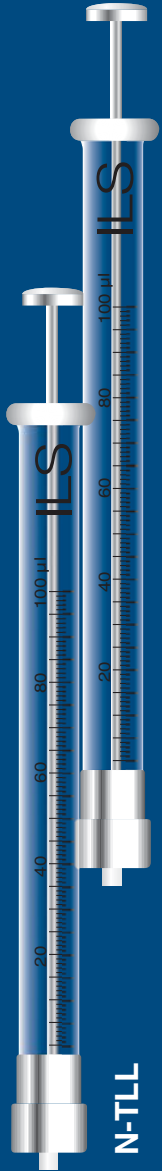


Dosage of Liquids: Series N

5. TLL PTFE-Luer-Lock

Plunger: Stainless steel
Glass Barrel: Borosilicate 3.3
Precision: < ±1% of the volume
Main Use: - sample dosage
 - dosage of aggressive liquids

Volume	
50 µl	2100611
100 µl	2100711
250 µl	2100811
500 µl	2100911



Dosage of Liquids: Series N

6. Super Elastic Plunger

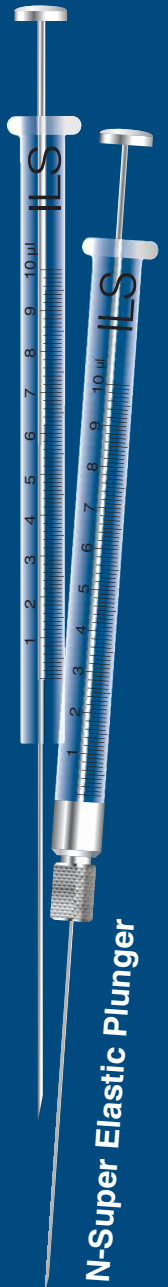
Plunger: Nickel titanium alloy, flexible memory metal
Glass Barrel: Borosilicate 3.3
Precision: < ±1% of the volume
Main Use: - sample dosage for gas chromatography
 - HPLC-valves
 - autosamplers

Fixed Needles

Volume	Tip Style Length O.D.				
		a	b	c	d
5 µl	0.47 mm	2160301	2160302	2160303	2160304
10 µl	0.47 mm	2160401	2160402	2160403	2160404

Removable Needles

Volume	Tip Style Length O.D.				
		a	b	c	d
5 µl	0.47 mm	2160305	2160306	2160307	2160308
10 µl	0.47 mm	2160405	2160406	2160407	2160408



Dosage of Gas and Liquids: Series H

7. TLL PTFE-Luer-Lock

Plunger: PTFE-seal
Glass Barrel: Borosilicate 3.3
Precision: < ±1% of the volume
Main Use: - sample dosage
 - dosage of aggressive liquids

Volume

5 µl	2600309
10 µl	2600409
25 µl	2607509
50 µl	2607609
100 µl	2607709
250 µl	2607809
500 µl	2607909
1.0 ml	2607011
2.5 ml	2607031
5.0 ml	2607051
10.0 ml	2607071
25.0 ml	2607091
50.0 ml	2607101
100.0 ml	2607121

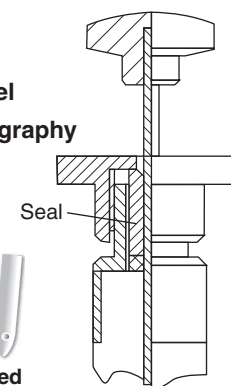


H-TLL

Dosage of Gas and Liquids: Series G

With Static PTFE-Seal Topping the Glass Barrel

Plunger: Stainless steel
Glass Barrel: Borosilicate 3.3
Precision: < ±1% of the volume
Seal: PTFE-seal at the end of glass barrel
Main Use: - sample dosage for gas chromatography
 - HPLC-valves
 - dosage with counter-pressure



Fixed Needles

Volume	Needle Tip Style Length O.D.	fixed a	fixed b	fixed d
		51 mm	51 mm	51 mm
10 µl	0.47 mm	2400401	2400402	2400404
25 µl	0.72 mm	2400501	2400502	2400504
50 µl	0.72 mm	2400601	2400602	2400604
100 µl	0.72 mm	2400701	2400702	2400704
250 µl	0.72 mm	2400801	2400802	2400804
500 µl	0.72 mm	2400901	2400902	2400904

