SPECIFICATIONS

Accuracy[1]	0.5%
Number of syringes	1
Syringe size maximum	50/60 mL
Syringe size minimum	1 µL
Maximum flow rate (50/60 mL syringe)	120 mL/min
Minimum flow rate (1 µL syringe)	0.001 µL/h
Minimum flow rate (1 mL syringe)	1 µL/h
Step rate at min flow rate	1.2 sec/step
Step resolution	0.02 µm
Pusher travel rate minimum	1 µm/min
Pusher travel rate maximum	216 mm/min
Compatible syringes	B-D plastic, B-D glass, HSW Normject, Hamilton, Custom (user defined)
Pressure monitor	0-20 PSI with 1 mL and larger syringes[2]
Occlusion alarm settings	10, 15, 20 PSI, off
Maximum linear force	18 lbs
Size	31x13x6.5 cm
Weight	1.7 kg
Display	4.3in 800x480 color touchscreen
Orientation	Vertical or horizontal
Power	12VDC 2A
Protection if power lost during infusion	Auto-resumes when power restored
Battery operation	Compatible with external USB PD3.0 battery packs; 10000mAh pack will run pump for ~8h
Data connector	USB-C
Firmware update connector	USB-A
Wireless network	IEEE 802.15.4
Mounting brackets	Various

[1] Linear displacement accuracy over full scale plunger travel. Excludes syringe variability.
[2] Readings are approximate and include impact of syringe friction.
For research use only. Not for human use.

REQUEST A QUOTE

Model 400

Syringe Pump

The First and Only Syringe Pump Designed to Infuse Laboratory Animals

Instech Laboratories, Inc.
450 South Gravers Road
Plymouth Meeting, PA 19462 USA
1.800.443.4227

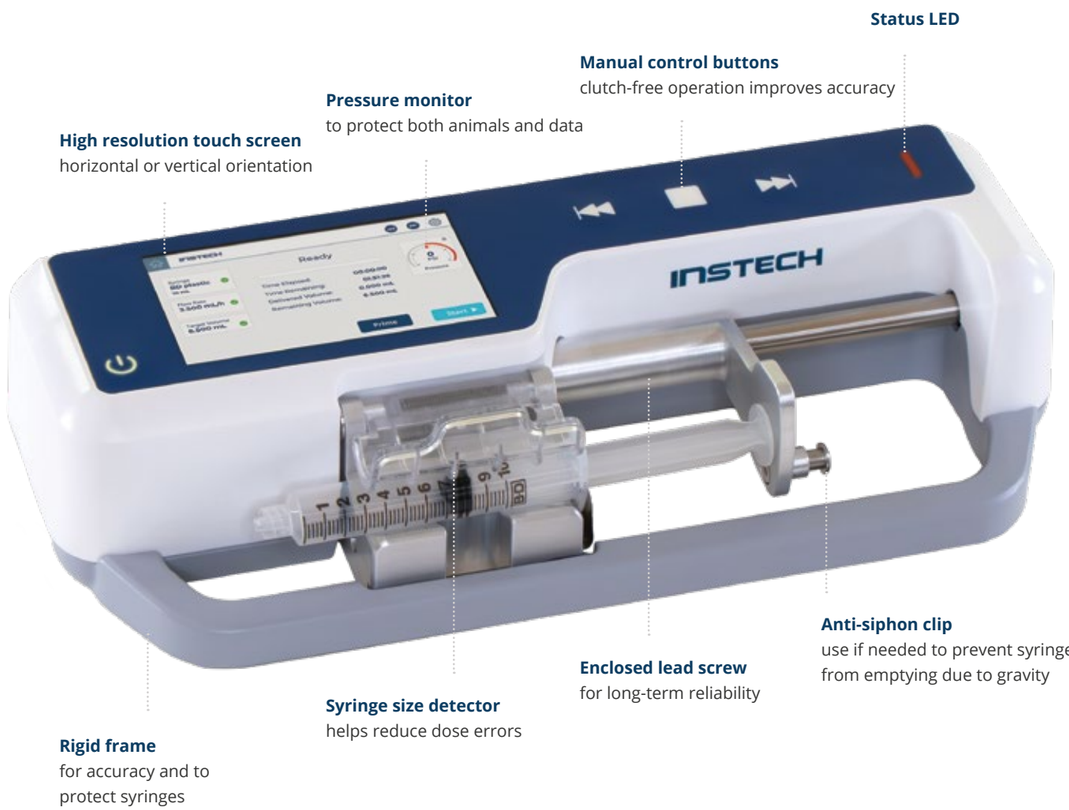
INSTECH

www.instechlabs.com

Why Choose the Instech Syringe Pump?

IF YOU ARE FAMILIAR WITH INDUSTRIAL PUMPS, LIKE HARVARD APPARATUS, NEW ERA OR CHEMYX...

- **For Animal Safety**
  The pump monitors pressure to alert you to occlusions before they become a disaster.
- **For Data Quality**
  Monitoring occlusions gives you confidence your dose went into the animal, not the bedding.
- **For Superior Flow Performance**
  It has smoother flow on the low end and higher speeds on the top end.



IF YOU ARE FAMILIAR WITH PUMPS ORIGINALLY DESIGNED FOR THE CLINICAL MARKET SUCH AS BAXTER/ SAI, ORCHESTA™ OR MEDFUSION...

- **For Ease of Use**
  The pump features a modern touchscreen and a simplicity that hospital pumps can't match.
- **For Accuracy**
  Rigid construction and a unique clutchless design leads to accuracy of ±0.5% compared to 2-3% for most clinical pumps.
- **For Low Flow Studies**
  This pump is ideal for applications like intrathecal dosing, microdialysis and mouse infusion, where pumps designed for humans are useless.
- **For Lower Cost**
  The pump has the safety features of a clinical pump but the price of a laboratory pump, and design that's at the beginning of its life not the end.

YOU SHOULD NOT CHOOSE THE INSTECH PUMP IF YOU NEED TO...

- **Infuse at High Pressures**
  Some syringe pumps are made for extremely high pressure applications. Animal infusion is not one of them.
- **Use Multiple Syringes On One Pump**
  Multi-syringe pumps can't monitor individual line pressures, and if one animal has an issue all lines must be interrupted.
- **Withdraw**
  The Instech pump is made to infuse only. Pumps that can accidentally be switched to withdraw are dangerous when connected to a live animal.