

Water pumps – new material version

Impellers made from technical polymers

Situation

Many engine manufacturers are taking advantage of the positive results from research into material development and are increasingly using water pumps with impellers made from technical polymers. In light of this development, Motor Service too is adjusting its product range for the spare parts market.

The impellers of a water pump are the key element in ensuring that the pump operates correctly. Alongside durability, the design characteristics to ensure the engine is cooled perfectly also play an essential role. The geometry of the impellers guarantees that the flow rate required for the coolant circuit is supplied.

Advantages

The use of polymers enables the impellers to be shaped more accurately and efficiently. Modern injection moulding processes allow more complex forms that are better optimised to the flow to be created. The cooling of the engine is improved by the higher coolant flow rate.

The shrink-fit and adhesive connections used today to join the impeller and shaft are comparable to those for metal impellers.

Additionally, the new material also produces less noise and improves the pump's resistance to cavitation and corrosion.



Application examples: water pumps with impellers made from technical polymers

Manufacturer	KS No.
Audi/Seat/Skoda/Volkswagen	50 005 775
Alfa Romeo/Fiat/Iveco/Lancia/Opel/Saab/Vauxhall	50 005 056
Audi/Volkswagen	50 005 156
Audi/Seat/Skoda/Volkswagen	50 005 158
Audi/Ford/Mitsubishi/Seat/Skoda/Volkswagen	50 005 554
Audi/Ford/Seat/Skoda/Volkswagen	50 005 783

The right of changes and deviating pictures is reserved. Assignment and usage, refer to the each case current catalogues, TecDoc CD respectively systems based on TecDoc.