
High pressure well proven designs for ease of connection & leakfree performance.

Agricultural Hydraulic Couplings
Quick couplings and multi-coupler systems with ball locking mechanism designed for applications like hydraulic connection between implements and tractors, excavators, loaders, tools, jacks and other hydraulic systems.

Diagnostic Couplings
Diagnostic couplings provide easily accessible test points for performance testing of hydraulic and pneumatic systems, enabling “early detection” high equipment efficiency and long life.

ParClean No-Skive. High Pressure Cleaning Hose 463 / 493
Pressure-washing applications. For use with water with constant temperatures up to 120°C. The black or blue cover is highly abrasion & chemical resistant. Extremely flexible, easy to handle.

Pneumatic
Quick couplings Meet ISO 6150-B, ISO 6150-C or European standards. Offers better flow characteristics on any type of pneumatic applications.

Parkrimp Compact No-skive Hose
Compact hose with small bend radius & higher pressure ratings.

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Multitube’s bundles offer protection to the individual tubes while being routed through a plant or facility. We offer a wide range of choices for metal and plastic tubes, tubing lengths, jacket materials and colour options. Specialised Other testing and third party certifications are available upon request. Pdts offered are Metal tube products, Plastic tube bundles, Steam and electric trace bundles, Temptube, Light & heavy trace, Self-regulating low and high temperature heated bundles, Continuous and intermittent steam purge bundles, Analyzer heated and unheated bundles.

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Compact hose with small bend radius & higher pressure ratings.
Fluid Connectors

**Snap-tite**
Snap-tite is a manufacturer of innovative high-pressure fluid power components for oil and gas, industrial and research markets.
- QuickXChange quick disconnect coupling specifically for excavator attachments.
- 75 Series Quick Disconnect, Fire Safe to API 16D
- Multi coupling panles, Sub-Sea
- Connects under pressure
- Directional Control Valves
  All stainless steel construction

**Service Junior**
Service Junior wireless is a digital manometer featuring a MIN/MAX display function. Full scale (FS) accuracy is ± 0.5% based on the upper limit of the measurement range. Dynamic pressure peaks are measured at a scanning rate of 10 ms (100 measurement values /second). The MIN/Max memory is continuously updated and rewritten.

**Service Plus**
The new Serviceman Plus is a mobile, extremely robust and easy-to-use measuring device for many measurement tasks in mobile hydraulics or stationary hydraulic sensors.
Available in 2 designs:
- With 2 inputs for analogue Parker sensors
- With a CAN interface for up to 3 Parker CAN sensors

**Service Master Plus**
This diagnostic tool for any fluid power system is more than just a meter; it incorporates data measurement, display, and on-screen analysis to provide increased functionality that extends far beyond standard meters currently on the market. Combining CAN bus sensor communication protocol with traditional analog inputs, the Parker Service Master Plus has 24 channels for a variety of inputs and outputs. In addition, this unit incorporates multiple data interfaces for connectivity and data storage, a variety of display options for user preference and storage capabilities of up to one billion measured values.

**Rectus Coupling**
RECTUS quick connect couplings have stood for the highest precision and reliability. The pneumatic systems are used in many industries, primarily for compressed air but also for connections with liquid media.

**TEMA Couplings**
With their many innovative design variants, TEMA quick connect couplings are among the best hydraulic connecting elements in the world. They particularly stand out for their extremely low pressure drop and maximum power transmission.

**Snaptite**
Snaptite is a manufacturer of innovative high-pressure fluid power components for oil and gas, industrial and research markets.

**Service Junior**
Service Junior wireless is a digital manometer featuring a MIN/MAX display function. Full scale (FS) accuracy is ± 0.5% based on the upper limit of the measurement range. Dynamic pressure peaks are measured at a scanning rate of 10 ms (100 measurement values /second). The MIN/Max memory is continuously updated and rewritten.
### Fluid Connectors

<table>
<thead>
<tr>
<th><strong>SensoControl Flow Transducers and Turbin</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow measurement in hydraulic systems either as turbine, poppet type sensor with high dynamic resolution or gear counter for high precision measurements.</td>
</tr>
<tr>
<td><strong>SCFT Turbine:</strong> 4 measurement ranges, up to 600 l/min. high pressure-resistant up to 400 bar, integrated pressure and temperature measuring.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>SensoControl Test Points and Adaptors</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Broad range of EMA measuring points and adaptors in galvanized finish for rapid and simple adaptation of sensors and measuring equipment to hydraulic systems.</td>
</tr>
<tr>
<td>Plug and screw designs with various threads and seal forms are available. EMA measuring points can be connected under pressure.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>SensoControl Pressure Sensors</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure sensors with piezo or thin film technology.</td>
</tr>
<tr>
<td>Heavy-duty stainless steel design.</td>
</tr>
<tr>
<td>Linearized output signals for measurement ranges up to 600 bar. Available as a combined designed with pressure and temperature sensor.</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th><strong>SensoControl Measuring Systems</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete diagnostic system for pressure, temperature, flow and rotation. Simple to operate; particularly suitable for on-site service use. Kit available with broad range of sensors and adaptors.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Parker Hose Cutting Machine TH3-1</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Designed to cut hydraulic hoses with textile fibre braid reinforcement and 1-6 steel wire layer reinforcement up to SAE 100R15.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>KarryKrimp 2 Crimping Machines</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Portable hose assembly machine for fast and safe production of hose assemblies.</td>
</tr>
<tr>
<td>The KarryKrimp 2 machines are simple to operate. No gauges to set. No special skills required.</td>
</tr>
<tr>
<td>Can crimp the following hoses: -1+2 brads hoses from DN 06 to DN 32 (size -4 to -16) -3+4 layer hoses from DN 06 to DN 25 (size -4 to -16) -4SH+6 layer hoses in DN 20 and DN 25 (size -12 and -16)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Adjustable Hose Press</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>TH 8-520-Basic model with manual control</td>
</tr>
<tr>
<td>TH 8-520.E - Machine with electronic control</td>
</tr>
<tr>
<td>This adjustable hose press can be used for crimping all Parkjer No-Skive hose types</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>EO Tube Bending and Cutting Tools</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Tube cutting tool AV 6/42</td>
</tr>
<tr>
<td>- Combined tube cutting and bending tool BAV 6/12</td>
</tr>
<tr>
<td>- Tube bending tool for tubes with o.d. from 6 to 25 mm</td>
</tr>
<tr>
<td>- Programmable tube bending tool BVP 6/18 for exact repetition of bending operations.</td>
</tr>
</tbody>
</table>
Fluid Connectors

EO Pre-Assembly and Flaring machine
EOMAT III/A
Electronically controlled hydraulic drive unit for:
- assembly of EO-2 fittings and cutting rings
- flaring of steel and SS tubes (material 1.4571) with an outer diameter of 4 to 42 mm.
Safe, reproducible assembly results from combined pressure and displacement measurement.
User-friendly menu based control. Short cycle times.

Parflange 1040
74° and 180° Flaring Machine
Automated machine for long run production
This orbital flaring machine is designed to flare tubes:
a) o.d. 6 to 50 mm (1/4" to 2") for Triple-Lok/JIC 37° fittings assembly.
b) o.d. from 6 to 38 mm (1/4" to 1.1/2") for Parker O-Lok/ORFS fittings assembly.
Easy to operate, No pressure setting nor tool adjustment required. Fast and efficient.

TexLoc™ Products

Flexible Fluoroplastic Tubings
- Available flexible convoluted and corrugated tubing products
- Superior flex life, resist chemicals in harsh environment,
- Offer reduced bend radius perform at elevated temp, handle static dissipative and vacuum service
- Available in PTFE, PFA, FEP, ECTFE, ETFE, MFA, PEEK™, PVDF
- Application in the chemical, pharmaceutical and pulp and paper industry
- Comply to standards SAE AMS-T-81914 / AMS-H-27267

Precision Fluoroplastic Tubings
- Innovative Precision tolerance tubings
- Material Capabilities-PTFE, FEP, PFA, ETE, ECTFE, MFA, THV, PEEK™ and ULTEM™
- Application - Environmental and Water sampling, automotive and marine, Petroleum, Chemical Processing, Medical and Pharmaceutical, Semiconductor, Electronics

TEXMED™ Products

Fluoroplastic Medical Heat Shrink
- Wide range of USP class
- VI materials in TEXfluo™ PTFE, FEP, PFA, ETFE, MFA, Polyolefin
- Encompasses expansion ranges from 1.3:1 up to 5:1 in PTFE material
- Application for medical devices and instrumentation
Fluid Connectors

Industrial Hose

Special Hoses for Industrial Applications
- Water Hose
- Hot water & Steam Hoses
- Air Hose
- Gas & Welding Hoses
- Oil & Fuel Hoses
- Beverage & Food Hoses
- Acid & Chemical Hoses
- Material Handling Hose

Hoses for Sewer Cleaning Application -
- Type thermoplastic
- Colours - orange / blue
- Pressure - 2500 psi to 4000 psi
- Braiding - elastomeric core tube, fiber braid reinforcement and abrasion resistant urethane cover. All layers bonded.
- Size ½” to 1¼” ID

Hoses for Aircraft Refueling
- Synthetic textile reinforced Hose confirming to API 1529 : 1998
  Type C, Grade 2
- Max length - 40 mm
- Temp - 40ºC to 70ºC
- 20 bar
- 80 bar Burst Pressure
- From 25 mm ID to 100 mm ID

Fuel Dispensing Products:
Vapour recovery hoses, conventional hoses, tank truck hoses and aircraft refuelling hoses.

Value Added Services

Parker India Hose Assembly Facility
Offers Global Standards combinations tailor made as per customer requirement or standard as per catalog. The assemblies are backed up with inhouse testing facilities.

Kitting, Personalised orders:
Group of Parker products can be offered as kits, to meet customers requirements.

