

# FILTRON<sup>®</sup>

## TOTAL PRECISION



# HIGH QUALITY, GLOBAL RANGE

Our company was established in 1982 and we specialise in the manufacture of filters of the high quality filters. Dynamic solutions have made it possible for the company to achieve a global range of activities. Today, we manufacture over 90 million filters a year and our products are sold in more than 80 countries around the world. The catalogue of FILTRON products includes more than 2,700 filter types designed for the automotive industry, machines, heavy machinery, and specialist tools.

## RECOGNISED BY THE BEST

Our filters are installed as original equipment in cars manufactured by many popular brands. We provide filters for first assembly in more than 100 cars produced by the biggest car manufacturers, such as Mercedes-Benz, Volkswagen, Jaguar, Rolls-Royce, Aston Martin, and Tesla.

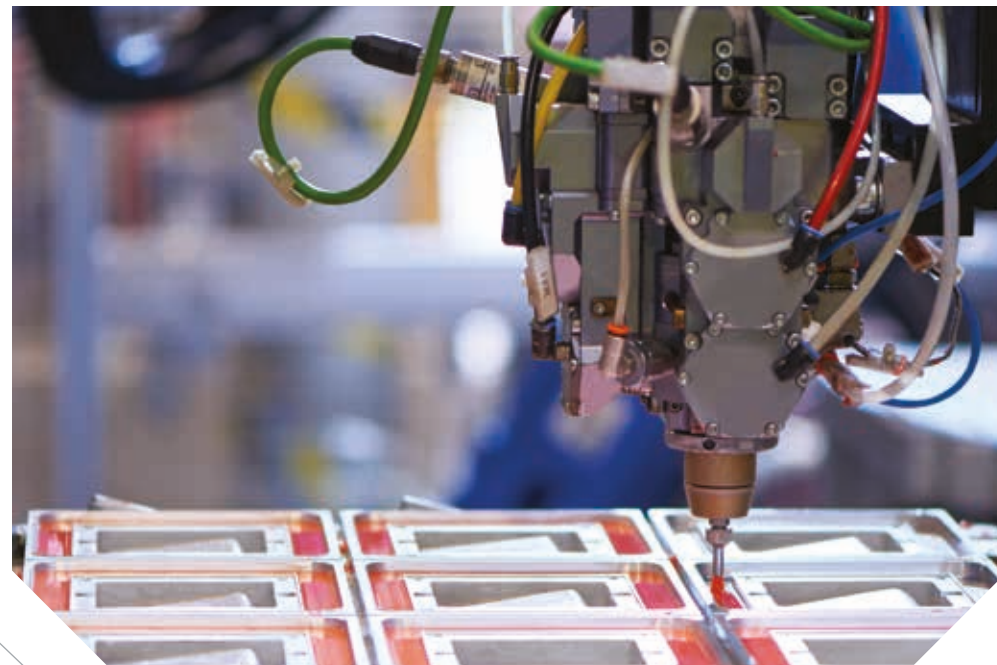
**The best proof of the proof of the high quality of is the fact that our company has found its place in the original equipment market.**







# STATE-OF-THE-ART PRODUCTION LINES



- Our filters are manufactured in fully automated, state-of-the-art facilities according to the Quality Management System based on the ISO/TS 16949:2009 standard. We use the very same production lines to manufacture filters installed in brand-new cars as we do to produce filters delivered to stores and workshops. The precision of our production processes is recognised by the biggest automotive companies in the world and by certified independent bodies.

# QUALITY VERIFIED BY LABORATORY TESTS



- We apply more than 60 test methods in our modern laboratory, all of which are used to check the quality of materials and production components, and to verify the efficiency and mechanical strength of filters. Our tests and inspections are highly detailed and comply with international standards. We constantly invest in the development of new research methods, as is evident in our investment of more than 4 million euros from 2013 to 2015.

# WHY FILTRON?

## STATE-OF-THE-ART PRODUCTION PROCESSES

We manufacture more than 90 million filters a year. Each filter is made using state-of-the-art and fully automated production lines.

## FULL RANGE OF FILTERS

We manufacture a full range of filters that are required by the automotive industry. Our filter range covers 97% of the European car market.







### **SUPPLIER OF ORIGINAL EQUIPMENT**

Our experience gained in the manufacturing of filters installed as original equipment in new vehicles confirms our competence in ensuring high quality standards for all types of filters we produce.



### **EXCEPTIONAL PERFORMANCE**

We satisfy the requirements defined by manufacturers of engines and vehicles. The performance demonstrated by our filters and the quality of materials are constantly monitored in our laboratory.



