

Refrigerants & Industrial Fluids

Regulations

F-Gas Regulations

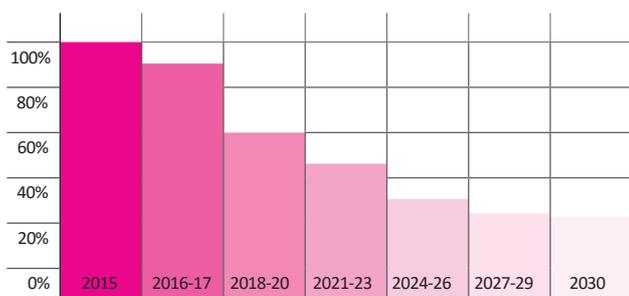
The amendments to the F-Gas regulations came into force on 1 January 2015* with the aim of encouraging users to switch to lower GWP refrigerants. As a user of fluorinated gases there are changes you need to be aware of:

Phase Down

The phase down will be controlled in two ways:

Cap

This will be measured by the amount of HFC's placed on the market from 1st January 2015. The total market use will be stepped down from 100% (based on the average level between 2009 and 2012) to 21% in 2030. This will require the introduction and use of lower GWP refrigerants. The largest reduction is 37% between 2017 and 2018 when the refrigerant used in pre-charged systems also comes into the calculation.



Use

- 2020 – Ban on using new refrigerants with GWP of 2500 or greater for servicing existing commercial refrigeration systems where the charge size is greater than 40 tonnes CO₂ (approximately 10kg of R404A)
- 2020 – Ban on using refrigerants with a GWP of 2500 or more in new stationary refrigeration equipment
- 2022 - Ban on installing new centralised pack systems with a capacity of 40kw or more using refrigerants with a GWP of 150 or more
- 2025 – Ban on single split air conditioning systems with a GWP greater than 750 comes into force for systems of less than 3kg.

Purchase of Refrigerants

From 1 January 2015 refrigerant can only be sold to certified companies. Companies wishing to purchase refrigerant will need to be registered with one of the following bodies:

- **Refcom**
- **Quidos**
- **Bureau Veritas.**

Please note there are some exceptions such as transport refrigeration, OEM's and end users where it is sufficient for the companies to provide details of the engineers F-Gas qualification. Refrigerant can also be shipped by or collected by third parties that are not certified.

CO₂ Equivalent

CO₂ equivalent becomes the norm; refrigerant use and records are to contain the CO₂ equivalent and not only the kilogram quantity. The CO₂ equivalent can be calculated by taking the GWP of the refrigerant in use and multiplying it by the kilogram quantity used.

For example, R404A has a GWP of 3922. A 10kg system would contain 39T CO₂ equivalent (10kg x 3922 ÷ 1000 = 39 tonnes CO₂ equivalent).

Leak Testing

The regular leak testing requirements are now as follows based on the CO₂ equivalent of the system charge:

CO ₂ Equivalent	Leak Detection Required
5 tonnes to 50 tonnes	every 12 months or 24 months with fixed leak detection
50 tonnes to 500 tonnes	every 6 months or 12 months with fixed leak detection
500 tonnes and above	every 3 months or 6 months with fixed leak detection

Reclaimed Refrigerant

From 2020 until 2030 it will be possible to use Reclaimed Refrigerant for servicing systems which contain refrigerants with a GWP of 2500 or more. This will mainly affect R404A systems.

Labelling Requirement

Equipment using reclaimed or recycled fluorinated gases needs to be labelled with such information and must include the batch number, the name and address of the reclamation or recycling facility, the GWP and the CO₂ equivalent.

The future of R404A

New stationary refrigeration equipment using a refrigerant with a GWP greater than 2500 will be banned from 2020. This means that from this date new R404A equipment can no longer be installed. Should existing equipment have a charge size less than 40T CO₂ equivalent (approximately 10kg of R404A) the system can continue to be serviced (topped up) with new or Reclaimed R404A. Please note, it will only be possible to use Reclaimed R404A to service systems above 40T CO₂ equivalent until 2030.

The use of R23 in applications below -50°C

R23 is exempt from the new equipment and service ban where used in applications operating below -50°C.

Systems recently converted from an HCFC to a high GWP HFC affected by this regulation

Systems that have converted from an HCFC to an HFC are still affected by the F-Gas amendments and will need to comply.

For more detailed information please refer to www.acrib.org.uk

*To be reviewed again in 2017.