



SGE Syringe Selection Guide

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AUSTRALIA & PACIFIC REGION

CHINA

EUROPE

INDIA

JAPAN

MIDDLE EAST

USA

General Purpose Manual Syringes

SPECIFICATIONS

Accuracy and Reproducibility
 $\pm 2\%$ (dispensed volume)

Borosilicate Glass Barrel Outer Diameter (OD)
6.5 mm and 8 mm

Scale Length
54.1 mm (0.5 μL and 1 μL)
46.4 mm (5 μL)

International Standards Traceability

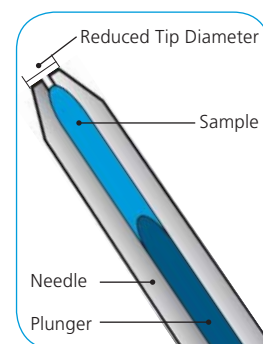
General Purpose Manual Syringes | 0.5 - 5 μL NanoVolume

With the ability to inject down to 50 nL with high precision and accuracy, SGE NanoVolume Syringes are perfect for NanoVolume capillary chromatography injection as well as making accurate standards that require small volumes.

The sample is only drawn into the needle, not the syringe barrel. When the plunger is depressed, the sample is completely dispensed by the NanoVolume plunger that extends to the tip of the needle.

Displacing the full sample during injection results in virtually zero dead volume and carry over between injections.

The plungers and needles are matched sets and must be replaced as a set. Refer to page 75 for a list of replacement plunger and needle kits.



Nozzle tip shown in diagram.





| Syringe Part No. | Syringe Volume | Needle Length (mm) | Needle Gauge | Needle OD (mm) | Needle ID (mm) | Needle Tip | Syringe Code | Replacement Needle and Plunger Part No. |
|--|----------------|--------------------|--------------|----------------|----------------|------------|---------------|---|
| 6.5 mm Outer Diameter (OD) Barrel | | | | | | | | |
| 000300 | 0.5 µL | 50 | 23 | 0.63 | 0.15 | Cone | 0.5BNR-5 | 033010 |
| 000301 | 0.5 µL | 50 | 23 | 0.63 | 0.15 | Bevel | 0.5BNR-5BV | 033011 |
| 000303 | 0.5 µL | 50 | 26 | 0.47 | 0.15 | Cone | 0.5BNR-5/0.47 | 033012 |
| 8.0 mm Outer Diameter (OD) Barrel | | | | | | | | |
| 000310 | 0.5 µL | 70 | 23 | 0.63 | 0.1 | Cone | 0.5BR-7 | 033057 |
| 000311 | 0.5 µL | 70 | 23 | 0.63 | 0.1 | Bevel | 0.5BR-7BV | 033060 |
| 000500 | 1 µL | 50 | 23 | 0.63 | 0.15 | Cone | 1BR-5 | 034055 |
| 000501 | 1 µL | 50 | 23 | 0.63 | 0.15 | Bevel | 1BR-5BV | 034056 |
| 000505 | 1 µL | 70 | 23 | 0.63 | 0.15 | Cone | 1BR-7 | 034057 |
| 000506 | 1 µL | 70 | 23 | 0.63 | 0.15 | Bevel | 1BR-7BV | 034060 |
| 000510 | 1 µL | 115 | 23 | 0.63 | 0.15 | Cone | 1BR-11.5 | 034059 |
| 000570 | 1 µL | 70 | 26 | 0.47 | 0.15 | Cone | 1BR-7/0.47 | 034610 |
| 000800 | 5 µL | 50 | 23 | 0.63 | 0.37 | Cone | 5BR-5 | 035055 |
| 000801 | 5 µL | 50 | 23 | 0.63 | 0.37 | Bevel | 5BR-5BV | 035056 |
| 000802 | 5 µL | 70 | 23 | 0.63 | 0.37 | Cone | 5BR-7 | 035057 |
| 000803 | 5 µL | 70 | 23 | 0.63 | 0.37 | Bevel | 5BR-7BV | 035058 |
| 000804 | 5 µL | 115 | 23 | 0.63 | 0.37 | Cone | 5BR-11.5 | 035059 |
| 000805 | 5 µL | 70 | 23 | 0.63 | 0.37 | Nozzle | 5BR-7N | 035060 |

Expert Tip :

To eliminate carryover between samples, flush the syringe with solvent 5-20 times, remembering to discard the first 2-3 washes.



