• Consistent quality
• Technical innovation
• Premier customer service

Parker’s technical resources provide the correct filtration technologies that conform to your requirements. That’s why thousands of manufacturers and equipment users around the world rely on Parker Filtration products and people.

Worldwide Sales and Service

Parker Filtration’s global reputation as a reliable supplier of superior filtration products is the result of a focused and integrated development and manufacturing system.

Parker Filtration consolidates quality filtration products, manufactured by process filtration, air and gas filtration and separation, fuel conditioning and filtration, hydraulic and lubrication filtration, fluid power products and fluid condition monitoring equipment into one broad-based range that covers many markets and most applications, as detailed here.

Hydraulic, Lubrication & Coolant Filtration
High-performance filtration systems for production machinery in industrial, mobile and military/marine applications.

Compressed Air & Gas Filtration
Complete line of compressed air/gas filtration products; coalescing, particulate and adsorption filters in many applications in many industries.

Process & Chemical Fluid Filtration
Liquid filtration systems for beverage, chemical and food processing; cosmetic, paint, water treatment; photo-processing; and micro-chip fabrication.

Racor Fuel Conditioning & Filtration
Parker air, fuel and oil filtration systems provide quality protection for engines operating in any environment, anywhere in the world.

System Contamination Monitoring
On-line dynamic particle analysis, off-line bottle sampling and fluid analysis and measurement of water content polluting the oil in a system. All important and achievable, cost-effective solutions available to equipment manufacturers and end users alike.
Hydraulic Filtration and Contamination Control Products

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Parker Filtration has recently undertaken a review of its part numbering with a view to standardising on a common part number style for all Filtration products. As a result of the many acquisitions we have made over the past 10 years, it became clear to us that there was a need to standardise on a clear format for our part numbers.

Accordingly, in this new catalogue, you will find the new part number system with both a configurator and a supersedes cross reference relating to previous part numbers, issued in earlier editions of our generic catalogues. In the event that the previous reference you use is not shown in this catalogue, could we ask you to please contact our European Product Information Centre. Contact details are on the back of this catalogue.

**Explanation**

**Example 1. The Standard Products Table**

We have created a new catalogue ordering code and included in this table are details of these new part numbers.

Alongside this we have put the part number that has been superseded from previous catalogues. It is our intention that all items printed in the **Standard Products Table** will be available from our central warehouse for ex-stock delivery.

**Example 2. The Product Configurator**

2a. As part of our new catalogue ordering code we have introduced an 8-box part number configurator. This configurator features items, which are marked in **bold** and are on a shortened delivery time. With this in mind we would ask that when making a selection using the configurator you select those items in bold to ensure the shortest lead-time.

2b. The configurator has been designed to cover not only the various models we offer but also different micron ratings, indicator options and port connections.

2c. Should you find that what you have selected is not available in the configurator, please feel free to call our European Product Information Centre (EPIC) to see if that option can be made available. Contact details are available on the back of this catalogue.

**Green shaded graphs and ordering information**

Where pressure drop graphs and ordering information are shown with a green tint, these options are “Eco” options and environmentally friendly.

---

**Standard Product Tables and a Product Configurator**

---

**Example 1. The Standard Products Table**

<table>
<thead>
<tr>
<th>Part number</th>
<th>Supercedes</th>
<th>Flow</th>
<th>Code</th>
<th>Housing</th>
<th>Nom. rating</th>
<th>Degree of filtration</th>
<th>Media</th>
<th>Filter connection</th>
<th>Options</th>
<th>Included element</th>
<th>Permanent elements</th>
<th>Bypass valve</th>
<th>Included indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>BGT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Example 2. The Product Configurator**

**Configurator examples filter including LEIF® element**

<table>
<thead>
<tr>
<th>Code</th>
<th>Box 1</th>
<th>Box 2</th>
<th>Box 3</th>
<th>Box 4</th>
<th>Box 5</th>
<th>Box 6</th>
<th>Box 7</th>
<th>Box 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>BGT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Configurator examples filter including conventional element**

