

All Makes. All Filters.



A Complete Filtration Range for Asian
and European Makes and Models



Right First Time®

www.blue-print.com

bilsteingroup®

Why Blue Print?



Extensive Range - All-makes range of more than 2,750 filtration components, covering over 90% of all passenger cars and LCVs on Europe's roads.*



Highest Quality - all Blue Print filters are designed and manufactured to meet OE standards and undergo a stringent 3-stage quality control process.



Fast to Market Philosophy - constant research and development of the filtration range to guarantee that we will provide you with the right filters - for the right applications - at the right time!



Research Excellence - by only using the official manufacturer Electronic Parts Catalogues we can ensure ultimate levels of accuracy - making the selection of the correct filter first time, every time.



Fit & Forget - with Blue Print filters you will have total peace of mind. Safeguarded by our 3-Year Manufacturer Guarantee, all products are manufactured to offer the highest degree of installation safety and durability.

Confidence that filters will fit Right First Time®

*launched from the year 2000 onwards

Quality From the Start

Blue Print rests its reputation firmly on the quality of the products provided to the automotive aftermarket.

Every Blue Print part is submitted to intensive and regular quality checking and filters are no exception.

Every Blue Print filter has been designed and manufactured to meet Original Equipment standards and regular destructive and non-destructive testing ensures a continued supply of quality products.

You can be assured that all Blue Print filters are manufactured to the highest standards and can be fitted to any vehicle without invalidating the vehicle manufacturer's warranty.



Scan the QR code to watch the Blue Print animated video about the filtration systems



The Blue Print Manufacturer Guarantee

Blue Print exclusively offers its customers replacement parts in OE matching quality. As a specialist with manufacturing competence, we only provide products with a high degree of installation safety and durability.

In order to underline our high product quality standards, we are providing a **3 Year Manufacturer Guarantee** for all of our replacement parts - exceeding the statutory warranty. This is our commitment to quality.

This is a real added value for everyone who trusts Blue Print products - from wholesalers and workshops to car and commercial vehicle drivers.

All details regarding the Blue Print manufacturer guarantee can be found here: www.blue-print.com/3

Oil Filters

Ensuring maximum protection for the engine



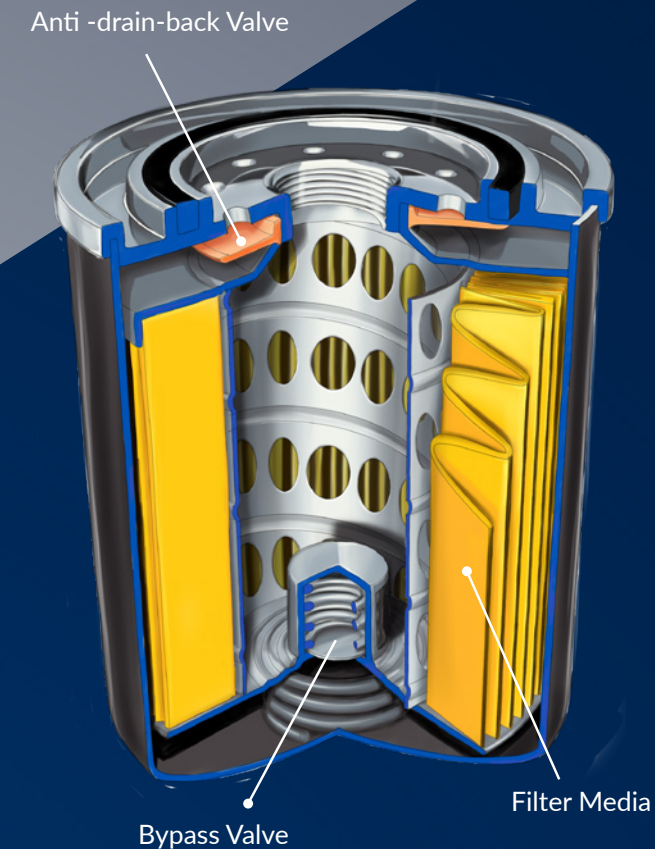
Oil – Only as Good as the Filter Looking After it...

Oil is the life blood of an engine, with engines relying on clean oil circulating under pressure to lubricate and prevent metal-to-metal contact of bearings and cam gear. The oil also aids cooling by carrying heat away from the pistons, cylinders and turbochargers.

