



# Welcome to **SyringePump.com** Clever Pumps, Priced Right!



## Syringe Pumps:

\$275 Just Infusion™

## Full Featured Programmable Syringe Pumps:

One Channel

Two Channel

Six, Eight, and Twelve Channel

High Pressure

Microfluidics

OEM & Custom Pumps

## Volumetric Dispensing:

Peristaltic Pumps

Peristaltic Plumbing

## Advanced Pump Systems:

2 Pump Advanced Systems

The Next Generation Continuous Infusion Syringe Pump System

Linear/Gradient Pumping and Advanced Features

## Syringe Heater

## Syringes & Plumbing Supplies

Plastic Syringes & Kits

Glass Syringes

Steel Syringes

Plumbing Supplies

## Accessories:

Closed Loop Analog Sensor Interface

Pump Software

## NE-8000 High Pressure Programmable Single Syringe Pump



Model: NE-8000

Suggested List Price: **\$2500 USD**

## Description:

- Holds 1 Syringe up to 140 mL (200 mL partially filled)
- Infusion rates from 1.733  $\mu\text{L/hr}$  (1 mL syringe) to 340.6 mL/min (140 mL syringe)
- Easy-to-use keypad interface
- Space Saving Chassis: Foot print size of only 11 1/4" x 6 1/8"
- Won't take up unnecessary space on your laboratory or production bench
- Includes all the advanced functions and programming features of the NE-1000 series
- [Download NE-1000 Series User Manual](#)
- [Download NE-8000 Addendum and Brochure](#)

## 200 lbs Maximum Force:

The NE-8000 produces about 200 lbs of linear force at slow speeds and 100 lbs at top speed. Pressure output is relative to the syringe size.

## Catalog:

New Era Pump Systems, Inc.

[SyringePump.com](http://SyringePump.com)

2013 Catalog



Click image to download  
New Era 2013 Catalog



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Website NEW : [www.chromalytic.net.au](http://www.chromalytic.net.au) E-mail : [info@chromtech.net.au](mailto:info@chromtech.net.au) Tel: 03 9762 2034 . . . in AUSTRALIA

**Australian Distributors**  
Importers & Manufacturers  
[www.chromtech.net.au](http://www.chromtech.net.au)

### Features of the NE-8000 Series of Syringe Pumps:

- Built-in adjustable and programmable limit switches for infusion and withdrawal
- Adjustable force limit reduces maximum force
- **Fully programmable**; Designed for automation
- Operates stand-alone or from a **computer**
- Infusion and withdrawal
- Set a single pumping rate and/or dispensing volume
- Program up to 41 pumping phases that change pumping rates, set dispensing volumes, insert pauses, control and respond to external signals, sound the buzzer
- Network, control, and monitor up to 100 pumps with one **computer**
- **Worldwide power supplies available**
- Dispensing accuracy of +/-1%
- Unlimited lifetime technical support
- Two year warranty

### Special Application: Continuous Infusion (Push-Pull) and Dual Syringe Pump

Using 2 NE-8000 pumps attached with a cable, one pump will infuse while the other pump refills or have simultaneous infusion.

### Example Flow Rates NE-8000:

- For a more complete list of flow rates, [download addendum](#).
- Need higher flow rates? [Contact us](#). We have other models available.
- **Disposable, Glass, Stainless Steel Syringes and Plumbing Supplies** are sold separately.

Syringe Size	Maximum Rate	Minimum Rate
0.5 µL	150.1 µL/hr	0.001 µL/hr
1 mL	311.3 mL/hr	1.726 µL/hr
3 mL	1317 mL/hr	7.306 µL/hr
5 mL	2193 mL/hr	12.17 µL/hr
10 mL	3577 mL/hr	19.84 µL/hr
20 mL	5689 mL/hr	31.54 µL/hr
30 mL	7421 mL/hr	41.15 µL/hr
50 mL	201.1 mL/min	66.9 µL/hr
140 mL	340.6 mL/min	113.3 µL/hr

**NEW ERA SyringePump.com**  
Clever Pumps, Priced Right!

**NE-8000 Peristaltic Pump Now Supports 1/16" ID Tubing**

Introducing a new addition to our NE-8000 Peristaltic Pump line on the tubing... **\$500**

**Introducing PharmMed® Tubing**

PharmMed® is a medical grade tubing... **\$200**

**1 Year Warranty**

**100% Satisfaction Guarantee**

**Firmware and Program Memory Upgrade Options:**

- Firmware Upgrades available to enable Linear Pumping, add additional programming functions, and to increase Pumping Program Memory

Model: **FW-1-X**Price: add **\$105 USD** to any NE-8000 model

Extra Features: X upgrade adds Linear/Gradient flow rate ramping, and additional advanced programming functions.