Removable Needles

Volume	Needle Tip Style Length O.D.	removable a	removable b	removable d
		51 mm	51 mm	51 mm
10 µl	0.47 mm	2400405	2400406	2400408
25 µl	0.72 mm	2400505	2400506	2400508
50 µl	0.72 mm	2400605	2400606	2400608
100 µl	0.72 mm	2400705	2400706	2400708
250 µl	0.72 mm	2400805	2400806	2400808
500 µl	0.72 mm	2400905	2400906	2400908



G

HPLC Syringes

1. Most Common Valves

Rheodyne, Varian, Shimadzu, Knauer, Hewlett Packard/
Agilent, Beckmann, Valco VISF-2 and Altex valve injectors

Glass Barrel: Borosilicate 3.3
Precision: $\lt; \pm 1\% \text{ of the volume}$

Volume	Needle Tip Style Length O.D.	fixed b 51 mm	removable b 51 mm	TLL Luer Lock
Flexible plunger				
5 μl	0.72 mm	2161302	2161306	-
10 μl	0.72 mm	2161402	2161406	-
Special stainless steel plunger				
5 μl	0.72 mm	2101302	2101306	-
10 μl	0.72 mm	2101402	2101406	-
25 μl	0.72 mm	2101502	2101506	-
50 μl	0.72 mm	2101602	2101606	2101609
100 μl	0.72 mm	2101702	2101706	2101709
250 μl	0.72 mm	2101802	2101806	2101809
500 μl	0.72 mm	2101902	2101906	2101909
Special stainless steel plunger with PTFE-seal				
5 μl	0.72 mm	2601302	2601306	-
10 μl	0.72 mm	2601402	2601406	-
25 μl	0.72 mm	2601502	2601506	-
50 μl	0.72 mm	2601602	2601606	2601609
100 μl	0.72 mm	2601702	2601706	2601709
250 μl	0.72 mm	2601802	2601806	2601809
500 μl	0.72 mm	2601902	2601906	2601909
1.0 ml	0.72 mm	2601001	2601002	2601003

HPLC Syringes

2. Waters Valves

Glass Barrel: Borosilicate 3.3
Precision: $\lt; \pm 1\% \text{ of the volume}$

Volume	Needle Tip Style Length O.D.	fixed b 50 mm	removable b 50 mm	TLL Luer Lock
Flexible plunger				
5 μl	0.50 mm	2162302	2162306	-
10 μl	0.50 mm	2162402	2162406	-
Special stainless steel plunger				
5 μl	0.50 mm	2102302	2102306	-
10 μl	0.50 mm	2102402	2102406	-
25 μl	0.50 mm	2102502	2102506	-
50 μl	0.50 mm	2102602	2102606	2102609
100 μl	0.50 mm	2102702	2102706	2102709
250 μl	0.50 mm	2102802	2102806	2102809
500 μl	0.50 mm	2102902	2102906	2102909
Special stainless steel plunger with PTFE-seal				
10 μl	0.50 mm	2602402	2602406	-
25 μl	0.50 mm	2602502	2602506	-
50 μl	0.50 mm	2602602	2602606	2602609
100 μl	0.50 mm	2602702	2602706	2602709
250 μl	0.50 mm	2602802	2602806	2602809
500 μl	0.50 mm	2602902	2602906	2602909
1.0 ml	0.50 mm	2602006	2602007	2602003
2.5 ml	0.50 mm	2602026	-	-
Special stainless steel plunger with extended handle				
5 μl	0.50 mm	-	2502304	-
10 μl	0.50 mm	-	2502404	-
25 μl	0.50 mm	-	2502504	-
50 μl	0.50 mm	-	2502604	-
100 μl	0.50 mm	-	2502704	-
250 μl	0.50 mm	-	2502804	-

HPLC Syringes

3. Valco VISF-1 Valves

Glass Barrel: Borosilicate 3.3
Precision: $\pm 1\%$ of the volume

Volume	Needle Tip Style Length O.D.	fixed b 19 mm	removable b 19 mm	TLL Luer-Lock
Flexible plunger				
5 μ l	0.72 mm	2163303	2163307	-
10 μ l	0.72 mm	2163403	2163407	-
Special stainless steel plunger				
5 μ l	0.72 mm	2103303	2103307	-
10 μ l	0.72 mm	2103403	2103407	-
25 μ l	0.72 mm	2103503	2103507	-
50 μ l	0.72 mm	2103603	2103607	2103609
100 μ l	0.72 mm	2103703	2103707	2103709
250 μ l	0.72 mm	2103803	2103807	2103809
500 μ l	0.72 mm	2103903	2103907	2103909
Special stainless steel plunger with PTFE-seal				
10 μ l	0.72 mm	2603403	2603407	-
25 μ l	0.72 mm	2603503	2603507	-
50 μ l	0.72 mm	2603603	2603607	2603609
100 μ l	0.72 mm	2603703	2603707	2603709
250 μ l	0.72 mm	2603803	2603807	2603809
500 μ l	0.72 mm	2603903	2603907	2603909
1.0 ml	0.72 mm	2603003	2603007	2603009



