

1


1 Syringe Terminations

Syringe terminations are offered in a number of different configurations designed to accommodate a broad range of applications. From cemented to removable needles, and luer taper /PTFE luer-lock to special syringe fittings, syringe barrel terminations serve a key function at the interface of a syringe and its mating connection. Hamilton

N, NR (Cemented Needle, Rheodyne)

Needles are cemented into the glass syringe barrel at a point corresponding to the zero graduation mark. NR stands for syringes with Rheodyne specified needles.

LTN (Luer Tip Cemented Needle)

Needles are cemented into the conical glass luer tip of the barrel at a point corresponding to the zero graduation mark.

SN (Special Needle)

Hamilton offers customized syringes with special needles. State the following details: needle length, gauge, point style, and whether electro-tapered. Example of a correct specification: 701 SN, 70mm, gauge 25, point style 3, not electro-tapered. Without these details the corresponding standard syringe 701 N will be supplied.

RN (Removable Needle)

Removable needles seat precisely to the zero graduation mark of the syringe. Allows the use of different specification needles on the same syringe barrel.

LT (Luer Tip)

Ground glass syringe barrel with a male luer taper accepts most hypodermic needles. Use Kel-F hub needles and connectors for a tight seal.

KH (Knurled Hub)

Removable needle, knurled hub is used on 7000 Series syringes, exclusively. The attachment of a spacer enables repeatable depth injections.

C (Cheminert)

1/4"-28 UNF, male fitting. Used in low volume applications where system dead volumes need to be minimized.

TLL, TLLX (PTFE Luer-Lock)

Male luer taper with nickel-plated brass hub accepts, and locks in place, luer hub needles and connectors. The X-style plunger stop incorporates a 6-32 UNC female thread on the end of the stop to allow attachment to drive arm mechanisms, such as on the Microlab 500 Series diluters/dispensers.

AD (AccuDil®)

M8 x 0.75, male fitting. Used with Microlab 1000 PLUS diluter/dispenser.

DAD (Diluter AccuDil®)

M8 x 0.75 male fitting with M6 x 1 side port. Used with Microlab 1000 Plus diluter/dispenser.

SL (SampleLock)

On/Off syringe valve with RN needle is cemented to a syringe barrel. Used for headspace, environmental sample collection and storage, pre-pressurization of gaseous samples for GC analysis, and sample spiking.

2


2 Microlitre syringes, Needle Types

Point Style 2 (pst2): 12° bevelled non-coring needle point recommended for septum penetration. Ideal for gas chromatographic applications. Hamilton

Point Style 3 (pst3): Blunt needle point (90°) for use with HPLC injection valves. Also recommended for applications where exact dosing is required (e.g. thin layer chromatographs).

Point Style 4 (pst4): 10-12° bevelled needle point recommended for life science applications; sharp point for animal injection.

Point Style 5 (pst5): Conical needle with side port for penetration of septa, thin-gauged vinyls and plastics without coring; minimizes septum damage

Point Style AS (pstAS): Special conical style needle point (8° taper) designed to withstand the demands of multiple injections; exclusively used on GC autosampler syringes

1 Microlitre syringes, 700 series, with fixed needle

With fixed needle (N, NR). NR stands for syringes with Rheodyne specified needles. Plungers are individually fitted, therefore cannot be interchanged and are not available as replacement parts. Needles are electro-tapered.

Hamilton

Needle length 51mm

| Type | Capacity µl | Gauge | Point style | PK | Cat. No. |
|--------|----------------|-------|-------------|----|-----------|
| 75 N | 5 | 26s | 2 (GC) | 1 | 9.221 001 |
| 701 N | 10 | 26s | 2 (GC) | 1 | 9.221 002 |
| 701 N | 10 | 26s | 2 (GC) | 6 | 9.221 010 |
| 702 N | 25 | 22s | 2 (GC) | 1 | 9.221 003 |
| 705 N | 50 | 22s | 2 (GC) | 1 | 9.221 004 |
| 710 N | 100 | 22s | 2 (GC) | 1 | 9.221 005 |
| 725 N | 250 | 22s | 2 (GC) | 1 | 9.221 006 |
| 750 N | 500 | 22s | 2 (GC) | 1 | 9.221 007 |
| 75 N | 5 | 26s | 3 (HPLC) | 1 | 9.221 011 |
| 701 N | 10 | 26s | 3 (HPLC) | 1 | 9.221 012 |
| 702 NR | 25 | 22s | 3 (HPLC) | 1 | 9.221 013 |
| 705 NR | 50 | 22s | 3 (HPLC) | 1 | 9.221 014 |
| 710 NR | 100 | 22s | 3 (HPLC) | 1 | 9.221 015 |
| 725 NR | 250 | 22s | 3 (HPLC) | 1 | 9.221 016 |
| 750 N | 500 | 22s | 3 (HPLC) | 1 | 6.055 335 |



