



Partnership

The value of our partnership lies in our ability to listen closely to our customers and create problem-solving alternatives that improve production. Working closely with manufacturers and customers helps us to produce more effective, easier to use products. For example, working in partnership with equipment suppliers, we have introduced new products such as the Pro-Flow™ Cassette and GL syringe to improve application quality and technology.



Quality

Quality is more than just a word. It's the way we make products. By instituting our 5S continuous improvement program, we have streamlined operations at our production facilities and achieved ISO 9001 certification. The value of quality lies in our commitment to continuous improvement and making the best product available.



Leadership

The value of leadership is in providing solutions. Through global direct distribution, value-added packaging services, and a comprehensive range of products and services, you get consistency, clarity, and quality in all your packaging and application needs.



Ingenuity

Ingenuity is the value of thinking "outside the box" to make products more effective for customers. Through the development of the Semco® Hybrid Syringe, problems with air entrapment have been reduced and functionality has been significantly improved. And when the new PRS-pressure relief plunger was introduced, stringing and dripping problems while dispensing from our cartridges became almost non-existent.



Confidence

Confidence comes through the practical application of Partnership, Quality, Leadership and Ingenuity. The Semco® brand creates confidence in our customers because we take the steps necessary to meet their needs in both product and service.



The VALUE of People and Ideas Working Together

At PPG Industries, Semco® Packaging & Application Systems, we believe value is created through the work of dedicated people using innovative ideas and technology to produce superior products. It is a formula that consistently delivers superior products and has kept the Semco® brand name recognized as the leader in dispensing and application systems for more than 40 years.

Customers around the world rely on Semco® Packaging & Application Systems to deliver value in both our products and service. They count on us to offer the widest range of dispensing guns, mixers, cartridges, nozzles, and syringes than anyone in the industry. In addition, they trust our global network of Application Support Centers and independent distributors to provide timely answers to technical questions and ensure on-time delivery. Even more, they know our reputation for superior products and premier service is backed by a history of engineering excellence. No one provides the breadth of new products or offers the in-house production and tooling capabilities for customized dispensing solutions that we can offer.

Our commitment to quality and service is evident in everything we do. From ISO-9001 certification to our team managing concepts and 5S program, Semco® Packaging & Application Systems is focused on manufacturing customer value. And that's what we deliver in every Semco® product.

In the end, Semco® is more than just a brand name; and we are more than a supplier. We are partners in your business.

Our goal is to furnish packaging and application solutions that simplify the most demanding manual and automated assembly line applications as well as in-field operations. We do this by making it easy to order the right product for your needs, deliver it when you need it, and provide custom service and knowledgeable advice that goes above and beyond what you expect.

In short, it's people and ideas, working together, that get results. That's the real value you get from Semco® Packaging & Application Systems.

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Cartridges

Disposable plastic cartridges are available in 1, 2.5, 6, 8, 12, 20, 32 oz. (approximate metric value 30, 65, 170, 230, 340, 610, 950cc) and 1/10th gallon capacities. Available in low or high-density natural polyethylene, all sizes are fit with 1/4" NPT (6mm) female thread dispensing orifice. Special colors are available, however minimum order, lead time, and pricing considerations apply.

The cartridges are capable of handling a wide variety of chemical fluids for storage and application and can be easily adapted to both pneumatic and manual dispensing systems. Semco® cartridges are commonly used in single component or pre-mixed and frozen applications with polysulfides, solder pastes, adhesives, epoxies, urethanes, greases, acrylics, etc.

CP and CWP cartridges are the standard Semco® cartridge with either a P or WP plunger inserted. This inserted plunger allows for filling from the dispensing end, reducing the potential for air entrapment and improving production rates.



Cartridges with Plungers Inserted

Description	Part Number
CP 2.5 oz. (65cc) LD	220323
CP 2.5 oz. (65cc) HD	220324
CP 6 oz. (170cc) LD	220325
CP 6 oz. (170cc) HD	220326
CP 8 oz. (230cc) LD	220327
CP 8 oz. (230cc) HD	220328
CP 12 oz. (340cc) LD	220329
CP 12 oz. (340cc) HD	220330
CWP 1 oz. (30cc) LD	232375
CWP 2.5 oz. (65cc) LD	220331
CWP 2.5 oz. (65cc) HD	220332
CWP 6 oz. (170cc) LD	220333
CWP 6 oz. (170cc) HD	220334
CWP 8 oz. (230cc) LD	220335
CWP 8 oz. (230cc) HD	220336
CWP 12 oz. (340cc) LD	220337
CWP 12 oz. (340cc) HD	220338
CWP 20 oz. (610cc) HD	230231
CWP 32 oz. (950cc) SHD white	233710
CWP 1/10 gallon (310cc) HD	230268

Cartridges Only

Description	Part Number
1 oz. (30cc) LD	220307
1 oz. (30cc) HD	233222
2.5 oz. (65cc) LD	220315
2.5 oz. (65cc) HD	220316
6 oz. (170cc) LD	220317
6 oz. (170cc) HD	220318
8 oz. (230cc) LD	220319
8 oz. (230cc) HD	220320
12 oz. (340cc) LD	220321
12 oz. (340cc) HD	220322
20 oz. (610cc) HD	229734
32 oz. (950cc) LD	232921
32 oz. (950cc) HD	232917
32 oz. (950cc) SHD white	233656
1/10 gallon (310cc) LD	230285
1/10 gallon (310cc) HD	229689



Plungers

Precision molded plungers are available in three styles. Each style has its own functional characteristics. All are designed to fit the cartridge contour, assuring complete dispensing and the elimination of waste.

The WP or Wiper Plunger has the highest amount of interference. This provides the most complete wiping action on the cartridge inside diameter. The P-plunger has medium interference. It provides clean wiping action, inserts easily, and allows evacuation of entrapped air. The PRS or Pressure Relief Plunger has the least interference. It has been specifically designed to be easily inserted and reduce air entrapment during filling and dispensing. This dramatically reduces problems with dripping or stringing during dispensing.



Plungers Only

Description	Part Number
1 oz. WP-Plunger LD (30cc)	232364
P-Plunger LD (black)	220252
WP-Plunger LD	220259
WP-Plunger HD	220260
PRS-Plunger LD	234414
20/32 oz. WP-Plunger LD (610/950)	229221
20/32 oz. WP-Plunger HD	232374
1/10 gallon WP-Plunger LD (310 cc)	229756



P Plunger



Wiper Plunger



PRS Plunger

Seals and Flange Caps

Seals and Flange Caps are used to ensure retention of the plunger during shipping and storage. The standard color is red. Special colors are available, however minimum order, lead time, and pricing considerations apply.

The Flange cap or F-cap is designed to fit over the large open end of the cartridge. There are three seal styles for the dispensing end. The TC-seal is a threaded part that matches perfectly with the neck. The TS-seal contacts on three surfaces round and inside the neck of the cartridge. The S-seal fits over the outside of the neck only.