General Purpose Manual Syringes



Syringes Fitted with Repeating Adaptor

See page 69 for more details about the RAX repeating adaptor.

| Syringe Part No. | Syringe Volume | Needle Length (mm) | Needle Gauge | Needle OD (mm) | Needle ID (mm) | Needle Tip | Syringe Code | Replacement Needle Part No. |
|--|----------------|--------------------|--------------|----------------|----------------|------------|-------------------|-----------------------------|
| 6.5 mm Outer Diameter (OD) Barrel | | | | | | | | |
| 000350 | 0.5 µL | 50 | 23 | 0.63 | 0.15 | Cone | 0.5BNR-5-RAX | 033010 |
| 000353 | 0.5 µL | 50 | 26 | 0.47 | 0.15 | Cone | 0.5BNR-5/0.47-RAX | 033012 |
| 8.0 mm Outer Diameter (OD) Barrel | | | | | | | | |
| 000355 | 0.5 µL | 70 | 23 | 0.63 | 0.1 | Cone | 0.5BR-7-RAX | 033057 |
| 000550 | 1 µL | 50 | 23 | 0.63 | 0.15 | Cone | 1BR-5-RAX | 034055 |
| 000553 | 1 µL | 70 | 23 | 0.63 | 0.15 | Cone | 1BR-7-RAX | 034057 |

Expert Tip:

When replacing the plunger and needle follow the instructions included in the kit – the front cover nut must be loosened before removing the plunger.



SPECIFICATIONS

Accuracy and Reproducibility
± 1 % (dispensed volume)

Borosilicate Glass Barrel Outer Diameter (OD)
6.5 mm and 8 mm

Scale Length
54.1 mm

International Standards Traceability

General Purpose Manual Syringes | 5 - 10 µL Metal Plunger

Standard Plunger Protection Syringes

| Syringe Part No. | Syringe Volume | Needle Length (mm) | Needle Gauge | Needle OD (mm) | Needle ID (mm) | Needle Tip | Syringe Code | Replacement Needle Part No. | 6 Pack Part No. | 10 Pack Part No. | 25 Pack Part No. |
|-------------------------|----------------|--------------------|--------------|----------------|----------------|------------|--------------|-----------------------------|-----------------|------------------|------------------|
| Fixed Needle | | | | | | | | | | | |
| 001000 | 5 µL | 50 | 26 | 0.47 | 0.11 | Bevel | 5F | - | - | - | - |
| 001002 | 5 µL | 70 | 26 | 0.47 | 0.11 | Bevel | 5F-7 | - | - | - | - |
| 002000 | 10 µL | 50 | 26 | 0.47 | 0.11 | Bevel | 10F | - | 002030 | 002033 | 002035 |
| 002003 | 10 µL | 70 | 26 | 0.47 | 0.11 | Bevel | 10F-7 | - | - | - | - |
| 002005 | 10 µL | 50 | 26 | 0.47 | 0.11 | cone | 10F-5C | - | - | - | - |
| 002007 | 10 µL | 115 | 26 | 0.47 | 0.11 | Bevel | 10F-11.5 | - | - | - | - |
| Removable Needle | | | | | | | | | | | |
| 001050 | 5 µL | 50 | 26 | 0.47 | 0.11 | Bevel | 5R | - | - | - | - |
| 002050 | 10 µL | 50 | 26 | 0.47 | 0.11 | Bevel | 10R | 037110 | 002080 | - | - |
| 002055 | 10 µL | 70 | 26 | 0.47 | 0.11 | Bevel | 10R-7 | 037130 | - | - | - |



Expert Tip:

Plunger protection prevents plunger bending during injection.



