

Syringes



Top: Amanda Rigdon and Michelle Long,
Innovations Chemists

Bottom: Jack Cochran, Director of New Business
& Technology



Restek offers complementing lines of syringes from Hamilton & SGE.

If you don't find the syringe you're looking for on the following pages, contact us.

Needle Gauge Chart

Gauge	Nominal OD		Nominal ID	
26s	0.019 in.	0.47mm	0.0050 in.	0.13mm
26	0.018 in.	0.46mm	0.0102 in.	0.26mm
25	0.021 in.	0.51mm	0.0102 in.	0.26mm
23s	0.025 in.	0.64mm	0.0060 in.	0.15mm
23	0.025 in.	0.64mm	0.0132 in.	0.34mm
22s	0.028 in.	0.72mm	0.0060 in.	0.15mm
22	0.028 in.	0.72mm	0.0162 in.	0.41mm

did you know?

Syringes and needles manufactured by Hamilton Company and SGE are intended for scientific research and laboratory use only and are not intended for human *in vivo* use.

Needle Point Style

Restek offers several different point styles on syringe and needle products. Choose one based on your application.



Point Style 2, BV: beveled needle tip. Recommended for optimum septum penetration and prevention of septum coring.



Point Style 3, LC: square/blunt needle tip. For use with HPLC injection valves and for sample pipetting.



Point Style 5: conical needle with side hole. Liquid samples are filled and dispensed through the side hole.



Point Style H: domed needle tip with side hole. Liquid samples are filled and dispensed through the side hole. The solid tip minimizes septum damage.



Point Style Agilent/Cone: special conical style needle point used exclusively on syringes for autosamplers.

Guide to Needle Termination Codes

Hamilton:

- (N) Cemented Needle
- (RN) Removable Needle
- (ASN) Autosampler Cemented Needle
- (ASRN) Autosampler Removable Needle
- (TLL) Teflon® Luer Lock
- (KH) Knurled Hub
- (LT) Luer Tip
- (LTN) Luer Tip Cemented Needle

SGE:

- (F) Fixed Needle
- (R) Removable Needle
- (LL) Luer Lock
- (LT) Luer Tip

Syringe Termination

From cemented to removable needles and from Teflon® luer-lock to special syringe fittings, syringe barrel terminations create the interface between a syringe and its mating connection. For your reference, we describe the most common Hamilton/SGE terminations below.



N, Cemented Needle / F, Fixed:

Needle cemented into the glass syringe barrel at a point corresponding to the zero graduation mark. Not autoclavable.



KH, Knurled Hub / R, Removable:

Used on 7000 Series Hamilton syringes, exclusively. Knurled hub enables 6000 psig maximum injection pressures and the attachment of a spacer for repeatable depth injections. Autoclavable when disassembled.



SuperfleX Flexible Plunger Syringe page 287



Agilent Autosampler Syringes page 278



RN, Removable Needle / R, Removable:

Needle seats precisely to the zero graduation mark of the syringe. Allows the use of different specification needles on the same syringe barrel. Autoclavable when disassembled.



TLL, Teflon® Luer-Lock / LL, Luer Lock / LT, Luer Tip:

Male luer taper with nickel-plated brass hub accepts and locks into place luer hub needles and connectors. Autoclavable when disassembled.



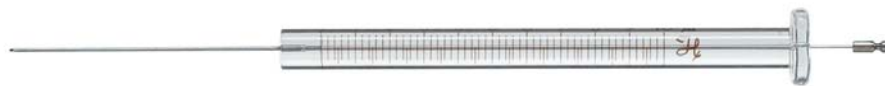
Gas-Tight Luer-Lock Syringe page 291



Autosampler Syringes for Agilent GCs

Standard Microliter Syringes for Agilent 7673, 7683, and 6850 Autosamplers

- Hamilton and SGE syringes are designed and tested to meet critical autosampler performance.
- Needle point styles are designed to withstand multiple, rapid injections through a septum.



Hamilton 10µL, Autosampler Cemented Needle for Agilent 7673, 7683, 6850 Autosamplers

Hamilton Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	Hamilton		Restek
					Model	cat.#	cat.#
0.5µL	ASRN	23s	1.71"	Agilent	7000.5	86276	24895
0.5µL	ASRN	26s	1.71"	Agilent	7000.5	86274	21221
5µL	ASRN	23s	1.71"	Agilent	75	87957	20172
5µL	ASN	23s	1.71"	Agilent	75	87987	20168
5µL	ASN	23s	1.71"	Agilent	75	87990	20170
5µL	ASN	26s	1.71"	Agilent	75	87988	24592
5µL	ASN	26s	1.71"	Agilent	75	87989	21230
5µL	ASRN	23s-26s	1.71"	Agilent	75	87959	21223
5µL	ASN	23s-26s	1.71"	Agilent	75	87993	24593
5µL	ASN	23s-26s	1.71"	Agilent	75	87994	24594
10µL	ASRN	23s	1.71"	Agilent	701	80357	20171
10µL	ASN	23s	1.71"	Agilent	701	80387	20167
10µL	ASN	23s	1.71"	Agilent	701	80390	20169
10µL	ASRN	26s	1.71"	Agilent	701	80358	24597
10µL	ASN	26s	1.71"	Agilent	701	80388	24595
10µL	ASN	26s	1.71"	Agilent	701	80389	24599
10µL	ASRN	23s-26s	1.71"	Agilent	701	80359	24598
10µL	ASN	23s-26s	1.71"	Agilent	701	80393	24596
10µL	ASN	23s-26s	1.71"	Agilent	701	80391	24600



SGE Removable Needle for Agilent 7673, 7683, 6850 Autosamplers

SGE Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	SGE		Restek
					Model	cat.#	cat.#
0.5µL	R	23	42mm	Cone	0.5BR-HP-0.63	000410	24791
0.5µL	R	26	42mm	Cone	0.5BR-HP-0.47	000400	24790
5µL	R	23	42mm	Cone	5R-HP-0.63	001815	24793
5µL	F	23	42mm	Cone	5F-HP-0.63	001810	24781
5µL	F	23	42mm	Cone	SK-5F-HP-0.63	001814	24783
5µL	R	26	42mm	Cone	5R-HP-0.47	001805	24792
5µL	F	26	42mm	Cone	5F-HP-0.47	001800	24780
5µL	F	26	42mm	Cone	SK-5F-HP-0.47	001804	24782
5µL	R	23-26s	42mm	Cone	5R-HP-0.63/0.47	001825	21211
5µL	F	23-26s	42mm	Cone	5F-HP-0.63/0.47	001821	21210
5µL	F	23-26s	42mm	Cone	SK-5F-HP-0.63/0.47	001822	21214
10µL	R	23	42mm	Cone	10R-HP-0.63	002815	24795
10µL	F	23	42mm	Cone	10F-HP-0.63	002810	24785
10µL	F	23	42mm	Cone	SK-10F-HP-0.63	002814	24787
10µL	R	26	42mm	Cone	10R-HP-0.47	002805	24794
10µL	F	26	42mm	Cone	10F-HP-0.47	002800	24784
10µL	F	26	42mm	Cone	SK-10F-HP-0.47	002804	24786
10µL	R	23-26s	42mm	Cone	10R-HP-0.63/0.47	002825	21213
10µL	F	23-26s	42mm	Cone	10F-HP-0.63/0.47	002821	21212
10µL	F	23-26s	42mm	Cone	SK-10F-HP-0.63/0.47	002822	21215

Guide to Needle Termination Codes

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 (ASN) Autosampler Cemented Needle
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 (KH) Knurled Hub
 (LT) Luer Tip
 (LTN) Luer Tip Cemented Needle

SGE:

(F) Fixed Needle
 (R) Removable Needle
 (LL) Luer Lock
 (LT) Luer Tip

Gas-Tight Teflon®-Tipped Syringes for Agilent 7673, 7683, and 6850 Autosamplers



Hamilton 10µL Gas-Tight Syringe



David Facey
Customer Service
Representative
4+ years of service!