Seals and Caps

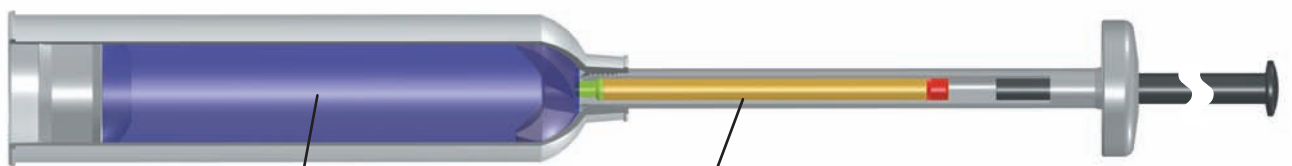
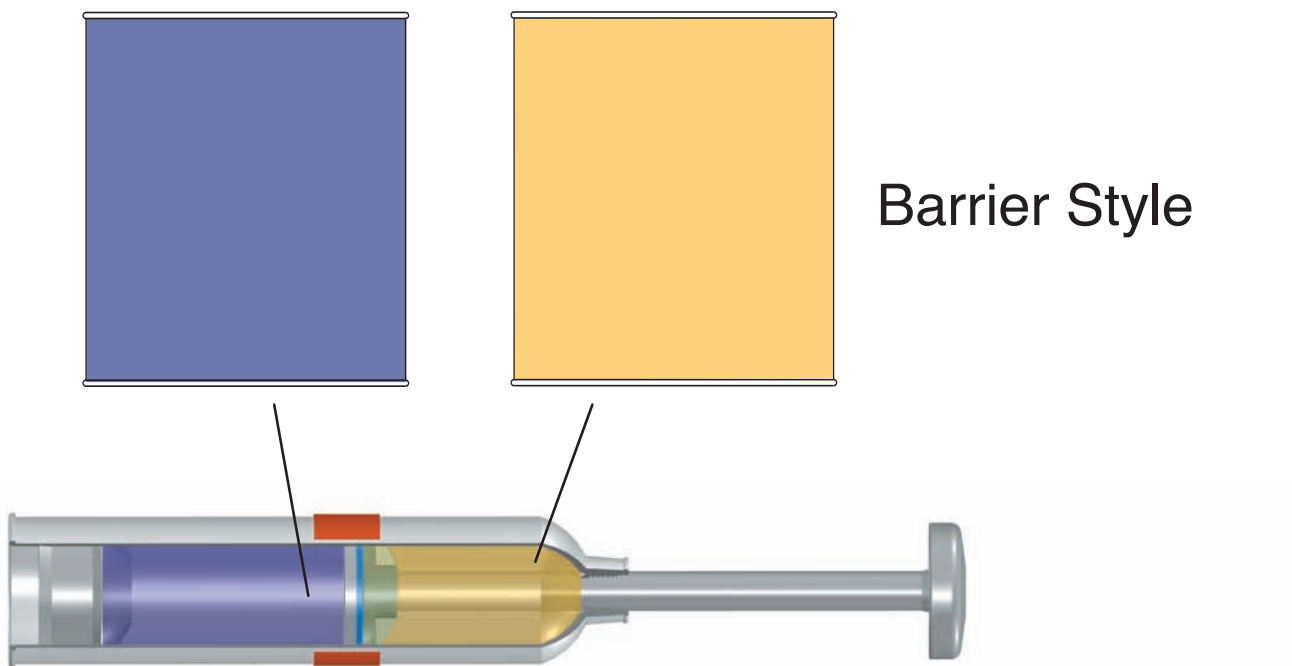
Description	Part Number
1 oz. F-Cap (red) (30cc)	232452
F-Cap (red)	220238
1/10 gallon F-Cap (red) (310 cc)	230502
20 & 32 oz. F-Cap (red) (610/950)	230586
S Seal (red)	220257
TS Seal (red)	220245
Threaded Cap (red)	234411



Base

Accelerator

Barrier Style



Base

Accelerator

Injection Style

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The Semkit® Package

The Semkit® package is a complete, multi-component plastic cartridge assembly which stores, mixes, and applies multiple component adhesives, sealants, encapsulants, and other materials. It has been market tested for over 30 years and still represents the best blend of performance and safety available in the market today. Semkit® packages are ideal for epoxies, polysulfides, polyurethanes, and silicones used in the aerospace, electronics, automotive, construction, marine, and telecommunications industries. The kit assures material performance, optimum quality, and increased productivity on the production line and in the field.

The Semkit® package assures accurate proportioning of the materials since the pre-measured components are stored in separate compartments within the cartridge. It eliminates the labor-intensive tasks of measuring and handling materials while minimizing skin contact and material fumes. All the material contained inside the two-component Semkit® package is mixed within the cartridge and can be extruded with virtually nothing remaining. This configuration provides added value by eliminating material exposure and contamination, dramatically reducing waste, and ensuring the correct ratio of each material is used in every application.

There are two styles of Semkit® packages: injection and barrier. Injection kits are typically used with mix ratios of 10:1 or higher. In this kit, the base material is contained in the cartridge, while the catalyst is stored inside the injection rod. Barrier style kits are typically used with mix ratios of 1:1 to 10:1. Both materials are contained in the cartridge and are separated by a foil barrier.

Operators can mix the kit manually, semi-automatically, or automatically. It can then be fitted with a special nozzle and placed in a Semco® pneumatic or manual dispensing gun. After application, the nozzle and kit are disposable, reducing labor and production costs. The Semkit® package mixes a wide range of materials with varying viscosities. No special storage is required.



Complete Kits, Injection Style

Description (approx. metric)	Part Number
1 oz. cartridge with 6" rod	678
2.5 oz. cartridge with 6" rod	655
6 oz. cartridge with 6" rod	654
1 oz. cartridge with 8" rod	678
2.5 oz. cartridge with 8" rod	655
6 oz. cartridge with 8" rod	654
8 oz. cartridge with 8" rod	669
1/10 gallon cartridge with 8" rod	690
20 oz. cartridge with 8" rod	689

Barrier Style

Description (approx. metric)	Part Number
1 oz. (30cc) cartridge taped	676
1 oz. (30cc) cartridge untaped	676
2.5 oz. (59cc) cartridge taped	653
2.5 oz. (59cc) cartridge untaped	653
6 oz. (156cc) cartridge taped	651
6 oz. (156cc) cartridge untaped	651
8 oz. (214cc) cartridge taped	668
8 oz. (214cc) cartridge untaped	668
1/10 gallon (300cc) cartridge taped	691
1/10 gallon (300cc) cartridge untaped	691
20 oz. (590cc) cartridge taped	688
20 oz. (590cc) cartridge untaped	688

Due to the range of our product line, the part numbers shown are base numbers only. Please call for further assistance.

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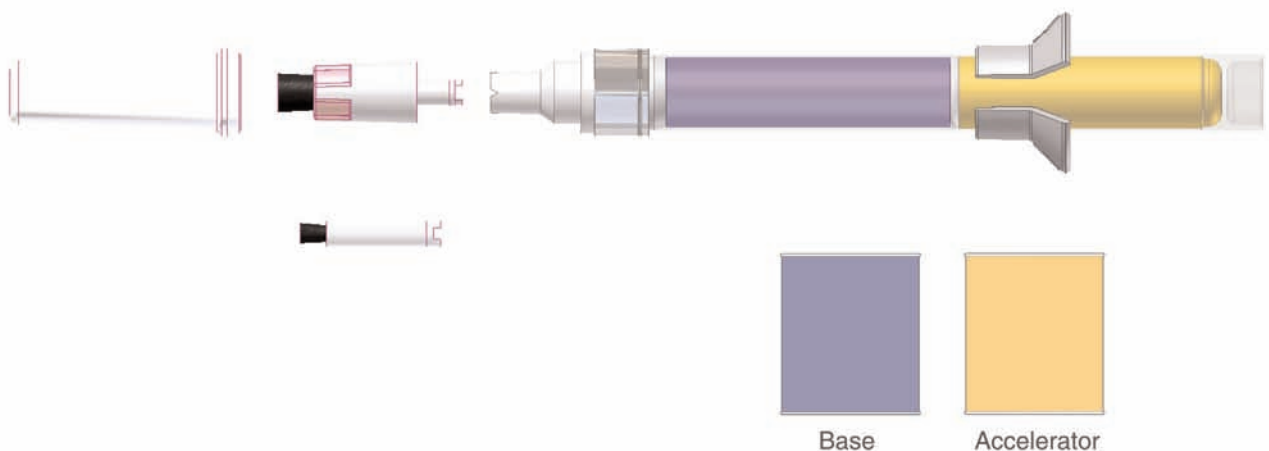


The Sempen® Applicator

The Sempen® applicator is designed for the convenient storage, mixing, and application of pre-measured, multi-component coating materials and assembly fluids in touch up quantities. The pen assembly is supplied with two precisely metered materials that are barrier separated during storage. This system is ideal for low viscosity primers and topcoats used in the aerospace, electronics, automotive, and marine industries. The pen assures material performance, optimum quality, and increased productivity on the production line and in the field.

The Sempen® applicator provides superior coverage and material performance. Its fail-safe metering system holds a maximum of 10 ml and allows exact amounts of the material to be accurately mixed and applied to a film thickness up to 2 mils. Prior to use, the barrier disc is displaced to allow thorough mixing of the materials. After the materials have been mixed, the user can apply variable amounts of coating material to the work surface.

The Sempen® applicator works efficiently. It allows the user to apply the smallest amounts of material without the need for large containers or equipment, eliminating the risk of material contamination. It offers tremendous cost savings and no special training is required. Everything the user needs to accurately mix and apply two materials is contained in one package that conveniently fits in the user's hand.





