



European BusinessReview Issue 8 New Products

3 New Products from Parker Filtration

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



ENGINEERING YOUR SUCCESS.

Reservoir Accessories.

The Triceptor Breather

Breathers

Desiccant Type

Specifications:

Materials:

Casing: Clarified copolymer polypropylene.

Cap: Copolymer polypropylene.

Stand pipe: PVC.

Filtration Element: Polyester, silica gel.

Operating Temperatures: -20°F (-29°C) to 250°F (121°C)

Seals: None.

Maximum Allowable

Operating Pressure (MAOP): 5 psi (.34 bar).

Particle Removal Efficiency:

98.7% (beta 75) @ 3 micron

99.5% (beta 200) @ 4 micron

99.9% (beta 1000) @ 5.3 micron

Weight:

934330T 1.25 lbs. (.57 kg) each.

934331T 1.75 lbs. (.79 kg) each.

934332T 2.25 lbs. (1.02 kg) each.



Features

Foam Pads

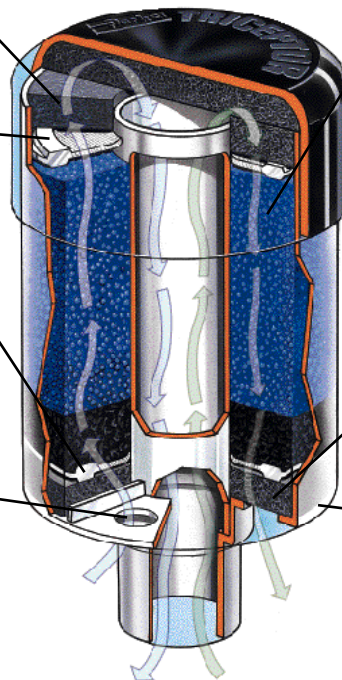
Isolates the removal materials from contact with heavy reservoir mist and securely holds materials in place.

Filter Pads

Specially designed filter pads remove solid particulate on upstream side and then regenerate by releasing those particles when air flow reverses direction. Lower pad removes airborne contamination and second pad protects against any migration of desiccant.

Air Intakes

A total of eight air intakes may be exposed to allow air to freely flow in and out of the TriCeptor.



Shock Cell Desiccant

Has the highest removal capability by volume of any adsorption method. Indicates condition by changing color.

Foam pad

Insures filter pad is properly positioned and protects it from external damage.

Molded Housing

Durable shock absorbing casing provides reliable service and simple press in mounting.

Reservoir Accessories.

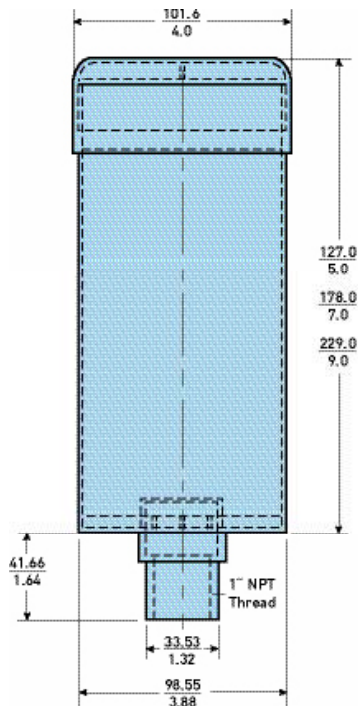
The Triceptor Breather

Installation

TriCeptor breathers are designed for simple installation on most equipment, regardless of mounting connection. Since TriCeptor breathers are disposable, the threaded connection allows for quick and easy maintenance. Several mounting adapters (shown below) are available to provide the desired mounting. The installation/replacement process consists of four easy steps:

1. Remove from protective plastic wrap.
2. Remove 1" blue cap from standpipe.
3. Remove foil label to expose the necessary amount of air intake holes.
4. Twist TriCeptor into mounting adapter.

