

Fill it Up!
with febi Fluids



SOLUTIONS
DRIVEN BY YOU

www.febi.com

bilsteingroup®

Fill it Up!

with febi Fluids

Whether you're taking the car for a spin, going on vacation, or simply delivering parcels for work, every vehicle needs high-quality fluids & chemicals to ensure reliability and performance. From a powerful SUV to classic American muscle and everything in-between, febi has what you're looking for - from start to finish.

An expansive, quality range of OE-specification products is complemented by an easy-to-use online catalogue, fluidfinder, and fast delivery to workshops or wholesalers.

The end result? Happiness all round. febi has whatever you need, whenever you need it - providing the right solution for YOU.

Trust in febi fluids & chemicals!

Scan the QR code to watch the febi fluids video or visit fluids.febi.com



Fill it Up!

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Every vehicle component must have the correct lubricant to ensure reliable performance. Engine oil offers maximum wear protection for the motor in all operating conditions. Brake fluid is essential to the safe and consistent application of the braking force. Transmission oil is important for maintaining the continuous lubrication of drivetrain parts. Coolants provide strong protection against both high and low temperatures.

febi's comprehensive range of fluids & chemicals provides all of these and much more - covering European and Asian cars, light commercial vehicles and trucks. We are not just a parts supplier; we understand the importance of having the right high-quality solutions to keep vehicles healthy and reliable.

We are also keeping up with the ever-advancing technology in today's world, with many of our liquid products suitable for hybrid and electric vehicles.

The range at a glance:

- AdBlue®
- Brake Fluid
- Ceramic Paste
- Coolant/Ready Mix
- Engine Oil
- Greases
- Hydraulic Fluid
- Sealant
- Thread Lock
- Transmission Oil
- plus special solutions like ATF Service Kits, MultiPLUS Absorber and MultiPLUS ECO Oil Stain Remover



Your Benefits



Competitive Range - European and Asian cars, light commercial vehicles and trucks are all catered for with febi's comprehensive range of high-quality fluids and chemicals. Additionally, thanks to our Fast to Market approach, new products are continuously being researched and added to the expansive offering - providing The Right Product, in The Right Place, at The Right Time!



A Strong Mix - from brake fluid and antifreeze, to engine, transmission and hydraulic oil, febi's diverse range of fluids and chemicals includes everything needed to keep a vehicle healthy. Specialist products such as AdBlue®, ATF Service Kits and greases are also available. All articles can be found through our 'fluidfinder' online catalogue - making the search for chemicals and fluids easier than ever.



Produced to Regulation - vehicle manufacturer specifications and industry regulations are always adhered to during production of febi's fluids, which takes place in Germany and other European countries. Additionally, all febi fluids are tailored to the specific requirements of each individual vehicle manufacturer - they are not universal.



Practical, Eco-Friendly Packaging - all febi fluids are packaged in recyclable, leak-proof Polyethylene bottles featuring high-quality labels with clear product identification and colour coding, whilst recessed grip handles and a filling-level vision strip add to the practicality for users.



Highest Quality - with febi's stringent inspection process and quality checks, we can ensure that all fluid products meet the bilstein group's high quality standards - making them a top-quality alternative to the original.



One-Stop Shop - alongside our broad selection of fluids, febi also has a huge range of car, LCV and truck parts - over 47,000 products are available. These include a number of Service Repair Kits which contain all parts needed for a quick and efficient repair - saving you time and money.



