

Design for sustainability (DfS) scorecard



With our DfS scorecard, we drive sustainability improvement during the product development process through multiple product sustainability criteria divided into seven impact areas.

Milli-Q® IQ 7003/05 Purification Kit* (This purification kit is used with a Milli-Q® IQ 7003 or IQ 7005 Pure & Ultrapure Water Purification System)



Ultimate ultrapure and pure water solution - less electricity, more compact and mercury-free UV lamps

Impact areas

Results



MATERIALS

26% system size reduction but 8% weight increase due to more efficient but heavier power supply
33% reduction of plastic for purification cartridges thanks to innovative IQnano® ion-exchange media



SUPPLIERS & MANUFACTURING

No change compared to baseline product in consideration of our DfS criteria



PACKAGING

For purification cartridges' packaging, 34% weight and 30% volume reduction compared to initial design due to new protective insert design. System and purification cartridges' corrugated boxes with sustainable forestry certification. Protective inserts made of 100% bio-based polyethylene (PE) foam from sugar cane waste for the system and made of PE foam with a minimum of 50% recycled content for the Q-POD® and E-POD® water remote dispensers.



ENERGY & EMISSIONS

26 to 28% reduction of system electricity consumption thanks to optimization of components and processes as well as an embedded improved "Lab Close" mode



WATER

11 to 13% water reduction during system use thanks to new periodic EDI rinsing
Reduction of water consumption during system quality control thanks to the implementation of a new impermeability test by air instead of by water



USABILITY & INNOVATION

Innovative UV oxidation lamps with mercury-free xenon excimer technology, and bactericidal lamps with mercury-free UVC LED technology.
Easy and quick cartridge replacement thanks to unique patented twist and lock technology



CIRCULAR ECONOMY

The system is designed to be easily maintainable and have a lower replacement frequency of purification consumables. Implementation of a drain cap enables to purge about 50% of the water from the purification cartridges, representing about 25% of the cartridges' total weight prior to disposal.

Baseline product: Milli-Q® Integral 3 and 5

* The characteristics presented in this DfS scorecard visual are the ones of the entire platform including the water purification system and the purification cartridges