

## Self-Contained Dosing System

The Self-Contained Dosing System is a compact, stand-alone system, ideal for dosing individual chemicals or as an add-on to an existing dosing system. The system consists of a 200-litre day tank with pre-installed dosing pump and draw-up tube to enable easier install in any location the user requires.

Each day tank is stored in a 220-litre containment bund.

The digital dosing pumps (DDA/DDC/DDE) are powered by 100V~240V<sub>AC</sub> and can be specified to dose up to 30 litres per hour.

As standard, the pump runs at a fixed speed (Manual Mode), which can be specified by the control interface. The pump can also be controlled by a 4-20mA signal.

The draw-up tube has level monitoring capabilities, sending 'Warning' and 'Alarm' conditions to the pump for 'Low-Level' and 'Empty' states. The pump continues running under a 'Warning' condition but stops under an 'Alarm' condition.



The pumps have several control options:

- Analog 0/4-20mA Control (DDA/DDC) – Flow rate scales to input signal
  - e.g., When connected to a loop current signal from a chemical sensor analyser, such as the Astles SENSOLUTION™ pH700M.
- External Stop [0V Contact-Closure]
  - Pump runs at the pre-set speed for the time the External Stop signal is in effect (dependent on logic setup).
  - This is the only control method for DDE pumps.
- Pulse mode – Set volume (ml) to be dosed per pulse received.
- Pulse-based batch dosing – Set volume (ml) to be dosed in specified time per pulse received – pump will ignore external stop signals until batch is dosed (DDA pumps only)

The DDA and DDC Pumps provide 2 relay outputs (potential-free), which can be individually configured for Alarm and Warning conditions (as well as providing Individual Stroke signals, Pump Dosing signals, and Bus control).

Optional fittings for the day tank include:

- Ultrasonic Level Sensor
  - Provides a 4-20mA loop current to give level of liquid inside tank (could then be scaled separately to percentage full or volume of chemical)
  - Requires 24V DC power supply
- High-Level Switch
  - Relay operation when level is high (~200L), for alarm activation or cut-off of filling pump
  - Requires 24V DC power supply