Hamilton Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	Hamilton		Restek cat.#
					Model	cat.#	
5µL	ASN	23s	1.71"	Agilent	175	80074	ea. 24893
10µL	ASN	23s	1.71"	Agilent	1701	80080	ea. 24894
10µL	ASRN	23s	1.71"	Agilent	1701	80087	ea. 21224
10µL	ASRN	26s	1.71"	Agilent	1701	80088	ea. 21228
10µL	ASRN	23s-26s	1.71"	Agilent	1701	80089	ea. 21229

SGE Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	SGE		Restek cat.#
					Model	cat.#	
10µL	F	23	42mm	Cone	10F-HP-GT-0.63	002812	ea. 24789
10µL	R	23	42mm	Cone	10R-HP-GT-0.63	002818	ea. 24797
10µL	R	23-26	42mm	Cone	10R-HP-GT-0.63/0.47	002829	ea. 21220

Large Volume Syringes for Agilent 7673, 7683, and 6850 Autosamplers

SGE Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	SGE		Restek cat.#
					Model	cat.#	
25µL	R	23	42mm	Cone	25R-HP-0.63	003665	ea. 24798
50µL	R	23	42mm	Cone	50R-HP-0.63	004665	ea. 24799
100µL	R	23	42mm	Cone	100R-HP-0.63	005665	ea. 24800
250µL	R	23	42mm	Cone	250R-HP-0.63	006665	ea. 24801

Replacement Needles for Agilent 7673, 7683, and 6850 Autosampler Syringes



Needles for Hamilton Syringes

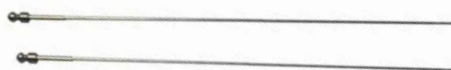
Syringe Volume	Needle Gauge	Needle Length	Point Style	Hamilton cat.#	Restek cat.#
5-10µL	23s	1.71"	Agilent	7786-01	6-pk. 20164
5-10µL	26s	1.71"	Agilent	7786-02	6-pk. 20165
5-10µL	23s-26s	1.71"	Agilent	7785-01	6-pk. 20166

Needles for SGE Syringes

Syringe Volume	Needle Gauge	Needle Length	Point Style	SGE cat.#	Restek cat.#
0.5µL	23	42mm	Cone	033715	ea. 24821
0.5µL	26	42mm	Cone	033708	ea. 24820
5µL	23	42mm	Cone	036720	2-pk. 24823
5µL	26	42mm	Cone	036710	2-pk. 24822
10µL	23	42mm	Cone	037717	2-pk. 24825
10µL	26	42mm	Cone	037715	2-pk. 24824
25-250µL	23	42mm	Cone	038717	2-pk. 24826

Autosampler Syringes for Agilent GCs

Replacement Teflon®-Tipped Plunger Assembly for Agilent 7673, 7683, and 6850 Autosampler Syringes



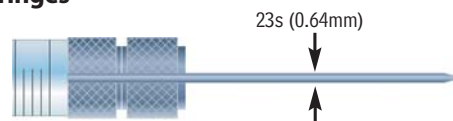
SGE

Syringe Volume	Needle Term.	SGE cat.#	qty.	Restek cat.#
10µL	F	031808	2-pk.	21218
10µL	R	031809	2-pk.	21284

Needle Gauge for Agilent 7673, 7683, 6850 Syringes

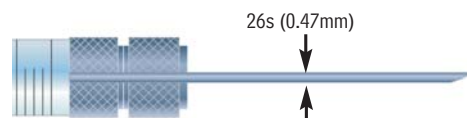
Single Gauge Needle

- The most popular gauge for Agilent 7673.
- Best for Merlin Microseal septum and standard septum-equipped GCs.
- Packed column injection ports.
- Split/splitless injection ports.



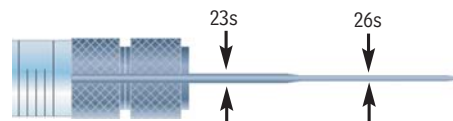
Single Gauge Needle

- On-column injection ports.
- Split/splitless injection ports.



23s-26s—Dual Gauge (tapered)

- Durability of a 23s gauge needle.
- Ability of a 26s gauge needle to perform split/splitless and on-column injections.



CROSS-reference

For Agilent Syringes

Listed below are some Hamilton and SGE syringes, cross-referenced to Agilent part numbers for your convenience. For further information or questions, contact your Restek sales representative or technical service.

Similar to Agilent Part #	Restek Part #	Description	Page
5181-1267	21212, 24596	10µL Standard Syringe, Fixed Needle, 23-26 Gauge	278
5181-1273	21210, 24593	5µL Standard Syringe, Fixed Needle, 23-26 Gauge	278
5181-3319	20166	Needle for 10µL Standard Syringe, 23-26 Gauge	279
5181-3321	21213, 24598	10µL Standard Syringe, Removable Needle, 23-26 Gauge	278
5181-3356	21218	Replacement Teflon®-Tipped Plunger for 10µL Fixed Needle Syringe	280
5181-3358	24919	Teflon®-Tipped Plunger for 10µL Standard Syringe, Removable Needle	290
5181-3360	21215, 24600	10µL Standard Syringe, Fixed Needle, 23-26 Gauge (6-pk.)	278
5181-3365	21218	Teflon®-Tipped Plunger for 10µL Standard Syringe, Fixed Needle	280
5181-8809	24894, 24789	10µL Gas-tight Syringe, Fixed Needle, 23 Gauge	279
5181-8811	20164, 24825	Needle for 10µL Gas-tight Syringe, 23 Gauge	279
5181-8813	21224, 24797	10µL Gas-tight Syringe, Removable Needle, 23 Gauge	279
5182-0830	24821	Needle for 0.5µL Standard Syringe, 23 Gauge	279
5182-0832	20166	Needle for 5-10µL Autosampler Syringe, 23-26 Gauge	279
5182-0834	20172, 24793	5µL Standard Syringe, Removable Needle, 23 Gauge	278
5182-0835	21223, 21211	5µL Standard Syringe, Removable Needle, 23-26 Gauge	278
5182-0875	20170, 24783	5µL Standard Syringe, Fixed Needle, 23 Gauge (6-pk.)	278
9301-0713	20167, 24785	10µL Standard Syringe, Fixed Needle, 23 Gauge	278
9301-0714	24595, 24784	10µL Standard Syringe, Fixed Needle, 26 Gauge	278
9301-0725	20169, 24787	10µL Standard Syringe, Fixed Needle, 23 Gauge (6-pk.)	278
9301-0891	24592, 24780	5µL Standard Syringe, Fixed Needle, 26 Gauge	278
9301-0892	20168, 24781	5µL Standard Syringe, Fixed Needle, 23 Gauge	278

Autosampler Syringes for PerkinElmer Autosystem™ and Clarus 500 GCs

- Hamilton syringes are designed and tested to meet critical autosampler performance.
- Needle point styles are developed to withstand multiple and rapid injections through a septum.



