

Syringe Manufacturer (all names TM)	Syringe (mL)	Inside Diameter (mm)	Maximum Rate (mL/sec)	Minimum Rate (µL/sec)	Maximum Rate (mL/min)				
B-D	1	4.699	0.535	0.003	32.15				
	3	8.585	1.788	0.01	107.3				
	5	11.99	3.488	0.02	209.3				
	10	14.43	5.053	0.029	303.1				
	20	19.05	8.807	0.049	528.4				
	30	21.59	11.31	0.063	678.7				
HSW Norm-Ject	1	4.69	0.533	0.003	32.02				
	3	9.65	2.259	0.013	135.5				
	5	12.45	3.761	0.021	225.7				
	10	15.9	6.135	0.035	368.1				
	20	20.05	9.756	0.055	585.3				
	30	22.9	12.72	0.071	763.5				
Monoject	1	5.74	0.799	0.005	47.97				
	3	8.941	1.94	0.011	116.4				
	6	12.7	3.914	0.022	234.8				
	12	15.72	5.997	0.034	359.8				
	20	20.12	9.824	0.055	589.4				
	35	23.52	13.42	0.075	805.5				
	60	26.64	17.22	0.096	1033				
Terumo	1	4.7	0.536	0.003	32.16				
	3	8.95	1.943	0.011	116.6				
	5	13	4.101	0.023	246				
	10	15.8	6.058	0.034	363.5				
	20	20.15	9.853	0.055	591.2				
	30	23.1	12.94	0.072	776.9				
	60	29.7	21.4	0.119	1284				
Poulten & Graf (Glass)	1	6.7	1.089	0.007	65.36				
	2	8.91	1.926	0.011	115.5				
	3	9.06	1.992	0.012	119.5				
	5	11.75	3.35	0.019	201				
	10	14.67	5.222	0.029	313.3				
	20	19.62	9.342	0.052	560.5				
	30	22.69	12.49	0.07	749.6				
Steel Syringes	1	9.538	2.207	0.013	132.4				
	3	9.538	2.207	0.013	132.4				
	5	12.7	3.914	0.022	234.8				
	8	9.538	2.207	0.013	132.4				
	20	19.13	8.881	0.05	532.8				
	50	28.6	19.85	0.111	1191				
SGE (Glass – Gas Tight)	5	0.343	2.855	0.001	0.25	2.303	0.128	0.001	
	10	0.485	5.708	0.001	0.5	3.257	0.257	0.002	
	25	0.728	12.86	0.001	1	4.606	0.514	0.003	
	50	1.03	25.74	0.001	2.5	7.284	1.287	0.008	
	100	1.457	51.51	0.001	5	10.3	2.574	0.015	
Hamilton Microliter (Glass)	0.5	0.103	0.257	0.001	10	14.57	5.151	0.029	
	1	0.146	0.517	0.001	25	23.03	12.87	0.072	
	2	0.206	1.029	0.001	50	27.5	18.35	0.102	
	5	0.326	2.579	0.001	100	34.99	29.71	0.165	

Specifications

<u>Model</u>	<u>Style</u>	<u>Stall Detection</u>	<u>Number of Syringes</u>	<u>Maximum Syringe Size</u>
NE-1660	Stand-Alone	No	6	140 mL
NE-1860	Stand-Alone	No	8	10 mL
NE-1260	Stand-Alone	No	12	3 mL

Rate & Volume Units:

Rate Units: mL/sec, μ L/sec, mL/min, μ L/min

Volume Units: mL, μ L

RS-232 Command Modifications from Standard NE-1000 Series

Rate Command:

RAT [C | I] [<float> [MS | US | MM | UM]]

MS = mL/sec

US = μ L/sec

MM = mL/min

UM = μ L/min

Mechanical

Drive block type:	Solid (Must use Purge function to move pusher bar).
Motor type:	Step motor
Motor steps per revolution:	200
Drive screw pitch:	8 revolutions/”
Motor to drive screw ratio:	22/14
Micro-stepping:	1/8 to 1/1 depending on motor speed
Advance per step:	3.11830357 μ m to 24.9464286 μ m depending on motor speed
Dimensions:	10 1/4” x 15” x 5” (LxWxH) (26.035 cm x 38.1 cm x 12.7 cm)
Weight:	10.125 lbs. (4.595 kg)

Electrical

Power supply type:	External wall adapter, power source specific
Power supply output rating:	24V DC @ 1000 mA
Power connector:	2.1 mm, center positive, DC
Voltage at power connector:	24V DC at full load
Amperage:	1000 mA at full load

Operational

Accuracy:	Within 1% error
Reproducibility:	Within 0.1% error
Force applied to all syringes:	25 lbs. at minimum speed, 25 lbs. at maximum speed
Syringe inside diameter range:	0.100 to 50.00 mm
Maximum speed:	185.4082949 cm/min
Minimum speed:	0.061665675 cm/hr
Maximum pumping rate:	17.15 mL/sec with a B-D 60 mL syringe
Minimum pumping rate:	0.003 μ L/sec with a B-D 1 mL syringe
Number of Program Phases:	41
RS-232 pump network:	100 pumps maximum
RS-232 selectable baud rates:	300, 1200, 2400, 9600, 19200