

## OEM Syringe Pumps NE-500 Starting at \$495

### OEM Syringe Pump

NE-500: \$495

### OEM Syringe Pump with Stall Detection

NE-501: \$550

### High Pressure OEM Syringe Pump

NE-510: \$535

### High Pressure OEM Syringe Pump with Stall Detection

NE-511: \$535



### Double OEM Syringe Pump

NE-4500: \$625

### Double OEM Syringe Pump with Stall Detection

NE-4501: \$680

- Computer controllable: networkable up to 100 pumps
- Stand-alone operation: pre-program the pump with a dispensing program, then operate the pump from an attached Foot Switch, button, or I/O controller
- Add the OEM Starter Kit to run as a fully functional, stand-alone pump.
- Designed for OEM applications, this pump has the same mechanisms and electronics as the NE-1000 aside from the front panel controls.
- Operates from a computer or a foot switch
- 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
- Motor stall detection available in NE-501 model (\$550)
- Dispensing accuracy of  $\pm 1\%$

**For Custom Designed OEM Syringe Pumps please call or e-mail for a quote.**



Custom Chassis, Firmware and Mechanical Design. You want it, we'll make it, **no matter how simple or complex**. When others say it can't be done, we say of course **it can be done**. The limits are endless to what we can create for you. We here at New Era have been designing pumps for over ten years for all types of OEM applications.

## OEM Syringe Pump Accessories

### OEM Starter & Net Kits



**Model: OEM-STARTER**

**Price: \$25**

- Allows user to interactively communicate to the pump with a computer
- Includes: power supply, Pump-to-PC network cable and user manual



**Model: OEM-NET**

**Price: \$15**

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.

### Foot Switch



**Model: ADPT-FOOTSW-2**

**Price: \$25**

- Start, stop, or send a signal to a pumping program
- Attach to any of the NE-1000 family pumps to allow remote operation
- Utilizes the TTL logic port on the pump
- Quick and simple setup

**\*\*Not For Clinical Use On Humans\*\***



# NE-500 & NE-501 Programmable OEM Single Syringe Pumps

## Max & Min Flow Rates

Mfgr.	Syringe (cc)	ID (mm)	Max Rate	Min Rate	Max Rate				
B-D	1	4.699	53.07	0.73	0.884				
	3	8.585	177.1	2.434	2.952				
	5	11.99	345.5	4.748	5.758				
	10	14.43	500.4	6.876	8.341				
	20	19.05	872.2	11.99	14.53				
	30	21.59	1120	15.4	18.67				
	60	26.59	1699	23.35	28.32				
HSW Norm-Ject	1	4.69	52.86	0.727	0.881				
	3	9.65	223.8	3.076	3.73				
	5	12.45	372.5	5.119	6.209				
	10	15.9	607.6	8.349	10.12				
	20	20.05	966.2	13.28	16.1				
	30	22.9	1260	17.32	21				
	50	29.2	2049	28.16	34.15				
Monoject	1	5.74	79.18	1.088	1.319				
	3	8.941	192.1	2.64	3.202				
	6	12.7	387.6	5.326	6.46				
	12	15.72	593.9	8.161	9.899				
	20	20.12	972.9	13.37	16.21				
	35	23.52	1329	18.27	22.15				
	60	26.64	1705	23.44	28.42				
	140	38.00	3470	47.69	57.84				
Terumo	1	4.7	53.09	0.73	0.884				
	3	8.95	192.5	2.646	3.208				
	5	13	406.1	5.581	6.769				
	10	15.8	600	8.244	10				
	20	20.15	975.8	13.41	16.26				
	30	23.1	1282	17.63	21.37				
	60	29.7	2120	29.13	35.33				
Poulten & Graf (Glass)	1	6.7	107.8	1.483	1.798				
	2	8.91	190.8	2.622	3.18				
	3	9.06	197.2	2.711	3.288				
	5	11.75	331.8	4.559	5.53				
	10	14.67	517.2	7.107	8.62				
	20	19.62	925.2	12.72	15.42				
	30	22.69	1237	17.01	20.62				
	50	26.96	1746	24.01	29.11				
Steel Syringes	1	9.538	218.6	3.005	3.644				
	3	9.538	218.6	3.005	3.644				
	5	12.7	387.6	5.326	6.46				
	8	9.538	218.66	3.005	3.644				
	20	19.13	879.5	12.09	14.65				
	50	28.6	1965	27.01	32.76				
	Syringe (µl)	ID (mm)	Max Rate	Min Rate	SGE Syringe	ID (mm)	Max Rate	Min Rate	
SGE (Glass - Gas Tight)	5	0.343	209.2	0.004	.25	2.303	9.432	0.176	
	10	0.485	418.3	0.008	.5	3.257	18.86	0.351	
	25	0.728	942.5	0.018	1	4.606	37.73	0.701	
	50	1.03	1886	0.036	2.5	7.284	94.36	1.752	
	100	1.457	3775	0.071	5	10.3	188.6	3.504	
Hamilton Micro-litre (Glass)	0.5	0.103	18.86	0.001	10	14.57	377.5	7.01	
	1	0.146	37.91	0.001	25	23.03	943.2	17.52	
	2	0.206	75.47	0.002	50	27.5	1344	24.98	
	5	0.326	189	0.004	100	34.99	2177	40.43	