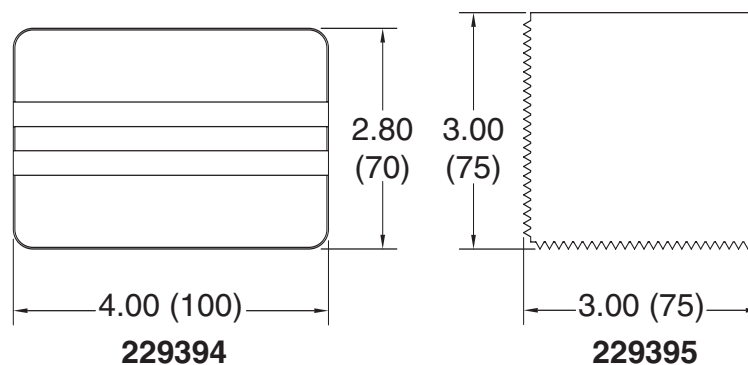
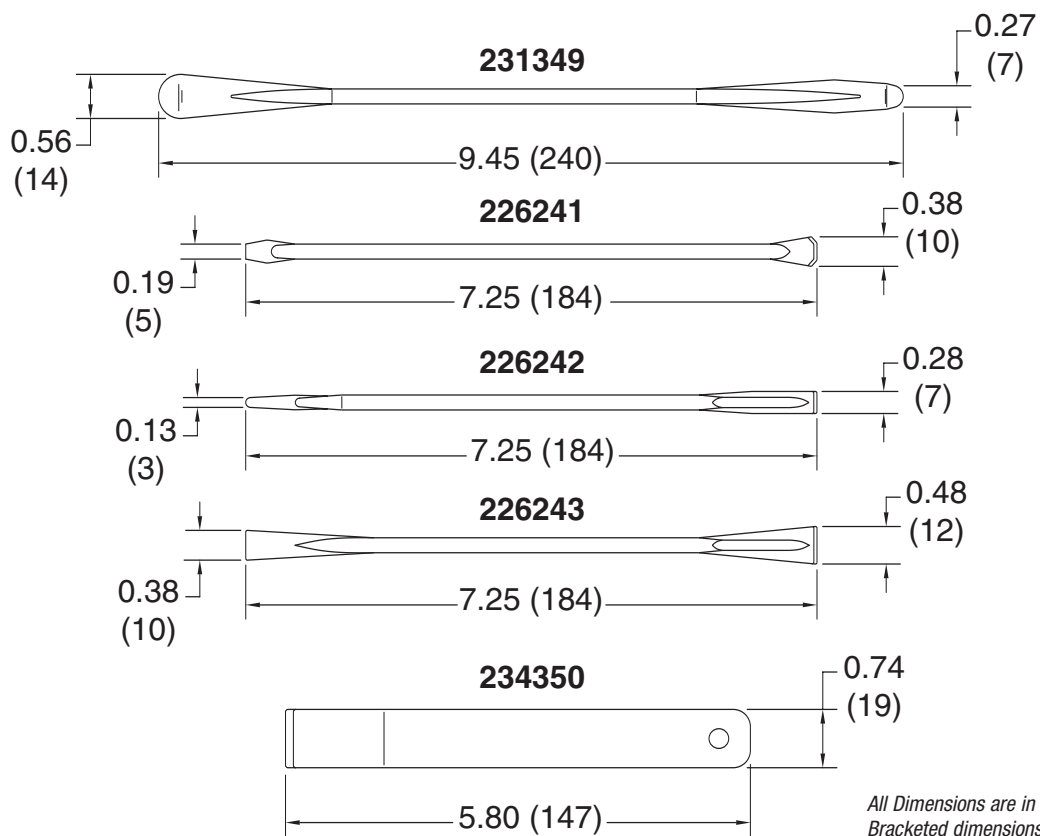
Semco® Sealant Smoothing Tools

These special reinforced plastic spatulas and spreaders are for tooling and smoothing sealants and adhesives.



Semco® Sealant Smoothing Tools

Description	Part Number
Spatula	231349
Spatula	226241
Spatula	226242
Spatula	226243
Scraper	234350
Sealant spreader	229394
Comb spreader	229395
Spatula kit (226241, 226242, 226243)	226244



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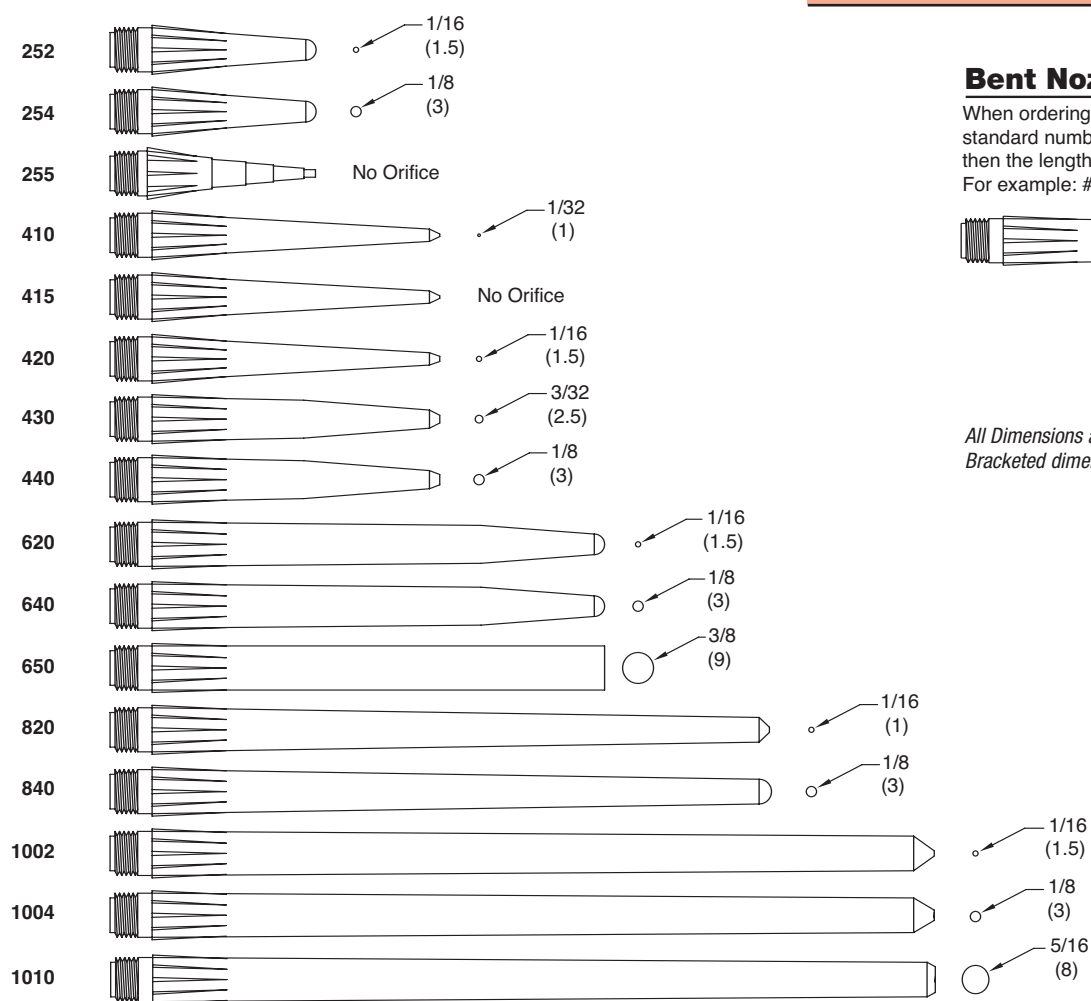


Semco® Standard Nozzles

These disposable nozzles are precision molded and have a 1/4" (6mm) NPT male thread to fit Semco® 1, 2.5, 6, 8, 12, 20, 32 oz., and 1/10th gallon disposable cartridges. A wide range of lengths and orifice sizes are available to better meet your application needs. Nozzles can be bent to varying degrees, however minimum order, lead time, and pricing considerations apply.

