

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.

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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.

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

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SiliGuard™ SG Low Bind COATING

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!**

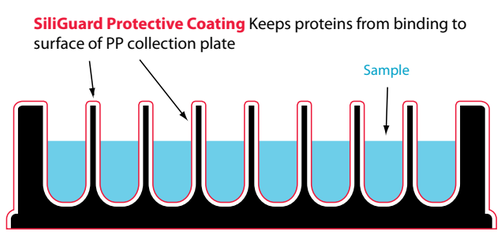


Get the most from your samples. SiliGuard™ is a Low Bind surface coating which helps prevent compounds from sticking to polypropylene surfaces.

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

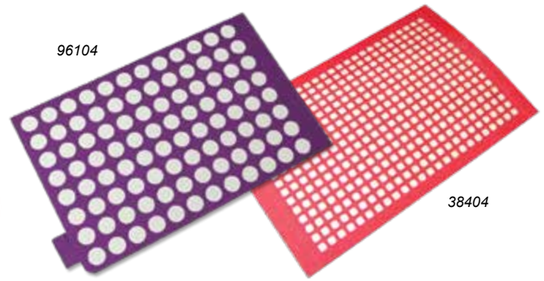
Ideal for: LC/MS, HPLC, qPCR, HTS, Organic Synthesis

- *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 -80ºC to +120ºC

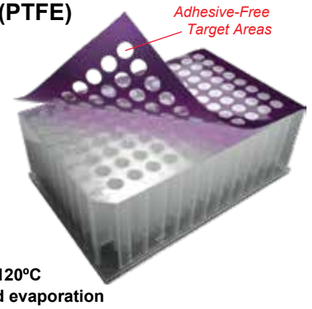
Cell culture gas permeability for Oxygen and CO2

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
- -80ºC long-term storage



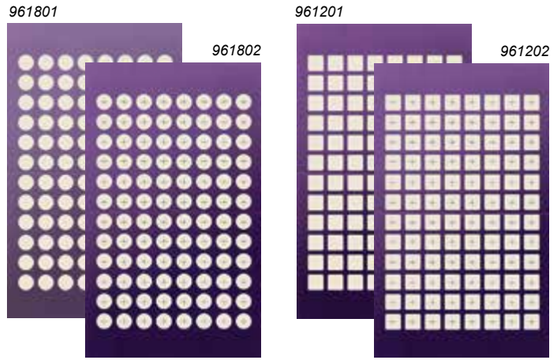
Cat. No.	Description	Well Shape	Qty
96104	96-Well, 10 mil Adhesive Silicone Sealing Film, Purple	○ Round	5
38404	348-Well, 10 mil Adhesive Silicone Sealing Film, Red	□ Square	5

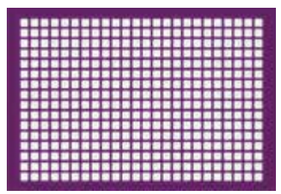
Pattern Adhesive Teflon® (PTFE) Sealing Films



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

- **Adhesive-free target areas**
- **Firm seal to microplate -80ºC to +120ºC**
- **Prevents cross-contamination and evaporation**
- **Outstanding performance for PCR applications**
  - *40 cycles, hot lid at 100ºC*
- **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

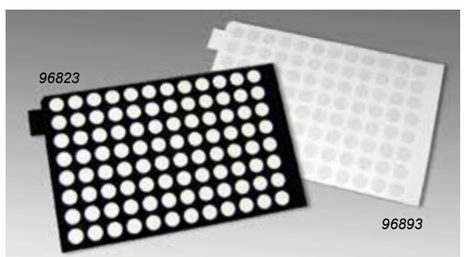
Cat. No.	Description	Well Shape	Qty
38402	Teflon (PTFE) Adhesive Film, **384**-Well Pattern, Ultra-thin, Purple	□ Square	100
38402SL	***Pre-slit*** Teflon Adhesive Film, **384**-Well Pattern, Ultra-thin, Red	⊞ Square	100

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

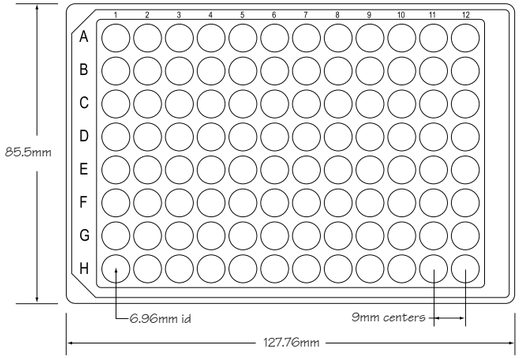
Outstanding solvent resistance including DMSO, aqueous mixture of isopropanol, ethanol, methanol and acetonitrile and superior chemical compatibility, with a firm seal at -80ºC to +120ºC.