Breadman Services
This service entails the delivery of products or Parker kits directly to the manufacturer’s plant or warehouse. This service can be ensured by Parker Certified Distributors or by Parker. Advantages for the customer: stocks are reduced, just-in-time delivery, less handling, no more out-of-stock situation.

Technical Services
Partnership with Customer. We suggest optimum system design. And complete back up from manufacture, installation to commissioning.
**Fluid Connectors**

**Hydraulic Hose**

**Multi Spiral Hydraulic Hose**

**SPIRAFLEX™ EN 856 4SP**
- Application: Very high pressure hydraulics
- Construction Tube: Oil resistant synthetic rubber
- Reinforcement Cover: 4 high tensile steel wire spirals. Synthetic rubber - abrasion, ozone and weather resistant
- Temp. Range: -40°C to + 100°C continuous +125°C intermittent
- Impulse Cycles: Minimum 400,000
- Size: 3/8” to 2”

**SPIRAFLEX™ EN 856 4SH**
- Application: Extra high pressure hydraulics
- Construction Tube: Oil resistant synthetic rubber
- Reinforcement Cover: 4 high tensile steel wire spirals. Synthetic rubber - abrasion, ozone and weather resistant
- Temp. Range: -40°C to + 100°C continuous +125°C intermittent
- Impulse Cycles: Minimum 400,000
- Size: 3/4” to 2”

**SPIRAFLEX™ EN 856 4SH**
- Application: Extra high pressure hydraulics
- Construction Tube: Oil resistant synthetic rubber
- Reinforcement Cover: 4 high tensile steel wire spirals. Synthetic rubber - abrasion, ozone and weather resistant
- Temp. Range: -40°C to + 100°C continuous +125°C intermittent
- Impulse Cycles: Minimum 400,000
- Size: 3/4” to 2”

**SPIRAFLEX™ EN 856 R12**
- Application: Very high pressure hydraulics
- Construction Tube: Oil resistant synthetic rubber
- Reinforcement Cover: 4 high tensile steel wire spirals. Synthetic rubber - abrasion, ozone and weather resistant
- Temp. Range: -40°C to + 100°C continuous +121°C intermittent
- Impulse Cycles: Minimum 500,000
- Size: 3/8” to 2”

**OMEGA-FLEX 3™**
- Application: Very high pressure hydraulic with half the bend radius
- Construction Tube: Oil resistant synthetic rubber
- Reinforcement Cover: 4 high tensile steel wire spirals. Synthetic rubber - abrasion, ozone and weather resistant
- Temp. Range: -40°C to + 121°C max
- Impulse Cycles: Exceeds one million cycles of SAE 100 R12 specification.
- Size: 3/8” to 2”

**Fly Ash Hose**
- Application: For discharge of dry bulk materials, dry cement, sand, fly ash, gravels, etc
- Tube: Ceramic hexagonal plates, embedded in BR/NR-rubber compound with highly abrasion resistance.
- Temperature Range: - 40°C to + 70°C, -40° F to + 158° F
## Fluid Connectors

### Hydraulic Hose

#### Water Blast Hose

**Spiralblast 20K™ Waterblast**
- **Application:** Ultra high pressure water blast applications only (Not recommended for hydraulic applications)
- **Construction Tube:** Water and Oil resistant synthetic rubber
- **Reinforcement Cover:** 4 high tensile steel wire spirals. Synthetic rubber - abrasion, ozone and weather resistant
- **Temp. Range:** -40°C to + 80°C continuous
- **Size:** 3/8" to 1"

**Spiralblast 25K™ Waterblast**
- **Application:** Ultra high pressure water blast applications only (Not recommended for hydraulic applications)
- **Construction Tube:** Water and Oil resistant synthetic rubber
- **Reinforcement Cover:** 4 high tensile steel wire spirals. Synthetic rubber - abrasion, ozone and weather resistant
- **Temp. Range:** -40°C to + 80°C continuous
- **Size:** 3/8" to 1"

#### Braided Hydraulic Hose

**En 853 1sn/sae 100 r1at**
- **Application:** High pressure hydraulic oils, air and water
- **Construction Tube:** Synthetic Oil resistant rubber
- **Reinforcement Cover:** 1 high tensile steel wire spirals. Synthetic rubber - abrasion, ozone and weather resistant
- **Temp. Range:** -40°C to + 120°C
- **Impulse Cycles:** 150,000
- **Size:** 1/4" to 4"

**En 853 2sn/sae 100 r2at**
- **Application:** Ultra high pressure hydraulic oil, air and water
- **Construction Tube:** Synthetic Oil resistant rubber
- **Reinforcement Cover:** 2 high tensile steel wire braids. Synthetic rubber - abrasion, ozone and weather resistant
- **Temp. Range:** -40°C to + 120°C
- **Impulse Cycles:** 200,000
- **Size:** 1/4" to 4"

#### Cergom 10
- **Application:** Suitable for compressed air and vacuum conveying systems for high abrasive materials, such as dry cement, coal powders, minerals, ceramic powders, glass fibres, etc. Developed for tough environments, such as mining, steelworks, ceramic - and glass industries, insulating material manufacturers, etc.
- **Tube:** Ceramic hexagonal plates, embedded in BR/NR-rubber compound with highly abrasion resistance.
- **Reinforcement:** Synthetic textile fabrics, embedded steel wire helix and built-in copper wire to provide electrical continuity.
- **Temperature Range:** -30°C [-22 °F] to +70 °C (+158 °F)

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<table>
<thead>
<tr>
<th>Fluid Connectors</th>
<th>Hydraulic Hose</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Water Blast Hose</strong></td>
<td><strong>Spiralblast 20K™ Waterblast</strong></td>
</tr>
<tr>
<td><strong>Application:</strong> Ultra high pressure water blast applications only (Not recommended for hydraulic applications)</td>
<td><strong>Construction Tube:</strong> Water and Oil resistant synthetic rubber</td>
</tr>
<tr>
<td><strong>Reinforcement Cover:</strong> 4 high tensile steel wire spirals. Synthetic rubber - abrasion, ozone and weather resistant</td>
<td><strong>Temp. Range:</strong> -40°C to + 80°C continuous</td>
</tr>
<tr>
<td><strong>Size:</strong> 3/8&quot; to 1&quot;</td>
<td><strong>Spiralblast 25K™ Waterblast</strong></td>
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<td><strong>Application:</strong> Ultra high pressure water blast applications only (Not recommended for hydraulic applications)</td>
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<td><strong>Size:</strong> 3/8&quot; to 1&quot;</td>
<td><strong>Braided Hydraulic Hose</strong></td>
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<tr>
<td><strong>En 853 1sn/sae 100 r1at</strong></td>
<td><strong>Application:</strong> High pressure hydraulic oils, air and water</td>
</tr>
<tr>
<td><strong>Construction Tube:</strong> Synthetic Oil resistant rubber</td>
<td><strong>Reinforcement Cover:</strong> 1 high tensile steel wire spirals. Synthetic rubber - abrasion, ozone and weather resistant</td>
</tr>
<tr>
<td><strong>Temp. Range:</strong> -40°C to + 120°C</td>
<td><strong>Impulse Cycles:</strong> 150,000</td>
</tr>
<tr>
<td><strong>Size:</strong> 1/4&quot; to 4&quot;</td>
<td><strong>En 853 2sn/sae 100 r2at</strong></td>
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<tr>
<td><strong>Application:</strong> Ultra high pressure hydraulic oil, air and water</td>
<td><strong>Construction Tube:</strong> Synthetic Oil resistant rubber</td>
</tr>
<tr>
<td><strong>Reinforcement Cover:</strong> 2 high tensile steel wire braids. Synthetic rubber - abrasion, ozone and weather resistant</td>
<td><strong>Temp. Range:</strong> -40°C to + 120°C</td>
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<td><strong>Impulse Cycles:</strong> 200,000</td>
<td><strong>Size:</strong> 1/4&quot; to 4&quot;</td>
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<tr>
<td><strong>Cergom 10</strong></td>
<td><strong>Application:</strong> Suitable for compressed air and vacuum conveying systems for high abrasive materials, such as dry cement, coal powders, minerals, ceramic powders, glass fibres, etc.</td>
</tr>
<tr>
<td><strong>Temperature Range:</strong> -30°C [-22 °F] to +70 °C (+158 °F)</td>
<td><strong>Tube:</strong> Ceramic hexagonal plates, embedded in BR/NR-rubber compound with highly abrasion resistance.</td>
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</table>
| **Reinforcement:** Synthetic textile fabrics, embedded steel wire helix and built-in copper wire to provide electrical continuity.
Fluid Connectors
Hydraulic Hose

Braided Hydraulic Hose

HI-TEMP HOSE™
EXCEEDS 1 SN
Application: High pressure hydraulic oils upto 150°C, Air upto 120°C
Construction Tube: Black High Temp. synthetic rubber (CPE) tube
Reinforcement Cover: 1 high tensile steel wire braid. Synthetic rubber - abrasion, ozone and weather resistant
Temp. Range: -40°C to + 150°C hydraulic oil +120°C hot air
Size: 1/4” to 1.1/4”

HI-TEMP HOSE™
EXCEEDS 2 SN
Application: High pressure hydraulic oils, upto 150°C, Air upto 120°C
Construction Tube: Black High Temperature synthetic rubber (CPE) tube
Reinforcement Cover: 2 high tensile steel wire spirals. Synthetic rubber - abrasion, ozone and weather resistant
Temp. Range: -40°C to + 150°C hydraulic oil +120°C hot air
Size: 1/4” to 1.1/4”

EN 854 R3
Application: Medium pressure hydraulic oils, air and water
Construction Tube: Synthetic oil resistant rubber
Reinforcement Cover: 2 Synthetics textile braids, Synthetic rubber - abrasion, ozone and weather resistant
Temp. Range: -40°C to + 100°C
Size: 1/4” to 2”

