



Feature

Launched New Refrigerant Service in Europe Contributing to a Circular Economy

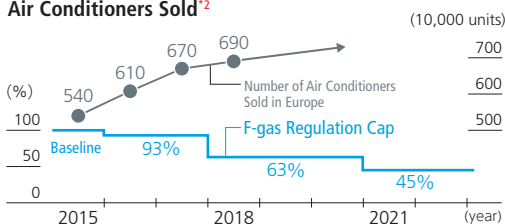
Why is it important?

Proper and Continued Use of Refrigerant is Essential to the Stable Supply of Air Conditioners

The EU is taking regulatory action (F-gas Regulation)^{*1} to control the total consumption of HFC refrigerants in order to reduce global warming due to fluorocarbons.

However, with global demand for air conditioners using refrigerants increasing, tight supply-demand has caused the price of refrigerants to soar. To continue a stable supply of air conditioners essential to a healthy and comfortable lifestyle, it is important to switch to refrigerants with lower environmental impact as well as recycle and reuse existing refrigerants.

European F-gas Regulation Cap and Number of Air Conditioners Sold^{*2}



^{*1} The EU F-gas Regulation aims to reduce the total consumption of HFCs (global warming impact conversion of production volume + import volume - export volume) in stages.

^{*2} Compiled by Daikin based on the market demand data by the Japan Refrigeration and Air Conditioning Industry Association.

DAIKIN'S APPROACH

Proposing the Circular Use of Refrigerants in Europe that Contributes to a Circular Economy

In anticipation of tighter regulation on total consumption volume, Daikin launched the service in Europe for the circular use of refrigerants. Based on the philosophy of a circular economy, we aim to shift from linear use of products that are manufactured, consumed, and disposed to a model of continuous recovery and reuse of resources.

Currently, when air conditioners are disposed of, refrigerants inside them are destroyed following recovery. However, refrigerants can be reused repeatedly by removing impurities. Such circular use reduces the amount of new refrigerants being brought to market.

Daikin has established a refrigerant reclamation facility in Germany, harnessing its expertise in air conditioning and chemicals. At the same time, we are working with A-GAS, a UK-based company that recovers and reclaims refrigerants. Following this established route, in June 2019, Daikin launched sales of the multi-split type air conditioner VRV L∞P for commercial buildings, which utilizes reclaimed refrigerants.

DAIKIN'S PERFORMANCE

Helping Address Customer and Societal Challenges Using an Industry-first Mechanism

We sold 14,000 units of VRV L∞P in the first 10 months since its release. As a result, the amount of new refrigerants being used in multi-split type air conditioners for commercial buildings that Daikin sells in Europe has been reduced by about 40%.

To further promote the circular use of refrigerants, Daikin offers a combined service where refrigerant recovery from used air conditioners is offered together with VRV L∞P sales to major customers as they replace their air conditioners. To reassure customers with concerns over future refrigerant shortages, we offer to temporarily store recovered refrigerants and guarantee their required refrigerants will be in stock at the time of maintenance. This service offers a solution that ensures recovered refrigerants are reclaimed and put back into circular use as resources. This service has already seen sales increase in the Netherlands after gaining popularity among environmentally conscious customers.

In the Netherlands, the service was adopted by Action, which operates retail store chains in Europe. Used refrigerants are gradually being recovered from stores undergoing renovation, while VRV L∞P units are installed in new stores. To date, recovery has been completed at 12 stores operated by the company, with 30 more scheduled. Going forward, Daikin will be expanding the service area to other European countries.

Voice

Establishing a Circular Economy for Refrigerants within Our Store Network

Michiel Coolen

Head of Construction Europe at Action

We are further mitigating our company's impact on the environment by recycling and reusing refrigerants instead of disposing of them and increasing waste.

NEXT CHALLENGE

Establishing an Economically Viable System and Quickly Promoting the Circular Use of Refrigerants

Although refrigerant recovery assuming final destruction and disposal is mandatory in Japan and Europe, the rate of recovery has yet to grow markedly.

To boost the recovery rate, it is crucial that society shares the notion of the critical need for recovering and reusing refrigerants for the future. Additionally, collaboration and partnerships with the government and industry are essential in order to establish economically viable systems in each region. Daikin is working with their partners to make a circular ecosystem of refrigerants a reality and promote the practice outward from Europe to the rest of the world.

Circular Ecosystem of Refrigerants Proposed by Daikin