### **GUARANTEED QUALITY**

We guarantee that our filters are free of any material and manufacturing defects and that they will maintain their performance parameters for their entire life, according to the intended use outlined by the manufacturer of a particular engine or vehicle.



# GUARANTEED FAILURE-FREE ENGINE OPERATION

Contaminated fuel may result in the quick wearing of injectors, pumps or fuel pressure control valves. The correct filtration of fuel is necessary to provide optimum engine operation and to protect an engine against costly failures.







## PE 973/7\*

\* For example, this filter is applied in the following vehicles: Audi Q3, Seat Alhambra II, Volkswagen Passat B6.





## ADVANTAGES OF FILTRON FUEL FILTERS

- Very high filtration efficiency
- Reliability resulting from the use of advanced manufacturing processes
- Optimum engine protection
- Compliance with requirements of engine manufacturers





## EXCEPTIONALLY HIGH EFFICIENCY

FILTRON fuel filters applied in modern injection systems filter impurities as microscopic as 0.003 mm, providing an efficiency of filtration equal to 92%.

## PRECISION AS HIGH AS EXPECTED

FILTRON offers a wide range of the most technically advanced fuel filters that are applied in modern and highly demanding injection systems. Compliance with the highest standards of quality, and implementation of innovative solutions, such as three-stage water separation, ensures accuracy in accordance with the expectations set by an engine or vehicle manufacturer.

## WIDE RANGE OF PRODUCTS

The catalogue of FILTRON products includes the following:

- Spin-on fuel filters
- In-line fuel filters
- Fuel filter elements
- Modern ECO fuel filter elements

## INTERESTING FACTS:

### ○ RESISTANCE TO BIO ADDITIVES

Our fuel filters are manufactured based on materials that do not react chemically with fuel. The selection of appropriate materials guarantees the correct operation of the filter, regardless of the ever-changing standards regarding the content of bio additives in fuel.

### ○ UNCONTAMINATED FUEL ONLY

Unlike oil filters, fuel filters are not equipped with by-pass valves that enable the flow of fuel when the filter is clogged. This results from the principle of providing only uncontaminated fuel to the engine combustion chamber. It is far better to let the engine shut down, because there is no flow of fuel (clogged filter), than to keep it running on contaminated fuel.

### ○ DYNAMIC TECHNICAL EVOLUTION

Car manufacturers are implementing more precise and innovative technical solutions that require a constant increase in the efficiency of fuel filtration. Modern injection systems are considered to have the biggest impact on the increased requirements set for fuel filters in new car engines, because they supply fuel to the combustion chamber under very high pressure. New injection systems increasingly demand that filters ensure more efficient filtration and separation of water.

### ○ WHEN YOU WANT TO BE THE BEST – RELY ON THE BEST

Our factories manufacture filters that are installed as original equipment in new cars produced by the most important manufacturers in the global market. We provide filters intended for first assembly of cars by such car manufacturers as Aston Martin, Rolls-Royce, Mercedes-Benz, Tesla and Jaguar.



# LONGER, FAILURE-FREE SERVICE LIFE

Oil filters stop all impurities transported by flowing oil that make their way from the combustion chamber or result from the abrasion of engine components. If it was not for the filter, contaminated oil would increase the wearing of moving parts, which would have a direct impact on the risk of engine damage.



A close-up, black and white photograph of a car wheel, showing the spokes and the tire. A yellow callout box is positioned in the center-right of the image. A white target symbol is located on the left side of the image, with a thin white line pointing from it towards the wheel's rim.

## OP 629/2\*

\* For example, this filter is applied in the following vehicles: Ford Mondeo IV, Ford Focus III, Ford Fiesta VI.



## ADVANTAGES OF FILTRON OIL FILTERS

- Effective protection of engine components
- Covers of spin-on filters are resistant to corrosion and high pressure
- High effectiveness of filtration for the duration of the recommended filter life
- Materials of the highest quality





## TRUSTWORTHY QUALITY

The quality of FILTRON oil filters is a direct result of using the best materials, manufacturing processes based on modern and automated production lines and strict cooperation with car manufacturers. Thanks to their high quality, our filters effectively stop impurities contained in oil and reduce the wear on moving components of engines and turbochargers.

## EASY DISPOSAL FAVOURS ENVIRONMENT PROTECTION

The ECO oil filter elements do not contain any metal parts and are made of modern plastics. This simplifies the disposal of the filter element and satisfies the need for environmental care. The advantages of this solution have led to the offer of ECO oil filter elements that are also intended for older engines originally equipped with traditional filter elements with metal bottom-caps.

