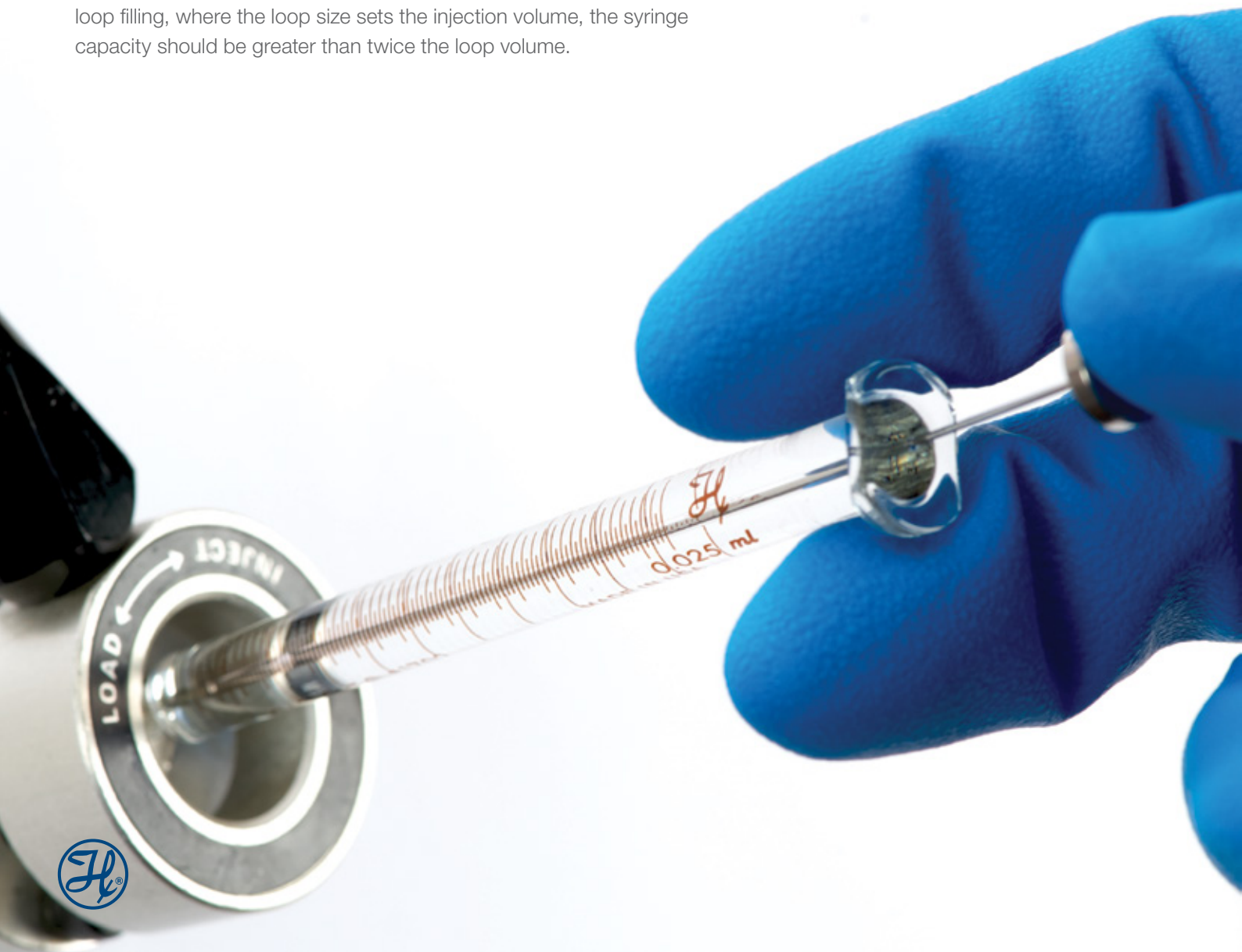


Liquid Chromatography Syringes

Hamilton manufactures a complete range of high performance liquid chromatography (HPLC) syringes and thin layer chromatography (TLC) syringes.

