

Instrumentation for Control, Monitoring & Optimization

**PROCESS
CONTROL
SERVICES
PTY LTD**

Your Partner in Control



**Flow
Level
Pressure
Temperature
Water Quality
Chemical Dosing
Materials Handling
Displays, Controllers & Datalogging**

For:

**Water & Waste Water Treatment
Mining & Mineral Processing
Chemical & Petrochemical
Food & Beverage
Oil, Gas & Power
Pulp & Paper
Fertigation
Irrigation
Sugar
HVAC
Dairy
Coal**

Pressure & Temperature



Switches

Measurement Principles

Bellows
Bourdon Tube
Diaphragm
Capillary
Bi-Metal

Brands

Regulateurs Georjin
FineTek
Industrie Technik

Transmitters

Measurement Principles

Piezoresistive
Thermocouple
RTD (PT100/PT1000)

Brands

Regulateurs Georjin
FineTek
MAC3
Rhomborg

Gauges

Measurement Principles

Bellows
Bourdon Tube
Diaphragm
Capillary
Bi-Metal

Brands

Regulateurs Georjin
Rhomborg
Teltherm

Flow



Switch

Measurement Principles

- Thermal Dispersion
- Paddle Wheel
- Sprung Paddle
- Free Paddle
- Variable Area (Rotameter)
- Impeller
- Sprung Float
- Electromagnetic

Brands

- Tecfluid
- FineTek
- FlowLine
- Industrie Technik
- Meister Stromungstechnik
- Intek Rheotherm
- FIP / FLS

Transmitters

Measurement Principles

- Thermal Dispersion
- Paddle Wheel
- Variable Area
- Impeller
- Sprung Float
- Electromagnetic
- Ultrasonic (T/T & Doppler)
- Turbine
- Rotary Piston (PD)

Brands

- Tecfluid
- FineTek
- FlowLine
- Mainstream
- Industrie Technik
- Meister Stromungstechnik
- Intek Rheotherm
- FIP / FLS

Indication (Gauges)

