

The Watermark

The Newsletter From

Automated Water & Effluent Ltd

Summer 2011

NEW COOLING WATER CONTROLLER

AWE has been supplying cooling water controllers to the chemical water treatment sector for many years. A large number of our customers have been asking for cooling water controllers to be personalised with their own company name & logo. A number of our customers prefer to have the controls specified to their own requirements too. Our revised ACW range can offer just what the customer requires. It is based on a standard PLC and as such we are able to customise the unit to suit most requirements.

Our cooling water controller models: ACW1, ACW2, and ACW3 will be replaced by model numbers ACW10, ACW20, and ACW30 allowing us to differentiate between the originals. (The original models can still be supplied). The major improvements to the new control includes the addition of text display and keypads on the front panel.



This greatly improves the setting up of the controller. The additional functions are as follows - ACW10 - Cooling Water Controllers for flow proportional feed and bleed. A water meter input is used integrate the water flowing into the tower

after a preset volume has entered the tower. The bleed valve operates for a pre-set time and then the inhibitor pump runs for a preset time to add the chemical reagent. ACW20 - As per the ACW10 but with the addition of a dual channel real time clock for biocide dosing. ACW30 - Includes TDS control by conductivity with a readout of conductivity in mS. An adjustable set point for the bleed valve. The conductivity sensor is our well known FL310 sensor with graphite electrodes to give good linearity through the measured range. The cell has a quick release fitting for easy removal for inspection and calibration. The ACW range of controller can be supplied pre-assembled, on a back plate with manifold, with dosing pumps from our RDP (Red Dosing Pump) Range, with a bleed solenoid valve and sample / drain valve.

Non Fouling Conductivity Sensor

Those of you who are regular readers will already know about the feature's and benefits of the BCT (Blind Conductivity Transmitter) as featured in the Watermark 2009/2010 Winter Issue.

We are offering this electrodeless transmitter with a PVC flow cell fitted with a quick release fitting for in line use as shown. The BCT can also be supplied as a dip cell for immersion into open pits sumps and tanks with solutions at ambient temperature.

Due to its design the toroidal cell is unaffected by fouling on the surface of the electrode.

This reduces the need to clean the electrode in areas which have hard water, dirty solutions or solutions with oil which can coat conducting electrodes.

Three ranges are offered 0 - 10mS, 0 - 100mS or 0-1000 mS with a 4 - 20 mA output power supply is 24 VDC to the 2 wire transmitter.



Hello From Tom



New to our team is Tom who joined our Sales & Marketing department on the 1st of June 2011. Tom will be working on our e-commerce proposition for both our www.awe-ltd.co.uk site and on our new projects. Prior to joining us Tom was in charge of digital marketing for a series of organisations including a number household banks and has won several industry awards for his work.

Mixers

For many years Automated Water & Effluent Limited (AWE Ltd.) have manufactured our own simple range of mixers. These were initially aimed at mixing effluent (waste water) in open tanks, and sumps used for pH correction of hexavalent chrome to trivalent chrome, cyanide destruction and neutralising tanks.

These were high-speed direct drive mixers ideal for use where the tank was always full. These are still available as our TM (tank mixers) range. It became apparent that mixers for other duties were required by our customers for mixing viscose liquids where more gentle agitation was required and vessels which were not always full - areas where a high speed mixer should not be used. So we developed our GM (geared mixer) range with an inline reduction gearbox, which have provided excellent service.

We now have requirements for geared mixers for mixing water treatment chemicals and Polymers; so we have developed a new mixer range featuring worm drive gearboxes. The benefits are

greatly increased by making the units more stable on small dosing tanks, giving a wider range of reduction ratios and no coupling - as worm boxes have hollow shafts so the mixer shaft is machined to fit inside the hollow gearbox shaft.

The greatest benefit is quiet running: Worm gearbox's when fitted with single-phase motor run significantly quieter. The new range starts with the GMIX which is a mixer with a PVC sheathed shaft and PVC impeller. The GMIX is intended for dosing tanks up to 250 litres capacity; the PVC wetted parts allow the mixer to be used for mixing Hypochlorite in the pool industry.

All our mixers are custom made and we provide larger mixers with 316 stainless steel shafts & impellers. We can offer single or dual impellers, for the domestic market we offer 50 Hz motors and for export we can offer 60Hz motors. We can even fit air motors for special duties. The shafts can also be EVA coated for greater chemical resistance where stainless steel is not suitable.



TM1 GWM1- 2 GWM2

THE GRAPEVINE

AWE have been supplying cooling water controllers to the chemical water treatment trade for many years. Many of our customers hold accounts looking after boiler water and we appreciate this is a mature market, with the number of traditional boiler accounts in decline. However every so often a unique enquiry pops up and this time it was a water treatment customer who had a problem with a boiler; the economiser had disappeared in the space of a few months. The economiser is a big stainless steel fabrication - so something was wrong, the boiler was dosed with the usual corrosion inhibitors, our customer decided to add an oxygen scavenger and required some way to monitor and control the dosing.

No problem - we have dosed oxygen scavengers proportional to feed water temperature in the past, but something



more accurate was required. So we designed and built a low level dissolved oxygen monitoring and dosing system.

A small sample of boiler water is passed through a regulating valve and a sample cooler. To ensure the sample has been cooled; a temperature sensor is fitted before the delicate dissolved oxygen sensor. This closes a motorised valve in the event of an increase in temperature being detected, to protect the cells from being damaged by an elevated temperature in the event of a failure of the cooling water to the sample cooler. The dissolved oxygen sensor and controller are used to control the dosing pump which adds the oxygen scavenger. So far the results have proved successful with no over dosing of the chemical reagent.

If you require something special just call us and we see if we can help. Do remember we have the facilities and experience to design and build systems - we don't just import standard items.

Automated Water & Effluent Ltd

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