Model: **FW-1-X2**Price: add **\$205 USD** to any NE-8000 model

Extra Features: X2 upgrade includes all features of the X firmware upgrade, plus increases the programming memory from 41 to 340 Phases, and increases the max RS-232 baud rate to 38,400.

**SyringePumpPro is fully compatible with syringe pumps!**

**SyringePumpPro**  
Control Software for Syringe Pumps

**Take Your Pump Control to the Next Level!**

SyringePumpPro helps you get your pumps working for you - fast, so you can get to work on your project.

**International Orders**

New Era Pump Systems, Inc. product line is supported around the globe by our distribution network. You can order our products from our [international distributors](#). Our syringe pumps are CE certified and we have international power supplies available. [Click here for more important details.](#)

**Not For Clinical Use On Humans**



# New Era Pump Systems Inc.

[www.SyringePump.com](http://www.SyringePump.com)

## NE-8000 Syringe Pump

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### Model NE-8000 High Pressure Syringe Pump

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#### Features

- All Programming features of the NE-1000 syringe pump.
- Syringes size up to 140 mL. 200 mL partially filled (About 160 mL).
- Pumping force over 200 lbs.

**Adjustable force limit:** Force adjustment knob reduces the maximum force to reduce damage to syringes.

#### Limit Switches

- Two adjustable limit switches: One sets the infusion limit, one sets the withdrawal limit. To adjust the limit switches, loosen the white thumbscrew, then slide the collar to the required position. Then re-tighten the thumbscrew.
- When the pusher block reaches a limit switch, the pump will either: 1) Trigger a Program Event function; 2) Continue with the next Program Phase; 3) Stop the pump.

If a Program Event is set (Event Function), the Event trap will be triggered and the Pumping Program will continue execution with the Program Phase set in the Event Function.

Otherwise, the Pumping Program will start the next Program Phase unless the next Program Phase pumps in the same direction. This is a safety feature to prevent attempting to pump past the limit switch. The pump will instead stop.

Limit switches can be used as a program volume target. Limit switches will override the volume target setting.

#### Additional Notes

- Does not have stall detection.
- Pusher block has a solid nut block. It is not releasable.
- To position the pusher block, use the purge function: Set the pumping direction with the direction key '→←', then press and hold the 'Start/Stop' key. The display will indicate **PURG** and the pusher block will move at top speed in the set direction. Release the 'Start/Stop' key to stop the pump.

#### Maintenance

- Periodic lubrication is required for proper operation. **Failure of the nut block can occur if not properly lubricated.**
- Lead-screw: Grease
- Guide Rods: Oil
- Remove accumulation of dirt or debris

#### WARNING

Use extreme caution. The NE-8000 can deliver enough force to break syringes or any objects that get caught in the mechanism. Broken syringes and associated plumbing can create dangerous projectiles that can cause bodily harm. Keep fingers and loose clothing away from mechanism.

Syringe Manufacturer (all names <sup>TM</sup> )	Syringe (mL)	Inside Diameter (mm)	Maximum Rate (mL/hr)	Minimum Rate (μL/hr)	Maximum Rate (mL/min)
B-D	1	4.699	312.4	1.733	5.208
	3	8.585	1043	5.783	17.38
	5	11.99	2034	11.28	33.9
	10	14.43	2946	16.34	49.11
	20	19.05	5136	28.48	85.6
	30	21.59	6596	36.57	109.9
	60	26.59	9999	55.47	166.7
HSW Norm-Ject	1	4.69	311.3	1.726	5.188
	3	9.65	1317	7.306	21.96
	5	12.45	2193	12.17	36.56
	10	15.9	3577	19.84	59.63
	20	20.05	5689	31.54	94.82
	30	22.9	7421	41.15	123.6
	50	29.2	9999	66.9	201.1
Monoject	1	5.74	466.2	2.585	7.771
	3	8.941	1131	6.272	18.85
	6	12.7	2282	12.66	38.04
	12	15.72	3497	19.39	58.28
	20	20.12	5729	31.76	95.48
	35	23.52	7829	43.4	130.4
	60	26.64	9999	55.68	167.4
	140	38	9999	113.3	340.6
Terumo	1	4.7	312.6	1.733	5.21
	3	8.95	1133	6.285	18.89
	5	13	2391	13.26	39.86
	10	15.8	3533	19.59	58.88
	20	20.15	5746	31.86	95.77
	30	23.1	7552	41.87	125.8
	60	29.7	9999	69.21	208
Poulsen & Graf (Glass)	1	6.7	635.3	3.522	10.58
	2	8.91	1123	6.229	18.72
	3	9.06	1161	6.44	19.36
	5	11.75	1953	10.84	32.56
	10	14.67	3045	16.89	50.76
	20	19.62	5447	30.2	90.79
	30	22.69	7286	40.39	121.4
	50	26.96	9999	57.03	171.4
Steel Syringes	1	9.538	1287	7.138	21.45
	3	9.538	1287	7.138	21.45
	5	12.7	2282	12.66	38.04
	8	9.538	1287	7.138	21.45
	20	19.13	5179	28.71	86.32
	50	28.6	9999	64.18	192.9
	100	34.93	9999	95.72	287.7
	200	44.75	9999	157.2	472.3

