

Syringes

Syringe Overview

Plastic Syringes

Autosampler Syringes

For Agilent

For Bruker/Varian

For CTC

For PerkinElmer

For Shimadzu

For Thermo Scientific

Manual Syringes

Micro-Volume Syringes

Gas-Tight Syringes

Jumbo Syringes

LC Syringes



Syringe Basics

Needle Gauge Chart

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

s (after gauge) = smaller ID with thicker walls

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.

Guide to Needle Termination Codes

Hamilton:

(N) Cemented Needle
 (RN) Removable Needle
 (ASN) Autosampler Cemented Needle
 (ASRN) Autosampler Removable Needle
 (TLL) PTFE 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

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 reduction of septum coring.



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



Point Style 5, S/Hole, Bevel: conical needle with side hole. Liquid samples are filled and dispensed through the side hole.



Point Style H, Dome: 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, AS: special conical style needle point used exclusively on syringes for autosamplers.

Syringe Termination Types

From cemented to removable needles, and from PTFE 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 6,000 psig maximum injection pressures and the attachment of a spacer for repeatable-depth injections. Autoclavable when disassembled.



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, PTFE 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.



NORM-JECT® Plastic Syringes

NORM-JECT® syringes are latex-free, contain no rubber, no silicone oil, styrene or DEHP, and are DNA-free. These syringes are the choice for any situation needing an inert, nonreactive syringe. Because of their composition, they are ideal for chromatography and many other laboratory procedures. They are more chemically resistant than rubber-tipped syringes and are manufactured from only laboratory grade polypropylene and polyethylene. These unique plastic syringes have a positive safety stop to prevent accidental spills. NORM-JECT® syringes are individually sterile strip packed.

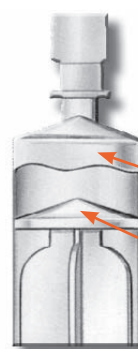
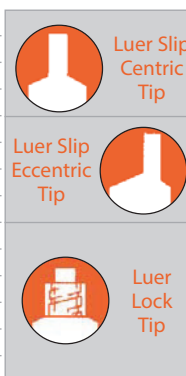


Not recommended for human use.

Description	qty.	cat.#
1 mL Luer Slip Tuberculin ¹	100-pk.	22766
3 mL Luer Slip Centric Tip	100-pk.	22767
5 mL Luer Slip Centric Tip ²	100-pk.	22768
10 mL Luer Slip Eccentric Tip ²	100-pk.	22769
20 mL Luer Slip Eccentric Tip ²	100-pk.	22770
30 mL Luer Slip Eccentric Tip	50-pk.	22771
50 mL Luer Slip Eccentric Tip ²	30-pk.	22772
3 mL Luer Lock Tip	100-pk.	22773
5 mL Luer Lock Tip ²	100-pk.	22774
10 mL Luer Lock Tip ²	100-pk.	22775
20 mL Luer Lock Tip ²	100-pk.	22776
30 mL Luer Lock Tip	50-pk.	22777
50 mL Luer Lock Tip ²	30-pk.	22778

¹Dose saver design with low dead space plug on the piston to minimize waste.

²The 5 mL has graduations to 6 mL, 10 mL has graduations to 12 mL, 20 mL has graduations to 24 mL, and 50 mL has graduations to 60 mL.



Great for use with Restek syringe filters!
See page 408.

Barrel - Polypropylene

Plunger - Polyethylene

CE