Pneumatic Innovations

Bulletin 0600-B50-3
General Industrial

Parker’s Factory Automation pneumatic products are uniquely suited for applications ranging from Food Packaging & Processing to Automated Assembly & Material Handling. For example, the innovative back-to-back valve design on the Isys Micro provides maximum flow and increased valve density on field bus manifolds for control panel mounting.

Heavy Industrial

For decades Parker Pneumatics and Heavy Industrial have been synonymous with durability and long life. Heavy-duty 2A steel pneumatic cylinders and high-flow-speed N Series poppet valves have been operating in foundries, steel mills, and automotive casting & stamping plants without fail.

Transportation

The transportation industry is on the move and Parker is ready. Our product offering includes valves that can operate in extreme temperatures, manual mechanical valves for transmission & trailer applications, and suspension control systems.

Fieldbus Control Systems
- Fieldbus interface for Isys and Moduflex valves
- Up to 256 inputs
- Up to 256 outputs
- Digital or analog

Module FRLs
- Global FRL Series
- Filter, regulator, lubricator, piggyback & combination units
- Up to 250 psig
- 1/8" to 3/4"
- Manifold regulators
- Shut-off, soft start, & dump valves

Vacuum Generators
- CVR Series
- 27 l/hr to 17 mR/hr
- Integrated sensor & filter
- N.O. or N.C. air supply
- Vacuum release with check valve
- 24VDC, 0 to 7 watt
- Manifold mounting (optional)

Aluminum NFPAs Cylinders
- 3MA Series
- Non lube NPA cylinders
- 2" to 5" bore
- 15 mounting styles
- Extruded body design
- Steel & stainless steel rod
- Optional rodlocks & guides

Compact Cylinders
- PIG Series
- Bore sizes 12mm through 100mm
- 4 flexible mounting options
- Pressures up to 145 psig
- Temperatures 23°F to 140°F
- Aluminum body construction

Refrigeration Dryers
- Space saving plug-in-play design
- PDRD refrigeration to remove condensate & maintain dew points
- 10 to 250 SCFM
- Up to 232 psig inlet
- Up to 140°F inlet temp & 122°F ambient

Regenerative Desiccant Dryers
- Point of use application
- Noise less than 70 dBA
- IP66 / NEMA 4
- 3 to 20 SCFM
- 115VAC

Rack-N-Pinion Rotary Actuators
- PTB Series
- Maximum operating pressure: 250 psi
- Output torque to 89 ft-lb
- Standard rotations: 90°, 180°, 270°, 360°, 480°
- Maximum breakaway pressure: 5 psi

Pneumatic Door Assist Systems
- Double "L" - 180°
- Air suspension & lift valve
- Metal & plastic panels
- 20°F to 120°F
- 0.30 to 0.83 Cv
- 160 psi
- 1/8" & 1/4" NPT

Low-Temp Regulators
- -40°F to 190°F
- Stainless steel
- Relieving & non-relieving
- 1/2" NPT, BSPP

Pressure Protection Valves
- Multistage DOT fitting options
- High flow, compact & lightweight
- ID band with built-in exhaust protection
- Integrated valve construction
- Built-in screen for added protection

Mobile Suspension Kneeling Modules
- Fast response - 3 second rise/kneel
- Fast installation
- -30°C, IP66, -25% vehicle voltage compliant
- Level lock out or over travel (optional)
- D.O.T. fittings (optional)

Mobile Inline Valves
- Viking Xtreme Series
- 0.7 to 2.7 Cv, 1/8" to 1/2"
- -40°F to 150°F
- Vacuum - 252 psig
- 2.5 to 7.3 watt
- Hazardously, intrinsically safe
- 12VDC - 12VAC

Lift Axles
- Hi-flow rate ensuring rapid raising & lowering
- Low temperature operation
- 12VDC standard
- Durable, robust proven technology

High Flow Inline Valves
- N Series
- 2 & 3-way high speed poppet valve
- 3/8" to 1-1/2", 3.0 to 30.0 Cv
- 30 to 250 PSI & vacuum
- NEMA 4, hazardous duty

Hi-Flow FRL Combinations
- Filter, regulator, lubricator
- 3/4" to 1-1/2" NPT
- 5 & 40 micron
- 250 psig max
- Metal bowl construction

High Flow Subbase Valves
- YN3 Series
- 4-port
- 3/8" to 1-1/2" plug-in or direct pipe
- NEMA 4, hazardous duty

Steel NFPA Cylinders
- 3A Series
- Heavy duty - NFPA / ANSI
- Square head & 6 rod
- 1 to 14" bore, larger sizes available
- 250 psi air service
- 19 mounting styles

Hi-Flow Subbase Valves
- YN3 Series
- 4-port
- 3/8" to 1-1/2" plug-in or direct pipe
- NEMA 4, hazardous duty

Hi-Flow Inline Valves
- N Series
- 2 & 3-way high speed poppet valve
- 3/8" to 1-1/2", 3.0 to 30.0 Cv
- 30 to 250 PSI & vacuum
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Energy

Concentrated Solar Power (CSP) harnesses the sun’s energy using mirrors and receiver tubes which must accurately track the sun’s position 365 days a year, in order to consistently optimize electrical power generation. Parker’s depth of experience in CSP provides designers and operators of CSP plants the best overall long-term operating costs, and optimized, dependable, power generation with minimal service interruptions.