SGE Syringe (mL)	Inside Diameter (mm)	Maximum Rate (mL/hr)	Minimum Rate (μL/hr)
0.25	2.303	75.06	0.417
0.5	3.257	150.1	0.833
1	4.606	300.2	1.665
2.5	7.284	750.8	4.163
5	10.3	1501	8.323

SGE Syringe (mL)	Inside Diameter (mm)	Maximum Rate (mL/min)	Minimum Rate (μL/hr)
10	14.57	50.07	16.66
25	23.03	125.1	41.61
50	27.5	178.3	59.33
100	34.99	288.7	96.05

# Specifications

## ***Mechanical & Electrical***

<u>Model</u>	<u>Style</u>	<u>Stall Detection</u>	<u>Number of Syringes</u>	<u>Maximum Syringe Size</u>
NE-8000	Stand-Alone	No	1	140 mL 200 mL (Partially filled 160 mL)

Drive block type: Solid (Must use Purge function to move pusher block).

Motor type: Step motor  
Motor steps per revolution: 200  
Motor to drive screw ratio: 14/22  
Drive screw pitch: 20 revolutions/”

Power supply type: External, country and power source specific  
Power supply output rating: 24V DC @ 1200 mA  
Power connector: 2.1 mm, center positive, DC  
Voltage at power connector: 24V DC at full load  
Amperage: 1200 mA at full load

Dimensions: 11 1/4” x 6 1/8” x 6 3/8” LxWxH  
(28.575 cm x 15.5575 cm x 16.1925 cm)

Weight: 7.8125 lbs. (3.55 kg)

## ***Operational***

Maximum force: 200 lbs.

Micro-stepping: 1/8 to 1/1 depending on motor speed  
Advance per step: 0.50511364  $\mu$ m to 4.040909  $\mu$ m depending on motor speed

Maximum speed: 30.033 cm/min  
Minimum speed: 0.00998882 cm/hr  
Maximum pumping rate: 340.6 mL/min with a 140 mL syringe  
Minimum pumping rate: 1.733  $\mu$ L/hr with a B-D 1 mL syringe  
Syringe inside diameter range: 0.100 to 50.00 mm

Number of Program Phases: 41

RS-232 pump network: 100 pumps maximum  
RS-232 selectable baud rates: 300, 1200, 2400, 9600, 19200





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Two Channel

Six, Eight, and Twelve Channel

High Pressure

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Plumbing Supplies

**Accessories:**

Closed Loop Analog Sensor Interface

Pump Software

All Accessories

**Resources:**

Frequently Asked Questions

Research Papers

Downloads

**Pump Accessories**



Syringe Heater Kit



Ana-Box™ - Analog Control Interface



Foot Switch & Hand Pendant



RS-232 & USB Primary Network Cables



RS-232 Secondary Network Cable



OEM Starter Kit & Net Starter Kit



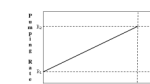
Dual Pump Plumbing Kit



Dual Pump Sync Cable



Electronic Valve Control Boxes



Advanced Features & Memory Upgrades



Pump Software



Lockout Key

**Syringe Heater Kit**

Heater Kit is shown for demonstration purposes. Syringe pump and syringe are not included with Heater Kit.

**Suggested List Price: \$399 USD**



Model: HEATER-KIT-1LG



Model: HEATER-KIT-5SP

**Description:**

Thermo-Kinetic Heat Clamp for syringes that require temperature-controlled dispensing. Heats up to 185°C.