Microlitre syringes, 700 series, for removable needles

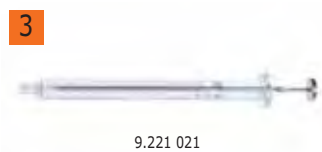
- 5µl - 500µl
- For use with liquids
- Removable needles (RN9, or luer tip (LT))
- Plungers and Syringe barrels are not interchangeable or replaceable
- Tight tolerances between the plunger and the barrel

Hamilton

Needle length 51mm
Point style 2 (GC)

| Type | Capacity µl | Gauge | Point style | PK | Cat. No. |
|---------|----------------|-------|-------------|----|-----------|
| 75 RN | 5 | 26s | 2 (GC) | 1 | 9.221 080 |
| 701 RN | 10 | 26s | 2 (GC) | 1 | 9.221 081 |
| 701 RN | 10 | 26s | 2 (GC) | 6 | 6.059 899 |
| 702 RN | 25 | 22s | 2 (GC) | 1 | 9.221 082 |
| 705 RN | 50 | 22s | 2 (GC) | 1 | 9.221 083 |
| 710 RN | 100 | 22s | 2 (GC) | 1 | 9.221 084 |
| 725 RN | 250 | 22s | 2 (GC) | 1 | 9.221 085 |
| 750 RN | 500 | 22s | 2 (GC) | 1 | 9.221 086 |
| 701 LT* | 10 | 26s | | 1 | 9.221 021 |
| 702 LT* | 25 | 22s | | 1 | 9.221 022 |
| 705 LT* | 50 | 22s | | 1 | 9.221 023 |
| 710 LT* | 100 | 22s | | 1 | 9.221 024 |
| 725 LT* | 250 | 22s | | 1 | 9.221 025 |
| 750 LT* | 500 | 22s | | 1 | 9.221 026 |

* Needle - please order separately.



4 Needles for RN syringes

Removable. Not for use in HPLC applications.

Hamilton

Length 51mm
Point style 2

| Type | Ext. dia. mm | Int. dia. mm | Gauge | Volume litres | PK | Cat. No. |
|---------|--------------|--------------|-------|-----------------|----|-----------|
| 7758-02 | 0.5 | 0.13 | 26s | 2,5 µl - 100 µl | 6 | 9.221 692 |
| 7758-03 | 0.7 | 0.15 | 22s | 2,5 µl - 100 µl | 6 | 9.221 693 |
| 7779-01 | 0.7 | 0.41 | 22s | 250 µl - 10 ml | 6 | 9.221 694 |
| 7779-03 | 0.7 | 0.15 | 22s | 250 µl - 10 ml | 6 | 9.221 695 |



1

1 Microlitre syringes, 800 series, with cemented/ removable needles

With cemented-in, standard needles (N).

With metal handle. Plungers are individually fitted, therefore cannot be interchanged and are not available as replacement parts. Needles are electro-tapered.

Hamilton

With removable needle (RN).

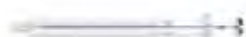
Type RN complete with metal plunger handles.

Type RN B/P are syringes only without metal plunger (replacement syringes).