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Brake Fluid

- Brake Fluid DOT 4
- Brake Fluid DOT 4 Plus
- Brake Fluid DOT 4 LV
- Brake Fluid DOT 5.1
- Brake Fluid DOT 5.1 EHV



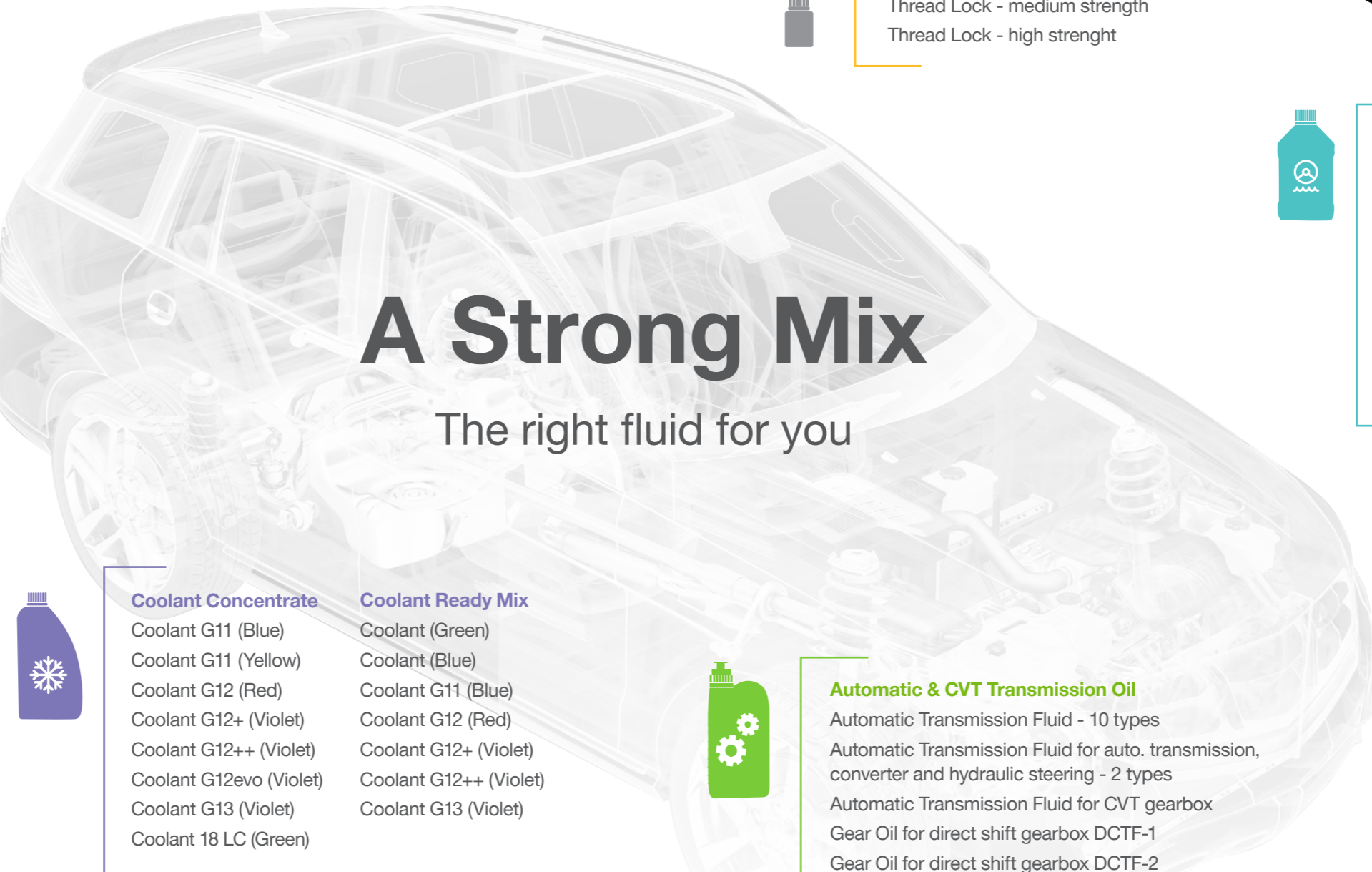
Grease, Paste & Thread Lock

- Ceramic Paste universal application
- Mounting Paste for plastic bushes and brake pistons
- Grease for wheel bearing
- High Melting Point Grease for constant-velocity joints - 3 types
- Heavy-Duty Grease for central-lubrication systems
- High-Temperature Multi-Purpose EP Grease
- Sealant
- Thread Lock - medium strength
- Thread Lock - high strength



