

The Watermark

The Newsletter From

Automated Water & Effluent Ltd

Spring 2015

NEW C+ DOSING PUMPS



Our premium range of black dosing pumps are proving popular especially with the end user who appreciates the the quality and long life expectancy of the black dosing pump. The quality will be remembered long after the purchase price has been forgotten.

To complement the E+ series of black dosing pumps, see tough as old boots in the winter issue of the Watermark. We are adding the C+ series of black dosing pumps. The C+ series of black dosing pumps are a more compact dosing pump with a lower output and hence a lower price. There are four pumps in the C+ series ranging from 0 - 0.9 L /Hr to 0 - 4.7 L /Hr all against a max pressure of 5.6 bar.

Standard wetted parts are PVC head,

teflon diaphragm and seals with ceramic ball valves, with the option of either PVDF or 316 stainless steel being available at addition cost.

The C+ series features 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.

The external pacing option can be selected which will control the frequency or speed of the output of the pump by Pulse Frequency Modulation (PFM). The pump will makes 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 on each stroke.

The external pacing control is usually from either a contacting head water meter or the pulse frequency modulation (PFM) output from one of our pH controller's either model P7685 or MO5-PH.

Our C+ pumps feature metric sized hoses making them easier to install as replacements for existing pumps please note not all manufactures use the same sizes of metric tubing our C+ pumps use 6 x 8 mm as this offers a lower resistance to flow and allows a higher viscosity solution to be pumped. The C+ pumps will pump up to 1000 cps with a suction lift of 1500 mm max when fitted with the foot valve and strainer supplied with the dosing pump.

Our recommendation is still to install any dosing pumps with a flooded suction for any viscose solution and keep suction pipe work as short as possible.

The C+ series of dosing pumps are ideal for water treatment applications including dosing of acids and hypochlorite into swimming pools controlled by pH and residual chlorine instruments. Flow proportional dosing of a wide range of industrial chemicals into a water flow where a water meter or flow meter can be installed. pH adjustment in small systems which maybe either on/off or proportionally controlled from one of our pH controllers. Boiler feed water chemical dosing and cooling water dosing of inhibitor and biocides from one of our cooling water controllers.

Technical Tips

Simple Liquid Level Control and Alarm

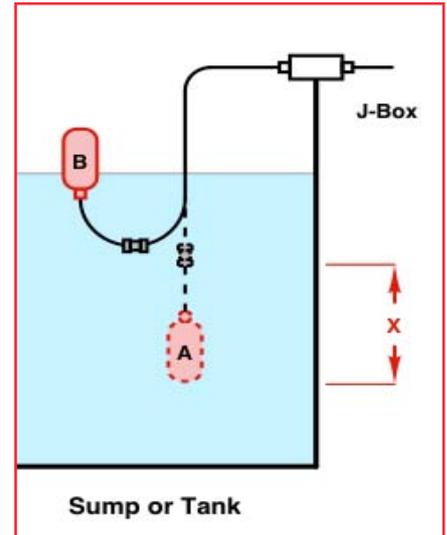
Sometimes the best things are the simplest and most reliable. Our FS10 float switch is one of these, being very simple to use and install.

The FS10 is a float switch with a 10m cable (even the part number is simple) It has a mercury free float switch with a corrosion resistant housing in polyethylene fitted with a 10m long PVC cable.

The FS10 float switch has a stainless steel ball which moves inside an internal housing to operate a micro switch for switching purposes so the switching action is mercury free.

The switching unit is a change over unit with a common, a N/O and a N/C contact rated at 10 amps non inductive and 4 amps inductive.

An option is an adjustable weight which maybe positioned to increase the FS10 switching range, see the diagram for details. Applications include the control of pumps for filling or emptying



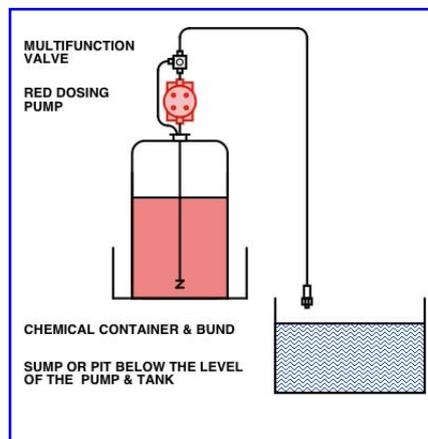
duties and high and or low level alarms in open or unpressurised tanks and sumps. The diagram above shows a typical installation of the optional counter weight for fitting to the cable on the FS10 float switch. This may be easily

adjusted to extend the distance at which the float changes state from sinking to floating. A rough rule is the switching differential is approximately twice the distance between the float and the counter weight.

THE GRAPEVINE

We recently helped a customer of ours with a foundry where they cleaned casting in a hot alkali solution and rinsed them in cold water. The discharge from the cold water rinse tank had a very high pH which flowed through coarse and fine pH neutralisation sumps. The customer would find that the pH had dropped to a low value when there was no production. The red dosing pumps were mounted on a flooded suction from his IBC which dosed into the sumps below ground level hence the dosing was downhill. His problem was that the acid was slowly syphoning through the red dosing pump. To cure the problem we supplied four of our multi function valves P/No AC-VM-PVDF (one for each pump)

This clever little device screws on to the outlet valve of the Red Dosing pump with a special connector we provide,



along with an outlet hose, to go back into the chemical container. The valve is fitted with two dials to set the pressure at the point where the pressure relief or safety function operates.

The functions of the AC-VM are as a safety valve; a loading valve to give the pump some pressure to work against;



an anti syphon valve; a priming valve and a drain valve. Multifunction valves are available in both polypropylene and PVDF with either viton or EPDM seals. If you require more information on the AC-VM multifunction valves please contact our sales office.

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