

WIX[®]
FILTERS

HEAVY DUTY





WIX FILTERS – A RELIABLE FILTER BRAND



For almost 80 years, the company founded by Jack Wicks and Paul Crawshaw has been setting the highest standards in filtration technology. WIX Filters, which are available in 80 countries, are now synonymous with the highest level of quality.

Today, we operate in 11 countries on 5 continents. Although our coverage is global, we pay special attention to local markets, providing them with a high level of assistance and optimised logistics solutions.

WIX Filters is known for its precision and attention to detail in the production of filters. We are confident of the reliability of our procedures and designs, which is why we grant a warranty for all our filters, regardless of the country where they are used.

We employ people from all over the world who are engaged and passionate about what they do. Thanks to them, we can manufacture over 210 million filters a year. We regularly upgrade our production lines and improve our filters.

We simply love engines.



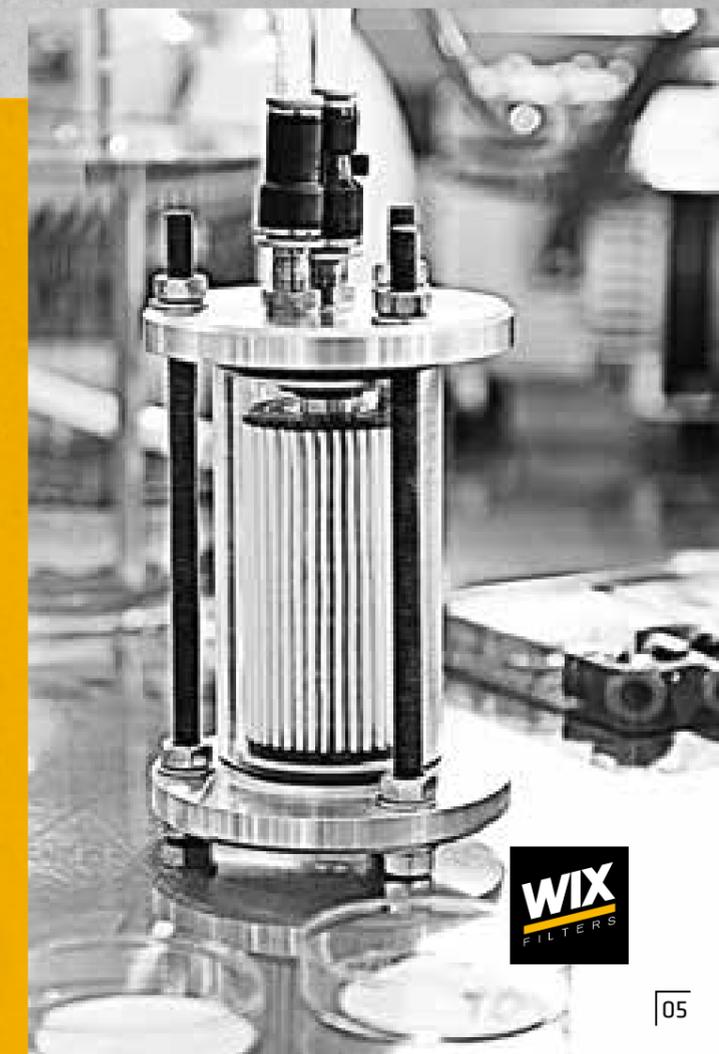
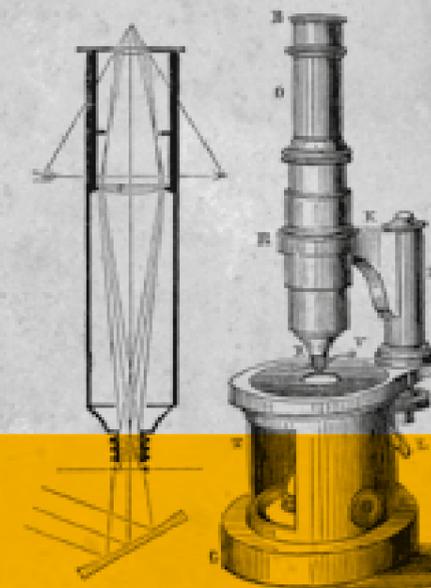


OVER 4000 TESTS PERFORMED EVERY YEAR

Our company is based on competent and experienced specialists. **In 1954, we patented** and launched the **spin-on filter**, which is the most popular type of oil filter. Since then, we have been regularly implementing innovative and practical solutions which increase our filters' quality and comfort of use.