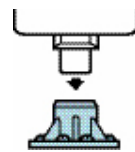
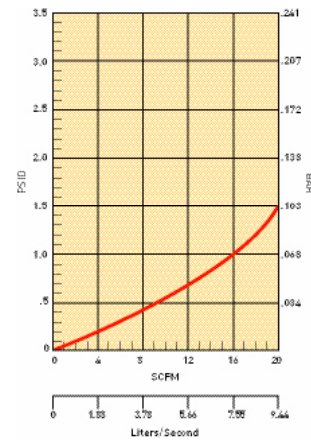
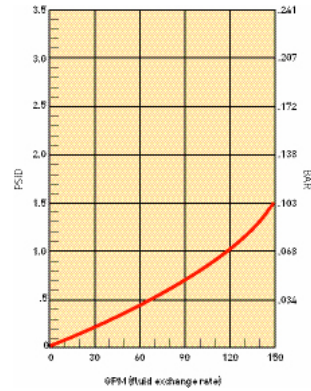
Servicing the TriCeptor breather is also very easy. When the silica gel changes color from blue to a pink, the breather is no longer active and needs to be replaced. Simply remove the unit and discard properly.



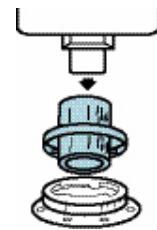
Linear Measurement = $\frac{\text{mm}}{\text{in}}$

Air Flow Performance

The curves below show the air flow performance of the three TriCeptor breathers. To insure the longest life possible, the initial clean pressure drop should not exceed 1.5 psid (.103 bar).



Field Adapter



Flange Adapter

Model	Part Number	Quantity
5" Breather	934330T	6 pcs.
7" Breather	934331T	6 pcs.
9" Breather	934332T	6 pcs.
Field Adapter	937546	1 pc.
Flange Adapter	937463	1 pc.

New AF M701212

Air Silencer designed to help keep your engine quieter and safer.



Marine Air Filter / Silencer system

Racor Division of Parker Hannifin Corporation is pleased to release the new AF M701212, heavy duty air filter/silencer.

The Racor marine air filter/silencer remove contaminants introduced into the air from outside and inside the vessel. Sand, salt, carbon fibers and other contaminants are trapped in the oil-impregnated filter media. Turbo noise is reduced by the unique design of the air filter/silencer housing. An integral hose connection on the housing routes the clear blow-by from the CCV back into the engine.

The AF M701212 is equipped with two restriction indicator positions and is available with either a 1.0" or 1.25" CCV port. The unique feature of the AF M701212 that separates it from the rest of the Racor air filter/silencer product line is that it is designed with a 7" outlet. The larger outlet reduces air flow restriction by 20% compared to the AF M601212.



Benefits include a quieter engine room, integrated CCV port, two positions available for a restriction indicator, decreased air flow restriction, and ability to handle higher intake air flow rates for today's high horsepower engines.

Parker Filtration Divisions (globally) provide a comprehensive range of filtration solutions for your application. These include; hydraulic filtration, condition monitoring systems, engine fuel, oil, air and coolant filtration.

Please contact your local Parker Sales Office if you require additional and specific information relating to this bulletin or any of the Parker Filtration Products.

Contact Information:

Parker Hannifin (UK) Ltd
Racor Filter Division Europe
Tel: +44 (0) 1924 487000
Fax: + 44 (0) 1924 487001
Email: filtrationinfo@parker.com



MOISTURE SENSOR RANGE



Features & Benefits

- Continuous, online moisture indication, for hydraulic and lubricating systems.
- Reporting of % relative humidity of water content, giving the user information on how close to the fluids real saturation point.
- Reliable data on the rate of water absorption.
- Sensing cell technology using a laser trimmed thermoset polymer, for capacitive sensing that is capable of absorbing water molecules due to its micro porous structure.
- Uses a thermistor for temperature compensation correction. Offering total confidence in reporting the %RH relative humidity over the sensors temperature range.
- A purpose designed tee adaptor allows for easy installation into an existing fluid system.
- The MS200 can also be specified with a bench top wand offering the end user greater flexibility.
- Not available on M5150



MOISTURE SENSOR RANGE

Typical Applications

- Ground support vehicles
- Pulp and paper plants
- Marine hydraulics
- Power transmission & distribution
- Forestry
- Industrial hydraulics
- Earth moving applications
- Agricultural
- Hazardous Areas (Zone 2)
- Theme parks (Ride hydraulics)



In-Line Moisture Measurement of Hydraulic & Lubricating Oils.