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 -75ºC to +125ºC.

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



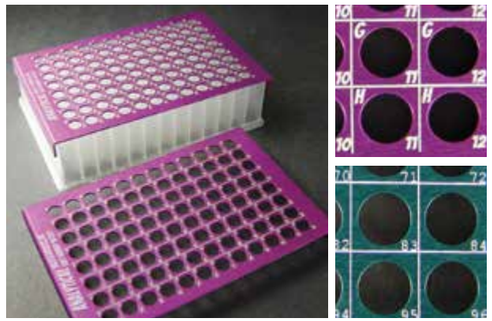




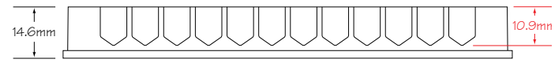
For more specifications on our collection plates, visit our website

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



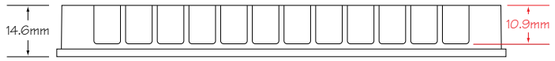
Round Well with V-Shaped Bottoms - 340µL

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



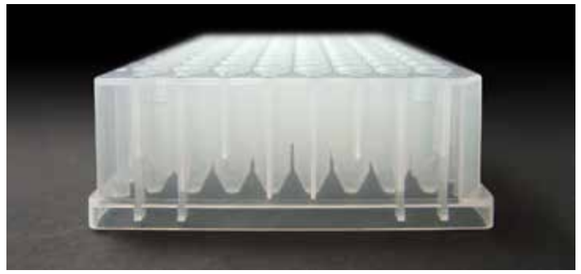
Round Well with U-Shaped Bottoms - 355µL

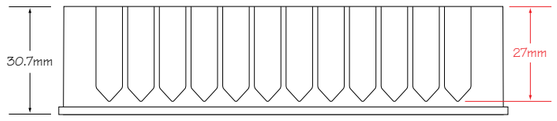
Cat. No.	Description	Material	Color	Volume	Qty
96355	U-Shaped Bottom	PP	CLEAR	355µL	100
96355GC	U-Shaped Bottom with **SiliGuard**	PP	**CLEAR**	355µL	25



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

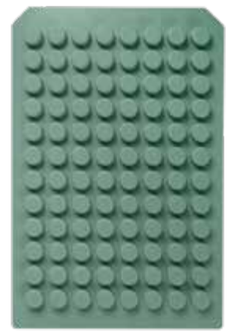


Cat No.	Color	Qty
965007	Purple	5

Ultra Thin Round Well, Soft Silicone/PTFE

Cat No.	Color	Qty
965075	Purple	5

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

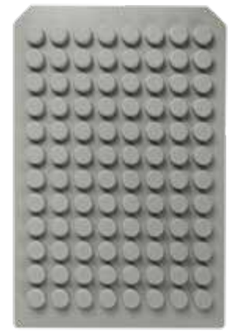


Cat No.	Color	Qty
963675	Green	5

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

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
96FPSO	Gray	5

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



Cat No.	Color	Qty
964007	CLEAR	5

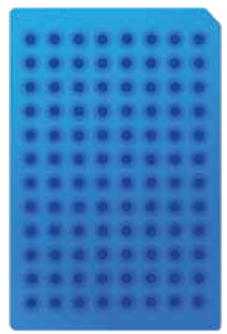
Ultra Thin Round Well, Soft Silicone/PTFE

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



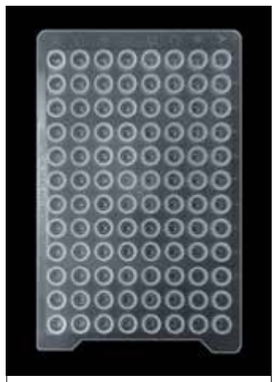
Cat No.	Color	Qty
967702	Blue	5

Round Well, Soft Silicone/PTFE, Better Suited for 2º - 8ºC Autosampler Temperatures