Engine Oil

- Engine Oil SAE 0W-20 - 2 types
- Engine Oil SAE 0W-30 C2
- Engine Oil SAE 0W-30 D-FO
- Engine Oil SAE 0W-40
- Engine Oil SAE 5W-20 HC E-FO
- Engine Oil SAE 5W-30 HC-FO
- Engine Oil SAE 5W-30 Longlife
- Engine Oil SAE 5W-30 Longlife Plus
- Engine Oil SAE 5W-30 HC C4
- Engine Oil SAE 5W-30 Longlife EU6
- Engine Oil SAE 5W-30 D1
- Engine Oil SAE 5W-30 HC C2
- Engine Oil SAE 5W-40
- Engine Oil SAE 10W-30
- Engine Oil SAE 10W-40
- Engine Oil SAE 15W-40
- Engine Oil SAE 20W-50



A Strong Mix

The right fluid for you



Coolant Concentrate

- Coolant G11 (Blue)
- Coolant G11 (Yellow)
- Coolant G12 (Red)
- Coolant G12+ (Violet)
- Coolant G12++ (Violet)
- Coolant G12evo (Violet)
- Coolant G13 (Violet)
- Coolant 18 LC (Green)

Coolant Ready Mix

- Coolant (Green)
- Coolant (Blue)
- Coolant G11 (Blue)
- Coolant G12 (Red)
- Coolant G12+ (Violet)
- Coolant G12++ (Violet)
- Coolant G13 (Violet)



Automatic & CVT Transmission Oil

- Automatic Transmission Fluid - 10 types
- Automatic Transmission Fluid for auto. transmission, converter and hydraulic steering - 2 types
- Automatic Transmission Fluid for CVT gearbox
- Gear Oil for direct shift gearbox DCTF-1
- Gear Oil for direct shift gearbox DCTF-2
- Gear Oil for direct shift gearbox DCTF-G

Manual Transmission Oil

- Gear Oil SAE 75W (GL-4)
- Gear Oil SAE 75W-80 (GL-4)
- Gear Oil SAE 75W-80 (GL-5)
- Gear Oil SAE 75W-85 (GL-5)
- Gear Oil SAE 75W-90 (GL-4/5)
- Gear Oil SAE 75W-90 (GL-5)
- Transfer Case Fluid TF-1

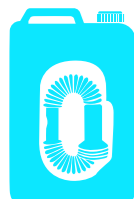
Haldex Oil

- Oil for Haldex coupling - 3 types



Hydraulic Fluid

- Hydraulic Fluid for central, power steering and level control systems - 2 types
- Hydraulic Fluid for central hydraulic system
- Hydraulic Fluid LHM Plus
- Hydraulic Fluid for power steering system
- Hydraulic Fluid
- Power Steering Oil
- Hydraulic Fluid for hydropneumatic suspension and level control systems



Specialist Products
AdBlue®



febiPLUS

- MultiPLUS Absorber
- MultiPLUS ECO Oil Stain Remover



Scan to read our Pocket Guide with the full febi range of fluids & chemicals

Engine Oil

Protecting and lubricating

Engine oil is the lifeblood of the engine. Clean, quality oil is essential as it circulates and lubricates under pressure to prevent metal-to-metal contact of the internal components. febi have a vast range of oils ranging from the traditional multi-grades to the more exotic liquids which can outperform the lubricants recommended by the engine manufacturer.

Choosing these lubricants gives peace of mind that the engine is being protected at all times. The vehicle manufacturer's oil replacement interval recommendations are based on normal driving conditions but short journeys (especially in cold weather), frequent stopping/starting of the engine, towing, and high-speed driving in hot temperatures all reduce the life of the oil.

