

# Microsyringes for multiple applications in your laboratory.

We also manufacture Customised syringes / Needles  
and spare parts according to customer requirements.



# CONTENT

|                             |           |
|-----------------------------|-----------|
| <b>SELECTION GUIDE</b>      | <b>09</b> |
| Syringe Designs             | 10        |
| Needle Tip Style            | 12        |
| Plunger Seal                | 13        |
| Instrument Compatibility    | 14        |
| <b>MICROSYRINGES</b>        | <b>16</b> |
| Automatic Liquid Handling   | 18        |
| Syringes for Infusion Pumps | 40        |
| Dosage of Liquids           | 42        |
| Dosage of Gas & Liquids     | 50        |
| HPLC Syringes               | 60        |
| On-Column Syringes          | 61        |
| Dosage in Autosampler       | 64        |
| <b>NEEDLES</b>              | <b>79</b> |
| <b>ACCESSORIES</b>          | <b>85</b> |
| Fitting                     | 86        |
| Syringe Guide               | 91        |
| Flange Tool                 | 91        |
| Syringe Rack                | 92        |
| Washers                     | 93        |
| <b>VALVES</b>               | <b>94</b> |

# Stronger as One



- Industry leading solutions provider
- Larger global distribution network
- Increased product portfolio
- Support of existing and new customers



Air Dimensions Incorporated (ADI) has more than a half a century of experience in the development, engineering and production of precision gas sampling diaphragm pumps and compressors. Our durable Dia-Vac® pumps, which are used in a wide array of environmental, emissions measurement and process control applications, boast completely oil-free, contamination-free and leak-free sampling capability.

[www.airdimensions.com](http://www.airdimensions.com)



ILS Innovative Labor Systeme is a leading manufacturer of glass syringes and a global supplier to the world's leading laboratory equipment manufacturers, laboratories and laboratory consumables distributors. Today we manufacture more than 1000 types and variations of microsyringes. Our syringes range from 0,5 µl to 100 mL for precision sampling and dosage in chromatography, spectroscopy, preparation of standard solutions, manual application and for use in autosamplers, diluters, dispensers and other liquid handling instruments.

[www.microsyringes.com](http://www.microsyringes.com)



Thomas is a leading manufacturer of systems, compressors, vacuum and liquid pumps in the medical, laboratory, environmental and industrial sectors. With its experienced Engineering, Technical, and Operations staff and capabilities, Thomas designs and manufactures customized pressure and vacuum solutions that meet the precise needs of its customers. Backed by over 60 years of engineering excellence and innovation, and a global manufacturing network, Thomas stands out as the reliable choice for users worldwide.

[www.thomaspumps.com](http://www.thomaspumps.com)



Welch is a recognized provider of vacuum pumps, systems, and fittings for industrial, life sciences, and laboratory applications. We design, manufacture, and deliver products meeting the strictest requirements for mission-critical applications, and provide a comprehensive range of products and great engineering capabilities to fit our customers' needs. As a reliable and trusted partner, we stand up to the challenge of supplying best-in-class products and solutions on time.

[www.welchvacuum.com](http://www.welchvacuum.com)



TriContinent is a leading manufacturer of liquid handling solutions in the medical, pharmaceutical, biotechnology, and laboratory industries. With its experienced Engineering, Technical, and Operations staff and capabilities, TriContinent designs and manufactures standard and customized syringe pumps, rotary valves, syringes, and liquid handling (XYZ) robots that meet the precise needs of its customers. Backed by over 45 years of engineering excellence and innovation, and a global manufacturing network, TriContinent stands out as the reliable choice worldwide.

[www.tricontinent.com](http://www.tricontinent.com)



Zinsser Analytic is a team of dedicated experts specialized in custom automation solutions for laboratory applications and workflows. We are based in the metropolitan region of Frankfurt, Germany, with customers from all over the world from various industries, such as pharma, chemical or life science. With over 30 years of experience in providing lab automation technology tailored to our customers' requirements, we make sure that each system is unique and built from scratch. This flexibility helps our customers to automate their workflows while increasing productivity and output in their labs.

[www.zinsser-analytic.com](http://www.zinsser-analytic.com)



# ILS

**ILS Innovative Labor Systeme** was founded in 1992 and is a leading manufacturer of glass syringes and a global supplier to the world's leading laboratory equipment manufacturers, laboratories and laboratory consumables distributors. Today we manufacture more than 1000 types and variations of microsyringes. Our syringes range from 0,5  $\mu$ L to 100 mL for precision sampling and dosage in chromatography, spectroscopy, preparation of standard solutions, manual applications and for use in autosamplers, diluters, dispensers and other liquid handling instruments.

Precision diluter valves are also available as a recent addition to the production range. ILS shrinks its own precision bore tubing from 3.3 borosilicate glass, highly resistant material. Also, all metal parts and PTFE-seals are made in-house. State-of-the-art computer-controlled equipment such as milling machines, lathes and glass shrinking machines and years of glass working experience guarantee the best quality in products.



ILS is located in Stuetzerbach, a small village in the Thuringian Forest in central Germany. Even though small in size, Stuetzerbach has made a name for itself all over the world and has quite a history in glass manufacturing. Since the first glass factory was founded in Stuetzerbach in 1674, it was a village of innovation. The German thermometer (1839), light bulb (1883), Mr. Röntgen's X-Ray tube (1893) and the vacuum flask (1895) were all first developed in Stuetzerbach.

Since 2020 ILS is part of Ingersoll Rand's Life Science business unit. Ingersoll Rand's Life Science business unit with its brands Thomas, Welch, Air Dimensions, TriContinent, Zinsser Analytic and ILS is a leader in flow control products such as vacuum and liquid pumps, liquid handling robots and compressors for medical, life sciences and selected other industries. A global production network throughout the United States, Europe and Asia allows a fast and flexible reaction to our customer needs.

# SELECTION GUIDE

|                                 |           |
|---------------------------------|-----------|
| <b>SYRINGE DESIGNS</b>          | <b>10</b> |
| <b>NEEDLE TIP STYLE</b>         | <b>12</b> |
| <b>PLUNGER SEAL</b>             | <b>13</b> |
| <b>INSTRUMENT COMPATIBILITY</b> | <b>14</b> |

# Selection Guide

## Syringe Designs

### Syringe selection guide for microsyringes by ILS:



#### **Fixed Needles (FN)**

- Easy to use
- Economical
- Not autoclavable



#### **Removable Needles (RN)**

- For inexperienced users
- Easy to replace in case of bending
- Use of different needle sizes on the same syringe barrel



#### **Stainless Steel Plunger N**

- For dispensing of liquids
- Plunger individually fitted to glass barrel
- Plunger not replaceable



#### **PTFE-Seal H**

- For dispensing of gas and liquids, headspace
- Gas tight
- Plunger replaceable



#### **HDPE-Seal**

- For buffer and other aqueous solutions
- For smoother operation
- Plunger replaceable



#### **Adjustable PTFE-Seal P**

- For gas chromatography and HPLC Valves
- Dosage under pressure
- Regulation of seal-pressure by screws



#### **Glass Luer Tip LT**

- For sample dosage
- Dosage of aggressive fluids
- Autoclavable



#### **PTFE Luer Tip TLT**

- For sample dosage
- Dosage of aggressive fluids
- For luer lock needles and fittings



#### **Luer Lock TLL**

- For sample dosage, diluters and dispensers
- Dosage of aggressive fluids
- For luer hub needles and connectors



#### **Zero Dead Volume T**

- For gas chromatography and TLC
- Dosage of small amounts of liquids
- Plunger runs inside the needle



#### **Extended Handle SN / SH**

- For gas chromatography and HPLC Valves
- Prevents heat transfer from hand to content
- Protects plunger from bending



#### **Static PTFE-Seal topping the glass barrel G**

- For gas chromatography
- HPLC Valves
- Dosage under counter-pressure

# Selection Guide

## Needle Tip Style

### ILS needle tip styles for microsyringes:

---



#### **Needle Tip “a”**

This tip is designed for optimum penetration of the septa and prevents septa coring. The 17° bevel is proven standard. In addition our electro tapered tip minimizes the necessary piercing force and diameter of the injection channel.

---



#### **Needle Tip “b”**

This tip has a 90° bevel for precise pipetting. This design releases drops completely, for maximum reproducibility. It is widely used for HPLC sample injection.

---



#### **Needle Tip “c”**

This tip has been specially designed for autosamplers in routine applications. The electro tapered tip and the polished 90° square end eliminate burrs. It is ideal for PTFE-Laminated-Seals and regular septas.

---



#### **Needle Tip “c\*\*”**

Dual gauge – Narrow gauge at front end for on-column injection and wide gauge to increase strength for autosampler use.

---



#### **Needle Tip “d”**

Tip “d” is equipped with a side opening for dispensing and filling. This design avoids plugging and minimizes septum damage. It is ideal for thicker septa and recommended for headspace analysis.

---

# Selection Guide

## Plunger Seal

Seals with different materials for your specific application:

---



**PTFE-Seal** - virgin PTFE

- Excellent chemical resistance
- 



**PTFE-Black-Seal** - special PTFE

- High chemical resistance
  - Less friction than virgin PTFE
  - Less electrostatic charge
  - Higher durability
  - Less “cold flow”
  - Higher longevity
  - Order information:  
Add “BL” to catalog number (XXXXXXX-BL)
- 



**HDPE-Seal** - polyethylene high density

- Better durability than PTFE when working with saline solutions
-

# Selection Guide

## Instrument Compatibility

### Compatibilities of instruments and microsyringes by ILS:

| Manufacturer        | Instrument                                     | Syringe Model |
|---------------------|------------------------------------------------|---------------|
| Abbott*             | TDX / ADX / IMX / Cell Dyn 1700                | TLL-X         |
|                     | m2000sp                                        | XP            |
|                     | Cell Dyn 1300 / 1600 / 300                     | TLL-Abbott*   |
|                     | Cell Dyn 1300 / 1600 / 300                     | TLL-X         |
| ABI*                | 3100 Sequencer                                 | ABI 3100      |
|                     | 3700 Sequencer                                 | ABI 3700      |
| BD Biosciences*     | FACS MultiSET Sample Prep                      | XLP           |
| Beckmann Coulter*   | Prep Plus                                      | XLP           |
|                     | Biomek FX                                      | XP            |
|                     | Biomek NX                                      | XP            |
|                     | Vidiera NsP                                    | XP            |
| Behr*               | behrotest                                      | XLP           |
| Behring*            | BLN Module III                                 | TLL           |
| Boehringer*         | Dilutrend                                      | TLL           |
| Caliper*            | Sciclone ALH 3000                              | XLP           |
|                     | Sciclone ALH 3000                              | XP            |
| Cavro*              | XL syringe pump                                | XE            |
|                     | XP syringe pump                                | XP            |
|                     | XCalibur syringe pump                          | XP            |
|                     | XP Smart syringe pump                          | XP            |
|                     | Centris                                        | XE            |
|                     | X-CMP (Centris for Fluent ?)                   | XE            |
|                     | XL 3000                                        | XL            |
|                     | XLP 6000 syringe pump                          | XLP           |
|                     | XMP 6000 Multi-Channel syringe pump            | XLP           |
| CGA*                | EOS 890 / Plus                                 | XLP           |
| Cooper / Technicon* | RA XT / 500 / 100                              | TLL           |
| Digene*             | Rapid Capture System                           | RQ            |
| Electro*            | Autoloader I-III                               | TLL           |
| Eppendorf*          | EPOS / EASY / ERIS                             | AD            |
| Gesim*              | Nano-plotter                                   | XP            |
| Hamilton*           | Microlab 400 / 500 / 900 / M / Digital Dilutor | TLL-X         |
|                     | Microlab 400 / 500 / 900 / M / Digital Dilutor | DX            |
|                     | Microlab 400 / 500 / 900 / M / Digital Dilutor | TLL           |
|                     | Microlab 500 / 900                             | CX            |
|                     | PSD/4                                          | H-PD          |
| Horiba*             | ABX Pentra 400                                 | TLL-X         |
| Innovatis*          | cedex                                          | XLP           |
| Instrumentation*    | Multistat III                                  | TLL           |
| ISA Biologie*       | ISA MAT (HSD)                                  | TLL-X         |

| Manufacturer             | Instrument                              | Syringe Model |
|--------------------------|-----------------------------------------|---------------|
| Kratel*                  | Partoscope FD                           | TLL-X         |
| Maihak*                  | TOCOR 101                               | XLP           |
| Mannheim*                | ES300                                   | TLL           |
| Moritex*                 | EX-MULTI                                | XLP           |
| MWG*                     | Roboprep 2500                           | XLP           |
|                          | Robogo                                  | XLP           |
|                          | Roboseq 2500                            | XLP           |
| Packard*                 | Multiprobe II                           | XLP           |
| Perkin Elmer*            | Multiprobe II                           | XLP           |
|                          | Janus                                   | XLP           |
| Qiagen*                  | Biorobot 9600                           | RQ            |
| Roche*                   | Midias                                  | AD            |
|                          | Cobas Integral                          | XLP           |
| Rosys*                   | Plato 1000 / 3000 / 3000-1 / 7000       | RQ            |
| Rosys Anthos*            | Lucy 2 / 3 / AutoLucy                   | RQ            |
| Spark*                   | Triathlon                               | XLP           |
|                          | Endurance                               | H-KP Spark    |
| Tecan*                   | MiniPrep 50 / 75                        | XLP           |
|                          | Fluent                                  | XE            |
|                          | Genesis                                 | XP            |
|                          | Genesis RMP 150                         | XP            |
|                          | Genesis FE 500 Workcell                 | XP            |
|                          | Hemotyper                               | XP            |
|                          | Minilyser                               | XLP           |
|                          | Miniprep 60 / 75                        | XLP           |
|                          | Mini Swift                              | XLP           |
|                          | Freedom EVO Clinical                    | XP            |
|                          | Freedom EVO                             | XP            |
|                          | Freedom EVO 75                          | XLP           |
|                          | 4-Channal-Dispenser                     | XLP           |
| Technicon*               |                                         | TLL           |
| Thermo Electro*          | Data Pro                                | XLP           |
| TriContinent Scientific* | C3000                                   | XP            |
|                          | C24000                                  | XP            |
|                          | MC6000                                  | XP            |
|                          | C6000                                   | XLP           |
| Wiener Lab*              | Metrolab 2300 plus                      | XLP           |
| Zinsser Analytic*        | Lissy XL / XXL / Plato / Sophas / Pepsy | RQ/XP         |
|                          | Redy                                    | RQ/XP         |
| Zymark*                  | Sciclone ALH 3000                       | XLP           |
|                          | Sciclone ALH 3000                       | XP            |

# MICROSYPINGES

|                                               |           |
|-----------------------------------------------|-----------|
| <b>AUTOMATIC LIQUID HANDLING</b>              | <b>18</b> |
| Stroke 30 mm                                  | 18        |
| Stroke 60 mm                                  | 26        |
| Syringes for Infusion Pumps                   | 40        |
| <b>DOSAGE OF LIQUIDS - SERIES N</b>           | <b>42</b> |
| Fixed Needles                                 | 43        |
| Removable Needles                             | 44        |
| Super Flexible Plunger                        | 45        |
| Series SN                                     | 46        |
| Series T                                      | 47        |
| Series LT                                     | 48        |
| Series TLL                                    | 49        |
| <b>DOSAGE OF GAS &amp; LIQUIDS - SERIES H</b> | <b>50</b> |
| Fixed Needles                                 | 51        |
| Removable Needles                             | 53        |
| Series SH                                     | 54        |
| Series G                                      | 55        |
| Series P                                      | 56        |
| Series LT                                     | 57        |
| Series TLT                                    | 58        |
| Series TLL                                    | 59        |
| <b>HPLC SYRINGES</b>                          | <b>60</b> |
| Most Common Valves                            | 60        |
| <b>ON-COLUMN SYRINGES</b>                     | <b>62</b> |
| <b>DOSAGE IN AUTOSAMPLER</b>                  | <b>64</b> |
| GC Autosampler                                | 64        |
| HPLC Autosampler                              | 73        |
| CTC* Instruments                              | 77        |

## Automatic Liquid Handling - Stroke 30 mm

| Description   | Front Fitting          | Plunger Top               | Page |
|---------------|------------------------|---------------------------|------|
| H-PD          | Teflon Luer Lock (TLL) | Internal 6-32 UNC         | 19   |
| XE            | 1/4"-28 UNF            | Ball                      | 20   |
| XP            | 1/4"-28 UNF            | Hour glass plunger button | 21   |
| XP-PD         | 1/4"-28 UNF            | Internal 6-32 UNC         | 23   |
| XP-XL         | 1/4"-28 UNF            | Hole ø 4.8                | 24   |
| XP-XL-"short" | 1/4"-28 UNF "short"    | Hole ø 4.8                | 25   |

### PTFE-Seal

- Chemically resistant
- Heavy duty syringes

### PTFE-Seal with Silicone

- Specially designed for handling of strong buffers and other aqueous solutions
- The modified PTFE-Seals guaranteed, extended lifetime under heavy duty conditions

### PTFE-Black-Seal

- Specially designed for handling of strong buffers and other aqueous solutions
- The modified PTFE-Seals guaranteed, extended lifetime under heavy duty conditions

### HDPE-Seal

- Long lifetime
- Good resistance to strong buffers and other aqueous solutions

### UHMWPE-Seal

- Long lifetime
- Good resistance to strong buffers and other aqueous solutions

# Automatic Liquid Handling - Stroke 30 mm

## H-PD



### TECHNICAL INFORMATION

**Glass Barrel:** Borosilicate 3.3

#### PTFE-Seal

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Plunger Top | Part No. |
|---------|--------|--------|-------------|---------------|-------------|----------|
| 12.5 µL | H      | 30 mm  | PTFE        | Luer          | 6-32 UNC    | 2658415  |
| 25 µL   | H      | 30 mm  | PTFE        | Luer          | 6-32 UNC    | 2658515  |
| 50 µL   | H      | 30 mm  | PTFE        | Luer          | 6-32 UNC    | 2658615  |
| 100 µL  | H      | 30 mm  | PTFE        | Luer          | 6-32 UNC    | 2658715  |
| 125 µL  | H      | 30 mm  | PTFE        | Luer          | 6-32 UNC    | 2658714  |
| 250 µL  | H      | 30 mm  | PTFE        | Luer          | 6-32 UNC    | 2658815  |
| 500 µL  | H      | 30 mm  | PTFE        | Luer          | 6-32 UNC    | 2658915  |
| 1.0 mL  | H      | 30 mm  | PTFE        | Luer          | 6-32 UNC    | 2658014  |
| 1.25 mL | H      | 30 mm  | PTFE        | Luer          | 6-32 UNC    | 2658015  |
| 2.5 mL  | H      | 30 mm  | PTFE        | Luer          | 6-32 UNC    | 2658035  |
| 5.0 mL  | H      | 30 mm  | PTFE        | Luer          | 6-32 UNC    | 2658055  |
| 12.5 mL | H      | 30 mm  | PTFE        | Luer          | 6-32 UNC    | 2658074  |

#### PTFE-Seal with Silicone

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Plunger Top | Part No. |
|---------|--------|--------|-------------|---------------|-------------|----------|
| 12.5 µL | H      | 30 mm  | Silicone    | Luer          | 6-32 UNC    | 2666415  |
| 25 µL   | H      | 30 mm  | Silicone    | Luer          | 6-32 UNC    | 2666515  |
| 50 µL   | H      | 30 mm  | Silicone    | Luer          | 6-32 UNC    | 2666615  |
| 100 µL  | H      | 30 mm  | Silicone    | Luer          | 6-32 UNC    | 2666715  |
| 125 µL  | H      | 30 mm  | Silicone    | Luer          | 6-32 UNC    | 2666714  |
| 250 µL  | H      | 30 mm  | Silicone    | Luer          | 6-32 UNC    | 2666815  |
| 500 µL  | H      | 30 mm  | Silicone    | Luer          | 6-32 UNC    | 2666915  |
| 1.0 mL  | H      | 30 mm  | Silicone    | Luer          | 6-32 UNC    | 2666014  |
| 1.25 mL | H      | 30 mm  | Silicone    | Luer          | 6-32 UNC    | 2666015  |
| 2.5 mL  | H      | 30 mm  | Silicone    | Luer          | 6-32 UNC    | 2666035  |
| 5.0 mL  | H      | 30 mm  | Silicone    | Luer          | 6-32 UNC    | 2666055  |
| 12.5 mL | H      | 30 mm  | Silicone    | Luer          | 6-32 UNC    | 2666074  |

#### UHMWPE-Seal

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Plunger Top | Part No. |
|---------|--------|--------|-------------|---------------|-------------|----------|
| 25 µL   | H      | 30 mm  | UHMWPE      | Luer          | 6-32 UNC    | 2665515  |
| 50 µL   | H      | 30 mm  | UHMWPE      | Luer          | 6-32 UNC    | 2665615  |
| 100 µL  | H      | 30 mm  | UHMWPE      | Luer          | 6-32 UNC    | 2665715  |
| 125 µL  | H      | 30 mm  | UHMWPE      | Luer          | 6-32 UNC    | 2665714  |
| 250 µL  | H      | 30 mm  | UHMWPE      | Luer          | 6-32 UNC    | 2665815  |
| 500 µL  | H      | 30 mm  | UHMWPE      | Luer          | 6-32 UNC    | 2665915  |
| 1.0 mL  | H      | 30 mm  | UHMWPE      | Luer          | 6-32 UNC    | 2665014  |
| 1.25 mL | H      | 30 mm  | UHMWPE      | Luer          | 6-32 UNC    | 2665015  |
| 2.5 mL  | H      | 30 mm  | UHMWPE      | Luer          | 6-32 UNC    | 2665035  |
| 5.0 mL  | H      | 30 mm  | UHMWPE      | Luer          | 6-32 UNC    | 2665055  |

# Automatic Liquid Handling - Stroke 30 mm

**XE / MINIMUM ORDER QUANTITY 50PCS**



## TECHNICAL INFORMATION

**Glass Barrel:** Borosilicate 3.3

### PTFE-Seal

| Volume | Series | Stroke | Plunger Tip | Front Fitting | Part No. |
|--------|--------|--------|-------------|---------------|----------|
| 25 µL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2607521  |
| 50 µL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2607621  |
| 100 µL | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2607721  |
| 250 µL | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2607821  |
| 500 µL | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2607921  |
| 1.0 mL | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2607021  |
| 1.5 mL | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2607027  |
| 2.5 mL | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2607041  |
| 5.0 mL | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2607061  |

### PTFE-Seal with Silicone

| Volume | Series | Stroke | Plunger Tip | Front Fitting | Part No. |
|--------|--------|--------|-------------|---------------|----------|
| 500 µL | H      | 30 mm  | Silicone    | 1/4"-28 UNF   | 2646927  |
| 1.0 mL | H      | 30 mm  | Silicone    | 1/4"-28 UNF   | 2646027  |
| 2.5 mL | H      | 30 mm  | Silicone    | 1/4"-28 UNF   | 2646047  |
| 5.0 mL | H      | 30 mm  | Silicone    | 1/4"-28 UNF   | 2646067  |

### HDPE-Seal

| Volume | Series | Stroke | Plunger Tip | Front Fitting | Part No. |
|--------|--------|--------|-------------|---------------|----------|
| 50 µL  | H      | 30 mm  | HDPE        | 1/4"-28 UNF   | 2646628  |
| 100 µL | H      | 30 mm  | HDPE        | 1/4"-28 UNF   | 2646728  |
| 500 µL | H      | 30 mm  | HDPE        | 1/4"-28 UNF   | 2646928  |
| 1.0 mL | H      | 30 mm  | HDPE        | 1/4"-28 UNF   | 2646028  |
| 2.5 mL | H      | 30 mm  | HDPE        | 1/4"-28 UNF   | 2646048  |
| 5.0 mL | H      | 30 mm  | HDPE        | 1/4"-28 UNF   | 2646068  |

# Automatic Liquid Handling - Stroke 30 mm

**XP**



## TECHNICAL INFORMATION

**Glass Barrel:** Borosilicate 3.3

### PTFE-Seal

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Part No. |
|---------|--------|--------|-------------|---------------|----------|
| 25 µL   | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2607515  |
| 50 µL   | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2607615  |
| 100 µL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2607715  |
| 150 µL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2607752  |
| 250 µL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2607815  |
| 500 µL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2607915  |
| 1.0 mL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2607015  |
| 1.25 mL | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2607025  |
| 1.5 mL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2607026  |
| 2.5 mL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2607035  |
| 3.0 mL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2607045  |
| 5.0 mL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2607075  |
| 6.0 mL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2607089  |
| 12.5 mL | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2607151  |

### PTFE-Seal with Silicone

| Volume | Series | Stroke | Plunger Tip | Front Fitting | Part No. |
|--------|--------|--------|-------------|---------------|----------|
| 25 µL  | H      | 30 mm  | Silicone    | 1/4"-28 UNF   | 2647517  |
| 50 µL  | H      | 30 mm  | Silicone    | 1/4"-28 UNF   | 2647617  |
| 100 µL | H      | 30 mm  | Silicone    | 1/4"-28 UNF   | 2647717  |
| 250 µL | H      | 30 mm  | Silicone    | 1/4"-28 UNF   | 2647817  |
| 500 µL | H      | 30 mm  | Silicone    | 1/4"-28 UNF   | 2647917  |
| 1.0 mL | H      | 30 mm  | Silicone    | 1/4"-28 UNF   | 2647017  |
| 2.5 mL | H      | 30 mm  | Silicone    | 1/4"-28 UNF   | 2647037  |
| 5.0 mL | H      | 30 mm  | Silicone    | 1/4"-28 UNF   | 2647077  |
| 6.0 mL | H      | 30 mm  | Silicone    | 1/4"-28 UNF   | 2647087  |