SuperFlex™ Syringes

| Syringe Part No. | Syringe Volume | Needle Length (mm) | Needle Gauge | Needle OD (mm) | Needle ID (mm) | Needle Tip | Syringe Code | Replacement Needle Part No. | 6 Pack Part No |
|-------------------------|----------------|--------------------|--------------|----------------|----------------|------------|--------------|-----------------------------|----------------|
| Fixed Needle | | | | | | | | | |
| 001100 | 5 µL | 50 | 26 | 0.47 | 0.11 | Bevel | 5FX | - | - |
| 001105 | 5 µL | 50 | 26 | 0.47 | 0.11 | Cone | 5FX-5C | - | - |
| 002100 | 10 µL | 50 | 26 | 0.47 | 0.11 | Bevel | 10FX | - | 002130 |
| 002101 | 10 µL | 70 | 26 | 0.47 | 0.11 | Bevel | 10FX-7 | - | - |
| 002105 | 10 µL | 50 | 26 | 0.47 | 0.11 | Cone | 10FX-5C | - | 002133 |
| 002108 | 10 µL | 50 | 23 | 0.63 | 0.11 | Cone | 10FX-5/0.63C | - | 002135 |
| Removable Needle | | | | | | | | | |
| 001150 | 5 µL | 50 | 26 | 0.47 | 0.11 | Bevel | 5RX | 036110 | - |
| 002150 | 10 µL | 50 | 26 | 0.47 | 0.11 | Bevel | 10RX | 037110 | 002180 |

Expert Tip :



The virtually indestructible titanium nickel alloy plunger of the SuperFlex™ Syringes is ideal for student use.



Guided Plunger Syringes

| Syringe Part No. | Syringe Volume | Needle Length (mm) | Needle Gauge | Needle OD (mm) | Needle ID (mm) | Needle Tip | Syringe Code | Replacement Needle Part No. | 6 Pack Part No |
|-------------------------|----------------|--------------------|--------------|----------------|----------------|------------|--------------|-----------------------------|----------------|
| Fixed Needle | | | | | | | | | |
| 001400 | 5 µL | 50 | 26 | 0.47 | 0.11 | Bevel | 5F-GP | - | - |
| 002400 | 10 µL | 50 | 26 | 0.47 | 0.11 | Bevel | 10F-GP | - | - |
| Removable Needle | | | | | | | | | |
| 001450 | 5 µL | 50 | 26 | 0.47 | 0.11 | Bevel | 5R-GP | 036110 | - |
| 001455 | 5 µL | 70 | 26 | 0.47 | 0.11 | Bevel | 5R-GP-7 | 036130 | - |
| 001495* | 5 µL | 50 | 26 | 0.47 | 0.11 | Bevel | 5R-GPS | 037110 | - |
| 002450 | 10 µL | 50 | 26 | 0.47 | 0.11 | Bevel | 10R-GP | 037110 | - |
| 002453 | 10 µL | 70 | 26 | 0.47 | 0.11 | Bevel | 10R-GP-7 | 037130 | - |

* Short half scale syringe (scale length 27 mm, barrel outer diameter OD 8 mm).

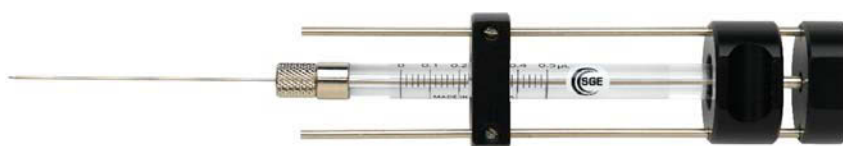
Expert Tip :



Guided plunger syringes are the most rugged syringe available. Making them perfect for industrial environments.



General Purpose Manual Syringes



Syringes Fitted with Repeating Adaptor

See page 69 for more details about the RAX repeating adaptor.

| Syringe Part No. | Syringe Volume | Needle Length (mm) | Needle Gauge | Needle OD (mm) | Needle ID (mm) | Needle Tip | Syringe Code | Replacement Needle Part No. | 6 Pack Part No |
|--|----------------|--------------------|--------------|----------------|----------------|------------|--------------|-----------------------------|----------------|
| Fixed Needle | | | | | | | | | |
| 002040 | 10 µL | 50 | 26 | 0.47 | 0.11 | Bevel | 10F-RAX | - | - |
| Removable Needle | | | | | | | | | |
| 001090 | 5 µL | 50 | 26 | 0.47 | 0.11 | Bevel | 5R-RAX | 036110 | - |
| 002090 | 10 µL | 50 | 26 | 0.47 | 0.11 | Bevel | 10R-RAX | 037110 | - |
| Removable Needle - Guided Plunger | | | | | | | | | |
| 001490 | 5 µL | 50 | 26 | 0.47 | 0.11 | Bevel | 5R-GP-RAX | 036110 | - |
| 002490 | 10 µL | 50 | 26 | 0.47 | 0.11 | Bevel | 10R-GP-RAX | 037110 | - |
| 002493 | 10 µL | 70 | 26 | 0.47 | 0.11 | Bevel | 10R-GP-7-RAX | 037130 | - |