<table>
<thead>
<tr>
<th>Code</th>
<th>Box 1</th>
<th>Box 2</th>
<th>Box 3</th>
<th>Box 4</th>
<th>Box 5</th>
<th>Box 6</th>
<th>Box 7</th>
<th>Box 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>BGT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Highlights Key (Denotes part number availability)**

123 Item is standard
123 Item is standard green option
123 Item is semi standard
123 Item is non standard

Note: Standard items are in stock, semi standard items are available within four weeks
The Importance of Patented Parker Products to our customers

Innovative filter design and patented product protection brings value added benefits to our OEM customers and their end users.

Benefits that should help protect a manufacturers aftermarket as well as ensure that equipment users specify quality Parker replacement filter elements and accessories and help safeguard warranties.

Installing Parker Filtration patented filter assemblies such as the Suction and Return Series and LEIF® (Low Environmental Impact Filter) elements can provide the end user and OEM with some positive benefits:

- **LEIF®** can provide increased OEM spares business.
- Guaranteed Parker quality with every replacement filter element.
- Supports OEM end user loyalty to Parker elements.
- Support aftermarket sales and machinery performance.
- Parker patented elements promote quality and reliability to end users.
Hydraulic Filtration and Contamination Monitoring Products

Providing the products and service our customers expect

A Global Product Range

With this catalogue we offer our customers an easy way to find technical specification and ordering information about Parker hydraulic filtration, fluid contamination monitoring and fluid power products.

Products shown in this catalogue have a broad range of applications. Our filter products are particularly designed for hydraulic and lubrication systems and transmissions. The fluid power products are also used in many industries and applications.

Typical applications can vary from road sweepers, fork lift trucks, agriculture harvesting machines, grass cutting equipment, lorry mounted cranes, forestry equipment, press brakes, industrial power units, waste management trucks, drilling equipment, marine, military equipment, paper mills, water treatment and filtration systems.

For more information about our products send your inquiry to your nearest sales location, see contact information at the back of this catalogue.

Important information on product ordering and part numbers

Parker Filtration has recently undertaken a review of its part numbering with a view to standardising on a common part number style for all Filtration products. As a result of the many acquisitions we have made over the past 10 years, it became clear to us that there was a need to standardise on a clear format for our part numbers.

Accordingly, in this new catalogue you will find the new part number system with a 'product configurator' and a supersedes reference relating to previous part numbers issued in earlier editions of our generic catalogues. In the event that the previous reference you have is not shown in this catalogue, could we ask you to please contact our Epic Centre, details of which are on the back cover of this catalogue.

For additional information and an example explained, turn to page 2.

BSP ports offered in this catalogue conform to ISO228.

Supply chain management, service and support

Parker is addressing operation efficiency by expanding the systematic approach called 'Lean Manufacturing. Value stream analysis, flow manufacturing, reduced set-ups, manufacturing cell flexibility and fool-proofing systems are all contributing to the continuous improvement in our manufacturing sites. 'Lean' is also expressed in our premier customer service and second-to-none customer partnerships in supply chain management.

Engineering and manufacturing excellence

Parker Filtration’s Filter Division Europe (FDE) manufacturing focus is driven by a number of key elements that affect all areas of the business. People productivity, customer satisfaction, production throughput, quality and lean achievements are the drivers that help the FDE achieve ISO9001, QS9000, ISO9001 and ISO14001.

Significant investment by our parent Parker Hannifin Corporation continues to give FDE flexible manufacturing systems, automated test equipment and excellent laboratory test facilities.

New product development programmes and on-going product improvement initiatives are vital elements in maintaining a product range that meets customer demands for quality, reliability and engineering excellence.

