



F-GAS REGULATIONS

Fluorinated gases have a high global warming effect if released into the atmosphere.

The principal objective of the EC Regulation is to contain, prevent and thereby reduce emissions of F gases covered by the Kyoto Protocol.

There are obligations in the F gas Regulation (EC517/2014) and the Ozone Regulation (EC Regulation 1005/2009) that affect many industry sectors. In some cases the obligations lie with the owner / operator of the equipment. In other situations the obligations lie with third parties, such as equipment suppliers, maintenance contractors and waste handling companies.

Stationary Refrigeration and Air-conditioning - Users of these systems have numerous obligations to prevent leakage of F gas refrigerants. RAC systems using hydrochlorofluorocarbons (HCFC) refrigerants such as R22 need to address a ban on the use of this refrigerant which came into force January 1st 2015.

There are also many obligations that apply to RAC system suppliers and maintenance contractors, especially related to the use of appropriately qualified personnel and certification of companies.

Changes have been made to the limiting quantities which define the frequency of leak testing. The previous limits of 3, 30 & 300kg have been replaced with a number relating to the equivalent tonnes of CO₂. The new labelling takes effect from 01/01/2017. Units with less than 3kg of refrigerant or 6kg for a hermetically sealed system will be exempt until 01/01/2017.

The equivalent tonnes of CO₂ must be displayed on the serial label alongside the actual weight and type of refrigerant. To calculate the equivalent tonnes of refrigerant the following simple equation is used;

Equivalent tonnes of CO₂ = Weight of refrigerant x Global Warming Potential / 1000

Example: A system with 10kg of R410A ET CO₂ = 10 x 2088/1000 = 20.88 tonnes

Leak testing

PRODUCT AND EQUIPMENT	MINIMUM FREQUENCY
Systems with GWP <5 tonnes of CO ₂	Not required
Hermetic systems with GWP < 10 tonnes CO ₂	Not required
System with GWP=> 5 and <50 tonnes CO ₂	Once every 12 months
If leak detector fitted	Once every 24 months
System with GWP=> 50 and < 500 tonnes CO ₂	Twice every 12 months
If leak detector fitted	Once every 24 months
System with GWP=> 500 tonnes CO ₂	Four times every 12 months
If leak detector fitted	Twice every 24 months

Links to more information

<https://acrib.org.uk/news/f-gas-leak-check-changes-from-january-2017>

http://www.legislation.gov.uk/uksi/2015/310/pdfs/uksiem_20150310_en.pdf