We pay great attention to quality. Our laboratory is operated by some of the best experts in the market. Materials, semi-products and finished filters are tested using state-of-the-art laboratory equipment. The laboratory uses 60 testing methods, which have all been described in our in-house instructions. We conduct hundreds of tests in accordance with international standards (ISO 9001:2008; ISO/TS 16949:2009) and our clients' stringent requirements.

The same production lines are used to manufacture both filters installed in brand new equipment and filters supplied to retail stores and equipment repair shops. The precision of our production processes has been verified by leading automotive companies and independent certification firms.





2259
TYPES OF
FILTERS FOR
CONSTRUCTION
EQUIPMENT



1319
TYPES OF
FILTERS FOR
AGRICULTURAL
EQUIPMENT



721
TYPES OF
FILTERS FOR
HEAVY GOODS
VEHICLES



358
TYPES OF
FILTERS FOR
SHIPS

WE OFFER ALL TYPES OF HEAVY DUTY FILTERS

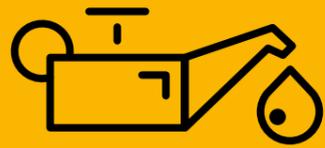
We offer all types of filters for special purpose machines used in heavy industry. Our products are extremely durable and resistant to difficult working conditions. They are suitable for commercial vehicles, buses, ships, construction, as well as agricultural and mining machines.

Our filters are used by leading manufacturers of special purpose heavy equipment: **CAT, CASE NEW HOLLAND (CNH), JOHN DEERE, KOMATSU, AGCO GROUP, DEUTZ, VOLVO, MAN, DAF, RENAULT, MERCEDES, SCANIA, IVECO, YANMAR DIESEL, HITACHI, and LIEBHERR.**

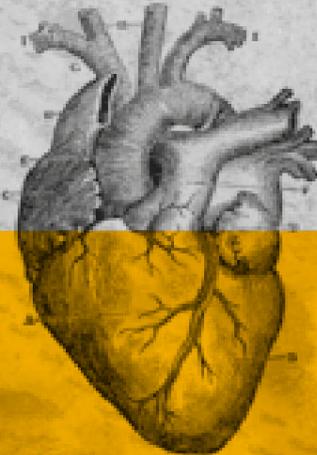


01

OIL FILTERS



ENSURING FAILURE-FREE PERFORMANCE OF THE ENGINE



Oil lubrication is essential for the protection of every engine.

The purpose of the oil filter in a lubrication system is to capture and stop all impurities which might penetrate into the engine, such as dust, metal filings, and soot. These impurities are formed as a result of the abrasive wear of the interacting parts of the engine. They can also reach the engine together with the oil during maintenance or when the oil is improperly stored. WIX Filters effectively protect your engine against premature wear and breakdown.

STANDARD | ECOLAST | EXTRA EFFICIENCY | EXTENDED DRAIN



01

OIL
FILTERS



WIX FILTERS HD PRECISION

WIX Filters oil filters are capable of stopping impurities as small as 5-15 microns (the diameter of a human hair is about 90 microns)!



KEY FEATURES OF OUR OIL FILTERS:

High-tech filtration medium – selected to ensure the highest effectiveness of filters in stopping the ingress of impurities while helping to maintain a long service life of the filter and optimised oil flow.

Double rolled connections – a technology used to connect the cover and the filter canister, which guarantees absolute tightness within a very wide static and dynamic pressure range.

Highly resistant filter canister – spin-on canisters withstand static pressure increases even above 21 bars. They are also vibration-resistant and - thanks to their zinc plating and powder coating - resistant to corrosion. These canisters maintain their shape and properties even under the most severe conditions.

Crush-resistant core – WIX Filters oil filters are equipped with repressed perforated spiral cores which ensure maximum durability and optimised oil flow. WIX Filters filter cores are capable of withstanding high pressure differences which can crush standard cores of filters supplied by other brands.