R & D resources at the Parker Filtration locations in the UK, Finland and the Netherlands are both complementary and comprehensive. Including, as examples, Multipass Test Installations, fatigue test unit, cleanliness service (water detection, special analysis, particle counting and analysis), 3D workstations, Thermal Cycle Test Chamber, Salt Spray and Humidity chambers.

Parker Hannifin (UK) Ltd, herewith declares that Parker Hydraulic Filtration products are intended to be incorporated into machinery covered by Directive 89/392/EEC, as amended and that the following harmonised standards have been applied; EN982, EN292-1, EN292-2

We furthermore declare that, machinery incorporating Parker Hydraulic Filtration products, is not allowed to be put into service until the machinery has been found and declared to be in conformity with the provisions of Directive 89/392/EEC and with national implementing legislation.

In line with our policy of continuous product improvement, Parker Hannifin (UK) Ltd reserve the right to alter product data and specification without notice. This does not affect your statutory rights.

Notes:
1. Within this catalogue, each product has been allocated an operating temperature and pressure range.
2. The range listed for each filter is dedicated by the materials of construction and the capability of the seals specified.
3. Consideration should also be given to the characteristics of the system fluid when specifying filters for extreme temperature and/or pressure applications.
4. The use of non-Parker replacement elements and spares may invalidate your warranty.
FMU $\Delta p$-Indicators and Pressure Indicators

Indicators Series

MAX 420 bar

Filter indicators
FMU ∆p-Indicators

Indicators Series

Features & Benefits

<table>
<thead>
<tr>
<th>Features</th>
<th>Advantages</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicators fatigue tested to full pressure rating</td>
<td>Reliable indicators for heavy duty applications</td>
<td>Reliable and continuous control of the filter in all applications</td>
</tr>
<tr>
<td>Cartridge screw-in type indicators</td>
<td>Easy mounting</td>
<td>Reliable sealing, no leakage</td>
</tr>
<tr>
<td>Visual, electrical and electronic indicators available</td>
<td>Check element condition at a glance</td>
<td>Optimises element life, prevents bypassing</td>
</tr>
<tr>
<td>Several indication settings</td>
<td>Optimized for each bypass setting</td>
<td>Match your system’s electrical connections</td>
</tr>
<tr>
<td>Visual indicators</td>
<td>Local monitoring of the element condition</td>
<td>Right indicator for application</td>
</tr>
<tr>
<td>Electrical indicator with change-over switch</td>
<td>Option of Normally Open (N.O.) and Normally Closed (N.C.) function</td>
<td>Approved for low voltage and high voltage use including machine control systems and PLC’s</td>
</tr>
<tr>
<td>Electrical indicator with 4 LEDs</td>
<td>Thermal lock-out</td>
<td>No false alarm because of low temperature oil</td>
</tr>
<tr>
<td></td>
<td>Visual early warning with yellow LED</td>
<td>Allows time to schedule element change</td>
</tr>
<tr>
<td></td>
<td>Pre-alarm with yellow LED and wired output</td>
<td>Indicates upcoming element change</td>
</tr>
<tr>
<td></td>
<td>Alarm with red LED and wired output</td>
<td>Clear indication for element change</td>
</tr>
<tr>
<td>Programmable and ATEX certified indicators available</td>
<td>Right indicators for special applications</td>
<td>Improved machine surveillance</td>
</tr>
</tbody>
</table>

Typical Applications

- Industrial equipment
- Mobile equipment
- Marine/offshore applications

The Parker FMU Series
Differential Pressure Indicators

The FMU range of filter condition indicators, are designed for use on a wide range of Parker filters and suitable for competitive interchange (consult Parker Filtration for details).

Ideal for giving accurate visual, electronic or electrical feedback of filter element condition, in order to facilitate effective maintenance and ensuring hydraulic systems, marine/mobile or industrial are protected from particulate contamination.
Filter indicators

**Specification**

- **Maximum operating pressure:** 420 bar (250 bar for aluminium).
- **Maximum differential pressure:** 210 bar.
- **Working temperature range:** -20˚C to +85˚C.
- **Material of housing:** Brass, aluminium or stainless steel.
- **Seals:** Fluoroelastomer, Nitrile or EPDM.
- **Mounting torque:** max. 75 Nm (max. 50 Nm for aluminium indicator body & filter housing).