Parkers Moisture Sensor Range offers fast, reliable and accurate in-line detection of moisture in fluids. The MS transducer type technology has been especially designed with the preventative maintenance programme environment in mind.

The industry accepted sensing cell device will monitor and report Relative Humidity (RH), moisture content in oils. The water content measurement technique offers the end user benefits over the current standard form of water content reporting (PPM).

This allows for real time preventative maintenance to be undertaken and corrective actions to be made. By knowing that the water contamination is still within the oils absorbing range, less than 100%, reclaiming fluid properties before additive damage occurs can initiate calculable cost savings.



MS150 Moisture Sensor

Specification

Pressure:

Maximum allowable operating pressure. (MAOP): 10 bar (145 PSI).

Operating temperature:

Minimum: -20°C (-4°F).
Maximum: +85°C (+185°F).

Flow through sensor cell:

Installed in active flowstream.

Fluid compatibility:

Mineral oils, petroleum-based and Phosphate ester.

Viscosity range:

Unlimited.

Port connections:

1/4" BSPT or 1/4" NPT.

Supply voltage:

+8 to +30 Vdc.

Sensor size/weight/material:

80mm x 43mm/0.1kg/Aluminium

IP ratings:

IP68

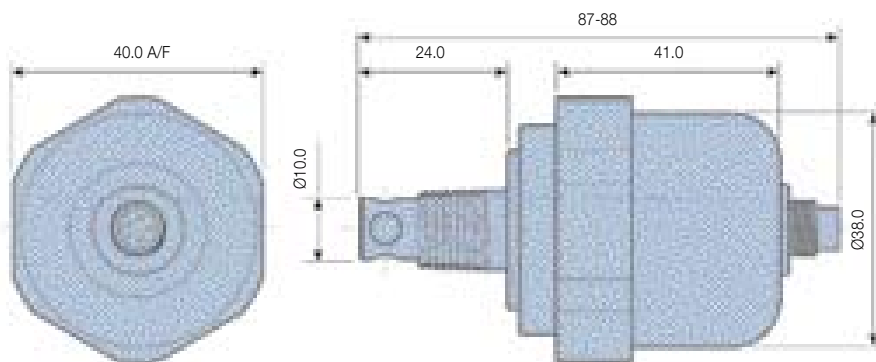
%RH Outputs:

(1+ to +5 Vdc) or (+4 to 20mA)

Temperature Outputs:

0 to +5 Vdc

Installation Details

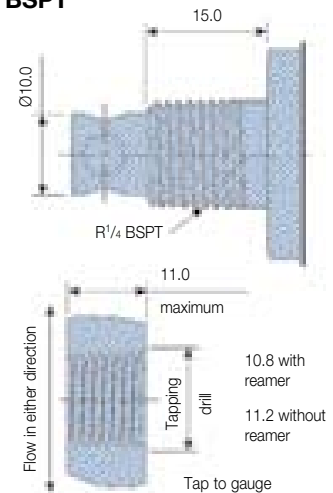


All dimensions in millimetres (mm)

Dimensions are for reference only

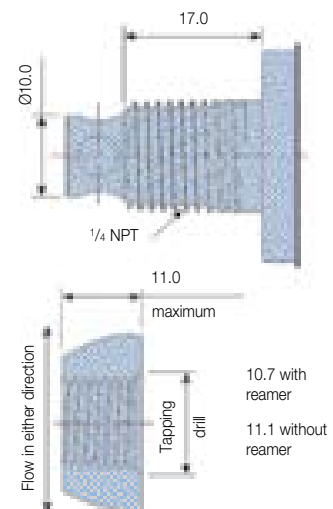
Thread Form Options

BSPT



Installation details for R1/4 BSPT taper

NPT



Installation details for 1/4 NPT

Sensor Outputs

MS150 moisture sensor pin designations

Pin	Designation	I/O	Description
1	Supply	Input	Supply voltage (+8 to +30Vdc)
2	%RH	Output	% Saturation out (+1 to +5Vdc)
3	%RH	Output	% Saturation out (+4 to +20mA)
4	Temperature	Output	Temperature out (0 to +5Vdc)
5	Common	Input	Common (0Vdc) ground from power supply (not chassis ground)

Interpreting the data

Oil type: Texaco Rando 46.

