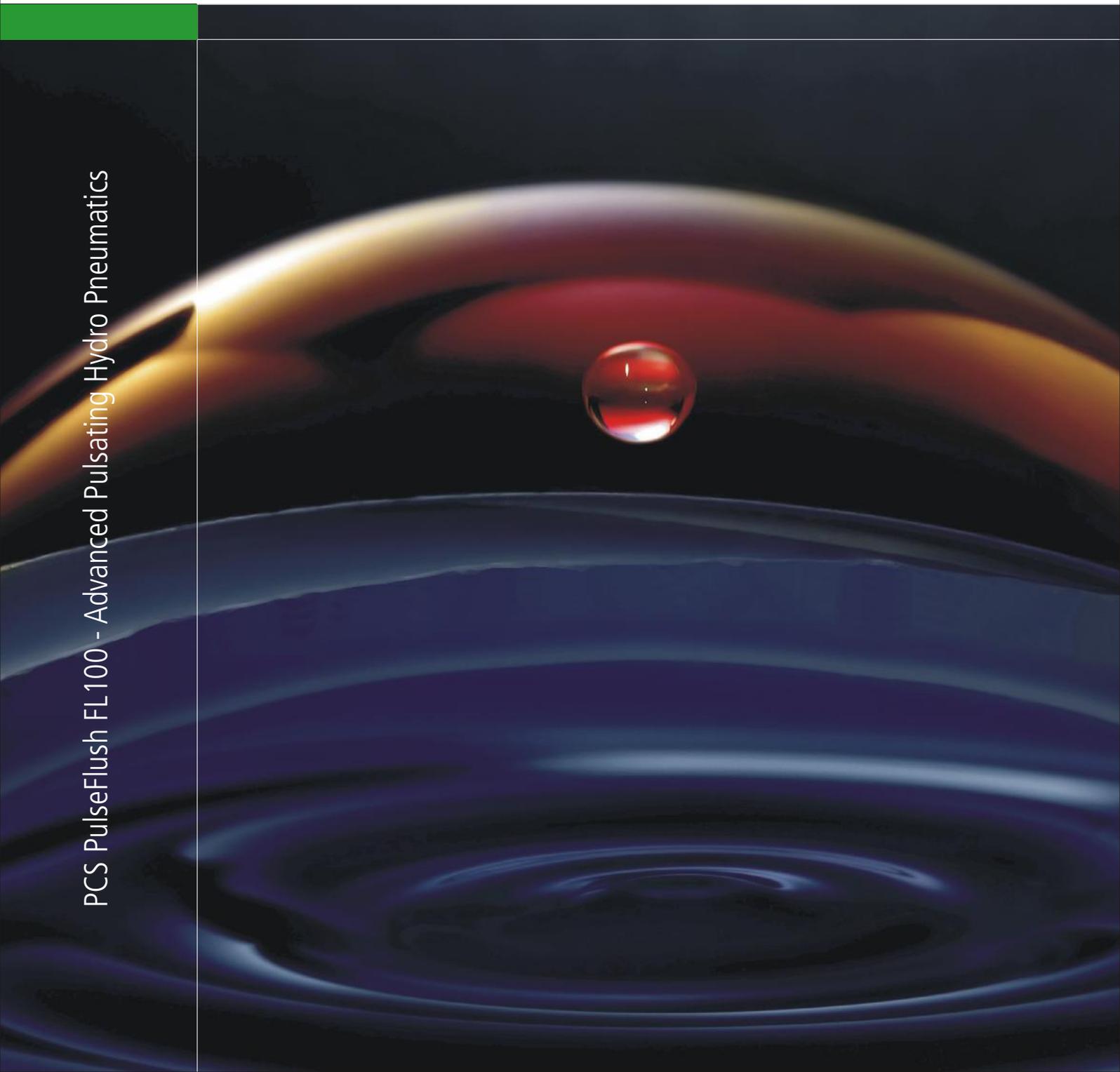




Enabling engines to operate at peak reliability and peak performance in all environments.
Incorporating superior technology for preventative and restorative cooling system maintenance.