# NE-510, NE-511, NE-4500 & NE-4501

## Programmable OEM Syringe Pumps Max and Min Flow Rates

Mfgr.	Syringe (cc)	ID (mm)	Max Rate	Min Rate	Max Rate
B-D	1	4.699	191.1	1.459	3.185
	3	8.585	637.9	4.868	10.63
	5	11.99	1244	9.495	20.74
	10	14.43	1802	13.76	30.04
	20	19.05	3141	23.97	52.35
	30	21.59	4035	30.79	67.25
	60	26.59	6120	46.7	102
HSW Norm-Ject	1	4.69	190.4	1.453	3.173
	3	9.65	806.1	6.151	13.43
	5	12.45	1341	10.24	22.36
	10	15.9	2188	16.7	36.47
	20	20.05	3479	26.55	57.99
	30	22.9	4539	34.64	75.65
	50	29.2	7380	56.32	123
Monoject	1	5.74	285.2	2.176	4.753
	3	8.941	692	5.28	11.53
	6	12.7	1396	10.66	23.26
	12	15.72	2139	16.33	35.65
	20	20.12	3504	26.74	58.4
	35	23.52	4788	36.54	79.81
	60	26.64	6143	46.88	102.3
	140	38.00	9999	95.37	208.3
Terumo	1	4.7	191.2	1.459	3.187
	3	8.95	693.4	5.291	11.55
	5	13	1462	11.17	24.38
	10	15.8	2160	16.49	36.01
	20	20.15	3514	26.82	58.57
	30	23.1	4619	35.25	76.98
	60	29.7	7635	58.26	127.2
Poulten & Graf (Glass)	1	6.7	388.5	2.965	6.476
	2	8.91	687.2	5.244	11.45
	3	9.06	710.5	5.422	11.84
	5	11.75	1195	9.119	19.91
	10	14.67	1862	14.22	31.04
	20	19.62	3332	25.43	55.53
	30	22.69	4456	34.01	74.27
	50	26.96	6291	48.01	104.8
	100	34.21	9999	77.3	168.8