**Maximum differential pressure:**

- 1.2 bar ± 0.2
- 1.5 bar ± 0.2
- 2.5 bar ± 0.3
- 5.0 bar ± 0.5
- 7.0 bar ± 0.5
- 8.5 bar ± 0.5

(Indicators for other differential pressure values are optional.)

---

**FMU Δp – Indicators are typically used with the following filters:**

| Medium pressure filters series: 45M and 130M. | U12H | 1.5 bar |
| High pressure filters series: 70L, 70T, 70B, 5000, 7100 and 7200. | U12H | 2.5 bar |
| High pressure filters without bypass valve: 70L, 70T, 70B, 7100 and 7200. | U12H | 7.0 bar |
| Medium and low pressure filter series; Note for PD Range only 2.5 bar indicators are available 15CN, 40CN, 80CN, 22PD, 32PD, 15P, 30P, 40RF, 50RF, IL8, 12M, 22M, 16P, 26P, 36P | U14M | 1.2 and 2.5 bar |
| High pressure filters 18P, 28P, 38P, FDA, FDB | U14H | 2.5 and 5.0 bar |
FMU Δp-Indicators

Indicators Series

FMUT Electrical

Contact configuration U12H model

Contact configuration U14M & U14H

Operation

U12H model

U14M model

U14H model

Pin

Rotating part 360°

P1 high pressure

P2 low pressure

Pin

Enclosure class IP65
Electrical connector DIN 43650
Overvoltage category II (EN61010-1)

FMUM3 Visual Auto Reset/FMUM1 Visual Manual Reset

<table>
<thead>
<tr>
<th>Operation</th>
<th>Non-inductive load (A)</th>
<th>Inductive load (A)</th>
<th>Inrush current (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N.C.</td>
<td>N.O.</td>
<td>N.C.</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>125Vac</td>
<td>5</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>250Vac</td>
<td>3</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>8Vac</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>14Vac</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>30Vac</td>
<td>0.4</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>125Vac</td>
<td>0.2</td>
<td>0.03</td>
</tr>
</tbody>
</table>

Note: Only FPUM3 visual auto reset available for models U14M and U14H. FMUM1 not available.
**FMUF Electronic**

**Thermal lock-out (standard setting +20°C)**
- Indicator operates only when temperature is above setting.
- Green LED is blinking if temperature is lower. (not in U12H)

<table>
<thead>
<tr>
<th>Ind. press.</th>
<th>LED status</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>50%</td>
<td></td>
<td>2 active</td>
</tr>
<tr>
<td>75%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100%</td>
<td></td>
<td>1 active</td>
</tr>
</tbody>
</table>

Note: Do not connect output terminals 1 or 2 directly (without load) to power supply terminals, because this will damage the equipment.

**Programmable Δp-indicator**

All settings adjustable (settings made via PC) Connections cable and software available from Parker
- 4 LEDs giving visual indication:
  - Green (G): Power ON
  - Yellow 1 (Y1): Pre-alarm 1 (presetting 50%)
  - Yellow 2 (Y2): Pre-alarm 2 (presetting 75%)
  - Red (R): Indication (presetting 100%)
- two independently programmable indication outputs
  - can be set independently from each other and LED setting
  - output type: NPN or PNP
  - switching type: N.O. or N.C.
- setting range: 0.5 ... 10 bar
- thermal lock-out range: 0 ... 100°C
- includes a microchip with memory logs
  - number of alarms: max 65535
  - time indication on (output 1): max 1092 hours
  - time power on (running hours): max 7 1/2 years
  - upload and reset via PC

Safety feature: The 250 bar U14M indicator does not fit into the U14H cavity, which is used in 420 bar filters.