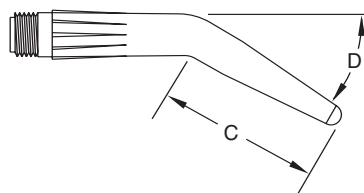
Nozzles

Description	Part Number
252 Nozzle	220538
254 Nozzle	220540
255 Nozzle	233495
410 Nozzle	220542
415 Nozzle	227613
420 Nozzle	220544
430 Nozzle	220548
440 Nozzle	220550
620 Nozzle	220553
640 Nozzle	220555
650 Nozzle	224494
820 Nozzle	220557
840 Nozzle	220559
1002 Nozzle	220561
1004 Nozzle	220563
1010 Nozzle	220565

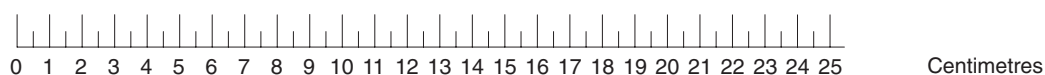
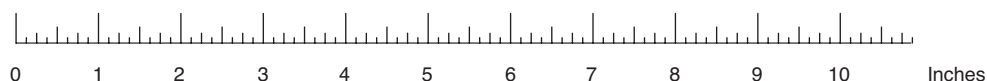


Bent Nozzles

When ordering bent nozzles, first give the standard number, then the angle of bend (D), then the length of bend from the tip (C). For example: # 640, 30°, 2"



All Dimensions are in inches,
Bracketed dimensions are in millimetres.





Semco® Fillet Nozzles

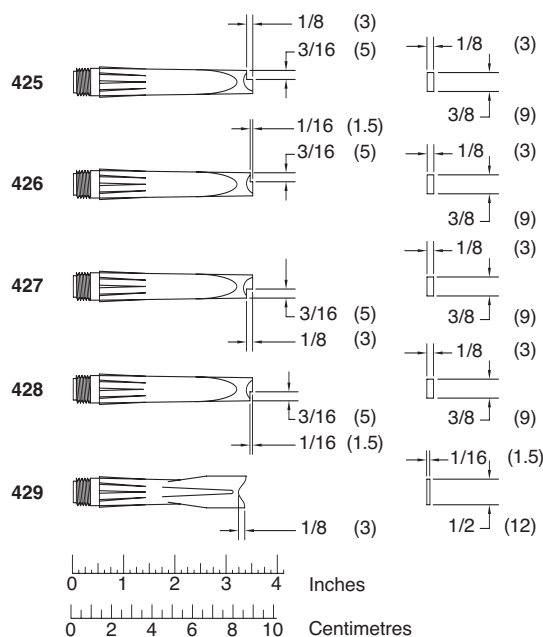
Semco® Fillet nozzles consistently apply sealant fillets over lap joints. These nozzles eliminate the need for tooling the sealant with spatulas, thereby increasing productivity.

The model 425, 426, 427, and 428 nozzles have a built-in step to guide the nozzle along the lap joint. This produces a smooth, uniform fillet. The model 429 nozzle has no step, offering versatility when used at odd angles and in confined spaces.

These disposable nozzles are precision molded and have a 1/4" (6mm) NPT male thread to fit Semco® 1, 2.5, 6, 8, 12, 20, 32 oz. and 1/10 gallon disposable cartridges. When these nozzles are used in conjunction with a Semco® 250-A sealant gun, a smooth, uniform fillet can be applied each time.

Fillet Nozzles

Description	Part Number
425 Nozzle	232499
426 Nozzle	232500
427 Nozzle	232501
428 Nozzle	232502
429 Nozzle	232590



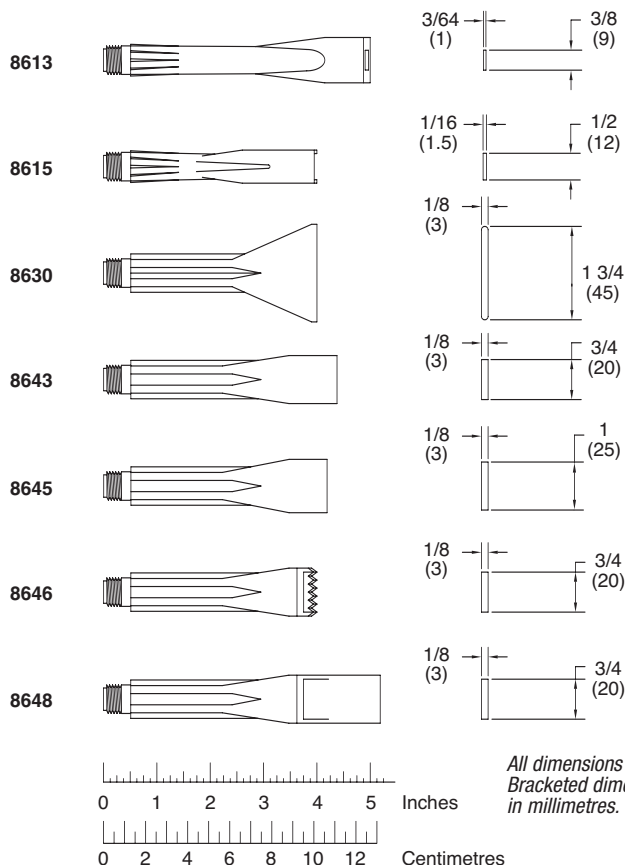
All dimensions are in inches.
Bracketed dimensions are in millimetres.

Semco® Ribbon Nozzles

These disposable nozzles are precision molded and have a 1/4" (6mm) NPT male thread to fit Semco® 1, 2.5, 6, 8, 12, 20, 32 oz., and 1/10th gallon disposable cartridges. A wide variety of specialty ribbon nozzles are available in various thicknesses and widths and are designed to better meet your application needs.

Ribbon Nozzles

Description	Part Number
8613 Nozzle	220572
8615 Nozzle	220574
8630 Nozzle	220581
8643 Nozzle	220586
8645 Nozzle	220587
8646 Nozzle	220588
8648 Nozzle	220589



All dimensions are in inches.
Bracketed dimensions are in millimetres.

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Semco® Roller Nozzles

Semco® roller nozzles are designed to apply adhesives and sealants evenly over a wide area of substrate. They are ideal for the application of faying surface sealants. The 1/4" (6mm) NPT male threaded end can be used with any of the Semco® disposable cartridges and Semkit® packages (i.e. 1, 2.5, 6, 8, 12, 20, 32 oz. and 1/10 gallon sizes). Roller nozzles are available in one and two inch (25 and 50mm) widths. The roller base is precision molded of chemically resistant material and can be solvent cleaned for re-use. Replacement rollers can be purchased separately.



Roller Nozzles

Description (approx. metric)	Part Number
1" (25mm) Roller nozzle assembly	232693
2" (50mm) Roller nozzle assembly	232692
1" (25mm) Replacement roller	232701
2" (50mm) Replacement roller	232702

Semco® Adapters

These disposable adapters are precision molded and have a 1/4" (6mm) NPT male thread to fit Semco® 1, 2.5, 6, 8, 12, 20, 32 oz., and 1/10th gallon disposable cartridges. The syringe filler adapter is designed to allow easy filling of Luer Lock or Luer Slip syringes. The Sem-Luer Adapter converts the 1/4" (6mm) NPT female thread of the standard Semco® cartridge to a male Luer Lock connection, allowing the easy attachment of any Luer Lock needle.



Adapters

Description	Part Number
Syringe filler adapter	SP931-MM
Sem-Luer adapter	231871



Semco® 250-A GUN

The Semco® model 250-A sealant gun is the standard of the aerospace and electronics industries. It is designed for the quiet, pneumatic application of sealants, adhesives, potting compounds, and other materials packaged in Semco® disposable cartridges or Semkit® packages for multi-component materials.

The Semco® model 250-A gun is available with retainers to fit standard 1, 2.5, 6, 8, and 12 ounce disposable cartridges. Air hoses to operate the gun must be ordered separately (see page 15 for more information).

The gun is constructed of durable metal and engineered plastic parts designed to withstand the rigors of the production work place. The nickel plated retainers are affixed to the valve assembly via a quick connect, secure bayonet lock fixture, permitting easy replacement of cartridges. For use in confined locations, the handle can be easily removed to allow more clearance and better manipulation.



250 Retainers

All Semco® retainers are 100 psi (6.9 bar) pressure rated and are designed for use with Semco® guns, cartridges, and dispensing systems. Please contact our technical service department for more information.

Features

- Reduces applied material cost.
- Provides accurate material control.
- Lightweight.
- Handle can be removed to facilitate application in confined areas.
- 0-100 psi (0-6.9 bar) operating range.
- Available in 1, 2.5, 6, 8, and 12 oz. sizes.
- Bayonet lock on retainer permits quick cartridge change.
- Durable, shock resistant parts.
- Touch control on trigger regulates flow.
- Positive control for smooth, even dispensing.
- Ergonomic design.
- Quiet operation.