HPLC Syringes for Autosampler

1. Gynkotek Dionex Gina, Agilent (HP) 1090A, Hitachi

Plunger: Special stainless steel plunger with PTFE-seal

Glass Barrel: Borosilicate 3.3
Precision: $\pm 1\%$ of the volume

Gynkotek Dionex Gina

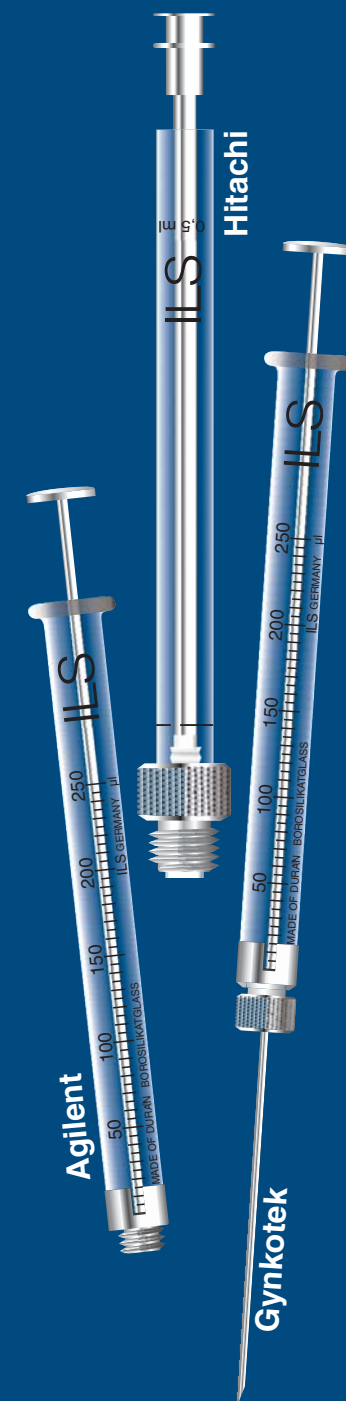
Volume	Needle Tip Style Length Series	removable a 51 mm O.D.	
25 μ l	H	0.72 mm	2606505
250 μ l	H	0.72 mm	2606805

Hewlett Packard 1090A/Agilent

Volume	Series	Front Fitting	
25 μ l	H	1/4"-28UNEF	2606500
250 μ l	H	1/4"-28UNEF	2606800

Hitachi L-7200/L-7250/AS2000/AS42000

Volume	Series	Front Fitting	
100 μ l	H	M10	2611711
500 μ l	H	M10	2611911
1.0 ml	H	M10	2611011
2.5 ml	H	M10	2611031



Syringes for Automatic Liquid Handling

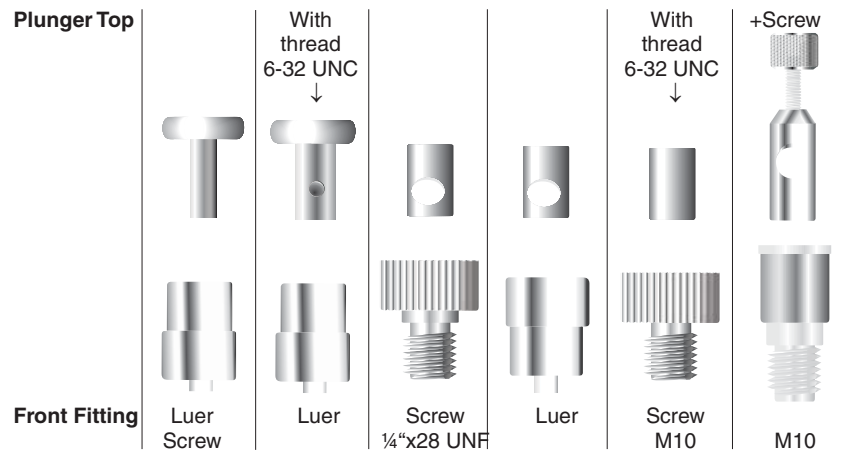
1. PTFE-Seals, Chemically Resistant Heavy Duty Syringes