**FMUL1 Programmable**

Dimensions: see FMUF electronic Δp-indicator
**FMU ΔP-Indicators**

**Indicators Series**

### Ordering Information

#### Product configurator

<table>
<thead>
<tr>
<th>Box 1</th>
<th>Box 2</th>
<th>Box 3</th>
<th>Box 4</th>
<th>Box 5</th>
<th>Box 6</th>
<th>Box 7</th>
<th>Box 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMU</td>
<td>M3</td>
<td>K</td>
<td>V</td>
<td>M</td>
<td>U14</td>
<td>H</td>
<td></td>
</tr>
</tbody>
</table>

#### Box 1

**Indicators type**
- **FMU**

#### Box 2

**Filter type**
- **Differential pressure indicator**
  - Visual manual reset: M1
  - Visual automatic: M3
  - Electrical: T1
- **Electronic**
  - 4 LED, PNP, N.O.: F1
  - 4 LED, PNP, N.O.: F2
  - 4 LED, NPN, N.O.: F3
  - 4 LED, NPN, N.O.: F4
- **Programmable with memory logs:** L1
- **Ex version:** X1

#### Box 3

**Indicator setting**
- 1.0 bar (14 psi): c, P
- 1.5 bar (21 psi): a, G
- 2.0 bar (29 psi): a, b, c, K
- 3.0 bar (42 psi): b, M
- 7.0 bar (98 psi): c, H
- 8.0 bar (113 psi): c, P

#### Box 4

**Seal type**
- **Nitrile**: B
- **Fluoroelastomer**: V
- **Nitrile**: N

#### Box 5

**Max Pressure**
- **Medium pressure housings (≤250 bar)**: M
- **High pressure housings (≤420 bar)**: H

#### Box 6

**Thread connection**
- **U12**: ¾” - 16UNF-2A
- **U14**: 7/8” - 14UNF-2A

#### Box 7

**Options**
- Standard
- Other options: factory supplied

#### Box 8

**Indicator setting**
- **Standard settings**:
  - a: U14M, former -W3
  - b: U14H, former -W6
  - c: U12H, former -F6

#### Indicator type X1: ATEX ΔP-indicator

Electronic indicator accordant with ATEX 94/9/EC directive: (Ex) II 2 GD Ex mII T6. Degree of protection IP66. For details contact Parker Filtration.

#### Connection cable + software for programmable indicator L1

Connection cable for PC serial connection and software for indicator settings and utilizing memory logs. Ordering Code: 905075030

#### Seal kits (fluoroelastomer)

- Indicators with thread connection U12H (former -F6) Ordering code: 911045078
- Indicators with thread connection U14M (former -W3) Ordering code: 911045086
- Indicators with thread connection U14H (former -W6) Ordering code: 911045087

---

**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.
Pressure Indicators for Low Pressure Filters

ETF Filter

**Visual pressure indicator**

**Code G2**

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Connection/Voltage</th>
<th>Wiring</th>
<th>Part number</th>
</tr>
</thead>
<tbody>
<tr>
<td>G2</td>
<td>Visual indicator 1.2 bar</td>
<td>N/A</td>
<td>N/A</td>
<td>FMUG2FBMG02L</td>
</tr>
</tbody>
</table>

**S2/S3**

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Connect/Voltage</th>
<th>Wiring</th>
<th>Part number</th>
</tr>
</thead>
<tbody>
<tr>
<td>S2/S3</td>
<td>Electrical indicator 1.2 bar</td>
<td>42 Vdc max</td>
<td>Select either normally open (NO) or normally closed (NC)</td>
<td>FMUS2FBMG02L (NO switch) or FMUS3FBMG02L (NC switch)</td>
</tr>
</tbody>
</table>