Saturation point: 400ppm @ 65°C (150°F).

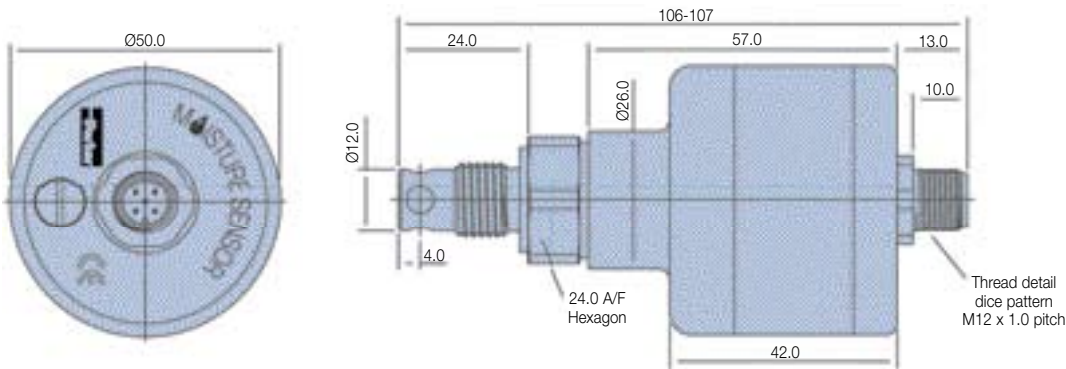
At the above operating condition, the meter displays 100% saturation. As the meters scale indicates a reduction in the saturation percentage, there is also a corresponding reduction in PPM at a constant temperature. In the example above, a meter reading of 50% saturation could be interpreted as 200ppm at 65°C (150°F).

MS200 'Programmable'

Specification

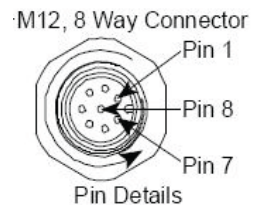
% Saturation Calibration Accuracy:	+3% RH
Temperature Calibration Accuracy:	±1°C
Thermal Stability:	±1% RH (over compensated temperature range +10 to +80°C)
Stability:	±0.2% RH typical at 50% RH in 1 year
Linearity:	±0.5% RH typical
Analogue Output Hysteresis:	±0.5% RH Full Scale
Switched Output Hysteresis:	2% RH
Operating Temperature Range:	-40°C to +85°C (-40 to +185°F)
Operating Humidity Range:	5 to 100% RH (non condensing)
Response Time:	60 sec in slow moving air at 25°C
Maximum rated pressure:	420 Bar (6000 PSI)
Maximum torque on spanner flats:	30 Nm (ONLY USE SPANNER FLATS TO INSTALL AND REMOVE THE MOISTURE SENSOR)
Seal Material (depending on MS):	Fluorocarbon, EPDM, Perfluoroelastomer
Material:	Stainless Steel 303
Connector Details:	M12x1, 8 Way, IP67 Connector (IP68 when mated)
Maximum Cable Length:	10 Metres with Voltage Output 100 Metres with Current Output
Output:	SEE ORDERING INFORMATION