Hamilton 5µL Autosampler Syringe

Hamilton Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	Hamilton			Restek cat.#
					Model	cat.#	qty.	
5µL	ASN	23	2.756"	3	75ASN/PE	88035	ea.	24953
5µL	ASN	26	2.756"	3	75ASN/PE	88040	ea.	24952



SGE 5µL Autosampler Syringe

SGE Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	SGE			Restek cat.#
					Model	cat.#	qty.	
0.5µL	R	23	70mm	Cone	0.5BR-PE-0.63	000478	ea.	24811
0.5µL	R	26	70mm	Cone	0.5BR-PE-0.47	000475	ea.	24810
5µL	F	23	70mm	Cone	5F-PE-0.63	001954	ea.	24813
5µL*	F	23	70mm	Cone	5F-PE-GT-0.63	001957	ea.	24815
5µL	F	26	70mm	Cone	5F-PE-0.47	001953	ea.	24812
5µL*	F	26	70mm	Cone	5F-PE-GT-0.47	001955	ea.	24814
50µL	F	23	70mm	Cone	50F-PE-0.63	004670	ea.	24816

*Gas-tight.

Guide to Needle Termination Codes

Hamilton:

(N) Cemented Needle
 (RN) Removable Needle
 (ASN) Autosampler Cemented Needle
 (ASRN) Autosampler Removable Needle
 (TLL) Teflon® Luer Lock
 (KH) Knurled Hub
 (LT) Luer Tip
 (LTN) Luer Tip Cemented Needle

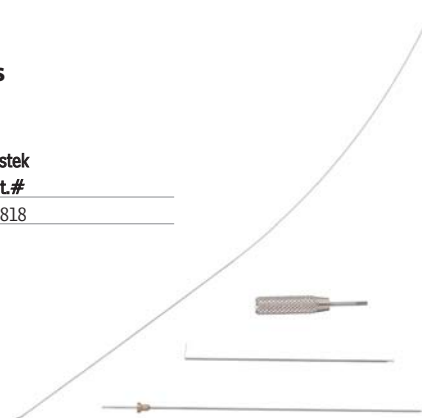
SGE:

(F) Fixed Needle
 (R) Removable Needle
 (LL) Luer Lock
 (LT) Luer Tip

Replacement Needle and Plunger Kit for PerkinElmer Autosampler Syringes

SGE Needle and Plunger Kit

Syringe Volume	Needle Gauge	Needle Length	Point Style	SGE cat.#	qty.	Restek cat.#
0.5µL	23	70mm	Cone	033765	kit	24818



Needle and Plunger Kit

also available

Looking for septa?

Restek carries a full line of septa for every type of application and instrument. See pages 134-135.



Autosampler Syringes for Varian GCs

Autosampler Syringes for Varian 8000 Series GCs



Steve Kozel

U.S. Sales & Distribution
Manager
1+ year of service!



Hamilton 10µL Autosampler Syringe

Hamilton Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	Hamilton Model	Hamilton cat.#	qty.	Restek cat.#
Varian 8100/8200 Syringes								
10µL	RN	26s	1.99"	5	701 Varian	202880	ea.	24956



SGE 10µL Autosampler Syringe

SGE Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	SGE Model	SGE cat.#	qty.	Restek cat.#
Varian 8000 Syringes								
10µL	R	25	50mm	Dome	10R-VA80-II	002926	ea.	24850
Varian 8035, 8100, & 8200 Syringes								
10µL*	F	25	53mm	S/Hole	10F-VA8X-11	002923	ea.	24851
10µL*	R	25	53mm	S/Hole	10R-VA8X-II	002924	ea.	24852
100µL	R	25	53mm	S/Hole	100R-VA8X	005921	ea.	24853
Varian CP 8400, CP8410 Syringes								
10µL	F	26	50mm	Cone	10F-C/F-5/0.47C	002980	ea.	24922
10µL	F	26	50mm	Bevel	10F-VA8400-5/0.47	002950	ea.	21202

*Gas-tight syringe.

Replacement Needles for Varian 8000 Series Autosampler Syringes

Needles for SGE Syringes

Syringe Volume	Needle Gauge	Needle Length	Point Style	SGE cat.#	qty.	Restek cat.#
10µL	23	53mm	S/Hole	037779	2-pk.	24857
10µL*	25	53mm	S/Hole	037780	ea.	24858
10µL**	25	53mm	S/Hole	037777	ea.	24854
10µL	25	53mm	2	037776	2-pk.	24855

*straight needle shaft, 0.20mm ID needle, for use with viscous samples

**tapered needle shaft, 0.12mm ID needle

Searching for a product?

www.restek.com

Autosampler Syringes for Shimadzu GCs

- Hamilton syringes are designed and tested to meet critical autosampler performance.
- Needle point styles are developed to withstand multiple and rapid injections through a septum.



Hamilton 10µL Autosampler Syringe

Hamilton Syringes for Shimadzu AOC 9 GCs

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	Hamilton		Restek
					Model	cat.#	
5µL	RN	26s	2"/51mm	2	75RN	87930	ea. 24617
5µL	N	26s	2"/51mm	2	75N	87900	ea. 24938
10µL	RN	26s	2"/51mm	2	701RN	80330	ea. 24530



SGE 5µL Autosampler Syringe

SGE Syringes for Shimadzu AOC 14, 17, 20, and 20i GCs

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	SGE		Restek
					Model	cat.#	
0.5µL	R	23	42mm	Cone	0.5BR-S-0.63	000445	ea. 24841
0.5µL	R	26	42mm	Cone	0.5BR-S-0.47	000440	ea. 24840
5µL	F	23	42mm	Cone	5F-S-0.63	001988	ea. 24843
5µL	F	26	42mm	Cone	5F-S-0.47	001987	ea. 24842
10µL	R	23	42mm	Cone	10R-S-0.63	002898	ea. 24845
10µL*	R	23	42mm	Cone	10R-S-GT-0.63	002902	ea. 24846
10µL	R	26	42mm	Cone	10R-S-0.47	002897	ea. 24844
250µL*	F	23	42mm	Cone	250F-S-GT-0.63	006682	ea. 24847

*Gas-tight syringe.

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 (KH) Knurled Hub
 (LT) Luer Tip
 (LTN) Luer Tip Cemented Needle

SGE:

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 (LL) Luer Lock
 (LT) Luer Tip

Replacement Needles for Shimadzu Autosampler Syringes



Needles for SGE Syringes

Syringe Volume	Needle Gauge	Needle Length	Point Style	SGE cat.#	Restek cat.#
0.5µL	23	42mm	Cone	033745	24747
0.5µL	26	42mm	Cone	033738	24746
10µL	23	42mm	Cone	037747	24749
10µL	26	42mm	Cone	037745	24748

Autosampler Syringes for Thermo Scientific GCs



Al Carusone
Technical Service
Specialist
4+ years of service!

Autosampler Syringes for Thermo Scientific GCs

- Hamilton syringes are designed and tested to meet critical autosampler performance.
- Needle point styles are developed to withstand multiple and rapid injections through a septum.



