

Water pumps

Reliable. Efficient. Easy to install.



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Schaeffler in the Automotive Aftermarket – more innovation, more quality and more service.

Schaeffler in the Automotive Aftermarket – four strong brands.

Whenever a vehicle needs to go to the garage, our products and repair solutions are usually first choice to fix them. With our four strong brands LuK, INA, FAG, and Ruville, we are a reliable global partner – offering repair solutions for passenger cars, light and heavy commercial vehicles as well as tractors.

Whether for the transmission, engine, or chassis – all products are based on a comprehensive systems approach. Innovation, technical expertise, and the highest material and manufacturing quality make us not only one of the leading development partners for vehicle manufacturers, but also a pioneering provider of value-retaining spare parts and complete repair solutions – always in original equipment quality. Our comprehensive portfolio includes products and repair solutions for clutches and clutch release systems, engine and transmission applications, and chassis applications. All components are optimally tuned to work together perfectly, and allow fast and professional parts replacement.

Under the INA brand, Schaeffler offers cross-system know-how for the four key engine systems and transmission components: As a full-range supplier, the INA product portfolio includes engine components for timing drive (for vehicles with belt and chain drive), front end auxiliary drive (FEAD), valve train, and the engine cooling system. Moreover, Schaeffler offers all necessary components for a professional repair of transmission and differential repair. The spare-parts program consists of individual parts and complete solutions with innovative KITS and SETs, as well as the GearBOX.



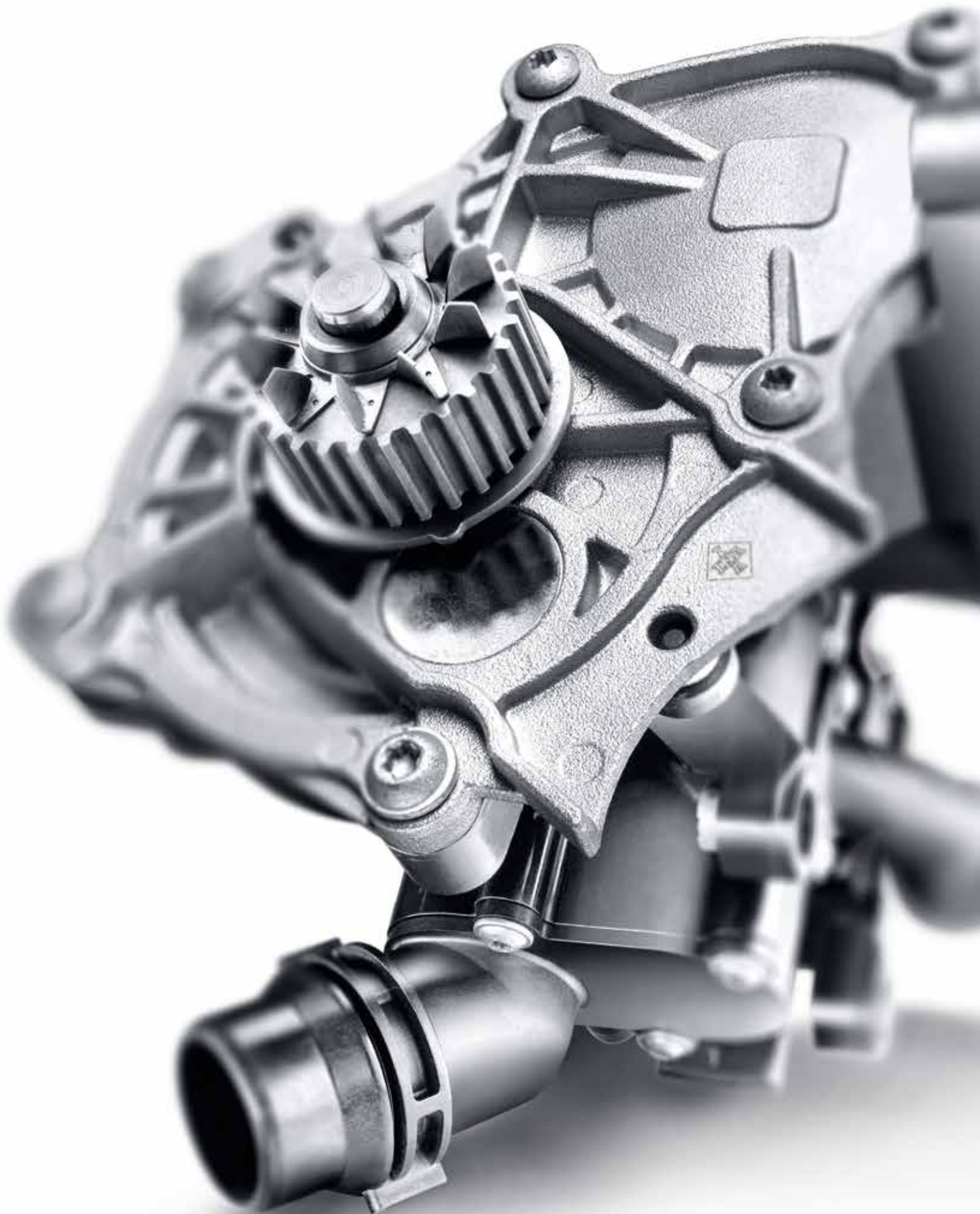
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Under the REPERT brand we offer a comprehensive package of services for the products and repair solutions of the LuK, INA, FAG, and Ruville brands. Looking for specific information or damage diagnosis? Are you in need of particular tools to make your everyday garage routine easier? Whether online portal, service hotline, installation instructions and videos, training seminars, or events – all technical services are provided in just one place.