### PTFE-Black-Seal

| Volume | Series | Stroke | Plunger Tip  | Front Fitting | Part No.   |
|--------|--------|--------|--------------|---------------|------------|
| 50 µL  | H      | 30 mm  | PTFE - Black | 1/4"-28 UNF   | 9607615    |
| 100 µL | H      | 30 mm  | PTFE - Black | 1/4"-28 UNF   | 9607715    |
| 150 µL | H      | 30 mm  | PTFE - Black | 1/4"-28 UNF   | 2607752-BL |
| 250 µL | H      | 30 mm  | PTFE - Black | 1/4"-28 UNF   | 9607811    |
| 500 µL | H      | 30 mm  | PTFE - Black | 1/4"-28 UNF   | 9607911    |
| 1.0 mL | H      | 30 mm  | PTFE - Black | 1/4"-28 UNF   | 9607011    |
| 2.5 mL | H      | 30 mm  | PTFE - Black | 1/4"-28 UNF   | 9607034    |
| 5.0 mL | H      | 30 mm  | PTFE - Black | 1/4"-28 UNF   | 9607074    |
| 6.0 mL | H      | 30 mm  | PTFE - Black | 1/4"-28 UNF   | 9607076    |

# Automatic Liquid Handling - Stroke 30 mm

**XP**



## TECHNICAL INFORMATION

**Glass Barrel:** Borosilicate 3.3

### HDPE-Seal

| Volume | Series | Stroke | Plunger Tip | Front Fitting | Part No. |
|--------|--------|--------|-------------|---------------|----------|
| 50 µL  | H      | 30 mm  | HDPE        | 1/4"-28 UNF   | 2647618  |
| 100 µL | H      | 30 mm  | HDPE        | 1/4"-28 UNF   | 2647718  |
| 250 µL | H      | 30 mm  | HDPE        | 1/4"-28 UNF   | 2647818  |
| 500 µL | H      | 30 mm  | HDPE        | 1/4"-28 UNF   | 2647918  |
| 1.0 mL | H      | 30 mm  | HDPE        | 1/4"-28 UNF   | 2647018  |
| 2.5 mL | H      | 30 mm  | HDPE        | 1/4"-28 UNF   | 2647038  |
| 5.0 mL | H      | 30 mm  | HDPE        | 1/4"-28 UNF   | 2647078  |
| 6.0 mL | H      | 30 mm  | HDPE        | 1/4"-28 UNF   | 2647088  |

### UHMWPE-Seal

| Volume | Series | Stroke | Plunger Tip | Front Fitting | Part No. |
|--------|--------|--------|-------------|---------------|----------|
| 500 µL | H      | 30 mm  | UHMWPE      | 1/4"-28 UNF   | 2647919  |
| 1.0 mL | H      | 30 mm  | UHMWPE      | 1/4"-28 UNF   | 2647016  |
| 2.5 mL | H      | 30 mm  | UHMWPE      | 1/4"-28 UNF   | 2647036  |
| 5.0 mL | H      | 30 mm  | UHMWPE      | 1/4"-28 UNF   | 2647076  |
| 6.0 mL | H      | 30 mm  | UHMWPE      | 1/4"-28 UNF   | 2607004  |

# Automatic Liquid Handling - Stroke 30 mm

## XP-PD



### TECHNICAL INFORMATION

Plunger Top: 6-32UNC

Glass Barrel: Borosilicate 3.3

#### PTFE-Seal

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Part No. |
|---------|--------|--------|-------------|---------------|----------|
| 12.5 µL | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2676401  |
| 25 µL   | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2676501  |
| 50 µL   | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2676601  |
| 100 µL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2676701  |
| 125 µL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2676702  |
| 250 µL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2676801  |
| 500 µL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2676901  |
| 1.0 mL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2676011  |
| 1.25 mL | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2676012  |
| 2.5 mL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2676031  |
| 5.0 mL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2676051  |
| 12.5 mL | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2676072  |

# Automatic Liquid Handling - Stroke 30 mm

## XP-XL



### TECHNICAL INFORMATION

**Glass Barrel:** Borosilicate 3.3

#### PTFE-Seal

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Part No. |
|---------|--------|--------|-------------|---------------|----------|
| 12.5 µL | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2676415  |
| 25 µL   | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2676515  |
| 50 µL   | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2676615  |
| 100 µL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2676715  |
| 250 µL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2676815  |
| 500 µL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2676915  |
| 1.0 mL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2676015  |
| 1.5 mL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2676020  |
| 2.5 mL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2676035  |
| 5.0 mL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2676055  |
| 12.5 mL | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2676075  |

#### HDPE-Seal

| Volume | Series | Stroke | Plunger Tip | Front Fitting | Part No. |
|--------|--------|--------|-------------|---------------|----------|
| 50 µL  | H      | 30 mm  | HDPE        | 1/4"-28 UNF   | 2676616  |
| 100 µL | H      | 30 mm  | HDPE        | 1/4"-28 UNF   | 2676717  |
| 250 µL | H      | 30 mm  | HDPE        | 1/4"-28 UNF   | 2676819  |
| 500 µL | H      | 30 mm  | HDPE        | 1/4"-28 UNF   | 2676916  |
| 1.0 mL | H      | 30 mm  | HDPE        | 1/4"-28 UNF   | 2676016  |
| 1.5 mL | H      | 30 mm  | HDPE        | 1/4"-28 UNF   | 2676021  |
| 2.5 mL | H      | 30 mm  | HDPE        | 1/4"-28 UNF   | 2676036  |
| 5.0 mL | H      | 30 mm  | HDPE        | 1/4"-28 UNF   | 2676057  |

# Automatic Liquid Handling - Stroke 30 mm

## XP-XL »SHORT« (THREAD LENGTH 5 MM)



### TECHNICAL INFORMATION

Glass Barrel: Borosilicate 3.3

#### PTFE-Seal

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Part No. |
|---------|--------|--------|-------------|---------------|----------|
| 12.5 µL | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2685415  |
| 25 µL   | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2685515  |
| 50 µL   | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2685615  |
| 100 µL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2685715  |
| 250 µL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2685815  |
| 500 µL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2685915  |
| 1.0 mL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2685015  |
| 1.5 mL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2685020  |
| 2.5 mL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2685035  |
| 5.0 mL  | H      | 30 mm  | PTFE        | 1/4"-28 UNF   | 2685055  |

## Automatic Liquid Handling - Stroke 60 mm

| Compatible instruments      | Front Fitting                                     | Plunger Top                                       | Page |
|-----------------------------|---------------------------------------------------|---------------------------------------------------|------|
| Abbott* CELL-DYN**          | Teflon Luer Lock (TLL)                            | Threaded screw                                    | 33   |
| ABI* PRISM 3100             | 1/4"-32 UNEF                                      | Button with internal 6-32 UNC                     | 40   |
| AD                          | M8x0.75                                           | Button                                            | 42   |
| Adjustable Internal Stopper | Teflon Luer Lock (TLL) +<br>Teflon Luer Tip (TLT) | Button                                            | 31   |
| C                           | 1/4"-28 UNF                                       | Button                                            | 35   |
| CX                          | 1/4"-28 UNF                                       | Button with plunger stop and internal<br>6-32 UNC | 36   |
| DAD                         | M8x0.75                                           | Button with internal 6-32 UNC                     | 43   |
| Dionex* AS                  | 1/4"-28 UNF                                       | Hole ø 4.8                                        | 39   |
| DX                          | Teflon Luer Lock (TLL)                            | Button with internal 6-32 UNC                     | 32   |
| Gilson* 401                 | M10                                               | Hole with screw                                   | 46   |
| Gilson* 402/406             | M10                                               | Internal M4                                       | 47   |
| H-KP                        | 1/4"-28 UNF                                       | Hole ø 4.8                                        | 37   |
| Innovadyne* Nanodrop**      | 1/4"-28 UNF                                       | Hole ø 4.8 with screw                             | 41   |
| Kone / Thermo Instruments*  | Different thread                                  | Button                                            | 48   |
| RQ                          | Teflon Luer Lock (TLL)                            | Hole ø 4.8 with screw                             | 30   |
| Selectra*                   | M8x0.75                                           | Button with plunger stop                          | 44   |
| TLL                         | Teflon Luer Lock (TLL)                            | Button                                            | 27   |
| TLL-X                       | Teflon Luer Lock (TLL)                            | Button with plunger stop                          | 28   |
| Tubing Connector            | Connector M6 or 1/4"-28 UNF                       | Button                                            | 49   |
| Tubing Connector HPLC       | Connector 10-32 cone                              | Button                                            | 50   |
| Varian*                     | M8x1                                              | Button                                            | 45   |
| XLP                         | 1/4"-28 UNF                                       | Hole ø 4.8                                        | 38   |
| XL                          | Teflon Luer Lock (TLL)                            | Hole ø 4.8                                        | 29   |
| Zymark Instruments*         | Teflon Luer Lock (TLL)                            | Plunger rod with internal 6-32 UNC                | 34   |

**PTFE-Seal**

- Chemically resistant
- Heavy duty syringes

**PTFE-Seal with Silicone**

- Specially designed for handling of strong buffers and other aqueous solutions
- The modified PTFE-Seals guaranteed, extended lifetime under heavy duty conditions

**PTFE - Black - Seal**

- Specially designed for handling of strong buffers and other aqueous solutions
- The modified PTFE-Seals guaranteed, extended lifetime under heavy duty conditions

**HDPE-Seal**

- Long lifetime
- Good resistance to strong buffers and other aqueous solutions

**UHMWPE - Seal**

- Long lifetime
- Good resistance to strong buffers and other aqueous solutions

# Automatic Liquid Handling - Stroke 60 mm

## TLL

Compatible instruments: Hamilton\* Microlab 400 / 500 / 900 / M / Digital Dilutor, Behring\* BLN Module III, Boehringer\* Dilutrend, Cooper / Technicon\* RA XT / 500 / 100, Electro\* Autoloader I-III, Multistat\* III, Mannheim\* ES300



## TECHNICAL INFORMATION

**Glass Barrel:** Borosilicate 3.3

### PTFE-Seal

| Volume   | Series | Stroke | Plunger Tip | Front Fitting | Part No. |
|----------|--------|--------|-------------|---------------|----------|
| 25 µL    | H      | 60 mm  | PTFE        | Luer          | 2607509  |
| 50 µL    | H      | 60 mm  | PTFE        | Luer          | 2607609  |
| 100 µL   | H      | 60 mm  | PTFE        | Luer          | 2607709  |
| 250 µL   | H      | 60 mm  | PTFE        | Luer          | 2607809  |
| 500 µL   | H      | 60 mm  | PTFE        | Luer          | 2607909  |
| 1.0 mL   | H      | 60 mm  | PTFE        | Luer          | 2607011  |
| 2.5 mL   | H      | 60 mm  | PTFE        | Luer          | 2607031  |
| 5.0 mL   | H      | 60 mm  | PTFE        | Luer          | 2607051  |
| 10.0 mL  | H      | 60 mm  | PTFE        | Luer          | 2607071  |
| 25.0 mL  | H      | 60 mm  | PTFE        | Luer          | 2607091  |
| 50.0 mL  | H      | 60 mm  | PTFE        | Luer          | 2607101  |
| 100.0 mL | H      | 120 mm | PTFE        | Luer          | 2607121  |

### HDPE-Seal

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Part No. |
|---------|--------|--------|-------------|---------------|----------|
| 25 µL   | H      | 60 mm  | HDPE        | Luer          | 2641518  |
| 50 µL   | H      | 60 mm  | HDPE        | Luer          | 2641618  |
| 100 µL  | H      | 60 mm  | HDPE        | Luer          | 2641718  |
| 250 µL  | H      | 60 mm  | HDPE        | Luer          | 2641818  |
| 500 µL  | H      | 60 mm  | HDPE        | Luer          | 2641918  |
| 1.0 mL  | H      | 60 mm  | HDPE        | Luer          | 2641018  |
| 2.5 mL  | H      | 60 mm  | HDPE        | Luer          | 2641038  |
| 5.0 mL  | H      | 60 mm  | HDPE        | Luer          | 2641058  |
| 10.0 mL | H      | 60 mm  | HDPE        | Luer          | 2641078  |
| 25.0 mL | H      | 60 mm  | HDPE        | Luer          | 2641098  |

### PTFE-Seal with Silicone

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Part No. |
|---------|--------|--------|-------------|---------------|----------|
| 25 µL   | H      | 60 mm  | Silicone    | Luer          | 2641517  |
| 50 µL   | H      | 60 mm  | Silicone    | Luer          | 2641617  |
| 100 µL  | H      | 60 mm  | Silicone    | Luer          | 2641717  |
| 250 µL  | H      | 60 mm  | Silicone    | Luer          | 2641817  |
| 500 µL  | H      | 60 mm  | Silicone    | Luer          | 2641917  |
| 1.0 mL  | H      | 60 mm  | Silicone    | Luer          | 2641017  |
| 2.5 mL  | H      | 60 mm  | Silicone    | Luer          | 2641037  |
| 5.0 mL  | H      | 60 mm  | Silicone    | Luer          | 2641057  |
| 10.0 mL | H      | 60 mm  | Silicone    | Luer          | 2641077  |

# Automatic Liquid Handling - Stroke 60 mm

## TLL-X

Compatible instruments: Tecan\* Sampler 505 / 510, RSP 5031 / 5032 / 5051 / 5052 / 5071 / 5072 / 8051, Abbott\* TDX / ADX / IMX / Cell Dyn 1300 / 1600 / 300 / 1700, Hamilton\* Microlab, Horiba\* ABX Pentra 400, ISA Biologie\* ISA MAT (HSD), Kratel\* Partoscope FD



### TECHNICAL INFORMATION

**Glass Barrel:** Borosilicate 3.3

#### PTFE-Seal

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Plunger Top | Part No. |
|---------|--------|--------|-------------|---------------|-------------|----------|
| 25 µL   | H      | 60 mm  | PTFE        | Luer          | 6-32 UNC    | 2607517  |
| 50 µL   | H      | 60 mm  | PTFE        | Luer          | 6-32 UNC    | 2607617  |
| 100 µL  | H      | 60 mm  | PTFE        | Luer          | 6-32 UNC    | 2607717  |
| 250 µL  | H      | 60 mm  | PTFE        | Luer          | 6-32 UNC    | 2607817  |
| 500 µL  | H      | 60 mm  | PTFE        | Luer          | 6-32 UNC    | 2607917  |
| 1.0 mL  | H      | 60 mm  | PTFE        | Luer          | 6-32 UNC    | 2607017  |
| 2.5 mL  | H      | 60 mm  | PTFE        | Luer          | 6-32 UNC    | 2607037  |
| 5.0 mL  | H      | 60 mm  | PTFE        | Luer          | 6-32 UNC    | 2607057  |
| 10.0 mL | H      | 60 mm  | PTFE        | Luer          | 6-32 UNC    | 2607077  |
| 25.0 mL | H      | 60 mm  | PTFE        | Luer          | 6-32 UNC    | 2607155  |

#### PTFE-Seal with Silicone

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Plunger Top | Part No. |
|---------|--------|--------|-------------|---------------|-------------|----------|
| 25 µL   | H      | 60 mm  | Silicone    | Luer          | 6-32 UNC    | 2643517  |
| 50 µL   | H      | 60 mm  | Silicone    | Luer          | 6-32 UNC    | 2643617  |
| 100 µL  | H      | 60 mm  | Silicone    | Luer          | 6-32 UNC    | 2643717  |
| 250 µL  | H      | 60 mm  | Silicone    | Luer          | 6-32 UNC    | 2643817  |
| 500 µL  | H      | 60 mm  | Silicone    | Luer          | 6-32 UNC    | 2643917  |
| 1.0 mL  | H      | 60 mm  | Silicone    | Luer          | 6-32 UNC    | 2643017  |
| 2.5 mL  | H      | 60 mm  | Silicone    | Luer          | 6-32 UNC    | 2643037  |
| 5.0 mL  | H      | 60 mm  | Silicone    | Luer          | 6-32 UNC    | 2643057  |
| 10.0 mL | H      | 60 mm  | Silicone    | Luer          | 6-32 UNC    | 2643077  |

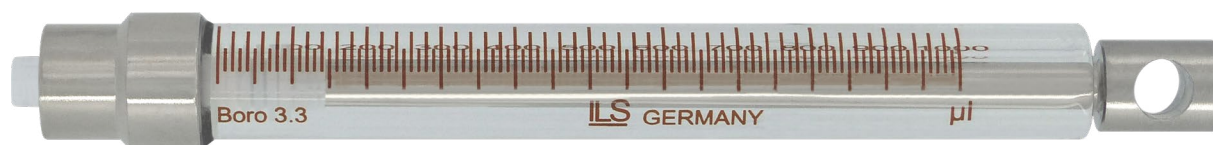
#### HDPE-Seal

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Plunger Top | Part No. |
|---------|--------|--------|-------------|---------------|-------------|----------|
| 50 µL   | H      | 60 mm  | HDPE        | Luer          | 6-32 UNC    | 2643618  |
| 100 µL  | H      | 60 mm  | HDPE        | Luer          | 6-32 UNC    | 2643718  |
| 250 µL  | H      | 60 mm  | HDPE        | Luer          | 6-32 UNC    | 2643818  |
| 500 µL  | H      | 60 mm  | HDPE        | Luer          | 6-32 UNC    | 2643918  |
| 1.0 mL  | H      | 60 mm  | HDPE        | Luer          | 6-32 UNC    | 2643018  |
| 2.5 mL  | H      | 60 mm  | HDPE        | Luer          | 6-32 UNC    | 2643038  |
| 5.0 mL  | H      | 60 mm  | HDPE        | Luer          | 6-32 UNC    | 2643058  |
| 10.0 mL | H      | 60 mm  | HDPE        | Luer          | 6-32 UNC    | 2643078  |
| 25.0 mL | H      | 60 mm  | HDPE        | Luer          | 6-32 UNC    | 2643095  |

# Automatic Liquid Handling - Stroke 60 mm

## XL

Compatible instruments: Cattro\* XL syringe pump, Perkin Elmer\* Multiprobe II / Janus\*, Caliper\* Sciclone ALH 3000, BD FACS\* MultiSet, Beckman\* Coulter Prep Plus, Behr\* behrotest, CGA\* EOS 890 / Plus, Maihak\* TOCOR 101, Moritex\* EX-Multi, MWG\* Robots, Roche\* Cobas Integral, Spark\* Triathlon, Tecan\* MiniPrep 50/75, Tecan\* Minilyser / Miniprep 60 / 75\*Mini Swift, Thermo\* Data Pro, Wiener Lab\* Metrolab 2300 Plus



## TECHNICAL INFORMATION

Glass Barrel: Borosilicate 3.3

### PTFE-Seal

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Part No. |
|---------|--------|--------|-------------|---------------|----------|
| 25 µL   | H      | 60 mm  | PTFE        | Luer          | 2607511  |
| 50 µL   | H      | 60 mm  | PTFE        | Luer          | 2607611  |
| 100 µL  | H      | 60 mm  | PTFE        | Luer          | 2607711  |
| 250 µL  | H      | 60 mm  | PTFE        | Luer          | 2607811  |
| 500 µL  | H      | 60 mm  | PTFE        | Luer          | 2607911  |
| 1.0 mL  | H      | 60 mm  | PTFE        | Luer          | 2607013  |
| 2.5 mL  | H      | 60 mm  | PTFE        | Luer          | 2607033  |
| 5.0 mL  | H      | 60 mm  | PTFE        | Luer          | 2607053  |
| 10.0 mL | H      | 60 mm  | PTFE        | Luer          | 2607073  |
| 25.0 mL | H      | 60 mm  | PTFE        | Luer          | 2607096  |
| 50.0 mL | H      | 60 mm  | PTFE        | Luer          | 2607103  |

### PTFE-Seal with Silicone

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Part No. |
|---------|--------|--------|-------------|---------------|----------|
| 25 µL   | H      | 60 mm  | Silicone    | Luer          | 2645517  |
| 50 µL   | H      | 60 mm  | Silicone    | Luer          | 2645617  |
| 100 µL  | H      | 60 mm  | Silicone    | Luer          | 2645717  |
| 250 µL  | H      | 60 mm  | Silicone    | Luer          | 2645817  |
| 500 µL  | H      | 60 mm  | Silicone    | Luer          | 2645917  |
| 1.0 mL  | H      | 60 mm  | Silicone    | Luer          | 2645017  |
| 2.5 mL  | H      | 60 mm  | Silicone    | Luer          | 2645037  |
| 5.0 mL  | H      | 60 mm  | Silicone    | Luer          | 2645057  |
| 10.0 mL | H      | 60 mm  | Silicone    | Luer          | 2645077  |
| 25.0 mL | H      | 60 mm  | Silicone    | Luer          | 2645097  |

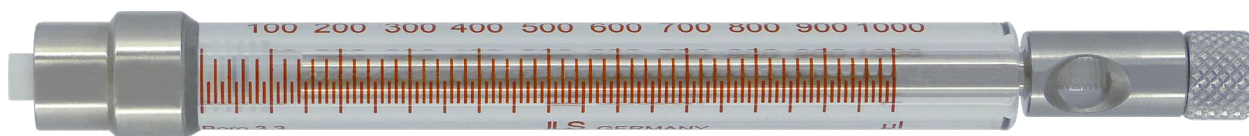
### HDPE-Seal

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Part No. |
|---------|--------|--------|-------------|---------------|----------|
| 50 µL   | H      | 60 mm  | HDPE        | Luer          | 2645618  |
| 100 µL  | H      | 60 mm  | HDPE        | Luer          | 2645718  |
| 250 µL  | H      | 60 mm  | HDPE        | Luer          | 2645818  |
| 500 µL  | H      | 60 mm  | HDPE        | Luer          | 2645918  |
| 1.0 mL  | H      | 60 mm  | HDPE        | Luer          | 2645018  |
| 2.5 mL  | H      | 60 mm  | HDPE        | Luer          | 2645038  |
| 5.0 mL  | H      | 60 mm  | HDPE        | Luer          | 2645058  |
| 10.0 mL | H      | 60 mm  | HDPE        | Luer          | 2645078  |

# Automatic Liquid Handling - Stroke 60 mm

## RQ / MINIMUM ORDER QUANTITY 50PCS

Compatible instruments: Zinsser Analytic Lissy / Sophas / Speedy / Calli / Moss, Rosys\* Plato & Lucy, Qiagen\* Biorobot 9600, Digene\* Rapid Capture System, Unitech Chemwell\* 2910



### TECHNICAL INFORMATION

Glass Barrel: Borosilicate 3.3

#### PTFE-Seal

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Plunger Top | Part No. |
|---------|--------|--------|-------------|---------------|-------------|----------|
| 25 µL   | H      | 60 mm  | PTFE        | Luer          | Screw       | 2607512  |
| 50 µL   | H      | 60 mm  | PTFE        | Luer          | Screw       | 2607612  |
| 100 µL  | H      | 60 mm  | PTFE        | Luer          | Screw       | 2607712  |
| 250 µL  | H      | 60 mm  | PTFE        | Luer          | Screw       | 2607812  |
| 500 µL  | H      | 60 mm  | PTFE        | Luer          | Screw       | 2607912  |
| 1.0 mL  | H      | 60 mm  | PTFE        | Luer          | Screw       | 2607014  |
| 2.5 mL  | H      | 60 mm  | PTFE        | Luer          | Screw       | 2607034  |
| 5.0 mL  | H      | 60 mm  | PTFE        | Luer          | Screw       | 2607054  |
| 10.0 mL | H      | 60 mm  | PTFE        | Luer          | Screw       | 2607074  |

#### PTFE-Seal with Silicone

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Plunger Top | Part No. |
|---------|--------|--------|-------------|---------------|-------------|----------|
| 25 µL   | H      | 60 mm  | Silicone    | Luer          | Screw       | 2644517  |
| 50 µL   | H      | 60 mm  | Silicone    | Luer          | Screw       | 2644617  |
| 100 µL  | H      | 60 mm  | Silicone    | Luer          | Screw       | 2644717  |
| 250 µL  | H      | 60 mm  | Silicone    | Luer          | Screw       | 2644817  |
| 500 µL  | H      | 60 mm  | Silicone    | Luer          | Screw       | 2644917  |
| 1.0 mL  | H      | 60 mm  | Silicone    | Luer          | Screw       | 2644017  |
| 2.5 mL  | H      | 60 mm  | Silicone    | Luer          | Screw       | 2644037  |
| 5.0 mL  | H      | 60 mm  | Silicone    | Luer          | Screw       | 2644057  |
| 10.0 mL | H      | 60 mm  | Silicone    | Luer          | Screw       | 2644077  |

#### HDPE-Seal

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Plunger Top | Part No. |
|---------|--------|--------|-------------|---------------|-------------|----------|
| 50 µL   | H      | 60 mm  | HDPE        | Luer          | Screw       | 2644618  |
| 100 µL  | H      | 60 mm  | HDPE        | Luer          | Screw       | 2644718  |
| 250 µL  | H      | 60 mm  | HDPE        | Luer          | Screw       | 2644818  |
| 500 µL  | H      | 60 mm  | HDPE        | Luer          | Screw       | 2644918  |
| 1.0 mL  | H      | 60 mm  | HDPE        | Luer          | Screw       | 2644018  |
| 2.5 mL  | H      | 60 mm  | HDPE        | Luer          | Screw       | 2644038  |
| 5.0 mL  | H      | 60 mm  | HDPE        | Luer          | Screw       | 2644058  |
| 10.0 mL | H      | 60 mm  | HDPE        | Luer          | Screw       | 2644078  |

# Automatic Liquid Handling - Stroke 60 mm

C

Compatible instruments: Hamilton\* Microlab 500



## TECHNICAL INFORMATION

**Glass Barrel:** Borosilicate 3.3

### PTFE-Seal

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Plunger Top | Part No. |
|---------|--------|--------|-------------|---------------|-------------|----------|
| 10 µL   | H      | 54 mm  | PTFE        | 1/4"-28 UNF   | -           | 2606414  |
| 25 µL   | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | -           | 2606514  |
| 50 µL   | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | -           | 2606614  |
| 100 µL  | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | -           | 2606714  |
| 250 µL  | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | -           | 2606814  |
| 500 µL  | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | -           | 2606914  |
| 1.0 mL  | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | 6-32 UNC    | 2606015  |
| 2.5 mL  | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | 6-32 UNC    | 2606035  |
| 5.0 mL  | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | 6-32 UNC    | 2606055  |
| 10.0 mL | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | 6-32 UNC    | 2606075  |
| 25.0 mL | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | 6-32 UNC    | 2606095  |

