

FFED launches into mechanical cleaning of the DPF



◀ The Carbon FAP washing station completes the range of FFED products, in particular the descaling station with Hy-Carbon Connect hydrogen. It is particularly useful in cases of severe clogging.

Despite this programmed regeneration process, which helps maintain performance, progressive clogging is inevitable. Eventually, the Diesel Particulate Filter (DPF) must be replaced or, more accurately, thoroughly renovated. This renovation follows an almost industrial process and is now undertaken by manufacturers or specialized companies. FFED has joined this sector with Carbon FAP, a unique equipment new to the market, available to garages wanting to internalize this service.

As a complement to hydrogen equipment, Carbon FAP, designed and developed by the FFED R&D team, is manufactured simply and robustly by trusted industrial partners chosen for their expertise and geographical proximity. This equipment effectively cleans in-depth DPFs in light vehicles and small utilities. While it might seem like a competitor to hydrogen treatment, which the company has long advocated, it turns out to be complementary. Despite hydrogen's proven benefits in engine descaling, some professionals prefer the more traditional cleaning of the DPF, even if its removal can be complex at times. Notably, in cases where a DPF is extremely clogged and prevents the engine from starting, only the Carbon FAP washing station can quickly address such unusual blockages. While hydrogen is used as a preventive measure, Carbon FAP serves as an essential intervention tool.

Flex Fuel Energy Development (FFED), leader on the hydrogen descaling market, expands its service offering in terms of maintenance of thermal engines introducing a complementary solution and more classic filter cleaning particles deposited.

BY JEAN MARC GERVASIO

For several years now, all diesel vehicles have been equipped with a Diesel Particulate Filter (DPF) from the outset.

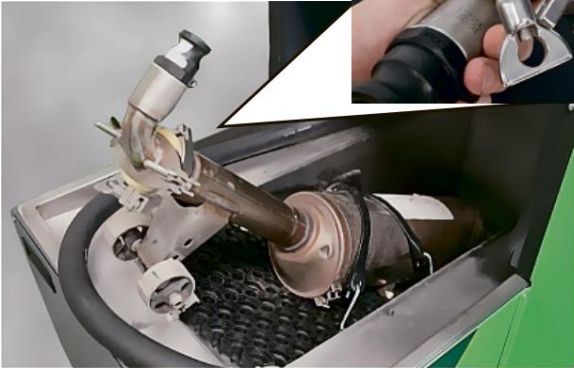
This equipment is essential for compliance with current anti-pollution standards and boasts a long lifespan thanks to its engine management-controlled regeneration.



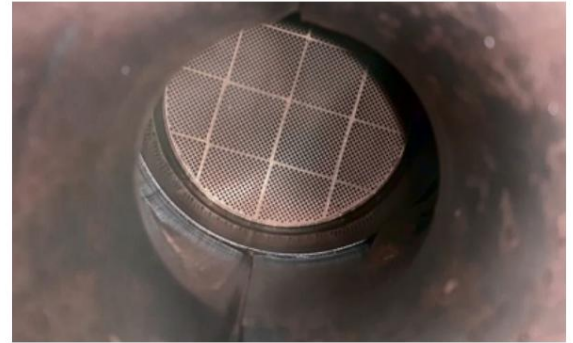
► The machine has a safety device to only operate with the hood closed. A ban that the operator can - very exceptionally - lift to treat a particle filter whose size is not compatible with the internal volume of the machine.



▲ All controls, instructions, and measurement components of the Carbon FAP station are consolidated into a simple and functional console, epitomizing efficiency and reliability for the designer.



◀ FFED has taken care to develop 2 connectors which allow almost all DPF assemblies on the market to be connected to the machine.



▲ Once treated by the Carbon FAP, the filter is restored to its original appearance and full performance. It's important to note that the silicon carbide composing the DPF is a material highly resistant to thermal and mechanical shocks, allowing it to be reconditioned - theoretically - as many times as the vehicle's lifespan requires.

Deep cleaning without solvent

To meet the company's environmental commitment and specifications, Carbon FAP employs a 100% biodegradable aqueous cleaning solution instead of solvents. This solution is heated to 53°C, the optimal temperature for the effectiveness of the surfactants in the formula. The machine operates on a renewable cycle lasting between 30 to 45 minutes, during which it alternates between injecting the cleaning product and compressed air.

This innovative treatment effectively removes soot, ash, scale, unburned hydrocarbons, and other contaminants responsible for the progressive clogging of the DPF. The process concludes with a drying step that uses only compressed air. Before and after the cleaning, the machine performs an air flow test and measures back pressure values on the DPF. These values are summarized in a numerical report, providing a precise assessment of the condition and operational potential of the freshly cleaned DPF.

These characteristics can also be verified by reading the engine parameters on the vehicle through a diagnostic tool.

Very quickly profitable The primary goal of this new equipment is to enable workshops of all sizes to provide their customers with a cost-effective alternative to the expensive replacement of a particulate filter. Flex Fuel Energy Development offers the Carbon FAP direct purchase option for \$29,900 AUD with financial option available. The cost of the cleaning solution is additional. For the end customer, FFED recommends a service price ranging between \$500 and \$800 AUD.

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A FAVORABLE GROUND FOR THE GOOD OPERATION OF THE FAP

It is important to remember that the lifespan of a particle filter is closely linked to the proper functioning of the engine and compliance with certain of its own characteristics. The FAP cannot hope to operate correctly: – if the vehicle has a mechanical defect which causes an abnormal accumulation of soot particles in the filter; – if the engine map has been modified (chip tuning, computer reprogramming, etc.); – and if the engine oil change is not carried out with oil specified by the manufacturer, of the Low SAPS type (low ash content), which makes it possible to reduce metal components by almost 50% compared to a standard oil .