Installation Details



Moisture Sensor Wiring and Pin Designations

Pin	Wire Colour	Designation	I/O	Description
1	Brown	Analogue	Output	Temperature - Degí Celsius. User Select Output (0-3Vdc, 0-5Vdc, 1-6Vdc and 4-20mA).
2	Green	Alarm Limit	Output	Alarm Limit. Output that directly corresponds to the alarm set point.
3	Yellow	Analogue	Output	% Saturation. User Select Output (0-3Vdc, 0-5Vdc, 1-6Vdc and 4-20mA).
4	Grey	Receive	Input	RS232 Communication.
5	Pink	Send	Output	RS232 Communication.
6	Blue	Common	Input	Common (0Vdc). Ground from power supply.
7	White	Alarm Switch	Output	Alarm Switch. Constant 5Vdc when in normal operation. Switch to 0Vdc when in alarm condition. Red LED illuminates when Sensor is in an alarm condition.
8	Red	Supply	Input	Supply Voltage (+8 to +30Vdc). Green LED illuminates when power is properly applied.



MS300 Intrinsically Safe

Specification

Pressure:

Maximum allowable operating pressure.
(MAOP): 420 bar (6000 PSI).

Operating temperature:

Minimum: -40°C (-40°F) - dependent on seal material.
Maximum: +85°C (+185°F).

Flow through sensor cell:

Installed in active flowstream.

Fluid compatibility:

Mineral oils, petroleum-based and Phosphate ester-
Skydrol option available.

Viscosity range:

Unlimited.

Thread form connections:

See ordering information.

Outputs:

4-20mA (current loop).

Calibration accuracy:

+/- 5% RH

Compensated thermal stability:

+/- 1% RH (+ 10°C to +80°C)

Materials:

Stainless steel 303.

Sensor size/weight:

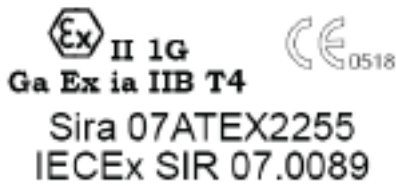
107mm x ø50mm/0.3Kg.

IP ratings:

IP68 (with specified moulded cable)

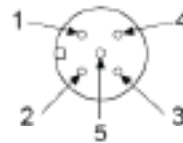
Developed in association with Triteq Ltd.

Installation Details - See MS200



Moisture Sensor Connection Diagram

- 1. Supply (4-20 mA - IN) - Brown
- 2. Signal (4-20 mA - OUT) - White
- 3. Not Used - Blue
- 4. Not Used - Black
- 5. Not Used - Grey



The MS300 has been certified as Intrinsically Safe Electrical Apparatus and offers fast, reliable and accurate in-line detection of moisture in fluids for use in hazardous areas.

ATEX Certification allows the MS300 into areas of a potentially explosive atmosphere, that have previously not been allowed without permits, it is intended for use in Zone 0 hazardous areas requiring the use of category 1G equipment and has been designed for use with galvanic isolators to the specified values stated below:

The electrical parameters: Ui: 28V Ii: 93mA Pi:0.65W Ci: 380nF Li: 0

The following instructions apply to MS300 - 4-20mA Current Loop Moisture Sensor covered by certificate number Sira 07ATEX2255:

1. The equipment may be located where flammable gases of Group I may be present. The equipment is only certified for use in ambient temperatures in the range -20°C to +40°C and should not be used outside this range.
2. The equipment has not been assessed as a safety-related device (as referred to by Directive 94/9/EC Annex II, clause 1.5).
3. Installation of this equipment shall be carried out by suitably trained personnel in accordance with the applicable code of practice.
4. Repair of this equipment shall be carried out by the manufacturer or in accordance with the applicable code of practice (IEC 60079-19).

Ordering Information

Standard products table - moisture sensors

Product number	Supersedes	Model	Thread form	Seal option
MS1001P	MS100-1P	MS100	1/4" BSP with bonded seal	P
MS1005P	MS100-5P	MS100	9/16 - 18UNF 2A (SAE J514)	P
MS1002P	MS100-2P	MS100	1/4" BSP with integral seal	P
MS1003P	MS100-3P	MS100	R 1/4" BSPT	P
MS1004P	MS100-4P	MS100	1/4" NPT	P
MS1006P	MS100-6P	MS100	Handheld version	P
MS1007P	MS100-7P	MS100	Inline tee version	P

Note 1: Part numbers featured with bold highlighted codes will ensure a 'standard' product selection.