### PTFE-Seal with Silicone

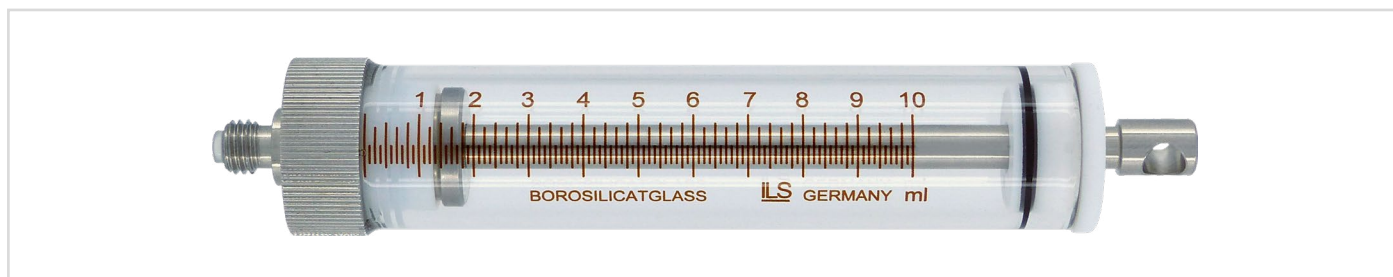
| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Plunger Top | Part No. |
|---------|--------|--------|-------------|---------------|-------------|----------|
| 25 µL   | H      | 60 mm  | Silicone    | 1/4"-28 UNF   | -           | 2606517  |
| 50 µL   | H      | 60 mm  | Silicone    | 1/4"-28 UNF   | -           | 2606617  |
| 100 µL  | H      | 60 mm  | Silicone    | 1/4"-28 UNF   | -           | 2606717  |
| 250 µL  | H      | 60 mm  | Silicone    | 1/4"-28 UNF   | -           | 2606817  |
| 500 µL  | H      | 60 mm  | Silicone    | 1/4"-28 UNF   | -           | 2606917  |
| 1.0 mL  | H      | 60 mm  | Silicone    | 1/4"-28 UNF   | 6-32 UNC    | 2606017  |
| 2.5 mL  | H      | 60 mm  | Silicone    | 1/4"-28 UNF   | 6-32 UNC    | 2606037  |
| 5.0 mL  | H      | 60 mm  | Silicone    | 1/4"-28 UNF   | 6-32 UNC    | 2606057  |
| 10.0 mL | H      | 60 mm  | Silicone    | 1/4"-28 UNF   | 6-32 UNC    | 2606077  |

### HDPE-Seal

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Plunger Top | Part No. |
|---------|--------|--------|-------------|---------------|-------------|----------|
| 50 µL   | H      | 60 mm  | HDPE        | 1/4"-28 UNF   | -           | 2606618  |
| 100 µL  | H      | 60 mm  | HDPE        | 1/4"-28 UNF   | -           | 2606718  |
| 250 µL  | H      | 60 mm  | HDPE        | 1/4"-28 UNF   | -           | 2606818  |
| 500 µL  | H      | 60 mm  | HDPE        | 1/4"-28 UNF   | -           | 2606918  |
| 1.0 mL  | H      | 60 mm  | HDPE        | 1/4"-28 UNF   | 6-32 UNC    | 2606018  |
| 2.5 mL  | H      | 60 mm  | HDPE        | 1/4"-28 UNF   | 6-32 UNC    | 2606038  |
| 5.0 mL  | H      | 60 mm  | HDPE        | 1/4"-28 UNF   | 6-32 UNC    | 2606058  |
| 10.0 mL | H      | 60 mm  | HDPE        | 1/4"-28 UNF   | 6-32 UNC    | 2606078  |

# Automatic Liquid Handling - Stroke 60 mm

## H-KP



### TECHNICAL INFORMATION

**Glass Barrel:** Borosilicate 3.3

#### PTFE-Seal

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Part No. |
|---------|--------|--------|-------------|---------------|----------|
| 25 µL   | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | 2608515  |
| 50 µL   | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | 2608615  |
| 100 µL  | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | 2608715  |
| 250 µL  | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | 2608815  |
| 500 µL  | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | 2608915  |
| 1.0 mL  | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | 2608015  |
| 1.25 mL | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | 2608125  |
| 2.5 mL  | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | 2608035  |
| 5.0 mL  | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | 2608055  |
| 10.0 mL | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | 2608075  |
| 25.0 mL | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | 2608091  |
| 50.0 mL | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | 2608105  |

#### HDPE-Seal

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Part No. |
|---------|--------|--------|-------------|---------------|----------|
| 25 µL   | H      | 60 mm  | HDPE        | 1/4"-28 UNF   | 2608516  |
| 50 µL   | H      | 60 mm  | HDPE        | 1/4"-28 UNF   | 2608616  |
| 100 µL  | H      | 60 mm  | HDPE        | 1/4"-28 UNF   | 2608716  |
| 250 µL  | H      | 60 mm  | HDPE        | 1/4"-28 UNF   | 2608816  |
| 500 µL  | H      | 60 mm  | HDPE        | 1/4"-28 UNF   | 2608916  |
| 1.0 mL  | H      | 60 mm  | HDPE        | 1/4"-28 UNF   | 2608016  |
| 2.5 mL  | H      | 60 mm  | HDPE        | 1/4"-28 UNF   | 2608036  |
| 5.0 mL  | H      | 60 mm  | HDPE        | 1/4"-28 UNF   | 2608056  |
| 10.0 mL | H      | 60 mm  | HDPE        | 1/4"-28 UNF   | 2608076  |
| 25.0 mL | H      | 60 mm  | HDPE        | 1/4"-28 UNF   | 2608096  |

# Automatic Liquid Handling - Stroke 60 mm

## XLP

Compatible instruments: Cattro\* XLP Modular syringe pump



## TECHNICAL INFORMATION

**Glass Barrel:** Borosilicate 3.3

### PTFE-Seal

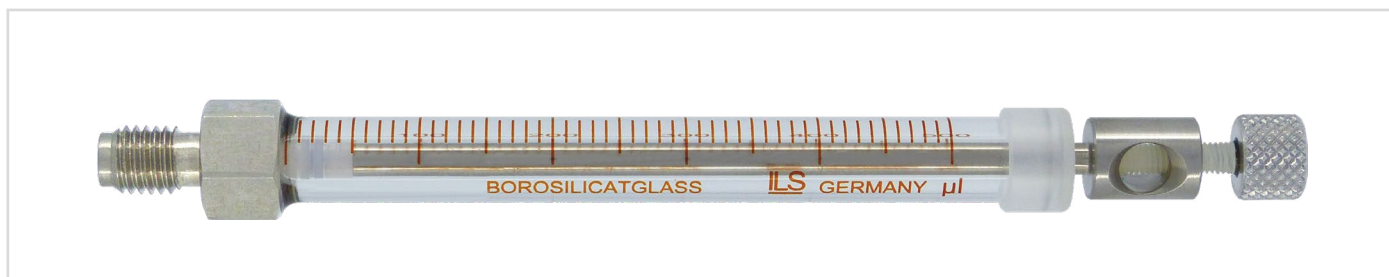
| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Part No. |
|---------|--------|--------|-------------|---------------|----------|
| 50 µL   | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | 2679611  |
| 100 µL  | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | 2679711  |
| 250 µL  | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | 2679811  |
| 500 µL  | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | 2679911  |
| 1.0 mL  | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | 2679011  |
| 2.5 mL  | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | 2679031  |
| 5.0 mL  | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | 2679051  |
| 10.0 mL | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | 2679071  |
| 25.0 mL | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | 2679091  |
| 50.0 mL | H      | 60 mm  | PTFE        | 1/4"-28 UNF   | 2679101  |

### HDPE-Seal

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Part No. |
|---------|--------|--------|-------------|---------------|----------|
| 50 µL   | H      | 60 mm  | HDPE        | 1/4"-28 UNF   | 2679613  |
| 100 µL  | H      | 60 mm  | HDPE        | 1/4"-28 UNF   | 2679713  |
| 250 µL  | H      | 60 mm  | HDPE        | 1/4"-28 UNF   | 2679813  |
| 500 µL  | H      | 60 mm  | HDPE        | 1/4"-28 UNF   | 2679913  |
| 1.0 mL  | H      | 60 mm  | HDPE        | 1/4"-28 UNF   | 2679015  |
| 2.5 mL  | H      | 60 mm  | HDPE        | 1/4"-28 UNF   | 2679035  |
| 5.0 mL  | H      | 60 mm  | HDPE        | 1/4"-28 UNF   | 2679055  |
| 10.0 mL | H      | 60 mm  | HDPE        | 1/4"-28 UNF   | 2679075  |
| 25.0 mL | H      | 60 mm  | HDPE        | 1/4"-28 UNF   | 2679095  |

# Automatic Liquid Handling - Stroke 60 mm

**INNOVADYNE\* NANODROP\*\* / MINIMUM ORDER QUANTITY  
50PCS**



## TECHNICAL INFORMATION

**Glass Barrel:** Borosilicate 3.3

| Volume | Stroke | Series | Plunger Tip | Front Fitting          | Part No. |
|--------|--------|--------|-------------|------------------------|----------|
| 100 µL | 60 mm  | H      | PTFE        | 1/4"-28 UNF with hex   | 2623717  |
| 250 µL | 60 mm  | H      | PTFE        | 1/4"-28 UNF with hex   | 2623817  |
| 500 µL | 60 mm  | H      | PTFE        | 1/4"-28 UNF with hex   | 2623917  |
| 1.0 mL | 60 mm  | H      | PTFE        | 1/4"-28 UNF with hex   | 2623017  |
| 2.5 mL | 60 mm  | H      | PTFE        | 1/4"-28 UNF with knurl | 2623035  |
| 5.0 mL | 60 mm  | H      | PTFE        | 1/4"-28 UNF with knurl | 2623054  |

# Automatic Liquid Handling - Stroke 60 mm

## AD / MINIMUM ORDER QUANTITY 50PCS

Compatible instruments: CGA\* EPOS / EASY / ERIS, Roche\* Midias



### TECHNICAL INFORMATION

**Glass Barrel:** Borosilicate 3.3

#### PTFE-Seal

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Part No. |
|---------|--------|--------|-------------|---------------|----------|
| 50 µL   | H      | 60 mm  | PTFE        | M8x0.75       | 2605613  |
| 100 µL  | H      | 60 mm  | PTFE        | M8x0.75       | 2605713  |
| 250 µL  | H      | 60 mm  | PTFE        | M8x0.75       | 2605813  |
| 500 µL  | H      | 60 mm  | PTFE        | M8x0.75       | 2605913  |
| 1.0 mL  | H      | 60 mm  | PTFE        | M8x0.75       | 2605014  |
| 2.5 mL  | H      | 60 mm  | PTFE        | M8x0.75       | 2605034  |
| 5.0 mL  | H      | 60 mm  | PTFE        | M8x0.75       | 2605054  |
| 10.0 mL | H      | 60 mm  | PTFE        | M8x0.75       | 2605074  |
| 25.0 mL | H      | 60 mm  | PTFE        | M8x0.75       | 2605094  |

#### PTFE-Seal with Silicone

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Part No. |
|---------|--------|--------|-------------|---------------|----------|
| 50 µL   | H      | 60 mm  | Silicone    | M8x0.75       | 2605617  |
| 100 µL  | H      | 60 mm  | Silicone    | M8x0.75       | 2605717  |
| 250 µL  | H      | 60 mm  | Silicone    | M8x0.75       | 2605817  |
| 500 µL  | H      | 60 mm  | Silicone    | M8x0.75       | 2605917  |
| 1.0 mL  | H      | 60 mm  | Silicone    | M8x0.75       | 2605017  |
| 2.5 mL  | H      | 60 mm  | Silicone    | M8x0.75       | 2605037  |
| 5.0 mL  | H      | 60 mm  | Silicone    | M8x0.75       | 2605057  |
| 10.0 mL | H      | 60 mm  | Silicone    | M8x0.75       | 2605077  |

#### HDPE-Seal

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Part No. |
|---------|--------|--------|-------------|---------------|----------|
| 50 µL   | H      | 60 mm  | HDPE        | M8x0.75       | 2605618  |
| 100 µL  | H      | 60 mm  | HDPE        | M8x0.75       | 2605718  |
| 250 µL  | H      | 60 mm  | HDPE        | M8x0.75       | 2605818  |
| 500 µL  | H      | 60 mm  | HDPE        | M8x0.75       | 2605918  |
| 1.0 mL  | H      | 60 mm  | HDPE        | M8x0.75       | 2605018  |
| 2.5 mL  | H      | 60 mm  | HDPE        | M8x0.75       | 2605038  |
| 5.0 mL  | H      | 60 mm  | HDPE        | M8x0.75       | 2605058  |
| 10.0 mL | H      | 60 mm  | HDPE        | M8x0.75       | 2605078  |

# Automatic Liquid Handling - Stroke 60 mm

## GILSON\* 401 - MINIMUM ORDER QUANTITY 50PCS

Compatible instruments: Gilson\* syringe pump 401



### TECHNICAL INFORMATION

Glass Barrel: Borosilicate 3.3

#### PTFE-Seal

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Plunger Top | Part No. |
|---------|--------|--------|-------------|---------------|-------------|----------|
| 500 µL  | H      | 60 mm  | PTFE        | M10           | Screw       | 2629911  |
| 1.0 mL  | H      | 60 mm  | PTFE        | M10           | Screw       | 2629013  |
| 5.0 mL  | H      | 60 mm  | PTFE        | M10           | Screw       | 2629053  |
| 10.0 mL | H      | 60 mm  | PTFE        | M10           | Screw       | 2629073  |

# Automatic Liquid Handling - Stroke 60 mm

## GILSON\* 402 / 406 - MINIMUM ORDER QUANTITY 50PCS

Compatible instruments: Gilson\* syringe pump 402 / 406



### TECHNICAL INFORMATION

**Glass Barrel:** Borosilicate 3.3

#### PTFE-Seal

| Volume  | Series | Stroke | Plunger Tip | Front Fitting | Plunger Top | Part No. |
|---------|--------|--------|-------------|---------------|-------------|----------|
| 100 µL  | H      | 60 mm  | PTFE        | M10           | Thread M4   | 2629710  |
| 250 µL  | H      | 60 mm  | PTFE        | M10           | Thread M4   | 2629810  |
| 500 µL  | H      | 60 mm  | PTFE        | M10           | Thread M4   | 2629910  |
| 1.0 mL  | H      | 60 mm  | PTFE        | M10           | Thread M4   | 2629015  |
| 2.5 mL  | H      | 60 mm  | PTFE        | M10           | Thread M4   | 2629031  |
| 5.0 mL  | H      | 60 mm  | PTFE        | M10           | Thread M4   | 2629051  |
| 10.0 mL | H      | 60 mm  | PTFE        | M10           | Thread M4   | 2629071  |
| 25.0 mL | H      | 60 mm  | PTFE        | M10           | Thread M4   | 2629091  |

# Automatic Liquid Handling - Stroke 60 mm

## TUBING CONNECTOR / MINIMUM ORDER QUANTITY 50PCS



### TECHNICAL INFORMATION

#### Advantages:

- Direct connection
- Reduced dead volume
- PEEK Connector, no metal contact
- Fits any tube from  $\varnothing$  0,8 mm to  $\varnothing$  3,2 mm
- Chemically inert

Glass Barrel: Borosilicate 3.3

#### PTFE-Seal

| Volume      | Stroke | Plunger Tip | Connector   | Part No. | Connector   | Part No. |
|-------------|--------|-------------|-------------|----------|-------------|----------|
|             |        |             | <b>PEEK</b> |          | <b>PEEK</b> |          |
| 10 $\mu$ L  | 54 mm  | PTFE        | M6          | 2624414  | 1/4" - 28   | 2624415  |
| 25 $\mu$ L  | 60 mm  | PTFE        | M6          | 2624514  | 1/4" - 28   | 2624515  |
| 50 $\mu$ L  | 60 mm  | PTFE        | M6          | 2624614  | 1/4" - 28   | 2624615  |
| 100 $\mu$ L | 60 mm  | PTFE        | M6          | 2624714  | 1/4" - 28   | 2624715  |
| 250 $\mu$ L | 60 mm  | PTFE        | M6          | 2624814  | 1/4" - 28   | 2624815  |
| 500 $\mu$ L | 60 mm  | PTFE        | M6          | 2624914  | 1/4" - 28   | 2624915  |
| 1.0 mL      | 60 mm  | PTFE        | M6          | 2624015  | 1/4" - 28   | 2624016  |
| 2.5 mL      | 60 mm  | PTFE        | M6          | 2624035  | 1/4" - 28   | 2624036  |
| 5.0 mL      | 60 mm  | PTFE        | M6          | 2624055  | 1/4" - 28   | 2624056  |
| 10.0 mL     | 60 mm  | PTFE        | M6          | 2624075  | 1/4" - 28   | 2624076  |
| 25.0 mL     | 60 mm  | PTFE        | M6          | 2624095  | 1/4" - 28   | 2624096  |
| 50.0 mL     | 60 mm  | PTFE        | M6          | 2624101  | 1/4" - 28   | 2624102  |

| Volume   | Stroke | Plunger Tip | Connector        | Part No. | Connector        | Part No. |
|----------|--------|-------------|------------------|----------|------------------|----------|
|          |        |             | <b>Aluminium</b> |          | <b>Aluminium</b> |          |
| 50.0 mL  | 60 mm  | PTFE        | M6               | 2624105  | 1/4" - 28        | 2624106  |
| 100.0 mL | 120 mm | PTFE        | M6               | 2624116  | 1/4" - 28        | 2624115  |

#### HDPE-Seal

| Volume      | Stroke | Plunger Tip | Connector   | Part No. | Connector   | Part No. |
|-------------|--------|-------------|-------------|----------|-------------|----------|
|             |        |             | <b>PEEK</b> |          | <b>PEEK</b> |          |
| 10 $\mu$ L  | 54 mm  | HDPE        | M6          | -        | 1/4" - 28   | -        |
| 25 $\mu$ L  | 60 mm  | HDPE        | M6          | -        | 1/4" - 28   | -        |
| 50 $\mu$ L  | 60 mm  | HDPE        | M6          | -        | 1/4" - 28   | -        |
| 100 $\mu$ L | 60 mm  | HDPE        | M6          | 2624718  | 1/4" - 28   | 2624719  |
| 250 $\mu$ L | 60 mm  | HDPE        | M6          | 2624818  | 1/4" - 28   | 2624819  |
| 500 $\mu$ L | 60 mm  | HDPE        | M6          | 2624918  | 1/4" - 28   | 2624917  |
| 1.0 mL      | 60 mm  | HDPE        | M6          | -        | 1/4" - 28   | 2624017  |
| 2.5 mL      | 60 mm  | HDPE        | M6          | -        | 1/4" - 28   | 2624037  |
| 5.0 mL      | 60 mm  | HDPE        | M6          | -        | 1/4" - 28   | 2624059  |
| 10.0 mL     | 60 mm  | HDPE        | M6          | -        | 1/4" - 28   | 2624080  |
| 25.0 mL     | 60 mm  | HDPE        | M6          | -        | 1/4" - 28   | 2624098  |

# Automatic Liquid Handling - Stroke 60 mm

## HPLC TUBING CONNECTOR / MINIMUM ORDER QUANTITY 50PCS



### TECHNICAL INFORMATION

#### Advantages:

- Direct connection with HPLC 10-32 cone fitting
- Reduced dead volume
- PEEK Connector totally inert, no metal contact
- Fits any tube from  $\varnothing$  0,8 mm to  $\varnothing$  3,2 mm
- Chemically resistant

**Glass Barrel:** Borosilicate 3.3

#### PTFE-Seal

| Volume      | Plunger Tip | Front Fitting | Part No. |
|-------------|-------------|---------------|----------|
| 250 $\mu$ L | PTFE        | 10-32 cone    | 2624812  |
| 500 $\mu$ L | PTFE        | 10-32 cone    | 2624919  |

#### HDPE-Seal

| Volume      | Plunger Tip | Front Fitting | Part No. |
|-------------|-------------|---------------|----------|
| 250 $\mu$ L | HDPE        | 10-32 cone    | 2624813  |
| 500 $\mu$ L | HDPE        | 10-32 cone    | 2624913  |
| 1.0 mL      | HDPE        | 10-32 cone    | 2624013  |

## OVERVIEW

### SYRINGES FOR INFUSION PUMPS

TLL Pump

---

41

# Automatic Liquid Handling - Syringes for Infusion Pumps

## TLL PUMP / MINIMUM ORDER QUANTITY 50PCS



### TECHNICAL INFORMATION

Glass Barrel: Borosilicate 3.3

#### PTFE-Seal

| Volume   | Series | Stroke | Plunger Tip | Front Fitting | Part No. |
|----------|--------|--------|-------------|---------------|----------|
| 50 µL    | H      | 60 mm  | PTFE        | Luer          | 2607608  |
| 100 µL   | H      | 60 mm  | PTFE        | Luer          | 2607702  |
| 250 µL   | H      | 60 mm  | PTFE        | Luer          | 2607808  |
| 500 µL   | H      | 60 mm  | PTFE        | Luer          | 2607906  |
| 1.0 mL   | H      | 60 mm  | PTFE        | Luer          | 2607003  |
| 2.5 mL   | H      | 60 mm  | PTFE        | Luer          | 2607032  |
| 5.0 mL   | H      | 60 mm  | PTFE        | Luer          | 2607046  |
| 10.0 mL  | H      | 60 mm  | PTFE        | Luer          | 2607224  |
| 25.0 mL  | H      | 60 mm  | PTFE        | Luer          | 2607128  |
| 50.0 mL  | H      | 60 mm  | PTFE        | Luer          | 2607126  |
| 100.0 mL | H      | 120 mm | PTFE        | Luer          | 2607127  |

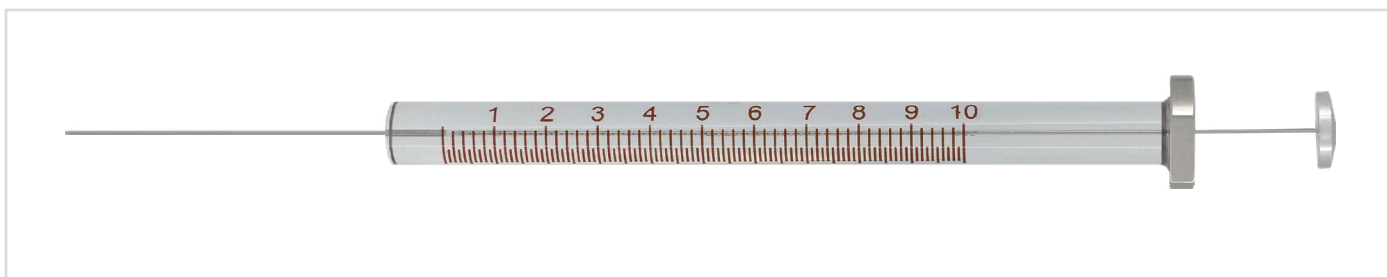
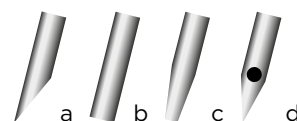
## OVERVIEW

### DOSAGE OF LIQUIDS - SERIES N

|                        |    |
|------------------------|----|
| Fixed Needles          | 43 |
| Removable Needles      | 44 |
| Super Flexible Plunger | 45 |
| Series SN              | 46 |
| Series T               | 47 |
| Series LT              | 48 |
| Series TLL             | 49 |

# Dosage of Liquids - Series N

## FIXED NEEDLES



### TECHNICAL INFORMATION

#### Main usage:

- Sample dosage for Gas Chromatography (GC)
- HPLC Valve
- Autosamplers
- Thin Layer Chromatography (TLC)

**Glass Barrel:** Borosilicate 3.3

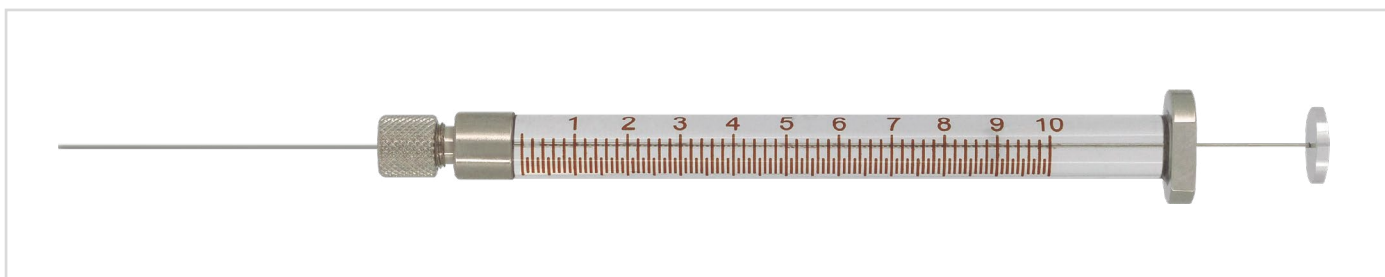
Stainless Steel = sst\*

| Needle Tip |             |              | a        | a        | a        | b        | c        | c        | d        |
|------------|-------------|--------------|----------|----------|----------|----------|----------|----------|----------|
|            |             |              | (FN)     | (FN)     | (FN)     | (FN)     | (FN)     | (FN)     | (FN)     |
| Length     |             |              | 51 mm    | 51 mm    | 70 mm    | 51 mm    | 51 mm    | 51 mm    | 51 mm    |
| Volume     | Plunger Tip | O.D. (Gauge) | Part No. | Part No. | Part No. | Part No. | Part No. | Part No. | Part No. |
|            |             |              |          | 6-Pack   |          |          |          | 6-Pack   |          |
| 5 µL       | sst*        | 0.47 (G26s)  | 2100301  | 2100311  | -        | 2100302  | 2100303  | 2100323  | 2100304  |
| 10 µL      | sst*        | 0.47 (G26s)  | 2100401  | 2100411  | 2100409  | 2100402  | 2100403  | 2100427  | 2100404  |
| 25 µL      | sst*        | 0.72 (G22s)  | 2100501  | -        | 2100509  | 2100502  | 2100503  | -        | 2100504  |
| 50 µL      | sst*        | 0.72 (G22s)  | 2100601  | -        | 2100609  | 2100602  | 2100603  | -        | 2100604  |
| 100 µL     | sst*        | 0.72 (G22s)  | 2100701  | -        | 2100709  | 2100702  | 2100703  | -        | 2100704  |
| 250 µL     | sst*        | 0.72 (G22)   | 2100801  | -        | -        | 2100802  | 2100803  | -        | 2100804  |
| 500 µL     | sst*        | 0.72 (G22)   | 2100901  | -        | -        | 2100902  | 2100903  | -        | 2100904  |

| Needle Tip |             | a; b; c;                                    |          |
|------------|-------------|---------------------------------------------|----------|
| Length     |             | Please specify needle tip & length (in mm). |          |
| Volume     | Plunger Tip | O.D. (Gauge)                                | Part No. |
| 5 µL       | sst*        | 0.47 (G26s)                                 | 2110300  |
| 10 µL      | sst*        | 0.47 (G26s)                                 | 2110400  |
| 25 µL      | sst*        | 0.72 (G22s)                                 | 2110500  |
| 50 µL      | sst*        | 0.72 (G22s)                                 | 2110600  |
| 100 µL     | sst*        | 0.72 (G22s)                                 | 2110700  |
| 250 µL     | sst*        | 0.72 (G22)                                  | 2110800  |
| 500 µL     | sst*        | 0.72 (G22)                                  | 2110900  |