Model 250-A Gun (with handle)

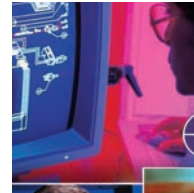
Description	Part Number
1 oz. (30 cc)	250015
2.5 oz. (65 cc)	250255
6 oz. (170 cc)	250065
8 oz. (230 cc)	250085
12 oz. (340 cc)	250125
Gun without retainer	250000

250 Retainers

Description	Part Number
1 oz. (30 cc)	231611
2.5 oz. (65 cc)	220256
6 oz. (170 cc)	220928
8 oz. (230 cc)	220926
12 oz. (340 cc)	220923



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Semco® Model 550 Sealant Gun

The Semco® Model 550 sealant gun is designed for the pneumatic application of sealant, caulking, adhesive, and other compounds packaged in Semco® 1/10th gallon, 20, and 32 oz. cartridges. Parts are available to convert the gun from one size to another. Air hoses to operate the gun must be ordered separately (see page 15 for more information).

These lightweight guns are constructed of cast aluminum and other durable materials. The 1/10 gallon cartridge retainer is secured to the gun via a springloaded quick-disconnect using the bayonet locking feature on the retainer. The 20 and 32 oz. retainers can be quickly and easily attached to the gun using a threaded bezel.



Model 550 Gun

Description	Part Number
1/10 gallon (310ml)	231551
20 oz. (610ml)	231218
32 oz. (950ml)	233688

550 Retainers

Description	Part Number
20 oz. assembly includes bezel and retainer	229752
32 oz. assembly includes bezel and retainer	233695
1/10 gallon	231903



Features

- Reduces applied material cost.
- Provides accurate material control.
- Lightweight.
- 0-100 psi (0-6.9 bar) operating range.
- Available in 20, 32 oz. and 1/10th gallon sizes.
- Durable, shock resistant parts.
- Touch control on trigger regulates flow.
- Positive control for smooth, even dispensing.
- Quiet operation.





Semco® Model 850 Manual Dispensing Gun

The Semco® model 850 gun is a hand-operated, high quality dispensing gun designed to accept Semco® disposable cartridges or Semkit® packages.

It is excellent for the “in-field” application of sealants, adhesives, and other materials. The ratchet handle is made of metal for tough, durable, long-term use. A threaded retainer provides a tight fit into the ratchet handle, permitting uninterrupted operation. It also allows for the quick and easy replacement of cartridges. Custom size retainers accommodate Semco® 1, 2.5, 6, 8, 12, 20, 32 oz., and 1/10 gallon disposable cartridges. The retainers are available in metal or plastic.



Model 850 Manual Gun

Description	Part Number
1 oz. Plastic (30 cc)	231556
2.5 oz. Plastic (65 cc)	221825
2.5 oz. Metal	221824
6 oz. Plastic (170 cc)	221828
6 oz. Metal	221830
8 oz. Metal (230 cc)	221832
12 oz. Metal (340 cc)	221836
1/10 gallon Plastic (310 cc)	230273
20 oz. Metal (610 cc)	230274
32 oz. Metal (950 cc)	234054

Features

- Portable.
- Requires no air or power supply.
- Available in 1, 2.5, 6, 8, 12, 20, 32 oz. and 1/10 gallon sizes.
- Lightweight.
- Rugged, heavy gauge metal construction.
- Easy to operate.
- Dispenses a wide range of sealants, adhesives, or other materials.
- Handles thick, viscous materials.



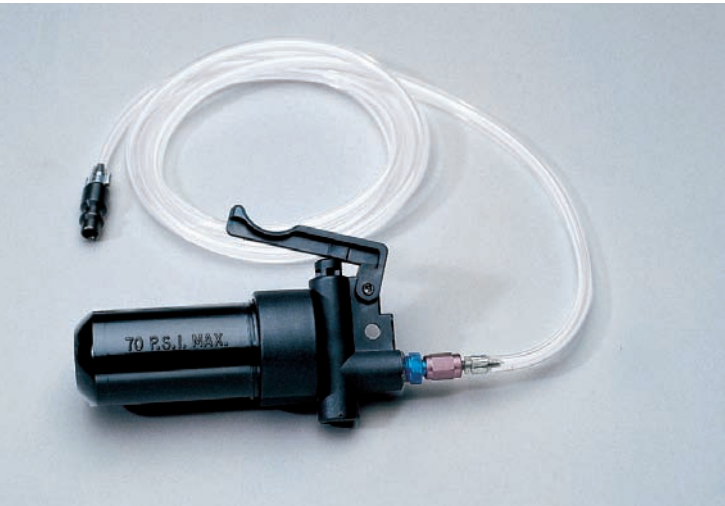
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Semco® Model 120 Mini Dispensing Gun

The Semco® model 120 mini dispensing gun is designed for the precise application of all types of viscous materials including liquids, pastes, etc. It can be used for any assembly, bonding, potting, or sealing application in the electronics, aerospace, and other industrial markets.

The Semco® model 120 mini dispensing gun’s small size and light weight allow for continuous hand service at any ordinary work station or in confined areas at odd angles.

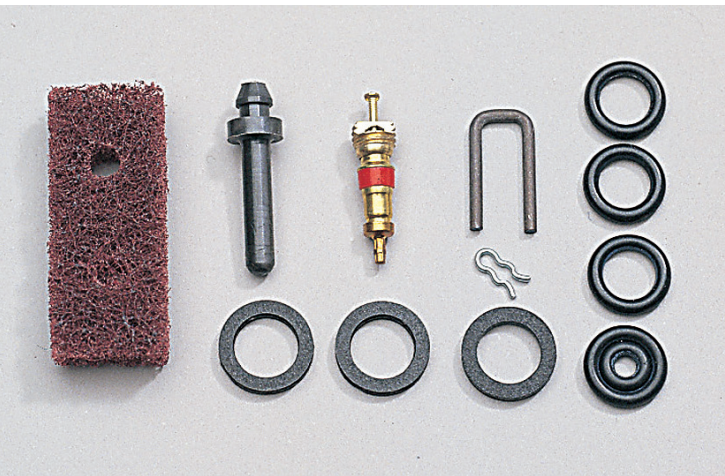


Model 120 Mini Gun

Description	Part Number
Mini 120 with hose assembly	232280

Repair Kits

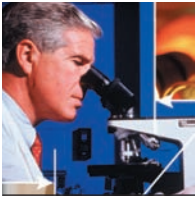
All repair kits contain the most common components required to repair damage caused by normal wear and tear on our products. Please contact our technical service department for more information.



Repair Kits

Description	Part Number
Hansen connector assembly	229186
Aro connector assembly	229187
Schrader connector assembly	229188
B-Nut assembly	229189
250 A/B gun valve repair kit (shown)	240020

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Semco® Model 507-A Gun

The model 507-A gun is a high pressure injection gun used to inject material into confined areas or voids. It accepts specially packaged 6 oz. cartridges. It also multiplies line pressure at a 40:1 ratio.



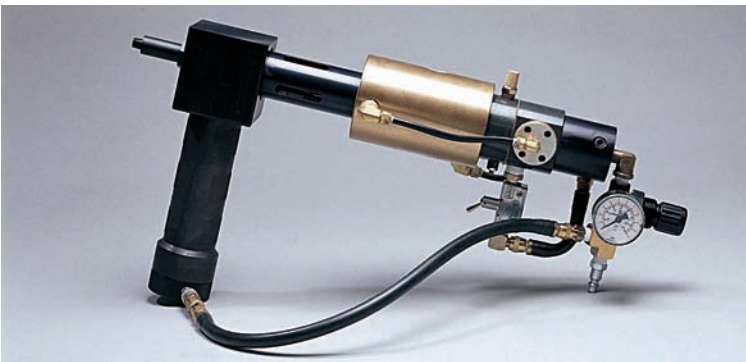
Model 507-A Gun

Description	Part Number
HP Injection gun 6 oz. (170 cc)	221162

Semco® Model 510 high pressure injection gun

The Semco® model 510 high pressure injection gun is capable of post assembly injection of high viscosity groove injection sealing compounds into confined areas and voids, including channel sealing and areas that require material to be injected through small orifices under pressure.

The gun is available in a manual or reciprocating version. The reciprocating gun provides a continuous bead of material when actuated. The pressure produced is 110 X line pressure used and the maximum pressure rating is 11,000 psi (759 bar).



