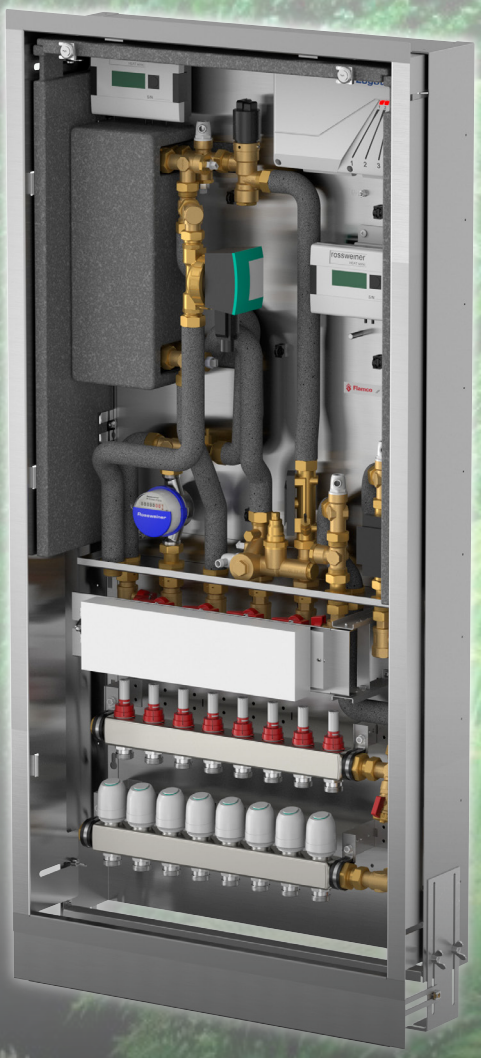
flamco

that's excellence.

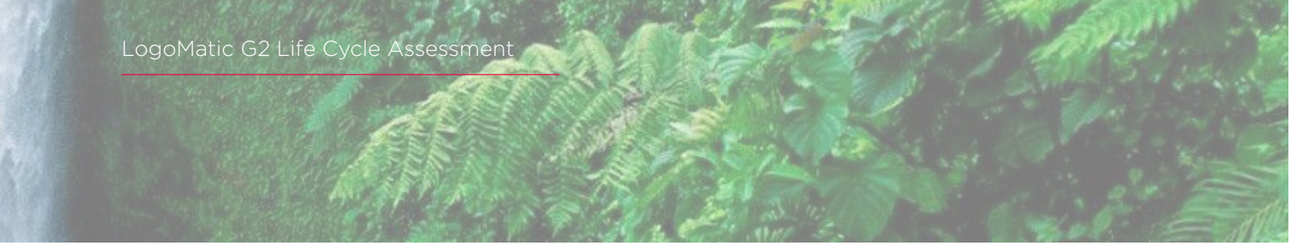
LogoMatic G2

Transfer Stations

Life Cycle Assessment



aalberts hydronic flow control



Ambitions (sustainability)

Pushing boundaries

Aalberts develops innovative technologies and pioneering industries for daily use. The Aalberts hydronic flow control business segment, with the main brands Flamco and Comap, focuses on technologies for current and future climate systems. We make our dreams and those of our customers come true – in a no-nonsense and professional manner. We do this by constantly pushing boundaries and challenging ourselves. By learning and sharing our knowledge, we become better every day. We are very proud of this.

Sustainable business

Approximately 50% of the world's energy consumption comes from buildings, and air conditioning systems account for half of this consumption. It is therefore very important that these systems operate correctly and as energy-efficiently as possible. We make this possible by continuously improving our products and systems. Sustainable business is also in our DNA: we make responsible choices and strive to exceed our sustainable ambitions. It is not without reason that our office in Almere scores as 'outstanding' (BREEAM) in the area of sustainability. We also want to continue to improve in the years to come by:

- Providing insight into the energy consumption of our production facilities and our buildings.
- Making our carbon footprint fully measurable from 2022.
- Ensuring an annual CO_2 reduction of 5% between 2020 and 2025
- Only using biodegradable packaging material from 2024 onwards.
- Design sustainable products and technologies from 2025 onwards

Integral approach

Buildings consume a lot of materials and energy, and building systems offer opportunities for substantial savings. In our ambition to make HVAC installations and buildings more sustainable, we look at the entire life cycle of our products. Each phase has different sustainability aspects. A life cycle assessment (LCA) provides insight into the environmental impact at all stages – from raw material extraction to end-of-life.

Life cycle assessment

Our LCAs are carried out according to a standardised and internationally recognised method (NEN-EN-ISO 14040 and 14044) and with the aid of professional programmes and data (openLCA and ecoinvent). The LCA provide valuable, reliable data on the environmental impact of our products. We use this data to innovate and achieve further (environmental) savings. We also make this data accessible to our customers so that they can use it to support their product choices.

LogoMatic G2 Transfer Stations

Flamco's LogoMatic G2 range is a new generation of highly efficient, compact, plug-and-play, decentralised and wall-mounted thermal interface units which offer electronically controlled hot water preparation for space heating and domestic hot water in multi-residential buildings. LogoMatic Heat Interface Units are high performing units, engineered with fully tested and approved components, designed to provide optimum performance for end users, while ensuring that they are easy to install and maintain.

Courtesy of its adjustable primary volume flow rate and the associated primary energy capability, the LogoMatic G2 uses the minimum amount of energy required in hot water preparation; depending on the primary network conditions, it can further reduce the return line temperatures, thereby improving the network efficiency of the system as a whole. Also built into the system is adaptive hot water priority, automatic switching to increase customer comfort.

