

MasterJet S 500+

Product life cycle assessment (Cradle to Gate)

Product: MasterJet S 500+
Date: 09/01/2025 (B)
Tool version: 7.0 (December 2022)



For questions and detailed information, please contact your reseller.

- (1) **Cumulative Energy Demand (CED)** measures the total amount of energy extracted from the environment. It can be divided into non-renewable and renewable energy sources. Only the non-renewable contribution to the overall CED indicator is reported in this assessment as renewable sources do not contribute significantly to climate change, air pollution or fossil resource consumption impacts.
- (2) **Water consumption** measures the net use of fresh water (input minus output).
- (3) **Carbon footprint** quantifies the emissions of greenhouse gases into the atmosphere that contribute to climate change impacts. The carbon footprint results report only the fossil emissions, and so exclude biogenic CO₂, soil carbon storage and CO₂ from land use change.
- (4) **The biogenic content** in the final product (expressed in CO₂ equivalent) is provided as additional technical information. It is not recommended to combine fossil and biogenic impacts in cradle-to-gate studies. This can give a misleading impression of environmental performance as the sequestered biogenic carbon is typically released back into the atmosphere at end of life, which is outside the scope of the assessment (ref to note #3).

DISCLAIMER

The LCA product assessment calculations follow the requirements and guidance given by ISO 14040/44. This is a cradle-to-gate assessment. It takes into account all impacts from raw materials production at the origin to the finished product leaving the factory. DEKRA GmbH has carried out a pre-validation of the tool (version 1.0, January 2022), confirming that the LCA methodology is scientifically and technically valid in accordance with ISO 14040/44. Please note that the validation of the specific data and generated indicators by users of the tool is outside the scope of the pre-validation. Therefore, no comparison of the present quantitative LCA result is possible with other studies unless methodological and data assumptions are the same. Version 1.0 of the tool has been subjected to third-party certification. The calculation methodology of the versions of the tool subsequent to 1.0 remains consistent with those of version 1.0 and is therefore to be considered scientifically and technically aligned with ISO 14040/44. As the tool will constantly be updated to guarantee the use of the most accurate and up-to-date dataset, further validations of the updated versions will be performed periodically. The next review is expected to be performed in early 2023.