Most vehicle manufacturers make oil change interval recommendations based on 'normal' driving conditions. However, frequent cold starts and short journeys mean the oil doesn't reach the temperatures required for combustion residue contaminants such as moisture and unburnt fuel to evaporate, which significantly reduces oil quality and necessitates more frequent changes.

Direct injection petrol engines also produce particulates which get into the oil and form deposits on vital engine components, so oil quality and filtration is very important.

Oil relies on the filter to trap the microscopic wear particles and contaminants circulating within the oil and prevent them from becoming embedded into the bearing surfaces.



Filter Media/Paper

The filter media, or paper, has arguably the most important job of a filter. It must have the capacity and durability to trap and hold the contaminants whilst maintaining its integrity between the extended service intervals of a modern motor vehicle.

Anti-drain-back Valve

Built into spin-on type filters is a silicone diaphragm which allows the oil to pass through the filter in one direction only. This prevents oil draining away from the filter and siphoning back through the oil pump when the engine is switched off, thus ensuring that oil pressure rises quickly on start-up and minimising engine wear.

Bypass Valve

The bypass valve has two jobs to do. It protects the filter media on start-up and it allows unfiltered oil to bypass the filter should the media become clogged, protecting the engine against starvation.

The pressure at which the bypass valve opens is critical. Too high a pressure and the load on the filter media could cause it to collapse or starve the engine of oil on start-up; too low and the bypass valve will open before the filter reaches its capacity during its service life. This would mean that no filtering takes place and engine wear rapidly increases.

Oil Filter Types



Spin-on canister



Eco / Cartridge

Original Equipment Quality

Blue Print oil filters are manufactured using premium quality filter media and materials to ensure maximum engine protection and the long term performance required by the extended service intervals of a modern motor vehicle.

Always ensure that the oil and oil filters are replaced at vehicle manufacturer recommended intervals and that the oil is of the correct grade and specification.

- All Blue Print oil filters are manufactured with premium quality filter media with the efficiency and capacity to protect between extended service intervals.

- Correct performance under cold-start conditions allowing maximum lubrication and preventing metal-to-metal contact of bearings and cam gear.
- High quality anti-drain back valve to prevent oil siphoning back to the oil pump, ensuring rapid oil pressure on cold starts.
- Accurately engineered bypass valve to ensure oil delivery on start-up and in the event of a filter blockage.
- Protects vital engine components from wear particles including dust and soot from combustion for an extended engine life.

Air Filters

Strength and capacity for outstanding performance



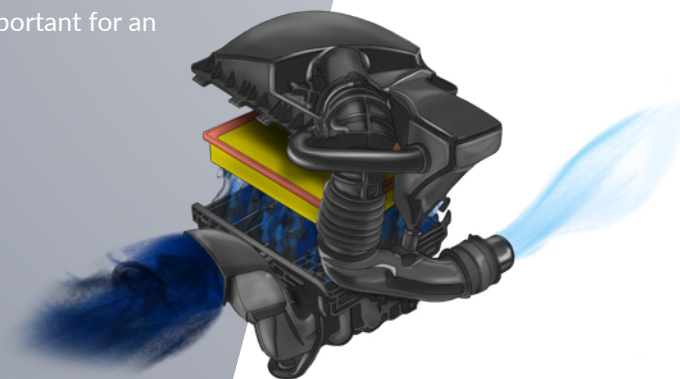
Air – Millions of Litres to Filter

Internal combustion engines consume a vast amount of air. The average petrol engine consumes air at the rate of 10,000 litres for every litre of fuel used.

Or to put this into context...

An air filter in a 2012 Nissan Qashqai 1.6i should be replaced every 2 years or 60,000km. In 60,000km the engine will have consumed in the region of 4,000 litres of petrol and 40,000,000 litres of air!

A diesel engine will consume even more air to the quantity of fuel used, and with the adoption of engine cubic capacity downsizing combined with turbo charging, engine air consumption and filtration has become even more important for an efficient combustion.



New Filter



Dirty Filter

The Nitty-gritty

These airborne contaminants can vary from visible highly abrasive granules of grit and sand, to microscopic soot particles, tyre rubber, silica, brake dust, pollen and moisture. In hard surface road conditions the average dust content in the air is 1mg/m³, so an air filter will have trapped around 10 grams of contaminants during its service life. In dusty road conditions it would increase significantly, by as much as 40 times.