# Dosage of Liquids - Series N

## REMOVABLE NEEDLES



### TECHNICAL INFORMATION

#### Main usage:

- Sample dosage for Gas Chromatography (GC)
- HPLC Valve
- Autosamplers
- Thin Layer Chromatography (TLC)

Glass Barrel: Borosilicate 3.3

Stainless Steel = sst\*

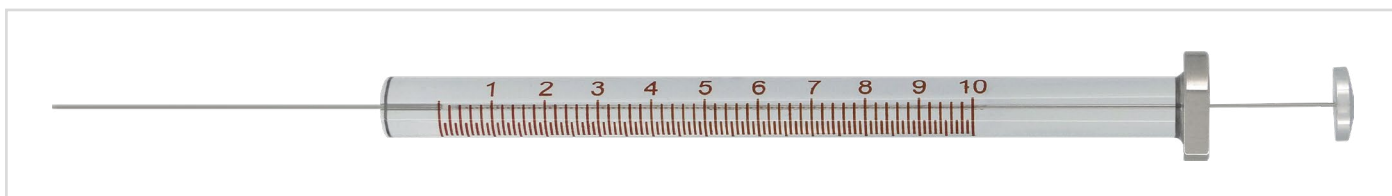
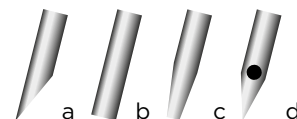
| Needle Tip |             |              | a        | a          | b        | c        |
|------------|-------------|--------------|----------|------------|----------|----------|
|            |             |              | (RN)     | (RN)       | (RN)     | (RN)     |
| Length     |             |              | 51 mm    | 51 mm      | 51 mm    | 51 mm    |
| Volume     | Plunger Tip | O.D. (Gauge) | Part No. | Part No.   | Part No. | Part No. |
|            |             |              |          | 6-Pack     |          |          |
| 5 µL       | sst*        | 0.47 (G26s)  | 2100305  | 2100305-6P | 2100306  | 2100307  |
| 10 µL      | sst*        | 0.47 (G26s)  | 2100405  | 2100415    | 2100406  | 2100407  |
| 25 µL      | sst*        | 0.72 (G22s)  | 2100505  | -          | 2100506  | 2100507  |
| 50 µL      | sst*        | 0.72 (G22s)  | 2100605  | -          | 2100606  | 2100607  |
| 100 µL     | sst*        | 0.72 (G22s)  | 2100705  | -          | 2100706  | 2100707  |
| 250 µL     | sst*        | 0.72 (G22)   | 2100805  | -          | 2100806  | 2100807  |
| 500 µL     | sst*        | 0.72 (G22)   | 2100905  | -          | 2100906  | 2100907  |

| Needle Tip |             | a; b; c;                                    |          |
|------------|-------------|---------------------------------------------|----------|
| Length     |             | Please specify needle tip & length (in mm). |          |
| Volume     | Plunger Tip | O.D. (Gauge)                                | Part No. |
| 5 µL       | sst*        | 0.47 (G26s)                                 | 2110301  |
| 10 µL      | sst*        | 0.47 (G26s)                                 | 2110401  |
| 25 µL      | sst*        | 0.72 (G22s)                                 | 2110501  |
| 50 µL      | sst*        | 0.72 (G22s)                                 | 2110601  |
| 100 µL     | sst*        | 0.72 (G22s)                                 | 2110701  |
| 250 µL     | sst*        | 0.72 (G22)                                  | 2110801  |
| 500 µL     | sst*        | 0.72 (G22)                                  | 2110901  |

\*All other trademarks, service marks, registered trademarks, and registered service marks are the property of their respective owners. Ingersoll Rand and ILS are not affiliated with Hamilton in any way.

# Dosage of Liquids - Series N

## SUPER FLEXIBLE PLUNGER / MINIMUM ORDER QUANTITY 50PCS



### TECHNICAL INFORMATION

#### Main usage:

- Sample dosage for Gas Chromatography (GC)
- HPLC Valve
- Autosamplers

#### Plunger:

- Nickel titanium alloy, flexible memory metal

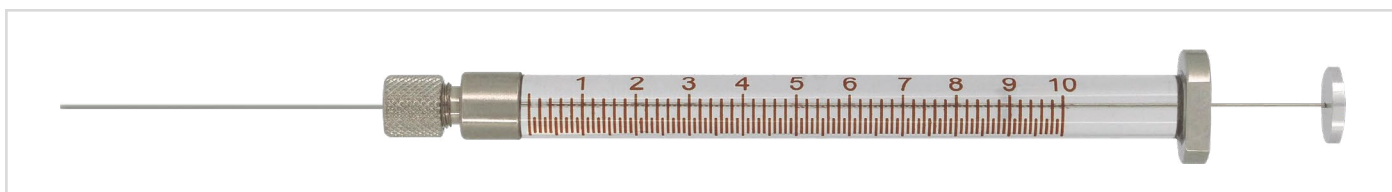
**Glass Barrel:** Borosilicate 3.3

Fixed Needles (FN)

Removable Needles (RN)

Stainless Steel = sst\*

| Needle Tip |              | a        | a        | b        | c        | c        | d        |
|------------|--------------|----------|----------|----------|----------|----------|----------|
|            |              | (FN)     | (FN)     | (FN)     | (FN)     | (FN)     | (FN)     |
| Length     |              | 51 mm    | 51 mm    | 51 mm    | 51 mm    | 51 mm    | 51 mm    |
| Volume     | O.D. (Gauge) | Part No. | Part No. | Part No. | Part No. | Part No. | Part No. |
|            |              |          | 6-Pack   |          |          | 6-Pack   |          |
| 5 µL       | 0.47 (G26s)  | 2160301  | 2160311  | 2160302  | 2160303  | -        | -        |
| 5 µL       | 0.47 (G26)   | -        | -        | -        | -        | -        | 2160304  |
| 10 µL      | 0.47 (G26s)  | 2160401  | 2160411  | 2160402  | 2160403  | 2160413  | -        |
| 10 µL      | 0.47 (G26)   | -        | -        | -        | -        | -        | 2160404  |

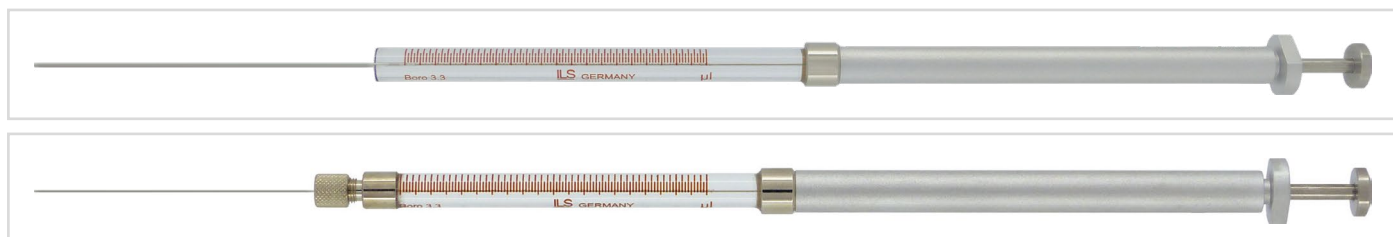
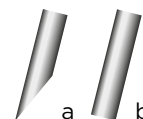


| Needle Tip |              | a        | a        | b        | c        | d        |
|------------|--------------|----------|----------|----------|----------|----------|
|            |              | (RN)     | (RN)     | (RN)     | (RN)     | (RN)     |
| Length     |              | 51 mm    | 51 mm    | 51 mm    | 51 mm    | 51 mm    |
| Volume     | O.D. (Gauge) | Part No. | Part No. | Part No. | Part No. | Part No. |
|            |              |          | 6-Pack   |          |          |          |
| 5 µL       | 0.47 (G26s)  | 2160305  | -        | 2160306  | 2160307  | -        |
| 5 µL       | 0.47 (G26)   | -        | -        | -        | -        | 2160308  |
| 10 µL      | 0.47 (G26s)  | 2160405  | 2160415  | 2160406  | 2160407  | -        |
| 10 µL      | 0.47 (G26)   | -        | -        | -        | -        | 2160408  |

# Dosage of Liquids - Series N

## SERIES SN / MINIMUM ORDER QUANTITY 50PCS

With Extended Handle



### TECHNICAL INFORMATION

#### Main usage:

- Sample dosage for Gas Chromatography (GC)
- HPLC Valve

#### Functions:

- Bending is avoided through reinforced plunger
- Prevents transfer of body heat from the hand to contents
- Plunger stop prevents blowout
- Replaceable plunger

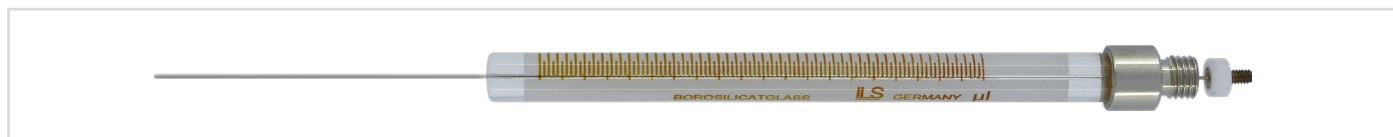
Glass Barrel: Borosilicate 3.3

Fixed Needles (FN)

Removable Needles (RN)

Stainless Steel = sst\*

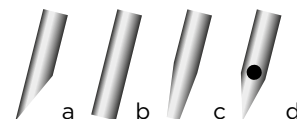
| Needle Tip |             |              | a        | b        | a        | b        |
|------------|-------------|--------------|----------|----------|----------|----------|
|            |             |              | (FN)     | (FN)     | (RN)     | (RN)     |
| Length     |             |              | 51 mm    | 51 mm    | 51 mm    | 51 mm    |
| Volume     | Plunger Tip | O.D. (Gauge) | Part No. | Part No. | Part No. | Part No. |
| 5 µL       | sst*        | 0.47 (26s)   | 2500301  | 2500302  | 2500305  | 2500306  |
| 10 µL      | sst*        | 0.47 (26s)   | 2500401  | 2500402  | 2500405  | 2500406  |
| 25 µL      | sst*        | 0.72 (22s)   | 2500501  | 2500502  | 2500505  | 2500506  |
| 50 µL      | sst*        | 0.72 (22s)   | 2500601  | 2500602  | 2500605  | 2500606  |
| 100 µL     | sst*        | 0.72 (22s)   | 2500701  | 2500702  | 2500705  | 2500706  |
| 250 µL     | sst*        | 0.72 (22)    | 2500801  | 2500802  | 2500805  | 2500806  |



| Needle Tip |             |              | a; b                                                      |          | a                        | a        |
|------------|-------------|--------------|-----------------------------------------------------------|----------|--------------------------|----------|
| Length     |             |              |                                                           |          | 51 mm                    | 51 mm    |
|            |             |              | Please specify with order:<br>Needle tip & length (in mm) |          | Replacement Glass Barrel |          |
|            |             |              | (FN)                                                      | (RN)     | (FN)                     | (RN)     |
| Volume     | Plunger Tip | O.D. (Gauge) | Part No.                                                  | Part No. | Part No.                 | Part No. |
| 5 µL       | sst*        | 0.47 (G26s)  | 2510300                                                   | 2510305  | 2530301                  | 2530305  |
| 10 µL      | sst*        | 0.47 (G26s)  | 2510400                                                   | 2510405  | 2530401                  | 2530405  |
| 25 µL      | sst*        | 0.72 (G22s)  | 2510500                                                   | 2510505  | 2530501                  | 2530505  |
| 50 µL      | sst*        | 0.72 (G22s)  | 2510600                                                   | 2510605  | 2530601                  | 2530605  |
| 100 µL     | sst*        | 0.72 (G22s)  | 2510700                                                   | 2510705  | 2530701                  | 2530705  |
| 250 µL     | sst*        | 0.72 (G22)   | 2510800                                                   | 2510805  | 2530801                  | 2530805  |

# Dosage of Liquids - Series N

## SERIES T / MINIMUM ORDER QUANTITY 50PCS



0.5 µL - 25 µL

- Zero Dead Volume
- Positive displacement
- Sample contained in the needle only
- Removable syringe parts
- Removable plunger stop
- Including: 1 needle & 1 calibrated piston wire



### TECHNICAL INFORMATION

#### Main usage:

- Sample dosage for Gas Chromatography (GC)
- Dosage of small amounts of liquids
- For Thin Layer Chromatography (TLC)

**Glass Barrel:** Borosilicate 3.3

Removable Needles (RN)

Plunger is able to be pushed all the way to the tip of the needle.

Stainless Steel = sst\*

| Needle Tip |             |              | a        | b        | c        | d        |
|------------|-------------|--------------|----------|----------|----------|----------|
|            |             |              | (RN)     | (RN)     | (RN)     | (RN)     |
| Length     |             |              | 70 mm    | 70 mm    | 70 mm    | 70 mm    |
| Volume     | Plunger Tip | O.D. (Gauge) | Part No. | Part No. | Part No. | Part No. |
| 0.5 µL     | sst*        | 0.47 (G26s)  | 2200051  | 2200058  | 2200066  | -        |
| 0.5 µL     | sst*        | 0.64 (G23)   | 2200062  | 2200056  | 2200061  | -        |
| 1 µL       | sst*        | 0.47 (G26s)  | 2200101  | 2200102  | 2200110  | 2200103  |
| 1 µL       | sst*        | 0.64 (G23)   | 2200118  | -        | 2200113  | -        |
| 1 µL       | sst*        | 0.72 (G22s)  | 2200105  | 2200104  | -        | -        |
| 2 µL       | sst*        | 0.64 (G23)   | 2200204  | 2200206  | -        | -        |
| 2 µL       | sst*        | 0.72 (G22s)  | 2200201  | 2200202  | -        | 2200203  |
| 5 µL       | sst*        | 0.64 (G23)   | 2200307  | -        | 2200306  | -        |
| 10 µL      | sst*        | 0.72 (G22s)  | 2200401  | 2200402  | -        | 2200403  |
| 25 µL      | sst*        | 1.10 (G19)   | 2200501  | 2200502  | 2200505  | 2200503  |

# Dosage of Liquids - Series N

## SERIES LT GLASS LUER LOCK / MINIMUM ORDER QUANTITY 50PCS



### TECHNICAL INFORMATION

**Main usage:**  
Sample dosage, syringes are autoclavable when disassembled

**Glass Barrel:** Borosilicate 3.3  
Stainless Steel = sst\*

| Volume | Plunger Tip | Part No. |
|--------|-------------|----------|
| 5 µL   | sst*        | 2100312  |
| 10 µL  | sst*        | 2100412  |
| 25 µL  | sst*        | 2100512  |
| 50 µL  | sst*        | 2100612  |
| 100 µL | sst*        | 2100714  |
| 250 µL | sst*        | 2100812  |
| 500 µL | sst*        | 2100912  |

# Dosage of Liquids - Series N

## SERIES TLL PTFE LUER LOCK / MINIMUM ORDER QUANTITY 50PCS



### TECHNICAL INFORMATION

Main usage:  
Sample dosage

Glass Barrel: Borosilicate 3.3  
Stainless Steel = sst\*

| Volume | Plunger Tip | Part No. |
|--------|-------------|----------|
| 25 µL  | sst*        | 2100511  |
| 50 µL  | sst*        | 2100611  |
| 100 µL | sst*        | 2100711  |
| 250 µL | sst*        | 2100811  |
| 500 µL | sst*        | 2100911  |

\*All other trademarks, service marks, registered trademarks, and registered service marks are the property of their respective owners. Ingersoll Rand and ILS are not affiliated with Hamilton in any way.

## OVERVIEW

### DOSAGE OF GAS & LIQUIDS - SERIES H

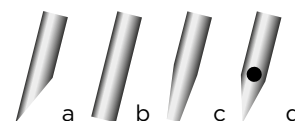
|                   |    |
|-------------------|----|
| Fixed Needles     | 51 |
| Removable Needles | 53 |
| Series SH         | 54 |
| Series G          | 55 |
| Series P          | 56 |
| Series LT         | 57 |
| Series TLT        | 58 |
| Series TLL        | 59 |

### HPLC SYRINGES

|                    |    |
|--------------------|----|
| Most Common Valves | 60 |
|--------------------|----|

# Dosage of Gas & Liquids - Series H

## FIXED NEEDLES



### TECHNICAL INFORMATION

#### Main usage:

- Sample dosage for Gas Chromatography (GC)
- HPLC Valves
- Autosamplers
- Dosage of aggressive fluids

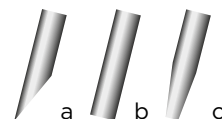
**Glass Barrel:** Borosilicate 3.3

| Needle Tip |             |              | a        | a        | b        | c        | d        |
|------------|-------------|--------------|----------|----------|----------|----------|----------|
|            |             |              | (FN)     | (FN)     | (FN)     | (FN)     | (FN)     |
| Length     |             |              | 51 mm    | 51 mm    | 51 mm    | 51 mm    | 51 mm    |
| Volume     | Plunger Tip | O.D. (Gauge) | Part No. | Part No. | Part No. | Part No. | Part No. |
|            |             |              |          | 6-Pack   |          |          |          |
| 5 µL       | PTFE        | 0.47 (G26s)  | 2600301  | 2600311  | 2600302  | 2600303  | 2600304  |
| 10 µL      | PTFE        | 0.47 (G26s)  | 2600401  | 2600411  | 2600402  | 2600403  | 2600404  |
| 25 µL      | PTFE        | 0.72 (G22s)  | 2600501  | -        | 2600502  | 2600503  | 2600504  |
| 50 µL      | PTFE        | 0.72 (G22s)  | 2600601  | -        | 2600602  | 2600603  | 2600604  |
| 100 µL     | PTFE        | 0.72 (G22s)  | 2600701  | -        | 2600702  | 2600703  | 2600704  |
| 250 µL     | PTFE        | 0.72 (G22)   | 2600801  | -        | 2600802  | 2600803  | 2600804  |
| 500 µL     | PTFE        | 0.72 (G22)   | 2600901  | -        | 2600902  | 2600903  | 2600904  |
| 1.0 mL     | PTFE        | 0.64 (G23)   | 2600003  | -        | -        | -        | 2600008  |
| 1.0 mL     | PTFE        | 0.72 (G22)   | 2600000  | -        | 2600001  | 2600016  | 2600002  |
| 2.5 mL     | PTFE        | 0.64 (G23)   | -        | -        | -        | 2600037  | -        |
| 2.5 mL     | PTFE        | 0.72 (G22)   | 2600020  | -        | 2600021  | 2600084  | 2600022  |
| 5.0 mL     | PTFE        | 0.72 (G22)   | 2600040  | -        | 2600041  | -        | 2600042  |
| 10.0 mL    | PTFE        | 0.72 (G22)   | 2600060  | -        | 2600061  | -        | 2600062  |

# Dosage of Gas & Liquids - Series H

## FIXED NEEDLES

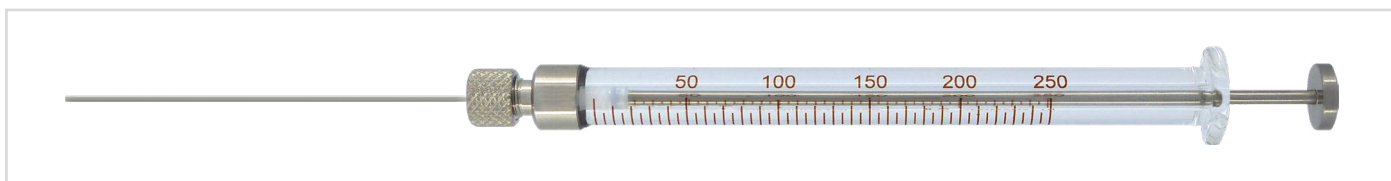
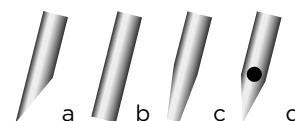
Customized length



| Needle Tip |         |              | a; b; c;                                   |
|------------|---------|--------------|--------------------------------------------|
| Length     |         |              | Please specify needle tip & length (in mm) |
| Volume     | Plunger | O.D. (Gauge) | Part No.                                   |
| 5 µL       | PTFE    | 0.47 (G26s)  | 2610300                                    |
| 10 µL      | PTFE    | 0.47 (G26s)  | 2610400                                    |
| 25 µL      | PTFE    | 0.72 (G22s)  | 2610500                                    |
| 50 µL      | PTFE    | 0.72 (G22s)  | 2610600                                    |
| 100 µL     | PTFE    | 0.72 (G22s)  | 2610700                                    |
| 250 µL     | PTFE    | 0.72 (G22)   | 2610800                                    |
| 500 µL     | PTFE    | 0.72 (G22)   | 2610900                                    |
| 1.0 mL     | PTFE    | 0.72 (G22)   | 2610000                                    |
| 2.5 mL     | PTFE    | 0.72 (G22)   | 2610020                                    |
| 5.0 mL     | PTFE    | 0.72 (G22)   | 2610040                                    |
| 10.0 mL    | PTFE    | 0.72 (G22)   | 2610060                                    |

# Dosage of Gas & Liquids - Series H

## REMOVABLE NEEDLES



### TECHNICAL INFORMATION

#### Main usage:

- Sample dosage for Gas Chromatography (GC)
- HPLC Valves
- Autosamplers
- Dosage of aggressive fluids

Glass Barrel: Borosilicate 3.3

| Needle Tip |             |              | a        | b        | c        | d        |
|------------|-------------|--------------|----------|----------|----------|----------|
|            |             |              | (RN)     | (RN)     | (RN)     | (RN)     |
| Length     |             |              | 51 mm    | 51 mm    | 51 mm    | 51 mm    |
| Volume     | Plunger Tip | O.D. (Gauge) | Part No. | Part No. | Part No. | Part No. |
| 5 µL       | PTFE        | 0.47 (G26s)  | 2600305  | 2600306  | 2600307  | 2600308  |
| 10 µL      | PTFE        | 0.47 (G26s)  | 2600405  | 2600406  | 2600407  | 2600408  |
| 25 µL      | PTFE        | 0.72 (G22s)  | 2600505  | 2600506  | 2600507  | 2600508  |
| 50 µL      | PTFE        | 0.72 (G22s)  | 2600605  | 2600606  | 2600607  | 2600608  |
| 100 µL     | PTFE        | 0.72 (G22s)  | 2600705  | 2600706  | 2600707  | 2600708  |
| 250 µL     | PTFE        | 0.72 (G22)   | 2600805  | 2600806  | 2600807  | 2600808  |
| 500 µL     | PTFE        | 0.72 (G22)   | 2600905  | 2600906  | 2600907  | 2600908  |
| 1.0 mL     | PTFE        | 0.72 (G22)   | 2600005  | 2600006  | 2600137  | 2600007  |
| 2.5 mL     | PTFE        | 0.72 (G22)   | 2600025  | 2600026  | -        | 2600027  |
| 5.0 mL     | PTFE        | 0.72 (G22)   | 2600045  | 2600046  | -        | 2600047  |
| 10.0 mL    | PTFE        | 0.72 (G22)   | 2600065  | 2600066  | -        | 2600067  |