Hamilton 10µL Autosampler Syringe

Hamilton Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	Hamilton		Restek
					Model	cat.#	
10µL	N	26s	3.15"	AS	701SN	80318	ea. 24962



SGE 10µL Autosampler Syringe

SGE Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	SGE		Restek
					Model	cat.#	
10µL	F	26	80mm	Cone	10F-C/F-8/0.47C	002992	ea. 24924
10µL	R	26	80mm	Cone	10R-C/F-8/0-0.47C	002993	ea. 24934

Replacement Needles for Thermo Scientific Autosampler Syringes



Needles for SGE Syringes

Syringe Volume	Needle Gauge	Needle Length	Point Style	SGE cat.#	Restek cat.#
0.5µL	26	50mm	Cone	033770	ea. 24927
10µL	26	80mm	Cone	031535	3-pk. 24935

Guide to Needle Termination Codes

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SGE:

(F) Fixed Needle
(R) Removable Needle
(LL) Luer Lock
(LT) Luer Tip

instrument reference

Autosampler Syringes for Thermo Scientific GCs

Autosampler syringes for TriPlus, AS3000, AS2000, AS200/800 GCs. The following autosamplers are compatible with the respective SGE and Hamilton syringes. For further information or questions, contact your Restek sales representative or technical service.

SGE Syringes

TriPlus	AS3000	AS2000	AS200/800	Restek cat.#	Page
•	•			24928	285
•	•			24926	285
•	•	•	•	24923	285
•	•	•	•	24932	285
•	•	•	•	24924	284
•	•	•	•	24934	284
•	•	•	•	24922	285
•	•	•	•	24930	285

Replacement Needles for SGE Syringes for Thermo Scientific GCs

TriPlus	AS3000	AS2000	AS200/800	Restek cat.#	Page
•	•			24929	285
•	•			24927	284
•	•	•	•	24933	285
•	•	•	•	24931	285
•	•	•	•	24935	284

Hamilton Syringes

TriPlus	AS3000	AS2000	AS200/800	Restek cat.#	Page
			•	24962	284

Autosampler Syringes for CTC/LEAP GCs

- Hamilton syringes are designed and tested to meet critical autosampler performance.
- Needle point styles are developed to withstand multiple and rapid injections through a septum.



Hamilton 10µL Autosampler Syringe

Hamilton Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	Hamilton			Restek cat.#
					Model	cat.#	qty.	
1.2µL	N	26	2"/51mm	AS	7701.2N	203185	ea.	22755
5µL	N	26s	2"/51mm	AS	75N	203189	ea.	22756
10µL	N	23s	2"/51mm	AS	701N	203361	ea.	22757
10µL	N	23s-26s	2"/51mm	AS	701N	203362	ea.	22758
10µL	N	23s	2"/51mm	2	701N	203363	ea.	22759
10µL	N	26s	2"/51mm	2	701N Slim Line	203072	ea.	22760
10µL	N	26s	2"/51mm	AS	701N	203205	ea.	22761
10µL	N	26s	2"/51mm	2	701N	203269	6-pk.	22762
25µL*	N	26s	2"/51mm	AS	1702N	203043	ea.	22763
25µL*	N	26s	2"/51mm	AS	1702N Slim Line**	203074	ea.	22764
100µL*	N	26s	2"/51mm	AS	1710N Slim Line**	203076	ea.	22765

*Gas-tight syringe.

**Barrel OD = 6.7mm; all other 25µL and 100µL syringes have a 7.9mm barrel OD.



SGE 10µL Autosampler Syringe

SGE Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	SGE			Restek cat.#
					Model	cat.#	qty.	
0.5µL	R	23	50mm	Cone	0.5BNR-C/F-0.63	000492	ea.	24928
0.5µL	R	26	50mm	Cone	0.5BNR-C/F-0.47	000490	ea.	24926
5µL	F	23	50mm	Cone	5F-C/F-5/0.63	001981	ea.	24921
5µL	F	26	50mm	Cone	5F-C/F-5/0.47	001982	ea.	24920
10µL	F	23	50mm	Cone	10F-C/F-0.63	002981	ea.	24923
10µL	R	23	50mm	Cone	10R-C/F-0.63	002984	ea.	24932
10µL	F	26	50mm	Cone	10F-C/F-5/0.47C	002980	ea.	24922
10µL	F	26	50mm	Cone	SK10F-C/F-5/0.47C	002986	6-pk.	24925
10µL	R	26	50mm	Cone	10R-C/F-5/0-0.47C	002982	ea.	24930
10µL*	F	23	50mm	Cone	10F-C/T-GT-5/0.63C	002987	ea.	22749
25µL	F	26	50mm	Cone	25F-C/T-5/0.47C	003980	ea.	22750
25µL*	F	23	50mm	Cone	25F-C/T-GT-5/0.63C	003987	ea.	22751
25µL*	R	26	50mm	S-hole	25R-C/T-GT-5/0.47H	003988	ea.	22752
100µL*	F	23	50mm	Cone	100F-C/T-GT-5/0.63C	005335	ea.	22753
100µL*	R	26	50mm	Cone	100R-C/T-GT-5/0.47C	005333	ea.	22754

*Gas-tight syringe.

also available

Replacement plunger assemblies for these syringes are available on request.

Replacement Needles for CTC/LEAP Autosampler Syringes



Needles for SGE Syringes

Syringe Volume	Needle Gauge	Needle Length	Point Style	SGE cat.#	Restek cat.#
0.5µL	23	50mm	Cone	033772	24929
10µL	23	50mm	Cone	037787	24933
10µL	26	50mm	Cone	037785	24931

Standard Microliter Volume Syringes

Standard Microliter Volume Syringes

- Economical.
- Available with cemented needles (N/F) or removable needles (RN/R).
- Each syringe plunger and barrel assembly is manufactured as one working unit; components are not interchangeable or individually replaceable.



Hamilton 700 Series Microliter Syringe

Hamilton Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	Hamilton		qty.	Restek cat.#
					Model	cat.#		
5 μ L	N	26s	2"/51mm	2	75N	87900	ea.	24938
5 μ L	RN	26s	2"/51mm	2	75RN	87930	ea.	24617
10 μ L	N	26s	2"/51mm	2	701N	80300	ea.	20174
10 μ L	N	26s	2"/51mm	2	701N	80366	6-pk.	20175
10 μ L	RN	26s	2"/51mm	2	701RN	80330	ea.	24530
25 μ L	N	22s	2"/51mm	2	702N	80400	ea.	24531
10 μ L	N	26s	2"/51mm	5	701NPT5	80339	ea.	24967
25 μ L*	RN	22s	2"/51mm	2	702RN	80430	ea.	24532
50 μ L	N	22s	2"/51mm	2	705N	80500	ea.	24533
50 μ L*	RN	22s	2"/51mm	2	705RN	80530	ea.	24534
100 μ L	N	22s	2"/51mm	2	710N	80600	ea.	24535
100 μ L*	RN	22s	2"/51mm	2	710RN	80630	ea.	24536
250 μ L	N	22s	2"/51mm	2	725N	80700	ea.	24537
250 μ L*	RN	22s	2"/51mm	2	725RN	80730	ea.	24538
500 μ L	N	22	2"/51mm	2	750N	80800	ea.	24539
500 μ L*	RN	22	2"/51mm	2	750RN	80830	ea.	24540



