

Technical Information

Needle Point Style Guide

Several different needle point styles are offered on Hamilton syringe and needle products depending on the application. The correct point style varies depending on the intended application. Below are a few examples of common applications.

Manual GC Injections: Historically a Point Style 2 was required to achieve efficient septum penetration with minimized coring. With Hamilton's new line of GC septa there is evidence that indicates the Point Style AS will consistently extend septa life by as much as 10-fold.

Manual HPLC Injections: Most manual injection valves are designed to be used with a 22 gauge Point Style 3 needle.

Drawing Sample: Any point style will efficiently draw a sample, but when it is important to get the last drop out of a vial use Point Style 3 or AS to reach all the way to the bottom.

Animal Injections: Animal injections require the sharpest needle possible. The recommended needle point style for this application is a Point Style 4 at a 12° bevel. For applications where injection site depth is critical or the target is small, a more vertical bevel as shown below, such as a 30 or 45°, is suggested.



Bevels for the point style 4 needle may vary from 12-60°.

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

Point Style 2

Sharp, beveled, curved, non-coring needle point recommended for septum penetration.

Available gauges: 34-10.



Point Style 3

Blunt needle point for use with HPLC injection valves and for sample pipetting.

Available gauges: 34-10.



Point Style 3T

Blunt needle point for thin layer chromatography (TLC) applications. Needles are coated with PTFE 3/4" up from the needle tip.

Available gauges: 26s, 26, 22s, 22.



Point Style 4

Standard 12° beveled needle point is recommended for life science applications.

Available gauges: 34-10. Special point styles such as 30°, 45°, or any other angle are available upon request.



Point Style 5

Conical needle with side port for penetration of septa, thin-gauged vinyls and plastics without coring.

Available gauges: 26-10.



Point Style AS

Special conical style needle point used on autosampler syringes the non-coring needle point is recommended for septum penetration.

Available gauges: 26-10.

