

# Automated Water & Effluent Ltd

## 2022 Catalogue

For Water Treatment, Effluent Treatment & Process Industries



pH



Redox



Conductivity



Optical DO2



Turbidity



Residual Chlorine



Level Control



Level Measurement



Flow Open Channel



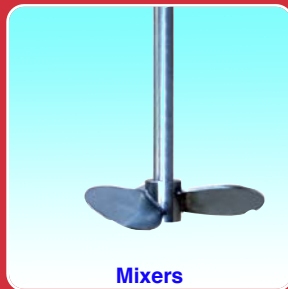
Temperature



Water Meters



Magnetic Flow Meters



Mixers



Metering Pumps

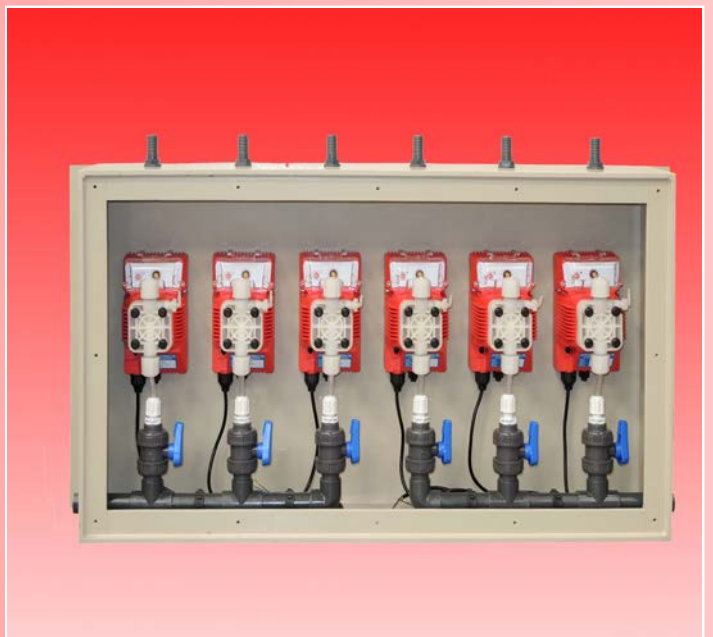


Tanks & Bunds



Dosing Pumps

Visit Our Web Site at [www.awe-ltd.co.uk](http://www.awe-ltd.co.uk)



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Chemical dosing of hazardous chemicals acid or alkali is dangerous. Automated Water and Effluent Ltd. recommend any pump be installed inside a sealed enclosure and any chemical dosing lines should be installed inside a second chemical resistant tube or pipe. An injection fitting should be shielded so in the unfortunate event of a leakage of any chemical there is no risk whatsoever of persons coming into contact with any chemicals being dosed or mixed. This should also provide mechanical protection for the dosing equipment.

The wetted parts of the dosing pumps and hoses are clearly listed, please check with your chemical supplier the suitability of the materials for handling the chemicals in use. Automated Water and Effluent Ltd. or its suppliers accept no liability of our products as being suitable for handling any chemical or mixture of chemicals.

For more concentrated chemicals we are able to offer PVDF heads, PTFE ball valves and PVDF dosing hoses.



## Portable pH Meter Kits

- PH10-K pH meter 0 - 14.00 pH, plastic bodied pH electrode & carrying case.
- PH15-K pH/mV/oC meter 0-14.00 pH 0-1999 mV & - 50oC to +150 oC plastic bodied pH electrode stainless steel temp sensor & carrying case.

## Portable Conductivity Meter Kit

- CL8-K Conductivity meter 3 ranges 0-200 $\mu$ S, 0-2000 $\mu$ S & 0-20mS, cell with ATC K=1.0 & carrying case.

## Combination Meter

- PC18-K Combination meter pH, conductivity or temperature with plastic bodied pH electrode, cell with ATC K=1.0, SS temp sensor & carrying case

## Portable Dissolved Oxygen Meter Kit

- OX25-K Dissolved Oxygen meter readout in % saturation or ppm with DO2 Sensor SS temp sensor and carrying case



## Stick Meters

- pH Testr 10 Waterproof Portable pH tester range 0 - 14.0 pH with buffer recognition and Auto Temp comp.
- EC Testr 11 Waterproof Portable  $\mu$ S tester ranges 0- 2000 $\mu$ S and 0 - 20.00mS with ATC.

## Spares & Accessories

- 9005-3B Plastic bodied pH combination electrode
- 9006-3B Plastic bodied Redox combination electrode
- A8000 Replacement Stainless steel temp sensor
- A1000 Heavy duty PVC cell K= 1.0 with ATC
- A1000 Heavy duty PVC cell K= 0.1 with ATC
- pHWPSEN Replacement electrode with ATC



## pH Buffer Powders

pH Buffers in sealed sachets for exceptional shelf life. The free flowing powder makes 500 ml of buffer solution. Supplied with indicator- preservative to identify the pH of the solution and inhibit mould growth. Each sachet makes up 500 ml of buffer when dissolved in deionised water.

- BPB 4      Box pH buffer 4pH makes 5 x 500 ml
- BPB 7      Box pH buffer 7pH makes 5 x 500 ml.
- BPB 10     Box pH buffer 10pH makes 5 x 500 ml.



## pH Calibration Solutions

pH Buffer or calibration solutions ready made up in 250 ml. plastic bottles. For the calibration of all pH instruments using combination electrodes.

- pHBS 4      4.00 pH ready made up in 250 ml plastic bottles
- pHBS 7      7.00 pH ready made up in 250 ml plastic bottles
- pHBS 9      9.00 pH ready made up in 250 ml plastic bottles
- pHBS 10     10.00 pH ready made up in 250 ml plastic bottles



## Redox Calibration Solutions.

- RBS      Millivolt calibration solutions ready made up in 250 ml. plastic bottles. For the calibration of all Redox controllers.
  - Redox buffer solution 616 mV.    250 ml
  - Redox buffer solution 220 mV.    250 ml
  - Redox buffer solution 468 mV.    250 ml



## Conductivity Calibration Solutions

Conductivity calibration solutions ready made up in 250 ml plastic bottles.

- C1000      1000  $\mu$ S at 25°C
- C2000      2000  $\mu$ S at 25°C
- C10,000    10,000  $\mu$ S at 25°C

## pH Buffer Station

- PPBS-479    Take the hard work out of buffering your pH electrodes with our new pH buffer station comprising of corrosion resistant, Custom made polypropylene housing with wide necked 500 ml plastic bottles. To contain 4, 7 & 9 colours coded pH buffers 500 ml to hold user supplied cleaning solution and a wash bottle



## Panel Mounting Controllers

P7335, P7635 and P7687 pH/mV controller all feature a Din enclosure with a very short case length of only 95 mm ideal for mounting in small panels or in confined spaces. Featuring a power supply of 86 - 264 VAC and user selectable pH, pH Antimony or Redox millivolt ranges, make these an ideal instrument to hold in stock.

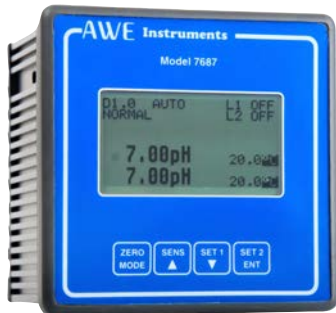


### P7635 Series Controllers

- P7635 pH / mV controller range 0 - 14.00 pH or 0 - ±1000 mV, 2 control relays one alarm relay, logic input & isolated 0 - 20 / 4 -20mA output, mains supply 86 - 264 VAC
- AK96 Instrument door to IP55 for the P7600 range.
- P7335 As above in 96 x 48 Din enclosure spec as P7635
- AK48 Instrument door to IP55 for the P7300 range.

### P7687 Series Controllers

When precise control is required the microprocessor based P7687 is ideal featuring two full PID controllers specially designed for pH control, selectable for p, P+, P+D or PID control. PFM pulse frequency modulation for proportional control of our electronic dosing pumps with adjustable set points and proportional band selectable for either one acid and one alkali-dosing pump. Duty and assist acid pumps or duty and assist alkali pumps. PWM pulse width modulation for proportional control solenoid valves as above.



- P7687 pH/mV controller with two control relays on/off PFM for proportional control of dosing pumps or PWM for proportional or PID control solenoid valves, alarm relay, auto clean relay with freeze and hold & isolated 0 - 20 / 4 -20mA current outputs selectable for 2 x pH or pH & °C

- P7687.03 New panel mounting controller with 4 inputs one for conductivity which maybe selected or turned off two additional inputs selectable for either pH or redox & a common temperature input for oC and auto temp comp. Allowing 2 x pH, 2 x mV or pH & mV inputs plus the conductivity if selected. With two control relays on/off, PFM or PWM, an alarm relay, auto clean relay & two isolated current outputs



The microprocessor based P7635 & P7687 series of instruments have a very short case length allowing mounting in shallow panel and wall mounting housing where 2 or more instruments are to be mounted together.

**Surface Mounting Transmitter & Controllers**

The P3436 Two wire digital transmitter is user selectable for pH or redox (orp) millivolts is ideal for converting the pH or redox electrode signal into an industry standard 4 - 20 mA signal and features a RS485 digital signal for connection to PLCs or dataloggers etc.

The P3647 & R3647 controllers offer cost effective pH or redox control of a wide selection of industrial process.

**Two Wire pH & Redox Transmitters**



**P3436-W** Microprocessor pH / mV two wire transmitter, isolated 4 - 20 mA output and RS485 digital connection power supply 24VDC.

-W W'proof enclosure if not required <deduct>

**P3630-W** Two wire pH transmitter isolated 4 - 20 mA O/P, power supply 24VDC in IP55 enclosure.

**R3630-W** Two wire mV. transmitter isolated 4 - 20 mA O/P, power supply 24VDC in IP55 enclosure. No photo shown

**pH & Redox Controllers**

**P3647W** pH Controller with 2 set points & 4 - 20 mA output in an IP55 w'proof enclosure.

**R3647W** Redox meter range 0 - 1000 mV as P3647 Mains supply 115/230 VAC



**P7335-W & P7635-W Controllers**

**P7335-W** P7335 pH/mV controller fitted into a surface mounting enclosure fitted with an AK48 door.

**P7635-W** As P7335-W with the larger P7635 controller *No photo shown*

**P6587 Series Controllers**

The microprocessor based 6587 series of instruments featuring a new design of IP65 surface mounting housing. The 6587 series will have all the functions of the 7687 series of instruments.

**P6587** pH / mV controller with two control relays on / off, PFM for proportional control of dosing pumps, or PWM for proportional or PID control solenoid valves, alarm relay, auto clean relay with freeze and hold & isolated 0-20 / 4-20mA current outputs.

**P6587.03** New surface mounting controller with 4 inputs one for conductivity which maybe selected or turned off two additional inputs selectable for either pH or redox & a common temperature input for oC and auto temp comp. Allowing 2 x pH, 2 x mV or pH & mV inputs plus the conductivity if selected. With two control relays on/off, PFM or PWM, an alarm relay, auto clean relay & two isolated current outputs



## Dip Electrode Systems

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Dip or submersion electrodes are designed to be submerged into unpressurised vessels, tanks, sumps or pits for use in industrial wastewater treatment or process control where continuous pH or Redox monitoring is required. The P36 & R36 are supplied 36" long and have fixed electrodes which can not be replaced, the PS90S & RS90S can be made any length up to 3m long and have replaceable electrodes.



P36-10B	Disposable sealed pH dip system in PVC. 900 mm long
R36-10B	Disposable sealed Redox dip system in P.V.C. 900 mm
PS90S	Dip pH electrode system in PVC. 1000 mm long with sealed glass electrode and mounting flange
PS90TBS	Dip pH electrode system in PVC. 1000 mm long with sealed thick bulb glass electrode and mounting flange
RS90S	Dip Redox millivolt system in PVC. 1000 mm long with sealed platinum electrode and mounting flange
AS90S	Dip Antimony system in PVC. 1000 mm long with sealed antimony electrode and mounting flange
PTT90S	Dip pH electrode system in PVC. 1000 mm long with <i>Tuff Tip</i> pH electrode and magna flow liquid junction
RTT90S	Dip Redox mV electrode system in PVC. 1000 mm long with <i>Tuff Tip</i> pH electrode and magna flow liquid junction
-AC	Auto clean air blast nozzle, J-box solenoid valve & 5m cables and hoses requires oil free compressed air supply & for PS90S RS90S PTT90S RTTS90S add
PES4	Dip pH electrode system in cPVC 1000 mm long with <i>Tuff Tip</i> style pH electrode fitted ATC & 5 m cable
RES4	Dip Redox millivolt electrode system in cPVC 1000 mm long with <i>Tuff Tip</i> style platinum electrode & 5 m cable

## Replacement Electrodes

Electrode insert with fixed length of cable which screws into the bottom of the electrode dip or riser tube



PS183-20B	PS90S pH electrode insert 6m cable & BNC plug
PS183TB-20B	PS90S Thicker bulb pH electrode 6m cable & BNC plug
RS183-20B	RS90S Redox electrode insert 6m cable & BNC plug
AS183-20B	AS90S Antimony electrode insert 6m cable & BNC plug



PTT183-20B	PTT90S pH electrode insert 6m cable & BNC plug
RTT183-20B	RTT90S Redox electrode insert 6m cable & BNC plug



9092-V12-20B	pH electrode, with ATC and 6m cable
9086-20B	Redox mV electrode with 6m cable



**Inline Electrode Systems**

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Inline electrodes are used for installation into pipework usually in a "Tee" the pipe should be fitted with isolating and drain valves for safe & easy removal of the electrode for calibration. In installations where this is not possible the Lock -N-Load electrode system should be used as this electrode system seals itself on removal from the pipe or vessel.



- PES 1-QR      Flow line system 3/4" in PVC. tee with quick release fitting & 9069 glass combination pH electrode
- RES 1-QR      Flow line system 3/4" in PVC. tee with quick release fitting & 9065-10B platinum combination redox electrode
  
- PES 2-QR      Flow line system 2" in PVC. tee with quick release fitting & PTT183-20B electrode
- RES 2-QR      Flow line system 2" in PVC. tee with quick release fitting & RS183-20B platinum redox electrode
  
- PES3            Electrode holder in 316 stainless steel for greater mechanical strength and high temperature use in the Dairy and Brewing supplied with 9044-10B electrode
  
- LNL-P           Lock-n-load on line retractable pH electrode holder in PVC. 1 1/2" BSP with DJ. combination pH electrode
- LNL-R           Lock-n-load on line retractable redox electrode holder in PVC. 1 1/2" BSP with DJ. combination mV electrode
- LNL-SS-P        Lock-n-load on line retractable pH electrode holder in 316 stainless steel. 1" BSP with DJ. combo pH electrode
- LNL-SS-R        Lock-n-load on line retractable redox electrode holder in 316 stainless steel. 1" BSP with DJ. combo mV electrode
  
- TLE-P-P          Twist lock electrode in line retractable pH electrode holder in PVC. 3/4" BSP with combination pH electrode.
- TLE-P-R          Twist lock electrode in line retractable redox electrode holder in PVC. 3/4" BSP with combination mV electrode.
- TLE-Tee1         PVC tee 1" solvent cement with adaptor to hold the Twist Lock Electrode in line retractable pH or redox electrode.
  
- As the Twist lock electrode uses a eurostyle electrode with a detachable lead assembly this will be required.
  
- 9001098 -10T    Lead for S8 connector 3 metre long stripped & tinned
- 9001098 -10B    Lead for S8 connector 3 metre long with BNC connector.

## Series 9000 Replacement Electrodes

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Our 9000 series of electrodes are traditional glass bodied electrodes 110 mm long by 12 mm Ø fitted with 3 m connecting cable. The cap is in ryton with a small flange for mounting the electrode into our PES style holders. The 9000 series electrodes maybe used as replacements for many OM electrodes often out performing the original electrodes.



9015-10B Epoxy bodied pH electrode with 3 m cable  
9016-10B Epoxy bodied mV electrode with 3 m cable



9069-10B Glass bodied pH electrode with 3 m cable  
9065-10B Glass bodied Redox electrode with 3 m cable



9092-10B Peripheral DJ. pH electrode with 3 m cable  
9086-10B Peripheral DJ. Redox electrode with 3 m cable



9093-10TV12 pH electrode with built in Pt100 fitted 3 m cable  
9072-10B Low conductivity water pH electrode 3 m cable  
9044-10B Peripheral DJ high temp pH electrode 3 m cable



9392-10B Long body pH electrode for Lock-n-load DJ.  
9386-10B Long body DJ Redox electrode for Lock-n-load  
-SS Stainless Steel sheath on L-N-L electrode (add)

## Euro Style Electrodes



9015- S8 Plastic bodied pH electrode with S8 connector  
9016- S8 Plastic bodied Redox electrode S8 connector



9069- S8 Sealed pH electrode with S8 connector  
9065- S8 Sealed Redox electrode with S8 connector



9001098 - 10T Lead for S8 connector stripped and tinned

## Accessories



pH - Ex Ex-cables ready made up with connectors  
LMK1 Special pH extension cable cost per metre  
PJ - B W'proof pH J-box for use with ATC electrodes  
LMK3 pH extension cable with ATC cost per metre



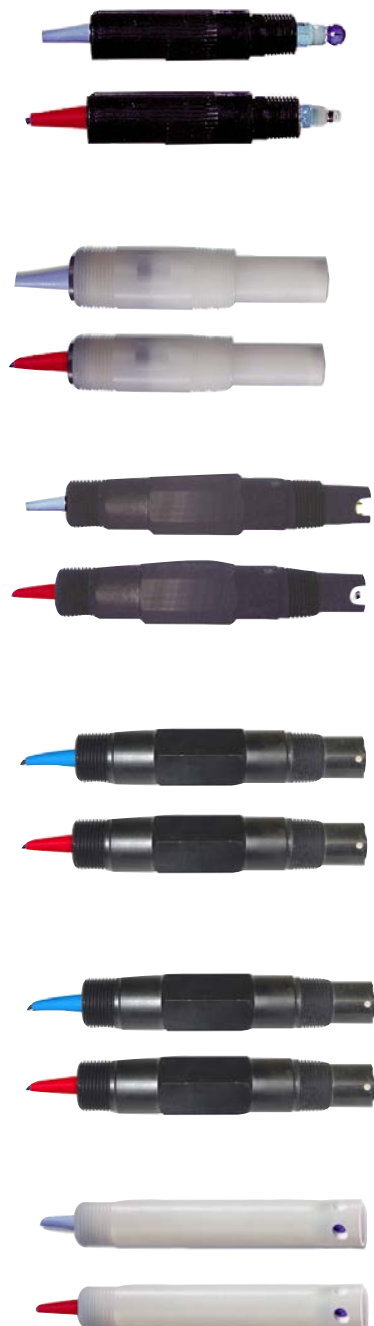
## Simulators



APS2 AWE. Instruments pH & mV simulator with special function for testing the input impedance of the instrument and testing the impedance of the pH extension cable between the instrument and pH or redox electrode.

**Insertion Electrodes**

Our insertion electrodes are designed to screw directly into a pipe or vessel which can be easily isolated or drained for electrode maintenance. Insertion electrodes like all electrodes should be mounted at least 10° angle up from horizontal for best performance.



