Time is running out for R22 refrigerant

Perfect replacement solutions for the imminent phasing out of R22
Time is running out for R22

After 31st December 2009 it will be illegal to use virgin HCFCs for the maintenance and servicing of refrigeration and air conditioning.

Any business operating air conditioning systems that use R22 will therefore be affected.
R22 Phase Out

The facts

Whilst the majority of end-users and contractors are aware of the imminent phasing out of R22 refrigerant and the relevant legislation, there is a lot of confusion circulating the industry and few fully understand the potential impact that this legislation may have on them and their business.

As responsible market leaders, Mitsubishi Electric are keen to present the facts to help clarify the issues that surround the phasing out of R22. We aim to help businesses everywhere to cut through conflicting information and to realise the facts and appreciate the wider implications of this ban:

- **HCFC refrigerants have been proven to have ozone depletion potential and legislation has been put in place to ensure the use of all HCFCs is phased out by 2015**

- **R22 is an HCFC refrigerant and as such is covered by the EC Ozone Regulation No. 2037/2000:**
  - The use and sale of virgin HCFC will be banned from 31st December 2009
    This applies to all virgin HCFCs, even if purchased before the deadline
  - The use and sale of recycled HCFC will be banned from 31st December 2014
    This applies to all recycled HCFCs, even if purchased before the deadline
  - The use of non-refillable containers for transporting or storing HCFCs is banned

- **Production of R22 is illegal and availability will decline**

- **R22 is widely used in air conditioning and any business operating air conditioning systems that use R22 will be affected by the ban and must comply with the regulation**

- **Operators of all air conditioning systems must:**
  - Use appropriately trained personnel to carry out installation, servicing and maintenance and leakage checking
  - Recover Ozone Depleting Substances, such as R22, during servicing and maintenance and at the end of the systems life

- **Operators of air conditioning systems with more than 3kg of refrigerant must carry out annual checks for refrigerant leakages**

We believe that an ill-informed approach to the ban could prove expensive and, at worst, leave you without your air conditioning. By presenting the facts, highlighting the potential impact and providing cost effective solutions, we hope to enable you to make an informed decision on which course of action best suits your individual needs.
R22 Phase Out
The impact

Any business using R22 air conditioning systems will be affected by the imminent ban and should therefore be aware of the impact it’s likely to have. By providing you with an insight into the wider implications and the issues surrounding the phasing out of R22, we aim to highlight the potential impact it’s could have on your businesses and help you prepare as the legislation becomes law.

Who will be affected and how?

Air conditioning & Refrigerant manufacturers
Air conditioning and refrigerant manufacturers will be affected by the ban and must provide solutions to cater for the imminent phase out. In response to this, Mitsubishi Electric have spent a great deal of time and resources developing our product range to support any business that’s affected. Where it’s considered necessary or appropriate, we’re fully able to facilitate the effective partial or full replacement of systems that currently use R22.

End-users
All major end-users of air conditioning that uses R22 will need to consider the alternatives. The imminent ban is already having an impact on the availability of R22 and it’s largely anticipated that as stocks deplete further, the price will rise accordingly and could force end-users to pay significantly inflated costs to maintain existing systems. When compared to the new, advanced systems of today, the running and maintenance of ageing air conditioning systems can already prove uneconomical and is set to become increasingly so. As people begin to realise the need to act to replace R22, there could also be a shortage of a skilled labour within the industry as it struggles to cope with the demand for conversions and the installation of new replacement systems.

Whilst there are a number ‘drop-in’ refrigerants being promoted within the industry, they offer only a partial solution and could compromise system performance and render warranties invalid. End-users should perhaps realise that this could serve to merely defer as oppose to solve the problem.

Air conditioning contractors
In light of the phasing out of R22, contractors throughout the industry are adopting new measures in order to comply with the legislation and continue to service the industry, both before and after the R22 phase out dates. In an effort to raise industry standards and provide end-users with a consistently high level of service, Mitsubishi Electric have a number of Business Support Partners and Accredited Installers who are highly trained in all aspects of air conditioning and fully able to offer support throughout this change and beyond.
R22 Phase Out

Why replace makes sense

Whilst the phasing out of R22 is likely to force end-users to take action, it’s important to note that radical advances in technology over recent years, have already made the argument for replacing older systems a truly cost effective choice. Newer, more efficient systems and advanced levels of control quickly pay for themselves in terms of efficiency, energy savings and performance.

There are three main factors driving the need for customers to replace inefficient air conditioning:

- Increased energy costs
- Pressure to reduce CO2 emissions
- The need to adhere to the latest legislation

In response to the need for greater all round efficiency, Mitsubishi Electric are constantly striving to enhance the products and services we offer. We have an ongoing policy to develop effective technologies that will help. One such advance is the development of unique software to help assess if and when it’s cost effective to replace:

Helping you to consider the facts

Replace Audit Tool - unique software to assess system efficiency

Mitsubishi Electric have developed the Replace Audit Tool - unique software designed to help assess individual needs and determine the efficiency of an existing system when compared to the new, advanced systems of today. By inputting details of the existing system and comparing it to a newer system, the Replace Audit Tool can highlight any potential inefficiencies in terms of both running costs and CO2 emissions.