Needle length 51mm

Point style 2 (GC)

| Type | Capacity µl | Gauge | Point style | PK | Cat. No. |
|------------|----------------|-------|-------------|----|-----------|
| 85 N | | 26s | 2 | 1 | 9.221 105 |
| 801 N | 10 | 26s | 2 | 1 | 9.221 110 |
| 802 N | 25 | 22s | 2 | 1 | 9.221 111 |
| 805 N | 50 | 22s | 2 | 1 | 9.221 112 |
| 810 N | 100 | 22s | 2 | 1 | 9.221 113 |
| 85 RN | 5 | 26s | 2 | 1 | 9.221 115 |
| 801 RN | 10 | 26s | 2 | 1 | 9.221 116 |
| 802 RN | 25 | 22s | 2 | 1 | 9.221 117 |
| 805 RN | 50 | 22s | 2 | 1 | 9.221 118 |
| 810 RN | 100 | 22s | 2 | 1 | 9.221 119 |
| 825 RN | 250 | 22s | 2 | 1 | 9.221 120 |
| 85 RN | 5 | 26s | | 1 | 6.803 384 |
| 801 RN | 10 | 26s | | 1 | 6.222 013 |
| 810 RN | 100 | 22s | | 1 | 6.231 153 |
| 801 RN B/P | 10 | | | 1 | 9.221 172 |

2


9.221 210

2 Microlitre syringes, 1700/1000 series, with LT and gas-tight

Glass barrel with PTFE-coated plunger, seal and with Luer Tip (LT).

Gas-tight microlitre syringe without needle.

MS = Plunger stop fitted to prevent damage to the PTFE seal.

Prevents the plunger tip from reaching the end of the syringe.

Hamilton

| Type | Capacity µl | Grad. µl | PK | Cat. No. |
|---------|----------------|-------------|----|--------------------|
| 1710 LT | 100 | 1 | 1 | 9.221 210 2 |
| 1725 LT | 250 | 5 | 1 | 9.221 225 |
| 1750 LT | 500 | 10 | 1 | 9.221 250 |
| 1001 LT | 1000 | 10 | 1 | 9.221 251 3 |
| 1002 LT | 2500 | 50 | 1 | 9.221 252 |
| 1005 LT | 5000 | 100 | 1 | 9.221 255 |

3


9.221 251

4


9.221 300

4 Microlitre syringes, 1700/1000 series, with TLL/ TLLX and gas tight

Glass barrel with PTFE-coated plunger and seal, and Luer lock outlet (TLL). TLLX with

6-32 UNC female thread. Allows attachment to drive arm mechanisms, e.g. Microlab

500 Series diluters/dispensers.

Gas-tight microlitre syringe without needle. MS = Plunger stop fitted to prevent damage to the PTFE seal. Prevents the plunger tip from reaching the end of the syringe.

Hamilton

| Type | Capacity µl | Grad. µl | PK | Cat. No. |
|--------------------------|----------------|-------------|----|--------------------|
| 1702 TLLX, TLL with stop | 25 | 0,25 | 1 | 9.221 300 4 |
| 1705 TLLX, TLL with stop | 50 | 0,5 | 1 | 9.221 305 |
| 1710 TLLX, TLL with stop | 100 | 1 | 1 | 9.221 310 |
| 1725 TLLX, TLL with stop | 250 | 5 | 1 | 9.221 315 |
| 1750 TLLX, TLL with stop | 500 | 10 | 1 | 9.221 320 |
| 1001 TLL | 1000 | 10 | 1 | 9.221 348 5 |
| 1001 TLL W/S | 1000 | 20 | 1 | 9.221 325 |
| 1001 TLLX | 1000 | 0,01 | 1 | 9.221 328 |
| 1002 TLL | 2500 | 50 | 1 | 9.221 330 |
| 1005 TLL | 5000 | 100 | 1 | 9.221 335 |
| 1010 TLL | 10000 | 200 | 1 | 9.221 340 |
| 1025 TLL | 25000 | 500 | 1 | 9.221 347 |
| 1025 TLL | 25000 | 500 | 1 | 9.221 345 |

5


9.221 348

1 Needles for LT/TLL/TLLX syringes

NEW!

Removable. With Luer tip made of Kel-F. All hypodermic needles available according to specification in 10mm to max. 1000mm lengths. Further point styles available on request.