Solar Trackers
- Drive mechanism, bearings & controls integrated into one rigid structure
- Simple 4 bolt attachment to mounting pylons
- Capable of producing high torques while resolving accurate position
- Environmentally sealed and able to withstand harsh desert climates
- No dust ingestion that can damage internal seals or degrade hydraulic fluid

Agriculture

As the global demand for food and energy increases, Parker is committed to help increase productivity and output. Our systems have integrated numerous technologies and innovative solutions that deliver in the field. From seed to harvest; Parker has proven that our solutions and forward-thinking partnerships produce results.

Pneumatic Downforce Active Systems
- Controls the seed depth during planting in changing soil conditions
- Eliminates 15 minutes of idle tractor start up time
- Eliminates low yield transition acreage
- Complete pneumatic control solution with Parker hydraulics driving the pneumatic compressor

Food

Parker has been firmly established within the Food Industry for several decades as a leading supplier of pneumatic products and system solutions. Parker has worked with many of the world’s leading machinery suppliers within numerous sectors of the industry, providing customers with innovative, highly reliable pneumatic products.

Stainless Steel FRLs
- Port sizes: 1/4 & 1/2 inch
- Handles most corrosive environments
- Meets NACE specifications MR-01-75/ISO 15156

Stainless Steel Cylinders
- SRD Series
- Stainless steel body, Delrin End Caps
- Bore sizes: 9/16, 1-1/16, 1-1/2, & 2
- Operating medium: pneumatic 100 psi
- Standard operating temperature 32°F to 140°F

Micro Valves
- Isys Micro Series
- 4mm through 1/4 tube
- Temperatures 5°F to 120°F, Flow: .35 Cv
Parker’s Linear Air Cylinders meet rapidly changing application demands. With advanced endcap and piston designs, low friction at zero leakage, and flexible mounting options, Parker’s Linear Air Cylinders offer unbeatable reliability, and superior performance.

www.parker.com/pneu/cylinders

Parker’s Guided Cylinders are designed for heavy duty and extreme linear motion applications. From the P5L series offering a fully-featured guided bearing system, to the P5E series with two parallel precision ground, case hardened support shafts machined from high carbon alloy steel; Parker’s Guided Air Cylinders are suitable for the most demanding applications.

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Parker’s Rodless Cylinders, including the Parker-Origa System Plus (OSP), offer flexible linear drives which can be simply and neatly integrated into any machine layout. From the P1X Series compact, high speed, no-lubrication cylinder to the complete OSP linear system combining pneumatic or electric actuation with guidance and control modules; Parker has the Rodless Cylinder to suit the exact needs of individual installations.

www.parker.com/pneu/cylinders

Parker’s Rotary Pneumatic Actuators include vane, single & double rack-n-pinion designs for light to heavy industrial applications. Parker has a rotary actuator which can be ordered with the industry’s most extensive set of options for controlling and decelerating loads.

www.parker.com/pneu/actuators
Vacuum

To complement its pneumatic product offerings, Parker has a complete line of vacuum generators and cups. Integrated sensors provide feedback for improved system response time. Additionally, emergency stop systems hold parts during electrical power loss to prevent product/machine damage. Parker's space saving manifold systems and extensive cup availability provide unlimited automation solutions.

www.parker.com/pneu/vacuum

Accessories

Parker offers a range of Air Line Accessories for your applications, including ball and plug valves, check valves, safety blow guns, breather vents, and a wide assortment of couplers, connectors, fittings, interchange nipples, and flow control valves.

www.parker.com/pneu/accessories

Control Products

Valves

Parker valves cover the broadest range of market applications, from 10mm solenoid pilots for use in the semiconductor market, to 1-1/2" ported, hi-flow 4-way valves for foundries and paper mills. Utilizing technology such as the WCS* spool design, serial bus and collective wiring electronics, and specialized machining and thermoplastics, Parker offers value and quality on the leading edge of technology.

*Wear compensated spool

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Air Preparation

Parker is the industry leader in air preparation. The Global FRL Series contains filters, coalescing filters, standard and precision regulators, filter/regulators and mist lubricators. The Global FRL modular design provides easy installation and maintenance with an aesthetically pleasing appearance. Accessories include lockout valves, manifold blocks, soft start/quick dump valves, electro-pneumatic regulators and pressure switches.

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