

Fuel, Costs, Time & CO₂:

Reconditioning of Particulate Filters is a big win for everyone

Diesel Particulate Filters (DPF) remove over 99,9% of harmful particles from the exhaust of Euro VI trucks, but to remain functional they need to be cleaned from time to time. Most workshops offer simple 2-stage cleaning, but the advantages of a full 3-stage Reconditioning is worth noting.



going the extra mile



May 2024

As the filter traps particles and soot, and incinerates it during regeneration, a layer of ash starts to form. Over time, the layer grows and obstructs free flow through the filter, and more importantly: Shades the catalytic coating on the filter's surface and reduces its ability to passively regenerate. Back pressure increases, engine-controlled active regeneration occurs more frequently, the ash-layer hardens due to extreme temperatures, and all together the engine's fuel efficiency reduces.

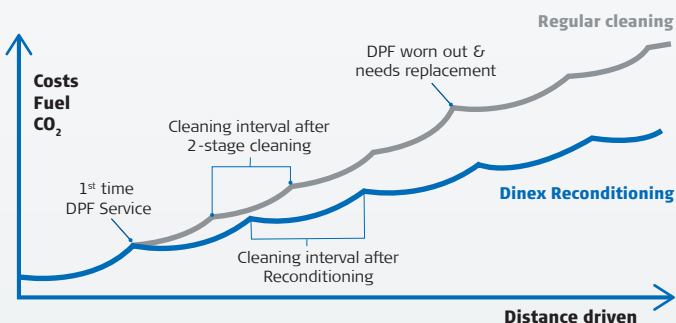
Eventually, the engine says: **"STOP!"** and lights up the DPF warning symbol, telling you it's about time for filter service.

How is Reconditioning different?

During a regular 2-stage cleaning the DPF is heated up to loosen ash, and then flushed using pressurized air or hot water. It's a cheap & simple method, but unfortunately ineffective with hardened ash, and usually requires a downtime of 24-48 hours – unless the workshop has a spare DPF.

A 3-stage cleaning adds **Reconditioning** as an additional step, during which hardened ash is removed using a chemical solvent in an ultrasonic bath. This removes up to **90%** more ash than a simple 2-stage cleaning, and "re-activates" the catalytic coating, restoring the filter to nearly new condition.

It also takes more time, but thanks to a core exchange cycle where used filter are looped in, refunded, and a reconditioned replacement is purchased, truckers can be back in the road in less than an hour.



What's in it for you?

Longer Cleaning Intervals: A 2-stage cleaned DPF is expected to have a 30% shorter cleaning interval than one which is brand new – or a 3-stage reconditioned – saving workshop visits, downtime, and service costs

Better Fuel Efficiency: With a better flow and improved ability to passively regenerate, a recon-DPF allows the engine to run more efficiently, thus saving fuel consumption and costs.

Durability: Hardened ash increases mechanical and thermal stress of the DPF. As traditional cleaning fails to remove this, a DPF is rarely expected to endure more than 1.000.000 km of operation, but with reconditioning it is not uncommon that it lasts up to twice as long.



HARDENED ASH
Cut-through of a filter after it went through a 2-stage cleaning. The white residues remains, and will continue to partially block the exhaust flow.

For your business, and our planet

Altogether those 3 advantages may result in cost savings of nearly **2.000€** over a **2.000.000 km** cycle. And as if that weren't enough, there's also a fourth advantage. But that's for the planet: Avoided CO₂e-emissions from the fuel saving and extended filter durability, can very well accumulate to over **3 tons!**

Dinex offers an extensive reconditioning program for all European makes and models. Using OE-endorsed equipment and validation procedures, and accepting **only type-approved filters** in our core exchange loop, we're proud to offer yet another solution: For the industry, and our planet.