Hamilton

Needle length 51mm

| Type | Ext. dia. mm | Int. dia. mm | Gauge | Point style | PK | Cat. No. |
|--------------|--------------|--------------|-------|-------------|----|-----------|
| KF 726s pst2 | 0.47 | 0.13 | 26s | 2 (GC) | 6 | 9.221 609 |
| KF 726 pst2 | 0.46 | 0.26 | 26s | 2 (GC) | 6 | 9.221 626 |
| KF 725 pst2 | 0.51 | 0.26 | 25s | 2 (GC) | 6 | 9.221 625 |
| KF 724 pst2 | 0.57 | 0.31 | 24s | 2 (GC) | 6 | 9.221 624 |
| KF 723 pst2 | 0.64 | 0.34 | 23s | 2 (GC) | 6 | 9.221 623 |
| KF 722s pst2 | 0.72 | 0.15 | 22s | 2 (GC) | 6 | 9.221 607 |
| KF 722 pst2 | 0.72 | 0.41 | 22s | 2 (GC) | 6 | 9.221 622 |
| KF 721 pst2 | 0.82 | 0.51 | 21s | 2 (GC) | 6 | 9.221 621 |
| KF 720 pst2 | 0.91 | 0.60 | 20s | 2 (GC) | 6 | 9.221 620 |
| KF 726s pst3 | 0.47 | 0.13 | 26s | 3 (HPLC) | 6 | 9.221 709 |
| KF 726 pst3 | 0.46 | 0.26 | 26s | 3 (HPLC) | 6 | 9.221 726 |
| KF 725 pst3 | 0.51 | 0.26 | 25s | 3 (HPLC) | 6 | 9.221 735 |
| KF 724 pst3 | 0.57 | 0.31 | 24s | 3 (HPLC) | 6 | 9.221 724 |
| KF 723 pst3 | 0.64 | 0.34 | 23s | 3 (HPLC) | 6 | 9.221 723 |
| KF 722s pst3 | 0.72 | 0.15 | 22s | 3 (HPLC) | 6 | 9.221 707 |
| KF 722 pst3 | 0.72 | 0.41 | 22s | 3 (HPLC) | 6 | 9.221 722 |
| KF 721 pst3 | 0.82 | 0.51 | 21s | 3 (HPLC) | 6 | 9.221 721 |
| KF 720 pst3 | 0.91 | 0.60 | 20s | 3 (HPLC) | 6 | 9.221 720 |



Microlitre syringes, 1700/1000 series, with removable needle

Gas-tight microlitre syringes with removable needle (RN).

Hamilton

Needle length 51mm
Point style 2 (GC)

| Type | Capacity µl | Gauge | Point style | PK | Cat. No. |
|---------|-------------|-------|-------------|----|-----------|
| 1701 RN | 10 | 26s | 2 (GC) | 1 | 9.221 487 |
| 1702 RN | 25 | 22s | 2 (GC) | 1 | 9.221 488 |
| 1702 RN | 50 | 22s | 2 (GC) | 1 | 9.221 489 |
| 1710 RN | 100 | 22s | 2 (GC) | 1 | 9.221 490 |
| 1725 RN | 250 | 22s | 2 (GC) | 1 | 9.221 491 |
| 1750 RN | 500 | 22s | 2 (GC) | 1 | 9.221 492 |
| 1001 RN | 100 | 22s | 2 (GC) | 1 | 9.221 493 |
| 1002 RN | 2500 | 22s | 2 (GC) | 1 | 9.221 494 |



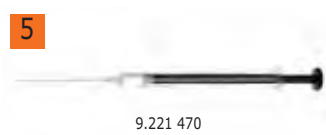
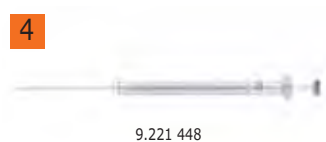
Microlitre syringes, 1700/1000 series, with cemented needle

With PTFE plunger seal.
Gas-tight microlitre syringes with cemented-in needles (N).
Needles are electro-tapered (LTN).

