



Why do I need hot water?

You need hot water and chemical to completely remove oil and grease and to prevent the oil and grease from reforming elsewhere on whatever you are cleaning. The hot water melts the oil or grease and the chemical emulsifies the oil or grease so that it can be effectively rinsed away.

But I can remove oil and grease with my cold wash and chemical can't I?

No, you can spread it around a bit and some will wash off but you will never remove the microscopic film of oil left behind unless you wash it with hot water and chemical.

I have heard that you can pump hot water through a cold water pressure washer - I could do that rather than buy a hot water pressure washer can't I?

Some pressure washers can do this, the Kranzle range of cold water pressure washers and our Demon range can happily pump hot water, provided it is pressure fed into the pump and it is below 60°C. This is better than cold water but not the same as a hot water pressure washer. It is also true that the Demon Storm 1 and 2 can have modified seals fitted to enable water to 80°C to be used. We have made a number of these modified pumps and they are working reliably with the customers who bought them. With a hot water pressure washer cold water only flows through the pump. It is then heated by a very hot flame burning either diesel or kerosene via a heating coil to heat the water. This water leaves the machine at about 90°C to 95°C.

But I have got a "Steam Cleaner" which does 150°C - yours can't match that sort of performance can it?

This is a popular misconception. All hot water pressure washers use similar heating systems and burn similar amounts of fuel, through similar heating coils. We all get similar temperatures of hot water at the lance. The only way that you can increase the heat of the water, is to reduce the amount of water cooling the heating coil, by opening the "steam valve." Most hot water pressure washers pump between 10 and 13 litres per minute, and burn about 1.5US gallons of fuel, so by reducing the water flow through the coil the operator see's his "steam cleaner" in action. Using physics however, it is not possible for the water leaving the nozzle, to have a temperature in excess of 100°C. What you are seeing is very hot water, turning to a vapour and evaporating, causing people to believe that pure steam is coming out of the nozzle. There are no improvements in cleaning power, over water at a lower temperature, the extra heat merely evaporates the water quicker. All you have is a cloud of steam to fog up your safety glasses and you won't be able to see a thing!

Should I burn diesel or kerosene in my machine?

Definitely kerosene because it is a fuel refined by the petrol companies to be burnt in a pressure jet burner. Red and white diesel, although they will both work adequately, without adjustment to a Demon machine, are primarily refined for use in diesel (compression ignition) engines. The main advantage that kerosene has over diesel is that it is a thinner fuel than diesel. What this means to you, is that the water vapour in the air around the hot water pressure washer will get into the fuel tank, you will never stop it. With kerosene in the tank the water is far heavier and drops to the bottom of the tank, where you can see it, and you can drain the tank when the water content reaches an unacceptable level. With diesel being a heavier fuel the water, does not drop out as readily and mixes, due to more similar weights of the fuel and water, consequently it is pumped into the burner. Water blocks the paper fuel element and takes particles of dirt with it, which wears the fuel nozzle quickly, leading to poor atomisation of the fuel, incomplete combustion, damage to the boiler, intermittent ignition and large repair bills. If you use kerosene it will cost you less in service and repair bills!

But where do you get kerosene from?

All fuel distributors sell kerosene in bulk. Invest in a 1200 litre tank and save money. It costs the same as red diesel but a fraction of the cost of white diesel and will save extra service costs and on repair bills over the years. Need a tank? Demon can supply a bunded lockable tank with a semi-rotary pump to dispense the fuel - no problem.