

Technical Information

Gastight Syringe Operating Parameters

1000 Series Gastight Syringes

Volume		1 mL	1.25 mL	2.5 mL	5 mL	10 mL	25 mL	50 mL	100 mL
Model		1001	1001.25	1002	1005	1010	1025	1050	1100
Scale length, mm		60	60	60	60	60	60	60	120
Total scale divisions		100	100	100	100	100	100	100	200
Major graduations, mL		0.1	0.125	0.25	0.5	1.0	2.5	5.0	5.0
Minor graduations, mL		0.02	0.025	0.05	0.1	0.2	0.5	1.0	1.0
Sub-minor graduations, mL		0.01	0.0125	0.025	0.05	0.1	0.25	0.5	0.5
Maximum temperature*	°C	50	50	50	50	50	50	50	50
	°F	122	122	122	122	122	122	122	122
Maximum temperature	°C	115	115	115	115	115	80	80	80
	°F	239	239	239	239	239	176	176	176
Minimum temperature	°C	10	10	10	10	10	10	10	10
	°F	50	50	50	50	50	50	50	50
Maximum pressure rating	bars	14	14	14	14	14	7	7	7
	psig	200	200	200	200	200	100	100	100
Standard needle gauge		22	22	22	22	22			
Standard needle outer diameter (O.D.)	mm	0.718	0.718	0.718	0.718	0.718			
	inches	0.0283	0.0283	0.0283	0.0283	0.0283			
Standard needle inner diameter (I.D.)	mm	0.413	0.413	0.413	0.413	0.413			
	inches	0.0163	0.0163	0.0163	0.0163	0.0163			
Standard needle length	mm	51	51	51	51	51			
	inches	2	2	2	2	2			
Standard electro-taper		Yes	Yes	Yes	Yes	Yes			
Standard needle dead volume, µL		6.81	6.81	6.81	6.81	6.81			

*N or LTN Cemented Needle or Luer Tip Cemented Needle syringes only.

1700 Series Gastight Syringes

Volume		10 µL	25 µL	50 µL	100 µL	250 µL	500 µL
Model		1701	1702	1705	1710	1725	1750
Scale length, mm		60	60	60	60	60	60
Total scale divisions		100	100	100	100	100	100
Major graduations, µL		1.0	2.5	5.0	10	25	50
Minor graduations, µL		0.2	0.5	1.0	2.0	5.0	10
Sub-minor graduations, µL		0.1	0.25	0.5	1.0	2.5	5.0
Maximum temperature*	°C	50	50	50	50	50	50
	°F	122	122	122	122	122	122
Maximum temperature	°C	115	115	115	115	115	115
	°F	239	239	239	239	239	239
Minimum temperature	°C	10	10	10	10	10	10
	°F	50	50	50	50	50	50

Maximum pressure rating	bars	69	69	69	69	34	48
	psig	1000	1000	1000	1000	500	700
Standard needle gauge		26s	22s	22s	22s	22s	22
Standard needle outer diameter (O.D.)	mm	0.474	0.718	0.718	0.718	0.718	0.718
	inches	0.0187	0.0283	0.0283	0.0283	0.0283	0.0283
Standard needle inner diameter (I.D.)	mm	0.127	0.168	0.168	0.168	0.168	0.413
	inches	0.0050	0.0066	0.0066	0.0066	0.0066	0.0163
Standard needle length	mm	51	51	51	51	51	51
	inches	2	2	2	2	2	2
Standard electro-taper		Yes	Yes	Yes	Yes	Yes	Yes
Standard needle point style		2	2	2	2	2	2
Standard needle dead volume, μL		0.64	1.13	1.13	1.13	1.13	6.81

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1800 Series Gastight Syringes

Volume		10 μL	25 μL	50 μL	100 μL	250 μL
Model		1801	1802	1805	1810	1825
Scale length, mm		60	60	60	60	60
Total scale divisions		100	100	100	100	100
Major graduations, μL		1.0	2.5	5.0	10	25
Minor graduations, μL		0.2	0.5	1.0	2.0	5.0
Sub-minor graduations, μL		0.1	0.25	0.5	1.0	2.5
Maximum temperature*	$^{\circ}\text{C}$	50	50	50	50	50
	$^{\circ}\text{F}$	122	122	122	122	122
Maximum temperature	$^{\circ}\text{C}$	115	115	115	115	115
	$^{\circ}\text{F}$	239	239	239	239	239
Minimum temperature	$^{\circ}\text{C}$	10	10	10	10	10
	$^{\circ}\text{F}$	50	50	50	50	50
Maximum pressure rating	bars	69	69	69	69	34
	psig	1000	1000	1000	1000	500
Standard needle gauge		26s	22s	22s	22s	22s
Standard needle outer diameter (O.D.)	mm	0.474	0.718	0.718	0.718	0.718
	inches	0.0187	0.0283	0.0283	0.0283	0.0283
Standard needle inner diameter (I.D.)	mm	0.127	0.168	0.168	0.168	0.168
	inches	0.0050	0.0066	0.0066	0.0066	0.0066
Standard needle length	mm	51	51	51	51	51
	inches	2	2	2	2	2
Standard electro-taper		Yes	Yes	Yes	Yes	Yes
Standard needle dead volume, μL		0.64	1.13	1.13	1.13	1.13

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Super Syringes

Volume		500 mL	1000 mL	1500 mL	2000 mL
Model		S50500	S1000	S1500	S2000
Scale length, mm		166	167	250	334
Total scale divisions		25	50	75	100

Major graduations, mL		100	100	100	100
Minor graduations, mL		20	20	20	20
Maximum temperature*	°C	80	80	80	80
	°F	176	176	176	176
Minimum temperature	°C	0	0	0	0
	°F	32	32	32	32
Maximum pressure rating	bars	2	2	2	2
	psig	30	30	30	30