	Syringe (µl)	ID (mm)	Max Rate	Min Rate	SGE Syringe	ID (mm)	Max Rate	Min Rate
SGE (Glass - Gas Tight)	5	0.343	1081	0.008	.25	2.303	45.91	0.351
	10	0.485	2036	0.016	.5	3.257	91.82	0.701
	25	0.728	4587	0.036	1	4.606	183.6	1.402
	50	1.03	9183	0.071	2.5	7.284	459.2	3.505
	100	1.457	9999	0.141	5	10.3	918.3	7.007
Hamilton Micro- litre (Glass)	0.5	0.103	91.83	0.001	10	14.57	1837	14.03
	1	0.146	184.5	0.002	25	23.03	4591	35.03
	2	0.206	367.3	0.003	50	27.5	6546	49.95
	5	0.326	919.9	0.008	100	34.99	9999	80.86



# Specifications

## *NE-500 & NE-501*

### **Mechanical & Electrical**

Syringe sizes: Up to 60 cc 140 mL partially filled  
Number of syringes: 1  
Motor type: Step motor  
Motor steps per revolution: 400  
Microstepping: 1/8 to 1/2 depending on motor speed  
Advance per step: 0.2126  $\mu$ M to 0.8504  $\mu$ M depending on motor speed  
Motor to drive screw ratio: 15/28  
Drive screw pitch: 20 revolutions/”  
DC connector: 2.1 mm, center positive  
Voltage at DC connector: 12 VDC at full load  
Amperage: 750 mA at full load  
Power supply type: Unregulated linear external wall adapter, country and power source specific  
Dimensions: 9 1/2” x 4 1/4” x 4 1/8” High (24.13 cm x 10.8 cm x 10.5 cm)  
Weight: 2.2 lbs. (1.0 kg)

### **Operational**

Maximum speed: 5.1005 cm/min  
Minimum speed: 0.004205 cm/hr  
Maximum pumping rate: 1699 ml/hr with a B-D 60 cc syringe  
Minimum pumping rate: 0.73  $\mu$ l/hr with a B-D 1 cc syringe  
Maximum force: 35 lbs. at minimum speed, 18 lbs. at maximum speed  
Number of Program Phases: 41  
RS-232 pump network: 100 pumps maximum  
RS-232 selectable baud rates: 300, 1200, 2400, 9600, 19200  
Syringe inside diameter range: 0.100 to 50.00 mm

## *NE-510, NE-511, NE-4500 & NE-4501*

### **Mechanical & Electrical**

Syringe sizes: Up to 60 mL. 140 mL partially filled  
NE-510, NE-511 Number of syringes: 1  
NE-4500, NE-4501 Number of syringes: 2  
Motor type: Step motor  
Motor steps per revolution: 200  
Microstepping: 1/8 to 1/2 depending on motor speed  
Advance per step: 0.2126  $\mu$ M to 0.8504  $\mu$ M depending on motor speed  
Motor to drive screw ratio: 15/28  
Drive screw pitch: 20 revolutions/”  
DC connector: 2.5 mm, center positive  
Voltage at DC connector: 12V DC at full load  
Amperage: 1000 mA at full load  
Power supply type: Unregulated linear external wall adapter, country and power source specific  
Power supply output rating: 12V DC @ 1000 mA  
Dimensions: 8 3/4” x 5 3/4” x 4 1/2” High (22.86 cm x 14.605 cm x 11.43 cm)  
Weight: 3.6 lbs. (1.63 kg)

### **Operational**

Maximum speed: 18.36964 cm/min  
Minimum speed: 0.008409 cm/hr  
Maximum pumping rate: 6120 ml/hr with a B-D 60 cc syringe  
Minimum pumping rate: 1.459  $\mu$ l/hr with a B-D 1 cc syringe  
Maximum force: 100 lbs. at minimum speed, 18 lbs. at maximum speed  
Number of Program Phases: 41  
RS-232 pump network: 100 pumps maximum  
RS-232 selectable baud rates: 300, 1200, 2400, 9600, 19200  
Syringe inside diameter range: 0.100 to 50.00 mm

### **Custom Applications**

For specialized and OEM applications, contact your dealer or New Era Pump Systems Inc. Custom modifications can be made to the mechanics or the firmware.