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Doing a demanding job: the water pump

For an engine to work effectively, it must reach its optimum operating temperature quickly and constantly remain as close to this temperature as possible under changing conditions. The components in the cooling circuit that allow this to happen are the cooler, the coolant, the coolant lines, the thermostat and the water pump. The task of the water pump is to regulate the heat created by the engine by effecting the circulation of the coolant within the closed heating and cooling system. A thermostat is used to regulate the cooling circuit – and therefore the engine temperature.

However, water pumps are exposed to a myriad of stresses during day-to-day operation, for example due to residue in the cooling circuit, abrasive particles and wear. To enable optimum repairs, INA offers all necessary add-on parts in addition to OEM-quality water pumps. After all, only components that are perfectly tuned to one another can ensure maximum reliability in the long term.

INA has played a key role in the evolution of the water pump in the aftermarket, and in addition to an extremely wide range of pumps offers intelligent modules with integrated pumps.



Mechanical



Electric



Evolution of the water pump

Vacuum-operated



Thermal management module with water pump



Typical INA: innovation and quality

Value retaining replacement parts and complete repair solutions – always in OEM-quality. This is what INA has been well-known and valued for since many years. Our components are regularly checked – both within our own laboratory and by independent bodies. The engineering knowledge that we accumulate together with the Schaeffler OEM expertise for water pump bearings and thermal management modules is incorporated into all INA water pumps.

Next-generation cooling system: the thermal management module

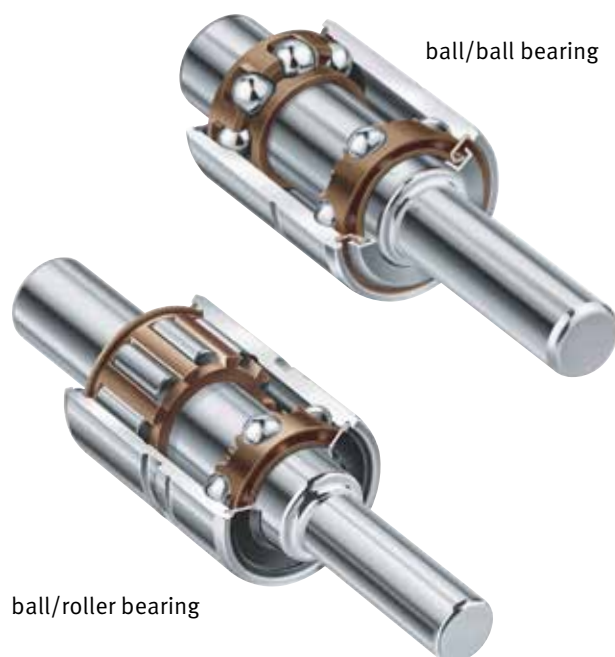
Unlike conventional thermostats, this module can control the temperature of multiple systems independently and in response to requirements. It does this by operating on a proactive basis and continuously calculating the required cooling performance for the individual vehicle components. This halves the time needed to achieve the optimum engine temperature.