If contaminants were able to bypass an air filter it would result in increased wear of pistons, rings, cylinder walls and valves. Additionally, any dirt particles that enter the combustion chamber can work their way into the crankcase, contaminating the oil and reducing the service-life of the oil filter.

Two Sides to Every Filter

During normal use the air filter media becomes loaded with contaminants. As it increases, so does the difference in pressure between the two sides of the air filter, dramatically so on engines with forced-air induction, and this creates an extremely strong suction on the clean side of the filter. The pressure differential, allied to the powerful pressure pulse waves produced by an engine, can become so great that a sub-standard air filter may collapse. The consequences of a collapsed filter can vary from an air leak that allows dirt to bypass the filter, to immediate and serious engine damage from ingesting pieces of contaminated filter.

Regular Servicing

An air filter should be replaced regularly as part of scheduled routine maintenance, as per each vehicle manufacturer's recommendations. In high dust conditions this should be more frequent.

Driving with a heavily loaded filter can cause issues such as excessive fuel consumption, reduced power and restricted performance. It will also cause incorrect air-fuel mixture resulting in increased emissions and soot particles (diesels) which will lead to further problems on diesel particulate filter (DPF) equipped vehicles.



In hard-road conditions, this is the least amount of contamination an air filter will capture during its service life.

And there's more...

The air intake system of an internal combustion engine has evolved a lot over time; from being a simple housing for the air filter, to an integral part of the vehicle's emissions system and noise, vibration and harshness strategy (NVH). A poorly constructed or ill-fitting filter can not only increase the risk of accelerated wear to an engine, but also cause extra induction noise, resonance and vibrations.

- Blue Print air filters are manufactured with high-quality filter media to give the necessary protection and durability required for a long service life, with exceptional contaminant separation and resistance to moisture and humidity.

- Regular quality control checks guarantee a precision construction for 100% reliability and perfect fit, preventing unfiltered air from entering the air intake system and causing engine or component damage.
- The latest high-tech construction methods give Blue Print filters the strength and rigidity required to withstand the pressures demanded from modern turbo and supercharged engines.
- Fitting matching OE quality filters ensures that the engine's performance, fuel economy and emissions remain as originally designed.

Fuel Filters

Keeping the clean fuel flowing



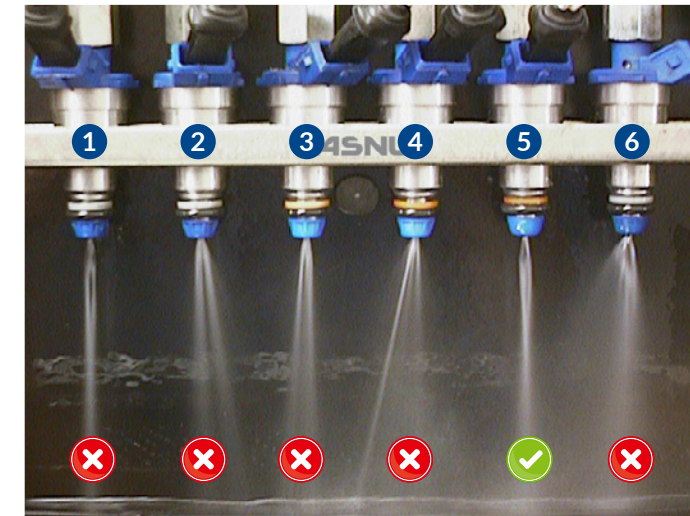
Protecting Precision Engineered Components

Advancements in filter technology are a direct response to changes in engine technology. Modern petrol and diesel fuel systems contain the most accurately engineered components in an engine, manufactured to incredible tolerances of less than two microns and put under enormous loads. Fuel not only burns to make power, but in the case of a Diesel engine it also lubricates moving parts in the high pressure fuel pump and injectors. Therefore the fuel has to be clean.

Impurities in the Fuel

Unfortunately impurities from service station refills and corrosion in metal fuel tanks are ever-present and can ruin a modern fuel system. Even the smallest particles can cause damage to an injector pintle causing spray pattern distortion which in turn affects combustion efficiency, fuel consumption, idle stability and emissions.

