

**Evaporators** 

### What is it?

The evaporator is responsible for cooling and dehumidifying the air that enters the cabin, thus ensuring passenger comfort.

It is an essential component of the air conditioning system.

### How does it work?

The liquid refrigerant inside the circuit enters the evaporator and absorbs heat from the surrounding air. This process transforms the refrigerant from a liquid to a gas, cooling the air. The cooled air is then distributed through the ventilation vents. During this process, the moisture in the air condenses on the cold surfaces of the evaporator and is drained out of the vehicle.

### Why can it get damaged?

The evaporator can be damaged due to the following reasons:

Refrigerant leaks.

Circuit blockages caused by dirt, external ice formation limiting its efficiency, or mechanical impact.

Reduced cooling efficiency.

Corrosion or wear that can compromise performance.

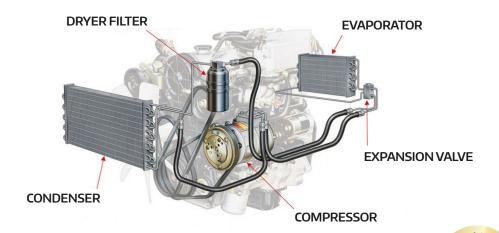






### Why replace it?

The evaporator should be replaced in case of leaks, corrosion, ineffective cooling, or when unpleasant odors are noticed due to the presence of mold.



### **Premium Quality**

A range of superior quality, guaranteed by direct control over the entire process.



Verification of OEM product specifications with validation of: data sheet and technical drawing, operating characteristics, application field.

#### PRODUCTION

Production monitoring by our engineers through: partnerships with OE manufacturers, definition of production guidelines, careful selection of components and materials.

#### TESTING

Quality control cycle: product validation at the end of the line, 8D report testing, safety data sheet verification, test bench with OEM parameters, dynamic testing on vehicle.

#### AFTER-SALES SUPPORT

Two levels of dedicated support: Customer Care for commercial support, Technical Department for technical support.

### **Packaging**

Packaging specially developed for this type of product.



# Rage Coverage

- 100 fast-moving SKUs;
- 75% coverage of the vehicle fleet.

## **Easy Fit**

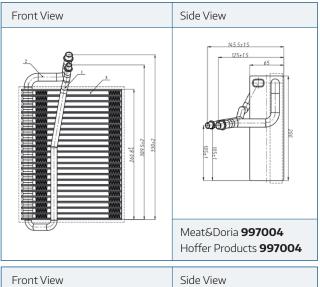
 Designed with original equipment specifications, respecting vehicle mounting constraints without modifications.

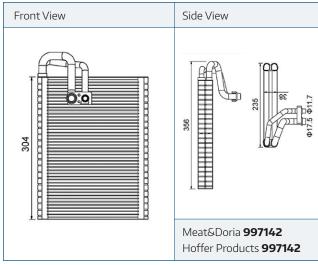


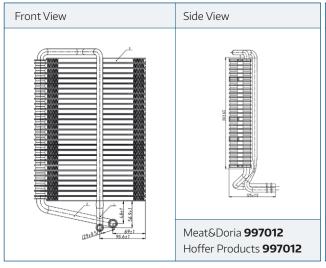


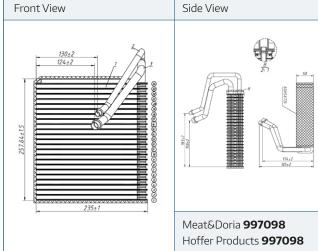


## Examples of codes









# Possible Damage and Inspection/Repair Procedure

Component	Possible Cause	Inspection / Diagnosis	Recommended Resolution
Evaporator	Corrosion	UV dye test	Replace the evaporator
	Gas leakage	Visual inspection	
	Cracks or holes	Leak test	

## Possible Damage to Other Components and Inspection/Repair Procedure

Component	Possible Cause	Inspection / Diagnosis	Recommended Resolution
Compressor	Internal failure due to lack of refrigerant or lubrication	Unusual noises	Check condition and lubrication
		High/low pressure check	Replace if damaged
Receiver Drier / Accumulator	Saturation	Part of the circuit that must always be replaced	Always replace after opening the system
	Presence of moisture		





Component	Possibile Cause	Inspection / Diagnosis	Recommended Resolution
Expansion Valve / Orifice Tube	Blockage	Climate system error diagnosis	Replace if accessible or defective
	Electrical fault (if electronic)	Visual inspection / preventive replacement	
A/C Hoses and Fittings	Leaks from O-rings	Visual inspection	Replace seals
	Hose rupture	Leak test with nitrogen / tracer dye	Repair or replace hoses if necessary
Seals and O-Rings	Wear	Always replace during disassembly	Replace all affected seals
	Hardening due to heat		
Cabin Air Filter	Contamination by mold or refrigerant oil	Unpleasant odors	Replace cabin air filter
		Visual inspection	
A/C Sensors (pressure, temp.)	Faults caused by pressure spikes or moisture	Electronic diagnosis with climate control unit	Check operation
			Replace if faulty
Climate Control Unit / Wiring	Damage during dashboard disassembly	Electrical testing and diagnostics	Careful handling during disassembly
			Repair or replace if damaged
A/C Circuit (general)	Contamination from oil, metal shavings, moisture	Pressure test	Clean A/C circuit before recharging
		Presence of residues or impurities	
Complete A/C System	Total refrigerant loss	Zero pressure	Vacuum, leak test, and recharge with professional climate station
		System does not start	



