



analytical

**PRODUCTS  
FOR SCIENCE**

# How to Order

To place your order, you will need to supply the catalog number, a brief description and size, or the particular specifications when indicated.

## You can order by:

- **Phone:** 973-616-0700
- **Fax:** 973-616-0133
- **Email:** [orders@analytical-sales.com](mailto:orders@analytical-sales.com)
- **Online store:** [www.analytical-sales.com](http://www.analytical-sales.com)

## Terms of Payment

If you have an account with Analytical Sales, we will bill you for your purchases. All prices are F.O.B. Flanders, NJ. Terms of payment are net 30 days. To open an account, please call us. We also accept Visa®, Mastercard®, and American Express®. PayPal® is also available when ordering from our website.

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All items will be shipped via FedEx® Ground or common carrier unless otherwise instructed. Please examine all items immediately upon receipt. If you notice that an item was damaged in transit, it's important that you get a "damage notation" from the driver. If you notice damage upon unpacking an item, be sure to save all containers and packing materials. Please notify us immediately for instructions.

## Returns

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## Pricing

To see pricing please visit [www.analytical-sales.com/catalog/pricing](http://www.analytical-sales.com/catalog/pricing). All prices are subject to change without notice.

## Contact Information

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Address: Analytical Sales and Services, Inc.  
179 Rt 206  
Flanders, NJ 07836

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### Liability

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# New Products



24 POSITION TEMPERATURE  
CONTROLLED REACTOR

51



PARA-DOX® GEN II  
REACTION BLOCKS

52



MONOCON™ & MULTICON™ GEN II  
COLUMN HEATER CONTROLLERS

82



GEN II HOTSLEEVE+™  
COLUMN HEATER

83



At Analytical Sales and Services, we know that the world becomes a better place when you share powerful ideas. Since our founding in 1988, we've been sharing these ideas with the scientific community through value-added product manufacturing.

Taking into consideration real-time laboratory obstacles, relayed to us through firsthand interaction with scientists in the lab, we derive innovative solutions that address real-world problems. From simple and small consumables to complex pieces of electronic equipment, we develop products that are designed to help you reach your goals.

Supporting your efforts is our priority. We pride ourselves in leveraging the experience, technical expertise, and determination of our staff to aid you in reducing costs, solving problems, and achieving your objectives.

#### Markets Served

Our major focus continues to be in the pharmaceutical and biotech industries, with a primary focus on R&D. For access to the intellectual property available at Analytical Sales and Services, contact us or visit our web site at [www.analytical-sales.com](http://www.analytical-sales.com).

#### Facilities

Our corporate headquarters is located on 7 acres in Flanders, New Jersey. All operations, including R&D, manufacturing, and applications laboratory for conducting methods development for customers are located here.

#### Products & Services

##### Products developed and manufactured by Analytical Sales & Services:

- **Temperature Controlled Reactors (TCR) - *NEW!* 24-position**
  - **Flow Electrolysis Assemblies**
  - **HTE<sup>™</sup>Chem Electrochemical Assemblies**
  - **Monocon<sup>™</sup> Single Column Heater Controller - *NEW!* Gen II**
  - **Multicon<sup>™</sup> Multiple Column Heater Controller - *NEW!* Gen II**
  - **HotSleeve<sup>™</sup> Column Heater - *NEW!* Gen II**
  - **Cold Sleeve<sup>™</sup> Column Cooler/Heater**
  - **AgileSLEEVE<sup>+</sup>® Small Diameter Flexible Column Heater**
  - **MonoSLEEVE<sup>™</sup> Single Column Heater Controller**
  - **MultiSLEEVE<sup>™</sup> Multiple Column Heater Controller**
  - **FlexChrom<sup>®</sup> 1/16" Flexible Stainless Steel Tubing**
  - UHPLC Fingertight Fittings/Assemblies
  - **TrueTaper<sup>®</sup> 96-well Collection Plates**
  - Alpha-numeric Templates for 96-Well Collection Plates
  - Teflon<sup>®</sup> and Silicone Adhesive Sealing Films and Cap Mats
  - **Canary-Safe<sup>™</sup> Solvent Safety Products**
- **SENTINEL<sup>™</sup> Fluid Level Indicator**
  - **Para-dox<sup>®</sup> Photoredox Catalysis & Parallel Synthesis Reaction Blocks - *NEW!* Gen II**
  - **Lumidox<sup>®</sup> II Photon Generation Devices**
  - Powder Transfer Plates
  - Vacuum Manifold Filtration System
  - 96 and 384-well Protein Crash Filter Plates
  - **SpeedyBead<sup>™</sup> 96-Well Bead Dropper**
  - **EquaVAP<sup>®</sup> Blowdown Evaporators**
  - **DBS – Dried Blood Spot Card Punch**
  - **SiliGuard<sup>™</sup> Low-bind Surface Coating**
  - Thermal Transfer Plates
  - Thermal Transfer Decks
  - PTFE Reservoirs
  - Multi-Inlet Waste Manifold

##### Other chromatography-related products offered:

- HPLC/LC-MS columns: Wide selection of hardware and sorbents available for analytical, narrow-bore, microbore, prep and semi-prep applications
- Direct-connect columns
- Sample and solvent preparation products
- Automated valves for injection, selection and switching
- Fluidic transfer products, tubing and fittings
- Replacement pump parts and detector lamps
- 96 and 384-well collection plates, glass inserts, cap mats and films
- Solid-phase extraction products

Analytical Sales & Services also specializes in Custom Product Design, Manufacturing and Development

# Table of Contents

<b>New Products</b>		<b>1</b>
<b>Collection Plates</b>	96-Well Collection Plates: 6 • 384-Well Collection Plates: 18 PCR: 20 • Reservoirs: 23 • 96-Well Glass and PP Inserts: 26	<b>4</b>
<b>Collection Plate Accessories</b>	EquaVAP <sup>®</sup> : 34	<b>34</b>
<b>Blood Collection</b>	DBS Card Punch: 40	<b>40</b>
<b>Sample Filtration</b>	Protein Crash Plates: 42 384-Well Filter Plates: 43 • SPE Plates: 44	<b>41</b>
<b>Para-dox<sup>®</sup> Reaction Blocks</b>	Aluminum Reaction Blocks: 48 • TCR: 50	<b>48</b>
<b>Lumidox<sup>®</sup> II Photon Generation Devices</b>		<b>66</b>
<b>Electrochemistry</b>	HTE-Chem: 78 • Flow Electrolysis: 80	<b>78</b>
<b>Temperature Control</b>	Column Heaters: 82 • Thermal Transfer: 87	<b>82</b>
<b>HPLC &amp; LC/MS Columns</b>		<b>88</b>
<b>Fluidic Transfer</b>	Tubing: 94 • FlexChrom <sup>®</sup> : 96 • Solvent Filters: 112	<b>94</b>
<b>Injection &amp; Switching</b>	Infusion Kits & Syringes: 114 • Sample Loops: 115 Automatic Switching Valves: 117	<b>114</b>
<b>Flow Splitters &amp; Mixers</b>		<b>120</b>
<b>Solvent Safety Products</b>	Canary-Safe <sup>™</sup> Mobile Phase Bottle Safety Caps: 124 Safety Waste Caps: 126 • Sentinel <sup>™</sup> Alarm System: 130	<b>124</b>
<b>Vials &amp; Vial Storage</b>		<b>132</b>
<b>Index</b>		<b>142</b>





**Don't Get Stuck with Your Guard Down!**

- Unique SiliGuard™ Treatment
- Reduces Non-Specific Binding
- Great for Sticky Compounds
- Low Protein/Peptide Binding
- As a Service, SiliGuard can be Applied to All Polypropylene Products such as Collection Plates, HPLC Vials, Micro-centrifuge Tubes and even Pipette Tips!

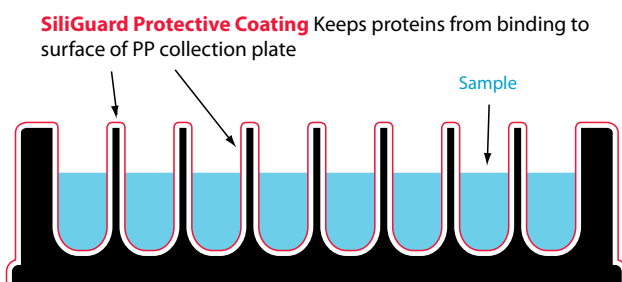


Get the most from your samples. SiliGuard™ is a **Low Bind** surface coating which helps prevent compounds from sticking to polypropylene surfaces.

**96-Well Collection Plates with SiliGuard**

Cat. No.	Description	Volume	Qty
96355GC	U-Shaped Bottom, 96-Well Collection Plate w/ SiliGuard	355µL	25
96340GC	V-Shaped Bottom, 96-Well Collection Plate w/ SiliGuard	340µL	25
96390GC	Flat Bottom, 96-Well Collection Plate w/ SiliGuard	390µL	25
96065GC	V-Shaped Deep, 96-Well Collection Plate w/ SiliGuard	650µL	50
968810GC	TrueTaper 96-Well Collection Plate w/ SiliGuard	1mL	25
17P687GC	Round Top/Bottom 96-Well Collection Plate w/ SiliGuard	1mL	20
17P557GC	Clear-Vu™ Round Top/Bottom 96-Well Plate w/ SiliGuard	1mL	24
968820GC	TrueTaper 2mL, 96-Well Collection Plate w/ SiliGuard	2mL	25
59623-23GC	Square Top, V-Bottom, 96-Well Collection Plate w/ SiliGuard	2mL	10
27P687GC	Square Top/Round Bottom, 96-Well Collection Plate w/ SiliGuard	2mL	20
967720GC	Round Well/Round Bottom, 96-Well Collection Plate w/ SiliGuard	2mL	25

Additional SiliGuard plates are available



**Polypropylene Collection Plate with SiliGuard**

**PRODUCT NOTE:**

We also have the capability to Silanize glass products

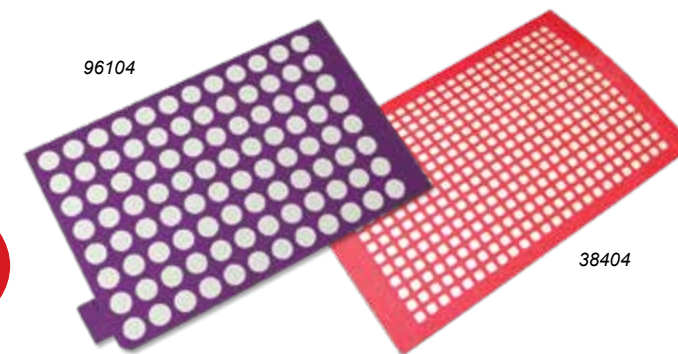
**Pattern Adhesive Resealable SILICONE Sealing Film**  
Ideal for: LC/MS, HPLC, qPCR, HTS, Organic Synthesis

- Pierceable Silicone Film for REDUCED EVAPORATION!
- Perfect Thickness of High Grade Silicone for Injections or Storage
- Adhesive-free Target Areas
- Easier to Use – NO DIMPLES!

- Excellent for Analytical Work flow**
- Superior resealability after multiple injections
  - No clogging or tearing
  - Film seals at -80°C to +120°C

- Excellent for Cell Biology Work flow**
- Gas permeable, moisture impermeable (reduces evaporation)
  - Optical transparency for fluorescence detection ( qPCR )
  - Product can be run on a gel or sequenced
  - -80°C long-term storage

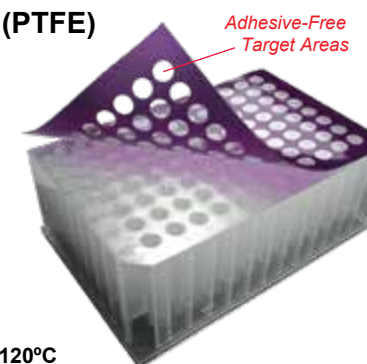
Cell culture gas permeability for Oxygen and CO2



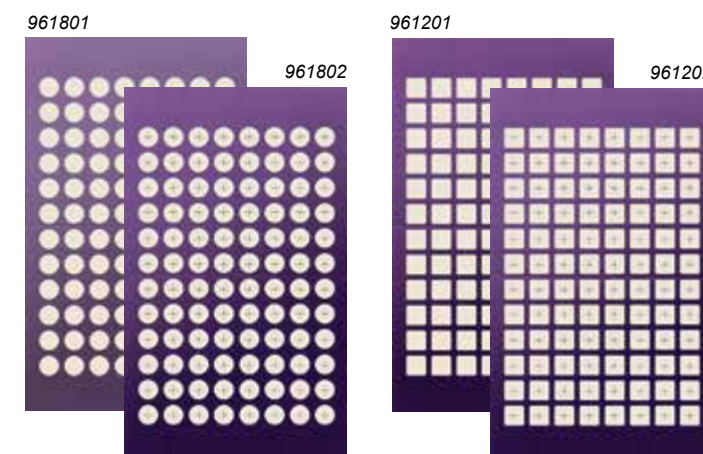
Cat. No.	Description	Well Shape	Qty
96104	96-Well, 10 mil Adhesive Silicone Sealing Film, Purple	○ Round	5
38404	348-Well, 10 mil Adhesive Silicone Sealing Film, Red	□ Square	5

**Pattern Adhesive Teflon® (PTFE) Sealing Films**

- Established & Proven**
- Superior Solvent Compatibility
  - Higher Chemical Resistance
  - Greater Tackiness
  - Compatible with Standard LCMS Solvents

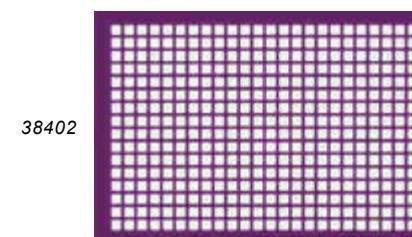


- Adhesive-free target areas
- Firm seal to microplate -80°C to +120°C
- Prevents cross-contamination and evaporation
- Outstanding performance for PCR applications
  - 40 cycles, hot lid at 100°C
- Outstanding performance with Autosamplers
  - Only 0.5 lb force needed to pierce
  - No coring of material
  - No clogging of needle
- Optically clear for inspection and diagnosis



**96-Well Pattern Teflon (PTFE) Adhesive Sealing Film**

Cat. No.	Description	Well Shape	Qty
961801	Teflon (PTFE) Adhesive Film, 96-Well Pattern, Ultra-thin, Purple	○ Round	100
961802	Pre-slit Teflon (PTFE) Adhesive Film, 96-Well Pattern, Ultra-thin, Purple	⊕ Round	100
961201	Teflon (PTFE) Adhesive Film, 96-Well Pattern, Ultra-thin, Purple	□ Square	100
961202	Pre-slit Teflon (PTFE) Adhesive Film, 96-Well Pattern, Ultra-thin, Purple	⊕ Square	100



**384-Well Pattern Teflon (PTFE) Adhesive Sealing Film**

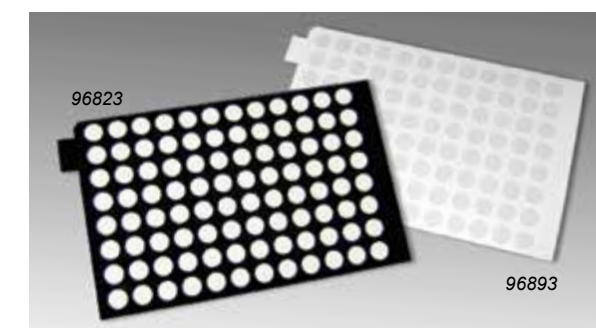
Cat. No.	Description	Well Shape	Qty
38402	Teflon (PTFE) Adhesive Film, 384-Well Pattern, Ultra-thin, Purple	□ Square	100
38402SL	Pre-slit Teflon Adhesive Film, 384-Well Pattern, Ultra-thin, Red	⊕ Square	100

**Pattern Adhesive PTFE (Teflon®) Sealing Films in White or Black**

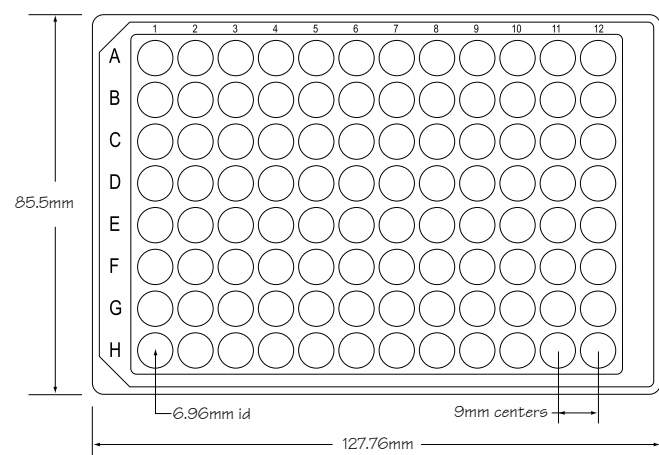
Outstanding solvent resistance including DMSO, aqueous mixture of isopropanol, ethanol, methanol and acetonitrile and superior chemical compatibility, with a firm seal at -80°C to +120°C.

Black adhesive has exceptional bond strength to low surface energy substrates such as polypropylene, outstanding water vapor and UV resistance, and superior chemical resistance, with a firm seal at -75°C to +125°C.

Cat. No.	Description	Well Shape	Qty
96893	Teflon (PTFE) Adhesive Film, 96-Well Pattern, White	○ Round	100
96823	Teflon (PTFE) Adhesive Film, 96-Well Pattern, Black	○ Round	100



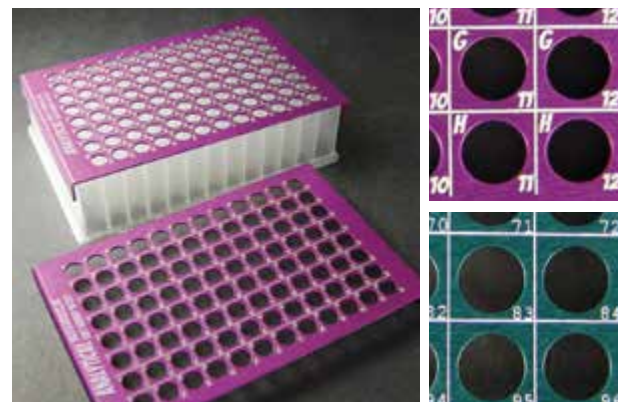




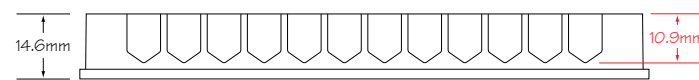
For more specifications on our collection plates, visit our website

### Numeric & Alpha-Numeric Templates

- Provides easy identification of each well
- Reusable – made of lightweight aluminum
- Low cost

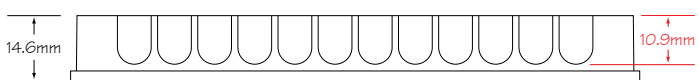


Cat. No.	Description	Qty
96T001	Alpha-numeric Template for 96-Well Collection Plates	Each
96T002	Numeric Template for 96-Well Collection Plates	Each



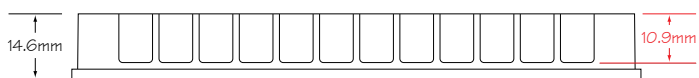
### Round Well with V-Shaped Bottoms - 340µL

Cat. No.	Description	Material	Color	Volume	Qty
96340	V-Shaped Bottom	PP	CLEAR	340µL	100
96340GC	V-Shaped Bottom with SiliGuard	PP	CLEAR	340µL	25



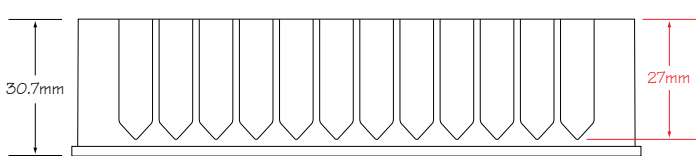
### Round Well with U-Shaped Bottoms - 355µL

Cat. No.	Description	Material	Color	Volume	Qty
96355	U-Shaped Bottom	PP	CLEAR	355µL	100
96355GC	U-Shaped Bottom with SiliGuard	PP	CLEAR	355µL	25



### Round Well with Flat Bottoms - 390µL

Cat. No.	Description	Material	Color	Volume	Qty
96390	Flat Bottom	PP	CLEAR	390µL	100
96390GC	Flat Bottom with SiliGuard	PP	CLEAR	390µL	25



### Round Well with Deep V-Shaped Bottoms - 650µL

Cat. No.	Description	Material	Color	Volume	Qty
96065	V-Shaped Deep	PP	CLEAR	650µL	50
96065GC	V-Shaped Deep with SiliGuard	PP	CLEAR	650µL	50

**PRODUCT TIP:**  
Additional shallow well geometries can be found with our PCR® plates, see page 20

### Resealable Silicone/PTFE Coated Cap Mats

- Compatible with all current autosampler needles
- No coring or cross talk
- Fits all standard 96-position blocks
- Reseals after multiple injections
- Pre-slit or non-pre-slit

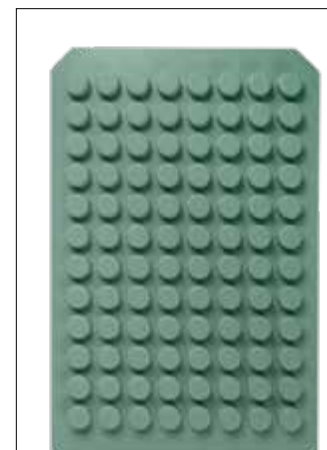


Cat No.	Color	Qty
965007	Purple	5

Ultra Thin Round Well, Soft Silicone/PTFE

Cat No.	Color	Qty
965075	Purple	5

Pre-Slit Ultra Thin Round Well, Soft Silicone/PTFE

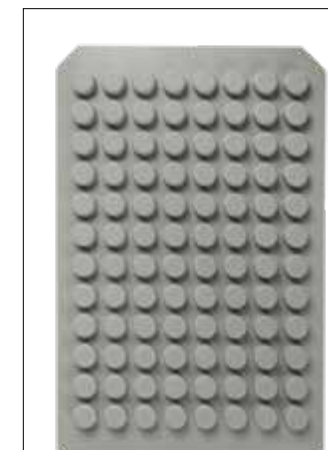


Cat No.	Color	Qty
963675	Green	5

Round Well, Silicone/PTFE (good for long-term storage at -80°C)

Cat No.	Color	Qty
963670	Green	5

Pre-Slit Round Well, Silicone/PTFE



Cat No.	Color	Qty
96FSS0	Gray	5

Round Well, Soft Silicone/PTFE, good with aggressive solvents and shaking

Cat No.	Color	Qty
96FPS0	Gray	5

Pre-Slit Round Well, Soft Silicone/PTFE, good with aggressive solvents



Cat No.	Color	Qty
964007	CLEAR	5

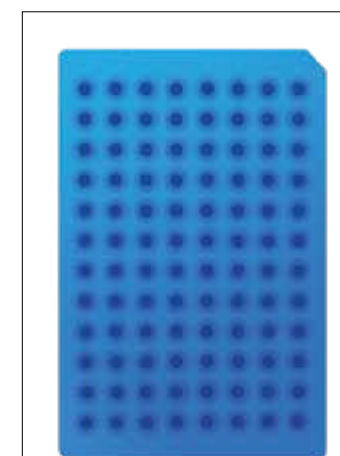
Ultra Thin Round Well, Soft Silicone/PTFE

Cat No.	Color	Qty
964075	CLEAR	5

Pre-Slit Ultra Thin Round Well, Soft Silicone/PTFE

### Thicker Resealable Silicone, PTFE Coated Cap Mats

- Use in Shimadzu autosamplers



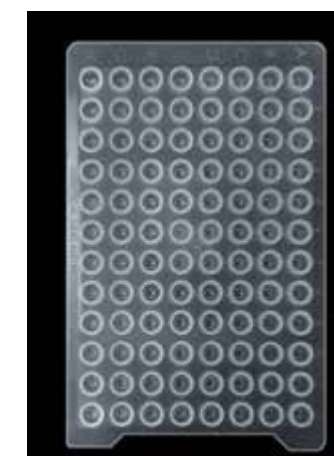
Cat No.	Color	Qty
967702	Blue	5

Round Well, Soft Silicone/PTFE, Better Suited for 2° - 8°C Autosampler Temperatures

Cat No.	Color	Qty
967701	Blue	5

Pre-Slit Round Well, Soft Silicone/PTFE

### Polypropylene Round Well Cap Mats



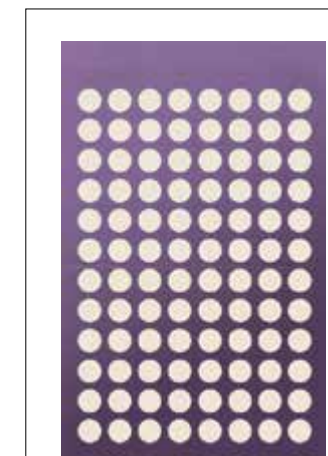
Cat No.	Color	Qty
96057	CLEAR	20

1mL Autosampler Compatible PP Cap Mat, Pierceable X on Surface

Cat No.	Color	Qty
96017	CLEAR	20

1mL PE Cap Mat, for Storage Only - up to 120°C

### Pattern Adhesive PTFE (Teflon®) Sealing Film (patented)



Cat No.	Color	Qty
961801	Purple	100

PTFE Adhesive Film, Round 96-Well Pattern, Ultra-thin

Cat No.	Color	Qty
961802	Purple	100

Pre-Slit PTFE Adhesive Film, Round 96-Well, Ultra-thin

### Pattern Adhesive Resealable Silicone Sealing Film (patented)



Cat No.	Color	Qty
96104	Purple	5

Round 96-Well Adhesive Resealable SILICONE Sealing Film

Refer to page 5 for Sealing Film Details



# Collection Plates

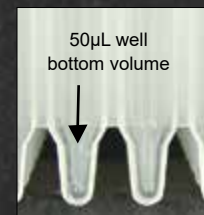
TRUETAPER® COLLECTION PLATES – 1ML



**TrueTaper**  
COLLECTION PLATES

## 1mL TrueTaper®

96-Well Polypropylene Collection Plate



- 50µL tapered bottom volume
- 1.0mL total volume capacity
- Round well with unique tapered bottom for maximum sample recovery
- See Tech Note Below

Available with



968810

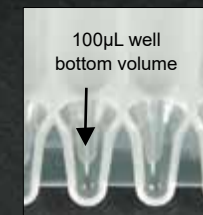
# Collection Plates

TRUETAPER® COLLECTION PLATES - 2ML

**TrueTaper**  
COLLECTION PLATES

## 2mL TrueTaper®

96-Well Polypropylene Collection Plate

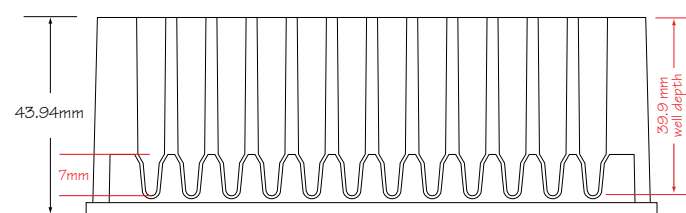


- 100µL tapered bottom volume
- 2.0mL total volume capacity
- Square well with unique tapered bottom for maximum sample recovery
- See Tech Note on Page 8

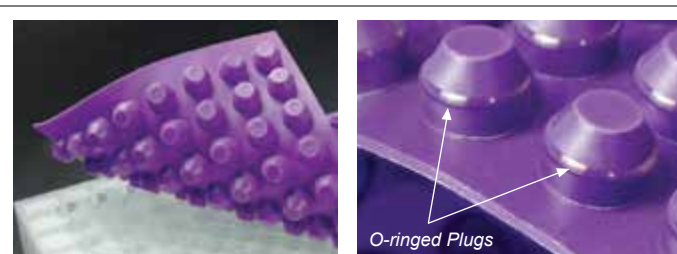
Available with



968820



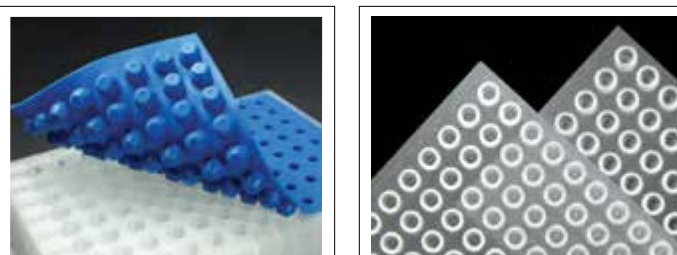
### O-Ringed Purple Silicone Cap Mats for 1mL TrueTaper Collection Plates



- Unique O-ringed Plugs
- Holds Seal with Vigorous Vortexing
- No Crosstalk
- Autosampler Compatible

Cat No.	Color	Qty	Cat No.	Color	Qty
960181	Purple	5	960185	Purple	5
Silicone/PTFE Cap Mat, Round Well for 1mL TrueTaper Plate			Pre-Slit Silicone/PTFE Cap Mat, Round Well for 1mL TrueTaper Plate		

### Standard Silicone Cap Mats for 1mL TrueTaper Collection Plates and 1mL Tapered Vials



Cat No.	Color	Qty	Cat No.	Color	Qty
99890	Blue	5	99685	CLEAR	5
Pre-Slit Opaque Silicone/PTFE Cap Mat, Round Well			Silicone/PTFE Cap Mat, Round Well		
			99690	CLEAR	5
			Pre-Slit Silicone/PTFE Cap Mat, Round Well		

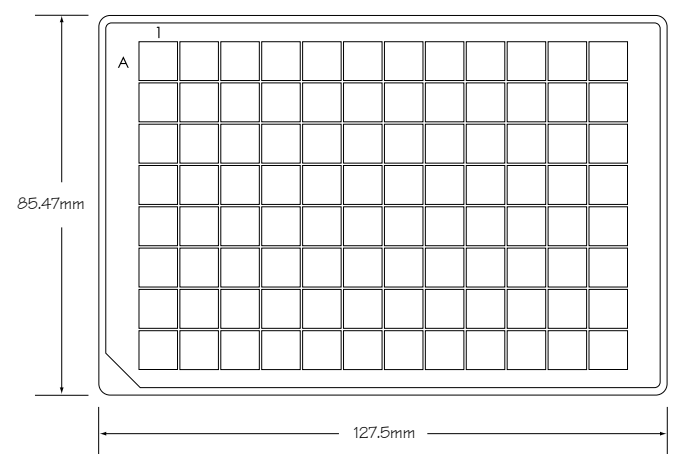
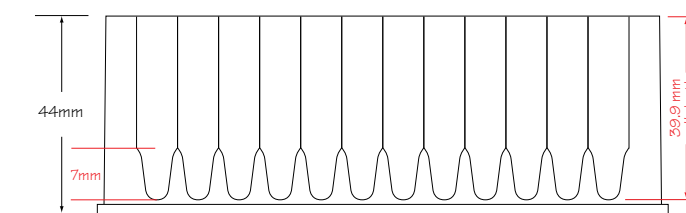
Cat. No.	Description	Volume	Qty
968820	2mL TrueTaper Collection Plate	100µL bottom/2.0mL total	25
968820GC	2mL TrueTaper with SiliGuard	100µL bottom/2.0mL total	25

### Black TrueTaper - for Light Sensitive Compounds

Cat. No.	Description	Volume	Qty
968820BL	2mL TrueTaper, Black	100µL bottom/2.0mL total	25

### Resealable Silicone/PTFE Coated Cap Mats

Cat No.	Color	Qty	Cat No.	Color	Qty
965008	Purple	5	963725	Green	5
Ultra Thin Square Well, Soft Silicone/PTFE			Square Well, Silicone/PTFE (good for long-term storage at -80°C)		
965085	Purple	5	963724	Green	5
Pre-Slit Ultra Thin Square Well, Soft Silicone/PTFE			Pre-Slit Square Well, Silicone/PTFE		



Cat. No.	Description	Volume	Qty
968810	1mL TrueTaper 96-Well Collection Plate	50µL bottom/1.0mL total	25
968810GC	1mL TrueTaper 96-Well Collection Plate with SiliGuard	50µL bottom/1.0mL total	25

#### TECH NOTE:



Higher meniscus provides reduced dead volume, easier liquid/liquid extraction and slower evaporation rate.

### Thicker Resealable Cap Mats

Cat No.	Color	Qty
964008	CLEAR	5
Ultra Thin Square Well, Soft Silicone/PTFE		
964085	CLEAR	5
Pre-Slit Ultra Thin Square Well, Soft Silicone/PTFE		
968802	Blue	5
Square Well, Soft Silicone/PTFE		
968801	Blue	5
Pre-Slit Square, Soft Silicone/PTFE		

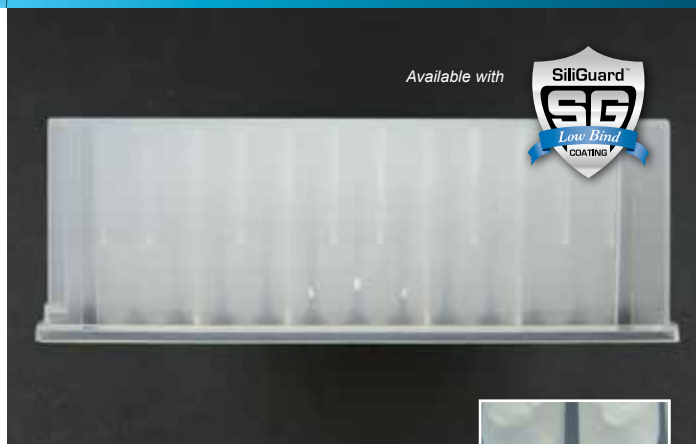
### Polypropylene Cap Mats

Cat No.	Color	Qty
2726	CLEAR	20
Square, Pierceable 'X' in Each Well, PP		
3726	CLEAR	24
Square, PP, Long Term Storage		



# Collection Plates

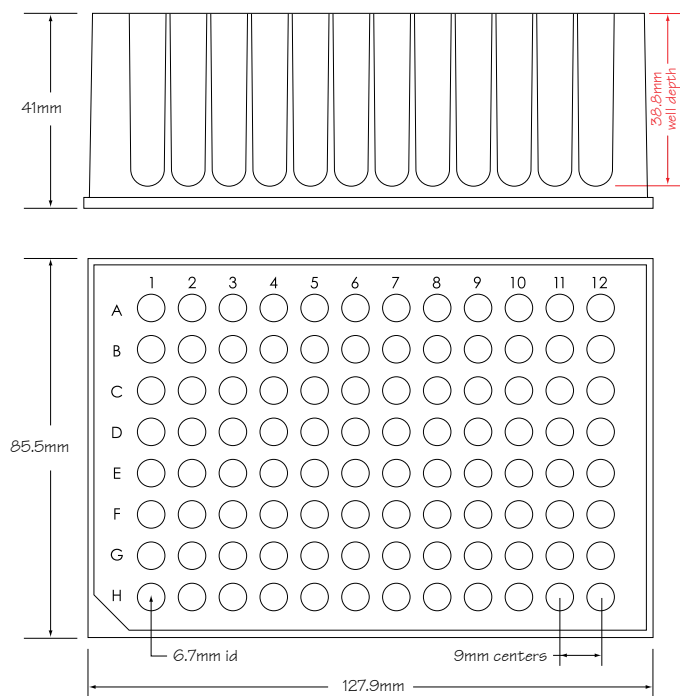
## ADVANTAGE™ 1mL 96-Well Collection Plates – Round Well



### Advantage™ Standard 1mL Collection Plates with Round Wells & Round Bottoms

- High quality, solvent resistant polypropylene
- Industry standard
- Distinct alphanumeric designation
- Compatible with all robotic systems

Cat. No.	Description	Volume	Qty
17P687	Round Well/Round Bottom	1mL	20
17P687GC	Round Well/Bottom with SiliGuard	1mL	20



# Collection Plates

## ADVANTAGE™ 1mL 96-Well Collection Plates - Round Well

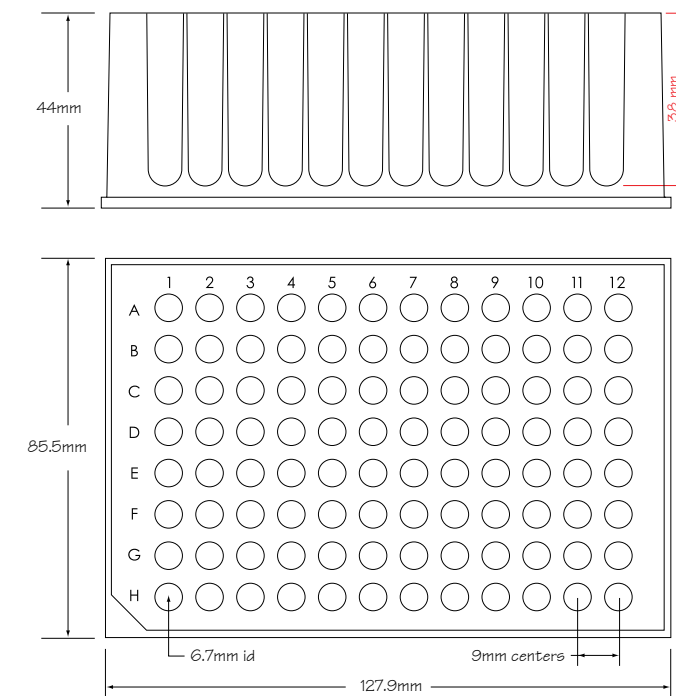


### Old Favorite - New Design! Ultra-clear Polypropylene Collection Plate

### Advantage™ Standard 1mL Collection Plates with Round Wells & Round Bottoms

Cat. No.	Description	Volume	Qty
17P687Z	Round Well/Round Bottom	1mL	20
17P687ZGC	Round Well/Bottom w/ SiliGuard	1mL	20

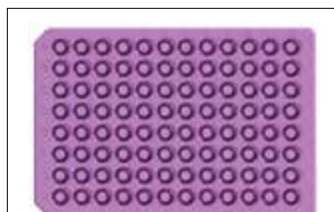
Sterilized plates are available upon request



### TECH NOTE:

Configure in Agilent 1100 Autosampler: "96 DeepAgilent 4.1mm"

### Resealable Silicone/PTFE Coated Round Well Cap Mats

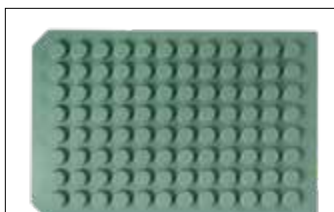


Cat No.	Color	Qty
965007	Purple	5

Ultra Thin Round Well, Soft Silicone/PTFE

Cat No.	Color	Qty
965075	Purple	5

**Pre-Slit** Ultra Thin Round Well, Soft Silicone/PTFE

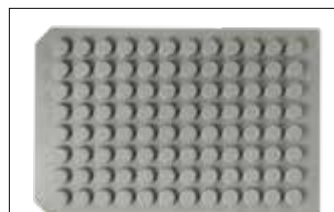


Cat No.	Color	Qty
963675	Green	5

Round Well, Silicone/PTFE (**good for long-term storage at -80°C**)

Cat No.	Color	Qty
963670	Green	5

**Pre-Slit** Round Well, Silicone/PTFE



Cat No.	Color	Qty
96FSS0	Gray	5

Soft Silicone/PTFE, **good with aggressive solvents and shaking**

Cat No.	Color	Qty
96FPSO	Gray	5

**Pre-Slit** Round Well, Soft Silicone/PTFE, **good w/ aggressive solvents**



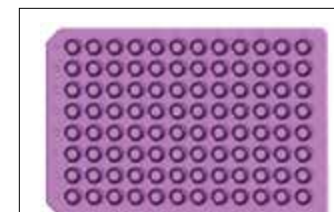
Cat No.	Color	Qty
964007	CLEAR	5

Ultra Thin Round Well, Soft Silicone/PTFE

Cat No.	Color	Qty
964075	CLEAR	5

**Pre-Slit** Ultra Thin Round Well, Soft Silicone/PTFE

### Resealable Silicone/PTFE Coated Round Well Cap Mats



Cat No.	Color	Qty
965007	Purple	5

Ultra Thin Round Well, Soft Silicone/PTFE

Cat No.	Color	Qty
965075	Purple	5

**Pre-Slit** Ultra Thin Round Well, Soft Silicone/PTFE

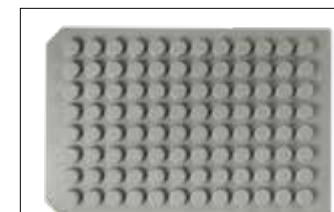


Cat No.	Color	Qty
963675	Green	5

Round Well, Silicone/PTFE (**good for long-term storage at -80°C**)

Cat No.	Color	Qty
963670	Green	5

**Pre-Slit** Round Well, Silicone/PTFE



Cat No.	Color	Qty
96FSS0	Gray	5

Soft Silicone/PTFE, **good with aggressive solvents and shaking**

Cat No.	Color	Qty
96FPSO	Gray	5

**Pre-Slit** Round Well, Soft Silicone/PTFE, **good w/ aggressive solvents**



Cat No.	Color	Qty
964007	CLEAR	5

Ultra Thin Round Well, Soft Silicone/PTFE

Cat No.	Color	Qty
964075	CLEAR	5

**Pre-Slit** Ultra Thin Round Well, Soft Silicone/PTFE

### Thicker Resealable Cap Mats



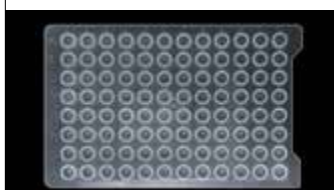
Cat No.	Color	Qty
967702	Blue	5

Soft Silicone/PTFE, Better Suited for 2° - 8°C Autosampler Temperatures

Cat No.	Color	Qty
967701	Blue	5

**Pre-Slit**, Round, Soft Silicone/PTFE

### Polypropylene Round Cap Mats



Cat No.	Color	Qty
96057	CLEAR	20

PP, Pierceable 'X' in Each Well

Cat No.	Color	Qty
96017	CLEAR	20

for Storage Only - up to 120°C

### Beige Rubber Cap Mats



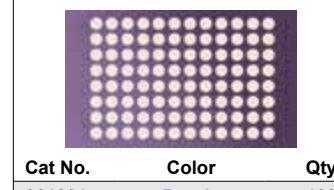
Cat No.	Color	Qty
96230	Beige	5

Beige Rubber Cap Mat, Round Well, **Reduced Evaporation**

Cat No.	Color	Qty
96235	Beige	5

**Pre-Slit** Beige Rubber Cap Mat, Round

### Pattern Adhesive Sealing Film



Cat No.	Color	Qty
961801	Purple	100

PTFE Adhesive Film, Ultra-thin, Round

Cat No.	Color	Qty
961802	Purple	100

**Pre-Slit** PTFE Adh. Film, Round

96104 Purple 5  
Round 96-Well Adhesive **Resealable** Silicone Sealing Film

**Pre-Slit**, Round, Soft Silicone/PTFE

### Thicker Resealable Cap Mats



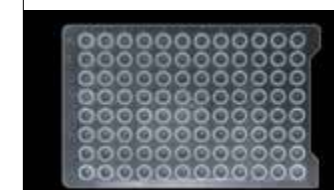
Cat No.	Color	Qty
967702	Blue	5

Soft Silicone/PTFE, Better Suited for 2° - 8°C Autosampler Temperatures

Cat No.	Color	Qty
967701	Blue	5

**Pre-Slit**, Round, Soft Silicone/PTFE

### Polypropylene Round Cap Mats



Cat No.	Color	Qty
96057	CLEAR	20

PP, Pierceable 'X' in Each Well

Cat No.	Color	Qty
96017	CLEAR	20

for Storage Only - up to 120°C

### Beige Rubber Cap Mats



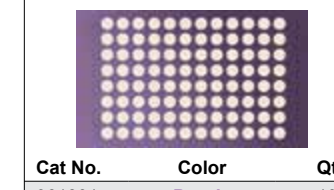
Cat No.	Color	Qty
96230	Beige	5

Beige Rubber Cap Mat, Round Well, **Reduced Evaporation**

Cat No.	Color	Qty
96235	Beige	5

**Pre-Slit** Beige Rubber Cap Mat, Round

### Pattern Adhesive Sealing Film



Cat No.	Color	Qty
961801	Purple	100

PTFE Adhesive Film, Ultra-thin, Round

Cat No.	Color	Qty
961802	Purple	100

**Pre-Slit** PTFE Adh. Film, Round

96104 Purple 5  
Round 96-Well Adhesive **Resealable** Silicone Sealing Film

**Pre-Slit**, Round, Soft Silicone/PTFE

See page 5 for Sealing Film Details

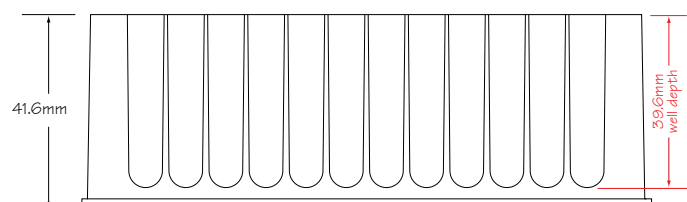
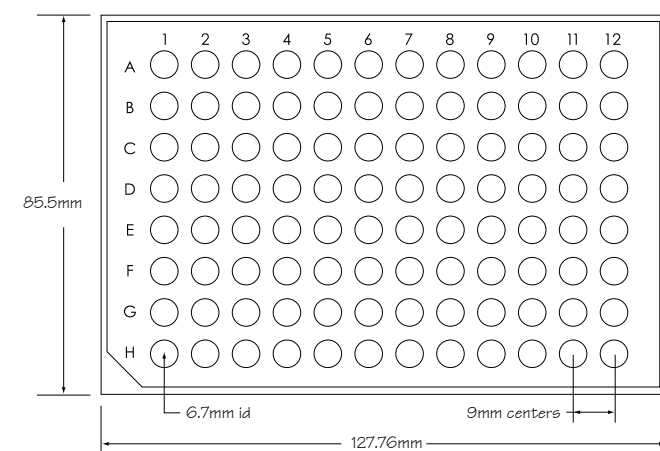
See page 5 for Sealing Film Details



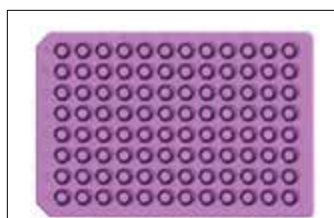
### Advantage™ Clear-Vu™ 1mL Polypropylene Collection Plates with Round Well & Round Bottom

• See-through polypropylene

Cat. No.	Description	Color	Volume	Qty
17P557	Round Well/Round Bottom	CLEAR	1mL	24
17P557GC	Round Well/Bottom w SiliGuard	CLEAR	1mL	24



### Resealable Silicone/PTFE Coated Round Well Cap Mats

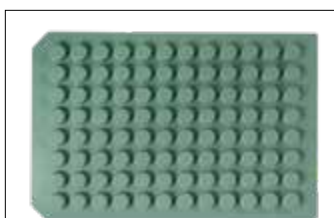


Cat No.	Color	Qty
965007	Purple	5

Ultra Thin Round Well, Soft Silicone/PTFE

Cat No.	Color	Qty
965075	Purple	5

**Pre-Slit** Ultra Thin Round Well, Soft Silicone/PTFE

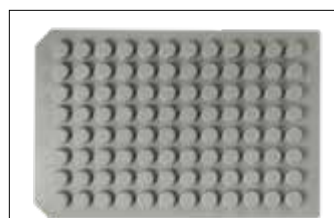


Cat No.	Color	Qty
963675	Green	5

Round Well, Silicone/PTFE (good for long-term storage at -80°C)

Cat No.	Color	Qty
963670	Green	5

**Pre-Slit** Round Well, Silicone/PTFE



Cat No.	Color	Qty
96FSS0	Gray	5

Soft Silicone/PTFE, good with aggressive solvents and shaking

Cat No.	Color	Qty
96FPSO	Gray	5

**Pre-Slit** Round Well, Soft Silicone/PTFE, good w/ aggressive solvents



Cat No.	Color	Qty
964007	CLEAR	5

Ultra Thin Round Well, Soft Silicone/PTFE

Cat No.	Color	Qty
964075	CLEAR	5

**Pre-Slit** Ultra Thin Round Well, Soft Silicone/PTFE

### Thicker Resealable Cap Mats



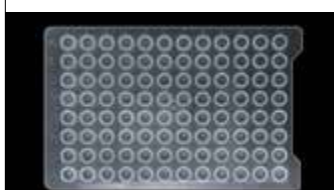
Cat No.	Color	Qty
967702	Blue	5

Soft Silicone/PTFE, Better Suited for 2° - 8°C Autosampler Temperatures

Cat No.	Color	Qty
967701	Blue	5

**Pre-Slit**, Round, Soft Silicone/PTFE

### Polypropylene Round Cap Mats



Cat No.	Color	Qty
96057	CLEAR	20

PP, Pierceable 'X' in Each Well

Cat No.	Color	Qty
96017	CLEAR	20

for Storage Only - up to 120°C

### Beige Rubber Cap Mats



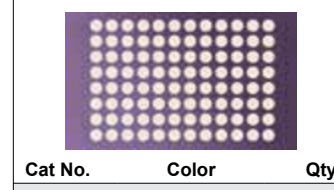
Cat No.	Color	Qty
96230	Beige	5

Beige Rubber Cap Mat, Round Well, Reduced Evaporation

Cat No.	Color	Qty
96235	Beige	5

**Pre-Slit** Beige Rubber Cap Mat, Round

### Pattern Adhesive Sealing Film



Cat No.	Color	Qty
961801	Purple	100

PTFE Adhesive Film, Ultra-thin, Round

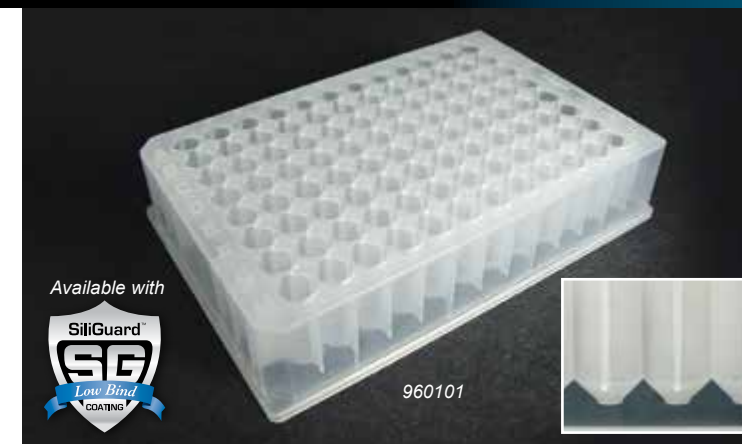
Cat No.	Color	Qty
961802	Purple	100

**Pre-Slit** PTFE Adh. Film, Round

Cat No.	Color	Qty
96104	Purple	5

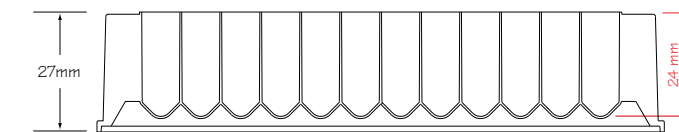
Round 96-Well Adhesive Resealable Silicone Sealing Film

See page 5 for Sealing Film Details

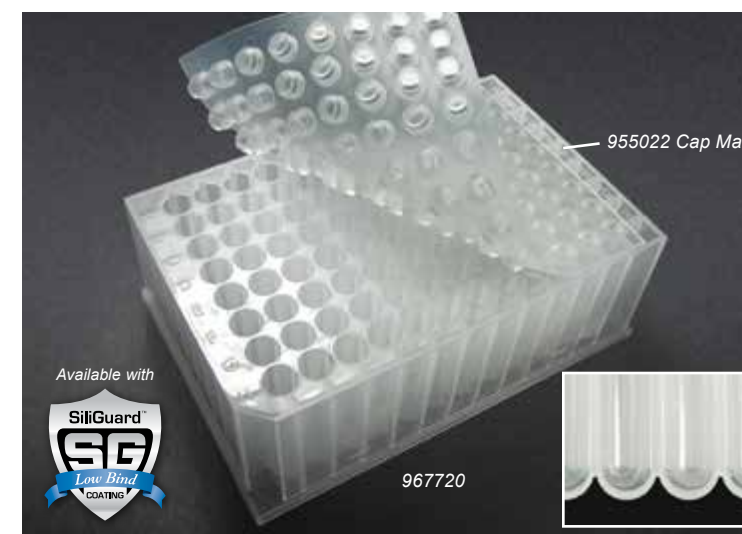


### Advantage™ 1mL Half-Height 96-Well Collection Plate

Cat. No.	Description	Volume	Qty
960101	Half-Height, Round Well, Shallow V-Bottom	1mL	32
960101GC	Half-Height, Round Well, Shallow V-Bottom w/ SiliGuard	1mL	32

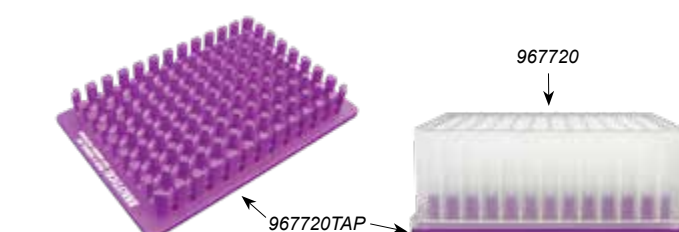
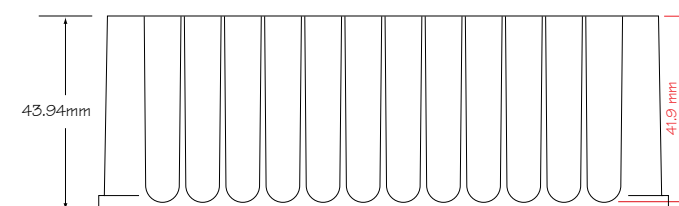


Use with Cap Mats 955011, 955022, 966011 or 966022 (see below for details)



### 2mL Round Well/Round Bottom Collection Plate

Cat. No.	Description	Volume	Qty
967720	2mL Round Well/Round Bottom 96-Well Collection Plate	2mL	25
967720GC	2mL Round Well/Round Bottom w/ SiliGuard	2mL	25



### Thermal Adapter Plate

For use with 967720 collection plate. Conforms to the bottom shape of the collection plate wells to ensure uniform thermal transfer for heating and cooling. See page 39 for more information.

Cat. No.	Description	Qty
967720TAP	Thermal Adapter Plate for 967720 PP Collection Plate	Each

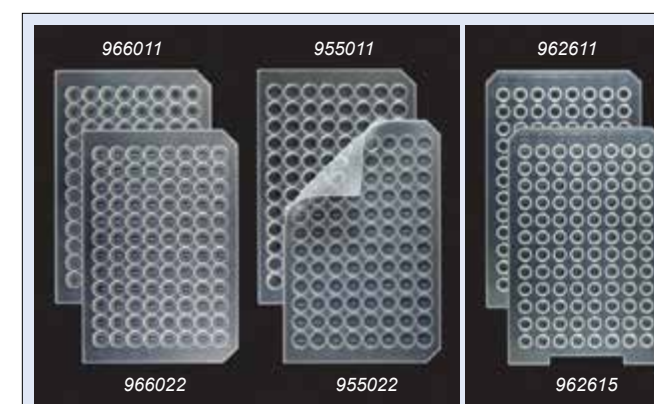
### Specialty Round 96-Well Silicone/PTFE Cap Mats

Used on Axygen and Nunc™ Collection Plates

Cat. No.	Description	Qty
955011	Silicone/PTFE Cap Mat, Shallow Plug, Wider Surface Area	5
955022	<b>Pre-Slit</b> Silicone/PTFE Cap Mat, Shallow Plug, Wider Surface Area	5
966011	Silicone/PTFE Cap Mat, Deeper Plug, Thicker	5
966022	<b>Pre-Slit</b> Silicone/PTFE Cap Mat, Deeper Plug, Thicker	5

Used on Waters® 1mL, Costar® and VWR Collection Plates

Cat. No.	Description	Qty
962611	Clear Silicone/PTFE Cap Mat for Low Profile Collection Plates	5
962615	<b>Pre-Slit</b> Clear Silicone/PTFE Cap Mat for Low Profile Collection Plates	5







- 100µL tapered bottom volume
- 2.0mL total volume capacity
- Square well with tapered bottom for maximum sample recovery
- See Tech Note on Page 8

Cat. No.	Description	Volume	Qty
968820	2mL TrueTaper Collection Plate	100µL bottom/2.0mL total	25
968820GC	2mL TrueTaper with SiliGuard	100µL bottom/2.0mL total	25

### Black TrueTaper - for Light Sensitive Compounds

Cat. No.	Description	Volume	Qty
968820BL	2mL TrueTaper, Black	100µL bottom/2.0mL total	25

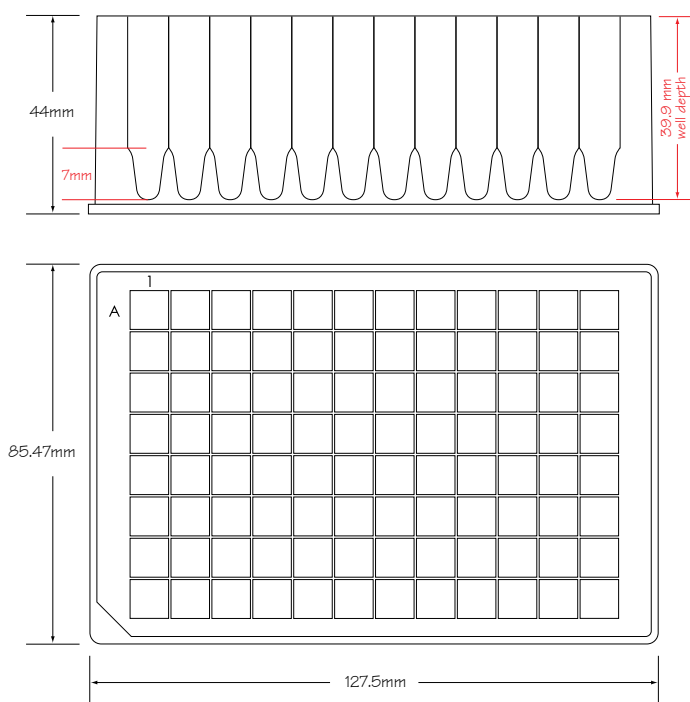


### Advantage™ 2mL 96-Well Collection Plates Square Well with V-Shaped Bottom

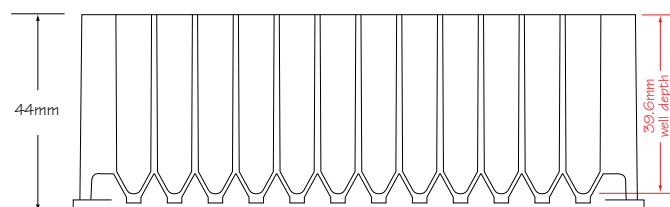
Cat. No.	Description	Material	Volume	Qty
59623-23	Square Top, V-Bottom Collection Plate	PP	2mL	10
59623-23GC	Square Top, V-Bottom w/ SiliGuard	PP	2mL	10
59623-23BK	BLACK Square Top, V-Bottom	PP	2mL	10

### TrueTaper® COLLECTION PLATES

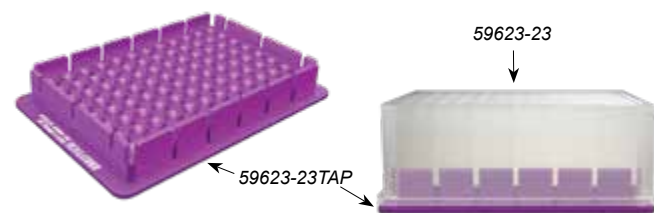
### 2mL TrueTaper® 96-Well Polypropylene Collection Plate



Use with these Cap Mats →



**TECH NOTE:**  
Part no. 59623-23 - Transition from square sides to cone bottom is sloped - NO FLAT LEDGES.



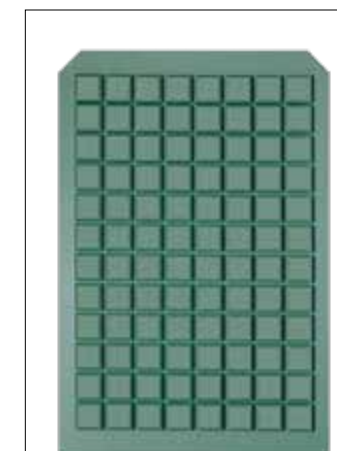
### Thermal Adapter Plate

For use with 59623-23 collection plate. Conforms to the bottom shape of the collection plate wells to ensure uniform thermal transfer for heating and cooling. See page 39 for more information.

Cat. No.	Description	Qty
59623-23TAP	Thermal Adapter Plate for 59623-23 PP Collection Plate	Each

### Resealable Silicone/PTFE Coated Cap Mats

- Compatible with all current autosampler needles
- No coring or cross talk
- Fits all standard 96-position blocks
- Reseals after multiple injections
- Pre-slit or non-pre-slit

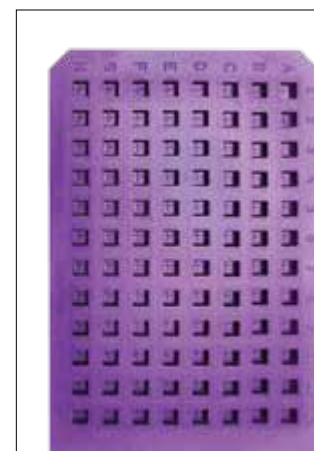


Cat No.	Color	Qty
963725	Green	5

Square Well, Silicone/PTFE (good for long-term storage at -80°C)

Cat No.	Color	Qty
963724	Green	5

Pre-Slit Square Well, Silicone/PTFE



Cat No.	Color	Qty
965008	Purple	5

Ultra Thin Square Well, Soft Silicone/PTFE

Cat No.	Color	Qty
965085	Purple	5

Pre-Slit Ultra Thin Square Well, Soft Silicone/PTFE



Cat No.	Color	Qty
964008	CLEAR	5

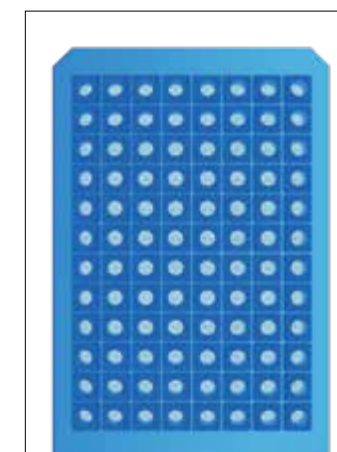
Ultra Thin Square Well, Soft Silicone/PTFE

Cat No.	Color	Qty
964085	CLEAR	5

Pre-Slit Ultra Thin Square Well, Soft Silicone/PTFE

### Thicker Resealable Silicone, PTFE Coated Cap Mats

- Use in Shimadzu autosamplers



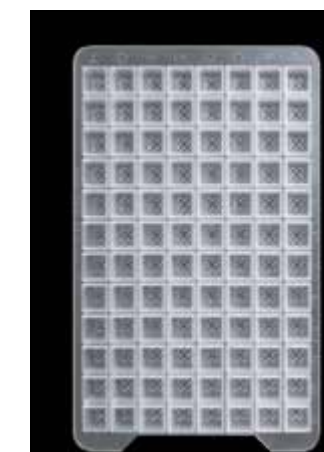
Cat No.	Color	Qty
968802	Blue	5

Square Well, Soft Silicone/PTFE, Better Suited for 2° - 8°C Autosampler Temperatures

Cat No.	Color	Qty
968801	Blue	5

Pre-Slit Square Well, Soft Silicone/PTFE

### Polypropylene Square Well Cap Mats



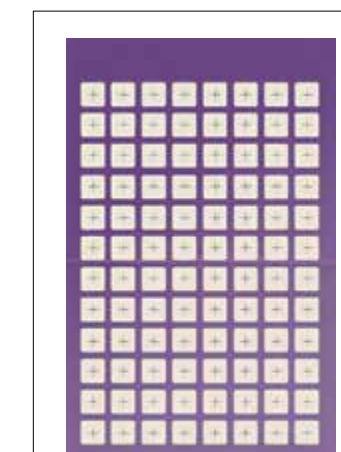
Cat No.	Color	Qty
2726	CLEAR	20

2mL Autosampler Compatible Square Cap Mat, Pierceable 'X' on Surface

Cat No.	Color	Qty
3726	CLEAR	24

2mL Square Cap Mat, Low Temp. (-80°), For Long Term Storage

### Pattern Adhesive PTFE Sealing Film (patented)



Cat No.	Color	Qty
961201	Purple	100

PTFE Adhesive Film, Square 96-Well Pattern, Ultra-thin

Cat No.	Color	Qty
961202	Purple	100

Pre-Slit PTFE Adhesive Film, Square 96-Well Pattern, Ultra-thin

### Rubber Roller

- Secures cap mat to plate



Cat No.	Qty
96400	Each

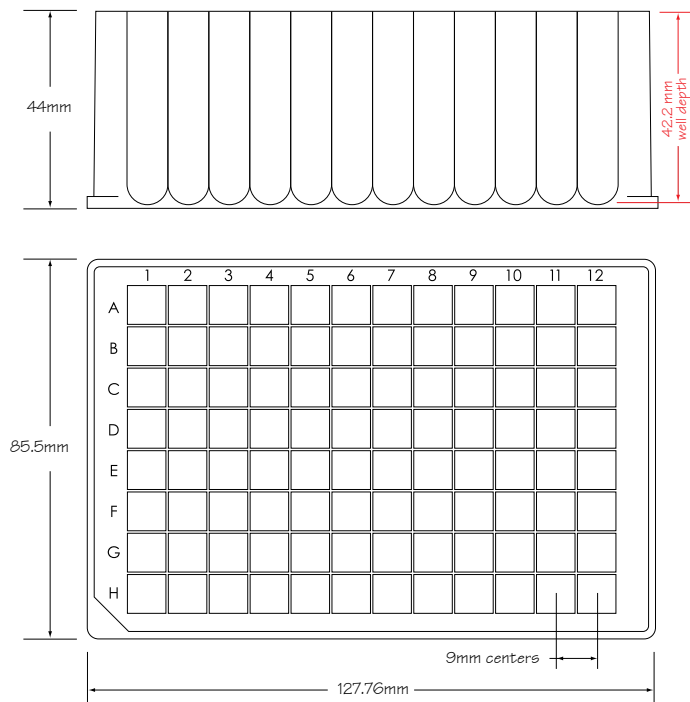
See page 5 for Sealing Film Details



### Advantage™ 2mL Polypropylene 96-Well Collection Plates Square Well with Round Bottom

Cat. No.	Description	Material	Volume	Qty
27P687	Square Top, Round Bottom Collection Plate	PP	2mL	20
27P687GC	Square Top, Round Bottom w/ SiliGuard	PP	2mL	20

Sterilized plates are available upon request



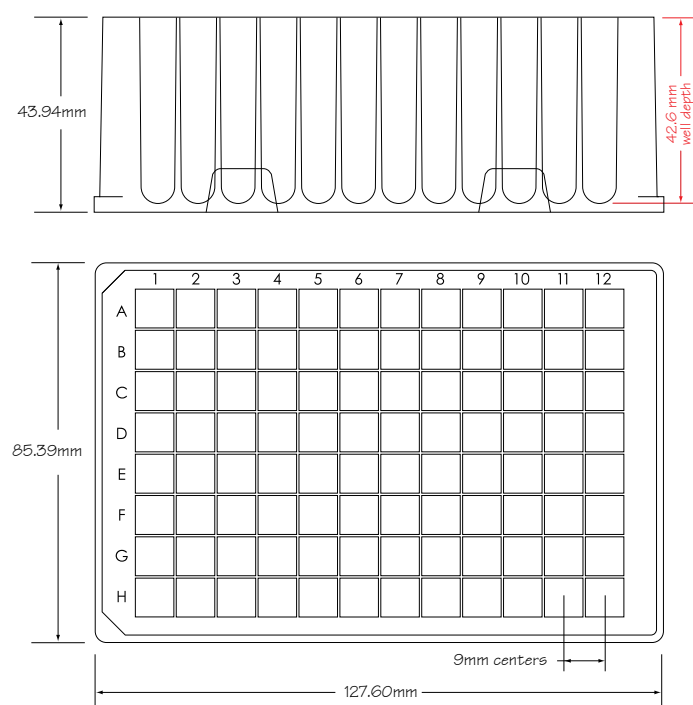
Use with these Cap Mats →



### Advantage™ Clear-Vu™ 2mL 96-Well Collection Plates Square Well with Round Bottom

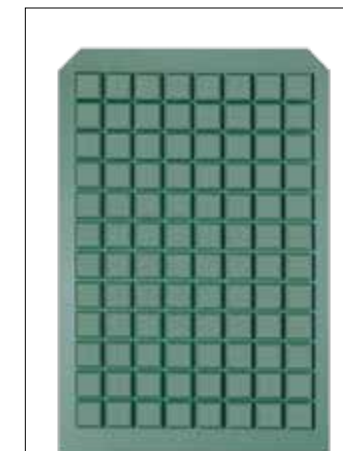
• See-through polypropylene

Cat. No.	Description	Color	Volume	Qty
27P557	Square Well, Round Bottom	CLEAR	2mL	24
27P557GC	Square Well, Round Bottom w/ SiliGuard	CLEAR	2mL	24



### Resealable Silicone/PTFE Coated Cap Mats

- Compatible with all current autosampler needles
- No coring or cross talk
- Fits all standard 96-position blocks
- Reseals after multiple injections
- Pre-slit or non-pre-slit

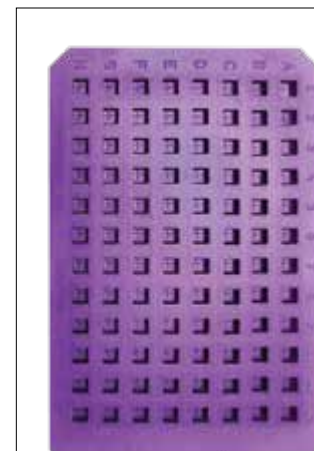


Cat No.	Color	Qty
963725	Green	5

Square Well, Silicone/PTFE (good for long-term storage at -80°C)

Cat No.	Color	Qty
963724	Green	5

Pre-Slit Square Well, Silicone/PTFE



Cat No.	Color	Qty
965008	Purple	5

Ultra Thin Square Well, Soft Silicone/PTFE

Cat No.	Color	Qty
965085	Purple	5

Pre-Slit Ultra Thin Square Well, Soft Silicone/PTFE



Cat No.	Color	Qty
964008	CLEAR	5

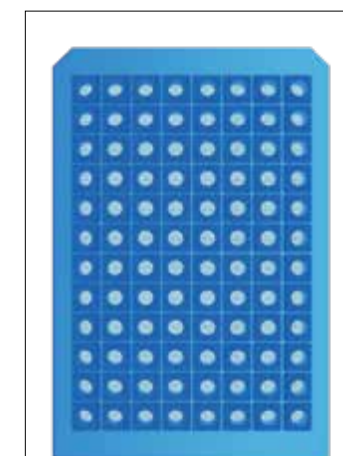
Ultra Thin Square Well, Soft Silicone/PTFE

Cat No.	Color	Qty
964085	CLEAR	5

Pre-Slit Ultra Thin Square Well, Soft Silicone/PTFE

### Thicker Resealable Silicone, PTFE Coated Cap Mats

- Use in Shimadzu autosamplers



Cat No.	Color	Qty
968802	Blue	5

Square Well, Soft Silicone/PTFE, Better Suited for 2° - 8°C Autosampler Temperatures

Cat No.	Color	Qty
968801	Blue	5

Pre-Slit Square Well, Soft Silicone/PTFE

### Polypropylene Square Well Cap Mats



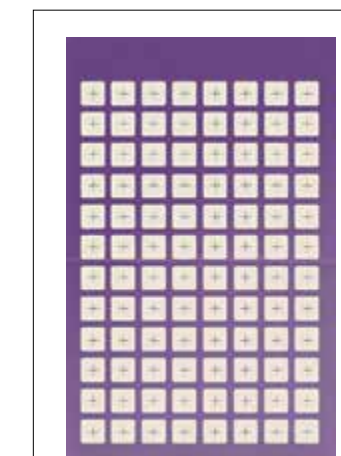
Cat No.	Color	Qty
2726	CLEAR	20

2mL Autosampler Compatible Square Cap Mat, Pierceable 'X' on Surface

Cat No.	Color	Qty
3726	CLEAR	24

2mL Square Cap Mat, Low Temp. (-80°), For Long Term Storage

### Pattern Adhesive PTFE Sealing Film (patented)



Cat No.	Color	Qty
961201	Purple	100

PTFE Adhesive Film, Square 96-Well Pattern, Ultra-thin

Cat No.	Color	Qty
961202	Purple	100

Pre-Slit PTFE Adhesive Film, Square 96-Well Pattern, Ultra-thin

### Rubber Roller

- Secures cap mat to plate



Cat No.	Qty
96400	Each

See page 5 for Sealing Film Details





### 384-Well Collection Plates – Square Well

Cat. No.	Description	Volume	Qty
38435	384-Well Collection Plate, Polypropylene, Clear Spherical Well Bottoms	58µL	60