When introducing the LogoMatic G2 Heat Interface Unit, Flamco carried out an LCA. The LCA focuses on the most important factors that determine the environmental impact of the product. In total 6 different environmental indicators were used: ozone depletion,Minerals and metal resource use, climate change, acidification, freshwater eutrophication and photochemical ozone formation.

LogoMatic G2 Life Cycle Assessment

Results

The provided data represents environmental impact assessments across different stages of a product's life cycle, measured in various impact categories. Here's a breakdown and analysis of the data:

Ozone Depletion (kg CFC-11 -eq):
The highest contribution to ozone depletion comes from the "Use" stage, followed by the "Manufacturing" stage.

Minerals and Metal Resource Use (kg Sb -eq):
The largest contributor to minerals and metal resource use is the "Use" stage, with the "Manufacturing" stage also having a significant impact.

Climate Change (kg CO2 -eq):
The "Use" stage significantly contributes to climate change, followed by the "Manufacturing" stage. This is expected, as energy-intensive processes often occur during the use and manufacturing of products.

Acidification (mol H+ -eq):
The "Manufacturing" and "Use" stages contribute the most to acidification, with the "Use" stage being the major contributor.

Freshwater Eutrophication (kg P -eq):
The "Use" stage has the highest impact on freshwater eutrophication, with the "Manufacturing" stage being the second most significant contributor.

Photochemical Ozone Formation (kg NMVOC -eq):
The "Use" stage also dominates in photochemical ozone formation, with "Manufacturing" being the second most impactful stage.

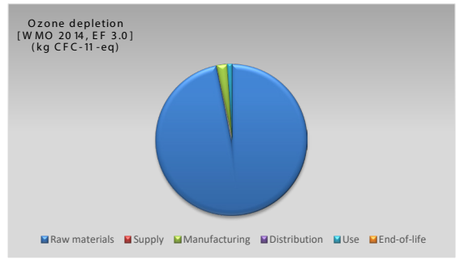
Conclusions

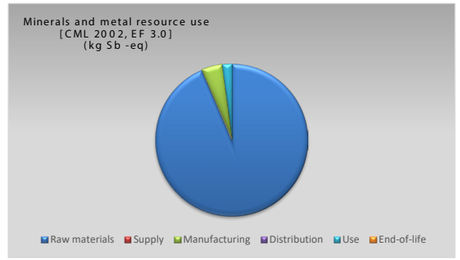
Across all impact categories, the "Use" stage consistently stands out as the most significant contributor to environmental impacts. This suggests that efforts to reduce the overall environmental impact of the product should focus on improving efficiency and sustainability during the product's usage phase.

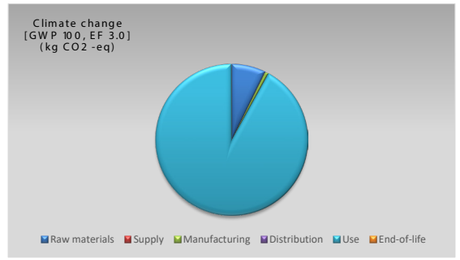
The "Manufacturing" stage also plays a crucial role in several impact categories, indicating that optimizing manufacturing processes and materials can contribute to reducing the overall environmental footprint.

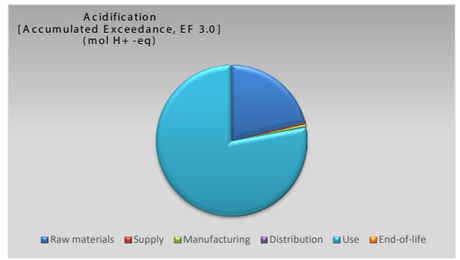
The "End-of-life" stage has a relatively small impact in most categories, suggesting that the environmental impact of waste disposal might not be as significant compared to other stages. However, it's essential to consider proper disposal methods to minimize any negative impacts.

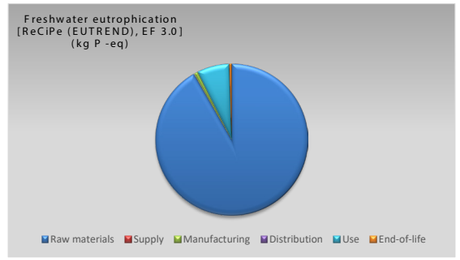
In summary, addressing environmental concerns related to the analyzed product should involve strategies aimed at optimizing resource use, energy consumption, and emissions during both the manufacturing and usage phases.

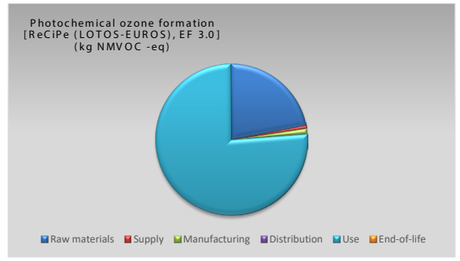












Want to know more?

For a complete and up-to-date overview of our product range and our additional services, please visit: www.flamco.aalberts-hfc.com.
Would you like to make a personal appointment with an account manager in your region or get advice and support from our experts by telephone?

Then contact us at:

Aalberts hydronic flow control (Flamco)
Fort Blauwkapel 1 / 1358 DB Almere
The Netherlands
+31 (0)36 526 3000 / nl.info@aalberts-hfc.com

flamco.aalberts-hfc.com

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