EN 854 R6
Application: Low pressure hydraulic oils, air and water
Construction Tube: Synthetic oil resistant rubber
Reinforcement Cover: 1 Synthetic textile braid Synthetic rubber - abrasion, ozone and weather resistant
Temp. Range: -40° C to + 100°C
Size: 1/4” to 1”

MH-174™
BCS 174-1992
Underground Mining
Application: Underground mining requiring very stringent safety standards like Long wall mining and roof support systems
Construction Tube: Synthetic oil resistant rubber
Reinforcement Cover: 2 high tensile steel wire braids. Synthetic rubber - abrasion, ozone, weather and flame resistant
Temp. Range: -40°C to + 120°C
Impulse Cycles: 100,000
Size: 1/4” to 2”

POWERFLEX™
More Power - More Flexibility
Application: Rigorous and demanding critical application areas of earth movers
Construction Tube: Synthetic oil resistant rubber
Reinforcement Cover: 2 special high tensile steel wire braids Synthetic rubber - abrasion, ozone and weather resistant
Temp. Range: -40° C to + 120°C
Size: 1/4” to 1”

MH-SUPER™
Exceeds EN 853 2SN
Application: High pressure hydraulic oils, air and water
Construction Tube: Synthetic oil resistant rubber
Reinforcement Cover: 2 high tensile steel wire braids. Synthetic rubber - abrasion, ozone and weather resistant
Temp. Range: -40°C to + 120°C
Impulse Cycles: 200,000
Size: 3/8” to 1.1/4”

SUPERJACK™
10000 PSI WORKING PRESSURE
Application: Hydraulic jack application used in jacking systems
Construction Tube: Synthetic oil resistant rubber
Reinforcement Cover: 2 high tensile steel wire braids. Synthetic rubber - abrasion, ozone and weather resistant
Temp. Range: -40° C to + 100°C
Size: 1/4” to 3/8”
# Fluid Connectors

## Hydraulic Hose

<table>
<thead>
<tr>
<th>Model</th>
<th>SAE/BS/IS</th>
<th>Application</th>
<th>Construction Tube</th>
<th>Reinforcement Cover</th>
<th>Temp. Range:</th>
<th>Impulse Cycles:</th>
<th>Size:</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLIMPACTM</td>
<td>100 R16</td>
<td>High pressure hydraulics</td>
<td>Oil resistant synthetic rubber</td>
<td>1 or 2 high tensile steel wire braids. Synthetic rubber - abrasion, ozone and weather resistant</td>
<td>-40ºC to 100ºC</td>
<td>Minimum 200,000</td>
<td>1/4&quot; to 1&quot; 1.1/4&quot;</td>
</tr>
<tr>
<td>TRI-K-FLEXTM</td>
<td>100 R17</td>
<td>High pressure hydraulics</td>
<td>Oil resistant synthetic rubber</td>
<td>1 or 2 high tensile steel wire braids. Synthetic rubber - abrasion, ozone and weather resistant</td>
<td>-40ºC to 100ºC</td>
<td>Minimum 200,000</td>
<td>1/4&quot; to 1&quot;</td>
</tr>
<tr>
<td>SLIMLINE™</td>
<td>EN 857 1SC</td>
<td>High pressure hydraulics</td>
<td>Oil resistant synthetic rubber</td>
<td>1 high tensile steel wire braids. Synthetic rubber - abrasion, ozone and weather resistant</td>
<td>-40ºC to 100ºC</td>
<td>Minimum 1,50,000</td>
<td>1/4&quot; to 1&quot;</td>
</tr>
<tr>
<td>SLIM™</td>
<td>EN 857 2SC</td>
<td>High pressure hydraulics</td>
<td>Oil resistant synthetic rubber</td>
<td>2 high tensile steel wire braids. Synthetic rubber - abrasion, ozone and weather resistant</td>
<td>-40ºC to 100ºC</td>
<td>Minimum 200,000</td>
<td>1/4&quot; to 1&quot;</td>
</tr>
<tr>
<td>AIR MASTER™</td>
<td>446:1980</td>
<td>High pressure rock drill and pneumatic service in drilling, quarries, construction &amp; general industry.</td>
<td>Heat and Oil mist resistant rubber</td>
<td>1 high tensile steel wire braids. Synthetic rubber - abrasion, ozone and weather resistant</td>
<td>-35ºC to 100ºC</td>
<td>3/4&quot; to 2&quot;</td>
<td></td>
</tr>
<tr>
<td>LPG HOSETM</td>
<td>BS 4089:1989 TYPE 1</td>
<td>Transfer of LPG in liquid or vapour form which is prevented between operations (permanently filled with liquid or vapour) including automotive</td>
<td>Black smooth Nitrile rubber resistant to LPG</td>
<td>1 high tensile steel wire braids. Synthetic rubber - abrasion, ozone and weather resistant</td>
<td>-20ºC to 45ºC</td>
<td>3/8&quot; to 2&quot;</td>
<td></td>
</tr>
<tr>
<td>THERMIC STEAM™</td>
<td>IS 10655:1999 TYPE 2/BS 5342</td>
<td>Steam at high temperature</td>
<td>Steam and heat resistant EPDM rubber</td>
<td>1 high tensile steel wire braids. Synthetic rubber - heat, abrasion, ozone and weather resistant</td>
<td>Upto +184ºC</td>
<td>3/8&quot; to 2&quot;</td>
<td></td>
</tr>
<tr>
<td>THERMIC STEAM™</td>
<td>IS 10655:1999 TYPE 3/BS 5342</td>
<td>Steam at high temperature</td>
<td>Steam and heat resistant EPDM rubber</td>
<td>2 high tensile steel wire braids. Synthetic rubber - heat, abrasion, ozone and weather resistant</td>
<td>Upto +205ºC</td>
<td>3/8&quot; to 2&quot;</td>
<td></td>
</tr>
<tr>
<td>PETRO MASTER™</td>
<td>BS 3395:1989 TYPE 3C HARDWALL</td>
<td>Fuel Dispensing</td>
<td>Synthetic rubber, resistant to petrol and diesel fuels</td>
<td>1 high tensile steel wire braids. Synthetic rubber - abrasion, ozone and weather resistant</td>
<td>-40ºC to 55ºC</td>
<td>3/4&quot; to 1&quot;</td>
<td></td>
</tr>
<tr>
<td>FUEL DISPENSING™</td>
<td>UL 330</td>
<td>Gasoline Hose</td>
<td>Petroleum resistant synthetic rubber black in colour</td>
<td>One layer of high tensile brush coated steel wire</td>
<td>-40ºC to +100ºC</td>
<td>5/8&quot; to 1&quot;</td>
<td></td>
</tr>
</tbody>
</table>
Seals and O-Rings

Hydraulic Seals
Rod, piston, rotary and flange seals, guiding elements, wipers, Polyurethane O-rings, frame seals, flat and accumulator diaphragms.
For construction machines industrial hydraulics, vehicle engineering and mining.
Basic materials: All types of rubber, polyurethane, PTFE, fabric and metal reinforced elastomers and plastics.

Guiding Elements
Guide rings and tapes prevent metallic contact between piston and cylinder with laterally acting forces. Guide rings in thermoplastics, filled thermoplastics and duroplastic resins with fabric reinforcement.
Guide tapes in PTFE with bronze or carbon additives, available by the meter or cut to required length.

PTFE & PEEK Seals
Thermoplastic seals
Standard and special profiles in Polon®
Co-axial seals in modified PTFE with elastic pre-tensioning and guide elements for hydraulic and pneumatic cylinders where operating conditions necessitate particularly low static and motional friction.
PEEK SEALS for Energy, oil, Gas & CPI industries.

Rotary Seals
For sealing rotary transmissions in hydraulic plants that are subjected to pressure.
Five sealing systems for shafts up to 2500 mm dia.
The two-part RS seal set is suitable for pressures up to 500 bar and running speeds up to 0.5 m/s. The patented geometry of the sealing ring running surface ensures the lubricant film, improving frictional characteristics and wear resistance.

Special Profiles,
Metal seals and Precision Moulded Parts
For static and dynamic use in fluidics and process engineering, automobile and apparatus engineering, chemical and medical engineering, mineral oil extraction and processing and the aerospace industry.
Metal ‘V; Ring, ‘C’ Rings, spring energised seals for cryogenic to +800ºC.

Ultrathan® Seals
Ultrathan® seals for compensation of the axial gap in hydraulic pumps and motors. Ultrathan sealing sets for accumulator pistons.
Seals for flanges and for connection plates on control equipment and valves. Ultrathan® SAE flange seals.
Housing seals.
Seals for automobile components: clutches master and slave units, brake equipment, shock absorbers, pneumatic shock absorbers, automobile hood actuators, starters, catalytic converters etc.

Pneumatic Seals
Rod, piston and valve seals.
Complete pistons, one-piece elastomer coated valve pistons.
Rod seal/wiper sets.
Cushioning rings, guiding elements and wipers.
Sealing systems for micro-pneumatics.
Basic materials: NBR and polyurethane compounds, PTFE, FPM, elastomers with metal or plastic carrier components, developed for use in pneumatics.
Seal lip geometry with lubricant retention properties. Best sealing action with low friction.

Special Sealing Systems
Ultrathan® seals for compensation of the axial gap in hydraulic pumps and motors. Ultrathan sealing sets for accumulator pistons.
Seals for flanges and for connection plates on control equipment and valves. Ultrathan® SAE flange seals.
Housing seals.
Seals for automobile components: clutches master and slave units, brake equipment, shock absorbers, pneumatic shock absorbers, automobile hood actuators, starters, catalytic converters etc.
Bearing Isolator

ProTech™ bearing isolator seals offer an answer for applications where improving the mean time between failure (MTBF) is critical. The ProTech family relies on true non-contact labyrinth seal technology to provide 100% exclusion of contaminants and 100% retention of bearing lubrication for the life of the bearing. Fourteen standard profiles are available to allow for ease of retrofitting most equipment. Metallic ProTech Millennium® profiles are available in bronze, 302 SS, 304 SS, 316 SS, and carbon steel. Typical size range is for shaft diameters from 0.492” (12.5 mm) to 38” (965 mm). ProTech has also been independently tested to IEEE IP55, IP56, IP66 and IP69k.