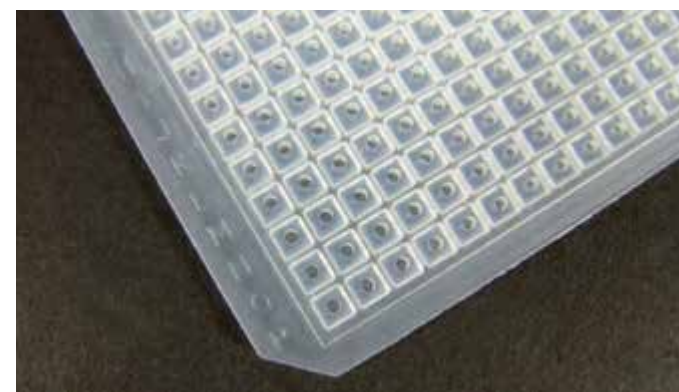
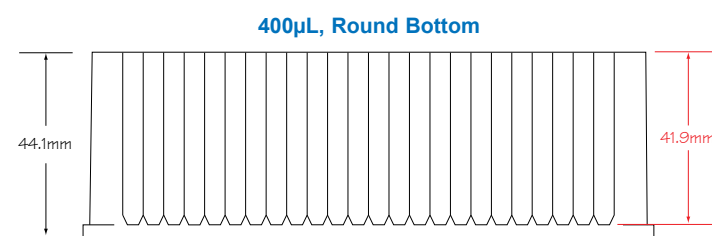
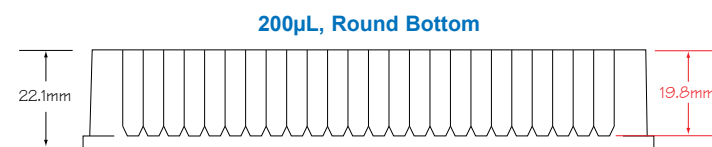
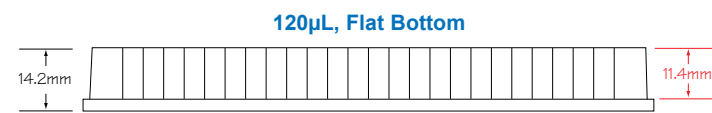
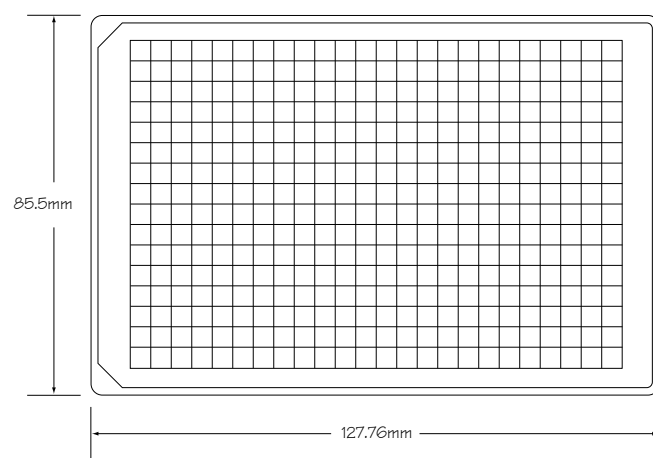
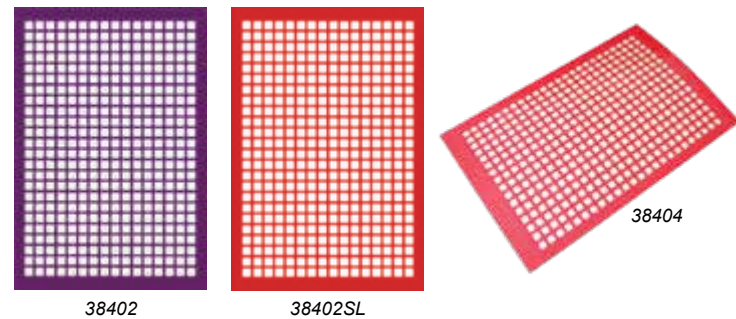
Cat. No.	Description	Volume	Qty
38120	384-Well Collection Plate, PP, Flat Bottom, Clear	120µL	24

Cat. No.	Description	Volume	Qty
38200	384-Well Collection Plate, PP, Round Bottom, Clear	200µL	24
38200B	384-Well Collection Plate, PP, Round Bottom, Blue	200µL	24
38200G	384-Well Collection Plate, PP, Round Bottom, Green	200µL	24
38200R	384-Well Collection Plate, PP, Round Bottom, Red	200µL	24
38200Y	384-Well Collection Plate, PP, Round Bottom, Yellow	200µL	24

Cat. No.	Description	Volume	Qty
38400	384-Well Collection Plate, PP, Round Bottom, Clear	400µL	24
38400B	384-Well Collection Plate, PP, Round Bottom, Blue	400µL	24
38400G	384-Well Collection Plate, PP, Round Bottom, Green	400µL	24
38400R	384-Well Collection Plate, PP, Round Bottom, Red	400µL	24
38400Y	384-Well Collection Plate, PP, Round Bottom, Yellow	400µL	24

### 384-Well Pattern Adhesive PTFE (Teflon®) Sealing Film

Cat. No.	Description	Qty
38402	384 Square Well Pattern Adhesive PTFE Sealing Film, Purple	100
38402SL	Pre-slit 384 Square Well Pattern Adhesive PTFE Sealing Film, Red	100
38404	384-Well, 10 mil Adhesive Silicone Sealing Film, Resealable, Red	5



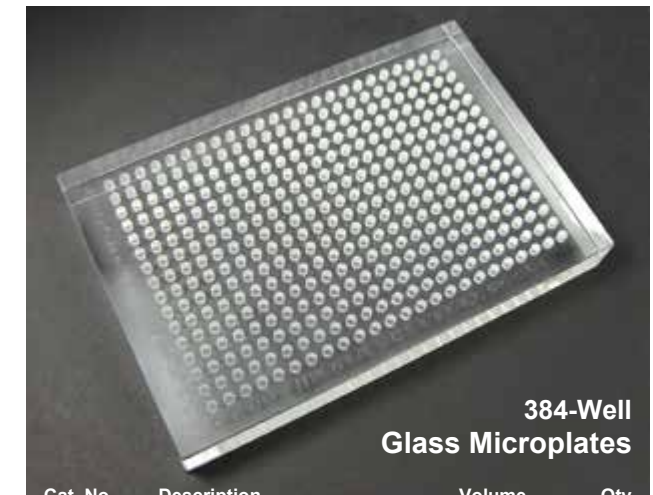
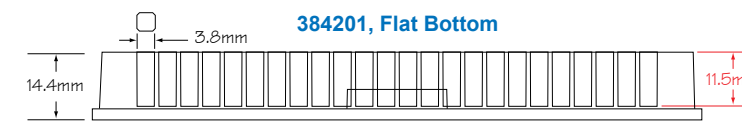
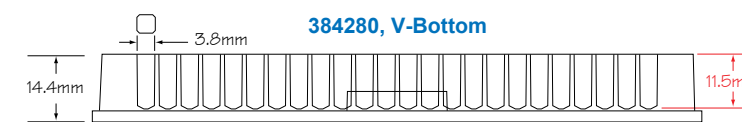
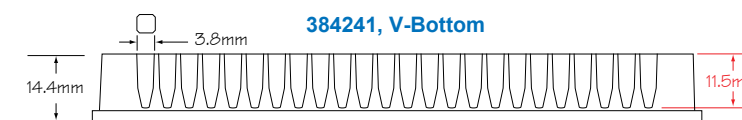
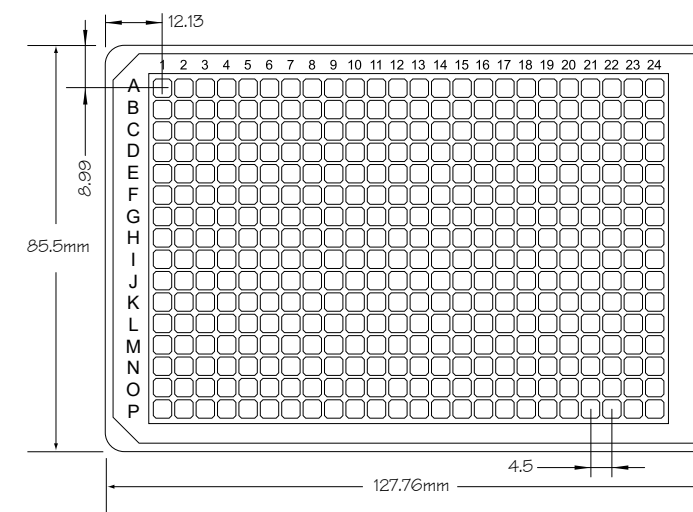
### 384-Well Soft Silicone Cap Mats & Accessories

Cat. No.	Description	Qty
96384	Molded Soft Silicone, 384-Well Square Well Cap Mat	5
96384SL	Molded Soft Silicone, 384-Well Pre-Slit Square Well Cap Mat	5
96400	4" Rubber Roller (Used to secure Cap Mat to Plate)	Each



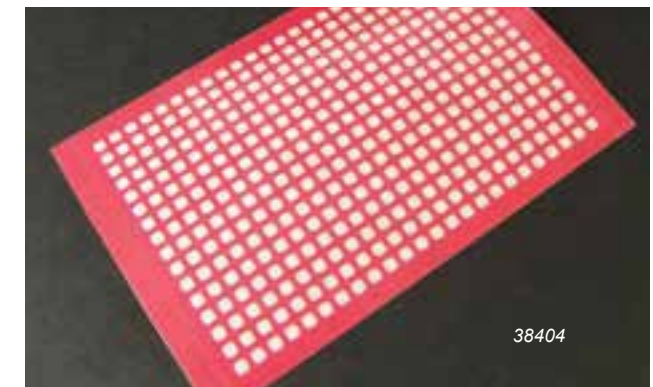
### 384-Well Collection Plates

Cat. No.	Description	Volume	Qty
384241	384-Well Collection Plate, V-Bottom, Polypropylene	1-90µL	100
384280	384-Well Collection Plate, V-Bottom, Polypropylene	13-120µL	100
384201	384-Well Collection Plate, Flat Bottom, Polypropylene	15-145µL	100



384-Well Glass Microplates

Cat. No.	Description	Volume	Qty
38499	384-Well Glass Microplate	24µL/Well	Each
38498	384-Well Glass Microplate	74µL/Well	Each

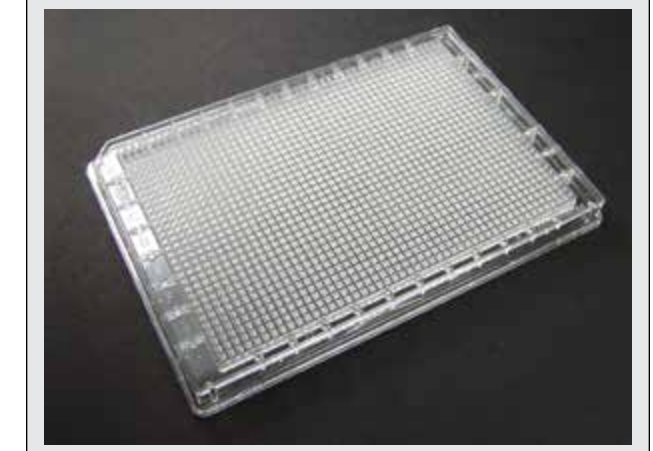


384-Well, 10 mil Adhesive Silicone Sealing Mat Gas Permeable, Breathable (Ideal for cell growth)

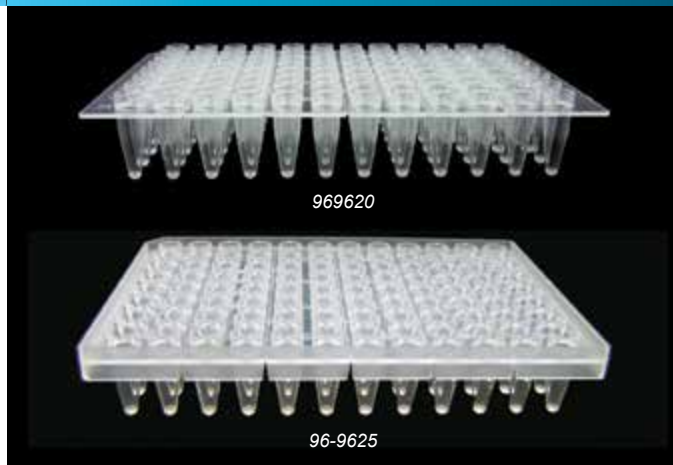
Cat. No.	Description	Qty
38404	384-Well Adhesive Sealing Mat, Silicone, 10 mil Thickness	5

### 1536-Well Collection Plates – Square Well

Cat. No.	Description	Qty
15020	Polypropylene, Square Top/Square Bottom, 20µL	60







### Raised Rim Thin Wall PCR Plates

- Ideal for automated pipetting systems
- Perfect rigidity for robotic handling
- Suited for high performance thermal cycling
- Easy sample recovery due to non-wettable surface



Cat. No.	Description	Qty
969620	Clear 250µL PCR Plate, 3mm Rim Around Each Well, Clear <i>(Alternative to Robbins Plate)</i>	100
969620B	Clear 250µL PCR Plate, 3mm Rim Around Each Well, <b>Blue</b>	100
969620Y	Clear 250µL PCR Plate, 3mm Rim Around Each Well, <b>Yellow</b>	100
96-9625	Clear 250µL PCR Plate, 3mm Rim Around Each Well, <i>(Alternative to Corning® Plate)</i>	100

### Thin Wall PCR Plates

- Each well has 0.2mL capacity
- Can be used with all leading thermal cyclers
- Thin Walled – Can Be Cut Into Sections



Cat. No.	Description	Qty
969610	Clear 200µL PCR Plate, Flat Well Rim	100
969610B	<b>Blue</b> 200µL PCR Plate, Flat Well Rim	100



### Standard No-Cut PCR Plates

Cat. No.	Description	Qty
96100	Clear 100µL Skirted Low Profile Plate	100
96100GC	Clear 100µL Skirted Low Profile Plate w/ SiliGuard	100
96100B	<b>Blue</b> 100µL Skirted Low Profile Plate	100
<b>For chemical luminescent and fluorescent procedures:</b>		
96323	White 100µL Skirted Low Profile PCR Plate	100
96323B	Black 100µL Skirted Low Profile PCR Plate	100

PCR® is a Registered Trademark of Hoffman-LaRoche.



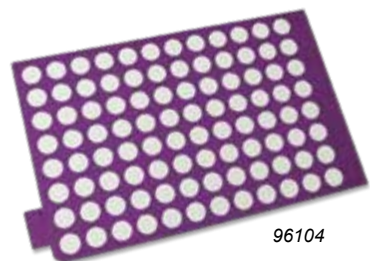
### Cap Mats for PCR Plates

Cat. No.	Description	Qty
96726	PCR Silicone Cap Mat	5
96727	PCR <b>Pre-slit</b> Silicone Cap Mat	5
96727-8	PCR <b>Pre-slit</b> Silicone Plug Strips (8 plugs/strip, 6mm Plugs)	60

See page 5 for full details on pattern adhesive film.

### Pattern Adhesive Resealable Silicone Sealing Film (patented)

Adhesive-free Target Area



Cat. No.	Description	Qty
96104	Round 96-Well Adhesive Silicone Sealing Film	5

### Pattern Adhesive PTFE (Teflon®) Sealing Film (patented)

Cat. No.	Description	Qty
961801	<b>Purple</b> PTFE Adhesive Film, Round 96-Well Pattern, Ultra-thin	100
96893	White Teflon Film, Round 96-Well Pattern	100
96823	<b>Black</b> Teflon Film, Round 96-Well Pattern	100



### Standard Sealing Films

- Temperature range -40°C to 120°C
- Sterile films also available - call for pricing

Cat. No.	Description	Qty
968120	<b>Aluminum</b> Foil Film for PCR, 1.5mils, Pierceable	100
964012	Clear <b>Polypropylene</b> Film for PCR, 2mils, <i>not pierceable</i>	100



Conforms to SLAS

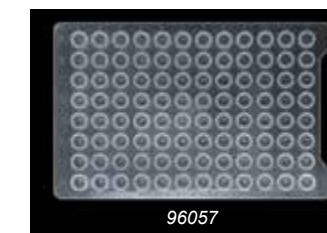
Bar code printing available, contact ASAS for more details

9mm OD



### 1.2mL Polypropylene Tubes in 96-Well Blocks

Cat. No.	Description	Qty
96961-1	96-Well Storage Rack with 96 Individual Tubes, Non-sterile	10
96812-1	96-Well Storage Rack with 8 Strips of 12 Tubes, Non-sterile	10
96128-1	96-Well Storage Rack with 12 Strips of 8 Tubes, Non-sterile	10
96120	1.2ml Individual Tubes, Non-sterile	4800



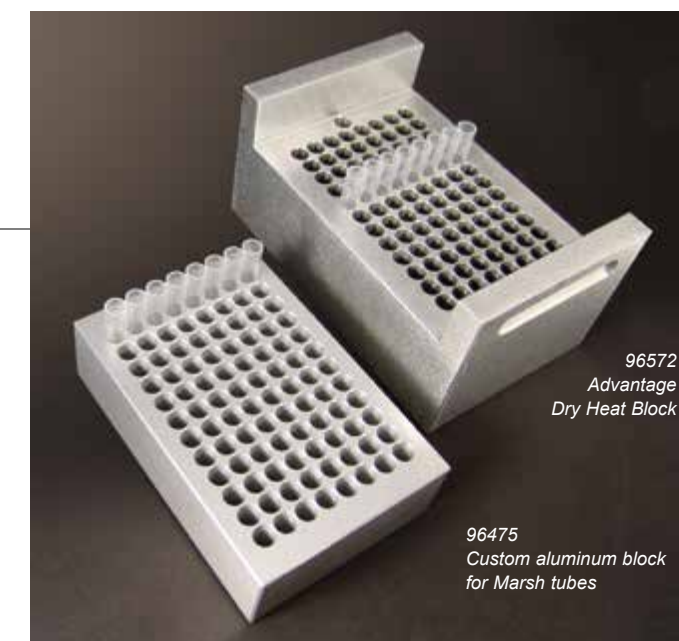
### Cap Mats for 1.2mL Polypropylene Tubes

Cat. No.	Description	Qty
96057	1mL Autosampler Compatible, Clear PP Cap Mat, Pierceable X	20
962615	<b>Pre-Slit</b> 96-well Clear Silicone/PTFE Cap Mat	5

### Plug Caps for 1.2mL Polypropylene Tubes

- For mixing and long-term storage
- Not recommended for autosampler

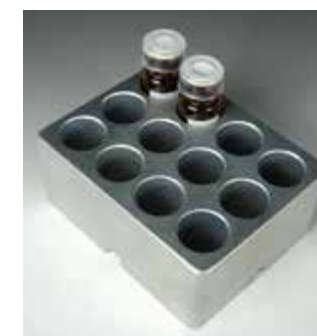
Cat. No.	Description	Qty
96812-2	Strips of 12 Plug Caps	80
96128-2	Strips of 8 Plug Caps	120
96962-2	Individual Plug Caps	960



### Aluminum Dry Heat Blocks

Cat. No.	Description	Qty
96572	Aluminum Dry Heat Block	Each
96475	Aluminum Dry Heat Block for Marsh Tubes	Each

Custom blocks are available, call for details



### 12-Well Aluminum Block

Cat. No.	Description	Qty
12349	12-Well Aluminum Block	Each

### PRODUCT NOTE:

We can manufacture to your specifications in a variety of materials.



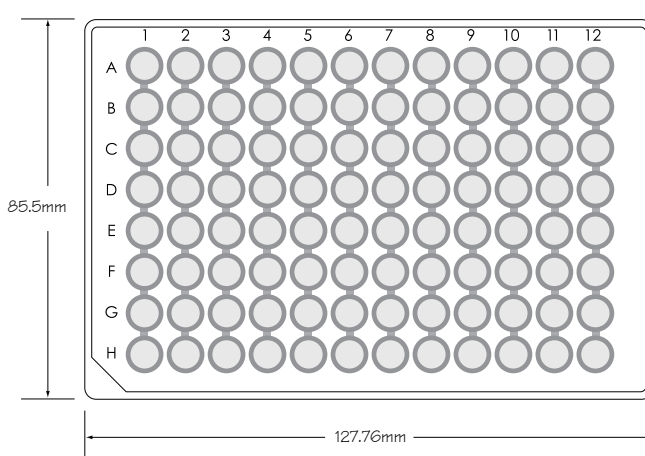
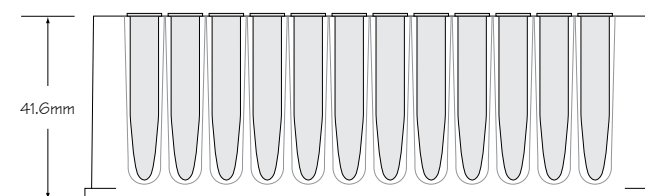
Conforms to  
**SLAS**



### Deep Well Plates with 600µL 8-Tube Strips

These plates feature 600 µl wells for smaller volume applications. They include a deep well plate along with twelve eight-tube strips.

Cat. No.	Description	Qty
96865	96-Well Storage Rack with Removable 600µL Wells	24
96888	Strip of 8 600µL Tubes	600



### Plug Caps for 600µL Polypropylene Tubes

Cat. No.	Description	Qty
96845	Domed Cap Strips, 8 Caps/Strip	125
96840	Domed Cap Strips, 12 Caps/Strip	125
96855	Flat Cap Strips, <b>Pierceable</b> , 8 Caps/Strip	125



### PCR Cap Mats for 600µL Polypropylene Tubes

Cat. No.	Description	Qty
96726	PCR Silicone Cap Mat with 6mm Plugs	5
96727	PCR <b>Pre-slit</b> Silicone Cap Mat with 6mm Plugs	5
96727-8	6mm <b>Pre-slit</b> Silicone/PTFE Plug Strips for 96-Well Collection Plates, PCR Plates & Inserts (8 plugs/strip)	60

### Storage/Assay 24 & 48-Well Plates - *Ideal for use in automated liquid handlers*



Cat. No.	Format	Partitions	Qty
24108	<b>24-Well</b>	6 Columns, 4 Rows	25

Deep Well PP Square Well Storage/Reaction Microplate, 10mL/well, 240mL max, Height: 44mm, Well Bottom Shape: **Pyramid**



Cat. No.	Format	Partitions	Qty
24727	<b>24-Well</b>	6 Columns, 4 Rows	25

Deep Well PP Square Well Storage/Reaction Microplate, 10mL/well, 240mL max, Height: 44mm, Well Bottom Shape: **Round**



Cat. No.	Format	Qty
24777	<b>24-Well</b>	5

Silicone/PTFE **Cap Mat** for 24-well Collection Plates



Cat. No.	Format	Partitions	Qty
48685	<b>48-Well</b>	6 Columns, 8 Rows	25

Deep Well PP Rectangle Well Collection Plate, 5mL/well, Height: 44mm, Well Bottom Shape: **Pyramid**



Cat. No.	Format	Qty
48010CM	<b>48-Well</b>	100

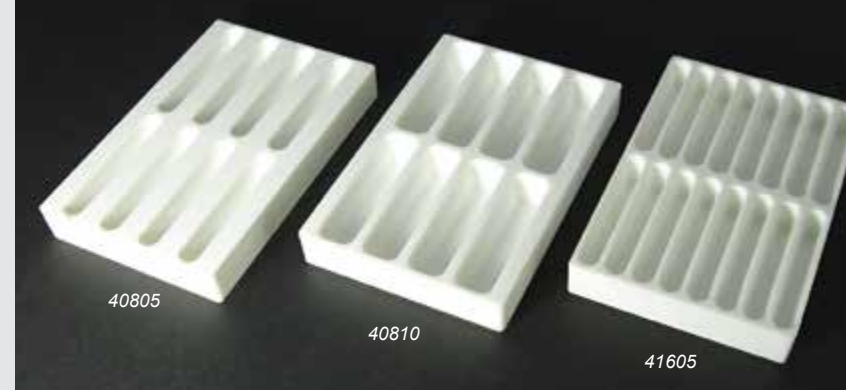
Pierceable Santoprene **Cap Mat** for 48-Well Plates, White

Our polypropylene reservoirs and collection plates can be irradiated and/or SiliGuard™ treated. Call for details.

### PTFE Reservoirs

- Made from a solid PTFE block
- Precision machined wells, SBS compliant
- Ideal for aggressive organics
- Enables your automation's full pipetting potential/efficiency
- Reusable when used with clean solvents (no analytes, etc)
- Wells have rounded bottoms/corners
- Choice of three well configurations

Cat. No.	Description	Qty
40805	PTFE Reservoir with 4 Rows, 2 Columns, 5mL/Well	Each
40810	PTFE Reservoir with 4 Rows, 2 Columns, 10mL/Well	Each
41605	PTFE Reservoir with 8 Rows, 2 Columns, 5mL/Well	Each



### V-Troughs

Cat. No.	Description	Qty
96013	12 Column V-Trough, Clear PETG, <b>3mL/Channel</b>	5
96012	8 Row V-Trough, White Polystyrene, <b>3mL/Channel</b>	5
55001	Polypropylene dual reservoir with Lid, 50mL on one side, flip over - 12, 5mL wells on opposite side	25



### PRODUCT TIP:

For more options of individual tubes in a 96-well format, look at Flexi-Tier (page 26), Collection Plates w/Inserts (page 30) and Select-A-Vial (page 32).





Cat. No.	Format	Partitions	Qty
96473	Rows	4 Rows	25
Deep Well PP Reservoir, 73mL/row, 292mL max, Height: 44mm, Well Bottom Shape: Pyramid			



Cat. No.	Format	Partitions	Qty
32082	Rows	8 Rows	25
Low Profile PP Reservoir, 10.6mL/Row, 85mL max, Height: 19mm, Well Bottom Shape: Pyramid			



Cat. No.	Format	Partitions	Qty
32008	Rows	8 Rows	25
Deep Well PP Reservoir, 32mL/row, 256mL max, Height: 44mm, Well Bottom Shape: Pyramid			



Cat. No.	Format	Partitions	Qty
38422	Open	None	25
Low Profile PP Reservoir, 90mL max Volume, Height: 19mm, Well Bottom Shape: Flat			



Cat. No.	Format	Partitions	Qty
47170	Open	None, 12 Column Base	25
Half Height PP Reservoir, no partitions, 170mL max, Height: 30.6mm, Column Shape: Pyramid			



Cat. No.	Format	Partitions	Qty
96173	Open	None, 96-Well Base	25
Deep Well PP Reservoir, 287mL max Volume, Height: 44mm, Well Bottom Shape: Pyramid			



Cat. No.	Format	Partitions	Qty
47005	Columns	12 Columns	25
Low Profile PP Reservoir, 7mL/column, 84mL max, Height: 19mm, Well Bottom Shape: Pyramid			



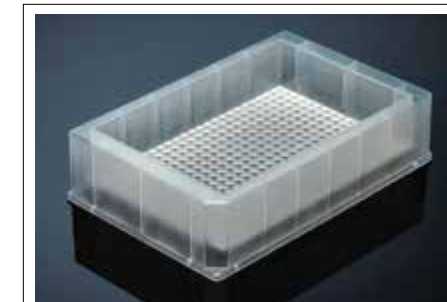
Cat. No.	Format	Partitions	Qty
21012	Columns	12 Columns	25
Deep Well PP Reservoir, 21mL/column, 252mL max, Height: 44mm, Well Bottom Shape: Pyramid			



Cat. No.	Format	Partitions	Qty
32018	Rows	16 Rows	25
Low Profile PP Reservoir, 4.9mL/Row, 78mL max, Height: 19mm, Well Bottom Shape: Pyramid			



Cat. No.	Format	Partitions	Qty
38481	Open	None, 384 Well Base	25
Low Profile PP Reservoir, 92mL max Volume, Height: 19mm, Well Bottom Shape: Pyramid			



Cat. No.	Format	Partitions	Qty
38455	Open	None, 384 Well Base	25
Half Height PP Reservoir, 170mL max Volume, Height: 30.6mm, Well Bottom Shape: Flat			



Cat. No.	Format	Partitions	Qty
38471	Open	None, 384 Well Base	25
Deep Well PP Reservoir, 282mL max Volume, Height: 44mm, Well Bottom Shape: Pyramid			



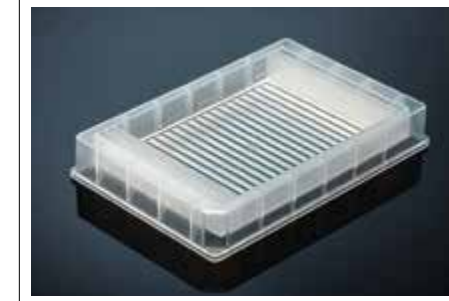
Cat. No.	Format	Partitions	Qty
24296	Columns	24 Columns	25
Low Profile PP Reservoir, 3.3mL/column, 78mL max, Height: 19mm, Well Bottom Shape: Pyramid			



Cat. No.	Format	Partitions	Qty
47025	Special	12 Columns, 2 Rows	25
Low Profile PP Reservoir, 3.5mL/column, 84mL max, Height: 19mm, Well Bottom Shape: Pyramid			



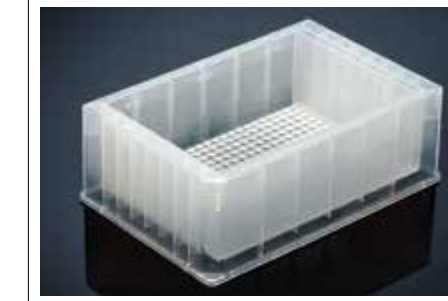
Cat. No.	Format	Partitions	Qty
47006	Columns	6 Columns, 24-Well Base	25
Deep Well PP Reservoir, 47mL/column, 282mL max, Height: 44mm, Well Bottom Shape: Pyramid			



Cat. No.	Format	Partitions	Qty
38485	Special	4 Controls, 24 Column Base	25
Low Profile PP Reservoir, 3.25mL/control, 86.3mL main, Height: 19mm, Well Bottom Shape: Pyramid			



Cat. No.	Format	Partitions	Qty
38444	Special	4 Controls, 384-Well Base	25
Half Height PP Reservoir, 2.6mL/control, 155mL main, Height: 30.6mm, Well Bottom Shape: Pyramid			



Cat. No.	Format	Partitions	Qty
38477	Special	2 Controls, 384-Well Base	25
Deep Well PP Reservoir, 7mL & 2mL/control, 273mL main, Height: 30.6mm, Bottoms: Pyramid			



**Reservoir/Collection Plate Lids**  
• Universal, 96-Well Robot Compatible

Cat. No.	Description	Qty
69500	Reservoir Lid, Clear	100
69500BK	Reservoir Lid, Black	100



**Disposable Basins**  
Angled Sides, V-Bottom, 55mL

Cat. No.	Description	Qty
DSBWPS	Disposable Basin, White PS	100
DSBPVC	Disposable Basin, Clear PVC	100

**PRODUCT TIP:**  
Our polypropylene reservoirs and collection plates can be irradiated and/or SiliGuard™ treated. Call for details.



Cat. No.	Format	Partitions	Qty
962144	Columns	2 Columns	25
Deep Well PP Reservoir, 144mL/Column, 288mL max, Height: 44mm, Well Bottom Shape: Pyramid			



Cat. No.	Format	Partitions	Qty
960395	Columns	3 Columns	25
Deep Well PP Reservoir, 95mL/Column, 285mL max, Height: 44mm, Well Bottom Shape: Pyramid			



Cat. No.	Format	Partitions	Qty
96733	Columns	4 Columns	25
Deep Well PP Reservoir, 73mL/column, 292mL max, Height: 44mm, Well Bottom Shape: Pyramid			



### Flexi-Tier™

- Unique design for maximum flexibility
- Adjusts to various heights
- Accommodates 0.5 - 2mL vials
- Compatible with all autosampler & robotic systems
- Can be centrifuged to 2500 RPMs
- Open bottom base allows immersion
- Total fluid contact with vials for even heat or cold transfer



### 96-Position Flexi-Tier™ Complete Opaque Systems\*

Heat Resistance up to 80°C

See Aluminum Bases for low temperature (-20° to -80°C) applications

Cat. No.	Size	Material & Style	Base	Qty
96FP05	0.5mL	Clear Conical Glass	Opaque	Each
96FP10	1.0mL	Clear Conical Glass	Opaque	Each
96FP15	1.5mL	Clear Conical Glass	Opaque	Each
96F220	2.0mL	Clear Conical Glass	Opaque	Each
96F220A	2.0mL	Amber Conical Glass	Opaque	Each
96BB05	0.5mL	Clear Flat Bottom Glass	Opaque	Each
96BB10	1.0mL	Clear Flat Bottom Glass	Opaque	Each
96BB15	1.5mL	Clear Flat Bottom Glass	Opaque	Each
96FP20	2.0mL	Clear Flat Bottom Glass	Opaque	Each

### 96-Position Flexi-Tier™ Complete Clear Systems\*

Heat Resistance up to 150°C

See Aluminum Bases for low temperature (-20° to -80°C) applications

Cat. No.	Size	Material & Style	Base	Qty
96FP05-C	0.5mL	Clear Conical Glass	Clear	Each
96FP10-C	1.0mL	Clear Conical Glass	Clear	Each
96FP15-C	1.5mL	Clear Conical Glass	Clear	Each
96F220-C	2.0mL	Clear Conical Glass	Clear	Each
96F220A-C	2.0mL	Amber Conical Glass	Clear	Each
96BB05-C	0.5mL	Clear Flat Bottom Glass	Clear	Each
96BB10-C	1.0mL	Clear Flat Bottom Glass	Clear	Each
96BB15-C	1.5mL	Clear Flat Bottom Glass	Clear	Each
96FP20-C	2.0mL	Clear Flat Bottom Glass	Clear	Each

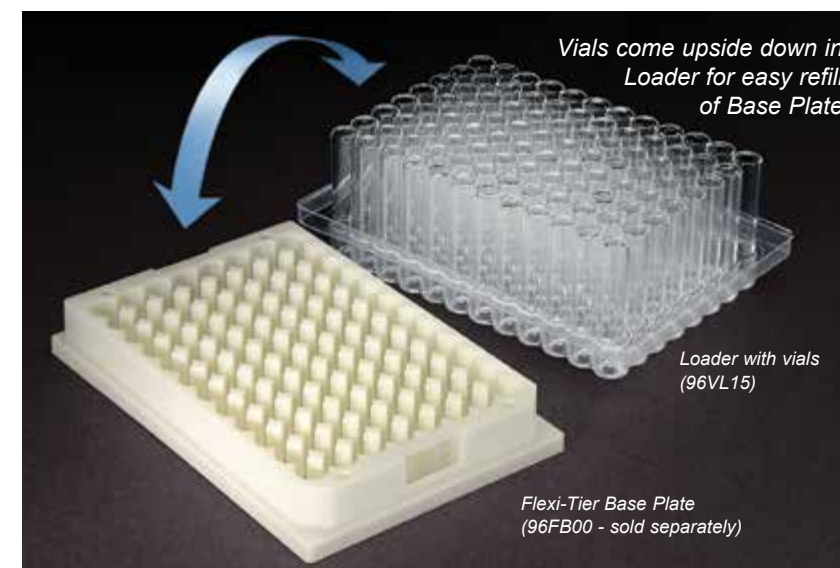
\* All Systems Include Pre-Slit PTFE/Silicone Flat Liner (96FSC1) and Cover.

Compatible with all autosampler & robotic systems



#### PRODUCT NOTE:

Our glass vials are made from 33 expansion borosilicate glass which conforms to ASTM E-438 Type 1-Class A, USP Type 1 and ISO 3585.



### Glass Inserts in Loader

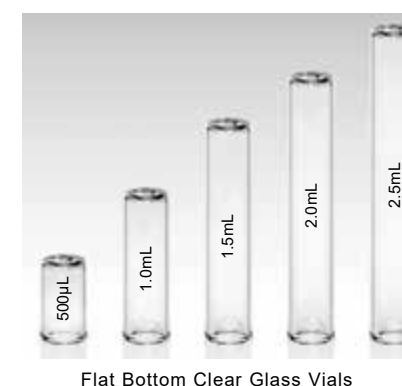
Cat. No.	Type	Style	Volume	Qty
96FV05	Conical	Clear	0.5mL	96
96FV10	Conical	Clear	1.0mL	96
96FV15	Conical	Clear	1.5mL	96
96FV20	Conical	Clear	2.0mL	96
96FV05A	Conical	Amber	0.5mL	96
96FV10A	Conical	Amber	1.0mL	96
96FV15A	Conical	Amber	1.5mL	96
96FV20A	Conical	Amber	2.0mL	96
96VL05	Flat Bottom	Clear	0.5mL	96
96VL10	Flat Bottom	Clear	1.0mL	96
96VL15	Flat Bottom	Clear	1.5mL	96
96VL20	Flat Bottom	Clear	2.0mL	96
96VL05A	Flat Bottom	Amber	0.5mL	96
96VL10A	Flat Bottom	Amber	1.0mL	96
96VL15A	Flat Bottom	Amber	1.5mL	96
96VL20A	Flat Bottom	Amber	2.0mL	96

### Silanized Glass Inserts in Loader

96FV05-S	Conical	Clear	0.5mL	96
96FV10-S	Conical	Clear	1.0mL	96
96FV15-S	Conical	Clear	1.5mL	96
96FV20-S	Conical	Clear	2.0mL	96
96FV20A-S	Conical	Amber	2.0mL	96
96VL05-S	Flat Bottom	Clear	0.5mL	96
96VL10-S	Flat Bottom	Clear	1.0mL	96
96VL15-S	Flat Bottom	Clear	1.5mL	96
96VL20-S	Flat Bottom	Clear	2.0mL	96
96VL20A-S	Flat Bottom	Amber	2.0mL	96



Note: for comparison only - sizes are NOT printed on vials.



### Bulk, Loose Glass Inserts

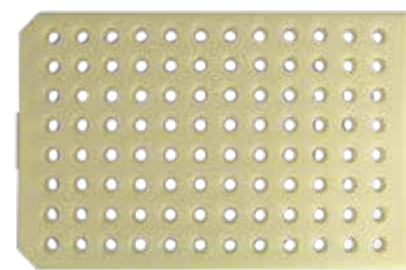
Cat. No.	Type	Style	Volume	Qty
96F005	Conical	Clear	0.5mL	100
96F010	Conical	Clear	1.0mL	100
96F015	Conical	Clear	1.5mL	100
96F020	Conical	Clear	2.0mL	100
96F005A	Conical	Amber	0.5mL	100
96F010A	Conical	Amber	1.0mL	100
96F015A	Conical	Amber	1.5mL	100
96F020A	Conical	Amber	2.0mL	100
96F605	Flat Bottom	Clear	0.5mL	100
96F610	Flat Bottom	Clear	1.0mL	100
96F615	Flat Bottom	Clear	1.5mL	100
96F620	Flat Bottom	Clear	2.0mL	100
96F625	Flat Bottom	Clear	2.5mL	100
96F605A	Flat Bottom	Amber	0.5mL	100
96F610A	Flat Bottom	Amber	1.0mL	100
96F615A	Flat Bottom	Amber	1.5mL	100
96F620A	Flat Bottom	Amber	2.0mL	100



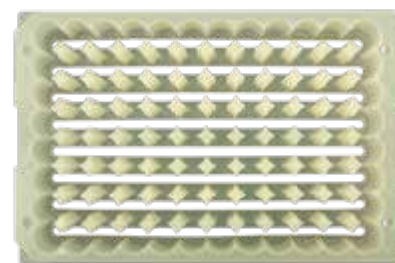


### Flexi-Tier™ Collection Plate Accessories

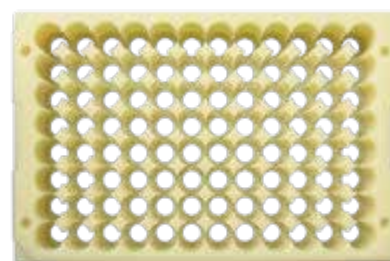
Cat. No.	Description	Qty
96FS00-C	Clear Spacer	Each
96FC00-C	Clear Cover	5
96FB00-C	Clear Base Plate	Each
96FC00	Opaque Cover	5
96FS00	Opaque Spacer	Each
96FB00	Opaque Slotted Bottom Base Plate	Each
96RB00	Opaque Round Hole Bottom Base Plate	Each
96AB11	Aluminum Base Plate Slotted/Open Bottom	Each
96AB74	Aluminum Open Round Bottom Base	Each
96AB22	Aluminum Base Plate Solid Bottom	Each



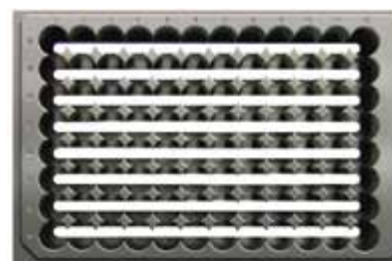
96FC00



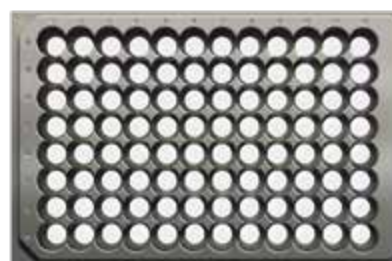
96FB00



96RB00



96AB11



96AB74



96AB22

### Advantage™ 96-Well Aluminum Base Plates

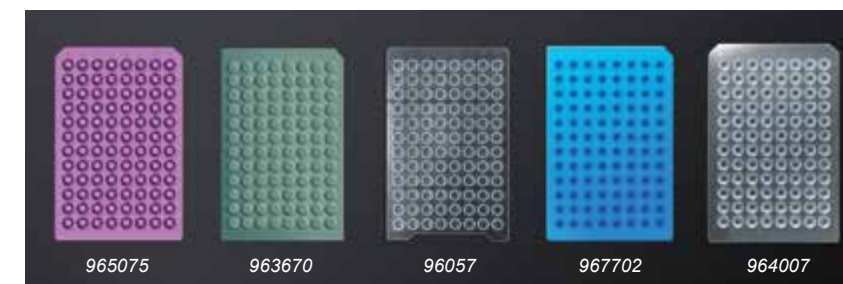
- Solid aluminum base design is perfect for platform heating/cooling devices
- Superb conductivity for uniform vial heating and cooling, and can be immersed in heating/cooling liquids for total fluid contact with the vials
- Ideal for volatile solvents, salt screening, high throughput solubility & physical characterization

Cat. No.	Description	Qty
96A002	TALL Aluminum Base Plate	Each



96A002

**Tall Aluminum Base Plate**  
provides more consistent heating/cooling  
of 1.5mL and 2mL vials.



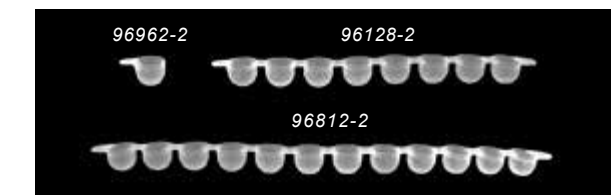
### Cap Mats For Flexi-Tier & Aluminum Collection Systems

Cat. No.	Description	Qty
965007	Ultra Thin Round Well, Soft Silicone/PTFE, Purple	5
965075	<b>Pre-Slit</b> Ultra Thin Round Well, Soft Silicone/PTFE, Purple	5
963675	Round Well, Silicone/PTFE, Green	5
963670	<b>Pre-Slit</b> Round Well, Silicone/PTFE, Green	5
96057	1mL Autosampler Compatible Round Cap Mat, Polypropylene with 'X' on Surface, Clear	20
967702	Round Well Molded Soft Silicone, Blue	5
967701	<b>Pre-Slit</b> Round Well Molded Soft Silicone, Blue	5
964007	Ultra Thin Round Well w/ Molded Soft Silicone, Clear	5
96FSC2	Molded PTFE/Silicone Liner, White	5
96FSC3	<b>Pre-Slit</b> Molded PTFE/Silicone Liner, White	5
96FSC3STRIP	<b>Pre-Slit</b> Molded PTFE/Silicone 8 Position Strip Liner	12
96FSC3PLUG	<b>Pre-Slit</b> Molded PTFE/Silicone Single Plug	100
96FSC2STRIP	Molded PTFE/Silicone 8 Position Strip Liner, White	12
96FSC2-12	Molded PTFE/Silicone 12 Position Strip Liner, White	8
96FSC2PLUG	Molded PTFE/Silicone Single Plug, White	100

### Polypropylene Plugs

- For mixing and long-term storage
- Not recommended for autosampler

Cat. No.	Description	Qty
96812-2	Strips of 12 Plug Caps	80
96128-2	Strips of 8 Plug Caps	120
96962-2	Individual Plug Caps	960



### Advantage™ 96-Well Aluminum Collection System for High Throughput

- Samples are securely contained without possibility of crosstalk.
- System fits liquid handling systems and autosamplers.



Cat. No.	Description	Qty
96A105	Complete 0.5mL Aluminum Block System with Conical Clear Glass Inserts	Each
96A110	Complete 1.0mL Aluminum Block System with Conical Clear Glass Inserts	Each
96A115	Complete 1.5mL Aluminum Block System with Conical Clear Glass Inserts	Each
96A120	Complete 2.0mL Aluminum Block System with Conical Clear Glass Inserts	Each
96F105	Complete 0.5mL Aluminum Block System with Flat Bottom Clear Glass Inserts	Each
96F110	Complete 1.0mL Aluminum Block System with Flat Bottom Clear Glass Inserts	Each
96F115	Complete 1.5mL Aluminum Block System with Flat Bottom Clear Glass Inserts	Each
96F120	Complete 2.0mL Aluminum Block System with Flat Bottom Clear Glass Inserts	Each

#### Replacement Parts

96A001	Aluminum 96-Well Solid Bottom Base Plate w/ Tapped Holes in Each Corner	Each
96AB77	Aluminum 96-Well Round Hole Bottom Base Plate, Tapped Holes in Each Corner	Each
96B002	Aluminum 96-Well Block System Slotted Cover	Each
96050	Stainless Steel Screws for 0.5mL Aluminum 96-Well Block System	4
96010	Stainless Steel Screws for 1.0mL Aluminum 96-Well Block System	4
96015	Stainless Steel Screws for 1.5mL Aluminum 96-Well Block System	4





### Loose & Assembled 0.7mL Flat Bottom Inserts

Cat. No.	Description	Qty
96305	0.7mL Flat Bottom Glass Inserts	100
96382	96-Well Plate (27P687), 0.7mL Flat Bottom Glass Inserts	1
96326	96-Well Plate (27P687), 0.7mL Flat Bottom Glass Inserts, 2mL Polypropylene Pierceable Cap Mat with "X" on Surface	1
96380	96-Well Plate (27P687), 0.7mL Flat Bottom Glass Inserts, <b>Pre-Slit</b> Silicone/PTFE Cap Mat, Pre-Assembled	1
96385	96-Well Plate (27P687), 0.7mL Flat Bottom Glass Inserts, <b>CLEAR</b> Ultra Thin Silicone/PTFE Cap Mat, Pre-Assembled	1

### Loose & Assembled 0.7mL Tapered Inserts

Cat. No.	Description	Qty
96837	Tapered 0.7mL Glass Inserts	100
96687	96-Well Plate (27P687), Tapered 0.7mL Glass Inserts	1
96627	96-Well Plate (27P687), Tapered 0.7mL Glass Inserts, Polypropylene Cap Mat	1
96685	96-Well (27P687) Plate with Tapered 0.7mL Glass Inserts and <b>Purple</b> Ultra Thin Pre-Slit Square Cap Mat, Pre-Assembled	1

#### PRODUCT NOTE:

Our glass vials are made from 33 expansion borosilicate glass which conforms to ASTM E-438 Type 1-Class A, USP Type 1 and ISO 3585.

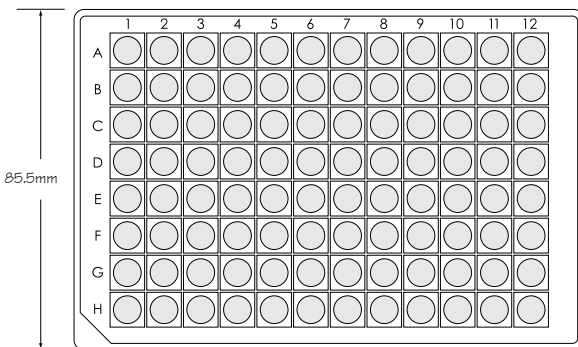
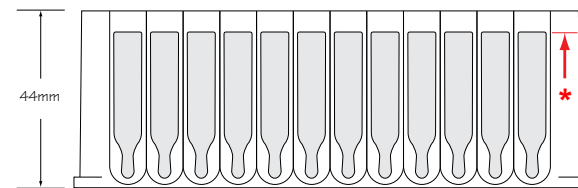
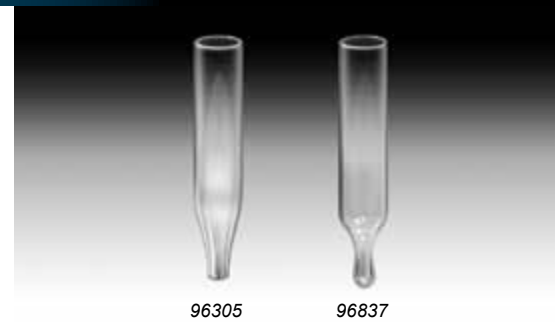
### Loose & Assembled 0.7mL Inserts - Silanized

Cat. No.	Description	Qty
96305S	<b>Flat Bottom</b> 0.7mL Silanized Glass Inserts	100
96326S	<b>Flat Bottom</b> 0.7mL Silanized Glass Inserts with Cap Mat & Plate	1
96837S	<b>Tapered</b> 0.7mL Silanized Glass Inserts	100
96687S	96-Well Plate (27P687), <b>Tapered</b> 0.7mL Silanized Glass Inserts	1
96627S	96-Well Plate (27P687) with Silanized <b>Tapered</b> 0.7mL Glass Inserts and Pierceable Polypropylene Cap Mat, Pre-Assembled	1

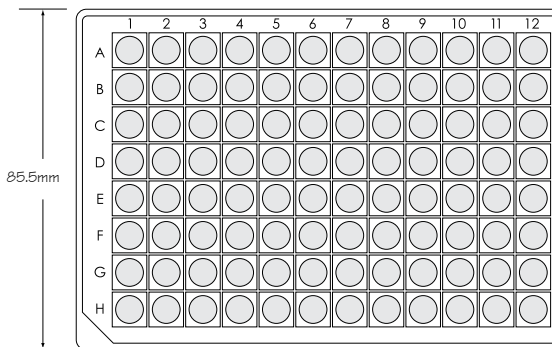
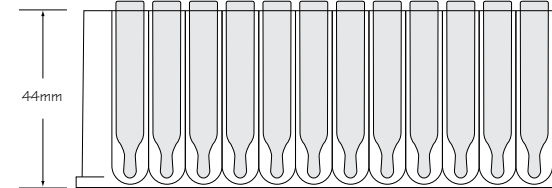
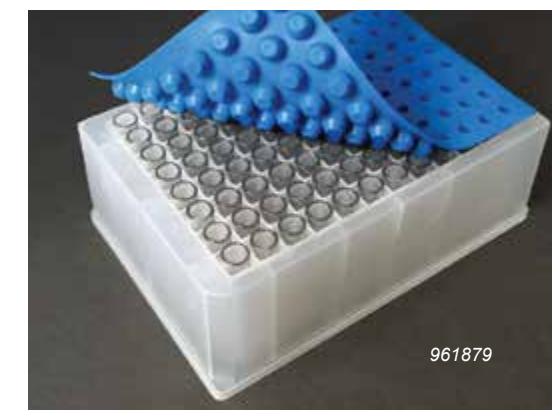
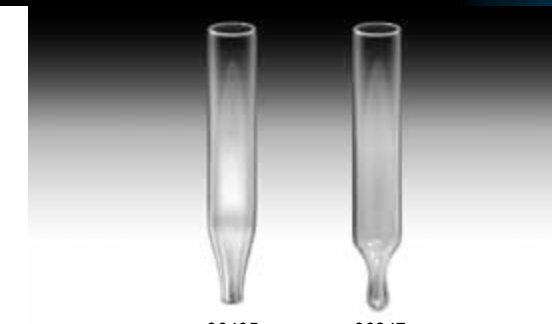
\* 0.7mL glass Inserts do not reach the top surface of the collection plate - use these **square-well cap mats**:

### 96-Well Square Cap Mats

Cat. No.	Description	Qty
2726	2mL Autosampler Compatible Square PP Cap Mat with 'X' on Surface	20
964008	<b>CLEAR</b> Ultra Thin Silicone/PTFE Square Cap Mat	5
964085	<b>CLEAR Pre-Slit</b> , Ultra Thin Silicone/PTFE Square Cap Mat	5
965008	<b>Purple</b> Ultra Thin Silicone/PTFE Square <b>Mighty Mat</b>	5
965085	<b>Purple Pre-Slit</b> , Ultra Thin Silicone/PTFE Square <b>Mighty Mat</b>	5



Collection Plate used for inserts is part no. 27P687



Collection Plate used for inserts is part no. 27P687

### Loose & Assembled 1mL Flat Bottom Inserts

Cat. No.	Description	Qty
96405	1mL Flat Bottom Glass Inserts	100
96481	96-Well Plate, 1mL Flat Bottom Glass Inserts	1
96485	96-Well Plate, 1mL Flat Bottom Glass Inserts, Clear Silicone/PTFE Cap Mat	1
96490	96-Well Plate, 1mL Flat Bottom Glass Inserts, <b>Pre-slit</b> Clear Silicone/PTFE Cap Mat	1
96489	96-Well Plate, 1mL Flat Bottom Glass Inserts, <b>Pre-slit Blue</b> Silicone/PTFE Cap Mat	1

### Loose & Assembled 1mL Tapered Inserts

Cat. No.	Description	Qty
96847	Tapered 1mL Glass Inserts	100
96681	96-Well Plate, Tapered 1mL Glass Inserts	1
99861	96-Well Plate, Tapered 1mL Glass Inserts, Clear Silicone/PTFE Cap Mat	1
99862	96-Well Plate, Tapered 1mL Glass Inserts, <b>Pre-slit</b> Clear Silicone/PTFE Cap Mat	1
961879	96-Well Plate, Tapered 1mL Glass Inserts, <b>Pre-slit Blue</b> Silicone/PTFE Cap Mat	1

### Loose & Assembled 1mL Inserts - Silanized

Cat. No.	Description	Qty
96405S	<b>Flat Bottom</b> 1mL Tapered Silanized Glass Inserts	100
96847S	<b>Tapered</b> 1mL Silanized Glass Inserts	100
96681S	96-Well Plate (27P687), <b>Tapered</b> 1mL Silanized Glass Inserts	1
99862S	96-Well Plate, <b>Tapered</b> 1mL Silanized Glass Inserts, Pre-Slit Clear Silicone/PTFE Cap Mat, Pre-Assembled	1

\* 1mL glass Inserts extend beyond the top surface of the collection plate - use these **round-well cap mats**:

### 96-Well Round Cap Mats

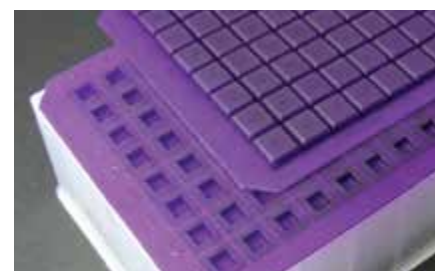
Cat. No.	Description	Qty
960181	<b>Purple</b> Silicone/PTFE Cap Mat with <b>O-ringed Plugs</b>	5
960185	<b>Purple Pre-Slit</b> Silicone/PTFE Cap Mat with <b>O-ringed Plugs</b>	5
99685	<b>CLEAR</b> Silicone/PTFE Cap Mat for 1mL Tapered Vials	5
99690	<b>CLEAR Pre-Slit</b> Silicone/PTFE Cap Mat for 1mL Tapered Vials	5
99890	<b>Blue</b> Opaque <b>Pre-Slit</b> Silicone/PTFE Cap Mat for 1mL Tapered Vials	5



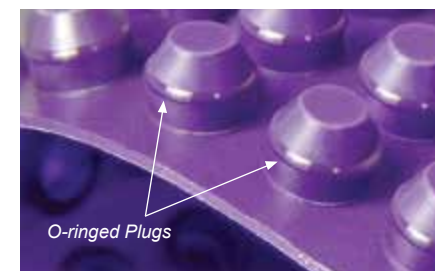
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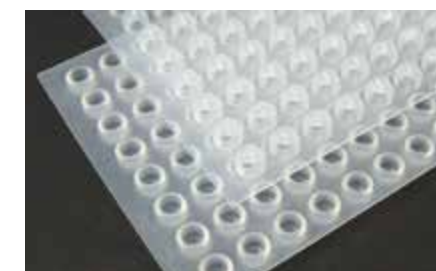
964085



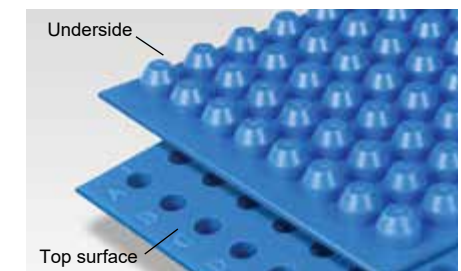
965085



960181



99690



99890



## Select-A-Vial™

### Vial Insert/Rack System

- 96-Well Format
- Universal Base
- 3 Volume/Rack Options
- Accommodates 350µL, 500µL or 1mL Vials
- Seal with Cap Mats



### 96 Position Select A Vial - Complete System

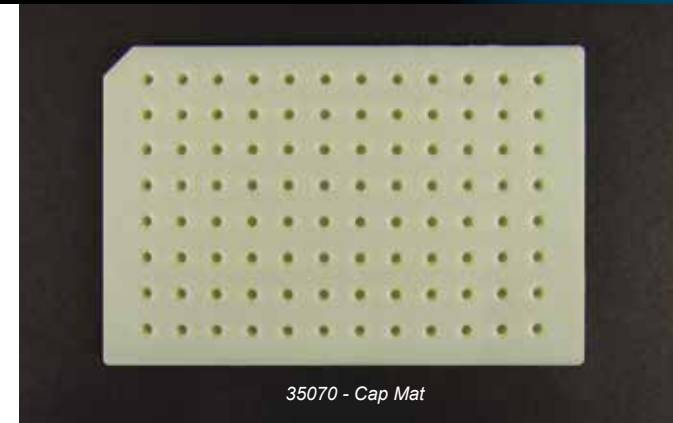
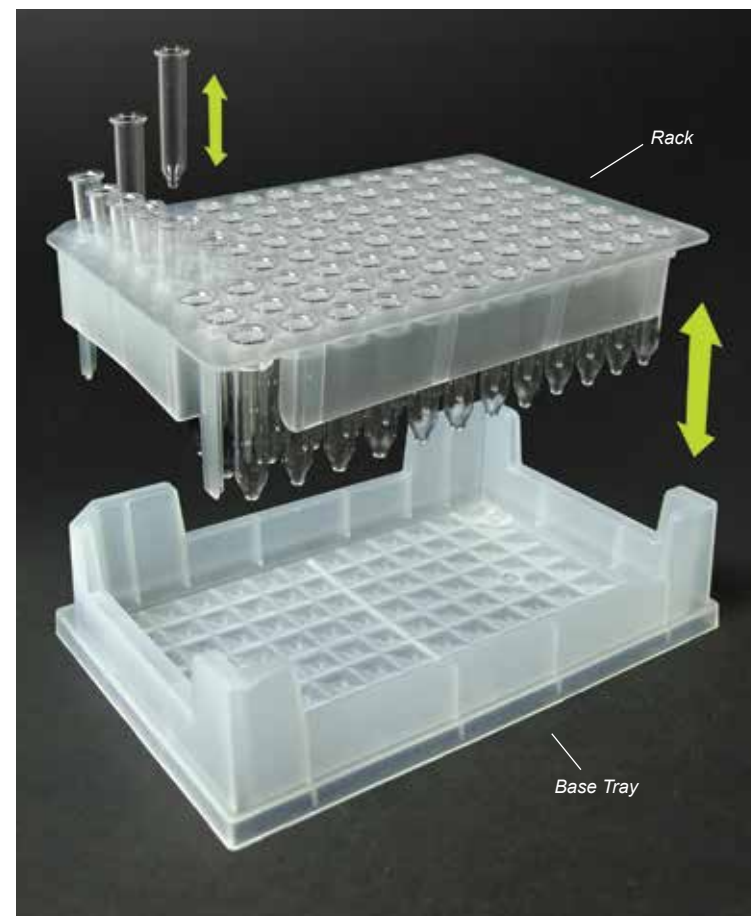
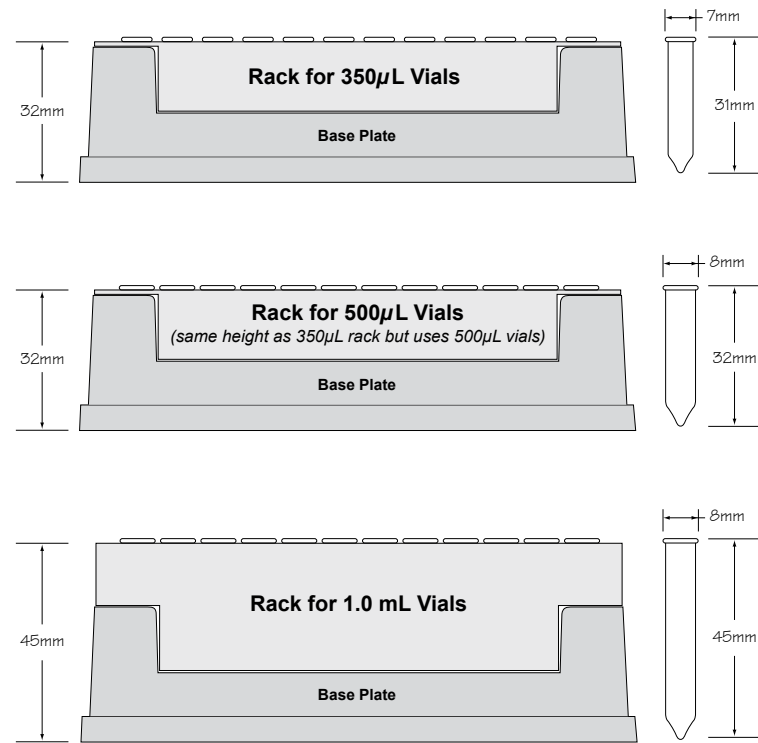
Cat. No.	Description	Qty
27350	350µL Clear Conical Glass Inserts in Rack and Base Tray	Each
27350S	350µL <b>Silanized</b> Conical Glass Inserts in Rack and Base Tray	Each
27500	500µL Clear Conical Glass Inserts in Rack and Base Tray	Each
27500S	500µL <b>Silanized</b> Conical Glass Inserts in Rack and Base Tray	Each
27001	1.0mL Clear Conical Glass Inserts in Rack and Base Tray	Each
27001S	1.0mL <b>Silanized</b> Conical Glass Inserts in Rack and Base Tray	Each

### Assembled Glass Inserts in Racks Only

Cat. No.	Description	Qty
35078	350µL Clear Conical Glass Inserts in Rack Only	6 Racks/Pkg
35078S	350µL <b>Silanized</b> Conical Glass Inserts in Rack Only	6 Racks/Pkg
50078	500µL Clear Conical Glass Inserts in Rack Only	6 Racks/Pkg
50078S	500µL <b>Silanized</b> Conical Glass Inserts in Rack Only	6 Racks/Pkg
10178	1.0mL Clear Conical Glass Inserts in Rack Only	6 Racks/Pkg
10178S	1.0mL <b>Silanized</b> Conical Glass Inserts in Rack Only	6 Racks/Pkg

### PRODUCT NOTE:

We have also have the capability to Silanize all of our glass products



### Beige Rubber Cap Mats for Select-A-Vial

For 350µL Vials

Cat. No.	Description	Qty
35070	Rubber Cap Mat for 350µL Conical Inserts	5
35075	<b>Pre-Slit</b> Rubber Cap Mat for 350µL Conical Inserts	5



### Pre-slit Silicone/PTFE Cap Mats for Select-A-Vial

For 350µL Vials

Cat. No.	Description	Qty
35080	Silicone/PTFE Cap Mat for 350µL Conical Inserts	5
35085	<b>Pre-Slit</b> Silicone/PTFE Cap Mat for 350µL Conical Inserts	5



### Base Tray

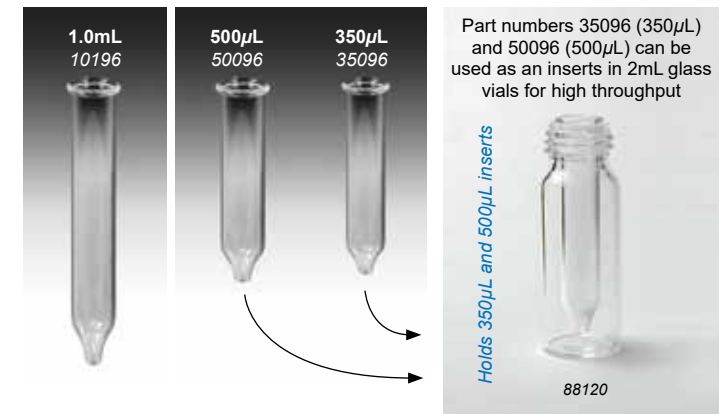
Cat. No.	Description	Qty
20096	Clear Base for All Racked Glass Inserts	6



### Beige Rubber Cap Mats for Select-A-Vial

For 500µL & 1.0mL Vials

Cat. No.	Description	Qty
96230	Rubber Cap Mat for 500µL & 1mL Conical Inserts	5
96235	<b>Pre-Slit</b> Rubber Cap Mat for 500µL & 1mL Conical Inserts	5



### Bulk, Loose Glass Inserts

Cat. No.	Description	Qty
35096	350µL Clear Conical Glass Inserts	100
35096S	350µL <b>Silanized</b> Conical Glass Inserts	100
50096	500µL Clear Conical Glass Inserts	100
50096S	500µL <b>Silanized</b> Conical Glass Inserts	100
10196	1.0mL Clear Conical Glass Inserts	100
10196S	1.0mL <b>Silanized</b> Conical Glass Inserts	100

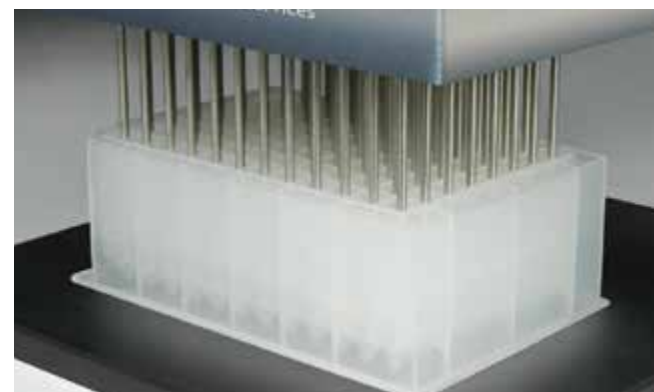




**EQUAVAP® 96-Well Blowdown Evaporators - for Collection Plates**

**Rapidly evaporates common organic solvents**

- **Internal Flow Equalizers** -  
*Distributes equal output across all needle ports to ensure even and symmetrical evaporation.*
- **Stainless Steel Needle Tips** -  
*Long term robust use, sturdy, wide solvent compatibilities*
- **Step-down Height Adjustment** -  
*Offers positive repeatable height positions*
- **Stand Alone** -  
*Simple to operate, connects to Nitrogen or air supply with a standard socket*
- **Small Footprint (8" base)** -  
*Fits into small glove boxes & standard fume hoods*



**96-Well EQUAVAP Evaporator**

- Use with 96-well Polypropylene Collection Plates or 96-well Reaction Blocks with 1mL Vials

Cat. No.	Description
23096	EQUAVAP 96-Well Blowdown Evaporator

**EVAPORATION TIMES**

Chemical	Avg Evap Time* (HH:MM:SS)
Dichloromethane 99.9%	00:00:23
Acetone 100%	00:02:04
Methanol 99.9%	00:06:09
Ethyl Acetate	00:03:04
Acetonitrile	00:06:37
Isopropyl Alcohol 99.0%	00:08:48
Water (DI)	01:23:46

**Conditions: 100 uL of solvent evaporated at AIR flow of 100 L/min (using 1mL round deep well plate)**

*\*Individual results may vary*

**PRODUCT NOTE:**

Requires regulated air supply set between 80-110 psi

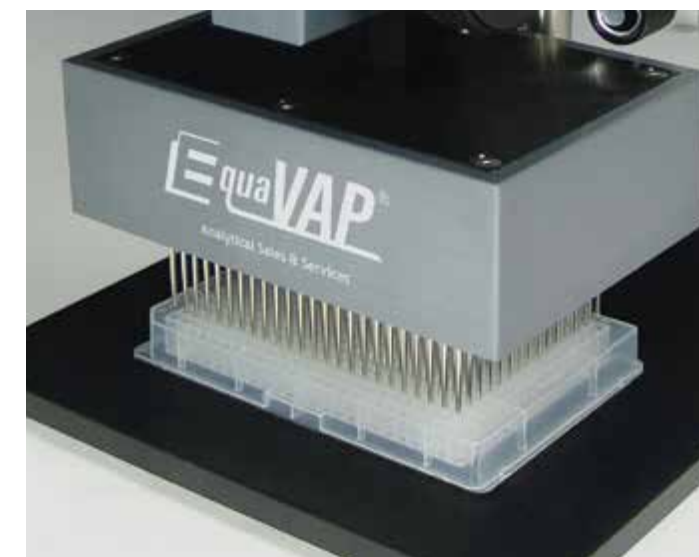
**EQUAVAP® 24, 54 and 384-Well Blowdown Evaporators - for Collection Plates**



**24-Well EQUAVAP Evaporator (18mm)**

- 18mm center-to-center needle distance
- Use with 24-well polypropylene collection plates (part nos. 24108 or 24727)

Cat. No.	Description
23024-18	EQUAVAP 24-Well Evaporator for Polypropylene Collection Plates, 18mm



**384-Well EQUAVAP Evaporator**

- Use with 384-well polypropylene collection plates

Cat. No.	Description
23384	EQUAVAP 384-Well Evaporator for 384-well Polypropylene Collection Plates



**54-Well EQUAVAP Evaporator**

- Use with 2mL, 12 x 32mm Vials in 54-position Base Plate (part # 96054)

Cat. No.	Description
23054	EQUAVAP 54-Well Evaporator for 2mL Vials in 54-position Base Plate



**EQUAVAP®**  
Blowdown Evaporators



**EQUAVAP® 96-Well Blowdown Evaporators - for Reaction Blocks**

**Rapidly evaporates common organic solvents**

- **Internal Flow Equalizers** - Distributes equal output across all needle ports to ensure even and symmetrical evaporation.
- **Stainless Steel Needle Tips** - Long term robust use, sturdy, wide solvent compatibilities
- **Step-down Height Adjustment** - Offers positive repeatable height positions
- **Stand Alone** - Simple to operate, connects to Nitrogen or air supply with a standard socket
- **Small Footprint (8" base)** - Fits into small glove boxes & standard fume hoods



**96-Well EquaVAP Evaporator**

- Use with 96-well Reaction Blocks with 1mL Vials or 96-well Polypropylene Collection Plates

Cat. No.	Description
23096	EQUAVAP 96-Well Blowdown Evaporator

**EVAPORATION TIMES**

Chemical	Avg Evap Time* (HH:MM:SS)
Dichloromethane 99.9%	00:00:23
Acetone 100%	00:02:04
Methanol 99.9%	00:06:09
Ethyl Acetate	00:03:04
Acetonitrile	00:06:37
Isopropyl Alcohol 99.0%	00:08:48
Water (DI)	01:23:46

**Conditions: 100 uL of solvent evaporated at AIR flow of 100 L/min (using 1mL round deep well plate)**

\*Individual results may vary

**EQUAVAP® 48 and 24-Well Blowdown Evaporators - for Reaction Blocks**



**48-Well EquaVAP Evaporator**

- Use with 48-well Aluminum Reaction Blocks with 2mL Vials

Cat. No.	Description
23048	EQUAVAP 48-Well Blowdown Evaporator for 48-Well Reaction Blocks with 2mL vials



**24-Well EquaVAP for 9mm Vial Spacing**

- Use with 24-well optimization blocks with 9mm vial spacing
- 24-well block fits into 96-well footprint with use of rack adapter (24245)

Cat. No.	Description
23024-09	EQUAVAP 24-Well Evaporator for 24-Well Reaction Blocks with 9mm Vial Spacing



**24-Well EquaVAP Evaporator (20mm)**

- 20mm center-to-center needle distance
- Use with 24-well Aluminum Reaction Blocks with 1 Dram (4mL) or 2 Dram (8mL) vials

Cat. No.	Description
23024-20	EQUAVAP 24-Well Evaporator for 24-Well Reaction Blocks with 20mm Spacing

**PRODUCT NOTE:**

Requires regulated air supply set between 80-110 psi





### Light up your collection plate samples!

#### LightOne™ Illuminator

- Reduces manual pipetting errors
- Highlight a single well or an entire row or column
- Perfect for cluster tubes and glass inserts
- Foot pedal control for easy, hands-free navigation

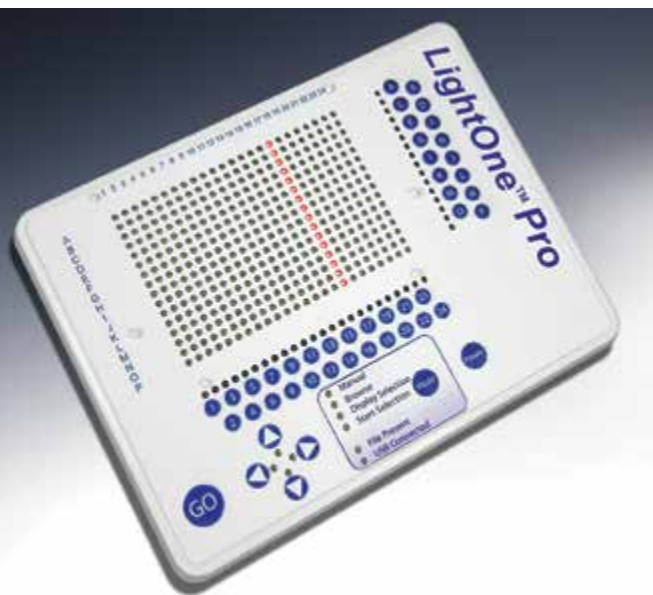
The LightOne Illuminator is a compact, bench top pipetting aid for enhanced visualization of 96-well plates. It provides illumination of specific wells during dispensing and as a stand-alone device, requires no computer interface. The illumination may be advanced manually or automatically using a user-defined time interval.