HPLC Syringes

HPLC syringes are especially designed for manual or automatic injection within high pressure ports. The needle is blunt and electro-polished to slide smoothly into the injection port reducing the wear on critical seals. The selection of the appropriate syringe for HPLC applications takes the following three aspects into account: the type of injection valve, the sample properties and the injection volume. The volume of the syringe should be adjusted to the volume of the injection. In partial loop filling, the injection volume should not be greater than half of the loop capacity. In complete loop filling, where the loop size sets the injection volume, the syringe capacity should be greater than twice the loop volume.



Rheodyne®, Valco®, Beckman Coulter, Altex and SSI Injection Valve Syringes



Gastight Syringes For Aqueous Samples

Volume	10 µL	25 µL	50 µL	100 µL	250 µL	500 µL	1000 µL
Model	1701	1702	1705	1710	1725	1750	1001
Gauge	22s	22s	22s	22s	22s	22	22
Cemented Needle (N) Syringe (point style 3)		80275	80975	81075			
Cemented Needle (LTN) Syringe (point style 3)					81175	81216	81316
Removable Needle (RN) Syringe (point style 3)	80065	80265	80965	81065	81165 ¹	81265	81365
Replacement Needle 6 pk (point style 3)	7770-01	7770-01	7770-01	7770-01	7780-03	7780-04	7780-04

Note: Needles are 51 mm
1) 22 gauge needle



Microliter Syringes For Volatile Organic Samples

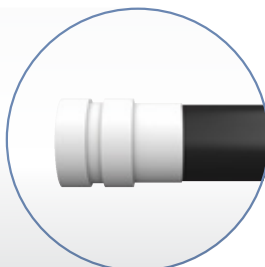
Volume	10 µL	25 µL	50 µL	100 µL	250 µL	500 µL
Model	701	702	705	710	725	750
Gauge	22s	22s	22s	22s	22	22
Cemented Needle (N) Syringe (point style 3)	80365	80465	80565	80665	80765	80865

Note: Needles are 51 mm



Tech Tip

Gastight syringes have a polymer tipped plunger, often PTFE, which essentially wipes the interior of the syringe barrels. This reduces the risk of deposition on the barrel which may cause cross-contamination or plunger seizing.



Valco® VISF-1 Valve Syringes



Valco® VISF-1 Injection Valve Syringes

Volume	25 µL	50 µL	100 µL	250 µL	500 µL	1000 µL
Model	1702	1705	1710	1725	1750	1001
Gauge	22s	22s	22s	22s	22	22
Removable Needle (RN) Syringe (point style 3)	80231	80931	81031	81131	81231	81331
Replacement Needle 6 pk (point style 3)	7787-01	7787-01	7787-01	7806-02 ¹	7787-02	7787-02

Note: Needles are 19 mm
1) Please specify length and point style

Adapter For Repeated Manual Injection

Volume	10 µL	25 µL	50 µL	100 µL	250 µL	500 µL
Model	701/1701	702/1702	705/1705	710/1710	725/1725	750/1750
Reproducibility (Chaney) Adapter	14700	14725	14725	14725	14725	14725



Tech Tip

Improve the reproducibility of multiple manual injections with the Chaney adapter (p/n 14700 and 14725).

The Power of Polymeric HPLC Columns

Hamilton was the first to offer pressure-stable HPLC columns, and the company now features a wide range of column retention selectivities and performance benefits. Hamilton offers 19 different polymer-based HPLC columns for reversed phase, anion exchange, cation exchange and ion exclusion separations. Hamilton's polymeric HPLC columns combine the inertness and pH stability of polymeric supports with the pressure stability and durability of silica-based columns. Two silica-based C8 and C18 columns are also available for reversed phase separations.