Good Flow: 5 Fair Flow: 1 Bad Flow: 2,3,4,6



Water Contamination and Separation

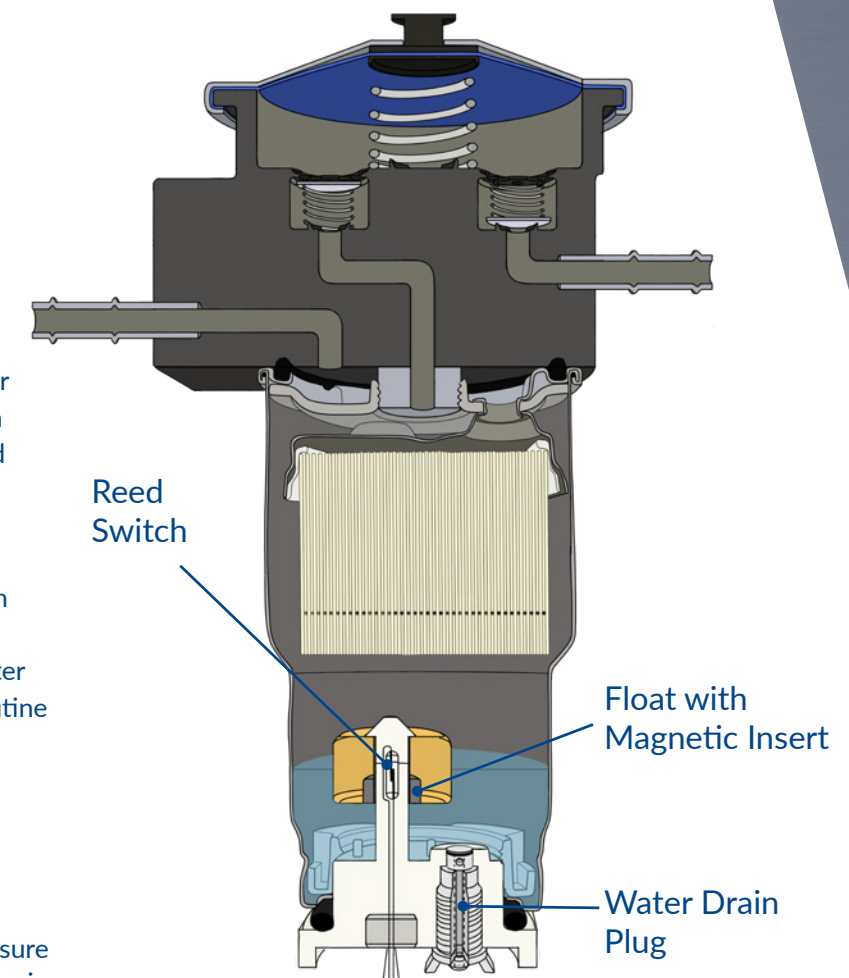
Whilst both petrol and diesel fuels need thorough filtering against abrasive contaminants, diesel has additional filtration requirements.

Water molecules found in diesel fuel systems are a problem. Condensation takes place in the tank and the fuel can hold molecules of water in suspension or in emulsion. Without the correct filtration, water can corrode the components that make up the pump and injectors in the fuel system.

Blue Print diesel fuel filters use a hydrophobic coalescing material which allows fuel to pass through but retains the water. The separated water forms droplets that collect at the bottom of the filter canister where they can be drained periodically as part of routine maintenance.

Original Equipment Quality

Blue Print's range of petrol and diesel fuel filters are manufactured to original equipment standards to ensure the correct fuel flow and efficiency whilst offering maximum engine and fuel system protection.



Cabin Filters

For your passive driving safety



A Breath of Fresh Air

The first cabin filter was fitted to a passenger car in the 1940s, although it wasn't until the 1980s that they started to become fitted initially to prestige cars and then to mass-produced vehicles. The cabin filter is often overlooked during regular servicing as not everyone is aware of the health benefits it can provide. Whilst it has no effect on a vehicle's engine or reliability, it plays an important role in protecting the driver and occupants from potentially harmful air pollution.