Gun Assemblies

Description	Part Number
510-HP gun manual, 6 oz. (170 cc)	230891
510-HP gun reciprocating, 6 oz.	231068
510-HP gun manual, 8 oz. (230 cc)	230892
510-HP gun reciprocating, 8 oz.	231069
510-HP gun manual, 20 oz. (610 cc)	231872
510-HP gun reciprocating, 20 oz.	231070

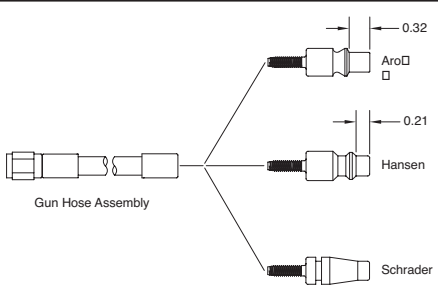
Hose Assemblies

All hose assemblies come with a B-nut fitting to attach to the Semco® gun or equipment and the specified quick disconnect attachment. Other lengths and configurations are available. Please contact our technical service department for more information.



Hose Assemblies

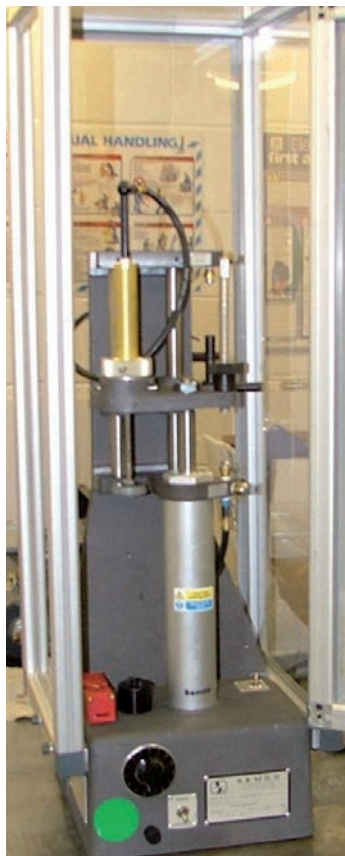
Description	Part Number
5 ft. Aro hose assembly	280012
10 ft. Aro hose assembly	280013
5 ft. Hansen hose assembly	280000
10 ft. Hansen hose assembly	280001
5 ft. Schrader hose assembly	280006
10 ft. Schrader hose assembly	280007
5 ft. fpt hose assembly	231876
10 ft fpt hose assembly	232649





Automatic Semkit® Package Mixer

The Semco® model 388 Semkit® package mixer provides complete automatic mixing of filled Semkit® packages. Use of the mixer reduces worker fatigue and assures the user a more thorough and consistent mix, kit to kit.



Model 388 Automatic Semkit Mixer

Description	Part Number
2.5, 6, 8 oz. (65, 170, 230 cc)	221269 eu
1/10 gallon (310 cc)	230323 eu
20 oz. (610 cc)	231145 eu
1 oz. (30 cc)	232410 eu
Fully pneumatic 2.5, 6, 8 oz.	232523 eu
220V transformer	231897

Model 388-E Automatic Semkit Mixer

Description	Part Number
2.5, 6 oz. (65, 170 cc)	221244 MC

Features

- Automatic mixing of Semkit® packages.
- Assures consistent, thorough and uniform mixing.
- Easy to operate.
- Timer automatically shuts mixer off at pre-set mix time.
- Eliminates mixing labor and worker fatigue.
- Operates on 40 - 90 PSI, 1.2 CFM and 115 VAC. (Transformer included)
- Shipping weight 35 kg.

Portable Electric Semkit® Package Mixer

The Semco® model 285-A Semkit® package mixer provides semi-automatic mixing of filled Semkit® packages. Use of the mixer reduces worker fatigue and assures a more consistent, uniform mix. The drive spindle rotates the mixing rod while the operator strokes the cartridge vertically. This permits the rotating dasher to thoroughly mix the materials. The bell timer alerts the operator when the mix cycle is completed.



Semi-Automatic Electric Mixer

Description	Part Number
285-A mixer (110V)	229340
285-E mixer (220V)	234535
285-P mixer (pneumatic)	233500

Features

- Semi-Automatic mixing of Semkit® packages.
- Easy to operate.
- Provides consistent, uniform mixing.
- Reduces time and effort for thorough mixing.
- Portable.
- Bell timer signals completion of mix.
- Shipping weight 7 kg.



Semco® Model 195 Shot Meter

This positive displacement shot meter allows for precise dispensing of .1 to 20cc's of material. Ideally suited for syringe filling, this system uses the 2.5, 6, 8, 12, 20, and 32 oz. Semco® cartridges as material reservoirs. (Part numbers shown are for the 6 oz. cartridge only. Please contact your local representative for more information).



Model 195 Shot Meter

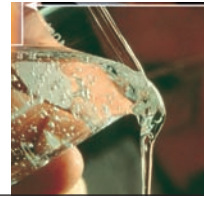
Description	Part Number
13cc piston	228953 P0006
20cc piston	228953 P2006



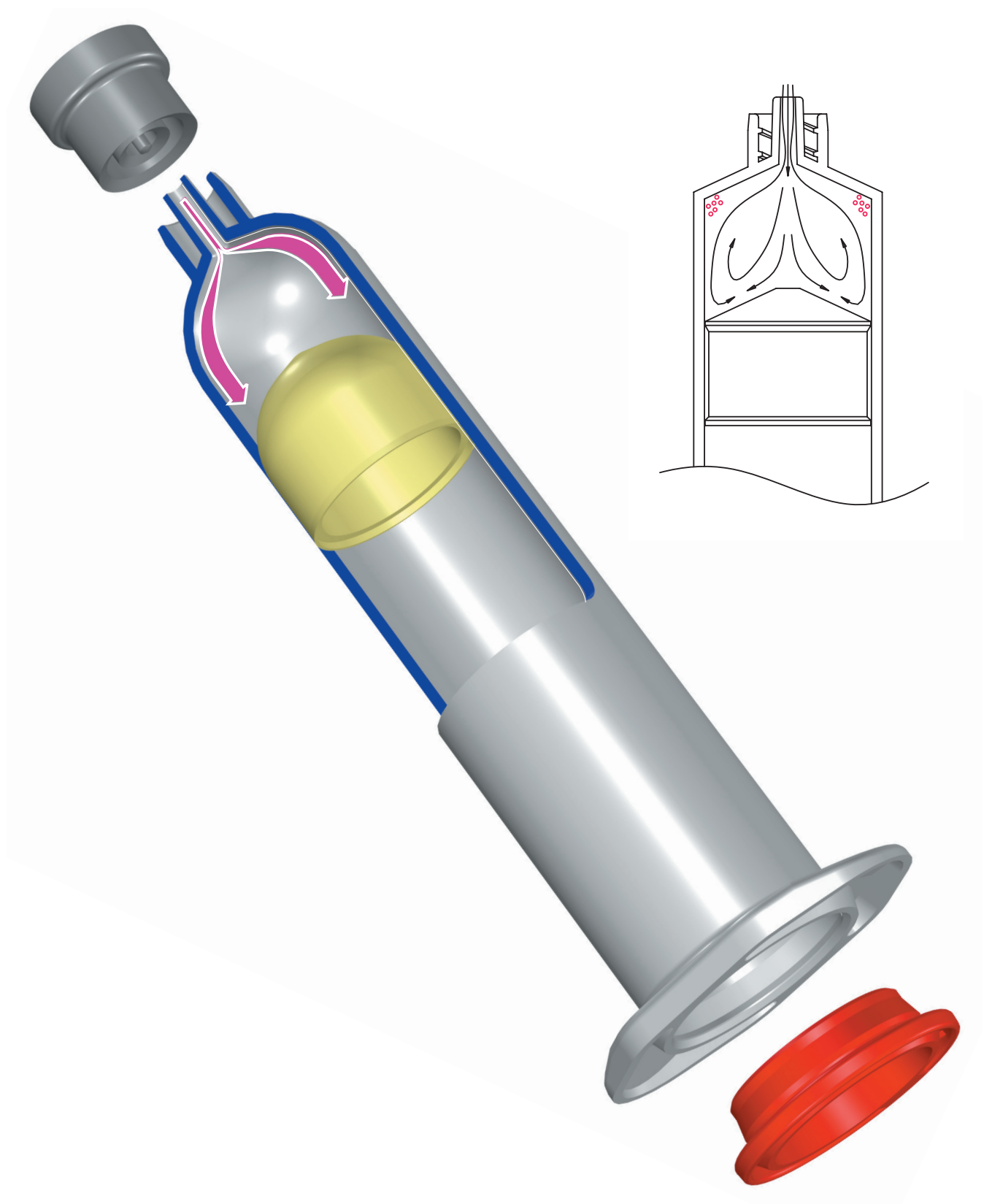
Features

- Positive displacement.
- All parts exposed to material are disposable.
- Handles a wide range of viscosities.
- Shot size is from 0 to 13cc, reproducible +/- 0.02cc.
- Foot valve-actuated.
- Panel mounted air pressure regulator and gauge included for reservoir.
- Dimensions: 80 cm x 20 cm x 38 cm.
- Shipping weight: 7,3 kg.

