



The smaller water pump supplied with our PLT-3040 machines



The larger water pump supplied with out 60W PLT-6040 machines



Yes, it is called a "Chiller", but it is actually a "Cooler" as there is no refrigeration compressor.



The CW-5000 single port Refrigerated Chiller

Water pumps and cooling your laser tube

Our smaller lasers are sold with water pumps. The PLT-3040 (50W tube) and PLT-6040 (60W tube) do not really require a chiller unless you are located in an area with a daytime temperature average of 28° Celsius or higher.

If you go for the 80W or 100W variants of the PLT-6040, it is mandatory to purchase a CW-5000 or JZ-5200 Industrial Chiller for your tube warranty to be valid.

For the PLT-3040, if you would prefer the simplicity and convenience of a closed system, we do offer a "Cooler" - the CW-3000, which is not a Chiller.

In hotter areas, or if your laser is operating more than a couple of hours a day, you may want to opt for a proper CW-5000 or JZ-5200 Industrial Chiller, even for a 50W tube, considering that heat (or an excess thereof) is the greatest tube-killer.

A lot more flow is needed for the submersible pump option (where there is no refrigeration). so pressures are also a bit higher throughout the system.

The smaller water pump (supplied with the PLT-3040) is a 680B with a claimed maximum flow rate of 3500 litres per hour - However at 220V 50Hz this is probably closer to 2000 litres per hour or 33.33 litres per minute - or 0.55 litres per second (under ideal conditions). In the real world, however, it should be able to fill a 5 litre bucket in about 15 - 20 seconds.

The bigger water pump (supplied with some 60W PLT-6040s) is a HQB-3900 also with a claimed maximum flow rate of 3500 litres per hour - or 58.33 litres per minute - or 0.97 litres per second (under ideal conditions). In the real world, it should be able to fill a 5 litre bucket in about 10 seconds.

Coolers and Chillers use a much lower pressure and flow - so the CW-3000 flows around 18.5 litres per minute (0.3 litres per second) and the CW-5000/JZ-5200 flows around 30 liters per minute (0.5 litres per second).



The JZ-5200 dual port Refrigerated Chiller

