

The Watermark

The Newsletter From **Automated Water & Effluent Ltd** Winter 2014/15

TUFF AS OLD BOOTS

To complete our range of dosing pumps which provide a cost effective dosing solution to accommodate a wide range of industries. We have a new black dosing pump which is a heavy duty foot mounting solenoid pump featuring manually adjustable stroke length and a manual or automatically adjustable frequency i.e. the number of strokes the pump makes per minute, this gives the user a very wide turndown ratio of the pump output.

If the external pacing option is selected which is the control of the pump frequency or speed the pump output will be controlled by PFM (pulse frequency modulation). The pump will make one stroke for each volt free contact closure i.e. a 1:1 ratio, the dose rate achieved can be adjusted over a 10:1 ratio by means of adjusting the pump stroke length. This controls the movement of the PTFE diaphragm into the pump head which is proportional to the volume of chemical reagent drawn into the pump each stroke.

The external pacing control is usually from either a water meter or the PFM



output from one of our controller's modules. P7685 or M05-PH.

The advantage of this is it is very easy to adjust the pump output simply by turning the stroke length dial when the pump is running which is scaled 0-100%. Note setting below 10% is not recommended as the repeatability of the dosing rate is not so accurate. Being a mature design with a large installed base of pump in a wide variety of industries the pumps are very reliable, as one customer commented "we

purchased some of these over 20 years ago and forgot we had them as they just keep working, they are as tough as old boots".

We are holding small stock of the E+ range which have outputs from 0 - 0.5 ltrs/hr against 21 bar to 95 ltrs/hr against 2 bar with external pacing and a low level float switch input which can be used with an optional float switch to stop the pump running dry, mains supply will be 230 VAC, with 110 VAC available to order.

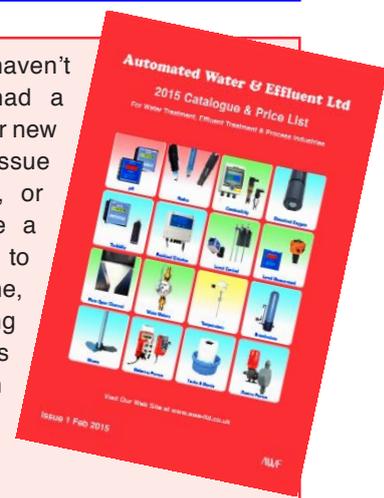
Mandy's Back

We are pleased to welcome back Mrs Mandy Wardall, Mandy has returned to work in our busy main office looking after our sales service enquiries, service contracts, general admin duties and the companies health and safety. Mandy is married to husband Mike and they have 2 grown up children.

Mandy's hobbies include walking in the Staffordshire countryside, coaching a youth football team, classical music and dining out.



If you haven't already had a copy of our new 2015 issue catalogue, or would like a colleague to receive one, then ring our sales hotline on **01785-254597**.



Technical Tips

Boiler Water Sampling

Its that time of year when our water treatment customer's think about chemical treatment for boilers, and that also means testing the TDS (total dissolved solids) this is usually achieved by the use of a conductivity meter. Our model CL8-K conductivity meter kit is just right for the job. Remember the ratio between TDS and conductivity is approximately 0.7 IE multiply the conductivity reading of your boiler water sample by 0.7 and you have the TDS value. This factor can vary depending on the chemistry involved check with your water treatment provider for the factor they use.

On the subject of taking samples from boilers you should use a sample cooler to cool the sample you are going to analyse. We are delighted to introduce our new sample cooler which is manufactured in all stainless steel, the benefits are a longer life, no corrosion on the outside case or chipped paint and just a better product made in a superior material.

The sample cooler compliments our new stainless steel chemical dosing pots



as featured in the Autumn issue of the Watermark. To make life easier and we all want an easier life, for our customers we will include a stainless regulating valve with our sample cooler model SC-SS-FC Before purchasing your next sample cooler check to see if it includes a regulating valve.

Note when using any sample cooler please check to ensure the cooling water



is flowing before taking any samples. We will be pleased to supply systems for automatic TDS control using a conductivity controller and cell taking a sample which has flowed through a sample cooler, we can even include a temperature sensor and shut off valve to prevent hot water flowing through the sample cooler in the event of a failure of the cooling water flow.

THE GRAPEVINE

During the early part of the year a regular customer with several facilities world wide asked us to help by designing a portable rig which would measure and record pH, turbidity and the flow of their waste water being pumped to the effluent plant before flowing into settling lagoons.

The original idea was the unit could be used internationally if required to identify any problems with a particular sites discharge.

The effluent flow is pumped through the PVC manifold which is designed so as to keep the pH electrode wet at all times and meet the requirements of the mag flow meter for a straight length of pipe equivalent to five times the pipe

diameter before the mag flow meter and three times the pipe diameter after the mag flow meter. In addition we allowed for two tee's with removable plugs so after removing the sensors the pipe could be rodded through in the event of a blockage.

When in service the customer found his waste water contained far too high a sludge content which fouled the turbidity and pH sensors. We replaced the pH electrode with a flat glass style electrode and supplied a Coriolis meter which measured flow and density, these



along with the pH were recorded on the paperless recorder / data logger. We have a satisfied customer and the rig is now permanently installed on a site in the UK.

Automated Water & Effluent Ltd

AWE House Antom Court, Tollgate Drive, Beaconside, Stafford, ST16 3AF UK.

Tel: 01785 254597 Fax: 01785 257724

www.awe-ltd.co.uk email sales@awe-ltd.co.uk

AWE