

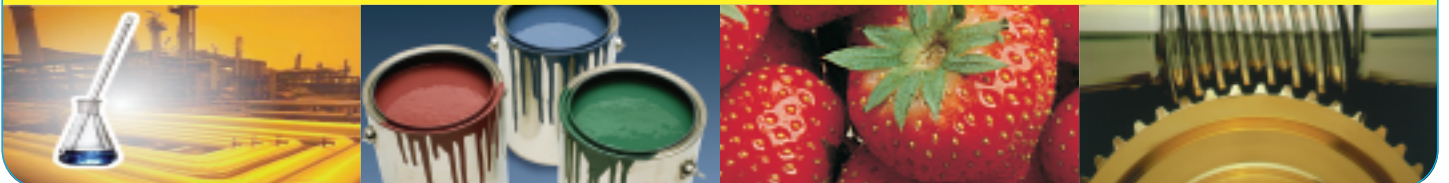
# Guardian System

## 4 in 1 System Protection

Tapflo's newly developed 'Guardian System' is the ultimate in pump & system protection, designed and manufactured in the UK this unique & ground breaking product can monitor & protect many pumps.



- **Barrier Monitoring System**
- **Dead-head & Stop System**
- **Dry-run Prevention**
- **Over/Under Pressure Monitoring**



# Guardian System 4 in 1 Pump Protection

- Can be used with many types of pump
- Simple to install
- Chemically inert materials
- ATEX approved
- Compact - fits in your hand



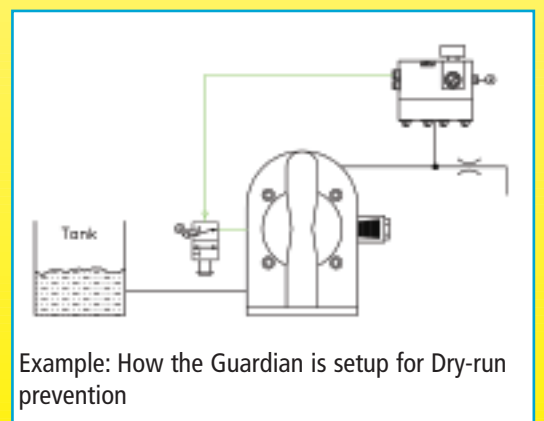
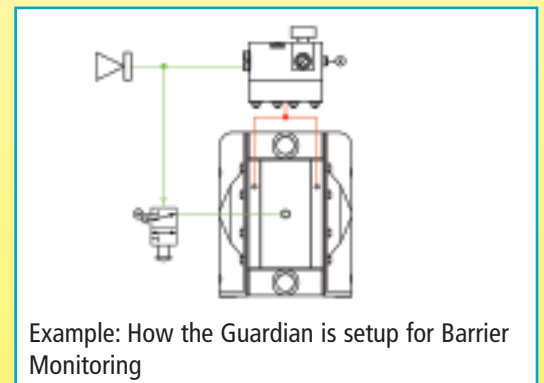
**Barrier Monitoring System** - The Guardian system monitors the pressure in the void cavities of a barrier pump, pipe work, tank or vessel. If the pressure in the void increases above the set point due to either a media breach or mechanical failure, the system will issue a signal that can be utilised to sound an alarm, stop the pump, etc'.

The diaphragm is PTFE faced as per the fluid diaphragms of the pump, therefore is completely tolerant of most media and is therefore much safer than conventional systems. Some of the advantages are;

- Prevents & contains spills associated with diaphragm failure in air pumps and seal failure in electrical pumps
- Continually monitors barrier pumps, tanks, vessels & pipe work for leaks
- Inherently safer than other barrier systems on the market

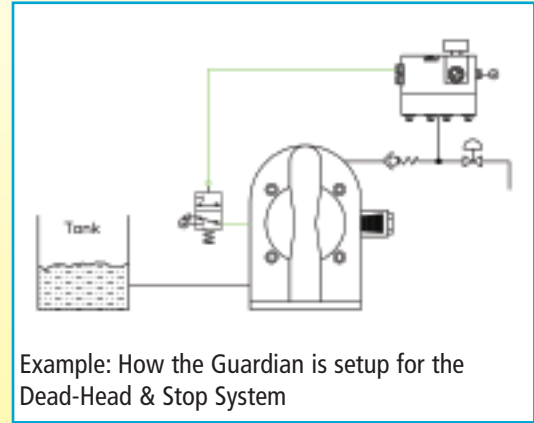
**Dry-run Prevention** - stops the pump automatically if the discharge pressure falls below the set pressure of the system. Under normal running conditions the pump will run at a discharge pressure proportional to the application, if the suction line becomes exposed the fluid pressure in the discharge line will collapse and the system will issue a signal that can stop the pump.