## VARIETY OF DESIGNS

Oil filters differ, depending on their design and manufacturing processes. FILTRON offers the following high quality products:

- Spin-on oil filters
- Traditional oil filter elements
- ECO oil filter elements

## INTERESTING FACTS:

### CHECK THE NUMBER IMPRINTED ON THE HOUSING

Each type of filter can have identical outer dimensions, but completely different properties based on the filtration medium. Before installing the filter, ensure it has been appropriately selected for its purpose and that its use is applicable to the year and engine model of the given vehicle. Be sure to compare the filter number visible on the filter housing with the number assigned to the given vehicle in the FILTRON catalogue.

### COLD OIL

When starting a car in the winter, after a prolonged standstill (e.g. when going to work in the morning), the oil becomes cold and thick and is more difficult for it to pass through the filtration medium. As a result, the increased pressure causes a by-pass valve installed in the majority of filters to open. The bypass valve makes it possible for oil to flow if there is a risk that moving components are not sufficiently lubricated.

### OIL PRESSURE WARNING LIGHT

It is possible that the oil pressure warning light will illuminate during the initial start-up of the engine after replacing an oil filter. If the light does not go out, it may indicate that the oil level is low, the system is leaking, or that a defective filter has been installed. FILTRON oil filters give you certainty that when an oil pressure warning light does not turn off after the oil filter is replaced, the light has nothing to do with the filter being defective.

### WE MANUFACTURE ACCORDING TO THE HIGHEST STANDARDS

All our filters are manufactured using modern and fully automated production lines that are operated by highly qualified specialists. The performance demonstrated by our filters and the quality of materials are constantly tested and monitored in our laboratory.

# THEY CLEAN THE AIR THAT PASSENGERS BREATHE

Cabin filters clean the air that penetrates into the passenger cabin through the air-conditioning system. The operation of a cabin filter is extremely important because the concentration of impurities in the air sucked in from the road is as much as six times higher than the concentration of impurities in the air that we breathe, for example, when walking in a park. If it was not for a cabin filter, passengers inside the vehicle would breathe in highly contaminated air.







## K 1278A\*

\* For example, this filter is applied in the following vehicles:  
Audi A4 (B8/8K), Audi A5 (8T),  
Audi Q5 (8R).





## ADVANTAGES OF CABIN FILTERS FILTRON

- They stop particulates, such as street dust or pollen, from penetrating the passenger cabin
- They remove nearly 100% of bacteria and allergens
- They prevent mould and fungi formation, as well as eliminate unpleasant odours
- They provide optimum comfort of travelling by car





## THE HIGHEST STANDARD OF PROTECTION AGAINST CONTAMINATION

The BIONIGHT anti-bacterial system implemented in all of our cabin filters removes nearly 100% of bacteria and allergens from the air. This system also prevents the formation of allergic mould and fungi. This system is particularly important to children, people suffering from allergies, and those who travel frequently.

## THE HIGHEST STANDARD OF PROTECTION AGAINST CONTAMINATION

Each cabin filter package includes a detailed installation manual, including pictures, which greatly facilitates changing the filter in a vehicle on your own.

## ACTIVATED CARBON FILTERS

FILTRON offers standard cabin filters and cabin filters with activated carbon. The activated carbon inserted in the filter cloth layer absorbs unpleasant odours and harmful gaseous substances, such as nitric oxides or petrol vapours.

## INTERESTING FACTS:

### THE SIGNIFICANCE OF REGULARLY REPLACING FILTERS

It is recommended to replace cabin filters at least once a year or after every 15,000 km of travel. It is not advisable to clean cabin filters mechanically, as this does not remove bacteria or mould. Changing the entire filter is the only method for ensuring that impurities, bacteria and allergens are appropriately stopped.

### IMPACT ON THE COMFORT OF TRAVELLING

Failing to replace a cabin filter will allow impurities to penetrate the passenger cabin, which may cause the following symptoms: watering eyes, sense of fatigue, unpleasant odours, hay fever, and even allergies. The most recognisable symptom that indicates the need to replace a cabin filter is condensation on car windows.

### PROVEN EFFECTIVENESS

The significance and effectiveness of cabin filters are best proven when they are replaced. All it takes is careful inspection of the surface of a worn filter. Awareness that the majority of impurities collected in the filter could enter our lungs is the most convincing argument for regularly replacing cabin filters in the car.

### WIDE RANGE OF PRODUCTS

FILTRON offers more than 2,700 types of filters that cover 97% of the European car market. Our product catalogue includes all types of car filters.



