COAGULANT DOSING SOLUTION FOR

- **WATER TREATMENT**
- **WASTE TREATMENT**
- **PROCESS**

OPTIMISES WATER QUALITY

REDUCES TREATMENT COSTS

ENABLES FAST RESPONSE TO PROCESS CHANGES

MICRO-PROCESSOR BASED

INDUSTRIAL QUALITY INSTRUMENT

ACCUFLOC

Streaming Current Monitor

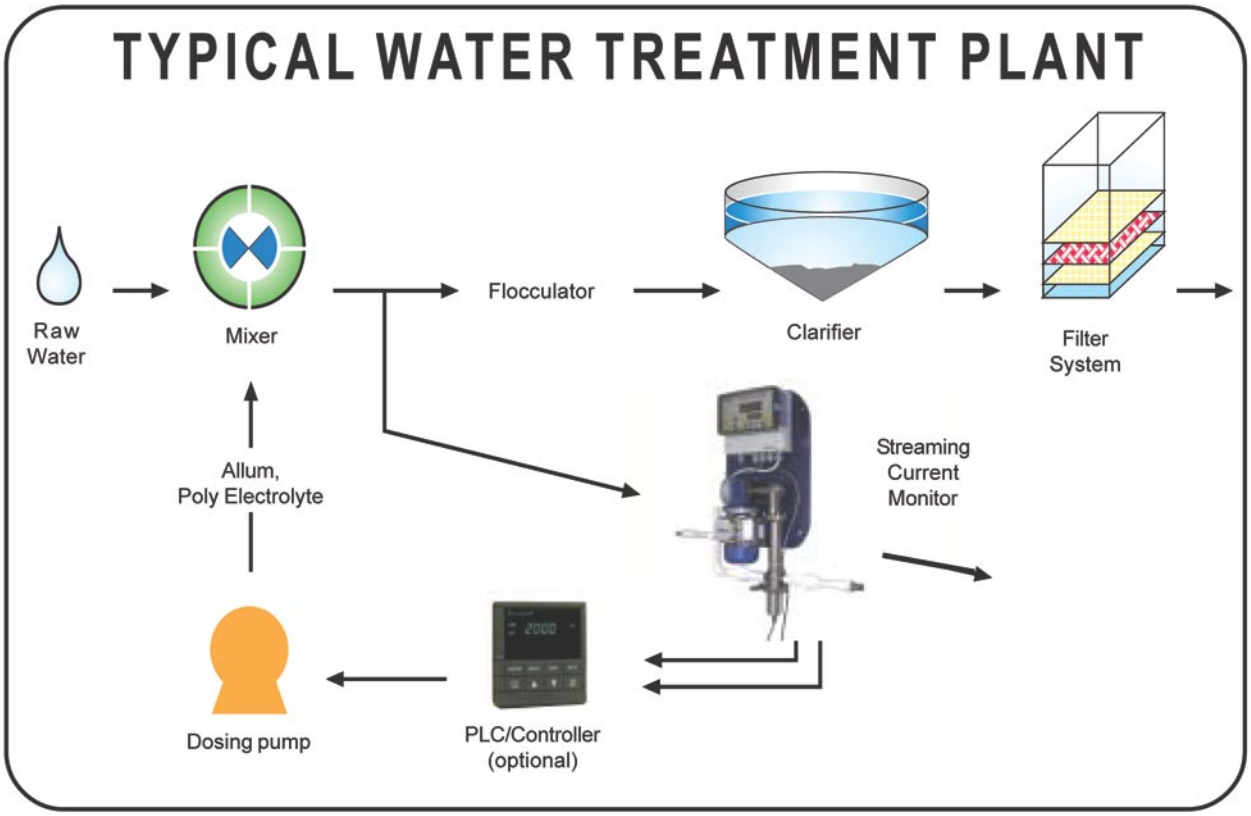
For Automatic Control of Chemical Coagulation Processes

ADVANTAGES

- Automation of flocculantdosing
- Improved operator awareness
- Rapid response to raw water changes
- Constant, high quality finished water.
- Reduced total chemical costs
- Reduced soluble aluminium carry through
- Reduced distribution line fouling and corrosion.
- Increased length of filter runs
- Less sludge generated
- Less sludge disposal cost
- Internationally recognised technology

FEATURES

- Fast Response (1sec)
- High Accuracy (0.1%)
- Push-button Calibration
- Sample Flow Rate up to 25 L /min
- Automatic Sensor Flushing Option
- Easily Replaceable Piston and Sample Cell
- Long Life Industrial Motor
- Optional Integrated Controller
- Rugged construction
- Dual display, fully adjustable range
- Wide range of output options



PRINCIPLE OF OPERATION

Extremely small particulates suspended in a solution will often have a surface charge. This means that even after a long time in a settling tank the particles will not coagulate and settle out of suspension. To neutralise this charge a material called a flocculent, containing particles with the opposite charge, can be added. When the overall surface charge is balanced the suspended particles will then bind with the flocculent and settle out.

A measurement of the charge on particles in solution can be made by measuring the current produced when the particles are rapidly moved.

The Accufloc uses a piston reciprocating in a closed chamber to create a high rate of flow along the chamber wall. This moving charge is a current (called the Streaming Current) and can be measured between two electrodes at opposite ends of the chamber.

This signal is amplified and processed to give a reading that is a direct indication of the flocculent dosage required to exactly neutralise the surface charge on particles in the solution.