Measurement Principles

- Paddle Wheel
- Variable Area
- Impeller
- Sprung Float

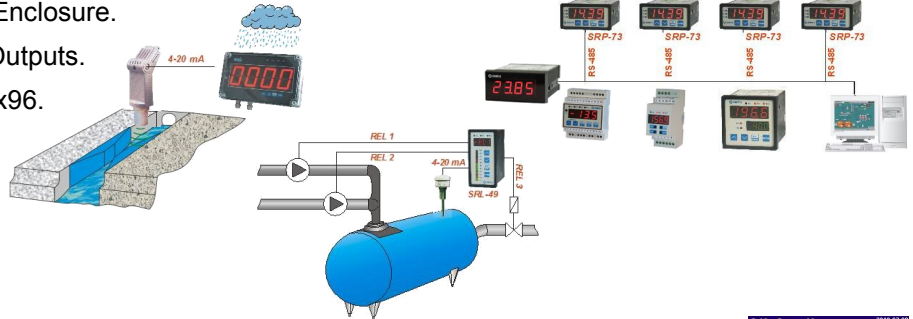
Brands

- Tecfluid
- Meister Stromungstechnik
- Kytola
- FIP / FLS

Display, Controllers & Loggers

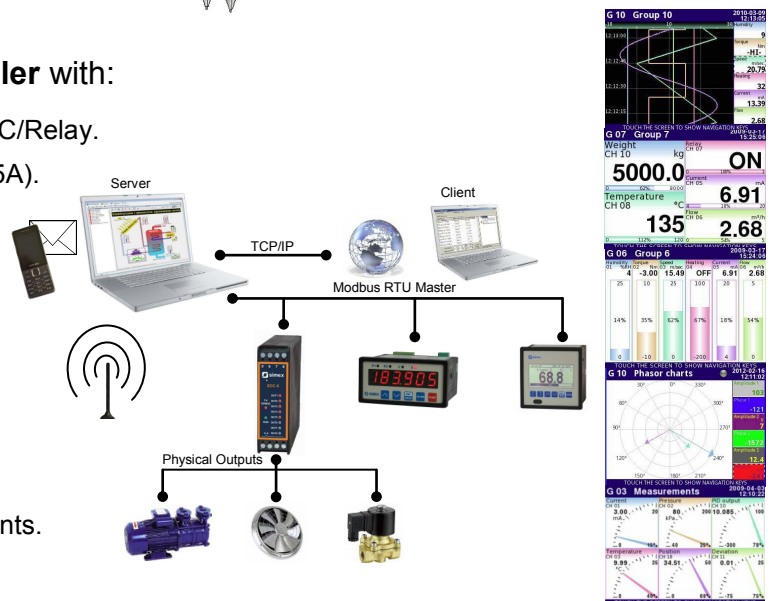
Single Channel Displays & Controllers

- Current (0/4-20mA), Pulse, Frequency, Temperature & Weight Inputs.
- Small & Large Displays: 9mm, 13mm, 20mm, 57mm & 100mm.
- Rate, Total or Both from pulse or analogue inputs.
- Panel, DIN Rail & Wall Mount (IP-65) Enclosure.
- Display Only or with Alarm & Control Outputs.
- Panel Sizes: 72x36, 96x48, 72x72, 96x96.
- Modbus (RS-485) Masters & Slaves.
- Batch Controllers & Counters
- Bar Graph Display
- Clocks, Timers & Time Controllers.



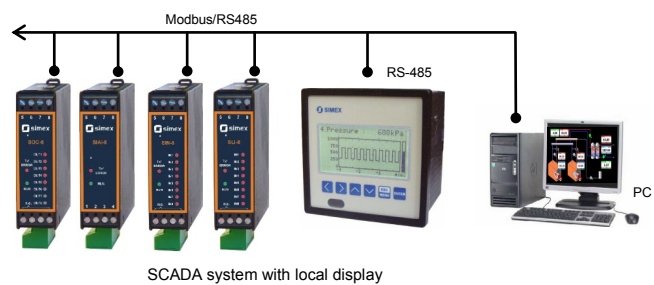
Multichannel Display, Recorder & Controller with:

- Inputs: Current (0/4-20mA), V, mV, TC, RTD, R, OC/Relay.
- Outputs: Current (0/4-20mA), V, SSR, Relay (1A+5A).
- Touchscreen Colour Display
- Ethernet Options.
- Modbus RTU (Master & Slave).
- USB Host (memory stick).
- Remote Access Options.
- Option for data logging.
- Control Modes: PID, PWM, On/Off & Frequency, Batch, Feedforward/Feedback, Remote Set Points.