Contaminants such as moisture and unburned fuel require the engine oil to be at 'running' temperature for long periods of time to boil them off. Direct-injection engines produce particulates which contaminate the oil and form deposits on vital engine components. Oil life is very important!

Engine oil also aids cooling by carrying heat away from the pistons, cylinders and turbochargers. Microscopic wear particles, dust and soot from combustion must be filtered out to prevent them being embedded in the bearing surfaces, which increases engine wear. Regular oil and filter replacement prolongs the life of the engine and protects it between the extended service intervals of a vehicle.



Did You Know?

febi's extensive range features engine oils compatible with hybrid vehicles - clearly marked on the label of the bottle with the following icon:



Not all engine oils are created equal

Vehicle emissions dominate the development of each new generation of engine and drivetrain. Oil viscosities continue to decrease with an increasing cocktail of sophisticated additive packs to ensure engine lubrication is maintained in all load conditions. This is why the replacement oil specification is very important when choosing the correct oil for the job.

All febi engine oils have the oil viscosity rating, independent organisations and vehicle manufacturer specifications - plus recommended applications written on the label to identify the suitability of each oil.

The independent global organisations ACEA, API, JASO and ILSAC define the performance of oils, with engine oils only being assigned to a specification after fulfilling stipulated criteria -for example, ACEAC3, APISN/SM. This combination of letters and numbers translates into the organisation's approval and its engine characteristic compatibility.

Manufacturer approvals:

Vehicle manufacturers check the suitability of engine oils for each engine type before issuing their own approval of these extensively-tested engine oils - e.g., VW 508 00/509 00.

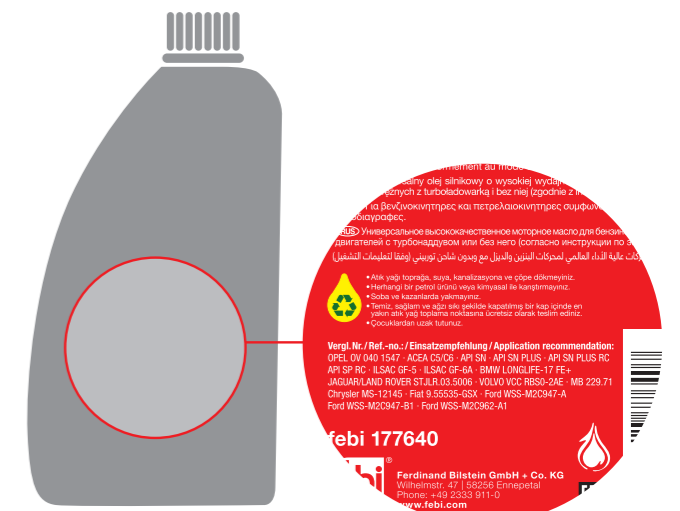
Recommendations:

Recommended applications for a premium febi engine oil are based on comprehensive fleet tests and experience.

For example, febi 177640 0W-20 ACEA C5/C6, API SN Plus/RC, ILSAC GF6A engine oil is designed for use in high-performance gasoline and diesel engines, meeting the demanding specifications of vehicle manufacturers - including the resistance of oxidation, oil thickening

and sludge formation inside the engine. It meets the high-temperature, high-shear requirements to the current specifications of the engine manufacturers' low-viscosity engine oils.

Meeting such specifications ensures that the original fuel economy figures are maintained throughout the service life of the vehicle. Special additive chemistry provides reliable, long-term protection of diesel particulate filters and other exhaust aftertreatment devices.



Transmission Oil

Smooth shifting in all driving conditions

The engine creates the energy of the vehicle, which is used by the transmission to power the wheels. Every transmission type relies on quality oil to fulfil the most extreme requirements, allowing the driver to be confident that all the power of the engine is transferred to the road.

With the continuous evolution of automotive technology, transmissions have become more complex and, in turn, require more technologically-advanced fluids to ensure they operate efficiently and reliably.