- 9027 -10B      pH electrode 1/2" male thread sealed reference  
temp range 0 - 100°C pH range 0 - 13 pH
- 9126 -10B      Redox (ORP) electrode large Platinum band,  
sealed reference with annular junction
- 1627 -10B      Flat glass pH electrode with Kynar (PVDF) housing  
good chemical resistance pH range 0 - 12 pH
- 1698 -10B      Flat Platinum Redox (ORP.) electrode with Kynar  
(PVDF) housing DJ temperature range 0 - 100°C
- P8134 - 20B      pH electrode in PVDF housing with ceramic reference  
junction 3/4" thread 0 - 100°C pH range 0 - 13 pH.
- P8294 - 20B      Redox electrode in PVDF housing with ceramic reference  
junction 3/4" thread 0 - 100°C range
- P8361 -20B      Flat glass pH electrode with Kynar (PVDF) housing  
good chemical resistance pH range 0 - 13 pH.  
*Was P8000-10B*
- P8391-20B      Flat Platinum Redox (ORP.) electrode with Kynar  
(PVDF) housing DJ temperature range 0 - 100°C.
- P8362-TC1-20B      pH electrode PVDF housing, porous teflon reference  
junction mounting 3/4" thread pH range 0 - 13 pH
- R8392-20B      Redox electrode PVDF housing porous teflon reference  
junction mounting 3/4" thread temprange 0 - 100°C  
*Was R800T-10B*
- 3637 - 10B      Sealed DJ pH electrode in PVDF housing with 3/4" thread  
*While stocks last then replacement is P8134-20B*
- 3698 - 10B      Sealed DJ Redox electrode PVDF housing with 3/4" thread  
*While stocks last then replacement is R8361-20B*

**Automatic Temperature Compensation**

Many modern pH controllers also read solution temperature and have auto temperature compensation fitted as standard. We are able to supply pH electrodes with built in ATC and we are also able to supply separate stainless steel auto temperature compensators.



- ATP100-10ST      Stainless steel automatic temperature compensator  
temperature range 0 - 100°C mounting by 1/4" BSP  
male thread, length 100 mm cable length 3 m

## Panel Mounting Controllers

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C7335, C7635 and the new C7687 Conductivity controllers all feature a Din enclosure with a very short case length of only 95 mm ideal when compact dimensions are required. Featuring a switched mode power supply 86 - 264 VAC and user selectable conductivity ranges, make these an ideal instrument to hold in stock.



### C7635 & C7335 Series Controller

**C7635** Conductivity controller with user selectable ranges 0 - 20.00  $\mu$ S, 200.0  $\mu$ S, 2000  $\mu$ S, 20.00 mS & 200.0 mS. Selectable cell constants k= 1.0, 0.1 or 10.0. Two control relays one alarm relay & isolated 0 - 20 / 4 - 20mA output, supply 86 - 264 VAC

**AK96** Instrument door to IP55 for the P7600 range

**C7335** As above in 96 x 48 enclosure spec as C7635

Instrument door to IP55 for the C7300 range



### C7687 Series Controllers

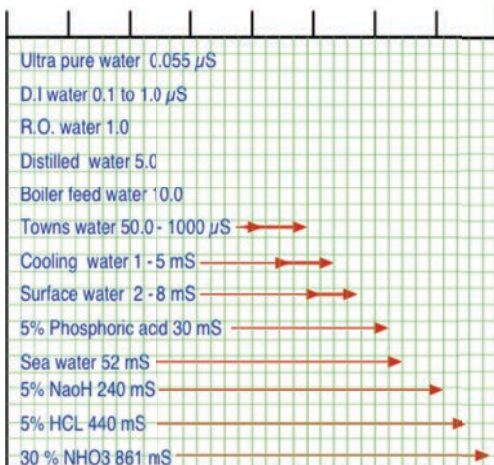
The microprocessor based 7687 series of instruments featuring the short case length of the C7635 series instruments but with all the functions and more of the 7685 series of instruments.

**C7687** Microprocessor conductivity &  $^{\circ}$ C meter selectable ranges 0 - 20.00  $\mu$ S, 200.0  $\mu$ S, 2000  $\mu$ S, 20.00 mS & 200.0 mS. Selectable cell constants k= 1.0, 0.1 or 10.0 increases or decreases the range by 10 fixed or auto ranging. Two set points, alarm relay, auto temp comp & 2 isolated current outputs, supply 86 - 264 VAC

**AK96** Instrument door to IP55 for the C7600 range

## Conductivities of Various Solutions

0.01  $\mu$ S 0.1  $\mu$ S 1.0  $\mu$ S 10  $\mu$ S 100  $\mu$ S 1 mS 10 mS 100 mS 1000 mS



### C7685 Series Controllers

For those more demanding applications measuring higher conductivities the C7685 and micro transmitter pre amplifier which increases the measuring range by a factor of 100

**C7685** Conductivity /  $^{\circ}$ C meter with 4 ranges 0-20.00, 0-200.0, 0-200  $\mu$ S & 0-20.00 mS. Two control relays, alarm relay, ATC & isolated current output

*No photo*

**MTEC** Electrodeless cell preamplifier ranges 0 - 2.0, 0 - 20.0 0 - 200.0 & 2000 mS

*C7685-001 Now replaced by the C7687*

## Surface Mounting Transmitter & Controllers

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The C3645 controller offer cost effective control of a wide selection of industrial process. Supplied as either DIN rail mounting or in a weatherproof enclosure. C3630 & C3436 two wire transmitters are ideal for converting a solution conductivity into an industry standard 4 - 20 mA signal for connection to PLCs or dataloggers etc. The C3436 microprocessor conductivity two wire transmitter offers touch button controls and can be supplied in a weatherproof enclosure.

### Conductivity Controllers

C3645-W Conductivity controller, ranges 0-200  $\mu$ S, 0-2000  $\mu$ S or 0-20.00 mS, select the range when ordering. One set point with a 0 - 40 sec delay timer & 4 - 20 mA current output supplied in an IP55 enclosure



### Two Wire Transmitters

C3630-W Two wire conductivity transmitter ranges 0-200  $\mu$ S, 0-2000  $\mu$ S or 0-20.00 mS, to be selected when ordering. Output isolated 4 - 20 mA O/P. Supply 24 VDC same two wires, mounted in an IP55 W'proof enclosure

-W W'proof enclosure if not required <deduct>



C3436-W Microprocessor conductivity two wire transmitter, with user selectable ranges isolated 4 - 20 mA output, power supply 24VDC in IP55 enclosure.

-W W'proof enclosure if not required

### C7335-W & C7635-W Controllers

C7335-W C7335 Conductivity controller in a surface mounting inclosure fitted with an AK48 door.

C7635-W C7635 Conductivity controller in a surface mounting inclosure fitted with an AK96 door



### C6587 Series Controllers

The microprocessor based 6587 series of instruments featuring IP65 surface mounting housing. The 6587 series will have all the functions of the 7687 series of instruments in a surface mounting housing.

C6587 Conductivity controller with two control relays on / off, PFM for proportional control of dosing pumps or PWM for proportional or PID control solenoid valves, alarm relay, auto clean relay

## Dip Conductivity Cells

A



Dip conductivity cells for installation in open vessels. The D1 cells are high linearity cells with  $k = 1.0$  and  $10.0$  with either cPVC, PVDF or SS riser tubes. Max conductivity of  $100 \text{ mS } k = 1.0$  or  $1000 \text{ mS } k = 10.0$  depending upon the instrument in use.

The D2 range cells are standard cells with  $k = 1.0$  or  $0.1$  with uPVC riser tubes max temperature is  $50^\circ\text{C}$  max conductivity of  $50 \text{ mS}$  depending upon the instrument in use.

D1-10 Dip cell  $k = 1.0$  in epoxy 600 mm long cPVC riser tube max temp  $80^\circ\text{C}$

D1-100 Dip cell  $k = 10.0$  in epoxy 600 mm long cPVC riser tube max temp  $80^\circ\text{C}$

D2-01 Dip cell  $k = 0.1$  in epoxy 600 mm long PVC riser tube max temp  $50^\circ\text{C}$

D2-10 Dip cell  $k = 1.0$  in epoxy 600 mm long PVC riser tube max temp  $50^\circ\text{C}$

-cPVC cPVC riser tube on D1 cells per metre  
 -SS SS riser tube on D1 cell per metre  
 -F P.V.C. Mounting flange for dip cells  
 -T Auto Temperature comp fitted to cell

## High Temperature Conductivity Insertion Cell

PSE4 10-HT High temp insertion cell  $K = 1.0$  in stainless steel with  $3/4"$  thread



## Accessories

Insertion conductivity cells are easily converted into flow line cells by installing the insertion cell into a "Tee" we recommend that a "Tee" of at least one size larger than the thread on the cell that is used (except the IN5 cell) so as not to restrict the flow through the Tee.

-T- PVC PVC Tee with adaptors to  $3/4"$  BSP max temp  $50^\circ\text{C}$  pressure 3 bar  
 -T- PP Polypropylene Tee with adaptors to  $3/4"$  BSP max temp  $80^\circ\text{C}$   
 -T- SS Stainless Steel Tee with adaptors  $3/4"$  BSP (see cell for limits)



## Insertion Conductivity Cells

Insertion conductivity cells are for installation into pipework to measure the conductivity either in bypass pipe work or into large diameter pipes or vessels.



- IN5-01 Insertion cell k= 0.1 In PVC with graphite electrodes and BSP 3/4" thread
- IN5-10 Insertion cell k= 1.0 In PVC with graphite electrodes and BSP 3/4" thread



- CP621-10 Insertion cell k=1.0 In cPVC epoxy and graphite with 3/4" thread
- CP621-01 Insertion cell k= 0.1 In cPVC epoxy and graphite with 3/4" thread



- CP721-10 Insertion cell k=1.0 In Peek and graphite with 3/4" thread max temp 120 °C



- IN2-10 High linearity cell k=1.0 In Peek & epoxy, graphite electrodes 3/4" BSP thread
- IN2-100 High linearity cell k=10.0 In Peek & epoxy, graphite electrodes 3/4" BSP thread



- PSE-01 Insertion cell k=0.1 In S'steel 3/4" thread
- PSE-001 Insertion cell k=0.01 In S'steel 3/4" thread



## Flow Line Conductivity Cells

- FL3 01 Flow Line cell K=0.1 in P.V.C. fitted 2m cable for low temperature / pressure use
- FL3 10 Flow Line cell K=1.0 in P.V.C. fitted 2m

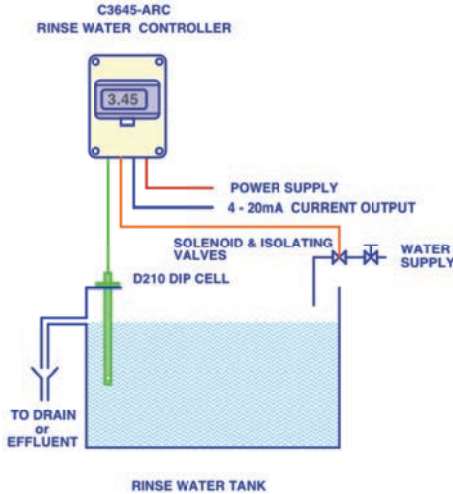
## Accessories

- ACS1 Conductivity simulator 11 switched outputs from 1-100,000  $\mu$ S.
- LMK2 Connecting cable no ATC per metre
- LMK4 Connecting cable with ATC per metre
- LMK7 Connecting cable for electrodeless cells and MTEC per metre



## Auto Rinse Water Control Kits

The metal finishing industry uses vast quantities of both town supply and demin water to rinse components after chemical processing. Savings in water can be achieved by only adding water when the rinse tank is contaminated which can be controlled by conductivity.

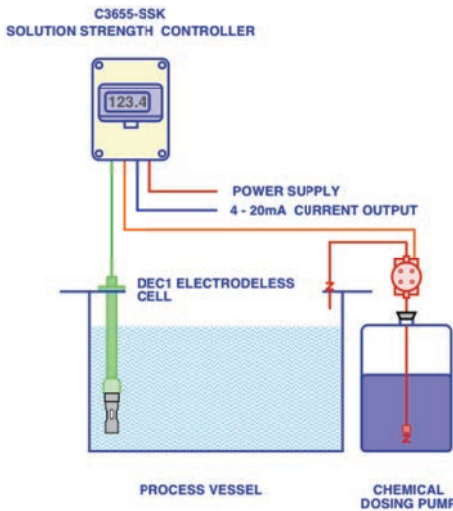


C3645-ARC C3645-W controller ranges 0-200 $\mu$ S, 0-2,000 $\mu$ S & 0-20mS with ATC mains supply 115/230 VAC

D210T10KF 600mm long dip cell with ATC, mounting flange & 3 m cable, max temp 50°C  
BSV050-00 brass solenoid valve 1/2" B.S.P.

As above with BSV075-00 Brass solenoid valve 3/4" B.S.P. with w'proof coil

As above with BSV075-00 Brass solenoid valve 1" B.S.P. with w'proof coil



## Solution Strength Control Kit

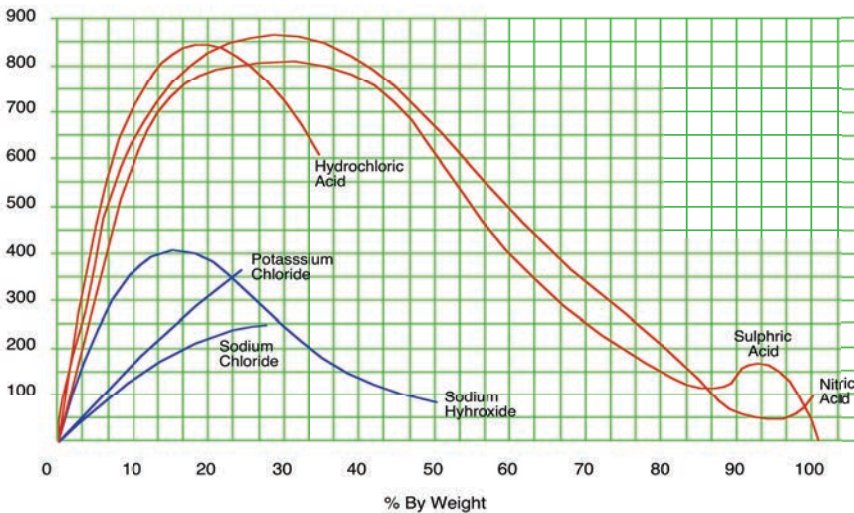
C3655-SSK C3655 electrodeless conductivity controller range 0 - 20, 0 - 200 or 0 - 2000mS. TBA with order.

DEC1 600 mm dip cell in PVDF with cPVC riser tube fitted ATC, mounting flange & 2 m cable.

AT4-BL 01-60 dosing pump 0 - 60 l/Hr with suction lance, hose & injection fitting

**Kits can be made up with any of our cells or pumps to suit your application, please call our sales office for details.**

## Conductivity at 25°C in millisiemens







## Electrodeless Conductivity Control

The strength of acid and alkali solutions may be accurately controlled by using conductivity. As the solution strength increases the electrical resistance decreases (conductivity is the reciprocal of resistance). Care must be taken as most solutions reach a peak where the conductivity decreases again. This is shown on our solution strength Vs conductivity graph. Our electrodeless conductivity systems feature sensors which are unaffected by fouling. Typical applications are the control of processing solutions in the metal finishing industry and the control of CIP solutions in the food & brewing industries.

## Electrodeless Conductivity Controllers

**C3655W** Electrodeless or (Torroidal) conductivity controller in surface mounting enclosure, range 0-20, 0-200 or 0-2000mS TBA with order. Control relay and 4 - 20 mA output mains supply 115/230 VAC.

**C7685-MT** Panel mounting electrodeless conductivity controller selectable ranges 0-20, 0-200 or 0-2000mS with 2 control relays, alarm relay & 4 - 20 mA output, cell preamplifier, mains supply 115/230 VAC.

**DEC1** Dip cell in 600mm long in PVDF with PVC riser tube, fitted ATC mounting flange & 2 m cable max temp 50°C

-cPVC Fitted cPVC riser tube max temp 85oC add

-SS Fitted Stainless riser tube max temp 100oC add

## Two Wire Electrodeless Conductivity Transmitters

Electrodeless conductivity transmitter in cPVC with built in electronics to provide a temperature compensated isolated 4-20mA signal. The same two wires that power the transmitter also carry the current signal allowing the transmitter to be mounted up to 1000 metres away from the receiving instrument with just our LMK2 connecting cable.

**BCT10** Two wire electrodeless conductivity transmitter in cPVC range 0 - 10mS

**BCT100** Two wire electrodeless conductivity transmitter in cPVC range 0 - 100mS

**BCT1000** Two wire electrodeless conductivity transmitter in PVDF range 0 - 1000mS

**RT90** Riser tube with mounting adaptor 600mm add.

**BC7635** Panel mounting controller with loop power supply 2 set points & 4 - 20mA output

## DO<sub>2</sub> Controllers & Sensors

Our traditional dissolved oxygen controllers offer a simple cost-effective solution to your dissolved oxygen measurement and control application. Employing our well-established OD7635 panel mounting controller which features two control relays, one alarm relay, logic input which may be used as a duty standby input and an isolated 0 - 20 mA / 4 - 20 mA current output.

The power supply is 86 to 264 VAC by a switch mode power supply. Like all the series 7635 instruments which include pH, redox (ORP) millivolts, conductivity, residual chlorine and a slave controller which accepts a 4 - 20 mA input, the 7635 can be supplied in a surface mounting weather-proof housing. This is made possible because of the short case length of the 7635 series instruments.



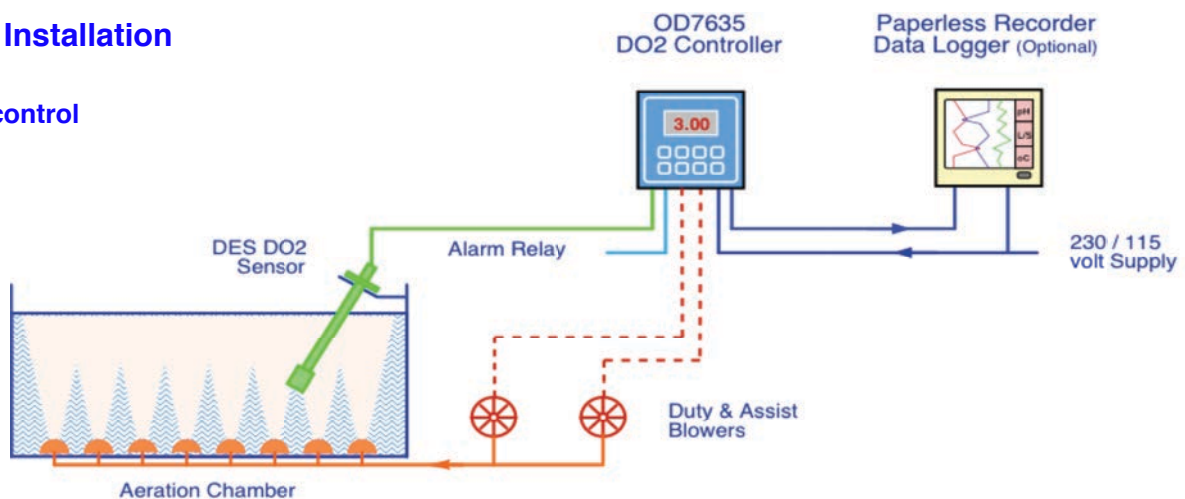
### DO<sub>2</sub> Controllers

- OD7635 DO<sub>2</sub> controller 96 x 96 with two control relays, alarm relay, & isolated 4 - 20mA output, mains supply 86 - 264 VAC.
- DES 1 DO<sub>2</sub> sensor upto 1800 mm long with j-box, mounting flange, spare membranes & filling solution.
- DES-1SK Spares kit to refurbish DES1 sensor
- PF Float 600 mm Ø for use where the liquid level changes.
- LMK6 DO<sub>2</sub> connecting cable per metre length
- OD105 DO<sub>2</sub> simulator for calibrating the instrument and checking the operation of Polarographic (Clark) type DO<sub>2</sub> cells.