SGE Standard Microliter Volume Syringe

SGE Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	SGE		qty.	Restek cat.#
					Model	cat.#		
5 μ L	F	26	50mm	2	5F**	001000	ea.	24700
5 μ L*	R	26	50mm	2	5R**	001050	ea.	24701
10 μ L	F	26	50mm	2	10F**	002000	ea.	24702
10 μ L	F	26	50mm	2	SK-10F**	002030	6-pk.	24715
10 μ L*	R	26	50mm	2	10R**	002050	ea.	24703
10 μ L*	R	26	50mm	2	SK-10R**	002080	6-pk.	24716
25 μ L	F	25	50mm	2	25F	003000	ea.	24704
25 μ L*	R	25	50mm	2	25R	003050	ea.	24705
50 μ L	F	25	50mm	2	50F	004000	ea.	24706
50 μ L*	R	25	50mm	2	50R	004050	ea.	24707
100 μ L	F	25	50mm	2	100F	005000	ea.	24708
100 μ L*	R	25	50mm	2	100R	005050	ea.	24709
250 μ L	F	25	50mm	2	250F	006000	ea.	24710
250 μ L*	R	25	50mm	2	250R	006050	ea.	24711
500 μ L	F	25	50mm	2	500F	007000	ea.	24712
500 μ L*	R	25	50mm	2	500R	007050	ea.	24713

*For replacement RN/R needles, see page 290.

**With plunger protection.



SuperfleX Flexible Plunger Syringes

- The SuperfleX syringe features a super-elastic plunger that returns to its original shape if twisted or bent.



SGE SuperfleX Syringe

SGE Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	SGE		Restek
					Model	cat.#	
5 μ L	F	26	50mm	2	5FX	001100	ea. 24720
5 μ L	R	26	50mm	2	5RX	001150	ea. 24721
10 μ L	F	26	50mm	2	10FX	002100	ea. 24722
10 μ L	F	26	50mm	2	SK-10FX	002130	6-pk. 24718
10 μ L	R	26	50mm	2	10RX	002150	ea. 24723
10 μ L*	R	26	50mm	2	SK-10RX	002180	6-pk. 24719

Reinforced Plunger Microliter Volume Syringes

- Reinforcing extends the life of fragile, small diameter plungers.
- Economical because of longer life—even in rugged applications.
- Hand-lapped plunger ensures a perfect seal with the barrel.



Hamilton 900 Series Microliter Syringe

Hamilton Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	Hamilton		Restek
					Model	cat.#	
5 μ L	N	26s	2"/51mm	2	95	87920	ea. 24541
5 μ L*	RN	26s	2"/51mm	2	95	87925	ea. 24542
10 μ L	N	26s	2"/51mm	2	901	80360	ea. 24543
10 μ L*	RN	26s	2"/51mm	2	901	80370	ea. 24544

Guide to Needle Termination Codes

Hamilton:

(N) Cemented Needle
 (RN) Removable Needle
 (ASN) Autosampler Cemented Needle
 (ASRN) Autosampler Removable Needle
 (TLL) Teflon® Luer Lock
 (KH) Knurled Hub
 (LT) Luer Tip
 (LTN) Luer Tip Cemented Needle

SGE:

(F) Fixed Needle
 (R) Removable Needle
 (LL) Luer Lock
 (LT) Luer Tip



SGE Guided Plunger Syringe

SGE Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	SGE		Restek
					Model	cat.#	
5 μ L	F	26	50mm	2	5F-GP	001400	ea. 24769
5 μ L*	R	26	50mm	2	5R-GP	001450	ea. 24766
10 μ L	F	26	50mm	2	10F-GP	002400	ea. 24767
10 μ L*	R	26	50mm	2	10R-GP	002450	ea. 24768

*For replacement RN/R needles, see page 290.

Micro-Volume Syringes



Sabah Dabby
Chief Innovations Officer
6+ years of service!

Micro-Volume, Positive Displacement Syringes

- Sample is contained in the needle with full plunger displacement, ensuring no dead volume.
- High precision and accuracy down to 0.1µL.
- Seal between the plunger and the needle can be tightened for high-pressure injection.
- Replaceable needle/plunger kits and barrels (available on request).



Hamilton 7001 Series Micro-Volume Syringe

Hamilton Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	Hamilton		Restek cat.#
					Model	cat.#	
0.5µL	KH	25	2.75"/70mm	2	7000.5	86259	ea. 24545
0.5µL	KH	25	2.75"/70mm	3	7000.5	86250	ea. 24546
1.0µL	KH	22s	2.75"/70mm	2	7101	86211	ea. 24549
1.0µL	KH	25s	2.75"/70mm	2	7001	80135	ea. 24547
1.0µL	KH	25s	2.75"/70mm	3	7001	80100	ea. 24548
2.0µL	KH	25	2.75"/70mm	2	7002	88411	ea. 24551
5.0µL	KH	24	2.75"/70mm	2	7105	88011	ea. 24555
5.0µL	KH	24	2.75"/70mm	3	7105	88000	ea. 24556



SGE Micro-Volume Plunger-in-Needle Syringe

SGE Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	SGE		Restek cat.#
					Model	cat.#	
0.5µL	R	23	70mm	2	0.5BR-7BV	000311	ea. 24771
0.5µL	R	23	70mm	Cone	0.5BR-7	000310	ea. 24772
0.5µL	R	26	70mm	Cone	0.5BR-OC-7/0.47*	000376	ea. 24770
1.0µL	R	23	70mm	2	1BR-7BV	000506	ea. 24775
1.0µL	R	23	70mm	Cone	1BR-7	000505	ea. 24774
1.0µL	R	23	50mm	Cone	1BR-5	000500	ea. 24773
1.0µL	R	26	70mm	Cone	1BR-7/0.47*	000570	ea. 24776
5.0µL	R	23	70mm	2	5BR-7BV	000803	ea. 24779
5.0µL	R	23	70mm	Cone	5BR-7	000802	ea. 24778
5.0µL	R	23	50mm	Cone	5BR-5	000800	ea. 24777

*70mm needle length, 0.47mm OD, on-column syringe.

tech tip

Reinserting Teflon®-tipped Plungers

After disassembling and cleaning a syringe with a Teflon®-tipped plunger, wet the Teflon® plunger tip prior to reinserting it into the barrel. Always avoid touching the plunger—any abrasions, scratches or oil from fingers could interfere with proper plunger operation.

SGE Replacement Plunger-in-Needle Kits

- Kits are supplied with both a plunger and a needle.
- Plunger and needle must be replaced together.

Volume	Needle Gauge	Needle Length	Point Style	SGE Model	SGE cat.#	For Syringe		Restek cat.#
						cat.#	qty.	
0.5µL	23	70mm	2	NP0.5B-7BV	033060	24771	kit	24831
0.5µL	23	70mm	Cone	NP0.5B-7C	033057	24772	kit	24830
0.5µL	26	70mm	Cone	NP0.5B-OC-7	033630	24770	kit	24832
1.0µL	23	70mm	2	NP1B-7BV	034060	24775	kit	24835
1.0µL	23	70mm	Cone	NP1B-7C	034057	24774	kit	24834
1.0µL	23	50mm	Cone	NP1B-5C	034055	24773	kit	24833
1.0µL	26	70mm	Cone	NP1B-OC-7/0.47	034610	24776	kit	24836
5.0µL	23	70mm	2	NP5B-7BV	035058	24779	kit	24839
5.0µL	23	70mm	Cone	NP5B-7C	035057	24778	kit	24838
5.0µL	23	50mm	Cone	NP5B-5C	035055	24777	kit	24837

Teflon® Tip, Gas-Tight Syringes

- Suitable for gases or liquids for maximum inertness.
- High accuracy of dispensed volumes.
- Interchangeable barrels, plungers, and tips extend performance and increase cost-effectiveness.