Power Supplies & Signal Conditioners

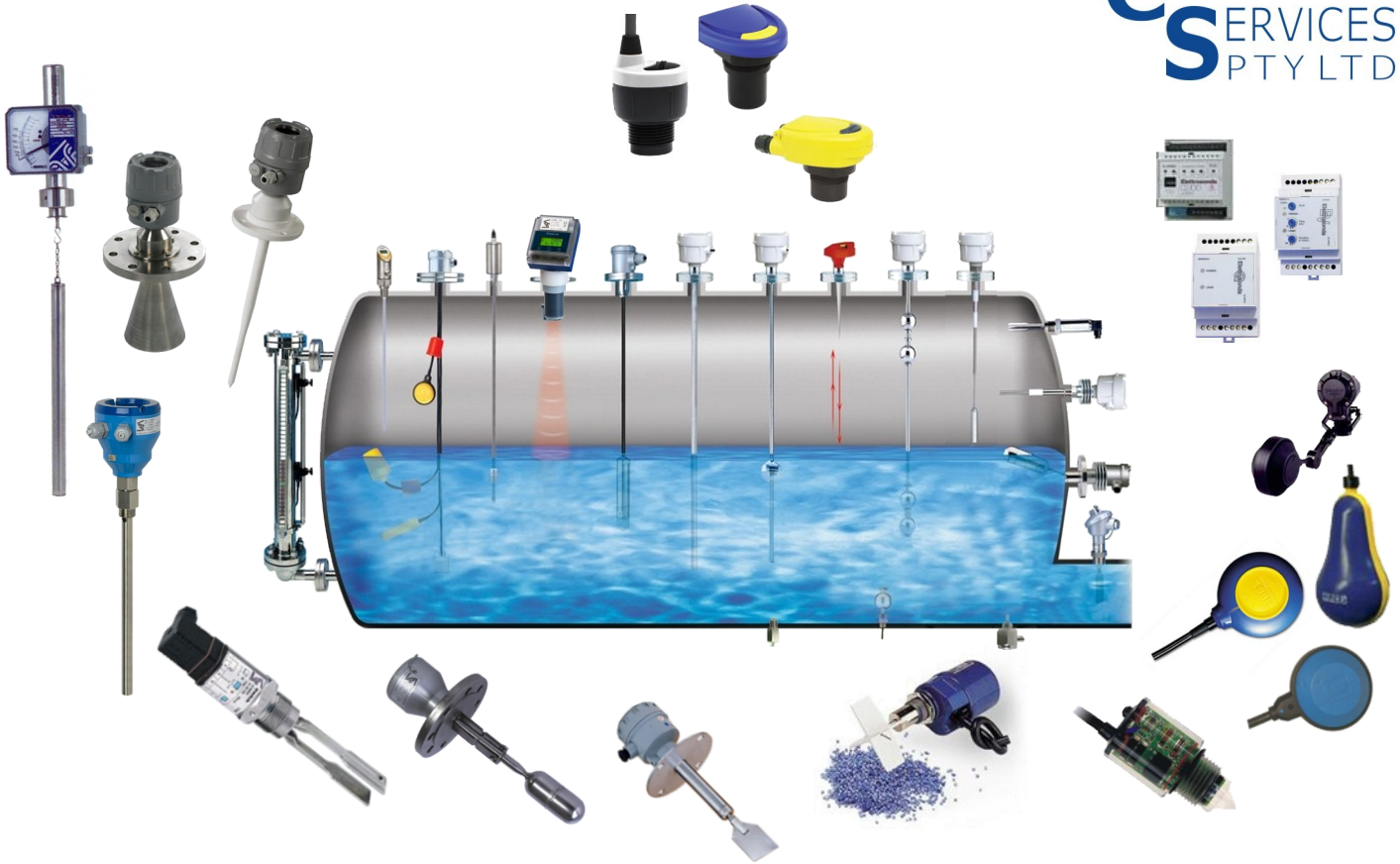
- Modbus I/O Modules, Slaves for Input & Outputs.
- 12/24 Vdc Power Supplies, DIN Rail.
- Transmitters: DIN Rail & Puck.
Temperature, Load Cells, mV, V.
- 4-20mA Signal Isolators.
- Semi - SCADA Software.
- Convertors: USB/RS485 & USB/RS232



Barriers

- Rail Mount
- Back Plane Mount
- Galvanic Isolators
- Zener Barriers
- IECEX Certified
- SIL2 Capability
- HART Compatible





Switch

Measurement Principles

- Magnetic Float
- Side Float
- Rotary Paddle
- Buoyancy
- Capacitance
- RF Admittance
- Ultrasonic
- Cable Float
- Vibrating Fork
- Conductive
- Optical

Brands

- Tecfluid
- FineTek
- FlowLine
- MAC3

Transmitters

Measurement Principles

- Magnetic Float
- Guided & Non-Guided Radar
- Magnetostrictive
- Buoyancy
- Capacitance
- Ultrasonic
- Hydrostatic (Pressure)

Brands

- Tecfluid
- FineTek
- FlowLine
- MAC3

Gauges

Measurement Principles

- By-Pass Gauges
- Sight Glasses (PVC)
- Buoyancy

Brands

- Emteq
- Tecfluid
- FineTek

Materials Handling

Conveyor Monitoring



Safety Cable Pull Switch



Mis-Alignment Switch



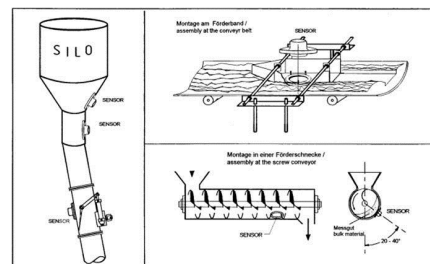
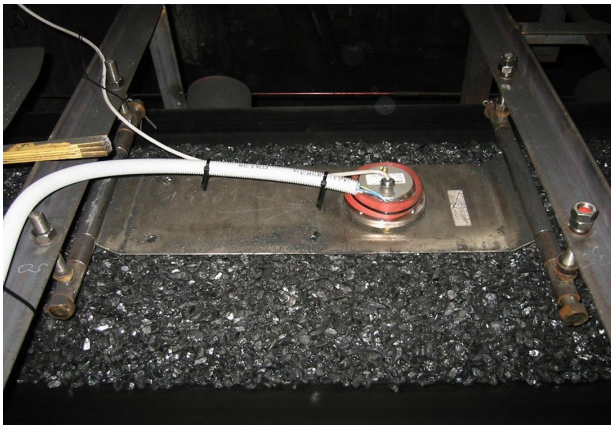
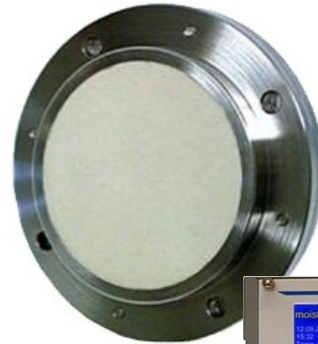
Speed Monitor