**Specification Notes:**

- Available in 2 versions:
  - 1LG Heating Pad: 3.5" x 3.0" LxW (9 cm x 7.5 cm)
  - 5SP Heating Pad: 20" x 0.625" LxW (50 cm x 1.5 cm)
- Heater Kit includes control unit and primary syringe heater pad 1LG version or 5SP version.
- Multiple syringe heater pads can be attached to the control unit, under restricted conditions.
- Set point and other parameters retained in memory
- Digitally sets the heater set point
- Controller will heat the syringe and hold the set temperature using an on/off or Thermo-kinetic control algorithm.
- Dual temperature sensors in primary heating pad.
- Alarm modes with multiple layers of protection to prevent temperature overrun.
- Additional heat protection for the pump may be needed when heating syringes above 100°C.
- If you are in a country where the voltage is above 120V, you must purchase a step-down transformer (Model: PWR-220-110-E) along with the Heater Kit.
- [Detailed Description](#)

SEE US AT BOOTH 708



**Catalog:**



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**Second Heating Pad**

**Suggested List Price: \$100 USD**



**Model: HEATER-PAD2-1LG**




**Model: HEATER-PAD2-5SP**

Model	Size	Attaches a Second Heating Pad To:
HEATER-PAD2-1LG	3.5" x 3.0" LxW (9 cm x 7.5 cm)	HEATER-KIT-1LG
HEATER-PAD2-5SP	20" x 0.625" LxW (50 cm x 1.5 cm)	HEATER-KIT-5SP


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**Third and Additional Heating Pads**

**Suggested List Price: \$100 USD**



**Model: HEATER-PAD3-1LG**



**Model: HEATER-PAD3-5SP**

Model	Size	Attaches a Third+ Heating Pad To:
HEATER-PAD3-1LG	3.5" x 3.0" LxW (9 cm x 7.5 cm)	HEATER-PAD2-1LG
HEATER-PAD3-5SP	20" x 0.625" LxW (50 cm x 1.5 cm)	HEATER-PAD2-5SP

**Specification Notes:**

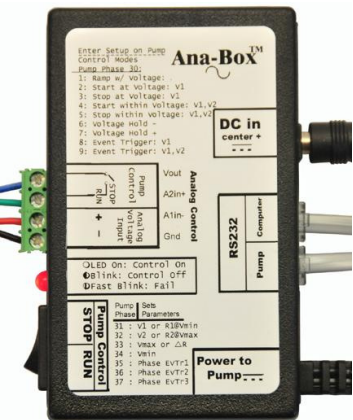
- Only use identical primary and secondary heater pads together.
- Each syringe heater control unit uses only the primary heating pad to sense temperature. All secondary heater pads connected to that control unit function according to temperature at the primary heater pad.
- Careful consideration should be taken when using secondary/slave heater pads.
- For different temperatures or variable environments, use separate control units with primary heater pads.
- Plugging more than 12 syringe heater pads onto one controller is not recommended.
- [Detailed Description](#)

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**Ana-Box Closed Loop Analog Sensor Interface**

**Model: ADPT-ANABOX-11**

**Suggested List Price: \$99 USD**



**Description:**

- Vary the pumping rate in proportion to a variable voltage input
- Start or stop pump at set voltages
- Vary the pumping rate to maintain a voltage window
- Attaches to any pump in the NE-1000 or NE-9000 Series
- [Click Here For A Detailed Description](#)

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### [Foot Switch](#)

Model: ADPT-FOOTSW-2

Suggested List Price: \$25 USD



#### Description:

- Start, stop, or send a signal to a pumping program
- 20 foot cable
- Quick and easy setup
- Utilizes the TTL logic port on the pump
- Attach to any pump in the NE-1000 or NE-9000 Series for remote operation

### [Foot Switch Extender](#)

Model: CBL-TTL-EXT

Suggested List Price: \$45 USD

#### Description:

- 100 foot extension cable for the foot switch

### [Hand Pendant](#)

Model: ADPT-HAND-SW

Suggested List Price: \$60 USD

#### Description:

- Hand held pendant for remote operation of pump

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### [Pump-to-PC RS-232 Primary Network Cable](#)

Model: CBL-PC-PUMP-7 (7 ft. cable)

Suggested List Price: \$15 USD

Model: CBL-PC-PUMP-25 (25 ft. cable)

Suggested List Price: \$17 USD

#### Description:



- Allows full control of pump or other device from a computer
- DB-9 adapter connects to 9-pin serial port (25-pin adapters available upon request)
- Utilizes the RS-232 communications port of device
- Available in 7' and 25' length cable
- Quick and easy setup
- [Download FREE pump terminal emulator](#)

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### [RS-232 to USB Converter](#)

Model: CBL-USB232

Suggested List Price: \$10 USD



#### Description:

- Adds an RS-232 serial port to your computer by attaching to a USB port
- Includes software driver CD
- Attaches to cable CBL-PC-PUMP-7

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### [Pump-to-Pump Secondary Network Cable](#)