PCS PulseFlush FL100 - Advanced Pulsating Hydro Pneumatics





◆ THE PROBLEM

50% - 60% of engine wear, malfunction and catastrophic failure starts internally in the cooling system (reference: Caterpillar & Cummins Inc. leading engine manufacturers). This is due to undetected contamination.

It occurs in all types of engine, including the modern and well maintained and results in major down-time and operational expense.

◆ THE SOLUTION

Keeping the entire cooling system in pristine condition by rapid pulse flushing and purge of the cylinder head, block, radiator and heater cores.

◆ THE TECHNOLOGY

PCS PulseFlush FL100 Machine incorporating the superior technology of Advanced Pulsating Hydro-pneumatics.

For engine preventative maintenance service.

For significantly **reducing and eliminating entirely the 50% - 60% of engine wear**, malfunction and catastrophic failure, stated above.

A best practice, best technology engine service.



◆ WHY NOT THE COMMON FLUSH?

A normal coolant exchange or hose flush will not solve the problem of foreign particle build up caused by oxidation, corrosion, electrolysis, scaling, slime, glycol-gel and sludge as it

will not remove these from the system. It is important to 'powerflush' the cooling system.

◆ WHY NOT MIX DIFFERENT COOLANT?

This practice is not recommended by manufactures as it can start a chemical reaction leading to corrosion in engine components. Pulse Flushing and recharging with new coolant prevents this problem.

◆ WHY NOT THE CHEMICAL TREATMENT?

The use of chemicals to clean cooling systems can cause damage and leaks as the modern engine is made up of a variety of alloys and metals that react differently to chemicals. A sealant has to be used to remedy any leaks caused by those chemicals. The PCS FL 100 does not use chemicals for a pulse flush. If chemicals have been used, they need to be thoroughly power flushed out.



◆ WHY PULSE FLUSH?

Pulse Flushing removes ALL spent coolant and contaminants from the ENTIRE Internal Cooling System.

◆ COOLANT CONDITION IS DIRECTLY RELATED TO ENGINE PROTECTION

Antifreeze / coolant is specifically designed for corrosion protection and the transfer and dissipation of engine



generated heat. The smallest percentage of change due to coolant breakdown or contamination reduces its efficiency. Increases in cooling system temperature has an adverse effect by reducing critical clearances and damaging oil viscosity, leading to component failure.

◆ CONTAMINATION RESULTS IN INTERNAL ENGINE HOT SPOTS

These do not show up on the temperature gauge. This causes serious localised overheating that stresses engine parts and reduces their physical strength resulting in premature and increased wear, cracks and total engine failure.



◆ COMPUTER SENSOR FOULING

Computer sensors located in the cooling system controlling engine tuning become coated with glycol-gel, coolant film and other contaminants, causing false readings that detunes the engine leading to poor performance, poor fuel economy and toxic exhaust emissions. The cooling systems internal condition directly affects the life, reliability and performance of an engine. It is imperative that it be kept in pristine condition by pulse flushing and reinstating with new coolant.

