

500D

High Pressure Syringe Pump

The 500D syringe pump provides precise, predictable flow and pressure control at flow rates from sub-microliter up to 204 mL/min. Exceptional low-flow stability at up to 3,750 psi (259 bar) makes this the ideal pump for high pressure applications from deep well core analysis to a wide range of chemical applications.

Ideal for a wide range of chemical feed and core flooding applications.

The D-series controller has a keypad and LCD, as well as built-in and optional interfaces for computer control and other devices. Programming is easy and flexible, with instant access to menu screens even when the pump is running. This allows you to change operating parameters on the fly. An optional extension cable lets you locate the controller up to 15 meters (50 feet) from the pump.

The 500D pump module has a single-ratio drive train with auto-lubricating gears for long life and low maintenance. Special fittings are used to prevent leaks and ensure safety at maximum pressure.

Wetted materials are compatible with most aqueous and organic liquids, corrosive solutions, heated fluids, liquefied gases, viscous fluids, or slurries and pastes.



Applications:

- Precision fluid addition in research and manufacturing processes
- Chemical/Reactant feed in chemical process development, catalyst evaluation, plastic formulation
- Accurate metering of liquefied gases

Standard Controller Features:

- Operating Modes
 - Constant flow or pressure with up to four pumps
 - Gradient LC programming
 - Flow or pressure programming with a single pump
 - Continuous flow or pressure with dual pump
- External Interface
 - RS232/485 serial interface
 - Analog voltage inputs
 - Digital inputs and output

500D Specifications

Pump Module:	500D
Capacity:	507.38 mL
Flow Range (mL/min):	0.001 μ L–204 mL/min*
Flow Accuracy:	+ 0.5% of setpoint, (Maximum 1.0 μ L/min seal leakage)
Displacement Resolution:	31.71 nL/stop
Pressure Range:	10–3,750 psi (0.7–258.6 bar)
Standard Pressure Accuracy:	0.5% FS
Optional Pressure Accuracy:	0.1% FS
Wetted Materials (Standard):	Nitronic 50, Graphite filled PTFE, TFE, Hastelloy C-276, Inert Polymers
Plumbing Ports:	1/8" NPT
Operating Temperature:	5–40 °C Ambient
Power Required:	100 VAC, 117 VAC, 234 VAC, 50/60 Hz (specify)
Dimensions (H x W x D)	102 x 27 x 47 cm (40.3 x 10.7 x 18.4 in)
Weight:	Pump unit— 73.3 lb (33.3 kg) Controller— 6.5 lb (3.0 kg)
Standards Conformity:	EN61326:2013, EN61010-1:2010 Compliant to the European Machinery Directive 2006/42/EC and the European Pressure Equipment Directive (PED) 2014/68/EU

*Maximum flow rate is dependent upon operating pressure. (See manual for additional information.)

500D Mixer Options

Parr Air Mixer	250-0002-10
500D Mixer Plus Package	60-5364-518
Mixer Adapter Package	60-5364-521

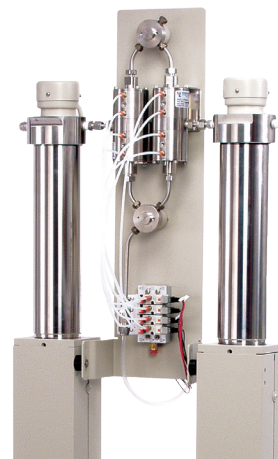
500D Options & Accessories

- Hastelloy 276 cylinder for added corrosion resistance
- Temperature control jacket (i.e. cylinder cooling for filling with liquefied gas)
- High-precision pressure transducers (0.1% linear accuracy)
- Drivers for LabVIEW—National Instruments
- 4-20 mA inputs and outputs for flow rate and pressure control
- Hazardous Location Systems available

Ordering Information

500D Pump Module, Nitronic	68-1240-025
500D Pump Module, Hastelloy	68-1240-604
D Series Controller Basic	68-1240-026
Continuous Flow Air Valves	60-1247-061
Continuous Flow Electric Valves	68-1247-091
Single Air Valve	68-1247-089
Single Electric Valve	68-1247-112
Manual Refill Kit	68-1247-083
Manual Outlet Kit	68-1247-082
High Temperature Package	60-5364-001
Temperature Control Jacket	68-1247-057

Continuous
Flow Air System



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