

“RYPOS TRAP” ACTIVE DIESEL PARTICULATE FILTER SYSTEM: FIELD DEMONSTRATIONS

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Rypos Trap is an actively regenerated diesel particulate filter that has high efficiency and very low electrical power consumption for regeneration. The regeneration is independent of engine exhaust temperature and fuel sulfur content. The filter material is made of sintered metal fibers and has high porosity, high soot-holding capacity, and low thermal mass. The filter material is capable of capturing 85-95 percent of the soot in diesel exhaust.

The operation of the Rypos Trap is controlled by a microprocessor that allows it to function automatically during normal engine operation. Periodically, as required, an electric current is passed through a filter element, which then acts as a heating element.

The Rypos Trap is currently undergoing field demonstrations in several locations in California. In conjunction with Cummins and the Naval Facilities Engineering Service Center, Rypos Traps are used to remediate exhaust from aircraft ground power units. Additional demonstrations have been supported by a grant from the Innovative Clean Air Technologies (ICAT) program of the California Air Resources Board.

These field demonstrations had shown that the Rypos Trap is capable of keeping back-pressure under control while operating with very high efficiency.