

# A/C compressor fitting



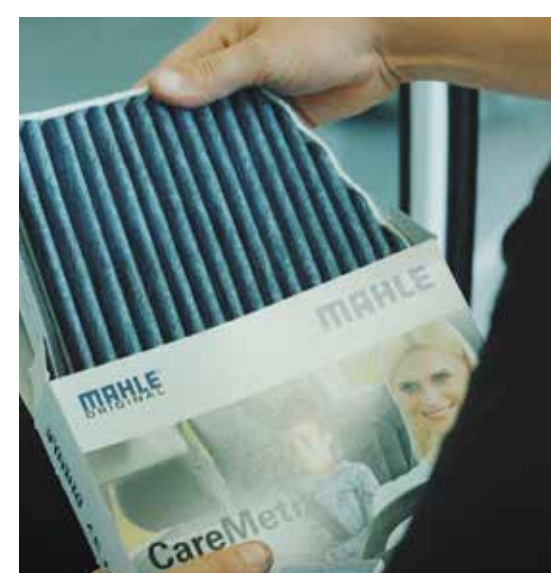
## 1. Removal

- Work on air conditioning systems may only be carried out by trained, certified technicians. Wear protective clothing.
- Refrigerant is harmful to the environment—observe all national standards and legal requirements governing refrigerant handling and disposal.
- Caution: Never mix R134a and R1234yf refrigerants.
- Caution: Compressor oil is hygroscopic (takes up and retains water).
- Extract the refrigerant with an appropriate A/C service unit before removing the defective compressor.
- Remove the drive belt and disconnect couplers and screw connections from the compressor.
- Remove the compressor.
- Close off the connecting cables to prevent dirt and moisture entering the refrigerant circuit.



## 2. Inspection

- Visually inspect all components for leakage and damage, such as stone chips on the condenser, porous V-belts, and leaky pressure lines.
- Identify the cause of failure of the old compressor and replace all other defective components.
- Always flush the entire air conditioning system when replacing a compressor.
- To flush the system, remove or bypass the expansion valve, throttle, and dryer or accumulator.
- Flush the refrigerant circuit according to the manufacturer specifications and against the direction of flow.
- Compare the new compressor with the old one: check the part number, type, electric connections, and refrigerant approval.
- To determine the quantity of oil in the new compressor, drain the oil from the compressor, collect it, and measure it.
- Fill the new compressor with the quantity and type of oil as specified by the manufacturer.
- Oil distribution during normal operation of the air conditioning system: 50% compressor, 20% evaporator, 10% lines, 10% condenser, and 10% dryer.
- Dispose of the used compressor oil in accordance with environmental regulations.



## 3. Fitting

- Prior to fitting, position the compressor upright for 3 minutes with the belt pulley downward (this ensures an optimal supply of oil to the sealing rings in the interior).
- With the compressor positioned horizontally, manually rotate the belt pulley/shaft 10 times.
- Reconnect the components that were bypassed for flushing and replace defective components.
- Replace the gaskets and coat with clean compressor oil.
- Install the compressor and connect the cables and electrical connections.
- Adhere to the assembly torques for the fixing bolts indicated in the manufacturer specifications.
- Make sure the drive belt is precisely aligned.
- Evacuate the refrigerant circuit using an A/C service unit (this extracts any moisture still remaining).
- Add refrigerant to the system: use the correct amount of manufacturer-approved product.
- We recommend changing the cabin filter each time the A/C system is serviced or repaired.
- Clear the air conditioning system's fault memory.
- Set the blowers to the medium setting and maximum cooling performance; switch off the air conditioning system.
- Let the engine idle for 2 to 3 minutes (without the air conditioning system).
- Switch on the air conditioning system for 10 seconds, then switch it off for 10 seconds and wait. Repeat the process 5 to 10 times.
- Then test the cooling performance and function, and check the system for leaktightness. Compare the high- and low-pressure reading on the air conditioning service unit against target specifications.
- If contrast agent was added, check for leakage using a UV lamp.

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