R22 L006

LEGISLATION

R22 REPLACEMENT

The legislation and your options

R-22

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These changes in legislation will affect any company that sustains the need for or has a huge requirement for R22 refrigeration.

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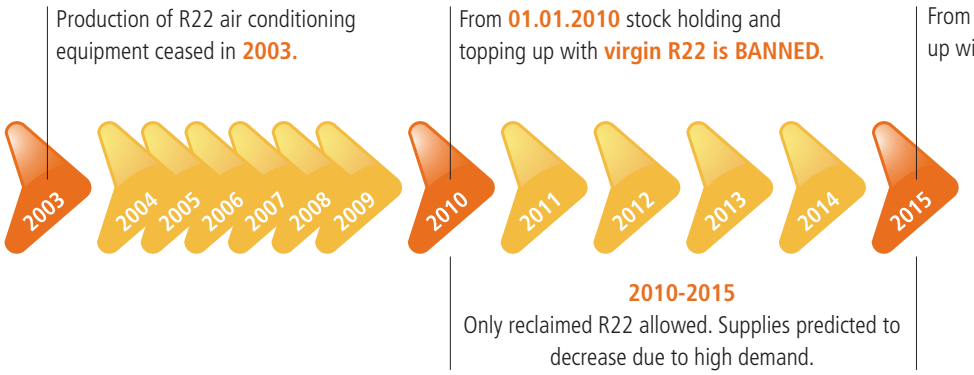

What is R22 and why is it being phased out?

R-22 is a hydrochlorofluorocarbon (HCFC) and was commonly used in air conditioning, process chiller and industrial refrigeration plant applications. It will soon be phased out due to ozone depletion potential and status as a potent greenhouse gas. These changes in legislation will affect any company that has a plant containing R22 refrigeration.

R22 was used as alongside the highly ozone-depleting (ODP) CFC's, but has a relatively low ozone depletion potential. However, even this lower ODP is no longer considered acceptable. The Montreal Protocol, modified by the EU enforces the end of supply of R22 by 2015, due to the detrimental effect the refrigerant can have on the environment and the ozone layer. Understanding the current market conditions is crucial during the replacement and specification process as critical deadlines are approaching.

When should I replace?

Production of R22 air conditioning equipment has already ceased, so no new equipment will contain R22 refrigerant. R22 refrigerant is still being produced, but production will cease in 2010.

Reliable leak free R22 equipment need not necessarily be replaced immediately as even when new R22 refrigerant is no longer available, reprocessed R22 can be used until 2015. However, there are a number of potential problems with waiting until the last minute to replace.

What should be considered when thinking about replacement?

There are pressures of changing an R22 refrigeration system upon a company that relies upon the refrigerator for its daily running. The key to a smooth transition lies with the project management of the removal of the R22 refrigerant and professional installation of a replacement system.

The majority of R22 refrigeration units are at least one third of the way through their foreseeable life. As existing R22 refrigeration systems begin to require modernisation, the majority of companies are choosing to phase these out rather than go to the expense of needlessly repairing or maintaining them.

Efficiency
New refrigerant R410A which has a zero ozone depleting potential is also more energy efficient than the R22 refrigerant. In addition to this, due to the significant technological developments of heat pump technology, older forms of air conditioning run less efficiently than the systems available today. Up to a 30% increase (and in some cases over) in efficiency can be achieved with R410A inverter air conditioning in comparison to older style R22 equipment. Increased efficiency equates to less energy consumption, lower subsequent energy costs and lower CO_2 emissions.

Cost and Reliability of Supply
The cost of refrigerant R22 may increase as the supply of virgin R22 is banned and supplies of reprocessed are in high demand. The timescale for replacement will vary dependent upon the age of the existing equipment its application and the comparative implications and benefits. Maintenance costs and the reliability of the existing system should also be considered.

Budget and 'Down Time' Planning
Depending on the size of your plant and its requirements, the cost for replacement will vary. However, most companies will benefit from planning the various stages of replacement, over a period of time that allows them to budget and plan down time appropriately without the pressure of the impending deadline.

Tax Benefits – Enhanced Capital Allowance (ECA)
The ECA scheme is a key part of the Government's programme to manage climate change, and is designed to encourage businesses to invest in energy saving equipment. It provides businesses with enhanced tax relief for investment in equipment that meets published energy saving criteria. For more information, please refer to the Daikin guide to ECA.

End of Life Recycling
Even though the recycling of fixed air conditioning is not yet part of the WEEE regulations, you can still guarantee peace of mind by using Daikin UK's take end of life recycling service. If you decide to replace your existing R22 equipment with an energy efficient Daikin system, you can minimise the impact on the environment by recycling up to 95% of the redundant equipment, regardless of its manufacturer. Please read our recycling leaflet for more information.

Support

For assistance planning your R22 replacement and advice on the best Daikin system to replace it with, email r22r@daikin.co.uk.