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Patented Hybrid Technology reduces air entrapment!
This gives our customers a technology, quality and application advantage!



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Semco® Hybrid Syringe Barrels

The patented Semco® hybrid syringe barrels dramatically reduce air-entrapment by eliminating the sharp corners found in most traditional syringes. The radius neck reduces voids or pockets of air created during filling. All barrels are molded of polypropylene and are manufactured silicone free. The Semco® hybrid syringe range is available in natural, black and light blue UV block as standard stock items. Other colors are available but minimum order quantities, lead time, and pricing considerations do apply.



Hybrid Syringe Barrel

Description	Part Number
5cc Syringe barrel, natural	360516
10cc Syringe barrel, natural	361016
30cc Syringe barrel, natural	363016
55cc Syringe barrel, natural	365516

Semco® Hybrid Pistons

There are three different pistons to meet your application needs: A micro-interference fitting P-piston, a low friction piston (LF), and a non-interference fitting piston (NI).

The higher the interference, the cleaner the wiping action on the inner diameter of the syringe barrel. However, this increases the potential for air-entrapment. You may want to sample a variety of pistons to find the right product for your material and application. Each piston is molded from polyethylene and meets the rigid requirements of high tech industries.



Hybrid Syringe Pistons

Description	Part Number
5cc P-Piston, yellow	360505
5cc WP-Piston, red	360504
10cc P-Piston, yellow	361005
10cc LF-Piston, white	361035
10cc NI-Piston, blue	361008
30cc/55cc P-Piston, yellow	363005
30cc/55cc LF-Piston, white	363035
30cc/55cc NI-Piston, blue	363008



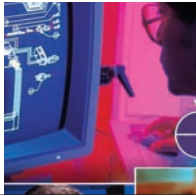
LF Piston



P Piston



NI Piston



Semco® Flange Caps

Flange caps are designed to seal the large open end of the syringe, ensuring the piston is contained and that no contaminants come in contact with material during storage and shipment. All hybrid flange caps have a special tamper evident feature. In order to remove the cap, the user must detach the safety seal, which is then used as a pull ring to remove the cap, clearly identifying if the product has been opened.



Flange Caps

Description	Part Number
5cc Flange cap	360503
10cc Flange cap	361003
30cc/55cc Flange cap	363003



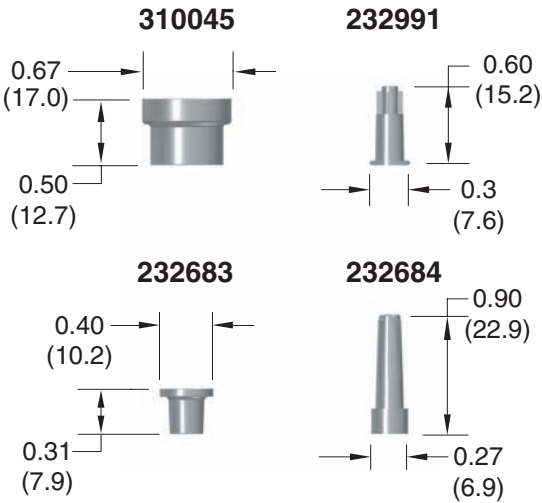
Semco® Tip Caps

Tip caps are used to seal the syringe dispensing tip during storage and shipment. Three different styles are available to fit any Luer Lock or Luer Slip connection. Our patented black spike tip cap has a stem or “spike” that is inserted into the syringe dispensing tip. This helps evacuate air during and after filling. The large flat surface enables the user to store the syringe with the dispensing tip down. This allows any existing air to migrate toward the syringe piston, where it can be easily evacuated. Please contact our technical service department for more information.



Tip Caps

Description	Part Number
Black spike tip cap	310045
Grey rubber tip cap	232683
Red plastic tip cap	232991



All Dimensions are in inches,
Bracketed dimensions are in millimetres.

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Dispensing Needles / Tips

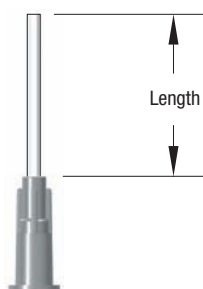
The E and ST range of needles are made from rigid stainless steel with a blunt end and plastic hub. They are typically used for application of medium viscosity materials such as epoxies.

The TT Taper Tip range are produced from moulded polyethylene and are typically used for higher viscosity materials such as greases or RTV silicones.

The CTLL range are moulded in clear polyethylene and recommended for low viscosity applications such as oils or cyanoacrylate adhesives. All the above come fitted with universal luer lock lug fittings to fit all popular syringe designs. However, for high pressure applications a limited range of "screw hub" fittings is available - ask for the TN range.

Specialist needles are also available on request. These include all metal, extended tip and bent needles.

Our full range of needles can also be used with Semco® cartridges (see page 2) by incorporating our Sem-Luer™ adapter (page 10).



E/ST Series Blunt Luer Lock Tips

Part#	Gauge	I.D. (inches)	I.D. (mm)	Colour
E14-1/2	14	0.063	1.60	Dk.Green
E15-1/2	15	0.054	1.37	Orange
ST18-1/2*	18	0.033	0.84	Pink
ST19-1/2*	19	0.027	0.69	Brown
ST20-1/2*	20	0.023	0.58	Yellow
ST21-1/2*	21	0.020	0.51	Green
ST22-1/2*	22	0.016	0.41	Black
ST23-1/2*	23	0.013	0.33	Lt. Blue
ST25-1/2	25	0.010	0.25	Dk. Blue
ST26-1/2	26	0.009	0.23	Beige
ST27-5/16	27	0.008	0.20	Grey
ST30-5/16	30	0.006	0.15	Lavender

Standard length is 1/2" (12mm).

* Also available in 1" (25mm) length.

TT Series Maximum Flow Tips

Part#	Gauge	I.D. (inches)	I.D. (mm)	Colour
TT14	14	0.063	1.60	Tan
TT16	16	0.047	1.19	Grey
TT18	18	0.033	0.84	Green
TT20	20	0.023	0.58	Pink
TT22	22	0.016	0.41	Blue

All TT tips are 1-1/4" (31mm) long.

CTLL Series Flexible Polyethylene Tips

Part#	Gauge	I.D. (inches)	I.D. (mm)	Colour
CT 16LL	16	0.047	1.19	Grey
CT 18LL	18	0.033	0.84	Green
CT 20LL	20	0.023	0.58	Pink
CT 22LL	22	0.016	0.41	blue

All CT tips are 1-1/2" (37mm) long.



Features

- Reduces waste
- Improves Health & Safety
- Various sizes and mix ratios allows flexibility
- Improves quality over hand mixing
- Cost effective
- Air tight cap



The Sempak™ Dispensing Gun System for 2-component materials meets the high expectation demands of the adhesives and sealants industry. The range of applications for the Sempak™ System is infinite – current applications include Aerospace, Electronics, Automotive, Marine, Construction & Medical including many others.

The Sempak System is available in 50ml, 200ml and 400ml sizes, in both manual & pneumatic versions.

All 3 Sempak™ Systems - Sempak™ 50, Sempak™ 200 and Sempak™ 400, are available in 1:1, 2:1, 4:1 and 10:1 mix ratios and take a variety of mixer nozzles.

Both components are stored in the two chambers of the dual cartridge system and are then dispensed simultaneously through the static mixer, where thorough mixing takes place. The Semmixer™ nozzles are available in different sizes with different volumes and a variety of mixing elements.

One of the main benefits of the Sempak™ System is that not all of the contents of the cartridge have to be mixed at a time. The cartridge can be easily closed and stored for further use, without the material curing.



Sempak™ Cartridges

	Sempak™ 50	Sempak™ 200	Sempak™ 400
1:1	451000	422026	400011
2:1	452013	422001	400021
4:1	454000	422041	400041
10:1	454010	422033	400101

The cartridges are delivered complete with all accessories including pistons & tip caps



Sempak™ Dispensing Guns

The lightweight portability and durable construction of the Sempak™ System make them well suited for many assembly operations in various markets such as Aerospace, Electronics, Construction and Automotive. Sempak™ System are available in three sizes with four mix ratios within each size (1:1, 2:1, 4:1 and 10:1). Each Sempak™ Cartridge has a standard fitting, allowing various sizes of static mixer nozzles to be attached.