SUPERIOR PERFORMANCE

- Advanced digital signal processing. The microprocessor runs an algorithm custom designed for the streaming current signal. This algorithm takes into account the shape of the small current signal generated by the sensor, rather than simply rectifying and filtering in the traditional way. This allows a much quicker response.
- Excellent immunity to electrical noise both because of the shielding characteristics of the metal construction and the advanced signal processing. Other makes of SCMs are well known for vulnerability to interference.
- Optional flushing mechanism. Automatically timed and controlled cleaning of the inside of the sensor chamber.
- Industrial sized motor, all metal enclosure and mechanical parts. All the other SCMs on the market are mostly – if not entirely – constructed with plastic parts.
- Dual display. The only SCM with two displays, one for the un-adjusted streaming current value and one for the distance of this value from the set-point. This way you can tweak the set-point up and back in an absolutely repeatable manner. If the SCM zero offset needs to be adjusted regularly this dual display makes it easier for the operator once they get used to it.
- Optional built-in controller. This avoids the needs for a separate PID controller in small plants.
- Lower cost. Manufactured with new-millennium technology, allowing us to keep our costs down.

SPECIFICATIONS

Accuracy:	0.1% (on an adequately mixed sample)
Speed of Response:	Adjustable averaging from 1sec to 1min
Sample Flow Rate:	Variable up to 25 litres per minute.
	2 - 4 L/min recommended.
Meter Readout:	Dual 3 1/2 digit LED
Alarms:	Up to 2 x Adjustable setpoint.
	Fully adjustable span, zero and hysteresis.
	1 x Fault alarm (option)
	Digital adjustment on front panel
Power Supply:	230Vac 50/60Hz at 1.0A
	110Vac 50/60Hz at 2.0A (option)
Motor Power:	90W (1/8 HP)
Operating Temperature:	-10 to 50 ° C
Wetted Parts:	Stainless Steel, Teflon, Epoxy
Water Temperature:	Maximum: 35° C
Sample Connections:	½" BSP
Weight:	14kg (standard option)

Controller Option:

Proportional + Integral type.
Manually tuned. Anti-integral windup.
Bump-less auto / manual transfer and parameter change.
Forward or reverse acting.

Automatic Flushing Option:

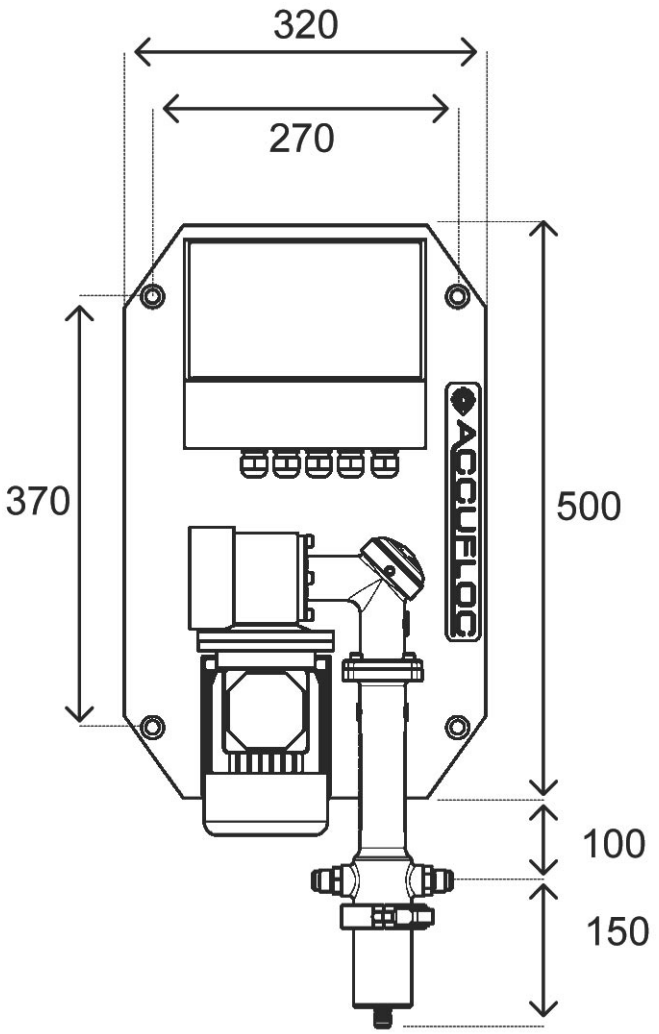
Flushes from inlet to sample chamber.
Flush is on automatic timer and can be manually started.
Reading will hold previous value during flush.

Flushing Water Connection:		½" BSP
Max Flushing Water Pressure:		10 Bar
Timing :	Interval:	1 min - 48 hrs
	Duration:	1 sec - 4 min
	Reading Hold	0 sec - 4 min

Output / Input Options:

Five expansion cards, selectable from:

Communications:	RS485 - Electrically isolated.
	Data rate: 1200- 9600 baud
	MODBUS interface.
Up to 2 x 4 - 20mA. output	
	Max 500 ohm load.
	Electrically isolated.
Up to 2 x Relay output	
	SPST. N.O. and N.C. terminals.
	A 230Vac.



DISTRIBUTOR

ACCURATE MEASUREMENT (NZ) LTD
Phone > 0800 50 55 66 or +64 9 579 0141
Fax > +64 9 579 1888
Email > sales@accufloc.com
Website > www.accufloc.com