Plunger: PTFE-seal
 Glass Barrel: Borosilicate 3.3
 Precision: $\pm 1\%$ of the volume

Volume	TLL	TLL-X	H-KP	XL	H-Gi 402	H-Gi 401
25 μ l	2607509	2607517	2608515	2607511	-	-
50 μ l	2607609	2607617	2608615	2607611	-	-
100 μ l	2607709	2607717	2608715	2607711	2629710	-
250 μ l	2607809	2607817	2608815	2607811	2629810	-
500 μ l	2607909	2607917	2608915	2607911	2629910	2629911
1.0 ml	2607011	2607017	2608015	2607013	2629015	-
2.5 ml	2607031	2607037	2608035	2607033	2629031	-
5.0 ml	2607051	2607057	2608055	2607053	2629051	-
10.0 ml	2607071	2607077	2608075	2607073	2629071	2629073
25.0 ml	2607091	-	2608091	2607096	-	-
50.0 ml	2607101	-	-	2607103	-	-
100.0 ml	2607121	-	-	-	-	-



TLL



TLL-X

H-KP

XL

H-Gi 402



H-Gi 401

Syringes for Automatic Liquid Handling

2. Modified PTFE-Seals for Buffers

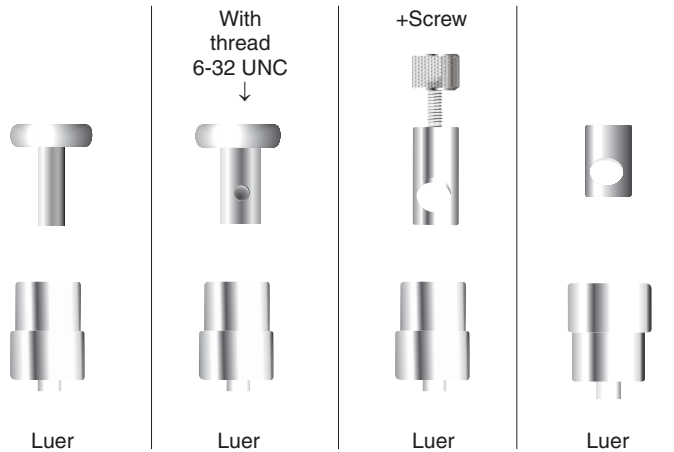
Specially designed for handling of strong buffers and other aqueous solutions. The modified PTFE-seals guarantee extended lifetime under heavy duty conditions.

Plunger: PTFE-seal
Glass Barrel: Borosilicate 3.3
Precision: < ±1% of the volume

Volume	TLL	TLL-X	RQ	XL
25 µl	2641517	2643517	2644517	2645517
50 µl	2641617	2643617	2644617	2645617
100 µl	2641717	2643717	2644717	2645717
250 µl	2641817	2643817	2644817	2645817
500 µl	2641917	2643917	2644917	2645917
1.0 ml	2641017	2643017	2644017	2645017
2.5 ml	2641037	2643037	2644037	2645037
5.0 ml	2641057	2643057	2644057	2645057
10.0 ml	2641077	2643077	2644077	2645077



Plunger Top



Front Fitting

Luer Luer Luer Luer



Syringes for Automatic Liquid Handling

3. Special PE-Seals for Smoother Operation

Specially designed for handling of strong buffers and other aqueous solutions. The special PE-seals run smoother than conventional seals. Good resistance to buffers and aqueous solutions, long lifetime.

Plunger: PE-seal (Polyethylene)

Glass Barrel: Borosilicate 3.3

Precision: < ±1% of the volume

Volume	TLL	TLL-X	H-KP	RQ	XL
50 µl	2641618	2643618	2608616	2644618	2645618
100 µl	2641718	2643718	2608716	2644718	2645718
250 µl	2641818	2643818	2608816	2644818	2645818
500 µl	2641918	2643918	2608916	2644918	2645918
1.0 ml	2641018	2643018	2608016	2644018	2645018
2.5 ml	2641038	2643038	2608036	2644038	2645038
5.0 ml	2641058	2643058	2608056	2644058	2645058
10.0 ml	2641078	2643078	2608076	2644078	2645078



TLL