#### LightOne™ Red

- For Real Time PCR
- Selective illumination to accommodate light sensitive reagents
- No bleaching of fluorescent dyes

\* Includes Power Supply, Foot Pedal, Viewing Frame & Tilt Stand!

Cat. No.	Description	Qty
LOI-96FT	LightOne Illuminator	Each
LOR-96FT	LightOne Red	Each



#### LightOne™ Pro Illuminator

- 384-Well or 96-Well
- Use USB port for downloading templates and customized files for cherry picking



The LightOne™ Pro includes:

- LightOne Pro unit
- Foot pedal
- 96-well silicone adapter mat

Cat. No.	Description	Qty
LOI-384	LightOne Pro	Each

#### ViewOne™ Lablite

- Highlight your collection plate or petri dish samples
- Features three light intensities: Low, Medium and High!



Cat. No.	Description	Qty
56410	ViewOne Lablite 100-240V	Each

#### ViewOne Indexer

Features three light intensities:

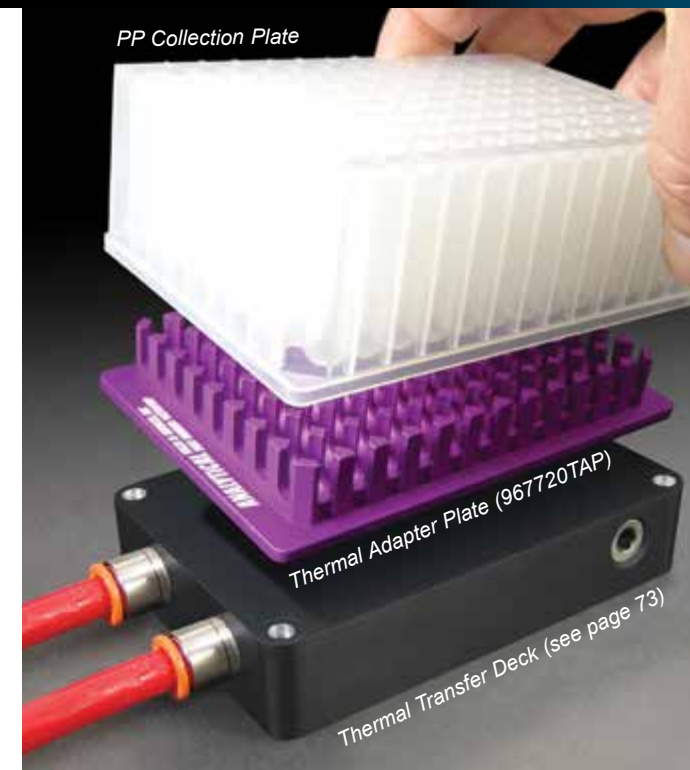
Low, Medium & High!

Includes:

- ViewOne Lablite
- 15° Stand
- 25° Stand
- (2) 96-Well Template Transparencies

Provides illumination of your 96-well plates. Includes a transparent template to help you keep track of individual samples.

Cat. No.	Description
56411	ViewOne Indexer

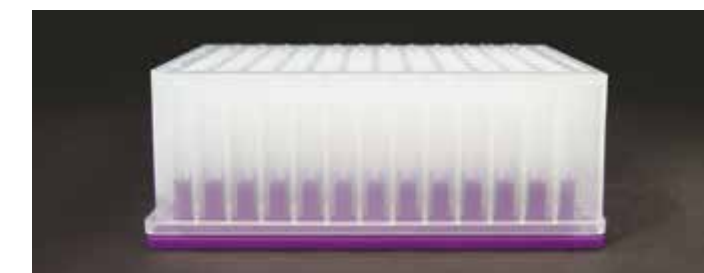


#### Thermal Adapter Plates

- For improved temperature transfer to samples
- For use with matching polypropylene collection plates

Our Thermal Adapter Plates conform to the well shape of their complementing polypropylene collection plate. They ensure uniform thermal transfer for heating and cooling when used in conjunction with a heating block or chiller (not included). The plate features a SLAS footprint and easy to identify purple anodized coating.

Analytical Sales & Services can make Thermal Adapter Plates to accommodate any shape and style polypropylene collection plate we offer. Please call 973-616-0700 for more information.



#### Thermal Adapter Plates

Cat. No.	Description	Qty
967720TAP	Thermal Adapter Plate for 967720 PP Collection Plate	Each
967720	2mL Round Well/Round Bottom 96-Well Collection Plate	25
59623-23TAP	Thermal Adapter Plate for 59623-23 PP Collection Plate	Each
59623-23	2mL Round Well/V-Bottom 96-Well Collection Plate	25
968810TAP	Thermal Adapter Plate for 1mL Truetaper Collection Plate	Each
968810	1mL TrueTaper Collection Plate	25
968820TAP	Thermal Adapter Plate for 2mL Truetaper Collection Plate	Each
968820	2mL TrueTaper Collection Plate	25
17P687ZTAP	Thermal Adapter Plate for 17P687Z PP Collection Plate	Each
17P687Z	1mL 17P687Z PP Collection Plate	25

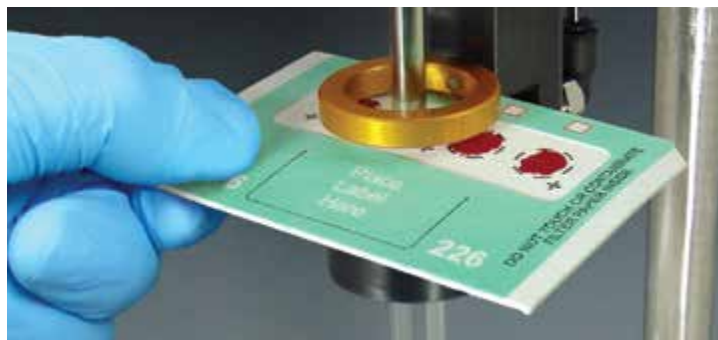


# DBS

Dried Blood Spot Card Punch

The DBS Punch eliminates hand fatigue and blistering from the use of hand-held manual card punches. It is a pneumatic foot-controlled "power" punch that increases speed and efficiency when loading dried blood spot samples into collection plates or tubes.

- Easy to Use - Foot Pedal Operation
- No Hand Fatigue or Blistering
- Reduces Processing Time
- Direct Insertion of Punched Disc into Collection Plate Well or Tube
- 3mm, 4mm, 5mm and 6mm Punch Sizes Available



Punch Size	Complete System <sup>1</sup>	Pod Only <sup>2</sup>	Replacement	
			Cutters <sup>3</sup>	Glass Pipette
3 mm	327300	327301	327903	327888
4 mm	327400	327401	327904	
5 mm	327500	327501	327905	
6 mm	327600	327601	327906	

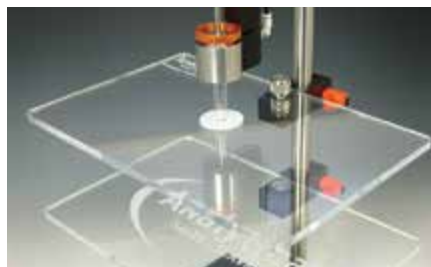
(1) Includes: Punch Pod Assembly, Base stand with Shelf, Foot Pneumatics and Tubing

(2) Includes: Foot Pneumatics and Tubing

(3) Cannot be interchanged between Punch Pod sizes.

### El Baidouri Shield

The El Baidouri Shield is an anti-contamination barrier which can be used when performing highly sensitive work, such as infectious disease research. The shield prevents micro punch-card particles (which may be ejected during operation) from potentially falling into adjacent wells, resulting in undesirable cross-contamination.



Cat. No.	Description
327970	El Baidouri Shield



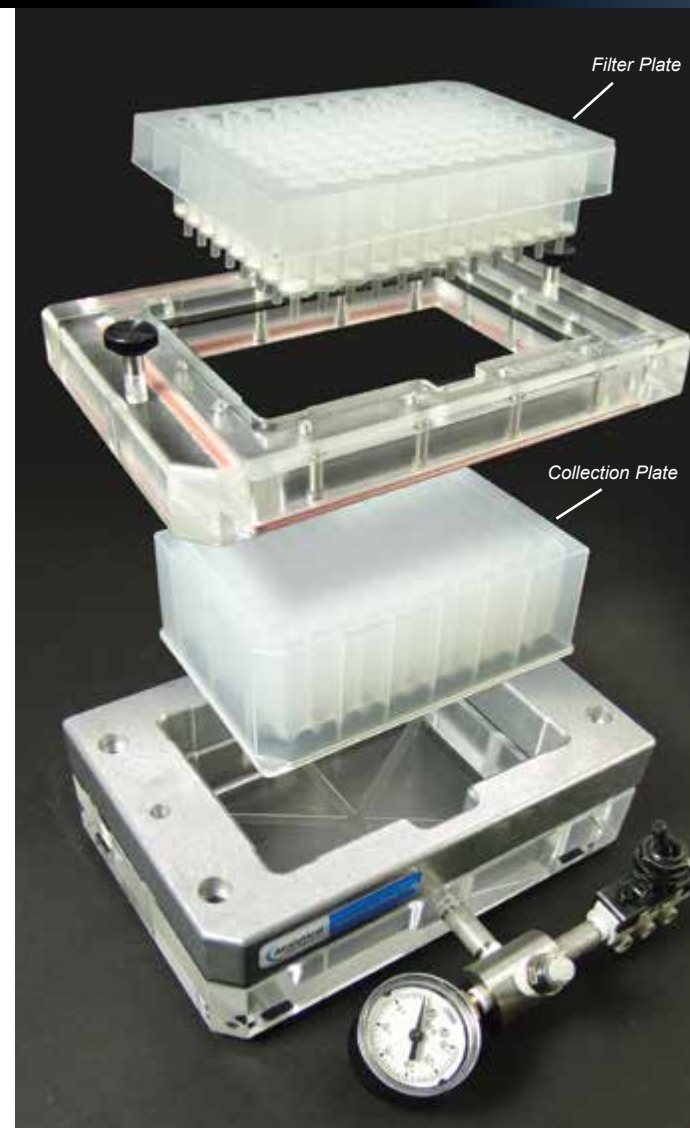
Operation requires air supply, set between 90-110 psi.



### End to End Micro Pipettes with Anticoagulant

- Micro sampling allows for more time points from animals

Cat. No.	Description	Qty
173313	8µL, K2EDTA	1000
174113	10µL, K2EDTA	1000
172513	15µL, K2EDTA	1200

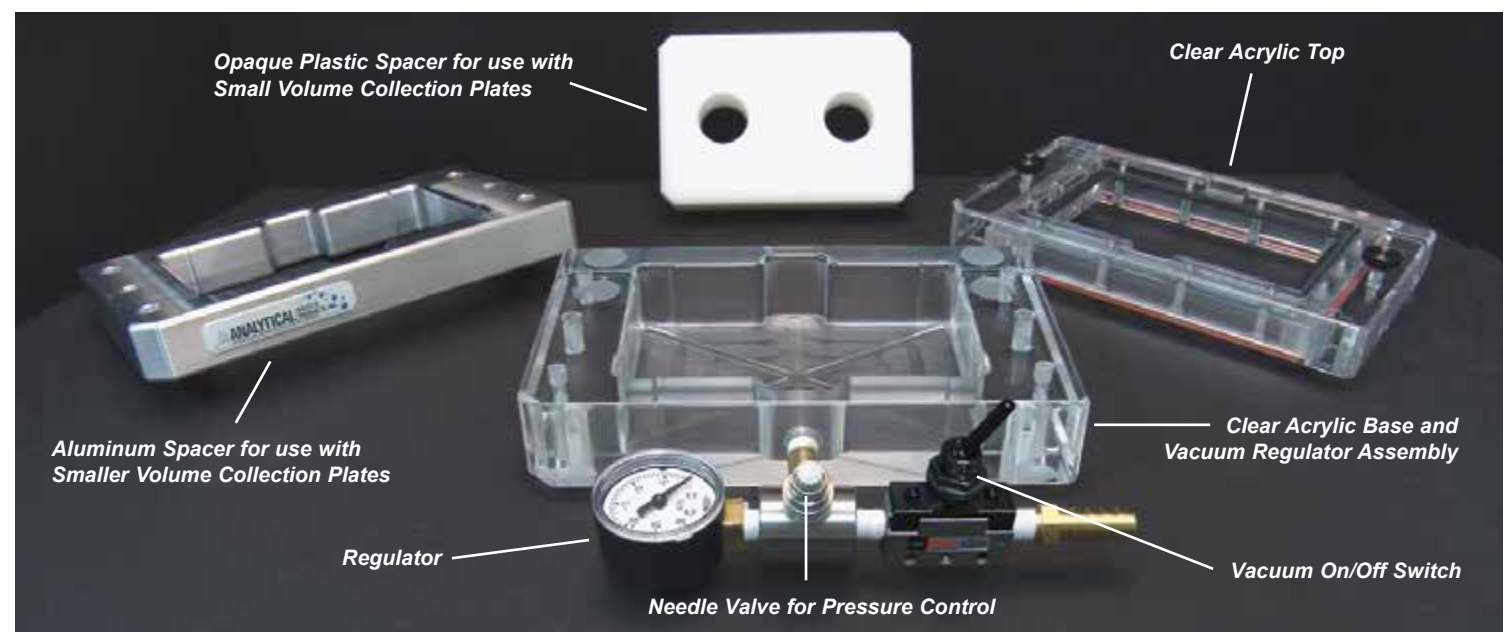


### Vacuum Manifold Filtration System for SPE Sample Preparation

- Sturdy, clear acrylic construction
- Adjustable vacuum control
- Easy access to filtrate
- Compatible with all standard filter bottom microplates
- Collect into any storage plate
- Compatible with robotic handling

The Vacuum Manifold Filtration System allows you to collect into any storage plate (including low volume collection plates) and is compatible with robotic handling systems. It uses an integral flat gasket between the collection plate and the filtration plate which stays totally secure within the system. A spacer is supplied for use with low volume collection plates. The Vacuum Manifold is constructed of tough acrylic for optimum performance and visual accessibility.

Cat. No.	Description
96844	Vacuum Manifold Filtration System for SPE Sample Filtration



Opaque Plastic Spacer for use with Small Volume Collection Plates

Clear Acrylic Top

Aluminum Spacer for use with Smaller Volume Collection Plates

Clear Acrylic Base and Vacuum Regulator Assembly

Regulator

Needle Valve for Pressure Control

Vacuum On/Off Switch





### Advantage™ Protein Crash Plates

for Protein Precipitation & Hepatocyte Filtration

- Proprietary frits produce optimized Protein Precipitation
- Use for Plasma, Urine, and other bioanalysis samples
- Works on all current manual or automated processing instrumentation

Advantage™ Protein Crash Plates for protein precipitation provide an extremely simple and rapid method for removing protein compounds from samples prior to downstream analysis. The plate has a unique hydrophobic membrane configuration which retains the acetonitrile/sample mixture during mixing or inoculation steps. The pore size of the filter decreases with the increase in depth so that larger particles and/or macromolecules are trapped on the surface and throughout the interior of the filter. The components are all medical grade polypropylene. The ending filtrate is ready for HPLC or MS analysis.

### Advantage™ 1mL 96-Well Protein Crash Plates

Cat. No.	Description	Qty
60513	1mL Protein Precipitate 96 Well Plate	1
60513-5	1mL Protein Precipitate 96 Well Plate	5

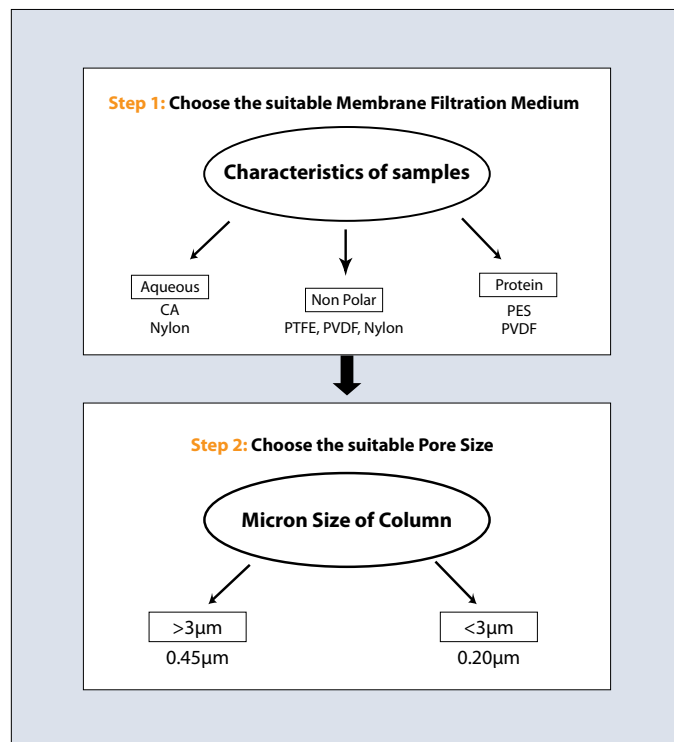
**Implementation in a new or existing assay couldn't be easier!**

#### Example Protocol for the Advantage™ Protein Precipitation Filter Plates:

- Add desired organic solvent (typically 3 x sample volume).
- Add sample (unknown, Std, QC, etc).
- Cover Filter Plate and Vortex.
- Draw liquid through filter via Centrifugation. Vortex again for 1 minute.
- You can also filter via vacuum. Extract samples with our 96 position Vacuum Manifold.

NOTE: Each well can hold up to 1.0 mL of liquid above the filter.  
ACN or MeOH will not break through our filter plates for hours.

When covering the filter plate we recommend using our Silicone/PTFE cap mat (#965007) or sealing film (#961801). See pages 5 and 7.



#### PRODUCT NOTE:

Our 1mL Protein Crash Plates are made under tight tolerances in our NJ facility. We are able to provide this product at a price point that makes protein precipitation plates a viable option once again! Check our web site or call for pricing.

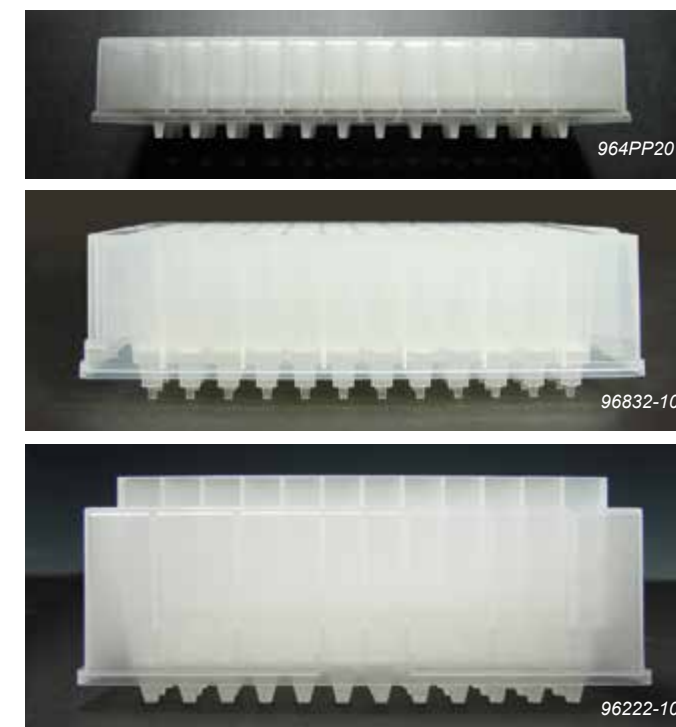


### Advantage™ 2mL 96-Well Protein Crash Plates

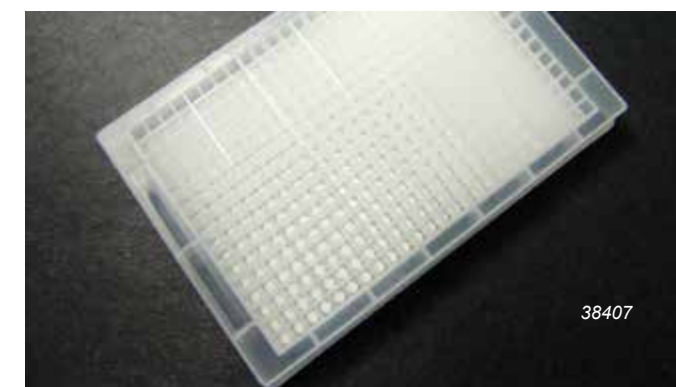
Cat. No.	Description	Qty
60223	2mL, 96-Well Plate w/ Grated Screen	1
60223-5	2mL, 96-Well Plate w/ Grated Screen	5
60223-10	2mL, 96-Well Plate w/ Grated Screen	10
60223-25	2mL, 96-Well Plate w/ Grated Screen	25

### Drug Discovery 96-Well Filter Plates

- Low Protein Binding
- General Filtration



Cat. No.	Description	Qty
96122-10	1mL Hydrophobic PP, 0.20µm	10
96222-10	2mL Hydrophobic PP, 0.20µm	10
96154-10	1mL Hydrophobic PP, 0.45µm	10
96254-10	2mL Hydrophobic PP, 0.45µm	10
964PP20	400µL Hydrophobic PP, 0.20µm, Long Drip	25
964PP45	400µL Hydrophobic PP, 0.45µm	25
96045	800µL Hydrophobic PP, 0.45µm, Long Drip	25
968PV20	800µL PVDF, 0.20µm	25



### General Filtration 384-well Filter Plates

Cat. No.	Description	Qty
38407	384-Well Filter Plates, 140µL, Glass Fiber, 0.7µm	10
38412	384-Well Filter Plates, 140µL, Glass Fiber, 1.2µm	10
38405	384-Well Filter Plates, 140µL, Glass Fiber, 5.0µm	10

### General Filtration 96-well Filter Plates

- After SPE
- Dilute and Shoot
- Use prior to LCMS and Microarraying
- Filtration of Tissue Culture Media, Antibiotics, Alcohols and protein Solutions

#### Low Protein Binding - Sample in Solvent

Cat. No.	Description	Qty
96152-10	1mL Hydrophilic PP, 0.20µm	10
96432-10	1mL Hydrophilic PVDF, 0.20µm	10
96465-10	2mL Hydrophilic PVDF, 0.20µm	10
96832-10	1mL Hydrophilic PVDF, 0.45µm	10
96835-10	2mL Hydrophilic PVDF, 0.45µm	10
96155-10	1mL Hydrophilic PP, 0.45µm	10
96245-10	2mL Hydrophilic PP, 0.45µm	10
96205-25	2mL, Glass Fiber, 5.0µm	25

#### General Biological Filtration - Aqueous Sample

Cat. No.	Description	Qty
96620-10	1mL Nylon Filter Plate, 0.20µm	10
96210-10	2mL Nylon Filter Plate, 0.20µm	10
96110-10	1mL Nylon Filter Plate, 0.45µm	10
96255-10	2mL Nylon Filter Plate, 0.45µm	10



### Molecular Weight Cut-off (MWCO) Filter Plates

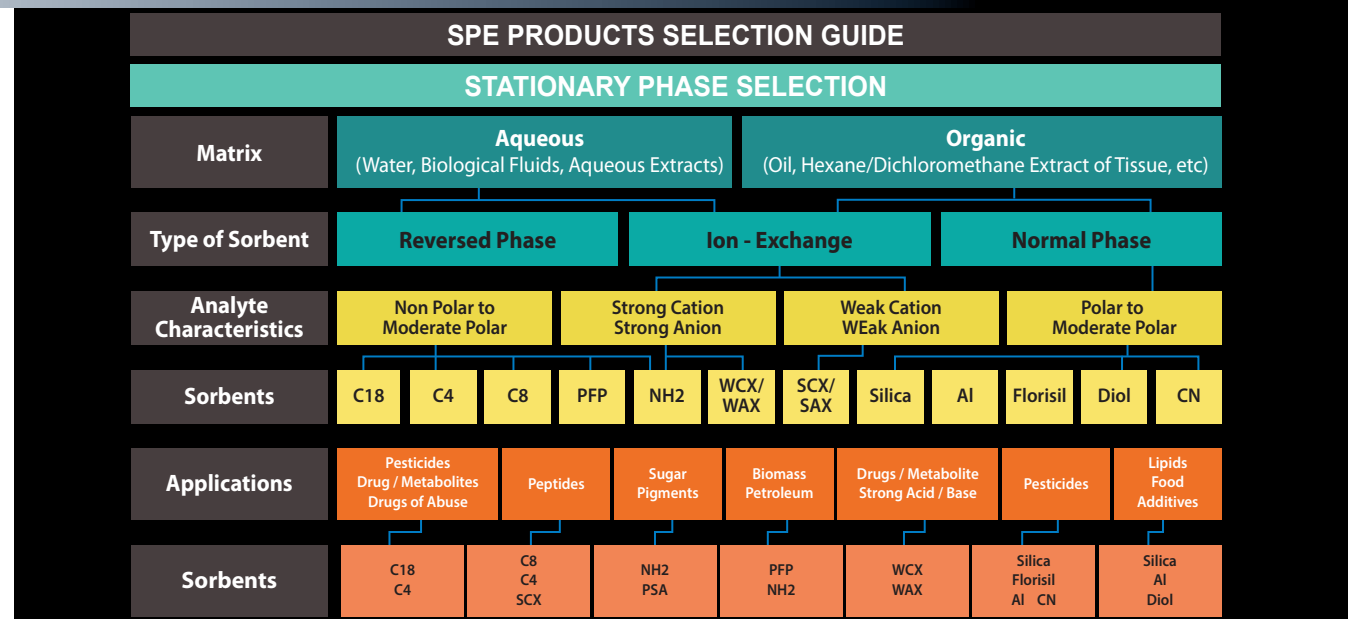
Cat. No.	Description	Qty
964014	400µL 96-Well Filter Plate with 10KDa PES Membrane	25
964016	400µL 96-Well Filter Plate with 30KDa PES Membrane	25
964097	400µL 96-Well Filter Plate with 100KDa PES Membrane	25
964099	400µL 96-Well Filter Plate with 300KDa PES Membrane	25



### 24-well Filter Plates

Cat. No.	Description	Qty
24152	24 Well Filter Plate, PE 25µm, 15mL	15
24465	24-Well Filter Plate, 0.2µm PVDF Membrane, 10mL/well, Long Drip	25
24463	24-Well Filter Plate, 0.45µm PVDF Membrane, 10mL/well, Long Drip	25
24469	24-Well Filter Plate, 0.2µm PES Membrane, 10mL/well, Long Drip	25
24467	24-Well Filter Plate, 0.45µm PES Membrane, 10mL/well, Long Drip	25
24171	24-Well Filter Plate, 25µm PE Membrane, 10mL/well, Long Drip	25
241010	24 Well Filter Plate, 10µm Hydrophobic PP, 15mL Volume	25





## Advantage™ 96-Well Solid Phase Extraction Plates



### 1.0mL 96-Well Extraction Plates

Our silica based sorbents resist occlusion by proteinaceous materials from samples. We combine size exclusion and absorption chromatography for better flow characteristics, enhanced detection and cleaner extracts. Each well is individually fritted.

Cat. No.	Description	Qty
<b>C8</b>		
9610C825	C8, 1.0mL/25mg Bed	Each
9610C850	C8, 1.0mL/50mg Bed	Each
9610C8100	C8, 1.0mL/100mg Bed	Each
<b>C18</b>		
9610C1825	C18, 1.0mL/25mg Bed	Each
9610C1850	C18, 1.0mL/50mg Bed	Each
9610C18100	C18, 1.0mL/100mg Bed	Each
<b>Silica</b>		
9610Si25	Silica, 1.0mL/25mg Bed	Each
9610Si50	Silica, 1.0mL/50mg Bed	Each
9610Si100	Silica, 1.0mL/100mg Bed	Each
<b>Amino (NH2)</b>		
9610NH25	Amino, 1.0mL/25mg Bed	Each
9610NH50	Amino, 1.0mL/50mg Bed	Each
9610NH100	Amino, 1.0mL/100mg Bed	Each
<b>Strong Anion Exchanger (SAX)</b>		
9610SAX25	SAX, 1.0mL/25mg Bed	Each
9610SAX50	SAX, 1.0mL/50mg Bed	Each
9610SAX100	SAX, 1.0mL/100mg Bed	Each
<b>Strong Cation Exchanger (SCX)</b>		
9610SCX25	SCX, 1.0mL/25mg Bed	Each
9610SCX50	SCX, 1.0mL/50mg Bed	Each
9610SCX100	SCX, 1.0mL/100mg Bed	Each



### 2.0mL 96-Well Extraction Plates

Our 2.2mL/well SPE plates are made from medical grade virgin polypropylene and have a standard footprint. Each well is individually fritted and has a larger exit diameter to enable faster flow rate.

Applications: Samples prepared in solid-phase extraction in drug development, drug analysis and pharmacokinetics.

Cat. No.	Description	Qty
<b>C8</b>		
9620C850	C8, 2.0mL/50mg Bed	Each
9620C8100	C8, 2.0mL/100mg Bed	Each
<b>C18</b>		
9620C1850	C18, 2.0mL/50mg Bed	Each
9620C18100	C18, 2.0mL/100mg Bed	Each
<b>Silica</b>		
9620Si50	Silica, 2.0mL/50mg Bed	Each
9620Si100	Silica, 2.0mL/100mg Bed	Each
<b>Amino (NH2)</b>		
9620NH50	Amino, 2.0mL/50mg Bed	Each
9620NH100	Amino, 2.0mL/100mg Bed	Each
<b>Strong Anion Exchange (SAX)</b>		
9620SAX50	SAX, 2.0mL/50mg Bed	Each
9620SAX100	SAX, 2.0mL/100mg Bed	Each
<b>Strong Cation Exchange (SCX)</b>		
9620SCX50	SCX, 2.0mL/50mg Bed	Each
9620SCX100	SCX, 2.0mL/100mg Bed	Each



Shown is a 12 Position Vacuum Manifold (Cat. No. 2100-00) and accessories.

- 1) 2125-15 Collection Rack, shelves, legs, clips and posts
- 2) 2131-12 Stopcock Valves
- 3) 2124-12 Polypropylene Outlet Needles
- 4) 2112-00 Stainless Steel Outlet Needles
- 5) Vacuum Valve and Gauge
- 6) Glass Collection Chamber
- 7) Polypropylene Lid

## Vacuum Manifolds for Solid Phase Extraction, Elution & Filtration Columns

### Complete Systems

Cat. No.	Description
2100-00	12 Position Vacuum Manifold System
2100-16	16 Position Vacuum Manifold System
2100-24	24 Position Vacuum Manifold System
2500-10	10 Position Flash Vacuum Manifold System

The manifold consists of a clear glass cabinet and top to which vacuum is applied. The top is fitted with 12, 16, or 24 female luer connectors in series with a similar number of stopcock valves. These luer connectors enable the manifolds to work with any male luer-hub sample prep device. Opening the stopcock valve under a clean-up device causes sample or solvent to be drawn through the device and into the cabinet where it can be collected by test tubes, autosampler vial, volumetric flasks, etc. The eluent is deposited directly into the collection vessel via polypropylene needles or optional stainless steel needles. The attached vacuum bleed valve and gauge allows the amount of vacuum to be controlled and monitored. The 16 Position Manifold was designed specifically for use with the robot compatible columns.

### Replacement Parts for 10 Position Vacuum Manifold

Cat. No.	Description	Qty
2500-11	Glass Chamber	Each
2500-12	Cover, Gasket, Valve & Glass Chamber	Each
2500-13	Gasket	Each
2500-14	Vacuum Gauge, Valve & Glass Chamber	Each
2500-15	Polypropylene Needles	10
2500-16	Stainless Steel Needle	Each
2500-17	Collection Rack	Each
2500-18	Plate for 19mm Tubes	Each
2500-20	Plate for 25mm Tubes	Each
2500-22	Dimple Plate	Each
2500-23	Base Plate	Each
2500-24	Stopcocks	10
2500-25	Drying Attachment	Each

### Replacement Parts for 12 Position Vacuum Manifold

Cat. No.	Description	Qty
2106-12	Plate for 13mm Test Tubes	Each
2111-12	Dimple Plate	Each
2112-00	Stainless Steel Outlet Needles	12
2113-12	Base Plate	Each
2114-12	Drying Attachment	Each
2120-00	Cover, Gaskets and 12 Stopcocks	Each
2123-04	12-Pos. Vacuum Gauge, Valve & Glass Block	Each
2124-12	Polypropylene Outlet Needles	12
2125-15	12-Position Collection Rack	Each
2126-01	Plate for Volumetric Flasks	Each
2127-01	Plate for 16mm Test Tubes	Each
2128-01	Plate for Autosampler Vials	Each
2131-10	Disposable Waste Containers	10
2131-12	One-Way Stopcocks	12
2132-12	Glass Chamber	Each
2140-12	Gasket	Each

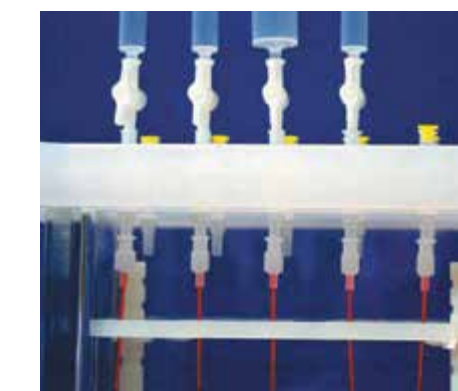
### Replacement Parts for 16 Position Vacuum Manifold

Cat. No.	Description	Qty
2101-16	16 Position Glass Chamber	Each
2102-16	Cover, Gaskets and 16 Stopcocks	Each
2103-16	Vacuum Gauge, Valve & Glass Block	Each
2104-16	16 Position Collection Rack	Each
2105-16	Plate for 16mm Test Tubes	Each
2106-16	Plate for 13mm Test Tubes	Each
2107-16	Gaskets for 16 and 24 Position	2
2108-16	Stainless Steel Outlet Needle	Each
2111-16	Dimple Plate	Each
2112-16	Stainless Steel Outlet Needles	16
2113-16	Base Plate	Each
2114-16	Drying Attachment	Each
2124-16	Polypropylene Outlet Needles	16
2131-16	One-Way Stopcocks	16

### Replacement Parts for All Vacuum Manifolds

Cat. No.	Description	Qty
2122-03	Vacuum Gauge & Valve Assembly	Each
2129-12	Retaining Clips	12
2120-02	Female Luer, Nylon (for top of lid)	Each
2121-02	Male Luer, Nylon (for bottom of lid)	2
2123-02	Support Posts for Rack	Each
2124-02	Black Legs for Cover	Each
2125-02	Valve Assembly	Each
2126-02	Vacuum Gauge	Each
2127-02	Plugs	Each
4124-10	Disposable Teflon Needles	100
4124-12	Disposable Teflon Needles	500
4202	Control Valve	25

SPE columns are available. Call for details.



This photo shows the path of the eluent as it is drawn down through the stopcock valves and polypropylene needles into the collection vessels.



### Molecular Weight Cut-Off Centrifuge Filters

#### Nucleotide Concentration, 100,000 MWCO

For use in concentration of DNA and RNA with at least 200 base pairs. Retention of polynucleotides on ultra filter membranes is based on the base pair content, not the molecular weight of double or single stranded pieces.

#### Polymerized Chain Reaction Clean-Up, 30,000 MWCO

Useful for the removal of primers and salts from polymerized chain reaction samples. The DNA is concentrated (retained) on the ultra filter membrane, while salts and primers pass through the membrane.

#### Protein Removal of Concentration, 5,000 to 300,000 MWCO

Protein can be removed or concentrated by choosing the proper molecular weight cut – off ultra filter membrane. To retain a desired species on the membrane, choose a MWCO that is lower than the molecular weight of the protein of choice.

### MWCO Micro Spin Filters

#### 800µL Capacity w/ 2mL Receiver Tubes

##### PES = Polyethersulfone

- Ideal for use in Life Science Applications to Remove Particulates During General Filtration
- Low Protein and Drug Binding Characteristics

##### PVDF = Polyvinylidene Fluoride

- Sterilizing Filtration of Biological Solutions
- Clarifying Filtration of Biological Solutions
- Provides High Flow Rates & Throughput
- Low Extractability & Broad Chemical Compatibility
- Hydrophobic

Cat. No.	Description	Qty
8690-01	MWCO Micro Spin Filters, PES Membrane, 1K	100
8690-03	MWCO Micro Spin Filters, PES Membrane, 3K	100
8690-05	MWCO Micro Spin Filters, PES Membrane, 5K	100
8690-10	MWCO Micro Spin Filters, PES Membrane, 10K	100
8690-30	MWCO Micro Spin Filters, PES Membrane, 30K	100
8690-50	MWCO Micro Spin Filters, PES Membrane, 50K	100
8690-100	MWCO Micro Spin Filters, PES Membrane, 100K	100
8690-300	MWCO Micro Spin Filters, PES Membrane, 300K	100
7833-30	MWCO Micro Spin Filters, PVDF Membrane, 30K	100
7833-100	MWCO Micro Spin Filters, PVDF Membrane, 100K	100
7833-250	MWCO Micro Spin Filters, PVDF Membrane, 250K	100



### Micro-Spin Filter Tubes

- Polypropylene housing
- Up to 850µL sample volumes
- Receiver tube holds a 2mL volume
- Max G-force is 10,000 x G

Cat. No.	Description	Qty
8502-00	0.45µm Cellulose Acetate	100
8503-00	0.20µm Cellulose Acetate	100
8504-00	0.45µm Nylon	100
8505-00	0.20µm Nylon	100
8507-00	0.45µm PVDF	100
8506-00	0.20µm PVDF	100
8508-00	0.45µm Polysulfone	100
8509-00	0.20µm Polysulfone	100
8515-00	0.45µm Polypropylene	100
8512-00	0.20µm Polypropylene	100
8514-00	0.45µm PTFE	100
8513-00	0.20µm PTFE	100



### Polypropylene Micro-Centrifuge Tubes

Cat. No.	Description	Qty
111540	1.5mL, Attached Flat Cap, Conical Bottom	1000
111552	2.0mL, Attached Flat Cap, Conical Bottom	1000

### Molecular Weight Cut-off (MWCO) filters – No return or refund policy

Due to the nature of this product's usage no returns or refunds can be offered. Samples may be available upon request. If applicable, customers may have to cover international shipping costs.

Analytical Sales & Services can only provide assistance in the practical workflow/usage for MWCO products (see [www.analytical-sales.com/manuals/MWCO\\_Filters\\_Supplemental\\_Info\\_rev1e.pdf](http://www.analytical-sales.com/manuals/MWCO_Filters_Supplemental_Info_rev1e.pdf)). No specific application support is available.

### Complete Vacuum Filter Systems

- Comes in 1 liter, 2 liter or inline systems
- Uses O-ring for secure closure
- Easy set up and clean up
- Made of durable polypropylene
- Great for small or large volumes

Cat. No.	Description	Qty
45531	1L Filter Funnel System - Includes: Manifold (w/ O-ring, GL-45 Cap, 53B Cap, SS Vacuum Port), Filter Retainer Ring, 1L Funnel, SS Filter Support, Adapter Kit	Each
45532	2L Filter Funnel System - Includes: Manifold (w/ O-ring, GL-45 Cap, 53B Cap, SS Vacuum Port), Filter Retainer Ring, 2L Funnel, SS Filter Support, Adapter Kit	Each
45530	Inline Filter System - Includes: Manifold (w/ O-ring, GL-45 Cap, 53B Cap, SS Vacuum Port), Inline Adapter Cap, Filter Retainer Ring, SS Filter Support, Adapter Kit	Each
45534	1L Filter Funnel System: Metal-Free, Includes: Manifold (w/ O-ring, GL-45 Cap, 53B Cap, PEEK Vacuum Port), Filter Retainer Ring, 1L Funnel, PEEK Filter Support, Adapter Kit	Each
45535	2L Filter Funnel System: Metal-Free, Includes: Manifold (w/ O-ring, GL-45 Cap, 53B Cap, PEEK Vacuum Port), Filter Retainer Ring, 2L Funnel, PEEK Filter Support, Adapter Kit	Each
45533	Inline Filter System: Metal-Free, Includes: Manifold (w/ O-ring, GL-45 Cap, 53B Cap, PEEK Vacuum Port), Inline Adapter Cap, Filter Retainer Ring, PEEK Filter Support, Adapter Kit	Each



### Replacement Parts & Accessories

Cat. No.	Description	Qty
45377	Filter Retainer Ring	Each
45311	1 Liter Funnel	Each
45322	2 Liter Funnel	Each
45373	Stainless Steel Filter Support	Each
45390	PEEK Filter Support	Each
45388	Silicone Rubber O-ring	Each
45389	Viton® Rubber O-ring	Each
45325	Adapter Kit	Each
45345	Inline Filter Adapter Cap with PEEK™ Port	Each





## Para-dox® Aluminum Reaction Blocks For Photoredox Catalysis and Parallel Synthesis Applications

A successful approach to high-throughput reaction screening requires the best tools available. Our comprehensive line of Photoredox Catalysis and Parallel Synthesis reaction blocks are exactly what you need. Designed specifically for high-throughput screening (HTS) applications, the SBS (SLAS/ANSI) format allows for use in any industry standard automation application.

- Useful for generating compound arrays (medicinal chemistry)
- Useful for conducting screening reaction conditions
- Can be used on tumble stirrers / hot plate stirrers / robotic platforms
- Can easily be used in a glovebox
- Temperature range -78°C – 150°C
- Validated to have less than 5% solvent loss with prolonged heating above boiling point
- Silicone Rubber Mats provide compression sealing
- Teflon® PFA Films keep the glass reaction vials from sticking to the silicone rubber mats during heating



### For 4x21mm (50µL) Flat Bottom Glass Inserts

	<b>Gen II</b> Micro 24-Position Photoredox Catalysis, Gen II 107240	<b>Gen II</b> Micro 96-Position Photoredox Catalysis, Gen II 103960	Micro 24-Position Photoredox Catalysis 24250	Micro 96-Position Photoredox Catalysis 96970
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### For 8x30mm (1mL) Clear Glass Shell or Crimp Top Vials

	<b>Gen II</b> Standard 96-Position Photoredox Catalysis, Gen II 101960	<b>Gen II</b> Standard 96-Position Parallel Synthesis, Gen II 104960	<b>Gen II</b> Standard 96-Position Photoredox LIGHTWEIGHT 102960	Standard 96-Position Photoredox/Parallel Synthesis 96973/ 96960
	<b>Gen II</b> Standard 24-Position Photoredox Catalysis/Parallel Synthesis, Gen II 102240	<b>Gen II</b> Standard 24-Position Photoredox Catalysis/Parallel Synthesis, Gen II 105240	Standard 24-Position Photoredox Catalysis/Parallel Synthesis 24253	24249
			48-Position TCR (page 50) 489900	

### For 12x32mm (2mL) Crimp/Snap Vials

	<b>Gen II</b> HPLC 48-Position Photoredox Catalysis, Gen II 101480	<b>Gen II</b> HPLC 48-Position Parallel Synthesis, Gen II 104480	HPLC 48-Position Photoredox Catalysis 48612	HPLC 48-Position Parallel Synthesis 48012
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### For 15x45mm (4mL) Clear Glass Screw Vials

	<b>Gen II</b> 1 Dram 24-Position Photoredox Catalysis, Gen II (18mm well spacing) 101240	<b>Gen II</b> 1 Dram 24-Position Parallel Synthesis, Gen II (18mm well spacing) 104240	<b>Gen II</b> 1 Dram 24-Position Photoredox Catalysis, Gen II w/ Temperature Transfer Cover 101250	
	1 Dram 24-Position Photoredox Catalysis (20mm well spacing) 24615	1 Dram 24-Position Parallel Synthesis (20mm well spacing) 24015	1 Dram 24-Position Photoredox Catalysis (18mm well spacing) 24626	

### For 17x60mm (8mL) Clear Glass Screw Vials

	<b>Gen II</b> 2 Dram 24-Position Photoredox Catalysis, Gen II (18mm well spacing) 103240	<b>Gen II</b> 2 Dram 24-Position Parallel Synthesis, Gen II (18mm well spacing) 106240	2 Dram 24-Position Photoredox Catalysis 24617	2 Dram 24-Position Parallel Synthesis 24017
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\* See page 65 for Vial Loader Trays



# Para-dox® Reaction Blocks

TCR - 48 POSITION, FOR 8X30 (1mL) VIALS



# Para-dox® Reaction Blocks

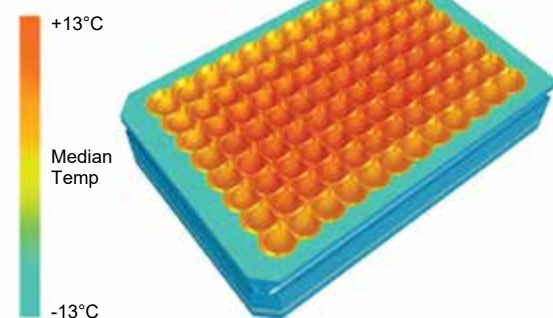
TCR - 24 POSITION, FOR 15X45 (1DRAM) VIALS



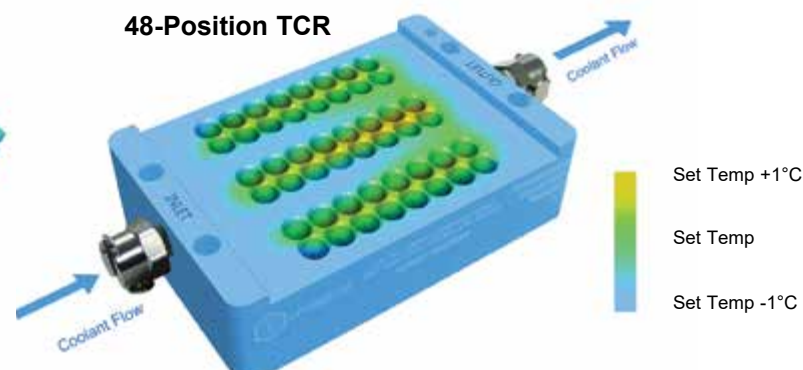
## Temperature Controlled Reactors (TCR) for 8x30mm (1mL) and 15x45mm (1 Dram) Vials

- Provides extremely uniform thermal control for high throughput experimentation (HTE) with a temperature difference of +/- 1°C
- Capable of enhanced reproducibility in heating and cooling applications
- High quality leak-proof CPC fittings for quick and easy tubing connection and removal
- Compatible with a wide range of heat transfer fluids such as water (down to 5°C), ethylene glycol, polypropylene glycol and silicone-based fluids (ie SYLTHERM™)
- Designed to standard SLAS dimensions (127.75mm x 85.5mm)
- Compatible with auto-samplers and high throughput chemistry devices
- 4mm holes in lid allow for use with most common autosampler needles
- Threaded holes (6-32) in lid for accessory attachment

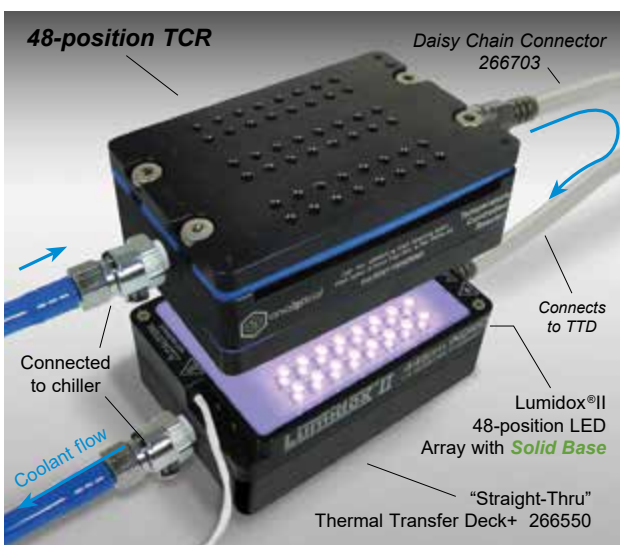
### First generation Photoredox Reactor (uncooled)



### 48-Position TCR



Simulated heat maps of a standard 96-position Photoredox Reactor Block vs. a 48-position Temperature Controlled Reactor (TCR) when used with a Lumidox®II 48 Position LED Array at full power (stage 5).



**Typical configuration:** 48-position TCR used in conjunction with a Lumidox®II 48-position Solid Base LED Array, a "Straight-Thru" Thermal Transfer Deck+ (for additional cooling of array) and connected to an external liquid chiller.

## 48-Position Temperature Controlled Reactor

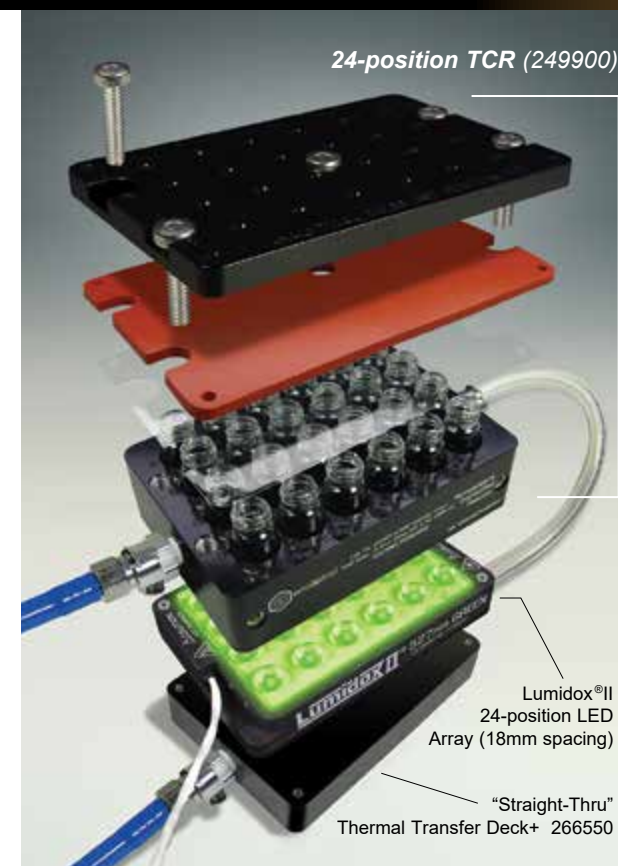
- For 8x30mm (1mL) Vials • 48 Wells (6 Rows of 8) • 9mm Well Spacing

Cat. No.	Description	Qty
489900	48-position TCR. Includes: PFA Film, Blue Fluorosilicone Sealing Mat, Rubber Gasket, Silicone O-Rings, CPC Fittings, PUR Tubing and Screws.	Each
489906	1/8" Thick, Blue Fluorosilicone Rubber Sealing Mats for TCR	5
489907	0.005" Thick PFA Sealing Films for TCR	25
489908	9mm OD, 6mm ID, 1.5mm Wide Silicone O-rings for TCR	50
SHS0034	SS Low-Profile Socket Head Screw w/ Hex Drive, 5/16"-18 Threads, 3/4" Long	5
84001-Case	1mL Clear Glass Shell Vials, 8 x 30mm	1000
488401	Vial Tray for TCR, Pre-loaded with 48 8x30 Shell Vials (84001-CASE)	Ea

## Solid Base Lumidox®II 48-position LED Array for TCR

- Lens Mat surface
- Requires Thermal Transfer Deck (TTD) connected to chiller

Cat. No.	Wavelength	Cat. No.	Wavelength	Cat. No.	Wavelength
LUM248LS365	UV365	LUM248LS405	UV405	LUM248LS527	527-GREEN
LUM248LS375	UV375	LUM248LS445	445-INDIGO	LUM248LS590	590-AMBER
LUM248LS385	UV385	LUM248LS470	470-BLUE	LUM248LS630	630-RED
LUM248LS395	UV395	LUM248LS505	505-CYAN	LUM248LSWHT	WHITE



## Screen & Scale-up with the Same Precision!

### 24-Position Temperature Controlled Reactor

- For 15x45mm (1 Dram) Vials
- 24 Wells (4 Rows of 6)
- 18mm Well Spacing

Cat. No.	Description	Qty
249900	24-position TCR. Includes: PFA Film, Silicone Rubber Sealing Mat, Rubber Gasket, CPC Fittings, PUR Tubing, Screws. Vials not included.	Each
101247	Top Rubber Mats for Gen II 24-Position Reactors (with 18mm Spacing)	25
101248	Top PFA Films for Gen II 24-Position Reactors (with 18mm Spacing)	25
SHS0114	Socket Head Screws for Gen II 24-Position Reactors, 5/16"-18 Threads, 1-1/4" Long	5
31531-Case	13mm, 15 x 45mm, 4mL (1 Dram) Clear Glass Screw Vials	1000
31554-Case	13mm Black PP Solid Screw Caps with PTFE/F217 Liners	1000

### Lumidox®II 24-position LED Array with 18mm Spacing, Solid Base

- Lens Mat surface
- Requires Thermal Transfer Deck (TTD) connected to chiller

Cat. No.	Wavelength (nm)	Cat. No.	Wavelength (nm)
LUM22418LS365	UV365	LUM22418LS470	470-BLUE
LUM22418LS375	UV375	LUM22418LS505	505-CYAN
LUM22418LS385	UV385	LUM22418LS527	527-GREEN
LUM22418LS395	UV395	LUM22418LS590	590-AMBER
LUM22418LS405	UV405	LUM22418LS630	630-RED
LUM22418LS420	420-VIOLET	LUM22418LSWHT	WHITE
LUM22418LS445	445-INDIGO		

### 24-Position TCR with Temperature Transfer Cover

Perfect for those who prefer to cap their vials instead of sealing them with the standard aluminum lid, rubber mat and PFA film that come with the block assembly. When used in conjunction with a Thermal Transfer Deck+ (TTD+) and external liquid chiller, the cover helps control excessive heat generated by a Lumidox® II LED array and also greatly reduces light bleed.

The Temperature Transfer Cover is also available separately (249913) and can be used with other Para-dox® Gen II 24-position reactor blocks (18mm spacing) for photoredox and parallel synthesis.

Cat. No.	Description	Qty
249800	24-Position TCR with Temperature Transfer Cover	Each
249913	Temperature Transfer Cover for Gen II, 24-Position, 18mm Spacing Reactors	Each

### Additional Required Parts

Cat. No.	Description	Qty
266550	Para-dox® "Straight-Thru" Thermal Transfer Deck (TTD)	Each
266703	Daisy Chain Connector for TCR and "Straight-Thru" TTD	Each
TCubeEdge	Recirculating Chiller. Operating Range: 0°C - 65°C	Each



## Tech Tip

- Temperature Controlled Reactor (TCR)\* - cools vials
- Thermal Transfer Deck (TTD)\* - cools LED Array (solid base)
- LED Array with solid base - needs TTD and chiller for cooling
- \* Connects to External Liquid Chiller, required



Gen II



107240

**Micro 24-Position Photoredox Catalysis Aluminum Reaction Blocks, Gen II**  
For 4x21mm, 50µL Glass Inserts

Catalog No.	Description	Qty
107240	Gen II, 24 Position, 4-BOLT, Photoredox Reaction Block for 4x21mm (50µL) Vials, with 9mm Well Spacing	Each
107245	Bottom Rubber Mats for 107240, Gen II 24 Position Reactor (4x21mm vials, 9mm spacing)	25pk
102247	Top Rubber Mats for Gen II 24 Position Reactor (9mm spacing)	25pk
102248	Top PFA Films for Gen II 24 Position Reactor (9mm spacing)	25pk
SHS0058	10-24, 5/8" Long, SS Socket Head Screw	5



102248



102247



SHS0058

Gen II



103960

**Micro 96-Position Photoredox Catalysis Aluminum Reaction Blocks, Gen II**  
For 4x21mm, 50µL Glass Inserts

Catalog No.	Description	Qty
103960	Gen II, 96 Position, 4-BOLT, Photoredox Reaction Block for 4x21mm (50µL) Vials, with 9mm Well Spacing	Each
103965	Bottom Rubber Mat for 103960, Gen II 96 Position Reactor (4x21mm vials, 9mm spacing)	Each
101967	Top Rubber Mats for Gen II 96-Position and 48-Position Reactors	25
101968	Top PFA Films for Gen II 96-Position and 48-Position Reactors	25
SHS0034	Socket Head Screws for Gen II 96-Position and 48-Position Reactors	5



101968



101967



SHS0034

**TECH NOTE:**

Replace PFA Films with every use for best performance

**Gen II Gen II NEW! Para-dox® Gen II Aluminum Reaction Blocks**

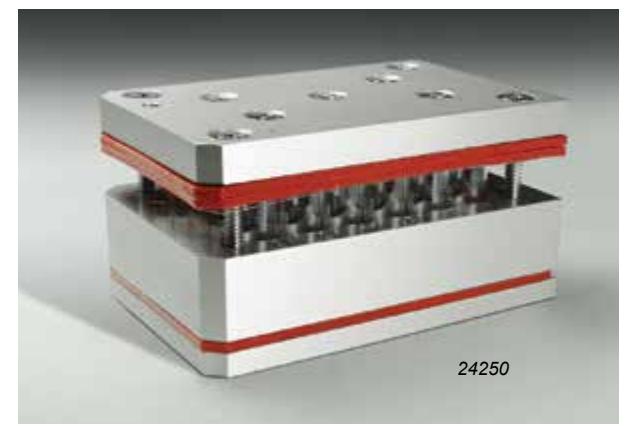
**For Photoredox Catalysis and Parallel Synthesis**

**Benefits of the Gen II line include:**

- Less bolts = less time to assemble
- Less light bleed when used with Lumidox® II LED arrays (48 and 96 position blocks)
- Less Maintenance
- Vials fit tighter (less shifting)
- Longer lasting screws (larger diameter, larger threads)

**Additional features:**

- Port for thermocouple, sensors, etc.
- Corner holes on both the lid and the bottom for accessory attachment
- Larger holes in lid to accommodate a variety of needle sizes
- Uses only one 1/8" rubber mat compared to two 1/16" mats on previous versions (makes for easier assembly)



24250

**Micro 24-Position Photoredox Catalysis Aluminum Reaction Blocks**  
For 4x21mm, 50µL Glass Inserts

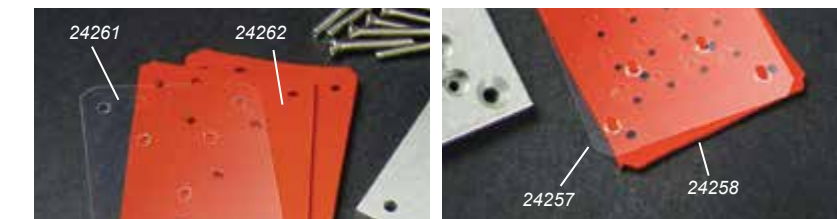
Cat. No.	Description	Qty
24250	Photoredox 24-Position Micro Block Assembly. Includes Vial Rack, Bottom and Top Covers, PFA Sheets, Rubber Mats and Screws	Each
24257	Bottom PFA Films	25
24258	Bottom Rubber Mats	25
24261	Top PFA Films for 24-Position Photoredox Micro	25
24262	Top Rubber Mats for 24-Position Photoredox Micro	25
1/2"SCREW96	1/2" Bottom Screws	100
1"SCREW	1" Bottom Screws	100

• 4x21mm flat-bottom glass micro vials, 50µL volume (25µL maximum volume if using tumble stir bars)



1/2"SCREW96

1"SCREW

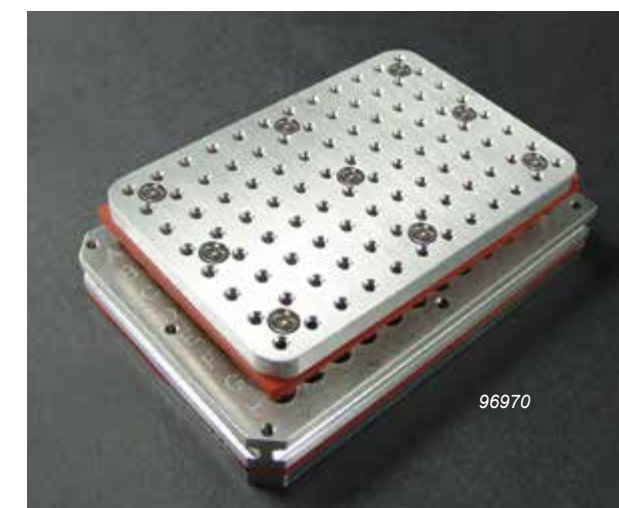


24261

24262

24257

24258



96970

**Micro 96-Position Photoredox Catalysis Aluminum Reaction Blocks**  
For 4x21mm, 50µL Glass Inserts

Cat. No.	Description	Qty
96970	Photoredox 96-Position Micro Block Assembly. Includes Vial Rack, Bottom and Top Covers, PFA Sheets, Rubber Mats and Screws	Each
96977	Bottom PFA Films	25
96978	Bottom Rubber Mats	25
96981	Top PFA Films for 96-Position Photoredox Micro	25
96982	Top Rubber Mats for 96-Position Photoredox Micro	25
1/2"SCREW96	1/2" Bottom Screws	100
1"SCREW	1" Top Screws	100



96981

96982

96978

96977

**Recommended for top performance!**  
**Assembled 4x21mm Vials in Stackable Tray**

- For easy loading - **Saves Time!**
- **Less Evaporation** compared to loose vials



Cat. No.	Description
96342	Assembled Stackable Tray Loaded with 4x21mm Flat-Bottom Vials (10421-CASE), Includes Tray and Vials



SD1000



13257

**Accessories**

Cat. No.	Description	Qty
10421-Case	Micro Vials - 50µL Flat Bottom Glass Inserts, 4x21mm	1000
13257	Magnetic Tumble Stir Bars, 1.32mm x 1.57mm (Fleas)	1000
SD1000	Milwaukee M4 1/4in. Hex Screwdriver Kit. Includes 2 Batteries and Charger (Note: batteries not available for international shipping)	Each



# Para-dox® Reaction Blocks

STANDARD (1mL, 8x30mm VIALS), GEN II



# Para-dox® Reaction Blocks

STANDARD (1mL, 8x30mm VIALS)

Gen II



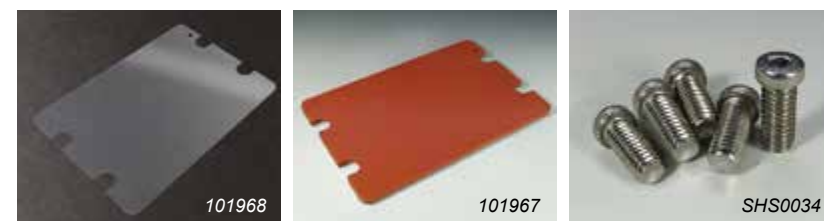
## Standard 96-Position Photoredox Catalysis Aluminum Reaction Blocks, Gen II for 1mL, 8x30mm Glass Inserts

Catalog No.	Description	Qty
101960	Gen II, 96 Position, 4-BOLT, Photoredox Reaction Block for 8x30mm (1mL) Vials, with 9mm Well Spacing	Each
101965	Bottom Rubber Mats for Gen II 96-Position Reactor (101960)	25

## Standard 96-Position Parallel Synthesis Aluminum Reaction Blocks, Gen II for 1mL, 8x30mm Glass Inserts

Catalog No.	Description	Qty
104960	Gen II, 96 Position, 4-BOLT, Parallel Synthesis Reaction Block for 8x30mm (1mL) Vials, with 9mm Well Spacing	Each
104965	Bottom Rubber Mats for 104960, Gen II 96 Position Reactor	25PK

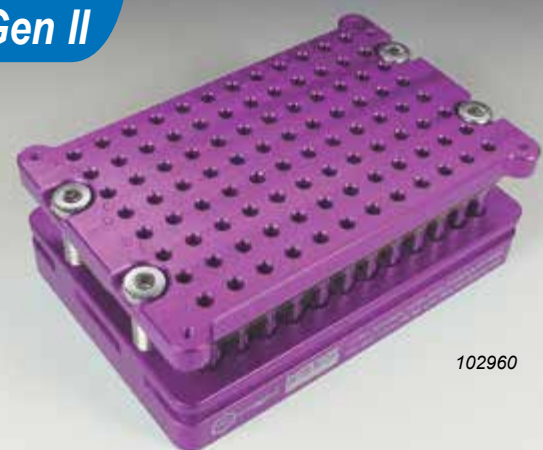
Gen II



### Replacement Parts (for photoredox AND parallel synthesis Gen II 96-position blocks)

Catalog No.	Description	Qty
101967	Top Rubber Mats for Gen II 96-Position and 48-Position Reactors	25
101968	Top PFA Films for Gen II 96-Position and 48-Position Reactors	25
SHS0034	Socket Head Screws for Gen II 96-Position and 48-Position Reactors	5

Gen II



## Standard 96-Position Photoredox LIGHTWEIGHT Reaction Block, Gen II for 1mL, 8x30mm Glass Inserts

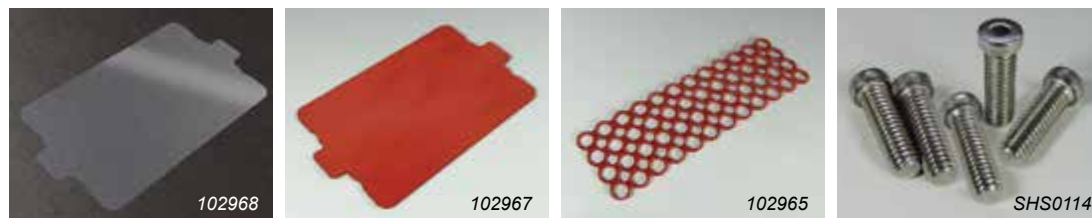
- 37% lighter than Gen II, 96-position standard 4-bolt reactor
- Great for use on a low-capacity balance with a 500g max limit
- Reduced weight allows for better centrifuge performance
- 9mm Well Spacing

Catalog No.	Description	QTY
102960	Gen II, 4-Bolt, 96-Position LIGHTWEIGHT Photoredox Reaction Block for 1mL, 8x30mm Glass Inserts. Includes Vial Rack, Top Cover, PFA Sheet, Rubber Mats and Screws	Each
102968	Top PFA Films for Gen II LIGHTWEIGHT 96-Position Reactor (102960)	25
102967	Top Rubber Mats for Gen II LIGHTWEIGHT 96-Position Reactor (102960)	25
102965	Bottom Rubber Mat for Gen II LIGHTWEIGHT 96-Position Reactor (102960) - (two required per block)	Each
SHS0114	Socket Head Screws for Gen II 24-Position Reactors and 96-Position Lightweight Reactors	5

### 96-Position Reactor Assembly Weight\*

Gen II, Lightweight (102960): 477.8g  
 - Base only, no lid or screws: 267.8g  
 Gen II, 4-Bolt (101960): 769.0g  
 Gen I, Original (96973): 536.0g

\* Weight without vials. Adding vials will add ~ 131g.

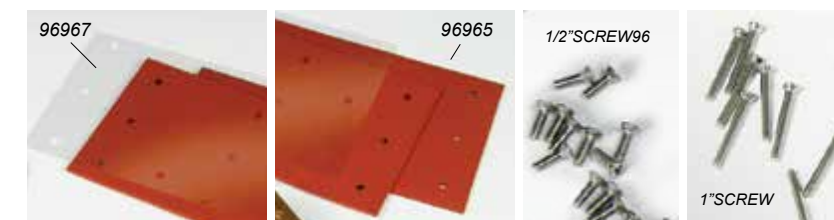


## Standard 96-Position Photoredox Catalysis Aluminum Reaction Blocks for 1mL, 8x30mm Glass Inserts

Cat. No.	Description	Qty
96973	Photoredox 96-Position Block Assembly Includes: Vial Rack, Covers, Mats, Films and Screws	Each
96979	Replacement Bottom Films for 96-Position Photoredox Block	25
96980	Replacement Bottom Mats for 96-Position Photoredox Block	25

## Standard 96-Position Parallel Synthesis Aluminum Reaction Blocks for 1mL, 8x30mm Glass Inserts

Cat. No.	Description	Qty
96960	Parallel Synthesis 96-Position Block Assembly. Includes Vial Rack, Top and Bottom Covers, PFA Films, Rubber Mats and Screws	Each



### Replacement Parts (for photoredox AND parallel synthesis 96-position blocks)

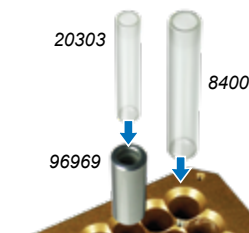
Cat. No.	Description	Qty
96967	Replacement Films for 96-Position Optimization Block	25
96965	Replacement Mats for 96-Position Optimization Block	25
1/2"SCREW96	1/2" Bottom Screws	100
1"SCREW	1" Top Screws	100

## Accessories

### Spacers for 5x31mm Inserts

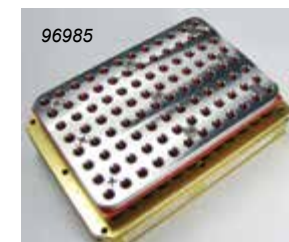
24 and 96 position blocks for 8x30mm inserts will also hold 250µL, 5x31mm inserts (part no. 20303) when used with anodized aluminum spacers (part no. 96969).

Cat. No.	Description	Qty
96969	Anodized Aluminum Spacers 5x31mm inserts	96



### Plugs for 8x30mm Vials Inserts

Cat. No.	Description	Qty
96077	Pierceable TPE Plugs on 96 Well Spine, Individual, for Tubes/Vials, Purple	5
96089	Pierceable TPE Plugs on 96 Well Spine, Strips of 8, for Tubes/Vials, Natural	5



### Top Cover with Wider Holes for 96-Position Reaction Blocks

- Enlarged (4.3mm) Holes
- 316 Stainless Steel
- Made for Automated Sampling Instruments

Cat. No.	Description
96985	Reaction Block Cover with 4.3mm Holes, 6mm Thick
96986	Reaction Block Cover with 4.3mm Holes, 3mm Thick

Cat. No.	Description	Qty
13258	SS Cylinder Stir Bars, 1.98mm x 4.80mm (for 8x30mm Vials)	1000
SD1000	Milwaukee M4 1/4in. Hex Screwdriver Kit, includes 2 Batteries and Charger (Note: batteries not available for international shipping)	Each

## Recommended for top performance! Assembled 8x30mm Vials in Stackable Tray

- For easy loading - Saves Time!
- Less Evaporation compared to loose vials



Cat. No.	Description
884001	Assembled Stackable Tray Loaded with 8x30mm Shell Vials (84001-CASE), Includes Tray and Vials

### Barcoded 8x30mm Vial Inserts in Tray for 96-Well Blocks

Cat. No.	Description
9984001	Barcoded 8x30mm Vial Inserts in Tray for 96-Well Blocks







**Standard 24-Position Photoredox Catalysis Aluminum Reaction Blocks, Gen II for 1mL, 8x30mm Glass Inserts**

Catalog No.	Description	Qty
102240	Gen II, 24 Position, 4-BOLT, <b>Photoredox</b> Reaction Block for 8x30mm (1mL) Vials, with 9mm Well Spacing	Each
102245	Bottom Rubber Mats for 102240, Gen II 24 Position Reactor (8x30mm vials, 9mm spacing)	25

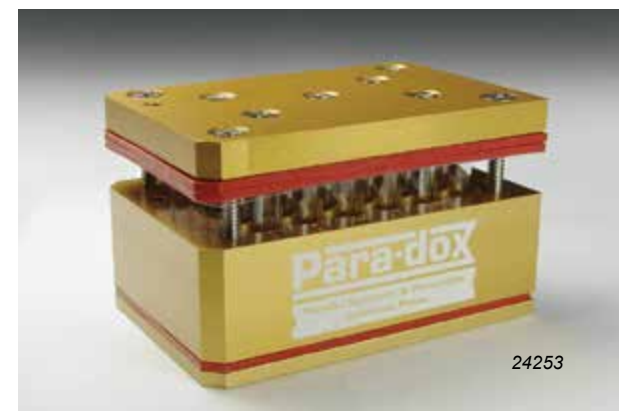
**Standard 24-Position Parallel Synthesis Aluminum Reaction Blocks, Gen II for 1mL, 8x30mm Glass Inserts**

Catalog No.	Description	Qty
105240	Gen II, 24 Position, 4-BOLT, <b>Parallel Synthesis</b> Reaction Block for 8x30mm (1mL) Vials, with 9mm Well Spacing	Each
105245	Bottom Rubber Mats for 105240, Gen II 24 Position Reactor (8x30mm vials, 9mm spacing, Closed)	25



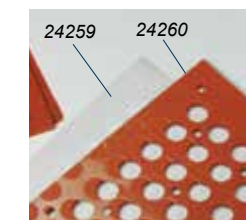
**Replacement Parts** (for *photoredox* AND *parallel synthesis* Gen II 24-position blocks)

Catalog No.	Description	Qty
102247	Top Rubber Mats for Gen II 24 Position Reactors (with 9mm Spacing)	25
102248	Top PFA Films for Gen II 24 Position Reactors (with 9mm spacing)	25
SHS0058	10-24, 5/8" Long, SS Socket Head Screw	5

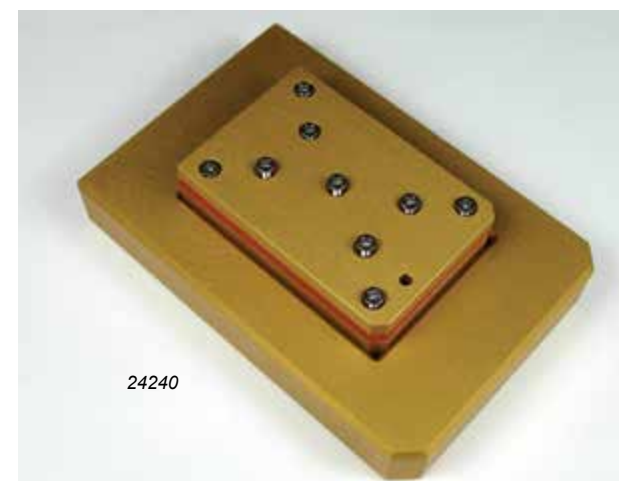


**Standard 24-Position Photoredox Catalysis Aluminum Reaction Blocks for 1mL, 8x30mm Glass Inserts**

Cat. No.	Description	Qty
24253	Photoredox 24-Position Block Assembly. Includes Vial Rack, Top Cover, Bottom Cover, PFA Films, Rubber Mats, Screws	Each
24259	Replacement Bottom Films for 24 Position, Photoredox Block	25
24260	Replacement Bottom Mats for 24 Position, Photoredox Block	25



Applies to photoredox block assembly (24253) only



**Standard 24-Position Parallel Synthesis Aluminum Reaction Blocks for 1mL, 8x30mm Glass Inserts**

Cat. No.	Description	Qty
24240	Parallel Synthesis 24-Position Block Assembly. Includes Vial Rack, Top Cover, Bottom Cover, PFA Films, Rubber Mats, Screws and Rack Adapter	Each
24249	Parallel Synthesis/Optimization 24-Position Block Assembly, <i>no Rack Adapter</i>	Each



**Replacement Parts** (for *photoredox* AND *parallel synthesis* 24-position blocks)

Cat. No.	Description	Qty
24247	Replacement Films for 24 Position, Optimization Block	25
24248	Replacement Mats for 24 Position, Optimization Block	25
3/8"SCREW24	3/8" Bottom Screws	100
1"SCREW	1" Top Screws	100
24245	Rack Adapter, Optional	Each

**Gen II Gen II NEW! Para-dox® Gen II Aluminum Reaction Blocks**  
**For Photoredox Catalysis and Parallel Synthesis**

**Benefits of the Gen II line include:**

- Less bolts = less time to assemble
- Less light bleed when used with Lumidox® II LED arrays (48 and 96 position blocks)
- Less Maintenance
- Vials fit tighter (less shifting)
- Longer lasting screws (larger diameter, larger threads)

**Additional features:**

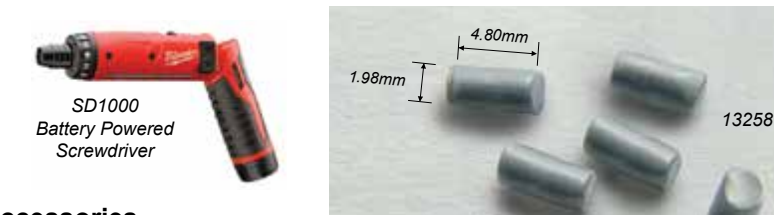
- Port for thermocouple, sensors, etc.
- Corner holes on both the lid and the bottom for accessory attachment
- Larger holes in lid to accommodate a variety of needle sizes
- Uses only one 1/8" rubber mat compared to two 1/16" mats on previous versions (makes for easier assembly)

**Parallel Synthesis vs. Photoredox Catalysis Reaction Blocks**

Reactors for both applications are nearly identical. The difference lies in the base (vial rack) of the block. Reactors for parallel synthesis have wells with closed bottoms, whereas photoredox blocks have wells with open holes in the bottom allowing for light transmission via a **Lumidox®II Array**, as well as to read 2D barcodes.



