

TECHNOLOGICAL INNOVATION

Ataway becomes the first French manufacturer of high-capacity hydrogen refueling stations to implement the international fueling protocol MC Formula

A technological advance that improves station availability and/or saves energy.

Paris, March 23, 2023

While hydrogen mobility is being structured throughout France and internationally with the launch of new hydrogen ecosystems in many territories, **Ataway, the French leader in hydrogen refueling stations (with more than 40% of the operational stations¹), is pleased to announce the integration of the MC Formula refueling protocol on all its evolutive refueling stations capable of delivering up to 1.3 tons/day.** This extremely complex fueling protocol allows the station operator to improve station availability – and therefore maximize the number of charged vehicles each day – or to reduce its energy use at equivalent filling speed.

By being the first French manufacturer to integrate this international fueling protocol, Ataway stands out as an expert in hydrogen distribution.

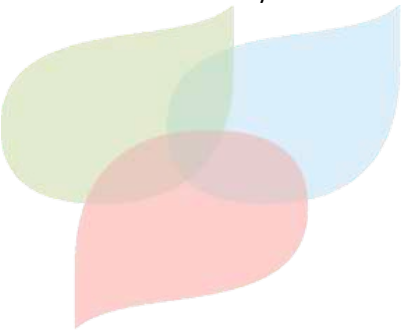
MC Formula, a unique fueling protocol with multiple benefits

Two major international refueling protocols for hydrogen refueling stations currently exist: the so-called "table-based approach" protocol, or the "MC Formula" protocol. Each hydrogen refueling station manufacturer is free to apply one of them; each being attached to the international standard SAEJ 2601.

The most standard protocol, since it is easier to implement and less expensive to install, is the table-based approach. The refueling parameters are calculated at the beginning of the refueling and cannot vary throughout it. This method thus determines a refueling speed according to the ambient temperature and the expected temperature of the hydrogen leaving the station.

The second one is called MC Formula. More complex to implement, this protocol **enables the refueling time optimization by recalculating the refueling speed every second according to the actual temperature of the hydrogen delivered.**

¹ At the end of December 2022 : 28 hydrogen refueling stations in service for a total fleet of 58 hydrogen refueling stations (source: France Hydrogène, January 2023). Stations designed, manufactured and installed by Ataway under its own brand.



The MC Formula protocol offers **greater flexibility of the hydrogen refueling station facing hydrogen temperature variations**, while the table-based approach method imposes very strict operating ranges.

The MC Formula refueling protocol allow more flexible operational parameters of the hydrogen refueling station, and **avoid untimely stops and failures,—improving the availability of the stations and the use rate**. It thus makes it possible to offer a **better user experience**.

Second advantage of this complex protocol, **at an equivalent filling speed with a standard protocol, the station is less energy consuming** - from 15 to 20% gain, depending on the model. Since the upstream lines between the hydrogen storage area and the filling nozzle do not need to be pre-cooled, **the station requires less material and energy consumption at the start of refueling**.

This protocol offers a double advantage for the operator: adaption to his needs thanks to an energy and financial gain and increase in the number of vehicles to be refueled daily.

« Ataway's DNA since its creation has always been to integrate strong technological expertise internally with R&D teams, a manufacturing plant in France and constant listening to the needs of its customers. We had already demonstrated this by expanding our range of hydrogen refueling stations last year with high-capacity evolutive stations and mobile stations. This new technological step strengthens our position as a leader, expert in hydrogen distribution throughout the value chain and allows us to meet all the needs of hydrogen ecosystems.» says Jean-Michel Amaré, founder and CEO of Ataway.

Ataway, first French manufacturer to integrate the MC Formula protocol

Ataway's R&D teams worked for many months to be able to integrate this new protocol.

« We wanted to be able to integrate this new protocol quickly on our hydrogen refueling stations. It's done and we are proud to be the first in France! This progress reflects our ability to implement new refueling protocols and adapt to each of the next regulations and changes in future needs. We work daily with all the links in the chain to optimize our hydrogen refueling stations: from vehicle manufacturers to our operators and users who come every day to refuel with hydrogen.» explains Guillaume Havard, Product Design Manager at Ataway.

It should be noted that the evolutionary stations in operation in Chambéry and Moûtiers are already equipped with this new protocol, and all the new stations coming out of the Ataway factory will integrate the MC Formula.

« This new protocol is a valuable asset to address optimally the massive deployment of hydrogen mobility, both in France and internationally, and in particular for the construction of European hydrogen corridors.



» says Jean-Michel Amaré, founder and CEO of Ataway.

ABOUT ATAWAY

Founded in 2012 by Jean-Michel Amaré and Pierre-Jean Bonnefond, Ataway designs, manufactures and distributes hydrogen refueling stations; contributing to the deployment of low-carbon hydrogen mobility in France and internationally. Since 2015, Ataway has developed a full range of hydrogen refueling stations (compact station, evolutive station, mobile station) up to 1.3 tons/day to support the ramp-up of hydrogen use in the territories and offer "customizable" solutions adapted to each project, from the pilot project to the complete coverage of a territory.

The hydrogen refueling stations are designed and manufactured in France, in the company's on-site workshop, located in Le Bourget-du-Lac (73) and Ataway works every day to reduce its environmental footprint.

Juliette LANIRAY _ juliette@agence914.fr _ 06 11 76 22 09

Sarah BIA _ sarah.bia@agence914.fr _ 06 59 91 08 61

Camille NEBLAI _ camille@agence914.fr _ 06 30 60 29 61