Coil/cylindrical/compression spring – the ends of the spring used in WIX Filters are oriented inwards, which means they do not come into contact with the filter element and the canister and therefore do not weaken them. The spring closely adheres to the surface and will not damage it even in longer periods of use. The filter element is closely pressed down to the cover, preventing any leakage.

FILTERS SHOULD BE USED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS!

Using filters with the same thread but assigned to a different model of a machine or equipment can result in a breakdown.

This occurs e.g. as a result of the lack of lubrication, ineffective filtration, or improper opening pressure of the bypass valve.

SPECIAL TYPES OF OIL FILTERS

XD OIL FILTER – EXTENDED DRAIN:

This filter combines the top quality standards used for the production of spin-on filters with our patented Spin-Flow® technology, which guarantees extraordinary effectiveness in the reduction of oil flow turbulences, making it possible to thoroughly mix the oil, distribute it on the clean side of the filter, and direct heavy impurities to the bottom of the filter canister. The most important features of the XD oil filter are:

- **Maximum absorption efficiency** – stopping as many impurities as possible.
- **Various filtration media** – they are selected according to their purpose in the filtration process (primary flow and bypass).
- **Spinner** – designed for mixing the purified oil through the full-flow element and the bypass.

ECOLAST OIL FILTER:

Apart from dust, soot, and metal filings, it neutralises acids, thereby extending the oil's usability period. Moreover, it slows down the oil's biodegradation process. This means it does not have to be changed as often and in turn, it contributes significantly to protecting the environment. You will notice that the number of visits to your repair shop will fall, thereby reducing the amount of downtime and increasing your equipment's availability. ECOLast filters are designed for all types of oil (mineral and synthetic).

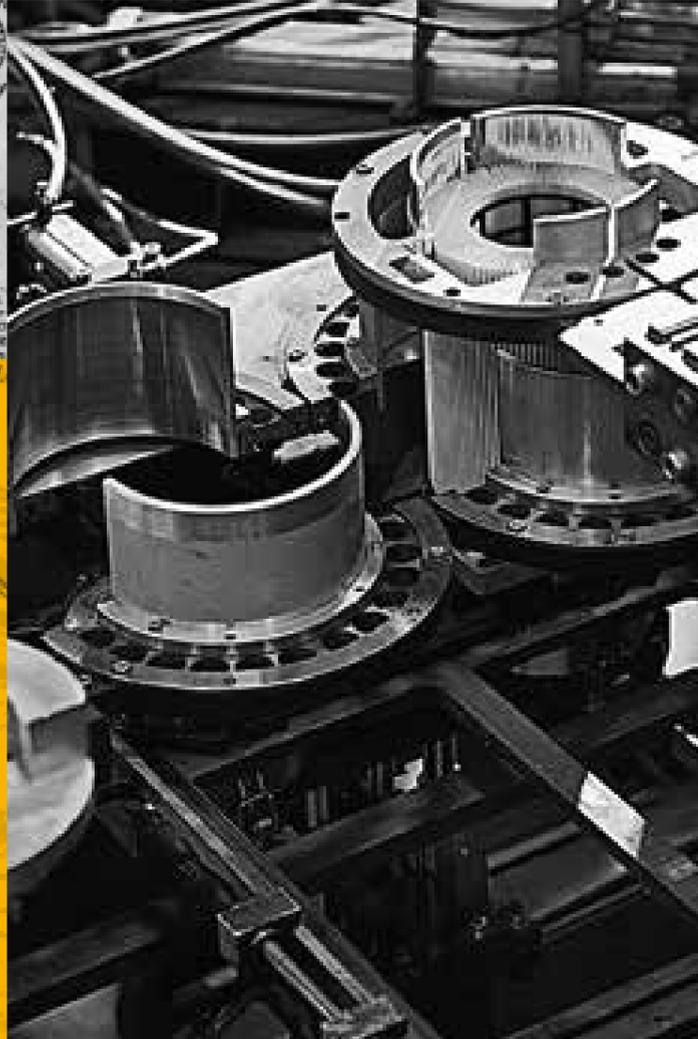
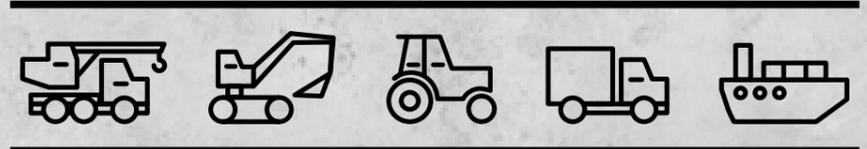
XE OIL FILTERS:

Extra efficiency with a highly absorptive and precise filtration medium. The core is coated with a corrosion-resistant layer.