**S4**

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Connect/Voltage</th>
<th>Wiring</th>
<th>Part number</th>
</tr>
</thead>
<tbody>
<tr>
<td>S4</td>
<td>Electrical indicator 1.2 bar</td>
<td>250 Vac max</td>
<td></td>
<td>FMUS4FBMG02L</td>
</tr>
</tbody>
</table>

**Specifications**

- **Option**
  - G2
  - S2/S3
  - S4

- **Description**
  - Visual indicator 1.2 bar
  - Electrical indicator 1.2 bar

- **Connection/Voltage**
  - N/A
  - 42 Vdc max
  - 250 Vac max

- **Wiring**
  - N/A
  - Select either normally open (NO) or normally closed (NC)

- **Part number**
  - FMUG2FBMG02L
  - FMUS2FBMG02L
  - FMUS3FBMG02L
  - FMUS4FBMG02L

**TTF, BGT and TPR**

**Indicator PS pressure switch**

**Visual indicator**

- 1.2 bar
- Code G2
- 67 (2.64)
- G1/8
- P/N M10x1
- Code FMUG1EBPM10L

**Electrical indicator**

- 1.2 bar
- Code S2/S3
- HEX 24 (0.94)
- G1/8
- P/N M10x1
- Code FMUG2EBPG02L

**Protection**

- N/A
- Code FMUG2EBBM02L

**Elec.connection**

- AMP 6.3x0.8 terminals + protective cap

**Thread connection**

- M10x1

**Electrical indication**

- 42 V / 2A

**Wiring**

- 1 = COM
- 2 = N.C.
- 3 = N.O.

**Fixed part**

- HEX 27 (1.08)

**Protection**

- Code FMUG2EBBM02L

**Visual indicator**

- 1.2 bar
- Code G2
- 42 Vdc max

**Electrical indicator**

- 1.2 bar
- Code S2/S3
- 250 VAC max

**Electrical indication**

- 250 VAC max

**Wiring**

- 1 = COM
- 2 = N.C.
- 3 = N.O.

**Protection**

- Code FMUG2EBBM02L

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- 1.2 bar
- Code G2
- 42 Vdc max

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Throughout the world, Parker is serving more than 400,000 customers to improve productivity and reliability in thousands of industries. Parker motion and control systems are in operation on satellites orbiting the Earth, in machine tools and mobile equipment, on oil rigs and refineries, in hospitals and laboratories, in fact, wherever there’s a need for motion and control, you’ll find Parker components and system solutions hard at work. For more information, visit Parker’s web site at www.parker.com/eu or call freefone 00800 27 27 5374

### Aerospace

**Key Markets**
- Commercial transports
- Military aircraft
- Regional transports
- Aircraft engines
- Business and general aviation

**Key Products**
- Flight control systems and components
- Hydraulic systems and components
- Fuel systems and components
- Pneumatic systems and components
- Inert oxygen generating systems
- Fluid metering, delivery and atomization devices
- Wheels and brakes
- Couplings, fittings, hoses and tubes

### Automation

**Key Markets**
- Factory automation
- Transportation and automotive
- Life sciences and medical
- Machine tools
- Semiconductor and electronics

**Key Products**
- Pneumatic motion and control
- Air preparation
- Vacuum controls and sensors
- Electromechanical stepper and servo motors, drives, and controls
- Human machine interface
- Electric actuators, gantry robots, slides and linear motors
- Structural extrusion

### Climate & Industrial Controls

**Key Markets**
- Refrigeration and air conditioning
- Transportation/mobile
- Process
- Industrial machinery
- Medical/life sciences
- Fuel cells
- Precision cooling

**Key Products**
- Pressure regulators
- Check, ball and service valves
- Value-added systems
- Thermostatic and expansion valves
- Electronic controllers
- Contaminant controls
- Heating/air conditioning hose
- Gerotor

### Filtration

**Key Markets**
- Industrial machinery
- Process
- Marine
- Power generation and energy
- Transportation
- Food and beverage