Innovative material: the mechanical seal

To counteract the main cause of coolant loss, we equip our water pumps with slide rings made of silicon carbide – an extremely hard, wear-resistant material that is extremely resistant to thermal shocks. For the counter rings, a comparatively soft material called carbon graphite is used, which is optimally adapted to the slide ring.

Perfect design: bearings from INA

High-grade bearings are a deciding factor for the durability and long service life of a water pump. The INA bearings for water pumps are arranged in a double row and, in contrast to standard double-row bearing arrangements, have running surfaces that are incorporated directly into the shaft instead of an inner ring. As a result, there is more mounting space for the rolling elements, which means that the specific load carrying capacity is higher than on solutions with standard single bearings.





Water pumps from INA: a complete product portfolio



In addition to mechanical water pumps, INA offers next-generation cooling systems in the aftermarket with vacuum-operated and electric water pumps and Schaeffler thermal management.

Mechanical water pump

Most of the existing fleet is still equipped with a mechanical water pump, the speed of which is directly coupled with the engine speed.

Vacuum-operated water pump

This type of water pump is driven by the belt and is vacuum-operated. It works based on an on-off principle, so the coolant only flows when it is actually needed.

Electric water pump

The water pump is fully electric and is operated via the on-board 12V network, not via a belt. It is completely decoupled from the engine speed. This means that the electric motor continuously adjusts the individual output of the pump.

Thermal management module with water pump

With the thermal management module, INA has brought about a whole new evolutionary stage. This module enables the optimal operating temperature for internal combustion engines to be reached and adjusted within extremely short periods of time. Taking into account the operating state and driving situation, it controls the volume flow of coolant in a range of circuits, thereby increasing efficiency. Fuel consumption and CO₂ emissions are reduced by up to 4%. This innovative thermal management module is available in the aftermarket exclusively at Schaeffler under the INA brand.

Equipped for the future:

a growing range to meet growing challenges

There is a visible trend toward intelligently controlled water pumps – just one more reason why INA in the aftermarket has opted to consistently develop its range in this area. It will also be expanding the portfolio in future to cover further BMW models, the Toyota Prius and many others.

The product advantages at a glance

- High degree of wear resistance
- Resistance to thermal shocks
- Excellent drainage

Our product range:

1. Thermal management module with water pump
2. Electric water pump
3. Vacuum-operated water pump
4. Mechanical water pump





Ideally equipped for any eventuality: timing belt kit with water pump

To make vehicle repairs particularly easy and efficient to perform, INA offers practical kits in addition to its extensive range of individual water pumps. This is because when a timing belt is replaced, it is also recommended to replace any components located within the belt drive at the same time, as in many cases, any integrated water pump present will also be affected by wear.

With timing belt kits with water pump from INA, you are ideally equipped for any eventuality, so you can avoid consequential damage and follow-up costs. In addition to the water pump, the kits also contain tensioner, deflection and guide pulleys and the timing belt as well as all accessories required for installation, such as screws, nuts and seals. Designed to be perfectly compatible with virtually all standard European and Asian car models. All in proven INA OEM quality, as you would expect from us.

INA also offers timing belt kits that come with a thermostat for engines in which the thermostat is directly installed on the water pump housing and a subsequent replacement would necessitate the timing belt being removed again.



The advantages at a glance:

- Includes all add-on parts required for repairs in OEM quality
- Compatible with virtually all standard European and Asian vehicle models
- Avoid time-consuming follow-up repairs
- Increase customer satisfaction



Further information:
www.schaeffler-aftermarket.com