02 | FUEL FILTERS | 

**GUARANTEE
OF PURE
FUEL**



**An engine needs pure fuel to live. Without water.
Without impurities.**

All diesel oils are vulnerable to water and therefore, regardless of the diesel engine's power, the fuel system should always include a **fuel filter with water separation**. The effective removal of water significantly extends the service life of a Diesel engine and increases its operational efficiency. WIX Filters are manufactured with the utmost care to effectively and accurately remove all impurities (solid impurities, rust, algae, sludge, and water) which may reduce the engine's performance.



02 | FUEL FILTERS |

WIX FILTERS HD PRECISION

Fuel filters are the most accurate of all fluid filters. They are capable of stopping impurities as small as 2 microns (the diameter of a human hair is about 90 microns)!

KEY FEATURES OF OUR FUEL FILTERS:

High quality of filtration media – resistant to the aggressive impact of chemical compounds contained in the fuel.

Enhanced design of the filter cover – the thickness of the structure elements has been optimised to match operating loads.

Double rolling – a technology employed to strengthen the tightness of the connection between the cover and the canister.

Resistance – highly resistant cores and filter canister.

Springs of adequate strength – used to ensure tightness between the inner elements of the filter without damaging the canister.

Durable seals – they ensure the tightness of the filter and its resistance to aggressive fuel components.

In addition to fuel filters, we also manufacture **fuel filter components**.