Thin Layer Chromatography

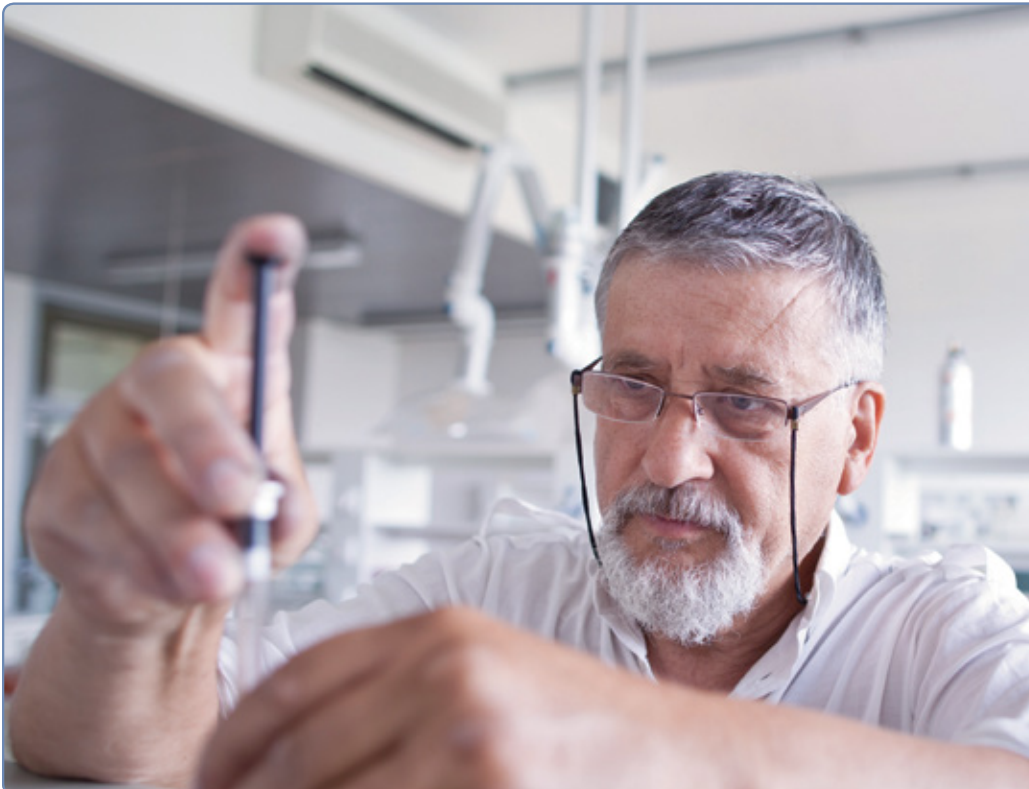
The point of the needle of a thin layer chromatography (TLC) syringe is covered with a PTFE coating (point style 3T). The coating reduces the surface tension between the needle and the liquid making it ideal for reproducible sample spotting.

Thin Layer Chromatography Syringes

Volume	10 μ L	25 μ L	50 μ L	100 μ L
Model	1701	1702	1705	1710
Gauge	26s	22s	22	22
Cemented Needle (N) Syringe (point style 3T)	80050	80250	80950	81050

Note: Needles are 51 mm

For a full list of all syringes available,
visit www.hamiltoncompany.com/syringes



HPLC Autosampler Syringes

HPLC autosamplers enable the automatic introduction of samples into the sample loop as well as a certain amount of sample preparation. Automatic injection has become very common, as it provides improved reproducibility and speed. Hamilton offers a wide range of HPLC autosampler syringes. The features of the autosampler syringes are adapted for an exact fit to a specific autosampler.

CTC PAL[®] HTC-xt, HTS-xt and HTX-xt Autosampler Syringes

CTC PAL[®] autosamplers are one of the most popular sample processing systems for HPLC analyses. Customers rely on its ability to sample from many different vial and well types and on its ultimate platform flexibility. The syringe is at the heart of every injection that the LC PAL[®] system performs and CTC chose Hamilton to provide this critical component.



