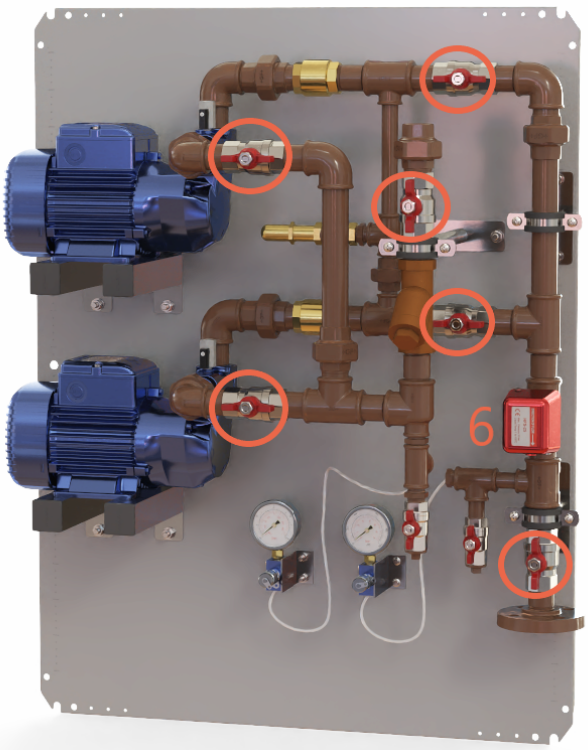
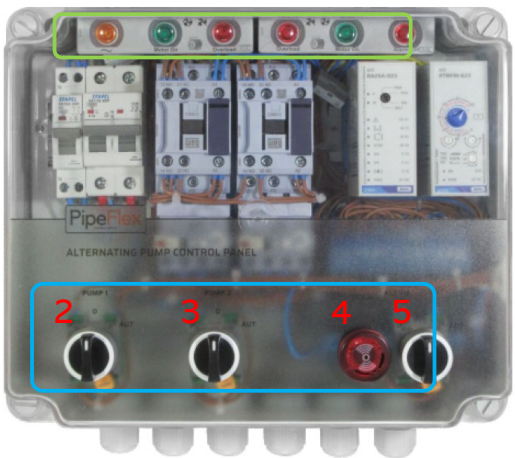
1. Operation Overview

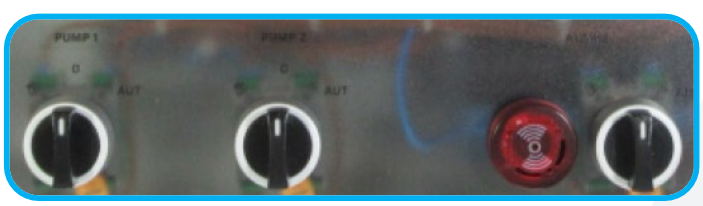
1. To operate the Pump Set the valves on the inlets and outlets **(as circled)** need to be in the **OPEN** position:





Locally Mounted Control Panel

2. Isolator Switch to be in the **ON** position.
3. Control Panel switches for PUMP 1 **(2)**, PUMP 2 **(3)** and ALARM **(5)** to be in the **'AUT'** position.



- 'PUMP 1' & 'PUMP 2' rotary selector switches: Manual '✋' | OFF '0' | Automatic 'AUT'
- 'ALARM' rotary selector switch for control of dual buzzer and red beacon: Test '✋' | OFF '0' | Automatic 'AUT'

4. There are two options for automatic **START** and **STOP** of Pumps:
   a. Low & High level Float Switches – Pump will START on low level inputs (C31, C32) and STOP on high level inputs (C21, C22).
   b. Single input signal that changes state - Low level input needs to be linked out. High level input is then used as START (NO) and STOP (NC).
5. Running of the Pumps will alternate between Pump 1 & Pump 2 on each operation.
6. If Pump 1 trips, Pump 2 will start and vice versa.
7. Every time one or both Pumps are activated the 230V output (EV11-EV12) energises. This can be used to power a motorised valve for instance.
8. Pump will **STOP** if:
   - No flow on outlet of Pumps – signal received from Flow Switch **(6)**
   - Leak detected by drip tray Float Switch (not pictured).

   These are connected in series to the safety control circuit (inputs C11, C12). Other devices can be connected in the same way if required.
9. There is a 230V connection for external device input (C41-C42) to trigger alarm buzzer and beacon **(4)**. e.g. electronic filter blockage indicator. This is a notification alarm only and won't stop Pumps.
10. Pump 1/2 can be stopped by turning corresponding switches **(2)** and **(3)** to the OFF '0' position.
11. Pump 1/2 can be run manually by turning corresponding switches **(2)** and **(3)** to the manual '✋' (hand mode) position. **CAUTION:** The selected Pump will run regardless of the state of the Start/Stop signals and safety controls. In this mode the switch is retractive and will return to '0' (OFF) unless held in place.