**TECH NOTE:**  
Replace PFA Films with every use for best performance



**Accessories**

Cat. No.	Description	Qty
84001-Case	1mL Clear Glass Shell Vials, 8 x 30mm	1000
13258	Stainless Steel Cylinder Stir Bars, 1.98mm x 4.80mm (for 8x30mm Vials)	1000
SD1000	Milwaukee M4 1/4in. Hex Screwdriver Kit. Includes 2 Batteries and Charger (Note: batteries not available for international shipping)	Each



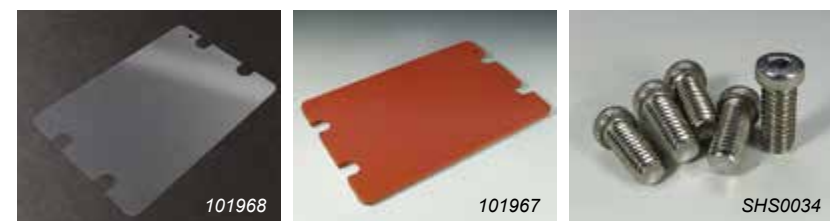


**HPLC 48-Position Photoredox Catalysis Aluminum Reaction Blocks, Gen II for 2mL, 12x32mm Vials**

Catalog No.	Description	Qty
101480	Gen II, 48 Position, 4-BOLT, Photoredox Reaction Block for 12mm OD (2mL) Vials, with 13mm Well Spacing	Each

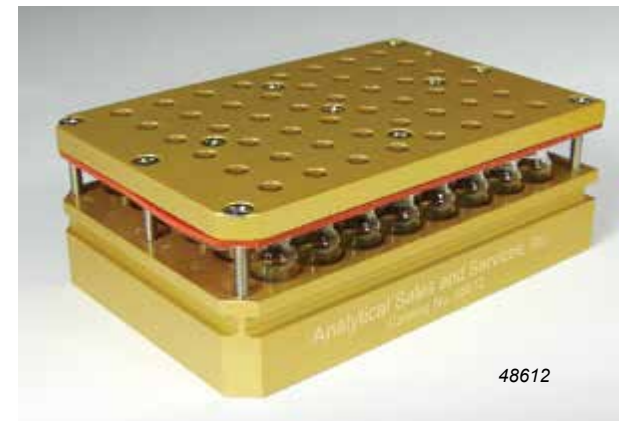
**HPLC 48-Position Parallel Synthesis Aluminum Reaction Blocks, Gen II for 2mL, 12x32mm Vials**

Catalog No.	Description	Qty
104480	Gen II, 48 Position, 4-BOLT, Parallel Synthesis Reaction Block for 12mm OD (2mL) Vials, with 13mm Well Spacing	Each



**Replacement Parts (for photoredox AND parallel synthesis Gen II 48-position blocks)**

Catalog No.	Description	Qty
101968	Top PFA Films for Gen II 96-Position and 48-Position Reactors	25
101967	Top Rubber Mats for Gen II 96-Position and 48-Position Reactors	25
SHS0034	Socket Head Screws for Gen II 96-Position and 48-Position Reactors	5

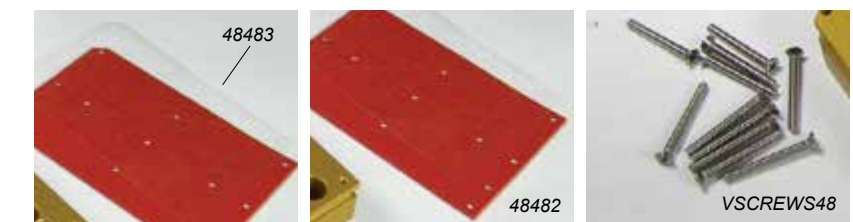
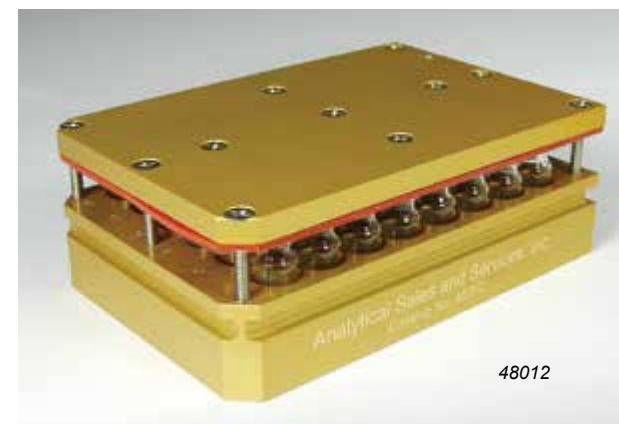


**HPLC 48-Position Photoredox Catalysis Aluminum Reaction Blocks for 2mL, 12x32mm Vials**

Catalog No.	Description	Qty
48612	48-Position <b>Open Top/Open Bottom</b> Aluminum Reaction Block for 12mm (2mL) OD Vials. Includes: Base Plate, Cover, Screws, PFA Film and 2 Rubber Mats	Each

**HPLC 48-Position Parallel Synthesis Aluminum Reaction Blocks for 2mL, 12x32mm Vials**

Catalog No.	Description	Qty
48012	48-Position Aluminum Reaction Block for 12mm (2mL) OD Vials. Includes: Base Plate, Cover, Screws, PFA Film and 2 Rubber Mats	Each



**Replacement Parts (for photoredox AND parallel synthesis 48-position blocks)**

Catalog No.	Description	Qty
48482	Rubber Mats for 48 Position (12mm OD) Reaction Blocks	25
48483	PFA films for 48 Position (12mm OD) Reaction Blocks	25
VSCREW48	1 1/4" Screws for 48-Position Aluminum Reaction Plate	100

**Gen II Gen II NEW! Para-dox® Gen II Aluminum Reaction Blocks**

**For Photoredox Catalysis and Parallel Synthesis**

**Benefits of the Gen II line include:**

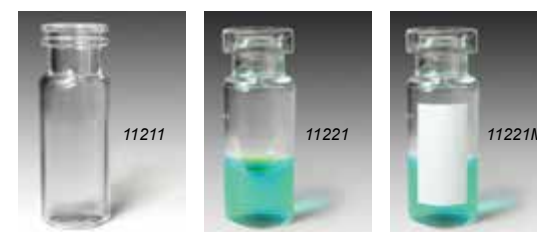
- Less bolts = less time to assemble
- Less light bleed when used with Lumidox® II LED arrays (48 and 96 position blocks)
- Less Maintenance
- Vials fit tighter (less shifting)
- Longer lasting screws (larger diameter, larger threads)

**Additional features:**

- Port for thermocouple, sensors, etc.
- Corner holes on both the lid and the bottom for accessory attachment
- Larger holes in lid to accommodate a variety of needle sizes
- Uses only one 1/8" rubber mat compared to two 1/16" mats on previous versions (makes for easier assembly)

**Parallel Synthesis vs. Photoredox Catalysis Reaction Blocks**

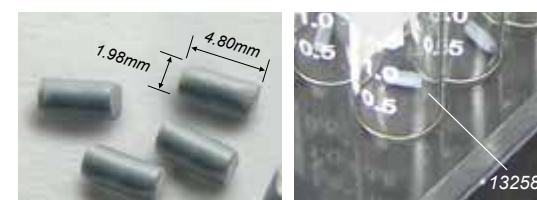
Reactors for both applications are nearly identical. The difference lies in the base (vial rack) of the block. Reactors for parallel synthesis have wells with closed bottoms, whereas photoredox blocks have wells with open holes in the bottom allowing for light transmission via a **Lumidox®II Array**, as well as to read 2D barcodes.



**Accessories**

**12 x 32mm vials (sold separately)**

Cat. No.	Description	Qty
11211-Case	11mm, 12 x 32, 2mL Wide Mouth Glass <b>Crimp/Snap</b> Vials	1000
11221-Case	11mm, 12 x 32, 2mL Wide Mouth Glass <b>Crimp</b> Vials	1000
11221M-Case	11mm, 12 x 32, 2mL Wide Mouth Glass <b>Crimp</b> Vials with Marking Spot	1000



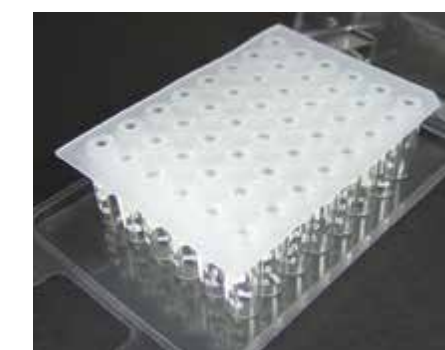
**SS Cylinder Stir Bars for 2mL HPLC Vials**

- Parylene Encapsulated
- For Photoredox and Parallel Synthesis Reaction Block Systems

Cat. No.	Description	Qty
13258	Stainless Steel Cylinder Stir Bars, 1.98mm x 4.80mm, for 2mL HPLC Vials	1000

**Magnetic Stir Bars**

Cat. No.	Description	Qty
50225	Magnetic Stir Bars, 5mm x 2mm, PTFE Coated	25
502100	Magnetic Stir Bars, 5mm x 2mm, PTFE Coated	100



**48-Position Numbered Crimp Vial Assembly for Reaction Blocks**

Cat. No.	Description	Qty
48221M	48-Position <b>Numbered</b> Crimp Vial Assembly. Includes: Vials (11221M) Marked 1-48; Stir Bar (13258) in Each Vial; 48-Position Cap Mat (99948)	Each



**Cap Mat for HPLC (2mL) Vials in 48-Position Block**

Cat. No.	Description	Qty
99948	Clear Silicone/PTFE Cap Mat for HPLC Vials in 48-Position Reaction Block	5





**1 DRAM, 24-Position Photoredox Catalysis Aluminum Reaction Blocks with 18mm Spacing, Gen II for 4mL (1 Dram), 15x45mm Vials**

Catalog No.	Description	Qty
101240	Gen II, 24 Position, 5-BOLT, Photoredox Reaction Block for 15mm OD (1 Dram) Vials, with 18mm Well Spacing	Each

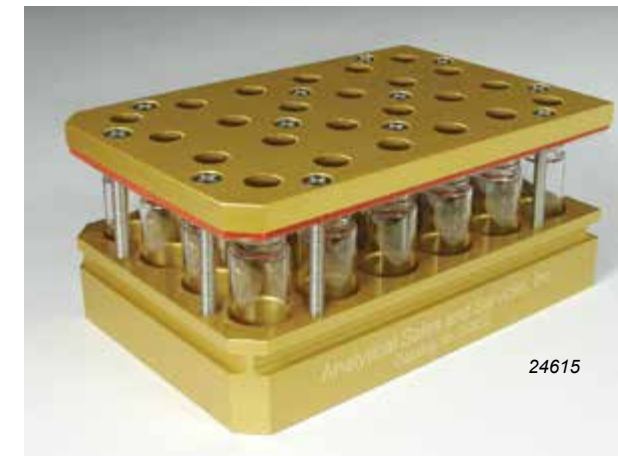
**1 DRAM, 24-Position Parallel Synthesis Aluminum Reaction Blocks with 18mm Spacing, Gen II for 4mL (1 Dram), 15x45mm Vials**

Catalog No.	Description	Qty
104240	Gen II, 24 Position, 5-BOLT, Parallel Synthesis Reaction Block for 15mm OD (1 Dram) Vials, with 18mm Well Spacing	Each



**Replacement Parts** (for photoredox AND parallel synthesis Gen II 24-position blocks)

Catalog No.	Description	Qty
101247	Top Rubber Mats for Gen II 24-Position Reactors (with 18mm Spacing)	25
101248	Top PFA Films for Gen II 24-Position Reactors (with 18mm Spacing)	25
SHS0114	Socket Head Screws for Gen II 24-Position Reactors and 96-Position Lightweight Reactors	5

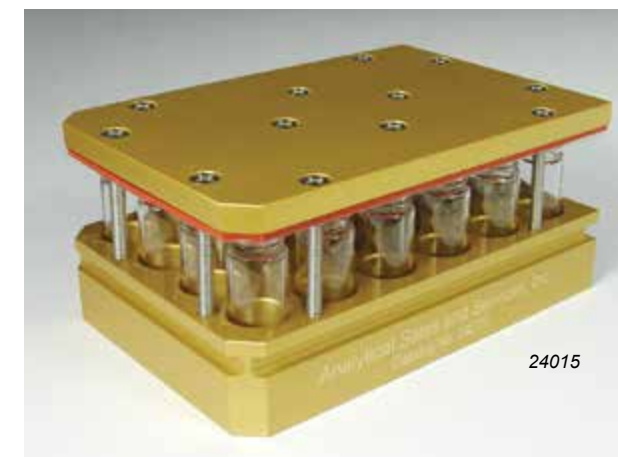


**1 DRAM, 24-Position Photoredox Catalysis Aluminum Reaction Blocks (20mm spacing) for 4mL (1 Dram), 15x45mm Vials**

Cat. No.	Description	Qty
24615	24-Position, Open Top/Open Bottom Aluminum Reaction Block for 15mm OD (1 Dram) Vials, Includes: Base Plate, Cover, Screws, PFA Film and 2 Rubber Mats	Each

**1 DRAM, 24-Position Parallel Synthesis Aluminum Reaction Blocks (20mm spacing) for 4mL (1 Dram), 15x45mm Vials**

Cat. No.	Description	Qty
24015	24-Position Aluminum Reaction Block for 15mm OD (1 Dram) Vials, Includes: Base Plate, Cover, Screws, PFA Film and 2 Rubber Mats	Each



**Replacement Parts** (for photoredox AND parallel synthesis Gen II 24-position blocks)

Cat. No.	Description	Qty
24282	High-Temp Silicone/Rubber Cover for 24-Position Reaction Blocks for Vials	25
24283	PFA Film (0.005" Thick) for 24-Position Reaction Blocks for Vials	25
VSCREW24	1 3/4" Screws for 24-Position Aluminum Reaction Plate	100



Our 24-position Photoredox Catalysis Reactors with 18mm spacing (Gen II and original) are built specifically for use with our Lumidox® II 24-position, 18mm spaced Lens Mat Arrays

See page 72 for more information



**Temperature Transfer Cover for 24-Position, 18mm Spacing Reactors for 15mm OD Vials**

Perfect for those who prefer to cap their vials instead of sealing them with the standard aluminum lid, rubber mat and PFA film that come with the block assembly. When using the block assembly in conjunction with a Thermal Transfer Deck+ (TTD+) and external liquid chiller, the cover helps control excessive heat generated by a Lumidox® II LED array and also greatly reduces light bleed.

The vials in the reactor block provide the alignment for the cover, but for extra stability users can secure the cover with four (4) bolts. The cover can also be flipped over and used as a reactor in itself or vial tray.

The Temperature Transfer Cover is available in a complete block assembly (101250) or as a separate part (249913).

Cat. No.	Description	Qty
101250	Gen II, 24-Position Photoredox Reaction Block (18mm Well Spacing) for 15x45mm (1 Dram) Vials, with Temperature Transfer Cover. Does NOT include rubber mat, PFA film and standard lid.	Ea
249913	Temperature Transfer Cover ONLY - for Gen II 24-Position Reactors with 18mm Well Spacing	Ea



**1 DRAM, 24-Position Photoredox Catalysis Aluminum Reaction Blocks with 18mm Spacing for 4mL (1 Dram), 15x45mm Vials**

Cat. No.	Description	Qty
24626	24-Position Aluminum Reaction Block with 18mm spacing between well centers. For 15mm OD (1 Dram) Vials. Includes: Base Plate, Cover, Screws, PFA Film and 2 Rubber Mats	Each
24121	PFA Films for 24 Position, 18mm Spacing Reaction Blocks	25
24120	Silicone/Rubber Mats for 24 Position, 18mm Spacing Reaction Blocks	25
VSCREW24	1 3/4" Screws for 24-Position Aluminum Reaction Plate	100



Use with 15 x 45mm vials, sold separately. See part number 31531-Case.



**Vials and Caps**

Cat. No.	Description	Qty
31531-Case	Advantage™ 13mm, 15 x 45, 4mL Clear Glass Screw Vials, Case	1000
31554-Case	PTFE Lined Cap	1000



Gen II



**2 DRAM, 24-Position Photoredox Catalysis Aluminum Reaction Blocks with 18mm Spacing, Gen II**  
For 17x60mm, 8mL (2 Dram) Glass Vials

Catalog No.	Description	Qty
103240	Gen II, 24 Position, 5-BOLT, Photoredox Reaction Block for 17mm OD (2 Dram) Vials, with 18mm Well Spacing	Each

**2 DRAM, 24-Position Parallel Synthesis Aluminum Reaction Blocks with 18mm Spacing, Gen II**  
For 17x60mm, 8mL (2 Dram) Glass Vials

Catalog No.	Description	Qty
106240	Gen II, 24 Position, 5-BOLT, Parallel Synthesis Reaction Block for 17mm OD (2 Dram) Vials, with 18mm Well Spacing	Each

Gen II



**Replacement Parts** (for photoredox AND parallel synthesis Gen II 24-position blocks)

Catalog No.	Description	Qty
101247	Top Rubber Mats for Gen II 24-Position Reactors (with 18mm Spacing)	25
101248	Top PFA Films for Gen II 24-Position Reactors (with 18mm Spacing)	25
SHS6140	M6x1, 40mm Long, Low-Profile Socket Head Screw	5PK

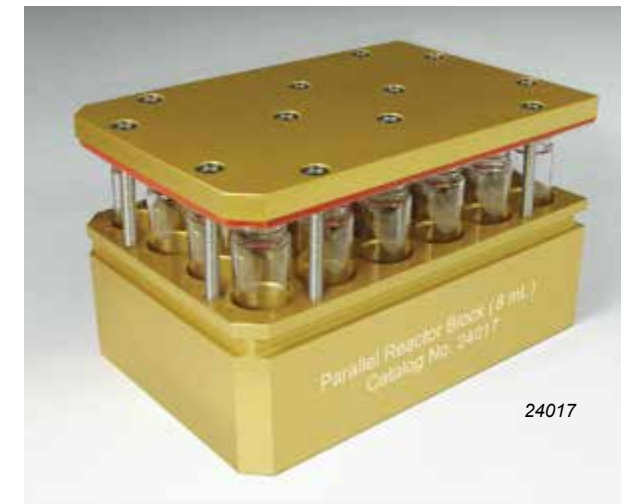


**2 DRAM, 24-Position Photoredox Catalysis Aluminum Reaction Blocks**  
for 8mL (2 Dram), 17x60mm Vials

Cat. No.	Description	Qty
24617	24-Position, <b>Open Top/Open Bottom</b> Aluminum Reaction Block for 17mm OD (2 Dram) Vials, Includes: Base Plate, Cover, Screws, PFA Film and 2 Rubber Mats	Each

**2 DRAM, 24-Position Parallel Synthesis Aluminum Reaction Blocks**  
for 8mL (2 Dram), 17x60mm Vials

Cat. No.	Description	Qty
24017	24-Position Aluminum Reaction Block for 17mm OD (2 Dram) Vials. Includes: Base Plate, Cover, Screws, PFA Film and 2 Rubber Mats	Each



**Replacement Parts** (for photoredox AND parallel synthesis Gen II 24-position blocks)

Cat. No.	Description	Qty
24282	High-Temp Silicone/Rubber Cover for 24-Position Reaction Blocks for Vials	25
24283	PFA Film (0.005" Thick) for 24-Position Reaction Blocks for Vials	25
VSCREW24	1 3/4" Screws for 24-Position Aluminum Reaction Plate	100

**Gen II Gen II NEW! Para-dox® Gen II Aluminum Reaction Blocks**

**For Photoredox Catalysis and Parallel Synthesis**

**Benefits of the Gen II line include:**

- Less bolts = less time to assemble
- Less light bleed when used with Lumidox® II LED arrays (48 and 96 position blocks)
- Less Maintenance
- Vials fit tighter (less shifting)
- Longer lasting screws (larger diameter, larger threads)

**Additional features:**

- Port for thermocouple, sensors, etc.
- Corner holes on both the lid and the bottom for accessory attachment
- Larger holes in lid to accommodate a variety of needle sizes
- Uses only one 1/8" rubber mat compared to two 1/16" mats on previous versions (makes for easier assembly)

**Parallel Synthesis vs. Photoredox Catalysis Reaction Blocks**

Reactors for both applications are nearly identical. The difference lies in the base (vial rack) of the block. Reactors for parallel synthesis have wells with closed bottoms, whereas photoredox blocks have wells with open holes in the bottom allowing for light transmission via a **Lumidox® II Array**, as well as to read 2D barcodes.



Use with 17 x 60mm vials, sold separately. See part number 31760-Case.



**Vials and Caps**

Cat. No.	Description	Qty
31760-Case	Advantage™ 17 x 60mm, 8mL Clear Glass Screw Vials, Case	1000
31542-CASE	15mm Solid Black Polypropylene Screw Caps with PTFE/F217 Liners	1000
31543-CASE	Black Open Top PP Cap with PTFE/Silicone (0.065") Setpa, 15-425mm Thread	1000



**Accessories**

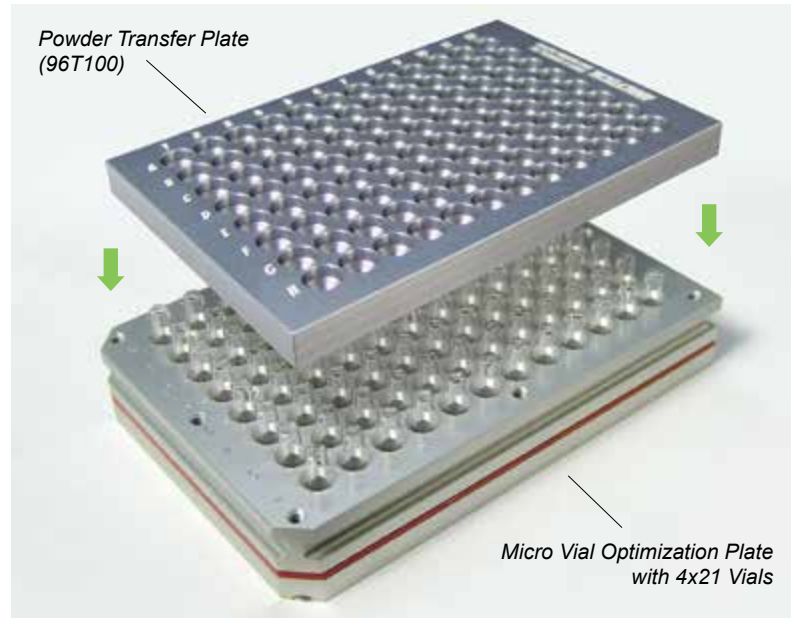
Cat. No.	Description	Qty
84001-Case	1mL Clear Glass Shell Vials, 8 x 30mm	1000
13258	Stainless Steel Cylinder Stir Bars, 1.98mm x 4.80mm (for 8x30mm Vials)	1000
SD1000	Milwaukee M4 1/4in. Hex Screwdriver Kit. Includes 2 Batteries and Charger (Note: batteries not available for international shipping)	Each

**TECH NOTE:**  
Replace PFA Films with every use for best performance



**Powder Transfer Plate for 4x21mm Vials**  
*Easily dispense powder into 4x21mm (50µL) Micro Vials*

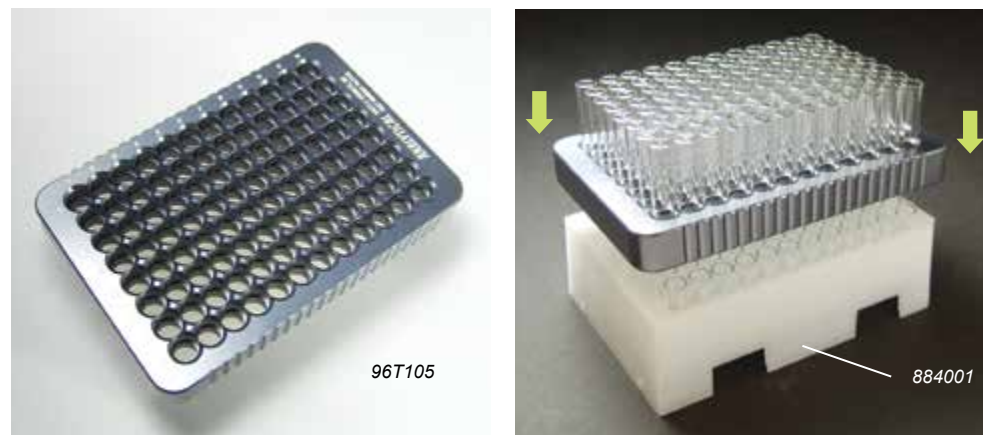
- Wide funneled holes guide powder into vials
- Grooves on bottom surface "lock" vials into position to avoid spillage



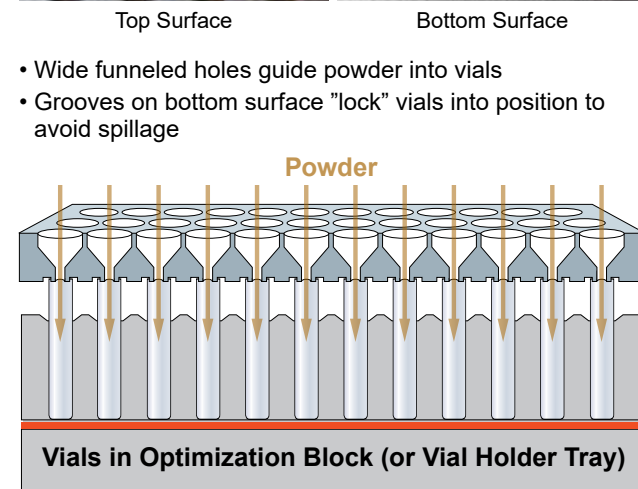
- Use with:**
- 96-Position Polypropylene Tray with 4x21mm Vials (96342)
  - 4x21mm Vials (10421-Case) in 96-Position Micro Optimization Block (96970)

Cat. No.	Description	Qty
96T100	Powder Transfer Plate for 4x21 Vials	Each

**Powder Transfer Plate for 8x30mm Vials**  
*Use to transfer powder from vial to vial or to mix powders between vials*



Cat. No.	Description	Qty
96T105	Powder Transfer Plate for 8x30mm Vials	Each
884001	96-Position Stackable Tray Loaded with 8x30mm Shell Vials	Each



- Wide funneled holes guide powder into vials
- Grooves on bottom surface "lock" vials into position to avoid spillage

1. Lower plate onto vials and let the vials "settle" into the grooves on the bottom surface of transfer plate
2. Powder can now be easily dispensed into each vial

**PRODUCT NOTE:**  
Additional funnel plates are under development for various vials sizes. Please inquire with us.



Flip repeatedly to mix powders between vials

**Assembled Vials in Stackable Trays**

- For easy loading - **Saves Time!**
- Our thorough QC process ensures **Less Evaporation** compared to loose vials

*Recommended for top performance!*

**8x30mm Crimp Top Vials in Loaders**

**8x30mm Crimp Top Vials for TCR (48)**

Cat. No.	Description	Qty
488408	Assembled Stackable Tray Loaded with 48 8x30mm Crimp Top Vials (84008-CASE) for TCR, Includes Tray and Vials	Each

**8x30mm Crimp Top Vials (96)**

Cat. No.	Description	Qty
884008	Assembled Stackable Tray Loaded with 96 8x30mm Crimp Top Vials (84008-CASE), Includes Tray and Vials	Each

**Shell Vials in Loaders**

**8x30mm Glass Inserts for TCR (48)**

Cat. No.	Description	Qty
488401	Assembled Stackable Tray Loaded with 48 8x30mm Flat-Bottom Vials (84001-CASE) for TCR, Includes Tray and Vials	Each

**8x30mm Glass Inserts (96)**

Cat. No.	Description	Qty
884001	Assembled Stackable Tray Loaded with 8x30mm Shell Vials (84001-CASE), Includes Tray and Vials	Each

**4x21mm Vials (96)**

Cat. No.	Description	Qty
96342	Assembled Stackable Tray Loaded with 4x21mm Flat-Bottom Vials (10421-CASE), Includes Tray and Vials	Each

**5x31mm Vials (96)**

Must be used with Aluminum Spacers (96969)

Cat. No.	Description	Qty
96242	Assembled Stackable Tray Loaded with 5x31mm Flat-Bottom Vials (20303-CASE), Includes Tray and Vials	Each





## For Photoredox Catalysis Applications

Taking advantage of recent breakthroughs in LED technology, Analytical now offers the next generation Lumidox® II with higher optical/radiometric power than ever before. Lumidox II offers a multitude of unique and complimenting photonic devices, in varying wavelengths, amplitudes and footprints.

The Lumidox II collection includes new LED Arrays with a wider range of options to choose. Also, check out our LumLamp for experimental applications. All of our Lumidox II illumination devices are controlled by the Lumidox II controller.

### Lumidox II Arrays and LumLamps are available in up to 15 wavelengths:

365 (UV365) 405 (UV405) 505 (Cyan) 660 (Deep Red)  
 375 (UV375) 420 (Violet) 527 (Green) 730-IR (Infrared)  
 385 (UV385) 445 (Indigo) 590 (Amber) White  
 395 (UV395) 470 (Blue) 630 (Red)

Analytical has also developed a myriad of complimentary apparatus that works with Lumidox. These range from SLAS cooling blocks to our new Temperature Controlled Reactors (TCR, page 50). We also offer high throughput electrochemical assemblies that can work with Lumidox to expand your experimentation into electro-photochemical reactions (see page 78).

### Lumidox® II Line of products:

- 96-position LED Arrays
- 48-position LED Arrays for TCR (see page 50)
- 24-position Arrays
- LumLamps
- Lumidox II Controller
- Cell Culture Plate Adapters for Lumidox II LED Arrays (see website)

### Key Features:

- Reduces photochemical reaction time
- Up to 5 selectable output STAGES
- Up to 15 wavelengths available
- Higher optical/radiometric power than previous Lumidox line of products
- Patented LED array design
- Experiment with electro-photochemical reactions by pairing with HTE<sup>™</sup>Chem Electrochemistry Assemblies (see page 78)

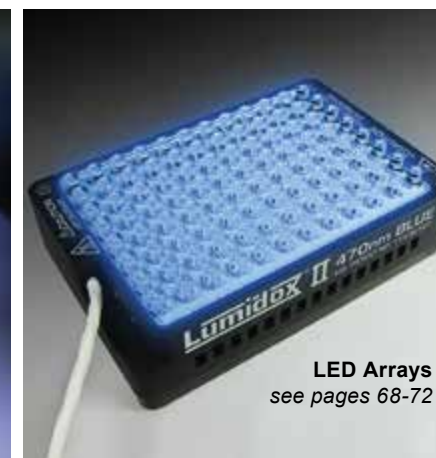
Lumidox II Controller



Peripheral Devices



LumLamp  
see page 77



LED Arrays  
see pages 68-72

### Lumidox® II Controller

- Controls the output of a Lumidox Array or LumLamp
- Select one of 5 levels of optical power (STAGES). STAGES are displayed in easy to read, easy to calculate whole numbers.
- Onboard illumination elapsed timer
- Automatic countdown shut-off timer
- **USB Enabled API** - for advanced users running their setups remotely

Catalog No.	Description
LUM2CON	Lumidox II LED Controller. Includes: Controller, Power Supply, Power Cable, Manual

### PRODUCT NOTE:

Arrays and LumLamps are tuned in-house. Calibration data is stored onboard (not on the controller), allowing the use of different illuminators with one controller. Note: the controller can operate different Lumidox devices, but only 1 device at a time.

### LED Output STAGES

By default, all Lumidox II devices are factory calibrated with 5 discrete linearly stepped output STAGES. STAGE 1 output is the least radiometric power while STAGE 5 output is the most. STAGES are calibrated to the nearest whole number of radiant flux, and displayed in milliwatts (mW).

#### Linear Step (default)

- STAGE 1 - 50mW
- STAGE 2 - 100mW
- STAGE 3 - 150mW
- STAGE 4 - 200mW
- STAGE 5 - 250mW



### Custom LED Tuned STAGES

Analytical offers custom tuned stages to meet specific and unique requirements. These can range from maximum light output to low output to tight resolution.

**NOTE:** STAGE settings are stored on each individual Lumidox® II peripheral device (LED Array or Lumlamp), and are **not tunable via the controller**. Custom STAGE settings can only be calibrated by Analytical Sales and Services prior to shipment. Please contact Analytical before ordering.

#### High Output (for more aggressive reactions)

- STAGE 1 - 100mW
- STAGE 2 - 200mW
- STAGE 3 - 400mW
- STAGE 4 - 600mW
- STAGE 5 - 800mW

#### High Resolution (for greater precision)

- STAGE 1 - 100mW
- STAGE 2 - 110mW
- STAGE 3 - 115mW
- STAGE 4 - 120mW
- STAGE 5 - 125mW

#### Low Output (good for cell culture and PCR)

- STAGE 1 - 20mW
- STAGE 2 - 40mW
- STAGE 3 - 60mW
- STAGE 4 - 80mW
- STAGE 5 - 100mW



## Lumidox® II LED Arrays

U.S. Patent No. 11,458,447

Our patented LED arrays provide wavelength and power specific illumination to samples for photoredox catalysis applications.

- Up to 15 different color wavelengths are available\*
- 5 output STAGES (customizeable) with calibration data stored on board\*\*
- Available in two Surface Mat styles
- Three options for Base configurations

### Radiant Flux Values per STAGE - Example

(typical values for 96-Position LED Arrays with Active Cooling Base and Lens Mat)

Wavelength	STAGE 1		STAGE 2		STAGE 3		STAGE 4		STAGE 5	
	Per well (mW)	Total (W)	Per well (mW)	Total (W)	Per well (mW)	Total (W)	Per well (mW)	Total (W)	Per well (mW)	Total (W)
UV365	25	2.4	55	5.3	80	7.7	105	10.1	135	13.0
UV375	25	2.4	50	4.8	75	7.2	110	10.6	140	13.4
UV385	30	2.9	65	6.2	100	9.6	145	13.9	165	15.8
UV395	30	2.9	65	6.2	105	10.1	140	13.4	170	16.3
UV405	25	2.4	60	5.8	90	8.6	125	12	160	15.4
420-Violet	30	2.9	60	5.8	90	8.6	120	11.5	150	14.4
445-Indigo	60	5.8	120	11.5	195	18.7	240	23.0	295	28.3
470-Blue	45	4.3	95	9.1	140	13.4	180	17.3	220	21.1
505-Cyan	35	3.4	65	6.2	90	8.6	115	11.0	135	13.0
527-Green	25	2.4	55	5.3	80	7.7	100	9.6	110	10.6
590-Amber	75	7.2	95	9.1	115	11.0	150	14.4	180	17.3
630-Red	30	2.9	55	5.3	85	8.2	115	11.0	145	13.9
660-Deep Red	40	3.8	70	6.7	105	10.1	140	13.4	170	16.3
IR730	35	3.4	65	6.2	95	9.1	125	12.0	155	14.9
White	50	4.8	100	9.6	150	14.4	200	19.2	300	28.8

Irradiance charts can be found on our website

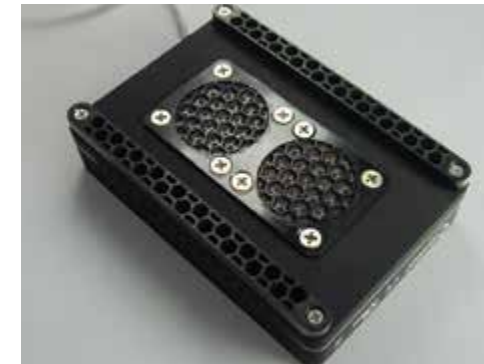
\* Most LED arrays (excluding Discovery, page 71) are wavelength-specific - only one wavelength per device

\*\* Calibration data is stored onboard (not on the controller), allowing the use of different illuminators with one controller. Controller can only operate 1 device at a time. STAGE settings are NOT user-adjustable and must be configured prior to shipping

## About Array Cooling and Base Options

Lumidox® II LED Arrays can generate a considerable amount of heat at any output stage and therefore need to be cooled. Both **Lens Mat** and **Diffuse Mat** style arrays are available with an **Active Cooling** base, **Solid** base or **Flow-Through** base. Each has its own specific way of cooling the LEDs in the array and can affect different application situations. *Note: solid and flow-through base arrays are not self-cooling and require the use of a sufficient external chiller/cooling device.*

### Active Cooling Base (underside shown)



### Solid Base (shown with Thermal Transfer Deck)



### Flow-Through Base (connects directly to chiller)



## Array Base Comparison

### Active Cooling Base:

- Self-cooling, no external cooling source required
- Fully conforms to SLAS/ANSI standard dimensions
- Ideal for lower output applications like cell culture and PCR work (may require special adapter)
- Not compatible with tumble stirrers or devices that generate powerful magnetic fields

### Solid Base:

- External cooling source is required (a Thermal Transfer Deck with a recirculating liquid chiller is recommended)
- A Thermal Transfer Deck (TTD) can be attached to the base when used in conjunction with a recirculating chiller. The TTD can be removed if using a different cooling source, such as a cooling bay
- Fully conforms to SLAS/ANSI standards and can be used with cooling baths, plates, or other cooling chamber (if NOT being used with our Thermal Transfer Deck and recirculating liquid chiller)
- Ideal for applications requiring high output - up to nearly 3x more radiometric power output than Active Base arrays\*

### NEW! Flow-Through Base:

- Direct connection to recirculating liquid chiller (required). Cooled liquid flows through the array base itself (no need for Thermal Transfer Deck)
- Ideal for applications requiring high output - up to nearly 3x more radiometric power output than Active Base arrays\*
- Light Weight – improved usability with orbital shakers due to lower overall mass
- Shorter overall height than active base array – offers improved compatibility with tumble stirrers (less distance between stirrer and sample)



Active Cooling Base  
(self-cooling)



Solid Base  
Nearly 3x the radiometric power output of Active Cooling Base arrays (external cooling source required)



Flow-Through Base  
Nearly 3x the radiometric power output of Active Cooling Base arrays (connection to circulating liquid chiller required)

\* For comparison, Radiant Flux Value charts for Active Cooling Base and Solid/Flow-through Base Arrays are posted on our website.

Note: All LED arrays can operate in an incubator at 37°C, 95% humidity



LED array with Lens Mat under a Para-dox® 96-well reaction block



LED array with Diffuse Mat under a 250mL flask

## Surface Mat Styles

Array top surfaces come in two styles, **Lens Mat** and **Diffuse Mat**.



### Lens Mat Surface

- Ultra-clear, molded to fit into the holes of a Para-dox® Reaction Block
- Captures nearly all light emitted by the array's LEDs and directs it into the vials in the reaction block
- Chemically inert silicone

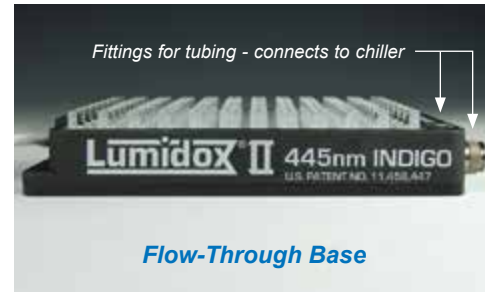


### Diffuse Mat Surface

- Flat surface, making for easy pairing with SLAS footprint apparatus
- Can be used for niche applications such as illuminating cell culture flasks, reservoir plates, large scale containers, etc.
- Chemically inert silicone



96-Position LED Arrays



Discovery/Screening 96-Position LED Arrays

Lumidox® II Discovery LED Arrays for screening offer scientists an economical and efficient way to evaluate most of the wavelengths that the Lumidox II line of products has to offer. Discovery LED arrays come in varying wavelength combinations and are available with an active cooling, solid or flow-through base.

There are currently 15 wavelength options available in the Lumidox II product line. With Discovery LED arrays, 9 of those wavelengths are combined into 3 units (no need to purchase 9 individual units). The three models of Discovery LED arrays come in these wavelength combinations:

- **Discovery 1 (3 UVs):** 375nm, 385nm, 395nm (4 columns of 8 LEDs / wavelength)
- **Discovery 2 (UV405, Indigo, Blue & Amber):** 405nm, 445nm, 470nm, 590nm (3 columns of 8 LEDs / wavelength)
- **Discovery 3 (Cyan, Green):** 505nm, 527nm (6 columns of 8 LEDs / wavelength)

The six remaining wavelengths in the Lumidox II line - UV365, 420-VIOLET, 630-RED, 660-DEEP RED, 730-IR, and White - are not compatible for placement in Discovery LED arrays due to varying electrical conditions. They can, however, be purchased as single wavelength units to complete your LED array collection.

96-Position LED Arrays with Lens Mat

Wavelength (nm)	Description	Active Cooling Base Catalog No.	Flow-Through Base* Catalog No.	Solid Base* Catalog No.
UV365	Lumidox II 96-Position LED Array with Lens Mat	LUM296LA365	LUM296LF365	LUM296LS365
UV375	Lumidox II 96-Position LED Array with Lens Mat	LUM296LA375	LUM296LF375	LUM296LS375
UV385	Lumidox II 96-Position LED Array with Lens Mat	LUM296LA385	LUM296LF385	LUM296LS385
UV395	Lumidox II 96-Position LED Array with Lens Mat	LUM296LA395	LUM296LF395	LUM296LS395
UV405	Lumidox II 96-Position LED Array with Lens Mat	LUM296LA405	LUM296LF405	LUM296LS405
420-VIOLET	Lumidox II 96-Position LED Array with Lens Mat	LUM296LA420	LUM296LF420	LUM296LS420
445-INDIGO	Lumidox II 96-Position LED Array with Lens Mat	LUM296LA445	LUM296LF445	LUM296LS445
470-BLUE	Lumidox II 96-Position LED Array with Lens Mat	LUM296LA470	LUM296LF470	LUM296LS470
505-CYAN	Lumidox II 96-Position LED Array with Lens Mat	LUM296LA505	LUM296LF505	LUM296LS505
527-GREEN	Lumidox II 96-Position LED Array with Lens Mat	LUM296LA527	LUM296LF527	LUM296LS527
590-AMBER	Lumidox II 96-Position LED Array with Lens Mat	LUM296LA590	LUM296LF590	LUM296LS590
630-RED	Lumidox II 96-Position LED Array with Lens Mat	LUM296LA630	LUM296LF630	LUM296LS630
660-DEEP RED	Lumidox II 96-Position LED Array with Lens Mat	LUM296LA660	LUM296LF660	LUM296LS660
730-IR	Lumidox II 96-Position LED Array with Lens Mat	LUM296LA730	LUM296LF730	LUM296LS730
WHITE	Lumidox II 96-Position LED Array with Lens Mat	LUM296LAWHT	LUM296LFWHT	LUM296LSWHT

\* requires the use of a sufficient chiller/cooling device

See pages 68-69 for details on surface mats and bases



96-Position LED Arrays with Diffuse Mat

Wavelength (nm)	Description	Active Cooling Base Catalog No.	Flow-Through Base* Catalog No.	Solid Base* Catalog No.
UV365	Lumidox II 96-Position LED Array with Diffuse Mat	LUM296DA365	LUM296DF365	LUM296DS365
UV375	Lumidox II 96-Position LED Array with Diffuse Mat	LUM296DA375	LUM296DF375	LUM296DS375
UV385	Lumidox II 96-Position LED Array with Diffuse Mat	LUM296DA385	LUM296DF385	LUM296DS385
UV395	Lumidox II 96-Position LED Array with Diffuse Mat	LUM296DA395	LUM296DF395	LUM296DS395
UV405	Lumidox II 96-Position LED Array with Diffuse Mat	LUM296DA405	LUM296DF405	LUM296DS405
420-VIOLET	Lumidox II 96-Position LED Array with Diffuse Mat	LUM296DA420	LUM296DF420	LUM296DS420
445-INDIGO	Lumidox II 96-Position LED Array with Diffuse Mat	LUM296DA445	LUM296DF445	LUM296DS445
470-BLUE	Lumidox II 96-Position LED Array with Diffuse Mat	LUM296DA470	LUM296DF470	LUM296DS470
505-CYAN	Lumidox II 96-Position LED Array with Diffuse Mat	LUM296DA505	LUM296DF505	LUM296DS505
527-GREEN	Lumidox II 96-Position LED Array with Diffuse Mat	LUM296DA527	LUM296DF527	LUM296DS527
590-AMBER	Lumidox II 96-Position LED Array with Diffuse Mat	LUM296DA590	LUM296DF590	LUM296DS590
630-RED	Lumidox II 96-Position LED Array with Diffuse Mat	LUM296DA630	LUM296DF630	LUM296DS630
660-DEEP RED	Lumidox II 96-Position LED Array with Diffuse Mat	LUM296DA660	LUM296DF660	LUM296DS660
730-IR	Lumidox II 96-Position LED Array with Diffuse Mat	LUM296DA730	LUM296DF730	LUM296DS730
WHITE	Lumidox II 96-Position LED Array with Diffuse Mat	LUM296DAWHT	LUM296DFWHT	LUM296DSWHT

96-Position Discovery LED Arrays with Lens Mat

Wavelength (nm)	Description	Active Cooling Base Catalog No.	Flow-Through Base* Catalog No.	Solid Base* Catalog No.
UV375	Discovery 1 LED Array w/ Lens Mat (4 rows of 8 LEDs per wavelength)	LUM296LAG1	LUM296LFG1	LUM296LSG1
UV385				
UV395				
UV405	Discovery 2 LED Array w/ Lens Mat (3 rows of 8 LEDs per wavelength)	LUM296LAG2	LUM296LFG2	LUM296LSG2
445-INDIGO				
470-BLUE				
590-AMBER	Discovery 3 LED Array w/ Lens Mat (6 rows of 8 LEDs per wavelength)	LUM296LAG3	LUM296LFG3	LUM296LSG3
505-CYAN				
527-GREEN				
Single Wavelength LED Arrays				
UV365	96-Position LED Array w/ Lens Mat	LUM296LA365	LUM296LF365	LUM296LS365
420-VIOLET	96-Position LED Array w/ Lens Mat	LUM296LA420	LUM296LF420	LUM296LS420
630-RED	96-Position LED Array w/ Lens Mat	LUM296LA630	LUM296LF630	LUM296LS630
660-DEEP RED	96-Position LED Array w/ Lens Mat	LUM296LA660	LUM296LF660	LUM296LS660
730-IR	96-Position LED Array w/ Lens Mat	LUM296LA730	LUM296LF730	LUM296LS730
WHITE	96-Position LED Array w/ Lens Mat	LUM296LAWHT	LUM296LFWHT	LUM296LSWHT

\* requires the use of a sufficient chiller/cooling device

Thermal Transfer Decks

See page 73 for more information

Cat. No.	Description
266530	SLAS Thermal Transfer Deck (TTD)
266540	TTD+ (Thermal Transfer Deck with High-end Fittings)
266550	SLAS Footprint, "Straight-Thru" Thermal Transfer Deck







- 365 (UV365)
- 395 (UV395)
- 470 (Blue)
- 590 (Amber)
- 375 (UV375)
- 405 (UV405)
- 505 (Cyan)
- 630 (Red)
- 385 (UV385)
- 445 (Indigo)
- 527 (Green)
- White

**Lumidox® II 24-position LED Arrays with 9mm Spacing**

- Typically used with a Para-dox® 24-well Reaction Block for 8x30mm vial inserts (see page 56, 57)
- Can also be used with a HTe-Chem Electrochemistry Assembly (see page 78)

Wavelength (nm)	Description	Active Cooling Base Catalog No.	Flow-Through Base* Catalog No.	Solid Base* Catalog No.
UV365	24-Well LED Array with 9mm Spacing, Lens Mat	LUM224LA365	LUM224LF365	LUM224LS365
UV375	24-Well LED Array with 9mm Spacing, Lens Mat	LUM224LA375	LUM224LF375	LUM224LS375
UV385	24-Well LED Array with 9mm Spacing, Lens Mat	LUM224LA385	LUM224LF385	LUM224LS385
UV395	24-Well LED Array with 9mm Spacing, Lens Mat	LUM224LA395	LUM224LF395	LUM224LS395
UV405	24-Well LED Array with 9mm Spacing, Lens Mat	LUM224LA405	LUM224LF405	LUM224LS405
445-INDIGO	24-Well LED Array with 9mm Spacing, Lens Mat	LUM224LA445	LUM224LF445	LUM224LS445
470-BLUE	24-Well LED Array with 9mm Spacing, Lens Mat	LUM224LA470	LUM224LF470	LUM224LS470
505-CYAN	24-Well LED Array with 9mm Spacing, Lens Mat	LUM224LA505	LUM224LF505	LUM224LS505
527-GREEN	24-Well LED Array with 9mm Spacing, Lens Mat	LUM224LA527	LUM224LF527	LUM224LS527
590-AMBER	24-Well LED Array with 9mm Spacing, Lens Mat	LUM224LA590	LUM224LF590	LUM224LS590
630-RED	24-Well LED Array with 9mm Spacing, Lens Mat	LUM224LA630	LUM224LF630	LUM224LS630
WHITE	24-Well LED Array with 9mm Spacing, Lens Mat	LUM224LAWHT	LUM224LFWHT	LUM224LSWHT

\* requires the use of a sufficient chiller/cooling device

See pages 68-69 for details on surface mats and bases



**Lumidox® II 24-position LED Arrays with 18mm Spacing**

Built specifically for use with our Para-dox® 24-well, 18mm spaced Reactor Blocks

See page 60 for more information

Wavelength (nm)	Description	Active Cooling Base Catalog No.	Flow-Through Base* Catalog No.	Solid Base* Catalog No.
UVC-255	24-Well LED Array with 18mm Spacing, Lens Mat	LUM22418LA255	LUM22418LF255	LUM22418LS255
UV365	24-Well LED Array with 18mm Spacing, Lens Mat	LUM22418LA365	LUM22418LF365	LUM22418LS365
UV375	24-Well LED Array with 18mm Spacing, Lens Mat	LUM22418LA375	LUM22418LF375	LUM22418LS375
UV385	24-Well LED Array with 18mm Spacing, Lens Mat	LUM22418LA385	LUM22418LF385	LUM22418LS385
UV395	24-Well LED Array with 18mm Spacing, Lens Mat	LUM22418LA395	LUM22418LF395	LUM22418LS395
UV405	24-Well LED Array with 18mm Spacing, Lens Mat	LUM22418LA405	LUM22418LF405	LUM22418LS405
420-VIOLET	24-Well LED Array with 18mm Spacing, Lens Mat	LUM22418LA420	LUM22418LF420	LUM22418LS420
445-INDIGO	24-Well LED Array with 18mm Spacing, Lens Mat	LUM22418LA445	LUM22418LF445	LUM22418LS445
470-BLUE	24-Well LED Array with 18mm Spacing, Lens Mat	LUM22418LA470	LUM22418LF470	LUM22418LS470
505-CYAN	24-Well LED Array with 18mm Spacing, Lens Mat	LUM22418LA505	LUM22418LF505	LUM22418LS505
527-GREEN	24-Well LED Array with 18mm Spacing, Lens Mat	LUM22418LA527	LUM22418LF527	LUM22418LS527
590-AMBER	24-Well LED Array with 18mm Spacing, Lens Mat	LUM22418LA590	LUM22418LF590	LUM22418LS590
630-RED	24-Well LED Array with 18mm Spacing, Lens Mat	LUM22418LA630	LUM22418LF630	LUM22418LS630
WHITE	24-Well LED Array with 18mm Spacing, Lens Mat	LUM22418LAWHT	LUM22418LFWHT	LUM22418LSWHT

\* requires the use of a sufficient chiller/cooling device



**TECH NOTE:**

If using in conjunction with a Flow Reactor (page 28), a Thermal Transfer Deck with High-end Fittings (TTD+) must be used

**"Straight-Thru" TTD+**



Cat. No.	Description	Qty
266530	SLAS Thermal Transfer Deck (TTD)	Each
266540	TTD+ (Thermal Transfer Deck with High-end Fittings)	Each
266550	SLAS Footprint, "Straight-Thru" Thermal Transfer Deck+ (Thermal Transfer Deck with High-end Fittings)	Each

**Thermal Transfer Decks**

- Must be used with a recirculating liquid chiller or heater
- Can be attached to a Lumidox® II solid base LED arrays for direct cooling of the array

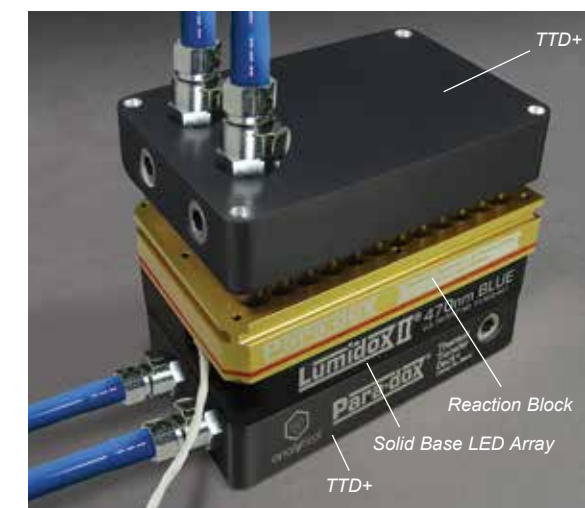
When connected to an external recirculating liquid chiller or heater, our Thermal Transfer Decks can be used as both chilling plates or hot plates. Apply heat or cold directly to your samples or sample vessels (such as Para-dox® Reaction Blocks), or use it to cool your Lumidox® II solid base LED array.

Thermal Transfer Decks may be linked in novel ways to form gradients, or to serve other more experimental needs. Push-to-connect fittings allow for quick tubing insertion/removal. Input and Output ports are user configurable, and may be relocated between side and top faces\*. Units are shipped with side exit ports as standard. Decks are stackable, and multiple decks can be chained together for a total temperature control solution. Compatible with a wide variety of coolants (water, propylene glycol, ethylene glycol, etc.).

\* Ports are not user configurable on the Straight-Thru TTD

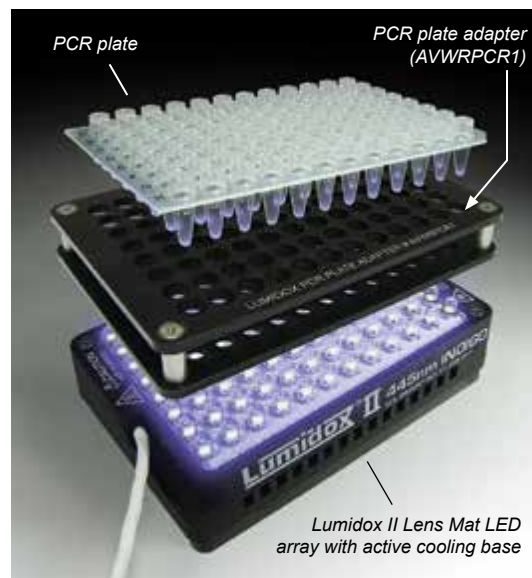


Attach a Thermal Transfer Deck+ to a Lumidox II SOLID BASE LED Array for direct cooling of the array

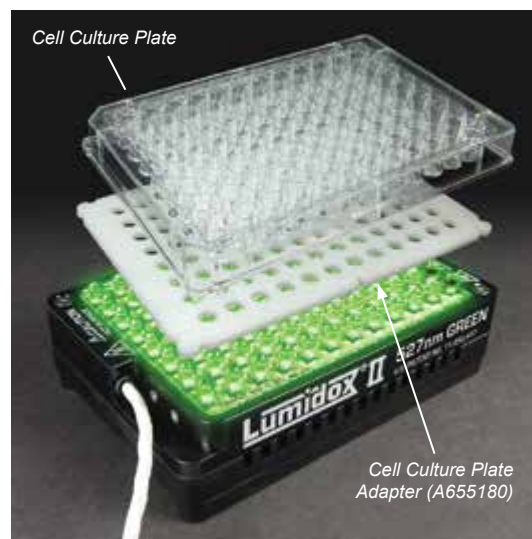


Use an additional TTD+ to transfer heat or cold directly to your reaction block samples





Lumidox / PCR Setup



Lumidox / Cell Culture Setup



Lumidox II controller (lum2con)

### Lumidox® II for Cell Culture / Biological Applications

We can support your photon irradiation needs for your cell culture or biological applications, such as:

- Photoconverting live mammalian cells with Dendra protein for fluorescent imaging days after photoconversion
- Testing of light-induced toxicity of certain compounds on different cell lines for photodynamic therapy applications
- Studying the photothermal effects of compounds in live cells
- Testing photodynamic therapy of various innovative compounds on live cells
- The use of photodynamic therapy as a type of cancer treatment

### Lumidox II LED Arrays with Active Cooling Base

Lumidox II LED arrays generate wavelength specific light for your cell culture or biological experimentation.

- Available in 15 wavelengths from UV, Visible through IR.
- Run at 37°C indefinitely (70°C max) at humidity <=99%.
- Active Cooling Base LED arrays are fully compatible with incubation chambers.
- Use **Lens Mat** Arrays for 24 or 96 well flat bottom collection plates, or with Analytical's 48-well TCR.
- Use **Diffused Mat** Arrays for cell culture flasks, petri dishes, larger 12-well and 6-well cell culture plates, etc..
- Active Cooling Base arrays are recommended for bio/cell culture work, but other base configurations are available.

### Cell Culture Plate Adapters

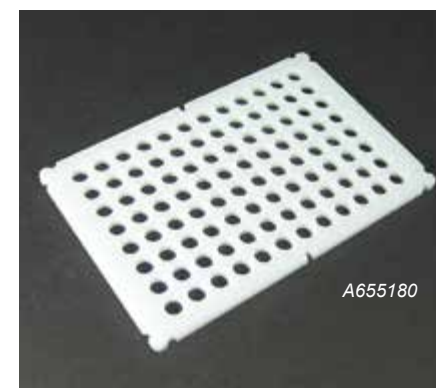
These adapters are designed for **Lens Mat** arrays (*not compatible with diffuse mat arrays*). Plate specific adapters are currently available for 24 and 96-well cell culture plates. They provide consistent and proper alignment of the plate to the LED array. We currently produce adapters for the following plates:

- All our Low Profile collection plates
- Cellvis P96-1.5H-N
- Greiner 655180
- Corning Costar cell culture plates
- Eppendorf cell culture plates (contact us with your specific plate)
- Thermo Scientific Nunc MicroWell plates
- Perkin Elmer ViewPlate (formerly Packard ViewPlate)

Adapters are available for any standard cell culture plate by request.

### Lumidox® II Controller

- Five stages of light intensity to choose from that can be calibrated to your custom levels at the time of purchase - *see STAGE settings, page 67.*
- Controller has an onboard timer to reproducibly limit exposure.



24 well setup with Lumidox 24-well LED Array - See page 72 for array options

### Lumidox® II LED Arrays with Active Cooling Base

Recommended wavelengths for biological and cell culture work. Other wavelengths are available.

Catalog No.	Description	Wavelength
LUM296LA445	Lumidox® II 96-position LED Array with Lens Mat & Active Cooling Base	445nm - Indigo
LUM296LA470	Lumidox® II 96-position LED Array with Lens Mat & Active Cooling Base	470nm - Blue
LUM296LA527	Lumidox® II 96-position LED Array with Lens Mat & Active Cooling Base	527nm - Green
LUM296LA630	Lumidox® II 96-position LED Array with Lens Mat & Active Cooling Base	630nm - Red
LUM296LA660	Lumidox® II 96-position LED Array with Lens Mat & Active Cooling Base	660nm - Deep Red
LUM296LAWHT	Lumidox® II 96-position LED Array with Lens Mat & Active Cooling Base	White

### Cell Culture Plate Adapters

Catalog No.	Description
A655180	Adapter for Lumidox II LED Arrays, for use with Greiner 655180 Plate
AP9615HN	Adapter for Lumidox II LED Arrays, for use with Cellvis P96-15H-N Well Plates
A204625	Adapter for Lumidox II LED Arrays, for use with Cell Culture Plate Part # 96624
A204627	Adapter for Lumidox II LED Arrays, for use with Cell Culture Plate Part # 96626
ACRCLP01	Adapter for Lumidox II LED Arrays, for use with Corning Cell Culture Plates
A6005430	Adapter for Lumidox II LED Arrays, for use with Perkin Elmer ViewPlate (Packard ViewPlate)
A204628	Adapter for Lumidox II LED Arrays, for use with Cell Culture Plate Part # 384628
ACRCLP03	Adapter for Lumidox II LED Arrays, for use with Corning 2592 Plate
ACRCLP02	Adapter for Lumidox II LED Arrays, for use with Corning 3631 Plate
A655097	Adapter for Lumidox II LED Arrays, for use with Greiner 655097 Plate
AT11028	Adapter for Lumidox II 24-position LED Arrays, for use with 24 Deep Well Plate #24128

### Cell Culture Plates

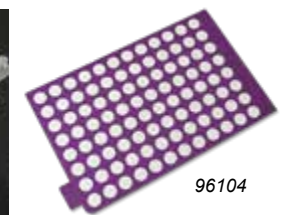
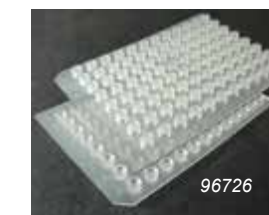
Catalog No.	Description	QTY
96624	96-well Cell Culture/Imaging Microplate (Agilent) - Clear with Flat Bottom, 400µL Per Well	40
96518	96 Well, Flat Bottom Clear PS Microplate, 25-340µL working volume per well	100
96626	96-well Cell Culture/Imaging Microplate (Agilent) - Black with Clear Flat Bottom, 400µL Per Well	32
961515	Cellvis 96-well Black Polystyrene/Glass Bottom Plate with high performance #1.5 cover glass	20
96097	96 Well, Black/Clear Flat Bottom Well PS Microplate, 25-340µL working volume per well, high binding, sterile	40
384628	384-well Cell Culture/Imaging Microplate, 140µL Per Well	32
24128	24 Deep Well Plate, V-Bottom	50

Please see our website or catalog for additional collection plates



### PCR Plate Adapter

Catalog No.	Description
AVWRPCR1	PCR Plate Adapter for Lumidox®II 96-position LED Lens Mat Arrays



### Cap Mats and Films for PCR Plates

Cat. No.	Description	QTY
96726	6mm Silicone/PTFE Cap Mats for 96-well PCR Collection Plates	5
96104	Pattern Adhesive Resealable Silicone Sealing Film, Round 96-Well Pattern	5





266100  
Flow Reactor

### Flow Reactor

The Para-dox® Flow Reactor offers an alternative way to conduct photoreactive research on fluidic samples. Used in conjunction with a Lumidox®II Diffuse Mat Array, wavelength-specific light can be applied to sample fluid circulating through 1/8" OD tubing. The Flow Reactor can be liquid cooled or heated and is highly configurable. Add a Thermal Transfer Deck for a complete flow solution.

Users may configure the Flow Reactor in various ways, including multiple input streams using the machined channels. Tubing can be replaced and installed by the user with a tubing tamp tool.

- SLAS/SBS footprint
- Dripless CPC fittings
- 1/8" OD unions for ease of analyte injection
- User-configurable output/input locations, side or top (factory set to side).
- Exposure volume of 2mL using 1/8" OD, 1/16" ID tubing. The exposure volume may be set to 1mL if two streams are used.
- FEP Tubing Provided
- Cradled design reduces light bleed and helps "seat" and align Lumidox unit
- Compatible with water, glycol based coolants, and silicone based coolants

### Flow Reactor

Cat. No.	Description	Qty
266100	Flow Reactor; Reaction Block for Sample Flowing Through 1/8" Tubing	Each



Single Stream Setup



Multistream Setup



Lumidox®II Diffuse Mat Array placement



Flow Reactor (top) paired with a Lumidox®II Diffuse Mat Array (middle) and Para-dox® Thermal Transfer Deck (bottom)

### Recommended Chillers:

Cat. No.	Description
TCube Edge	TCube Edge Recirculating Chiller
MC280OLE	Minichiller 280 Ole Recirculating Chiller



TCube Edge



MC280OLE



A lamp system specifically designed for your experimental needs!

### LumLamp

The LumLamp system stands apart with multiple wavelengths, tight line-widths, and remote (corded) operation. It has radiant flux levels up to 3W. LumLamps are directly controlled with our Lumidox® II Controller, providing optical stability, user configurable timing and output configuration.

With 4 differing reflector types, 3 styles of lens, and up to 12 wavelengths, LumLamp is available in 104+\* possible configurations.

### Lens Types:



Quartz

Diffused Polycarbonate

Clear Polycarbonate

### Reflector Types:

- 15° Narrow Spot Beam
- 30° Medium Beam
- 40° Wide Beam
- 80° Extra Wide Beam

### LumLamps are available in the following wavelengths:

- 365 (UV365)
- 375 (UV375)
- 385 (UV385)
- 395 (UV395)
- 405 (UV405)
- 445 (Indigo)
- 470 (Blue)
- 505 (Cyan)
- 527 (Green)
- 590 (Amber)
- 630 (Red)
- White

\* Contact us for custom wavelengths

### Lumidox® II Controller

- Controls the output of a Lumidox Array or LumLamp
- 5 individually calibrated levels of optical power (STAGES)
- Optical power levels are provided in easy to read, easy to calculate whole numbers
- Onboard illumination elapsed timer
- Automatic countdown shut off timer
- **USB Enabled API** - for advanced users running their setups remotely

### Lumidox II LED Controller

Catalog No.	Description	Qty
LUM2CON	Lumidox II LED Controller. Includes: Controller, Power Supply, Power Cable, Manual	Each



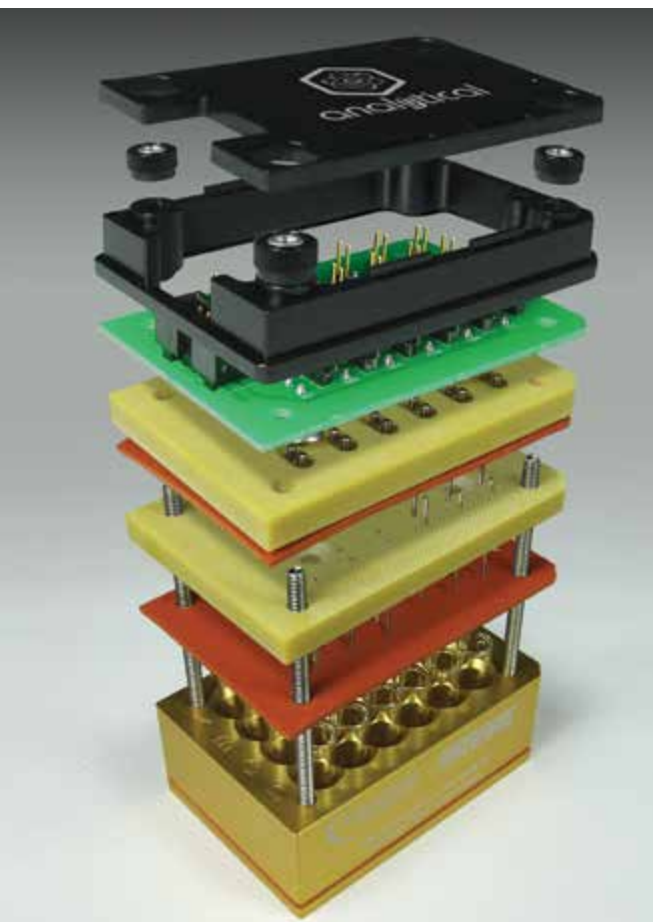
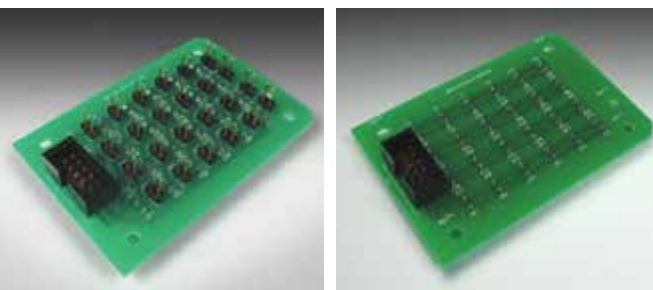
Lumidox Controllers come with one pair of UV protective goggles. Additional goggles can be purchased.



### UV Safety Goggles

Catalog No.	Description	Qty
UVGoggles	Additional UV Safety Goggles	Each





## HTE<sup>-</sup>Chem Electrochemistry Assemblies

Analytical Sales' new **HTE<sup>-</sup>Chem** line of products allows for broad electrochemical reactions (such as electrosynthesis, organic electrochemistry, electrophotocatalysis, etc.) to be carried out on Analytical Sales standard 24-well minirack platform. HTE<sup>-</sup>Chem allows you to accelerate your electrochemistry workflow by permitting multiple simultaneous constant current, constant voltage, and/or electrophotocatalytic experiments to be run.

*There are two optimized setups to choose from:*

The **constant current** setup allows the user to set a precise current, which will be maintained by the power supply throughout the reaction. The voltage will automatically be varied based on the changing electrical conditions as the reaction progresses.

The **constant voltage** setup allows the user to set a precise voltage, which will be maintained by the power supply throughout the reaction. In this setup, the current will automatically be varied based on the changing electrical conditions as the reaction progresses.

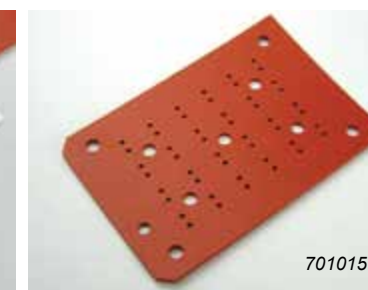
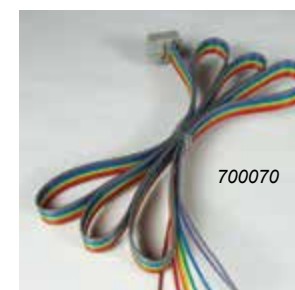
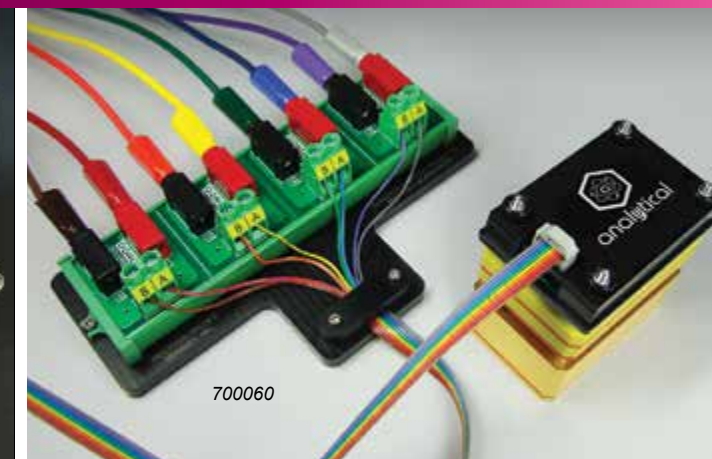
### HTE<sup>-</sup>Chem Assemblies & Kits

Cat. No.	Description	Qty
700100	Constant Current Electrochemistry Assembly	Each
700150	Constant Current Electrochemistry Kit (Includes Electrode Kit)	Each
700200	Constant Voltage Electrochemistry Assembly	Each
700250	Constant Voltage Electrochemistry Kit (Includes Electrode)	Each

### Electrodes for HTE<sup>-</sup>Chem Assemblies

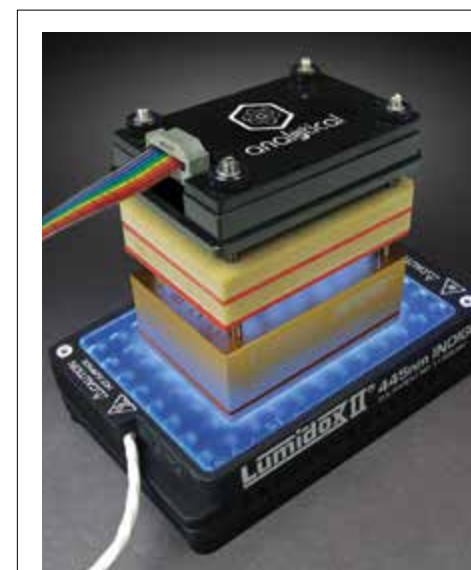
Analytical Sales offers a myriad of electrode choices which can be used as either cathodes or anodes depending on your experimental needs.

