

1000D

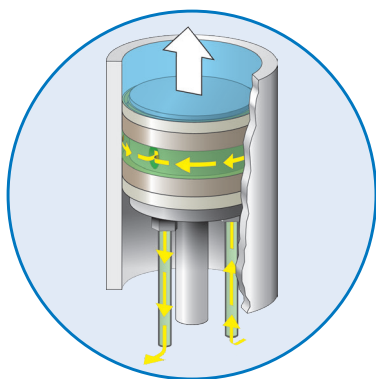
Syringe Pump

The 1000D syringe pump from Teledyne ISCO delivers accurate, repeatable flows of virtually any fluid from liquefied gases to tar. This model features 1 liter volume capacity, flow rates up to 408 mL/min, and pressures up to 2,000 psi (138 bar). A cylinder wash system protects the seals from deposits.

1-Liter capacity for big jobs.

Options for corrosive fluids and high temperature operation make these pumps versatile for many applications. Programmable modes of operation include single pump constant flow or constant pressure for batch feeding, and dual-pump continuous flow for long term applications.

Teledyne ISCO Series D pumps handle a wide range of applications that are difficult or impossible with ordinary pumps and have very low operating costs. Typical maintenance is only once-a-year lubrication and seal replacement. Dual-syringe configurations provide stable, continuous flow with alternating delivery and refill. External control and monitoring are supported via serial communication and analog I/O.



The 1000D includes a seal and cylinder wash feature that allows a rinse solution to be circulated between the seals. This protects the seals and cylinder walls against abrasion from salt or other material that may crystallize or precipitate from the solution in the pump.



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
 - Continuous flow or pressure with dual pump
- External Interface
 - RS232/485 serial interface
 - Analog voltage inputs
 - Digital inputs and output

1000D Specifications

Pump Module:	1000D
Capacity:	1015 mL
Flow Range (mL/min):	0.001 mL–408 mL/min*
Flow Accuracy:	+ 0.5% of setpoint, (Maximum 1.5 µL/min seal leakage)
Displacement Resolution:	25.38 nL/stop
Pressure Range:	10–2,000 psi (0.7–137.9 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:	1/4" 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)	40.3 x 10.7 x 18.4 in (102 x 27 x 47 cm)
Weight:	Pump unit— 84.9 lb (38.5 kg) Controller— 6.5 lb (3.0 kg)
Standards Conformity:	EN61326:2013, EN61010-1:2010 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.)

1000D Mixer Options

Parr Air Mixer	250-0002-10
1000D Mixer Plug Package	60-5364-519
Mixer Adapter Package	60-5364-521

1000D Options & Accessories

- Hastelloy 276 cylinder for added corrosion resistance
- Temperature control jacket (i.e. cylinder cooling for filling with liquefied gas)
- High-temperature pressure transducers (200° C maximum)
- 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

1000D Pump Module, Nitronic	68-1247-052
1000D Pump Module, Hastelloy	68-1240-602
D Series Controller Basic	68-1240-026
Continuous Flow Air Valves	60-1247-104
Continuous Flow Electric Valves	68-1247-109
Single Air Valve	60-5364-107
Single Electric Valve	60-5364-255
Manual Refill Kit	68-1247-117
Manual Outlet Kit	68-1247-118
High Temperature Package	68-1247-113
Temperature Control Jacket	68-1247-115



Continuous Flow Air System

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Teledyne ISCO is continually improving its products and reserves the right to change product specifications, replacement parts, schematics, and instructions without notice.



L-7106 Rev 4.0
02/20