O-Seals


Silicone

Moulded parts and seals. Resistant to temperatures from -115 to +250° C. Good electrical insulation and excellent physiological properties. Resistant to ozone, ageing and weathering. Manufacture of complicated geometrical shapes to close tolerances. In clean room conditions. For electronics, electrical, automobile industry & aerospace applications.

Parofluor® Seals

In perfluor rubber (FFKM). Resistant to nearly all chemicals at temperatures from -30°C to +320° C. For the semiconductor industry: Resistant to acids, no bath contamination with metallic ions. Hifluor seals From special fluor elastomers (FPM) suitable for use in aggressive acids and polar media at temperatures from -25 to +260° C.
Expansion Joints
RM DYNEX brand fabric expansion joints are offered in a broad range of configurations and multi-layer construction types. Their engineered design and construction mean performance for managing thermal expansion, noise reduction, vibration, wind & seismic loads, movement absorption and system stress relief. Parker offers three classes of fabric expansion joints:
Economy:
Styles: X275-X300, X404-X425, LX801-LX1000
Performance:
Styles: E300E, E400V, C500-C1000
Premium:
Styles: Mark II, Mark III, Mark V Modified, Mark V, 1200 GTA/GTB

Adhesives and Sealants
Parker’s adhesives and sealants product line offers solutions for locking of threads, retaining of joining parts, sealing of pipes, tubes, threads and flanges and gluing. Technical sprays and liquids complement the portfolio by performing the following tasks: cleaning and degreasing, activating, mounting, separating, lubricating, etc.
Metallic Seals
Mesh Strip® seals with knitted wire mesh in monel or tinned plated copper clad steel wire and a completely metallic or elastomer core. The Combo Strip® version has an additional sealing strip to provide better attachment and protection against moisture.

Conductive Adhesives and Pastes
Ch-Bond® conductive adhesives are available in two versions. Firstly, in solid form as 2-component epoxy resin with pure silver or silver plated copper filling and, secondly, silicone filled with the latter material. Cho-Bond® pastes used for filling wide joints. They are produced in epoxy resins, silicones and polyisobutenes in single or 2-component versions - with silver plated glass aluminium or other fillers.

Laminates and Tapes
Laminates produce conductive non-corroding surfaces in plastic housings. Available in strips or stamped shapes to suit customer requirements. The metallic foil layer (copper, aluminium, stainless steel etc.) seals and earths, whilst dielectric resistance is provided by plastic film. Cho-Foil® is a screening foil with adhesive applied to one side.

Thermally Conductive Materials for Electronics
Cho-Therm®, Thermally conductive and electrically isolating materials for transmission of heat from electrical components to heat sinks. T-Wings: Flexible heat-conductors for tightly packed switching circuits. Manufactured from electrically insulated thin copper strips with silicone adhesive on one side. Thermattach: Thermally conductive adhesive tapes for the attachment of heat sinks, e.g. on microprocessors. Available in Insulating and non-insulating types.

Cable Screening
Cho-Sorb® ferrites serve for the reduction of interference associated with cables. They allow flow of the desired signals through the cable and switchgear and trap unwanted energies. Cho-Jac® are sheaths for protection of flat cables.

Conductive Coatings
Cho-Shield® coatings are an EMI screen for electronic components and consist of epoxy Resin, acrylates of urethane & also silver or nickel fillers. Cho-Shield® 2052 is a single component coating suitable for cost-effective metallization of plastic housings and components.
Climate & Industrial Controls

Parker and Parker Sporlan Refrigeration & Air-conditioning - Commercial

Expansion Valves

System Protectors

Pressure Switch
For use with fluorinated refrigerant, air and water, inert gas. Vibration and shock resistant. Compact design. Wide allowable fluid. Temperature: -200C to +1200C. Pressure: -0.5 to 30 kg/cm2.

Gerotors
Gerotors and gerotor assemblies for automotive pumps, transmission, differential and transfer cases, refrigeration compressors, and industrial applications.

Solenoid Valved - Refrigeration
Are pilot operated, 2 way normally closed valves for liquid, suction and discharge gas lines. It is used with all kinds of Freon refrigerant excluding ammonia.

Process Control Valves

Sinclair Collins Valves
High Pressure
Available in 2-way normally open or normally-closed, and 3-way types. These valves are available in 1/2" through 3" sizes.

Sinclair Collins Valves
Low Pressure
Line mounted 2- and 3-way, normally-open and normally-closed valves are available. Provide a pressure range up to 500 psi (34 bar) and are designed to handle temperatures ranging from -40ºF to 450ºF (-40º to 232ºC). Also available are shaping modules and control valve combination for Tyre presses.

Refrigeration & Air-conditioning - Industrial

Refrigeration Speciality

Herl
Product line includes hand shut-off valves, stop valves, ball valves, Globe valves. Overflow valves of various sizes from 1/8" to 8" for both ammonia and halocarbon refrigerants.
## Climate & Industrial Controls

### Medical / Instrumentation
- Compact 2-way and 3-way miniature solenoid valves, ON/OFF and proportional with brass, stainless steel or PTFE body for water, steam, air, liquid and aggressive gas applications.
- Compact solenoid valves designed for optimising internal dead space.
- Isolation solenoid valves with fluid separation membrane.
- Various seal materials according to customers’ applications (FKM, NBR, EPDM and PTFE).

### Heating System
- 2-way solenoid valves with 1/8" to ½" port connections or flange mounted
- Safety solenoid valves for controlling the supply of diesel oil in the injection line and closing the circuit between storage tank and burner
- Various sealing techniques satisfying the most stringent technology requirements (true FKM)
- UL and TÜV Germany certification - DIN CERTCO, according to standards EN 204 and EN161

### Commercial Equipment

#### Products solutions
- 2-way and 3-way direct-, pilot-operated or magnalift solenoid valves for applications with air, water, hot water, steam and light oils.
- Solenoid valves rated for water up to pressures of 100 bar - 1500 psi - and tested over millions of cycles.
- Various materials (brass, stainless steel, NBR, FKM, PTFE, EPDM) intended for a wide range of applications.

### Pneumatic Actuators & Positioners

#### Products solutions
- Pneumatic Rotary Double Acting and Spring Actuator with positioner indicator
- Limit Switch - Weatherproof IP67 meeting ISO 5211 standard, mechanical switches proximity switches, magnet sensor, positioner transmitter
- Pneumatic Positioner and Electro Pneumatic Positioner - with Linear and Rotary options

### Industrial Solenoid Valve (Fluid Controls)

#### Industrial Equipment

#### Products solutions
- 2-way and 3-way direct-, pilot-operated or magnalift solenoid valves for application valves for applications with compressed air
- Special design solenoid valves designed with the capability of providing long life expectancy and response times of a few millisecond
- New generation of compact low power EPP4 pneumatic pressure regulators with voltage or current control

### Fuel Dispensing

#### Products solutions
- 2-way normally-closed solenoid valves delivering a predetermined quantity of liquid using two stage technology (high flow rate for normal volume and low flow for final filling)
- Proportional solenoid valves allowing blending of different grade gasolines right at the dispenser
- Material of construction to withstand the various additives put in fuels and to be compliant with agro-fuels standards

### Transportation

#### Products solutions
- 2-way and 3-way solenoid valves ON/OFF, proportional or PWM (Pulse width Modulated) for the management of all fluids in the transportation sector (air, water, glycol, petrol, diesel oil, biodiesel, oil, urea)
- Piped flanged or cartridged mounted solutions
- Customised system including solenoid valves, sensors, filter and taps
**Instrumentation**

**Process Control in Oil & Gas, Power Generation**

**Flow Hookups and Measurement Solution**

**Valves & Manifolds**

- **Double block & bleed & flanged manifolds**:
  Complete range of double block and bleed firesafe manifolds and conversion connectors.

- **Pressure Manifolds**:
  Comprehensive range for interface with pressure gages, transmitters and switches.

**Valves & Fittings**

- **A-Lok® Tune Fittings**:
  A-Lok® double ferrule fittings used in instrumentation applications where high-quality, leak-free joints are required.

- **CPI™ Tube Fittings**:
  Known for positive, leak-free sealing, CPI™ single ferrule tube fittings meet stringent demands of process control, power and instrumentation systems. Available in many sizes, configurations in a variety of materials with heat code traceability.

**Flow Manifolds**

- **2, 3, 5 Valve Manifolds** in variety of configuration for interface with differential pressure transmitters.

**Ball Valves**

- Parker manual, pneumatically actuated, and electrically actuated ball valves control fluids in process, power, meter and instrumentation applications. Miniature, high pressure and swing-out ball valves available in various sizes.

**Rotary Plug Valves**

- Compact quarter-turn valves manufactured from stainless steel or brass bar stock and offered in a variety of port connections. The straight-thru design provides minimum pressure drop.

**Hand Valves**

- Needle, multi port, gauge, rising plug, O.S & Y, high pressure and cryogenic valves.

**Autoclave Valves, Fittings & Tubings**

- Needle Valves/Ball Valves/Relief Valves
- Valve Actuator
- Fittings and Tubing
- Adaptors / Couplings
Regulators, Valves and Transducers
Veriflo high purity regulators and valves for ultra-high purity and semi-conductor fabrication markets. Pressure reducing regulators and transducers used in gas cabinets, valve manifold boxes and OEM process equipment. The instrumentation valves and regulators are utilized in gas analyzers and sampling systems.