Cat. No.	Description	Qty
700500	Graphite Electrodes	30
700500-250	Graphite Electrodes - Bulk Pack	250
700550	Tin Electrodes	25
700600	Zinc Electrodes	25
700600-250	Zinc Electrodes - Bulk Pack	250
700650	Platinum Electrodes	25
700656	Platinum Electrodes - Row Pack	6
700700	Stainless Steel Electrodes	25
700700-250	Stainless Steel Electrodes - Bulk Pack	250
700750	Nickel Electrodes	25
700800	NiChrom Electrodes	25
700800-250	NiChrom Electrodes - Bulk Pack	250
700850	Copper Electrodes	25
700900	Aluminum Electrodes	25
700950	Magnesium Electrodes	25
700400	Electrode Kit. Includes One Pack of Each of Graphite, Zinc, Stainless Steel, Nickel, NiChrom, Aluminum, Copper and Magnesium Electrodes (platinum not included)	Each



### Power Supply and Accessories

Cat. No.	Description	Qty
700050	Calibrated DC Power Supply, 4 Output Multi Range, 420W Combined Output	Each
700060	Breakout Cable Assembly, for use with Calibrated DC Power Supply	Each
700070	Ribbon Cable (if using alternate power supply)	Each
701020	Replacement PCB Jumpers (for constant current setup)	100
701015	Upper Gasket	5
701005	Lower Gasket	5
701025	PFA Sheet for HTE <sup>-</sup> Chem Assembly	25
24260	Bottom Rubber Mats	25
84001-CASE	1mL Clear Glass Shell Vial	1000



For experimentation with electrophotocatalytic reactions, HTE<sup>-</sup>Chem assemblies are fully compatible for use with Lumidox®II 24-well, 9mm spaced LED arrays.

See page 72 for more information



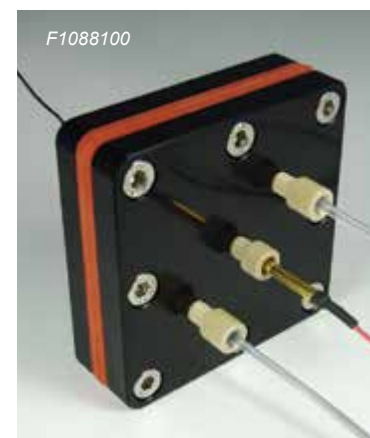
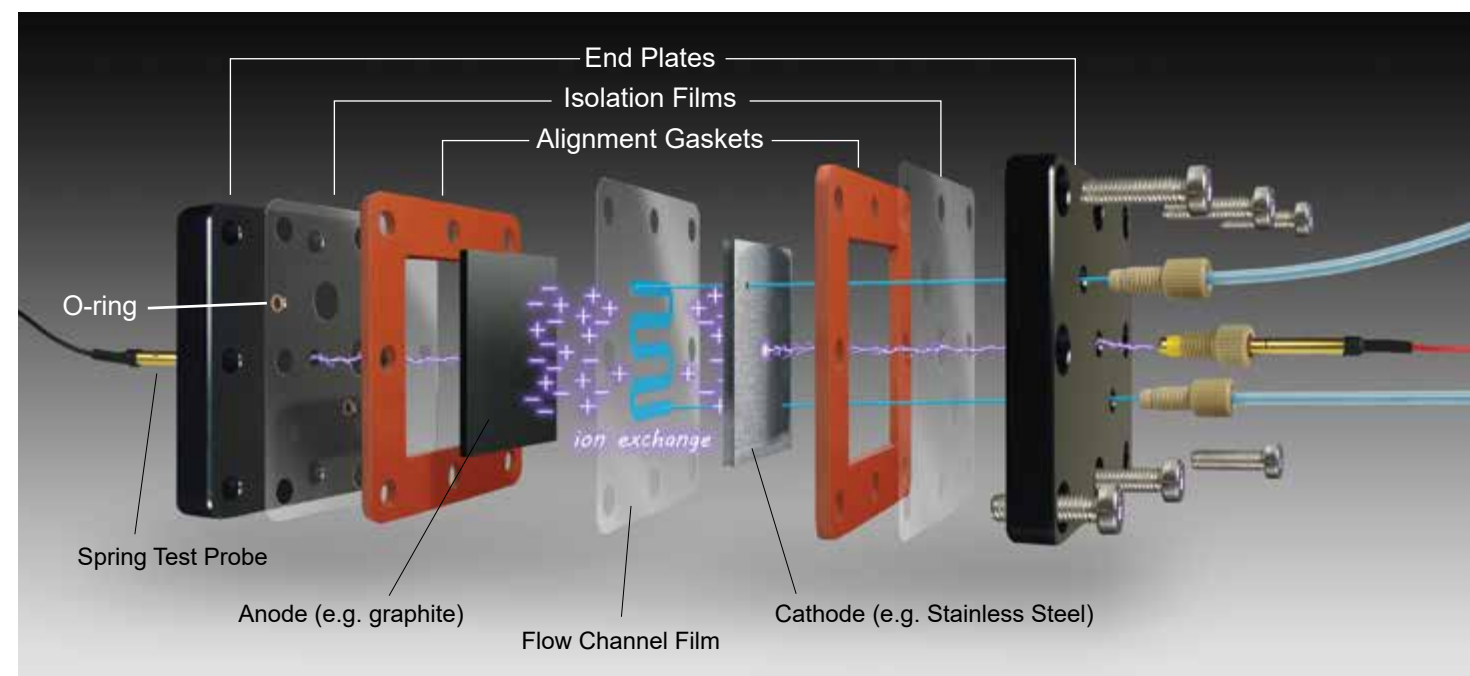
### Flow Electrolysis

Replication is an impediment in the path of scientific progress, especially for experiments conducted using electrolysis. This challenge primarily comes from an abundance of non-standard setups requiring bespoke components, converting valuable experimental time into time spent on manufacturing and calibration. Necessary equipment causes further issues of yield since flask-based batch reactors lack a fresh supply of reactant, causing reaction efficiencies that decay over time.

Analytical is pleased to offer a solution in the form of a standardized flow electrolysis setup. This new and upcoming technology allows for rapid and efficient production of complex chemical compounds via flow electrolysis. With an interelectrode gap smaller than a millimeter, and the introduction of flow geometries that promote turbulent mixing, our Flow Electrolysis Cell allows for heightened selectivity and yield when compared to flask based reactors. Additionally, the Flow Electrolysis Cell requires minimal new equipment to use. With fittings for 1/8" OD HPLC tubing, fluid flow and protruding electrodes can be connected to power supplies via standard connectors will automatically be varied based on the changing electrical conditions as the reaction progresses.

### Undivided Cell (single stream)

In an undivided cell, both electrodes are washed with the same electrolyte and only one fluid circuit is used; the opposite side of the cell is sealed with HPLC plugs and an electrode without through-holes. This allows for low-resistance reactions which will output combined products.



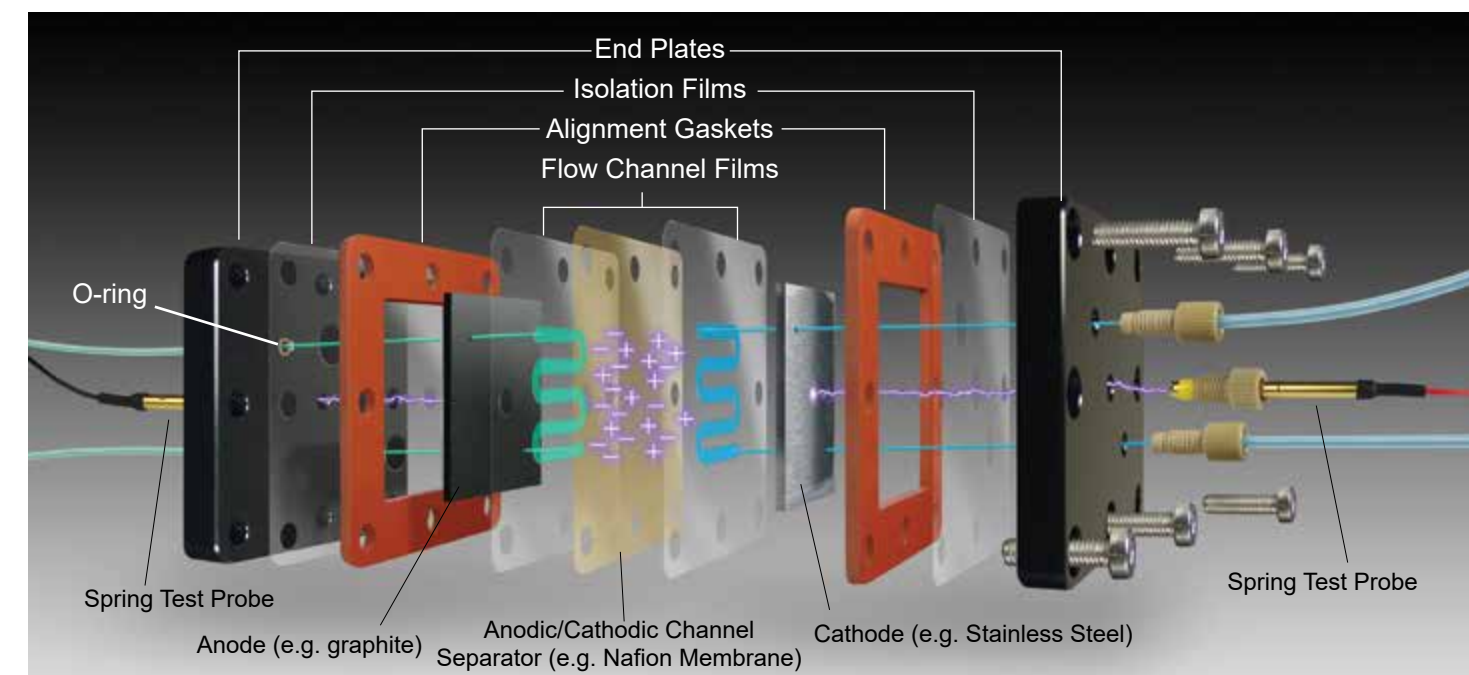
### Flow Electrolysis Undivided Cell (single stream) Assembly

- Assembly includes:**
- Impervious Graphite Plate Electrode (anode)
  - 316L Stainless Steel Plate Electrode (cathode)
  - Flow Channel PFA Films (1 Meandering, 1 Tangential, 1 Simple)
  - Isolation Layer PFA Films (2)
  - Orange Silicone Rubber Alignment Gaskets (2)
  - Viton™ Chemical-resistant Internal O-rings, 2mm ID (2)
  - Viton™ Chemical-resistant External O-rings, 3mm ID (2)
  - Spring Test Probes/Pogo Pins (1 red, 1 black)
  - Aluminum End Plates (2)
  - Fittings and Hardware

Cat. No.	Description	Qty
F1088100	Flow Electrolysis Undivided Cell Assembly (single stream)	Each

### Divided Cell (dual stream)

In a divided cell the electrodes and their flow channels are separated by a Nafion membrane, allowing for reactions to be performed that produce separate output streams. This can be advantageous if the two electrolyte solutions are incompatible or if the products of their reaction are troublesome to separate.



### Flow Electrolysis Divided Cell (dual stream) Assembly

- Assembly includes:**
- Impervious Graphite Plate Electrode with holes (anode)
  - 316L Stainless Steel Plate Electrode (cathode)
  - Flow Channel PFA Films (2 Meandering, 2 Tangential, 2 Simple)
  - Isolation Layer PFA Films (2)
  - Nafion Ion Exchange Channel Separator Membrane
  - Orange Silicone Rubber Alignment Gaskets (2)
  - Viton Chemical-resistant Internal O-rings, 2mm ID (4)
  - Viton Chemical-resistant External O-rings, 3mm ID (4)
  - Spring Test Probes/Pogo Pins (1 red, 1 black)
  - Aluminum End Plates (2)
  - Fittings and Hardware

Cat. No.	Description	Qty
F1088200	Flow Electrolysis Divided Cell Assembly (dual stream)	Each



F1088109



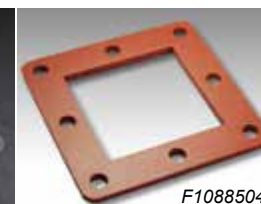
F1088208



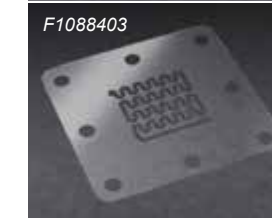
F1088405



F1088406



F1088504



F1088403



F1088407



F1088303

### Electrode Plates and Consumable Accessories

Cat. No.	Description	Qty
F1088109	316L Stainless Steel Plate Electrode (cathode)	Each
F1088108	Impervious Graphite Plate Electrode (anode)	Each
F1088208	Impervious Graphite Plate Electrode (anode) w/ Holes	Each
F1088406	PFA Simple Channel Films	25
F1088403	PFA Meandering Channel Films	25
F1088407	PFA Tangential Mixer Channel Films	25
F1088504	PFA Isolation Layer Films	25
F1088504	Silicone Rubber Alignment Gaskets	10
F1088201	Nafion Ion Exchange Channel Separator	Each
F1088302	Viton Chemical-resistant External O-rings	50
F1088301	Viton Chemical-resistant Internal O-rings	50
F1088303	Spring Test Probes / Pogo Pins	10
F1030050	Flow Electrolysis Power Supply	Each





Controls 1 Gen II HotSleeve+ column heaters\*



Controls up to 4 Gen II HotSleeve+ column heaters\*

Cat. No.	Description
Monocon	Monocon Gen II Single Column Heater Sleeve Controller
Multicon	Multicon Gen II Multiple Column Heater Sleeve Controller

\* Use with Gen II HotSleeve+ heaters. Gen II AgileSleeve heaters will be available soon, call for details.



Monocon - Back



Multicon - Back

### NEW! Gen II Column Heater Controllers

The Monocon™ and Multicon™ are the latest column heater sleeve controllers from Analytical. They are the next generation of the original MonoSleeve™ and MultiSleeve™, and control Analytical's new Gen II HotSleeve+ column heaters.

Significant new features include:

#### Touchscreen Interface

- Provides simple and intuitive interaction with the device
- Provides greater utility to operators by allowing for gloved operation
- Tabbed, modern and familiar

#### Continuous Display of Critical Performance Data, Including:

- Current temperature
- Set point temperature
- Elapsed time or time remaining until automated cutoff
- Activation status of heating unit
- Specifications and parameters of active heaters

#### High Power Operation

- Support for heaters with a temperature range of 5°C above ambient to 130°C
- Faster heater to-temperature time allowing for decreased downtime
- Supports 250 W heaters allowing for increased performance and higher capacity operation
- Supports Peltier coolers

#### Screen Lock

- Prevents accidental touches from changing settings

#### Stacking Enclosures

- Preserves space by allowing multiple devices to share the same 16.5" x 11" vertical footprint

#### 1000 Hour Maximum Timer Limit

- Provides users with the time that they need to collect all necessary data

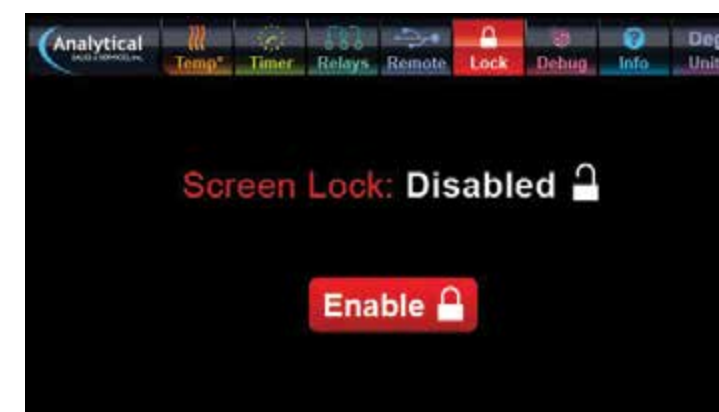
#### USB Connectivity

- For PC connection

#### Modbus RS485

- Allows the controller to be connected as part of a Modbus RS485 chain. This allows up to 31 controllers to be used simultaneously.
- A list of Modbus serial commands is available

### Touchscreen Interface



### NEW! Gen II HotSleeve+™

#### Self-Calibrating "Smart" Column Heaters

The Gen II HotSleeve+ is the second generation of the HotSleeve+ column heater, and the third iteration of the original Hot Sleeve. Use with either the NEW MULTICON™ Gen II multiple heater controller or the NEW MONOCON™ Gen II single heater controller, sold separately.

- Inner diameter: 0.65" – Improved internal geometry accommodates a superior fit for analytical columns
- Models designed to fit columns ranging from 5cm to 30cm long
- Temperature range: 5°C above ambient to 130°C
- Robust, high temperature VELCRO® fastener provides superior performance when compared to Gen I HotSleeve+ snap fasteners

Cat. No.	Description
HS2-5L	Gen II, HotSleeve+ Self-Calibrating "Smart" Heater for 5cm Columns
HS2-10L	Gen II, HotSleeve+ Self-Calibrating "Smart" Heater for 10cm Columns
HS2-15L	Gen II, HotSleeve+ Self-Calibrating "Smart" Heater for 15cm Columns
HS2-25L	Gen II, HotSleeve+ Self-Calibrating "Smart" Heater for 25cm Columns
HS2-30L	Gen II, HotSleeve+ Self-Calibrating "Smart" Heater for 30cm Columns
HS2-1012L	Gen II, HotSleeve+ 1.0" ID x 12" Long Prep-Size Column Heater
HS2-1512L	Gen II, HotSleeve+ 1.5" ID x 12" Long Prep-Size Column Heater
HS2-2012L	Gen II, HotSleeve+ 2.0" ID x 12" Long Prep-Size Column Heater

IMPORTANT: Gen II HotSleeve+ heaters can only be used with Gen II controllers (Monocon or Multicon)





Shown with heater (not included)

### MonoSLEEVE™ Controller

- Self-calibrating
- Plug & Play smart heater technology
- Temperature range from 25°C to 85°C
- Controller comes with Power Supply, USB Cable, GUI Software and Manual.

MonoSLEEVE is the second generation of the original Hot-Sleeve controller. With its advanced "Plug & Play" technology, MonoSleeve can accommodate single HotSleeve+™ \* or AgileSleeve+® \* column heaters of different sizes without having to recalibrate to each individual sleeve. This allows you to switch out different heaters on the fly.

Cat. No.	Description
MonoSLEEVE	Single Column Heater Controller (heater not included)

### MultiSLEEVE™ Controller

- Controls up to 4 column heaters simultaneously
- Self-calibrating
- Plug & Play smart heater technology
- Heats capillary Columns, N<sub>2</sub>, sheath gas lines, etc.
- 4 independent channels
- Used in multiplexing applications
- Temperature range from 25°C to 85°C
- Controller comes with cables, manual and USB GUI software.

The MultiSLEEVE controller is used for applications which require multiple heating zones or multiple LC system heating. Used in conjunction with HotSleeve+™ \* and/or AgileSleeve+® \* heaters it maintains four independent channels simultaneously and accurately while reducing overall equipment costs.

Cat. No.	Description
MultiSLEEVE	Multiple Column Heater Controller (heaters not included)

#### TECH TIP:

A temperature fluctuation as little as 2°C in either direction is enough to adversely effect the performance of even the most tried and true methods. HotSLEEVE+ and AgileSLEEVE+ heaters are accurate to within ± 0.1°C, ensuring optimum performance.

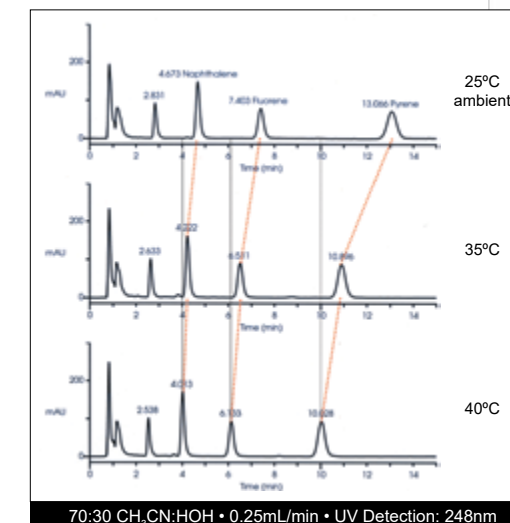


All Analytical Sales & Services heater products carry the value recognized CE mark. Each heater meets the demanding electromagnetic emission standards of the new European Union Directives, United States standards, and Canadian standards.

### HotSleeve+™

#### Column Heater

- Self-calibrating
- Temperature range from 5°C above ambient to 85°C
- Accommodates HPLC columns up to 30cm in length
- Available in 5/10/15/25/30cm lengths, as well as Prep & Semi-Prep sizes
- Tube style design: Unsnap for easy column insertion & removal



A temperature fluctuation as little as 2°C in either direction is enough to adversely effect the performance of even the most tried and true methods.

The HotSleeve+ is a self-calibrating "smart" heater that utilizes "Plug & Play" technology. This technology eliminates error generated when switching heaters from one system to another. It incorporates a unique "Tube Style" design which encapsulates a single HPLC column up to 14" in length.

The HotSleeve+ replaces the original Hot Sleeve column heater. Use with either the MultiSLEEVE™ controller or the MonoSLEEVE™ controller only, sold separately.

#### HotSleeve+ Analytical Size Column Heaters

Cat. No.	Description
HSI-5L	HotSleeve+ for 5cm Columns
HSI-10L	HotSleeve+ for 10cm Columns
HSI-15L	HotSleeve+ for 15cm Columns
HSI-25L	HotSleeve+ for 25cm Columns
HSI-30L	HotSleeve+ for 30cm Columns

#### HotSleeve+ Prep Size Column Heaters

Cat. No.	Description
HSI-0814L	HotSleeve+ - 0.8" x 14"
HSI-1005L	HotSleeve+ - 1" x 5"
HSI-1012L	HotSleeve+ - 1" x 12"
HSI-1014L	HotSleeve+ - 1" x 14"
HSI-1512L	HotSleeve+ - 1.5" x 2"
HSI-1712L	HotSleeve+ - 1.75" x 12"
HSI-2012L	HotSleeve+ - 2" x 12"
HSI-3512L	HotSleeve+ - 3.5" x 12"

#### Column CapWrap™

Use for proper heat transfer of smaller OD or capillary columns when using Hot Sleeve™



Cat. No.	Description
CapWrap5	2.5cm x 5cm
CapWrap10	2.5cm x 10cm
CapWrap15	2.5cm x 15cm
CapWrap25	2.5cm x 25cm
CapWrap30	2.5cm x 30cm

### AgileSleeve+®

#### Flexible Capillary Heater

- Self-calibrating
- Accurate from 5°C above ambient to 100°C
- Heat lines up to 30cm long, with ODs of 1/32" or 1/16"
- Great for small diameter analytical columns, nanospray, injector or pre-column mobile phase lines

AgileSleeve+ slips over a small diameter capillary column, nanospray line, injector line, or pre-column line before the end fittings are attached. It is available in a variety of lengths up to 60cm, with IDs of 1/32" or 1/16". Each is color-coded for quick diameter identification.

AgileSleeve+ replaces the original AgileSleeve heater and uses "smart" Plug & Play technology. Use with either the MultiSLEEVE™ controller or the MonoSLEEVE™ controller only, sold separately.



Cat. No.	Description
ASI1032H	AgileSleeve+ 10cm x 1/32" ID Self-calibrating Heater
ASI1016H	AgileSleeve+ 10cm x 1/16" ID Self-calibrating Heater
ASI1532H	AgileSleeve+ 15cm x 1/32" ID Self-calibrating Heater
ASI1516H	AgileSleeve+ 15cm x 1/16" ID Self-calibrating Heater
ASI2532H	AgileSleeve+ 25cm x 1/32" ID Self-calibrating Heater
ASI2516H	AgileSleeve+ 25cm x 1/16" ID Self-calibrating Heater
ASI3032H	AgileSleeve+ 30cm x 1/32" ID Self-calibrating Heater
ASI3016H	AgileSleeve+ 30cm x 1/16" ID Self-calibrating Heater

AgileSleeve+ is also available in custom lengths - call for details



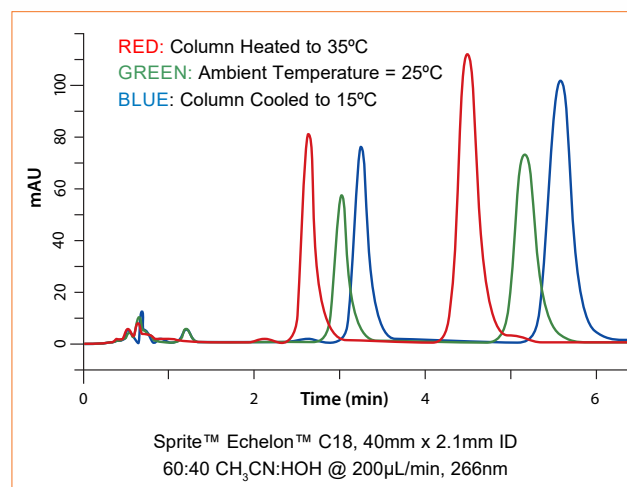


## Cold Sleeve™ Column Cooler/Heater

Cold Sleeve™ is a Peltier driven cooler/heater designed to hold a single column up to 30cm long and up to 7.8mm in diameter. The temperature range is 5° to 55°C with 0.2°C accuracy. A double insulated cover maintains temperature stability within the chamber ± 0.2°C. The high performance control unit incorporates state-of-the-art electronics with dual remote preset temperatures for advanced methods development work. RS232 control is standard.

- For chiral applications

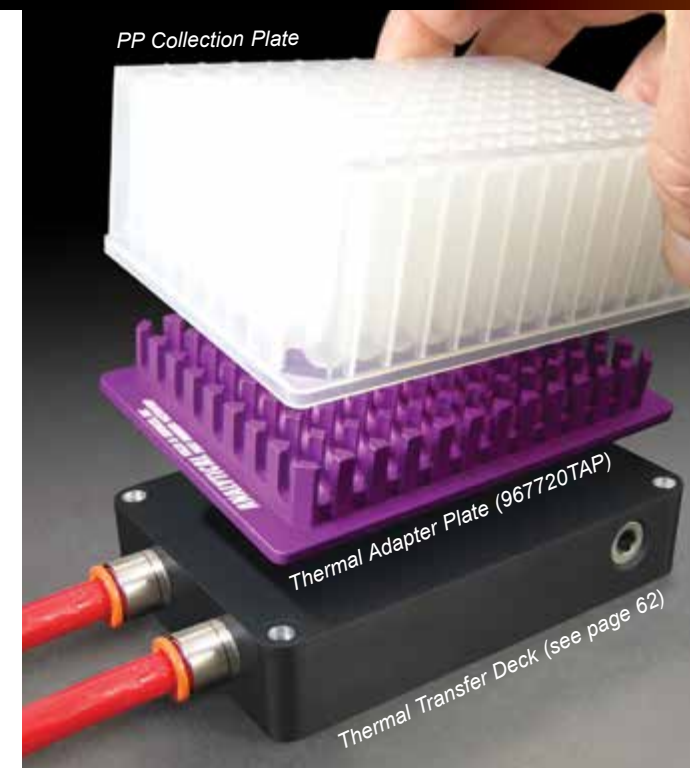
Cat. No.	Description
Cold Sleeve-30	Column Cooler/Heater, Includes Cool/Heat Module, PTC-050CS 24V Control Unit, Cables and Manual



**CE** All Analytical Sales & Services heater products carry the value recognized CE mark. Each heater meets the demanding electromagnetic emission standards of the new European Union Directives, United States standards, and Canadian standards.

### PRODUCT NOTE:

The Temperature Control Module is custom designed to offer optimum performance in heating applications. It has fast 100Hz sampling that improves control responsiveness, variable time base burst firing that increases the heater life and gives better temperature controllability, and a compact size which allows it to be placed in small areas.



## Thermal Adapter Plates

- For improved temperature transfer to samples
  - For use with matching polypropylene collection plates
- Our Thermal Adapter Plates conform to the well shape of their complementing polypropylene collection plate. They ensure uniform thermal transfer for heating and cooling when used in conjunction with a heating block or chiller (not included). The plate features a SLAS footprint and easy to identify purple anodized coating.

Analytical Sales & Services can make Thermal Adapter Plates to accommodate any shape and style polypropylene collection plate we offer. Please call 973-616-0700 for more information.



## Thermal Adapter Plates

Cat. No.	Description	Qty
967720TAP	Thermal Adapter Plate for 967720 PP Collection Plate	Each
967720	2mL Round Well/Round Bottom 96-Well Collection Plate	25
59623-23TAP	Thermal Adapter Plate for 59623-23 PP Collection Plate	Each
59623-23	2mL Round Well/V-Bottom 96-Well Collection Plate	25
968810TAP	Thermal Adapter Plate for 1mL Truetaper Collection Plate	Each
968810	1mL TrueTaper Collection Plate	25
968820TAP	Thermal Adapter Plate for 2mL Truetaper Collection Plate	Each
968820	2mL TrueTaper Collection Plate	25
17P687ZTAP	Thermal Adapter Plate for 17P687Z PP Collection Plate	Each
17P687Z	1mL 17P687Z PP Collection Plate	25



## Echelon™ C18 Columns

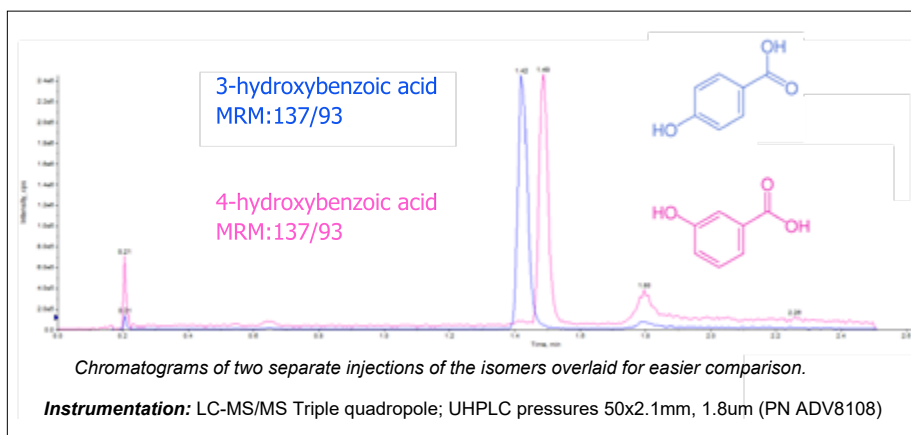
### Providing Retention Beyond Other C18

The role our unique C18 (Echelon) can fill in your lab:

- As a go-to all around column for small, polar, low-molecular weight compounds, that might not typically retain on a C18.
- For compounds that would either be ran on a polar column (e.g. Waters T3 HSS, or Phenomenex Synergi-RP) – which might show marginal improvement over a generic C18, or most likely have to be run as HILIC, or even SFC. Those last two options are not ideal for a fast pace work-flow as they take a lot of up-front method development to optimize retention.

Examples of where Echelon C18 was able to get great retention where “typical” C18 failed:

- **Benzoic acid**– Almost baseline resolved for two isomers on Echelon C18 (see overlaid chromatograms below).
- **Acyclovir** – Which can be used as a HILIC internal standard, still retains well on Echelon C18 with reverse phase chromatography.



#### TECH NOTE:

Echelon has been the choice of high throughput screening labs for its impressive durability and wide range of polarities retained.

### Echelon™ <2µm Columns

Particle size: 1.7µm Pore size: 100Å

C18	Internal Diameter (mm)	
	Length (cm)	Cat. No.
	2	ADV8106
	3	ADV8107
	5	ADV8108
	10	ADV8117

### Echelon™ 3µm Columns

Particle size: 3µm Pore size: 100Å

C18	Internal Diameter (mm)	
	Length (cm)	Cat. No.
	2	ADV8302
	3	ADV8303
	5	ADV8304
	10	ADV8305



### Ultra High Density End Capping

#### Unique Features:

- Ideal for Basic and Acidic Analytes
- Wide pH Range Stability
- High Capacity
- No secondary Si-OH interaction
- No metal contamination
- Extreme hydrophobicity range

#### Physical Properties:

- Particle sizes: 4.5µm and 10µm
- Pore Size: 100Å
- Surface Area: 430m<sup>2</sup>/gm
- Functionality: Monomeric C18
- %C (w/w): 18%
- End Capping: Proprietary and extremely exhaustive.

#### Standard Sizes:

- Special products for LC-MS
- 0.075 - 20mm I.D. range
- Cartridge and Column versions
- PEEK/titanium as well as s.s. format

### Sprite™ Echelon™ C18 Direct Connect HPLC Columns

- 10 to 40 x 2.1mm I.D. sizes
- Fast HPLC analysis
- LC-MS applications
- PEEK/titanium design
- Individually tested and certified



Cat. No.	Description
Sprite AE1842	4.0cm x 2.1mm ID
Sprite AE1822	2.0cm x 2.1mm ID
Sprite AE1832	1.0cm x 2.1mm ID

### Echelon™ Citus™ 6-32 Threads for Capillary Tubing

Particle size: 4µm Pore size: 100Å

C18	Internal Diameter	
	Length (cm)	Cat. No.
	3	ET1637
	5	ET1657
	10	ET1617
	15	ET1675
	25	ET1627

### Echelon™ C18 Analytical Columns

Particle size: 4µm Pore size: 100Å

C18	Internal Diameter (mm)		
	Length (cm)	Cat. No.	Cat. No.
	3	ADV8021	ADV8030
	5	ADV8008	ADV8004
	10	ADV8009	ADV8005
	15	ADV8010	ADV8006
	25	ADV8011	ADV8007

### Echelon™ C18 Semi-Prep & Prep Columns

Particle size: 5µm Pore size: 100Å

C18	Internal Diameter (mm)	
	Length (cm)	Cat. No.
	5	ADV820510
	10	ADV821010
	15	ADV821510
	25	ADV822510

### Echelon™ Microbore Columns

Particle size: 4µm Pore size: 100Å

C18	Internal Diameter (mm)		
	Length (cm)	Cat. No.	Cat. No.
	3	ADV0303185	ADV0305185
	5	ADV0503185	ADV0505185
	10	ADV1003185	ADV1005185
	15	ADV1503185	ADV1505185
	25	ADV2503185	ADV2505185

### Echelon™ Guard Cartridges & Holders

C8 & C18 Guard Cartridges: 4µm, 5/Pkg

Cat. No.	Description
ADV-E118	C18 Stainless Steel Guard, 20mm x 3.2mm ID
ADV-E185	C18 PEEK™ Guard Cartridge, 2cm x 2.1mm

Fingertight Guard Holders for 20mm Columns

Cat. No.	Description
ADV-GuardFM	PEEK™ Guard Holder
ADV-GuardFF	Double Female Holder



### Echelon™ Prep & Semi-Prep Guard Cartridges & Holders

Cartridges

Cat. No.	Description
ADV0220-73	C18, 10µm, 25mm x 20mm ID, 2/Pkg
ADV20-HOLD25	Prep Guard Cartridge Holder, 20mm

Holders

Cat. No.	Description
ADV0310-73	C18, 10µm, 30mm x 10mm ID, 2/Pkg
ADV10-HOLD30	Semi-Prep Guard Cartridge Holder, 10mm



### Direct Connect SS Pre-column Filter

- 5µl Dead Volume
- 0.5µm SS Frit
- Rated to 15,000 PSI

Cat. No.	Description	Qty
48815	SS Direct Pre-column Filter Assemblies, 0.5µm Frit	Each
48001	Replacement SS 0.5µm Frit	5



## Armor™ C8 and C18 Columns

The Armor™ family of columns utilize a remarkable base deactivated material as tough as Armor. An added post-bonding process ensures the protection of the silica's silanol surface against the effects of solute-silanol interactions.

Since column stability and efficiency are primary issues for scientists developing fast HPLC methods with low detection limits, Armor™ columns are ideal for applications requiring an absence of secondary solute-silanol interaction.

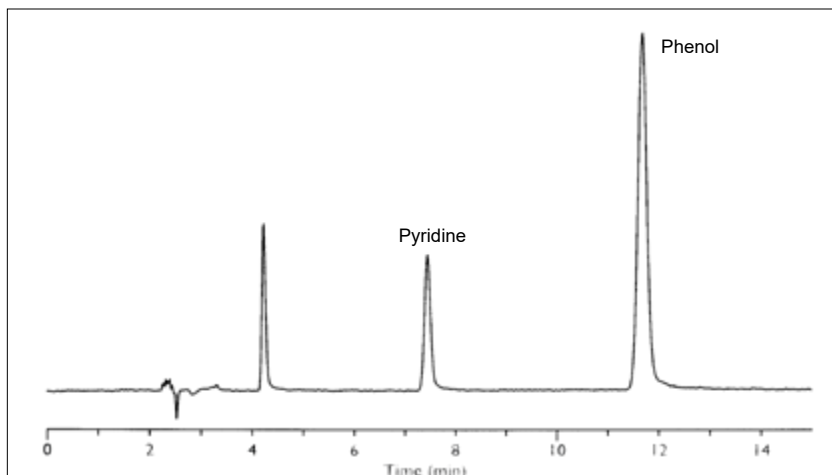
Basic and acidic drugs and peptides can be chromatographed efficiently with little or no buffer, where acetic acid or formic acid can be substituted for TFA resulting in significant signal increase.

Advantage™ Armor™ columns exhibit extremely fast equilibration kinetics from high to low organic phase compositions. They also work well in 100% aqueous conditions for hydrophilic applications.

- Ideal for LC-MS: 3 to 5 fold sensitivity increase
- No tailing of basic and acidic analytes
- Batch to batch reproducibility
- Long column life
- Offered in a wide range of formats

### Advantage™ Armor™ Specifications

**Phase:** C8 and C18  
**Particle Size:** 1.9µm, 3µm, 5µm and 10µm  
**Pore Size:** 120Å  
**Pore Volume:** 0.8mL/gm  
**Surface Area:** 330m²/gm  
**% Carbon:** C8=8%, C18=16%  
**Phase Type:** Monofunctional with a unique polar and bulky end-capping.  
**Silica Class:** Type B  
**Hardware:** PEEK™ & Stainless Steel Columns and Cartridges



This unbuffered Pyridine and Phenol chromatogram illustrates the absence of any undesirable solute/silanol interaction on an ARMOR™ C18 HPLC Column.

## Armor™ Guard Cartridges & Holders

C8 & C18 Guard Cartridges: 5µm, 5/Pkg

Cat. No.	Description
ADV-A108	C8 Stainless Steel Guard Cartridge, 20mm x 3.2mm ID
ADV-A118	C18 Stainless Steel Guard Cartridge, 20mm x 3.2mm ID
ADV-A185	C18 PEEK™ Guard Cartridge, 20mm x 2.1mm ID

Fingertight Guard Holders for 20mm Columns

Cat. No.	Description
ADV-GuardFM	PEEK™ Guard Holder
ADV-GuardFF	Double Female Holder



## Armor™ Analytical Columns

Particle size: 1.9µm Pore size: 120Å

C18	Internal Diameter (mm)		
	2.1	4.6	
	Cat. No.	Cat. No.	
Length (cm)	5	ADV7108	
	15		ADV7102

Particle size: 3µm Pore size: 120Å

C18	Internal Diameter (mm)			
	2.1	3.0	4.6	
	Cat. No.	Cat. No.	Cat. No.	
Length (cm)	3	ADV7321	ADV7330	ADV7329
	5	ADV7308	ADV7304	ADV7300
	10	ADV7309	ADV7305	ADV7301
	15	ADV7310	ADV7306	ADV7302
	25	ADV7311	ADV7307	ADV7303

Particle size: 5µm Pore size: 120Å

C18	Internal Diameter (mm)			
	2.1	3.0	4.6	
	Cat. No.	Cat. No.	Cat. No.	
Length (cm)	3	ADV7021	ADV7030	ADV7029
	5	ADV7008	ADV7004	ADV7000
	10	ADV7009	ADV7005	ADV7001
	15	ADV7010	ADV7006	ADV7002
	25	ADV7011	ADV7007	ADV7003

Particle size: 5µm Pore size: 120Å

C8	Internal Diameter (mm)			
	2.1	3.0	4.6	
	Cat. No.	Cat. No.	Cat. No.	
Length (cm)	3	ADV5280	ADV5260	ADV5214
	5	ADV5281	ADV5261	ADV5215
	10	ADV5282	ADV5262	ADV5216
	15	ADV5283	ADV5263	ADV5217
	25	ADV5284	ADV5264	ADV5218

## Sprite™ Armor™ Direct Connect C18 HPLC Columns

Monofunctional with unique polar and bulky end-capping

- Fast HPLC analysis
- LC-MS applications
- PEEK™ / Titanium design

Cat. No.	Description
Sprite AC1842	5µm, 40mm x 2.1mm ID
Sprite AC1822	5µm, 20mm X 2.1mm ID
Sprite AC1832	5µm, 10mm x 2.1mm ID
Sprite A10-1842	10µm, 40mm x 2.1mm ID
Sprite A10-1822	10µm, 20mm x 2.1mm ID
Sprite A10-1832	10µm, 10mm X 2.1mm ID

## Armor™ Microbore Columns

Particle size: 3µm Pore size: 120Å

C18	Internal Diameter (mm)			
	0.3	0.5	1.0	
	Cat. No.	Cat. No.	Cat. No.	
Length (cm)	3	ADV03M3A203	ADV03M5A203	ADV03M1A203
	5	ADV05M3A203	ADV05M5A203	ADV05M1A203
	10	ADV10M3A203	ADV10M5A203	ADV10M1A203
	15		ADV15M5A203	ADV15M1A203
	25			ADV25M1A203

Particle size: 5µm Pore size: 120Å

C18	Internal Diameter (mm)			
	0.3	0.5	1.0	
	Cat. No.	Cat. No.	Cat. No.	
Length (cm)	3	ADV03M3A205	ADV03M5A205	ADV03M1A205
	5	ADV05M3A205	ADV05M5A205	ADV05M1A205
	10	ADV10M3A205	ADV10M5A205	ADV10M1A205
	15		ADV15M5A205	ADV15M1A205
	25			ADV25M1A205

Particle size: 5µm Pore size: 120Å

C8	Internal Diameter (mm)			
	0.3	0.5	1.0	
	Cat. No.	Cat. No.	Cat. No.	
Length (cm)	3	ADV03M3B205	ADV03M5B205	ADV03M1B205
	5	ADV05M3B205	ADV05M5B205	ADV05M1B205
	10	ADV10M3B205	ADV10M5B205	ADV10M1B205
	15		ADV15M5B205	ADV15M1B205
	25			ADV25M1B205

## Armor™ Semi-Prep & Prep Columns

Particle size: 5µm Pore size: 120Å

C18	Internal Diameter (mm)		
	10	20	
	Cat. No.	Cat. No.	
Length (cm)	10	ADV721020	ADV721010
	15	ADV721520	ADV721510
	25	ADV722520	ADV722510

Particle size: 10µm Pore size: 120Å

C18	Internal Diameter (mm)		
	10	20	
	Cat. No.	Cat. No.	
Length (cm)	10	ADV711020	ADV711010
	15	ADV711520	ADV711510
	25	ADV712520	ADV712510

Particle size: 5µm Pore size: 120Å

C8	Internal Diameter (mm)		
	10	20	
	Cat. No.	Cat. No.	
Length (cm)	10	ADV731020	ADV731010
	15	ADV731520	ADV731510
	25	ADV732520	ADV732510

ADV20-HOLD25

## Armor™ Prep & Semi-Prep Guard Cartridges & Holders

C18 Cartridges

Cat. No.	Description
ADV0310-171	C18, 10µm, 30mm x 10mm ID, 2/Pkg
ADV0220-171	C18, 10µm, 25mm x 20mm ID, 2/Pkg

Holders

Cat. No.	Description
ADV10-HOLD30	Semi-Prep Guard Cartridge Holder, 10mm ID
ADV20-HOLD25	Prep Guard Cartridge Holder, 20mm ID



### Lancer™ Columns

- High efficiency
- C8, C18, Cyano & Phenyl Phases
- Lot-to-lot reproducibility
- Monofunctional: polar and bulky end-capping
- Highly retentive
- Ideal for non-polar to medium polarity compounds using organic/aqueous mobile phases

Lancer™ columns are based on the same ultra-pure Type B silica gel used in our Armor™ products, and thoroughly endcapped bonded phases ensure that Lancer™ columns and cartridges will perform well in demanding situations, where many other column brands fail.

The bulky size and secondary chemical functionality of the end-capping moiety on Lancer™ columns and cartridges make them popular choices for researchers developing powerful LC-MS techniques or chromatographers doing routine analysis of difficult polar compounds. Lancer™ is an attractive alternative to traditional reverse phase methods and is an excellent replacement for Hypersil® packed columns.

#### Advantage™ Lancer™ Specifications

**Phase:** C8, C18, Cyano and Phenyl  
**% Carbon:** C18=18% (w/w)  
**Particle Size:** 5µm  
**Phase Type:** Extremely well end-capped monofunctional phases  
**Pore Size:** 120Å  
**Silica Class:** Type B  
**Pore Volume:** 0.8 mL/gm  
**Hardware:** Stainless Steel and PEEK™ Columns and Cartridges  
**Surface Area:** 330 m<sup>2</sup>/gm

#### Sprite™ Lancer™ Direct Connect C18

For applications requiring high resolution and high selectivity

- 10 to 40 x 2.1mm I.D. sizes
- Fast HPLC analysis
- LC-MS applications
- PEEK™ / Titanium design
- Individually tested and certified



Cat. No.	Description	Cat. No.	Description
Sprite LC1842	5µm, 40mm x 2.1mm ID	Sprite L10-1842	10µm, 40mm x 2.1mm ID
Sprite LC1822	5µm, 20mm X 2.1mm ID	Sprite L10-1822	10µm, 20mm x 2.1mm ID
Sprite LC1832	5µm, 10mm x 2.1mm ID	Sprite L10-1832	10µm, 10mm X 2.1mm ID

#### Lancer™ Guard Cartridges & Holders

PEEK Guard Cartridges			Stainless Steel Guard Cartridges		
5µm, 20mm x 2.1mm			5µm, 20mm x 3.2mm		
Cat. No.	Description	Qty	Cat. No.	Description	Qty
ADV-H8185	C8 PEEK Guard Cartridge	5	ADV-H208	C8 SS Guard Cartridge	5
ADV-H185	C18 PEEK Guard Cartridge	5	ADV-H218	C18 SS Guard Cartridge	5
ADV-CNP5	Cyano PEEK Guard Cartridge	5	ADV-HCN	Cyano SS Guard Cartridge	5
ADV-PHN5	Phenyl PEEK Guard Cartridge	5	ADV-H1PH	Phenyl SS Guard Cartridge	5



### Lancer™ Analytical Columns



Particle size: 5µm Pore size: 120Å

C18	Internal Diameter (mm)			
	2.1	3.0	4.6	
	Cat. No.	Cat. No.	Cat. No.	
Length (cm)	3	ADV5075 *	ADV5055	ADV5009
	5	ADV5076 *	ADV5056	ADV5010
	10	ADV5077 *	ADV5057	ADV5011
	15	ADV5078 *	ADV5058	ADV5012
	25	ADV5079 *	ADV5059	ADV5013

\* Use with pre-column filter 1605 or 1620

Particle size: 5µm Pore size: 120Å

C8	Internal Diameter (mm)			
	2.1	3.0	4.6	
	Cat. No.	Cat. No.	Cat. No.	
Length (cm)	3	ADV5275 *	ADV5255	ADV5209
	5	ADV5276 *	ADV5256	ADV5210
	10	ADV5277 *	ADV5257	ADV5211
	15	ADV5278 *	ADV5258	ADV5212
	25	ADV5279 *	ADV5259	ADV5213

\* Use with pre-column filter 1605 or 1620

Particle size: 5µm Pore size: 120Å

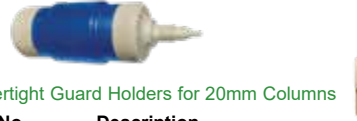
Phenyl	Internal Diameter (mm)			
	2.1	3.0	4.6	
	Cat. No.	Cat. No.	Cat. No.	
Length (cm)	3	ADV5975 *	ADV5905	ADV5904
	5	ADV5976 *	ADV5910	ADV5909
	10	ADV5977 *	ADV5911	ADV5906
	15	ADV5978 *	ADV5907	ADV5912
	25	ADV5979 *	ADV5908	ADV5913

\* Use with pre-column filter 1605 or 1620

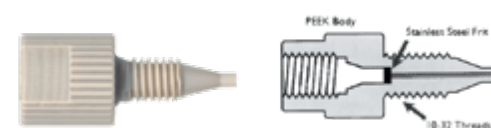
#### PRODUCT NOTE:

Lancer columns available in 3µm pore size, call for details

ADV-GuardFM ADV-GuardFF



Fingertight Guard Holders for 20mm Columns  
**Cat. No. Description**  
 ADV-GuardFM PEEK Guard Holder for 20mm Columns  
 ADV-GuardFF Double Female Holder for 20mm Columns



#### Direct Connect One Piece PEEK™ HPLC Pre-Column Inline Filter Guard

Advantage™ Direct Connect Inline Filter Guards offer an easy and inexpensive way of protecting your column from grease and dirt.

- Connects with 1/16" tubing and 10-32 threading
- Changes in seconds! No tools necessary!
- **Rated to 5,000psi**

Cat. No.	Description	Qty
1605	Advantage™ 0.5µm Direct Connect Inline Filter Guard	Each
1620	Advantage™ 2.0µm Direct Connect Inline Filter Guard	Each

#### Direct Connect Stainless Steel UHPLC Pre-Column Inline Filters

- **Rated to 15,000psi**
- 0.5µm titanium frit
- 1µl dead volume



Cat. No.	Description	Qty
49005	Direct Connect UHPLC Pre-Column Filter	10

#### Direct Connect SS UHPLC Pre-Column Filters

- **Rated to 15,000psi**
- 0.5µm Stainless Steel frit
- 5µl dead volume



Cat. No.	Description	Qty
48815	SS Direct Connect Pre-column Filter Assembly with 0.5µm Frit	Each
48001	Replacement SS 0.5µm Frit	5
48814	SS Direct Connect Pre-column Filter Assembly, 0.5µm Titanium Frit	Ea
48812	SS Direct Connect Pre-column Filter Assembly, 2.0µm SS Frit	Each
48802	Replacement SS 2.0µm Frit	5

#### UHPLC Stainless Steel Inline Filter

(1/16" OD tubing)

- **Rated to 15,000psi**
- Low dead volume
- 0.5µm frits



Cat. No.	Description	Qty
48555	Low Dead Volume UHPLC SS Inline Filter Holder with 0.5µm x 0.062" SS Frit	Each
48513	Replacement SS 0.5µm x 0.062" Frit, 2µL	5
48222	UHPLC SS Inline Holder w/ 0.5µm x 0.25" SS Frit	Each
48313	Replacement SS 0.5µm x 0.25" Frit	5

#### High Pressure Semi-Prep Inline Filters

For SFC, place before the mixer



1/16" OD tubing

Cat. No.	Description	Qty
49330	Semi-Prep Filter with 49331 Frit, 10-32 Coned	Each
49332X	Replacement 2µm SS Frit, .75" x .062" x .87"	10
49331X	Replacement 10µm SS Frit, .75" x .062" x .87"	10



1/8" OD tubing

Cat. No.	Description	Qty
49360	Semi-Prep Filter w/ 10µm Frit with 5/16-24 Flat Bottom Port	Each

#### Prep Inline Filter (For SFC, place before the Column)

- Replace o-ring periodically
- Use supplied fittings to make proper connections

Cat. No.	Description	Qty
49230	Prep Inline Filter Assembly w/ 2µm Frit	Each
49230DR	Prep Inline Filter Assembly w/ 2µm Frit, Larger Flow Ports (0.04" ID)	Each
49231X	Replacement Inline Prep Frits, 2µm	10
49233	Replacement O-Ring for Prep Inline Filter System	Each
49501	SS Frit, 0.839" x 0.125", 10µm	20







### PEEK™ Tubing

1/16" OD x 10' Tubing

Cat. No.	Capacity	Color	PSI Rating	Qty
69-1201	65µm (.0025") ID	Natural	7,000psi (483 bar)	Each
69-1202	100µm (.004") ID	Black	7,000psi (483 bar)	Each
69-1203	125µm (.005") ID	Red	7,000psi (483 bar)	Each
69-1205	175µm (.007") ID	Yellow	7,000psi (483 bar)	Each
69-1206	.25mm (.010") ID	Natural	7,000psi (483 bar)	Each
69-1207	.25mm (.010") ID	Blue	7,000psi (483 bar)	Each
69-1209	0.02" ID	Orange	7,000psi (483 bar)	Each
69-1210	0.03" ID	Green	7,000psi (483 bar)	Each
69-1211	0.04" ID	Natural	5,000psi (345 bar)	Each
69-1212	0.055" ID	Natural	500psi (345 bar)	Each

1/16" OD x 50' Tubing

Cat. No.	Capacity	Color	PSI Rating	Qty
41535-L4	0.005" ID	Red	7,000psi (483 bar)	Each
41536-L4	0.007" ID	Yellow	7,000psi (483 bar)	Each
41531L4	0.010" ID	Natural	7,000psi (483 bar)	Each
41532-L4	0.020" ID	Orange	7,000psi (483 bar)	Each
41533-L4	0.030" ID	Green	7,000psi (483 bar)	Each
41538-L4	0.040" ID	Natural	5,000psi (345 bar)	Each
41537-L4	0.055" ID	Natural	500psi (34 bar)	Each
41560-L4	0.0025" ID	Natural	7,000psi (483 bar)	Each
41561-L4	0.004" ID	Black	7,000psi (483 bar)	Each
41531B-L4	0.010" ID	Blue	7,000psi (483 bar)	Each

1/16" OD x 100' Tubing

Cat. No.	Capacity	Color	PSI Rating	Qty
41535X-L4	0.005" ID	Red	7,000psi (483 bar)	Each
41536X-L4	0.007" ID	Yellow	7,000psi (483 bar)	Each
41531XL4	0.010" ID	Natural	7,000psi (483 bar)	Each
41532XL4	0.020" ID	Orange	7,000psi (483 bar)	Each
41533XL4	0.030" ID	Green	7,000psi (483 bar)	Each
41538X-L4	0.040" ID	Natural	5,000psi (345 bar)	Each
41537X-L4	0.055" ID	Natural	500psi (34 bar)	Each
41560X-L4	0.0025" ID	Natural	7,000psi (483 bar)	Each
41561X-L4	0.004" ID	Black	7,000psi (483 bar)	Each
41531BXL4	0.010" ID	Blue	7,000psi (483 bar)	Each

1/8" OD x 5' Tubing

Cat. No.	Capacity	Color	PSI Rating	Qty
4154-44	0.08" ID	Natural	3,000 (207 bar)	Each

### Capillary PEEK™ Tubing

1/32" OD x 5' Tubing

Cat. No.	Capacity	Color	PSI Rating	Qty
1056-5	125µm (0.005") ID	Red	5,000psi (345 bar)	Each
1057-5	175µm (0.007") ID	Yellow	5,000psi (345 bar)	Each
1058-5	.25mm (0.010") ID	Blue	5,000psi (345 bar)	Each

360µm (0.0145") OD x 5' Tubing

Cat. No.	Capacity	Color	PSI Rating	Qty
1050	50µm (0.002") ID	Natural	2,000psi (138 bar)	Each
1070	100µm (0.004") ID	Red	2,000psi (138 bar)	Each
1080	150µm (0.006") ID	Yellow	2,000psi (138 bar)	Each

### Micro Tubing Sleeves

- For connecting capillary tubing
- Tubing sleeves, silica seal

FEP tubing sleeves 1/16" OD

Cat. No.	Capacity	Color	Qty
36395	395µm (0.015") ID, for 340-380µm OD Tubing	Green	10
55247	840 µm (0.033") ID, for 785-825 µm OD Tubing	Green	Each

PEEK™ Tubing Sleeves, 0.025" OD

Cat. No.	Capacity	Color	Qty
55182X	230µm (0.009") ID, for 175-215µm OD Tubing	Natural	10
55185	395µm (0.0155") ID, for 340-380µm OD Tubing	Green	Each

Also available for 1/32" OD tubing - call for parts

### PEEK Tubing Cutter



Cat. No.	Description
49327	Tubing Cutter for 1/16" - 1/8" OD PEEK™ Tubing
49328	Replacement Blades for 49327

### Rotary SS Tubing Cutter



Cat. No.	Description
TT1001	Terry Tool Rotary Stainless Steel Tubing Cutter for 1/16" OD Tubing
TT1002	Terry Tool Rotary Stainless Steel Tubing Cutter for 1/8" OD Tubing
TT1003	Terry Tool Replacement Blades

### Polymer Tubing Cutter



Cat. No.	Description
1651	Polymer Tubing Cutter with 5 port sizes
1652	Replacement Blade for PN 1651



### Pre-Cut Stainless Steel Tubing (1/16" OD)

0.005" ID (Red)

Cat. No.	Length	Qty
64152	5cm	Each
64153	10cm	Each
64154	20cm	Each
64155	30cm	Each
64156	0.5M	Each
64604	75cm	Each

64157	1M	Each
64158	5'	Each
64160	25'	Each

0.007" ID (Black)

Cat. No.	Length	Qty
64126	5cm	Each
64127	10cm	Each
64128	20cm	Each
64129	30cm	Each
64130	0.5M	Each
64819	70cm	Each
64131	1M	Each
64108	5'	Each
64161	25'	Each

0.01" ID (Blue)

Cat. No.	Length	Qty
64111	5cm	Each
64112	10cm	Each
64113	20cm	Each
64114	30cm	Each
64132	0.5M	Each
64133	1M	Each
64106	5'	Each
64162	25'	Each

0.02" ID (Yellow)

Cat. No.	Length	Qty
64101	5cm	Each
64102	10cm	Each
64103	20cm	Each
64104	30cm	Each
64134	0.5M	Each
64135	1M	Each
64105	5'	Each
64163	25'	Each

0.03" ID (White)

Cat. No.	Length	Qty
64115	5cm	Each
64116	10cm	Each
64117	20cm	Each
64118	30cm	Each
64136	0.5M	Each
64137	1M	Each
64107	5'	Each
64164	25'	Each

0.04" ID

Cat. No.	Length	Qty
64138	5cm	Each
64139	10cm	Each
64140	20cm	Each
64141	30cm	Each
64142	0.5M	Each
64143	1M	Each
64144	5'	Each
64165	25'	Each



### Pre-Cut Stainless Steel Tubing Kits

These tubing kits contain 20 pieces of 1/16" OD tubing (10 pieces 5cm long and 10 pieces 10cm long)

Cat. No.	Description	Qty
4132-14	Tubing Kit 0.01" ID	Each
4132-44	Tubing Kit 0.02" ID	Each
4132-04	Tubing Kit 0.01" ID & 0.02" ID @ Various Lengths	Each

### Stainless Steel Prep. Tubing, 0.08" ID x 1/8" OD

Cat. No.	Description	Length	Qty
64825	Stainless Steel Prep Tubing	25cm	Each
64800	Stainless Steel Prep Tubing	1M	Each
64803	Stainless Steel Prep Tubing	3M	Each

### Hastelloy Tubing

- for continuous process or flow chemistry
- for high pressure and temperature reactions
- Corrosion resistant

Cat. No.	Description	Length	Qty
791201	Hastelloy C Tubing, 1/16" OD x .020" ID	1'	Each
791205	Hastelloy C Tubing, 1/16" OD x .020" ID	5'	Each
791210	Hastelloy C Tubing, 1/16" OD x .020" ID	10'	Each
791301	Hastelloy C Tubing, 1/16" OD x .030" ID	1'	Each
791305	Hastelloy C Tubing, 1/16" OD x .030" ID	5'	Each
791310	Hastelloy C Tubing, 1/16" OD x .030" ID	10'	Each
791401	Hastelloy C Tubing, 1/16" OD x .040" ID	1'	Each
791405	Hastelloy C Tubing, 1/16" OD x .040" ID	5'	Each
791410	Hastelloy C Tubing, 1/16" OD x .040" ID	10'	Each
792701	Hastelloy C Tubing, 1/8" OD x .070" ID	1'	Each
792705	Hastelloy C Tubing, 1/8" OD x .070" ID	5'	Each
792710	Hastelloy C Tubing, 1/8" OD x .070" ID	10'	Each
792851	Hastelloy C Tubing, 1/8" OD x .085" ID	1'	Each
792855	Hastelloy C Tubing, 1/8" OD x .085" ID	5'	Each
792810	Hastelloy C Tubing, 1/8" OD x .085" ID	10'	Each



### FEP Tubing

Made with Teflon® Resin

1/16" OD

Cat. No.	Description	Max. Press.	Length
4152-74	FEP Tubing, 1/16" OD x 0.01" ID	3000psi	20'
4154-84	FEP Tubing, 1/16" OD x 0.02" ID	2000psi	20'
4152-04	FEP Tubing, 1/16" OD x 0.03" ID	1000psi	20'

1/8" OD x 1/16" ID

Cat. No.	Description	Max. Press.	Length
4152-34	FEP Tubing, 1/8" OD x 1/16" ID	500psi	10'
415993	FEP Tubing, 1/8" OD x 1/16" ID	500psi	50'
415993-46IN	FEP Tubing, 1/8" OD x 1/16" ID	500psi	46"

3/16" OD x 0.125" ID (Waters® Pumps)

Cat. No.	Description	Max. Press.	Length
41524-L4	FEP Tubing, 3/16" OD x 0.125" ID	500psi	50'
41524-XL4	FEP Tubing, 3/16" OD x 0.125" ID	500psi	100'

1/4" OD x 0.188" ID

Cat. No.	Description	Max. Press.	Length
41650-L4	FEP Tubing, 1/4" OD x .188" ID	250psi	50'

### PFA Tubing

Made with Teflon® Resin

Cat. No.	Description	Max. Press.	Length
41507-L4	PFA Tubing, 1/16" OD x .040" ID	500psi	50'
41509-L4	PFA Tubing, 1/8" OD x 1/16" ID	500psi	50'

### ETFE (Tefzel™) Tubing

Made with Teflon® Resin

Cat. No.	Description	Max. Press.	Length
4153-04	ETFE (Tefzel) Tubing, 1/8" OD x 1/16" ID	1000psi	5'

### PRODUCT NOTE:

FEP, PFA, ETFE - great chemical compatibility with all solvents. This tubing is commonly used as the feed lines from mobile phase bottles to pumps.



# FlexChrom®

Flexible Stainless Steel Tubing

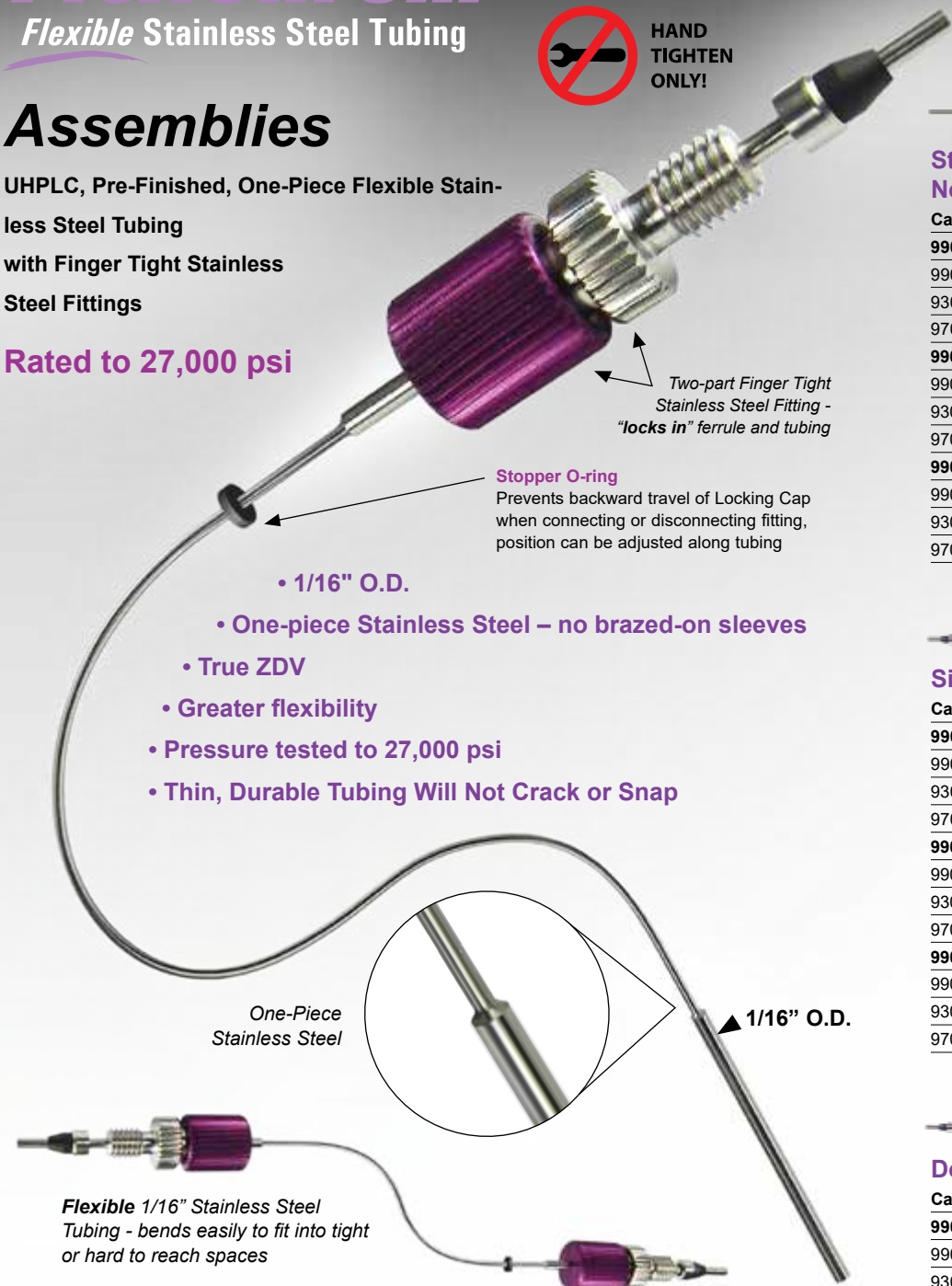
## Assemblies

UHPLC, Pre-Finished, One-Piece Flexible Stainless Steel Tubing with Finger Tight Stainless Steel Fittings

Rated to 27,000 psi



HAND TIGHTEN ONLY!



Two-part Finger Tight Stainless Steel Fitting - "locks in" ferrule and tubing

Stopper O-ring  
Prevents backward travel of Locking Cap when connecting or disconnecting fitting, position can be adjusted along tubing

• 1/16" O.D.

• One-piece Stainless Steel – no brazed-on sleeves

• True ZDV

• Greater flexibility

• Pressure tested to 27,000 psi

• Thin, Durable Tubing Will Not Crack or Snap

One-Piece Stainless Steel

1/16" O.D.

Flexible 1/16" Stainless Steel Tubing - bends easily to fit into tight or hard to reach spaces



### Replacement Graphite Ferrules

Cat. No.	Dimensions	Qty
68566-1	One-Piece Ferrule System	5



### 1/16" Flexible SS Tubing with SS Fingertight Fittings

#### Stainless Steel Tubing with No End Fittings

Cat. No.	Dimensions	Qty
990041-Flex	10cm x 0.004" ID	Each
990011-Flex	10cm x 0.005" ID	Each
930011-Flex	10cm x 0.007" ID	Each
970011-Flex	10cm x 0.010" ID	Each
990042-Flex	20cm x 0.004" ID	Each
990015-Flex	20cm x 0.005" ID	Each
930015-Flex	20cm x 0.007" ID	Each
970015-Flex	20cm x 0.010" ID	Each
990043-Flex	30cm x 0.004" ID	Each
990028-Flex	30cm x 0.005" ID	Each
930028-Flex	30cm x 0.007" ID	Each
970028-Flex	30cm x 0.010" ID	Each

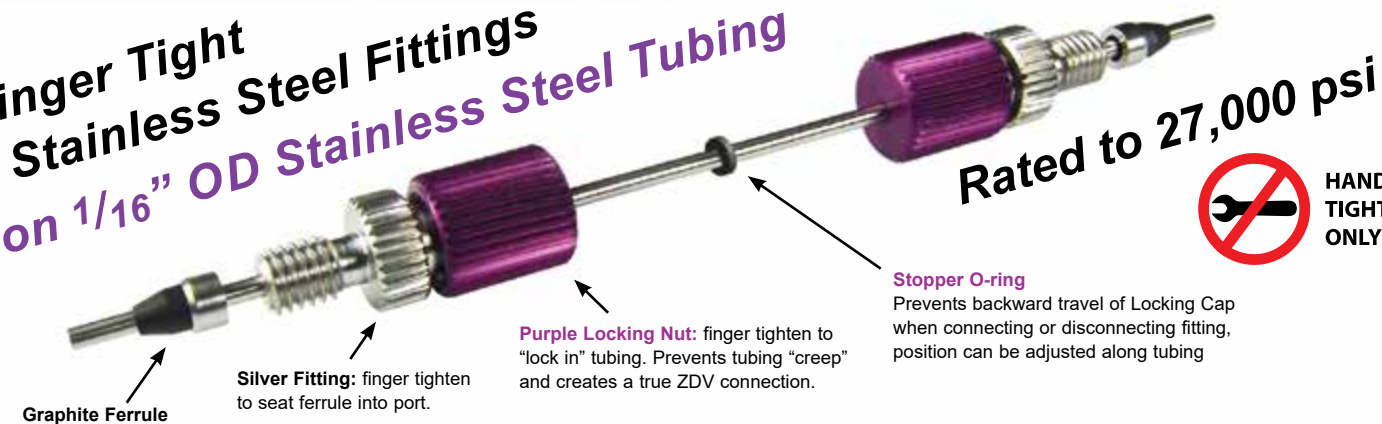
#### Single UHPLC Assembly

Cat. No.	Dimensions	Qty
990141-Flex	10cm x 0.004" ID	Each
990111-Flex	10cm x 0.005" ID	Each
930111-Flex	10cm x 0.007" ID	Each
970111-Flex	10cm x 0.010" ID	Each
990142-Flex	20cm x 0.004" ID	Each
990115-Flex	20cm x 0.005" ID	Each
930115-Flex	20cm x 0.007" ID	Each
970115-Flex	20cm x 0.010" ID	Each
990143-Flex	30cm x 0.004" ID	Each
990128-Flex	30cm x 0.005" ID	Each
930128-Flex	30cm x 0.007" ID	Each
970128-Flex	30cm x 0.010" ID	Each

#### Double UHPLC Assembly

Cat. No.	Dimensions	Qty
990241-Flex	10cm x 0.004" ID	Each
990211-Flex	10cm x 0.005" ID	Each
930211-Flex	10cm x 0.007" ID	Each
970211-Flex	10cm x 0.010" ID	Each
990242-Flex	20cm x 0.004" ID	Each
990215-Flex	20cm x 0.005" ID	Each
930215-Flex	20cm x 0.007" ID	Each
970215-Flex	20cm x 0.010" ID	Each
990243-Flex	30cm x 0.004" ID	Each
990228-Flex	30cm x 0.005" ID	Each
930228-Flex	30cm x 0.007" ID	Each
970228-Flex	30cm x 0.010" ID	Each

## Finger Tight Stainless Steel Fittings on 1/16" OD Stainless Steel Tubing



Rated to 27,000 psi



HAND TIGHTEN ONLY!