Air pollution is a fact of life. If you drive on congested roads or sit in traffic, without the cabin filter you will breathe air that contains high concentrations of dust, soot, pollen, bacteria, viruses and noxious exhaust gases which ultimately damage your health and can cause serious allergic reactions to one-in-five of people. The cabin filter cleanses the air entering the passenger compartment and prevents those pollutants from being inhaled by the vehicle's occupants. It has a finite capacity so a regular/annual replacement is necessary.

Factory Fitted Quality

A great deal of thought goes into the development of cabin filters; much of this has been in the light of information on the effects of air pollution on human health. The cabin filter is much more than a device that keeps insects, leaves and dirt out of the HVAC system and it can only do its job if replaced on a regular basis.

Every Blue Print cabin filter is manufactured to the same exacting standards to guarantee a perfect fit and uses the same technology as the original equipment filter to ensure maximum passenger comfort.



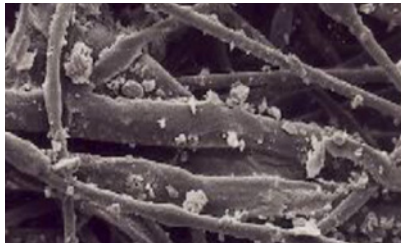
Did you know?

During an average sneeze you will close your eyes for about one second. In that one second at 110km/h you will have travelled blind for over 30 meters!

Technology

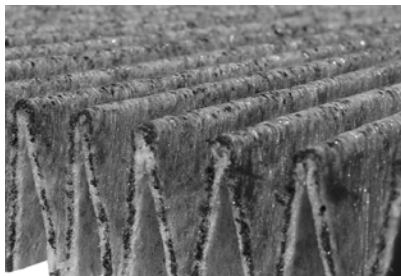
Blue Print's cabin filters are designed to filter out particles to match the factory fitted specification and uses a combination of some or all of the following technologies

to achieve this. The filter media is made from a non-woven synthetic fibre which uses advanced melt blown technology to give it form and strength.



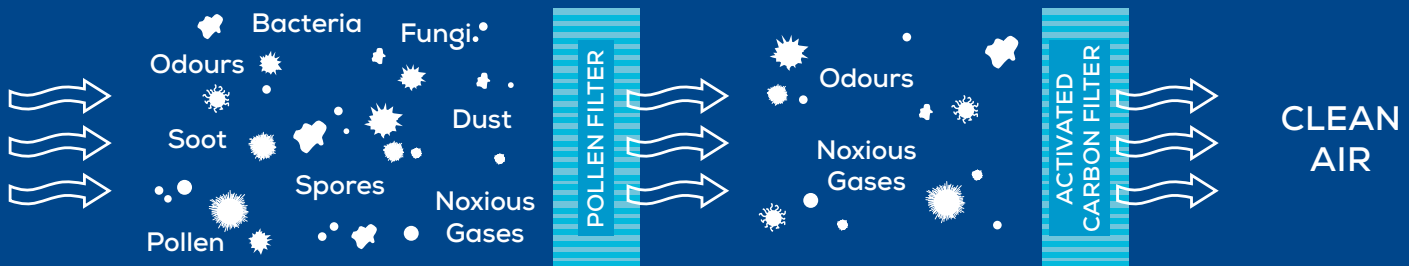
Electrostatics

As air passes over the filter fibres, an electro-static charge is generated. The charge attracts particles as small as 0.3 microns, including bacteria and diesel soot nanoparticles. Particles between 0.3 microns and 0.9 microns pose a great risk to our health as these particles are too small for the tiny hairs that line our noses to filter, but large enough that they cannot be exhaled.



Activated Carbon

Activated carbon cabin filters take filtration to the next level. Tiny particles of carbonised and crushed coconut shells are embedded in the filter. These activated carbon particles contain channels that trap noxious gases such as Nitrogen Dioxide (NOx) which is a poisonous gas emitted by petrol and diesel engines. One gram of activated carbon has a surface area of over 1,000 square metres and is the main active ingredient in gas masks. The carbon eventually becomes loaded during the service life of the filter.



Care When Fitting

Some cabin filters can be difficult to install due to poor access, often down to lack of space or obstructions because of LHD/RHD differences. It is important to fit the cabin filter correctly as a poorly installed 'scrunched-up' filter will serve very little purpose, with air able to pass by unfiltered.