Hamilton

Needle length 51mm
Point style 2 (GC)

| Type | Capacity µl | Gauge | Point style | PK | Cat. No. |
|----------|-------------|-------|-------------|----|-----------|
| 1701 N | 10 | 26s | 2 (GC) | 1 | 9.221 448 |
| 1702 N | 25 | 22s | 2 (GC) | 1 | 9.221 449 |
| 1705 N | 50 | 22s | 2 (GC) | 1 | 9.221 450 |
| 1710 N | 100 | 22s | 2 (GC) | 1 | 9.221 455 |
| 1725 N | 250 | 22s | 2 (GC) | 1 | 9.221 460 |
| 1750 LTN | 500 | 22s | 2 (GC) | 1 | 9.221 465 |
| 1001 LTN | 1000 | 22s | 2 (GC) | 1 | 9.221 470 |
| 1002 LTN | 2500 | 22s | 2 (GC) | 1 | 9.221 475 |
| 1005 LTN | 5000 | 22s | 2 (GC) | 1 | 9.221 480 |
| 1010 LTN | 10000 | 22s | 2 (GC) | 1 | 9.221 485 |



1 Microlitre syringes, 1800 series, with ceneded or removable needle



- 10µl to 250µl
- for use with gases and liquids
 - removable needles (RN) or cemented needles (N)
 - precision-machined PTFE-tipped plungers
 - reinforced plungers
 - plunger assemblies and glass barrels are replaceable

Hamilton

| Type | Capacity µl | Gauge | Point style | PK | Cat. No. |
|---------|----------------|-------|-------------|----|-----------|
| 1801 N | 10 | 26s | 2 | 1 | 9.221 836 |
| 1802 N | 25 | 22s | 2 | 1 | 9.221 837 |
| 1805 N | 50 | 22s | 2 | 1 | 9.221 838 |
| 1810 N | 100 | 22s | 2 | 1 | 9.221 839 |
| 1825 N | 250 | 22s | 2 | 1 | 9.221 840 |
| 1801 RN | 10 | 26s | 2 | 1 | 9.221 831 |
| 1802 RN | 25 | 22s | 2 | 1 | 9.221 832 |
| 1805 RN | 50 | 22s | 2 | 1 | 9.221 833 |
| 1810 RN | 100 | 22s | 2 | 1 | 9.221 834 |
| 1825 RN | 250 | 22s | 2 | 1 | 9.221 835 |

2 Microlitre syringes, 7000 series, with removable needle



- 0.5µl - 5µl
- For use with liquids
 - Removable needles (KH)
 - Positive displacement
 - Sample contained in the needle
 - No dead volume
 - Replaceable syringe parts
- Needle length 70mm

Hamilton

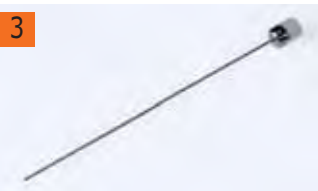
| Type | Capacity µl | Gauge | Point style | PK | Cat. No. |
|-------------|----------------|-------|-------------|----|-----------|
| 7000.5 KH | 0.5 | 50s | 2 | 1 | 6.700 111 |
| 7001 KH | 1.0 | 47s | 2 | 1 | 9.221 121 |
| 7101 KH | 1.0 | 70s | 2 | 1 | 6.802 391 |
| 7002 KH | 2.0 | 50s | 2 | 1 | 6.204 624 |
| 7102 KH | 2.0 | 63s | 2 | 1 | 6.801 037 |
| 7105 KH | 5.0 | 56s | 2 | 1 | 9.221 125 |
| 7000.50C KH | 0.5 | 23s | 3 | 1 | 9.221 590 |
| 7000.5 KH | 0.5 | 50s | 3 | 1 | 9.221 126 |
| 7001 KH | 1.0 | 47s | 3 | 1 | 6.802 598 |
| 7101 KH | 1.0 | 70s | 3 | 1 | 9.221 131 |
| 7002 KH | 2.0 | 50s | 3 | 1 | 9.221 122 |
| 7102 KH | 2.0 | 63s | 3 | 1 | 9.221 132 |
| 7105 KH | 5.0 | 56s | 3 | 1 | 6.050 160 |

Spare unit for Microlitre syringes, 7000 series

Hamilton

| Type | PK | Cat. No. |
|--------------------------------|----|-----------|
| Spare unit for syringes 7000.5 | 1 | 9.221 181 |
| Spare unit for syringes 7001 | 1 | 9.221 182 |
| Spare unit for syringes 7002 | 1 | 9.221 183 |
| Spare unit for syringes 7105 | 1 | 9.221 184 |
| Spare unit for syringes 7101 | 1 | 9.221 185 |
| Spare unit for syringes 7102 | 1 | 9.221 186 |

3 Microlitre syringe needles for HPLC



- Removable. For use with Rheodyne valves and Valco system VSF 2. Fit Hamilton syringes from 5µl to 100µl capacity.