Model: CBL-NET-7 (7 ft. cable)

Suggested List Price: \$2 USD

Model: CBL-NET-25 (25 ft. cable)

Suggested List Price: \$4 USD



#### Description:

- Allows networking of two or more pumps or other device to a single computer
- Quick and simple setup
- Utilizes the RS-232 communications port of device
- Available in 7' and 25' length cable

- Requires first device to be connected with primary network cable

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### Dual Pump Plumbing Kit

Model: P-DKIT

Suggested List Price: \$20 USD

#### Description:



- For use with our [continuous infusion system or dual infusion system](#)
- Provides dual check valves for two syringes, withdraw will pull fluid from a reservoir and infusion will output into a separate line
- The kit is pre-assembled - just attach the syringes
- Each dual check valve uses 6" of 1/8" ID tubing connected to a Y connector, one for reservoir and one for output; each Y-connector has 5' of tubing to make connections to your application. Two 50 mL NormJect® Syringes are included

Individual parts are also available.  
[See our full line of syringes and plumbing supplies.](#)

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### Pump Synchronization Cables

Model: CBL-DUAL-3

Suggested List Price: \$10 USD

#### Description:



- Used for creating a continuous infusion system, dual infusion system, or one of the other 2 pump automation modes.
- Establishes a communications link between two pumps using the RS-232 serial ports on the pumps.
- Replaces cable CBL-TTL-1, unless the use of the TTL ports for synchronization is preferred
- [Download User Manual](#)

Model: CBL-TTL-1

Suggested List Price: \$20 USD

#### Description:



- Used for creating a continuous infusion system or dual infusion system
- Synchronize pumping direction of two pumps so that they change directions, start, and stop as one unit
- Utilizes the TTL logic port on pump - See new version above for using the RS-232 ports
- 7' cable
- Quick and easy setup

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### Lockout Mode Disable Key

Model: ADPT-LOCKOUT

Suggested List Price: \$10 USD

#### Description:



- For use with a syringe or peristaltic pump's Lockout Mode
- Prevent unauthorized or accidental changes to the settings by locking the keypad
- The Lockout Disable key unlocks the keypad and allows settings to be changed
- Attaches to the TTL logic port on the syringe or peristaltic pump
- Quick and easy setup

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### OEM Starter & Net Kits:

For NE-5XX OEM models only

Model: OEM-STARTER

Suggested List Price: \$25 USD



#### Description:

- Allows user to interactively communicate to the pump with a computer
- Includes: [power supply](#), [Pump-to-PC network cable](#) (CBL-PC-PUMP-7) and user manual

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Model: OEM-NET

Suggested List Price: \$15 USD



#### Description:

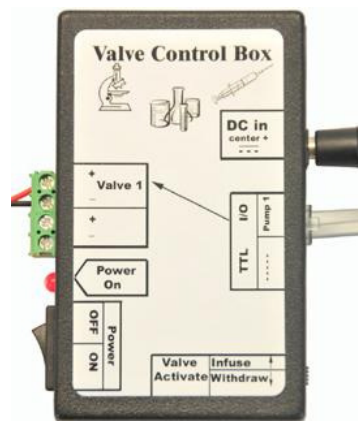
- [Power supply](#) and [secondary cable](#) only. For use when networking two or more OEM NE-500 syringe pumps together. Must use the secondary cable in order to complete this application.

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### Single Valve Control Box

Model: ADPT-VALVE-INTERFACE-1

Suggested List Price: \$85 USD



#### Description:

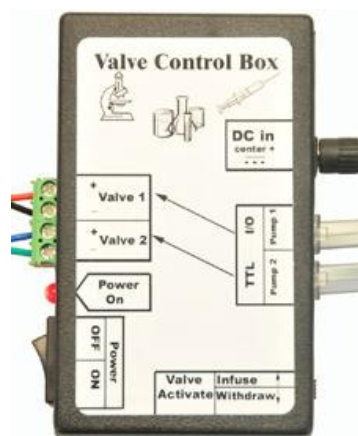
- Attach your 12V DC valve and the control box will open or close your valve according to the pumping direction
- Utilizes the TTL logic port on syringe pump
- Includes power supply for valve

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### Dual Valve Control Box

Model: ADPT-VALVE-INTERFACE-2

Suggested List Price: \$100 USD



#### Description:

- Attach your two 12V DC valves and the control box will open or close your valves according to the pumping directions of your two pumps
- Includes [CBL-TTL-1](#) cable to allow synchronized pumping between two pumps
- Utilizes the TTL logic ports on both syringe pumps
- Includes power supply for valves

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