Advanced technology means that regardless of the need to plan for the phasing out of R22, the replacement of older air conditioning with newer systems already proves attractive, by providing:

- Higher efficiency and lower energy bills
- Reduced CO2 emissions
- Renewed warranties and peace of mind

So, whatever their situation, end-users everywhere are faced with the very real need to consider what actions to take in view of the imminent phasing out of R22 and as responsible manufacturers we’re keen to provide the appropriate solutions. With the help of the Replace Audit Tool, we hope to make it easy for end-users to compare the efficiency of old and new systems and see for themselves if and when it can prove cost effective to replace.

Don’t get caught out

With the deadline fast approaching, supplies of R22 will diminish and costs may rise. To avoid over-priced maintenance costs or even system failure

Act now!
R22 Phase Out

Energy efficient solutions

As well as developing technologies to assess efficiencies and help facilitate full or partial system replacement, Mitsubishi Electric boast a comprehensive range of air conditioning and controls perfectly suited to help address the phasing out of R22.

Mitsubishi Electric are market leaders in the air conditioning industry, providing the very latest in heating, cooling and ventilating solutions. Whatever your requirement, be it a single retail outlet, a large commercial complex or a number of sites across the UK, we have the widest range that’s perfect for any size application. For the smaller applications such as single shops, banks or offices, we offer a range of versatile yet affordable air conditioning systems that are quick to install, efficient and quiet to run. Providing reliable comfort for the minimum of fuss, we also offer one of UK’s best selling split systems specifically designed to cater for medium sized applications, such as larger retail outlets, hotels and alike.

Rising energy costs and the need to reduce CO\textsubscript{2} emissions drive the need for efficiency. To substantially increase performance and reduce overall power consumption, most of our range is available with ‘Inverter Technology’ that’s designed to significantly reduce both energy bills and emissions. Our most powerful range provides simultaneous heating and cooling for the more demanding applications and boasts some the highest energy efficiency ratings available today. Measured in COP (Co-efficient of Performance), the efficiency of our latest systems is unrivalled. COP is a measure of the useful energy that a system can deliver compared to the energy it consumes, the higher the COP figure, the more efficient the system.

‘Replace Technology’ that enables quick and easy partial replacement

Constantly at the forefront of the latest advances in technology, Mitsubishi Electric developed ‘Replace Technology’ more than five years ago, to enable end-users to partially upgrade their old systems by utilising existing pipework and in some instances the original wiring and controls. Whilst our competitors have since developed similar technologies, with over 1⁄2 million installations to our name worldwide, we consider ourselves to be the leading experts in this field. Not to be seen as a half way measure, this technology really does provide an affordable means of upgrading your system. By simply replacing existing units with the newer, more efficient ones that are available today, both installation costs and disruption to your business are kept to an absolute minimum. Safe in the knowledge that the system will work perfectly using existing pipework, you’ll quickly benefit from significant energy and CO\textsubscript{2} savings.

Advanced Controls

Often an area that’s overlooked, the need for simple, yet effective control of an air conditioning system is paramount to help maximise performance and minimise running costs. We offer the widest range of advanced, modern control systems to ensure controlled comfort and significantly lower energy bills.

Comparison of COP (energy efficiency) of a City Multi 8hp YHM-A system

*Average COP of cooling heating
Time is running out for R22 - Act now!

We’ve given you the facts, highlighted the potential impact and presented some potential solutions, so now it’s up to you to consider your options and plan accordingly for how you intend to deal with the imminent phasing out of R22.

To compliment our extensive range of systems and controls, Mitsubishi Electric operate a Partner Programme to ensure you benefit from the highest level of service, installation and after sales support. We have a number of Business Solutions Partners and Accredited Installers based throughout the UK, all of whom are fully trained and knowledgeable on all aspects of air conditioning and the replacement of existing systems. All of our Partners must adhere to the highest standards and meet strict criteria to provide you with a consistent, professional service on which you can rely.

To discuss what options are available and how they best suit your individual needs, please contact:

Corporate Sales 0870 3000 070
Air Conditioning 01707 282880
The Green Gateway Initiative

With over 40% of the UK’s CO₂ emissions being due to heating, cooling and powering buildings, Mitsubishi Electric have the ability to make a huge difference to the way in which we use energy to provide comfort. In direct response to the Governments need to reduce CO₂ emissions and make better use of energy, we’ve launched The Green Gateway Initiative® - a bold and ambitious initiative designed to challenge use of energy and improve the way in which we heat, cool and ventilate our buildings. We aim to reduce CO₂ emissions by over 3 million tonnes per year, by the year 2016 and help mitigate the rising costs of energy.

For more information visit www.greengatewayinitiative.co.uk