Continuous Measurement of Moisture in Solids

HUMY 3000

- In-line measurements
- Moisture measure range: 0.001%- 50%
- High precision of up to 0.1%
- Digital data transmission (up to 1km)



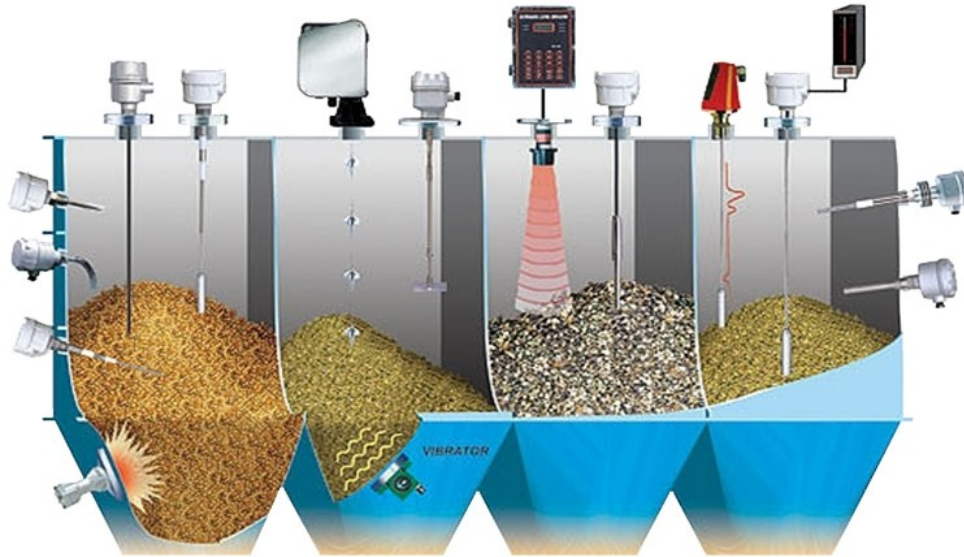
Solids Level

Switches

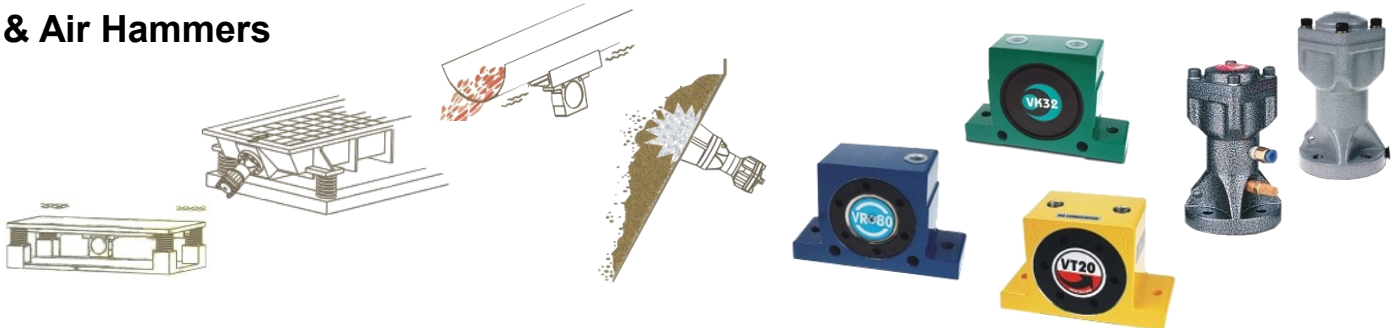
- Rotary Paddle
- Capacitance
- RF Admittance
- Vibrating Probe or Fork