The transmission is one of the most vital vehicle components, with numerous finely-engineered precision parts making it a complex and expensive unit to repair or replace. Using the correct oil and utilising it at the right time is key to preventing issues such as 'shudder', gear stiffness and axle whining, which can result in possible premature and expensive transmission failure.

Choosing the correct oil

Transmission oil is vital for optimising gear-shift quality and 'feel', providing excellent friction behaviour thanks to its thermal stability. It also features ideal ageing resistance - ensuring great wear protection in all conditions and guaranteeing the best corrosion defence.

Selecting the correct replacement oil specification is crucial to safeguarding your transmission operation as designed, and to maintain its performance throughout the vehicle's lifetime. All febi transmission oils have the oil viscosity rating and vehicle manufacturer specifications, plus recommended applications, written on the label to identify the suitability of each oil.

To ensure a transmission's long life and smooth operation, febi recommends that regular transmission oil servicing is carried out to the vehicle manufacturer's recommended intervals, subject to the operating conditions of the vehicle.

febi has the right oil for your automatic or manual transmission vehicle. Enhanced protection is provided to all moving parts, enabling longer transmission life.



Manual transmissions

Manual transmission oil plays an extremely important role in the correct operation of the transmission as it will keep it lubricated and protected from heat and wear. The additives are combined with the base oil during the production process to increase the following main functions...

Thermal Stability: Gear oil must remain thermally-stable to reduce the build-up of sludge and maintain efficiency. An oil that cannot withstand the high temperature of the application it is used in will have decreased power and wear and tear will occur sooner.

Extreme Pressure (EP) additives: These help protect the gearbox in conditions where extreme pressure and shock-loading will occur.

Contamination and Corrosion: This is to combat any contaminants that may enter the system. Gear oil will need to contain anti-corrosive, anti-oxidation or anti-foaming agents. These additives perform best in environments with high speeds and low loads.

Automatic transmissions

The various automatic transmission types are designed to control and optimise gear-shift quality and 'feel', with the transmission oil playing a major part in this.

This allows the gear shift to operate completely smoothly and efficiently - made possible by using sophisticated 'additive packs' within the base oil.

Direct-shift, continuously variable, automated manual and traditional torque-converter automatic transmissions are engineered to give seamless gear changes to make driving easier. By not having to make the decision of when to change gear, the driver can concentrate on traffic and road conditions. These sophisticated transmissions require quality oil to keep the operating systems running smoothly and its computer-controlled control unit operating within very fine engineering tolerances.



Did You Know?

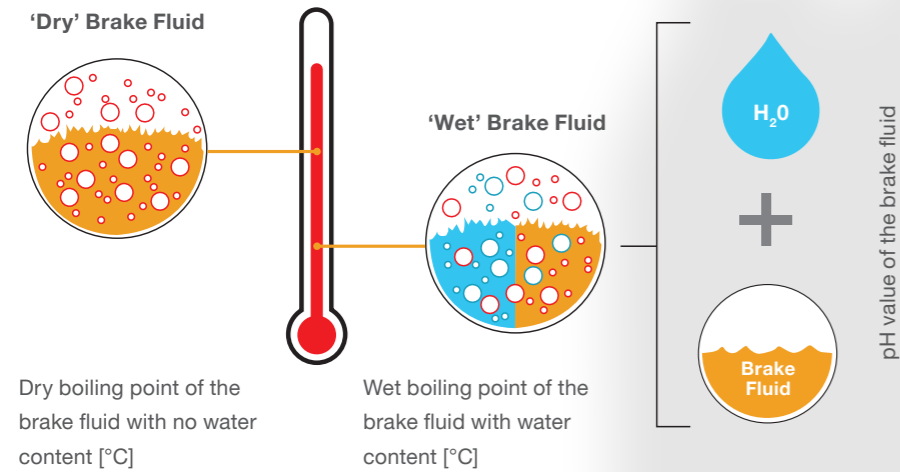
febi's diverse range includes ATF Service Kits, which contain all the necessary components required for a complete oil change: high-quality transmission oil, a filter, seals, and installation instructions.

