

Automatic Air Purgers

Date added to ETL 2001.

1. Definition of Technology

Automatic air purgers are products that are specifically designed to remove air and other non-condensable gases from an industrial or commercial refrigeration system, with minimum loss of refrigerant.

2. Technology Description

Air and other non-condensable gases leak into refrigeration systems through faulty equipment, particularly seals, and during maintenance operations, especially charging of the refrigerant. In addition, slow breakdown of the refrigerant can also add to the build-up of non-condensable gases.

The presence of air and other non-condensable gases in the condenser and receiver increases system head pressure, which results in excessive compressor power consumption and reduces refrigeration system capacity.

Automatic air purgers remove air and other non-condensable gases from the refrigeration system, resulting in substantial energy savings.

Investments in automatic air purgers can only qualify for Enhanced Capital Allowances if the specific product is named on the Energy Technology Product List. To be eligible for inclusion on the Energy Technology Product List, products must meet the eligibility criteria as set out below.

3. Eligibility Criteria

To be eligible, products must:

- Be designed for permanent connection to a refrigeration system.
- Automatically extract air and other non-condensable gases from a refrigeration system.
- Incorporate a means to separate any entrained refrigerant from the extracted air and non-condensable gases.
- Incorporate a control mechanism that actively minimises the amount of refrigerant lost with the extracted air and non condensable gases.
- Conform with the requirements of the EU Pressure Equipment Directive PED 97/23/EC in respect of their design, manufacture and testing procedures.

4. Scope of Claim

Expenditure on the provision of plant and machinery can include not only the actual costs of buying the equipment, but other direct costs such as the transport of the equipment to site, and some of the direct costs of installation. Clarity on the eligibility of direct costs is available from [HMRC](#).