Transmitters

- Capacitance
- Radar
- Mechanical
- Ultrasonic

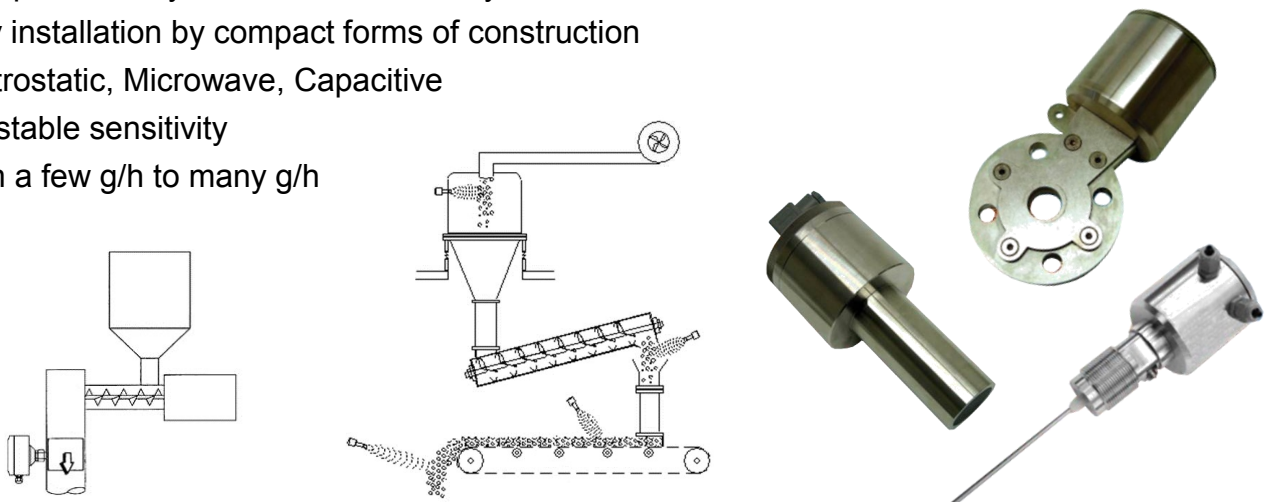


Pneumatic Vibrators & Air Hammers



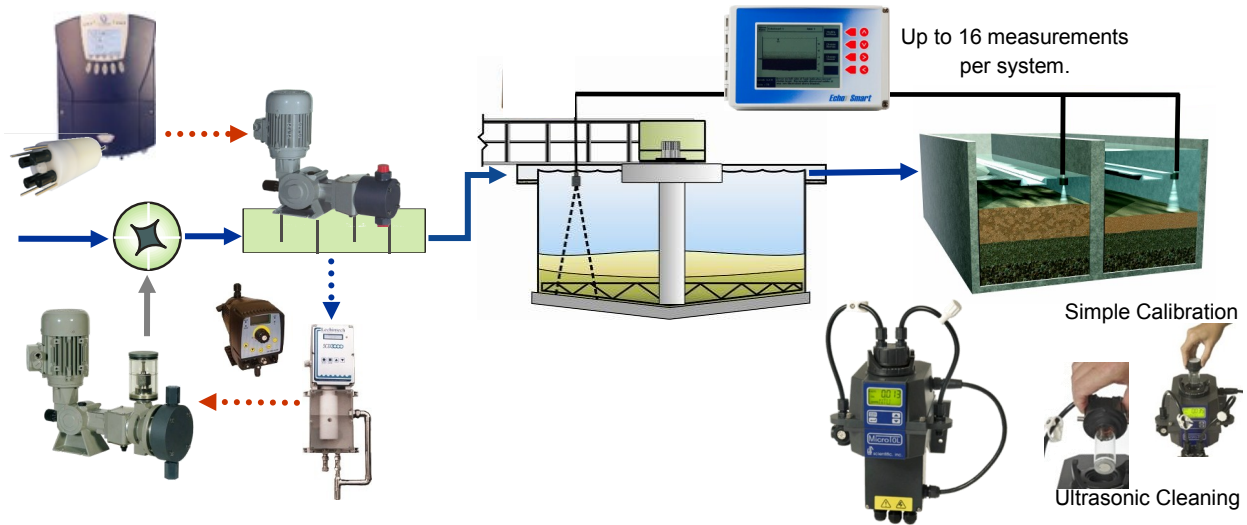
Blocked Chute Detection

- For pipes, conveyor belts, screw conveyors, silos, etc
- Easy installation by compact forms of construction
- Electrostatic, Microwave, Capacitive
- Adjustable sensitivity
- From a few g/h to many g/h



Water Treatment

Inline Measurement



Turbidity MicroTOL

For filtered water, raw water, waste water final effluent & industrial applications.