### Ultra High Pressure Finger Tight UHPLC Assemblies

- Zero Dead Volume Connection
- Pressure Tested to 27,000 psi
- Two-part Finger Tightening System "Locks In" Ferrule and Tubing



#### Single UHPLC Assembly Stainless Steel Tubing with One Fitting

Cat. No.	Dimensions	Qty
61510	10cm x 0.005" ID	Each
61710	10cm x 0.007" ID	Each
61610	10cm x 0.010" ID	Each
61210	10cm x 0.020" ID	Each
61715	15cm x 0.007" ID	Each
61520	20cm x 0.005" ID	Each
61720	20cm x 0.007" ID	Each
61620	20cm x 0.010" ID	Each
61220	20cm x 0.020" ID	Each
61525	25cm x 0.005" ID	Each
61530	30cm x 0.005" ID	Each
61730	30cm x 0.007" ID	Each
61630	30cm x 0.010" ID	Each
61230	30cm x 0.020" ID	Each
61540	40cm x 0.005" ID	Each
61740	40cm x 0.007" ID	Each
61640	40cm x 0.010" ID	Each
61240	40cm x 0.020" ID	Each
61550	50cm x 0.005" ID	Each
61750	50cm x 0.007" ID	Each
61650	50cm x 0.010" ID	Each
61250	50cm x 0.020" ID	Each
61560	60cm x 0.005" ID	Each

### Replacement Graphite Ferrules

Cat. No.	Dimensions	Qty
68566-1	One-Piece Ferrule System	5



#### Double UHPLC Assembly Stainless Steel Tubing with Two Fittings

Cat. No.	Dimensions	Qty
62510	10cm x 0.005" ID	Each
62710	10cm x 0.007" ID	Each
62610	10cm x 0.010" ID	Each
62210	10cm x 0.020" ID	Each
62715	15cm x 0.007" ID	Each
62520	20cm x 0.005" ID	Each
62720	20cm x 0.007" ID	Each
62620	20cm x 0.010" ID	Each
62220	20cm x 0.020" ID	Each
62530	30cm x 0.005" ID	Each
62730	30cm x 0.007" ID	Each
62630	30cm x 0.010" ID	Each
62230	30cm x 0.020" ID	Each
62540	40cm x 0.005" ID	Each
62740	40cm x 0.007" ID	Each
62640	40cm x 0.010" ID	Each
62240	40cm x 0.020" ID	Each
62550	50cm x 0.005" ID	Each
62750	50cm x 0.007" ID	Each
62650	50cm x 0.010" ID	Each
62250	50cm x 0.020" ID	Each
62560	60cm x 0.005" ID	Each
62760	60cm x 0.007" ID	Each
62501	100cm x 0.005" ID	Each





0.004" Inner Diameter is also available as well as longer tubing lengths - call for details

See our website for instructional video









### 10-32 One Piece Fingertight Fittings - for 1/16" OD Tubing

• Rated to 6,000 psi

			
<b>Cat No.</b> 1654	<b>Cat No.</b> 1655	<b>Cat No.</b> 66514-1	<b>Cat No.</b> 66517-1
<b>Qty</b> Each	<b>Qty</b> Each	<b>Qty</b> 5	<b>Qty</b> 5
PEEK™ Fat Head Fitting	PEEK™ X-Long Fat Head Fitting	PEEK™ Fitting	PEEK™ Long Fitting

### HPLC Plugs

					
<b>Cat No.</b> 66313-3	<b>Cat No.</b> 66312-5	<b>Cat No.</b> 1608	<b>Cat No.</b> 1610	<b>Cat No.</b> 59557	<b>Cat No.</b> 66008
<b>Qty</b> 5	<b>Qty</b> 5	<b>Qty</b> Each	<b>Qty</b> Each	<b>Qty</b> Each	<b>Qty</b> Each
1/16" OD Black Delrin®, 10-32 Threads, Coned Port	1/16" OD Red Delrin®, 10-32 Threads, Coned Port	1/16" OD Stainless Steel, 10-32 Threads, Coned Port	1/8" OD Stainless Steel, 5/16" Coned Port	White Delrin Plug for 3/16" OD, 5/16-24 Flat Bottom Port	Delrin Column Plug, M8 x 1.25mm for 50mm ID SFC columns

### RheFlex® One Piece Fitting

for 1/16" OD Tubing

• Rated to 5,000 psi







- 10-32 Threads
- ChromTRAC™ Fittings for Easy Identification



Cat No.	Color	Qty
46000-2824	Black	10
46000-2824BL	Blue	10
46000-2824GN	Green	10
46000-2824GY	Grey	10
46000-2824RD	Red	10
46000-2824YL	Yellow	10

### Two Piece Fingertight Fittings - for 1/16" OD Tubing

• Rated to 6,000 psi

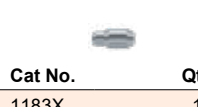
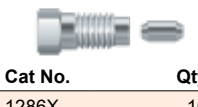
					
<b>Cat No.</b> 66519-1	<b>Cat No.</b> 55330X	<b>Cat No.</b> 55142X	<b>Cat No.</b> 55142NX	<b>Cat No.</b> 55301X	<b>Cat No.</b> 55162
<b>Qty</b> 5	<b>Qty</b> 10	<b>Qty</b> 10	<b>Qty</b> 10	<b>Qty</b> 10	<b>Qty</b> Each
PEEK™ Fitting w/ 55142 Ferrules, 10-32 Threads	Long PEEK™ Fitting w/ 55142 Ferrules, 10-32	PEEK Ferrules for 10-32 Fingertight Fittings	Natural Tefzel (ETFE) Ferrules for 10-32 Fingertight Fittings	PEEK™ Fitting with 55162 Ferrules, 1/4-28 Threads, for 1/8" OD Tubing	PEEK Ferrules for 1/4-28 Fingertight Fittings

### Stainless Steel Two Piece Fittings

		
<b>Cat No.</b> 1330X	<b>Cat No.</b> 1333X	<b>Cat No.</b> 1320X
<b>Qty</b> 10	<b>Qty</b> 10	<b>Qty</b> 10
Stainless Steel Nut for 1/32" OD Tubing	Stainless Steel Long Nut for 1/32" OD Tubing	Stainless Steel Ferrule for 1/32" OD Tubing




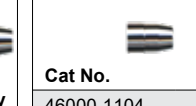

### Ultra High Pressure SS Two Piece Fittings

• Rated to 28,800 psi

	
<b>Cat No.</b> 1183X	<b>Cat No.</b> 1286X
<b>Qty</b> 10	<b>Qty</b> 10
SS Ferrule for 1/32" OD Tubing	SS Nut with 1283X Ferrule for 1/16" OD Tubing







### Rheodyne® RheFlex® Stainless Steel Two Piece Fittings

for Cone-Bottom Ports

				
<b>Cat No.</b> 46000-1094	<b>Cat No.</b> 46000-1114	<b>Cat No.</b> 46000-1624	<b>Cat No.</b> 46000-1104	<b>Cat No.</b> 46000-0824
<b>Qty</b> 5	<b>Qty</b> 5	<b>Qty</b> 5	<b>Qty</b> 5	<b>Qty</b> Each
10-32, 1/16" OD SS Fittings Set	10-32, 1/16" OD SS Long Fittings Set	10-32, 1/16" OD SS X-Long Fittings Set	Replacement SS Ferrules for 10-32, 1/16" OD SS Fittings	5/16-24", SS Fittings Set for 1/8" OD Tubing

### Rheodyne® RheFlex® PEEK™ Two Piece Fittings

for Cone-Bottom Ports

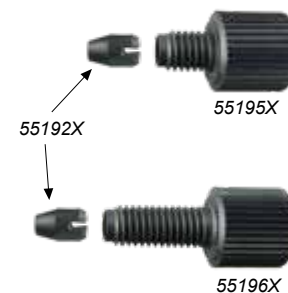
					
<b>Cat No.</b> 46000-0544	<b>Cat No.</b> 46000-0554	<b>Cat No.</b> 46000-0514	<b>Cat No.</b> 46000-0904	<b>Cat No.</b> 46000-0784	<b>Cat No.</b> 46000-3604
<b>Qty</b> 5	<b>Qty</b> 5	<b>Qty</b> 5	<b>Qty</b> 5	<b>Qty</b> Each	<b>Qty</b> 10
10-32, 1/16" OD PEEK Fittings Set	10-32, 1/16" OD PEEK Short Fittings Set	10-32, 1/16" OD PEEK Replacement Ferrules	10-32, 1/16" OD PEEK Plug	5/16-24, 1/8" OD PEEK™ Fittings Set	M4, for 1/32" OD Tubing

### PEEK™ Ultra High Pressure Fingertight Fittings

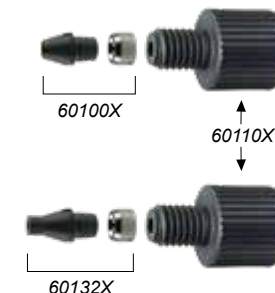
#### One-Piece Fittings



#### Two-Piece Fittings



#### Three-Piece Fittings



Cat. No.	Description	Pressure	Qty
66518-3	One-Piece 10-32 Fitting for 1/16" OD Tubing	12,000 psi	10
60126X	One-Piece 6-32 Fitting for 1/32" OD Tubing	15,000 psi	10
55195X	10-32 Short Nut, w/ Ferrule for 1/16" OD Tubing	9,000 psi	10
55196X	10-32 Long Nut, w/ Ferrule for 1/16" OD Tubing	9,000 psi	10
55192X	Ferrule for 1/16" OD Tubing	9,000 psi	10
60110X	10-32 Nut for 1/16" OD Tubing	16,500 psi	10
60100X	PEEK Ferrule for 1/16" OD Tubing w/ SS Ring	16,500 psi	10
60132X	PEEK Ferrule for 1/32" OD Tubing w/ SS Ring	16,500 psi	10

### Lite-Touch™

• Rated to 5,000 psi

For 1/16" OD Tubing

Cat. No.	Description	Qty
68561-1	PEEK™ Ferrule, SS Ring	5
68562-1	PEEK™ Nut, 10-32	5

For 1/8" OD Tubing

Cat. No.	Description	Qty
68563-1	PEEK™ Ferrule, SS Ring	5
68564-1	PEEK™ Nut, 1/4-28	5

### One Piece Ferrule System

- Optional replacement for Lite-Touch PEEK ferrules
- Rated to 15,000 psi when used with Lite-Touch

Cat. No.	Description	Qty
68566-1	One Piece Ferrule System	5


### Double Ferrule Fingertight SS Fitting

• Rated to 13,500 psi

- Unique Double Ferrule, Fingertight, ZDV
- The Grooved SS Collet Reinforces the Polymer Ferrule


Cat. No.	Description	Qty
SDY-201	SS Nut w/ Polymer Ferrule and SS Collet	2
SDY-102	Replacement Polymer Ferrules	5
SDY-103	Replacement Stainless Steel Collets	2






**Lite Touch PEEK™ Fittings Kit**  
For 1/16" OD Tubing

Cat. No.	Description	Qty
4158-66	Advantage™ Custom Lite Touch PEEK™ Fittings Kit. Includes: One Package Each of Nuts and Ferrules, w/ Removal Tool. <b>Holds up to 5,000 psi.</b>	Each



**Professional Fittings Kit**  
For use with 1/16" OD Tubing

Cat. No.	Description	Qty
4140-22	Advantage™ Custom PEEK™ HPLC Fittings Kit. Includes: Both Regular and Long One Piece Fittings, Two Piece Fittings, Unions and Tees.	Each




**High Pressure PEEK™ Fittings Kits**  
For 1/16" OD Tubing

Cat. No.	Description	Qty
4156-63	Advantage™ Custom High Pressure PEEK™ Fittings Kit. Includes: Five Each of Nuts and One Piece Ferrule, System. <b>Hold up to 15,000 psi.</b>	Each




**PEEK™ Fittings Kit - for 1/16" OD Tubing**

Cat. No.	Description	Qty
4142-00	Advantage™ Custom PEEK™ HPLC Fittings Kit. Includes: 2 PEEK™ ZDV Unions, 2 PEEK™ ZDV Tees, and 2 Pkgs Fingertight Fittings.	Each



**Universal Fittings Kit - for 1/16" OD Tubing**

Cat. No.	Description	Qty
4140-00	Advantage™ Custom Universal PEEK™ Fittings Kit. Includes: Both Regular and Long Fittings, Unions, Tees and Both 0.005" and 0.01" ID Tubing	Each




**Stainless Steel HPLC Fittings Kit**  
For 1/16" OD Tubing


Cat. No.	Description	Qty
4143-15	Advantage™ Custom Stainless Steel HPLC Fittings Kit. Includes: 4 Stainless Steel ZDV Unions, 2 Pkgs Each Stainless Steel Nuts and Ferrules	Each

**Stainless Steel Tubing & Fittings Kit - for 1/16" OD Tubing**  
• For use with Waters® HPLC Systems

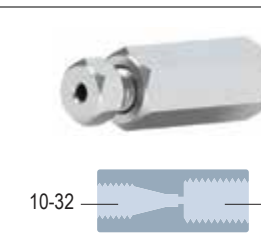
Cat. No.	Description	Qty
4140-11	Custom Stainless Steel Fittings Kit for Waters® HPLC Systems. Includes: Nuts, Ferrules, Unions, Rheodyne® Fittings and Both 0.01" and 0.02" ID Pre-cut Tubing.	Each




### 10-32 Female to Female Adapters - for 1/16" OD Tubing



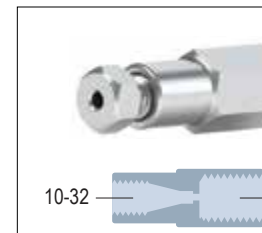
Cat No.	Qty
59626	Each
PEEK™ Adapter, 0.020" ID, 10-32 to M6	



Cat No.	Qty
415874	Each
Stainless Steel Adapter, 0.040" ID, 10-32 to M6	

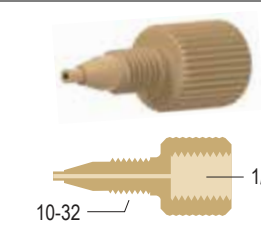


Cat No.	Qty
59627	Each
PEEK™ Adapter, 0.020" ID, 10-32 to 1/4-28	



Cat No.	Qty
415834	Each
Stainless Steel Adapter, 0.040" ID, 10-32 to 1/4-28	

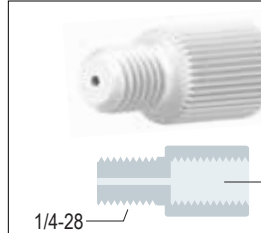
### 1/4-28 Female to Male Adapters - for 1/16" OD Tubing



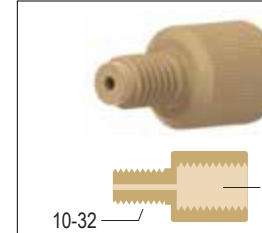
Cat No.	Qty
59652	Each
PEEK™ Long Adapter, 0.030" ID, 1/4-28 Female to 10-32 Coned Male	



Cat No.	Qty
59654	Each
PEEK Extra-Long Adapter 0.030" ID, 1/4-28 Female to 10-32 Coned Male	

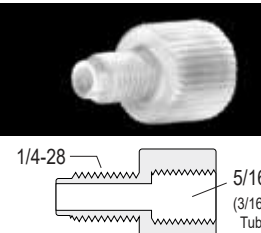


Cat No.	Qty
59671	Each
Teflon® Adapter, 0.040" ID, 1/4-28 Female to 1/4-28 Flat Male	

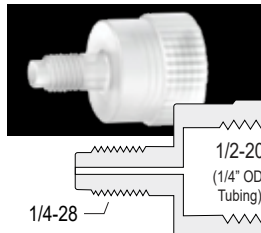


Cat No.	Qty
59672	Each
PEEK™ Adapter, 0.050" ID, 1/4-28 Female to 10-32 Flat Male	

### 1/4-28 Male to Female Adapters

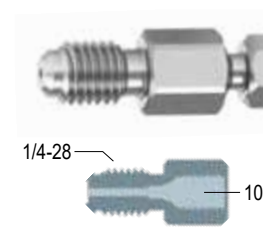


Cat No.	Qty
59681	Each
Kel-F® (PCTFE) Adapter, 1/4-28 Flat Male to 5/16-24 Flat Female	




Cat No.	Qty
59684	Each
Kel-F® (PCTFE) Adapter, 1/4-28 Flat Male to 1/2-20 Female	

### 1/4-28 M to 10-32 F




Cat No.	Qty
415914	Each
Stainless Steel Adapter, 0.040" ID, 1/4-28 Male to 10-32 Female	


### Advantage™ Universal Column Couplers - for 1/16" OD Tubing




Cat No.	Qty
64287	Each
PEEK™ Column Coupler. Includes: Two Pair of 2 Piece Fingertight Fittings and One Length of PEEK™ 0.01" ID Tubing	



Cat No.	Qty
64284	Each
Advantage™ PEEK™ Column Coupler. Includes Two Pair of 2 Piece Fingertight Fittings and One Length of PEEK™ 0.007" ID Tubing	



Cat No.	Qty
ADV-CC	Each
Advantage™ Kel-F® Column Coupler, 0.01" ID	



Cat No.	Qty
ADV-PCC	Each
Advantage™ PEEK™ One Piece Column Coupler, 0.01" ID	



### Stainless Steel ZDV Unions - for 1/16" OD Tubing, Low Dead Volume

	<b>Cat No.</b> 64402	<b>Qty</b> Each		<b>Cat No.</b> 66213-4	<b>Qty</b> Each		<b>Cat No.</b> 64438	<b>Qty</b> Each		<b>Cat No.</b> 1615	<b>Qty</b> Each		<b>Cat No.</b> 66212-4	<b>Qty</b> Each
Stainless Steel ZDV Union, 0.020" ID			Stainless Steel ZDV Union, 0.010" ID			Stainless Steel ZDV Union, 0.062" ID			Valco SS Union 21.6mm x 0.25mm (0.009" ID)			Waters® Compatible SS ZDV Union, 0.02" ID		

### PEEK™ ZDV Unions - for 1/16" OD Tubing

	<b>Cat No.</b> 59704	<b>Qty</b> Each		<b>Cat No.</b> 66414-2	<b>Qty</b> Each		<b>Cat No.</b> 59742-01	<b>Qty</b> Each
PEEK ZDV Union, 10-32, 0.020" ID			PEEK ZDV Union, 10-32, 0.010" ID			10-32 ZDV Union 0.010" ID w/o Fittings		

### For 1/8" OD Tubing

	<b>Cat No.</b> 59703	<b>Qty</b> Each
PEEK Webbed Union Assembly for 1/8" Tubing, 0.05" ID, 1/4-28		

### Large Bore Stainless Steel Unions & Fittings - for 1/8" OD Tubing

	<b>Cat No.</b> 415924	<b>Qty</b> Each		<b>Cat No.</b> 52235X	<b>Qty</b> 10		<b>Cat No.</b> 52236	<b>Qty</b> Each
SS Adapter, 0.04" ID, 1/16" Female to 1/8" Female			SS Male Nut, 1/4-28 Coned, for 1/8" OD			Replacement SS Ferrule for 1/8" OD Tubing		

### PEEK™ and Stainless Steel Tees & Crosses - for 1/16" OD Tubing

	<b>Cat No.</b> 66415-2	<b>Qty</b> Each		<b>Cat No.</b> 66413-2	<b>Qty</b> Each		<b>Cat No.</b> 59728	<b>Qty</b> Each
PEEK™ Tee, 0.020" ID			PEEK Tee 0.020" ID, Body Only			PEEK™ Tee, 0.05" ID		

	<b>Cat No.</b> 1625	<b>Qty</b> Each		<b>Cat No.</b> 1626	<b>Qty</b> Each		<b>Cat No.</b> 64428	<b>Qty</b> Each
PEEK™ Tee, 0.01" ID			PEEK™ Cross, 0.01" ID			SS Tee, 0.020" ID		

	<b>Cat No.</b> 64429	<b>Qty</b> Each		<b>Cat No.</b> 1602	<b>Qty</b> Each		<b>Cat No.</b> 1603	<b>Qty</b> Each
SS Tee, 0.040" ID			SS Tee, 0.25mm ID			SS Cross, 0.25mm ID		

### PEEK™ MicroTee

For 1/16" OD Tubing

- Thru-Hole: 0.006" (0.150µm)
- Void Volume: 58nL
- 5000 psi

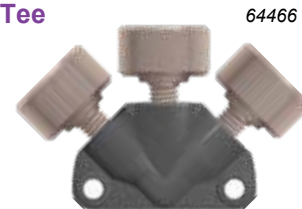


Cat. No.	Description	Qty
59890	MicroTee for 1/16" Tubing. Includes (3) 55132 Micro Ferrules, (3) 59416 Female Nuts	Each

### PEEK™ Static Mixing Tee

For 1/16" OD Tubing

- PEEK body with two-piece fingertight fittings
- Low swept volume
- 5000psi
- 0.5-3mL



Cat. No.	Description	Qty
64466	High Pressure Mixer w/ 10µm UHMWPE Frit	Each
64466S	High Pressure Mixer w/ 10µm Stainless Steel Frit	Each

### Stainless Steel & PEEK™ Manifolds

For 1/16" OD Tubing

Cat. No.	Description	Qty
2575	4 Inlet SS Manifold	Each
2576	6 Inlet SS Manifold	Each
2577	8 Inlet SS Manifold	Each
2578	10 Inlet PEEK Manifold	Each
2588	10 Inlet SS Manifold	Each

for 1/8" OD Tubing	Cat. No.	Description	Qty
	8576	6 Inlet SS Manifold, 0.08" ID	Ea.

2576

### Rheodyne® Fittings

For Cone-Bottom Ports

	<b>Cat No.</b> 46000-1094	<b>Qty</b> 5
10-32, 1/16" OD Stainless Steel Fitting Set		

	<b>Cat No.</b> 46000-1114	<b>Qty</b> 5
10-32, 1/16" OD Stainless Steel Long Fitting Set		

	<b>Cat No.</b> 46000-1624	<b>Qty</b> 5
10-32, 1/16" OD Stainless Steel Extra-Long Fitting Set		

	<b>Cat No.</b> 46000-1104	<b>Qty</b> 5
Stainless Steel Replacement Ferrules		

### Valco Fittings

For 1/16" OD Tubing

	<b>Cat No.</b> 64322	<b>Qty</b> Each
Stainless Steel ZDV Union .02", .103µL Swept Volume		

	<b>Cat No.</b> 1602	<b>Qty</b> Each
Stainless Steel Tee, 0.25mm (0.009" ID)		

	<b>Cat No.</b> ADV-VN5	<b>Qty</b> 5
Stainless Steel Nut		

	<b>Cat No.</b> 1608	<b>Qty</b> Each
Stainless Steel Column Plugs, 5/16"-24 ports		

	<b>Cat No.</b> 1615	<b>Qty</b> Each
Stainless Steel Union, 21.6mm x 0.25mm (0.009" ID)		

	<b>Cat No.</b> 1603	<b>Qty</b> Each
Stainless Steel Cross, 0.25mm (0.009" ID)		

	<b>Cat No.</b> ADV-VF5	<b>Qty</b> 5
Stainless Steel Ferrule		

For 1/8" OD Tubing

	<b>Cat No.</b> 1610	<b>Qty</b> Each
SS Column Plug, 5/16"-24 ports, for 1/8" OD Tubing		

### Standard Fittings

For 1/16" OD Tubing

	<b>Cat No.</b> 66212-4	<b>Qty</b> Each		<b>Cat No.</b> 64450X	<b>Qty</b> 10
Stainless Steel ZDV Union, .02" ID, 0.10µL Swept Volume			Stainless Steel Nut, M6 Coned Port		

	<b>Cat No.</b> 64410X	<b>Qty</b> 10		<b>Cat No.</b> 64401X	<b>Qty</b> 10
Stainless Steel Nut, Waters Compatible			Stainless Steel Ferrule, 10-32 or M6 coned port		

	<b>Cat No.</b> 85001	<b>Qty</b> Each		<b>Cat No.</b> 86001	<b>Qty</b> Each
Long Fill Port for 22g Needles, Use with 1/16" OD Fittings			Short Fill Port for 22g Needles, Use w/ 1/16" OD Fittings		

For 1/8" OD Tubing

	<b>Cat No.</b> 52235X	<b>Qty</b> 10		<b>Cat No.</b> 52236X	<b>Qty</b> 10
Stainless Steel Nut, 1/4-28 port for 1/8" OD Tubing			SS Ferrule, 1/4-28 Port for 1/8" OD Tubing		

### Ultra High Pressure (UHP) Unions for Capillary Tubing • Rated to 15,000 psi at room temperature

- Stainless Steel bodies with PEEK end fittings
- Direct Connect both 1/32" OD tubing & 360µm OD tubing

	<b>Cat No.</b> 83132	<b>Qty</b> Each		<b>Cat No.</b> 83360	<b>Qty</b> Each		<b>Cat No.</b> 83133	<b>Qty</b> Each
UHP PEEK/SS Union for 1/32" OD Tubing Includes Nuts & Ferrules, 0.006" ID, 5nL Dead Volume			UHP PEEK/SS Union for 360 µm OD Tubing Includes Nuts & Ferrules, 0.006" ID, 5nL Dead Volume			UHP True ZDV PEEK/SS Union for 1/32" OD Tubing. Includes Fittings & Gauge Plug		

### Ultra High Pressure (UHP) Stainless Steel Connectors - for 1/16" OD Tubing • Rated to 20,000 psi

	<b>Cat No.</b> 84161	<b>Qty</b> Each		<b>Cat No.</b> 64411	<b>Qty</b> Each		<b>Cat No.</b> 84163	<b>Qty</b> Each		<b>Cat No.</b> 84174	<b>Qty</b> Each		<b>Cat No.</b> 84175	<b>Qty</b> Each
SS UHP ZDV Union, 0.020" ID			SS UHP ZDV Union, .007" ID			SS UHP Tee, 0.020" ID			SS UHP Cross, 0.020" ID			SS UHP Adapter for 1/16" to 1/32" OD Tubing		

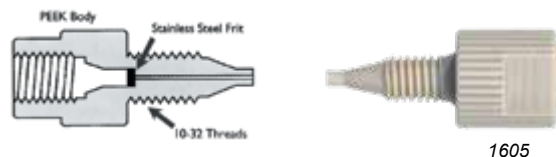


### Direct Connect Fingertight Pre-Column Filter

For 1/16" OD Tubing

The Advantage™ Direct Connect Inline Filter Guards offer an easy and inexpensive way of protecting your column from grease and dirt.

- Connects directly to your HPLC column, 10-32
- Changes in seconds, no tools necessary!



Cat. No.	Qty
1605	Each
Advantage™ 0.5µm Direct Connect Fingertight Pre-Column Filter	
Cat. No.	Qty
1620	Each
<b>BEST SELLER</b>	
Advantage™ 2.0µm Direct Connect Fingertight Pre-Column Filter	

### Ultra High Pressure Direct Connect Stainless Steel UHPLC Pre-Column Filter

For 1/16" OD Tubing

- Rated to 15,000psi
- 0.5µm titanium frit
- 1µl dead volume



Cat. No.	Qty
49005	10
Direct Connect UHPLC Pre-Column Filter	

### Direct Connect Stainless Steel Pre-Column Filter

For 1/16" OD Tubing

- 5µl dead volume
- 0.5µm SS frit
- Rated to 15,000 psi



Cat. No.	Qty
48815	Each
SS Direct Inline Pre-Column Assembly w/ 0.5µm Frit	
Cat. No.	Qty
48001	5
Replacement SS 0.5µm Frit	

### High Pressure Inline Filters

- One PEEK™ end fitting with built in frit
- To replace filter, unscrew filter end fitting & replace

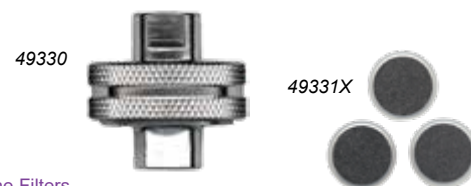


#### Biocompatible Inline Filters for Analytical HPLC Systems

Cat. No.	Description	Qty
49430	2.0µm Filter Assembly with 49429 Frit	Each
49431	0.5µm Filter with 49428 Frit	Each
49428X	0.5µm Filter End Fitting	10
49429X	2.0µm Filter End Fitting	10

#### Biocompatible Inline Filters for Semi-Prep HPLC Systems

Cat. No.	Description	Qty
49410	2.0µm Filter Assembly with 58802 Frit	Each
49411	10µm Filter Assembly with 58803 Frit	Each
58802	Replacement 2µm PEEK™ Frit	Each
58803	Replacement 10µm PEEK™ Frit	Each



#### High Pressure Semi-Prep Inline Filters

Cat. No.	Description	Qty
49330	Semi-Prep Filter with 49331 Frit	Each
49332X	Replacement 2µm SS Frit, .75" x .062" x .87"	10
49331X	Replacement 10µm SS Frit, .75" x .062" x .87"	10



#### Prep Inline Filter

Cat. No.	Description	Qty
49230	Prep Inline Filter Assembly w/ 2µm Frit	Each
49230DR	Prep Inline Filter Assembly w/ 2µm Frit, Larger Flow Ports (0.04" ID)	Each
49231X	Replacement Inline Prep Filter, 2µm	10
49233	Replacement O-Ring for Prep Inline Filter System	Each
49501	SS Frit, 0.839" x 0.125", 10µm	20
49502	SS Frit, 0.5µm	10

### Ultra High Pressure Stainless Steel Inline Filter - for 1/16" OD Tubing

- Rated to 15,000psi
- Low dead volume
- 0.5µm frits

Cat. No.	Qty	Cat. No.	Qty	Cat. No.	Qty	Cat. No.	Qty
48555	Each	48513	5	48222	Each	48313	5
Low Dead Volume UHPLC SS Inline Filter Holder with 0.5µm x 0.062" SS Frit (48513)		0.5µm x 0.062" SS Replacement Frit, 2µL		UHPLC SS Inline Filter Holder with 0.5µm x 0.250" SS Frit (48313)		0.5µm x 0.250" SS Replacement Frit	

### Inline Filter (Between pump & injector)

Cat. No.	Qty	Cat. No.	Qty	Cat. No.	Qty	Cat. No.	Qty
49314	Each	49100X	10	48135	Each	48155	10
SS Inline Filter w/ 2µm Frit, (49100X)		2µm SS Replacement Frit, 0.094" x 0.062" x 0.250"		Low Volume, Inline Filter w/ 2µm Frit, (48155)		2µm, SS Replacement Frit, 0.25" dia. x 0.062"	

### Pre-Column Filters

Cat. No.	Qty	Cat. No.	Qty	Cat. No.	Qty	Cat. No.	Qty	Cat. No.	Qty
49315	Each	49316	Each	49101X	10	49103X	10	52401X	10
SS Pre-Column Filter with 2µm Frit (49101X)		SS Pre-Column Filter with 0.5µm Frit (49102X)		2µm SS Replacement Frit, .062" x .062" x 0.250"		0.5µm SS Replacement Frit, .094" x .062" x 0.250"		2µm SS Replacement Frit, .125" x .062" x 0.250"	
Cat. No.	Qty	Cat. No.	Qty	Cat. No.	Qty	Cat. No.	Qty	Cat. No.	Qty
49356	Each	49355	Each	49700X	10	49701X	10	52402X	10
PEEK™ Pre-Column Filter w/ .5µm Frit (49701)		PEEK™ Pre-Column Filter w/ 2µm Frit (49700)		2µm PEEK™ Replacement Frit, .062" x .062" x 0.250"		0.5µm PEEK™ Replacement Frit, .062" x .062" x 0.250"		2µm SS Frit, .188" x 0.062" x 0.250"	

### Ultra Low Dead Volume Pre-Column Filter

- 0.007" ID
- Removable stainless steel ring holds frit
- Use for maximum resolution or microbore work

Cat. No.	Qty
49318	Each
SS Pre-Column Filter w/ 0.5µm Frit (49102), 84µL Swept Volume	
49102X	10
0.5µm SS Replacement Frit, .062" x .062" x 0.250"	

### Stainless Steel Inline Check Valves,

- 15,000 psi Maximum Operating Pressure

Cat. No.	Qty
452800	Each
Check Valve with 1/8" Ball Cartridge	
452818	Each
Replacement 1/8" Ball Cartridge	



## Flangeless Nuts & Ferrules

For 1/16" OD Tubing, 1/4-28 Flat-Bottom Ports

• Rated to 2000psi on PEEK™ Tubing

				
<b>Cat No.</b> 59200X Blue ETFE Ferrules	<b>Cat No.</b> 59200NX Natural ETFE Ferrules	<b>Cat No.</b> 59200R Red ETFE Ferrule	<b>Cat No.</b> 59221 Polypropylene Ferrule	<b>Cat No.</b> 59240X ETFE Small Valve Ferrule w/ Sealing Ring, Rated to 2600 psi on ETFE Tubing. <i>Can also be used in 10-32 Flat-Bottom Ports</i>
<b>Qty</b> 10	<b>Qty</b> 10	<b>Qty</b> Each	<b>Qty</b> Each	<b>Qty</b> 10
				
<b>Cat No.</b> 59201X Black Delrin® Nuts	<b>Cat No.</b> 59202X Red Delrin® Nuts	<b>Cat No.</b> 59204 Cream Delrin® Nuts	<b>Cat No.</b> 59205X Green Delrin® Nuts	<b>Cat No.</b> 59210X Blue Extra-Long Tefzel® Nut for Dionex Systems
<b>Qty</b> 10	<b>Qty</b> 10	<b>Qty</b> Each	<b>Qty</b> 10	<b>Qty</b> 10
				
<b>Cat No.</b> 59230 PEEK™ Nuts	<b>Cat No.</b> 59235X Short PEEK™ Nuts	<b>Cat No.</b> 59286 Natural PPS Headless Nut	<b>Cat No.</b> 59207X M6 Black 1/16" Flangeless Nut	
<b>Qty</b> Each	<b>Qty</b> 10	<b>Qty</b> Each	<b>Qty</b> 10	

## Flangeless Nuts & Ferrules






For 1/8" OD Tubing, 1/4-28 Flat-Bottom Ports

• Rated to 500 psi

				
<b>Cat No.</b> 59300X Yellow Tefzel® Ferrule, for 1/4-28 & M6 Flat-Bottom Ports	<b>Cat No.</b> 59300NX Natural Tefzel® Ferrule	<b>Cat No.</b> 59340X Natural Tefzel® Small Valve Ferrule w/ Sealing Ring, up to 3000 psi on ETFE Tubing	<b>Cat No.</b> 59301X Black Delrin® Nuts	<b>Cat No.</b> 59302 Red Delrin® Nuts
<b>Qty</b> 10	<b>Qty</b> 10	<b>Qty</b> 10	<b>Qty</b> 10	<b>Qty</b> Each
				
<b>Cat No.</b> 59303 White Delrin® Nuts	<b>Cat No.</b> 59305X Green Delrin® Nuts	<b>Cat No.</b> 59306X Blue Delrin® Nuts	<b>Cat No.</b> 59308X Black Delrin® Short Nuts	<b>Cat No.</b> 59315 Tefzel® Nuts
<b>Qty</b> Each	<b>Qty</b> 10	<b>Qty</b> 10	<b>Qty</b> 10	<b>Qty</b> Each
				
<b>Cat No.</b> 59320X Polypropylene Nuts	<b>Cat No.</b> 59330X PEEK™ Nuts	<b>Cat No.</b> 59335X PEEK™ Short Nuts	<b>Cat No.</b> 59345X Tefzel® Short Nuts	<b>Cat No.</b> 59307X Black Delrin M6 Nut for 1.8, 2.0, 3.0mm & 1/8" OD Tubing
<b>Qty</b> 10	<b>Qty</b> 10	<b>Qty</b> 10	<b>Qty</b> 10	<b>Qty</b> 10

## Flangeless Nuts & Ferrules

For 1/16" OD Tubing, 10-32 Flat-Bottom Ports

				
<b>Cat No.</b> 95811X Flangeless Nut for 1/16"OD Tubing, 10-32 Flat-bottom, PEEK/Tefzel	<b>Cat No.</b> 56111X Flangeless Nut for 1/16" OD Tubing, <i>can only be used with 59240X Ferrule</i>	<b>Cat No.</b> 59240X Tefzel Small Valve Flangeless Ferrule for 1/16" OD Tubing, Natural	<b>Cat No.</b> 59133 Tefzel Blue Flangeless Ferrule for 3/16" or 4.0mm OD Tubing, Blue	<b>Cat No.</b> 97132X Flangeless Fitting for 3/16" or 4.0mm OD Tubing, PEEK Nut, Blue ETFE ferrule
<b>Qty</b> 10	<b>Qty</b> 10	<b>Qty</b> 10	<b>Qty</b> Each	<b>Qty</b> 10

## One-Piece Fingertight Flangeless Fitting

	
<b>Cat No.</b> 59249 PEEK™ One Piece Fitting (1/4-28) for 1/16" Tubing	<b>Cat No.</b> 59349 PEEK™ One Piece Fitting (1/4-28) for 1/8" Tubing
<b>Qty</b> Each	<b>Qty</b> Each

## Super Flangeless Nuts and Ferrules





For 1/16" OD Tubing, 1/4-28 Flat-Bottom Ports

• Rated to 5,000 - 10,000psi on PEEK™ tubing

			
<b>Cat No.</b> 59250X PEEK Ferrule w/ Stainless Steel Locking Ring, 1/4-28 or M6 Flat-Bottom Port	<b>Cat No.</b> 59255X PEEK™ Nuts, 1/4-28 Port	<b>Cat No.</b> 59259X Yellow ETFE Ferrule w/ Stainless Steel Locking Ring, 1/4-28 Flat-Bottom Port	<b>Cat No.</b> 59252X Delrin® Nuts, 1/4-28 Port
<b>Qty</b> 10	<b>Qty</b> 10	<b>Qty</b> 10	<b>Qty</b> 10





For 1/16" OD Tubing, 10-32 Flat-Bottom Ports

• Rated to 5,000psi

			
<b>Cat No.</b> 57652 Super Flangeless Short Hex PEEK Nut, rated to 5000 psi 10-32 Flat bottom port	<b>Cat No.</b> 57655 Long Super Flangeless Hex PEEK Nut, rated to 5000 psi 10-32 Flat bottom port	<b>Cat No.</b> 57653 Super Flangeless Short Knurl, PEEK Nut, rated to 5000 psi 10-32 Flat bottom port	<b>Cat No.</b> 57250X Super Flangeless Ferrule w/ SS Locking ring, rated to 5k psi, 10-32 Flat bottom port
<b>Qty</b> Each	<b>Qty</b> Each	<b>Qty</b> Each	<b>Qty</b> 10

## Super Flangeless Fittings

For 1/8" OD Tubing, 1/4-28 Flat-Bottom Ports

				
<b>Cat No.</b> 59331 Super Flangeless PEEK™ Nut	<b>Cat No.</b> 59387 Super Flangeless PPS Nut, Headless, Natural	<b>Cat No.</b> 59350X PEEK Ferrule w/ SS Locking Ring, <b>Rated to 2,500 psi</b>	<b>Cat No.</b> 59360X PEEK One-Piece Ferrule, <b>Rated to 1,500 psi</b>	<b>Cat No.</b> 59359X ETFE Ferrule w/ SS Locking Ring, Yellow, <b>Rated to 1,000 psi</b>
<b>Qty</b> 10	<b>Qty</b> 10	<b>Qty</b> 10	<b>Qty</b> 10	<b>Qty</b> 10



### Large Bore Flangeless Fittings & Ferrules

For 1/16" OD Tubing, 5/16 Flat-Bottom

	
<b>Cat No.</b> Qty	<b>Cat No.</b> Qty
59136 Each	59200 Each
Natural PEEK Flangeless Nut, 5/16-24 Flat-Bottom	Blue Tefzel™ Flangeless Ferrule (ETFE), 1/4-28 Flat-Bottom, 2,000 psi

#### TECH NOTE:

3/16" OD Tubing Fitting = 5/16-24 Threads  
1/4" OD Tubing Fitting = 1/2-20 Threads

For 1/4" OD Tubing, 1/2-20 Flat-Bottom Ports


<b>Cat No.</b> Qty
65655 10
PEEK Flangeless Nut & Ferrule for 1/4" Tubing, 1/2-20, Black

For 1/8" OD Tubing, 5/16 Flat-Bottom

				
<b>Cat No.</b> Qty	<b>Cat No.</b> Qty	<b>Cat No.</b> Qty	<b>Cat No.</b> Qty	<b>Cat No.</b> Qty
97130 Each	59300X 10	59130 Each	59134 Each	59135 Each
Flangeless Fitting for 1/8" OD Tubing, 5/16-24 Flat-bottom, PEEK/Tefzel	Flangeless Ferrule, Tefzel for 1/8" OD Tubing	PEEK Nut for 1/8" OD Tubing, 5/16-24 Flat-Bottom Port	PEEK™ ZVD Union, 5/16-24 Female Both Ends	PEEK™ Adapter 1/4-28 F to 5/16-24 F

For 3/16" OD Tubing, 5/16 Flat-Bottom Ports

				
<b>Cat No.</b> Qty	<b>Cat No.</b> Qty	<b>Cat No.</b> Qty	<b>Cat No.</b> Qty	<b>Cat No.</b> Qty
97132 Each	59132 Each	59133 Each	89662 Each	89660 Each
Flangeless Fitting for 3/16" OD Tubing, 5/16-24 Flat-bottom port, 500 psi, PEEK/Tefzel	PEEK Nut for 3/16" OD Tubing, 5/16-24 Flat-Bottom Port	Blue Tefzel Flangeless Ferrule, Rated to 500 psi, 5/16 Bottom Port	Flangeless Fitting for 5/16" OD Tubing, 1/2-20 Flat-Bottom Port Rated up to 250psi, PEEK/Tefzel	Flangeless ETFE Ferrule for 5/16" OD Tubing 1/2-20 Flat-Bottom port

For 5/16" OD Tubing, 1/2-20 Flat-Bottom Ports

### Large Bore Super Flangeless Fittings & Ferrules



For 1/16" OD tubing, 5/16 Flat-Bottom Ports

		
<b>Cat No.</b> Qty	<b>Cat No.</b> Qty	<b>Cat No.</b> Qty
97141 Each	59259X 10	59359 10
Super Flangeless Fitting for 1/16" OD tubing, 5/16-24 Flat-bottom, PEEK/Tefzel	Yellow Super Flangeless Ferrule for 1/16" OD tubing, with SS Locking Ring Tefzel	Super Flangeless Ferrule for 1/8" OD Tubing, with SS Locking Ring, Tefzel

For 1/8" OD tubing, 5/16 Flat-Bottom Ports

### Large Bore Super Flangeless Fittings & Ferrules with Locking Rings

For 3/16" OD tubing, 5/16 Flat-Bottom Ports


	
<b>Cat No.</b> Qty	<b>Cat No.</b> Qty
97137X Each	59140X 10
Super Flangeless fitting for 3/16 OD tubing, 5/16-24 Flat Bottom port, 500 psi Black PEEK/Green ETFE/SST	Green ETFE PEEK Ferrule w/ SS Locking ring, rated to 500 psi, 5/16 - Bottom port

### Unions

PEEK™ Webbed Unions, 1/4-28


<b>Cat No.</b> Qty
59702 Each
0.02" ID for 1/16" OD Tubing
59703 Each
0.05" ID for 1/8" OD Tubing


Tefzel® ZDV Unions, 1/4-28


<b>Cat No.</b> Qty
59630 Each
0.02" ID for 1/16" OD Tubing
59631 Each
0.05" ID for 1/8" OD Tubing

Standard Unions, 1/4-28


<b>Cat No.</b> Qty
59603 Each
Natural Delrin® Union
59620 Each
Natural Polypropylene Union
59623 Each
Natural Tefzel® Union


### PEEK™ Y-Connectors

	<b>Cat No.</b>	<b>Qty</b>
	59512	Each
	0.02" ID for 1/16" OD Tubing	
	59513	Each
	0.04" ID for 1/8" OD Tubing	
	59514	Each
	0.06" ID for 1/8" OD Tubing	
	59515	Each
	0.125" ID for 3/16" OD Tubing	

### PEEK™ Tees


<b>Cat No.</b> Qty
59712 Each
0.02" ID for 1/16" OD Tubing
59713 Each
0.05" ID for 1/8" OD Tubing

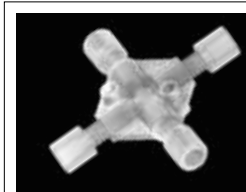
### Tefzel® Tees


<b>Cat No.</b> Qty
59632 Each
0.02" ID for 1/16" OD Tubing
59633 Each
0.05" ID for 1/8" OD Tubing

### PEEK™ Crosses



<b>Cat No.</b> Qty
59722 Each
0.02" ID for 1/16" OD Tubing
59723 Each
0.05" ID for 1/8" OD Tubing

### Tefzel® Crosses



<b>Cat No.</b> Qty
59634 Each
0.02" ID for 1/16" OD Tubing
59635 Each
0.05" ID for 1/8" OD Tubing

### Luer Adapters - for 1/16" OD Tubing



Male to Male Adapters


<b>Cat No.</b> Qty
59605 Each
Delrin® M Luer to 1/4-28 M
59625 Each
Tefzel® M Luer to 1/4-28 M
59619 Each
PP M Luer to 1/4-28 M

Female to Female Adapters


<b>Cat No.</b> Qty
59628 Each
Tefzel® Female Luer to 1/4-28 Female
59629 Each
Tefzel® Female Luer to 10-32 Female

Female to Male Adapters

	
<b>Cat No.</b> Qty	<b>Cat No.</b> Qty
59604 Each	59642 Each
Delrin® F Luer to 1/4-28 M	Tefzel® Female Luer to 10-32 Male
59618 Each	
PP F Luer to 1/4-28 M	
59624 Each	
Tefzel® F Luer to 1/4-28 M	

### Quick Connect Luer Adapters

PEEK

		
<b>Cat No.</b> Qty	<b>Cat No.</b> Qty	<b>Cat No.</b> Qty
59656 Each	59659 Each	59655 Each
PEEK Natural Male Luer to 10-32 Female	PEEK Natural Female Luer to 10-32 Female	PEEK Red Male Luer to 1/4-28 Female
		
<b>Cat No.</b> Qty	<b>Cat No.</b> Qty	<b>Cat No.</b> Qty
59658 Each	59660 Each	59657 Each
PEEK Red Female Luer to 1/4-28 Female	PEEK Black Female Luer to M6 Female	PEEK Black Male Luer to M6 Female

Tefzel

	
<b>Cat No.</b> Qty	<b>Cat No.</b> Qty
59675 Each	59678 Each
Tefzel Red Male Luer to 1/4-28 Female	Tefzel Red Female Luer to 1/4-28 Female
	
<b>Cat No.</b> Qty	
59676 Each	
Tefzel Natural Female Luer to 10-32 Male	



### Inline Cartridge Check Valves

- Limit Flow in one direction
- Low Cracking Pressure
- <150µL Internal Volume

Cat No.	Qty	Cat No.	Qty
910-3000	Each	910-3001	Each
Complete Inline Check Valve Assembly		Replacement Inline Check Valve Cartridge	

### Quick-Stop Luer Check Valves

- Prevents potentially hazardous spills
- Place between solvent reservoir and pump
- No pump re-priming with unique luer lock design

Cat No.	Qty	Cat No.	Qty	Cat No.	Qty
59655	Each	59696	Each	59697	Each
Quick Connect Adapter, Luer Male to 1/4-28 Female		Quick-Stop Luer Check Valve Assembly, Inc: Valve, Luer Adapter & Nut/Washer Set		Quick-Stop Luer Check Valve	

### Low Pressure Switching Valves

- For use with 1/16" OD tubing
- For use with 1/8" OD tubing, replace fittings with 59301X & 59300NX

Cat No.	Qty	Cat No.	Qty	Cat No.	Qty
65100L	Each	65100T	Each	65100D	Each
Right Angle Flow Switching Valve, 4 Ports		3-Way Flow Switching Valve, 4 Ports		4-Way Diagonal Flow Switching Valve, 4 Ports	

### Back Pressure Regulators for 1/16" Tubing

BPR Assembly with SS Holder & Fittings

Cat No.	Description	Qty
64608	250 psi Cartridge & Fittings	Each
64609	500 psi Cartridge & Fittings	Each

BPR Assembly with PEEK™ Holder & Fittings

Cat No.	Description	Qty
59790	5 psi Cartridge, Holder & Fittings	Each
59791	20 psi Cartridge, Holder & Fittings	Each
59788	250 psi Cartridge, Holder & Fittings	Each
59789	500 psi Cartridge, Holder & Fittings	Each

High Pressure BPR Holder & Fittings

Cat No.	Description	Qty
64469	Stainless Steel BPR Holder	Each

Replaceable Color Cartridges

Cat No.	Description	Qty
59761	40 psi Cartridge, Blue	Each
59762	75 psi Cartridge, Yellow	Each
59763	100 psi Cartridge, Red	Each
59764	250 psi Cartridge, White	Each
59765	500 psi Cartridge, Green	Each
59795	750 psi Cartridge, Black/Blue	Each

### Shut Off Valves

- Place between solvent reservoir and pump and quickly and safely change solvent with a turn of the switch

Cat No.	Qty	Cat No.	Qty	Cat No.	Qty
59782	Each	59783	Each	59311	Each
Tefzel®, .02" ID for 1/16" OD Tubing		Tefzel®, .04" ID for 1/8" OD Tubing		Tefzel® Plug for 1/4-28 Flat Bottom Ports	

### Inline Check Valves

- 2,000psi

Standard				Nonmetallic							
Cat No.	Qty	Cat No.	Qty	Cat No.	Qty	Cat No.	Qty				
910-3301	Each	910-3302	Each	910-3315	Each	910-3316	Each	910-3320	Each	910-3340	Each
Inlet Check Valve, 1/4-28 M to 1/4-28 F, Cracking Pressure: 15 psi		Outlet Check Valve, 1/4-28 M to 1/4-28 F, Cracking Pressure: 15 psi		Inlet Check Valve, 1/4-28 M to 1/4-28 F, Cracking Pressure: 3 psi		Outlet Check Valve, 1/4-28 M to 1/4-28 F, Cracking Pressure: 3 psi		Inlet Check Valve, 1/4-28 M to 1/4-28 F, Cracking Pressure: 1 psi		Inlet/Outlet Check Valve, 10-32 F to 10-32 F, Cracking Pressure: 1 psi	

### M4 Fittings for 1/32" OD Tubing

Cat No.	Qty
46000-3374	Each
Natural PEEK™ RheFlex Fitting, M4	

### Metric Adapters

Cat No.	Qty	Cat No.	Qty	Cat No.	Qty	Cat No.	Qty	Cat No.	Qty
59621	Each	59626	Each	415874	Each	65011	Each	59650	Each
Tefzel Metric Adapter, 1/4-28 Female to M6 Female		PEEK™ Adapter, 0.020" ID, 10-32 Female to M6 Female		Stainless Steel Adapter, 0.040" ID, 10-32 Female to M6 Female		PEEK™ Adapter, 10-32 Female to M6 Male		PEEK™ Adapter, M6 Female to 10-32 Male	
1/4-28 — M6		10-32 — M6		10-32 — M6		10-32 — M6		M6 — 10-32	
10-32 — M6		M6 — 10-32		M6 — 1/4-28		5/16-24 — M6		5/16-24 — M6	
PEEK™ Adapter, 10-32 Female to M6 Male		PEEK™ Adapter, M6 Female to 10-32 Male		Kel-F Adapter, M6 Female to 1/4-28 Male		Kel-F® Adapter, 5/16-24 Female to M6 Male			




### Low Pressure Unions

Cat No.	Qty	Cat No.	Qty
59602	Each	59622	Each
Black Delrin® Metric Webbed Union, 0.020 ID		Blue ETFE Metric Webbed Union, 0.020 ID	
M6 — M6		1/4-28 — 1/4-28	




### Solvent Filters

General Use Inlet Solvent Filters, 40mL/min

	<b>Cat No.</b> 49302A	<b>Qty</b> Each
10µm SS Inlet Filter, w/Flangeless Fitting for 1/8" OD Tubing		
	<b>Cat No.</b> 49302	<b>Qty</b> Each
10µm SS Inlet Filter with stem for 1/16" ID Tubing		
	<b>Cat No.</b> 49220	<b>Qty</b> Each
10µm SS Inlet Filter, for 1/8" OD Tubing, Nut Not Included		
	<b>Cat No.</b> 49242	<b>Qty</b> Each
2µm SS Inlet Filter, for 1/8" OD Tubing, Nut Not Included		

For Waters® Analytical HPLC Systems, 40mL/min

	<b>Cat No.</b> 49310	<b>Qty</b> Each
10µm SS Filter w/Stem for 1/8" ID x 3/16" OD Tubing		




For Preparative HPLC Systems, 100mL/min

	<b>Cat No.</b> 49225	<b>Qty</b> Each
20µm SS Inlet Filter w/Stem for 1/16" ID Tubing		
	<b>Cat No.</b> 49225A	<b>Qty</b> Each
20µm SS Inlet Filter w/Flangeless Fittings for 1/8" OD Tubing		
	<b>Cat No.</b> 49226A	<b>Qty</b> Each
10µm SS Inlet Filter for 5/16" OD Tubing		

	<b>Cat No.</b> 49227A	<b>Qty</b> Each
10µm SS Inlet Filter for 1/4" OD Tubing		
	<b>Cat No.</b> 49230A	<b>Qty</b> Each
20µm SS Inlet Filter for 1/4" OD Tubing		
	<b>Cat No.</b> 49311	<b>Qty</b> Each
10µm SS Inlet Filter w/ Stem for 1/16" ID Tubing		
	<b>Cat No.</b> 49311A	<b>Qty</b> Each
10µm SS Inlet Filter w/ Flangeless Fittings for 1/8" OD Tubing		



### SS Bottom-of-the-Bottle™ Solvent Filter Assemblies

• 40mL/min

	<b>Cat No.</b> 49551	<b>Qty</b> Each		<b>Cat No.</b> 49522X	<b>Qty</b> 10
Replaceable 2µm Filter Assembly for 1/8" OD Tubing			2µm Stainless Steel Filter Cups		
	<b>Cat No.</b> 49550	<b>Qty</b> Each		<b>Cat No.</b> 49520X	<b>Qty</b> 10
Replaceable 10µm Filter Assembly for 1/8" OD Tubing			10µm Stainless Steel Filter Cups		

### Biocompatible Solvent Filters

• 40mL/min




	<b>Cat No.</b> 49426	<b>Qty</b> Each		<b>Cat No.</b> 49427	<b>Qty</b> 5
10µm UHMWPE Filter, for 1/8" OD Tubing, Complete Unit			10µm UHMWPE Filter Cups		





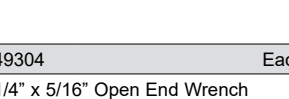
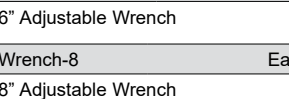
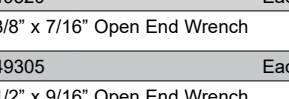
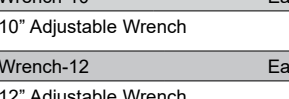

### Specialty Tools

	<b>Cat No.</b> 61629	<b>Qty</b> Each		<b>Cat No.</b> 66788	<b>Qty</b> Each		<b>Cat No.</b> 1506	<b>Qty</b> Each		<b>Cat No.</b> 59298	<b>Qty</b> Each
Ferrule Remover Tool			Stainless Steel Combo Tool			Mini Flashlight			Extender Tightening Tool for Standard Head Fittings		
	<b>Cat No.</b> 59299	<b>Qty</b> Each		<b>Cat No.</b> 68290	<b>Qty</b> Each		<b>Cat No.</b> ADV9851	<b>Qty</b> Each		<b>Cat No.</b> FS-101	<b>Qty</b> Each
Aluminum Flangeless Nut Extender Tool for Standard Head Fittings			Extender Tool for Micro Heads			Stainless Steel Tubing Straightener			Ferrule Saver		


### Cutters

	<b>Cat No.</b> 1651	<b>Qty</b> Each		<b>Cat No.</b> 49327	<b>Qty</b> Each		<b>Cat No.</b> 1650	<b>Qty</b> Each		<b>Cat No.</b> TT1001	<b>Qty</b> Each
Advantage™ Polymer Tubing Cutter with 5 port sizes			PEEK™ Tubing Cutter for 1/16" - 1/8" OD Tubing			1/16" OD SS Tubing Cutter Pliers			Rotary Stainless Steel Tubing Cutter for 1/16" OD Tubing		
	<b>Cat No.</b> 1652	<b>Qty</b> Each		<b>Cat No.</b> 49329	<b>Qty</b> Each		<b>Cat No.</b> 1551	<b>Qty</b> Each		<b>Cat No.</b> TT1002	<b>Qty</b> Each
Replacement Blade for PN 1651			PEEK™ Tubing Cutter for 3/16" - 5/16" OD Tubing			1/16" and 1/8" OD SS Tubing Cutter			Rotary Stainless Steel Tubing Cutter for 1/8" OD Tubing		
				<b>Cat No.</b> 49328	<b>Qty</b> 5		<b>Cat No.</b> 1552	<b>Qty</b> Each		<b>Cat No.</b> TT1003	<b>Qty</b> 3
			Repl. Blades for 49327 & 49329			Replacement Cutter Wheel			Replacement Blades		


### Wrenches

	<b>Cat No.</b> 49304	<b>Qty</b> Each		<b>Cat No.</b> 49320	<b>Qty</b> Each
1/4" x 5/16" Open End Wrench			6" Adjustable Wrench		
	<b>Cat No.</b> 49320	<b>Qty</b> Each		<b>Cat No.</b> 49305	<b>Qty</b> Each
3/8" x 7/16" Open End Wrench			8" Adjustable Wrench		
	<b>Cat No.</b> 49305	<b>Qty</b> Each		<b>Cat No.</b> 49320	<b>Qty</b> Each
1/2" x 9/16" Open End Wrench			10" Adjustable Wrench		
				<b>Cat No.</b> 49320	<b>Qty</b> Each
			12" Adjustable Wrench		

### Tool Kit

	<b>Cat No.</b> ADV9850	<b>Qty</b> Each
Advantage™ Chromatography Tool Kit Includes: Pliers, Hex Wrenches, Fittings Wrench, Column Wrenches, Assorted Screwdrivers and Storage Box		

### Tubing Clips

	<b>Cat No.</b> 1600	<b>Qty</b> Each
Tubing Clip, Holes for 1/16" and 1/8" OD Polymer Tubing. SS Spring Clip Fits Glassware up to 4mm Thick		

### Fittings Storage Cabinets

	
Call for sizes and pricing	

Let Analytical Sales design a customized storage system for your HPLC fittings!  
**A FREE SERVICE FOR OUR CUSTOMERS!**  
 Call today for details!



### Tuning Tee Kit



### Tuning Tee Kit

Cat. No.	Description	Qty
66126	Tuning Tee Kit	Each

\*Choose a cemented needle from right.

### Syringes with Cemented Needles

Point Style No. 3

Cat. No.	Description	Qty
4811754	Model 1725, 250µL, 22s Gauge	Each
4612184	Model 1750, 500µL, 22 Gauge	Each
4613184	Model 1001, 1mL, 22 Gauge	Each

### 700 Series Microliter™ Syringes with Cemented Needles

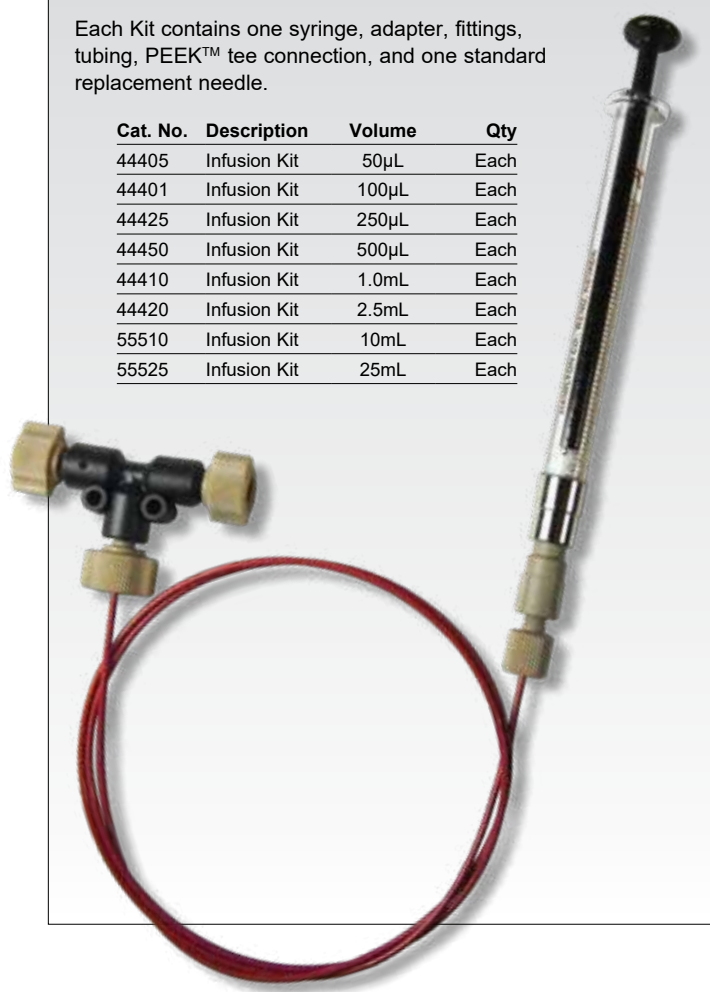
Point Style No. 2

Cat. No.	Description	Qty
4803004	Model 701, 10µL, 26s Gauge	Each
4804004	Model 702, 25µL, 22s Gauge	Each
4805004	Model 705, 50µL, 22s Gauge	Each
4806004	Model 710, 100µL, 22s Gauge	Each
4807004	Model 725, 250µL, 22s Gauge	Each
4808004	Model 750, 500µL, 22s Gauge	Each

### Infusion Kits

Each Kit contains one syringe, adapter, fittings, tubing, PEEK™ tee connection, and one standard replacement needle.

Cat. No.	Description	Volume	Qty
44405	Infusion Kit	50µL	Each
44401	Infusion Kit	100µL	Each
44425	Infusion Kit	250µL	Each
44450	Infusion Kit	500µL	Each
44410	Infusion Kit	1.0mL	Each
44420	Infusion Kit	2.5mL	Each
55510	Infusion Kit	10mL	Each
55525	Infusion Kit	25mL	Each



### Gastight® Syringes for LC-MS Infusion

Luer Lock Gastight® Removable Needle Syringes with Teflon® Tips

Cat. No.	Description	Qty
4021184	Model 1725, 250µL, 22s Gauge, Needle not Included	Each
4022184	Model 1750, 500µL, 22 Gauge, Needle not Included	Each
4023184	Model 1001, 1mL, 22 Gauge, Needle not Included	Each
4814204	Model 1002, 2.5mL, 22 Gauge Needle not included	Each
8431098	Kel-F® Hub SS Replacement Needles, 22g, No. 3 Point Style	6
4491094	Kel-F® Hub PEEK™ Replacement Needles, 16 Gauge, No. 3 Point Style	Each

Syringes w/ Removable SS & PEEK™ Needles No. 3 Point Style

Cat. No.	Description	Qty
4560184	Model 1710, 100µL, 22s Gauge	Each
4464084	Replacement Needles for 2.5-100µL Syringe, 22s Gauge	6
4561184	Model 1725, 250µL, 22s Gauge	Each
4562184	Model 1750, 500µL, 22s Gauge	Each
4563184	Model 1001, 1mL, 22 Gauge	Each
4367084	Replacement Needles for 250µL-10mL Syringe, 22 Gauge	6
48650014	PEEK™ Replacement Needles, for 250µL-10mL, 16 Gauge	6

### 1700 Series Small Volume Syringes

Gastight Removable Needle (RN) Point Style No. 2

Cat. No.	Description	Qty
4802304	Model 1702, 25µL, 22s Gauge	Each
4809304	Model 1705, 50µL, 22s Gauge	Each
4810304	Model 1710, 100µL, 22s Gauge	Each
4804284	Replacement Needles for 2.5µL-100µL Syringes, 22s Gauge	6
4811304	Model 1725, 250µL, 22s Gauge	Each
4807284	Replacement Needles for 250µL-10mL Syringes, 22s Gauge	6
4812304	Model 1750, 500µL, 22 Gauge	Each
4807254	Replacement Needles for 250µL-10mL Syringes, 22 Gauge	6

### Ultra High Pressure Valco Valves for Thermo & CTC Autosamplers

Rated to 15,000psi  
• Stainless steel

Cat. No.	Description	Qty
8V2172	C72 Vertical 10 Port Injector	Each
8V2672	C72 Vertical 6 Port Injector	Each

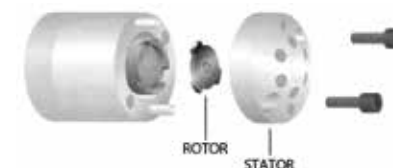
Rated to 20,000psi:

8V0620	C72 Vertical 6 Port Injector	Each
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### Replacement Parts for 6 Port Injector

Cat. No.	Description	Qty
97561	Rotor Seal for C72 (C72 - 16R6)	Each
97565	Stator for C72	Each



### Replacement Parts

Cat. No.	Description	Qty
86007	22g SS Short Wide Inlet Guide Port for Valco HTS PAL	Each
86002	CTC PAL Needle Guide, Plastic Sleeve, for Valco	5
86002RE	CTC PAL Needle Guide, <b>Tight Fit</b>	5



### Mass Spec Polishing Kit

Clean the curtain plate and orifice of your Mass Spec source.