QUICK VENT®

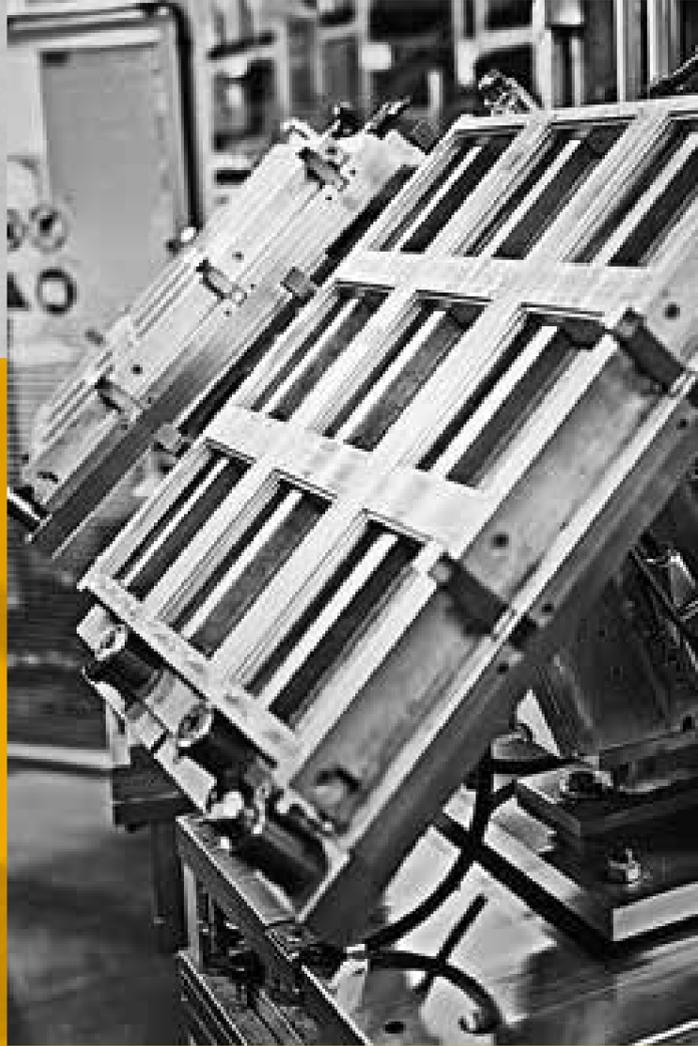
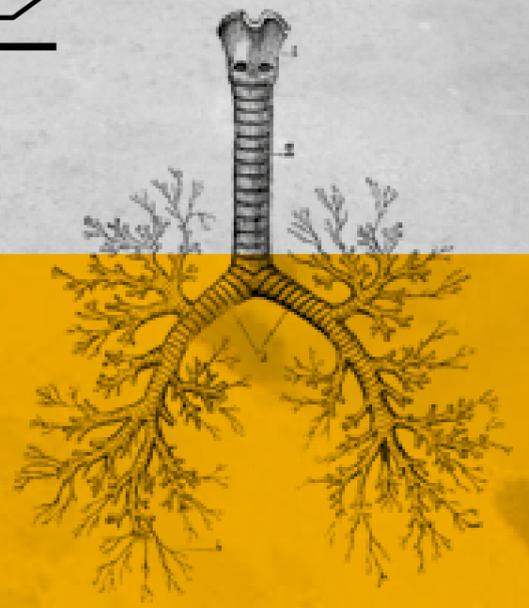
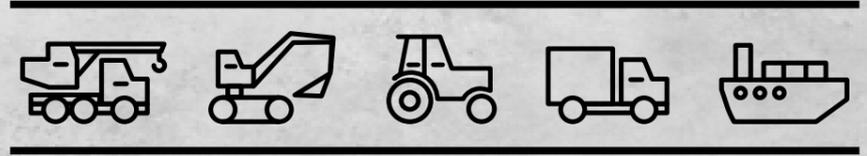
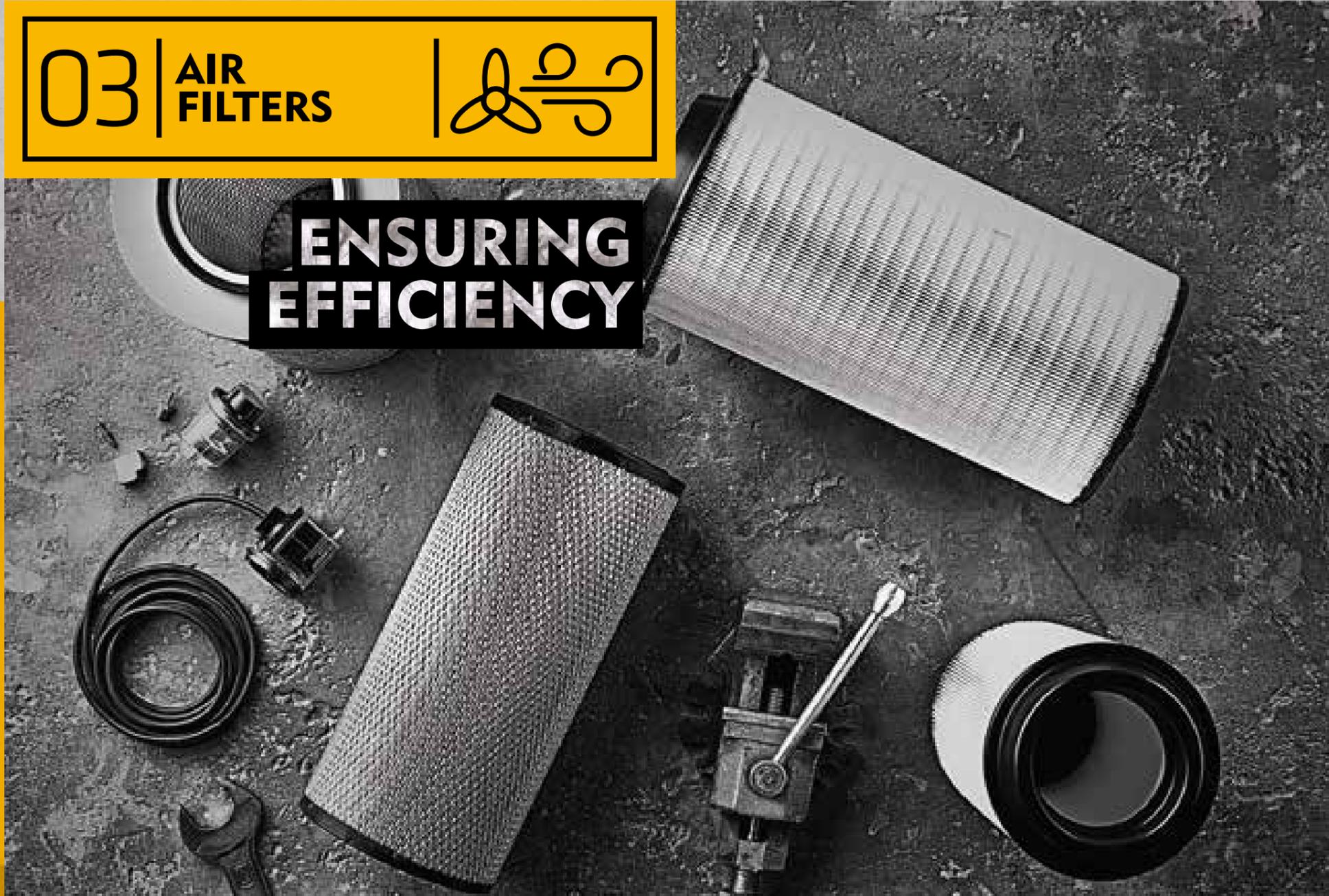
Our patented fuel drain cap design makes it possible to drain water which accumulates in filters. Quick Vent® will let you avoid the risk of fuel line air lock and thus protect the system from corrosion. Quick Vent® technology saves time whereas conventional solutions require bleeding the system. This patent has been implemented in many popular applications of heavy equipment.