*Note using a simulator does not eliminate the need to calibrate the sensor*

### Typical Installation

#### Aerator control





## Optical DO<sub>2</sub> Two Wire Transmitter

These unique sensors have been specially designed to measure dissolved oxygen using the fluorescent technology or optical principal of measurement. Sensors are available for inline applications where the sensor is mounted in line in a large bore pipe or off line in a sample cell. For dip applications in pits sumps or tanks with auto clean by the air blast method.

## Inline DO<sub>2</sub> Two Wire Transmitter

OD8525 Two wire optical DO<sub>2</sub> transmitter for inline installation, ranges 0 - 20ppm or 0 - 200% sat air TBA with order, output 4 - 20 mA power supply 24 VDC

FES2-QR Inline flow cell in PVC add.

## Submersion DO<sub>2</sub> Two Wire Transmitter

OD8325 Two wire optical DO<sub>2</sub> transmitter, submersible with auto clean air blast nozzle. ranges 0 - 20ppm or 0 - 200% sat TBA output 4 - 20 mA power supply 24 VDC

RT90 Riser/dip tube with mounting adaptor upto 1000mm add.

-ACK Auto clean kit for OD or TU 2 wire sensor cleaning with 230 VAC air compressor valves & hoses etc. add



## Slave Control instruments

Either of the sensors can be connected to a controller which powers the 4 - 20mA loop and provides a read out and two control relays, 1l an alarm relay and 4 - 20 mA output available for panel or surface mounting as follows.



BC7635 Panel mounting indicator controller with two control relays, alarm relay and a 4 - 20mA output.

BC7687 Panel mounting indicator controller with PID control, two control relays, alarm relay, auto clean relay with freeze & hold and two 4 - 20mA outputs.

AK96 Instrument door for the 7600 series of instruments



BC6587 Surface mounting indicator controller with PID control, two control relays, alarm relay, auto clean relay with freeze & hold and two 4 - 20mA outputs.



## Panel Mounting Turbidity Controller & Sensors

A

- TU7685 Turbidity controller ranges 0 - 4.00, 0 - 40.00, 0 - 400.0 & 0 - 4000. NTU. 2 control relays, alarm relay & isolated 4 - 20mA output. Mains supply 115/230 VAC
- TU810-910 Sample flow cell connection by 8 mm OD tubing 10m cable
- TU8182 - D Dip sensor 600mm long in PVC mounting flange 10m cable
- LMK7 - 30 Additional cost for 30 metre connecting cable & plug add

## Two Wire Transmitters

Two wire sensors are ideal for applications where the sensor is remotely mounted from the indicator, recorder/data logger or controller. As just two wires are required, see our LMK2 connecting cable which is ideal for these applications. The same two wires which carry the 24 VDC power supply also carry the analogue 4 - 20 mA signal making a cost effective installation.

The turbidity two wire sensors are designed to measure turbidity in NTUs based on the nephelometric method using an infrared light source. Sensors are available for dip applications in pits, sumps or tanks with an optional auto clean by the air blast method.

For inline applications where the sensor may be mounted inline in a large bore pipe or off line in a flow sample cell.



## Inline Turbidity Transmitters Two Wire

- TU8525 Two wire Turbidity transmitter for inline use ranges 0-4.000, 0-40.00 or 0-400.0 NTUs to be advised when ordering, output 4 - 20 mA. Supply 24 VDC
- FES1-QR Off line flow cell in PVC with 6 x 8 tube fittings
- FES2-QR Inline flow cell in a 2" PVC Tee with quick release fitting

## Submersion Turbidity Transmitters Two Wire

- TU8325 Auto clean by air blast 2 wire Turbidity transmitter, ranges 0-4.000, 0-40.00 or 0-400.0 NTUs to be advised when ordering, output 4 - 20 mA supply 24 VDC
- ACK Auto clean kit for OD & TU 2 wire transmitters sensor cleaning with 230VAC compressor valves & hoses etc.
- RT90 Riser/dip tube with mounting adaptor upto 1000mm or longer to order.



## Two Wire Transmitters

Two wire sensors are ideal for applications where the sensor is remotely mounted from the indicator, recorder/data logger or controller. As just two wires are required, see our LMK2 connecting cable which is ideal for these applications. The same two wires which carry the 24 VDC power supply also carry the analogue 4 - 20 mA signal making a cost effective installation.

The high turbidity / suspended solids sensors measure in FTUs and are based on back scattering technology.

Sensors are available for dip applications in pits, sumps or tanks with auto clean by the air blast method. for inline applications where the sensor is mounted inline in a large bore pipe we do not recommend the air blast cleaning as excess pressure may build up in the pipe work.



## Inline Suspended Solids Transmitters Two Wire

TU8555 High Turbidity two wire transmitter, designed for inline installations to measure high turbidity & suspended solids based on back scattering technology ranges 0 - 100, 0 - 1000 or 0 - 10,000 FTUs to be advised when ordering, output 4 - 20 mA. Power supply 24 VDC

-FES2-QR Inline flow cell in a 2" PVC Tee with quick release fitting. Auto clean is not available with this option



## Submersion Suspended Solids Transmitters Two Wire

TU8355 High Turbidity two wire transmitter, submersible with auto clean air blast nozzle. designed to measure high turbidity & suspended solids based on back scattering technology ranges 0 - 100, 0 - 1000 or 0 - 10,000 FTUs To be advised when ordering with order, output 4 - 20 mA. Power supply 24 VDC

-ACK Auto clean kit for OD & TU 2 wire transmitters sensor cleaning with 230 VAC compressor valves & hoses etc.

-RT90 Riser/dip tube with mounting adaptor upto 1000mm or longer to order.

## Slave Control instruments

Either of the sensors can be connected to a controller which powers the 4 - 20mA loop and provides a read out and two control relays, 11 an alarm relay and 4 - 20 mA output available for panel or surface mounting as follows.



BC7635 Panel mounting indicator controller with two control relays, alarm relay and a 4 - 20mA output.

BC7687 Panel mounting indicator controller with PID control, two control relays, alarm relay, auto clean relay with freeze & hold and two 4 - 20mA outputs.

AK96 Instrument door for the 7600 series of instruments

BC6587 Surface mounting indicator controller with PID control, two control relays, alarm relay, auto clean relay with freeze & hold and two 4 - 20mA outputs.

## Residual Chlorine Controllers

Residual Chlorine controllers are designed for direct reading of free chlorine in ppm or mg/L, when used with either. The potentiostatic sensor that responds to Residual Chlorine, Bromine, Chlorine Dioxide or Ozone max measuring range with this sensor is 5.00 ppm.

The closed amperometric residual chlorine sensor or chlorine dioxide sensor which is fitted with a semi permeable membrane which allows the ions being measured to permeated through the membrane into the sensor versions are available for residual chlorine and total chlorine the measuring range is upto 20.00 ppm. The listed instruments below will work with either of the sensors and a Pt100 for temperature measurement / auto temperature compensation.



## Two Wire Transmitter

CL3436 Microprocessor Residual Chlorine two wire transmitter with user selectable ranges range 0 - 2.00 or 0 - 20.00 ppm (mg/L) subject to sensor selected. Isolated 4 - 20 mA output, power supply 24VDC Supplied with in IP55 enclosure.



## Panel Mounting Controllers

CL7635 Residual Chlorine controller panel mounting 0 - 2.00 / 0 - 20.00 (ppm) mg/l. with 2 control relays, alarm relay & 4 - 20 mA output, mains supply 86 - 264 VAC



CL7687 Panel mounting indicator controller with PID control, two control relays, alarm relay, auto clean relay with freeze & hold and two 4 - 20mA outputs, mains supply 86 - 264 VAC

## Surface Mounting Controllers

CL6587 Surface mounting indicator controller with PID control, two control relays, alarm relay, auto clean relay with freeze & hold and two 4 - 20mA outputs, mains supply 86 - 264 VAC



CL6587.103 Triple input surface mounting indicator controller with residual chlorine, pH and redox inputs. The measurement of free chlorine can be automatically compensated for changes in pH by the pH input. Temperature measurement and compensation are done by a Pt100 / Pt1000 sensor. PID control by two control relays, alarm relay, auto clean relay with freeze & hold and two 4 - 20mA outputs, mains supply 86 - 264 VAC.

## Residual Chlorine Potentiostatic

Potentiostatic sensor that responds to Residual Chlorine, Bromine, Chlorine Dioxide or Ozone. The SZ283 chlorine sensor maybe used with the listed flow cells. For good results the flow must be constant between 10 to 30 litres / hour. A



- SZ283 Potentiostatic chlorine sensor for use with listed flow cells
- SZ7251 Auto clean Potentiostatic flow cell flow 15 - 40 L/Hr constant
- SZ7261 Constant velocity flow cell of the overflowing type to for 1 electrode 12 mm Ø sample flow rate of 10 to 30 L/Hr
- SZ7263 Constant velocity flow cell of the overflowing type to for 3 electrodes 12 mm Ø sample flow rate of 10 to 30 L/Hr

## Residual Chlorine or Chlorine Dioxide Closed Amperometric

The closed amperometric sensors are a modern design where the electrodes are located inside the sensor in an electrolyte. The sensor is fitted with a semi permeable membrane which allows the ions to be measured when permeated through the membrane into the sensor. The sensor fits into a flow cell which requires a constant flow with a max pressure of 3 bar. For the best results use a constant over flow system piped to drain with a flow rate of 30 - 60 L/Hr.



- RCS-0066 Residual chlorine sensor closed amperometric type for use in flow cell CFC-1522 supplied with connecting cable spare membranes, "O" ring kit & 120 mls of filling solution.
- CCS-0066 Combine chlorine sensor closed amperometric type for use in flow cell CFC-1522 supplied with connecting cable spare membranes, "O" ring kit & 120 mls of filling solution
- CDS-0066 Chlorine Dioxide sensor closed amperometric type for use in flow cell CFC-1522 supplied with connecting cable spare membranes, "O" ring kit & 120 mls of filling solution
- SFC-1522 Sealed flow cell which requires a constant flow, max pressure 3 bar flow rate of 30 - 60 L/Hr. For the best results use a constant over flow system piped to drain
- CHFC Constant head flow cell in place of the sealed flow cell
- PVC/M PVC Manifold with isolating valve, flow indicator and flow sensor which can be used to stop the controller dosing on no sample flow.



## Residual Chlorine Backplate System

Our residual chlorine controller CL6587, SZ726 constant velocity flow cell and SZ283 potentiostatic chlorine sensor can be supplied on a back plate ready assembled and wired. Hence making site installation simple and easy and cost effective.

So save time and manpower on site and let us assemble your system in our works ready for enginer to simply mount the back plate, add power a water sample ready to calibrate the system



- CL6587-BPS CL6587 residual chlorine controller, SZ726 constant velocity flow cell and SZ283 potentiostatic chlorine sensor ready assembled on a back with isolation valve and drain tundish.

- CL6587.103-BPS CL6587 Residual chlorine controller, SZ726 constant velocity flow cell pH electrode 9069-3B and SZ283 potentiostatic chlorine sensor ready assembled on a back with isolation valve and drain tundish.  
*See pages 37 - 40 for dosing pumps to suit.*

## Temperature Sensors

N

TPA range of temperature probe assemblies are three wire PRT. Platinum resistance thermometers to BS.1904. The sensors are manufactured from 316 Stainless Steel all welded construction to food grade standards.



TPA 1-N Insertion sensor with ABS head 75 mm lagging extension up to 150 mm insertion.



TPA 1-A Insertion sensor with Aluminum head 75 mm lagging extension up to 150 mm insertion.



TPA-2-400 Sensor 6 mm dia in 316 stainless steel use with compression fitting or submerged into an open vessel. Standard lengths are 400mm, 600mm, 800mm and 1000mm long. Other lengths can be made to order including larger diameters and lengths upto 3m long. Special fittings can be added such as flanges or triclamp fitting.



TPA-2/PTFE As TPA-2 but fitted with a PTFE sheath for use in process chemical vessel such as acid etch baths. Standard lengths as per TPA-2.



TPA-3-400 As TPA-2 but fitted with a connector for easy fitting & removal. Use with a pocket or compression fitting, length 400 mm & 600mm long others to order.



TPP Pockets in stainless steel with compression fittings and 1/2" BSP external thread for mounting TPA2 or TPA3 into your process 100 mm long



SCF-025 SS compression fitting 1/4" BSP  
SCF-050 SS compression fitting 1/2" BSP



## Transmitters & Controllers

N

Temperature is the most widely measured and controlled industrial parameter with an application in almost every industrial facility in the world. We are mainly concerned with the measurement and control of liquid temperatures from water to process solutions which include acid and alkali solutions. We are able to supply a range of controllers that are simple to install and easy to use. For applications requiring connection to a PLC or remote instrument we have a head mounting 2 wire transmitter. While the majority of our applications use PRT sensors we are able to supply thermocouples. Please contact our sales office with your requirements.



## Temperature Transmitters

TT100 Two wire temperature transmitter Pt100. Input 4-20mA output. Ranges 0-50°C, 0-100°C or 0-200°C (to be specified)

## Temperature Indicator & Controllers



K39T Temperature controller with dual 4 digit display thermocouple or 3 wire RTD I/P, 2 relay outputs mains supply 100 to 240 VAC



ATC-73-2 Panel mounting temperature controller with LED display input Pt100, Pt500 or Pt1000. or Thermocouple K,S,L,T,N,R,B or E to be specified with 2 control relays, power supply 85 - 260 VAC



ATC-N118-T Surface mounting w'proof temperature meter with LED display input Pt100, Pt500 or Pt1000 with 2 control relays.

## Process Instruments

Process controllers are for use with any of our 2 wire transmitters pH, redox, conductivity dissolved oxygen, turbidity, suspended solids, liquid level or temperature. Where the sensor is required to be mounted a long way away from the indicator/controller. This can be upto 500m using our LMK2 connecting cable making remote measure simple and easy.



ATC-N118 Surface mounting w'proof process meter with LED display level transducer power supply with 2 control relays



SUR-457-2 Surface mounting 57 mm high LED display with built-in transducer power supply and 2 control relays

# AWE Liquid Level Controller

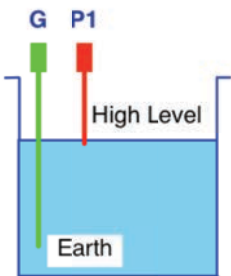
The Model ALC1101 Liquid level controller is designed for inside panel mounting to provide reliable liquid level control of conducting solutions. The principal of operation is by detecting the electrical resistance which is amplified between electrodes set at desired levels. When the liquid rises or falls making or braking contact with an electrode the switching operates as set for either high or low level. The ALC1101 maybe used as a high or low level alarm selected by the function switch on the level controller front panel. Two electrodes are required one for the alarm point and the other for the earth return.

The ALC1101 may also be used to control between two levels for either pumping in or pumping out which again maybe selected by the function switch. An earth electrode and two electrodes set for the two required levels are required for this operation.

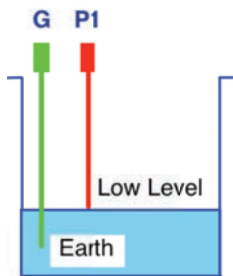


- \* **Fail to Safe to Fill or Empty**
- \* **Adjustable Sensitivity**
- \* **LED Indication of Relay State**
- \* **Dual Voltage Supply 110/240 VAC**
- \* **LED Indication of Mains supply**
- \* **Plug in Mounting.**
- \* **Cost Effective level Control**
- \* **Ex Stock Deliveries**
- \* **Well Established Product**
- \* **Manufactured in the UK**
- \* **Optional IP55 Housing**

## Level Alarm

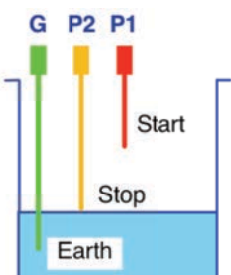


High Level Alarm

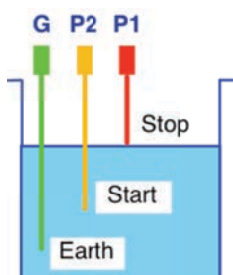


Low Level Alarm

## Level Control



Pumping Out Between Two Levels



Pumping In Between Two Levels

## Liquid Level Controllers & Electrodes

A

ALC1101	Plug in level controller for use with level electrodes
ALC1101-B	Plug in level controller for use with electrodes with DIN rail mounting base
ALC1101W1	Level controller supplied in weatherproof enclosure



## Liquid Level Electrodes

A

LE20	Electrode holder with 3 x 3 mm $\varnothing$ electrodes to be cut to length 900 mm long with connector.
LE6/3	Electrode holder 3 x 1.2m long PVC legs and carbon tips.
LE6/5	Electrode holder 5 x 1.2m long PVC legs and carbon tips
LE6/3-U	Electrode holder 3 x 1.2m long PVC legs and carbon tips.
LE6/5-U	Electrode holder 5 x 1.2m long PVC legs and carbon tips.
CT-RB	Spare carbon tip in rubber bung
LE8/3	Red Multi electrode holder 1 1/2" BSP mounting thread to hold 3 x 1/4" $\varnothing$ stainless steel or titanium electrodes
LE8/5	Red Multi electrode holder 1 1/2" BSP mounting thread to hold 5 x 1/4" $\varnothing$ stainless steel or titanium electrodes
LE7	Single holder for 1/4" dia rod
LE7-WMB5	Wall mounting bracket for five LE7 electrodes
SS025	1/4" Stainless rod per metre or part metre length.
SS025PC	1/4" Stainless rod plastic coated per metre or part metre length.
TR 025	1/4" Titanium rod per metre or part metre length

## Float Switches

N

LLFS	Low, or high level float switch in PVC with PVDF cotton bobbin float which can be reversed for high or low operation
-J-Box	PP connecting head in place of fixed cable.
FS10	Float switch mercury free with Polyethylene body and 10 metres of PVC cable
CW1	Optional counter weight
FS10	Supplied in packs of 10 price each
CW1	Supplied in packs of 10 price each

## Pneumatic Level Switches

PLS 1	Pneumatic level switch for single point level control 3/4" BSP mounting wetted parts PVC viton and PVDF. Option for cPVC or polypropylene wetted parts.
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- \* **PVDF Wetted Parts**
- \* **PC Housing,**
- \* **Cost Efficient**
- \* **Simple Installation**
- \* **Simple Calibration**
- \* **Two wire loop powered**
- \* **4 - 20 mA output**

The model MF-DB is a two wire ultrasonic transmitter for the measurement of either level of liquids in vented tanks, pits or sumps over the range of 0 - 8.0 m. or 0 - 12m model MF-DBER. The ultrasonic principle of measurement is based on the transducer providing pulses of ultrasound, which are reflected from the liquid surface back to the transducer. The time of flight taken for the pulse to return to the transducer is measured which is proportional to the distance and hence the liquid level from the transducer.

The model Meter being a two wire transmitter can send an industry standard 4 – 20mA signal up to 1000m from the transmitter to the receiving instrument. Along the same two wires used to power the transmitter this provides a very cost effective installation.

Ultrasonic level transmitters are for use on foam and vapour free liquid with a flat level surface to measure from. Care must be taken to avoid installation where mixers or internal steel work may interfere with the measurement.

## Ultrasonic Level Transmitters

A



MTR-046      Level transmitter 2" BSP mounting 0.4 - 6m, output 4-20 mA

To order we are able to supply versions for 0 - 8m range, four wire versions with 2 control relays and a 4- 20 mA output Hart or modbus digital communications and versions certified to ATEX.