SPECIFICATIONS

Accuracy and Reproducibility
±1 % (dispensed volume)

Borosilicate Glass Barrel Outer Diameter (OD)
8 mm

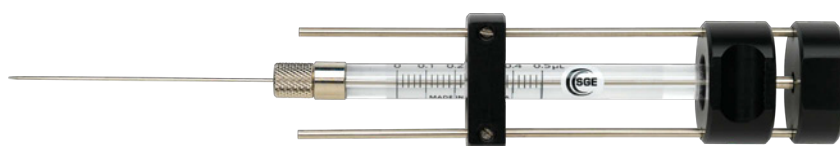
Scale Length
60 mm

International Standards Traceability

General Purpose Manual Syringes | 25 - 500 µL Metal Plunger



| Syringe Part No. | Syringe Volume | Needle Length (mm) | Needle Gauge | Needle OD (mm) | Needle ID (mm) | Needle Tip | Syringe Code | Replacement Needle Part No. |
|-------------------------|----------------|--------------------|--------------|----------------|----------------|------------|--------------|-----------------------------|
| Fixed Needle | | | | | | | | |
| 003000 | 25 µL | 50 | 25 | 0.5 | 0.2 | Bevel | 25F | - |
| 004000 | 50 µL | 50 | 25 | 0.5 | 0.2 | Bevel | 50F | - |
| 005000 | 100 µL | 50 | 25 | 0.5 | 0.2 | Bevel | 100F | - |
| 006000 | 250 µL | 50 | 25 | 0.5 | 0.2 | Bevel | 250F | - |
| 007000 | 500 µL | 50 | 25 | 0.5 | 0.2 | Bevel | 500F | - |
| Removable Needle | | | | | | | | |
| 003050 | 25 µL | 50 | 25 | 0.5 | 0.2 | Bevel | 25R | 038110 |
| 004050 | 50 µL | 50 | 25 | 0.5 | 0.2 | Bevel | 50R | 038110 |
| 005050 | 100 µL | 50 | 25 | 0.5 | 0.2 | Bevel | 100R | 038110 |
| 005055 | 100 µL | 70 | 25 | 0.5 | 0.2 | Bevel | 100R-7 | 038130 |
| 006050 | 250 µL | 50 | 25 | 0.5 | 0.2 | Bevel | 250R | 038110 |
| 007050 | 500 µL | 50 | 25 | 0.5 | 0.2 | Bevel | 500R | 038110 |



Syringes Fitted with Repeating Adaptor

See page 69 for more details about the RAX repeating adaptor.

| Syringe Part No. | Syringe Volume | Needle Length (mm) | Needle Gauge | Needle OD (mm) | Needle ID (mm) | Needle Tip | Syringe Code | Replacement Needle Part No. |
|-------------------------|----------------|--------------------|--------------|----------------|----------------|------------|--------------|-----------------------------|
| Removable Needle | | | | | | | | |
| 003090 | 25 µL | 50 | 25 | 0.5 | 0.2 | Bevel | 25R-RAX | 038110 |
| 004090 | 50 µL | 50 | 25 | 0.5 | 0.2 | Bevel | 50R-RAX | 038110 |
| 005090 | 100 µL | 50 | 25 | 0.5 | 0.2 | Bevel | 100R-RAX | 038110 |
| 006090 | 250 µL | 50 | 25 | 0.5 | 0.2 | Bevel | 250R-RAX | 038110 |
| 007090 | 500 µL | 50 | 25 | 0.5 | 0.2 | Bevel | 500R-RAX | 038110 |

Expert Tip:

The RAX repeating adaptor improves precision and reproducibility when repeatedly injecting the same volume manually.



