7000 Series Syringes

HAMILTON 7000 series syringes are designed on the dead volume free principle of positive displacement. A fine tungsten plunger extends through the whole length of the syringe to the needle end. These syringes are available in capacities from 0.5 µl up to 5 µl. The accuracy is ± 1% of the nominal volume. The needle and tungsten plunger are exactly fitted and can be replaced as an assembly. Since the needle length and inner diameter determine the nominal volume when ordering special needles (SN) only the length and point style can be defined. Point style 5 needles are not available.

Typical applications are:

- Sample injection in GC
- Sample pipetting in the sub microliter range in GC and TLC
- Micropipetting
- Animal injections
- Micro volume fluid transfers

Tech Tip
The knurled hub is seated against a sealing ferrule at the junction of the needle/glass barrel, to ensure injection pressure. To maintain this seal periodically tighten the knurled hub nut until light resistance to plunger movement is felt. Use of pliers on the knurled hub nut may be required to achieve tightness.

7000 Syringes

Ordering information	Needle length mm	Volume 0.5 µl Model 7000.5 KHOC Gauge 32	Volume 0.5 µl Model 7000.5 KH Gauge 25	Volume 1.0 µl Model 7001 KH Gauge 25s	Volume 1.0 µl Model 7101 KH Gauge 22s	Volume 2.0 µl Model 7002 KH Gauge 25	Volume 2.0 µl Model 7102 KH Gauge 23	Volume 5.0 µl Model 7105 KH Gauge 24
Knurled hub (KH) pst2	70		86259	80135	86211	88411	88511	88011
Knurled hub (KH) pst3	100	86257						
Knurled hub (KH) pst3	70		86250	80100	86200	88400	88500	88000
Knurled hub (KH) pst *	*			80108				

* Specify only needle length, point style 5 is not available
Maximum needle length for SN is 130 mm

Accessories and Spare Parts

Ordering information	Needle length mm	Volume 0.5 µl Model 7000.5 KHOC	Volume 0.5 µl Model 7000.5 KH	Volume 1.0 µl Model 7001 KH	Volume 1.0 µl Model 7101 KH	Volume 2.0 µl Model 7002 KH	Volume 2.0 µl Model 7102 KH	Volume 5.0 µl Model 7105 KH
Reproducibility (Chaney) Adapter		14725	14725	14725	14725	14725	14725	14725
Syringe guide		14906	14906	14906	14906	14906	14906	14906
Knurled hub (KH)		17658	17789	17789	17789	17789	17789	17789
Repair kit pst3	100	86258						
Repair kit pst3	70		17187	17188	17190	17191	17192	17193
Repair kit pst2	70		17887	17888	17890	17891	17892	17893
Spacer (25 mm)		86201	86201	86201	86201	86201	86201	86201
Spacer (38 mm)		86202	86202	86202	86202	86202	86202	86202
Spacer (50 mm)		86203	86203	86203	86203	86203	86203	86203

Syringe Calibration Service

Add the prefix "CAL" in the beginning of the syringe part number.

*3. Repair kit includes KH needle, KH ferrule, plunger wire and instruction sheet.

Technical Specifications

Syringe type / Syringe capacity	Volume 0.5 µl Model 7000.5 KHOC	Volume 0.5 µl Model 7000.5 KH	Volume 1.0 µl Model 7001 KH	Volume 1.0 µl Model 7101 KH	Volume 2.0 µl Model 7002 KH	Volume 2.0 µl Model 7102 KH	Volume 5.0 µl Model 7105 KH
Needle length (mm)	100	70	70	70	70	70	70
Gauge	32	25	25s	22s	25	23	24
Dead volume (µl)	0	0	0	0	0	0	0
Electro-tapered	No	No	No	Yes	No	Yes	No
Scale length (mm)	60	60	60	60	60	60	60
Minor graduation (µl)	0.005	0.005	0.01	0.01	0.02	0.02	0.05
Max working temperature (°C)	50	50	50	50	50	50	50
Min working temperature (°C)	10	10	10	10	10	10	10