R-22 HVAC Equipment Conversion

Refrigerant Conversion For A Sustainable Future

Carrier On-Site Refrigerant Conversion for HVAC Equipment Using R-22

Many buildings contain Carrier equipment that have years of reliable, efficient service ahead, but that utilize the refrigerant R-22 — which is subject to an international phase-out due to its ozone-depleting qualities. Whether owners and managers have a "green" initiative or simply foresee an uncertainty in the cost of R22, many now seek to retrofit their equipment with an alternative refrigerant that will be readily available, cost-effective and environmentally preferred throughout the service life of their chiller.

Carrier Commercial Service offers a refrigerant conversion to meet the needs of these owners and managers. Carrier proactively started conversions in response to first refrigerant phase-outs over 20 years ago. Carrier's R22 conversion program is an engineered retrofit, available only through Carrier Commercial Service and is performed by certified Carrier technicians with factory training on the chiller types involved.

Eligible Equipment:

The following Carrier equipment is eligible for a refrigerant conversion with DuPont™ ISCEON® MO99™ refrigerant (R-438A):

- Water-cooled 30HK/HR/HW chillers
- Air-cooled 30GA/GB/GN/GT chillers

Refrigerant Conversion Benefits

- An alternative solution for existing R22 equipment
- Possible LEED accreditation (30-series water-cooled chillers can contribute to LEED points)
- A custom-engineered, tested and proven retrofit
- Conversions performed by certified Carrier technicians
- A tangible committment to provide corporate- and community-based environmental solutions

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LEED® Credit for Refrigerant Management

Contemplating a renovation that aspires to LEED® (Leadership in Energy and Environmental Design) certification? Your chiller may contribute to your rating. The LEED® Enhanced Refrigerant Management credit is available for Carrier 30-series water-cooled chillers using refrigerants such as DuPont™ ISCEON® MO99™ refrigerant (R-438A) that minimize ozone depletion levels.

In the event that equipment requires a comprehensive overhaul to extend its working life, this operation can also be completed simultaneously during conversion onsite.

Upgrade to Environmentally Preferred DuPont™ ISCEON® MO99™ Refrigerant (R-438A)

The Carrier refrigerant conversion eliminates R-22 and primes the chiller to continue its reliable service into the future using the non-ozone-depleting DuPont™ ISCEON® MO99™ refrigerant (R-438A). While no two installations are identical, equipment will likely experience lower capacity and increased energy usage after the conversion. However, your Carrier equipment will continue to be dependable and long-lived, without the negative environmental consequences of ozone-depleting refrigerants and without subjecting operating budgets to the uncertain R-22 market.

Why Is R-22 Being Phased Out?

The Earth's protective ozone shield extends approximately 7-30 miles into the stratosphere and blocks some of the potentially lethal effects of solar ultraviolet radiation. Life on Earth formed only after the ozone layer was in place. Depletion of the ozone layer is partly caused by chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs), chemicals found in older refrigerants, aerosols and other industrial applications.

To protect the environment we all depend upon, the Montreal Protocol was signed in 1987 by nations around the globe to phase out ozone-depleting CFCs and HCFCs. The protocol stipulated that new cooling equipment must use non-ozone-depleting refrigerants. It also provided for a timed phase-out of the refrigerants, including HCFC-R-22. Since that time, production of R-22 has undergone a planned reduction, with the result that the global supply of R-22 is decreasing. Supply will continue to taper off until this refrigerant has been eliminated.

For more information about our R22 HVAC Equipment Conversion services, contact your local Carrier representative or go to: www.commercial.carrier.com

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