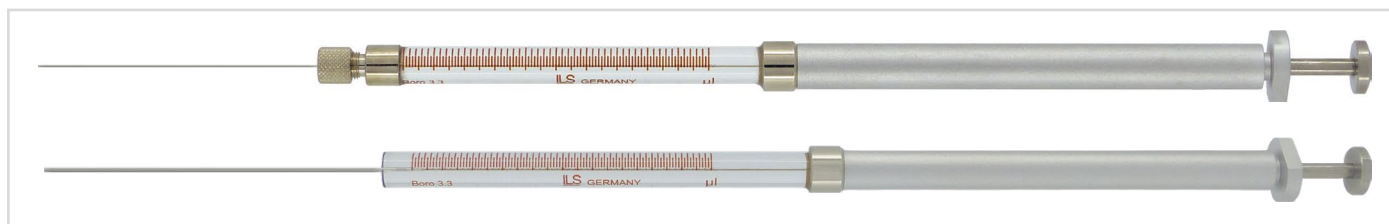
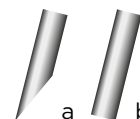
### Customized length

| Needle Tip |             |              | a; b; c                                    |
|------------|-------------|--------------|--------------------------------------------|
| Length     |             |              | Please specify needle tip and length in mm |
| Volume     | Plunger Tip | O.D. (Gauge) | Part No.                                   |
| 5 µL       | PTFE        | 0.47 (G26s)  | 2610309                                    |
| 10 µL      | PTFE        | 0.47 (G26s)  | 2610409                                    |
| 25 µL      | PTFE        | 0.72 (G22s)  | 2610509                                    |
| 50 µL      | PTFE        | 0.72 (G22s)  | 2610609                                    |
| 100 µL     | PTFE        | 0.72 (G22s)  | 2610709                                    |
| 250 µL     | PTFE        | 0.72 (G22)   | 2610809                                    |
| 500 µL     | PTFE        | 0.72 (G22)   | 2610909                                    |
| 1.0 mL     | PTFE        | 0.72 (G22)   | 2610007                                    |
| 2.5 mL     | PTFE        | 0.72 (G22)   | 2610027                                    |
| 5.0 mL     | PTFE        | 0.72 (G22)   | 2610047                                    |
| 10.0 mL    | PTFE        | 0.72 (G22)   | 2610067                                    |

# Dosage of Gas & Liquids - Series H

## SERIES SH / MINIMUM ORDER QUANTITY 50PCS

With Extended Handle



### TECHNICAL INFORMATION

#### Main usage:

- Sample dosage for Gas Chromatography (GC)
- HPLC Valves

#### Functions:

- Bending is avoided by reinforced plunger
- Prevents transfer of body heat from hand to contents
- Plunger stop prevents blowout
- Replaceable plunger

**Glass Barrel:** Borosilicate 3.3

Fixed Needles (FN)

Removable Needles (RN)

| Needle Tip |             |              | a        | b        | a        | b        |
|------------|-------------|--------------|----------|----------|----------|----------|
|            |             |              | (FN)     | (FN)     | (RN)     | (RN)     |
| Length     |             |              | 51 mm    | 51 mm    | 51 mm    | 51 mm    |
| Volume     | Plunger Tip | O.D. (Gauge) | Part No. | Part No. | Part No. | Part No. |
| 5 µL       | PTFE        | 0.47 (G26s)  | 2506301  | 2506302  | 2506305  | 2506306  |
| 10 µL      | PTFE        | 0.47 (G26s)  | 2506401  | 2506402  | 2506405  | 2506406  |
| 25 µL      | PTFE        | 0.72 (G22s)  | 2506501  | 2506502  | 2506505  | 2506506  |
| 50 µL      | PTFE        | 0.72 (G22s)  | 2506601  | 2506602  | 2506605  | 2506606  |
| 100 µL     | PTFE        | 0.72 (G22s)  | 2506701  | 2506702  | 2506705  | 2506706  |
| 250 µL     | PTFE        | 0.72 (G22)   | 2506801  | 2506802  | 2506805  | 2506806  |
| 500 µL     | PTFE        | 0.72 (G22)   | 2506901  | 2506902  | 2506905  | 2506906  |

### Customized length and replacement barrels

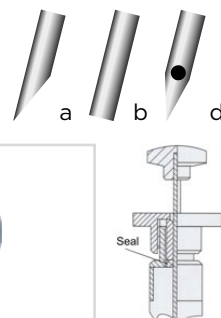
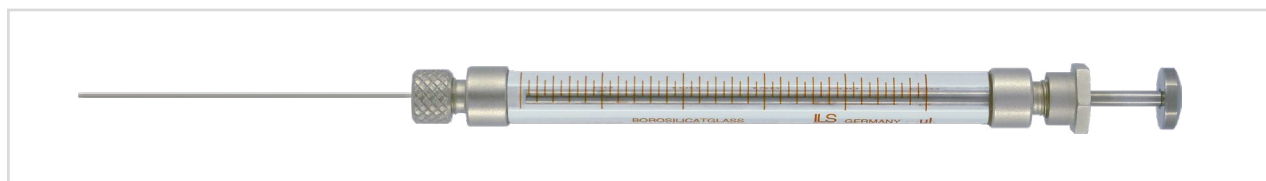


| Needle Tip |             |              | a; b                                               |         | a                        | a       |
|------------|-------------|--------------|----------------------------------------------------|---------|--------------------------|---------|
| Length     |             |              | Specify with order<br>(length in mm and tip style) |         | Replacement Glass Barrel |         |
| Volume     | Plunger Tip | O.D. (Gauge) | (FN)                                               | (RN)    | (FN)                     | (RN)    |
| 5 µL       | PTFE        | 0.47 (G26s)  | 2516301                                            | 2516302 | 2536301                  | 2536305 |
| 10 µL      | PTFE        | 0.47 (G26s)  | 2516401                                            | 2516402 | 2536401                  | 2536405 |
| 25 µL      | PTFE        | 0.72 (G22s)  | 2516501                                            | 2516502 | 2536501                  | 2536505 |
| 50 µL      | PTFE        | 0.72 (G22s)  | 2516601                                            | 2516602 | 2536601                  | 2536605 |
| 100 µL     | PTFE        | 0.72 (G22s)  | 2516701                                            | 2516702 | 2536701                  | 2536705 |
| 250 µL     | PTFE        | 0.72 (G22)   | 2516801                                            | 2516802 | 2536801                  | 2536805 |

# Dosage of Gas & Liquids - Series H

## SERIES G / MINIMUM ORDER QUANTITY 50PCS

With static PTFE-Seal topping the glass barrel



### TECHNICAL INFORMATION

#### Main usage:

- Sample dosage for Gas Chromatography (GC)
- HPLC Valves
- Dosage with counter-pressure

**Glass Barrel:** Borosilicate 3.3

Fixed Needles (FN)

Removable Needles (RN)

#### Fixed Needle

| Needle Tip |             |              | a        | b        |              | d        |
|------------|-------------|--------------|----------|----------|--------------|----------|
|            |             |              | (FN)     | (FN)     |              | (FN)     |
| Length     |             |              | 51 mm    | 51 mm    |              | 51 mm    |
| Volume     | Plunger Tip | O.D. (Gauge) | Part No. | Part No. | O.D. (Gauge) | Part No. |
| 10 µL      | PTFE        | 0.47 (G26s)  | 2400401  | 2400402  | 0.47 (26)    | 2400404  |
| 25 µL      | PTFE        | 0.72 (G22s)  | 2400501  | 2400502  | 0.72 (22)    | 2400504  |
| 50 µL      | PTFE        | 0.72 (G22s)  | 2400601  | 2400602  | 0.72 (22)    | 2400604  |
| 100 µL     | PTFE        | 0.72 (G22s)  | 2400701  | 2400702  | 0.72 (22)    | 2400704  |
| 250 µL     | PTFE        | 0.72 (G22)   | 2400801  | 2400802  | 0.72 (22)    | 2400804  |
| 500 µL     | PTFE        | 0.72 (G22)   | 2400901  | 2400902  | 0.72 (22)    | 2400904  |

#### Removable Needle

| Needle Tip |             |              | a        | b        |              | d        |
|------------|-------------|--------------|----------|----------|--------------|----------|
|            |             |              | (RN)     | (RN)     |              | (RN)     |
| Length     |             |              | 51 mm    | 51 mm    |              | 51 mm    |
| Volume     | Plunger Tip | O.D. (Gauge) | Part No. | Part No. | O.D. (Gauge) | Part No. |
| 10 µL      | PTFE        | 0.47 (G26s)  | 2400405  | 2400406  | 0.47 (26)    | 2400408  |
| 25 µL      | PTFE        | 0.72 (G22s)  | 2400505  | 2400506  | 0.72 (22)    | 2400508  |
| 50 µL      | PTFE        | 0.72 (G22s)  | 2400605  | 2400606  | 0.72 (22)    | 2400608  |
| 100 µL     | PTFE        | 0.72 (G22s)  | 2400705  | 2400706  | 0.72 (22)    | 2400708  |
| 250 µL     | PTFE        | 0.72 (G22)   | 2400805  | 2400806  | 0.72 (22)    | 2400808  |
| 500 µL     | PTFE        | 0.72 (G22)   | 2400905  | 2400906  | 0.72 (22)    | 2400908  |

# Dosage of Gas & Liquids - Series H

## SERIES P - MINIMUM ORDER QUANTITY 50PCS

With adjustable PTFE-Seal



### TECHNICAL INFORMATION

#### Main usage:

- Sample dosage for Gas Chromatography (GC)
- HPLC Valves
- Dosage with counter-pressure
- Gastight, adjustable PTFE-Seal on the top of the plunger
- Very long lifetime of the seal

**Glass Barrel:** Borosilicate 3.3

Fixed Needles (FN)

Removable Needles (RN)

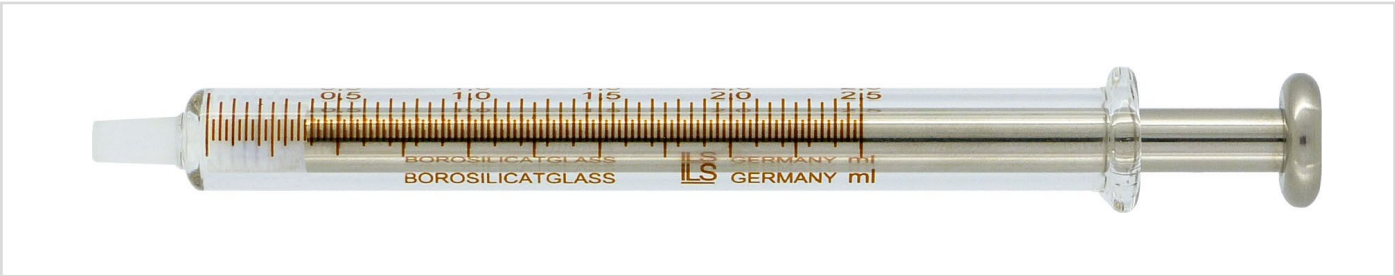
| Needle Tip |             |              | a        | b        | c        |              | d        |
|------------|-------------|--------------|----------|----------|----------|--------------|----------|
|            |             |              | (FN)     | (FN)     | (FN)     |              | (FN)     |
| Length     |             |              | 51 mm    | 51 mm    | 51 mm    |              | 51 mm    |
| Volume     | Plunger Tip | O.D. (Gauge) | Part No. | Part No. | Part No. | O.D. (Gauge) | Part No. |
| 25 µL      | PTFE        | 0.72 (G22s)  | 2300501  | 2300502  | 2300503  | 0.72 (G22)   | 2300504  |
| 50 µL      | PTFE        | 0.72 (G22s)  | 2300601  | 2300602  | 2300603  | 0.72 (G22)   | 2300604  |
| 100 µL     | PTFE        | 0.72 (G22s)  | 2300701  | 2300702  | 2300703  | 0.72 (G22)   | 2300704  |
| 250 µL     | PTFE        | 0.72 (G22)   | 2300801  | 2300802  | 2300803  | 0.72 (G22)   | 2300804  |
| 500 µL     | PTFE        | 0.72 (G22)   | 2300901  | 2300902  | 2300903  | 0.72 (G22)   | 2300904  |

| Needle Tip |             |              | a        | b        | c        |              | d        |
|------------|-------------|--------------|----------|----------|----------|--------------|----------|
|            |             |              | (RN)     | (RN)     | (RN)     |              | (RN)     |
| Length     |             |              | 51 mm    | 51 mm    | 51 mm    |              | 51 mm    |
| Volume     | Plunger Tip | O.D. (Gauge) | Part No. | Part No. | Part No. | O.D. (Gauge) | Part No. |
| 25 µL      | PTFE        | 0.72 (G22s)  | 2300505  | 2300506  | 2300507  | 0.72 (G22)   | 2300508  |
| 50 µL      | PTFE        | 0.72 (G22s)  | 2300605  | 2300606  | 2300607  | 0.72 (G22)   | 2300608  |
| 100 µL     | PTFE        | 0.72 (G22s)  | 2300705  | 2300706  | 2300707  | 0.72 (G22)   | 2300708  |
| 250 µL     | PTFE        | 0.72 (G22)   | 2300805  | 2300806  | 2300807  | 0.72 (G22)   | 2300808  |
| 500 µL     | PTFE        | 0.72 (G22)   | 2300905  | 2300906  | 2300907  | 0.72 (G22)   | 2300908  |

| Needle Tip |             |              | a, b, c                                         |          |
|------------|-------------|--------------|-------------------------------------------------|----------|
|            |             |              | (FN)                                            | (RN)     |
| Length     |             |              | Specify with order (length in mm and tip style) |          |
| Volume     | Plunger Tip | O.D. (Gauge) | Part No.                                        | Part No. |
| 25 µL      | PTFE        | 0.72 (G22s)  | 2310500                                         | 2310501  |
| 50 µL      | PTFE        | 0.72 (G22s)  | 2310600                                         | 2310601  |
| 100 µL     | PTFE        | 0.72 (G22s)  | 2310700                                         | 2310701  |
| 250 µL     | PTFE        | 0.72 (G22)   | 2310800                                         | 2310801  |
| 500 µL     | PTFE        | 0.72 (G22)   | 2310900                                         | 2310901  |

# Dosage of Gas & Liquids - Series H

## SERIES LT GLASS LUER TIP / MINIMUM ORDER QUANTITY 50PCS



### TECHNICAL INFORMATION

**Main usage:**

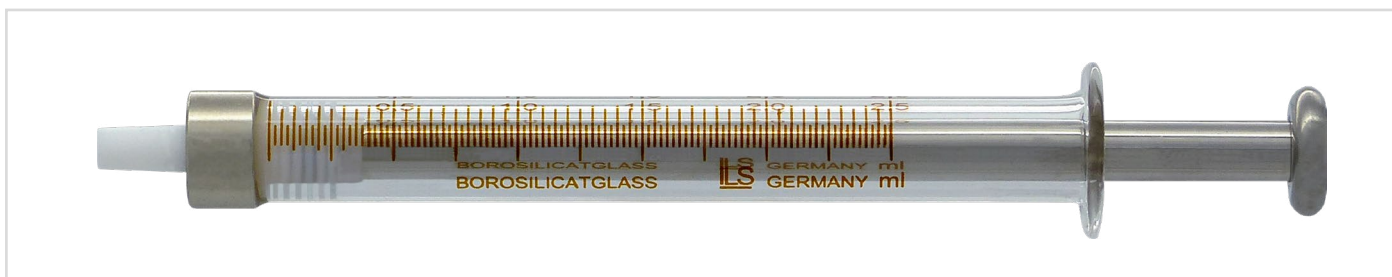
- Sample dosage
- Dosage of aggressive fluids
- Autoclavable

**Glass Barrel:** Borosilicate 3.3

| Volume  | Plunger Tip | Part No. |
|---------|-------------|----------|
| 5 µL    | PTFE        | 2600314  |
| 10 µL   | PTFE        | 2600412  |
| 25 µL   | PTFE        | 2600511  |
| 50 µL   | PTFE        | 2600611  |
| 100 µL  | PTFE        | 2600711  |
| 250 µL  | PTFE        | 2600811  |
| 500 µL  | PTFE        | 2600911  |
| 1.0 mL  | PTFE        | 2600013  |
| 2.5 mL  | PTFE        | 2600033  |
| 5.0 mL  | PTFE        | 2600053  |
| 10.0 mL | PTFE        | 2600073  |

# Dosage of Gas & Liquids - Series H

## SERIES TLT PTFE LUER TIP / MINIMUM ORDER QUANTITY 50PCS



### TECHNICAL INFORMATION

#### Main usage:

- Sample dosage
- Dosage of aggressive fluids

**Glass Barrel:** Borosilicate 3.3

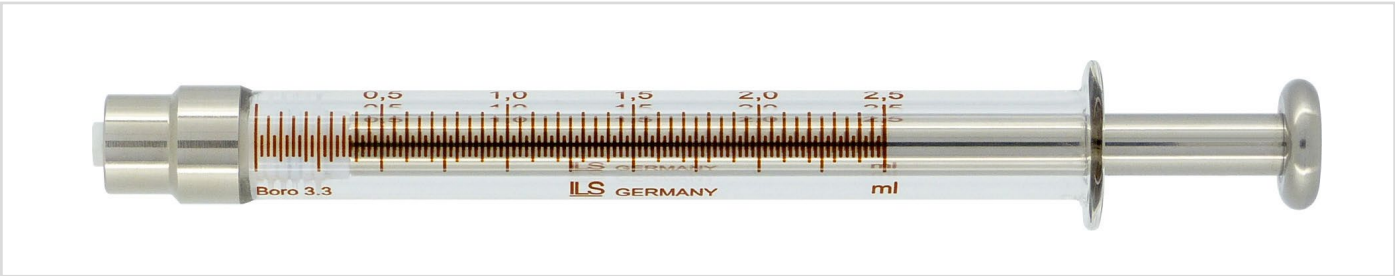
| Volume  | Plunger Tip | Part No. |
|---------|-------------|----------|
| 5 µL    | PTFE        | 2600313  |
| 10 µL   | PTFE        | 2600413  |
| 25 µL   | PTFE        | 2600513  |
| 50 µL   | PTFE        | 2600613  |
| 100 µL  | PTFE        | 2600713  |
| 250 µL  | PTFE        | 2600813  |
| 500 µL  | PTFE        | 2600913  |
| 1.0 mL  | PTFE        | 2600014  |
| 2.5 mL  | PTFE        | 2600034  |
| 5.0 mL  | PTFE        | 2600054  |
| 10.0 mL | PTFE        | 2600074  |

#### TLT-X (with plunger stop)

| Volume | Plunger Tip | Part No. |
|--------|-------------|----------|
| 50 µL  | PTFE        | 2600626  |
| 100 µL | PTFE        | 2600726  |
| 250 µL | PTFE        | 2600826  |
| 500 µL | PTFE        | 2600926  |

# Dosage of Gas & Liquids - Series H

## SERIES TLL PTFE LUER LOCK



### TECHNICAL INFORMATION

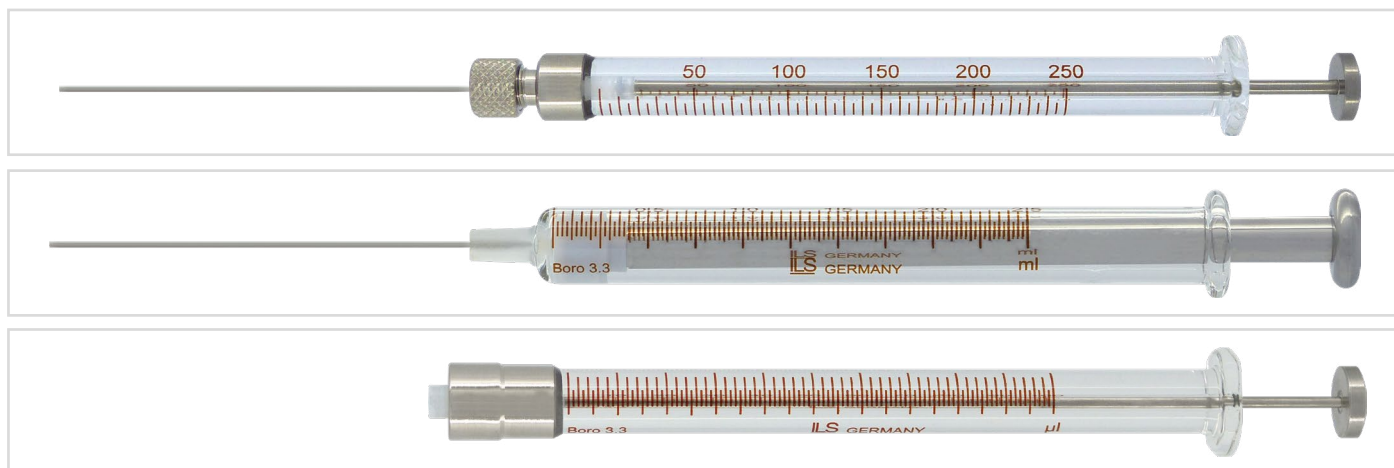
- Main usage:**
  - Sample dosage
  - Dosage of aggressive fluids
- Glass Barrel:** Borosilicate 3.3

| Volume   | Plunger Tip | Part No. |
|----------|-------------|----------|
| 5 µL     | PTFE        | 2600309  |
| 10 µL    | PTFE        | 2600409  |
| 25 µL    | PTFE        | 2607509  |
| 50 µL    | PTFE        | 2607609  |
| 100 µL   | PTFE        | 2607709  |
| 250 µL   | PTFE        | 2607809  |
| 500 µL   | PTFE        | 2607909  |
| 1.0 mL   | PTFE        | 2607011  |
| 2.5 mL   | PTFE        | 2607031  |
| 5.0 mL   | PTFE        | 2607051  |
| 10.0 mL  | PTFE        | 2607071  |
| 25.0 mL  | PTFE        | 2607091  |
| 50.0 mL  | PTFE        | 2607101  |
| 100.0 mL | PTFE        | 2607121  |

# HPLC Syringes - Most Common Valves

## MOST COMMON VALVES

Compatible instruments: Rheodyne\*, Varian\*, Shimadzu\*, Knauer\*, Hewlett Packard\* / Agilent\*, Beckman\*, Valco\* VISF-2, Jasco\*, Altex\* valve injectors



## TECHNICAL INFORMATION

Fixed Needles (FN)

Removable Needles (RN)

Flexible Plunger = High corrosion resistance (Hi-Res)

**Glass Barrel:** Borosilicate 3.3

Stainless Steel = sst\*

Extended Handle = eh

|            |             |              |          | TLL+NLL needle |           |  |
|------------|-------------|--------------|----------|----------------|-----------|--|
| Needle Tip |             |              | b        | b              | b         |  |
|            |             |              | (FN)     | (RN)           | Luer Lock |  |
| Length     |             |              | 51 mm    | 51 mm          | 51 mm     |  |
| Volume     | Plunger Tip | O.D. (Gauge) | Part No. | Part No.       | Part No.  |  |
| 5 µL       | Hi-Res      | 0.72 (G22s)  | 2161302  | 2161306        | -         |  |
| 10 µL      | Hi-Res      | 0.72 (G22s)  | 2161402  | 2161406        | -         |  |
| 5 µL       | sst*        | 0.72 (G22s)  | 2101302  | 2101306        | -         |  |
| 10 µL      | sst*        | 0.72 (G22s)  | 2101402  | 2101406        | -         |  |
| 25 µL      | sst*        | 0.72 (G22s)  | 2101502  | 2101506        | -         |  |
| 50 µL      | sst*        | 0.72 (G22s)  | 2101602  | 2101606        | 2101609   |  |
| 100 µL     | sst*        | 0.72 (G22s)  | 2101702  | 2101706        | 2101709   |  |
| 250 µL     | sst*        | 0.72 (G22)   | 2101802  | 2101806        | 2101809   |  |
| 500 µL     | sst*        | 0.72 (G22)   | 2101902  | 2101906        | 2101909   |  |
| 5 µL       | PTFE        | 0.72 (G22s)  | 2601302  | 2601306        | -         |  |
| 10 µL      | PTFE        | 0.72 (G22s)  | 2601402  | 2601406        | 2601409   |  |
| 25 µL      | PTFE        | 0.72 (G22s)  | 2601502  | 2601506        | 2601509   |  |
| 50 µL      | PTFE        | 0.72 (G22s)  | 2601602  | 2601606        | 2601609   |  |
| 100 µL     | PTFE        | 0.72 (G22s)  | 2601702  | 2601706        | 2601709   |  |
| 250 µL     | PTFE        | 0.72 (G22)   | 2601802  | 2601806        | 2601809   |  |
| 500 µL     | PTFE        | 0.72 (G22)   | 2601902  | 2601906        | 2601909   |  |
| 1.0 mL     | PTFE        | 0.72 (G22)   | 2601001  | 2601002        | 2601003   |  |

## OVERVIEW

|                           |    |
|---------------------------|----|
| <b>ON-COLUMN SYRINGES</b> | 62 |
|---------------------------|----|

|                              |    |
|------------------------------|----|
| <b>DOSAGE IN AUTOSAMPLER</b> | 64 |
|------------------------------|----|

### **GC SYRINGES COMPATIBLE WITH:**

|               |    |
|---------------|----|
| Agilent*      | 64 |
| Shimadzu*     | 68 |
| Perkin Elmer* | 70 |
| LEAP*         | 71 |
| Headspace     | 72 |

### **HPLC SYRINGES COMPATIBLE WITH:**

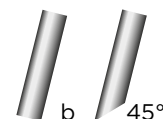
|               |    |
|---------------|----|
| Spark*        | 73 |
| Perkin Elmer* | 74 |
| LEAP* / CTC*  | 75 |

### **SYRINGES COMPATIBLE WITH CTC\* INSTRUMENTS:**

|                  |    |
|------------------|----|
| Combi & GC Pal   | 77 |
| HTS, HTC, LC Pal | 78 |

# On-Column Syringes

## ON-COLUMN INJECTION / MINIMUM ORDER QUANTITY 50PCS



### TECHNICAL INFORMATION

#### Needles:

- Stainless Steel (sst\*) or fused silica
- Fixed Needles (FN)
- Removable Needles (RN)

Glass Barrel: Borosilicate 3.3

Stainless Steel = sst\*

| Needle Tip |             |         | 45°      | 45°      |
|------------|-------------|---------|----------|----------|
| Material   |             |         | sst*     | sst*     |
|            |             |         | (FN)     | (FN)     |
| Length     |             |         | 75 mm    | 85 mm    |
| Volume     | Plunger Tip | O.D.    | Part No. | Part No. |
| 5 µL       | sst*        | 0.23 mm | 2142306  | 2142307  |