Multitube® Products
Instrument and Heat Trace Tubing products in variety of configurations, from single to multiple lines, for containment, transmission and control of pneumatic signals, gases and liquids. Tubing materials include copper, stainless steel, metal alloys, and Teflon®. Jacketing materials include: PVC, polyethylene, polyurethane and corrosion-resistant armored cable. Non-hygroscopic glass fiber insulation also available. Specific applications include transport of hazardous gases used in semiconductor manufacture, analyzer, impulse and instrumentation lines, process and sampling lines and transport of cryogenic fluids such as liquid nitrogen.

Diaphragm and Bellows Valves
Parker UHP Diaphragm and Bellows valves provide contaminant free, positive shut-off for high-purity gas/fluid systems. These 1/4” - ½” size analytical and process control valves offer superior leak integrity for manually and pneumatically actuated applications with pressure ranges from vacuum to 3500 psig.

Check Valves and Filters
Parker check valves provide unidirectional control of liquids and gases in numerous sizes and a variety of inch/metric port connections, including CPI™ and A-Lok® compression and male and female NPT. Parker in-line and T-type filters are designed as secondary filters for protection of small instrumentation lines and components against contamination.

Adjustable Relief Valves
Parker offers proportional relief valves with externally adjustable pressure settings. Optional manual override permits relief of pressure regardless of the set point.

RMAX
- Valves used to achieve the stream switching function
- Crucial factors to look out are it eliminates the cross-contamination of samples, and its ease of installation and maintenance of components
- R-max - is purpose-designed to meet the integrity and reliability demands of analyser OEMs and users

Vent Master
- A system that limits process emissions to the atmosphere.
- System’s excellent pressure stability is its key advantage, which translates to high process quality.
- Other Advantages are Vent Master reduced maintenance, produces a cleaner and safer environment, and operates simply.
Instrumentation

CNG Gas Dispenser

- Features an innovative design
- Advantage:
  - 100 percent intrinsically safe controller
  - ease of maintenance and operation.
- Offer - 3 Bank, 2 Fill CNG Car Dispensers

Specifications:
- Flow Capacity: 15 kg/min,
- Accuracy: +/- 1.5%, Calibration
- Pressure Rating of Wetted Parts: 5000 psi at 25°C as per ASME/ANSI B31.3
Natural Gas Systems

Instrument Tube and Pipe Fittings
Highest integrity, corrosion resistant precision tube fittings, proven in the most arduous applications. Silver plated ferrule option for superlative safety levels in critical gas applications.
- A-LOK® twin ferrule
- Instrument Pipe fittings
- CPI™ single ferrule
- Dielectric fittings

Filters
Compact high efficiency oil and water condensate and particulate filtration, for high volume refuelling or onboard vehicle applications.

Valves
High Integrity precision Instrument Valves for all isolation, regulation, direction control and over pressure protection applications...
- Ball Valves - upto 10,000 psi
- Check Valves
- Bleed / Purge Valves
- Manifolds
- Needle Valves
- Pressure Relief Valves

Refueling Nozzles
NGV1 / ANSI standard, keyed refueling nozzles for public or private use
- Type 1 patented interlock, push to connect, design.
- Type 2 push connect or sleeve operated, with fill/vent valve.
- Type 3 push connect or sleeve operated.
## Natural Gas Systems

**Hoses**
- High strength.
- Abrasion and weather resistant, conductive polymer core hose for high pressure fill and vent duties.
- Refueling
- Vent recovery

**Refueling Receptables**
- NGV1 / ANSI standard, keyed and pressure-actuated to prevent back flow and over pressurisation.
- Bulkhead designs for rigid mounting.
- Integral filter element option.

**Pressure Regulators**
- Veriflo high performance
- Pressure Regulators for accurate control of high and low pressure applications.

**Couplings - Breakaway**
- Shuts off gas flow in the event of accidental disconnection of the Break-Away harness on CNG dispensers.

## Pneumatic Components

**S.S. Mini Cylinders P1A**
- ISO standard cylinder, Ø10-25mm max. 10 bar.
- Standard options: adjustable cushioning, high/low temperature, guided, all stainless steel etc. Complete range of sensors and mountings.

**Stainless Steel Cylinders P1S**
- All stainless steel double acting, diameter 10-125mm max. 10 bar.
- Adjustable cushioning. Clean design and lubricated with food industry grease.

**ISO Cylinders ICS**
- ISO/VDMA profile cylinder, Ø32-200mm. max. 10 bar.
- Standard options: high/low temperature, gaiter, guided etc. Complete range of sensors/mountings.

**Stainless Steel Cylinders P1S**
- All stainless steel double acting, diameter 10-125mm max. 10 bar.
- Adjustable cushioning. Clean design and lubricated with food industry grease.

**Cylinders GDCN**
- Heavy duty cylinder, Ø150-200mm. max. 10 bar.
- Standard options: high/low temperature, gaiter, guided etc. Complete range sensors/mountings.

**Airmotors P1V-A**
- Sizes 1600-3600W. Wide range of gears for different speed and torque.
### Pneumatic Components

#### Short Stroke Cylinders P10S-7P1M
Cylinder Ø12-100mm. max. 10 bar, Strokes up to 100mm. Single/ double acting with and without guiding. Complete range of sensors.

#### Rodless Cylinders OSP
P1X-Cylinders Ø16-63mm, max 8 bar, strokes up to 4000mm/ Several standard variants of carriage units and a wide range of accessories. RC-Come with built in guided carriage.

#### Rotary Actuators Kuroda PRN
9 sizes. Single and double configuration. Precision aluminium extruded body and vanes. Output torques to 206 Nm at 6 bar.

#### Compact Guide Units PST:
Ø12-100 mm bore size Integrated guidance Twin recirculating bearings, Cushioning & magnetic sensing standard, Flexible porting & mounting Standard strokes 10 to 200 mm

#### Diaphram / Piston Cylinders:
Short Stroke high thrust design compact dimensions, Diaphragm or Piston Version, Single or double acting, Force upto 25000 N

#### 3D Linear Units
Loads up to 100kg, 3 sizes, 8 bar. Stroke up to 800mm. Precision axis with integrated sensors and hydraulic cushioning. With intermediate shop, mechanical or programmable. Full range of accessories.

#### Compact Guide Units P5T:
Ø12-100 mm bore size Integrated guidance Twin recirculating bearings, Cushioning & magnetic sensing standard, Flexible porting & mounting Standard strokes 10 to 200 mm

#### Bellows Series 9109
Sizes Ø 70 to 660mm, stroke 65 to 430 mm, upto triple convulsions, very high force and quick frictionless movement, maintenance free.

#### Short Stroke Units and Rod Guidance
Short stroke units for combination with 3D components, Ø16 and 25mm. Rod-guidance for ISO cylinders. Ø32 - 100mm. Low cost suitable for automation

#### Pancake Cylinders C05
Sizes Ø 8 to 63 mm, stroke upto 25 mm, space saving design, minimum wearing parts, piston rod with internal thread, clean external design.

#### IPS Structural Framing Systems
All aluminium metric profiles. Broad selection of metric connecting hardware and accessories for guards and machine frames.

#### Grippers
Robotic and automation compact precision gripping devices which offer a high clamping force to weight ratio and a repeatability of 0.03 mm. The range comprises three types of gripper, parallel in 5 sizes and angular ‘180°’ in 3 sizes.

#### Flat Cylinders 10F-1
Sizes 25, 32 and 50 mm, speed upto 500 mm / sec. non rotating oval piston design, sensing accessories available.
**Pneumatic Components**

**Viking**
G1/8 and G1/4 directional valves, pneumatically or electrically operated, with 5/2, 5/3 variants and hand or foot operated version. Highly recommended for mobile applications. G1/8 size features a modular sub-base system.

**I Sys H Series ISO Valve**
A Complete Serial bus communication offering for all ISO Valves. Extremely fast I/O backplane uses change-of-state (COS) connection to maximize performance. UL, C-UL and CE certifications. A communication module supports up to a maximum of 62 I/O modules and up to 250 inputs and 252 outputs.

**Adex Valves**
Sizes M3, M5 & 1/8" Compact body Large Flow, life more than 50 million cycles, Low Power Consumption of 0.6 watts, Multipin connector option, Inline or subbase Mounting version available 3/2, 5/2, 5/3 configuration available

**ISOMAX**
High tech ceramic technology, size 1/8" to 1/2" long life cycle above 100 operations, switching without seal, stiction free, short response time, low sensitivity to air quality changes, suitable for vacuum or pressure applications.

**Valvetronic**
Global concept, associating pneumatic, electrical and electronic technologies, to allow the connection of a valve island to a central control system by means of multwire cable or serial bus. Also, Interbus S, Profibus DP, DeviceNet, Fipio -

**Direct Acting Valves WV/DKV**
Size 1/4" to 1", Direct Acting, SS Brass Body, Suitable for Air/water/oil (below 50 cst)

**Direct Acting Valves A Series:**
Port size 1/89 to 1 1/4", Direct operated solenoid, Suitable for Vacuum Operation, Precision Lapped Spool & Sleeve (Metal seal), Long service Life, Easy replacement of solenoid unit.

**Modular Interface PS1E**
Omega rail mounting, common electrics & pneumatics simplify set up of these mini valves. Pneumatic indicators, LEDs, manual overrides facilitate easy maintenance. Available in 3/2 & 4/2 version, monostable & bistable, instant Ø4 & Ø6 mm connections.

**Pneumatic Logic**
A complete system that allows economic automation of simple machines. Poppet technology guarantees reliability whilst set-up is simplified by omega rail mounting, modular, design, swivel connectors, instant connection and pressure test points.

**Proportional and Diaphragm -**
VSO, VSD-HP, HF-PRO and 3000 series Application - Life Science

**Digital and Vacuum**
Soloid valves - X and V Series valves and MD - PRO Application - Life Science
Pneumatic Components

**Process Duty Buttons & Limit Switches**
A full range of buttons with modular construction that combines an extensive range of operating heads with full range of pneumatic and electric switches. 3 ranges of limit switches will provide solutions for virtually any limit switch application.