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

### Fluid Connectors

**Key Markets**
- Construction machinery
- Agriculture
- Mobile
- Industrial machinery
- Oil & gas

**Key Products**
- Rubber and thermoplastic hose
- Industrial hose
- Tube fittings and adapters
- Tubing and plastic fittings
- Brass fittings and valves
- Hose couplings
- Quick disconnects

### Hydraulics

**Key Markets**
- Power generation
- Oil & gas
- Petrochemical
- Microelectronics
- Biopharmaceutical

**Key Products**
- Medium/high pressure fittings and valves
- Instrumentation fittings, valves, manifolds and regulators
- Metal and plastic retained composite seals
- Polymeric and plastic dynamic seals
- Rubber and plastic boots/bellows
- Extruded and precision-cut fabricated polymeric seals

### Instrumentation

**Key Markets**
- Power generation
- Oil & gas
- Petrochemical
- Microelectronics
- Biopharmaceutical

**Key Products**
- Elastomeric O-rings
- Homogenous and inserted elastomeric shapes and diaphragms
- Metal and plastic retained composite seals
- Polymeric and plastic dynamic seals
- Rubber and plastic boots/bellows
- Extruded and precision-cut fabricated polymeric seals

### Seal

**Key Markets**
- Transportation
- Energy, oil & gas
- Semiconductor
- Aerospace
- Fluid power
- Life sciences
- Telecommunications

**Key Products**
- Elastomeric O-rings
- Homogenous and inserted elastomeric shapes and diaphragms
- Metal and plastic retained composite seals
- Polymeric and plastic dynamic seals
- Rubber and plastic boots/bellows
- Extruded and precision-cut fabricated polymeric seals
- Thermoplastic engineered seals
Parker Hannifin
Sales Locations

