



## Fixed Orifice Tube

### General

In contrast to circuits with an expansion valve the liquid refrigerant is injected into the evaporator by an orifice tube. The orifice tube is installed primarily in air conditioning systems with a variable displacement compressor.

### Function

The fixed orifice tube is the separation point between the high pressure and low pressure sides and is located immediately in front of the evaporator.

In front of the orifice tube the liquid refrigerant is under high pressure. As it passes through the orifice tube the pressure decreases rapidly.

### Effects of Failure

A faulty or defective orifice tube can have the following effects:

- Poor refrigeration
- Failure of air conditioning

**Causes of failure or defect:**

- Temperature problems resulting from overheating or icing up
- Contamination in system due to poor maintenance
- Subsequent damage resulting from failure of other system components

### Diagnostics

The following test steps should be taken into consideration for troubleshooting:

- Acoustic check
- Visual check
- Measure temperature in the system pipes and hoses
- Measure pressure with compressor switched on and engine running