## Hydrostatic Level Measurement

N

By measuring the hydrostatic head with a pressure transducer the liquid level may be measured. Remember to take into account the SG of the liquid being measured when calibrating the controller in level units. Output 4 - 20 mA power supply 12 - 36 VDC.



AIMP01      Insertion pressure transmitter in stainless steel and ceramic mounting by 1/4" BSP male thread output 4 - 20 mA  
 Ranges 0 - 0.1, 0 - 0.25, 0 - 0.5, 0 - 75, or 0 - 1.0  
 Ranges 0 - 1.0, 0 - 2.0, 0 - 5.0, or 0 - 10 Bar



ADMP331P      Insertion pressure transmitter with flush stainless steel diaphragm mounting by 1" BSP male thread output 4 - 20 mA  
 Ranges 0 - 0.1, 0 - 0.16, 0 - 0.25, 0 - 0.4, 0 - 0.6 Bar  
 Ranges 0 - 1.0, or 0 - 2.5 Bar



ALMK809      Suspended pressure transmitter in PVC with ceramic sensor output 4 - 20 mA power supply 12 - 36 VDC  
 Ranges 0 - 1.6, 0 - 2.5, 0 - 4.0 or 0 - 6.0 meters  
 Ranges 0 - 10, 0 - 25 up to 0 - 100 meters  
 Add special vented cable length as required



AIML      Suspended pressure transmitter in stainless steel with ceramic sensor output 4 - 20 mA power supply 10 - 32 VDC  
 Ranges 0 - 0.5, 0 - 1.0, 0 - 2.5 or 0 - 5.0  
 Ranges 0 - 7.5, 0 - 10 m, 0 - 20 m up to 0 - 200 m  
 Add special vented cable length as required

## Controllers for use with Level Transmitters

A



Our two wire level transmitters are designed for remote mounting away from the indicating or controlling instrument, connection between the transmitter and controller is by our LMK2 connecting cable. The same 2 conductors which carry the 24 VDC supply to the transmitter carry the 4 - 20 mA signal which is the current which flows round the loop.

We offer a range of two panel mounting indicator/controllers and two surface mounting weatherproof indicator/controllers.

All the instruments are user configurable for the measuring range up to 9999 units, which can be configured as 0 - 100% of the vessel contents in engineering units litres, gallons, cubic metres or level in millimetres or metres.

Our transducers are all suitable for use with our AWE99 and AWE141 paperless recorder/data loggers and our on line data logger. Please see our web site or call our sales hotline for more information.

## Panel Mounting Controllers

**BC7635** Panel mounting controller scaled 0 - 100% or in engineering units with transducer loop power supply  
2 control relays and an alarm relay with isolated 0 (4) - 20mA output power supply 86 - 264 VAC

**BC7687** Panel mounting indicator controller with PID control, two control relays, alarm relay, and two 4 - 20 mA outputs.

**AK96** Instrument door for the 7600 series of instruments



## Surface Mounting Controllers

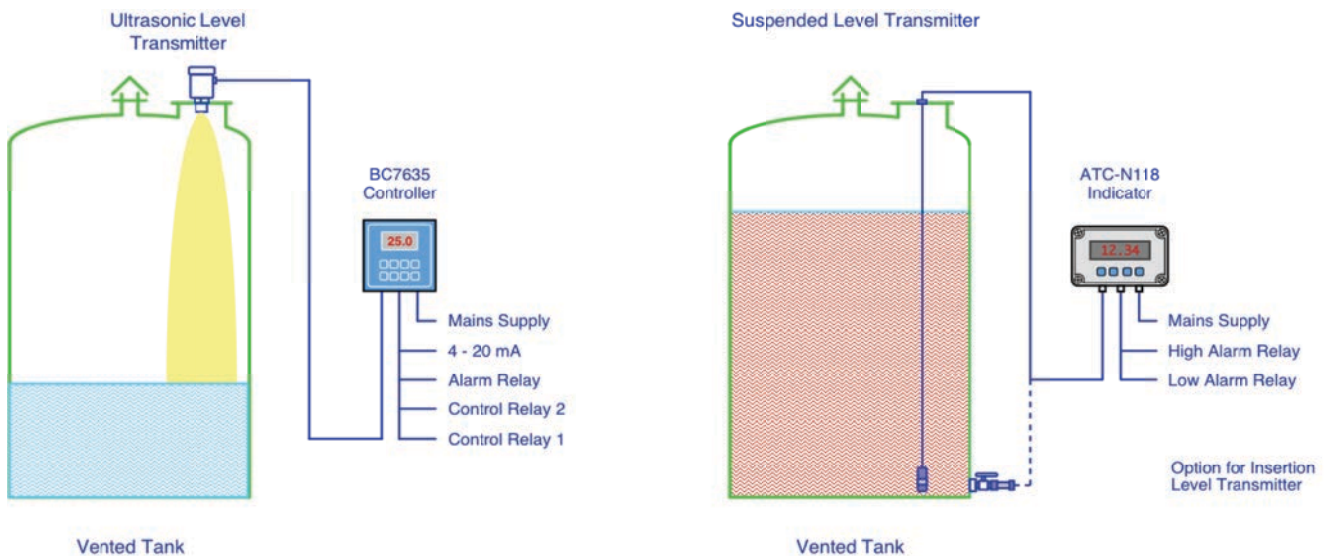
**ATC-N118** Surface mounting w'proof process meter with LED display, level transducer power supply with 2 control relays

**BC6587** Surface mounting indicator controller with PID control, two control relays, alarm relay, and two 4 - 20mA outputs.



Small custom built control panels for use with transducer are available please advise us of your requirements

## Typical Installations



Open channel flow is the measurement of waste water discharges usually from industrial premises to sewer or water course. The usual requirement is to measure the flow in litres per second and totalise the flow in metres cubed. Where flow proportional samples are required the flow meter can provide a flow proportional output to operate our simple peristaltic water sampler

## Open Channel Flow Measurement



**MFLR** Ultrasonic flow meter surface mounting displays both total and instantaneous flow. With 3 relays, 4 - 20 mA output, power supply 115/230 VAC  
Supplied with RYT15 transducer



**F-MTR** Ultrasonic flow transmitter for mounting by the Vee notch or flume with local display of both instantaneous & total flow with flow and totaliser outputs supply 24 VDC



**PP-MKB** Optional transducer mounting bracket.  
*Shown with RYT15 transducer*



## Vee Notch Tanks

**VNT** Polypropylene Vee notch tanks can be made to order with SS vee notch plates.

**VNP30-SS** Vee Notch Plate 30° angle in stainless steel

**VNP60-SS** Vee Notch Plate 60° angle in stainless steel

**VNP90-SS** Vee Notch Plate 90° angle in stainless steel



## Water Samplers



**PWS 1** Peristaltic water sampler to take flow proportional samples from flow meter

## AWE 99 Paperless Chart Recorders / Data Loggers

The AWE-99 is sophisticated multichannel 96 DIN panel mounting instruments which displays data on a colour TFT touch-panel screen. As numerical values, as analogue meter movement displays, vertical or horizontal charts or graphs IE tradition chart recording with vertical or horizontal traces or as bar graphs. The data maybe data logged to the 1.5 Gb internal memory and down loaded by basic communication interfaces (USB and RS485). Prices include the data logging function for down loading.



**AWE99-IS6** Digital recorder 6 x 4-20mA Isolated 4-20 mA inputs & data logging function to USB stick

**AWE99-FT2** Digital recorder 2 x 4-20mA 2 Pulse frequency inputs for flow totalisation & data logging function to USB stick

**AWE99-FT4** Digital recorder 4 x 4-20mA 4 Pulse frequency inputs for flow totalisation & data logging function to USB stick



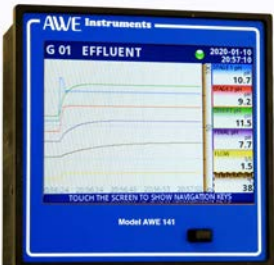
**AWE99-RT4** Digital recorder 4 x °C RTD I/Ps & data logging function to USB stick

**AWE99-UN3** Digital recorder 3 universal isolated I/Ps of current, voltage, temperature either RTD or thermocouple with data logging function to USB stick

## AWE141 Paperless Chart Recorders / Data Loggers

The AWE141 is as the AWE99 except in a 144 DIN panel mounting case which allow larger number of inputs per channel as follows.

**AWE141-IS6** Digital recorder 6 x 4 -20mA Isolated inputs & data logging function to USB stick



**AWE141-IJ24** Digital recorder 12 x 4 -20mA isolated 4 - 20 mA inputs & data logging function to USB stick

**AWE141-FT4** Digital recorder 4 x 4-20mA 4 Pulse frequency inputs for flow totalisation & data logging function to USB stick

**AWE141-RT4** Digital recorder 6 x °C RTD I/Ps & data logging function to USB stick

**AWE141-UN5** Digital recorder 5 universal isolated I/Ps of current, voltage, temperature either RTD or thermocouple with data logging function to USB stick



**M99-ETU-001** ETU module (includes 1 x USB Host, 1 x Ethernet 10 MB)

**M99-ACM-001** ACM module (includes 1 x RS-485, 1 x RS-485/232, 1 x USB Host, 1 x Ethernet 10 MB)

**AWE-SU** AWE factory setup of your input ranges and groups ready for installation Price per screen or group of upto 6 inputs.

Other options are available please contact our sales office for details.

*Prices are subject to change by the manufacturer without notice.*

The CT Series of water meters are brass bodied watermeters intended for the measurement of clean tap water flowing into process plant requiring the volume of water flowing in it to be accurately totalised.

A reed switch provides an impulse rate of either 1 impulse per litre K = 1 to 1 impulse per 100 litres K = 100 depending upon the size of meter selected.

This output maybe connected to any of our dosing pumps with external pacing input to provide flow proportional chemical dosing.



## Cold Water Meters 30oC Max

### Price

CTFI 15	1/2"	Flow rate up to	1.5 m3 / Hr	K = 1.0
CTFI 20	3/4"	Flow rate up to	2.5 m3 / Hr	K = 1.0
CTFI 25	1"	Flow rate up to	3.5 m3 / Hr	K = 1.0
CTFI 30	1 1/4"	Flow rate up to	5 m3 / Hr	K = 1.0
CTFI 40	1 1/2"	Flow rate up to	10 m3 / Hr	K = 10.0
CTFI 50	2"	Flow rate up to	15 m3 / Hr	K = 10.0

## Hot Water Meters 90oC Max

CTCI 15	1/2"	Flow rate up to	1.5 m3 / Hr	K = 1.0
CTCI 20	3/4"	Flow rate up to	2.5 m3 / Hr	K = 1.0
CTCI 25	1"	Flow rate up to	3.5 m3 / Hr	K = 1.0
CTCI 30	1 1/4"	Flow rate up to	5 m3 / Hr	K = 1.0
CTCI 40	1 1/2"	Flow rate up to	10 m3 / Hr	K = 10.0
CTCI 50	2"	Flow rate up to	15 m3 / Hr	K = 10.0

## Magnetic Flow Meters

For liquids with a conductivity greater than 10  $\mu$ S temperature up to 70°C pressures upto 16 bar. Wetted parts in PTFE and 316 Stainless steel, supply 86 to 264 VAC



DN10/0010E2	Mag flow meter (3/8") with DN10 flanges max flow 3.125 m3 /Hr
DN15/0015E2	Mag flow meter (1/2") with DN15 flanges max flow 7.875 m3 /Hr
DN20/0020E2	Mag flow meter (3/4") with DN20 flanges max flow 12.5 m3 /Hr
DN25/0025E2	Mag flow meter (1") with DN25 flanges max flow 20 m3 /Hr
DN40/0040E1	Mag flow meter (1 1/2") with DN40 flanges max flow 50 m3 /Hr.
DN50/0050E1	Mag flow meter (2") with DN50 flanges max flow 66 m3 /Hr
DN55/0065E1	Mag flow meter (2 1/2") with DN65 flanges max flow 78 m3 /Hr
DN80/0080E1	Mag flow meter (3") with DN80 flanges max flow 200 m3 /Hr
DN100/0100E1	Mag flow meter (4") with DN100 flanges max flow 312 m3 /Hr

For for solutions upto 125°C, pressures up to 16 bar with a conductivity greater than 10  $\mu$ S or concentrated acids & alkali. wetted parts PTFE and Hastelloy "C" Please contact our sales office.

RM-BKT-K (-F)	Remote mounting of the electronics so the display can be remotely mounted supplied with 2 x 5 m cable supply & return
LMK7	Flow and return signal cables additional cost 2 x per metre add <i>For larger sized mag flow meters up to 1000 mm Ø please call our sales office</i>

## Batch Controller

ABC 3	Auto batch controller in surface mounting enclosure with touch screen wired to count down and stop the pump or close a valve when a preset volume has flowed through a flow meter.
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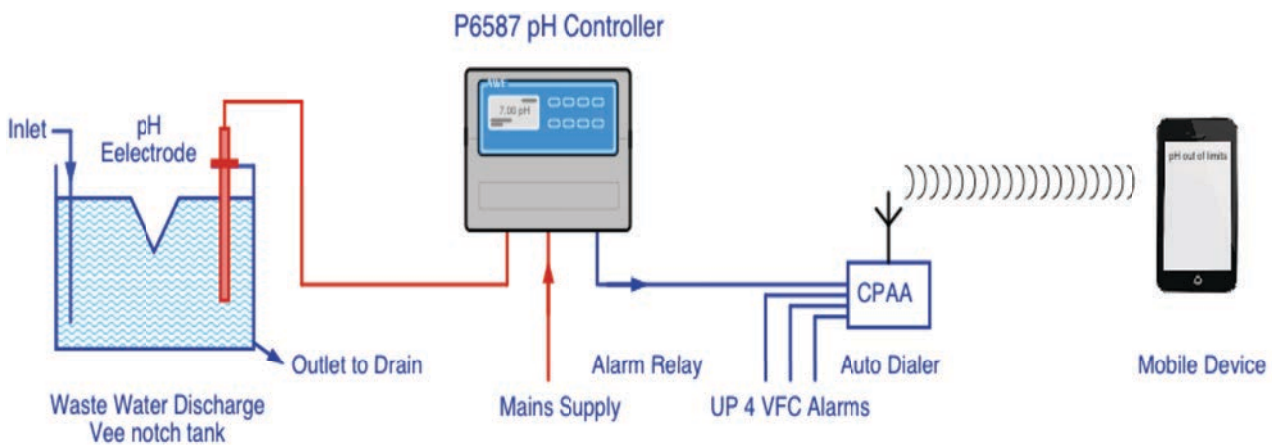


**CPAA Control Panel Alert & Alarm** The CPAA is a simple device to work with your control panel designed to accept volt free contacts which close on alarm conditions. The GSM auto dialler when fitted with your supply SIM card will call a mobile device with your alarm message. Any time anywhere with a mobile phone signal, applications are numerous from waste water discharge alarms for pH, flow, turbidity or temperature out of limits, to tank high / low level alarms. Add extra value to your control panel or retro fit on existing sites to give addition value to your customers.

- \* **4 Digital Inputs**
- \* **Customise Messages**
- \* **SMS on Close & Open**
- \* **1 Relay Output**
- \* **12 - 24 VDC Powered**
- \* **Battery Backup**
- \* **External antenna** optional
- \* **Low Running Cost**
- \* **Never miss an alarm**

CPAA	Control panel alert & alarm.
CPAA-PSU	Control panel alert & alarm power supply unit 24 VDC
CPAA-EA	Control panel alert & alarm external antenna
-KIT	Mounted a a weatherproof housing & programmed.

**Typical Installation**





## Dose & Delay Timer

**ADT-1** Timer with adjustable delay & dose times in surface mounting weatherproof enclosure with flip up lid

## Seven Day Timers

**BT3605** Single channel seven day timer for timed outputs to the nearest minute, in weatherproof enclosure

**BT3607** Dual channel seven day electronic timer

**BT3605-BPS** Back plate system comprising of the Model BT3605 single biocide timer and dosing pump. 0 - 6 l/Hr against 6 bar with foot valve & injection fitting

**BT3605-BPS** Back plate system comprising of the Model BT3607 dual biocide timer and 2 dosing pump. 0 - 6 l/Hr against 6 bar with foot valve & injection fitting



## Shot Dose Timer

**AST1** Shot dose timer in a weatherproof enclosure fitted with start stop buttons. Operating the start button the pump runs for the duration of the timer and stops. The stop button stops the pump

## Microprocessor Timers

**ALTC** Controller timer with 4 channel 7 day timer, 4 cycling timers & 4 shot dose timers operated by the operated by the HMI screen Can be fitted with an input for line running so no dosing occurs if the line stops & low chemical level cutout.



## Amperehours Meters & Dosing

**AH515.2** Digital amperehours meter which totalises the current flowing through the electroplating bath by measuring the voltage across a suitable shunt usually 0 - 60 mV for the full load current

**AH555.2** Features a presetable count down counter of 0 - 9999 which provides an output to start a dose timer of 0 - 99 seconds duration to operate a suitable chemical dosing pump to add reagent to the plating bath to replace the chemical which has been consumed



Our range of process water controllers provide cost effective dosing and control of your system. They are simple to install and operate providing precise and accurate control of your process.



## TDS Control

C3645W-TDS-K

TDS Control range 0 - 2000  $\mu$ S or 0 - 20.00 mS with control relay Supplied with FL310T10K cell and BSV 050 00 solenoid valve

C3645-BPS

Back plate systems comprising of Conductivity (TDS) controller with conductivity cell & BSV 075 - 00 3/4" solenoid valve

## Redox/ORP Control

R3647W-K

Redox / ORP Controller range 0 - 1000 mV with 2 control relays & 4 - 20 mA output, mains supply 230 VAC. Supplied with Redox electrode system RES1QR

R3647-BPS

Back plate systems comprising of Redox controller with RES1-QR electrode system filtre, flow switch and dosing pumps. 0 - 6 l/Hr against 6 bar



## pH Control

P3647-BPS

Back plate systems comprising of pH controller with PES1-QR electrode system filtre, flow switch and dosing pumps. 0 - 6 l/Hr against 6 bar

## Condensate Control

C3645 -CC-K

Conductivity controller with digital display adjustable set point range 0 - 200 $\mu$ S. In w'proof enclosure with CP721 conductivity cell, max temp 120°C, fitted with 5 metres LMK2 Connecting cable

*Dump valve various types can be supplied see page 53 |*



## Sample Cooler

SC-HP-FC

Sample cooler with stainless steel body, surface mounting bracket with high pressure fixed stainless coil and a brass regulating valve.

Shell pressure 150 P.S.I. Coil pressure 1000 P.S.I.

With stainless steel regulating valve

*Note we include a regulating valve.*

## Shot Dose Timer & Dosing Pump

Simple system for dosing low pressure hot water systems to replace chemical dosing pots. Comprising of a shot dose timer dosing pump and stainless steel dosing quill to act as a heat sink.