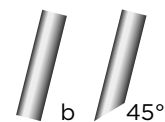


| Needle Tip |             |         | 45°      | 45°      | 45°      | b        | b            |
|------------|-------------|---------|----------|----------|----------|----------|--------------|
| Material   |             |         | sst*     | sst*     | sst*     | sst*     | fused silica |
|            |             |         | (RN)     | (RN)     | (RN)     | (RN)     | (RN)         |
| Length     |             |         | 75 mm    | 85 mm    | 100 mm   | 125 mm   | 100 mm       |
| Volume     | Plunger Tip | O.D.    | Part No. | Part No. | Part No. | Part No. | Part No.     |
| 5 µL       | sst*        | 0.17 mm | -        | -        | -        | -        | 2142303      |
| 5 µL       | sst*        | 0.23 mm | 2142313  | -        | 2142312  | -        | 2142304      |
| 10 µL      | sst*        | 0.17 mm | -        | -        | -        | -        | 2142402      |
| 10 µL      | sst*        | 0.23 mm | 2142407  | 2142408  | 2142412  | 2142406  | 2142404      |

|       |      |         |         |   |   |   |         |
|-------|------|---------|---------|---|---|---|---------|
| 10 µL | PTFE | 0.17 mm | -       | - | - | - | 2642401 |
| 10 µL | PTFE | 0.23 mm | 2642403 | - | - | - | 2642402 |

# On-Column Syringes

## ON-COLUMN INJECTION- MINIMUM ORDER QUANTITY 50PCS



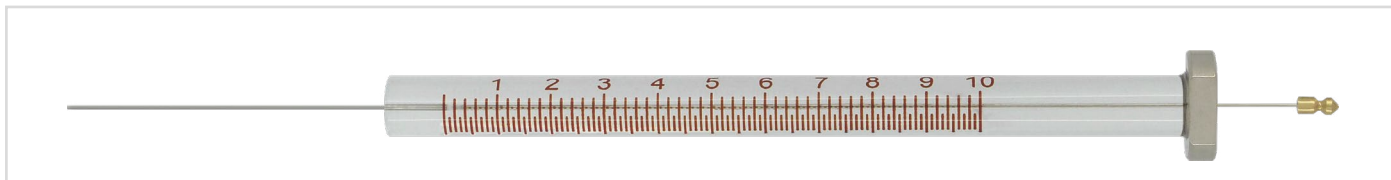
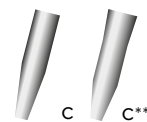
### Replacement needles

| Needle Tip |         | 45°     | 45°     | 45°     | b       | b            |
|------------|---------|---------|---------|---------|---------|--------------|
| Material   |         | sst*    | sst*    | sst*    | sst*    | fused silica |
|            |         | (RN)    | (RN)    | (RN)    | (RN)    | (RN)         |
| Length     |         | 75 mm   | 85 mm   | 100 mm  | 125 mm  | 100 mm       |
| Volume     | O.D.    | 3-Pack  | 3-Pack  | 3-Pack  | 3-Pack  | 3-Pack       |
| 5 µL       | 0.17 mm | -       | -       | -       | -       | 2822021      |
| 5 µL       | 0.23 mm | 2822303 | 2822304 | 2822302 | -       | -            |
| 10 µL      | 0.17 mm | -       | -       | -       | -       | 2822022      |
| 10 µL      | 0.23 mm | 2822408 | 2822409 | 2822407 | 2822406 | 2822042      |

# Dosage in Autosampler - GC Autosampler

## AGILENT\* TECHNOLOGIES (HP) / MINIMUM ORDER QUANTITY 50PCS

Compatible instruments: 7673-7683, 6850



| Needle Tip |             |              | c        | c        | c        | c        | c        | c        |
|------------|-------------|--------------|----------|----------|----------|----------|----------|----------|
|            |             |              | (FN)     | (FN)     | (FN)     | (FN)     | (FN)     | (FN)     |
| Length     |             |              | 42 mm    | 42 mm    | 42 mm    | 42 mm    | 42 mm    | 42 mm    |
| Volume     | Plunger Tip | O.D. (Gauge) | Part No. | Part No. | Part No. | Part No. | Part No. | Part No. |
|            |             |              |          | 6-Pack   |          | 6-Pack   |          | 6-Pack   |
| 5 µL       | Hi-Res      | 0.47 (G26s)  | 2164303  | 2164313  | -        | -        | -        | -        |
| 10 µL      | Hi-Res      | 0.47 (G26s)  | 2164403  | 2164413  | -        | -        | -        | -        |
| 5 µL       | Hi-Res      | 0.47/0.64**  | -        | -        | 2164304  | 2164314  | -        | -        |
| 10 µL      | Hi-Res      | 0.47/0.64**  | -        | -        | 2164404  | 2164414  | -        | -        |
| 5 µL       | Hi-Res      | 0.64 (G23s)  | -        | -        | -        | -        | 2164305  | 2164315  |
| 10 µL      | Hi-Res      | 0.64 (G23s)  | -        | -        | -        | -        | 2164405  | 2164415  |

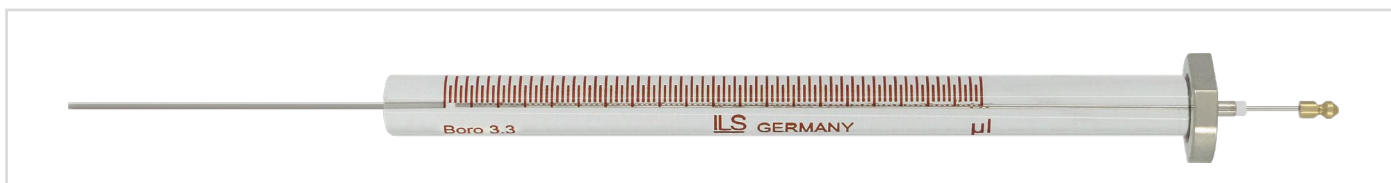
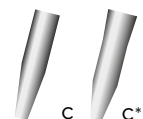
|        |      |             |         |         |         |         |         |         |
|--------|------|-------------|---------|---------|---------|---------|---------|---------|
| 5 µL   | sst* | 0.47 (G26s) | 2104303 | 2104313 | -       | -       | -       | -       |
| 10 µL  | sst* | 0.47 (G26s) | 2104403 | 2104413 | -       | -       | -       | -       |
| 5 µL   | sst* | 0.47/0.64** | -       | -       | 2104304 | 2104314 | -       | -       |
| 10 µL  | sst* | 0.47/0.64** | -       | -       | 2104404 | 2104414 | -       | -       |
| 5 µL   | sst* | 0.64 (G23s) | -       | -       | -       | -       | 2104305 | 2104315 |
| 10 µL  | sst* | 0.64 (G23s) | -       | -       | -       | -       | 2104405 | 2104415 |
| 25 µL  | sst* | 0.64 (G23s) | -       | -       | -       | -       | 2104505 | -       |
| 50 µL  | sst* | 0.64 (G23s) | -       | -       | -       | -       | 2104605 | -       |
| 100 µL | sst* | 0.64 (G23s) | -       | -       | -       | -       | 2104705 | -       |

|        |      |             |         |         |         |         |         |         |
|--------|------|-------------|---------|---------|---------|---------|---------|---------|
| 5 µL   | PTFE | 0.47 (G26s) | 2604303 | 2604313 | -       | -       | -       | -       |
| 10 µL  | PTFE | 0.47 (G26s) | 2604403 | 2604413 | -       | -       | -       | -       |
| 5 µL   | PTFE | 0.47/0.64** | -       | -       | 2604304 | 2604314 | -       | -       |
| 10 µL  | PTFE | 0.47/0.64** | -       | -       | 2604404 | 2604414 | -       | -       |
| 5 µL   | PTFE | 0.64 (G23s) | -       | -       | -       | -       | 2604305 | 2604315 |
| 10 µL  | PTFE | 0.64 (G23s) | -       | -       | -       | -       | 2604405 | 2604415 |
| 25 µL  | PTFE | 0.64 (G23s) | -       | -       | -       | -       | 2604505 | -       |
| 50 µL  | PTFE | 0.64 (G23s) | -       | -       | -       | -       | 2604605 | -       |
| 100 µL | PTFE | 0.64 (G23s) | -       | -       | -       | -       | 2604705 | -       |

# Dosage in Autosampler - GC Autosampler

## AGILENT\* TECHNOLOGIES (HP) / MINIMUM ORDER QUANTITY 50PCS

### A-Syringe



### TECHNICAL INFORMATION

#### Advantage:

- Longer lifetime
- With static PTFE-Seal topping the glass barrel
- Straight guided plunger

Fixed Needles (FN)

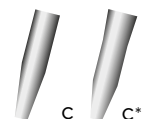
| Needle Tip |             |              | c        | c        | c        | c        | c        | c        |
|------------|-------------|--------------|----------|----------|----------|----------|----------|----------|
|            |             |              | (FN)     | (FN)     | (FN)     | (FN)     | (FN)     | (FN)     |
| Length     |             |              | 42 mm    | 42 mm    | 42 mm    | 42 mm    | 42 mm    | 42 mm    |
| Volume     | Plunger Tip | O.D. (Gauge) | Part No. | Part No. | Part No. | Part No. | Part No. | Part No. |
|            |             |              |          | 6-Pack   |          | 6-Pack   |          | 6-Pack   |
| 5 µL       | Hi-Res      | 0.47 (G26s)  | 2164333  | 2164336  | -        | -        | -        | -        |
| 10 µL      | Hi-Res      | 0.47 (G26s)  | 2164433  | 2164436  | -        | -        | -        | -        |
| 5 µL       | Hi-Res      | 0.47/0.64**  | -        | -        | 2164337  | 2164338  | -        | -        |
| 10 µL      | Hi-Res      | 0.47/0.64**  | -        | -        | 2164434  | 2164438  | -        | -        |
| 5 µL       | Hi-Res      | 0.64 (G23s)  | -        | -        | -        | -        | 2164339  | 2164340  |
| 10 µL      | Hi-Res      | 0.64 (G23s)  | -        | -        | -        | -        | 2164435  | 2164437  |

|       |      |             |         |         |         |         |         |         |
|-------|------|-------------|---------|---------|---------|---------|---------|---------|
| 5 µL  | sst* | 0.47 (G26s) | 2104333 | 2104337 | -       | -       | -       | -       |
| 10 µL | sst* | 0.47 (G26s) | 2104433 | 2104437 | -       | -       | -       | -       |
| 5 µL  | sst* | 0.47/0.64** | -       | -       | 2104334 | 2104338 | -       | -       |
| 10 µL | sst* | 0.47/0.64** | -       | -       | 2104434 | 2104438 | -       | -       |
| 5 µL  | sst* | 0.64 (G23s) | -       | -       | -       | -       | 2104335 | 2104336 |
| 10 µL | sst* | 0.64 (G23s) | -       | -       | -       | -       | 2104435 | 2104436 |

# Dosage in Autosampler - GC Autosampler

## AGILENT\* TECHNOLOGIES (HP) / MINIMUM ORDER QUANTITY 50PCS

Compatible instruments: 7673-7683



| Needle Tip |             |              | c        | c        | c        | c        |
|------------|-------------|--------------|----------|----------|----------|----------|
|            |             |              | (RN)     | (RN)     | (RN)     | (RN)     |
| Length     |             |              | 42 mm    | 42 mm    | 42 mm    | 42 mm    |
| Volume     | Plunger Tip | O.D. (Gauge) | Part No. | Part No. | Part No. | Part No. |
|            |             |              |          |          |          | 6-Pack   |
| 0.5 µL     | T           | 0.47 (G26s)  | 2204051  | -        | -        | -        |
| 0.5 µL     | T           | 0.47/0.64    | -        | 2204053  | -        | -        |
| 0.5 µL     | T           | 0.64 (G23s)  | -        | -        | 2204052  | -        |
| 1.0 µL     | T           | 0.47 (G26s)  | 2204104  | -        | -        | -        |
| 1.0 µL     | T           | 0.64 (G23)   | -        | -        | 2204103  | -        |
| 5.0 µL     | T           | 0.64 (G23s)  | -        | -        | 2204303  | 2204313  |

|       |        |             |         |         |         |   |
|-------|--------|-------------|---------|---------|---------|---|
| 5 µL  | Hi-Res | 0.47 (G26s) | 2164307 | -       | -       | - |
| 10 µL | Hi-Res | 0.47 (G26s) | 2164407 | -       | -       | - |
| 5 µL  | Hi-Res | 0.47/0.64** | -       | 2164308 | -       | - |
| 10 µL | Hi-Res | 0.47/0.64** | -       | 2164408 | -       | - |
| 5 µL  | Hi-Res | 0.64 (G23s) | -       | -       | 2164309 | - |
| 10 µL | Hi-Res | 0.64 (G23s) | -       | -       | 2164409 | - |

|       |      |             |         |         |         |            |
|-------|------|-------------|---------|---------|---------|------------|
| 5 µL  | sst* | 0.47 (G26s) | 2104307 | -       | -       | -          |
| 10 µL | sst* | 0.47 (G26s) | 2104407 | -       | -       | -          |
| 5 µL  | sst* | 0.47/0.64** | -       | 2104308 | -       | -          |
| 10 µL | sst* | 0.47/0.64** | -       | 2104408 | -       | -          |
| 5 µL  | sst* | 0.64 (G23s) | -       | -       | 2104309 | -          |
| 10 µL | sst* | 0.64 (G23s) | -       | -       | 2104409 | 2604409-6P |

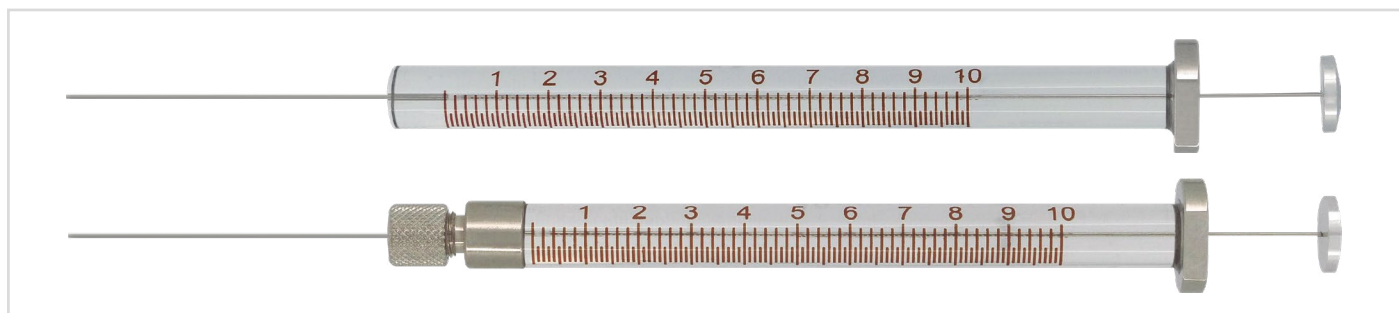
  

|       |      |             |         |         |         |   |
|-------|------|-------------|---------|---------|---------|---|
| 5 µL  | PTFE | 0.47 (G26s) | 2604307 | -       | -       | - |
| 10 µL | PTFE | 0.47 (G26s) | 2604407 | -       | -       | - |
| 5 µL  | PTFE | 0.47/0.64** | -       | 2604308 | -       | - |
| 10 µL | PTFE | 0.47/0.64** | -       | 2604408 | -       | - |
| 5 µL  | PTFE | 0.64 (G23s) | -       | -       | 2604309 | - |
| 10 µL | PTFE | 0.64 (G23s) | -       | -       | 2604409 | - |

# Dosage in Autosampler - GC Autosampler

**AGILENT\* TECHNOLOGIES (HP) / MINIMUM ORDER QUANTITY 50PCS**

Compatible instruments: 7670 / 7671 / 7672



## TECHNICAL INFORMATION

Fixed Needles (FN)

Removable Needles (RN)

Flexible Plunger = High corrosion resistance (Hi-Res)

**Glass Barrel:** Borosilicate 3.3

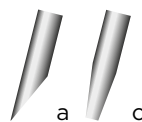
Zero Dead Volume (plunger in needle) = T

Stainless Steel = sst\*

| Needle Tip |             |              | a        | a        | a        | a          |
|------------|-------------|--------------|----------|----------|----------|------------|
|            |             |              | (FN)     | (FN)     | (RN)     | (RN)       |
| Length     |             |              | 51 mm    | 51 mm    | 51 mm    | 51 mm      |
| Volume     | Plunger Tip | O.D. (Gauge) | Part No. | Part No. | Part No. | Part No.   |
|            |             |              |          | 6-Pack   |          | 6-Pack     |
| 5 µL       | Hi-Res      | 0.47 (G26s)  | 2160301  | 2160311  | 2160305  | -          |
| 10 µL      | Hi-Res      | 0.47 (G26s)  | 2160401  | 2160411  | 2160405  | 2160415    |
| 5 µL       | sst*        | 0.47 (G26s)  | 2100301  | 2100311  | 2100305  | 2100305-6P |
| 10 µL      | sst*        | 0.47 (G26s)  | 2100401  | 2100411  | 2100405  | 2100415    |
| 10 µL      | PTFE        | 0.47 (G26s)  | 2600401  | 2600411  | 2600405  | 2600405-6P |

# Dosage in Autosampler - GC Autosampler

**SHIMADZU\* AOC 14 / 17 / 20 / MINIMUM ORDER  
QUANTITY 50PCS**



## TECHNICAL INFORMATION

Fixed Needles (FN)

Removable Needles (RN)

Flexible Plunger = High corrosion resistance (Hi-Res)

**Glass Barrel:** Borosilicate 3.3

Stainless Steel = sst\*

| Needle Tip |             |        |            | a        | a          | c        | c          | a        | c        |
|------------|-------------|--------|------------|----------|------------|----------|------------|----------|----------|
|            |             |        |            | (FN)     | (FN)       | (FN)     | (FN)       | (RN)     | (RN)     |
| Length     |             |        |            | 42 mm    | 42 mm      | 42 mm    | 42 mm      | 42 mm    | 42 mm    |
| Volume     | Plunger Tip | Series | O.D. Gauge | Part No. | Part No.   | Part No. | Part No.   | Part No. | Part No. |
|            |             |        |            |          | 6-Pack     |          | 6-Pack     |          |          |
| 5 µL       | Hi-Res      | N      | 0,47(G26s) | 2165301  | -          | -        | -          | 2165307  | -        |
| 5 µL       | Hi-Res      | N      | 0,64(G23s) | 2165302  | -          | 2165304  | -          | 2165308  | -        |
| 5 µL       | Hi-Res      | A      | 0,47(G26s) | -        | -          | 2165320  | 2165340    | -        | -        |
| 10 µL      | Hi-Res      | N      | 0,47(G26s) | 2165401  | -          | 2165403  | -          | 2165407  | -        |
| 10 µL      | Hi-Res      | N      | 0,64(G23s) | 2165402  | -          | 2165404  | -          | 2165408  | 2165410  |
| 10 µL      | Hi-Res      | A      | 0,47(G26s) | 2165417  | 2165417-6P | 2165419  | -          | -        | -        |
| 10 µL      | Hi-Res      | A      | 0,64(G23s) | 2165418  | -          | 2165421  | 2165421-6P | -        | -        |

|       |      |   |            |         |         |         |            |         |         |
|-------|------|---|------------|---------|---------|---------|------------|---------|---------|
| 5 µL  | sst* | N | 0,47(G26s) | 2105301 | -       | 2105303 | -          | 2105307 | -       |
| 5 µL  | sst* | N | 0,64(G23s) | 2105302 | -       | 2105304 | 2105304-6P | 2105308 | 2105309 |
| 5 µL  | sst* | A | 0,47(G26s) | 2105317 | 2105336 | 2105319 | 2105338    | -       | -       |
| 5 µL  | sst* | A | 0,64(G23s) | 2105318 | 2105337 | 2105321 | 2105339    | -       | -       |
| 10 µL | sst* | N | 0,47(G26s) | 2105401 | -       | 2105403 | 2105413    | 2105407 | 2105409 |
| 10 µL | sst* | N | 0,64(G23s) | 2105402 | 2105412 | 2105404 | 2105414    | 2105408 | 2105410 |
| 10 µL | sst* | A | 0,47(G26s) | 2105417 | 2105436 | 2105419 | 2105438    | 2105427 | 2105429 |
| 10 µL | sst* | A | 0,64(G23s) | 2105418 | 2105437 | 2105421 | 2105439    | 2105428 | 2105430 |

|       |      |   |            |         |   |         |            |         |         |
|-------|------|---|------------|---------|---|---------|------------|---------|---------|
| 10 µL | PTFE | H | 0,47(G26s) | 2605401 | - | 2605403 | -          | 2605407 | 2605409 |
| 10 µL | PTFE | H | 0,64(G23s) | 2605402 | - | 2605404 | 2605404-6P | 2605408 | 2605410 |

# Dosage in Autosampler - GC Autosampler

**SHIMADZU\* AOC 5000 / MINIMUM ORDER QUANTITY  
50PCS**



## TECHNICAL INFORMATION

Fixed Needles (FN)

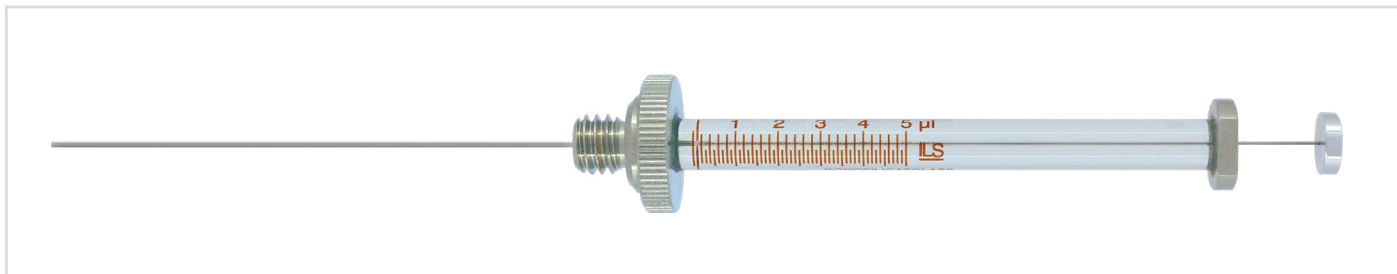
**Glass Barrel:** Borosilicate 3.3

| Needle Tip |             |              |          | d     |
|------------|-------------|--------------|----------|-------|
|            |             |              |          | (FN)  |
| Length     |             |              |          | 51 mm |
| Volume     | Plunger Tip | O.D. (Gauge) | Part No. |       |
| 1.0 mL     | PTFE        | 0.47 (G26)   | 2620003  |       |
| 1.0 mL     | PTFE        | 0.64 (G23)   | 2620002  |       |
| 2.5 mL     | PTFE        | 0.47 (G26)   | 2620040  |       |
| 2.5 mL     | PTFE        | 0.64 (G23)   | 2620043  |       |
| 5.0 mL     | PTFE        | 0.47 (G26)   | 2620053  |       |
| 5.0 mL     | PTFE        | 0.64 (G23)   | 2620052  |       |

# Dosage in Autosampler - GC Autosampler

## PERKIN ELMER\* / MINIMUM ORDER QUANTITY 50PCS

Compatible instruments: AS 100 / AS 2000, AS 3000 GC autosystems, CLARUS 600 / 680



### TECHNICAL INFORMATION

Fixed Needles (FN)

Removable Needles (RN)

Glass Barrel: Borosilicate 3.3

Stainless Steel = sst\*

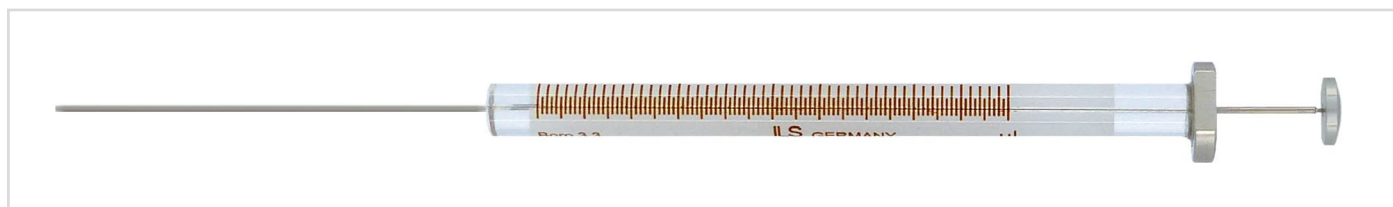
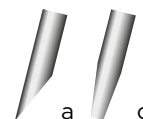
Zero Dead Volume = T

| Needle Tip |             |              | c        | c        |
|------------|-------------|--------------|----------|----------|
|            |             |              | (FN)     | (RN)     |
| Length     |             |              | 70 mm    | 70 mm    |
| Volume     | Plunger Tip | O.D. (Gauge) | Part No. | Part No. |
| 0,5 µL     | T           | 0,47 (G26s)  | -        | 2208051  |
| 0,5 µL     | T           | 0,64 (G23s)  | -        | 2208053  |
| 5 µL       | sst*        | 0,47 (G26s)  | 2108302  | -        |
| 5 µL       | sst*        | 0,64 (G23s)  | 2108303  | -        |
| 50 µL      | sst*        | 0,64 (G23s)  | 2108604  | -        |
| 5 µL       | PTFE        | 0,47 (G26s)  | 2608302  | -        |
| 5 µL       | PTFE        | 0,64 (G23s)  | 2608303  | -        |
| 50 µL      | PTFE        | 0,47 (G26s)  | 2608603  | -        |
| 50 µL      | PTFE        | 0,64 (G23s)  | 2608604  | -        |
| 100 µL     | PTFE        | 0,47 (G26s)  | 2608703  | -        |

# Dosage in Autosampler - GC Autosampler

**LEAP\*, CTC\*, CARLO ERBA\*, FISIONS\*- MINIMUM ORDER QUANTITY 50PCS**

Compatible instruments: CTC\* A200 S / A200 SE / A 800 / Combi PAL / GC PAL



## TECHNICAL INFORMATION

Fixed Needles (FN)

Removable Needles (RN)

Flexible Plunger = High corrosion resistance (Hi-Res)

