

# The Watermark

The Newsletter From

**Automated Water & Effluent Ltd**

Spring 2014

## OX25-K PORTABLE DO<sup>2</sup> METER KIT

Following on from Watermark Autumn 2013 article about the PH10-K portable pH meter kit we have now re-introduced the OX25-K portable Dissolved Oxygen meter kit.

The OX25-K portable dissolved Oxygen meter kit is a cost effective simple to use and easy to calibrate analogue portable dissolved oxygen and temperature meter.

The OX25-K portable Dissolved Oxygen meter kit comprises of the hand held OX25 Dissolved Oxygen meter which has user selectable ranges of 0 - 19.99 mg/l (0 - 19.99 ppm) or 0 - 199.9% saturation both have automatic temperature compensation. A temperature range -30°C to 150°C when used with the stainless steel temperature sensor part number ST11.

Polarographic clarke type Dissolved Oxygen sensor part number 023IP35. Stainless steel temperature sensor part number ST11. Leather carrying case and instruction manual.

A dissolved oxygen meter is used to measure the amount of oxygen present in water which indicates the potential use of that water.

Applications include industrial waste water treatment plants inlet and discharge monitoring. Activated sludge plant monitoring. Aquaculture monitoring the oxygen levels in fish farms ponds and lakes.



Education used for monitoring the Dissolved Oxygen in laboratories and out on field trips.

## Hand Pump

As we have previously stated we all like an easy life and one thing which always looks hard work is to see operators lugging about heavy chemical drums then lifting them to pour the chemical reagent into a storage tank. To make life simpler we have introduced a hand pump which can be supplied to bolt onto the top of the chemical dosing tank and be fitted with a flexible suction hose to go into the chemical carboy. The outlet of the pump will be pipe up to deliver into the dosing tank. by operating the handle on the hand pump the chemical reagent can be safely transferred into the storage tank. Maximum output is rated at 66 litres a minute so this pump will make short work of transferring the contents of a 25



litre chemical drum into a dosing tank. All health and safety procedures and the wearing of protective clothing goggles etc must be adhered to when handling chemicals.

## Hello From Gareth



New to the team is Gareth Hardwick who joined us as a service engineer in 2013. Many of our service customers will now have met Gareth as during 2014 we have been introducing Gareth to our service customer base. Prior to joining us Gareth was involved in the installation of instrumentation in the water supply industry.

# Settlement pH Values

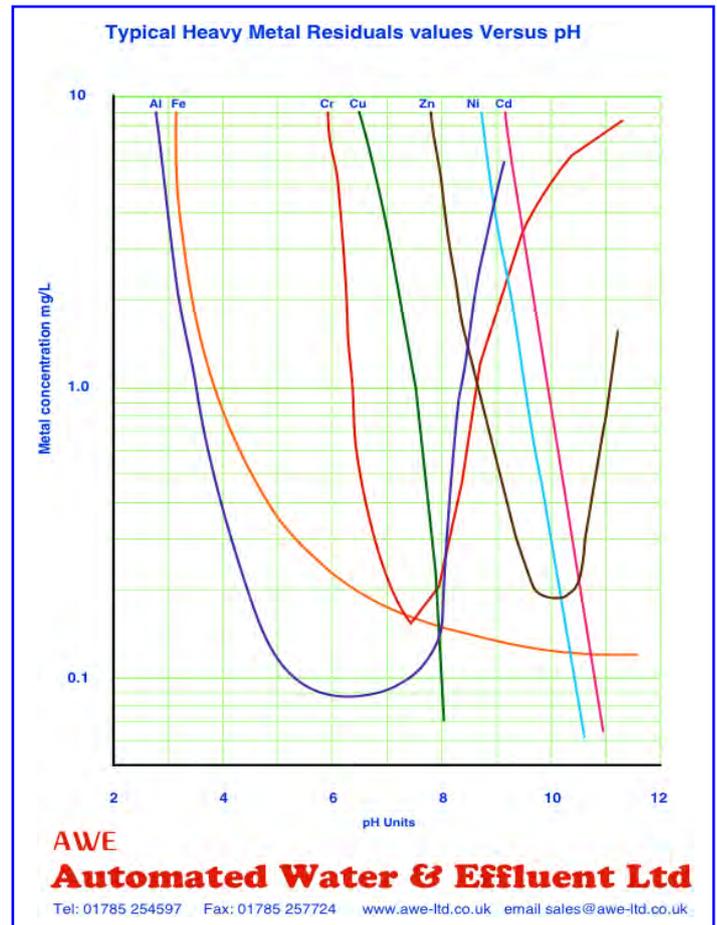
We have customers involved in the metal finishing industry who have wastewater treatment plants on their sites.