AST1

Shot dose timer various times available

AT2-BX 10-04

Dosing pump 0 - 4.0 litres / Hr against 10 bar

SS-INJ-Q-600

Stainless steel injection quill 600 mm long

3m LDPE dosing hose total price

*No photo.*



## Tablet Holders Low Pressure

A



K920	Chemical feeder to hold 3.1 Kg bromine tablets, with removable screw cover for easy filling max pressure 40 PSI
K940	Chemical feeder to hold 4.5 Kg bromine tablets, with removable screw cover for easy filling max pressure 40 PSI
HC3315	Holds 6.5 Kg of tablets. Max pressure 50 PSI. Do not fit isolating valves to the outlet
HC3330	Holds 13.6 Kg of tablets. Max pressure 50 PSI. Do not fit isolating valves to the outlet
-FM	Flow meter range 15 - 150 Lts/hr and pipe work add
	Brominators must be piped to an open end. If not a pressure relief valve must be fitted and piped to an effluent system. Do not fit isolating valves to the outlet of a brominator.
PRV0500	1/2" PVC Pressure relief valve with Viton seals

## Tablet Holders High Pressure



	Blue brominator tablet holders manufactured from specially formulated GRP with removable screw covers for filling. Fitted with flow meter, inlet valve and drain valve all in uPVC. Max pressure 80 psi
BB12-FM	Size 204 mm Ø x 760 mm holds 12 Kg of tablets. With flow meter range 40 - 400 Lts/hr
BB18-FM	Size 260 mm Ø x 640 mm holds 18 Kg of tablets. With flow meter range 60 - 600 Lts/hr
BB36-FM	Size 280 mm Ø x 1150 mm holds 36 Kg of tablets. With flow meter range 100 - 1000 Lts/hr
PRV0750	3/4" PVC Pressure relief valve with viton seals

## PVC Corrosion Racks

CR-PVC-4	PVC Corrosion rack mounted on to PVC back plate fitted with 1" P.V.C. ball valve, four threaded ports and bosses to hold 4 free issue coupons outlet 1" B.S.P female.
	Flow meter and pipe work add





## ACWC Back plate Systems

Back plate systems are ready wired and assembled cooling water control systems. Comprising of the controller, a PVC manifold with valves and sensors, bleed valve and dosing pumps as required by the control system.

All ready plumbed and wired for easy and quick installation on site. The manifolds are all hydraulically pressure tested before shipping.

To be connected on the flow side of the circulating pump and piped to the tower sump or point of low pressure within the system to ensure a good flow of cooling water. A flow switch can be added to the manifolds to inhibit dosing and bleed under no flow conditions.

### ACWC10 - BPS

Back plate system comprising of the Model ACWC10 with flow proportional bleed and flow proportional chemical feed. Fitted with dosing pump HY-BL 0 - 6 l/Hr against 6 bar and 3/4" brass solenoid valve for bleed.

### ACWC20 - BPS

Back plate system comprising of the Model ACWC20 with conductivity controlled bleed & flow proportional chemical feed. Fitted with FL310 conductivity cell, dosing pump HY-BL 0 - 6 l/Hr against 6 bar and 3/4" brass solenoid valve for bleed.

### ACWC30 - BPS

Back plate system comprising of the Model ACWC20 controller with conductivity controlled bleed, flow proportional chemical feed. Fitted with FL310 conductivity cell, 3/4" bleed valve, model HY-BL dosing pumps 0 - 6 l/Hr against 6 bar.

### ACWC40 - BPS

Back plate system comprising of the Model ACWC40 controller with conductivity controlled bleed, flow proportional chemical feed. Dual biocide dosing by 28 day microprocessor timer. Fitted with FL310 conductivity cell, 3/4" bleed valve, three model HY-BL dosing pumps 0 - 6 l/Hr against 6 bar

### ACWC50 - BPS

Back plate system comprising of the Model ACWC50 controller with conductivity controlled bleed, flow proportional chemical feed. single biocide dosing by 28 day microprocessor timer. Fitted with FL310 conductivity cell, RES1-QR Redox electrode electrode system 3/4" bleed valve, three model HY-BL dosing pumps 0 - 6 l/Hr against 6 bar

### -BCT10

Addition of electrodeless conductivity cell in place of conventional cell add

### -CTFI20

Additional equipment required CTFI20 3/4" Water meter

### -LS-5.7

Standard screen is 3.5" addition cost for 5.7" screen as shown above or larger

## ATP 15 Series

The ATM series of microprocessor controlled piston pumps with 15mm stroke PVC/SS heads & valves with BSP connectors. The supply is 230 VAC single phase the inverter controller provides a smooth 230 VAC 3 phase supply to control the three phase pump motor connected internally to suit the supply.

This provides cost effective energy efficient method of providing a wide selection of control functions for these dosing pumps. Piston pumps are suited to a wide range of dosing applications including dosing solutions with a higher viscosity at higher flow rates upto 1000 litres per hour. The range of control functions available make these pumps ideal for proportional dosing of polyelectrolytes when selected with stainless steel wetted parts and a flooded suction installation.



Model No	L/Hr	Bar	Bar SS	Strokes PVC Min	Connections	Motor Kw
ATP15006A	0 - 1.5	10.0	10.0	58	1/4" Gas	0.18 Kw
ATP15006C	0 - 3.0	10.0	10.0	116	1/4" Gas	0.18 Kw
ATP150011A	0 - 5.5	10.0	10.0	58	1/4" Gas	0.18 Kw
ATP150011C	0 - 10	10.0	10.0	116	1/4" Gas	0.18 Kw
ATP150017A	0 - 11	10.0	10.0	58	3/8" Gas	0.18 Kw
ATP150017C	0 - 22	10.0	10.0	116	3/8" Gas	0.18 Kw
ATP150025A	0 - 25	10.0	10.0	58	3/8" Gas	0.25 Kw
ATP150025C	0 - 50	10.0	10.0	116	3/8" Gas	0.25 Kw
ATP150030A	0 - 35	10.0	10.0	58	3/8" Gas	0.37 Kw
ATP150030C	0 - 70	10.0	10.0	116	3/8" Gas	0.37 Kw
ATP150038A	0 - 55	10.0	10.0	58	3/8" Gas	0.37 Kw
ATP150038C	0 - 110	10.0	10.0	116	3/8" Gas	0.37 Kw
ATP150048A	0 - 85	10.0	10.0	58	1/2" Gas	0.37 Kw
ATP150048C	0 - 170	10.0	10.0	116	1/2" Gas	0.37 Kw
ATP150054A	0 - 110	8.0	8.0	58	1/2" Gas	0.37 Kw
ATP150054C	0 - 220	8.0	8.0	116	1/2" Gas	0.37 Kw
ATP150064A	0 - 152	4.0	4.0	58	3/4" Gas	0.37 Kw
ATP150064C	0 - 304	4.0	4.0	116	3/4" Gas	0.37 Kw

## ATP 25 Series

Piston Pumps with 25mm stroke PVC/SS heads & valves with BSP connectors. Motors 230 volt single phase.



Model No	L/Hr	Bar SS	Bar PVC	Strokes Min	Connections	Motor Kw
ATP2500625A	0 - 40	10.0	10.0	58	3/8" Gas	0.55 Kw
ATP2500625C	0 - 80	10.0	10.0	116	3/8" Gas	0.55 Kw
ATP2500630A	0 - 55	10.0	10.0	58	3/8" Gas	0.55 Kw
ATP2500630C	0 - 112	10.0	10.0	116	3/8" Gas	0.55 Kw
ATP2500638A	0 - 90	10.0	10.0	58	1/2" Gas	0.55 Kw
ATP2500638C	0 - 180	10.0	10.0	116	1/2" Gas	0.55 Kw
ATP2500648A	0 -140	10.0	10.0	58	1/2" Gas	0.55 Kw
ATP2500648C	0 - 284	10.0	10.0	116	1/2" Gas	0.55 Kw
ATP2500654A	0 - 180	10.0	10.0	58	1/2" Gas	0.55 Kw
ATP2500654C	0 - 365	10.0	10.0	116	1/2" Gas	0.55 Kw
ATP2500664A	0 - 250	10.0	10.0	58	3/4" Gas	0.75 Kw
ATP2500664C	0 - 505	10.0	10.0	116	3/4" Gas	0.75 Kw
ATP2500676A	0 - 365	7.0	7.0	58	1" Gas	0.75 Kw
ATP2500676C	0 - 730	7.0	7.0	116	1" Gas	0.75 Kw
ATP2500689A	0 - 495	5.0	5.0	58	1" Gas	0.75 Kw
ATP2500689C	0 - 1000	5.0	5.0	116	1" Gas	0.75 Kw

## Options

For our range of accessories including foot valves loading, pressure relife valves and injection valves please see page 49.

## ATM Series Pumps With Stainless Steel or PP Heads

The ATM series of microprocessor controlled mechanical diaphragm dosing pumps have manually adjustable stroke length control 10 - 100% to provide a 10 : 1 turndown ratio. A special microprocessor/inverter controller provides :- Dosing proportional to a industry standard 4 - 20mA control signal, dosing proportional to external pulses either a ppm or batch controlled dose. Timed dosing by the internal real time clock manual dosing as required.

### Supply 230 volt single phase



Model No	L/Hr SS	Bar PVC	Strokes Min	Connections	Motor Size kW
ATM 020 64A	0 - 5.5	10.0	58	1/4" Gas	0.18 Kw
ATM 020 64B	0 - 8.0	10.0	78	1/4" Gas	0.18 Kw
ATM 020 64C	0 - 11.0	10.0	116	1/4" Gas	0.18 Kw
ATM 020 94A	0 - 20	10.0	58	3/8" Gas	0.25 Kw
ATM 020 94B	0 - 26	10.0	78	3/8" Gas	0.25 Kw
ATM 020 94C	0 - 40	10.0	116	3/8" Gas	0.25 Kw
ATM 040 108A	0 - 60	10.0	58	3/8" Gas	0.25 Kw
ATM 040 108B	0 - 80	10.0	78	3/8" Gas	0.25 Kw
ATM 040 108C	0 - 120	10.0	116	3/8" Gas	0.25 Kw
ATM 060 138A	0 - 155	7.0	58	3/4" Gas	0.37 Kw
ATM 060 138B	0 - 220	7.0	78	3/4" Gas	0.37 Kw
ATM 060 138B	0 - 310	7.0	116	1" Gas	0.37 Kw
ATM 060 165A	0 - 230	5.0	58	1" Gas	0.37 Kw
ATM 060 165B	0 - 330	5.0	78	1" Gas	0.37 Kw
ATM 060 165C	0 - 500	5.0	116	1" Gas	0.37 Kw

## ATM Seris Pumps With PVC or PVDF Heads

### Supply 230 volt single phase



Model No	L/Hr	Bar	Strokes	Connections	Motor kW
ATM 020 64A	0 - 5.5	10.0	58	1/4" Gas	0.18 Kw
ATM 020 64B	0 - 8.0	10.0	78	1/4" Gas	0.18 Kw
ATM 020 64C	0 - 11.0	10.0	116	1/4" Gas	0.18 Kw
ATM 020 94A	0 - 20	10.0	58	3/8" Gas	0.25 Kw
ATM 020 94B	0 - 26	10.0	78	3/8" Gas	0.25 Kw
ATM 020 94C	0 - 40	10.0	116	3/8" Gas	0.25 Kw
ATM 040 108A	0 - 60	10.0	58	3/8" Gas	0.25 Kw
£2143.00	£2319.00				
ATM 040 108C	0 - 120	10.0	116	3/8" Gas	0.25 Kw
ATM 060 138A	0 - 155	7.0	58	3/4" Gas	0.37 Kw
ATM 060 138B	0 - 220	7.0	78	3/4" Gas	0.37 Kw
ATM 060 138B	0 - 310	7.0	116	1" Gas	0.37 Kw
ATM 060 165A	0 - 230	5.0	58	1" Gas	0.37 Kw
ATM 060 165B	0 - 330	5.0	78	1" Gas	0.37 Kw
ATM 060 165C	0 - 500	5.0	116	1" Gas	0.37 Kw



The TM-07 series is a new range for 2020 of mechanical diaphragm pumps designed to offer a cost effective reliable dosing solution for transfer of process solutions. The TM-07 features a vertically mounted high efficiency 0.6 kW electric motor which can be specified when ordering as a 400 VAC three phase motor or a 230 VAC single phase motor. The motor is mounted on top of a corrosion resistant moulded polypropylene housing, designed for foot mounting on a flat level surface or on top of one of our wide range of DT dosing tanks. TM-07 series pumps have outputs ranging from 0 - 10 L/Hr to 0 - 120 L/Hr and have the option of a stainless steel head and valves with connection by a 1/2" female gas thread. For greater chemical resistance a PVDF head is available with ceramic valves and seals in either Viton or EPDM. Hose connections are 8 x 12 mm LDPE low density polyethylene hose which allows the use of selected accessories for our electronic pumps to be used.



### TM-07 - PVDF

Motor driven pump with PVDF head and valve housing with ceramic ball valve and either EPDM or Viton "O" rings as seals.

Model No	Output L/Hr	Pressure Bar	Hose Size	Strokes/min
TM-07-P 05-10	0 - 10	5.0	8 x 12 mm	26
TM-07-P 05-20	0 - 20	5.0	8 x 12 mm	43
TM-07-P 05-40	0 - 40	5.0	8 x 12 mm	86
TM-07-P 05-60	0 - 60	5.0	8 x 12 mm	130
TM-07-P 05-90	0 - 90	5.0	8 x 12 mm	144



### TM-07 - SS

Motor driven pump with stainless steel head and valve housing with stainless steel valves and either EPDM or Viton "O" rings and seals.

Model No	Output L/Hr	Pressure Bar	Hose Size	Strokes/min
TM-07-SS 05-10	0 - 10	5.0	8 x 12 mm	26
TM-07-SS 05-20	0 - 20	5.0	8 x 12 mm	43
TM-07-SS 05-40	0 - 40	5.0	8 x 12 mm	86
TM-07-SS 05-60	0 - 60	5.0	8 x 12 mm	130
TM-07-SS 05-90	0 - 90	5.0	8 x 12 mm	144
TM-07-SS 03-120	0 - 120	3.0	8 x 12 mm	144

### Spare Parts



T07-DIA	Diaphragm in PTFE fits both SS and PVDF heads
T07-SDV-PVDF-E	PVDF suction & delivery valves with EPDM seals
T07-SDV-PVDF-V	PVDF suction & delivery valves with viton seals
T07-HD-PVDF-V	PVDF head with suction & delivery valves viton seals
T07-HD-PVDF-E	PVDF head with suction & delivery valves EPDM seals
T07-SDV-SS-E	Stainless steel suction & delivery valves with EPDM seals
T07-SDV-SS-V	Stainless steel suction & delivery valve with viton seals
95.00	
T07-HD-SS-V	Stainless steel head with suction & delivery valves viton seals
T07-HD-SS-E	Stainless steel head with suction & delivery valves EPDM seals



## GEA Series

The GEA series of black dosing pumps are designed for foot mounting on a flat level surface or on top of one of our wide range of DT dosing tanks. The pumps outputs range from 0 - 1.5 L/Hr to 0 - 60 L/Hr with PVDF installation kit & ceramic ball valves for greater chemical resistance when dosing concentrated reagents. Hose connections are either 4 x 6 mm or 8 x 12 mm LDPE low density polyethylene hose with other materials to order. GEA series pumps have a switch mode power supply allowing the pump to operate from any AC supply from 100 to 240 VAC 50/60 Hz.

## GEA-BL

The GEA-BL pumps provide a constant flow which is manually adjustable by a control dial with a selectable dual scale of 0 - 20% or 0 - 100% of the pump output.

BL series pumps have a low chemical level cutout .



Model No	Output L/Hr	Pressure Bar	Hose Size	Power
GEA1-BL 20 - 025	0 - 2.5	20.0	4 x 6/7 mm	14 Watts
GEA1-BL 18 - 03	0 - 3.0	18.0	4 x 6/7 mm	14 Watts
GEA1-BL 14 - 042	0 - 4.2	14.0	4 x 6/7 mm	14 Watts
GEA2-BL 12 - 03	0 - 3.0	12.0	4 x 6 mm	20 Watts
GEA2-BL 04 - 10	0 - 4.0	10.0	4 x 6 mm	20 Watts <sup>5</sup>
GEA2-BL 05 - 05	0 - 5.0	8.0	4 x 6 mm	20 Watts
GEA2-BL 02 - 08	0 - 8.0	2.0	4 x 6 mm	20 Watts
GEA3-BL 16 - 07	0 - 7.0	16.0	4 x 6 mm	40 Watts
GEA3-BL 10 - 10	0 - 10.0	10.0	4 x 6 mm	40 Watts
GEA3-BL 14 - 08	0 - 14.0	8.0	4 x 6 mm	40 Watts
GEA3-BL 02 - 18	0 - 18.0	2.0	4 x 6 mm	40 Watts
GEA4-BL 05-30	0 - 30.0	5.0	8 x 12 mm	40 Wat
GEA4-BL 04-40	0 - 40.0	4.0	8 x 12 mm	40 Watts
GEA4-BL 01-60	0 - 60.0	1.0	8 x 12 mm	40 Watts

## GEA-AM

The GEA-AM series of black dosing pumps offer external control of the pump frequency or number of strokes the pump makes per minute. The control signal may be by external pacing pulses with the ability to multiply or divide the pulsed signal or proportional to an industry standard 4 - 20 mA control signal.



Model No	Output L/Hr	Pressure Bar	Hose Size	Power
GEA1-AM 20 - 025	0 - 2.5	20.0	4 x 6/7 mm	14 Watts
GEA1-AM 18 - 03	0 - 3.0	18.0	4 x 6/7 mm	14 Watts
GEA1-AM 14 - 042	0 - 4.2	14.0	4 x 6/7 mm	14 Watts
GEA2-AM 12 - 03	0 - 3.0	12.0	4 x 6 mm	20 Watts
GEA2-AM 04 - 10	0 - 4.0	10.0	4 x 6 mm	20 Watts
GEA2-AM 05 - 08	0 - 5.0	8.0	4 x 6 mm	20 Watts
GEA2-AM 02 - 8	0 - 8.0	2.0	4 x 6 mm	20 Watts
GEA3-AM 16 - 07	0 - 7.0	16.0	4 x 6 mm	40 Watts
GEA3-AM 10 - 10	0 - 10.0	10.0	4 x 6 mm	40 Watts
GEA3-AM 14 - 08	0 - 14.0	8.0	4 x 6 mm	40 Watts <sup>6</sup>
GEA3-AM 02 - 18	0 - 16.0	2.0	4 x 6 mm	40 Watts
GEA4-AM 05-30	0 - 30.0	5.0	8 x 12 mm	40 Watts
GEA4-AM 04-40	0 - 40.0	4.0	8 x 12 mm	40 Watts
GEA4-AM 01-60	0 - 60.0	1.0	8 x 12 mm	40 Watts

K-Kit  
T-BV

Option for adaptors & 3m of 8 x10 PVDF tubing  
Option for PTFE ball valves in the pump, foot valve and injection fitting

## HY Series

RP



The HY Series of Red dosing pump offer a cost effective dosing solution featuring a PVDF head with ceramic ball valves and hose connection for use with 4 x 6 mm LDPE dosing hose as follows:-  
 HY-BL 0 to 100% & 0 to 20 % of the output, a volt free contact input for use with the optional float switch.  
 HY-BC proportional to frequency signal from a water meter 1 to 1 ratio.  
 HY-BC proportional to 4 - 20 mA current signal.  
 HY-MT microprocessor controlled pump with current or frequency input and timer functions.  
 HY-PR microprocessor controlled pump with pH or Redox mV Input direct from the electrode.  
 All HY models have power on LED, low level input & switch mode power supply 100 - 240 VAC 50/60 Hz.

Model No	Output L/Hr.	Pressure Bar	Hose Size	Power	Weight Kg
HY-BL 12-1.5	0 - 1.5	12.0	4 x 6 mm	15 Watts	2.2
HY-BL 09-03	0 - 3.0	9.0	4 x 6 mm	15 Watts	2.2
HY-BL 06-06	0 - 6.0	6.0	4 x 6 mm	15 Watts	2.2
HY-BC 06-06	0 - 6.0	6.0	4 x 6 mm	15 Watts	2.2
HY-MA 06-06	0 - 6.0	6.0	4 x 6 mm	15 Watts	2.2
HY-MT 06-06	0 - 6.0	6.0	4 x 6 mm	15 Watts	2.2
HY-PR 06-06	0 - 6.0	6.0	4 x 6 mm	15 Watts	2.2

Optional low level float switch supplied with mounting bracket to fit onto the foot valve designed to fit through a standard 50mm diameter port on a chemical drum. When the chemical container is empty the pump stops.