Note 2: Alternate displayed part number selection will require you to contact Parker Filtration for availability.



Visual Indicators Specifications

Bar Graph Indicator (PBG8341A)

Construction:

Housing – nylon 6/6, window – acrylic,
bezel/board supports – ABS,
pins – phosphor bronze.

Power supply:

11 – 30 Vdc.

Signal input: (By dipswitch configuration)

Off – differential up to 5V.
A – single signal (Ref. 0V) up to 5V.
B – single signal (Ref. 1V) up to 6V.

Cut out size:

45.6mm x 45.6mm.

Fixing:

Push fit panel thickness 0.9mm to 3.2mm.

Sealing:

Designed to IP50 standard.
(Front face may be silicon sealed after LED configuration).

Scale:

Supplied 0 to 100% in horizontal.
Other scales, in volume, consult Parker Hannifin.

Scaling factors:

10% to 100% range. Fully adjustable.

Lamp intensity:

4mcd each.

Front viewing:

Polarised.

Weight:

29gms.

Alternative Indicator

Description	DDU1001	DDU1002
Power supply	22 - 55 Vdc	110 - 240 Vdc
Accuracy	± 0/01% typical	± 0.1% typical
Sample rate	10 per second	2.5 per second
Operating temp (°C)	0 - 55	0 - 50
Storage temp (°C)	-10 to +70	-10 to +70
Display	5 digit LED	3½ digit LED
Power output (Vdc)	24	24
Weight (kg)	0.21	0.30
Panel cutout (mm)	92x48 ±0.5	93x45 ±0.5
Dimensions (mm)	48x96x100	48x96x93



DDU1001



DDU1002



PBG8341A

Product accessories part numbers

Product Number	Supersedes	Description	MS150	MS200	MS300
P9732PVC10	P.9732PVC-10	10 meter M12 IP68 PVC coated cable	Y	N	Y
P9732PVC05	P.9732PVC-05	5 meter M12 IP68 PVC coated cable	Y	N	Y
P9732PVC02	P.9732PVC-02	2 meter M12 IP68 PVC coated cable	Y	N	Y
P9732PUR10HS	N/A	10 meter M12 5 way high specified PUR coated cable	N	N	Y
P9732PUR10	P.9732PUR-10	10 meter M12 IP68 PUR coated cable	Y	N	Y
P9732PUR05	P.9732PUR-05	5 meter M12 IP68 PUR coated cable	Y	N	Y
P9732PUR02	P.9732PUR-02	2 meter M12 IP68 PUR coated cable	Y	N	Y
DDU1001	DDU-1001	+22 to +55 Vdc process indicator	Y	Y	Y*
DDU1002	DDU-1002	+110 to +240 Vac process indicator	Y	Y	Y
PBG8341A	PBG.8341.A	+11 to +30 Vdc bar graph indicator	Y	Y	Y*
B97200	N/A	5 meter M12 x 1, 8 way moulded cable (IP68)	N	Y	N
P973200	N/A	5way Re-wireable M12 connector (IP65)	Y	N	N
S970400	N/A	12 Vdc power supply	Y	Y	N
S970410	N/A	10 meter extension box	Y	Y	N
PAM8342	PAM.8342	Alarm module			

* Only for use in a safe zone (ie laboratory)

Parker's Motion & Control Technologies

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. Whatever 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 information call 00800 27 27 5374



AEROSPACE

Key Markets

- Aircraft engines
- Business & general aviation
- Commercial transports
- Land-based weapons systems
- Military aircraft
- Missiles & launch vehicles
- Regional transports
- Unmanned aerial vehicles

Key Products

- Flight control systems & components
- Fluid conveyance systems
- Fluid metering delivery & atomization devices
- Fuel systems & components
- Hydraulic systems & components
- Inert nitrogen generating systems
- Pneumatic systems & components
- Wheels & brakes