**Heavy Duty Buttons and limit switches PM 320/520**
M5, G1/8, G1/4 - G1/2, in-line mounting. Pressure 10 bar G1/4 in spool design with 3/2, 5/2 and 5/3 function. G3/8 and G ½ in poppet design 3/2 function. Special solenoids on request.

**Flowstar**
Sub-base valves conforming to VDMA 24563 and ISO 15407/1 size 18 and 26 mm. Suitable for food applications. Easy to assemble multiple manifold system.

**Everdure**
Available in 3 sizes: G1/8, G1/4, G3/8. This complete valve system consists of 4/2 directional valves, 3/2 dump valves and 2/2 soft start valves. Used alone or in manifolds. Ceramic switching provides outstanding durability.

**Proportional Valve**
Low Hysteresis, Orifice 0.6, 12, 25 mm, Pressure 0 to 22 bar, Analogue & Digital

**Control Accessories**
A complete range of speed controllers, blockers, unloaders, optimisers, slow starters. Sizes from M5 to G1/2, instant connection or threaded connection. Monofunction or multifunction.

**Vacuum Systems**
Over 100 suction cups in various materials and shapes. Wide array of generators from compact simple generators to multifunction units with built in latching, blow off, air conserving and electrical functions. Full complement of accessories.

**Global FRL's**
3 body sizes, ports G1/8 to G2", 10 bar. Complete modular system with filters, regulators, lubricators, filter/regulators, ball valves, manifolds, soft start /dump valves.

**Stainless Steel FRLs**
Size 1/4", High Flow 10.85 dm³/sec, stainless steel construction, handles most corrosive atmosphere, fluoroelastomer seals standard, conforms to NACE standards.

**Tubes Fittings & Accessories**
All variety of fittings - Metric, BSPP, NPT, different body material, size M3, M5 and 1/8" to 1/2" for different tube connections, Nylon, Polyurethane, thermoplastic tubes from 4 to 16 mm OD, temp range -20° c to +80° c for different fluids.
Legris Products

Liquifit Fittings
[6302 series]
Used in Filters, Softeners, RO systems, Dispensers, Heaters, Coolers, High Purity Water. Temp. range: -10°C to +95°C @ 16 Bar.
Available in 3 colors white, grey and black.
Size available
Tube ¼", 3/8", ½"
BSPT 1/8", ¼", 3/8", ½"
NPT 1/8", ¼", 3/8", ½"

Tubes and Hoses
The extensive compatibility of Legris fittings/technical tubes & hoses is ideally suited for many industrial and food applications.
Polyurethane Tubing
Fluoropolymer FEP Tube
Recoil Hoses
Polyethylene Tubing
Braided PVC Hose

LF 3000 Fittings
Polymer Push - in fittings, Flow control regulators
Pneumatic function fittings and universal compression fittings
Working pressure: 20 bar maximum
Working temperature: -20°C to +80°C

Blow Gun
Maximum Flow (tolerance +/-10%)
Noise Level ISO15744
Spread of air cone
Complies with norms
Suitable Fluids: Compressed air
Working Pressure: 0 to 16 bar
Working Temp: -20°C to +60°C

Lfs600 Instant Fittings
Chemical Nickel Plated Brass Instant Fittings.
Suitable for fluids such as liquids and gases compatible with the material of the fitting.
Working pressure: maximum 30 bar
Working temperature: -20°C to +150°C

Ball Valves
Applications in industrial automation, fluid and process control Nickel Plated Brass
Ball Valve Fluoropolymer series
Ball Valve Lockable Ball Valves

LF 3900 / LF 3800 Instant Fittings
Stainless steel instant and function fittings
All Fluids compatible with fitting and tubing materials
Working pressure: 30 bar
Working temperature: -20°C to +150°C
Application: Food Process, Medical, Pharmaceutical, Chemical, Paper Industries

Carstick Cartridges
Assembly time saving with complete safety
Suitable for automatic processes
Closer mounting tolerances and shallow cavities
Suitable fluid: Compressed air
Working pressure: max. 20 bar

Energy Saving Compressed Air System-Transair
Aluminum Piping-Light Weight
Energy saving product
Easy to install
Minimal Pressure drop
Leakage free
Used for Compressed air, inert gases, CO₂, and Vacuum application
Maximum Pressure and Temp.
- 13 bar, -20°C to +65°C
- 16 bar, -20°C to +50°C
Resistance to corrosion Power Coated Pipe
Available sizes are 16.5 mm, 25 mm, 40 mm, 63 mm, 76 mm, 100 mm.
Maintenance free 10 years warranty product.
AC Drives

650G ACDrives
0.25 to 110KW
The AC650G is ideally suited to applications requiring accurate control at lower speeds, higher starting torques or where improved speed regulation of variable loads is important. So whether you are controlling a conveyor belt, automatic barrier, machine spindle or other high performance application, the sensorless flux vector technology of the AC650G delivers improved control. In addition the variable torque configuration option above 7.5kW (400V supply) makes the AC650G ideally suited to energy saving in pump and fan applications. The AC650G delivers reliable, cost effective voltage/frequency speed control of your motor. Designed with simplicity in mind, the AC650G comes in a compact format with DIN rail mounting as standard allowing easy integration into any electrical control panel. To prevent unauthorized changes to inverter configuration after setup, the operator/programming keypad can be removed or password protected. The AC650G is an easy to use, out of the box solution that will have your system up and running in no time. It provides reliable, robust motor control from 0.25kW through to 110kW.

890 Modular Systems
AC Drives 0.55-1200KW
The AC 890 is a compact, modular systems drive engineered to control speed and position of open loop and closed loop AC motors or servo motors. The AC 890 meets the requirements of all variable speed applications, from simple motor speed control to the most sophisticated integrated multi-drive systems.

This drive is compatible with any AC Motor and virtually any speed/position feedback option. With this flexibility you may not even need to achieve high performance, saving you time and money. The AC890 Modular Design is available in two styles:
- Standalone Version
- Common Bus Version

690+ Integrator Series
AC Drives 0.75 to 1000KW
The AC690+ series is a single range of AC drives designed to meet the requirements of all variable speed applications from simple single motor speed control through to the most sophisticated integrated multi-drive systems. At the heart of the AC690+ is a highly advanced, 32-bit microprocessor based, motor control algorithm, to which can be added a host of control options that allow you to tailor the drive to meet your exact requirements. Three phase (380-500V) ratings are available from 0.75 to 1000KW and single phase ratings (220-240V) from 0.75KW to 2.2KW. It provides open loop (V/F), sensorless vector and closed loop vector in a single drive.

890PX High Power Modular
AC Drives 110-2000KW
A unique high power AC Drive with modular architecture. The AC890PX from Parker SSD Drives will change your perception of AC Drives. The standard drive comes with everything needed to run your process and once it's installed, it can be easily serviced in the field. The AC 890PX, the building block drive, consists of Patent pending Powerpack modules which are plugged into a common bus rail system to form a complete drive.
DC Drives

Digital DC Drives

590+ Integrator Series2
DC Drives 0.75 to 1500KW

The DC590+ Integrator series is a highly advanced DC drive that meets the demands of the most complex motor control applications. Extensive application software (including winder control as standard), together with Function Block Programming and configurable I/O, creates a total drive system in a single module.

The DC590+ Integrator Series 2 sees the next step in the development of DC drive technology, derived from over 30 years experience in designing DC drives. With its innovative 32-bit control architecture, the DC590+ has the flexibility and functionality to meet the requirements of all applications, from basic motor installations through to the most demanding systems.

Analog DC Drives

512C DC Drives
Upto 32 Amps

Isolated control circuitry, a host of user facilities and extremely linear control loop make the 512C ideal for single phase motor or multi drive low power applications. Designed for use on single phase supplies, the 521C is suitable for controlling permanent magnet or wound field DC motors in speed or torque control.

514C DC Drives
Upto 32 Amps

The regenerative 514C DC thyristor drive offers full four quadrant control of DC motors from single phase supplies. As such it is ideal for applications involving overhauling loads or where rapid and accurate deceleration is required. Together with the nonregenerative 512C they offer the perfect solution for lower power single motor and multi-drive applications.

Touchscreens

TS 8000 Touchscreens

TS 8000 - a family of web-enabled graphic operator interface stations poised to revolutionize machine control. TS 8000 provides a user-friendly, powerful graphical HMI touchscreen and much more. With over 30 popular PLC drivers supported, built-in Ethernet, and direct communication with all Parker SSD Drives products, TS8000 has a handle on all your drives system control needs.
DSE Lite

DSE Lite software can be used the 890, 690+, 650V, 590+ series range of drives available from SSD Drives and works with Windows XP™ and Windows Vista™ operating systems. DSE Lite combines the features of CE Lite (Configuration Editor Lite) and DSD (Drive System Designer), the two previous software products for drive configurations, into a single application with a modern interface and more advanced features. This new software supports user-defined configurations and offers real-time monitoring and charting, with on-line help facility for drive function blocks. It can extract drive parameters into an open template. The ‘frame’ dependant parameters in the templates are displayed in color.

In this software, the unique feature of accessing data online on oscilloscope is also available. The Oscilloscope will set up a real-time data acquisition facility inside the drive firmware, wait for data to be ready, retrieve the data and display it. This is a tool to capture and display fast signals from external or internal triggers. You can add a parameter to the Oscilloscope either from an ONLINE configuration or from the ONLINE Parameter View.

DSD-Drive System Designer

In its standard from DSO-Drive System Designer - is an intuitive, easy to use configuration, set-up and monitor software package that can be used with any of powerful LINK AC and DC drives. DSD makes light work of even the most sophisticated multi-drive systems by enabling the multitude of LINK software function blocks’ to be configured using standard click and drag operations. DSD is completely graphical and self-documenting. But DSD can go far beyond a configuration tool - the optional “Autoconfigure” function turns DSD into the worlds most advanced drive design software. It allows the user to design complete multi drive systems in minutes, designs that previously would have taken days of expert engineering and debugging time.
PAC Integrated Machine Control Solutions

Xpress PAC is the first truly integrated family of machine control solutions available from one roof. From HMI to mechanics and everything in between, Parker’s Xpress PAC family of programmable automation control products offer unique advantages unavailable from any other source.