## AT-BL Series



The AT-BL Series of pumps have been replaced with the AT-BL series of red dosing pumps which provide a low level cutout when the suction lance assembly is ordered this prevents the pump running dry. The low level cutout may also be connected to a control circuit with a volt free contact which can be used to start and stop the pump without interrupting the mains supply so the pump starts instantly with out going through its self checking cycle.  
 The pumps outputs range from 0 - 1.5 L/Hr to 0 - 60 L/Hr with either PVC or optional PVDF installation kit & ceramic ball valves for greater chemical resistance when dosing concentrated reagents.  
 The pumps provide a constant flow which is manually adjustable by a control dial with a selectable dual scale of either 0 - 20% or 0 - 100% of the rated output.  
 Hose connections are either 4 x 6 mm or 8 x 12 mm LDPE low density polyethylene hose.

Model No	Output L/Hr.	Pressure Bar	Hose Size	Output mils/stroke	Shipping Weight in kg
AT1-BL 20 -015	0 - 1.5	20.0	4 x 6 / 7	0.21	3.0
AT1-BL 18 - 02	0 - 2.0	18.0	4 x 6 / 7	0.28	3.0
AT2-BL 12 - 03	0 - 3.0	12.0	4 x 6	0.31	3.0
AT2-BL 10 - 04	0 - 4.0	10.0	4 x 6	0.42	3.0
AT2-BL 08 - 05	0 - 5.0	8.0	4 x 6	0.53	3.0
AT2-BL 02 - 08	0 - 8.0	2.0	4 x 6	0.83	3.0
AT3-BL 16 - 07	0 - 7.0	16.0	4 x 6	0.39	4.0
AT3-BL 10 - 10	0 - 10	10.0	4 x 6	0.55	4.0
AT3-BL 08 - 14	0 - 14	8.0	4 x 6	0.78	4.0
AT3-BL 02 - 18	0 - 18	2.0	4 x 6	0.89	4.0
AT4-BL 05 - 20	0 - 20	5.0	8 x 12	1.11	4.0
AT4-BL 03 - 30	0 - 30	3.0	8 x 12	1.22	4.0
AT4-BL 02 - 40	0 - 40	2.0	8 x 12	1.94	4.0
AT4-BL 01 - 60	0 - 60	0.5	8 x 12	3.33	4.0

## Extras

AC.ST.AT Foot mounting bracket to mount the AT series pump on a horizontal surface

K-Kit Option for adaptors & 3m of 8 x10 PVDF tubing

T-BV Option for PTFE ball valves in the pump, foot valve and injection fitting



## AT-AM Series

RP

The AT-AM series of red dosing pumps offer external control of the pump frequency or number of strokes the pump makes per minute. The signal may be by PFM with the ability to multiply or divide the signal. Or by an industry standard 4 - 20 mA control signal.



Model No	Output L/Hr.	Pressure Bar	Hose Size	Speed Strokes/min	Shipping Weight in Kg
AT1-AM 20 -015	0 - 1.5	20.0	4 x 6 / 7	120	3.0
AT1-AM 18 - 02	0 - 2.0	18.0	4 x 6 / 7	120	3.0
AT2-AM 12 - 03	0 - 3.0	12.0	4 x 6	160	3.0
AT2-AM 10 - 04	0 - 4.0	10.0	4 x 6	160	3.0
AT2-AM 08 - 05	0 - 5.0	8.0	4 x 6	160	3.0
AT2-AM 02 - 08	0 - 8.0	2.0	4 x 6	160	3.0
AT3-AM 16 - 07	0 - 7.0	16.0	4 x 6	300	4.0
AT3-AM 10 - 10	0 - 10	10.0	4 x 6	300	4.0
AT3-AM 08 - 14	0 - 14	8.0	4 x 6	300	4.0
AT3-AM 02 - 18	0 - 18	2.0	4 x 6	300	4.0
AT4-AM 05 - 20	0 - 20	5.0	8 x 12	300	4.0
AT4-AM 03 - 30	0 - 30	3.0	8 x 12	300	4.0
AT4-AM 02 - 40	0 - 40	2.0	8 x 12	300	4.0
AT4-AM 01 - 60	0 - 60	0.5	8 x 12	300	4.0

## AT-MT Series

The AT-MT series of red dosing pumps are microprocessor controlled with an LCD back lighting display with two 16 digits rows which provide information about the pump setting, flow rate, functioning statistics and password protection. The control signal maybe by external pacing pulses from a water meter or pH controller or proportional to a 4 - 20 mA control signal. The AT-MT series are also able to batch in fixed volume of reagent or dose proportional to flow in ppm / mg/L.



Model No	Output L/Hr.	Pressure Bar	Hose Size	Speed Strokes/min	Shipping Weight in Kg
AT1-MT 20 -015	0 - 1.5	20.0	4 x 6 / 7	120	3.0
AT1-MT 18 - 02	0 - 2.0	18.0	4 x 6 / 7	120	3.0
AT2-MT 12 - 03	0 - 3.0	12.0	4 x 6	160	3.0
AT2-MT 10 - 04	0 - 4.0	10.0	4 x 6	160	3.0
AT2-MT 08 - 05	0 - 5.0	8.0	4 x 6	160	3.0
AT2-MT 02 - 08	0 - 8.0	2.0	4 x 6	160	3.0
AT3-MT 16 - 07	0 - 7.0	16.0	4 x 6	300	4.0
AT3-MT 10 - 10	0 - 10	10.0	4 x 6	300	4.0
AT3-MT 08 - 14	0 - 14	8.0	4 x 6	300	4.0
AT3-MT 02 - 18	0 - 18	2.0	4 x 6	300	4.0
AT4-MT 05 - 20	0 - 20	5.0	8 x 12	300	4.0
AT4-MT 03 - 30	0 - 30	3.0	8 x 12	300	4.0
AT4-MT 02 - 40	0 - 40	2.0	8 x 12	300	4.0
AT4-MT 01 - 60	0 - 60	0.5	8 x 12	300	4.0

## AT-PR Series

The AT-PR series are as the AT-MT series but featuring a direct pH or Redox mV Input so our pH or redox electrode can be connected directly to your AT-PR red dosing pump.

Model No	Output L/Hr.	Pressure Bar	Hose Size	Speed Strokes/min	Shipping Weight in Kg
AT1-PR XX - XX	AS AT1	AS AT1	4 x 6 / 7	120	3.0
AT2-PR XX - XX	AS AT2	AS AT2	4 x 6	160	3.0
AT3-PR XX - XX	AS AT3	AS AT3	4 x 6	300	4.0
AT4-PR XX - XX	AS AT4	AS AT4	8 x 12	300	4.0

See pages 5 to 8 for pH or Redox electrodes.

To complement our range of AT1-4 Red Dosing Pump we are able to offer a wide range of accessories to help you build a complete dosing system. Every dosing system should have a foot valve comprising of filter and a non return valve so the pump does not lose its prime. An injection fitting with a non return valve to prevent any back feeding from a pressurised system, when dosing into a pipe under pressure. If dosing downhill an anti syphon valve or multi function is essential to stop the chemical reagent syphoning through the pump.



### Foot Valves AC-FP

Part No	Material	Hose	Seals	Valve
10414PVC	PVC	4x6	Viton	Ceramic
10414EPVC	PVC	4x6	EPDM	Ceramic
10414PVCGP	PVC	8x12	Viton	Ceramic
10414EPVCGP	PVC	8x12	EPDM	Ceramic
10414P	PVDF	4x6	Viton	Ceramic
10414EP	PVDF	4x6	EPDM	Ceramic
10414PGP	PVDF	8x12	Viton	Ceramic
10414EPGP	PVDF	8x12	EPDM	Ceramic



### Injection Valves AXC-V1

Part No	Material	Hose	Seals	Valve
10413PVC	PVC	4x6	Viton	Ceramic
10413EPVC	PVC	4x6	EPDM	Ceramic
10413PVCGP	PVC	8x12	Viton	Ceramic
10413EPVCGP	PVC	8x12	EPDM	Ceramic
10413P	PVDF	4x6	Viton	Ceramic
10413EP	PVDF	4x6	EPDM	Ceramic
10413GP	PVDF	8x12	Viton	Ceramic
10413EPGP	PVDF	8x12	EPDM	Ceramic



### Antisiphon / Loading Valves AC-VS

Part No	
10400V	Adjustable valve in PVC with Viton seals 0.5 -10 Bar
10400E	Adjustable valve in PVC with EPDM seals 0.5 -10 Bar

### Multifunction Valves AC-VM-PVDF

New improved multifunction valve featuring anti-syphon, back pressure & safety valve functions in one valve with adjustable back pressure of 0 - 5.0 bar and safety valve adjustable 0 - 18.0 bar available for pumps with 6 mm and 12 mm dosing hoses with either EPDM or Viton seals

Part No	
11243-PVDF	MF valve in PVDF for 4 x 6 tubing with Viton seals
11243LP-PVDF	MF valve in PVDF for 4 x 6 tubing with EPDM seals
11243GP	MF valve in PVDF for 8 x 12 tubing with Viton seals
11243	MF valve in PVDF for 8 x 12 tubing with EPDM seals





**Flow Sensors AC-SF**

A

Flow sensor for detecting each time a red dosing pump makes a stroke by providing a volt free contact closure with adjustable sensitivity. This maybe connected to either an AT-MT series pump or remote PLC where the flow can be verified or totalised.

- AC-SF 10402 For 4 x 6 LDPE tube with Viton seals
- AC-SF 10402A For 8 x 12 LDPE tube with Viton seals



**Degassing Head**

PVDF auto degassing head for models AT1, 2 or 3 automatic air bleed of the pump head flow is reduced depending upon the amount of gas in the liquid being dosed.

**Injection Quills**

Part No	Material	Fitting	Seals	Valve
AC-VEI 11377	PVC	1/2" BSP	Viton	None
AC-VEI 11376	PVC	1/2" BSP	EPDM	None
AC-VEI 11219FS	PVC	1/2" BSP	Viton	PVC
AC-VEI 11219	PVC	1/2" BSP	EPDM	PVC
SS-INJ - Q	SS 316	1/2" BSP	PTFE	SS 316



**Suction Lance Assemblies**

Suction lance assemblies are designed to go into the chemical container with a cone shaped rubber seal. The suction lance features a built-in foot valve and low level float switch.

- AC.LA.025 For 25 L tank with f'switch 3/8" for 4 x 6 mm tube
- AC.LA.025A For 25 L tank with f'switch 1/2" for 8 x 12 mm tube

- AC.LA.05 For 50 L tank with f'switch 3/8" for 4 x 6 mm tube
- AC.LA.05A For 50 L tank with f'switch 1/2" for 8 x 12 mm tube

- AC.LA.1 For 100 L tank with f'switch 3/8" for 4 x 6 mm tube
- AC.LA.1A For 100 L tank with f'switch 1/2" for 8 x 12 mm tube

- AC.LA.2 For 200 L tank with f'switch 3/8" for 4 x 6 mm tube
- AC.LA.2A For 200 L tank with f'switch 1/2" for 8 x 12 mm tube

- AC.LA.3 For 300 L tank with f'switch 3/8" for 4 x 6 mm tube
- AC.LA.3A For 300 L tank with f'switch 1/2" for 8 x 12 mm tube

- AC.LA.5/10 For 500 L tank with f'switch 3/8" for 4 x 6 mm tube
- AC.LA.5/10A For 500 L tank with f'switch 1/2" for 8 x 12 mm tube



To complement our range of Dosing Pump we are able to offer spares kits to keep your dosing pump pumping, we have named these our *remake kits*, and part numbers begin with RMK.

These kits are also useful where recommended spares are requested for constant use or export applications



## HY Red Electronic Dosing Pumps

RMKHV-V	PVDF head, ceramic valves and viton seals
RMKHV-D	PVDF head, ceramic valves and EPDM seals
HY-D	PTFE Diaphragm for HY-BL dosing pump



## AT1 to AT3 Red Electronic Dosing Pumps

RMK123-V	PVDF head, ceramic valves and viton seals
RMK123-D	PVDF head, ceramic valves and EPDM seals
AT123-D	PTFE Diaphragm for AT1, 2 or 3 dosing pump
11414	PVDF / Ceramic suction & delivery valves viton seals
11414E	PVDF / Ceramic suction & delivery valves EPDM seals
12516	PVDF / PTFE suction & delivery valves viton seals



## AT4 Red Electronic Dosing Pumps

RMK4-V	PVDF head, ceramic valves and viton seals
RMK4-D	PVDF head, ceramic valves and EPDM seals
AT4-D	PTFE Diaphragm for AT4 dosing pump
11415	PVDF / Ceramic suction & delivery valves viton seals
11415E	PVDF / Ceramic suction & delivery valves EPDM seals
12522	PVDF / PTFE suction & delivery valves viton seals



## TM-05 Mechanical Dosing Pumps

RMK-TM05-PVC	PVC head with ceramic ball valves and viton seals
RMK-TM05-PP	PP head with ceramic ball valves and viton seals
RMK-TM05-SS	Stainless steel head, SS valves and EPDM seals
TM05-D	PTFE Diaphragm for TM05 dosing pump

## Dosing Hose

### Low Density Polyethylene

4/6 LPE	4 x 6 mm L.D.P.E. Dosing tubing 30 metre coil
8/12 LPE	8 x 12 mm L.D.P.E. Dosing tubing 30 metre coil



### Teflon/PTFE

4/6 PTFE	4 x 6 mm PTFE. Dosing tubing 5 metre coil
8/12 PTFE	8 x 12 mm PTFE. Dosing tubing 5 metre coil

### PVDF Dosing Tube

4/6 PVDF	4 x 6 mm PVDF. Dosing tubing 5 metre coil
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### Clear PVC Hose

4/6 PVC	4 x 6 mm Clear PVC tubing 30 metre coil
6/8 PVC	6 x 8 mm Clear PVC tubing 30 metre coil
8/12 PVC	8 x 12 mm Clear PVC tubing 30 metre coil

### Clear Reinforced Braided PVC Hose

0375RPVC	3/8" Ø ID Reinforced PVC tubing 30 metre coil
0500RPVC	1/2" Ø ID Reinforced PVC tubing 30 metre coil
0750RPVC	3/4" Ø ID Reinforced PVC tubing 30 metre coil
100.0RPVC	1.0" Ø ID Reinforced PVC tubing 30 metre coil
125.0RPVC	1.1/4" Ø ID Reinforced PVC tubing 30 metre coil



Dosing hose must be protected from frost and direct sunlight.  
Ensure hose is compatible with the chemical you are dosing.

*We recommend all dosing hose is installed inside a secondary pipe or hose for mechanical protection against damage.*

## Peristaltic Pumps

P

Peristaltic pumps offer a simple solution for intermittent dosing applications where no pressure is required, dosing non hazardous chemical reagents or simple low volume pumping applications.

Sometimes referred to as hose pumps peristaltic pumps have excellent priming capabilities some pumps being able to pump up to 6 metres lift (water like solutions) We offer a simple range of low output pumps including pumps with built in timers and pumps with greater outputs up to 120 l/Hr. with greater outputs upto 120 l/hr.



SWP1-F-3 Small wheel peristaltic pump, fixed speed output 3.0 L/Hr, max duty cycle 30 mins fitted santoprene tubing mains supply 230 VAC

SWP2-F-7 Small wheel peristaltic pump fixed speed output 7.0 L/Hr max duty cycle 30 mins fitted santoprene tubing mains supply 230 VAC

SWP2-F-7 Small wheel peristaltic pump fixed speed output 15.0 L/H max duty cycle 30 mins fitted santoprene tubing mains supply 230 VAC



SWP1-V-5 Small wheel peristaltic pump selectable output 0.4 to 4.7 L/Hr max duty cycle 30 mins fitted santoprene tubing, mains supply 230 VAC

SWP2-V-15 Small wheel peristaltic pump selectable output 1.5 to 15.0 L/Hr max duty cycle 30 mins fitted santoprene tubing mains supply 230 VAC



BWP120 Big wheel peristaltic pump output 30, 60, 90 or 120 L/Hr selectable via internal jumper max duty cycle 30 mins mains supply 230 VAC

TPD-M Timed peristaltic dosing with 7 day real time clock providing up to 5 timed doses per day pump output 1.5 L/Hr 230 VAC mains powered Ideal for drain dosing with fat dissolving reagents.



TPD-B Timed peristaltic dosing with 7 day real time clock providing up to 5 timed doses per day pump output 0.4 L/Hr battery powered. Ideal for remote dosing applications where no mains power is available such as remote camping and caravan sites.



## Spares and Accessories

Due to the action of the rollers on the peristaltic pump tubing which slowly push a column of liquid round the inside of the pump the pump tubing on peristaltic pump is a consumable item. We recommend to carry some spares tubing which is listed as follows.

### Small wheel pumps



- SWPP1T-SP Small wheel peri pump 1 tubing in Santoprene 6.5x10
- SWPP1T-EP Small wheel peri pump 1 tubing in EPDM 6.5x10
- SWPP1T-SC Small wheel peri pump 1 tubing in Silicone 6.5x10
- SWPP1T-V Small wheel peri pump 1 tubing in Viton 6.5x10

*Fits pumps SWP-F3, SWP-V5 and TDP-M & B*



- SWPP2T-EP Small wheel peri pump 1 tubing in EPDM 8x12
- SWPP2T-SC Small wheel peri pump 1 tubing in Silicone 8x12

*Fits pumps SWP1-F7 & SWP-V15*

### Big wheel pump



- BWPP2T-SP Big wheel peri pump 1 tubing in Santoprene 10x16
- BWPP2T-EP Big wheel peri pump 1 tubing in EPDM 10x16
- BWPP2T-SC Big wheel peri pump 1 tubing in Silicone 10x16
- BWPP2T-V Big wheel peri pump 1 tubing in Viton 10x16

*Fits pumps BWP120*

### Accessories



- IFS-PP1 Injection fitting small wheel peripump 4 x 6 tubing
- IFS-PP2 Injection fitting small wheel peripump 8 x 12 tubing
- FF-PP1 Foot filter and weight small wheel peripump 4 x 6 tubing
- FF-PP2 Foot filter and weight small wheel peripump 8 x 12 tubing
- 4/6 PVC 4 x 6 mm Clear PVC tubing 30 metre coil
- 8/12PVC 8 x 12 mm Clear PVC tubing 30 metre coil



## TAP 15 Series

Piston Pumps with 15mm stroke PVC heads & valves motors 400 volt three phase.