◆ COOLANT SYSTEMS MUST BE COMPLETELY FLUSHED

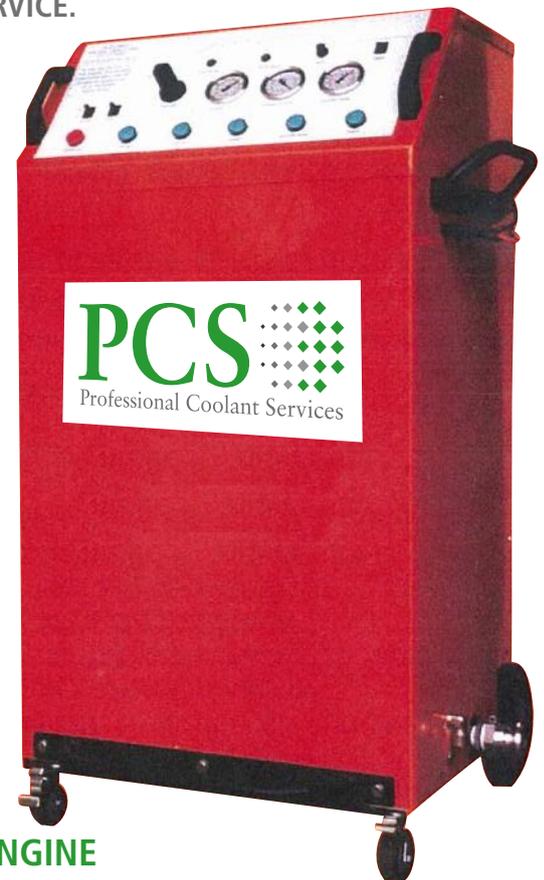
Coolant / Antifreeze can retain its colour but be out of specification, changing from a protective solution to a corrosive solution causing damage. It is important that all spent coolant be thoroughly pulse flushed out, as even the smallest amount left can immediately start to breakdown new

coolant (e.g. like mixing fresh milk with sour milk). It is important that any contamination, e.g. glycol-gel, sludge, slime, oxidation, scaling, metal, rust, oil and dirt particles be thoroughly removed not only from the radiator but more importantly from the internal engine cavities. These deposits reduce heat transfer resulting in internal hot spots that cause pitting, cavitation, gasket failure, cracked cylinder heads and blocks, premature wear and component failure, leading from poor performance to catastrophic engine failure.

A regular flush and purge of the cooling system (every two years, specified miles / km's travelled or hours run) as required by engine manufacturers, brings engine reliability, best performance and longevity.

The FL 100 PulseFlush is designed to completely power flush and purge the entire internal cooling system, removing all spent coolant and undetected contaminants.

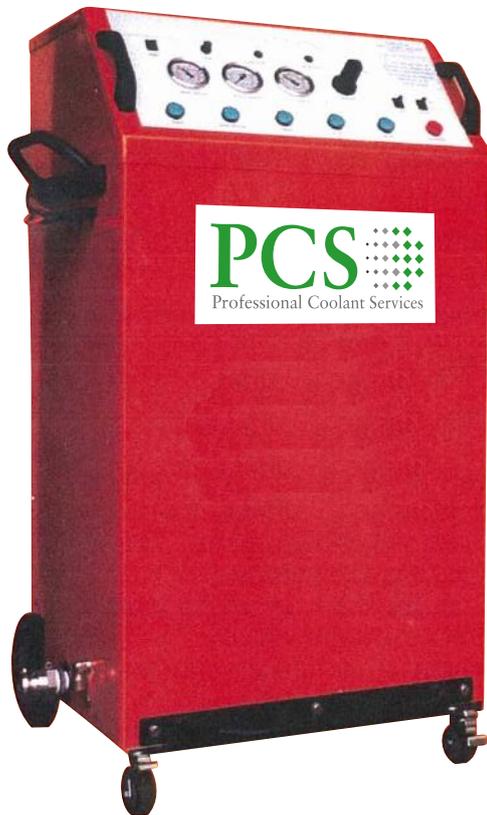
◆ AN ESSENTIAL ENGINE SERVICE THAT MUST NOT BE OVERLOOKED. IT IS AS IMPORTANT AS THE OIL CHANGE SERVICE.



PROVEN ENGINE TECHNOLOGY YOU CAN TRUST!

The **PCS PulseFlush FL 100** has a hydro pneumatic air over water rapid flush function sending a pulsating purge through the entire engine cooling system, creating a sweeping pulse action lifting and removing spent coolant and contamination in its wake. The combination of water and compressed air pulsating alternatively functions as an in-line cavity scrubber, operating at normal engine cooling system pressure.

THE ONLY SYSTEM WITH PULSE FLUSHTECHNOLOGY!



Equip all mechanical service workshops with the
◆ **PCS FL100**
◆ **PulseFlush Technology**

For engine preventative maintenance and restorative maintenance service

TRUST YOUR EQUIPMENT TO DELIVER!

NATO Stock Number: (NSN) 4910-98-206-0361
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