STATEMENT

Last update: July 2018

ASERCOM
ASSOCIATION OF EUROPEAN REFRIGERATION COMPONENT MANUFACTURERS

R22 phase-out

ASERCOM members have discussed the R22 phase-out in the past and have reviewed their assessment to integrate developments in the industry and in the legal base:

The regulation EU2037/2000 prohibits the use of both Virgin and Recycled HCFCs since 31st of December 2014 (complete ban in EU). The complete phase-out of HCFCs leads to these scenarios:

- No intervention in the system: operation of the cooling plant until end of life
- Use of HCFCs in Maintenance or Service: Prohibited
- Retrofit: an active adaptation of the plant to the new R22 substitute considering the F-Gas Regulation and consequently restrictions on GWP (global warming potential) refrigerants., e.g. overhauling of the complete refrigeration system. Important: R22 cannot be recovered and it must be disposed as hazardous waste
- New installation by means of a refrigerant with a low impact to the environment,I;e;, synthetic or natural like Ammonia, CO_2 or Hydrocarbons

Whereas commercial plants may work with a drop-in refrigerant, the choice of scenario for the large variety of industrial plants will lead to mainly individual solutions depending on various considerations:

- Technical: Complexity of the plant, type of compressor, type of evaporation, capacity, oil management, sealing and material properties, pressure levels and pressure drop, controls
- Commercial: Remaining life time, operational cost, installation cost, down time and availability of refrigerants
- Safety and Environmental: Safety standards, national regulations, toxicity and/or flammability, GWP, ODP, TEWI
- Legislative: PED category, approvals, documentation and phase-down/availability of refrigerants according to F-Gas regulation

Above mentioned factors are not complete, but just some of the main requirements.

A thorough and often complex analysis of the properties of the new refrigerant, with respect to the requirements of the plant, will be necessary to avoid unexpected problems, when drop-in or retrofit is considered. In this case, the contact to the compressor manufacturer is strongly recommended too.
ASERCOM is convinced that a new installation will be the preferable solution, to avoid efficiency, performance, serviceability and reliability issues.