Cabin Filter Features & Benefits

- Reduces occupant's exposure to airborne contaminants including dust, pollen, insects and other pollutants such as diesel soot, tyre and brake dust and noxious gases that are hazardous to health.
- Following OE specification, activated carbon filters attract and trap the smallest of particles such as NOx and hydrogen sulphide. This highly efficient filtration promotes 'Passive driving safety' which is especially important during city driving, traffic jams or in a tunnel.
- Creates a more comfortable environment for those with asthma or allergies such as hay fever by preventing allergens such as birch pollen, fungal spores and formaldehyde from entering the passenger compartment.
- A clean filter allows more highly-filtered air into the cabin, slowing the formation of a film of dirt on the inside of the windscreen and allowing for faster demisting.

Automatic Transmission Filters

Protection for optimum gearshift quality



Smooth and Efficient

Automatic transmissions are controlled by various electronic, mechanical and hydraulic components to optimise gearshift quality and feel.

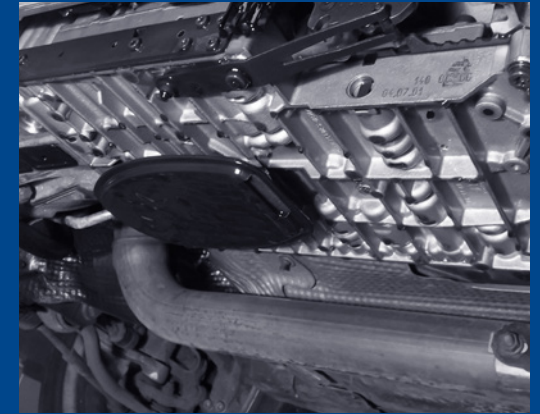
Clean transmission oil plays a major role in the operation of this very important powertrain component. The oil allows the gearshift to operate smoothly and efficiently, which is made possible by the use of quality filtration and the sophisticated 'additive packs' within the base oil.

However, over time the transmission fluid and additives deteriorate, along with the filter (which is gradually contaminated), causing these carefully engineered transmission components to alter. This has a negative impact on the transmission's performance, including harsh gear engagements, as the controlled clutch slip no longer responds as designed. These problems lead to rapid wear of the friction discs, solenoids and other transmission components and can cause expensive transmission failure, providing the transmission oil and filter are not regularly maintained.

Service Replacement

The main purpose of an automatic transmission filter is to keep the oil clean from contaminants. This includes wear debris and impurity elements, which can be harmful to the automatic transmission. At the same time, the transmission oil must freely pass through the filter, ensuring of the necessary transmission flow capacity.

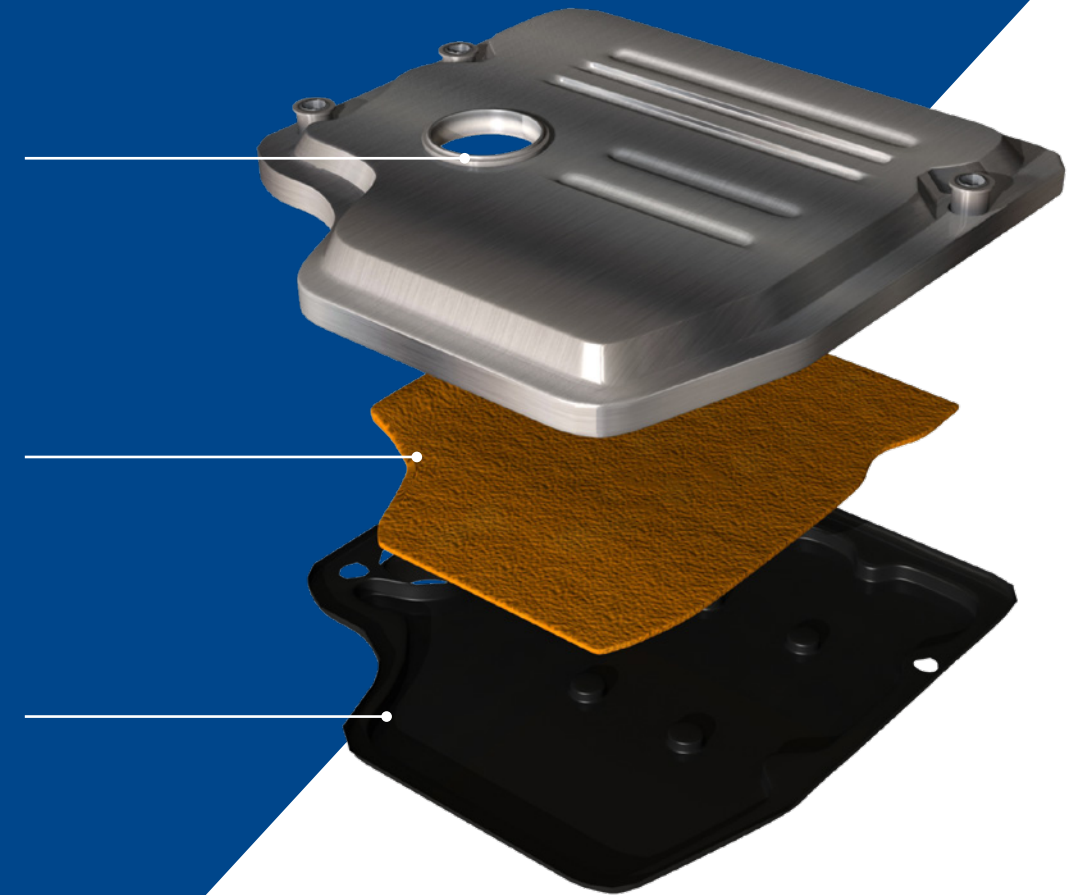
To ensure a transmission's long life and smooth operation, Blue Print advise that regular transmission oil servicing is carried out according to the vehicle manufacturer's recommended intervals (subject to the operating conditions in which the vehicle is used).



