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 µL–204 mL/min*

**Flow Accuracy:** + 0.5% of setpoint, (Maximum 1.0 µL/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

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

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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

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<tr>
<th>Description</th>
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<tbody>
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<td>68-1240-025</td>
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<td>500D Pump Module, Hastelloy</td>
<td>68-1240-604</td>
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<td>D Series Controller Basic</td>
<td>68-1240-026</td>
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<tr>
<td>Continuous Flow Air Valves</td>
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<td>Continuous Flow Electric Valves</td>
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<tr>
<td>Single Air Valve</td>
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<tr>
<td>Single Electric Valve</td>
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<tr>
<td>Manual Refill Kit</td>
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<tr>
<td>Manual Outlet Kit</td>
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<tr>
<td>High Temperature Package</td>
<td>60-5364-001</td>
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<tr>
<td>Temperature Control Jacket</td>
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</tr>
</tbody>
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500D Mixer Options

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

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**Continuous Flow Air System**