- Nephelometry measurement principal.
- Ranges 0 – 100 NTU & 0-1000 NTU
- Fast response & easy calibration.
- With ultrasonic cleaning

Suspended Solids

- Measuring range: 0-50NTU / 0-1000NTU
- Scattered light measurement
- Digital communication
- Up to 3 sensors on one transmitter
- Simple menu driven interface
- LCD display

Interface Level Measurement

Sludge Blanket & Filter Bed Expansion

Water: Clarifiers, Sludge Thickeners, Filter Bed Expansion

Wastewater: Primary & Secondary Sed. Tanks & Sludge Thickeners

- Frequency specifically for Water & Wastewater applications
- Detection of interface & dispersion layer
- 4-20mA or radio link on output signal
- Optional turbidity sensor

Streaming Current

- Close the automation control loop for coagulation dosing via 4-20mA output
- Draw a post dosed sample
- Monitor the sample charge
- Process the signal in a control device
- Send alarm messages to the operator

Water Quality

Inline Measurement

Dissolved Oxygen

- Maintenance free DO measurement
- Using the revolutionary fluorescence principle
- Long term stability now enables reliable control
- Direct insertion into aeration tank.
- No need for floats or other costly mechanisms.
- Not pressure sensitive, can be inserted at any depth



pH, ORP, Conductivity

- pH, ORP, conductivity
- Transmitters & controllers
- Control by: On/Off, window, proportional & pulse width modulation
- Extensive range of sensors to suit diverse applications
- Installation Accessories & In-Line Cleaning Options



Chlorine Measurement: Free & Total

Using:

- DPD based measurement
- 4-20mA & RS-485 Modbus
- Backlit display
- Inline pressure regulator & power supply
- Replacement tubing / cuvette kit (1 year supply)
- Reagents supplied premixed & dry for long storage life-just add water
- Options for non-reagent systems using amperometric measurement



AccUView OnLine UV % Transmission Analyzer

For pressurized or Gravity Feed Potable Water Systems.

Each unit includes 4-20mA output with isolator, 2 alarm contacts, inline flow & pressure regulator, desiccant, power supply, Standard 100% T, Spare cuvette with Ultrasonic Transducer & operator's manual.



Open Channel Flow Measurement

- For open channel & part filled pipes
- Fixed installation or portable with data logging capability
- Simple installation & set up with auto configuration routine
- Ultrasonic flow measurement principle with advanced signal analysis for high reliability



Water Quality

Field & Laboratory Measurement, Standards & Reagents

MicroTOL – Field Turbidity

Includes carrying case, one set of calibration standards, indexing rings, 4AAA alkaline batteries operator's manual & measuring cuvettes with light shield caps.

- MicroTPW Portable Turbidimeter (White Light) 0-1,100 NTU
- MicroTPI Portable Turbidimeter (IR) 0-1,100 NTU



MicroTOL – Laboratory Turbidity

Includes a complete set of calibration standards (0.02, 10 & 1000 NTU), two measuring cuvettes with light shield cap & operator's manual.

- Micro 100 WL Laboratory Turbidimeter, 0-1000 NTU, 120V 60 Hz.
- Micro 100 WL Laboratory Turbidimeter, 0-1000 NTU, Universal Power 100-240V 50-60 Hz.
- Micro 100 IR Laboratory Turbidimeter, 0-1000 NTU, 100-240V Universal Power 50-60 Hz.



Pro Cal Primary Turbidity Standards (for Hach® Instruments)

Non-Toxic ProCal primary standard turbidity standards are pre diluted, factory certified*, & ready for use with Hach® process, laboratory & field instruments, as well as the HF Scientific product line & other manufacturer's instrumentation. The ProCal standard formula utilizes a preservative that enhances stability, yet it is safe & biodegrades rapidly. Custom NTU available.