The usual principal of the treatment is to treat the chrome and cyanide as separate streams feeding into a common pH neutralising vessel where the pH is adjusted by dosing acid or alkali as required by use of our red dosing pumps. The neutralised wastewater is usually pumped to a settling tank where polyelectrolyte is added again by one of our red dosing pumps.

We are frequently asked what is the best pH value to pump into the settling tank.

This should have been decided by the designer / supplier of the waste water plant who carried out chemical trials on your waste water in his laboratory at the design stage of the plant to establish both the best reagent to use and the volume to be dosed into to your flow rate.

However many of the original designers and effluent plant builders aren't around any more and changes have been made to effluent plants over time. So here is a simple graph of text book values for settlement pH for different metals. Note some metals may settle best at a pH value higher than your consent to discharge requiring acid dosing after settlement to reduce the pH to meet your consent to discharge. If you require a copy of the settlement pH graph please contact us.

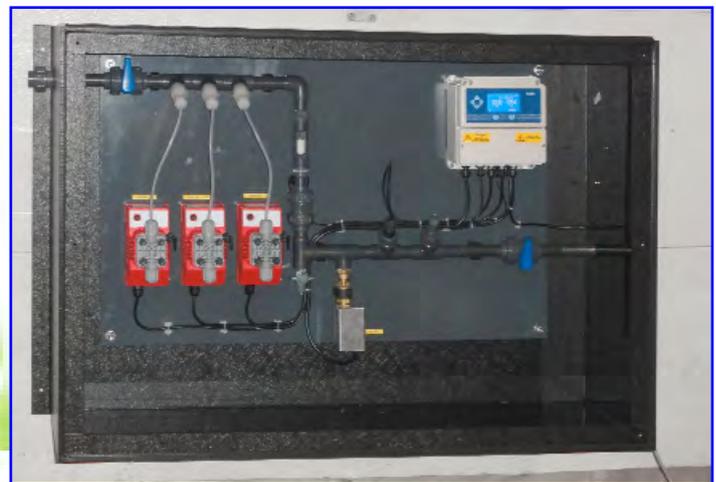


## THE GRAPEVINE

As the weather warms up our customers start to think about about air conditioning and process cooling which means increased load on the cooling towers.

We have been supplying cooling water control instrumentation and dosing equipment since Automated Water and Effluent started in 1982. Recently we have seen an increase in the number of factory built systems we are supplying both as back plates and enclosure based systems. This makes site installation more efficient as with current health and safety legislation working on some sites has become a very time consuming and hence expensive job.

Our cooling water systems are ready built, assembled and tested requiring only the connection of the flow and return cooling water sample, the bleed valve discharge piping to a suitable discharge point, connection of an isolatable mains power supply and the chemical reagents supplied. All our systems have a PVC manifold fitted with union ends for easy site connection the manifold is pressure tested before shipping and test certificates can be supplied for an additional cost if required.



We also supply larger sized units with room for the chemical drums to be stored inside in separate bunded areas. If you have any special requirements please contact our sales office we may be able to help you.

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