- World-class visualization and motion platform products
- Fast, cost-effective motion bus
- Open Ethernet protocols
- Industry-leading mechanical solutions
- Industry’s largest, strongest sales application support & service network

Xpress PAC is a multi-faceted integrated automation solution offering:
- Visualization
- IEC Control
- Network/Fieldbus
- Motion Control
- Drive
- Motor
- Mechanics

Motion & Machine Control

ACR Series Programmable Automation Controllers

ACR Series Controllers offer a powerful combination of motion and machine control in multiple hardware configurations. Many industry standards, such as IEC61131-3 for programming and EtherNet/IP for communications, make the controller suitable for a wide array for users and applications. Options for ETHERNET Powerlink and CAN open present flexibility to create numerous machine architectures.

ACR-View Software Development Kit

ACR-View is a powerful project development suite that assists the ACR user with programming, debugging and commissioning their application. Many features are incorporated to assist both the novice and expert user in developing code. Project set-up is streamlined through the use of the Configuration Wizard. The ACR-9xxx can be configured in a matter of minutes as the user is guided through a series of simple steps. ACR-View will set the necessary parameters to have the controller ready for motion and code development.
Visualization - HMI

Interact HMI
Interact Xpress™ is designed specifically to simplify and cost reduce HMI applications. By far, the most cost effective way to support machinery installations or remote stations across geographical distances is via the internet or other IP connections. Interact Xpress takes full advantage of the internet and the wide availability of web browsers to design, publish, run and support your HMI applications without sophisticated Windows-based software and hardware. Interact Xpress can be accessed from either the HMI panel or any PC running Internet Explorer®. Interact Xpress software is preinstalled and bundled with the new XPR Power Station hardware, which is designed to optimize the performance, storage and connectivity features of Xpress HMI. This NEMA4/4X-rated family of CE-based workstations is available in either an embedded no display unit or with a 6", 8", 10" and 15" TFT touchscreen display models.

PFD Factory Display
One of the best ways to cut the high cost of downtime and scrap is to empower workers with real-time, situational awareness for faster response to downs and non-conforming conditions on the factory floor. That’s why the new Parker Factory Display (PFD) visualization system pays for itself so quickly. PFD offers unprecedented flexibility and impact for delivering critical messages to associates on the factory floor. Whether presenting and on displays, lean metrics, production status, OEE data, safety policies or employee announcements, the Parker Factory Display is much more than a “scoreboard” that simply displays text. The new Parker Factory Display offers unparalleled visual impact that enhances the message, while its distributed architecture easily integrates into your existing manufacturing and IS infrastructure. Whether remotely publishing displays from anywhere via the web or visualizing non-conforming parts on a production line, the Parker Factory Display does so much more than other production board displays and systems... and at a lower cost. Parker Factory Display comes with pre-installed software that fully leverages the wide availability of web-browsing software for remote support and application sharing on the Internet and IP Networks. PFD applications can be developed, edited and published using its built-in web server.

InteractX™ Supervisory HMI
InteractX™ has always led the industry with break through HMI graphics and built in connectivity. Now with version 3.X, InteractX leads the way into supervisory HMI by dramatically reducing application development time and integration cost for your manufacturing operations. InteractX now provides powerful trending and analysis tools that aggregate data from multiple machines or workcells. InteractX also makes it easy to push Interact Xpress™ machine level HMI screens and data directly into its interface - without having to recreate applications or input tags!
**ETHERNET Powerlink (EPL)**

**EO-3® Applications**
- Leakage can be prevented with the help of unambiguous assembly inspection
- Distinctly increased machine performance and reliability
- EO-3® meets the increased safety and quality requirements now in force
- Additional costs for reworking are substantially avoided
- EO-3® increases the quality of the end-product
- No oil loss - an important contribution to environmental protection

**Features**
As a connector component, any fitting is only as good as the effectiveness of the assembly process and therefore depends on how it has been assembled. In recent years, new geometries and material compositions have increasingly improved performance, reliability and ease of assembly. In this field Parker has constantly set new standards in the marketplace. With the development of the EO-3® fitting, Parker introduces another very important milestone in the history of connector technology. Our customers’ practical experience provided the impetus for the development of the EO-3® system with the message that potential assembly errors, such as over- or under-tightening, should be eliminated. Practical experience often shows that fittings are in large part not expertly assembled. Changing personnel, inexperienced personnel, a shortage of skilled workers and increasingly difficult installation conditions lead to failed assemblies. The consequences are leakage, costly downtime and expensive reworking - or even accidents. The advantages of the new fitting are clearly apparent with its greater simplicity, speed and safety. With its new thread technology, EO-3® can be assembled more easily and faster than other commercially available fittings systems and the assembly outcome of EO-3® is, for the first time ever, easily discernible from the outside; every user is now in a position to directly control work safety and machine reliability.

**Aries Servo Drive / Drive Controllers**
The Aries Series are compact, easy-to-use servo motor drives and drive/controllers. Aries is a cost effective and flexible digital servo solution where users are required to pay for only the performance they need. All models are CE (EMC & LVD), ULcompliant. The Aries Drive is standard as a torque-only amplifier, but is software selectable to run in velocity mode. An optional step-and-direction Version is also available. The Aries Controller combines the versatile and cost-effective Aries digital servo drive platform with the advanced control capabilities of the ACR servo controller into a single-axis drive/controller.
**Xpress Drives Solutions (Servo Drives and Drive Controllers)**

**Compax3 Servo Drive / Drive Controllers**
With its high performance and modular design, the Compax3 family of industrial servo drives and drive/controllers offers a new level of servo performance and flexibility. Enhanced by the IEC 61131-3 programming environment, the modular structure of the Compax3 family allows options such as intelligent motion controllers, fieldbus interfaces and industry standard motor feedback. Available in single - or multi-axis configurations, with numerous expansion options, all models are rated for 120 – 480 VAC input, continuous current output from 2.5 A (rms) to 155 A (rms), and are CE (EMC &LVD) and UL compliant.

**Microstepping Drives**

**E-AC and E-DC Microstepping Drives**
The E Series is a high-performing, low-cost family of packaged AC-input and DC-input microstepping drives.
- Anti-resonance circuitry suppresses mid-range instability
- Recommended motor inductance range of 0.5 mH to 80 mH
- Selectable resolution up to 50,800 steps/rev
- Auto standby reduces motor current (and heating)
- Current waveforms to optimize smoothness
- Optically isolated step and direction inputs
- Short-circuit and over temperature protection

**iOn Microstepping Drives**
The iOn Series stepper drive is an OEM-friendly miniature motion drive capable of up to 2 Amps in a 1” x 1” x 3.3” square package.
- Adjustable run current via potentiometer
- Auto standby adjustable current to reduce heat generation and power consumption
- Stepper resolution to 3200 steps per rev
- RoHS compliant
- DIN rail mountable or mounts directly to LCR Series linear positioners
- Accepts single or differential step and direction inputs
### BE Series Servo Motors

BE Series brushless servo motors produce high continuous stall torque in a cost-reduced package. It has Brushless Construction, 8 pole open lamination design provides increased torque, Lower cost, Integrated planetary gearheads. The increased torque of the BE Series motors is the result of an increased number of magnetic poles on the rotor. Traditional motors in these frame sizes have four magnetic poles on the rotor, while the BE Series motors have eight poles.

The BE Series servo motors are available with integrated planetary gearheads in ratios up to 100:1. Our unique package integrates the gearhead pinion into the motor shaft, reducing the overall package length by up to 2 inches.

### SMH/SMB/SME & MH/MB/ME Series Servo Motors

Parker Servo motors offer an ideal solution for many applications. They are suitable for both highly-dynamic machines and applications requiring accurate synchronisation. All motors are designed using high-quality neodymium-iron-boron magnets. Special flanges and options offer increased flexibility, and all motors are designed with IP64 protection. These motors are notable for exceptional flexibility and wide power range. It is used in highly-dynamic and high torque applications.

### MPP/MPJ Series Servo Motors

The MaxPlusPlus (MPP) family of brushless servo motors is redefining performance, flexibility, and reliability. The industry’s highest-performing servo motor uses eightpole segmented lamination technology, which produces more torque in a shorter package. Use MaxPlusPlus motors for higher torque applications, customisation options, or when high performance is required. When higher inertia is desired to improve system performance, the MPJ is the perfect choice. It includes all the same features and benefits of the MPP, but increases the rotor inertia by 3 to 8 times over the standard MPP. It is available with IP 64 (standard) and IP 65 (optional).

### LV/HV Series Stepper

The LV (Low Voltage) and HV (High Voltage) motor series provides outstanding performance at a competitive price. The LV motors are available in five frame sizes, and the HV are available in three frame sizes, so it is easy to choose the optimal speed and torque combination. The LV motors are rated for use with drives running up to 80VDC; the HV are rated for use with drives running off of 120 VAC power. The LV/HV Series is optimized for use with the E-Series microstepping drives.
Speciality Rotary Servo Motors

EX Series Explosion Proof Servo Motors
The EX Servo motors are designed to function in Category II, Group II explosive atmospheres in respect to the EN 50014 standard. These servo motors are certified according to directive ATEX 94/9/CE and are available in a Gas or Gas-Dust version. The motors differ in that the Gas-Dust version is equipped with a special lip seal on the customer end shaft.

HW/HKW Series Synchronous Water Cooled Spindle Motors
The HW servomotors are watercooled brushless synchronous motors delivered as individual components [rotor, stator and resolver] to make a complete spindle unit. These motors are driven by Compax3 Series servo drives.