Available pre-diluted standard: 0.0, 1.0, 10, 20, 100, 200, 800, 1000, & 4000.



Standards certified * for use with the Hach® Company's 2100N turbidimeter
Hach® 2100AN Laboratory Turbidimeter

Standards certified * for use with the Hach® Company's 2100P turbidimeter
Hach® 2100P Portable Field Turbidimeter



PPD-2 DPD Powder Pop® Dispenser

The HF PPD-2 DPD Dispenser is compatible with HF & many more non-HF Scientific photometers.

J.A.W. Reagents for use in the Hach® CL 17 & HF CLX
J.A.W. = Just Add Water



Motor Driven & Diaphragm Pumps

- Hydraulic or Mechanical Diaphragm
- Piston
- Multi Head Pumps
- API Pumps
- Dosing rate: up to 3800 l/hr



Solenoid Pumps

Capacities for 0-2 l/hr to 0-50 l/hr

HC8 Series - ON/OFF Control

- Adjustable stroke rate
- 0-20% 0-100%
- PVDF head
- Input for interlock

HC9 Series - Proportional Dosing

- PVDF head, viton or EPDM seals
 - Inputs: Pulse & 4-20mA with option for pH/ORP
- A Version: pulse input, 4-20mA input, 7 Day Timer
B Version: as for A Version & also with pH & ORP Sensor input.

HC2 Series - ON/OFF & Proportional Dosing

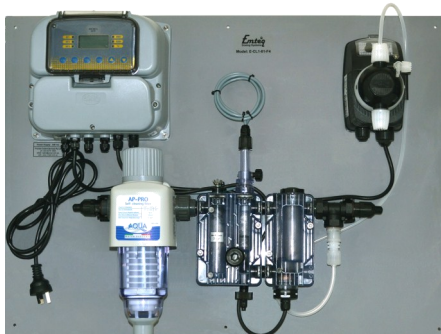
- pH / ORP sensor input or Pulse/4-20mA input
- Stroke length & frequency adjustment
- Input for interlock on level or flow
- Size (l/hr-Bar): 2-8, 4-18, 9-9, 15-4



Integrated Measurement & Dosing Panels

Accessories:

Injection Nozzles, Foot Filters, Foot Valves, Calibration Cylinders, Back Pressure Valves, Safety Relief Valves, Pulsation Dampeners, Polyethylene Tanks, Bunds, Mixers, Isolation Valves, Tank Level Switches etc



Chlorination Only



Chlorine, pH & Turbidity with Data Logging

Customised to meet individual requirements

About PCS

For more than twenty years Process Control Services (PCS) have provided Measurement & Dosing equipment to an extensive range of industries, varying in size, throughout Australasia.

Continuous growth over the past twenty years driven predominately through word of mouth referrals has led to PCS achieving an outstanding market profile. With offices in Sydney, Brisbane and Melbourne combined with a network of over twenty regional sales outlets PCS is able to deliver top quality international brands at very competitive prices, backed by an outstanding level of customer service throughout Australia and New Zealand.

Process Control Services (PCS) are renowned for their industry expertise together with their extensive choice and range of equipment. Their highly trained engineers are able to offer extraordinary levels of expert service and advice through combining their extensive product knowledge with industry experience that extends in many cases beyond the life of the company.

We supply Flow, Level, Pressure, Temperature and Specialty Measurement Equipment and Chemical Dosing Equipment to the following industries:

- Water and Waste Water Treatment
- Mining and Mineral Processing
- Chemical and Petrochemical
- Sugar, Food and Beverage
- Coal, Oil, Gas and Power
- Pulp and Paper
- Agriculture

If you have a problem, call us, we have the solution.....

Contacts:	E-Mail:
Quotes, Orders & Product Data	sales@pcspl.com.au
Service	service@pcspl.com.au
Accounts	admin@pcspl.com.au
Technical	
QLD & NSW: Michael Dickens	michael.dickens@pcspl.com.au
VIC & TAS: Gavin Peiris	gpeiris@pcspl.com.au
NZ: Kevin Hamilton-Reen	kevin@pcspl.com.au
National: John Lane	jlane@pcspl.com.au
Head Office & Warehouse: 4 / 198-222 Young St, Waterloo, NSW, 2017	