

Sustainable cooling solutions:

Closing the loop: Refrigerant reclamation and reuse as contribution to a circular economy of refrigerants

CATEGORY:

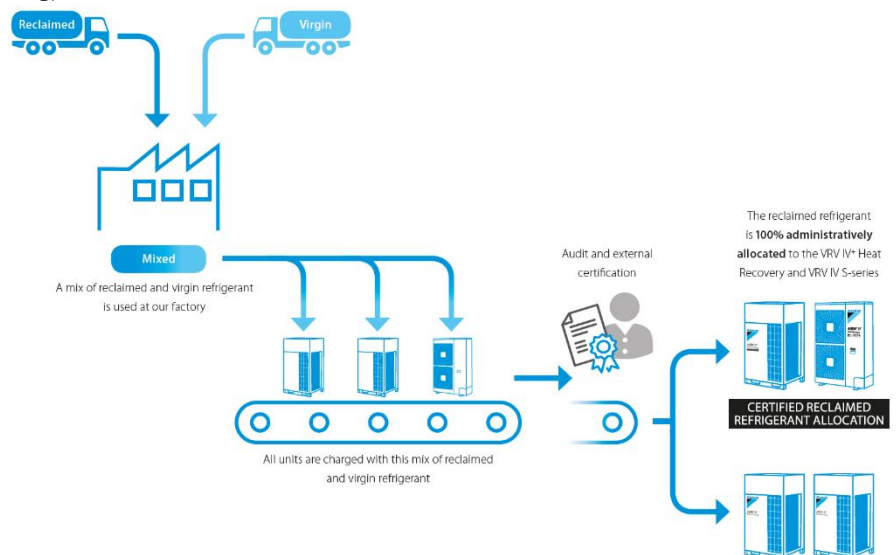
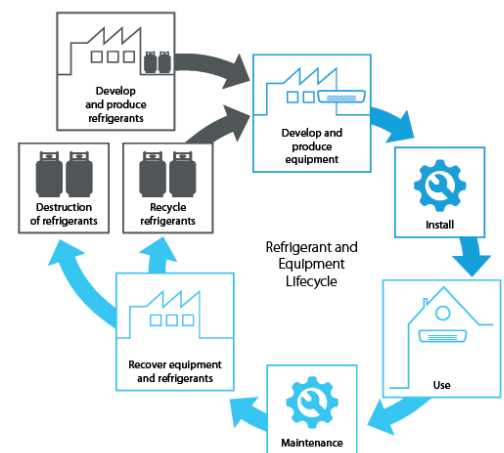
Thermal comfort

THE CONTEXT:

With the EU F-Gas Regulation and the global Kigali Amendment to the Montreal Protocol, both introducing a phase-down of HFC refrigerants, reducing the climate impact of refrigerants has become an essential part of sustainable cooling. Development and use of refrigerants with a lower global warming potential (GWP) are a typical example of how this goal can be achieved, but should be complemented by a life cycle approach, investing into refrigerant recovery, recycling, reclaim and reuse of refrigerants. Such an approach will not only contribute to achieving the phase-down on a European and global level, but also to resource efficiency and to the Sustainable Development Goal (SDG) 12 on sustainable consumption and production.

SUSTAINABLE COOLING SOLUTION:

- “Certified Reclaimed Refrigerant Allocation” with refrigerant recovery, reclaim (high quality recycling).
- Currently applied to Daikin VRV IV+ heat recovery, VRV IV S-series and Daikin Applied Chillers.
- An independent laboratory first assesses whether the reclaimed refrigerant is of the same quality as virgin refrigerant. A mix of new and reclaimed refrigerant is then used at the factory to charge the units.
- For the moment, the process is used for HFC refrigerants R-410A and R-134a, but the program has large potential to be expanded to other refrigerants in the future.



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BENEFITS:

- By manufacturing with reclaimed refrigerants, recovered refrigerant is reused instead of being destroyed and production of new refrigerant is avoided
- In 2019, the first year of the launch of the “Certified Reclaimed Refrigerant Allocation” programme, the production of over 150,000 kg of new refrigerant was avoided.

TAGS:

- Heat Pumps
- Refrigerants

GENERAL INFORMATION

NAME OF THE COMPANY: Daikin Europe

CONTACT PERSON: Valérie Lammerant



HYPERLINK TO LEARN MORE ABOUT THE SUSTAINABLE COOLING SOLUTION:

https://www.daikin.eu/en_us/press-releases/certified-reclaimed-refrigerant-allocation-vrv-iv-deu19-017.html