Hamilton

Needle length 51mm

| Type | Volume litres | Gauge | Point style | PK | Cat. No. |
|---------|------------------|-------|-------------|----|-----------|
| 7780-04 | 250 µl - 1000 µl | 22s | 3 (HPLC) | 6 | 6.203 934 |
| 7770-01 | 2,5 µl - 100 µl | 22s | 3 (HPLC) | 6 | 9.221 603 |

Microlitre syringes for GC-autosamplers A



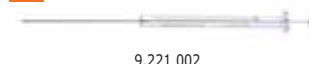
With cemented-in needles (N). For GC-autosamplers Agilent 7670 A, 7671 A, 7672 A and CTC GC PAL autosampler.

Hamilton

Syringe types with Special needle (SN) available on request.
Needle length 51mm

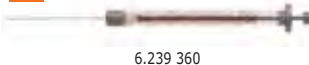
| Type | Capacity µl | Gauge | Point style | PK | Cat. No. |
|----------------------|----------------|-------|-------------|----|--------------------|
| 75 N CTC | 5.0 | 26s | AS | 1 | 6.304 828 |
| 701 N | 10.0 | 26s | 2 (GC) | 1 | 9.221 002 1 |
| 701 N CTC | 10.0 | 26s | 2 (GC) | 1 | 6.301 578 |
| 701 N CTC | 10.0 | 26s | AS | 1 | 6.303 229 |
| 7701.2 CTC | 1.2 | 26s | AS | 1 | 6.900 991 |
| 1701 N | 10.0 | 26s | 2 (GC) | 1 | 9.221 448 |
| 1702 N CTC Slim Line | 25.0 | 26s | AS | 1 | 9.221 040 |
| 1702 N CTC | 25.0 | 26s | AS | 1 | 6.239 337 |
| 1710 CTC | 100.0 | 26s | AS | 1 | 6.206 124 |
| 1725 N CTC | 250.0 | 26s | AS | 1 | 6.239 360 2 |
| 1750 N CTC | 500.0 | 26s | AS | 1 | 9.221 041 |

1



9.221 002

2



6.239 360

Microlitre syringe for GC-Autosampler



With cemented-in needles (N). For autosamplers Agilent 7673 - 7683, 6850 ALS and CTC GC PAL instruments.

Hamilton

Syringe types with Special needle (SN) available on request.
Gauge: 23s

| Type | Capacity µl | Point style | Needle length | PK | Cat. No. |
|-----------|----------------|-------------|---------------|----|--------------------|
| 701 N CTC | 10 | 2 | 51 | 1 | 9.221 063 |
| 701 N CTC | 10 | AS | 51 | 1 | 7.636 288 4 |
| 701 ASN | 10 | AS | 43 | 1 | 9.221 196 3 |

3



9.221 196

4



7.636 288

5 | 6 GC-Syringes CTC Headspace®



The new High Dynamic (HD-) plunger has been optimised for higher throughput in the headspace technique. This headspace syringe has been designed for the CTC PAL autosampler system. Modern GC Headspace analysis requires injecting over large temperature ranges. Traditional headspace syringes are composed of rubber O-ring sealed plungers which have a limited sealing performance at high temperatures.

Hamilton

Advantages:

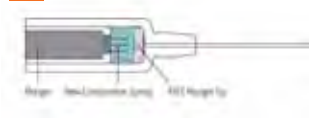
- New sealing system based on a novel metal spring allows working with enhanced tightness
- Excellent performance over a large temperature range and temperature gradients
- Increased life-time compared to traditional headspace syringes
- Increased accuracy and reproducibility of headspace GC analysis

| Type | Capacity µl | Gauge | Needle length mm | Point style | PK | Cat. No. |
|------|----------------|-------|---------------------|-------------|----|-----------|
| 1001 | 1000 | 23 | 56 | 5 | 1 | 6.200 515 |
| 1001 | 1000 | 26 | 56 | 5 | 1 | 6.303 926 |
| 1002 | 2500 | 23 | 51 | 5 | 1 | 6.201 089 |
| 1002 | 2500 | 26 | 51 | 5 | 1 | 6.801 137 |
| 1005 | 5000 | 23 | 51 | 5 | 1 | 6.235 326 |
| 1005 | 5000 | 26 | 51 | 5 | 1 | 9.221 065 |

5



6



7 Microlitre syringe C-Line for HPLC-Autosampler, for CTL autosampler



With cemented-in needles (N).