WATER ABSORBERS AND QUALITY TESTS

We protect fuel starting from the tank storage stage. We offer a set of tests for determining the quality of gasoline and diesel oil, as well as a group of **water absorbers**, which are products designed to maintain the fuel's properties by binding water.



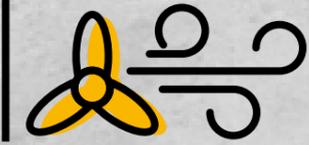
ENSURING EFFICIENCY



**Ensuring efficiency:
absolute protection
against engine seizure.**

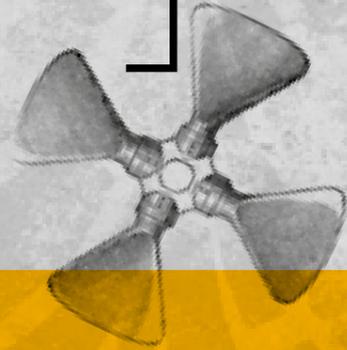
Standard heavy equipment operates under very intense conditions, sucking in significant amounts of dust and impurities from the air during operation each day. To extend the engine's service life, it is necessary to use absorptive filters. WIX Filters ensure the best engine protection.

03 | AIR FILTERS



WIX FILTERS HD PRECISION

WIX Filters air filters stop impurities ranging from 10 to 20 microns.



KEY FEATURES OF OUR AIR FILTERS:

Pleats with „skip-a-pleat” media stabilisation – this technology ensures that the pleats are uniformly distributed which in turn guarantees the proper distribution of air flow all over the filter surface. The pleats do not get pressed together and therefore do not obstruct air flow, which increases the filter’s effectiveness and absorbability.

Pleat stabilising fingers – laid out with adequate spacing, they prevent the pleats from collapsing and the loss of stability.

High-quality filtration materials – selected specifically for the engine, they stop impurities with an effectiveness level of approx. 99.9%, thereby maximising the filter’s service life.

Silicone seals – these are the most frequently used seals in WIX Filters. They are resistant to outdoor conditions (temperature and vibrations), are resistant to wear and tear, do not become hard over time and, most importantly, they ensure proper tightness by means of elastic deflection and not crushing.

Metal bottom caps with a handle – they facilitate the installation and removal of filters and are only used in selected filters.

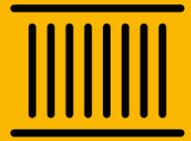
Filtration media – WIX Filters air filters are made of special materials which resist flames, are resistant to humidity, and include S1 or F1 fire-retardant media (F1 acc. DIN 53438, S1 acc. BS152-01).