Hamilton 1700/1000 Series Gas-Tight Syringe

Hamilton Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	Hamilton		Restek
					Model	cat.#	
10µL	N	26s	2"/51mm	2	1701	80000	ea. 24557
10µL	RN	26s	2"/51mm	2	1701	80030	ea. 24558
25µL	N	22s	2"/51mm	2	1702	80200	ea. 24559
25µL	RN	22s	2"/51mm	2	1702	80230	ea. 24560
50µL	N	22s	2"/51mm	2	1705	80900	ea. 24561
50µL	RN	22s	2"/51mm	2	1705	80930	ea. 24562
100µL	N	22s	2"/51mm	2	1710	81000	ea. 24563
100µL	RN	22s	2"/51mm	2	1710	81030	ea. 24564
250µL	N	22s	2"/51mm	2	1725	81100	ea. 24567
250µL	RN	22s	2"/51mm	2	1725	81130	ea. 24568
500µL	LTN	22	2"/51mm	2	1750	81217	ea. 24571
500µL	RN	22	2"/51mm	2	1750	81230	ea. 24572
1mL	LTN	22	2"/51mm	2	1001	81317	ea. 24575
1mL	RN	22	2"/51mm	2	1001	81330	ea. 24576
1mL	TLL	*	—	w/out slots	1001	81320	ea. 24578
2.5mL	TLL	*	—	w/out slots	1002	81420	ea. 24584
2.5mL	RN	22	2"/51mm	2	1002	81430	ea. 24582
2.5mL	N	22	2"/51mm	2	1002	81417	ea. 24581
5mL	TLL	*	—	w/out slots	1005	81520	ea. 20178
10mL	TLL	*	—	w/out slots	1010	81620	ea. 20179
25mL	TLL	*	—	w/out slots	1025	82520	ea. 24591
50mL	TLL	*	—	w/out slots	1050	85020	ea. 24717



SGE Gas-Tight Syringe

SGE Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	SGE		Restek
					Model	cat.#	
10µL	F	26	50mm	2	10F-GT	002200	ea. 24725
10µL	R	26	50mm	2	10R-GT	002250	ea. 24726
25µL	F	25	50mm	2	25F-GT	003200	ea. 24727
25µL	R	25	50mm	2	25R-GT	003250	ea. 24728
50µL	F	25	50mm	2	50F-GT	004200	ea. 24729
50µL	R	25	50mm	2	50R-GT	004250	ea. 24730
100µL	F	25	50mm	2	100F-GT	005200	ea. 24734
100µL	R	25	50mm	2	100R-GT	005250	ea. 24735
100µL	LL	*	—	—	100F-LL-GT	005230	ea. 24737
250µL	F	25	50mm	2	250F-GT	006200	ea. 24738
250µL	R	25	50mm	2	250R-GT	006250	ea. 24739
250µL	LL	*	—	—	250F-LL-GT	006230	ea. 24741
500µL	F	25	50mm	2	500F-GT	007200	ea. 24742
500µL	R	25	50mm	2	500R-GT	007250	ea. 24743
1mL	R	23	50mm	2	1MR-GT	008100	ea. 24750
1mL	LL	*	—	—	1MDF-LL-GT	008025	ea. 24752
2.5mL	LL	*	—	—	2.5MDF-LL-GT	008425	ea. 24755
5mL	LL	*	—	—	5MDR-LL-GT	008760	ea. 24757
10mL	LL	*	—	—	10MDR-LL-GT	008960	ea. 24759
25mL	LL	*	—	—	25MDR-LL-GT	009462	ea. 24760
50mL	LL	*	—	—	50MR-LL-GT	009660	ea. 24761
100mL	LL	*	—	—	100MR-LL-GT	009760	ea. 24762

*Needles sold separately. See page 290.

Guide to Needle Termination Codes

Hamilton:
 (N) Cemented Needle
 (RN) Removable Needle
 (ASN) Autosampler
 Cemented Needle
 (ASRN) Autosampler
 Removable Needle
 (TLL) Teflon® Luer Lock
 (KH) Knurled Hub
 (LT) Luer Tip
 (LTN) Luer Tip Cemented Needle

SGE:
 (F) Fixed Needle
 (R) Removable Needle
 (LL) Luer Lock
 (LT) Luer Tip



Gas-Tight Syringe Replacement Needles

Teflon® Tip, Gas-Tight Syringe Replacement Needles for Removable Needle Syringes

Materials: stainless steel needle, nickel-plated brass hub

Needles for Hamilton Syringes

Syringe Volume	Needle Gauge	Needle Length	Point Style	Hamilton cat.#	qty.	Restek cat.#
5-100 μ L	26s	2"	2	7758-02	6-pk.	24939
5-100 μ L	22s	2"	2	7758-03	6-pk.	24940
250 μ L-10mL	22	2"	2	7779-01	6-pk.	24942
250 μ L-10mL	26s	2"	2	7779-02	6-pk.	24943
250 μ L-10mL	22s	2"	2	7779-03	6-pk.	24944

Needles for SGE Syringes

Syringe Volume	Needle Gauge	Needle Length	Point Style	SGE cat.#	qty.	Restek cat.#
5 μ L	26	50mm	2	036110	5-pk.	24802
10 μ L	23	50mm	2	037111	5-pk.	24804
10 μ L	26	50mm	2	037110	5-pk.	24803
25-500 μ L	23	50mm	2	038111	5-pk.	24806
25-500 μ L	25	50mm	2	038110	5-pk.	24805
1-2.5mL	23	50mm	2	039110	5-pk.	24807

Replacement Teflon®-Tipped Plunger Assembly

Hamilton

Syringe Volume	Needle Term.	Hamilton cat.#	qty.	Restek cat.#
10 μ L	N, RN, LT/LTN	13205	ea.	24919

Gas-Tight Syringe Replacement Needles for Luer-Lock Syringes

Needles for Hamilton Syringes

Hub Material	Needle Gauge	Needle Length	Point Style	Hamilton cat.#	qty.	Restek cat.#
metal	26s	2"/51mm	2	90053	6-pk.	20133
metal	25s	1.97"	3	90049*	6-pk.	24605
metal	22s	2"/51mm	2	90051	6-pk.	24606
Kel-F® (Teflon® tip)	26s	2"/51mm	2	90153	6-pk.	24607
Kel-F® (Teflon® tip)	25s	1.97"	3	90149*	6-pk.	24608
Kel-F® (Teflon® tip)	22s	2"/51mm	2	90151	6-pk.	24609

*For Waters U6K injection valve.

Needles for SGE Syringes

Hub Material	Needle Gauge	Needle Length	Point Style	SGE cat.#	qty.	Restek cat.#
metal	23	50mm	2	039802	5-pk.	24763
metal	22	2"/51mm	3	039895**	2-pk.	24765
metal	18	50mm	2	039842	5-pk.	24764

**For Rheodyne®/Valco® valves.



Lori Sheppard
Sales Support Specialist
1+ year of service!



