



## TIPS AND TRICKS: Air Conditioning Compressor

All applications

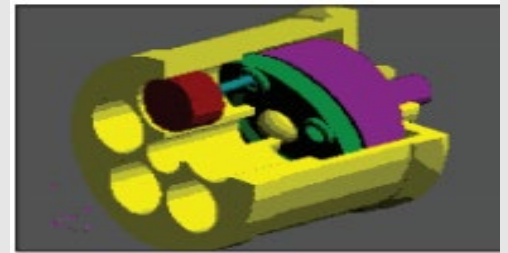
Part numbers

All Valeo A/C COMPRESSORS

### How Does an Air Conditioning Compressor work

When you engage the clutch, the engine rotation is transmitted to the input shaft. The trend of the piston-holder in comparison to the input shaft enables a lateral movement of the pistons. If the clutch is not engaging, the input shaft will not rotate and the compressor will not pump the refrigerant around the air conditioning system.

In its first stroke, the piston sucks the refrigerant gas through the inlet valve. When the piston moves back, the gas is compressed then pushed away to the condenser through the pressure valve.



This type of compressor almost always displaces the same amount of refrigerant. It depends on the engine speed and the pressure of the refrigerant.

When the clutch is released, the compressor pulley turns but doesn't drag the piston holder plate. In this position, the compressor does not produce the output.

The regulation of this type of circuit is carried out by:

- the pressure regulator – to ensure the air conditioning system is not over pressurized
- the evaporation temperature sensor – to prevent the evaporator from freezing and impair efficiency of the system.

#### Important:

- During the winter, it is advisable to run the compressor from time to time in order to prevent joints drying up and reduce the risk of leaks and unwanted evacuation of refrigerant from the circuit.
- Whatever the kind of circuit, it is essential to run the compressor at least 1 or 2 minute's every month or so to ensure oil lubricates the compressor internals to prevent seizure



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