Hamilton

Replacement plungers available on request.

Gauge 22s
Needle length 51mm
Point style 3 (HPLC)

| Type | Capacity µl | PK | Cat. No. |
|----------------|----------------|----|-----------|
| 700 Slim Line | 10 | 1 | 6.200 686 |
| 1700 Slim Line | 10 | 1 | 9.221 052 |
| 1700 | 25 | 1 | 6.200 903 |
| 1700 Slim Line | 25 | 1 | 6.236 085 |
| 1700 | 50 | 1 | 9.221 050 |
| 1700 Slim Line | 100 | 1 | 7.200 498 |
| 1700 | 250 | 1 | 6.803 417 |
| 1700 | 500 | 1 | 9.221 051 |
| 1000 | 1000 | 1 | 7.210 113 |
| 1000 | 2500 | 1 | 7.210 114 |
| 1000 | 5000 | 1 | 9.221 053 |

7





1 Repeat dispensing device PB600-1 for Microlitre syringes

For syringes 25µl to 2.5ml. Dispenses 2% of total syringe volume each time the plunger is depressed.

Hamilton

| Type | PK | Cat. No. |
|----------|----|-----------|
| PB 600-1 | 1 | 9.221 650 |



2 Syringes, disposable, PP, sterile

2-piece construction: PP barrel, with PE piston. Sterile. Disposable. With Luer nozzle.

Henke-Sass Wolf GmbH

| Capacity ml | PK | Cat. No. |
|------------------------|-----|-----------|
| 1 : 1/100 (Tuberculin) | 100 | 9.410 000 |
| 2 (3) | 100 | 9.410 002 |
| 5 (6) | 100 | 9.410 005 |
| 10 (12) | 100 | 9.410 010 |
| 20 (24) | 100 | 9.410 020 |
| 30 | 50 | 9.410 025 |
| 50 (60) | 30 | 9.410 050 |



3 Syringes, disposable, PP, sterile

Polypropylene with two-piece plunger and Luer nozzle. Without needle. Supplied sterile, individually pouch-sealed in outer boxes.

| Capacity ml | PK | Cat. No. |
|-------------|-----|-----------|
| 1 | 100 | 9.950 296 |
| 2 | 100 | 9.950 297 |
| 5 | 100 | 9.950 298 |
| 10 | 100 | 9.950 299 |
| 20 | 120 | 9.950 300 |
| 50 | 60 | 9.950 301 |



9.143 057

4 Sampling syringes, FORTUNA®

Borosilicate glass. Transparent calibrated barrel. With chemically-resistant, diffused amber stain graduations.

Poulsen & Graf



9.143 067

| Capacity ml | Grad. ml | Type | PK | Cat. No. |
|-------------|----------|-------------------------|----|-----------|
| 25 | 1 | Without stopcock | 1 | 9.143 055 |
| 50 | 1 | Without stopcock | 1 | 9.143 056 |
| 100 | 1 | Without stopcock | 1 | 9.143 057 |
| 50 | 1 | With capillary stopcock | 1 | 9.143 066 |
| 100 | 1 | With capillary stopcock | 1 | 9.143 067 |



6 7 Syringes, FORTUNA OPTIMA®, Glass, Borosilicate glass

Borosilicate glass. With centre glass or metal luer nozzle. Interchangeable plungers and barrels (between identical capacity syringes). With amber graduations. Autoclavable up to +134°C.