C-Line Syringes

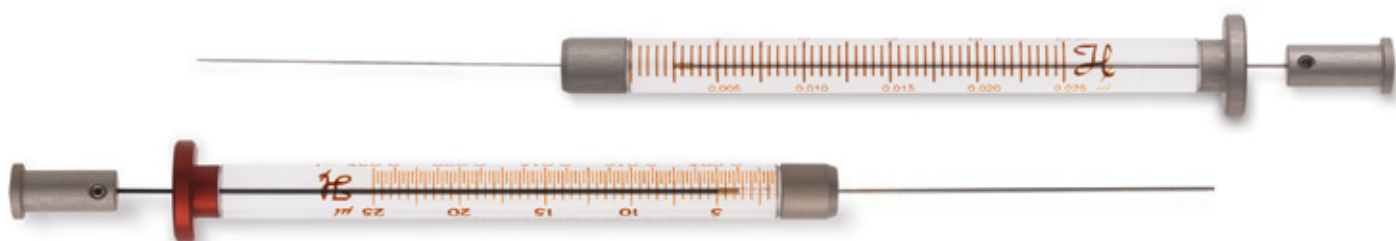
C-Line syringes incorporate several unique design features that ensure superior performance. The innovative direct attachment design of the needle to the barrel eliminates contact between the sample solvent and adhesive reducing carryover and ghost peaks. The inert plunger tip polymer provides enhanced solvent compatibility and longer lifetime.

C-Line CTC PAL® HTC-xt, HTS-xt and HTX-xt Syringes

Volume	10 µL	25 µL	100 µL	250 µL	500 µL	1000 µL	2500 µL	5000 µL
Model	1701	1702	1710	1725	1750	1001	1002	1005
Gauge	22s	22s	22s	22	22	22	22	22
Fixed Needle (FN) Syringe (point style 3)	203194 ²	203075	203077 ²	203079	203349	203081 ¹	203083 ¹	203085 ¹

Note: Needles are 51 mm

1) LTN termination 2) Slimline syringe



X-Type Syringes

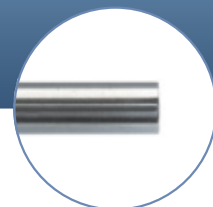
Hamilton, together with CTC Analytics, has developed X-Type syringes with near zero carryover and a long-lasting plunger tip to meet the requirement of high-throughput life science analytical syringes for sensitive applications. The syringe glass barrel is polished and sealed for inertness and enhanced lifetime. The needle is deactivated to reduce sample adsorption. Tests with critical samples like phospholipids, basic molecules and peptides have shown that carryover and absorption can be reduced depending on the sample. The plunger's life cycle is also improved.

X-Type Syringes For Sensitive Chromatography Applications

Volume	25 µL	100 µL	100 µL
Model	1702	1710	1710
Gauge	22s	22	22s
Fixed Needle (FN) Syringe (point style 3)	204475	204400	204452

Note: Needles are 51 mm

A guide to syringe terminations and needle points can be found on page 4.



PREP. ROZT. LEU-ENKE
100 mL A.CN
100 mL H₂O
100 μL HCOOH
100 μL LEU-ENKF
(1 mg/mL)



Agilent/Varian Autosampler Syringes

Agilent 1290 Infinity LC Injector HTC/HTS Syringes

Volume	10 µL	25 µL	100 µL	250 µL	500 µL	1000 µL	2500 µL	5000 µL
Model	1701	1702	1710	1725	1750	1001	1002	1005
Gauge	22s	22s	22s	22	22	22	22	22
Fixed Needle (FN) Syringe (point style 3)	203194 ¹	203075	203077 ¹	203079	203349	203081 ²	203083 ²	203085 ²

Note: Needles are 51 mm
 1) Slimline syringe 2) LTN termination

Varian Prostar 410/420/430 Syringes

Volume	25 µL	100 µL	250 µL	500 µL	1000 µL	2500 µL
Model	1702	1710	1725	1750	1001	1002
Gauge	No needle	No needle	No needle	No needle	No needle	No needle
ChemSeal (C) Syringe	62161-01	54658-01	54659-01	54660-01	54661-01	54662-01