Tel: 0330 999 1100
Email: sales@atlantistanks.co.uk
www.atlantistanks.co.uk

12. Top row Control Panel indicators from left to right:

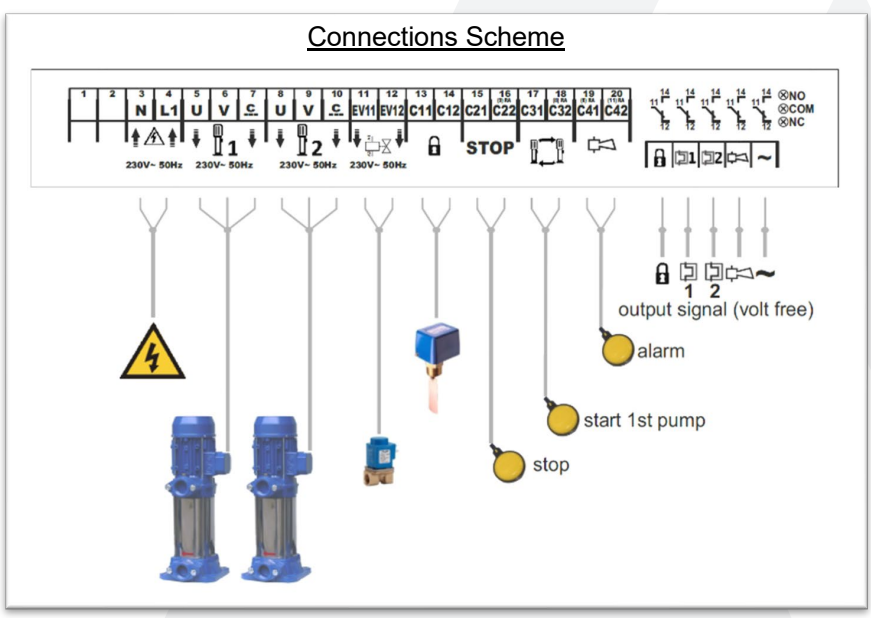
- Power Supply '~' 🟠 (amber lamp)
- Pump 1 Running 🟢 (green lamp)
- Pump 1 Overload / Trip 🔴 (red lamp)
- Pump 2 Running 🟢 (green lamp)
- Pump 2 Overload / Trip 🔴 (red lamp)
- Alarm Running 🔴 (red lamp)

13. The Control Panel has Volt free outputs for integration with BMS / external devices. Please refer to section 2. for additional information.

2. Control Panel

- Once all connections have been made, the overload relays must be adjusted to suit the motor's rating. When power is supplied the Power supply indicator '~' 🟠 (amber lamp) will be illuminated. All other lights will remain off until Pump runs, trips or a safety alarm is present.
- *With the 'PUMP 1' and 'PUMP 2' selector switches in automatic mode 'AUT', when the tank low-level switch is activated (C31-C32), one of the Pumps turns ON, turning OFF when the level reaches the stop level (C21-C22). On next activation of low-level switch (Pump start) the alternate Pump will run.
- If safety circuit 🔒 (C11-C12) opens during operation the Pump turns OFF and system goes into alarm.
- An adjustable RTMFM timer linked to the safety control circuit 🔒 (C11-C12) allows a programmable delay before shutting off the Pumps. If a Flow Switch is part of the safety circuit this allows flow to be established on Pump startup and avoids false readings due to turbulent flow.
- The safety control 🔒 (C11-C12) must be linked out if not in use.
- When the Pump is running the corresponding 'Motor On' 🟢 (green lamp) will be illuminated.
- Every time one or both Pumps are activated the 230V output (EV11-EV12) energises.
- If, during operation, the safety control circuit 🔒 (C11-C12) opens or there is a trip of any motor circuit breaker due to an overload or short-circuit, the Pump will STOP. This overrides the START (C31-C32) and STOP (C21-C22) signals if in 'AUT' mode.
- If the 'ALARM' selector switch is in the 'AUT' position the dual buzzer and beacon will sound and illuminate in the event of the above scenarios and if the alarm input circuit (C41-C42) closes (if applicable).
- The buzzer can be muted by turning the 'ALARM' selector switch to the '0' position.
- The Alarm running 🔴 (red lamp) at the top of the panel will remain illuminated regardless of the position of the 'ALARM' selector.
- To reset the trip of the safety control, the panel must be turned off and on again at the circuit breaker or mains isolator.
- In the event of an overload trip 🔴 (red lamp) the corresponding Pump turns off and the other turns on.
- When the 'PUMP 1' and 'PUMP 2' selector switches are in Manual mode (✋) the selected Pump will turn on regardless of the state of the Start/Stop controls. In this mode the switch is retractive and will return to '0' (Off) unless held in place.
- The control panel has 5 volt free SPDT alarm contacts. From left to right: Safety circuit (🔒), overload / trip relay Pump 1 (1), overload / trip relay Pump 2 (2), notification alarm (🔔) and power failure (~).

*If requirement for single input signal that changes state to START and STOP the Pumps rather than Float Switches, (C31-C32) needs to be linked out. (C21-C22) is then used - NO Pump START, NC Pump STOP.



Tel: 0330 999 1100
Email: sales@atlantistanks.co.uk
www.atlantistanks.co.uk