# THEY PROTECT THE ENGINE AGAINST CONTAMINATED AIR

Air filters stop the impurities absorbed by the air sucked into the engine. It takes approximately 9,000 litres of air to burn 1 litre of petrol. If there was no filter, contaminated air – full of pollen and street dust – would flow directly into the combustion chamber. Impurities penetrating into the engine act as abrasive paper, resulting in damage to piston rings, bearings, and cylinders.





## AP 139/5\*

\*For example, this filter is applied in the following vehicles: Audi A3 III, Audi TT III, Skoda Superb III, Volkswagen Golf VII.





## ADVANTAGES OF FILTRON AIR FILTERS

- Effectiveness and reliability of operation
- Protection of engines and flowmeters
- Highest quality of filtration medium
- Special impregnation of paper ensures stability of pleats





## HIGH EFFICIENCY

Air filters manufactured by FILTRON feature modern filtration materials that are based, for example, on cellulose or synthetic fibres. Such materials provide efficient filtration of 99.9% of particulates only a few micrometres in size.

## FILTRATION MEDIUM RESISTANT TO THE SPREAD OF FIRE

The resistance of filters to the spread of fire is especially significant if a road collision or fire inside the engine chamber occur. FILTRON air filters feature special filtration medium of the S1 or F1 class (F1 acc. to DIN 53438 and S1 acc. to BS152-01) in order to protect drivers and passengers against potential danger.

## QUALITY VERIFIED BY EXPERIENCE

The experience in manufacturing original components, selecting the best materials and modern manufacturing processes guarantee that the design and properties of each filter by FILTRON meet the requirements of vehicle manufacturers.

## INTERESTING FACTS:

### THE TRAGIC CONSEQUENCES OF THROWING AWAY A CIGARETTE

The tragic accident of a Belgian lorry that took place in the Mont Blanc Tunnel in 1999 is just one example that demonstrates the significance of preventing the spread of fire in all air filters. Somebody sitting in a vehicle driving directly in front of a lorry threw a lit cigarette out the car window. The lit cigarette was the primary cause of the fire, which started first inside the filter of the lorry, and then the vehicle itself. The fire claimed the lives of 39 people. This tragic event had a tremendous impact on introduction of filtration medium resistant to spreading fire in air filter manufacturing processes.

### PAY ATTENTION TO DETAILS

When changing a filter, pay particular attention to the housing in which the filter is inserted. The housing should have no cracks, and the clips and screws applied in it should have no defects. It is also important to inspect the plastic pipes that supply air to the suction manifold. Should any of the connections or housing components show signs of leakage, the filter will not operate correctly.

### ALWAYS REPLACE THE FILTER

If an air filter is worn, it must always be replaced with a new filter. Any mechanical cleaning processes or the use of compressed air are not effective, as they result in irreversible damaging of the delicate fibres of the filtration material and reduce the efficiency of filtration drastically.

## THE GLOBAL RANGE OF OPERATIONS

Today, we manufacture over 90 million filters a year, and our products are delivered to more than 80 countries around the world. Our filters are installed by hundreds of thousands of mechanics who trust our quality.

# CODIFICATION OF FILTRON FILTERS

## FUEL FILTERS ●

<b>PP</b>	spin-on fuel filter
<b>PE</b>	ECO fuel filter element (with plastic end caps)
<b>PM</b>	fuel filter element (with metal end caps)
<b>PW</b>	fuel filter element with a non-woven filtration medium
<b>PK</b>	water separator / pre-filter
<b>PS</b>	fuel filter element in plastic housing

## AIR FILTERS ●

<b>AP</b>	panel air filter
<b>AR</b>	round air filter
<b>AK</b>	air filter with plastic components
<b>AD</b>	air dryer
<b>AE</b>	ellipse air filter
<b>AM</b>	air filter with metal end caps (with filter safety feature if the number of the part ends with the letter 'W')

## OIL FILTERS ●

<b>OP</b>	spin-on oil filter
<b>OE</b>	ECO oil filter element (with plastic end caps)
<b>OM</b>	oil filter element (with metal end caps) (hydraulic filter if the number of the part ends with the letter 'H')
<b>OT</b>	transmission oil filter
<b>OR</b>	rotor oil filter
<b>OC</b>	canister oil filter

## SPECIAL FILTERS ●

<b>SE</b>	separator
<b>CW</b>	coolant filter
<b>UE</b>	urea filter

## CABIN FILTERS ●

<b>K</b>	standard cabin filter
<b>K...A</b>	activated carbon cabin filter (if the number of the part ends with the letter 'A')
<b>K...-3X</b>	The number before the letter 'X' shows the quantity of filters per unit. Example: K1105A-2X filter contains two activated carbon filters.

# FILTRON®

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