Volume	SGE			Restek cat.#
	Model	cat.#	qty.	
50µL	50R-V-GT	004279	ea.	24880
100µL	100R-V-GT	005279	ea.	24881
250µL	250R-V-GT	006279	ea.	24882
500µL	500R-V-GT	007279	ea.	24883
1mL	1MDR-V-GT	008110	ea.	24884
2.5mL	2.5MDR-V-GT	008510	ea.	24885



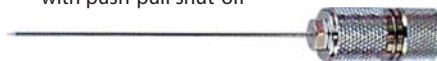
Volume	SGE			Restek cat.#
	Model	cat.#	qty.	
1mL	1MR-VLL-GT	008160	ea.	24886
2.5mL	2.5MDR-VLL-GT	008560	ea.	24887



5mL	5MDR-VLLMA-GT	008770	ea.	24888
10mL	10MDR-VLLMA-GT	008970	ea.	24889
25mL	25MDR-VLLMA-GT	009472	ea.	24890
50mL	50MR-VLLMA-GT	009670	ea.	24891
100mL	100MR-VLLMA-GT	009770	ea.	24892

*Order needles separately.

Model V Syringe Valve
with push-pull shut-off



Model V Syringe Valve: fits any SGE removable needle syringe, 25µL-2.5mL

Syringe Volume	Needle Gauge	Needle Length	Point Style	SGE			Restek cat.#
				Model	cat.#	qty.	
25µL-2.5mL	23	50mm	Cone	V	031905	ea.	24898

Syringe Volume	Needle Gauge	Needle Length	Point Style	SGE			Restek cat.#
				Model	cat.#	qty.	
1mL-100mL	23	50mm	2	NLL-5/23	039802	5-pk.	24763
1mL-100mL	18	50mm	2	NLL-5/18	039842	5-pk.	24764
1mL-100mL	22	2"/51mm	3	NLL-LC	039895**	2-pk.	24765

**Fits Rheodyne® & Valco® injection valves



Hamilton Syringe Guide

Syringe Volume	Used with Syringe Series	Hamilton cat.#	Restek cat.#	
				qty.
25-500µL	700/1700/1000	14906	ea.	24615
5-10µL	700/1700/1000	14806	ea.	24616

***Order syringe separately.



Alan Sensus
Technical Service
Specialist
6+ years of service!

A-2 Luer Gas-Tight Syringes*

- For use with VOA-CYL 4 standards.
- Push-style on-off button valve.

Use to withdraw a gas sample from a high-pressure cylinder through a high-purity VOC single-stage regulator after attaching the appropriate adaptor to the regulator. Use with luer syringe needles listed.



100µL Luer Syringe

Description	qty.	cat.#
100µL Luer Syringe	ea.	20162
500µL Luer Syringe	ea.	20163
Luer Syringe Needles (26s gauge)	6-pk.	20133

*Restek's A-2 syringes have a luer tip.

Heavy Duty Purge & Trap Syringe (Dynatech Precision Sampling)

- Heavy-duty glass barrel with metal front and rear flanges.
- Teflon® luer-lock tip.
- Can fill and empty sparge tubes.
- Sample-Lok valve accepts standard luer-lock needles.
- Suitable for purge & trap applications.



Precision Sampling Syringe
with Sample-Lok Valve

Syringe	cat.#	2mL	5mL	10mL
without Sample-Lok	21205		21206	21209
with Sample-Lok	—		21208	21207

Luer-Lock Valve Adaptors



Description	SGE cat. #	qty.	Restek cat.#
Luer-Lock Valve Adaptors	200010	2-pk.	21283

Jumbo Syringe

Clear acrylic syringes, ideal for holding and dispensing large volumes of gas. An adjustable plunger on the O-ring ensures that the syringe is gas-tight over a long period of time. The central port is supplied with a luer-lock fitting; the secondary port is supplied with a septum nut. This enables access to the gas sample for adding standards or removing a sub-sample. The plunger stem is detachable, making sample storage easy.



Jumbo Syringe

1000mL Jumbo Syringe



O-Rings for 1000mL & 500mL Syringes

Volume	Model	SGE cat. #	qty.	Restek cat.#
500mL	500MAR-LL-GT	009910	ea.	21275
1000mL	1000MAR-LL-GT	009920	ea.	21276
2000mL	2000MAR-LL-GT	009930	ea.	21277

Syringe O-Rings

Syringe Volume	SGE cat.#	qty.	Restek cat.#
500mL	032527	ea.	21278
1000mL	032532	ea.	21279

Syringes for Waters U6K Valves

- Reinforced plungers.
- Removable needles.
- Replaceable plunger/barrel assemblies.
- Barrel stop prevents plunger blowout.



Hamilton 50µL Syringe for Waters U6K Valves

Hamilton Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	Hamilton		Restek
					Model	cat.#	
10µL	RN	25s	1.97"	3	801	84815	ea. 21255
25µL	RN	25s	1.97"	3	802	84816	ea. 21256
50µL	RN	25s	1.97"	3	805	84817	ea. 21257
100µL	RN	25s	1.97"	3	810	84818	ea. 21258
250µL	RN	25s	1.97"	3	825	84819	ea. 21259



SGE 50µL Syringe for Waters U6K Valves

SGE Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	SGE		Restek
					Model	cat.#	
25µL	R	25	50mm	3	25R-WLC-RA8	003375	ea. 24873
50µL	R	25	50mm	3	50R-WLC-RA8	004375	ea. 24874
100µL	R	25	50mm	3	100R-WLC-RA8	005375	ea. 24875
250µL	R	25	50mm	3	250R-WLC-RA8	006375	ea. 24876
500µL	R	25	50mm	3	500R-WLC-RA8	007375	ea. 24877

Guide to Needle Termination Codes

Hamilton:

- (N) Cemented Needle
- (RN) Removable Needle
- (ASN) Autosampler Cemented Needle
- (ASRN) Autosampler Removable Needle
- (TLL) Teflon® Luer Lock
- (KH) Knurled Hub
- (LT) Luer Tip
- (LTN) Luer Tip Cemented Needle

SGE:

- (F) Fixed Needle
- (R) Removable Needle
- (LL) Luer Lock
- (LT) Luer Tip

Replacement Needles for Syringes for Waters U6K Valves

Needles for Hamilton Syringes



Syringe Volume	Needle Gauge	Needle Length	Point Style	Hamilton cat.#	Restek cat.#
10-100µL	25s	1.97"	3	8647-01	6-pk. 21270
250µL-10mL	25s	1.97"	3	8648-01	6-pk. 21271

**Matt Matis**

Northeast States Sales
Representative
4+ years of service!

Gas-Tight Syringes for Rheodyne® & Valco® Valves

- Teflon®-tipped plungers.
- Removable needles.
- Replaceable syringe barrels, plungers, and plunger tips.