- Minimising potential damage due to dry running
- Reduces air consumption/wasted energy, by stopping the pump when it is not required
- Enables 'lights out' operation that will automatically stop once the transfer is complete
- Optional volt free contacts for electrical applications



**Dead-head & Stop System** - The Guardian system automatically turns the pump on/off dependant on the discharge pressure of the pump. Under normal running conditions the pump will run at a discharge pressure proportional to the application, if dead-headed (i.e. the discharge valve is closed) the fluid pressure will rise. The system recognises this and stops the pump until the discharge pressure reduces due to the valve being re-opened, automatically restarting the pump. Some of the advantages are;

- Reduces pressure in lines when no demand is present, reducing potential leaks and pipe bursts - increasing safety
- Increased safety when opening the discharge valve
- Reduced air/power consumptions
- Elongated pump life



**Over/Under Pressure Monitoring** - The Guardian system can be used to monitor the pressure of media in a line, issuing a signal if it deviates above or below the set point. Some of the advantages are;

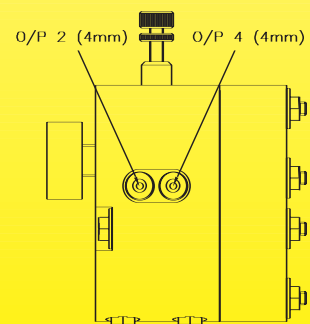
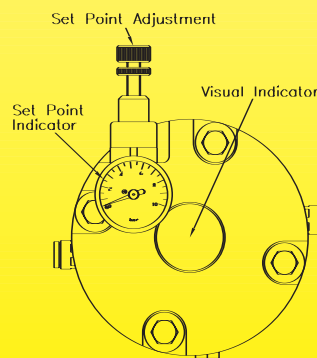
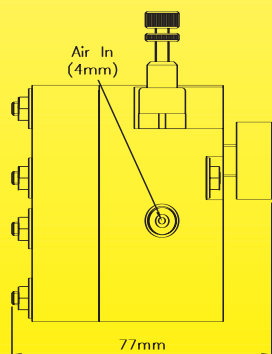
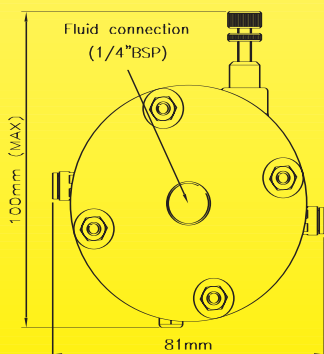
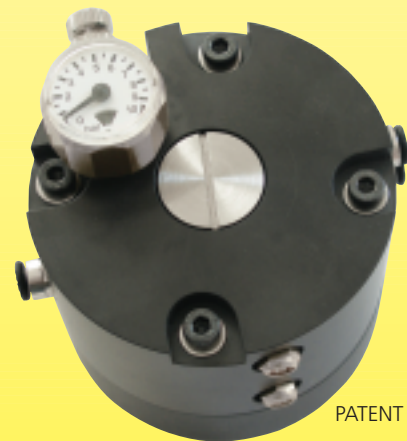
- Minimising potential damage to the machinery if low or high pressures are experienced
- Warns of filter blockage or failure
- Indication of pipe bursts or pump failure

## Technical Specifications

### Technical Data

### GUARDIAN

Wetted Parts	PTFE
Product connections	1/4" BSP
Air Connections	4mm P/F (M5)
Air Pressure	10 bar max
Maximum Media Temperature	110°C



More products from Tapflo Pumps & Systems...



**Diaphragm Pumps** - Tapflo manufacture a large range of industrial & hygienic AODD pumps which range from 1/4" - 3", manufactured from aluminum, cast iron, stainless steel, Hastelloy, polyethylene or PTFE, all available ATEX approved.

Tapflo Pumps & Systems also produce a large range of Pneumatic systems.



**Mag-Drive Pumps** - Manufactured by Tapflo, our range of magnetically driven pumps have solid and reliable construction. Available in PP-GF, ETFE, PVDF, AISI 316L, Hastelloy-C and ILS Lining Technology. Extreme chemical resistance with flows upto 320 m<sup>3</sup>/h and motor powers between 0.12 - 75kW.



**Centrifugal Pumps** - Tapflo manufacture a large range of stainless steel 316L open impeller centrifugal pumps with a wide range of mechanical seals and motors to suit the demands from a variety of today's industries. With flow rates upto 50 m<sup>3</sup>/h and motor powers between 0.37 - 6 kW



**Hose Pumps** - Manufactured by Tapflo combine the best materials with smart design to maximise running time and minimise service requirements. Self priming upto 9 meters and discharge pressures between 0-15 bar. Particularly suited to abrasive, corrosive, shear sensitive and viscous fluids.



**Hygienic Lobe / Centrifugal & Twin Screw, Flexible Impeller, Column, H&V and Metering Pumps** - Tapflo concept is reflected through our range from the pumps and systems we manufacture to the products we promote from our suppliers. Tapflo is not only a manufacturer of high quality pumping solutions but also a distributor of a complete range of quality products that are manufactured with the same concept and principles in mind.

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