Spark Holland Midas Autosampler

Thermo Scientific® Autosampler Syringes

AS 100/300 and AS 1000/3000/3500 Syringes

Volume	250 µL	500 µL	1000 µL	2500 µL	5000 µL
Model	1725	1750	1001	1002	1005
Gauge	No needle	No needle	No needle	No needle	No needle
ChemSeal (C) Syringe	202145	202192	81360	81460	81560

SP 8780/8875/8880 Syringes

Volume	250 µL	2500 µL
Model	1725	1002
Gauge	No needle	No needle
ChemSeal (C) Syringe	202145	81460

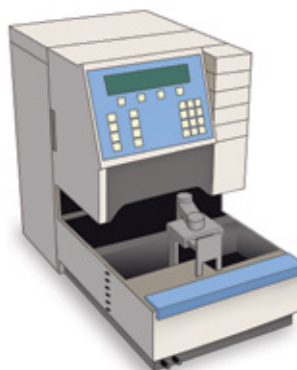


Thermo Scientific® AS 3000 Autosampler

Spark Holland Autosampler Syringes

The Hamilton Spark Holland syringe line works with the following manufacturers' autosamplers:

- ▶ Spark Holland Midas, Triathlon, Endurance and Alias
- ▶ Antec AS 100 and AS 110
- ▶ Dionex ESA Model 542, 540 and 540MT
- ▶ Beckman Coulter 508
- ▶ Grace/Alltech Model 580

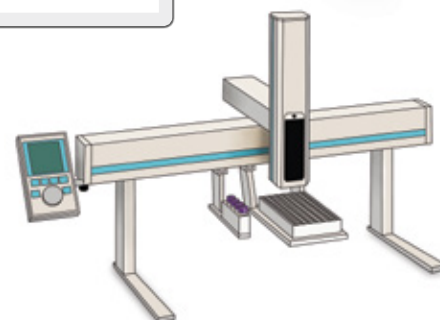


Spark Holland Endurance Autosampler



Spark Holland Autosampler Syringes

Volume	25 µL	100 µL	250 µL	500 µL	1000 µL	2500 µL
Model	1702	1710	1725	1750	1001	1002
Gauge	No needle	No needle	No needle	No needle	No needle	No needle
ChemSeal (C) Syringe	62161-01	54658-01	54659-01	54660-01	54661-01	54662-01



Waters® 2777 Sample Manager

Waters® Autosampler Syringes

Waters® 2777 Sample Manager Syringes

Volume	10 µL	25 µL	100 µL	250 µL	500 µL	1000 µL	2500 µL	5000 µL
Model	1701	1702	1710	1725	1750	1001	1002	1005
Gauge	22s	22s	22s	22	22	22	22	22
Fixed Needle (FN) Syringe (point style 3)	203194 ¹	203075	203077 ¹	203079	203349	203081 ²	203083 ²	203085 ²

Note: Needles are 51 mm
 1) Slimline syringes 2) LTN termination

Waters® 2707 Autosampler Syringes

Volume	25 µL	100 µL	250 µL	500 µL	1000 µL	2500 µL
Model	1702	1710	1725	1750	1001	1002
Gauge	No needle	No needle	No needle	No needle	No needle	No needle
ChemSeal (C) Syringe	62161-01	54658-01	54659-01	54660-01	54661-01	54662-01



PerkinElmer® Autosampler Syringes

Series 225, Flexar® FX-10/FX-15 Syringes

Volume	25 µL	100 µL	250 µL	500 µL	1000 µL	2500 µL
Model	1702	1710	1725	1750	1001	1002
Gauge	No needle	No needle	No needle	No needle	No needle	No needle
ChemSeal (C) Syringe	62161-01	54658-01	54659-01	54660-01	54661-01	54662-01

Series 200 Syringes

Volume	50 µL	250 µL	500 µL	1000 µL	2500 µL
Model	1705	1725	1750	1001	1002
Gauge	No needle	No needle	No needle	No needle	No needle
ChemSeal (C) Syringe	80962	81162	81262	81360	81460



PerkinElmer® Series 225 Autosampler