Brake Fluid

Safety in liquid form

Brake fluid is an important safety-critical component within a vehicle's braking system. febi DOT 4, DOT 4 LV (low viscosity), DOT 4 Plus, DOT 5.1 and DOT 5.1 EHV (electric and hybrid vehicle) are fully-synthetic brake fluids based on glycols, containing oxidation and corrosion inhibitors with excellent dry and wet boiling point properties which also prevent vapour bubble formation.

Friction during the braking process generates heat; some of this heat is absorbed by the brake fluid, which must meet the requirements defined in the following applicable standards:




Why brake fluid has to be hygroscopic and requires replacement

The boiling point of a brake fluid is a temperature at which gas bubbles form. As soon as a gas bubble forms, the pressure in the brake system can no longer be maintained because the gas can be compressed - resulting in a sudden reduction in braking effectiveness, which can lead to an accident.


The hygroscopic property of brake fluid is required so that any water present distributes itself evenly throughout the liquid. If water is collected in a specific area, the boiling point would lower to approximately 100 °C. However, if the water is dissolved in the brake fluid up to a proportion of 3% (for example), the boiling point would remain significantly higher than 100 °C, where the risk of bubble formation is much lower.

Factors that affect and accelerate the absorption of water include: the storage of brake fluid in open, unsealed packaging for longer periods, non-compliance with brake fluid service intervals, damaged brake system elements, and damaged seals/gaskets.

The hygroscopic properties of a brake fluid stem from the glycol content. This allows the fluid to gradually absorb more water, which also means that it needs to be changed on a regular basis. Vehicle manufacturers generally recommend changing the brake fluid every 30,000 to 50,000 kilometres or every two years, subject to operating conditions.



Did You Know?
febi's brake fluids range includes the new 5.1 EHV product, which is compatible with hybrid and electric vehicles.



Reliability in braking

To ensure an effective and fully-functioning braking system while guaranteeing driving safety, febi brake fluids are developed in accordance with the binding quality standards and requirements of vehicle and brake system manufacturers to meet all requirements for current brake systems, including electronically-controlled systems which need to perform within fractions of a second.

Coolant

Keeping it cool in all conditions

Water-cooled internal combustion engines rely upon quality coolant being pumped around the engine block and cylinder head by the water pump, to prevent overheating and thermal distortion caused by heat from the combustion process.

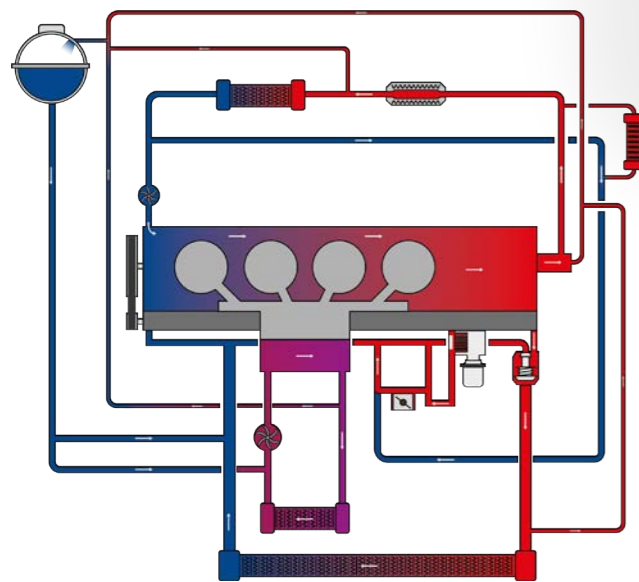
The coolant is pumped through the engine casing - which absorbs heat - and then circulates through a radiator to be cooled, before returning to the casing for the cycle to be repeated again. Over a four-year period or 100,000 km, an average of 1.7 million litres of coolant is pumped through the engine as the water pump impeller rotates thousands of times.

febi coolants are much more than just an antifreeze protecting the engines' cooling system in winter. A coolant is required to offer a threefold protection from corrosion, overheating and frost, which ensures that the cooling system works perfectly all-year round in all load conditions - offering protection to all areas, and to the materials used in the cooling system.