Glass Barrel: Borosilicate 3.3

Stainless Steel = sst\*

Zero Dead Volume = T

| Needle Tip |                      |             |        |             | a       | c       | c          | c       |
|------------|----------------------|-------------|--------|-------------|---------|---------|------------|---------|
|            |                      |             |        |             | (FN)    | (FN)    | (FN)       | (FN)    |
| Length     |                      |             |        |             | 51 mm   | 51 mm   | 51 mm      | 80 mm   |
| Volume     | Glass Barrel O.D. mm | Plunger Tip | Series | O.D. Gauge  |         |         |            |         |
| 1,2 µL     | 6,5                  | T           | -      | 26P         | -       | 2220001 | 2220001-6P | -       |
| 5 µL       | 6,5                  | Hi-Res      | N      | 0,47 (G26s) | 2166301 | 2166303 | -          | -       |
| 5 µL       | 6,5                  | Hi-Res      | A      | 0,47 (G26s) | -       | 2166333 | -          | -       |
| 10 µL      | 6,5                  | Hi-Res      | N      | 0,47 (G26s) | 2166401 | 2166421 | 2166421-6P | -       |
| 10 µL      | 6,5                  | Hi-Res      | A      | 0,47 (G26s) | 2166408 | 2166402 |            | 2166434 |
| 10 µL      | 6,5                  | Hi-Res      | A      | 0,64 (G23s) | -       | 2166406 | 2166407    | -       |
| 5 µL       | 6,5                  | sst*        | N      | 0,47 (G26s) | 2106301 | 2106302 | 2106302-6P | -       |
| 5 µL       | 6,5                  | sst*        | N      | 0,64 (G23s) |         | 2106303 | 2106303-6P | -       |
| 5 µL       | 6,5                  | sst*        | A      | 0,47 (G26s) | 2106334 | 2106333 | 2106337    | -       |
| 5 µL       | 6,5                  | sst*        | A      | 0,64 (G23s) |         | 2106335 | 2106338    | -       |
| 10 µL      | 6,5                  | sst*        | N      | 0,47 (G26s) | 2106401 | 2106416 | 2106425    | 2106412 |
| 10 µL      | 6,5                  | sst*        | N      | 0,64 (G23s) | 2106422 | 2106403 | 2106449    | 2106413 |
| 10 µL      | 6,5                  | sst*        | N      | 0,72 (G22s) | -       | -       | -          | 2106415 |
| 10 µL      | 6,5                  | sst*        | A      | 0,47 (G26s) | 2106439 | 2106433 | 2106436    | 2106434 |
| 10 µL      | 6,5                  | sst*        | A      | 0,64 (G23s) |         | 2106451 | 2106451-6P | 2106438 |
| 10 µL      | 6,5                  | PTFE        | H      | 0,47 (G26s) | 2606401 | 2606407 | 2606422    | 2606412 |
| 10 µL      | 6,5                  | PTFE        | H      | 0,64 (G23s) | -       | 2606403 | 2606421    | 2606406 |
| 25 µL      | 6,5                  | PTFE        | H      | 0,47 (G26s) | -       | 2620506 | -          | -       |
| 25 µL      | 6,5                  | PTFE        | H      | 0,64 (G23s) | -       | 2620503 | -          | -       |
| 50 µL      | 6,5                  | PTFE        | H      | 0,47 (G26s) | -       | 2620606 | -          | -       |
| 50 µL      | 6,5                  | PTFE        | H      | 0,64 (G23s) | 2620601 | 2620603 | -          | 2620612 |
| 100 µL     | 6,5                  | PTFE        | H      | 0,47 (G26s) | -       | 2620706 | 2620706-6P |         |
| 100 µL     | 6,5                  | PTFE        | H      | 0,64 (G23s) | -       | 2620703 | -          | -       |
| 250 µL     | 7,8                  | PTFE        | H      | 0,47 (G26)  | -       | 2620803 | -          | -       |
| 250 µL     | 6,5                  | PTFE        | H      | 0,64 (G23)  | -       | 2620809 | -          | 2620812 |
| 500 µL     | 7,8                  | PTFE        | H      | 0,47 (G26)  |         | 2620903 |            |         |
| 500 µL     | 6,5                  | PTFE        | H      | 0,64 (G23)  |         | 2620909 |            | 2620906 |

\*All other trademarks, service marks, registered trademarks, and registered service marks are the property of their respective owners. Ingersoll Rand and ILS are not affiliated with Hamilton in any way.

# Dosage in Autosampler - GC Autosampler

## HEADSPACE SAMPLING- MINIMUM ORDER QUANTITY 50PCS



### TECHNICAL INFORMATION

Fixed Needles (FN)

Glass Barrel: Borosilicate 3.3

| Needle Tip |             |              | d        | d        |
|------------|-------------|--------------|----------|----------|
|            |             |              | (FN)     | (FN)     |
| Length     |             |              | 51 mm    | 56 mm    |
| Volume     | Plunger Tip | O.D. (Gauge) | Part No. | Part No. |
| 1.0 mL     | PTFE        | 0.47 (G26)   | 2620003  | 2620014  |
| 1.0 mL     | PTFE        | 0.64 (G23)   | 2620002  | 2620012  |
| 1.0 mL     | PTFE        | 0.72 (G22)   | -        | 2620013  |
| 2.5 mL     | PTFE        | 0.47 (G26)   | 2620040  | 2620034  |
| 2.5 mL     | PTFE        | 0.64 (G23)   | 2620043  | 2620032  |
| 2.5 mL     | PTFE        | 0.72 (G22)   | 2620024  | 2620023  |
| 5.0 mL     | PTFE        | 0.47 (G26)   | 2620053  | 2620051  |
| 5.0 mL     | PTFE        | 0.64 (G23)   | 2620052  | 2620050  |
| 5.0 mL     | PTFE        | 0.72 (G22)   | -        | 2620049  |

# Dosage in Autosampler - HPLC Autosampler

**SPARK\* / MINIMUM ORDER QUANTITY  
50PCS**



## TECHNICAL INFORMATION

### PTFE-Seal:

- Chemically resistant
- Heavy duty syringes

**Glass Barrel:** Borosilicate 3.3

| Volume | Series | Plunger Tip | Front Fitting | Part No. |
|--------|--------|-------------|---------------|----------|
| 25 µL  | H      | PTFE        | 1/4"-28 UNF   | 2608517  |
| 50 µL  | H      | PTFE        | 1/4"-28 UNF   | 2608617  |
| 100 µL | H      | PTFE        | 1/4"-28 UNF   | 2608717  |
| 250 µL | H      | PTFE        | 1/4"-28 UNF   | 2608817  |
| 500 µL | H      | PTFE        | 1/4"-28 UNF   | 2608917  |
| 1.0 mL | H      | PTFE        | 1/4"-28 UNF   | 2608017  |

### HDPE-Seal

- Chemically resistant
- Long lifetime
- Good resistance to strong buffers and other aqueous solution

**Glass Barrel:** Borosilicate 3.3

| Volume | Series | Plunger Tip | Front Fitting | Part No. |
|--------|--------|-------------|---------------|----------|
| 25 µL  | H      | HDPE        | 1/4"-28 UNF   | 2608518  |
| 50 µL  | H      | HDPE        | 1/4"-28 UNF   | 2608622  |
| 100 µL | H      | HDPE        | 1/4"-28 UNF   | 2608722  |
| 250 µL | H      | HDPE        | 1/4"-28 UNF   | 2608822  |
| 500 µL | H      | HDPE        | 1/4"-28 UNF   | 2608922  |
| 1.0 mL | H      | HDPE        | 1/4"-28 UNF   | 2608022  |

### PTFE-Seal with Silicone

- Specially designed for handling of strong buffers and other aqueous solutions

**Glass Barrel:** Borosilicate 3.3

| Volume | Series | Plunger Tip | Front Fitting | Part No. |
|--------|--------|-------------|---------------|----------|
| 25 µL  | H      | PTFE        | 1/4"-28 UNF   | 2608521  |
| 50 µL  | H      | PTFE        | 1/4"-28 UNF   | 2608621  |
| 100 µL | H      | PTFE        | 1/4"-28 UNF   | 2608721  |
| 250 µL | H      | PTFE        | 1/4"-28 UNF   | 2608821  |
| 500 µL | H      | PTFE        | 1/4"-28 UNF   | 2608921  |
| 1.0 mL | H      | PTFE        | 1/4"-28 UNF   | 2608021  |

# Dosage in Autosampler - HPLC Autosampler

## PERKIN ELMER\* / MINIMUM ORDER QUANTITY 50PCS

Compatible instruments: Perkin Elmer\* Series 200 Autosampler H-CX



Compatible instruments: Perkin Elmer\* Series 200 Autosampler H-C



### TECHNICAL INFORMATION

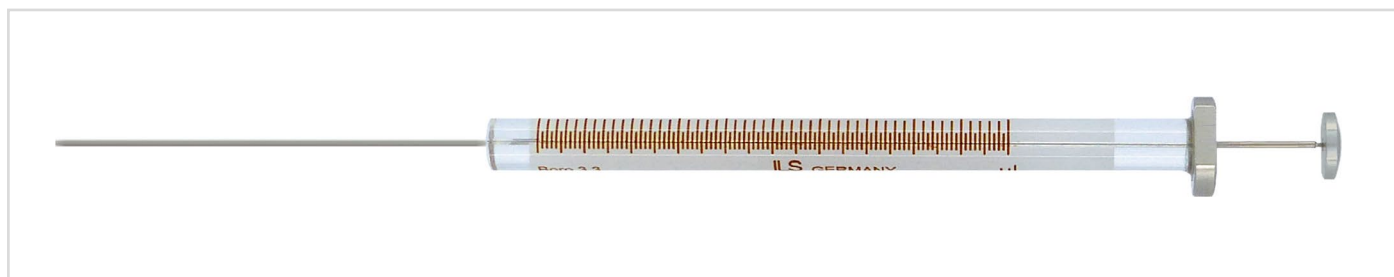
Glass Barrel: Borosilicate 3.3

|        |             |               |             | H / CX   | H / C    |
|--------|-------------|---------------|-------------|----------|----------|
| Volume | Plunger Tip | Front Fitting | Plunger Tip | Part No. | Part No. |
| 50 µL  | PTFE        | 1/4"x28 UNF   | 6-32 UNC    | 2606615  | -        |
| 250 µL | PTFE        | 1/4"x28 UNF   | 6-32 UNC    | 2606815  | -        |
| 500 µL | PTFE        | 1/4"x28 UNF   | 6-32 UNC    | 2606915  | -        |
| 1.0 mL | PTFE        | 1/4"x28 UNF   | 6-32 UNC    | -        | 2606015  |
| 2.5 mL | PTFE        | 1/4"x28 UNF   | 6-32 UNC    | -        | 2606035  |

# Dosage in Autosampler - HPLC Autosampler

**LEAP\*, CTC\* / MINIMUM ORDER QUANTITY  
50PCS**

Compatible instruments: LEAP\*, CTC\*-HTC PAL / HTS PAL / LC PAL - with STOP



## TECHNICAL INFORMATION

Fixed Needles (FN)

**Glass Barrel:** Borosilicate 3.3  
Stainless Steel = sst\*

| Needle Tip |                         |             |        |            | b       | b       |
|------------|-------------------------|-------------|--------|------------|---------|---------|
|            |                         |             |        |            | (FN)    | (FN)    |
| Length     |                         |             |        |            | 51 mm   | 56 mm   |
| Volume     | Glass Barrel<br>O.D. mm | Plunger Tip | Series | O.D. Gauge |         |         |
| 10 µL      | 6,5                     | sst*        | N      | 0,72(G22s) | 2120402 | -       |
| 10 µL      | 6,5                     | sst*        | A      | 0,72(G22s) | 2106447 | -       |
| 10 µL      | 6,5                     | PTFE        | H      | 0,72(G22s) | 2606420 | -       |
| 25 µL      | 7,8                     | PTFE        | H      | 0,72(G22s) | 2620519 | 2620511 |
| 50 µL      | 6,5                     | PTFE        | H      | 0,72(G22s) | 2620616 | -       |
| 50 µL      | 6,5                     | PTFE        | H      | 0,72(G22)  | 2620617 | -       |
| 100 µL     | 6,5                     | PTFE        | H      | 0,72(G22s) | 2620770 | -       |
| 100 µL     | 6,5                     | PTFE        | H      | 0,72(G22)  | 2620772 | -       |
| 250 µL     | 7,8                     | PTFE        | H      | 0,72(G22)  | 2620810 | -       |
| 500 µL     | 7,8                     | PTFE        | H      | 0,72(G22)  | 2620908 | 2620914 |

# Dosage in Autosampler - HPLC Autosampler

## LEAP\*, CTC\* / MINIMUM ORDER QUANTITY 50PCS

Compatible instruments: LEAP\* / CTC\* / HTS PAL / HTC PAL / LC PAL - with KNOB



### TECHNICAL INFORMATION

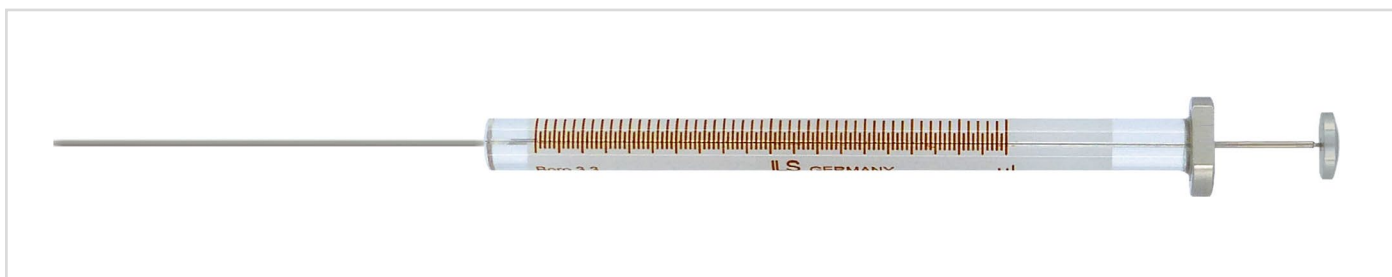
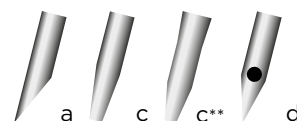
Fixed Needles (FN)

Glass Barrel: Borosilicate 3.3  
Stainless Steel = sst\*

| Needle Tip |                         |             |        |            | b       | b       |
|------------|-------------------------|-------------|--------|------------|---------|---------|
|            |                         |             |        |            | (FN)    | (FN)    |
| Length     |                         |             |        |            | 51 mm   | 56 mm   |
| Volume     | Glass Barrel<br>O.D. mm | Plunger Tip | Series | O.D. Gauge |         |         |
| 10 µL      | 6,5                     | PTFE        | H      | 0,72(G22s) | 2606416 |         |
| 25 µL      | 6,5                     | PTFE        | H      | 0,72(G22s) | 2620517 |         |
| 25 µL      | 6,5                     | HDPE        | H      | 0,72(G22s) | 2620521 |         |
| 25 µL      | 7,8                     | PTFE        | H      | 0,72(G22s) | 2620504 | 2620502 |
| 25 µL      | 7,8                     | HDPE        | H      | 0,72(G22s) |         | 2620520 |
| 50 µL      | 6,5                     | PTFE        | H      | 0,72(G22s) | 2620602 |         |
| 50 µL      | 6,5                     | PTFE        | H      | 0,72(G22)  | 2620605 |         |
| 50 µL      | 6,5                     | HDPE        | H      | 0,72(G22s) | 2620609 |         |
| 50 µL      | 6,5                     | HDPE        | H      | 0,72(G22)  | 2620608 |         |
| 100 µL     | 6,5                     | PTFE        | H      | 0,72(G22s) | 2620702 |         |
| 100 µL     | 6,5                     | PTFE        | H      | 0,72(G22)  | 2620705 |         |
| 100 µL     | 6,5                     | PE-HD       | H      | 0,72(G22s) | 2620708 |         |
| 100 µL     | 6,5                     | PE-HD       | H      | 0,72(G22)  | 2620709 |         |
| 250 µL     | 7,8                     | PTFE        | H      | 0,72(G22)  | 2620805 |         |
| 1,0 mL     | 7,8                     | PTFE        | H      | 0,72(G22)  | 2620010 |         |
| 2,5 mL     | 9,8                     | PTFE        | H      | 0,72(G22)  | 2620041 | 2620030 |
| 5,0 mL     | 13,5                    | PTFE        | H      | 0,72(G22)  | 2620058 | 2620056 |

# Dosage in Autosampler - CTC Instruments

## COMBI & GC PAL / MINIMUM ORDER QUANTITY 50PCS



### TECHNICAL INFORMATION

Fixed Needles (FN)

**Glass Barrel:** Borosilicate 3.3

Stainless Steel = sst\*

Zero Dead Volume = T

| Needle Tip |        |             |              | a        | c        | d        |                   |
|------------|--------|-------------|--------------|----------|----------|----------|-------------------|
|            |        |             |              | (FN)     | (FN)     | (FN)     |                   |
| Length     |        |             |              | 51 mm    | 51 mm    | 56 mm    | CTC               |
| Volume     | Series | Plunger Tip | O.D. (Gauge) | Part No. | Part No. | Part No. | Part No.          |
| 1.2 µL     | T      | sst*        | 26P          | -        | 2220001  | -        | SYRC L 1.2-26P-AS |

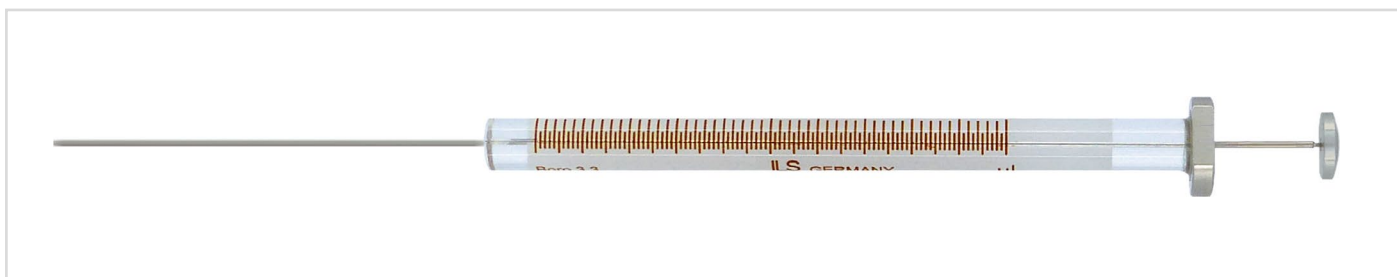
|       |   |      |             |         |         |   |                    |
|-------|---|------|-------------|---------|---------|---|--------------------|
| 5 µL  | N | sst* | 0.47 (G26s) | -       | 2106302 | - | SYRC L 5-26S-AS    |
| 5 µL  | N | sst* | 0.47 (G26s) | 2106301 | -       | - | -                  |
| 10 µL | N | sst* | 0.47 (G26s) | -       | 2106416 | - | SYRC L 10-26S-AS   |
| 10 µL | N | sst* | 0.47 (G26s) | 2106401 | -       | - | SYRC L 10-26S-2    |
| 10 µL | N | sst* | 0.64 (G23s) | -       | 2106403 | - | SYRC L 10-23S-AS   |
| 10 µL | N | sst* | 0.64 (G23s) | 2106422 | -       | - | SYRC L 10-23S-2    |
| 10 µL | N | sst* | 0.47/0.64** | -       | 2106426 | - | SYRC 10-23S/26S-AS |

|        |   |      |             |   |         |   |                   |
|--------|---|------|-------------|---|---------|---|-------------------|
| 25 µL  | H | PTFE | 0.47 (G26s) | - | 2620508 | - | SYRC G 25-26S-AS  |
| 25 µL  | H | PTFE | 0.47 (G26s) | - | 2620506 | - | SYRC G 25S-26S-AS |
| 100 µL | H | PTFE | 0.47 (G26s) | - | 2620706 | - | SYRC G 100-26S-AS |
| 250 µL | H | PTFE | 0.47 (G26)  | - | 2620806 | - | SYRC G 250-26-AS  |
| 500 µL | H | PTFE | 0.47 (G26)  | - | 2620903 | - | SYRC G 500-26-AS  |

|        |   |      |            |   |   |         |                  |
|--------|---|------|------------|---|---|---------|------------------|
| 1.0 mL | H | PTFE | 0.47 (G26) | - | - | 2620014 | SYRC HS 1.0-26-5 |
| 1.0 mL | H | PTFE | 0.64 (G23) | - | - | 2620012 | SYRC HS 1.0-23-5 |
| 2.5 mL | H | PTFE | 0.47 (G26) | - | - | 2620034 | SYRC HS 2.5-26-5 |
| 2.5 mL | H | PTFE | 0.64 (G23) | - | - | 2620032 | SYRC HS 2.5-23-5 |
| 5.0 mL | H | PTFE | 0.64 (G23) | - | - | 2620050 | SYRC HS 5.0-23-5 |

# Dosage in Autosampler - CTC Instruments

## HTS, HTC, LC PAL



### TECHNICAL INFORMATION

Fixed Needle (FN)

**Glass Barrel:** Borosilicate 3.3  
Stainless Steel = sst\*

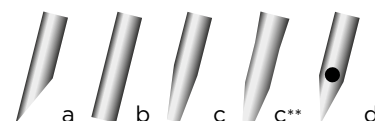
| Needle Tip |             |              | b        |                 |
|------------|-------------|--------------|----------|-----------------|
|            |             |              | (FN)     |                 |
| Length     |             |              | 51 mm    | CTC             |
| Volume     | Plunger Tip | O.D. (Gauge) | Part No. | Part No.        |
| 10 µL      | sst*        | 0.72 (G22s)  | 2106424  | SYRC L 10-22S-3 |

|        |      |             |         |                  |
|--------|------|-------------|---------|------------------|
| 10 µL  | PTFE | 0.72 (G22s) | 2606416 | SYRC G 10-22S-3  |
| 25 µL  | PTFE | 0.72 (G22s) | 2620517 | SYRC G 25-22S-3  |
| 100 µL | PTFE | 0.72 (G22s) | 2620702 | SYRC G 100-22S-3 |
| 100 µL | PTFE | 0.72 (G22)  | 2620705 | SYRC G 100-22-3  |
| 250 µL | PTFE | 0.72 (G22)  | 2620805 | SYRC G 250-22-3  |
| 1.0 mL | PTFE | 0.72 (G22)  | 2620010 | SYRC G 1000-22-3 |
| 2.5 mL | PTFE | 0.72 (G22)  | 2620041 | SYRC G 2500-22-3 |
| 5.0 mL | PTFE | 0.72 (G22)  | 2620058 | SYRC G 5000-22-3 |

# NEEDLES

# Needles

## ILS REMOVABLE NEEDLES



### TECHNICAL INFORMATION

|              |        |            |        | 5 µL     | 10 µL    | 25 µL - 100 µL | 250 µL - 10.0 mL |
|--------------|--------|------------|--------|----------|----------|----------------|------------------|
| O.D. (Gauge) | Length | Needle Tip |        | Part No. | Part No. | Part No.       | Part No.         |
| 0.47         | 42 mm  | a          | 3-Pack | 2865308  | 2865408  | -              | -                |
| 0.47         | 42 mm  | c          | 3-Pack | 2834307  | 2834407  | -              | -                |
| 0.47         | 51 mm  | a          | 3-Pack | 2832301  | 2832401  | -              | -                |
| 0.47         | 51 mm  | b          | 3-Pack | 2832302  | 2832402  | -              | -                |
| 0.47         | 51 mm  | c          | 3-Pack | 2832303  | 2832403  | -              | -                |
| 0.47         | 51 mm  | d          | 2-Pack | 2832304  | 2832404  | -              | -                |
| 0.55         | 51 mm  | a          | 3-Pack | -        | -        | 2831013        | 2841013          |
| 0.55         | 51 mm  | b          | 3-Pack | -        | -        | 2831014        | 2841014          |
| 0.55         | 51 mm  | d          | 2-Pack | -        | -        | 2831015        | 2841015          |
| 0.64 / 0.47  | 42 mm  | c**        | 3-Pack | 2834308  | 2834408  | -              | -                |
| 0.64         | 42 mm  | c          | 3-Pack | 2834309  | 2834409  | -              | -                |
| 0.72         | 51 mm  | a          | 3-Pack | -        | -        | 2832501        | 2832601          |
| 0.72         | 51 mm  | c          | 3-Pack | -        | -        | 2832503        | 2832603          |
| 0.72         | 51 mm  | d          | 2-Pack | -        | -        | 2832504        | 2832604          |
| 0.90         | 51 mm  | a          | 3-Pack | -        | -        | -              | 2831023          |
| 1.10         | 51 mm  | a          | 3-Pack | -        | -        | -              | 2831027          |
| 2.00         | 51 mm  | a          | 2-Pack | -        | -        | -              | 2831029          |

#### HP 7670 - 7672

|      |       |   |        |         |         |   |   |
|------|-------|---|--------|---------|---------|---|---|
| 0.47 | 51 mm | a | 3-Pack | 2860307 | 2860407 | - | - |
|------|-------|---|--------|---------|---------|---|---|

#### Waters\*

|      |       |   |        |         |         |         |         |
|------|-------|---|--------|---------|---------|---------|---------|
| 0.50 | 50 mm | b | 3-Pack | 2832306 | 2832406 | 2832506 | 2842606 |
|------|-------|---|--------|---------|---------|---------|---------|

#### Valco\* VISF-1

|      |       |   |        |         |         |         |         |
|------|-------|---|--------|---------|---------|---------|---------|
| 0.72 | 19 mm | b | 3-Pack | 2833305 | 2833405 | 2833506 | 2833505 |
|------|-------|---|--------|---------|---------|---------|---------|

#### Rheodyne\*

|      |       |   |        |         |         |         |         |
|------|-------|---|--------|---------|---------|---------|---------|
| 0.72 | 51 mm | b | 3-Pack | 2831305 | 2831405 | 2831505 | 2832602 |
|------|-------|---|--------|---------|---------|---------|---------|