Poulsen & Graf

| Capacity ml | Material Cone ex | Nozzle type | PK | Cat. No. |
|-------------|------------------|-------------|----|-----------|
| 1 | glass | luer | 1 | 9.222 021 |
| 2 | glass | luer | 1 | 9.222 022 |
| 5 | glass | luer | 1 | 9.222 025 |
| 10 | glass | luer | 1 | 9.222 030 |
| 20 | glass | luer | 1 | 9.222 032 |
| 50 | glass | luer | 1 | 9.222 035 |
| 1 | metal | luer-lock | 1 | 9.222 061 |
| 2 | metal | luer-lock | 1 | 9.222 062 |
| 5 | metal | luer-lock | 1 | 9.222 065 |
| 10 | metal | luer-lock | 1 | 9.222 070 |
| 20 | metal | luer-lock | 1 | 9.222 072 |
| 50 | metal | luer-lock | 1 | 9.222 075 |



7

1 2 Syringes, Glass-metal

NEW!

With calibrated glass cylinder and plunger made of stainless steel. Plungers and cylinders interchangeable. With central metal cone. Graduated. Sterilisable up to +134°C.

Poulten & Graf

| Capacity ml | Nozzle type | PK | Cat. No. |
|----------------|----------------|----|-----------|
| 1 | Luer | 1 | 9.222 221 |
| 2 | Luer | 1 | 9.222 222 |
| 5 | Luer | 1 | 9.222 225 |
| 10 | Luer | 1 | 9.222 230 |
| 20 | Luer | 1 | 9.222 232 |
| 50 | Luer | 1 | 9.222 235 |
| 1 | Luer-Lock | 1 | 6.401 380 |
| 2 | Luer-Lock | 1 | 9.222 242 |
| 5 | Luer-Lock | 1 | 9.222 245 |
| 10 | Luer-Lock | 1 | 9.222 250 |
| 20 | Luer-Lock | 1 | 9.222 252 |
| 50 | Luer-Lock | 1 | 9.222 255 |



3 Syringe needles PRAVAZ, disposable, sterile

Sterile. Individually wrapped.
Disposable. Luer fitting with plastic sheath.

Henke-Sass Wolf GmbH

| Type | Dia. mm | Length mm | Colour | PK | Cat. No. |
|-----------|------------|--------------|--------|-----|-----------|
| Pravaz 1 | 0.9 | 40 | yellow | 100 | 9.410 101 |
| Pravaz 2 | 0.8 | 40 | green | 100 | 9.410 102 |
| Pravaz 12 | 0.7 | 30 | black | 100 | 9.410 112 |
| Pravaz 14 | 0.6 | 30 | blue | 100 | 9.410 114 |
| Pravaz 16 | 0.6 | 25 | blue | 100 | 9.410 116 |
| Pravaz 18 | 0.5 | 25 | brown | 100 | 9.410 118 |
| Pravaz 20 | 0.4 | 20 | grey | 100 | 9.410 120 |



4 Syringe needles, Stainless steel, disposable, sterile

With Luer push-on fitting for use with disposable syringes.
Supplied sterile in boxes of 100.

| Gauge | Dia. mm | Length mm | PK | Cat. No. |
|----------------|------------|--------------|-----|-----------|
| 18G x 1½ inch* | 1.2 | 40 | 100 | 9.950 302 |
| 19G x 1½ inch | 1.1 | 40 | 100 | 9.950 303 |
| 20G x 1 inch* | 0.9 | 25 | 100 | 9.950 304 |
| 21G x 1½ inch* | 0.8 | 40 | 100 | 9.950 305 |
| 23G x 1 inch | 0.6 | 25 | 100 | 9.950 306 |
| 25G x ¾ inch | 0.5 | 16 | 100 | 9.950 307 |

9.950 302 is a thin wall needle with a short bevel. 9.950 304 and 9.950 305 are intravenous thin wall needles.



5 Micro capillary tubes

These disposable capillary tubes fill automatically from end to end. Accuracy is better than 1%. A capillary tube holder is supplied in each pack. Also contains a small bulb with aperture, which can be inserted into capillary tube and used as an effective support for filling and emptying tubes.

| Capacity µl | PK | Cat. No. |
|----------------|-----|-----------|
| 0.5 | 100 | 9.020 192 |
| 1.0 | 100 | 9.020 193 |
| 2.0 | 100 | 9.020 194 |
| 5.0 | 100 | 9.020 195 |
| 10.0 | 100 | 9.020 196 |