Thermal management

With the use of smaller, more efficient and powerful engines, vehicle manufacturers aim to enhance the use of existing technology to boost efficiency. Such measures include reducing friction, lowering reciprocating masses and using heat production and heat loss management in design plans when producing a downsized engine. Additionally, there are multiple cooling system circuits controlled by electric and electromechanical water pumps - subject to temperature and load demands.



Did You Know?

Many products from our coolant range can be used with electric vehicles. They help to keep vehicles and their batteries in the ideal temperature range, enabling optimum driving-range performance.

Hybrid-electric vehicles

Hybrid-electric vehicles represent the most complex challenge for the thermal management of the cooling system. An internal combustion engine (ICE) requires a quality coolant with excellent overheating protection - while the power electronics, electric engine inverter and battery pack operate at significantly lower temperatures. febi coolants work effectively in a comprehensive temperature window, allowing for outstanding heat transfer and corrosion protection in the high-temperature (ICE) and low-temperature (battery pack) cooling circuits.

Electric vehicles

Many products from the febi coolant range can be used with electric vehicles. The coolant helps to keep vehicles and their batteries in the ideal temperature range, enabling optimum driving-range performance. febi coolants meet critical safety requirements, performance, protection and low electrical-conductivity.

Range

Cooling systems require regular replacement of the coolant at set intervals as recommended by the vehicle manufacturer. febi offers a wide range of concentrated and pre-mixed coolants recommended for each vehicle application.

Other Fluids and Chemicals

More to offer

Alongside the expansive range of engine oil, transmission oil, coolant and brake fluid, febi also has a varied selection of other fluid products available - including, but not limited to:



AdBlue®

AdBlue® is the commercial name for this aqueous urea solution which is stored in a tank situated in the vehicle, varying in size between 8 and 24 litres depending on the model. The fluid is dosed into the hot exhaust gases just before the selective catalyst-reduction catalytic converter (SCR). The fluid enters the exhaust stream and a reaction occurs by means of thermolysis and hydrolysis in the SCR, resulting in the oxides of nitrogen (NOx) being converted to harmless nitrogen and water.

Hydraulic Fluid

febi's high-performance, specialist hydraulic oils provide optimised low-temperature performance. They are based on advanced additives and select mineral base oils, and are developed specifically for use in central-hydraulic systems such as power steering, convertible roof mechanisms and hydro-pneumatic suspension and braking systems.



Ceramic Paste

febi assembly paste is metal-free, acid-free and non-conductive, therefore suitable for all aluminium and cast-iron brake calipers and ABS systems. The paste reduces brake noise and eases installation - encouraging a professional brake assembly.

Sealant

This febi liquid sealant is typically used for automotive, industrial and engineering applications. It is ideal for sealing mating surfaces of both electric and internal combustion engines, transmissions, final drives and pumps and housings. It is also perfect to use when replacing timing chain kits and other engine components.

Thread Lock

The febi thread lock - available in both medium and high strength - is an anaerobic liquid plastic which hardens after contact with metals in the absence of oxygen. Its short hardening times and strong reliability make it ideal for securing and sealing bolts, nuts, threaded bolts and studs.

Greases

febi greases are ideal for almost all types of passenger cars and cover the entire spectrum of vehicle applications. They meet the highest manufacturer requirements and are suitable for use in constant-velocity joints and/or central-lubrication systems.



MultiPLUS Absorber

for Oils and Other Fluid Chemicals

febi's MultiPLUS Absorber offers an innovative solution for all businesses working with fluids - especially workshops.