Manual Dispensing Guns

Description	Part Number
50ml Manual dispensing gun	450002
200ml Manual dispensing gun	421002

Pneumatic Dispensing Guns

Description	Part Number
SP50 Pneumatic gun	452030
SP200 Pneumatic gun	234183
SP400 Pneumatic gun	234185



Semmixer™

The Semmixers are available in a high number of sizes and models. They are mainly used for 2-component adhesives and sealants.



Semmixer™ Nozzle

1:1/2:1		4:1/10:1	
50	200/400	50	200/400
MA 3.0-07-S	MC 05-18	MX 3.0-17-S	MCX 08-18
MA 3.0-13-S	MC 05-24	MX 4.0-17-S	MCX 08-24
MA 3.0-17-S	MC 05-32	MX 5.4-17-S	MCX 10-12
MA 4.0-13-S	MC 06-18		MCX 10-18
MA 4.0-17-S	MC 06-24		MCX 10-24
MA 5.4-07-S	MC 06-32		MCX 13-12
MA 5.4-13-S	MC 08-18		
MA 5.4-17-S	MC 08-24		
MA 5.4-21-S	MC 08-32		
MA 6.3-12-S	MC 10-18		
MA 6.3-17-S	MC 10-24		
MA 6.3-21-L	MC 10-32		
MA 6.3-21-S	MC 13-18		
MA 6.8-12-I	MC 13-24		
	MC 13-32		

Luer Lock Adapter

The Luer Lock Adapter enables a wide range of dispensing tips to be attached to the Semmixer™ nozzle for very fine applications. (see page 21).

Luer Lock Adapter

LA05-00
LA06-08
LA10-00



Dispensing Systems

The SD340 dispenses all fluids from water thin liquid adhesives to thick solder paste. The adjustable vacuum control eliminates dripping and run on. Control of flow rate or bead size is achieved by a combination of timer, pressure and tip selection (see page 23). The unit can operate as shown with a hand held syringe but comes complete with accessories and foot switch to operate hands-free. It can accommodate 5, 10, 30, and 55cc syringes (see pages 20-21) as well as the full range of Semco® cartridges (see pages 4-5).

The SD970 (not shown) has been specifically designed for accurate dispensing of low to medium viscosity fluids such as cyanoacrylates, oils, inks and coatings. The control of flow rate is the same as the SD340 with the added benefit of a pinch valve.

The SD320 is a low cost syringe dispensing alternative where less critical deposits/control are needed. With careful choice of accessories, it also doubles as a hands free cartridge dispenser or syringe filling unit.

Pneumatic Adapter Assemblies

Adapter assemblies are designed to attach syringes quickly and easily to pneumatic dispensing equipment. These assemblies allow the attachment of the Semco® Hybrid Syringe Series to dispensing units. (These assemblies will not fit other Semco® syringes. A range of universal adapters is also available to ensure optimum use of your Semco® dispenser.)

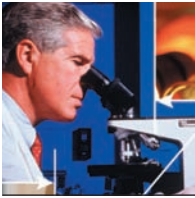
Semco® SD Series

Description	Part Number
Timed syringe dispenser with vacuum (preferred syringe size -5, -10, -30, -55)	SD 340
Tank dispenser with pinch valve and timer	SD 970
Foot-valve syringe dispenser	SD 340



Pneumatic Adapter Heads

Description	Part Number
5cc Adapter head assembly	360500
10cc Adapter head assembly	361000
30cc/55cc Adapter head assembly	363000



ProFlow™ Cassette

Manufactured under license from DEK/Novatech, PPG Industries, Semco® Packaging & Application Systems has designed and produced the all new ProFlow™ Cassette. This product is specifically designed to be used with DEK DirEKt Imaging™ process, for screen print solder paste applications. Made from a flexi-rigid 30 percent talc-fill polypropylene, the new construction incorporates an integral transition-fit piston assembly to distribute the transfer pressure from the ProFlow™ head evenly across the paste mass. The new design offers a substantial reduction in waste, is easily and quickly filled with paste, and is offered in two configurations. It includes five basic components: cassette base, aluminium foil barrier, plunger, plunger seal, and snap-fit lid.



ProFlow Cassette

Description	Part Number
Assembly 1	234607
Includes: base w/foil attached, piston w/gasket assembled, cap	
Assembly 2	234608
Includes: base, foil, piston w/gasket assembled, cap	



GL Syringe

This new product is specifically designed to fit GL dispensing systems. By incorporating our patented hybrid technology, we have dramatically reduced the potential for air entrapment, while maintaining the necessary exterior dimensions and shape to fit the GL dispensing machine. Other important features include a level sensing piston, a tamper evident flange cap, and a large flat-based tip cap that allows vertical storage.



GL Syringe

Description	Part Number
Barrel	234519
Level sensing piston	234471
Flange cap	234473
Tip cap	234468
Assembly (includes all four items)	234518



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Packaging Solutions

Using ingenuity and creative thinking, we develop packaging solutions that offer the most benefit to our customers. You may find a solution to your particular needs from the examples here.

Semco® Packaging & Application Systems, our ISO 9001-approved division, has been recognized as a leader in chemical packaging for almost 40 years. By producing critical-tolerance injected molded parts, Semco® Packaging & Application Systems complements our specialty packaging services with unique technology.



Injection style Semkit® packages for multi-component adhesives and sealants



Variety of multi-purpose plastic bottles



Barrier style Semkit® packages for structural adhesives



Insert kits for multi-component coatings



Hinge-Paks for 2-part adhesives/encapsulants



Collapsible aluminum tubes

Additional Capabilities

Two other value-added services offered by our global network of Application Support Centers are pre-mixing and freezing two-part resin systems and providing specialty resin blending based on customer-designated formulas.

The pre-mixed and frozen process includes thoroughly blending two-component materials, degassing them to remove entrapped air, and then freezing the resin system in a disposable syringe or cartridge. These containers are then packed in dry ice and shipped directly to the customer's facility where they can be stored safely and conveniently in a freezer at -40°C .

For the custom blending process, PPG offers to manufacture your adhesive products based on your specific formulations and specifications. PPG then packages and provides the custom resin in a disposable package best suited for your application requirements.



Pre-mixed and frozen packages



Syringe-filled packages



2-part Hinge-Paks



Application Support Centers

We have over 40 years of experience in handling the packaging and dispensing of a variety of materials. Our superior products are available through direct distributors and a global network of Application Support Centers. These facilities are strategically located to provide customers with local service and product support. In addition, each network location is stocked with an expansive inventory so that we can deliver our products to your assembly line quickly, safely, and cost-effectively.



Putting Our Expertise to the Test

Our Application Support Center network was specifically created to provide our customers with the benefit of our knowledge and experience. Let our packaging experts put these skills to work for your company. They can help find ways to improve your manufacturing process using our products and services.

We also offer a wide range of value-added packaging services through our facilities. Value-added packaging means we will either provide or receive bulk packaged materials, such as cans and drums. The bulk materials are then redistributed to your assembly line as application ready packages. Value-added packaging is currently available for these products:

- Semkit® Packages
- Syringes
- Hinge Packs
- Semco® Cartridges
- Side by Side Cartridges (for mix on demand applications)

Ask our customer service team for information on our value-added packaging services to dramatically reduce material exposure, production time, and cost.



Special Handling Instructions

Our facilities are also capable of managing a wide range of special handling instructions such as hazardous or flammable materials, foil bagging, nitrogen purging, air-free filling, and other services. Our personnel have hands on experience with the most rigorous packaging requirements.



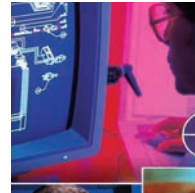
Locations

We have eight North American Application Support Centers: Atlanta, Dallas, Indianapolis, Los Angeles, Philadelphia, Phoenix, Seattle and Canada. Internationally we have facilities in Australia, China, Dubai, Germany, Hong Kong, Japan, Singapore, South Africa, the United Kingdom and France.



Independent Distribution

In areas where a direct support facility is not available, our products and services are provided through qualified independent distributors. This independent network has earned our complete support and confidence over the years because of their proven track record of customer service. To find out more about an independent distributor or authorized repackaging facility in your area, please contact our customer service department at +44 (0) 1388 770222.



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