

## **Intelligent Cooling Systems**

A Comprehensive Product Portfolio

# **BRILLIANT**



# A Range That Rises to Meet Any Challenge.

Demands for driving comfort are constantly increasing — which also results in higher demands on the cooling circuit. This has been compounded by stricter statutory emission limits as part of the Euro 6 standard. INA has taken this development into account with an extensive range of water pumps: over 700 products **covering 95**% **of the European fleet.** 

### Mechanical Water Pumps.

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



The INA product portfolio ranges from mechanical water pumps to the innovative thermal management module. In addition to its **OEM-quality** water pumps, INA also offers all required accessory parts to ensure the **best possible repairs**. After all, only components that are perfectly tuned to one another can ensure **maximum reliability** in the long term.

### **Electric Water Pumps.**

These are characterized by extremely precise controllability and are completely decoupled from the engine speed. Their power is not supplied via the belt drive, but via the 12-volt (prospectively 48-volt) on-board electrical system. An electric motor regulates the continuously variable individual output of the pump.



### Switchable Water Pumps.

#### OEM-quality as Standard at INA.

Meanwhile, increasing numbers of well-known vehicle manufacturers have begun installing switchable water pumps. How do these differ from conventional mechanical pumps? They can be **variably controlled.** In other words, they supply coolant only when it is needed. This saves energy and fuel, which in turn contributes to **improved emission values.** 

#### **Exclusive for the Aftermarket.**

To provide even better vehicle coverage, INA is continuously expanding its water pump portfolio. Further switchable water pumps for vehicle models from VW and Mercedes-Benz are the most recent addition. All new pumps feature a switch-off plate or an electrical actuator, while their **OEM-quality** presents a unique advantage in the aftermarket. Unlike those products being offered by competitors, they have exactly the same functionality as the OEM products.



#### The Advantages at a Glance:

- OEM-quality for maximum service life
- Complete functionality
- A continuously extended range with exclusive repair solutions



**New in the Range:** Suitable for VW 1.4 TSI, VW 1.6 and 2.0 TDI as well as Mercedes-Benz 180–220 CDI.

# Thermal Management Module with Water Pump.

#### The Latest Generation of Cooling System.

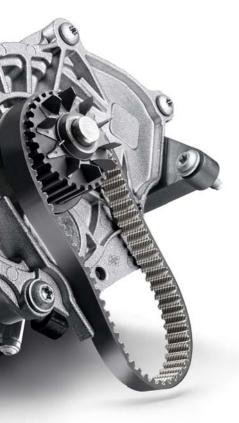
Developed in close partnership with automobile manufacturers, the thermal management module provides engine temperature regulation that is **fully requirement-oriented**. Depending on the operating state and driving situation, the volume flow of coolant is controlled in multiple circuits near the engine at the same time, increasing its efficiency. Compared with a conventional thermostat, the engine reaches its **optimum operating temperature in about half the time**. Driving comfort is increased, while fuel consumption and  $CO_2$  emissions are reduced by up to four percent.

Available as a complete module, this thermal management system is sold in the aftermarket exclusively by Schaeffler under the INA brand.



#### The Advantages at a Glance:

- Requirement-oriented, speed-independent cooling
- Faster heating of the interior
- Complete repair solution including belts and accessories



Suitable for numerous vehicles from the Volkswagen Group, e.g. 1.8-litre and 2.0-litre TSI and TFSI engines.