Our absorbent solution puts an end to stained workshop floors and the unsatisfactory use of typical oil-binding agents, and is able to soak-up all kinds of fluid spillages: oil, fuel, lubricants, emulsion, brake fluid, coolant, antifreeze, chemicals, paint and much more. In addition, the MultiPLUS Absorber is just as effective when spillages occur in water!

febi 174815 -> 10L Box

febi 174816 -> 15L Bag

febi 174817 -> 50L Bag



Scan the QR code to watch videos about the febi MultiPLUS Absorber and ECO Oil Stain Remover or find them at [youtube.com/ferdinandbilstein](https://www.youtube.com/ferdinandbilstein)

MultiPLUS ECO Oil Stain Remover

for all Surfaces

febi's new MultiPLUS ECO Oil Stain Remover provides the perfect combination to absorb, remove and clean a contaminated work floor in your garage, workshop, home or anywhere else you may need it.

febi MultiPLUS ECO Oil Stain Remover is PH-neutral and does not attack the surface it is applied on. As a result, it can be utilised for several types of stain on all surfaces. It has multiple uses, from professional workshops to home garages, and is also applicable to engine components - and even a barbecue grill!

febi 180212 -> Pump Spray Bottle

febi 180213 -> Refill Bottle



Technical Information

Know-how for workshops



Another added-value service provided by febi is the provision of technical information. These documents offer support and best practice solutions for the automotive workshop.

PROTIPS

Technical information or fitting procedures with helpful hints and best practice, following a Problem, Cause, Solution approach.

INFO

Advisory information sheet pre-inserted in the article box to inform the installer of a visual construction feature or installation requirement.

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



Scan the QR code to watch the febi fluids production & quality video or watch it online at: youtube.com/ferdinandbilstein

bilsteingroup® partsfinder

SEARCHING BECOMES FINDING

One search system for the complete ranges of febi and the other bilstein group brands

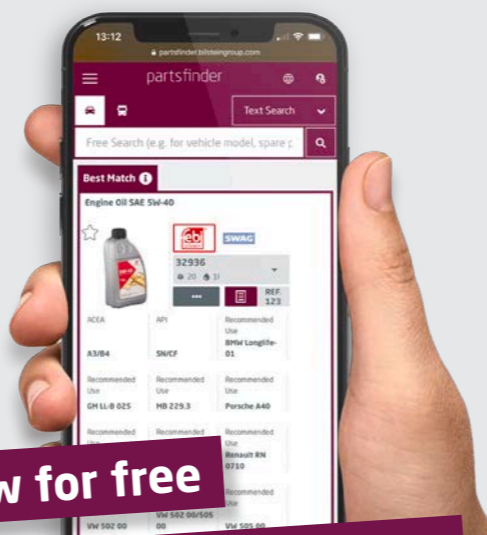
partsfinder provides direct access to over 62,000 replacement parts from the bilstein group. You can find the component you are looking for with just a few keywords.

NEW fluidfinder

Find the fluids you're looking for with just a few clicks through the new fluidfinder feature!



Register now for free
partsfinder.bilsteingroup.com



bilstein group on the Road to Sustainability

Helping the environment for future generations

As an innovative company with a long tradition, we are determined to ensure the wellbeing of the next generations. Sustainability is of particular importance to us.

As a result, we develop our fluids with the environment in mind - continuously improving them as we strive for efficiency and eco-friendliness.

Tomorrow's world is our today, which is why products from the febi fluids range are packed in recyclable, leak-proof Polyethylene bottles featuring high-quality labels with clear product identification and colour coding. Recessed grip handles and a filling-level vision strip add to the practicality for a premium user experience.

Did you know?

Environmentally-compatible lubricants have properties such as friction reduction and wear and corrosion protection, which contribute to saving energy and CO2 during usage.

100% CO2-neutral

We rely on partners with CO2-neutral production capabilities, so that all febi oils are environmentally-compatible and reduce emissions. This is a big step towards a greener future for us as a company and generations to come.





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