CLIMATE CONTROL

Key Markets

- Agriculture
- Air conditioning
- Food, beverage & dairy
- Life sciences & medical
- Precision cooling
- Processing
- Transportation

Key Products

- CO₂ controls
- Electronic controllers
- Filter driers
- Hand shut-off valves
- Hose & fittings
- Pressure regulating valves
- Refrigerant distributors
- Safety relief valves
- 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
- Semiconductor & electronics
- Textile
- Wire & cable

Key Products

- AC/DC drives & systems
- Electric actuators, gantry robots & slides
- Electrohydraulic actuation systems
- Electromechanical actuation systems
- Human machine interface
- Linear motors
- Stepper motors, servo motors, drives & controls
- Structural extrusions



FILTRATION

Key Markets

- Food & beverage
- Industrial machinery
- Life sciences
- Marine
- Mobile equipment
- Oil & gas
- Power generation
- Process
- Transportation

Key Products

- Analytical gas generators
- Compressed air & gas filters
- Condition monitoring
- Engine air, fuel & oil filtration & systems
- Hydraulic, lubrication & coolant filters
- Process, chemical, water & microfiltration filters
- Nitrogen, hydrogen & zero air generators



FLUID & GAS HANDLING

Key Markets

- Aerospace
- Agriculture
- Bulk chemical handling
- Construction machinery
- Food & beverage
- Fuel & gas delivery
- Industrial machinery
- Mobile
- Oil & gas
- Transportation
- Welding

Key Products

- Brass fittings & valves
- Diagnostic equipment
- Fluid conveyance systems
- Industrial hose
- PTFE & PFA hose, tubing & plastic fittings
- Rubber & thermoplastic hose & couplings
- Tube fittings & adapters
- Quick disconnects



HYDRAULICS

Key Markets

- Aerospace
- Aerial lift
- Agriculture
- Construction machinery
- Forestry
- Industrial machinery
- Mining
- Oil & gas
- Power generation & energy
- Truck hydraulics

Key Products

- Diagnostic equipment
- Hydraulic cylinders & accumulators
- Hydraulic motors & pumps
- Hydraulic systems
- Hydraulic valves & controls
- Power take-offs
- Rubber & thermoplastic hose & couplings
- Tube fittings & adapters
- Quick disconnects



PNEUMATICS

Key Markets

- Aerospace
- Conveyor & material handling
- Factory automation
- Life science & medical
- Machine tools
- Packaging machinery
- Transportation & automotive

Key Products

- 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

- Chemical & refining
- Food, beverage & dairy
- Medical & dental
- Microelectronics
- Oil & gas
- Power generation

Key Products

- Analytical sample conditioning products & systems
- Fluoropolymer chemical delivery fittings, valves & pumps
- High purity gas delivery fittings, valves & regulators
- Instrumentation fittings, valves & regulators
- Medium pressure fittings & valves
- Process control manifolds



SEALING & SHIELDING

Key Markets

- Aerospace
- Chemical processing
- Consumer
- Energy, oil & gas
- Fluid power
- General industrial
- Information technology
- Life sciences
- Military
- Semiconductor
- Telecommunications
- Transportation

Key Products

- Dynamic seals
- Elastomeric o-rings
- EMI shielding
- Extruded & precision-cut, fabricated elastomeric seals
- Homogeneous & inserted elastomeric shapes
- High temperature metal seals
- Metal & plastic retained composite seals
- Thermal management



ENGINEERING YOUR SUCCESS.