AIR FLOW INDICATOR

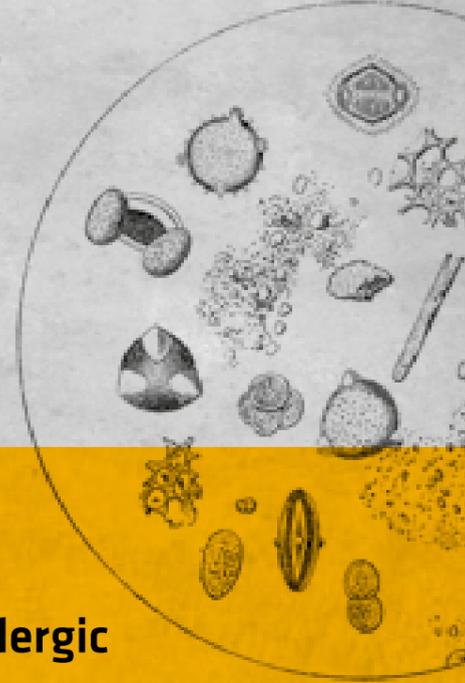
Severe conditions (such as humidity, contaminated environment, polluted air) in which the equipment is operated may reduce the air filter’s efficiency. The air flow indicator is used to determine whether the filter is working correctly or must be replaced. It ensures the optimised maintenance of air filters.

We also manufacture filter protectors which shield the system while the main filter is being replaced or when it has broken down.



04 | CABIN AIR FILTERS | 

HEALTHY AND COMFORTABLE DRIVING

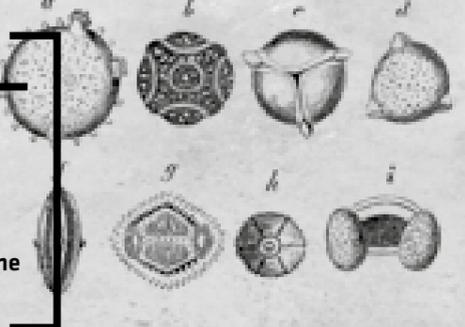


Polluted air in the cabin intensifies allergic symptoms.

The cabin air filter (also known as the anti-pollen filter) purifies the air passing through the air conditioning or ventilation system and into the driver's or operator's cabin. Polluted air may worsen allergy symptoms, causing hay fever, tearing, and tiredness. It can also affect the driver's reaction time which may lead to dangerous situations.

04 | CABIN AIR FILTERS |

WIX FILTERS HD PRECISION



Thanks to their electrostatic charge, our cabin air filters are able to stop solid particles smaller than 1 micron (dust, soot, pollen grains), that is, smaller than the distance between the fibres in the filter paper.

KEY FEATURES OF OUR CABIN AIR FILTERS:

- Health protection** – the driver and the passengers are not exposed to inhaling polluted air.
- MICROBAN system** – removes nearly 100% of bacteria, viruses and allergens, and prevents the formation of mould and mildew, which are dangerous to the health of adults and children.
- Properly fitted seals** – ensure filtration of the entire air.
- Easy to install** – the filter perfectly matches the application and is supplied with a manual which includes photographs.

STANDARD FILTERS WITH THE MICROBAN SYSTEM

- Our cabin air filters provide essential and reliable protection. Their main features include:
- Fibres resistant to water absorption** – they do not change their shape in humid conditions.
 - Disinfecting properties** – our filters efficiently limit the growth of micro-organisms and intensify the decomposition of organic impurities during the entire operation period.