Model No	L/Hr PVC	Bar	Bar	Strokes Min	Connections	Motor Kw
TAP15-6 -58	0 - 1.5	20.0	10.0	58	1/4" Gas	0.18 Kw
TAP15-6 -78	0 - 2.0	20.0	10.0	78	1/4" Gas	0.18 Kw
TAP15-6 -116	0 - 3.0	20.0	10.0	116	1/4" Gas	0.18 Kw
TAP15-11 -58	0 - 5.5	20.0	10.0	58	1/4" Gas	0.18 Kw
TAP15-11 -78	0 - 6.5	20.0	10.0	78	1/4" Gas	0.18 Kw
TAP15-11 -116	0 - 10	20.0	10.0	116	1/4" Gas	0.18 Kw
TAP15-17 -58	0 - 11	20.0	10.0	58	3/8" Gas	0.18 Kw
TAP15-17 -78	0 - 15	20.0	10.0	78	3/8" Gas	0.18 Kw
TAP15-17 -116	0 - 22	20.0	10.0	116	3/8" Gas	0.18 Kw
TAP15-25 -58	0 - 25	20.0	10.0	58	3/8" Gas	0.18 Kw
TAP15-25 -78	0 - 32	20.0	10.0	78	3/8" Gas	0.18 Kw
TAP15-25 -116	0 - 50	20.0	10.0	116	3/8" Gas	0.18 Kw
TAP15-30 -58	0 - 35	20.0	10.0	58	3/8" Gas	0.25 Kw
TAP15-30 -78	0 - 45	20.0	10.0	78	3/8" Gas	0.25 Kw
TAP15-30 -116	0 - 70	20.0	10.0	116	3/8" Gas	0.25 Kw
TAP15-38 -58	0 - 55	17.0	10.0	58	3/8" Gas	0.25 Kw
TAP15-38 -78	0 - 73	17.0	10.0	78	3/8" Gas	0.25 Kw
TAP15-38 -116	0 - 110	17.0	10.0	116	3/8" Gas	0.25 Kw
TAP15-48 -58	0 - 85	10.0	10.0	58	1/2" Gas	0.25 Kw
TAP15-48 -78	0 - 114	10.0	10.0	78	1/2" Gas	0.25 Kw
TAP15-48 -116	0 - 170	10.0	10.0	116	1/2" Gas	0.25 Kw
TAP15-54 -58	0 - 110	8.0	8.0	58	1/2" Gas	0.25 Kw
TAP15-54 -78	0 - 145	8.0	8.0	78	1/2" Gas	0.25 Kw
TAP15-54 -116	0 - 220	8.0	8.0	116	1/2" Gas	0.25 Kw
TAP15-64 -58	0 - 152	6.0	6.0	58	3/4" Gas	0.25 Kw
TAP15-64 -78	0 - 204	6.0	6.0	78	3/4" Gas	0.25 Kw
TAP15-64 -116	0 - 304	6.0	6.0	116	3/4" Gas	0.25 Kw

## TAP 25 Series

Piston Pumps with 25mm stroke PVC/SS heads & valves motors 400 volt three phase.



Model No SS	L/Hr	Bar	Bar	Strokes Min	Connections	Motor Kw
TAP25-25 -58	0 - 40	20.0	10.0	58	3/8" Gas	0.25 Kw
TAP25-25 -78	0 - 53	20.0	10.0	78	3/8" Gas	0.25 Kw
TAP25-25 -116	0 - 80	20.0	10.0	116	3/8" Gas	0.25 Kw
TAP25-30 -58	0 - 55	20.0	10.0	58	3/8" Gas	0.25 Kw
TAP25-30 -78	0 - 70	20.0	10.0	78	3/8" Gas	0.25 Kw
TAP25-30 -116	0 - 112	20.0	10.0	116	3/8" Gas	0.25 Kw
TAP25-38 -58	0 - 90	20.0	10.0	58	1/2" Gas	0.37 Kw
TAP25-38 -78	0 - 120	20.0	10.0	78	1/2" Gas	0.37 Kw
TAP25-38 -116	0 - 180	20.0	10.0	116	1/2" Gas	0.37 Kw
TAP25-48 -58	0 - 140	20.0	10.0	58	1/2" Gas	0.55 Kw
TAP25-48 -78	0 - 190	20.0	10.0	78	1/2" Gas	0.55 Kw
TAP25-48 -116	0 - 284	20.0	10.0	116	1/2" Gas	0.55 Kw
TAP25-54 -58	0 - 180	15.0	10.0	58	1/2" Gas	0.55 Kw
TAP25-54 -78	0 - 242	15.0	10.0	78	1/2" Gas	0.55 Kw
TAP25-54 -116	0 - 365	15.0	10.0	116	1/2" Gas	0.55 Kw
TAP25-64 -58	0 - 250	10.0	10.0	58	3/4" Gas	0.75 Kw
TAP25-64 -78	0 - 335	10.0	10.0	78	3/4" Gas	0.75 Kw
TAP25-64 -116	0 - 505	10.0	10.0	116	3/4" Gas	0.75 Kw
TAP25-76 -58	0 - 365	7.0	7.0	58	1" Gas	0.75 Kw
TAP25-76 -78	0 - 485	7.0	7.0	78	1" Gas	0.75 Kw
TAP25-76 -116	0 - 730	7.0	7.0	116	1" Gas	0.75 Kw
TAP25-89 -58	0 - 495	5.0	5.0	58	1" Gas	0.75 Kw
TAP25-89 -78	0 - 660	5.0	5.0	78	1" Gas	0.75 Kw
TAP25-89 -116	0 - 1000	5.0	5.0	116	1" Gas	0.75 Kw

## Motor Options

Ex D Three phase motors

Servo motor requires 24 volt supply for auto stroke control from 4 - 20 mA signal



## TAM - 05 Series

Mechanical diaphragm dosing pumps have adjustable stroke length control.

### Motors 400 volt three phase

Model No	L/Hr.	Bar	Strokes / Min	Connections	Motor Size
TAM-05-041	0 - 15	5.0	41	1/2" Gas	0.09 Kw
TAM-05-058	0 - 20	5.0	58	1/2" Gas	0.09 Kw
TAM-05-082	0 - 30	5.0	82	1/2" Gas	0.09 Kw
TAM-05-116	0 - 42	5.0	116	1/2" Gas	0.09 Kw
TAM-05-160	0 - 60	5.0	164	1/2" Gas	0.09 Kw

For 230 volt 0.09 Kw single phase motor reduces pressure to 1.0 bar

## TAM 2, 4, 6 Series With Stainless steel or PP Heads

### Motors 400 volt three phase

Model No	L/Hr	Bar	Strokes	Connections	Motor Size
TAM2-94 - 58	0 - 20	10.0	58	3/8" Gas	0.25 Kw
TAM2-94 - 78	0 - 26	10.0	78	3/8" Gas	0.25 Kw
TAM2-94 - 116	0 - 40	10.0	116	3/8" Gas	0.25 Kw
TAM4-108 - 58	0 - 60	10.0	58	3/8" Gas	0.37 Kw
TAM4-108 - 78	0 - 80	10.0	78	3/8" Gas	0.37 Kw
TAM4-108 - 116	0 - 120	10.0	116	3/8" Gas	0.37 Kw
TAM6-138 - 58	0 - 155	7.0	58	3/4" Gas	0.37 Kw
TAM6-138 - 78	0 - 220	7.0	78	3/4" Gas	0.37 Kw
TAM6-138 - 116	0 - 310	7.0	116	1" Gas	0.37 Kw
TAM6-165 - 58	0 - 230	5.0	58	1" Gas	0.37 Kw
TAM6-165 - 78	0 - 330	5.0	78	1" Gas	0.37 Kw
TAM6-165 - 116	0 - 460	5.0	116	1" Gas	0.37 Kw



## TAM 2, 4, 6 Series With PVC or PVDF Heads

### Motors 400 volt three phase

Model No	L/Hr	Bar	Strokes / Min	Connections	Motor Kw
TAM2-94 - 58	0 - 20	10.0	58	3/8" Gas	0.25 Kw
TAM2-94 - 78	0 - 26	10.0	78	3/8" Gas	0.25 Kw
TAM2-94 - 116	0 - 40	10.0	116	3/8" Gas	0.25 Kw
TAM4-108 - 58	0 - 60	10.0	58	3/8" Gas	0.37 Kw
TAM4-108 - 78	0 - 80	10.0	78	3/8" Gas	0.37 Kw
TAM4-108 - 116	0 - 120	10.0	116	3/8" Gas	0.37 Kw
TAM6-138 - 58	0 - 155	7.0	58	3/4" Gas	0.37 Kw
TAM6-138 - 78	0 - 220	7.0	78	3/4" Gas	0.37 Kw
TAM6-138 - 116	0 - 310	7.0	116	1" Gas	0.37 Kw
TAM6-165 - 58	0 - 230	5.0	58	1" Gas	0.37 Kw
TAM6-165 - 78	0 - 330	5.0	78	1" Gas	0.37 Kw
TAM6-165 - 116	0 - 460	5.0	116	1" Gas	0.37 Kw



### Motor Options

When changing from 3 phase to single phase motors always increase the motor one size.

Pumps with 0.18 Kw 3 phase motors will be fitted with 0.25 kW 230 VAC Motors add  
 Pumps with 0.25 Kw 3 phase motors will be fitted with 0.37 kW 230 VAC Motors add  
 Pumps with 0.37 Kw 3 phase motors will be fitted with 0.55 kW 230 VAC Motors add  
 Pumps with 0.55 Kw 3 phase motors will be fitted with 0.75 kW 230 VAC Motors add  
 Pumps with 0.75 Kw 3 phase motors will be fitted with 1.10 kW 230 VAC Motors add

### Foot Valves

Foot valve for pumping with a suction lift from a chemical container



FV-0375-PVC  
FV-0500-PVC  
FV-0750-PVC  
FV-1000-PVC

Foot Valve in PVC 3/8" BSP 0 - 50 L/Hr  
Foot Valve in PVC 1/2" BSP 0 - 200 L/Hr  
Foot Valve in PVC 3/4" BSP 0 - 400 L/Hr  
Foot Valve in PVC 1" BSP 0 - 1000 L/Hr

FV-0375-SS  
FV-0500-SS  
FV-1000-SS

Foot Valve with filter in S' steel 3/8" BSP 0 - 50 L/Hr  
Foot Valve with filter in S' steel 1/2" BSP 0 - 200 L/Hr  
Foot Valve with filter in S' steel 1" BSP 0 - 1000 L/Hr

### Injection Valves

Injection valve with built in NRV for dosing into pipes or vessels



IV-0375-PVC  
IV-0500-PVC  
IV-0750-PVC  
IV-1000-PVC

Injection / NRV Valve in PVC 3/8" BSP 0 - 50 L/Hr  
Injection / NRV Valve in PVC 1/2" BSP 0 - 200 L/Hr  
Injection / NRV Valve in PVC 3/4" BSP 0 - 400 L/Hr  
Injection / NRV Valve in PVC 1" BSP 0 - 1000 L/Hr

BPV-0250-SS  
BPV-0375-SS  
BPV-0500-SS  
BPV-0750-SS  
BPV-1000-SS

Back pressure / NRV Valve in SS 1/4" BSPM 0 - 25 L/Hr  
Back pressure / NRV Valve in SS 3/8" BSPF 0 - 100 L/Hr  
Back pressure / NRV Valve in SS 1/2" BSPF 0 - 200 L/Hr  
Back pressure / NRV Valve in SS 3/4" BSPF 0 - 400 L/Hr  
Back pressure / NRV Valve in SS 1" BSPF 0 - 1000 L/Hr

### Loading / Pressure Relief Valves

Adjustable relief / safety valve 1 - 10 bar.



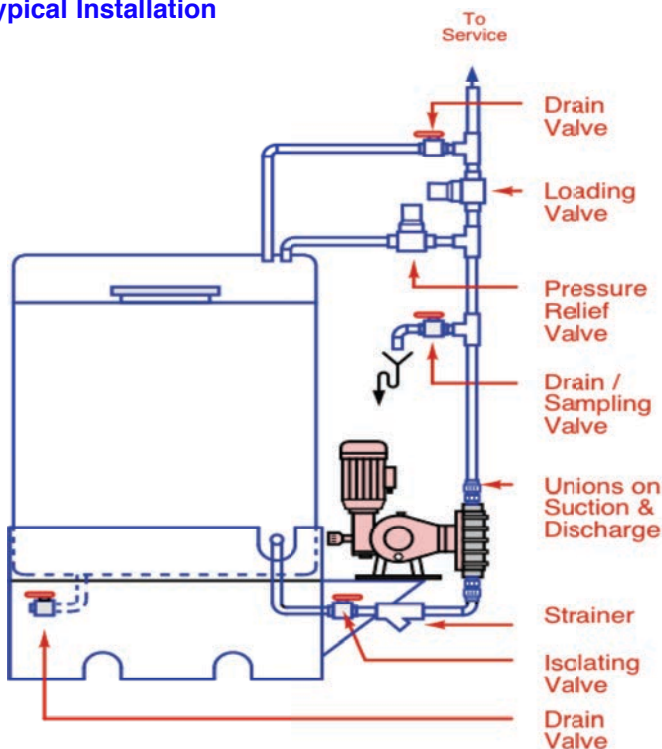
PRV-0500-PVC  
PRV-0750-PVC  
PRV-1000-PVC

Pressure relief valve in PVC 1/2" BSP 0 - 50 L/Hr  
Pressure relief valve in PVC 3/4" BSP 0 - 200 L/Hr  
Pressure relief valve in PVC 1" BSP 0 - 1000 L/Hr

PRV-0500-SS  
PRV-0750-SS  
PRV-1000-SS

Pressure relief valve in SS 3/8" BSP 0 - 200 L/Hr  
Pressure relief valve in SS 3/4" BSP 0 - 400 L/Hr  
Pressure relief valve in SS 1" BSP 0 - 1000 L/Hr

### Typical Installation



Typical installation of a dosing pump with flooded suction from a dosing tank. The dosing tank is mounted on one of our flooded suction kit, which incorporates a polypropylene stand to raise the tank so the reagent can flow into the pump by gravity. An isolating valve is fitted before the pump to isolate the pump for maintenance and an inline strainer to prevent any particles entering the pump.

The discharge from the pump has a sampling valve, which also maybe opened to relieve any pressure in the discharge line. The pressure relief or safety valve diverts the pump flow back into the storage tank in the event of the discharge becoming blocked.

The loading valve provides the pump with some pressure to work against and acts as an anti syphon valve when dosing to a point lower than the dosing pump and tank set IE into a pit or sump.

A second drain valve can be fitted to drain the discharge pipework where the reagent is being pumped some distance into a pipe or vessel under pressure.

Not shown is an injection fitting with a non return valve for dosing into a pipe under pressure to prevent the flow in the pipe back feeding through the pump and into the dosing tank.

## Dosing Tanks



Robust moulded natural MDPE dosing tanks with black screw fitting lid with raised section to mount dosing pump, mixer and level sensors etc.

DT 25	25	Litre Dosing Tank	250 x 350 x 340 mm (W x H x D)
DT 50	50	Litre Dosing Tank	Dia. 425 x H 500 mm
DT 100	100	Litre Dosing Tank	Dia. 497 x H 698 mm
DT 200	200	Litre Dosing Tank	Dia. 635 x H 782 mm
DT 300	300	Litre Dosing Tank	Dia. 660 x H 1074 mm
DT 500	500	Litre Dosing Tank	Dia. 815 x H 1100 mm
DT 1000	1000	Litre Dosing Tank	Dia. 1062 x H 1350 mm.

For black tanks add 10% to above prices

## Bund Tanks



BT 25	25	Litre Dosing Tank Bund	Dia. 680 x H 285 mm
BT 50	50	Litre Dosing Tank Bund	Dia. 685 x H 288 mm
BT 100	100	Litre Dosing Tank Bund	Dia. 806 x H 325 mm
BT 200	200	Litre Dosing Tank Bund	Dia. 970 x H 400 mm
BT 300	300	Litre Dosing Tank Bund	Dia. 940 x H 620 mm
BT 500	500	Litre Dosing Tank Bund	Dia. 1130 x H 680mm
BT 1000	1000	Litre Dosing Tank Bund	Dia. 1560 x H 770mm

Sizes in natural MDPE with open top and rolled over top edge.

## Dosing Station

Our dosing pumps can be supplied built into dosing stations to speed site installation and offer a bunded area for the chemical drums to stand. We offer two types of dosing station open fronted and closed with a clear PVC drop in front cover ideal for haradous reagents.



DSO1	Open fronted dosing station for a single AT series pump.
DSO2	Open fronted dosing station for two AT series pumps.
DSO3	Open fronted dosing station for three AT series pumps.

DSC1	Clear PVC fronted dosing station for a single AT series pump.
DSC2	Clear PVC fronted dosing station for for two AT series pumps.
DSC3	Clear PVC fronted dosing station for a single AT series pumps.

Specials can be designed and built

*Note Specifications & prices are subject to change due to raw material price fluctuations.*

## Dosing Tanks Flooded Suction Kits

Tank mounting frame with a mounting bracket for one vertical mounting pump. For use with solutions with a high viscosity or a low vapour pressure (hypochlorite) Providing ease of priming and consistent dosing.



FSK 50	Stand for 50 L. tank & mounting for one small pump
FSK 200	Stand for 200 L. tank & mounting for one pumps
FSK 300	Stand for 300 L. tank & mounting for one pumps
MB-HP	Mounting bracket for horizontal mounting pump with bolts add
BV-TC	PVC Ball valve, tank connector & LDPE hose supplied loose
DBV-TC	Dual economy ball valves & tank connectors for 2 pumps

## Hand Mixers



Hand mixers are for mounting on top of our DT range of MDPE dosing tanks made in PVC they are ideal for simple mixing tasks. We offer two types the stumping type where the mixer is moved up and down in the liquid and the conventional rotating type.

HM-S	Hand operated stumping mixer in PVC. with mounting flange
HM-R	Hand operated rotating mixer in PVC. with mounting flange
BBP	Four polypropylene nuts and bolts for mounting hand mixers

## Electric Mixers High Speed

High speed mixers for use in dosing tanks, mixing effluent sumps, pits or tanks. High speed mixers can only be used in full tanks as damage will occur to the both the mixer and tank if the mixer is run in a tank which is not always full. Therefore high speed mixers must not be run in pumping tanks as the level changes when the tank is pumped out.

## Mixers With Stainless Steel Propellers

TM0	Mixer with 3" Ø propeller fitted 0.18 kW 415 volt motor
TM0 - SP2	Mixer with 3" Ø propeller fitted 0.18 kW 240 volt motor
TM11	Mixer with 4" Ø propeller fitted 6 pole 0.25 kW 415 volt motor
TM1	Mixer with 4" Ø propeller fitted 0.37 kW 415 volt motor
TM1 - SP2	Mixer with 4" Ø propeller fitted 0.37 kW 240 volt motor
TM2	Mixer with 6" Ø propeller fitted 0.55 kW 415 volt motor
TM3	Mixer with 7" Ø propeller fitted 0.75 kW 415 volt motor
TM4	Mixer with 8" Ø propeller fitted 1.5 kW 415 volt motor
-EVA	TM shaft & propeller plastic coated

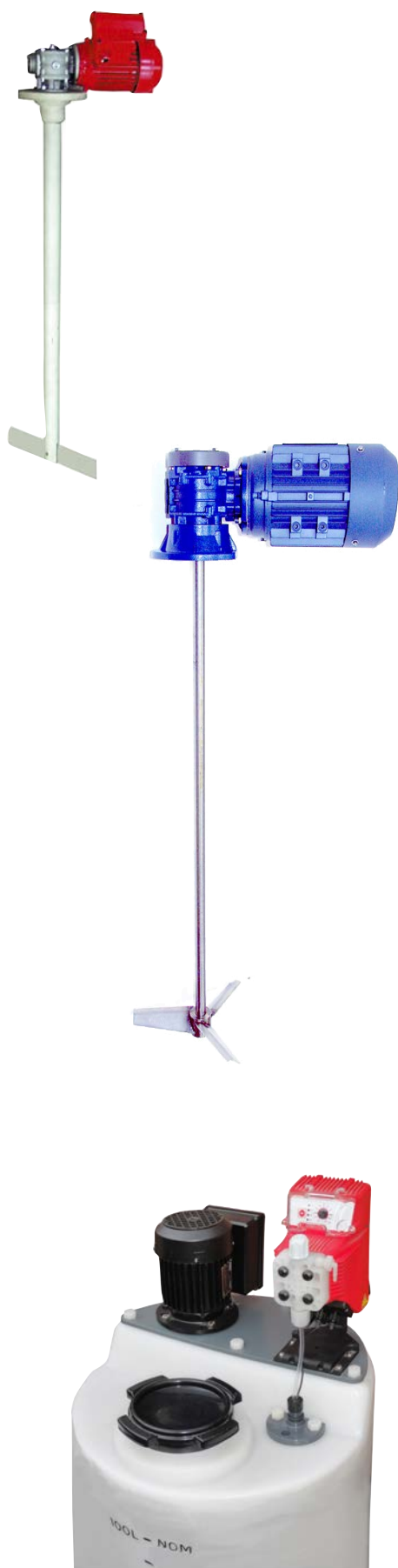
## Pneumatic Mixers High Speed

We are also able to supply high speed pneumatic mixers please call our sales office with your requirements.