Hamilton 10µL Gas-Tight Syringe for
Rheodyne® and Valco® Valves

Hamilton Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	Hamilton		Restek
					Model	cat.#	cat.#
10µL	RN	26s	2"/51mm	3	1701	80065	ea. 21260
25µL	RN	22s	2"/51mm	3	1702	80265	ea. 21261
50µL	RN	22s	2"/51mm	3	1705	80965	ea. 21262
100µL	RN	22s	2"/51mm	3	1710	81065	ea. 21263
250µL	RN	22s	2"/51mm	3	1725	81165	ea. 21264



SGE 50µL Gas-Tight Syringe for Rheodyne® and Valco® Valves

SGE Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	SGE		Restek
					Model	cat.#	cat.#
10µL	R	22	2"	3	10R-GT-LC	002313	ea. 24866
25µL	R	22	2"	3	25R-GT-LC	003312	ea. 24867
50µL	R	22	2"	3	50R-GT-LC	004312	ea. 24868
100µL	R	22	2"	3	100R-GT-LC	005312	ea. 24869
250µL	R	22	2"	3	250R-GT-LC	006312	ea. 24870
500µL	R	22	2"	3	500R-GT-LC	007312	ea. 24871

Replacement Needles for Gas-Tight Syringes for Rheodyne® & Valco® Valves



Needles for Hamilton Syringes

Syringe Volume	Needle Gauge	Needle Length	Point Style	Hamilton cat.#	qty.	Restek cat.#
5–100µL	22s	2"	3	7770-01	6-pk.	24941
250µL–10mL	22	2"	3	7780-04	6-pk.	24945

Needles for SGE Syringes

Syringe Volume	Needle Gauge	Needle Length	Point Style	SGE cat.#	qty.	Restek cat.#
10µL	22	2"	3	037250	5-pk.	24808
25–500µL	22	2"	3	038250	5-pk.	24809

Economical Microliter Liquid-Type Syringes for Rheodyne® & Valco® Valves

- Cemented/fixed needles.
- Plungers and barrels are not interchangeable or replaceable.



Hamilton 50µL Microliter Syringe for Rheodyne® and Valco® Valves

Hamilton Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	Hamilton		qty.	Restek cat.#
					Model	cat.#		
10µL	N	22s	2"	3	701	80365	ea.	21250
25µL	N	22s	2"	3	702	80465	ea.	21251
50µL	N	22s	2"	3	705	80565	ea.	21252
100µL	N	22s	2"	3	710	80665	ea.	21253
250µL	N	22s	2"	3	725	80765	ea.	21254



SGE 50µL Microliter Syringe for Rheodyne® and Valco® Valves

SGE Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	SGE		qty.	Restek cat.#
					Model	cat.#		
10µL	F	22	2"	3	10F-LC	002301	ea.	24860
25µL	F	22	2"	3	25F-LC	003300	ea.	24861
50µL	F	22	2"	3	50F-LC	004300	ea.	24862
100µL	F	22	2"	3	100F-LC	005300	ea.	24863
250µL	F	22	2"	3	250F-LC	006300	ea.	24864
500µL	F	22	2"	3	500F-LC	007300	ea.	24865

Guide to Needle Termination Codes

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- (ASN) Autosampler Cemented Needle
- (ASRN) Autosampler Removable Needle
- (TLL) Teflon® Luer Lock
- (KH) Knurled Hub
- (LT) Luer Tip
- (LTN) Luer Tip Cemented Needle

SGE:

- (F) Fixed Needle
- (R) Removable Needle
- (LL) Luer Lock
- (LT) Luer Tip

Priming Syringes for Waters 6000, 6000A, 501, 510, 590, 610 and 610E HPLC Pumps

- Designed for maximum safety with metal flange and luer-lock (LL) hub.
- Teflon®-tipped plunger.



Hamilton Syringe

Volume	Needle Term.	Hamilton		Pressure Tested to	qty.	Restek cat.#
		Model	cat.#			
10mL	TLL	1010W	81610	700 psig	ea.	21265

SGE Syringe

Volume	Needle Term.	SGE		Pressure Tested to	qty.	Restek cat.#
		Model	cat.#			
10mL	LL	10MDR-LL-GT	008960	100 psig	ea.	24759

Syringes for Agilent 1090 & 1100 LC Autosamplers



25µL, 1/4-32 UNEF Thread

SGE Syringes

Volume	SGE		qty.	Restek cat.#
	Model	cat.#		
25µL	25D-HP1090-GT	003670	ea.	22290
250µL	250D-HP1090-GT	006670	ea.	22291

Syringe for Hitachi LC Autosamplers



500µL, M10 X1 Thread

SGE Syringe

Volume	SGE		qty.	Restek cat.#
	Model	cat.#		
500µL	500C-HITACH1	007660	ea.	22292

Syringes for PerkinElmer LC Autosamplers



250µL, 1/4-28 UNF Thread

SGE Syringes

Volume	SGE		qty.	Restek cat.#
	Model	cat.#		
50µL	50D-CX-GT	004995	ea.	22295
100µL	100D-CX-GT	005990	ea.	22296
250µL	250D-CX-GT	006995	ea.	22297
500µL	500D-CX-GT	007995	ea.	22298
1mL	1MD-C-GT	008185	ea.	22299

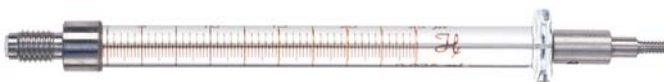
Syringes for Waters WISP™ LC Autosamplers



250µL, 1/4-28 UNF Thread

SGE Syringes

Volume	SGE		qty.	Restek cat.#
	Model	cat.#		
25µL	25D-WISP	003990	ea.	22293
250µL	250D-WISP	006690	ea.	22294



Hamilton Syringes

- Teflon® PTFE-tipped plungers

Volume	Hamilton		qty.	Restek cat.#
	Model	cat.#		
25µL	1702	80020	ea.	24528
250µL	1725	80024	ea.	24529

Syringes for CTC/LEAP LC Autosamplers



Hamilton 100µL LC Autosampler Syringe

Hamilton Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	Hamilton		qty.	Restek cat.#
					Model	cat.#		
10µL	N	22s	2"/51mm	3	701N	203073	ea.	22743
25µL	N	22s	2"/51mm	3	1702N	203075	ea.	22744
100µL	N	22s	2"/51mm	3	1710N Slim Line*	203077	ea.	22745
100µL	N	22	2"/51mm	3	1710N	203235	ea.	22746
250µL	N	22	2"/51mm	3	1725N	203079	ea.	22747
500µL	N	22	2"/51mm	3	1750N	203349	ea.	22748

*Barrel OD = 6.7mm; all other 25µL and 100µL syringes have a 7.9mm barrel OD.

also **available**

Replacement plunger assemblies for these syringes are available on request.



SGE 25µL LC Autosampler Syringe

SGE Syringes

Volume	Needle Term.	Needle Gauge	Needle Length	Point Style	SGE		qty.	Restek cat.#
					Model	cat.#		
10µL	F	22s	2"/51mm	LC	10F-CTC-LC	002710	ea.	22737
25µL	F	22s	2"/51mm	LC	25F-C/TLC	003984	ea.	22738
25µL*	R	22s	2"/51mm	LC	25R-C/T-GT-LC	003985	ea.	22739
50µL*	F	22s	2"/51mm	LC	50F-C/T-GT-LC	004810	ea.	22740
100µL*	R	22s	2"/51mm	LC	100R-C/T-GT-LC	005330	ea.	22741
500µL*	F	22s	2"/51mm	LC	500F-CTC-GT-LC(0.41)	007720	ea.	22742

*Gas-tight syringe.

did you **know**?

Restek sells nitrogen generators from Parker for LC/MS systems. See [page 245](#).



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