PRODUCT TECHNICAL INFORMATION

SUBJECT

VAG engines: 1.6 TDI, 2.0 TDI (EA288 engine

PRODUCTS DESIGNATIONS

VKMC 01278-1
VKPC 81178

CAR MANUFACTURERS - BRANDS

AUDI: A3, A4, A5, Q3, Q5, TT*
SEAT: LEON, TARRACO (KN2), ALHAMBRA (710, 711), ATECA (KH7, KHP), IBIZA V (KJ1)*
SKODA: OCTAVIA III, KAROQ, RAPID, SUPERB III, YETI (5L), KODIAQ (NS7, NV7)*
VW: T-CROSS (C11), GOLF VII, BEETLE, SCIROCCO III, PASSAT B8, CADDY IV*

SKF Kit	OE number (equivalency)
VKPC 81178 VKMC 01278-1	04L 121 011 EX - 04L 121 011 LX - 04L 121 011 N

In compliance with VAG Group, SKF is offering a Switchable and Mechanical water pump for above engines. The SKF Water pumps VKPC 81278 (Switchable) are in line with OE product quality and performance.

Note! Replacing a switchable water pump by a mechanical water pump can increase the engine warm-up time!

None - Switchable

VKMC 01278-1

Timing belt and water pump kit
With Switchable mechanism

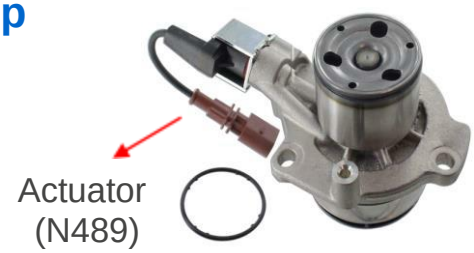
VKPC 81178
Water pump kit
With Switchable mechanism

Fitting recommendations

VKMC 01278-1 / VKPC 81178 (SKF Mechanical water pump)

When removing the OE Switchable water pump

1) Remove the water pump and dismount the actuator (N489) that will be re-used



Actuator
(N489)

2) Fit the new SKF Mechanical Water pump VKPC 81178 with the re-used actuator

Actuator

2) Fit the new SKF Mechanical VKPC 81178

NOTE : If the actuator is not fitted correctly, defect code and warning light may appear on the car dashboard!

Fitting instructions for SKF Switchable & Mechanical

Cooling system structure

The cooling system must be bled using the vehicule diagnostic tester.
It contains 5 systems in order to cool different engine components:

1. Main cooling system for the engine
2. Secondary cooling system for the engine
3. Additional cooling system for the turbocharger radiator
4. Additional cooling system for the heater radiator
5. Additional cooling system for the gearbox radiator

Warning! If the bleeding is not correctly done, it could lead to the following consequences:

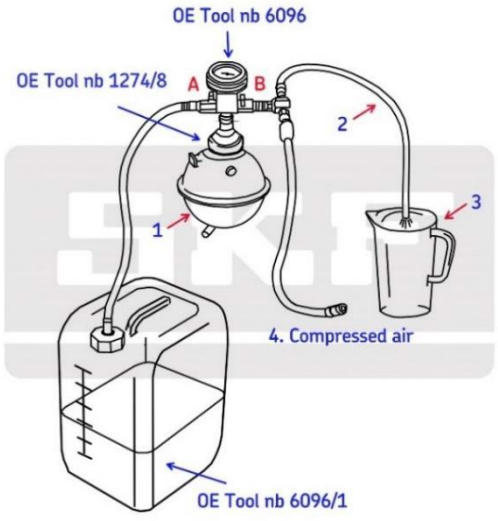
6. Electrical pumps damages of the secondary's cooling system.
7. Longer engine warm-up time, or abnormal increase of the engine temperature.
8. Engine damage in case of unsufficient filling/bleeding

Bleeding procedure with recommended tools

9. Fill the reservoir of the OE tool nb 6096 with a minimum of 8 liters of premixed coolant.
10. Place the filled reservoir on a high surface (workshop trolley or engine/gearbox jack).
11. Fit the adapter of the expansion cooling tank (1) until OE tool nb 6096 to adapt OE tool nb 1274/8.
12. Install vent hose (2) into a small container (3).

Note! The vented air draws along a small amount of coolant, which should be collected.

13. Close valves (A) and (B) by turning lever at 90°towards flow direction.
14. Connect hose (4) to compressed air supply.
15. Put pressure between 7…10 bars
16. Open valve (B) by turning lever towards flow direction



Fitting instructions for SKF Switchable & Mechanical

17. The pump generates a vacuum in the cooling system. The pointer of the indicator must move in the green area of the manometer.
18. Open the valve (A) by turning the lever towards flow direction in order that the hose fills well
from coolant reservoir.
19. Close the valve (A).
20. Leave the valve (B) open during 2 minutes.

21. The pump continues to generate a vacuum in the cooling system. The pointer of the indicator should stay in the green area of the manometer.
22. Close the valve (B).
23. The pointer of the indicator should stay in the green area, the vacuum inside the cooling system is sufficient for a filling.

24. Repeat the procedure until the pointer is in the green area.
25. In case of the vacuum drops significantly, check the sealing of the cooling system.
26. Remove the air compressed hose.
27. Open the valve (A).

Note! Always check that the coolant level is on max position (1).