## Electric Mixers Geared

Geared mixers with worm driven gearbox are fitted with large diameter flat bladed 316 stainless steel impellers. Mixers GWM11, 21, 31 & 41 are fitted with 7.5:1 or 5:1 reduction ratio depending upon the mixer duty. The other mixers in our range are fitted with 10:1 ratio gearboxes.



GMW0	Geared mixer with 6" Ø impeller fitted 0.12 kW motor 240 volt
GMW1	Geared mixer with 10" Ø impeller fitted 0.18 kW motor 415 volt
GMW1-SP2	Geared mixer with 10" Ø impeller fitted 0.18 kW motor 240 volt
GMW1-SP1	Geared mixer with 10" Ø impeller fitted 0.18 kW motor 110 volt
GMW11	Geared mixer with 10" Ø impeller fitted 0.37 kW motor 415 volt
GMW11-SP2	Geared mixer with 10" Ø impeller fitted 0.37 kW motor 240 volt
GMW11-SP1	Geared mixer with 10" Ø impeller fitted 0.37 kW motor 110 volt
GMW2	Geared mixer with 12" Ø impeller fitted 0.55 kW motor 415 volt
GMW21	Geared mixer with 12" Ø impeller fitted 0.75 kW 415 volt motor
GMW3	Geared mixer with 16" Ø impeller fitted 1.1 kW 415 volt motor
GMW31	Geared mixer with 16" Ø impeller fitted 1.5 kW 415 volt motor
GMW4	Geared mixer with 20" Ø impeller fitted 2.2 kW 415 volt motor
GMW41	Geared mixer with 20" Ø impeller fitted 3.0 kW 415 volt motor

## Tank Tops Mountings

Strengthened plates for dosing tank tops to hold dosing pumps and/or mixers.

PVC-MP-A	PVC plate for tanks DT 50 - DT300
PVC-MP-B	PVC plate for tank DT 500 - DT1000
SSMB	SS/PVC bridge DT 300 - DT1000
-F	Fitting charge for mixer and single pump.

## Direct Operating Brass Solenoid Valves N/C

A



Solenoid valve for water & air brass body with NBR diaphragms & female BSP threaded ports.

Part No	Size BSP.	Min PSI	Max PSI	Solution °C	Voltage
BSV-050-00	1/2"	0 PSI	90 PSI	90°C	24, 115, 230v AC
BSV-075-00	3/4"	0 PSI	90 PSI	90°C	24, 115, 230v AC
BSV-100-00	1"	0 PSI	90 PSI	90°C	24, 115, 230v AC



## Stainless Steel Solenoid Valves N/C

SS-SV-050-05	1/2"	8 PSI	150 PSI	90°C	24, 115, 230v AC
SS-SV-075-05	3/4"	8 PSI	150 PSI	90°C	24, 115, 230v AC
SS-SV-100-05	1"	8 PSI	150 PSI	90°C	24, 115, 230v AC

## Brass Solenoid Valve Three Port

Three port brass solenoid valve for use as a pilot valve to control air to a pneumatic valve.

BSV-025-3PT	1/4"	0 PSI	120 PSI	90°C	24, 115, 230v AC
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## Plastic Solenoid Valve Normally Closed

Servo operating Plastic bodied solenoid valve with internal components in stainless steel.

PSV-075-03	3/4" male	3 PSI	90 PSI	60°C	24, 115, 230v AC
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## Pneumatic Valves Fail Safe to Close

A

Pneumatic dosing valve with PVC body & Viton, EPDM or PTFE seals for chemical use requires pilot valve.

PDV050	1/2"	0 PSI	50 PSI	40°C	Pneumatic
PDV075	3/4"	0 PSI	50 PSI	40°C	Pneumatic
PDV100	1"	0 PSI	50 PSI	40°C	Pneumatic
PDV150	1 1/2"	0 PSI	50 PSI	40°C	Pneumatic
PDV200	2"	0 PSI	50 PSI	40°C	Pneumatic



## Actuated Ball Valves

A

Stainless steel ball valves operated by either pneumatic actuator which will require a pilot solenoid valve or by servo motor, power to open and power to close.

## Electric Valves

SMV-050-00	1/2"	0 PSI	250 PSI	205°C	230 VAC
SMV-075-00	3/4"	0 PSI	250 PSI	205°C	230 VAC
SMV-100-00	1"	0 PSI	250 PSI	205°C	230 VAC



## Pneumatic Valves

SPV-050-00	1/2"	0 PSI	250 PSI	205°C	Air
SPV-075-00	3/4"	0 PSI	250 PSI	205°C	Air
SPV-100-00	1"	0 PSI	250 PSI	205°C	Air

## Bronze Strainers

BS-050	1/2"	0 PSI	250 PSI	200°C	-
BS-075	3/4"	0 PSI	250 PSI	200°C	-
BS-100	1"	0 PSI	250 PSI	200°C	-

## Bronze Regulating Valves

BRV-050	1/2"	0 PSI	250 PSI	195°C	-
BRV-075	3/4"	0 PSI	250 PSI	195°C	-
BRV-100	1"	0 PSI	250 PSI	195°C	-





## Double Diaphragm Pneumatic Pumps



Air operated double diaphragm pneumatic pumps in various sizes for pumping liquids and slurries. The body is moulded in polypropylene and fitted with either Santoprene or PTFE diaphragm allowing a wide range of products to be pumped. Sizes 1/4" to 2" the output may be adjusted by varying the air pressure to the pump, a restrictor should be fitted to the air supply line to limit the volume of air flowing to the pump to prevent over speed on no load.

We are able to supply a wide range of optional materials of construction including PVDF for greater chemical resistance, stainless steel and aluminium.

Standard connections are BSP female ports up to pumps P160 and flanges for pumps P500 & P700 with clamp-on fittings available for hygienic applications. Stroke sensors can be fitted to pumps for use in batching application where a preset volume of solution can be metered into a process.



Model No	Body	Diaphragm	Size Liquid	Size Air	Max output.
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P7-PHT-NPN-1	PP	PTFE	1/4" Threaded	4mm	8 L/Min.
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P18-PHT-NPN-1	PP	Santoprene	3/8" Threaded	6mm	18 L/Min.
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P50-PHT-NPN-1	PP	Santoprene	1/2" Threaded	1/4"	50 L/Min.
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P50-PMT-NPT-1	PP	PTFE	1/2" Threaded	1/4"	50 L/Min.
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P100-PHN-N-N-1	PP	Santoprene	3/4" Threaded	1/2"	100 L/Min.
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P100-PMT-NPT-1	PP	PTFE	3/4" Threaded	1/2"	100 L/Min.
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P160-PHN-NPN-1	PP	Santoprene	1" Threaded	3/8"	160 L/Min.
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P160-PMT-N-T-1	PP	PTFE	1" Threaded	3/8"	160 L/Min.
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P400-PHN-N--N-2	PP	Santoprene	1 1/2" D40 Flanged	3/4"	400 L/Min.
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P400-PMT-NPT-2	PP	PTFE	1 1/2" D40 Flanged	3/4"	400 L/Min.
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P700-PHN-NPN-2	PP	Santoprene	2" D50 Flanged	3/4"	680 L/Min.
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P700-PMT-NPT-2	PP	PTFE	2" D50 Flanged	3/4"	680 L/Min.
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## Filter Regulator

We recommend the installation of a filter regulator to control the air pressure and needle valve to set or limit the air flow & hence no load speed.

RFR-025	1/4" Filter regulator for setting air pressure / pump speed
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ANV1	Needle valve for use with 1/2" pumps to restrict air flow.
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**1. Interpretation**

The 'Buyer' means the person who accepts a quotation of the Seller  
'Goods' means the products or services which the Seller is to supply in accordance with these Conditions .  
The Seller' means Automated Water & Effluent Ltd (AWE)

**2. Basis of the Sale**

The Seller shall sell and the Buyer shall purchase the Goods in accordance with any written quotation of the Seller and the sellers conditions of sale. The Seller's employees or agents are not authorised to make any representations concerning the Goods unless confirmed by the Seller in writing.

Any typographical, clerical or other error or omission in any sales literature, quotation, price list, acceptance of offer, invoice or other document or information issued by the Seller shall be subject to correction without any liability on the part of the Seller.

**3. Orders and Specifications**

All orders must be have an official order issued by the Buyer stating order number, delivery address and invoice address

Where drawings are supplied by the Seller these are supplied free of charge for the first set with any additional copies being charged for. They are believed to be correct but the Seller cannot accept responsibility for any loss incurred through errors contained within. Drawings are indicative only.

The Seller reserves the right to charge the Buyer with all costs incurred as a result of cancellation of an order.

The Buyer is deemed to be an expert in their own specialised field, all goods are supplied on the understanding that the buyer will use their own specialised skill and judgement in assessing the fitness of the goods for their intended purpose.

We are able to advise the material of construction of our Goods it is the Buyers responsibility to ensure the compatibility of any wetted parts which come into contact with liquids or chemical solutions the seller accepts no liability for selection of wetted parts.

**4. Price**

The price of the Goods shall be the Seller's quoted price. All prices quoted are valid for 30 days only unless otherwise agreed in writing.

The Seller reserves the right to increase prices without notice to take into account any increased costs imposed upon them.  
All prices are exclusive of VAT, ex works Stafford unpacked, with packing, carriage and insurance charged extra.

**5. Terms of Payment**

Accounts shall be opened at the discretion of the seller.  
Payment is due within 30 days of the end of the month in which the Seller's invoice has been raised.

If the Buyer fails to make any payment on the due date then the Seller shall be entitled to:  
Suspend any further deliveries to the Buyer.  
Appropriate any payment made by the Buyer  
Withdraw credit facilities  
Charge the Buyer interest at the rate of 3% per cent per month or part month

**6. Delivery**

Delivery of the Goods shall be made by the Buyer collecting the Goods at the Seller's premises. Deliveries may be made by carrier with proof of delivery being obtained.  
Where the Buyer requests delivery by the postal system the Seller accepts no responsibility for delayed, lost or damaged goods  
Any shortages must be notified in writing within 3 days  
Good signed for as received in good condition can not be returned as faulty or damaged later.  
Any dates quoted for delivery of the Goods are approximate only and the Seller shall not be liable for any delay in delivery of the Goods however caused.  
Time for delivery shall not be of the essence of the Contract. The Goods may be delivered by the Seller in advance of the quoted delivery date upon giving reasonable notice to the Buyer.

**7. Risk and Property**

Risk of damage to or loss of the Goods shall pass to the Buyer:

Goods shall not pass to the Buyer until the Seller has received cleared funds payment in full of the price of the Goods and all other goods agreed to be sold by the Seller to the Buyer for which payment is then due.

Until the property in the Goods passes to the Buyer the Seller shall be entitled at any time to require the Buyer to deliver up the Goods to the Seller .

**8. Warranties and Liability**

Subject to the conditions set out below, the Seller warrants that the goods (accepting only any Analytical Sensors in respect of which the Seller gives no warranty at all) will be free of defects in material and workmanship for a period of one year from their delivery.

The above warranty is given by the Seller subject to the following conditions:

The Seller shall be under no liability in respect of any defect arising from fair wear and tear, wilful damage, negligence, abnormal working conditions, failure to follow the Seller's instructions (whether oral or in writing), misuse or alteration or repair or maintenance of the Goods without the Sellers approval or carried out otherwise than by the Sellers personnel.

The Seller shall be under no liability if the products have not been installed and operated in accordance with the Sellers instructions and the products have received proper routine maintenance as required by such instruction.

The Seller shall be under no liability under the above warranty (or any other warranty, condition or guarantee) if the total price for the Goods has not been paid by the due date for payment;

The above warranty does not extend to parts, materials or equipment not manufactured by the Seller, in respect of which the Buyer shall only be entitled to the benefit of any such warranty or guarantee as is given by the manufacturer to the Seller.

Any claim by the Buyer which is based on any defect in the quality or condition of the Goods must be notified to the Seller within 3 days from the date of delivery, or (where the defect or failure was not apparent on reasonable inspection) within a reasonable time after discovery of the defect or failure, or one month of the date of delivery, whichever shall be the sooner.

If delivery is not refused, and the Buyer does not notify the Seller accordingly, the Buyer shall not be entitled to reject the Goods and the Seller shall have no liability for such defect or failure, and the Buyer shall be bound to pay the price as if the Goods had been delivered in accordance with the Contract. Claims can only be made by returning the goods to the Sellers works securely packed and carriage paid. If the claim is not valid the Seller reserves the right to make a charge to cover all of its costs.

The buyer if returning any goods to the seller shall specify in writing the reason why the goods are being returned within 30 days of the invoice date. Goods will not be accepted for credit which have been used, are not in resalable condition have been with the buyer for in excess of 30 days or without written agreement by the seller.

A minimum restocking charge of 20% of the value of the goods will be made.

Specially manufactured goods cannot be accepted for credit.

Where any valid claim in respect of any of the Goods which is based on any defect in the quality or condition of the Goods or their failure to comply with any sample is notified to the Seller in accordance with these Conditions, the seller shall be entitled to replace the Goods (or the part in question) free of charge or, at the Seller's sole discretion, refund to the Buyer the price of the Goods (or a proportionate part of the price), but the Seller shall have no further liability to the Buyer. If at the Buyers request the Seller agrees to rectify instruments on site the Sellers reserves the right to charge for time and all expenses incurred at the prevailing on site instruments service call out rate.

Except in respect of death or personal injury caused by the Seller's negligence, the Seller shall not be liable to the Buyer by reason of any representation (unless fraudulent), or any implied warranty, condition or other term, or any duty at common law, or under the express terms of the Contract, for any indirect, special or consequential loss or damage (whether for loss or profit or otherwise), costs, expenses or other claims for compensation whatsoever (whether caused by the negligence of the Seller, its employees or agents or otherwise) which arise out of or in connection with the supply of the Goods or their use or resale by the Buyer, and the entire liability of the Seller under or in connection with the Contract shall not exceed the price of the Goods, except as expressly provided in these Conditions.

The Seller shall not be liable to the Buyer or be deemed to be in breach of the Contract by reason of any delay in performing, or any failure to perform, any of the Seller's obligations in relation to the Goods, if the delay or failure was due to any cause beyond the Seller's reasonable control. Without prejudice to the generality of the foregoing, the following shall be regarded as causes beyond the Seller's reasonable control:

Act of God, explosion, flood, tempest, fire or accident;  
War or threat of war, sabotage, insurrection, civil disturbance or requisition;

Acts, restrictions, regulations, bye-laws, prohibitions or measures of any kind on the part of any governmental, parliamentary or local authority;

Import or export regulations or embargoes;  
Strikes, lock-outs or other industrial actions or trade disputes (whether involving employees of the Seller or of a third party.

Difficulties in obtaining raw materials, labour, fuel, parts or machinery;  
Power, Water, Gas failure or breakdown in machinery.  
Failure of any analytical Sensor, Instrument, Controller, Metering pump, Control valve or device.

**9. Insolvency of Buyer**

If the Buyer makes any voluntary arrangement with its creditors or (being an individual or firm) becomes bankrupt or (being a company) becomes subject to an administration order or goes into liquidation.

An encumbrancer takes possession, or a receiver is appointed, of any of the property or assets of the Buyer, or the Buyer ceases, or threatens to cease, to carry on business, or the Seller reasonably apprehends that any of the events mentioned above is about to occur in relation to the Buyer and notifies the Buyer accordingly.

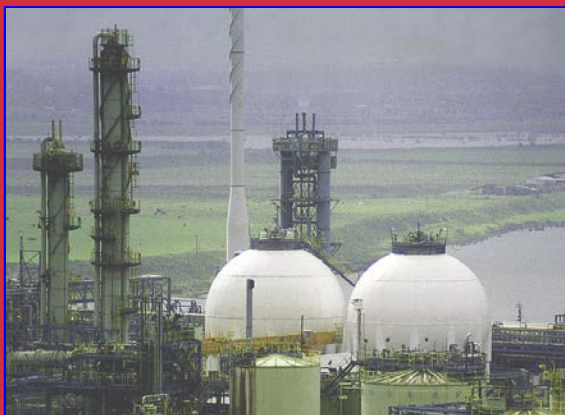
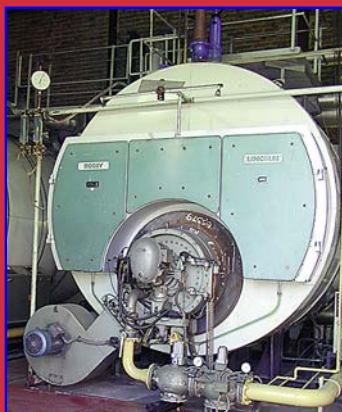
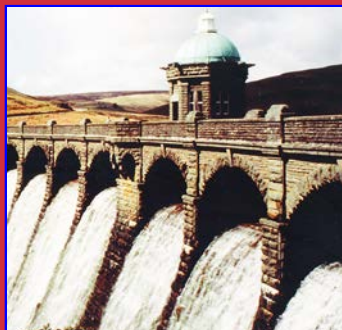
The Seller shall be entitled to cancel the contract or suspend any further deliveries under the contract without any liability to the Buyer, and if the Goods have been delivered but not paid for the price shall become immediately due and payable notwithstanding any previous agreement or arrangement to the contrary.

**10. General**

The contract shall be governed by the laws of England, and the Buyer agrees to submit to the non-exclusive jurisdiction of the English courts.

This is a shortened version of our condition of sale outlining the general points full legal version is available on request which is deemed to be the version in use.





Founded in 1982 Automated Water & Effluent Ltd has been serving the needs of industry in the Process Control, Water Treatment and Waste Water Treatment sectors.

With 40 years continual trading we've never lost sight of our aim to satisfy industries real needs for quality measurement and control equipment. We continue to bring the best and most appropriate technology with quality sensors for accurate measurement, precision instrumentation for measurement and control, robust control equipment, and a wide range of ancillaries and accessories to ensure that our equipment can deliver as required.

With many of our products exclusive to Automated Water & Effluent Ltd you can be certain that we can provide almost everything required for your process control, water treatment and waste water treatment requirements.

To ensure that we can provide the best solutions we continually review our product range so that we can offer the latest proven technologies suitable for industry. With our in-house control panel design and wiring service we can deliver solutions designed specifically to your requirements, and our team of on-site service engineers can ensure that your process is initially commissioned and regularly calibrated so that you can be confident that your process control requirements are being met.

We've been helping industry for 40 years, so let us help you with your next project, call or email our expert team for proven and reliable technologies designed for today's industrial environment.

**AWE**

**Automated Water & Effluent Ltd**

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