Sales Offices Worldwide

AE – UAE, Dhabi
Tel: +971 4 8875600
parker.me@parker.com

AR – Argentina, Buenos Aires
Tel: +54 3327 44 4129

AT – Austria, Wiener Neustadt
Tel: +43 (0)2622 23501-0
parker.austria@parker.com

AT – Eastern Europe, Wiener Neustadt
Tel: +43 (0)2622 23501 970
parker.easteurope@parker.com

AU – Australia, Castle Hill
Tel: +61 (0)2-9634 7777

AZ – Azerbaijan, Baku
Tel: +994 50 2233 458
parker.azerbaijan@parker.com

BE/LX – Belgium, Nivelles
Tel: +32 (0)67 280 900
parker.belgium@parker.com

BR – Brazil, Cachoeirinha RS
Tel: +55 51 3470 9144

BY – Belarus, Minsk
Tel: +375 17 209 9399
parker.belarus@parker.com

CA – Canada, Milton, Ontario
Tel: +1 905 693 3000

CH – Switzerland, Etoy
Tel: +41 (0) 21 821 02 30
parker.switzerland@parker.com

CN – China, Shanghai
Tel: +86 21 5031 2525

CZ – Czech Republic, Klecany
Tel: +420 284 083 111
parker.czechrepublic@parker.com

DE – Germany, Kaarst
Tel: +49 (0)2131 4016 0
parker.germany@parker.com

DK – Denmark, Ballerup
Tel: +45 43 56 04 00
parker.denmark@parker.com

ES – Spain, Madrid
Tel: +34 902 33 00 01
parker.spain@parker.com

FI – Finland, Vantaa
Tel: +358 (0)20 753 2500
parker.finland@parker.com

FR – France, Contamine-s/Arve
Tel: +33 (0)4 50 25 80 25
parker.france@parker.com

GR – Greece, Athens
Tel: +30 210 933 6450
parker.greece@parker.com

HK – Hong Kong
Tel: +852 2428 8008

HU – Hungary, Budapest
Tel: +36 1 220 4155
parker.hungary@parker.com

IE – Ireland, Dublin
Tel: +353 (0)1 466 6370
parker.ireland@parker.com

IN – India, Mumbai
Tel: +91 22 6513 7081-85

IT – Italy, Corsico (MI)
Tel: +39 02 45 19 21
parker.italy@parker.com

JP – Japan, Fujisawa
Tel: +(81) 4 6635 3050

KR – South Korea, Seoul
Tel: +82 2 559 0400

KZ – Kazakhstan, Almaty
Tel: +7 7272 505 800
parker.easteurope@parker.com

LV – Latvia, Riga
Tel: +371 745 2601
parker.latvia@parker.com

MX – Mexico, Apodaca
Tel: +52 81 8156 6000

MY – Malaysia, Subang Jaya
Tel: +60 3 5638 1476

NL – The Netherlands, Oldenzaal
Tel: +31 (0)541 585 000
parker.nl@parker.com

NO – Norway, Ski
Tel: +47 64 91 10 00
parker.norway@parker.com

NZ – New Zealand, Mt Wellington
Tel: +64 9 574 1744

PL – Poland, Warsaw
Tel: +48 (0)22 573 24 00
parker.poland@parker.com

PT – Portugal, Leca da Palmeira
Tel: +351 22 999 7360
parker.portugal@parker.com

RO – Romania, Bucharest
Tel: +40 21 252 1382
parker.romania@parker.com

RU – Russia, Moscow
Tel: +7 495 645-2156
parker.russia@parker.com

SE – Sweden, Spånga
Tel: +46 (0)8 59 79 50 00
parker.sweden@parker.com

SG – Singapore
Tel: +65 6887 6300

SL – Slovenia, Banska Bystrica
Tel: +421 484 162 252
parker.slovenia@parker.com

SL – Slovenia, Novo Mesto
Tel: +386 7 337 6650
parker.slovenia@parker.com

TH – Thailand, Bangkok
Tel: +662 717 8140

TR – Turkey, Istanbul
Tel: +90 216 4997081
parker.turkey@parker.com

TW – Taiwan, Taipei
Tel: +886 2 2298 8987

UA – Ukraine, Kiev
Tel +380 44 494 2731
parker.ukraine@parker.com

UK – United Kingdom, Warwick
Tel: +44 (0)1926 317 878
parker.uk@parker.com

US – USA, Cleveland
Tel: +1 216 896 3000

VE – Venezuela, Caracas
Tel: +58 212 238 5422

ZA – South Africa, Kempton Park
Tel: +27 (0)11 961 0700
parker.southafrica@parker.com