K Series Frameless Kit Motors
Frameless kit motors are the ideal solution for machine designs that require high performance in small spaces. Kit motors are directly integrated with the drive train, resulting in a smaller, more reliable motor package. Direct drive motion construction also gives equipment designers the advantages of lower costs, increased reliability and improved performance. These motors can be used where you require a significant cost savings, reduced mechanical complexity, greater design flexibility, high performance in a compact package, improved dynamic response and settling with minimum motor size per application space, low cogging for smooth operation, low inertia for high acceleration.

TMW/TMA Series Torque Motors
The torque motor is a permanent magnet brushless motor, optimised to operate at low speeds. It is particularly suitable for direct drive applications requiring high torque capabilities at low speeds. As a replacement for asynchronous or direct current motors coupled with a gearbox, torque motors are advantageous with their more compact, quieter, maintenance free design.

Linear & Rotary Positioners / Actuators

ETH /ETB /XFC Series High-Force Electric Cylinders
The Parker ETH Series is a next-generation version of the well-known, widely used ET Series. The ETH design offers unrivalled power density based on larger screw and bearing designs in smaller packages. The result is a comparable force output from a smaller size or a longer product life using the same size. The ETH also offers a user-friendly design in a diversified range of configurations to meet specific application requirements.

LCR Series Light-Capacity Screw / Belt Driven Positioners
Light Capacity Rodless (LCR) Series positioners are ideal for OEM lab instrument and machine builders looking for significant ROI for an off the shelf yet tailor-made solution. The LCR provides unmatched flexibility with a choice of two profile sizes, two bearing options, three drive train options, many motor options, and the option to include the modular ion stepper drive. The LCR Series will reduce the total design time, the overall cost of development and increase your return on investment.
Linear & Rotary Positioners / Actuators

LCB Series Compact Rodless Actuators
The LCB Series of linear actuators incorporates a low-friction, dry running, sliding bearing carriage that provides long and reliable travel life even at 100% duty cycle. The low mass of the carriage and steel reinforced timing belt design allows for very high accelerations and velocity. Combined with Parker motors and controls, the LCB offers a fully programmable, high performance solution at a great value.

HLE-Z Long Travel Belt Driven Positioners
The HLE-Z (and OSP-BV) "endless" linear units are designed for guiding, transporting or positioning payloads over long travel distances with high rigidity and accuracy. This is accomplished by incorporating Parker’s uniquely designed rack-and-pinion-based drive system with an HLE150 or HPLA180 linear module housing. The exceptional dynamic characteristics inherent to these units make them well suited for applications requiring high-speed linear translation and positioning over long travel distances.

OSP-E Series Medium - Capacity Screw - or Belt - Driven Positioners
The OSP-E Series offers a medium-capacity, flexible, value-priced screw-driven or belt-driven actuator. The OSP-E simplifies the crossover to electric actuation from pneumatics, with dimensional similarities to the Parker Origa OSP-P pneumatic line of products. With options for bushing bearings, square-rail bearings, or the robust rollerwheel design, the OSP-E offers users the ability to balance

400XR Series Precision Ballscrew Tables
The 400XR precision table family offers precise linear positioning with excellent straightness and flatness of travel. Superior performance, modularity, and quick delivery make these tables the perfect building blocks for multi-axis positioning systems. An unrivaled array of sizes, features, and options such as clean room preparation, linear encoder feedback, and parallel motor mounts distinguishes the 400XR family from all others.

HPLA-HLE Series Industrial Belt Driven Positioners
The HLE/HPLA linear modules are ideal as single-axis products or as components for high speed multi-axis gantries. With thousands of units in operation worldwide, the HPLA/HLE Series are proven performers offering long life and with trouble-free operation. With flexible design options for bearing selection, profile size, stroke length, and motor/gearbox combination, the HPLA/HLE design has your application covered.

RT Series High Precision Worm Drive Rotary Positioners
RT Series rotary tables are designed for precise motor-driven rotary positioning and indexing. These tables are designed to function independently or in conjunction with linear tables used in high-precision automation applications. Their low-profile design minimizes stack height in multi-axis configurations and enables them to fit in many places where other motorised rotary devices cannot.
Planetary Gearheads

Our Generation II Stealth® Series provides higher radial load, increased service life and easier mounting than comparably sized planetary gearheads. The Stealth Generation II Helical Planetary Gearheads incorporate design enhancements to provide superior performance for the most demanding high performance applications. Generation II models are available in 60 to 142 mm and NEMA 23 to 42 frame sizes. For larger frame sizes, Parker offers Generation I Stealth® Series gearheads in 180 to 220 mm and NEMA 56 frame sizes. For standard precision applications, the PV Series gearhead combines power and versatility in an economical package which is available in a wide range of options. PV Series gearheads are available in 40 to 115 mm and NEMA 17 to 42 frame sizes.

Linear Motors / Components

MX Miniature Linear Motor-Driven Positioners

The 400LXR Series linear servo motor tables offer high acceleration, velocity, and precision with quick settling for superior throughput. Optimum performance is achieved by combining slotless linear motor technology with performance-matched feedback and mechanical elements. Offered in three widths and myriad options, the 400LXR Series can solve most high performance applications.

T Series Smooth Motion Ironless Positioners

The Parker T Series linear positioners utilize our high performance ironless linear motors in a pre-engineered, easily integrated, ready-to-run package. The T Series advantages include economical cost and design flexibility to accommodate customisation.

400LXR Series Linear Motor driven Positioning Tables

The 400LXR Series linear servo motor tables offer high acceleration, velocity, and precision with quick settling for superior throughput. Optimum performance is achieved by combining slotless linear motor technology with performance-matched feedback and mechanical elements. Offered in three widths and myriad options, the 400LXR Series can solve most high performance applications.

TR Series High Force Ironcore Positioners

The Parker TR Series linear positioners utilize our high performance RIPPED ironcore linear motors to produce extremely smooth motion for use in many applications where ironless motors were traditionally needed. TR positioners utilize a dual-railbearing design for high normal and moment loads.
Multi Axis Gantry Systems

**XRS Standard Systems**
Built from Parker’s XR and LXR positioners, the XRS Systems are pre-engineered Cartesian systems including all the bracketry, cable management, and motors necessary for an off-the-shelf system solution. There are more than 120 standard systems available with popular payload and work areas. XRS is the only Cartesian system to mix linear motor and ballscrew technologies, yielding unsurpassed performance.

**Cartesian Systems**
Using the ET, ER, ERV, LCB and LR actuators as building blocks, Parker can create economical and customized work cell-level robotic solutions that are ideal for pick-and-place and dispensing applications. Beyond the base system, Parker can integrate pneumatic axes, grippers, vacuum cups, custom structures and guarding. Six basic types are available in XY, XZ and XYZ configurations.

**Gantry Systems**
Using the HPLA and BLMA actuators as building blocks, Parker can create gantry-style robots that are more economical than pedestal style robots. Parker’s standard systems accommodate work areas up to 7.9 m x 3.3 m x 1.5 m and payloads up to 100 kg. Larger work areas and payloads are accommodated with custom configurations.
Recent Acquisitions

Camfil Farr Railway Filtration

- Engine Intake Air Filtration System (Primary & Secondary)
- Cabin Ventilation Filters
- Strata Panel Filtration system
- Monoclones
- Oil Eliminator
- Lube Oil Filter

PIX, Hoses & Fittings, Nagpur

- Hydraulics Hoses
- Hose Assemblies
- End Fittings
- 60 Mtr Hose length Capability
Recent Acquisitions

John Fowler, Bangalore
- Fuel Filters
- Lube Filters
- Hydraulic & Transmission Oil Filters
- Breathers
- Air Oil Separators

Olaer, Bangalore
- Bladder Accumulators
- Diaphragm Accumulators
- Piston Accumulators
- Safety Blocks
- Air Oil Coolers
- Plate Type Heat Exchanger
Parker Hannifin Corporation, the global leader in fluid power products was established in the early 1950’s and is recognised today as the industry leader in the development and presentation of training materials and programs. The department’s charter states that the primary focus of activity shall include different modules of technical training for the motion and control industry.

The Parker approach is one of involvement training and this participation results in excellent student retention as well as providing a comfortable way of learning.

Parker offers an on-going schedule of In-house programs and customised on-site programs. The current list of classes includes 2-3 day programs. Each session is conducted by a Parker trained, experts in his field with vast experience in teaching skills. Students are provided all necessary materials to inherit world class technology insight. On course completion Parker awards the participants with achievement certificates.

Course fees cover all class room expenses which includes course material, all meals during the session and transportation to various Parker facilities. Though lodging is not included, Parker will be glad to assist you with lodging arrangements.

Education and training are continuous processes and we at Parker ensure that the recent trends and technology in the field of engineering are introduced from time to time.
### Parker Hannifin India Course Offerings:

1. **In House Programs:-**

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<tr>
<th>Course</th>
<th>Duration</th>
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<tr>
<td>Industrial Hydraulics</td>
<td>3 days</td>
<td>Instrumentation Technology</td>
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<td>Electro Hydraulics</td>
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<td>Fluid Technology</td>
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<td>Hydraulic Maintenance</td>
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<td>Sealing Technology</td>
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<td>Filtration Technology</td>
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<td>Industrial Maintenance</td>
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<td>Climate and Industrial Control</td>
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<td>Pneumatics Maintenance</td>
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<td>AC and DC Drives and Controllers</td>
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<td>Climate Control Technology</td>
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<td>Fluid Power Technology Program</td>
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2. **Customised On-site Programs**

Tailor made Session as per customers requirements with case studies of running equipment at site.

**Contact Details:**

To request a training calendar and to register:

Email: shajirnis@parker.com, parkerind@parker.com

Call: (+91) (22) 6513 7081-84, 6513 7050-54

**Address:**

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Parker Hannifin India Pvt. Ltd.

**Mumbai**

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**John Parker Fowler Filters Railroad Filtration Business**  
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