FILTERS WITH ACTIVATED CARBON AND THE MICROBAN SYSTEM

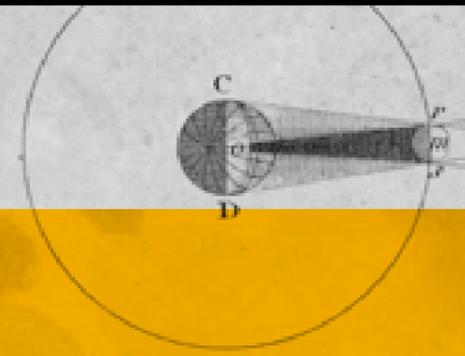
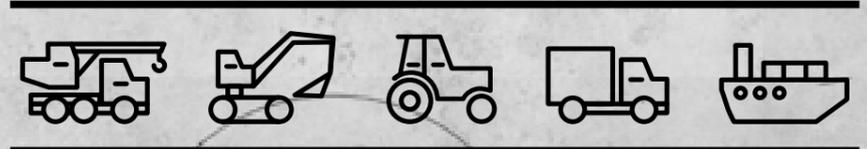
- Our special group of cabin air filters containing activated carbon guarantees complete protection of the driver's and the passengers' health. The characteristic features of these filters include:
- Filtration barrier** – consists of three layers: two external layers made of synthetic cloth, capable of stopping solid particles and aerosols with the efficiency of standard cabin air filters, and an additional third layer made of activated carbon granules located inside and removing harmful and unpleasant odours from the air.
 - Adsorption process** – the activated carbon attracts particles of harmful gases. One gram of activated carbon is capable of affecting an area of 900 m², therefore the amount of neutralised gases is very high. The amount of activated carbon contained in WIX Filters makes it possible to eliminate approx. 90% of harmful chemical compounds, such as ozone, hydrocarbons, sulphur, and nitrogen compounds during the filter's entire service life.
 - Removal of unpleasant odours** – the filter's activated carbon eliminates harmful gases. It also allows neutralises unpleasant odours which can make travelling uncomfortable.



05 | FILTERS AND SUPPLEMENTARY PRODUCTS



READY FOR ANY KIND OF WORK



**You need water to live.
Your equipment does not.**

Water is one of the major hazards decreasing the performance of vehicles. That is why WIX Filters also offers special-purpose solutions and supplementary products for vehicles and machines which protect the system from water so they are not exposed to deposits, algae, or corrosion.



Test kits for checking fuel quality

Water is undesired in fuel. Filters and other absorption products will help you get rid of it, but how can you determine whether it is present? The solution is to carry out tests checking for water content, the fuel quality, and the amount of impurities.

AIR DRYERS

Air dryers are the simplest and the most cost-effective way to improve the efficiency of vehicles and machines in many industries. The highly hygroscopic granules thoroughly eliminate humidity from the air, while additionally removing any solid impurities (such as dust, soot, wood dust, cement, ash, various kinds of fibres etc.)

Aquacheck Filters

When air is compressed, its humidity increases. Aquacheck prevents water produced this way and water vapour from penetrating into the fuel line. The ability to capture water vapour is particularly important because most solutions available on the market do not have this feature.

Unlike competitive solutions, the Aquacheck filter uses its filtration medium to bind water on a molecular level which prevents it from escaping even when the filter reaches full saturation. The polymer medium filters 0.5 micron particles and less while stopping 28 times more water than its own weight.

Desiccant breather with gel granulate

This type uses an enhanced kind of hygroscopic granulate which absorbs up to 95% of the humidity entering the air system and impurities as small as 2 microns.

Tank Snake

Undesired water in the fuel creates an environment which favours the growth of algae and bacteria. It causes the formation of rust in fuel tanks and the formation and build-up of undesired deposits. These changes make it difficult to start the engine, reduce its power, and even lead to permanent damage.

WIX Filters water absorbers, which are adjusted to sizes of the tanks, effectively and accurately remove water, and in the case of Diesel engines - also rust particles.

Coolant filters

On average, as much as 53% of the premature damage of the engine exposed to extreme loads in heavy operating conditions is directly related to the ineffective operation of the cooling system. Therefore, coolant filters are very important in the cooling systems of big engines.

WIX Filters coolant filters ensure proper heat transfer in the coolant system. By filtering impurities such as rust or sand, they minimise the risk of corrosion and deposits. They contain a combination of chemical agents which protect the cooling system's metal surfaces against corrosion and erosion caused by cavitation.



Hydraulic filters

Hydraulic systems operate in difficult working conditions of high pressure and variable flows of fluid. The most frequent cause of their damage is impurities in the form of solid particles which are present in hydraulic fluids. These particles act abrasively, running clearance, increase leakages, and reduce effectiveness and mechanical velocities.

The increase of the operational reliability of hydraulic systems largely depends on the filters. WIX Filters offers a very broad range of hydraulic filters, which includes over 8000 different types of filters removing impurities on specific levels, thus protect hydraulic parts such as pumps, valves, cylinders etc.

Transmission oil filters

The filters in this group protect the gear box from impurities which are present in the transmission oil. A proper filtration process extends the service life of the gear box and correct lubrication reduces the wear of its parts.



MANN+HUMMEL
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