#### Kit Contains:

3 cleaning sheets, 3 cleaning pads, 1 Flannel Polishing Cloth

Cat. No.	Description	Qty
67001	Mass Spec Polishing Kit	Each

### Replacement High Pressure Stainless Steel Sample Loops

Cat. No.	Description	Qty
97002	2µL SS Sample Loop	Each
97005	5µL SS Sample Loop	Each



### UHPLC Fingertight Sample Loops

Perfect fit for Vici/Valco Ultra High Pressure C72 Valves

Cat. No.	Description	Qty
9997010	10µL SS Sample Loop	Each
9997250	250µL SS Sample Loop	Each
9997500	500µL SS Sample Loop	Each
9997011	1mL SS Sample Loop	Each
9997014	2mL SS Sample Loop	Each
9997015	5mL SS Sample Loop	Each
9997012	10mL SS Sample Loop	Each



### Fingertight Sample Loops

- Fingertight, no tools needed
- Rated to 20,000 psi
- Stainless Steel
- East to Install

Perfect fit for C6W & C10W HPLC Valves (see next page)

Cat. No.	Description	Qty
99SL10CW	Fingertight Valco 10µL SS Sample Loop	Each
99SL15CW	Fingertight Valco 15µL SS Sample Loop	Each
99SL20CW	Fingertight Valco 20µL SS Sample Loop	Each
99SL25CW	Fingertight Valco 25µL SS Sample Loop	Each
99SL50CW	Fingertight Valco 50µL SS Sample Loop	Each
99SL100CW	Fingertight Valco 100µL SS Sample Loop	Each
99SL200CW	Fingertight Valco 200µL SS Sample Loop	Each
99SL250CW	Fingertight Valco 250µL SS Sample Loop	Each
99SL500CW	Fingertight Valco 500µL SS Sample Loop	Each
99SL1KCW	Fingertight Valco 1mL SS Sample Loop	Each



### Valco PEEK™ Sample Loops

with End Fittings for W-Type Valves

### Valco SS Sample Loops with End Fittings for W-Type Valves

Cat. No.	Description	Qty
SL2CWPK	2µL Sample Loop	
SL5CWPK	5µL Sample Loop	
SL10CWPK	10µL Sample Loop	
SL20CWPK	20µL Sample Loop	
SL50CWPK	50µL Sample Loop	
SL100CWPK	100 µL Sample Loop	
SL500CWPK	500 µL Sample Loop	
SL1KCWPK	1mL Sample Loop	

### Replacement Graphite Ferrules

Cat. No.	Description	Qty
68566-1	One-Piece Ferrule System	5





ADVDC6WK



### VALCO Valves & Accessories for CTC LC PAL Autosamplers

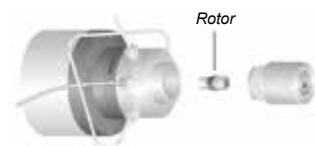
Models C6W & C10W HPLC Valves

Cat. No.	Description	Qty
ADVDC6WK	DC6WK 6 Port Replacement Valve	Each
ADVC6W	C6W 6 Port Manual Injector Valve	Each
ADVEPC6W	EPC6W 6 Port Injector w/ Microelectric Actuator	Each
ADVEPC10W	EPC10W 10 Port Injector w/ Microelectric Actuator	Each
ADVDC10W	10 Port Replacement Valve	Each
ADVDC10WK-1	"Keyed" 10 Port Replacement 10-Port Valve	Each
ADVEPCA-CE	Model EPCA-CE Actuator Control	Each

### VALCO Replacement Parts

Cat. No.	Description	Qty
21006	Replacement Rotor Seal for C2-1006D, Valcon H	Each
21007	Replacement Rotor Seal for C2-1006D, Valcon E	Each
87561	Replacement Rotor Seal for C6W	Each
87562	Replacement Rotor Seal for C10W	Each
87550	Special Rotor Seal for C6W, Low Carryover	Each
87440	Special Rotor Seal for C10W, Low Carryover	Each
87220	Replacement Rotor Seal for C2V- 2006D Valves	Each

### Valco Replacement Rotor Seals



Cat. No.	Description	Qty
87561	Replacement Rotor Seal for C6W	Each
87562	Replacement Rotor Seal for C10W	Each
87550	Special Rotor Seal for C6W, Low Carryover	Each
87440	Special Rotor Seal for C10W, Low Carryover	Each
87220	Rotor Seal for C2V-2006D Valves	Each

### Replacement Parts for CTC LC PAL Autosamplers

Cat. No.	Qty
86001	Each
Short Fill Port for 22g Needles, Use w/ 1/16" Fittings	

Cat. No.	Qty
85001	Each
Long Fill Port for 22g Needles, Use w/ 1/16" Fittings	

Cat. No.	Qty
85656	Each
Replacement Polymer Ferrules	

Cat. No.	Qty
86661	Each
Replacement Liner for Short Port	

Cat. No.	Qty
85551	Each
Replacement Liner for Long Port	

Cat. No.	Qty
86007	Each
Short Wide Port for Valco	

Cat. No.	Qty
86002	5
CTC PAL Needle Guide, Plastic Sleeve, for Valco	
<b>Easy Fit - Feels Like Butter</b>	
86002RE	5
CTC PAL Needle Guide, <b>Tight Fit</b>	

### CTC LC PAL Autosampler Syringes

Syringes fit the following HPLC autosampler models:  
LC PAL, HTC PAL, HTS PAL, HTX PAL, HTC-xt, HTS-xt, HTX-xt

Cat. No.	Description	Qty
42031944	Hamilton 10µL Gastight Syringe, Fixed Needle	Each
42032744	Hamilton Slimline 25µL Gastight Syringe, Fixed Needle	Each
4203077-014	Hamilton Slimline 100µL Gastight Syringe, Fixed Needle	Each
42030794	Hamilton 250µL Gastight Syringe, Fixed Needle	Each

### Modified Syringe for Basic Compounds

- Less carryover
- Longer lifetime

Cat. No.	Description	Qty
4203077-014S	Fixed Needle 100µL Low Carry Syringe	Each

### X-Type Syringes for CTC PAL® LC Autosamplers

- **Deactivated Needle and Barrel**
  - Eliminates contact between samples and metal components
  - Prevents sample adsorption on inner surface of the barrel
  - Extremely smooth surface for low friction and increased plunger lifetime
- **Inert PTFE-Polymer Plunger Tip**
  - High mechanical stability for increased syringe lifetime
  - Highly inert plunger tip material compatible with organics and high and low pH solutions

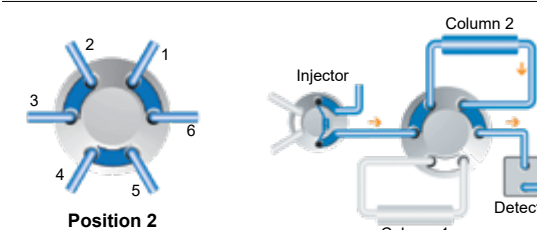
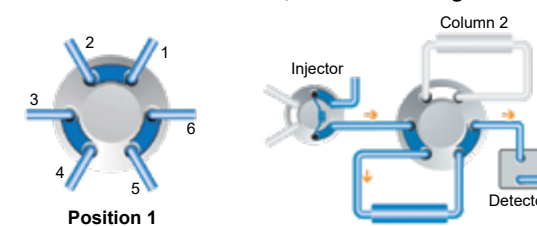
### Fixed Needle (FN) Syringe (point style 3)

Cat. No.	Volume	Model	Gauge	CTC Part No.	Qty
42044754	25 µL	1702	22s	SYRX G25-22S-3	Each
42044004	100 µL	1710	22	SYRX G100-22-3	Each
42044524	100 µL	1710	22s	SYRX G100-22S-3	Each

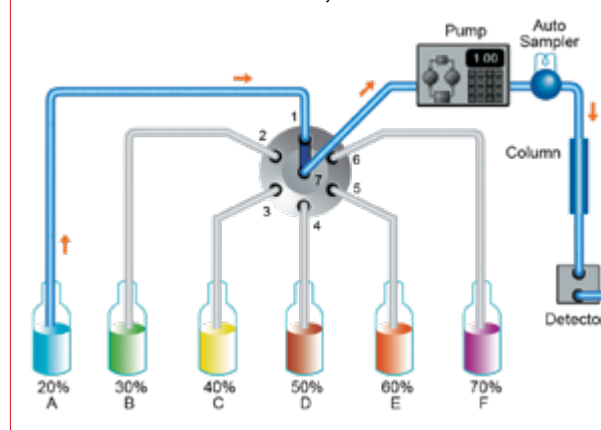
**Best for reduced carryover**



### VXH593-888 2 Position, 6 Port Switching Valve



### VXH593-983 6 Position, 7 Port Selector Valve



### ULTRA High Pressure Automatic Switching & Selector Valves

- **Rated to 15,000psi**
- **Two column selection**
- **Rapid Replacement Pods**
- **Flexible automation with USB and RS-232 remote communication**



Catalog No.	Description	Qty
VXH593-888	2 Position, 6 Port <b>Switching Valve</b> , Stainless Steel	Each
VXH593-983	6 Position, 7 Port <b>Selector Valve</b> , Stainless Steel	Each

### VXH Module Specifications:

<b>Maximum Pressure</b>	15,000 psi (1,034 bar)
<b>Power Requirements</b>	100-120 VAC, 50-60 Hz
<b>Regulatory Compliance</b>	CE Mark
<b>Remote Control</b>	USB, PC, BCD, Level Logic
<b>Operating Temperature</b>	0° – 40°C, non-condensing
<b>Storage Temperature</b>	0° – 75°C
<b>Dimensions</b>	117mm x 76mm x 128mm (4.6" x 3.0" x 5.0")



### Replacement Pods

Featuring the Rapid Replacement Pod™ design for easy, zero downtime maintenance

Cat. No.	Description	Qty
PD8888	Replacement Pod for VXH593-888	Each
PD5939	Replacement Pod for VXH593-983	Each



### Replacement Stators

Cat. No.	Description	Qty
775938	Stainless Steel Stator for VXH593-888	Each
775939	Stainless Steel Stator for VXH593-888	Each



### RheBuild® Kits

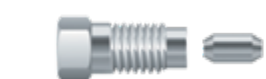
Includes 2 Rotor Seals, 2 Wrenches and Instructions

Cat. No.	Description	Qty
3888	RheBuild™ Kit for VXH593-888	Each
3983	RheBuild™ Kit for VXH593-983	Each



### Stainless Steel Sample Loops

Cat. No.	Description	Qty
894005	5µL Stainless Steel Sample Loop	Each
894010	10µL Stainless Steel Sample Loop	Each
894020	20µL Stainless Steel Sample Loop	Each
894100	100µL Stainless Steel Sample Loop	Each



### Replacement Stainless Steel Fittings

Cat. No.	Description	Qty
1286X	SS Nuts & Ferrules	10





### High Pressure Automatic Switching Valves

- **Rated to 6,000psi**
- **Online sample prep**
- **Column backflushing**
- **Two column selection**

Catalog No.	Description	Qty
VXV5788-000	2 Position, 6 Port Switching Valve, Stainless Steel	Each
VXV5738-000	2 Position, 10 Port Switching Valve, Stainless Steel	Each
VXV5764-000	2 Position, 10 Port <b>Nano</b> Switching Valve, Stainless Steel	Each
VXV7788-000	2 Position, 6 Port Switching Valve, PEEK™	Each
VXV7738-000	2 Position, 10 Port Switching Valve, PEEK™	Each

### Replacement Pods

Featuring the Rapid Replacement Pod™ design for easy, zero downtime maintenance

Cat. No.	Description	Qty
PD5788	Replacement Pod for 2 Position, 6 Port, Titan/HP	Each
PD5738	Replacement Pod for VXV5738-000	Each
PD5758	Replacement Pod for VXV5758-000	Each
PD7788	Replacement Pod for VXV7788-000	Each
PD7738	Replacement Pod for VXV7738-000	Each



### Replacement Stators

Cat. No.	Description	Qty
75788	Stainless Steel Stator for VXV5788-000	Each
75738	Stainless Steel Stator for VXV5738-000	Each
75758	Stainless Steel Stator for VXV5758-000	Each
77788	PEEK™ Stator for VXV7788-000	Each
77738	PEEK™ Stator for VXV7738-000	Each



### RheBuild® Kits

Includes Rotor Seal, Stator Face Assembly, Wrench and Instructions

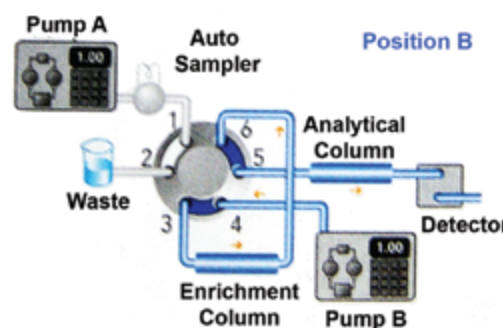
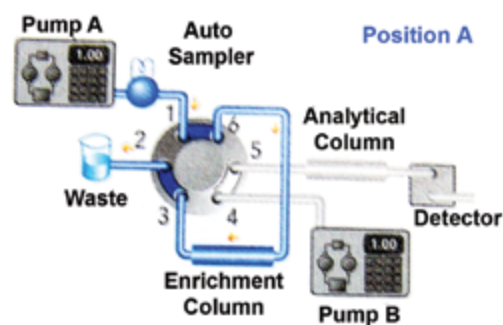
Cat No.	Description	Qty
5788	RheBuild® Kit for VXV5788-000, Includes Vespel Rotor Seal	Each
5738	RheBuild® Kit for VXV5738-000, Vespel Rotor Seal	Each
5758	RheBuild® Kit for VXV5758-000, Vespel Rotor Seal	Each
7788	RheBuild® Kit for VXV7788-000, PEEK Rotor Seal	Each
7738	RheBuild® Kit for VXV7738-000, PEEK Rotor Seal	Each

### Replacement Fittings

Catalog No.	Description	Qty
46000-3374	PEEK™ One Piece Fitting, M4	Each

### VXV Module Specifications:

Maximum Pressure	6,000 psi (413 bar)
Power Requirements	100-120 VAC, 50-60 Hz
Regulatory Compliance	CE Mark
Remote Control	USB, PC, BCD, Level Logic
Operating Temperature	0° – 40°C, non-condensing
Storage Temperature	0° – 75°C
Dimensions	117mm x 76mm x 128mm (4.6" x 3.0" x 5.0")



Tubing fits directly into valve with use of special ferrules, no fittings are required

### Low Pressure Automatic Switching & Selector Valves

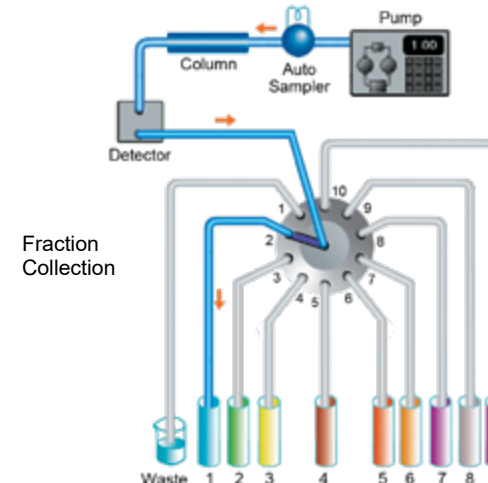
- **Rated to 125psi**

- **Pre-pump solvent selection**
- **Post column fraction collection**
- **Fittingless tubing connection**
- **Flexible automation with USB and RS-232 remote communication**



Catalog No.	Description	Qty
VXL554-260	2 Position, 6 Port Low Pressure Switching Valve with Fittingless Tubing Connection	Each
VXL554-670	6 Position, 7 Port Low Pressure Selector Valve with Fittingless Tubing Connection	Each
VXL555-494	6 Position, 7 Port, Low Pressure, Large Bore Selector Valve with Fittingless Tubing Connection	Each
VXL556-483	10 Position, 11 Port Low Pressure Selector Valve with Fittingless Tubing Connection	Each

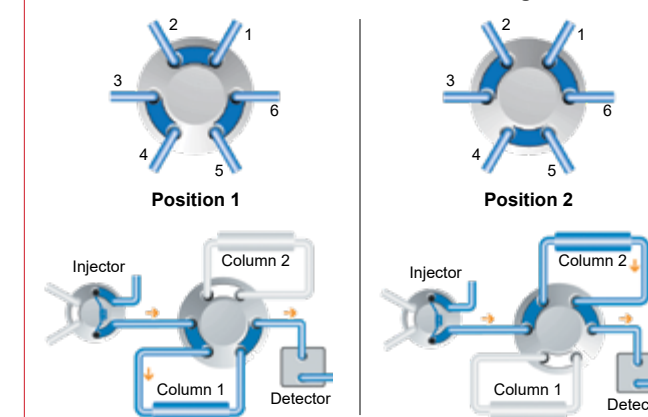
### VXL556-483 10 Position, 11 Port Selector Valve



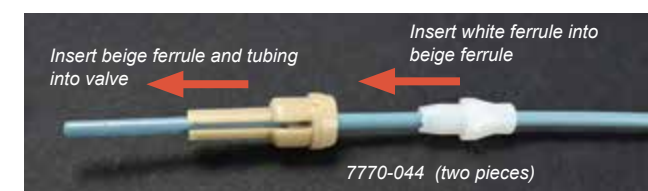
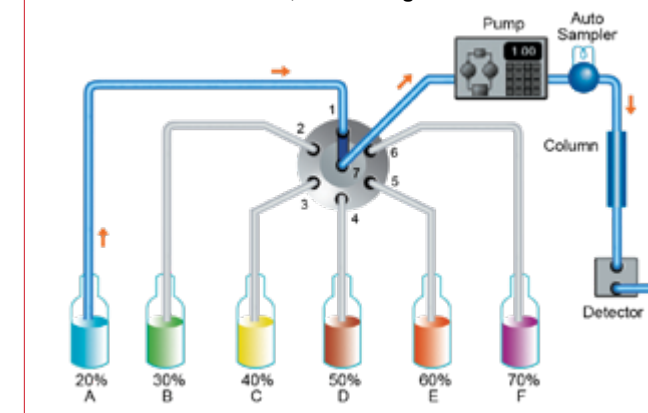
### VXL Module Specifications:

Maximum Pressure	125 psi (9 bar)
Power Requirements	100-120 VAC, 50-60 Hz
Regulatory Compliance	CE Mark
Remote Control	USB, PC, BCD, Level Logic
Operating Temperature	0° – 40°C, non-condensing
Storage Temperature	0° – 75°C
Dimensions	117mm x 76mm x 128mm (4.6" x 3.0" x 5.0")

### VXL554-260 2 Position, 6 Port Switching Valve



### VXL554-670 6 Position, 7 Port Selector Valve VXL555-494 6 Position, 7 Port Large Bore Selector Valve



### Special Replacement Ferrules

For fitting-free tubing connection system

Catalog No.	Description	Qty
77825	Ferrules for 1/8" OD Tubing	25
77850	Ferrule for 1/8" OD Tubing	50
7770-044	Ferrules for 1/16" OD Tubing	25



### Model 62

#### Adjustable Metering for Direct Control

For Pre and Post Column Applications

- Bracket mounted
- Adjustable metering
- Precise direct control
- Fluid resistor technology
- Split ratios from 1:1 to 20,000:1
- Low dead volume
- Rugged steel design
- 5,000 PSI valve limit

#### Adjustable Post-Column Flow Splitters

Analytical Range - 0.1-5mL/min Incoming Flow

Cat. No.	Description	Qty
62-414	Adjustable Splitter, Stainless Steel with -06 Resistor Cartridge, Ratio 1:1-20:1	Each
62-413	Adjustable Splitter, Stainless Steel with -04 Resistor Cartridge, Ratio 5:1-100:1	Each
62-412	Adjustable Splitter, Stainless Steel with -03 Resistor Cartridge, Ratio 15:1-250:1	Each
62-411	Adjustable Splitter, Stainless Steel with -01 Resistor Cartridge Ratio 50:1-1000:1	Each

Replacement Components - Model 61 & 62  
Replacement Resistor Cartridges for Adjustable Post-Column Flow Splitter

Cat. No.	Description	Qty
61-115	Replacement Analytical -06 Resistor Cartridge, Ratio 1:1-20:1	Each
61-114	Replacement Analytical -04 Resistor Cartridge, Ratio 4:1-100:1	Each
61-113	Replacement Analytical -03 Resistor Cartridge, Ratio 15:1 - 250:1	Each

Replacement Inlet Filters for Adjustable Post-Column Flow Splitter

Cat. No.	Description	Qty
66-063	Replacement Analytical Inlet Filter, 2µm x 0.063 diameter	5



#### Adjustable Pre-Column Flow Splitters

Analytical Range - 0.1-1mL/min Incoming Flow

These splitters will produce under 3500 PSI back pressure with water at 0.5mL/min

Pre-Column splitting is used for micro, capillary and nano HPLC applications. The split ratio created by the splitter valve will remain constant. However, when an HPLC column is installed, there will be added resistance on the flow rate channel. This added resistance must be considered to ensure the fluid resistor selected for the flow splitter provides the correct split ratio.

Please provide the column flow rate and back pressure specifications. If these specifications are not provided, the pre-column flow splitter will be configured assuming a 0.5mL/min inlet flow rate and a pressure drop across the column of 1500psi.

Cat. No.	Description	Qty
60-104	Adjustable Pre-Column Splitter, Split Ratio Range 5:1-100:1	Each

#### Adjustable Semi-Prep Flow Splitters, Post Column

Analytical Range - 5.0 - 40mL/min Incoming Flow

Cat. No.	Description	Qty
62-315	Adjustable Splitter, Stainless Steel, Ratio 1:1-20:1	Each
62-313	Adjustable Splitter, Stainless Steel, Ratio 15:1-300:1	Each
62-312	Adjustable Splitter, Stainless Steel, Ratio 100:1-2000:1	Each
62-311	Adjustable Splitter, Stainless Steel, Ratio 1000:1-2000:1	Each

#### Adjustable Preparative Flow Splitters

Preparative Adjustable Flow Splitter, Post-Column Flow Range: 75-200mL/min. Ratio = Custom Prep Range 40mL/min - 1000mL/min Input Flow

Cat. No.	Description	Qty
62-316	Adjustable Preparative Splitter, Stainless Steel	Each

### Fixed Binary & Multiport Flow Splitters

For Post Column Applications

- Fixed metering for precise control
- Fluid resistor technology
- Split ratios from 1:1 to 20,000:1
- Low dead volume
- Rugged stainless steel design



Advantage™ Fixed Flow Splitters are shipped with resistors installed that deliver the nominal stated split ratio. The split ratios have a tolerance range of ±10%. The exact split ratio is measured and is stated on the certificate shipped with the splitter. The input flow rate can be adjusted to compensate for the tolerance in split ratios. For instance, a 10% increase in input flow rate will result in a 10% increase in flow at both the capillary and waste stream channels. Flow rate and viscosity changes will change the back pressure generated by the splitter, but will not affect the actual split ratio.

These Fixed Flow Splitters are ideal for:

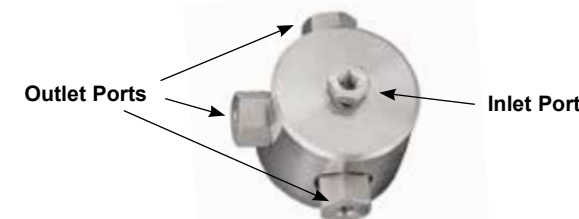
- LC/MS
- Flow fractionation
- Column flow splitting
- Capillary chromatography

$$\text{Split Ratio} = \frac{\text{Inlet Flow} - \text{Low Flow}}{\text{Low Flow}}$$

Model 63 Binary Fixed Splitter, with its interchangeable fluid resistors, eliminates the need to cut capillary tubing to change the split ratio. Split ratios can be changed by replacing the resistor set.



Model 53 Multiport Fixed Splitter is ideal for applications that use multiple detectors and/or a fraction collector.



#### Model 53 Multiport Fixed Flow Splitter Manifold

- Analytical Range - 0.1-5mL/min Incoming Flow
- Multiport Splitters come mounted on a mounting Bracket

Cat. No.	Description	Qty
53-112	3-Port Splitter Manifold, Custom Ratio	Each
53-114	4-Port Splitter Manifold, Custom Ratio	Each

### Model 63 Post-Column Binary

#### Fixed Flow Splitters, Complete Assembly

Analytical Range - 0.1-5mL/min Incoming Flow

Cat. No.	Description	Qty
63-423	Binary Fixed Splitter, Ratio 1:1	Each
63-422	Binary Fixed Splitter, Ratio 3:1	Each
63-424	Binary Fixed Splitter, Ratio 4:1	Each
63-421	Binary Fixed Splitter, Ratio 5:1	Each
63-420	Binary Fixed Splitter, Ratio 10:1	Each
63-419	Binary Fixed Splitter, Ratio 20:1	Each
63-418	Binary Fixed Splitter, Ratio 50:1	Each
63-417	Binary Fixed Splitter, Ratio 100:1	Each
63-416	Binary Fixed Splitter, Ratio 200:1	Each
63-415	Binary Fixed Splitter, Ratio 500:1	Each
63-414	Binary Fixed Splitter, Ratio 1000:1	Each
63-413	Binary Fixed Splitter, Ratio 2000:1	Each
63-425	Binary Fixed Splitter, Custom Ratio	Each

#### Accessories

Cat. No.	Description	Qty
63-111	Mounting Bracket for Fixed Splitter	Each

#### Replacement Inlet Filters

for Binary Fixed Flow Splitter Model 63

Replacing the inlet filter prevents clogging of the splitter

Cat. No.	Description	Qty
77-125	Replacement Binary Analytical Inlet Filter, 2µm x 0.063 Diameter, 5/Pkg	Each

#### Replacement Resistors for Post Columns

Binary Fixed Splitters, Model 63



Cat. No.	Description	Qty
63-443	Replacement Binary Resistor, Ratio 1:1	Each
63-442	Replacement Binary Resistor, Ratio 3:1	Each
63-441	Replacement Binary Resistor, Ratio 5:1	Each
63-440	Replacement Binary Resistor, Ratio 10:1	Each
63-439	Replacement Binary Resistor, Ratio 20:1	Each
63-438	Replacement Binary Resistor, Ratio 50:1	Each
63-437	Replacement Binary Resistor, Ratio 100:1	Each
63-436	Replacement Binary Resistor, Ratio 200:1	Each

#### Model 63 SEMI-PREP Binary Fixed Flow Splitters

- Analytical Range - 5.0 - 40mL/min Incoming Flow
- Prep Range - 5.0-40mL/min Incoming Flow

Cat. No.	Description	Qty
63-405	Binary Fixed Splitter, Ratio 500:1	Each

#### Replacement Resistors for Semi-Prep Columns

Binary Fixed Splitters, Model 63

Cat. No.	Description	Qty
63-435	Replacement Binary Resistor, Ratio 500:1	Each
63-434	Replacement Binary Resistor, Ratio 1000:1	Each
63-433	Replacement Binary Resistor, Ratio 2000:1	Each





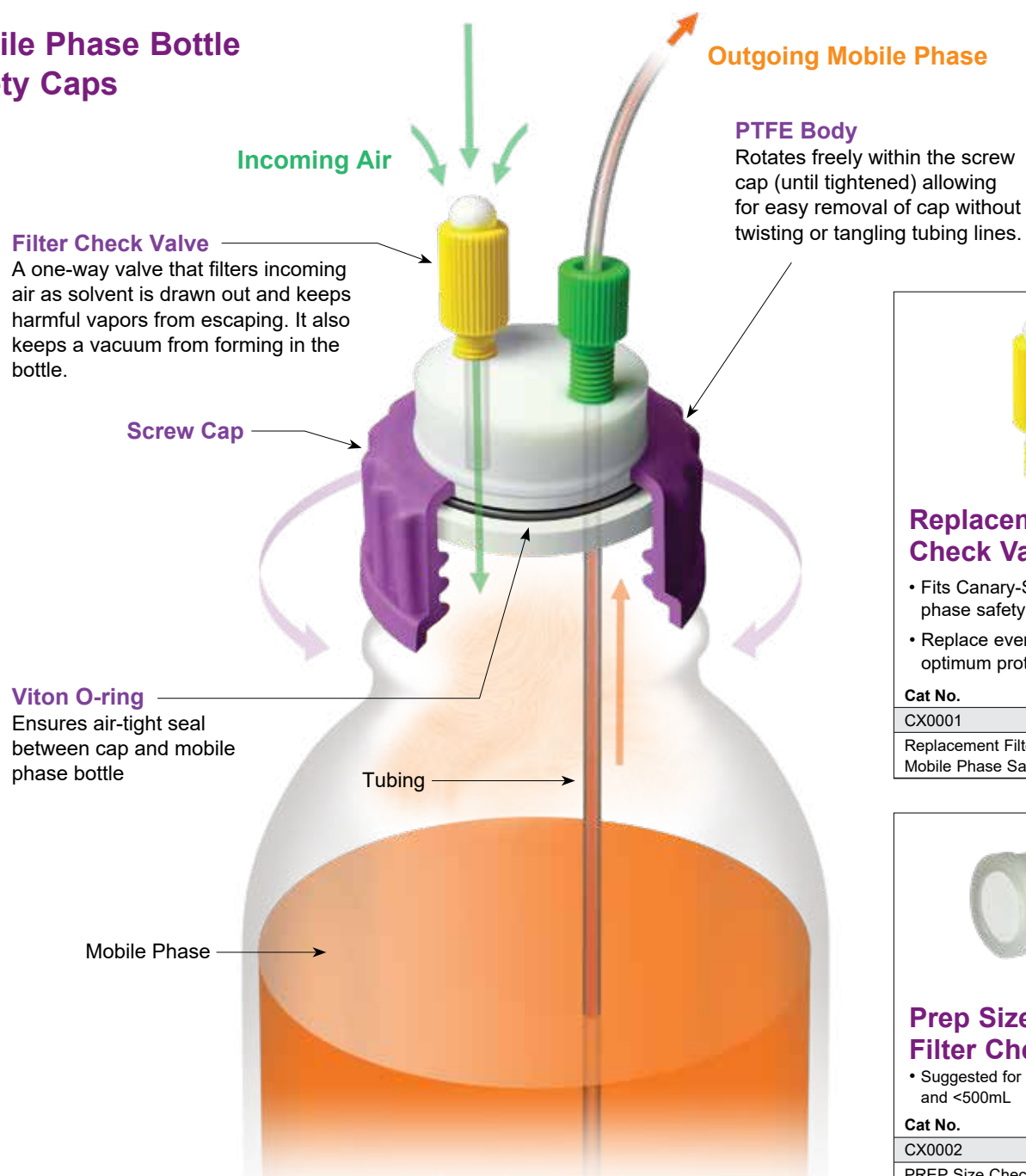




Mobile Phase Safety Caps, Waste Caps, Air Filters & Accessories



### Mobile Phase Bottle Safety Caps



#### Replacement Filter Check Valve

- Fits Canary-Safe™ mobile phase safety caps
- Replace every six months for optimum protection

Cat No.	Qty
CX0001	Each

Replacement Filter Check Valve for Mobile Phase Safety Caps



#### Prep Size Filter Check Valve

- Suggested for Flow Rates >100mL and <500mL

Cat No.	Qty
CX0002	Each

PREP Size Check Valve for Mobile Phase Safety Caps

### Mobile Phase Bottle Safety Caps – GL38

Screws directly onto GL38 amber solvent bottles

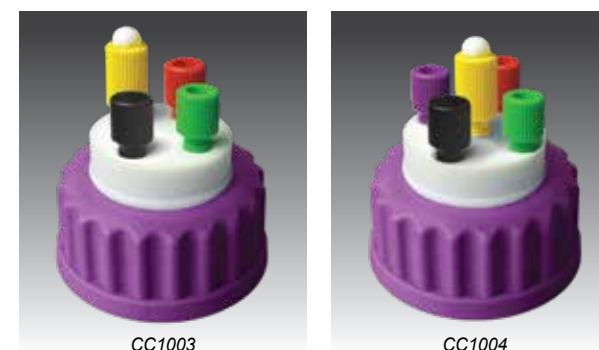
(NOTE: Most 4L solvent bottles are GL38 threads)

Cat. No.	Thread	Description
CCGL3801	GL38	Canary-Safe Cap with 1 Standard Port for 1/8" OD Tubing
CCGL3802	GL38	Canary-Safe Cap with 2 Standard Ports for 1/8" OD Tubing
CCGL3803	GL38	Canary-Safe Cap with 3 Standard Ports for 1/8" OD Tubing



### Mobile Phase Bottle Safety Caps – GL45

Cat. No.	Thread	Description
CC1001	GL45	Canary-Safe Cap 1, GL45, 1 Standard Port for 1/8" OD Tubing
CC1002	GL45	Canary-Safe Cap 2, GL45, 2 Standard Ports for 1/8" OD Tubing
CC1003	GL45	Canary-Safe Cap 3, GL45, 3 Standard Ports for 1/8" OD Tubing
CC1004	GL45	Canary-Safe Cap 4, GL45, 4 Standard Ports for 1/8" OD Tubing
CC1005	GL45	Canary-Safe Cap 5, GL45, 5 Standard Ports for 1/8" OD Tubing
CC1006	GL45	Canary-Safe Cap 6, GL45, 6 Standard Ports for 1/8" OD Tubing
CC1114	GL45	Canary-Safe GL45 Cap, 1 Port for 1/4" Tubing
CC1418	GL45	Canary-Safe GL45 Cap with 1 Standard Port, and 1 Port for 1/4" Tubing



### Color-Coded Mobile Phase Safety Caps – GL45

Cat. No.	Thread	Description
CC1001R	GL45	Canary-Safe Cap 1, Red, 1 Standard Port for 1/8" OD Tubing
CC1001M	GL45	Canary-Safe Cap 1, Mustard, 1 Standard Port for 1/8" OD Tubing
CC1001G	GL45	Canary-Safe Cap 1, Green, 1 Standard Port for 1/8" OD Tubing
CC1001B	GL45	Canary-Safe Cap 1, Blue, 1 Standard Port for 1/8" OD Tubing
CC1002R	GL45	Canary-Safe Cap 2, Red, 2 Standard Ports for 1/8" OD Tubing
CC1002M	GL45	Canary-Safe Cap 2, Mustard, 2 Standard Ports for 1/8" OD Tubing
CC1002G	GL45	Canary-Safe Cap 2, Green, 2 Standard Ports for 1/8" OD Tubing
CC1002B	GL45	Canary-Safe Cap 2, Blue, 2 Standard Ports for 1/8" OD Tubing



### Mobile Phase Bottle Safety Caps – GL45, with Shut-off Valves

Cat. No.	Thread	Description
CC1011	GL45	1 Std 1/8" OD Tubing Port, Shut-Off Valve
CC1012	GL45	2 Std 1/8" OD Tubing Ports, Shut-Off Valves
CC1013	GL45	3 Std 1/8" OD Tubing Ports, Shut-Off Valves
CC1014	GL45	4 Std 1/8" OD Tubing Ports, Shut-Off Valves



### Thread Adapters

- Allows you to fit GL45 thread Safety Caps to various bottles of different thread sizes

Cat. No.	Description
CA4501	PTFE, GL45 Canary-Safe Cap - GL40 Bottle
CA4502	PP, GL45 Canary-Safe Cap - GL40 Bottle
CA4503	PTFE, GL45 Canary-Safe Cap - GL32 Bottle
CA4504	PP, GL45 Canary-Safe Cap - GL32 Bottle
CA4506	PP, GL45 CS Cap to GL38 Bottle (fits most common 4L solvent bottles)
CA4507	PP, S55 Bottle - GL45 Canary-Safe Cap
CA4508	PP, S60 Bottle - GL45 Canary-Safe Cap
CA2932	PTFE, GL45 Canary-Safe Cap - 29/32 Ground Neck
CA4567	PP, GL45 Canary-Safe Cap - US67 Bottle (fits REIKE)
CA4571	PP, GL45 Canary-Safe Cap - S70/71 Bottle (fits REIKE)
CA4599	PTFE, GL45 Canary-Safe Cap to Nalgene Single Thread Bottle
CA4521	Male/Male, for Barrel Thread 2" (BCS70X6) to GL45 Canary-Safe Cap
CA4571	PP, GL45 Canary-Safe Cap to S70/71 Bottle
CA1045	Butress L-10 to GL45 Cap





### Safety Waste Caps with Exhaust Filters

#### Exhaust Filter

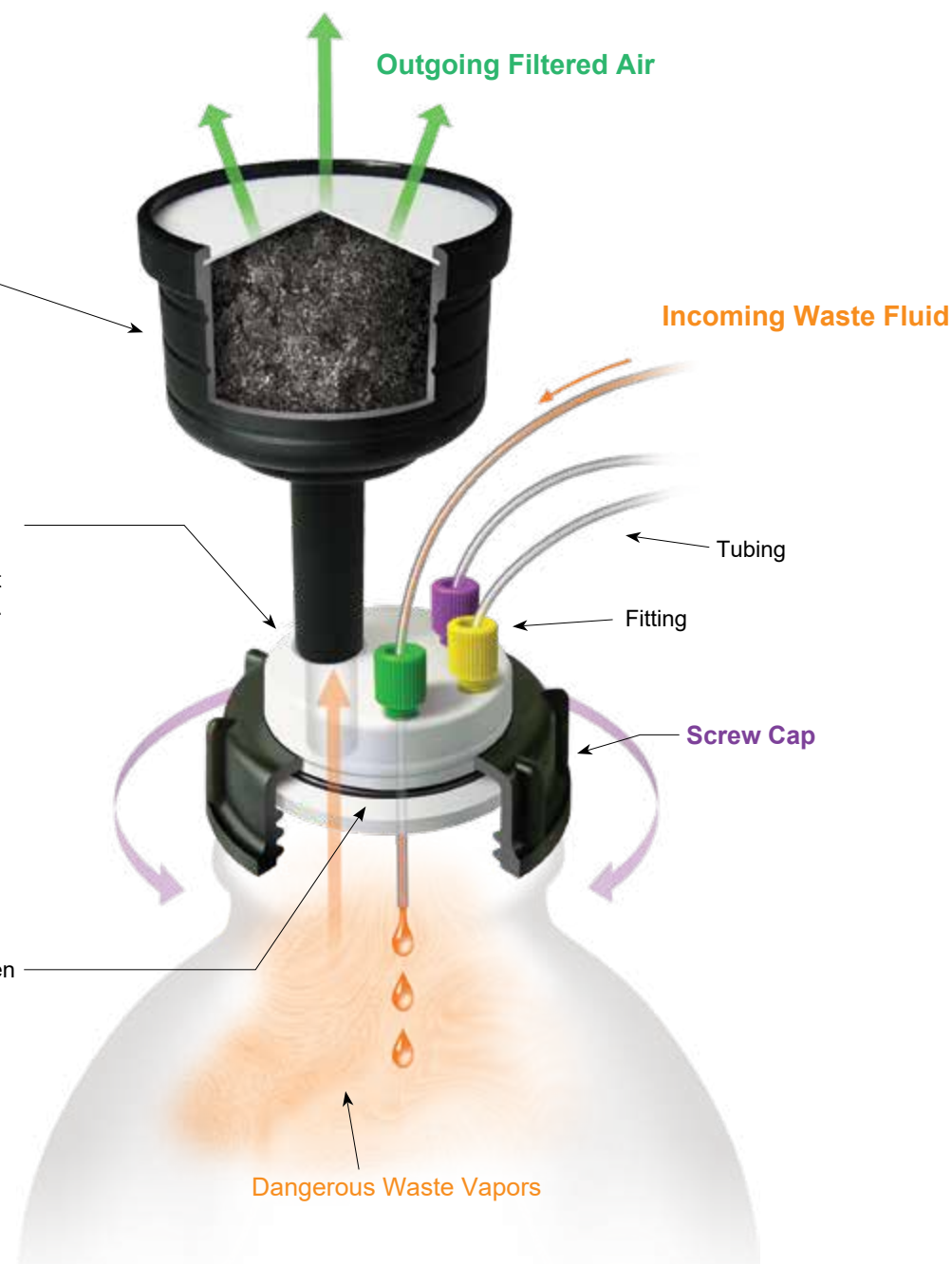
Contains an activated carbon, multi-component granulate material which absorbs 99% of all vapor and particulate materials evaporating from your solvents.

#### PTFE Body

Rotates freely within the screw cap (until tightened) allowing for easy removal of cap without twisting or tangling tubing lines.

#### Viton O-ring

Ensures air-tight seal between cap and mobile phase bottle



#### Exhaust Filters

Canary-Safe exhaust filters contain an activated carbon, multi-component granulate material which absorbs 99% of all vapor and particulate materials evaporating from your solvents. Filters come with a **Timer/Change Indicator** at no additional cost.

#### Timer/Change Indicator



Push button to activate

Replace when service life expires

#### Canary-Safe™ Vapor Exhaust Filters for Safety Waste Caps

Cat. No.	Size	Description	Replacement
CX3000	S	Exhaust Filter, for containers < 5L	3 Months
CX6000	M	Exhaust Filter, for containers < 20L	6 Months
CX12000	L	Exhaust Filter, for containers > 20L	12 Months
CX6010	M	Exhaust Filter with H <sub>2</sub> SO <sub>4</sub> (sulfuric acid) for Volatile Bases	6 Months
CX6020	M	Exhaust Filter with KOH (potassium hydroxide) for Volatile Acids	6 Months



### GL45 Safety Waste Caps (exhaust filters sold separately)

Cat. No.	Thread	Description
CW45118	GL45	Waste Cap, GL45, 1 Standard 1/8" OD Tubing Port, 1 Port for Barbed Connector (for larger tubing sizes)
CW45018	GL45	Canary-Safe Waste Cap, GL45, 1 Standard Tubing Port
CW45218	GL45	Waste Cap GL45, 2 Standard 1/8" OD Tubing Ports, 1 Port for Barbed Connector (for larger tubing sizes)
CW45313	GL45	Canary-Safe Waste Cap, GL45, 3 Standard Tubing Ports ONLY (no port for exhaust filter)
CW45319	GL45	Canary-Safe Waste Cap GL45, 3 Standard 1/8" OD Tubing Ports
CW45418	GL45	Waste Cap GL45, 4 Standard 1/8" OD Tubing Ports, 1 Port for Barbed Connector (for larger tubing sizes)
CW45002	GL45	Canary-Safe Waste Cap, GL45, 2 Ports for Barbed Adapter (for larger tubing sizes)

### S55 Safety Waste Caps (exhaust filters sold separately)

Cat. No.	Thread	Description
CW55218	SS5	Waste Cap, S55, 2 Standard 1/8" OD Tubing Ports, 1 Port for Barbed Connector (for larger tubing sizes)

### B53 Safety Waste Caps (exhaust filters sold separately)

Cat. No.	Thread	Description
CW53219	B53	Waste Cap B53, 2 Standard 1/8" OD Tubing Ports
CW53218	B53	Waste Cap B53, 2 Standard 1/8" OD Tubing Ports, 1 Port for Barbed Connector (for larger tubing sizes)
CW53418	B53	Waste Cap B53, 4 Standard 1/8" OD Tubing Ports, 1 Port for Barbed Connector (for larger tubing sizes)

### S90 Safety Waste Caps (exhaust filters sold separately)

Cat. No.	Thread	Description
CW90418	S90	Waste Cap, S90, 4 Standard 1/8" OD Tubing Ports, 1 Port for Barbed Connector (for larger tubing sizes)

### S60 Safety Waste Caps (exhaust filters sold separately)

Cat. No.	Thread	Description
CW60001	S60	Canary-Safe Waste Cap, S60, with 1 Port for Barbed Connector (for larger tubing sizes)
CW60218	S60	Waste Cap, S60, 2 Standard 1/8" OD Tubing Ports, 1 Port for Barbed Connector (for larger tubing sizes)
CW60302	S60	Waste Cap, S60, 3 Standard 1/8" OD Tubing Ports, 2 Ports for Barbed Connectors (for larger tubing sizes)
CW60319	S60	Canary-Safe Waste Cap, S60, 3 Standard 1/8" OD Tubing Ports

### B83 Safety Waste Caps (exhaust filters sold separately)

Cat. No.	Thread	Description
CW83418	B83	Waste Cap B83 for Nalgene Bottles, 4 Standard 1/8" OD Tubing Ports, 1 Port for Barbed Connector
CW83419	B83	Waste Cap B83 for Nalgene Bottles, 4 Standard 1/8" OD Tubing Ports
CW83001	B83	Waste Cap B83 for Nalgene Bottles, 1 Port for Barbed Connector (for larger tubing sizes)
CW83004	B83	Waste Cap B83 for Nalgene Bottles, 4 Ports for Barbed Connectors (for larger tubing sizes)



### Exhaust Filter Adapters for JustRite® Waste Containers



Cat. No.	Description	Qty
CJX01	Exhaust Filter Fitting/ <i>Long</i> Adapter for Stainless Steel Port on JustRite Waste Container	Each
CJX02	Exhaust Filter Fitting/ <i>Short</i> Adapter for Gray PEEK Port on JustRite Waste Container	Each

### JustRite® Waste Containers

Ideal for HPLC waste applications:

- Vapor and fire protection
- Safeguard against accidental spills
- Maximize safety and convenience

Hands-free solvent collection: Solvent flows freely from your process into the container through tubing making it suitable for either pump-fed or gravity-flow HPLC waste methods. Two disconnect fittings, one intake and one vent, eliminate back pressure in liquid flow disposal line and provide controlled handling of vapor.



Cat No.	Description
CLPP12752	JustRite® Disposal Safety Can w/ PP Fittings for 3/8" Tubing, 2 gallon
CLTF12752	JustRite® Disposal Safety Can w/ SS Fittings for 3/8" Tubing, 2 gallon
CLPP12755	JustRite® Disposal Safety Can w/ PP Fittings for 3/8" Tubing, 5 gallon
CLTF12755	JustRite® Disposal Safety Can w/ SS Fittings for 3/8" Tubing, 5 gallon
CL12160	JustRite® Disposal Safety Can w/ PP Fittings for 3/8" Tubing, 1 gallon



### PTFE Adapters for JustRite® Waste Containers

Our PTFE Adapters easily pop into the port located on top of the waste can. The Adapter accepts up to four waste lines. Y's and T's are available if you need to add additional waste lines.

Cat No.	Description	Qty
CJR01	PTFE Adapter for <b>Gray PEEK</b> Ports on JustRite Waste Cans, 3 Standard ports for 1/8" OD Tubing, 1 Port for Barbed Connector	Each
CJR02	Long Adapter for <b>Stainless Steel</b> Port on JustRite Waste Can, 3 Standard Ports for 1/8" OD Tubing, 1 Port for Barbed Connector	Each
CJR03	PTFE Adapter for <b>Gray PEEK</b> Ports on JustRite Waste Cans, 3 Ports for 3/16" Tubing, 1 Port for Barbed Connector	Each
CJR04	Long Adapter for <b>Stainless Steel</b> Port on JustRite Waste Can, 3 Ports for 3/16" Tubing, 1 Port for Barbed Connector	Each



Adapters can be used with double or triple collectors for added flexibility

### Double & Triple Collectors

Cat. No.	Description	Qty
CF5025	Double Collector, 2 ports for Barbed Connectors	Each
CF5022	Triple Collector, 3 ports for Barbed Connectors	Each



### TECH NOTE:

Flow rates for specific outer diameter tubing when using our PTFE Adapters for the JustRite Waste Cans:

1/16" OD tubing - up to 10 mL / minute

1/8" OD tubing - up to 40 mL / minute.

3/16" OD tubing - up to 100 mL / minute.

### Tubing Cutter

Cat. No.	Description	Qty
1651	Polymer Tubing Cutter w/ 5 Port Sizes	Each



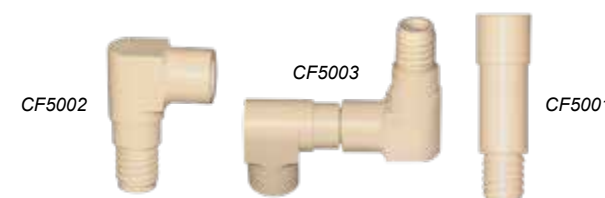
### Standard Waste Containers

Cat. No.	Description
CL45002	Canary-Safe GL45 Can, 2 Liter, PE-HD
CL60030	Canary-Safe S60 Can, 30 Liter, PE-HD
CL53005	Canary-Safe 5L Waste Container for B-53 and S-55 Waste Caps, PE-HD, 142 x 187 x 250 (mm)
CL53010	Canary-Safe 10L Waste Container for B-53 and S-55 Waste Caps, PE-HD, 190 x 215 x 320 (mm)
CL53020	Canary-Safe 20L Waste Container for B53 and S55 Waste Caps, Translucent PE-HD, 290 x 235 x 370 (mm)
CL60020	Canary-Safe S60 Waste Container, 20 Liter, Translucent PE-HD



### One-Piece Fingertight Flangeless Fittings

Cat. No.	Description	Qty
59249	PEEK™ One Piece Fitting (1/4-28) for 1/16" Tubing	Each
59349	PEEK™ One Piece Fitting (1/4-28) for 1/8" Tubing	Each



### Joint Adapters for Exhaust Filters

Not enough space under your bench? Use these joint adapters to move your exhaust filters to any position.

Cat No.	Description	Qty
CF5002	Angled Adapter for Canary-Safe™ Charcoal Exhaust Filter	Each
CF5003	Lateral Off-Set Adapter for Canary-Safe™ Charcoal Exhaust Filter (Fixed)	Each
CF5001	Extension for Canary-Safe™ Charcoal Exhaust Filter	Each



### Plugs and Adapters

Cat. No.	Description	Qty
CF5009	Plugs for 6.4mm ID Barbed Connector Port, PP	5
CF5008	Plug for Charcoal Filter Port, Black PP	Each
CF5007	Plugs For 1/8" or 1/16" Ports, White PFA	10
59556	Plug or 3/16" OD Tubing; 5/16-24 Flat Bottom, PEEK	Each
CF5006	Convert Exhaust Port to an Air Check Valve Port	Each

### Conical Connectors

Cat. No.	Description	Qty
CF5010	Connector, Conical, 4.2-8mm / 4.2-8mm	Each
CF5011	Connector, Conical, 6.5mm / 6.5mm	Each
CF5012	Connector, Conical, 10.5-16mm / 6.5-12mm	Each
CF5013	Connector, Conical, 10.5-16mm / 3-7.5mm	Each
CF5014	Connector, Conical, 7-11mm / 7-12mm	Each
CF5015	Connector, Conical, 11-15mm / 7-12mm	Each



### Y-Connectors

Cat. No.	Description	Qty
CY0003	Y-Connector for 3mm ID Tubing	Each
CY0005	Y-Connector for 5mm ID Tubing	Each
CY0007	Y-Connector for 7mm ID Tubing	Each
CY0009	Y-Connector for 9mm ID Tubing	Each
CY0011	Y-Connector for 11mm ID Tubing	Each



### Straight and Angled Barbed Connectors

Cat. No.	Description	Qty
CF5016	Straight Barbed Connector for 3-4mm ID Tubing	Each
CF5017	Straight Barbed Connector for 5-6mm ID Tubing	Each
CF5018	Straight Barbed Connector for 6-9mm ID Tubing	Each
CF5019	Straight Barbed Connector for 9-11mm ID Tubing	Each
CF5020	Angled Barbed Connector for 6-9mm ID Tubing	Each
CF5021	Angled Barbed Connector for 9-11mm ID Tubing	Each





### Solvent Safety Alarm System

- Monitor up to 3 containers (**Waste and/or Mobile Phase**) at the same time
- Sensors can be set to detect **FULL or EMPTY** fluid levels
- Front panel LEDs indicate which sensor position has been activated
- Beacon light illuminates to signify fluid level status:  
**Green**=Safe, **Red**=Alert!, **Orange**=Alert with audio alarm paused\*
- Adjustable audio alert

Cat. No.	Description
Sentinel	Solvent Safety Alarm System, Includes Control Module, Beacon and 3 Sensors



A sensor can be set to detect low fluid level in your mobile phase container.



Another sensor can be set to detect high fluid level in your waste container.



The Beacon turns from **green** to **red** and an audio alert sounds when a level has been reached (full or empty, depending on setup).



See full operation on website



• Includes fittings for 1/8" tubing

### Multi-Inlet Waste System Manifold

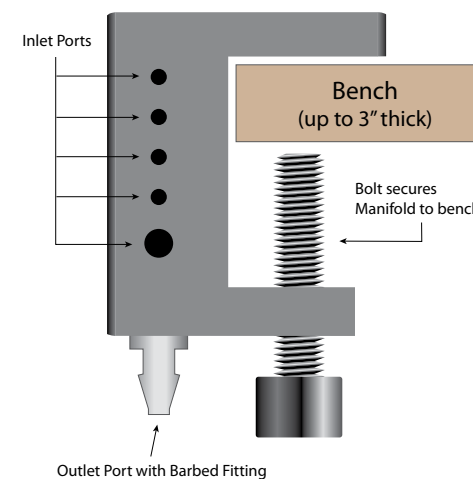
Keeps solvent waste lines neat and organized!

- Made of durable chemical-resistant polypropylene
- Fits bench up to 3" thick
- Includes fittings and barbed adapters

Remediates these waste solvent situations:



### Multi-Inlet Waste System



### Multi-Inlet Waste Manifold

Cat. No.	Description
MW0802	8 Standard Tubing Ports for 1/16" or 1/8" OD Tubing, 2 Ports for Barbed Adapter, and 1 Large Outlet. Includes 1/8" Fittings and Barbed Adapters.
MW0010	10 Standard Tubing Ports and 1 Large Outlet. Includes 1/8" Fittings.
MW1010	10 Ports for Barbed Adapters and 1 Large Outlet. Includes Barbed Adapters.
MW0406	4 Standard Tubing Ports, 6 Ports for Barbed Adapters and 1 Large Outlet. Includes 1/8" Fittings and Barbed Adapters.
MW0523	5 Standard Tubing Ports, 2 Ports for 3/16" OD Tubing, 3 Ports for Barbed Adapters and 1 Large Outlet. Includes 1/8" and 3/16" Fittings and Barbed Adapters.

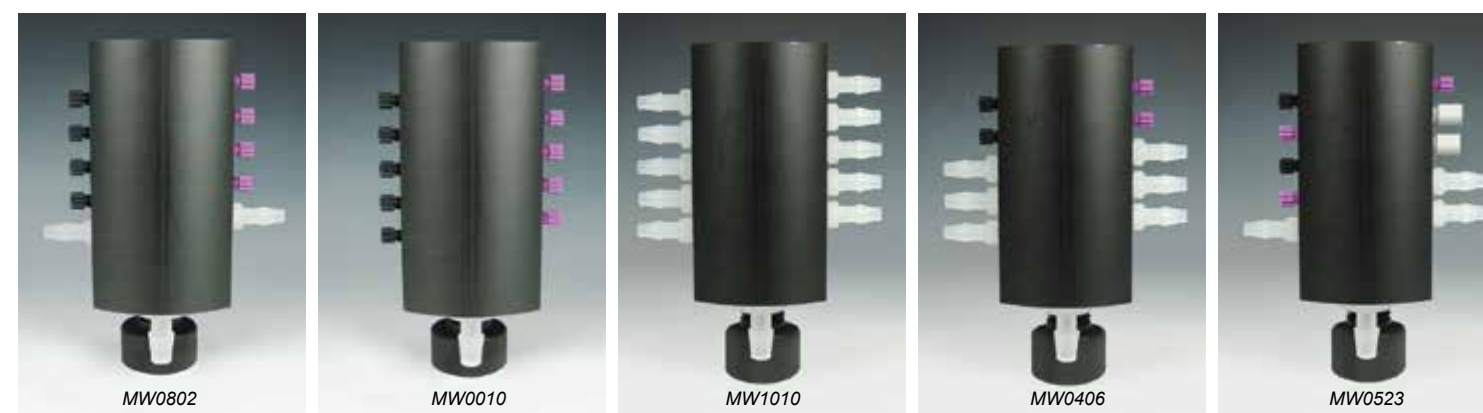
### Plugs

Cat. No.	Description	Qty
CF5007	Plugs For 1/8" or 1/16" Ports, White PFA	10
CF5009	Plugs for 6.4mm ID Barbed Connector Port, PP	5



For 1/16" or 2.5mm tubing, use these fittings (sold separately)

Cat. No.	Description	Qty
59249	PEEK™ One Piece Fitting (1/4-28) for 1/16" OD Tubing	Each
59305X	Green Delrin Flangeless Male Nut, use with Ferrule (59353X)	10
59353X	ETFE Ferrule for 2.5mm OD Tubing	10





# Vials & Vial Storage

9MM, 12 X 32MM VIALS



81233 81233A 88234 88732 88532 88120 88121 88119 88122 88133 88133A

## 9mm Twist Low Volume Vials

Cat. No.	Description	Qty
88255	100µL PP Clear Glass MicroVial	100
88264-Case	100-300µL Polypropylene MicroVial	1000
88275	100-300µL TPX* MicroVial	1000
81233	300µL Clear Glass MicroVial	100
81233A	300µL Amber Glass MicroVial	100
81233AM	300µL Amber Glass MicroVial w/ Marking Spot	100
88234	500µL Polypropylene MicroVial	1000
88732-Case	750µL Polypropylene MicroVial - Good for Ion Chromatography	1000

\*TPX is a clear PP material.



## 9mm Wide Mouth Twist Vials

Compatible with Robotic Arm Autosamplers: Agilent™, Waters®, Leap™, Perkin Elmer™ and Shimadzu®

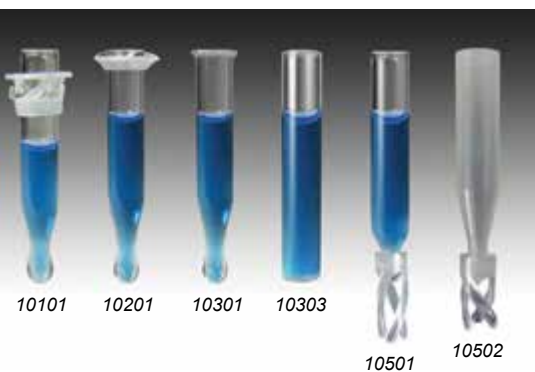
Cat. No.	Description	Qty
88532-Case	1.5mL Polypropylene	1000
11239	1.5mL Clear Glass	100
88517-Case	1.7mL Polypropylene - Good for Ion Chromatography	1000
88120-Case	2mL Clear Glass	1000
88121-Case	2mL Clear Glass, Marking Spot	1000
88119-Case	2mL Amber Glass	1000
88122-Case	2mL Amber Glass, Marking Spot	1000
88133-Case	2mL Clear Glass, Round Bottom	1000
88133A-Case	2mL Amber Glass, Round Bottom	1000

## Pre-Assembled Twist Caps

Cat. No.	Description	Qty
80095-Case	Blue, PTFE/Silicone/PTFE Liner	1000
80044-Case	Blue, Natural Rubber/PTFE Liner	1000
80077-Case	Blue, Silicone/PTFE Liner	1000
80077SL-Case	Blue, Pre-Slit Silicone/PTFE Liner	1000
80077SLG-Case	Green, Pre-Slit Silicone/PTFE Liner	1000
80077SLR-Case	Red, Pre-Slit Silicone/PTFE Liner	1000
80077SLY-Case	Yellow, Pre-Slit Silicone/PTFE Liner	1000
80055-Case	Black Solid Cap w/ PTFE Liner	1000

## Vial Inserts

Cat. No.	Description	Qty
10601-Case	50µL Glass, Bottom Spring	500
10201-Case	150µL Glass, Poly Top Flange	500
10101-Case	200µL Glass, Top Spring	500
10301-Case	250µL Glass, Flange	500
10501	300µL Glass, Bottom Spring	100
10501-Case	300µL Glass, Bottom Spring	500
10502-Case	250µL Polypropylene, Bottom Spring	1000
10303-Case	350µL Glass, Flat Bottom	1000
10304-Case	350µL Glass, Flat Bottom & ID Ring	1000
10305-Case	350µL Longer Glass, Flat Bottom & ID Ring	1000



### PRODUCT NOTE:

We have the capability to Silanize all of our glass inserts & vials

# Vials & Vial Storage

9MM, 12 X 32MM VIALS IN KITS



## 9mm Wide Mouth Twist Vials & Caps in Unassembled Kits

Cat. No.	Description	Qty
88535-Case	2mL Clear Glass, PTFE/Silicone Lined Cap	1000
88535A-Case	2mL Amber Glass, PTFE/Silicone Lined Cap	1000
88535SL-Case	2mL Clear Glass, Pre-Slit PTFE/Silicone Lined Cap	1000
88535ASL-Case	2mL Amber Glass, Pre-Slit PTFE/Silicone Lined Cap	1000
88536-Case	2mL Clear Glass, PTFE/Silicone/PTFE Lined Cap	1000
88536A-Case	2mL Amber Glass, PTFE/Silicone/PTFE Lined Cap	1000
58095-Case	2mL Clear Glass, Marking Spot, PTFE/Silicone/PTFE Lined Cap	1000
58095A-Case	2mL Amber Glass, Marking Spot, PTFE/Silicone/PTFE Lined Cap	1000
58044-Case	2mL Clear Glass, Marking Spot, Natural Rubber/PTFE Lined Cap	1000
58044A-Case	2mL Amber Glass, Marking Spot, Natural Rubber/PTFE Lined Cap	1000
58077-Case	2mL Clear Glass, Marking Spot, Silicone/PTFE Lined Cap	1000
58077A-Case	2mL Amber Glass, Marking Spot, Silicone/PTFE Lined Cap	1000
58088-Case	2mL Clear Glass, Marking Spot, Pre-Slit Silicone/PTFE Lined Cap	1000
58088A-Case	2mL Amber Glass, Marking Spot, Pre-Slit Silicone/PTFE Lined Cap	1000

## 9mm Wide Mouth Twist Vials & Caps in Assembled Kits

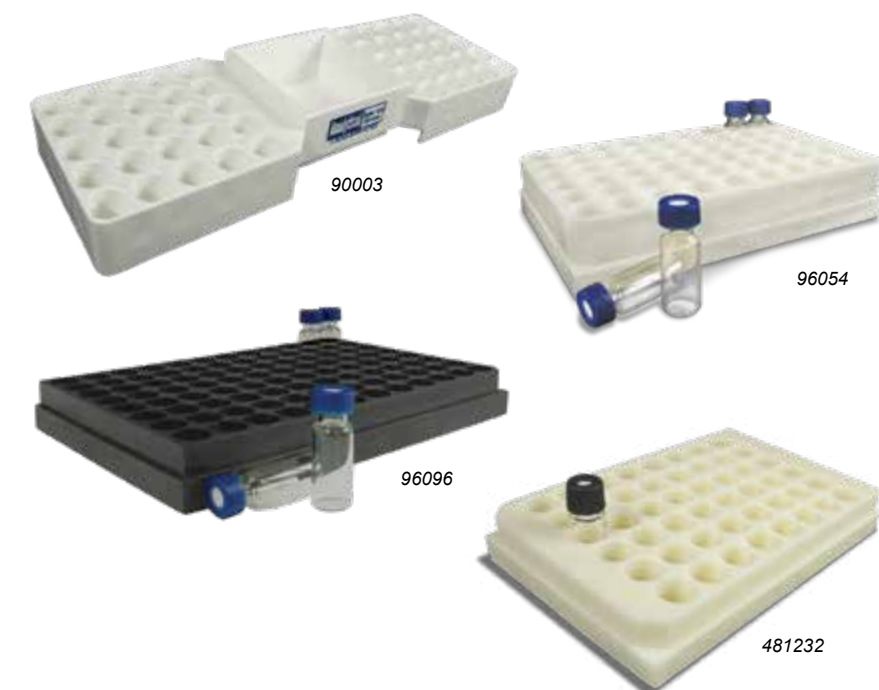
Cat. No.	Description	Qty
58124-Case	2mL Clear Glass, Natural Rubber/PTFE Lined Cap	1000
58144-Case	2mL Amber Glass, Natural Rubber/PTFE Lined Cap	1000
58125-Case	2mL Clear Glass, Marking Spot, PTFE/Silicone/PTFE Lined Cap	1000
58125A-Case	2mL Amber Glass, Marking Spot, PTFE/Silicone/PTFE Lined Cap	1000
58128-Case	2mL Clear Glass, PTFE/Silicone Lined Cap	1000
58128A-Case	2mL Amber Glass, PTFE/Silicone Lined Cap	1000
58126-Case	2mL Clear Glass, Pre-Slit PTFE/Silicone Lined Cap	1000
58126A-Case	2mL Amber Glass, Pre-Slit PTFE/Silicone Lined Cap	1000
58127-Case	2mL Clear Glass, Marking Spot, PTFE/Silicone Lined Cap	1000
58127A-Case	2mL Amber Glass, Marking Spot, PTFE/Silicone Lined Cap	1000
58129-Case	2mL Clear Glass, Marking Spot, Pre-Slit PTFE/Silicone Lined Cap	1000

## Vial Trays

Cat. No.	Description	Qty
90003	Stackable Snap Rack for 12mm Vials	Each

## Base Plates for 12 x 32mL (2mL) Vials

Cat. No.	Description	Qty
96096	96-Well Custom Flat Bottom Base Plate	Each
96054	54 Well Custom Flat Bottom Base Plate	Each
481232	48 Well Custom Flat Bottom Base Plate	Each







### 9mm Screw Vials & Caps in Unassembled Kits



Cat. No.	Description	Qty
99006-Case	2mL Clear Glass Vial, PTFE/Silicone Lined Cap	1000
99006G-Case	2mL Clear Glass Vial, PTFE/Silicone Lined <b>Green</b> Cap	1000
99006R-Case	2mL Clear Glass Vial, PTFE/Silicone Lined <b>Red</b> Cap	1000
99006W-Case	2mL Clear Glass Vial, PTFE/Silicone Lined White Cap	1000
99006M-Case	2mL Clear Glass Vial w/ Marking Spot, PTFE/Silicone Lined Cap	1000
99006SL-Case	2mL Clear Glass Vial, Pre-Slit PTFE/Silicone Lined Cap	1000
99006MSL-Case	2mL Clear Glass Vial w/ Marking Spot, Pre-Slit PTFE/Silicone Lined Cap	1000
99006A-Case	2mL <b>Amber</b> Glass Vial w/ Marking Spot, PTFE/Silicone Lined Cap	1000
99006ASL-Case	2mL <b>Amber</b> Glass Vial w/ Marking Spot, Pre-Slit PTFE/Silicone Lined Cap	1000

All Items are Clamshelled



### 9mm Clear Tear Drop Vials & Caps in Unassembled Kits (Maximum Recovery)

Cat. No.	Description	Qty
99260	1.5mL Clear Glass, PTFE/Silicone Lined Screw Cap	100
99290	1.5mL Clear Glass, Pre-Slit PTFE/Silicone Lined Screw Cap	100
99290A	1.5mL <b>Amber</b> Glass, Pre-Slit PTFE/Silicone Lined Screw Cap	100
87878	1.2mL Clear Glass, Maximum Recovery 12 x 32mm Vial, Assembled Screw Cap w/ PTFE/Silicone Liner, < 2µL Dead Volume	100
87878SL	1.2mL Clear Glass, Maximum Recovery 12 x 32mm Vial, Assembled Screw Cap w/ <b>Pre-slit</b> PTFE/Silicone Liner, < 2µL Dead Volume	100
86868SL	1.2mL Clear Glass, Max. Recovery 12 x 32mm Vial, Assembled Screw Cap w/ <b>Pre-slit, Non-Bonded</b> PTFE/Silicone Liner, < 2µL Dead Volume	100



### 9mm Screw Vials with 300µL Fused Inserts & Caps in Unassembled Kits

Cat. No.	Description	Qty
99042	2mL Clear Glass, PTFE/Silicone Lined Screw Cap	100
99042A	2mL <b>Amber</b> Glass, PTFE/Silicone Lined Screw Cap	100
99024	2mL Clear Glass, Pre-Slit PTFE/Silicone Lined Screw Cap	100
99024A	2mL <b>Amber</b> Glass, Pre-Slit PTFE/Silicone Lined Screw Cap	100
99062	2mL Clear Glass, PTFE/Silicone/PTFE Lined Screw Cap	100
99062A	2mL <b>Amber</b> Glass, PTFE/Silicone/PTFE Lined Screw Cap	100

### 9mm Screw Caps

Cat. No.	Description	Qty
99669-Case	9mm Screw Caps with PTFE/Silicone Liners	1000
99669G-Case	9mm <b>Green</b> Screw Caps with PTFE/Silicone Liners	1000
99669R-Case	9mm <b>Red</b> Screw Caps with PTFE/Silicone Liners	1000
99669W-Case	9mm White Screw Caps with PTFE/Silicone Liners	1000

Minimum Interference,  
Maximum Performance!



Precision MSQ™

(Mass Spec Quality)



### Why Precision MSQ is the best choice:

Vials made with standard glass contain impurities which can leach into your sample. This can change the pH level of your sample and ultimately alter the accuracy of your results.

**Precision MSQ Vials** are made with the purest materials under the strictest mandates for cleanliness right here in the United States. Less impurities in the glass means less alteration of your sample and far more accurate results.

### Precision MSQ Vials & Caps in Unassembled Kits

- Kits contain (100) 9mm, 2mL unassembled vials/caps
- Cases include 10 boxes of 100 vials/caps
- Ultra pure MSQ PTFE/silicone liners
- Screw thread or snap closures available



Cat. No.	Vial Description	Cap Style	Qty
99005-Case	2mL Clear Glass MSQ Vials	Screw Thread Caps w/ MSQ Liners	1000
99005SL-Case	2mL Clear Glass MSQ Vials	Screw Thread Caps w/ <b>Pre-Slit</b> MSQ Liners	1000
99005M-Case	2mL Clear Glass MSQ Vials w/ Marking Spot	Screw Thread Caps w/ MSQ Liners	1000
99005MSL-Case	2mL Clear Glass MSQ Vials w/ Marking Spot	Screw Thread Caps w/ <b>Pre-Slit</b> MSQ Liners	1000
99015M-Case	2mL Clear Glass MSQ Vials w/ Marking Spot	Snap Caps w/ MSQ Liners	1000
99015MSL-Case	2mL Clear Glass MSQ Vials w/ Marking Spot	Snap Caps w/ <b>Pre-Slit</b> MSQ Liners	1000
99005A-Case	2mL <b>Amber</b> Glass MSQ Vials	Screw Thread Caps w/ MSQ Liners	1000
99005ASL-Case	2mL <b>Amber</b> Glass MSQ Vials	Screw Thread Caps w/ <b>Pre-Slit</b> MSQ Liners	1000
99005AM-Case	2mL <b>Amber</b> Glass MSQ Vials w/ Marking Spot	Screw Thread Caps w/ MSQ Liners	1000
99005AMSL-Case	2mL <b>Amber</b> Glass MSQ Vials w/ Marking Spot	Screw Thread Caps w/ <b>Pre-Slit</b> MSQ Liners	1000
99015AM-Case	2mL <b>Amber</b> Glass MSQ Vials w/ Marking Spot	Snap Caps w/ MSQ Liners	1000
99015AMSL-Case	2mL <b>Amber</b> Glass MSQ Vials w/ Marking Spot	Snap Caps w/ <b>Pre-Slit</b> MSQ Liners	1000
99003M	2mL Clear Glass MSQ Vials w/ Marking Spot & 300µL Fused Glass Insert	Screw Thread Caps w/ MSQ Liners	100
99003MSL	2mL Clear Glass MSQ Vials w/ Marking Spot & 300µL Fused Glass Insert	Screw Thread Caps w/ <b>Pre-Slit</b> MSQ Liners	100
99003AM	2mL <b>Amber</b> Glass MSQ Vials w/ Marking Spot & 300µL Fused Glass Insert	Screw Thread Caps w/ MSQ Liners	100
99003AMSL	2mL <b>Amber</b> Glass MSQ Vials w/ Marking Spot & 300µL Fused Glass Insert	Screw Thread Caps w/ <b>Pre-Slit</b> MSQ Liners	100



### Screw Thread Caps with MSQ Liners

Cat. No.	Description	Qty
91944-Case	Screw Thread Caps w/ MSQ Liners	1000
91946-Case	Screw Thread Caps w/ <b>Pre-Slit</b> MSQ Liners	1000



# Vials & Vial Storage

10MM, 12 x 32MM SCREW VIALS

For Shimadzu & Waters™ Autosamplers



## 10mm Wide Mouth Screw Vials

Cat. No.	Description	Qty
11231-Case	2mL Clear Glass	1000
11231M-Case	2mL Clear Glass, Marking Spot	1000
11232-Case	2mL Amber Glass	1000
11232M-Case	2mL Amber Glass, Marking Spot	1000
12320-Case	2mL Clear Glass, Round Bottom	1000
12320A-Case	2mL Amber Glass, Round Bottom	1000

11203	300µL Clear Glass MicroVial	100
11203A	300µL Amber Glass MicroVial	100
11234-Case	500µL TPX* MicroVial	1000
11235-Case	500µL Polypropylene MicroVial	1000
11236-Case	750µL Polypropylene MicroVial	1000
11237-Case	750µL TPX* MicroVial	1000

\*TPX is a clear polypropylene material.

## 10mm Solid Caps with Liners

Cat. No.	Description	Qty
11555	Black Polypropylene, PTFE Liner	1000



## 10mm Screw Caps with Liner:

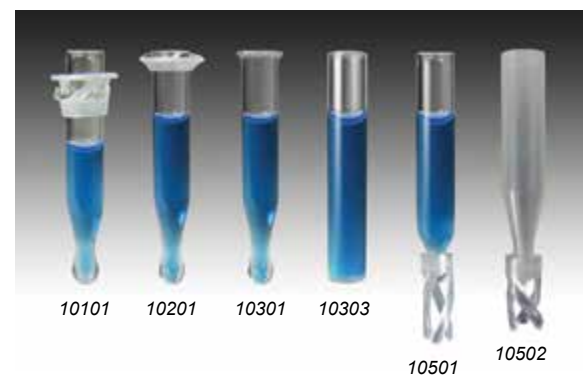
Cat. No.	Description	Qty
10012-Case	Polypropylene Cap & Liner	1000
10012ST-Case	Polypropylene Cap & Starburst Liner	1000
10028-Case	Black with Silicone/PTFE Liner	1000
10028SL-Case	Black, w/ Pre-Slit Silicone/PTFE Liner	1000
10028B-Case	Blue, with Silicone/PTFE Liner	1000
10028R-Case	Red, with Silicone/PTFE Liner	1000
10028Y-Case	Yellow, with Silicone/PTFE Liner	1000

## Vial Inserts

Catalog No.	Description	Qty
10601-Case	50µL Glass, Bottom Spring	500
10201-Case	150µL Glass, Poly Top Flange	500
10101-Case	200µL Glass, Top Spring	500
10301-Case	250µL Glass, Flange	500
10501	300µL Glass, Bottom Spring	100
10501-Case	300µL Glass, Bottom Spring	500
10502-Case	250µL Polypropylene, Bottom Spring	1000
10303-Case	350µL Glass, Flat Bottom	1000
10304-Case	350µL Glass, Flat Bottom & ID Ring	1000
10305-Case	350µL Longer Glass, Flat Bottom & ID Ring	1000

## 10mm Wide Mouth Screw Top Vials with Glass Inserts

Catalog No.	Description	Qty
51125	Clear Glass Vial with 300µL Bottom Spring Glass Insert	100
11255	Amber Glass Vial with 300µL Bottom Spring Glass Insert	100



# Vials & Vial Storage

10MM, 12 x 32MM SCREW VIAL KITS & 11MM, 12 x 32MM CRIMP VIALS



## 10mm Wide Mouth Screw Vials & Caps in Unassembled Kits

Catalog No.	Description	Qty
52248-Case	2mL Clear Glass, Silicone/PTFE Lined Cap	1000
52248SL-Case	2mL Clear Glass, Pre-Slit Silicone/PTFE Lined Cap	1000
52248A-Case	2mL Amber Glass, Silicone/PTFE Lined Cap	1000
52248ASL-Case	2mL Amber Glass, Pre-Slit Silicone/PTFE Lined Cap	1000
53348-Case	2mL Clear Glass, Marking Spot, Silicone/PTFE Lined Cap	1000
53348SL-Case	2mL Clear Glass, Marking Spot, Pre-Slit Silicone/PTFE Lined Cap	1000
53348A-Case	2mL Amber Glass, Marking Spot, Silicone/PTFE Lined Cap	1000
53348ASL-Case	2mL Amber Glass, Marking Spot, Pre-Slit Silicone/PTFE Lined Cap	1000

## 10mm Wide Mouth Screw Vials & Caps in Assembled Kits

Catalog No.	Description	Qty
52009-Case	2mL Clear Glass, Silicone/PTFE Lined Cap	1000
52009SL-Case	2mL Clear Glass, Pre-Slit Silicone/PTFE Lined Cap	1000
52009A-Case	2mL Amber Glass, Marking Spot, Silicone/PTFE Lined Cap	1000
52348SL-Case	2mL Amber Glass, Marking Spot, Pre-Slit Silicone/PTFE Lined Cap	1000



## 11mm Wide Mouth Crimp Vials

for Agilent™, Leap™ and Perkin Elmer™ Autosamplers

Cat. No.	Description	Qty
11271-Case	1.7mL Clear Glass, Round Bottom	1000
11221-Case	2mL Clear Glass	1000
11222-Case	2mL Amber Glass	1000
12203	300µL Clear Glass MicroVial	100
12203A	300µL Amber Glass MicroVial	100

## Wide Mouth Crimp Vial Inserts

Cat. No.	Volume	Description	Qty
20502-Case	100µL	Polypropylene, Bottom Spring	1000
20501-Case	150µL	Glass, Bottom Spring	500
20303-Case	250µL	Glass, Flat Bottom	1000
20304-Case	250µL	Glass, Flat Bottom, ID Ring	1000
20305-Case	250µL	Polypropylene, Flat Bottom	1000

20033



## Aluminum Crimp Cap Seals

Cat. No.	Description	Qty
20033-Case	Natural Rubber/PTFE Lined Cap	1000
20034-Case	Silicone/PTFE Lined Cap	1000
20035-Case	Silicone/PTFE/Silicone Lined Cap	1000
20032-Case	White PTFE/White Silicone Lined Cap	1000



## Crimpers, Decrimpers & Decappers

Cat. No.	Description	Qty
90120	Vial Crimper for 11mm OD Vials	Each
90080	Vial Crimper for 8mm OD Vials	Each
90200	Vial Crimper for 20mm OD Vials	Each
90121	Vial Decrimper for 11mm OD Vials	Each
90081	Vial Decrimper for 8mm OD Vials	Each
90131	Vial Decrimper for 13mm OD Vials	Each
90100	Decapping Pliers for All Vials	Each





### Micro V Clear Glass Vial & Cap Kits

Cat. No.	Description	Qty
87787	1.5mL Clear Snap/Crimp Vial, PTFE/Silicone Lined Cap, <b>Blue</b>	100
87787SL	1.5mL Clear Snap/Crimp Vial, Pre-Slit PTFE/Silicone Lined Cap, <b>Black</b>	100
87203	<b>300µL</b> Clear Glass MicroVial w/Marking Spot	100
87233	<b>300µL Amber</b> Glass MicroVial	100

### 11mm Crimp/Snap Wide Mouth Vials

Cat. No.	Description	Qty
11211-Case	2mL Clear Glass	1000
11211M-Case	2mL Clear Glass w/ Marking Spot	1000
11212-Case	2mL <b>Amber</b> Glass	1000
11212M-Case	2mL <b>Amber</b> Glass w/ Marking Spot	1000

### Limited Volume Crimp/Snap Vials

Cat. No.	Description	Qty
11242	100µL Glass/ <b>Amber</b> Plastic MicroVial	100
11210	100µL TPX MicroVial	1000
11230-Case	100µL Clear Polypropylene MicroVial	1000
11241	100µL Glass/Clear Plastic MicroVial	100
21264-Case	100µL Polypropylene MicroVial	1000
11254-Case	500µL Clear Polypropylene MicroVial	1000
11215-Case	500µL Polypropylene MicroVial	1000
11217-Case	500µL TPX MicroVial	1000
11275-Case	750µL Clear Polypropylene MicroVial	1000
11214-Case	750µL Polypropylene MicroVial	1000
11218-Case	750µL TPX MicroVial	1000

\*TPX is a clear PP material.