Filter O-Ring Seals - constructed of high quality elastomer for consistent sealing in all temperatures.

Media - providing fine filtration for long-term wear reduction and coarse filtration for cold temperature driving performance.

Filter Housing - constructed of glass fibre reinforced, temperature-resistant polymer and/or high-strength stamped steel.



Automatic Transmission Filter Features

Each Blue Print transmission filter meets the specific requirements of its application and intended service life.

The filtration efficiency is fine-tuned to match each transmission's fluid cleanliness requirements in order to help guarantee transmission durability throughout its intended life cycle.

The filter media strength is tested to withstand the most extreme "debris" loads under severe wear conditions (i.e. at elevated temperatures) and is engineered to maintain fluid flow rates even as wear debris accumulates.

The filter housings are constructed from advanced fibre reinforced temperature-resistant polymers or a combination of polymers and stamped steel.

Associated: Specialist Tools

Vehicle designers' efforts to utilise all available space in the engine compartment has resulted in some filters being very difficult to replace without the use of specialist tools.

Blue Print have identified a range of vehicle-specific tools which are designed to make the job of replacing the filter much easier, quicker and significantly reduces the risk of damaging an expensive component or housing.



Oil Filter Housing Drain Tool

The oil filter housing fitted to some Toyota/Lexus applications contains a substantial amount of oil, even after you have drained the sump. This clever device screws into the filter housing and allows the valve to be opened in a more progressive manner, giving you complete control over the oil's flow and direction.

Oil Filter Removal Tool

You can use this exact fit oil filter wrench which helps to remove the oil filter housing cap. Without this tool it is difficult to access the oil filter and easy to damage the alloy housing cap. It also gives you complete control when refitting the cap and tightening it to the correct torque.



Blue Print Sump Plugs

Blue Print also has a range of some of the most popular sump plugs and washers which should be replaced during an oil change service.

Re-using the old sump plug and washer is a false economy. Fitting a new sump plug and washer ensures a perfect seal to prevent oil leakage between services.



Technical Information

At Blue Print, we strongly believe it is important to provide as much information and support as possible alongside our extensive filtration range.

For this reason, there are a broad selection of bulletins available offering additional technical information and installer tips to ensure a 'Right First Time' fitment:

- Blue Print PROTIPS - offer practical support with everyday issues encountered in the workshop and, when possible, follow the explanation structure of Problem, Cause, Solution
- bilstein group Info - short advisory note inserted in the box for reading before product fitment.

All the bulletins are linked to the relevant parts in our electronic catalogue.



Scan the QR code to watch the Blue Print video regarding Fuel Filter Replacement



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