



titan

syringe
pump



The future of safe and reliable continuous flow scale-up

What is the Titan Syringe Pump?

The Titan Syringe Pump is a safe and reliable continuous flow pump with maximum chemical compatibility and ultra-smooth flow. The single channel pump is optimized for chemical continuous processing applications and offers flow rates from 1 to 250 mL/min and pressures up to 20 bar. It allows manual control via its touch screen and full automation with PC Software.

Titan Syringe Pump benefits:

- **High performance:** ultra-smooth flow, effortless operation at high pressures, precise control of flow rates
- **Extremely high chemical resistance:** glass, PTFE, Hastelloy and Elgiloy wetted parts
- **Flow rates:** from 1 to 250 mL/min
- **Wide range of pressures:** up to 20 bar
- **Easy to control and use:** control and display of real-time measurements via its intuitive Titan Remote Display touch screen or PC software
- **Reliable and robust:** designed for long term use in demanding manufacturing environments
- **Easy to service:** innovative design features enable easy service
- **Scalable production rates:** lab scale to production scale
- **Built-in safety:** seal backwash, gas blanketing, interlocks, anti-tamper, pressure detection, and auto shut down features

Titan Syringe Pump features:

The Titan Syringe Pump has been designed for safe and reliable scale up and offers ultra-smooth fluid flow for lab, pilot plant, and production scale applications.

The pump can be continuously run for months at a time, and minimized stagnant zones means the integrity of your chemistry can be maintained for longer.

The novel syringe cassette is designed for seamless interchange. It also allows seals to be replaced with the minimal use of tools.

The Titan Syringe Pump contains a backwash to prolong seal life and maintain clean syringe pistons and cylinders. Along with the backwash feature, the syringe cassettes may be immersed under a gas blanket to allow the use of air-sensitive reagents.



Left: Titan Syringe Pump.

Below: Optional Backwash Bottle Mount.

Right and far right: Optional Remote Display for quick selection of flow rates and pressures.



Examples of Titan Syringe Pump applications:

- Chemical reactions
- Pharmaceutical processes
- Pilot-scale production
- Scale-up studies
- Nanoparticle synthesis
- Pressure-sensitive chemistry
- Bulk precision manufacturing

Types of Fluids

- Organic or aqueous solvents
- Acidic or basic reagents
- Air-sensitive solutions
- Viscous or non-viscous liquids

Using the Titan Syringe Pump

The Titan Syringe Pump can be used in manual or automated mode using PC software and is compatible with a wide range of reaction systems.

A list of Titan Syringe Pump parts:

Name	Part no.
Titan Syringe Pump - Active Valve (requires 2201104 or 2201103)	2201136
Titan Syringe Pump Cassette (316 SS, Active Valve)	2201104
Titan Syringe Pump Cassette (Hastelloy, Active Valve)	2201103
Titan Syringe Pump (requires 2201102 or 2201101)	2201135
Titan Syringe Pump Cassette (316 SS)	2201102
Titan Syringe Pump Cassette (Hastelloy)	2201101
Accessories	
Remote Display with Magnetic Mount	2201109
Backwash Bottle Mount	2201108

For a full list of accessories, please contact info@syrris.com



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