### Vial Inserts

Cat. No.	Description	Qty
10601-Case	50µL Glass, Bottom Spring	500
10201-Case	150µL Glass, Poly Flange	500
10101-Case	200µL Glass, Top Spring	500
10301-Case	250µL Glass, Flange	500
10501-Case	300µL Glass, Bottom Spring	500
10502-Case	250µL Polypropylene, Bottom Spring	1000
10303-Case	350µL Glass, Flat Bottom	1000
10304-Case	350µL Glass, Flat Bottom & ID Ring	1000
10305-Case	350µL Longer Glass, Flat Bottom	1000

### Crimp/Snap Caps

Cat. No.	Description	Qty
20041-Case	PTFE Lined Cap	1000
20041ST-Case	PTFE Starburst Lined Cap	1000
20044-Case	<b>Clear</b> , Silicone/PTFE Lined Cap	1000
20044B-Case	<b>Blue</b> , Silicone/PTFE Lined Cap	1000
20044SL-Case	<b>Clear</b> , <b>Pre-Slit</b> , Silicone/PTFE Lined Cap	1000
20044ST-Case	<b>Clear</b> , <b>Starburst Slit</b> Silicone/PTFE Lined Cap	1000

\* Other colors options are available



### Base Plates

Custom 12x32mm Vial Storage and Transfer Bases

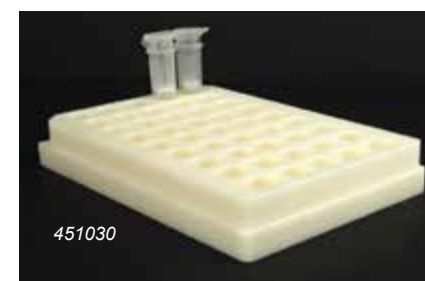
Cat. No.	Description	Qty
96054	54 Well Custom Flat Bottom Base Plate	Each
481232	48 Well Custom Flat Bottom Base Plate	Each



### 96-Well Custom Base Plate

• Holds 12x32mm Vials

Cat. No.	Description	Qty
96096	96 Well Custom Flat Bottom Base Plate	Each



### Micro-Centrifuge Vial Storage and Transfer Bases

Cat. No.	Description	Qty
24150	50 Well Custom Flat Bottom Base Plate	Each
451030	45 Well Custom Flat Bottom Base Plate	Each



### 24-Well Custom Base Plate

• Holds 15x46mm 4mL Vials

Cat. No.	Description	Qty
240406	24-Well Custom Open Bottom Base Plate	Each



### 12-Well Flat Bottom Custom Base Plate

• Holds 20mL Scintillation Vials

Cat. No.	Description	Qty
961234	12-Well Custom Flat Bottom Base Plate	Each



### 24-Well Custom Base Plate

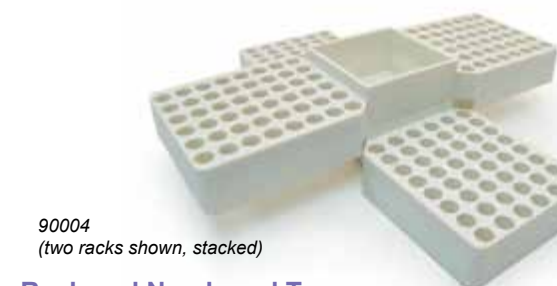
• Holds 17x60mm 8mL Scintillation Vials

Cat. No.	Description	Qty
24125	24-Well Custom Solid Bottom Base Plate	Each



### Blue Vial Racks: 25 Position Stackable

Cat. No.	Description	Qty
9000	For 12mm Vials, 25 Position	5
90001	For 8mm Vials, 25 Position	5
90002	For 15mm Vials, 25 Position	5



### Snap Rack and Numbered Trays

Cat. No.	Description	Qty
90003	Snap Rack for 12mm Vials, Holds 50	Each
90004	Snap Rack for 8mm Vials, Holds 96	Each



# Vials & Vial Storage

13MM, 15 x 45MM SCREW VIALS For Shimadzu & Waters™ Autosamplers



## 13mm Screw Vials, 15 x 45mm

Cat. No.	Description	Qty
31531-Case	4mL Clear Glass	1000
31531M-Case	4mL Clear Glass, Marking Spot	1000
31532-Case	4mL Amber Glass	1000
31532M-Case	4mL Amber Glass, Marking Spot	1000
31561	3.1mL Clear Glass MicroVial	100
31534-Case	Polypropylene, 2.5mL Insert	1000



## 13mm Polypropylene Screw Caps with Liners

Cat. No.	Description	Qty
30020-Case	PP, Integral Lined Cap	1000
53009-Case	PP, Tan Silicone/PTFE Lined Cap	1000
53126-Case	PP, Red 0.65" Silicone/PTFE Lined Cap	1000
53126SL-Case	PP, Red Pre-Slit Silicone/PTFE Lined Cap	1000
53126ST-Case	PP, Red Starburst Slit Silicone/PTFE Lined Cap	1000
53127-Case	PP, Red 0.75" Silicone/PTFE Lined Cap	1000
570045-Case	PP, Starburst Slit Silicone/PTFE Lined Cap (For Hamilton Autosamplers)	1000



## 13mm Solid Screw Caps with Liners

Cat. No.	Description	Qty
31554-Case	PTFE Lined Cap	1000
31556-Case	Polycone Lined Cap	1000



## Vial Inserts for 15 x 45mm Vials

Cat. No.	Description	Qty
30501-Case	300µL Glass, Bottom Spring	1000
30507-Case	700µL Glass, Bottom Spring for 4mL, 15 x45 Vials	500

# Vials & Vial Storage

EPA/VOA & SCINTILLATION VIALS



## Advantage™ Pre-Assembled 2000 Class EPA/VOA Vial Kits

**2000 Series Vials:** Pre-cleaned to EPA Standards. The Certificate of Analysis and barcode label are not provided. A Certificate of Quality Environmental Compliance is issued, stating that the products have been pre-cleaned to meet and / or exceed the US EPA's Specifications and Guidance for Contaminant Free Sample Containers. Each case is labeled with the production lot number and custody seals.

Cat. No.	Description	Qty
ADV276740	40mL Clear Glass EPA/VOA Vials and Polypropylene Open Top Caps with Teflon/Silicone Liners	72
ADV276840	40mL Amber Glass EPA/VOA Vials and Polypropylene Open Top Caps with Teflon/Silicone Liners	72
ADV275540	40mL Clear Glass EPA/VOA Vials and Solid Polypropylene Caps with PTFE Liners	72

## Solid Cap Storage Vials

• Assembled Vials with Solid Screw Caps & Teflon® Liners

Cat. No.	Description	Qty
ADV69302	4mL Clear Screw Vial, Solid Teflon® Lined Cap	144
ADV69302A	4mL Amber Screw Vial, Solid Teflon® Lined Cap	144
ADV69304	6mL Clear Screw Vial, Solid Teflon® Lined Cap	144
ADV69304S	6mL Silanized Clear Screw Vial, Solid Teflon® Cap	144
ADV69306	8mL Clear Screw Vial, Solid Teflon® Lined Cap	144
ADV69306A	8mL Amber Screw Vial, Solid Teflon® Lined Cap	144
ADV69308	11mL Clear Screw Vial, Solid Teflon® Lined Cap	144
ADV69308A	11mL Amber Screw Vial, Solid Teflon® Lined Cap	144
ADV69210	15mL Clear Screw Vial, Solid Teflon® Lined Cap	144
ADV69210A	15mL Amber Screw Vial, Solid Teflon® Lined Cap	144
ADV69318	30mL Clear Screw Vial, Solid Teflon® Lined Cap	144
ADV69340	40mL Clear Screw Vial, Solid Teflon® Lined Cap	72
ADV69340A	40mL Amber Screw Vial, Solid Teflon® Lined Cap	72
ADV69360A	60mL Amber Screw Vial, Solid Teflon Lined Cap	144

## Advantage™ Pre-Assembled 3000 Class EPA/VOA Vial Kits

**3000 Series Vials:** Analyzed and issued a Certificate of Analysis stating that products meet and / or exceed all requirements as set forth in the US EPA's Specifications and Guidance for Contaminant Free Sample Containers. Each case of products is barcode labeled with the production lot number and is custody sealed.

Cat. No.	Description	Qty
ADV376720	20mL Clear Glass EPA/VOA Vials and Polypropylene Open Top Caps with Teflon/Silicone Liners	72
ADV376840	40mL Amber Glass EPA/VOA Vials and Polypropylene Open Top Caps with Teflon/Silicone Liners	72
ADV375540	40mL Clear Glass EPA/VOA Vials and Solid Polypropylene Caps with PTFE Liners	72
ADV376740	40mL PRE-CLEANED Clear Glass EPA/VOA Vials and PP Open Top Caps with Teflon/Silicone Liners	72

## Scintillation Vials & Caps in Assembled Kits

Cat. No.	Description	Qty
ADV33320	20mL Clear Borosilicate Glass Vial (22-400), Solid Polycone Lined Cap	500
ADV33120	20mL Clear Borosilicate Glass (22-400), Solid Teflon® Lined Cap	500
ADV33120A	20mL Amber Borosilicate Glass (24-400), Solid Teflon® Lined Cap	144
ADV33220	20mL Clear Borosilicate Glass Vial (22-400), Foil Lined PP Cap	500

## Unassembled Scintillation Vials and Caps

Cat. No.	Description	Qty
ADV33020	20mL Clear Borosilicate Glass Vials (22-400)	500
ADV33120-Cap	Solid Polypropylene Cap, Poly Teflon® Liner (22-400)	1000
ADV33020A	20mL Amber Borosilicate Glass Vials (24-400)	144
ADV24400-Cap	Solid Polypropylene Cap, PTFE Liner (24-400)	72
ADV33020S	20mL Silanized Clear Borosilicate Glass Vials (22-400)	500



## 8x40mm Glass Shell Vials

Cat. No.	Description	Qty
30871-Case	1mL Clear Glass Vial, Conical Starburst Lined Plug	1000
30872-Case	1mL Amber Glass Vial, Conical Starburst Lined Plug	1000

## 8x40mm Polypropylene Shell Vials

Cat. No.	Description	Qty
39402-Case	700µL Polypropylene, Insert & Plug	1000



## Polyethylene Snap Plugs

Cat. No.	Description	Qty
85008-Case	8mm Polyethylene Snap Plug	1000
85008ST-Case	8mm Polyethylene Snap Plug with Starburst Liner	1000



## Scintillation Vial Tray

• Holds 20mL Scintillation Vials

Cat. No.	Description	Qty
961234	12 Well Custom Flat Bottom Base Plate	Each





## Polypropylene Cryovials & Caps

- Can be used at extreme temperatures, from -196°C to +121°C
- Withstands centrifugation
- Autoclavable
- All polypropylene construction
- Tubes are certified RNase, DNase, Pyrogen & DNA-Free

Cat. No.	Description	Qty
23012	Sterile 2mL Cryovials w/ Internal Threads and Cap w/ Red Silicone O-ring	1000
23112	2mL Self-standing Vials w/ Internal Threads, Non-sterile, <b>Caps Sold Separately</b>	1000
23110	Screw Caps for Internal Thread 2mL Vials	1000
ADV2412	Sterile 4mL Cryovial w/ Internal Threads and Cap w/ White Silicone Washer	1000



## Polypropylene Micro-Centrifuge Tubes

Cat. No.	Description	Qty
111540	1.5mL PP Micro-Centrifuge Tube w/ Attached Flat Cap, Conical Bottom	1000
111552	2.0mL PP Micro-Centrifuge Tube w/ Attached Flat Cap, Conical Bottom	1000



## Polypropylene Microtubes

Cat. No.	Description	Qty
16402	2mL Clear PP Microtube without Skirt	1000
16401	1.5mL Clear Self Standing PP Micro-Centrifuge Tube, Screw Top	1000
16401A	1.5mL <b>Amber</b> Self-standing Microtubes	1000
16501	2mL Clear Self Standing PP Micro-Centrifuge Tube	1000
16501A	2mL <b>Amber</b> Self Standing PP Micro-Centrifuge Tube	1000
16461	<b>Amber</b> Caps with O-ring & Loop	1000
16561	<b>Amber</b> Caps with O-ring	1000



## Low Adhesion Surface PP Screw Top Micro-Centrifuge Tubes

- Specially formulated polypropylene provides a low adhesion surface to obtain maximum sample yield
- Ideal for research procedures such as nucleic acid amplifications, protein work and others
- No lubricants (such as silicone) necessary, thereby eliminating the danger of sample contamination
- Can be used at extreme temperatures from -196 °C to +121 °C
- Certified RNase-, DNase-, Pyrogen- and DNA-free

Cat. No.	Description	Qty
16601	Self Standing, 0.5mL, Low Adhesion Screw Top Micro Tube, PP	1000
16602	Self Standing, 1.5mL, Low Adhesion Screw Top Micro Tube, PP	1000

## Micro-Centrifuge Caps with O-Ring Seal

- Available Green, Red, Yellow & White

Cat. No.	Description	Qty
15267G	Micro Centrifuge Caps with O-Rings, <b>Green</b>	1000
15267R	Micro Centrifuge Caps with O-Rings, <b>Red</b>	1000
15267W	Micro Centrifuge Caps with O-Rings, <b>White</b>	1000
15267Y	Micro Centrifuge Caps with O-Rings, <b>Yellow</b>	1000



## 1

1"SCREW	53, 55, 57
1/2"SCREW96	53, 55
10012-Case	136
10012ST-Case	136
10028-Case	136
10028B-Case	136
10028R-Case	136
10028SL-Case	136
10028Y-Case	136
10101-Case	132, 136, 138
101240	49, 60
101247	51, 60, 62
101248	51, 60, 62
101250	49, 60
101480	49, 58
10178	32
10178S	32
10196	33
101960	48, 54
101965	54
101967	52, 54, 58
101968	52, 54, 58
10196S	33
10201-Case	132, 136, 138
102240	48, 56
102245	56
102247	52, 56
102248	52, 56
102960	48, 54
102965	54
102967	54
102968	54
10301-Case	132, 136, 138
10303-Case	132, 136, 138
10304-Case	132, 136, 138
10305-Case	132, 136, 138
103240	49, 62
103960	48, 52
103965	52
10421-Case	48, 53
104240	49, 60
104480	49, 58
104960	48, 54
104965	54
1050	94
10501	132, 136
10501-Case	132, 136, 138
10502-Case	132, 136, 138
105240	48, 56
105245	56
1056-5	94
1057-5	94
1058-5	94
10601-Case	132, 136, 138
106240	49, 62
1070	94
107240	48, 52
107245	52
1080	94
111540	46, 142
111552	46, 142
11203	136
11203A	136
11210	138
11211-Case	49, 59, 138
11211M-Case	138
11212-Case	138
11212M-Case	138
11214-Case	138
11215-Case	138
11217-Case	138
11218-Case	138
11221-Case	59, 137
11221M-Case	59
11222-Case	137
11230-Case	138
11231-Case	136
11231M-Case	136
11232-Case	136
11232M-Case	136
11234-Case	136
11235-Case	136
11236-Case	136
11237-Case	136
11239	132
11241	138
11242	138
11254-Case	138
11255	136
11271-Case	137
11275-Case	138
11555	136
1183X	98
12203	137
12203A	137
12320-Case	136
12320A-Case	136
12349	21
1286X	98, 117
1300000-00	122
1300000-01	122
1300000-21	122
1300000-31	122
1300000-41	122
1300000-51	122
1300005-01	122
1300015-01	122
1300025-01	122
1300035-01	122
1300042-10	122
1300042-20	122
1300042-30	122
1300050-01	122
1300100-00	122
1300105-01	122
1300111-00	122
1300115-01	122
1300125-01	122
1300150-00	122
1300150-01	122
1300200-00	122
1300200-21	122
1300200-31	122
1300200-41	122
1300200-51	122
1300201-01	122
1300202-51	122
1300205-01	122
1300215-01	122
1300225-01	122
1300235-01	122
1300240-00	122
1300240-02	122
1300240-05	122
1300240-10	122
1300240-25	122
1300240-31	122
1300240-41	122
1300240-51	122
1300300-00	122
1300305-01	122
1300315-51	122
1300325-51	122
1300340-00	122
1300340-02	122
1300340-05	122

1300340-10	122
1300340-25	122
1300340-31	122
1300340-41	122
1300350-01	122
130043-10	122
130043-20	122
130043-30	122
1300435-51	122
1300450-51	122
1300500-01	122
1300800-00	122
1320111-00	122
1320150-00	122
1320800-00	122
1320X	98
13257	53
13258	55, 57, 59, 63
1330111-00	122
1330150-00	122
1330800-00	122
1330X	98
1333X	98
1400100-00	122
1400150-00	122
1400800-00	122
15020	19
1506	113
15267G	142
15267R	142
15267W	142
15267Y	142
1551	113
1600	113
1602	102, 103
1603	102, 103
1605	93, 104
1608	98, 103
1610	98, 103
1615	102, 103
1620	93, 104
1625	102
1626	102
16401	142
16401A	142
16402	142
16461	142
1650	113
16501	142
16501A	142
1651	94, 113, 128
1652	94, 113
1654	98
1655	98
16561	142
16601	142
16602	142
172513	40
173313	40
174113	40
17P557	12
17P557GC	4, 12
17P687	10
17P687GC	4, 10
17P687Z	11, 39, 87
17P687ZGC	11
17P687ZTAP	39, 87

## 2

20032-Case	137
20033-Case	137
20034-Case	137
20035-Case	137

20041-Case	138
20041ST-Case	138
20044-Case	138
20044B-Case	138
20044SL-Case	138
20044ST-Case	138
20096	33
20303-Case	137
20304-Case	137
20305-Case	137
20501-Case	137
20502-Case	137
2100-00	45
2100-16	45
2100-24	45
21006	116
21007	116
2101-16	45
2101-24	45
21012	24
2102-16	45
2102-24	45
2103-16	45
2103-24	45
2104-16	45
2104-24	45
2105-16	45
2105-24	45
2106-12	45
2106-16	45
2106-24	45
2107-16	45
2107-24	45
2108-16	45
2108-24	45
2109-24	45
2111-12	45
2111-16	45
2111-24	45
2112-00	45
2112-16	45
2113-12	45
2113-16	45
2113-24	45
2114-12	45
2114-16	45
2114-24	45
2115-24	45
2120-00	45
2120-02	45
2121-02	45
2122-03	45
2123-02	45
2123-04	45
2124-02	45
2124-12	45
2124-16	45
2125-02	45
2125-15	45
2126-01	45
2126-02	45
21264-Case	138
2127-01	45
2127-02	45
2128-01	45
2129-12	45
2131-10	45
2131-12	45
2131-16	45
2132-12	45
2140-12	45
23012	142
23096	34, 35, 36, 37



## Index by Part Number

23110.....	142
23112.....	142
24015.....	49, 61
24017.....	49, 63
240406.....	139
24108.....	23
24120.....	61
24121.....	61
24125.....	139
24128.....	75
24150.....	139
24152.....	43
24240.....	57
24245.....	57
24247.....	57
24248.....	57
24249.....	48, 57
24250.....	48, 53
24253.....	48
24257.....	53
24258.....	53
24259.....	57
24260.....	57, 79
24261.....	53
24262.....	53
24282.....	61, 63
24283.....	61, 63
24296.....	24
24615.....	49, 61, 63
24617.....	49
24626.....	49, 61
24727.....	23
24777.....	23
249800.....	51
249900.....	51
249913.....	51, 60
2500-10.....	45
2500-11.....	45
2500-12.....	45
2500-13.....	45
2500-14.....	45
2500-15.....	45
2500-16.....	45
2500-17.....	45
2500-18.....	45
2500-20.....	45
2500-22.....	45
2500-23.....	45
2500-24.....	45
2500-25.....	45
2575.....	102
2576.....	102
2577.....	102
2578.....	102
2588.....	102
266100.....	76
266530.....	71, 73
266540.....	71, 73
266550.....	51, 71, 73
266703.....	51
27001.....	32
27001S.....	32
2726.....	9, 15, 17, 30
27350.....	32
27350S.....	32
27500.....	32
27500S.....	32
27P557.....	16
27P557GC.....	16
27P687.....	16
27P687GC.....	4, 16

### 3

3/8"SCREW24.....	57
30020-Case.....	140
30501-Case.....	140
30507-Case.....	140
30871-Case.....	140
30872-Case.....	140
31531-Case.....	49, 51, 61, 140
31531M-Case.....	140
31532-Case.....	140
31532M-Case.....	140
31534-Case.....	140
31542-CASE.....	63
31543-CASE.....	63
31554-Case.....	51, 61, 140
31556-Case.....	140
31561.....	140
31760-Case.....	49, 63
32008.....	24
32018.....	24
32082.....	24
327300.....	40
327301.....	40
327400.....	40
327401.....	40
327500.....	40
327501.....	40
327600.....	40
327601.....	40
327888.....	40
327903.....	40
327904.....	40
327905.....	40
327906.....	40
327970.....	40
35070.....	33
35075.....	33
35078.....	32
35078S.....	32
35085.....	33
35096.....	33
35096S.....	33
36395.....	94
3726.....	9, 15, 17
38120.....	18
38200.....	18
38200B.....	18
38200G.....	18
38200R.....	18
38200Y.....	18
38400.....	18
38400B.....	18
38400G.....	18
38400R.....	18
38400Y.....	18
38402.....	5, 18
38402SL.....	5
38404.....	5, 18, 19
38405.....	43
38407.....	43
38412.....	43
384201.....	19
38422.....	25
384241.....	19
384280.....	19
38435.....	18
38444.....	25
38455.....	25
384628.....	75
38471.....	25
38477.....	25
38481.....	25
38485.....	25

### 4

4021184.....	114
4022184.....	114
4023184.....	114
40805.....	23
40810.....	23
4124-10.....	45
4124-12.....	45
4132-04.....	95
4132-14.....	95
4132-44.....	95
4140-00.....	100
4140-11.....	100
4140-22.....	100
4142-00.....	100
4143-15.....	100
41509-L4.....	95
4152-04.....	95
4152-34.....	95
4152-74.....	95
41524-L4.....	95
41524-XL4.....	95
4153-04.....	99
41531B-L4.....	94
41531BXL4.....	94
41531L4.....	94
41531XL4.....	94
41532-L4.....	94
41532XL4.....	94
41533-L4.....	94
41533XL4.....	94
41535-L4.....	94
41535X-L4.....	94
41536-L4.....	94
41536X-L4.....	94
41537-L4.....	94
41537X-L4.....	94
41538-L4.....	94
41538X-L4.....	94
4154-44.....	94
4154-84.....	95
4156-63.....	100
41560-L4.....	94
41560X-L4.....	94
41561-L4.....	94
41561X-L4.....	94
4158-66.....	100
415834.....	101
415874.....	101, 111
415914.....	101
415924.....	102
415993.....	95
415993-46IN.....	95
41605.....	23
4202.....	45
4203077-014.....	116
4203077-014S.....	116
42030794.....	116
42031944.....	116
42032744.....	116
42044004.....	116
42044524.....	116
42044754.....	116
4367084.....	114
44401.....	114
44405.....	114
44410.....	114
44420.....	114

### 38499.....

38499.....	19
3888.....	117
39404-Case.....	140
3983.....	117

### 44425.....

44425.....	114
44450.....	114
4464084.....	114
4491094.....	114
451030.....	139
452800.....	105
452818.....	105
45311.....	47
45322.....	47
45325.....	47
45345.....	47
45373.....	47
45377.....	47
45388.....	47
45389.....	47
45390.....	47
45530.....	47
45531.....	47
45532.....	47
45533.....	47
45534.....	47
45535.....	47
4560184.....	114
4561184.....	114
4562184.....	114
4563184.....	114
46000-0514.....	99
46000-0544.....	99
46000-0554.....	99
46000-0784.....	99
46000-0824.....	99
46000-0904.....	99
46000-1094.....	99, 103
46000-1104.....	99, 103
46000-1114.....	99, 103
46000-1624.....	99, 103
46000-2824.....	98
46000-2824BL.....	98
46000-2824GN.....	98
46000-2824GY.....	98
46000-2824RD.....	98
46000-2824YL.....	98
46000-3604.....	99, 111, 118
4612184.....	114
4613184.....	114
47005.....	24
47006.....	24
47025.....	24
47170.....	25
48001.....	89, 93, 104
48010CM.....	23
48012.....	49, 59
4802304.....	114
4803004.....	114
4804004.....	114
4804284.....	114
4805004.....	114
4806004.....	114
4807004.....	114
4807254.....	114
4807284.....	114
4808004.....	114
4809304.....	114
4810304.....	114
4811304.....	114
4811754.....	114
4812304.....	114
481232.....	133, 139
48135.....	105
4814204.....	114
48155.....	105
48221M.....	59
48222.....	93, 105

### 48313.....

48313.....	93, 105
48482.....	59
48483.....	59
48513.....	93, 105
48555.....	93, 105
48612.....	49, 59
48650014.....	114
48685.....	23
48802.....	93
48812.....	93
48814.....	93
48815.....	89, 93, 104
488401.....	50, 65
488408.....	65
489900.....	48, 50
489906.....	50
49005.....	93, 104
49100X.....	105
49101X.....	105
49102X.....	105
49103X.....	105
49220.....	112
49225.....	112
49225A.....	112
49226A.....	112
49227A.....	112
49230.....	93, 104
49230A.....	112
49230DR.....	93, 104
49231X.....	93, 104
49233.....	93, 104
49242.....	112
49302.....	112
49302A.....	112
49304.....	113
49305.....	113
49310.....	112
49311.....	112
49311A.....	112
49314.....	105
49315.....	105
49316.....	105
49318.....	105
49320.....	113
49327.....	94, 113
49328.....	94, 113
49329.....	113
49330.....	93, 104
49331X.....	93, 104
49332X.....	93, 104
49355.....	105
49356.....	105
49360.....	93
49410.....	104
49411.....	104
49426.....	112
49427.....	112
49428X.....	104
49429X.....	104
49430.....	104
49431.....	104
49501.....	93, 104
49502.....	104
49520X.....	112
49522X.....	112
49550.....	112
49551.....	112
49700X.....	105
49701X.....	105

### 5

50078.....	32
50078S.....	32

## Index by Part Number

50096.....	33
50096S.....	33
502100.....	59
50225.....	59
51125.....	136
52009-Case.....	137
52009A-Case.....	137
52009SL-Case.....	137
52235.....	102
52235X.....	103
52236.....	102
52236X.....	103
52248-Case.....	137
52248A-Case.....	137
52248ASL-Case.....	137
52248SL-Case.....	137
52348SL-Case.....	137
52401X.....	105
52402X.....	105
53-112.....	121
53-114.....	121
53009-Case.....	140
53126-Case.....	140
53126SL-Case.....	140
53126ST-Case.....	140
53127-Case.....	140
53348-Case.....	137
53348A-Case.....	137
53348ASL-Case.....	137
53348SL-Case.....	137
55001.....	23
55142X.....	98
55182X.....	94
55185X.....	94
55192X.....	99
55195X.....	99
55196X.....	99
55247.....	94
55301X.....	98
55330X.....	98
55510.....	114
55525.....	114
56111X.....	107
56410.....	38
56411.....	38
570045-Case.....	140
57250X.....	107
5738.....	118
5758.....	118
57652.....	107
57653.....	107
57655.....	107
5788.....	118
58044-Case.....	133
58044A-Case.....	133
58077-Case.....	133
58077A-Case.....	133
58088-Case.....	133
58088A-Case.....	133
58095-Case.....	133
58095A-Case.....	133
58124-Case.....	133
58125-Case.....	133
58125A-Case.....	133
58126-Case.....	133
58126A-Case.....	133
58127-Case.....	133
58127A-Case.....	133
58128-Case.....	133
58128A-Case.....	133
58129-Case.....	133
58144-Case.....	133
58802.....	104

58803.....	104
59130.....	108
59132.....	108
59133.....	107, 108
59134.....	108
59136.....	108
59140X.....	108
59200.....	108
59200NX.....	106
59200R.....	106
59200X.....	106
59201X.....	106
59202X.....	106
59204X.....	106
59205X.....	106
59207X.....	106
59210X.....	106
59221.....	106
59230X.....	106
59235X.....	106
59240X.....	106, 107
59249.....	107, 129, 131
59250X.....	107
59252X.....	107
59255X.....	107
59259X.....	107, 108
59286.....	106
59298.....	113
59299.....	113
59300.....	108
59300NX.....	106



# Index by Part Number

61240.....	97	63-437.....	121	64803.....	95
61250.....	97	63-438.....	121	64819.....	95
61510.....	97	63-439.....	121	64825.....	95
61520.....	97	63-440.....	121	65011.....	111
61525.....	97	63-441.....	121	65100D.....	110
61530.....	97	63-442.....	121	65100L.....	110
61540.....	97	63-443.....	121	65100T.....	110
61550.....	97	64101.....	95	65655.....	108
61560.....	97	64102.....	95	66-063.....	120
61610.....	97	64103.....	95	66008.....	98
61620.....	97	64104.....	95	66126.....	114
61629.....	113	64105.....	95	66212-4.....	102, 103
61630.....	97	64106.....	95	66213-4.....	102
61640.....	97	64107.....	95	66312-5.....	98
61650.....	97	64108.....	95	66313-3.....	98
61710.....	97	64111.....	95	66413-2.....	102
61715.....	97	64112.....	95	66414-2.....	102
61720.....	97	64113.....	95	66415-2.....	102
61730.....	97	64114.....	95	66514-1.....	98
61740.....	97	64115.....	95	66517-1.....	98
61750.....	97	64116.....	95	66518-3.....	99
62-311.....	120	64117.....	95	66519-1.....	98
62-312.....	120	64118.....	95	66788.....	113
62-313.....	120	64126.....	95	67001.....	115
62-315.....	120	64127.....	95	68290.....	113
62-316.....	120	64128.....	95	68561-1.....	99
62-411.....	120	64129.....	95	68562-1.....	99
62-412.....	120	64130.....	95	64130.....	99
62-413.....	120	64131.....	95	68564-1.....	99
62-414.....	120	64132.....	95	68566-1.....	96, 97, 99, 115
62210.....	97	64133.....	95	69-1201.....	94
62220.....	97	64134.....	95	69-1202.....	94
62230.....	97	64135.....	95	69-1203.....	94
62240.....	97	64136.....	95	69-1205.....	94
62250.....	97	64137.....	95	69-1206.....	94
62501.....	97	64138.....	95	69-1207.....	94
62510.....	97	64139.....	95	69-1209.....	94
62520.....	97	64140.....	95	69-1210.....	94
62530.....	97	64141.....	95	69-1211.....	94
62540.....	97	64142.....	95	69-1212.....	94
62550.....	97	64143.....	95	69500.....	24
62560.....	97	64144.....	95	69500BK.....	24
62610.....	97	64152.....	95		
62620.....	97	64153.....	95	<b>7</b>	
62630.....	97	64154.....	95	700050.....	79
62640.....	97	64155.....	95	700060.....	79
62650.....	97	64156.....	95	700070.....	79
62710.....	97	64157.....	95	700100.....	78
62715.....	97	64158.....	95	700150.....	78
62720.....	97	64160.....	95	700200.....	78
62730.....	97	64161.....	95	700250.....	78
62740.....	97	64162.....	95	700400.....	78
62750.....	97	64163.....	95	700500.....	78
62760.....	97	64164.....	95	700500-250.....	78
63-111.....	121	64165.....	95	700550.....	78
63-405.....	121	64284.....	101	700600.....	78
63-413.....	121	64287.....	101	700600-250.....	78
63-414.....	121	64322.....	103	700650.....	78
63-415.....	121	64401X.....	103	700656.....	78
63-416.....	121	64402.....	102	700700.....	78
63-417.....	121	64410X.....	103	700700-250.....	78
63-418.....	121	64411.....	103	700750.....	78
63-419.....	121	64428.....	102	700800.....	78
63-420.....	121	64429.....	102	700800-250.....	78
63-421.....	121	64438.....	102	700850.....	78
63-422.....	121	64450X.....	103	700900.....	78
63-423.....	121	64466.....	102	700950.....	78
63-424.....	121	64466S.....	102	701005.....	79
63-425.....	121	64469.....	110	701015.....	79
63-433.....	121	64604.....	95	701020.....	79
63-434.....	121	64608.....	110	701025.....	79
63-435.....	121	64609.....	110	75738.....	118
63-436.....	121	64800.....	95	75758.....	118

## 8

80044-Case.....	132	75768.....	118
80055-Case.....	132	75788.....	118
80077-Case.....	132	77-125.....	121
80077SL-Case.....	132	7738.....	118
80077SLG-Case.....	132	775938.....	117
80077SLR-Case.....	132	775939.....	117
80077SLY-Case.....	132	7770-044.....	119
80095-Case.....	132	77738.....	118
81233.....	132	77788.....	118
81233A.....	132	77825.....	119
81233AM.....	132	77850.....	119
83132.....	103	7788.....	118
83133.....	103	7833-100.....	46
83360.....	103	7833-250.....	46
84001-Case.....	48, 50, 57, 63	7833-30.....	46
84001-CASE.....	79	791201.....	95
84008-Case.....	48	791205.....	95
84161.....	103	791210.....	95
84163.....	103	791301.....	95
84174.....	103	791305.....	95
84175.....	103	791310.....	95
8431098.....	114	791401.....	95
85001.....	103, 116	791405.....	95
85008-Case.....	140	791410.....	95
85008ST-Case.....	140	792701.....	95
8502-00.....	46	792705.....	95
8503-00.....	46	792710.....	95
8504-00.....	46	792810.....	95
8505-00.....	46	792851.....	95
8506-00.....	46	792855.....	95
8507-00.....	46		
8508-00.....	46	<b>8</b>	
8509-00.....	46	80044-Case.....	132
8512-00.....	46	80055-Case.....	132
8513-00.....	46	80077-Case.....	132
8514-00.....	46	80077SL-Case.....	132
8515-00.....	46	80077SLG-Case.....	132
85551.....	116	80077SLR-Case.....	132
85656.....	116	80077SLY-Case.....	132
8576.....	102	80095-Case.....	132
86001.....	103, 116	81233.....	132

## 9

9000.....	139	88234.....	132
90001.....	139	88255.....	132
90002.....	139	88264-Case.....	132
90003.....	133, 139	88275.....	132
90004.....	139	884001.....	55, 64, 65
90080.....	137	884008.....	65
90081.....	137	88517-Case.....	132
90100.....	137	88532-Case.....	132
90120.....	137	88535-Case.....	133
90121.....	137	88535A-Case.....	133
90131.....	137	88535ASL-Case.....	133
90200.....	137	88535SL-Case.....	133
910-3000.....	110	88536-Case.....	133
910-3001.....	110	88536A-Case.....	133
910-3301.....	110	88732-Case.....	132
91944-Case.....	135	894005.....	117

# Index by Part Number

91946-Case.....	135	9620C8100.....	44	96620-10.....	43
930011-Flex.....	96	9620C850.....	44	96624.....	75
930015-Flex.....	96	930015-Flex.....	44	96626.....	75
930028-Flex.....	96	930028-Flex.....	44	96627.....	30
930111-Flex.....	96	930111-Flex.....	44	96627S.....	30
930115-Flex.....	96	930128-Flex.....	44	96681.....	31
930128-Flex.....	96	930211-Flex.....	44	96681S.....	31
930211-Flex.....	96	930215-Flex.....	44	96685.....	30
930215-Flex.....	96	930228-Flex.....	44	96687.....	30
930228-Flex.....	96	955011.....	43	96687S.....	30
955011.....	43	955022.....	13	96726.....	20, 22, 75
955022.....	13	95811X.....	107	96727.....	20, 22
95811X.....	107	96-9625.....	20	96727-8.....	20
96-9625.....	20	96010.....	29	96733.....	25
96010.....	29	960101.....	13	967701.....	7, 10, 11, 12, 29
960101.....	13	96012.....	23	967702.....	7, 10, 11, 12, 29
96012.....	23	96013.....	23	967720.....	39, 87
96013.....	23	96015.....	29	967720GC.....	4, 13
96015.....	29	96017.....	7, 10, 11, 12	967720TAP.....	13, 14, 39, 87
96017.....	7, 10, 11, 12	960181.....	8, 31	96812-1.....	21
960181.....	8, 31	960185.....	8, 31	96812-2.....	21, 29
960185.....	8, 31	960395.....	25	968120.....	20
960395.....	25	96045.....	43	96823.....	5, 20
96045.....	43	96050.....	29	96832-10.....	43
96050.....	29	96054.....	133, 139	96835-10.....	43
96054.....	133, 139	96057.....	7, 10, 11, 12, 21, 29	96837.....	30
96057.....	7, 10, 11, 12, 21, 29	96065.....	6	96837S.....	30
96065.....	6	96065GC.....	4, 6	96840.....	22
96065GC.....	4, 6	96077.....	55	96844.....	41
96077.....	55	96089.....	55	96845.....	22
96089.....	55	96096.....	133, 139	96847.....	31
96096.....	133, 139	96097.....	75	96847S.....	31
96097.....	75	96100.....	20	96855.....	22
96100.....	20	96100B.....	20	96865.....	22
96100B.....	20	96104.....	5, 7, 10, 11, 12, 20, 75	968801.....	9, 15, 17
96104.....	5, 7, 10, 11, 12, 20, 75	9610C18100.....	44	968802.....	9, 15, 17
9610C18100.....	44	9610C1825.....	44	968810.....	39, 87
9610C1825.....	44	9610C1850.....	44	968820.....	8, 9, 13, 14, 39, 87
9610C1850.....	44	9610C8100.....	44	968820BL.....	9, 14
9610C8100.....	44	9610C825.....	44	968820GC.....	4, 8, 9, 14
9610C825.....	44	9610C850.....	44	96888.....	22
9610C850.....	44	9610NH100.....	44	96893.....	5, 20
9610NH100.....	44	9610NH25.....	44	96890GC.....	4, 6
9610NH25.....	44	9610NH50.....	44	96400.....	15, 17, 18
9610NH50.....	44	9610SAX100.....	44	964007.....	7, 10, 11, 12, 29
9610SAX100.....	44	9610SAX25.....	44	964008.....	9, 15, 17, 30
9610SAX25.....	44	9610SAX50.....	44	964012.....	20
9610SAX50.....	44	9610SCX100.....	44	964014.....	43
9610SCX100.....	44	9610SCX25.....	44	964016.....	43
9610SCX25.....	44	9610SCX50.....	44	96405.....	31
9610SCX50.....	44	9610Si100.....	44	96405S.....	31
9610Si100.....	44	9610Si25.....	44	964075.....	7, 10, 11, 12
9610Si25.....	44	9610Si50.....	44	964085.....	9, 15, 17, 30
9610Si50.....	44	96110-10.....	43	964097.....	43
96110-10.....	43	96120.....	43	964099.....	43
96120.....	43	961201.....	5, 15, 17	96432-10.....	43
961201.....	5, 15, 17	961202.....	5, 15, 17	96465-10.....	43
961202.....	5, 15, 17	96122-10.....	43	96473.....	24
96122-10.....	43	961234.....	139, 141	96475.....	21
961234.....	139, 141	96128-1.....	21	96481.....	31
96128-1.....	21	96128-2.....	21, 29	96485.....	31
96128-2.....	21, 29	961515.....	75	96489.....	31
961515.....	75	96152-10.....	43	96490.....	31
96152-10.....	43	96154-10.....	43	964PP20.....	43
96154-10.....	43	96155-10.....	43	964PP45.....	43
96155-10.....	43	96173.....	25	965007.....	7, 10, 11, 12, 29
96173.....	25	961801.....	5, 7, 10, 11, 12, 20	965008.....	9, 15, 17, 30
961801.....	5, 7, 10, 11, 12, 20	961802.....	5, 7, 10, 11, 12	965075.....	7, 10, 11, 12, 29
961802.....	5, 7, 10, 11, 12	961879.....	31	965085.....	9, 15, 17, 30
961879.....	31	96205-25.....	43	96518.....	75
96205-25.....	43	9620C18			



# Index by Part Number

96BB05.....	26
96BB05-C.....	26
96BB10.....	26
96BB10-C.....	26
96BB15.....	26
96BB15-C.....	26
96F005.....	27
96F005A.....	27
96F010.....	27
96F010A.....	27
96F015.....	27
96F015A.....	27
96F020.....	27
96F020A.....	27
96F105.....	29
96F110.....	29
96F115.....	29
96F120.....	29
96F220.....	26
96F220-C.....	26
96F220A.....	26
96F220A-C.....	26
96F605.....	27
96F605A.....	27
96F610.....	27
96F610A.....	27
96F615.....	27
96F615A.....	27
96F620.....	27
96F620A.....	27
96FB00.....	28
96FB00-C.....	28
96FC00.....	28
96FC00-C.....	28
96FP05.....	26
96FP05-C.....	26
96FP10.....	26
96FP10-C.....	26
96FP15.....	26
96FP15-C.....	26
96FP20.....	26
96FP20-C.....	26
96FPSO.....	7, 10, 11, 12
96FS00.....	28
96FS00-C.....	28
96FSC2-12.....	29
96FSC2PLUG.....	29
96FSC2STRIP.....	29
96FSC3PLUG.....	29
96FSC3STRIP.....	29
96FSS0.....	7, 10, 11, 12
96FV05.....	27
96FV05-S.....	27
96FV05A.....	27
96FV10.....	27
96FV10-S.....	27
96FV10A.....	27
96FV15.....	27
96FV15-S.....	27
96FV15A.....	27
96FV20.....	27
96FV20-S.....	27
96FV20A.....	27
96FV20A-S.....	27
96RB00.....	28
96T001.....	6
96T002.....	6
96T100.....	64
96T105.....	64
96VL05.....	27
96VL05-S.....	27
96VL05A.....	27
96VL10.....	27
96VL10-S.....	27
96VL10A.....	27
96VL15.....	27
96VL15-S.....	27
96VL15A.....	27
96VL20.....	27
96VL20-S.....	27
96VL20A.....	27
96VL20A-S.....	27
970011-Flex.....	96
970015-Flex.....	96
97002.....	115
970028-Flex.....	96
97005.....	115
970111-Flex.....	96
970115-Flex.....	96
970128-Flex.....	96
970211-Flex.....	96
970215-Flex.....	96
970228-Flex.....	96
97130.....	108
97132.....	108
97132X.....	107
97137X.....	108
97141.....	108
97561.....	115
97565.....	115
990011-Flex.....	96
990015-Flex.....	96
990028-Flex.....	96
99003AM.....	135
99003AMSL.....	135
99003M.....	135
99003MSL.....	135
990041-Flex.....	96
990042-Flex.....	96
990043-Flex.....	96
99005-Case.....	135
99005A-Case.....	135
99005AM-Case.....	135
99005AMSL-Case.....	135
99005ASL-Case.....	135
99005M-Case.....	135
99005MSL-Case.....	135
99005SL-Case.....	135
99006-Case.....	134
99006A-Case.....	134
99006ASL-Case.....	134
99006G-Case.....	134
99006M-Case.....	134
99006MSL-Case.....	134
99006R-Case.....	134
99006SL-Case.....	134
99006W-Case.....	134
990111-Flex.....	96
990115-Flex.....	96
990128-Flex.....	96
990141-Flex.....	96
990142-Flex.....	96
990143-Flex.....	96
99015AM-Case.....	135
99015AMSL-Case.....	135
99015M-Case.....	135
99015MSL-Case.....	135
990211-Flex.....	96
990215-Flex.....	96
990228-Flex.....	96
99024.....	134
990241-Flex.....	96
990242-Flex.....	96
990243-Flex.....	96
99024A.....	134
99042.....	134

99042A.....	134
99062.....	134
99062A.....	134
99260.....	134
99290.....	134
99290A.....	134
99669-Case.....	134
99669G-Case.....	134
99669R-Case.....	134
99669W-Case.....	134
970015-Flex.....	8, 31
99690.....	8, 31
9984001.....	55
99861.....	31
99862.....	31
99862S.....	31
99890.....	8, 31
99948.....	59
9997010.....	115
9997011.....	50, 115
9997012.....	115
9997014.....	50, 115
9997015.....	115
9997250.....	89
9997500.....	50, 115
99SL100CW.....	115
99SL10CW.....	115
99SL15CW.....	115
99SL1KCW.....	115
99SL200CW.....	115
99SL20CW.....	115
99SL250CW.....	115
99SL25CW.....	115
99SL500CW.....	115
99SL50CW.....	115

## A

A204625.....	75
A204627.....	75
A204628.....	75
A6005430.....	75
A655097.....	75
A655180.....	75
ACRCLP01.....	75
ACRCLP02.....	75
ACRCLP03.....	75
ADV-A108.....	90
ADV-A118.....	90
ADV-A185.....	90
ADV-CC.....	101
ADV-CNP5.....	92
ADV-E118.....	89
ADV-E185.....	89
ADV-GuardFF.....	89, 90, 92
ADV-GuardFM.....	89, 90, 92
ADV-H185.....	92
ADV-H1PH.....	92
ADV-H208.....	92
ADV-H218.....	92
ADV-H8185.....	92
ADV-HCN.....	92
ADV-PCC.....	101
ADV-PHN5.....	92
ADV-VF5.....	103
ADV-VN5.....	103
ADV0220-171.....	91
ADV0220-73.....	89
ADV0303185.....	89
ADV0305185.....	89
ADV0310-171.....	91
ADV0310-73.....	89
ADV0310185.....	89
ADV03M1A203.....	91

ADV03M1A205.....	91
ADV03M1B205.....	91
ADV03M3A203.....	91
ADV03M3A205.....	91
ADV03M3B205.....	91
ADV03M5A203.....	91
ADV03M5A205.....	91
ADV03M5B205.....	91
ADV0503185.....	89
ADV0505185.....	89
ADV0510185.....	89
ADV05M1A203.....	91
ADV05M1A205.....	91
ADV05M1B205.....	91
ADV05M3A203.....	91
ADV05M3A205.....	91
ADV05M3B205.....	91
ADV05M5A203.....	91
ADV05M5A205.....	91
ADV05M5B205.....	91
ADV10-HOLD30.....	89, 91
ADV1003185.....	89
ADV1005185.....	89
ADV1010185.....	89
ADV10M1A203.....	91
ADV10M1A205.....	91
ADV10M1B205.....	91
ADV10M3A203.....	91
ADV10M3A205.....	91
ADV10M3B205.....	91
ADV10M5A203.....	91
ADV10M5A205.....	91
ADV10M5B205.....	91
ADV1503185.....	89
ADV1505185.....	89
ADV1510185.....	89
ADV15M1A203.....	91
ADV15M1A205.....	91
ADV15M1B205.....	91
ADV15M5A203.....	91
ADV15M5A205.....	91
ADV15M5B205.....	91
ADV20-Hold25.....	89
ADV20-HOLD25.....	91
ADV2412.....	142
ADV2503185.....	89
ADV2505185.....	89
ADV2510185.....	89
ADV25M1A203.....	91
ADV25M1A205.....	91
ADV25M1B205.....	91
ADV275540.....	141
ADV276740.....	141
ADV276840.....	141
ADV33020.....	141
ADV33020A-100.....	141
ADV33020S.....	141
ADV33120.....	141
ADV33120-Cap.....	141
ADV33120A.....	141
ADV33220.....	141
ADV33320.....	141
ADV375540.....	141
ADV376720.....	141
ADV376740.....	141
ADV376840.....	141
ADV5009.....	92
ADV5010.....	92
ADV5011.....	92
ADV5012.....	92
ADV5013.....	92
ADV5055.....	92
ADV5056.....	92

ADV5057.....	92
ADV5058.....	92
ADV5059.....	92
ADV5075.....	92
ADV5076.....	92
ADV5077.....	92
ADV5078.....	92
ADV5079.....	92
ADV5209.....	92
ADV5210.....	92
ADV5211.....	92
ADV5212.....	92
ADV5213.....	92
ADV5214.....	92
ADV5215.....	92
ADV5216.....	92
ADV5217.....	92
ADV5218.....	92
ADV5255.....	92
ADV5256.....	92
ADV5257.....	92
ADV5258.....	92
ADV5259.....	92
ADV5260.....	92
ADV5261.....	92
ADV5262.....	92
ADV5263.....	92
ADV5264.....	92
ADV5275.....	92
ADV5276.....	92
ADV5277.....	92
ADV5278.....	92
ADV5279.....	92
ADV5280.....	92
ADV5281.....	92
ADV5282.....	92
ADV5283.....	92
ADV5284.....	92
ADV5904.....	92
ADV5905.....	92
ADV5906.....	92
ADV5907.....	92
ADV5908.....	92
ADV5909.....	92
ADV5910.....	92
ADV5911.....	92
ADV5912.....	92
ADV5913.....	92
ADV5915.....	92
ADV5917.....	92
ADV5918.....	92
ADV5977.....	92
ADV5978.....	92
ADV5979.....	92
ADV69210.....	141
ADV69210A.....	141
ADV69302.....	141
ADV69302A.....	141
ADV69304.....	141
ADV69304S.....	141
ADV69306.....	141
ADV69306A.....	141
ADV69308.....	141
ADV69308A.....	141
ADV69318.....	141
ADV69340.....	141
ADV69340A.....	141
ADV69360A.....	141
ADV7000.....	90
ADV7001.....	90
ADV7002.....	90
ADV7003.....	90
ADV7004.....	90
ADV7005.....	90

ADV7006.....	90
ADV7007.....	90
ADV7008.....	90
ADV7009.....	90
ADV7010.....	90
ADV7011.....	90
ADV7021.....	90
ADV7029.....	90
ADV7030.....	90
ADV7102.....	90
ADV7108.....	90
ADV711010.....	91
ADV711020.....	91
ADV711510.....	91
ADV711520.....	91
ADV712510.....	91
ADV712520.....	91
ADV721010.....	91
ADV721020.....	91
ADV721510.....	91
ADV721520.....	91
ADV722510.....	91
ADV722520.....	91
ADV7300.....	90
ADV7301.....	90
ADV7302.....	90
ADV7303.....	90
ADV7304.....	90
ADV7305.....	90
ADV7306.....	90
ADV7307.....	90
ADV7308.....	90
ADV7309.....	90
ADV7310.....	90
ADV731010.....	91
ADV731020.....	91
ADV7311.....	90
ADV731510.....	91
ADV731520.....	91
ADV7321.....	90
ADV732510.....	91
ADV732520.....	91
ADV7329.....	90
ADV7330.....	90
ADV8000.....	89
ADV8001.....	89
ADV8002.....	89
ADV8003.....	89
ADV8004.....	89
ADV8005.....	89
ADV8006.....	89
ADV8007.....	89
ADV8008.....	88
ADV8009.....	89
ADV8010.....	89
ADV8011.....	89
ADV8021.....	89
ADV8029.....	89
ADV8030.....	89
ADV8106.....	88
ADV8107.....	88
ADV8117.....	89
ADV820510.....	89
ADV820520.....	89
ADV821010.....	89
ADV821020.....	89
ADV821510.....	89
ADV821520.....	89
ADV822510.....	89
ADV822520.....	89
ADV8302.....	88
ADV8303.....	88

ADV8304.....	88
ADV9850.....	113
ADV9851.....	113
ADVC6W.....	116
ADVDC10W.....	116
ADVDC10WK-1.....	116
ADVDC6WK.....	116
ADVEPC10W.....	116
ADVEPC6W.....	116
ADVEPCA-CE.....	116
AP9615HN.....	75
ASI1016H.....	85
ASI1032H.....	85
ASI1516H.....	85
ASI1532H.....	85
ASI2516H.....	85
ASI2532H.....	85
ASI3016H.....	85
ASI3032H.....	85
AT11028.....	75
AVWRPCR1.....	75

## C

CA1045.....	125
CA2932.....	125
CA4501.....	125
CA4502.....	125
CA4503.....	125
CA4504.....	125
CA4506.....	125
CA4507.....	125
CA4508.....	125
CA4521.....	125
CA4567.....	125
CA4571.....	125
CA4599.....	125
CapWrap10.....	85
CapWrap15.....	85
CapWrap25.....	85
CapWrap30.....	85
CapWrap5.....	85
CC1001.....	125
CC1002.....	125
CC1003.....	125
CC1004.....	125
CC1011.....	125
CCGL3801.....	125
CCGL3802.....	125
CCGL3803.....	125
CF5001.....	129



# Index by Part Number

F1088405.....	81
F1088406.....	81
F1088407.....	81
F1088504.....	81
FS-101.....	113
<b>H</b>	
HS2-1012L.....	83
HS2-10L.....	83
HS2-1512L.....	83
HS2-15L.....	83
HS2-2012L.....	83
HS2-25L.....	83
HS2-30L.....	83
HS2-5L.....	83
HSI-0814L.....	85
HSI-1005L.....	85
HSI-1012L.....	85
HSI-1014L.....	85
HSI-10L.....	85
HSI-10L.....	85
HSI-1512L.....	85
HSI-15L.....	85
HSI-1712L.....	85
HSI-2012L.....	85
HSI-25L.....	85
HSI-30L.....	85
HSI-3512L.....	85
HSI-5L.....	85
HSI-5L.....	85
<b>L</b>	
LOI-384.....	38
LOI-96FT.....	38
LOR-96FT.....	38
LUM22418LA365.....	72
LUM22418LF365.....	72
LUM22418LF375.....	72
LUM22418LF385.....	72
LUM22418LF395.....	72
LUM22418LF405.....	72
LUM22418LF445.....	72
LUM22418LF470.....	72
LUM22418LF505.....	72
LUM22418LF527.....	72
LUM22418LF590.....	72
LUM22418LF630.....	72
LUM22418LFWHT.....	72
LUM22418LS365.....	72
LUM224LA365.....	72
LUM224LA445.....	72
LUM224LF365.....	72
LUM224LF375.....	72
LUM224LF385.....	72
LUM224LF395.....	72
LUM224LF405.....	72
LUM224LF445.....	72
LUM224LF470.....	72
LUM224LF505.....	72
LUM224LF527.....	72
LUM224LF590.....	72
LUM224LS365.....	72
LUM224LS375.....	72
LUM224LS385.....	72
LUM224LS395.....	72
LUM224LS405.....	72
LUM224LS420.....	70, 71
LUM224LS445.....	70
LUM224LS470.....	70
LUM224LS505.....	70
LUM224LS527.....	70
LUM224LS590.....	70
LUM224LFWHT.....	72
LUM224LS365.....	72
LUM296DA375.....	72
LUM296DA385.....	72
LUM296DA395.....	72
LUM296DA405.....	72
LUM296DA445.....	72
LUM296DA470.....	72
LUM296DA505.....	72
LUM296DA527.....	72
LUM296DA590.....	72
LUM296DA630.....	72
LUM296DAWHT.....	72
LUM296DF365.....	70
LUM296DF375.....	70
LUM296DF385.....	70
LUM296DF395.....	70
LUM296DF405.....	70
LUM296DF420.....	70
LUM296DF445.....	70
LUM296DF470.....	70
LUM296DF505.....	70
LUM296DF527.....	70
LUM296DF590.....	70
LUM296DF630.....	70
LUM296DFWHT.....	70
LUM296LA365.....	70, 71
LUM296LA375.....	70
LUM296LA385.....	70
LUM296LA395.....	70
LUM296LA405.....	70
LUM296LA420.....	70, 71
LUM296LA445.....	70
LUM296LA470.....	70
LUM296LA505.....	70
LUM296LA527.....	70
LUM296LA590.....	70
LUM296LA630.....	70, 71
LUM296LA660.....	70, 71
LUM296LA730.....	70, 71
LUM296LAG1.....	71
LUM296LAG2.....	71
LUM296LAG3.....	71
LUM296LAWHT.....	70, 71
LUM296LF365.....	70, 71
LUM296LF375.....	70
LUM296LF385.....	70
LUM296LF395.....	70
LUM296LF405.....	70
LUM296LF420.....	70, 71
LUM296LF445.....	70
LUM296LF470.....	70
LUM296LF505.....	70
LUM296LF527.....	70
LUM296LF590.....	70
LUM296LF630.....	70, 71
LUM296LF660.....	70, 71
LUM296LF730.....	70, 71
LUM296LFG1.....	71
LUM296LFG2.....	71
LUM296LFG3.....	71
LUM296LFWHT.....	70, 71
LUM296LS365.....	70, 71
LUM296LS375.....	70
LUM296LS385.....	70
LUM296LS395.....	70
LUM296LS405.....	70
LUM296LS420.....	70, 71
LUM296LS445.....	70
LUM296LS470.....	70
LUM296LS505.....	70
LUM296LS527.....	70
LUM296LS590.....	70
LUM296LS630.....	70, 71
LUM296LS660.....	70, 71
LUM296LSG1.....	71
LUM296LSG2.....	71
LUM296LSG3.....	71
LUM296LSWHT.....	70, 71
LUM296DA470.....	67, 77
<b>M</b>	
Monocon.....	82
MonoSLEEVE.....	84
Multicon.....	82
MultiSLEEVE.....	84
MultiSLEEVE.....	84
MW0010.....	131
MW0406.....	131
MW0523.....	131
MW0802.....	131
MW1010.....	131
<b>P</b>	
PD5738.....	118
PD5758.....	118
PD5788.....	118
PD5939.....	117
PD7738.....	118
PD7788.....	118
PD8888.....	117
<b>S</b>	
SD1000.....	53, 55, 57, 63
SDY-102.....	99
SDY-103.....	99
SDY-201.....	99
SHS0034.....	52, 54, 58
SHS0058.....	52, 56
SHS0114.....	51, 54, 60
SHS6140.....	62
SL100CWPK.....	115
SL10KCW.....	115
SL1KCWPK.....	115
SL20CWPK.....	115
SL2CWPK.....	115
SL2KCW.....	115
SL500CWPK.....	115
SL50CWPK.....	115
SL5CW.....	115
SL5CWPK.....	115
SL5KCW.....	115
Sprite A10-1822.....	91
Sprite A10-1832.....	91
Sprite A10-1842.....	91
Sprite AC1822.....	91
Sprite AC1832.....	91
Sprite AC1842.....	91
Sprite AE1822.....	88
Sprite AE1832.....	88
Sprite AE1842.....	88
Sprite L10-1822.....	92
Sprite L10-1832.....	92
Sprite L10-1842.....	92
Sprite LC1822.....	92
Sprite LC1832.....	92
Sprite LC1842.....	92
<b>T</b>	
TT1001.....	94, 113
TT1002.....	94, 113
<b>U</b>	
UVGoggles.....	77
<b>V</b>	
VSCREW24.....	61, 63
VSCREW48.....	59
VXH593-888.....	117
VXH593-983.....	117
VXL554-260.....	119
VXL554-670.....	119
VXL555-494.....	119
VXL556-483.....	119
VXV5738-000.....	118
VXV5758-000.....	118
VXV5764-000.....	118
VXV5788-000.....	118
VXV7738-000.....	118
VXV7788-000.....	118

## W

Wrench-10.....	113
Wrench-12.....	113
Wrench-6.....	113
Wrench-8.....	113

## A

<b>Adapters &amp; Connectors, HPLC</b> .....	101
<b>Adapters for Exhaust Filters</b> .....	129
<b>Adapters for JustRite® Waste Containers</b> .....	128
<b>Adhesive Sealing Films</b> .....	5
<b>AgileSleeve+®</b> .....	85
<b>Alpha-Numeric Templates</b> .....	6
<b>Aluminum Base Plates, 96-Well</b> .....	28
<b>Aluminum Block, 12-Well</b> .....	21
<b>Aluminum Dry Heat Blocks</b> .....	21

## B

<b>Basins, Disposable</b> .....	24
<b>Bottle Caps</b>	
Mobile Phase, Canary-Safe™.....	124, 125
Waste, Canary-Safe™.....	126, 127

## C

<b>Canary-Safe™ Solvent Safety Products</b>	
Air Valve with Integral Air Filter.....	124
Connectors, Collectors & Fittings.....	129
Exhaust Filters.....	126, 127
Exhaust Filter Adapters.....	128
Mobile Phase Bottle Safety Caps.....	124, 125
Safety Cap Thread Adapters.....	125
Safety Waste Caps.....	126, 127
Sentinel Solvent Safety Alarm System.....	130
<b>Cap Mats</b>	
96-Well, Round.....	7, 10, 11, 12, 31
96-Well, Round, Specialty.....	13
96-Well, Square.....	9, 15, 17, 30
384-Well.....	18
for 1.2mL Polypropylene Tubes.....	21
for 1mL Truetaper Collection Plates.....	8
for 600µL Polypropylene Tubes.....	22
for Flexi-Tier & Aluminum Collection Systems.....	29
for PCR Plates.....	20
for Select-a-Vial.....	33
<b>Cell Culture Plate and Adapters</b> .....	75
<b>Check Valves</b>	
Low Pressure.....	110
<b>Chromatography Tools &amp; Accessories</b> .....	113
<b>Cold Sleeve™</b> .....	86
<b>Collection Plate Accessories</b>	
EquaVAP® Blowdown Evaporators.....	34, 35, 36, 37
Numeric & Alpha-Numeric Templates.....	6
Thermal Adapter Plates.....	13, 14, 87
LightOne™ Red.....	38
LightOne™ Illuminator.....	38
LightOne™ Pro.....	38
ViewOne™ Indexer.....	38
ViewOne™ Lablite.....	38
<b>Collection Plates</b>	
96-Well, 1mL	
Clear-Vu™.....	12
Half-Height Round Well, Round bottom.....	13
Standard Round Well, Round Bottom.....	10, 11
TrueTaper® - 1 mL.....	8
96-Well, 2mL.....	16
Clear-Vu™.....	13
Round Well/Round Bottom.....	16
Square Well, Round Bottom.....	16
Square Well, V-Bottom.....	14
TrueTaper® - 2mL.....	9, 14
96-Well, Small Volume	
Round Well, Deep V-Bottom.....	6
Round Well, Flat Bottom.....	6
Round Well, U-Bottom.....	6
Round Well, V-Bottom.....	6
384-Well, Glass.....	19
384-Well, Polypropylene.....	18, 19
1536-Well, Polypropylene.....	19
Polypropylene Tubes in 96-Well Blocks.....	21, 22
Reservoirs and Basins.....	24

# Index by Topic

<b>Column Couplers</b>	
Universal Column Couplers.....	101
<b>Column Heaters</b>	
AgileSleeve+®.....	85
Cold Sleeve™.....	86
HotSleeve+™.....	85
Monocon™.....	82, 83
MonoSleeve™.....	84
Multicon™.....	82, 83
MultiSleeve™.....	84
<b>Column Protection Devices</b> .....	93
<b>Columns</b>	
Armor™.....	90, 91
Echelon™.....	88, 89
Lancer™.....	92
Sprite™ Direct Connect HPLC Columns.....	88, 91, 92
<b>D</b>	
<b>Decappers</b> .....	137
<b>Decrimpers</b> .....	137
<b>DBS, Dried Blood Spot Card Punch</b> .....	40
<b>E</b>	
<b>Electrochemistry</b>	
Flow Electrolysis Assemblies.....	80
HTe-Chem Accessories.....	79
HTe-Chem Assemblies.....	78
<b>EquaVAP® Blowdown Evaporators</b> .....	34, 35, 36, 37
<b>Exhaust Filters, Canary-Safe™</b> .....	126
<b>F</b>	
<b>Ferrules</b>	
UHPLC Replacement Graphite.....	96, 97, 115
<b>Filter Guards</b> .....	93
<b>Filters</b>	
Direct Connect.....	104
Direct Connect, Inline, Stainless Steel.....	89, 93
Inline & Pre-Column.....	104, 105
Pre-Column.....	93
Solvent.....	112
<b>Fingertight UHPLC Assemblies</b> .....	97
<b>Fittings</b>	
Kits.....	100
Large Bore, Low Pressure.....	108
Lite-Touch™.....	99
Low Pressure.....	106, 107
Metric.....	111
One Piece.....	98
RheFlex®.....	98, 99
Rheodyne® Fittings.....	103
Stainless Steel.....	98
Standard Fittings.....	103
Three Piece.....	99
Two Piece.....	98, 99
Ultra High Pressure.....	98, 99
Valco Fittings.....	103
<b>Fittings Storage Cabinets</b> .....	113
<b>FlexChrom® Fingertight UHPLC Assemblies</b> .....	96
<b>Flexi-Tier™ 96-Well Collection Systems</b>	
Flexi-Tier™ Accessories.....	28
Flexi-Tier™ Aluminum Collection Systems.....	29
Flexi-Tier™ Cap Mats.....	29
Flexi-Tier™ Clear Collection Systems.....	26
Flexi-Tier™ Loose Vials & Loader Sets.....	27
Flexi-Tier™ Opaque Collection Systems.....	26
Polypropylene Plugs.....	29
<b>Flow Electrolysis</b>	
Divided Cell (dual stream) Assembly.....	81
Undivided Cell (single stream) Assembly.....	80
<b>Flow Reactor</b> .....	76

<b>Flow Splitters and Mixers</b>	
Adjustable Post-Column Flow Splitters.....	120
Adjustable Pre-Column Flow Splitters.....	120
Fixed.....	121
Static Bed Mixers.....	122
<b>Frits</b>	
Inline Filter.....	89
Pre-Column.....	93

## G

<b>Glass Inserts</b>	
0.7mL, for 96-Well Collection Plates.....	30
1mL, for 96-Well Collection Plates.....	31
<b>Glass Microplates, 384 Well</b> .....	19
<b>Guard Cartridges &amp; Holders</b>	
Armor™.....	90, 91
Echelon™.....	89

## H

<b>Hamilton Syringes, Infusion Syringes &amp; Kits</b> .....	114
<b>Heaters. See Column Heaters</b>	
<b>Heating Accessories</b>	
Column CapWrap™.....	85
Thermal Adapter Plates.....	39, 87
Thermal transfer Decks.....	73
<b>HotSleeve+™</b> .....	83, 85
<b>HPLC Adapters &amp; Connectors</b> .....	101
<b>HPLC Fittings Kits</b> .....	100
<b>HTe-Chem Electrochemistry Assemblies</b> .....	78

## I

<b>Infusion Kits</b> .....	114
<b>Injectors, Valco</b> .....	116
<b>Inline and Pre-Column Filters</b> .....	93, 104, 105

## J

<b>JustRite® Waste Containers</b> .....	128
---	-----

## L

<b>LightOne™ Red</b> .....	38
<b>LightOne™ Illuminator</b> .....	38
<b>LightOne™ Pro</b> .....	38
<b>Low Bind Media, SiliGuard™</b> .....	4
<b>Low Pressure Automatic Switching Valves</b> .....	119
<b>Low Pressure Unions, Tees, Crosses</b> .....	109
<b>Low Pressure Valves</b> .....	110
Back Pressure Regulators.....	110
Inline Cartridge Check Valves.....	110
Inline Check Valves.....	110
Low Pressure Switching Valves.....	110
PEEK™ Shut Off Valves.....	110
Quick-Stop Luer Check Valves.....	110
<b>Lumidox® II Photon Generation Devices</b> .....	66-77
<b>Lumidox® II LED Arrays</b>	
24 Position LED Arrays with 9mm Spacing.....	72
24 Position LED Arrays with 18mm Spacing.....	72
24 Position LED Arrays for TCR.....	51
48 Position LED Arrays for TCR.....	50
96-Position LED Arrays.....	66, 70, 71
Discovery/Screening 96 Position LED Arrays.....	71
LED Arrays and Adapters for PCR & Cell Culture Plates.....	74, 75
Active Cooling Base.....	69
Diffuse Mat Surface.....	68
Flow-Through Base.....	69
Lens Mat Surface.....	68
Solid Base.....	69
<b>Lumidox® II Controller</b> .....	67, 77
<b>LumLamp</b> .....	77



# Index by Topic

<b>M</b>	
<b>Magnetic Tumble Stir Bars</b> .....	53, 57, 59, 63
<b>Mass Spec Polishing Kit</b> .....	115
<b>Metric Fittings &amp; Assemblies</b> .....	111
<b>Micro-Centrifuge Tubes</b> .....	142
<b>Mixers, Static Bed</b> .....	122
<b>Mobile Phase Handling Systems &amp; Accessories</b>	
Complete Vacuum Filter Systems .....	47
End to End Micro Pipettes .....	40
Low Adhesion Micro-Centrifuge Tubes .....	142
Micro-Spin Filter Tubes .....	46
MWCO Spin Filters - Micro .....	46
Replacement Parts & Accessories .....	47
<b>Monocon™</b> .....	82, 83
<b>MonoSleeve™</b> .....	84
<b>Multicon™</b> .....	82, 83
<b>MultiSleeve™</b> .....	84
<b>Multi-Inlet Waste Manifold</b> .....	131
<b>P</b>	
<b>Para-dox® Aluminum Reaction Blocks</b> .....	48-65
For 4x21mm (50µL) Flat Bottom Glass Inserts	
Micro 24-Pos Photoredox Catalysis, Gen II .....	48, 52
Micro 24-Position Parallel Synthesis .....	48, 53
Micro 96-Pos Photoredox Catalysis, Gen II .....	48, 52
Micro 96-Position Parallel Synthesis .....	48, 53
For 8x30mm (1mL) Clear Glass Vials	
Std 96-Pos Photoredox Catalysis, Gen II .....	48, 54
Std 96-Position Parallel Synthesis, Gen II .....	48, 54
Std 96-Pos Photo LIGHTWEIGHT, Gen II .....	48, 54
Std 96-Position Parallel Synthesis .....	48, 55
Standard 96-Position Parallel Synthesis .....	48, 55
Std 24-Pos Photoredox Catalysis, Gen II .....	48, 56
Standard 24-Pos Parallel Synthesis, Gen II .....	48, 56
Standard 24-Pos Photoredox Catalysis .....	48, 57
Standard 24-Pos Parallel Synthesis .....	48, 57
For 12x32mm (2mL) Crimp/Snap Vials	
HPLC 48-Pos Photoredox Catalysis, Gen II .....	49, 58
HPLC 48-Pos Parallel Synthesis, Gen II .....	49, 58
HPLC 48-Position Parallel Synthesis .....	49, 59
HPLC 48-Position Parallel Synthesis .....	49, 59
For 15x45mm (4mL) Clear Glass Screw Vials	
1 DRAM, 24-Position Parallel Synthesis, with 18mm Spacing, Gen II .....	49, 60
1 DRAM, 24-Position Parallel Synthesis, with 18mm Spacing, Gen II .....	49, 60
1 DRAM, 24-Position Parallel Synthesis, with 20mm spacing .....	49, 61
1 DRAM, 24-Position Parallel Synthesis, with 20mm spacing .....	49, 61
1 DRAM, 24-Position Parallel Synthesis, with 18mm Spacing .....	49, 61
For 17x60mm (8mL) Clear Glass Screw Vials	
2 DRAM, 24-Pos Photoredox Catalysis, Gen II .....	49, 62
2 DRAM, 24-Pos Parallel Synthesis, Gen II .....	49, 62
2 DRAM, 24-Pos Photoredox Catalysis .....	49, 63
2 DRAM, 24-Position Parallel Synthesis .....	49, 63
<b>Temperature Controlled Reactors</b>	
48 Position, for 8x30 (1mL) Vials .....	50
24 Position, for 15x45 (1Dram) Vials .....	51
24 Pos TCR w Temperature Transfer Cover .....	51
<b>Accessories</b>	
Anodized Aluminum Spacers .....	55
Barcoded 8x30mm Vial Inserts in Tray .....	55
Plugs for 8x30mm Vials Inserts .....	55
Powder Transfer Plates .....	64
Temperature Transfer Cover .....	60
Top Cover with Wider Holes for 96-Position Reaction Blocks .....	55
Vial Trays and Loaders .....	65
<b>Polypropylene Tube Plug Caps</b> .....	21, 29
<b>Polypropylene Tubes in 96-Well Blocks</b> .....	21
<b>Powder Transfer Plates</b> .....	64
<b>Protein Crash Plates</b>	
24-well Filter Plates .....	43
384-well Filter Plates .....	43
96-Well Protein Crash Plates .....	42
Drug Discovery Filter Plates .....	43
General Filtration Filter Plates .....	43
<b>PCR Plates &amp; Sealing Products</b> .....	20
<b>R</b>	
<b>Reservoirs</b>	
24 & 48-Well Storage/Assay Plates .....	23
Polypropylene Reservoirs .....	24, 25
PTFE Reservoirs .....	23
<b>RheBuild® Kits</b> .....	118
<b>Rotor Seals</b> .....	116
<b>S</b>	
<b>Sample Loops</b>	
Fingertight Sample Loops .....	115
Stainless Steel Sample Loops .....	117
UHPLC Fingertight Sample Loops .....	115
Valco PEEK™ Sample Loops .....	115
Valco SS Sample Loops .....	115
<b>Sentinel Solvent Safety Alarm System</b> .....	130
<b>SiliGuard™ Low Bind Media</b> .....	4
<b>Solvent Filters</b> .....	112
<b>Specialty Tools</b> .....	113
<b>Stainless Steel Tubing</b> .....	95
<b>Mixers, Static Bed</b> .....	122
<b>Storage Racks &amp; Base Plates</b> .....	139
12-Well Flat Bottom Custom Base Plate .....	139
96-Well Custom Base Plate .....	139
Base Plates .....	139
Micro-Centrifuge Vial Storage and Transfer Bases .....	139
<b>Switching Valves</b>	
High Pressure .....	118
Low Pressure .....	117, 119
PEEK .....	118
<b>Syringe Ports</b> .....	116
<b>Syringes</b>	
700 Series Microliter™ Syringes with Cemented Needles .....	114
CTC LC PAL Autosampler Syringes .....	116
Gastight® Syringes for LC-MS Infusion .....	114
Modified Syringe for Basic Compounds .....	116
Small Volume Syringes .....	114
Syringes with Cemented Needles .....	114
<b>T</b>	
<b>TCube Edge</b> .....	51, 76
<b>Tees</b>	
PEEK™ .....	102, 109
Stainless Steel .....	102
<b>Teflon® Tubing</b> .....	95
<b>Temperature Controlled Reactors (TCR)</b>	
48 Position TCR, for 8x30 (1mL) Vials .....	50
24 Position TCR, for 15x45 (1Dram) Vials .....	51
24 Position TCR with Temperature Transfer Cover .....	51
<b>Thermal Adapter Plates</b> .....	39, 87
<b>Thermal Transfer Decks</b> .....	73
<b>Tools</b>	
Ferrule Removal Tool .....	113
Specialty .....	113
<b>TrueTaper® Collection Plates</b> .....	8, 9, 14
<b>Tubing</b>	
Capillary .....	94
FlexChrom® .....	96
Hastelloy Tubing .....	95
Micro Tubing Sleeves .....	94
PEEK™ Tubing .....	94
Stainless Steel .....	95
<b>Tubing Cutters</b> .....	113
<b>Tuning Tee Kit</b> .....	114
<b>U</b>	
<b>Unions, Tees &amp; Adapters - Fluidic Transfer</b>	
Adapters .....	101
Low Pressure .....	111
PEEK™ .....	102, 103
Stainless Steel .....	102, 103
ZDV Unions .....	102
<b>UV Safety Goggles</b> .....	77
<b>V</b>	
<b>Vacuum Filtration Systems</b> .....	45, 47
<b>Vacuum Manifold Filtration System</b> .....	41
<b>Valco Valves &amp; Accessories</b> .....	115
CTC Autosampler Syringes .....	116
Modified Syringes for Basic Compounds .....	116
Replacement High Pressure SS Sample Loops .....	115
Replacement Parts for 6 Port Injector .....	115
Replacement Parts for CTC Autosamplers .....	116
Valco Replacement Rotor Seals .....	116
Valco Valves for Thermo & CTC Autosamplers .....	115
<b>Valves</b>	
Check .....	110
<b>Valves, Electronic</b>	
High Pressure Automatic Switching Valves .....	118
Ultra High Pressure Automatic Switching Valves .....	117
<b>Vials &amp; Accessories</b>	
9mm, 12 x 32mm Vials, Caps & Inserts .....	132-135
9mm Precision MSQ .....	135
10mm, 12 x 32mm Vials, Caps & Inserts .....	136-137
11mm, 12 x 32mm Vials, Caps & Inserts .....	137-138
12-Well Aluminum Block .....	21
13mm, 15 x 45mm Vials, Caps & Inserts .....	140
EPA/VOA & Scintillation Vials .....	141
Precision MSQ 9mm, 12 x 32mm Vials .....	135
Storage Bases and Racks .....	139
<b>ViewOne™ Indexer</b> .....	38
<b>ViewOne™ Lablite</b> .....	38
<b>V-Troughs</b> .....	23
<b>W</b>	
<b>Waste Containers</b>	
JustRite® .....	128
Standard .....	129
<b>Wrenches</b> .....	113



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