SPECIFICATIONS

Accuracy and Reproducibility
±1 % (dispensed volume)

Borosilicate Glass Barrel Outer Diameter (OD)

10 µL = 6.5 mm

25 – 500 µL = 8 mm

Scale Length

10 µL = 54.1 mm

25 – 500 µL = 60 mm

International Standards Traceability

General Purpose Manual Syringes | 10 - 500 µL PTFE Tipped Plunger

| Syringe Part No. | Syringe Volume | PTFE Tipped Plunger | Needle Length (mm) | Needle Gauge | Needle OD (mm) | Needle ID (mm) | Needle Tip | Syringe Code | Replacement Needle Part No. | Replacement Plunger Part No. | 6 Pack Part No. |
|-------------------------|----------------|---------------------|--------------------|--------------|----------------|----------------|------------|--------------|-----------------------------|------------------------------|-----------------|
| Fixed Needle | | | | | | | | | | | |
| 002200 | 10 µL | ✓ | 50 | 26 | 0.47 | 0.11 | Bevel | 10F-GT | - | 031810 | 002202 |
| 002208 | 10 µL | ✓ | 70 | 26 | 0.47 | 0.11 | Bevel | 10F-GT-7 | - | 031810 | - |
| 003200 | 25 µL | ✓ | 50 | 25 | 0.50 | 0.20 | Bevel | 25F-GT | - | 031815 | - |
| 004200 | 50 µL | ✓ | 50 | 25 | 0.50 | 0.20 | Bevel | 50F-GT | - | 031820 | - |
| 005200 | 100 µL | ✓ | 50 | 25 | 0.50 | 0.20 | Bevel | 100F-GT | - | 031825 | - |
| 006200 | 250 µL | ✓ | 50 | 25 | 0.50 | 0.20 | Bevel | 250F-GT | - | 031830 | - |
| 007200 | 500 µL | ✓ | 50 | 25 | 0.50 | 0.20 | Bevel | 500F-GT | - | 031835 | - |
| Removable Needle | | | | | | | | | | | |
| 002250 | 10 µL | ✓ | 50 | 26 | 0.47 | 0.11 | Bevel | 10R-GT | 037110 | 031811 | 002252 |
| 003250 | 25 µL | ✓ | 50 | 25 | 0.50 | 0.20 | Bevel | 25R-GT | 038110 | 031815 | - |
| 004250 | 50 µL | ✓ | 50 | 25 | 0.50 | 0.20 | Bevel | 50R-GT | 038110 | 031820 | - |
| 005250 | 100 µL | ✓ | 50 | 25 | 0.50 | 0.20 | Bevel | 100R-GT | 038110 | 031825 | - |
| 006250 | 250 µL | ✓ | 50 | 25 | 0.50 | 0.20 | Bevel | 250R-GT | 038110 | 031830 | - |
| 007250 | 500 µL | ✓ | 50 | 25 | 0.50 | 0.20 | Bevel | 500R-GT | 038110 | 031835 | - |
| Guided Plunger | | | | | | | | | | | |
| 002455 | 10 µL | ✓ | 50 | 26 | 0.47 | 0.11 | Bevel | 10R-GP-GT | 037110 | 031805 | - |
| On-Column | | | | | | | | | | | |
| 002500 | 10 µL | ✓ | 75 | - | 0.17 | 0.11 | On-Column | 10R-GT-OC-CE | 037675 | 031811 | - |
| Fixed Luer Tip | | | | | | | | | | | |
| 004229 | 50 µL | ✓ | - | - | - | - | - | 50F-LT-GT | - | 031820 | - |
| 005229 | 100 µL | ✓ | - | - | - | - | - | 100F-LT-GT | - | 031825 | - |
| 006229 | 250 µL | ✓ | - | - | - | - | - | 250F-LT-GT | - | 031830 | - |
| 007229 | 500 µL | ✓ | - | - | - | - | - | 500F-LT-GT | - | 031835 | - |
| Fixed Luer Lock | | | | | | | | | | | |
| 004230 | 50 µL | ✓ | - | - | - | - | - | 50F-LL-GT | - | 031820 | - |
| 005230 | 100 µL | ✓ | - | - | - | - | - | 100F-LL-GT | - | 031825 | - |
| 006230 | 250 µL | ✓ | - | - | - | - | - | 250F-LL-GT | - | 031830 | - |
| 007230 | 500 µL | ✓ | - | - | - | - | - | 500F-LL-GT | - | 031835 | - |