# Needles

## NLL NEEDLES METAL LUER SCREW



### TECHNICAL INFORMATION

**Length:** 51 mm

**Needle:** CrNi 1.4301 (AISI SS 304)

**Luer:** brass, nickel plated

| Needle Tip |           |           | a        | b        | d        |
|------------|-----------|-----------|----------|----------|----------|
| Gauge      | O.D. (mm) | I.D. (mm) | Part No. | Part No. | Part No. |
|            |           |           | 3-Pack   | 3-Pack   | 2-Pack   |
| G32        | 0.25      | 0.11      | 2840025  | 2842025  | -        |
| G30        | 0.30      | 0.15      | 2840030  | 2842030  | -        |
| G29        | 0.35      | 0.15      | 2840035  | 2842035  | -        |
| G27        | 0.40      | 0.20      | 2840040  | 2842040  | -        |
| G26        | 0.45      | 0.25      | 2840045  | 2842045  | 2843045  |
| G26s       | 0.47      | 0.13      | 2840047  | 2842047  | -        |
| G25        | 0.50      | 0.28      | 2840050  | 2842050  | 2843050  |
| G24        | 0.55      | 0.32      | 2840055  | 2842055  | 2843055  |
| G23        | 0.64      | 0.35      | 2840065  | 2842065  | 2843065  |
| G22        | 0.72      | 0.40      | 2840070  | 2842070  | 2843070  |
| G22s       | 0.72      | 0.20      | 2840072  | 2842072  | -        |
| G21        | 0.80      | 0.50      | 2840080  | 2842080  | 2843080  |
| G20        | 0.90      | 0.60      | 2840090  | 2842090  | 2843090  |
| -          | 1.00      | 0.68      | 2840100  | 2842100  | 2843100  |
| G19        | 1.10      | 0.80      | 2840110  | 2842110  | 2843110  |
| G18        | 1.30      | 0.90      | 2840130  | 2842130  | 2843130  |
| G17        | 1.50      | 1.10      | 2840150  | 2842150  | 2843150  |
| G16        | 1.70      | 1.20      | 2840170  | 2842170  | 2843170  |
| G15        | 1.80      | 1.40      | 2840180  | 2842180  | 2843180  |
| -          | 2.00      | 1.26      | 2840200  | 2842200  | 2843200  |
| G13        | 2.40      | 1.90      | 2840240  | 2842240  | 2843240  |
| G12        | 2.80      | 2.20      | 2840280  | 2842280  | 2843280  |
| -          | 3.00      | 2.60      | 2840302  | 2842302  | 2843302  |
| G11        | 3.00      | 2.40      | 2840304  | 2842304  | 2843304  |
| G10        | 3.40      | 2.70      | 2840340  | 2842340  | 2843340  |

# Needles

## KNLL NEEDLES PLASTIC LUER SCREW



### TECHNICAL INFORMATION

**Length:** 51 mm

**Needle:** CrNi 1.4301 (AISI SS 304)

**Luer:** Polyvinylidenfluorid (PVDF)

| Needle Tip |           |           | a        | b        | d        |
|------------|-----------|-----------|----------|----------|----------|
| Gauge      | O.D. (mm) | I.D. (mm) | Part No. | Part No. | Part No. |
|            |           |           | 3-Pack   | 3-Pack   | 2-Pack   |
| G32        | 0.25      | 0.11      | 2846025  | 2849025  | -        |
| G30        | 0.30      | 0.15      | 2846030  | 2849030  | -        |
| G29        | 0.35      | 0.15      | 2846035  | 2849035  | -        |
| G27        | 0.40      | 0.20      | 2846040  | 2849040  | -        |
| G26        | 0.45      | 0.25      | 2846045  | 2849045  | 2844045  |
| G26s       | 0.47      | 0.13      | 2846047  | 2849047  | -        |
| G25        | 0.50      | 0.28      | 2846050  | 2849050  | 2844050  |
| G24        | 0.55      | 0.32      | 2846055  | 2849055  | 2844055  |
| G23        | 0.64      | 0.35      | 2846065  | 2849065  | 2844065  |
| G22        | 0.72      | 0.40      | 2846070  | 2849070  | 2844070  |
| G22s       | 0.72      | 0.20      | 2846072  | 2849072  | -        |
| G21        | 0.80      | 0.50      | 2846080  | 2849080  | 2844080  |
| G20        | 0.90      | 0.60      | 2846090  | 2849090  | 2844090  |
| -          | 1.00      | 0.68      | 2846100  | 2849100  | 2844100  |
| G19        | 1.10      | 0.80      | 2846110  | 2849110  | 2844110  |
| G18        | 1.30      | 0.90      | 2846130  | 2849130  | 2844130  |
| G17        | 1.50      | 1.10      | 2846150  | 2849150  | 2844150  |
| G16        | 1.70      | 1.20      | 2846170  | 2849170  | 2844170  |
| G15        | 1.80      | 1.40      | 2846180  | 2849180  | 2844180  |
| -          | 2.00      | 1.26      | 2846200  | 2849200  | 2844200  |
| G13        | 2.40      | 1.90      | 2846240  | 2849240  | 2844240  |
| G12        | 2.80      | 2.20      | 2846280  | 2849280  | 2844280  |
| -          | 3.00      | 2.06      | 2846302  | 2849302  | 2844302  |
| G11        | 3.00      | 2.40      | 2846304  | 2849304  | 2844304  |
| G10        | 3.40      | 2.70      | 2846340  | 2849340  | 2844340  |

# Needles

## HAMILTON\* REMOVABLE NEEDLES



### TECHNICAL INFORMATION

#### Removable needles for Hamilton\* syringes

|           |             |            |        | 25 µL - 100 µL | 250 µL 10 mL |
|-----------|-------------|------------|--------|----------------|--------------|
| O.D. (mm) | Lenght (mm) | Needle Tip |        | Part No.       | Part No.     |
| 0.50      | 50          | b          | 3-Pack | 21080426       | -            |
| 0.47      | 51          | a          | 6-Pack | 21775802       | 21777904     |
| 0.72      | 51          | a          | 6-Pack | 21777003       | 21777901     |
| 0.72      | 51          | b          | 6-Pack | 21777001       | -            |

## CLEANING WIRES

### TECHNICAL INFORMATION

| Gauge               | O.D.    | Part No. |
|---------------------|---------|----------|
|                     |         | 12-Pack  |
| G26s, 31, 33        | 0.09 mm | 21018300 |
| G22s, G25, G28, G33 | 0.13 mm | 21018301 |
| G27                 | 0.16 mm | 21018302 |
| G24, G26            | 0.20 mm | 21018303 |

# ACCESSORIES

## FITTING

|                              |    |
|------------------------------|----|
| Flanged Fitting              | 86 |
| Clamping Rings               | 86 |
| Tubing Sets                  | 87 |
| HPLC Fitting                 | 88 |
| HPLC Union                   | 89 |
| Connector for Tube with Luer | 90 |
| Syringe Guide                | 91 |
| Flange Tool                  | 91 |
| Syringe Rack                 | 92 |
| Washers                      | 93 |

# Accessories

## FLANGED FITTING

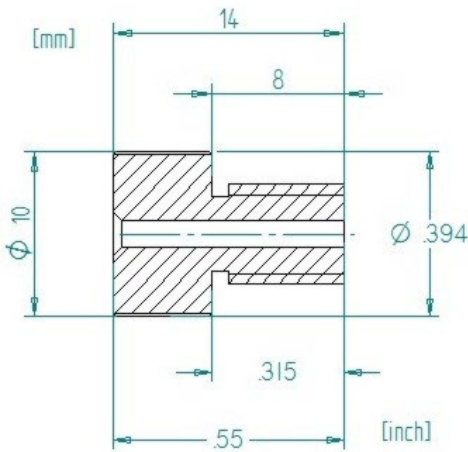


### TECHNICAL INFORMATION

Need to use without our Clamping Rings

| Thread  | For tubing with O.D. | Part No.     |
|---------|----------------------|--------------|
|         |                      | 100-Pack     |
| 1/4"x28 | 1.6 mm (1/16")       | 4130019-100P |
| 1/4"-28 | 2.7 mm               | 4130025-100P |
| 1/4"-28 | 3.2 mm (1/8")        | 4130020-100P |

| Thread | For tubing with O.D. | Part No.     |
|--------|----------------------|--------------|
|        |                      | 100-Pack     |
| M6     | 1.6 mm (1/16")       | 4130016-100P |
| M6     | 2.7 mm               | 4130004-100P |
| M6     | 3.2 mm (1/8")        | 4130005-100P |



## CLAMPING RINGS

| For tubing with O.D. | Part No. |
|----------------------|----------|
| ID                   | 10-Pack  |
| 1.6 mm               | 4132016  |
| 2.7 mm               | 4132031  |
| 3.2 mm               | 4132032  |

# Accessories

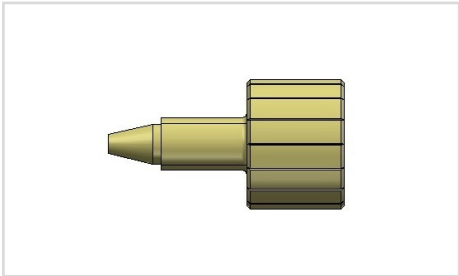
## TUBING SETS

### TECHNICAL INFORMATION

| Size    | Description                                   | Part No. |
|---------|-----------------------------------------------|----------|
| 3.2x1.6 | tubing 3.2x1.6 + fitting M6 + washer          | 4133032  |
| 3.2x1.6 | tubing 3.2x1.6 + fitting 1/4"-28 UNF + washer | 4133033  |
| 1.6x0.8 | tubing 1.6x0.8 + fitting M6 + washer          | 4133168  |
| 1.6x0.8 | tubing 1.6x0.8 + fitting 1/4"-28 UNF + washer | 4133169  |
| 1.6x0.5 | tubing 1.6x0.5 + fitting M6 + washer          | 4133165  |
| 1.6x0.5 | tubing 1.6x0.5 + fitting 1/4"-28 UNF + washer | 4133166  |

# Accessories

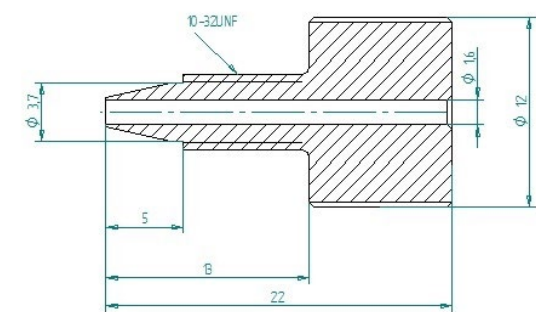
## HPLC FITTING



### TECHNICAL INFORMATION

Different tubing dimensions and materials are available.

| Description                  | Thread    | Tubing O.D.    | Material | Part No.        |
|------------------------------|-----------|----------------|----------|-----------------|
|                              |           |                |          | <b>100-Pack</b> |
| HPLC Fitting                 | 10-32 UNF | 1.6 mm (1/16") | PEEK     | 4130080-100     |
| HPLC Fitting<br>Spanner Flat | 10-32 UNF | 1.6 mm (1/16") | PEEK     | 4130081-100     |

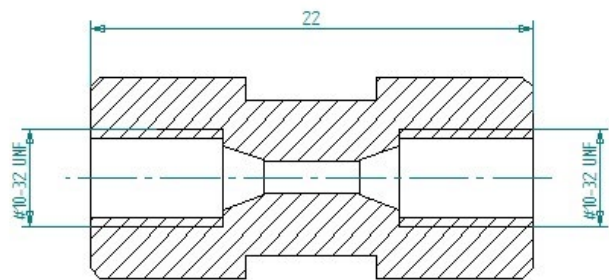


# Accessories

## HPLC UNION

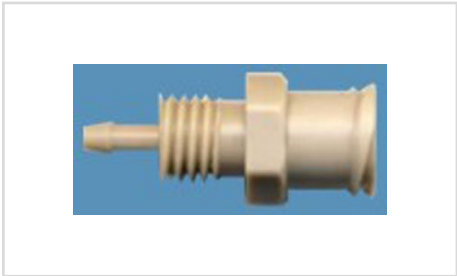
### TECHNICAL INFORMATION

| Description | Thread    | Tubing O.D.    | Material | Part No.    |
|-------------|-----------|----------------|----------|-------------|
|             |           |                |          | 100-Pack    |
| HPLC Union  | 10-32 UNF | 1.6 mm (1/16") | PEEK     | 4130091-100 |



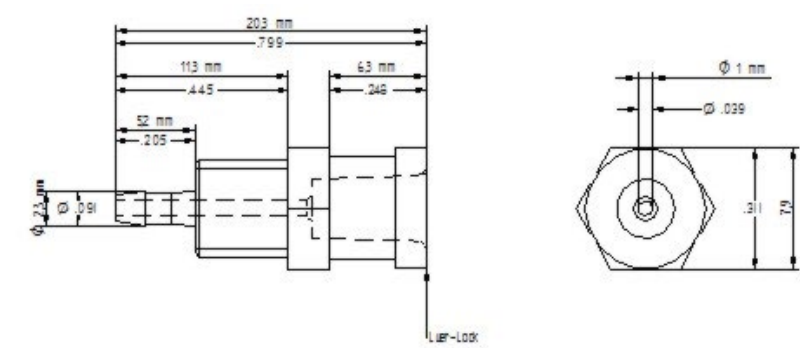
# Accessories

## CONNECTOR FOR TUBE WITH LUER / MINIMUM ORDER QUANTITY 50PCS



### TECHNICAL INFORMATION

| Thread      | Connection material | O.D. | Part No. |
|-------------|---------------------|------|----------|
| 1/4"-28 UNF | PEEK                | 3 mm | 2702226  |



# Accessories

## SYRINGE GUIDE



### TECHNICAL INFORMATION

Made of stainless steel and anodized aluminium.

Part No.

2700001

## FLANGE TOOL



### TECHNICAL INFORMATION

With ProFlange you can form:

- Conical flanges **without** warm supply medium, hard polymer tubes
- PTFE, PE, ETFE, PP, ect.
- From 1.6 to 3.2 mm external diameter
- Fast, easily, with few carry out movements

Part No.

2700181

# Accessories

## SYRINGE RACK



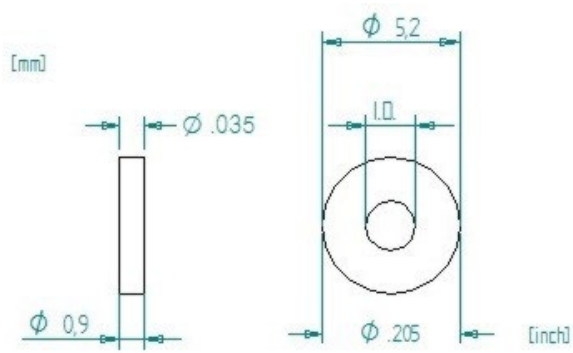
### TECHNICAL INFORMATION

|                     |          |
|---------------------|----------|
| Rack for 3 syringes |          |
|                     | Part No. |
|                     | 2700002  |

# Accessories

## WASHERS

| TECHNICAL INFORMATION |        |        |                |          |            |             |
|-----------------------|--------|--------|----------------|----------|------------|-------------|
| Description           | O.D.   | I.D.   | Wall thickness | Material | Part No.   |             |
|                       |        |        |                |          | 10-Pack    | 100-Pack    |
| Washer                | 5.2 mm | 1.9 mm | 0.9 mm         | PTFE     | 4132033-10 | 4132033-100 |
| Washer                | 5.2 mm | 2.4 mm | 0.9 mm         | PTFE     | 4132035-10 | 4132035-100 |



# VALVES

## VALVES COMPATIBLE WITH:

|                 |     |
|-----------------|-----|
| C3000           | 96  |
| VP9100 + VP9101 | 97  |
| Cavro* XP       | 98  |
| Cavro* XE       | 99  |
| RQ              | 100 |
| XL3000          | 101 |

# Valves

**VALVE COMPATIBLE WITH C3000 / MINIMUM ORDER QUANTITY 50PCS**



## TECHNICAL INFORMATION

|                                      |              |
|--------------------------------------|--------------|
| Part No.                             | 2700055      |
| Fitting                              | 1/4"-28 UNF  |
| Ports / Flow path                    | 3-Ports-120° |
| Syringe connection                   | 1/4"-28 UNF  |
| Fluid contact material (Plug / Body) | PTFE / PCTFE |

## Alternative Material Combinations

|                                      |             |
|--------------------------------------|-------------|
| Part No.                             | 2700054     |
| Fitting                              | 1/4"-28 UNF |
| Fluid contact material (Plug / Body) | PTFE / PEEK |

# Valves

## VP9101



### TECHNICAL INFORMATION

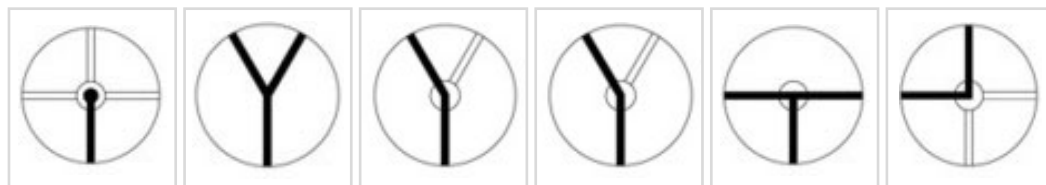
|                                      |              |
|--------------------------------------|--------------|
| Part No.                             | 2709103      |
| Fitting                              | 1/4"-28 UNF  |
| Ports / Flow path                    | 3-Port-120°  |
| Syringe connection                   | 1/4"-28 UNF  |
| Fluid contact material (Plug / Body) | PTFE / PCTFE |

### Alternative Material Combinations

|                                      |             |
|--------------------------------------|-------------|
| Part No.                             | 2729102     |
| Fluid contact material (Plug / Body) | PTFE / PEEK |

# Valves

## CAVRO\* XP / MINIMUM ORDER QUANTITY 50 PCS



### TECHNICAL INFORMATION

|                                      |              |             |              |              |              |              |
|--------------------------------------|--------------|-------------|--------------|--------------|--------------|--------------|
| Part No.                             | 2700067      | 2700068     | 2700069      | 2700060      | 2700066      | 2700065      |
| Fitting                              | 1/4"-28 UNF  | 1/4"-28 UNF | M6           | 1/4"-28 UNF  | 1/4"-28 UNF  | 1/4"-28 UNF  |
| Ports / Flow path                    | 4-Port-90°   | 3-Port-120° | 3-Port-120°  | 3-Port-120°  | 3-Port-T-90° | 4-Port-90°   |
| Fluid contact material (Plug / Body) | PTFE / PCTFE | PTFE        | PTFE / PCTFE | PTFE / PCTFE | PTFE / PCTFE | PTFE / PCTFE |

### Alternative Material Combinations

|                                      |             |             |             |             |             |             |
|--------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Part No.                             | 2720067     | 2720068     | 2720069     | 2720060     | 2720066     | 2720065     |
| Fitting                              | 1/4"-28 UNF | 1/4"-28 UNF | M6          | 1/4"-28 UNF | 1/4"-28 UNF | 1/4"-28 UNF |
| Fluid contact material (Plug / Body) | PTFE / PEEK | PTFE / PEEK | PTFE / PEEK | PTFE / PEEK | PTFE / PEEK | PTFE / PEEK |

# Valves

## CAVRO\* XE



### TECHNICAL INFORMATION

|                                      |              |              |
|--------------------------------------|--------------|--------------|
| Part No.                             | 2700080      | 2700081      |
| Fitting                              | M6           | 1/4"-28 UNF  |
| Ports / Flow path                    | 3-Port-120°  | 3-Port-120°  |
| Syringe connection                   | 1/4"-28 UNF  | 1/4"-28 UNF  |
| Fluid contact material (Plug / Body) | PTFE / PCTFE | PTFE / PCTFE |

### Alternative Material Combinations

|                                      |             |             |
|--------------------------------------|-------------|-------------|
| Part No.                             | 2720080     | 2720081     |
| Fitting                              | M6          | 1/4"-28 UNF |
| Fluid contact material (Plug / Body) | PTFE / PEEK | PTFE / PEEK |

# Valves

**RQ FOR ROSYS\* / QIAGEN\* / MINIMUM ORDER QUANTITY 50**

Compatible instruments: For Rosys\* / Qiagen\* / Zinsser Instruments



## TECHNICAL INFORMATION

|                                      |              |              |
|--------------------------------------|--------------|--------------|
| Part No.                             | 2700040      | 2700045      |
| Fitting                              | M6           | 1/4"-28 UNF  |
| Ports / Flow path                    | 4-Port-90°   | 4-Port-90°   |
| Syringe connection                   | Luer         | Luer         |
| Fluid contact material (Plug / Body) | PCTFE / PTFE | PCTFE / PTFE |

# Valves

## XL3000 / MINIMUM ORDER QUANTITY 50 PCS



### TECHNICAL INFORMATION

|                                      |              |              |
|--------------------------------------|--------------|--------------|
| Part No.                             | 2700190      | 2700191      |
| Fitting                              | M6           | 1/4"-28 UNF  |
| Ports / Flow path                    | 3-Port-120°  | 3-Port-120°  |
| Syringe connection                   | Luer         | Luer         |
| Fluid contact material (Plug / Body) | PTFE / PCTFE | PTFE / PCTFE |

#### Alternative Material Combinations

|                                      |             |             |
|--------------------------------------|-------------|-------------|
| Part No.                             | 2720190     | 2720191     |
| Fitting                              | M6          | 1/4"-28 UNF |
| Fluid contact material (Plug / Body) | PTFE / PEEK | PTFE / PEEK |

|                                      |    |               |
|--------------------------------------|----|---------------|
| Part No.                             | -  | 2700192       |
| Fitting                              | M6 | 1/4"-28 UNF   |
| Fluid contact material (Plug / Body) |    | UHMWPE / PEEK |

## Notes

Abbott is a registered trademark of Abbott.

ABI is a registered trademark of ABI.

Agilent is a registered trademark of Agilent.

Altex is a registered trademark of Altex.

BD Biosciences is a registered trademark of BD Biosciences.

BD FACS is a registered trademark of BD FACS.

Beckman is a registered trademark of Beckman.

Behr is a registered trademark of Behr .

Behring is a registered trademark of Behring.

Boehringer is a registered trademark of Boehringer.

Caliper is a registered trademark of Caliper.

Carlo Erba is a registered trademark of Carlo Erba.

Cavro is a registered trademark of Cavro.

Cell-Dyn is a registered trademark of Abbott.

CGA is a registered trademark of CGA.

Cooper / Technicon is a registered trademark of Cooper / Technicon.

CTC is a registered trademark of CTC.

Cybertron is a registered trademark of Cybertron.

Dani is a registered trademark of Dani.

Digene is a registered trademark of Digene.

Dionex is a registered trademark of Dionex.

Electro is a registered trademark of Electro.

Eppendorf is a registered trademark of Eppendorf.

Finsons is a registered trademark of Finsons.

Gilson is a registered trademark of Gilson.

Gesim is a registered trademark of Gesim.

GynkoteK Dionex is a registered trademark of GynkoteK Dionex.

Hamilton is a registered trademark of Hamilton.

Hewlett Packard is a registered trademark of Hewlett Packard.

Hitachi is a registered trademark of Hitachi.

Horiba is a registered trademark of Horiba.

Innovadyne is a registered trademark of Innovadyne.

Innovatis is a registered trademark of Innovatis.

ISA Biologie is a registered trademark of ISA Biologie.

Janus is a registered trademark of Janus.

Jasco is a registered trademark of Jasco.

Knauer is a registered trademark of Knauer.

Kone is a registered trademark of Kone.

Kontron is a registered trademark of Kontron.

Kratel is a registered trademark of Kratel.

Lachrom is a registered trademark of Lachrom.

LEAP is a registered trademark of LEAP.

Maihak is a registered trademark of Maihak.

Mannheim is a registered trademark of Mannheim.

Mitsubishi is a registered trademark of Mitsubishi.

Moritex is a registered trademark of Moritex.

Multistat is a registered trademark of Multistat.

MWG is a registered trademark of MWG.

Nippon is a registered trademark of Nippon.

Olympus is a registered trademark of Olympus.

One Lambda Jet is a registered trademark of One Lambda Jet.

Packard is a registered trademark of Packard.

Perkin Elmer is a registered trademark of Perkin Elmer.

Qiagen is a registered trademark of Qiagen.

Rheodyne is a registered trademark of Rheodyne.

Roche is a registered trademark of Roche.

Rosys is a registered trademark of Rosys.

Selectra is a registered trademark of Selectra.

Siemens is a registered trademark of Siemens.

Shimadzu is a registered trademark of Shimadzu.

Spark is a registered trademark of Spark.

Spectra-Physics is a registered trademark of Spectra-Physics.

Tecan is a registered trademark of Tecan.

Technicon is a registered trademark of Technicon.

Thermo is a registered trademark of Thermo.

Unitech Chemwell is a registered trademark of Unitech Chemwell.

Valco is a registered trademark of Valco.

Varian is a registered trademark of Varian.

Waters is a registered trademark of Waters.

Wiener Lab is a registered trademark of Wiener Lab.

Wisp is a registered trademark of Waters.

Zymark is a registered trademark of Zymark.



#### **Contact Europe**

ILS Innovative Labor Systeme GmbH  
F.-F.- Greiner Str. 37, 98694 Ilmenau, Germany  
Tel: +49 3678 525 24, Fax +49 367 845 252 5  
Email: [info.ils@irco.com](mailto:info.ils@irco.com)

#### **Contact Americas**

12740 Earhart Avenue  
Auburn, CA 95602, USA  
Tel: +1 530 273 8888, Fax: +1 530 273 2586  
Email: [po2.zinsserna@irco.com](mailto:po2.zinsserna@irco.com)

#### **Contact Asia Pacific**

No. 1 New Dong An Road  
Shuofang Town  
Wuxi, Xinwu District  
Jiangsu 214142, China  
Tel: +86 510 6878 2258, Fax: +86 510 6878 2200

#### **Headquarters**

Livry-Gargan-Str. 10  
82256 Fürstenfeldbruck, Germany  
Tel: +49 8141 2280 0, Fax: +49 8141 8892136

**Visit our website for more Information:**  
[www.microsyringes.com](http://www.microsyringes.com)