<table>
<thead>
<tr>
<th>Country</th>
<th>City</th>
<th>Tel.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE – United Arab Emirates</td>
<td>Abu Dhabi</td>
<td>+971 2 67 88 587</td>
</tr>
<tr>
<td>AR – Argentina</td>
<td>Buenos Aires</td>
<td>+54 3327 44 4129</td>
</tr>
<tr>
<td>AT – Austria</td>
<td>Wiener Neustadt</td>
<td>+43 (0)2622 23501</td>
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<tr>
<td>AR (Eastern Europe)</td>
<td>Wiener Neustadt</td>
<td>+43 (0)2622 23501-970</td>
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<tr>
<td>AU – Australia</td>
<td>Castle Hill</td>
<td>+61 (0)2-9634 7777</td>
</tr>
<tr>
<td>AZ – Azerbaijan</td>
<td>Baku</td>
<td>+99 412 598 3966</td>
</tr>
<tr>
<td>BE – Belgium</td>
<td>Nivelles</td>
<td>+32 (0)67 280 900</td>
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<tr>
<td>BR – Brazil</td>
<td>Cachoeirinha RS</td>
<td>+55 51 3470 9144</td>
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<tr>
<td>BY – Belarus</td>
<td>Minsk</td>
<td>+375 17 209 9399</td>
</tr>
<tr>
<td>CA – Canada</td>
<td>Milton, Ontario</td>
<td>+1 905-693-3000</td>
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<tr>
<td>CH – Switzerland</td>
<td>Ref. Germany</td>
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</tr>
<tr>
<td>CN – China</td>
<td>Beijing</td>
<td>+86 10 6561 0520</td>
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<td></td>
<td>Shanghai</td>
<td>+86 21 5031 2525</td>
</tr>
<tr>
<td>CZ – Czech Republic</td>
<td>Klecany</td>
<td>+420 284 083 111</td>
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<tr>
<td>DE – Germany</td>
<td>Kaarst</td>
<td>+49 (0)2131 4016 0</td>
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<td>DK – Denmark</td>
<td>Ballerup</td>
<td>+45 4356 0400</td>
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<td>Madrid</td>
<td>+34 91 675 73 00</td>
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<td>Vantaa</td>
<td>+358 20 753 2500</td>
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<td>Contamine-sur-Arve</td>
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<td>GR – Greece</td>
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<td>+30 210 933 6450</td>
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<td>HK – Hong Kong</td>
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<td>+852 2428 8008</td>
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<td>+36 1 220 4155</td>
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<tr>
<td>IE – Ireland</td>
<td>Dublin</td>
<td>+353 (0)1 466 6370</td>
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<td>Mumbai</td>
<td>+91 22 5613 7081/82-85</td>
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<td>+39 02 45 19 21</td>
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<td>JP – Japan</td>
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<td>KR – South Korea</td>
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<tr>
<td>KZ – Kazakhstan</td>
<td>Almaty</td>
<td>+7 3272 505 800</td>
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<td>Riga</td>
<td>+371 74 52601</td>
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<td>Apodaca</td>
<td>+52 81 8156 6000</td>
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<td>MY – Malaysia</td>
<td>Subang Jaya</td>
<td>+60 3 5638 1476</td>
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<td>NL – The Netherlands</td>
<td>Oldenzaal</td>
<td>+31 (0)514 585000</td>
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<td>NO – Norway</td>
<td>Ski</td>
<td>+47 64 91 10 00</td>
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<td>NZ – New Zealand</td>
<td>Mt Wellington</td>
<td>+64 9 574 1744</td>
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<tr>
<td>PL – Poland</td>
<td>Warsaw</td>
<td>+48 22 573 24 00</td>
</tr>
<tr>
<td>PT – Portugal</td>
<td>Leça da Palmeira</td>
<td>+351 22 9997 360</td>
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<td>RO – Romania</td>
<td>Bucharest</td>
<td>+40 21 252 1382</td>
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<tr>
<td>RU – Russia</td>
<td>Moscow</td>
<td>+7 495 641 2156</td>
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<td></td>
<td>Krasnoyarsk</td>
<td>+7 3912 52 73 35</td>
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<td></td>
<td>Yuzhno-Sakhalinsk</td>
<td>+7 4242 42 35 27</td>
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<td></td>
<td>St. Petersburg</td>
<td>+7 812 320 49 37</td>
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<td>Spånga</td>
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<td>Novo Mesto</td>
<td>+386 7 337 6650</td>
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<td>TH – Thailand</td>
<td>Bangkok</td>
<td>+662 717 8140</td>
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<td>TR – Turkey</td>
<td>Merter/Istanbul</td>
<td>+90 212 482 91 06 or 07</td>
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<tr>
<td>TW – Taiwan</td>
<td>Taipei</td>
<td>+8862 2298 8987</td>
</tr>
<tr>
<td>UA – Ukraine</td>
<td>Kyiv</td>
<td>+380 44 494 2731</td>
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<td>UK – United Kingdom</td>
<td>Warwick</td>
<td>+44 (0)1926 317 878</td>
</tr>
<tr>
<td>US – USA</td>
<td>Cleveland (industrial)</td>
<td>+1 216-896-3000</td>
</tr>
<tr>
<td></td>
<td>Lincolnshire (mobile)</td>
<td>+1 847-821-1500</td>
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<tr>
<td></td>
<td>Miami (Pan American Div.)</td>
<td>+305 470 8800</td>
</tr>
<tr>
<td>VE – Venezuela</td>
<td>Caracas</td>
<td>+58 212 238 5422</td>
</tr>
<tr>
<td>ZA – South Africa</td>
<td>Kempton Park</td>
<td>+27 (0)11-961 0700</td>
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Filtration website: www.parker.com/eurofilt
Filtration email: filtrationinfo@parker.com
For further information on other Parker Products, call EPIC free on 00800 27 27 5374

Catalogue Ref: FDHB200UK
Issue Date: 01/07
Hydraulic Filter Division Europe

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