

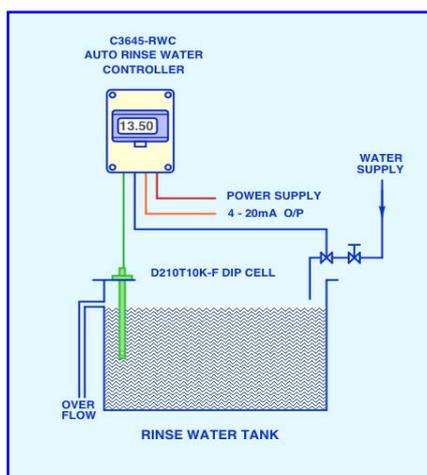
# The Watermark

The Newsletter From

**Automated Water & Effluent Ltd**

Summer 2015

## OLD TRICKS RINSE WATER CONTROL



Back in the mist of time 70% of the country's plating was carried out within a 30 mile radius of Birmingham and cars had chrome-plated parts. Every instrument company had a rinse water controller in their product range. With the decline of the plating industry these rinse water controllers have disappeared along with many of their manufacturers.

As we are in our 33rd year, still with the original name and owners, we are able to supply the modern equivalent

of the rinse water controllers with a digital display and a 4-20mA output for data logging or remote readout.

Our current C3645-RC rinse water control kit comprises of a controller powered by either a 230 or 115 VAC mains supply a dip cell in PVC for use in solutions up to 50°C and a brass solenoid valve, able to close against zero pressure. This makes the solenoid valve suitable for both mains water pressure and recycled or treated water feed to the rinse from a header tank.

The operation of the system is to install the sensor on the discharge from the rinse tank which should be located at the opposite end of the rinse tank to the clean water feed. When work is rinsed in the rinse water tank the dragout from the previous process tank increases the conductivity. This is sensed by the conductivity controller which switches on the solenoid valve to add clean water. The contents of the rinse water tank is now diluted, thereby lowering the conductivity. The lower conductivity switches off the solenoid valve until the process is repeated.

We are able to offer systems for towns water, recycled water and a system for demin water with a lower measuring range. For hot demin rinse tanks which are popular in the aerospace industry as the work flash dries due to the retained heat in the work. We are able to offer a high temperature cell with auto temperature compensation so the conductivity reading is corrected back to 25°C and a polypropylene solenoid valve with a stainless steel trim.

### We Are Exhibiting Again this time at :-

**The Surface World Exhibition 23rd & 24th of September 2015**

**At Pavilion 1 National Exhibition Centre (NEC) Birmingham England UK.**

Once again Automated Water & Effluent Limited will be exhibiting at the Surface World Exhibition at Pavilion 1 National Exhibition centre on Wednesday and Thursday 23rd and 24th of September 2015.

If you need tickets please contact Tom Young our Business Development Manager by telephone 01785 254597 or e-mail [tom@awe-ltd.co.uk](mailto:tom@awe-ltd.co.uk). Tom will be pleased to supply you with tickets.

We will also be showing our 7600 range of instruments for pH, Redox, conductivity, Dissolved Oxygen and Residual Chlorine along with the BC7635/7335 slave controllers.

To compliment our instruments we will also be showing items from our wide range of pH and Redox sensors for submersion into open tanks; immersion into vessels and pipes; off line flow cells auto clean electrodes; conductivity cells;

dissolved oxygen electrodes and turbidity sensors.

There will be a selection of our red dosing pumps (RDP) with accessories to make a complete package including dosing quills, pressure relief valves, suction lances and flow sensors.

We are able to build simple dosing and control systems and back up our products with on site commissioning and routine service contracts.

# Technical Tips

## Our Level Best

The Liquid level control using dip type contacting electrodes is a product we have manufactured for many years.

It is one of our simplest and lowest costing products, providing simple reliable control and alarm for conducting liquids used in a safe area, ie. not an Ex area where the risk of explosion maybe present.

We have just recently added a new multi electrode holder; the LE8 to our conducting level electrode systems. The LE8 level electrode holder is manufactured in red PVC. The electrode holder is able to hold up to 5 off 1/4" Ø stainless steel, titanium or hastaloy level electrodes, up to 3 metres long in stainless steel or 2m long in the titanium or hastaloy.

To prevent any possibility of tracking between the electrodes, the electrodes can be plastic coated with just the last 25mm of the metal exposed. To special order, the electrodes can be fitted with the connecting cable and potted for use in damp or steamy environments.



The LE8 can hold up to 5 electrodes. Typical applications for 5 electrodes are level control using duty and assist pumps with a common earth electrode and custom start and stop levels for the two pumps. This requires 2 off ALC1101 level controllers one for each pump. Single pump control with both high and low level alarm positions; this requires 3 off ALC1101 level controllers, one for the pump and one each of the high and low alarms.

## THE GRAPEVINE

We recently helped a customer with two very large heated processing tanks who was having problems with his insurance company. They were very nervous of the tanks over heating. The heating was by hastaloy steam coils, fitted into the process tanks. The reagent was very corrosive acid and stainless steel temperature sensors were not lasting very long. Their failing was resulting in the over heating of the vessel. The insurance company demanded some additional protection to be fitted to the process vessels. We designed and built a very simple conventional polycarbonate panel with two temperature controllers for each tank. Each temperature controller had its own temperature sensor; our type TPA-2N-PTFE-1200 made of 316 stainless steel with a PTFE

outer sheath and PVDF boss with an ABS connecting head. Each controller operated its own steam valve and each controller had its own high alarm set at 5° C above the control point which was also wired as a policeman to close both of the control valves. To overcome any problems caused if the temperature sensor failed or the cable became damaged, the temperature controller used had an upscale burn out setting which means the temperature readings go high in a fault condition closing the steam valve. The panel was designed so that both steam valves close if either controller reads "high" for any reason. This also triggered the audible and visual alarm system to warn the operator of a problem. This can also be used to initiate an auto dialler with a



SIM card to call a mobile phone within a text message for an out of hours alarm.

# Automated Water & Effluent Ltd

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