General Purpose Manual Syringes

SPECIFICATIONS

Accuracy and Reproducibility
± 1 % (dispensed volume)

Borosilicate Glass Barrel OD
1 mL = 9 mm, 2.5 mL = 11 mm, 5 mL = 14 mm,
10 mL = 18 mm, 25 mL = 27 mm, 50 mL = 32.8 mm,
100 mL = 40.8 mm

Scale Length
1 – 25 mL = 60 mm, 50 mL = 84.2 mm
100 mL = 104 mm

Thread in Plunger Stem
6-32 UNC

International Standards Traceability

General Purpose Manual Syringes | 1 - 100 mL PTFE Tipped Plunger

Also Suitable for Syringe Pumps and Dispensers

| Syringe Part No. | Syringe Volume | PTFE Tipped Plunger | Needle Length (mm) | Needle Gauge | Needle OD (mm) | Needle ID (mm) | Needle Tip | Syringe Code | Replacement Needle Part No. | Replacement Plunger Part No. |
|----------------------------|----------------|---------------------|--------------------|--------------|----------------|----------------|------------|--------------|-----------------------------|------------------------------|
| Fixed Needle | | | | | | | | | | |
| 008102 | 1 mL | ✓ | 50 | 22 | 0.72 | 0.37 | Bevel | 1MDF-GT | - | 0318441 |
| 008502 | 2.5 mL | ✓ | 50 | 22 | 0.72 | 0.37 | Bevel | 2.5MDF-GT | - | 031852 |
| Removable Needle | | | | | | | | | | |
| 008100* | 1 mL | ✓ | 50 | 23 | 0.63 | 0.32 | Bevel | 1MR-GT | 039110 | 031842 |
| 008500 | 2.5 mL | ✓ | 50 | 23 | 0.63 | 0.32 | Bevel | 2.5MDR-GT | 039110 | 031852 |
| 008700 | 5 mL | ✓ | 50 | 23 | 0.63 | 0.32 | Bevel | 5MDR-GT | 031516 | 031856 |
| 008900 | 10 mL | ✓ | 50 | 23 | 0.63 | 0.32 | Bevel | 10MDR-GT | 031516 | 031862 |
| Fixed Luer Tip | | | | | | | | | | |
| 008020* | 1.0 mL | ✓ | - | - | - | - | Luer Tip | 1MF-LT-GT | - | 031842 |
| 008420 | 2.5 mL | ✓ | - | - | - | - | Luer Tip | 2.5MDF-LT-GT | - | 031852 |
| Fixed Luer Lock | | | | | | | | | | |
| 008025 | 1.0 mL | ✓ | - | - | - | - | Luer Lock | 1MDF-LL-GT | - | 0318441 |
| 008425 | 2.5 mL | ✓ | - | - | - | - | Luer Lock | 2.5MDF-LL-GT | - | 031852 |
| 008762 | 5 mL | ✓ | - | - | - | - | Luer Lock | 5MDF-LL-GT | - | 0318562 |
| 008962 | 10 mL | ✓ | - | - | - | - | Luer Lock | 10MDF-LL-GT | - | 031864 |
| 009463 | 25 mL | ✓ | - | - | - | - | Luer Lock | 25MDF-LL-GT | - | 031874 |
| Removable Luer Lock | | | | | | | | | | |
| 008760 | 5 mL | ✓ | - | - | - | - | Luer Lock | 5MDR-LL-GT | - | 031856 |
| 008960 | 10 mL | ✓ | - | - | - | - | Luer Lock | 10MDR-LL-GT | - | 031862 |
| 009462 | 25 mL | ✓ | - | - | - | - | Luer Lock | 25MR-LL-GT | - | 031870 |
| 009660* | 50 mL | ✓ | - | - | - | - | Luer Lock | 50MR-LL-GT | - | 0312170 |
| 009760* | 100 mL | ✓ | - | - | - | - | Luer Lock | 100MR-LL-GT | - | 0312176 |

* No thread in plunger stem of syringe part numbers 008100, 008020, 009660 and 009760.