Cat No.	Color	Qty
967701	Blue	5

Pre-Slit Round Well, Soft Silicone/PTFE

Polypropylene Round Well Cap Mats



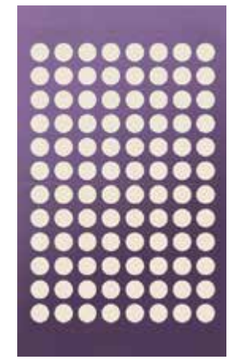
Cat No.	Color	Qty
96057	CLEAR	20

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 120ºC

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



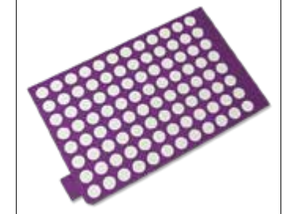
Cat No.	Color	Qty
961801	Purple	100

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

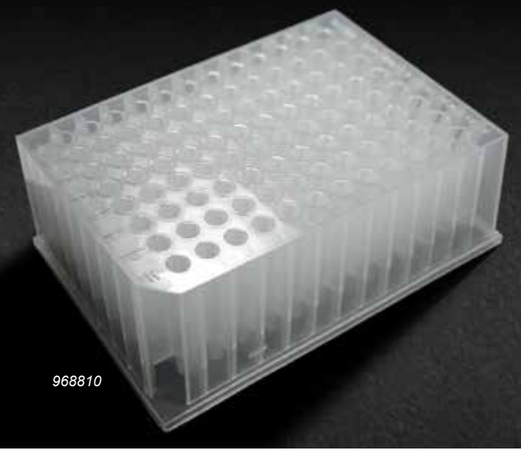
Pattern Adhesive *Resealable* Silicone Sealing Film (patented)



Cat No.	Color	Qty
96104	Purple	5

Round 96-Well Adhesive *Resealable* SILICONE Sealing Film

Refer to page **5** for Sealing Film Details

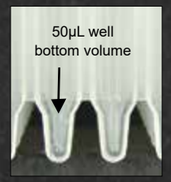

968810

TrueTaper® COLLECTION PLATES

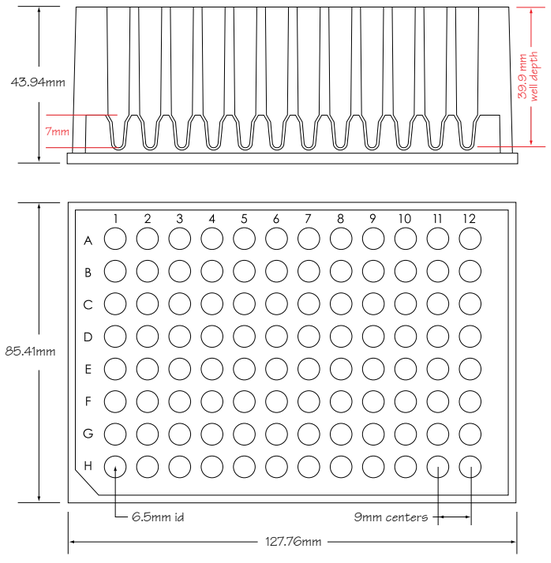
Available with SiliGuard™ SG Low Bind COATING

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*



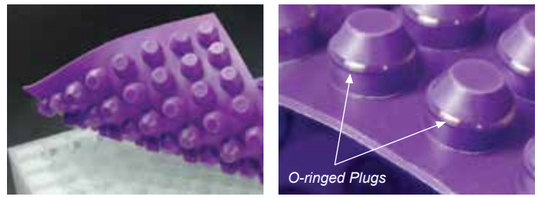
Cat. No.	Description	Volume	Qty
968810	1mL TrueTaper 96-Well Collection Plate	50µL bottom/ 1.0mL total	25
968810GC	1mL TrueTaper 96-Well Collection Plate with **SiliGuard**	50µL bottom/ 1.0mL total	25

TECH NOTE:

TrueTaper® COLLECTION PLATES

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

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

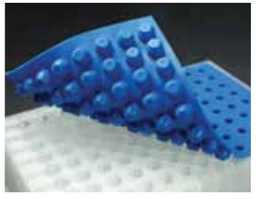


- **Unique O-ringed Plugs**
- Holds Seal with Vigorous Vortexing
- No Crosstalk
- Autosampler Compatible

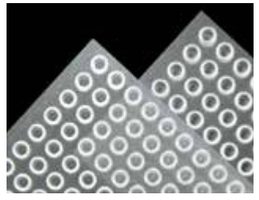
Cat No.	Color	Qty
960181	Purple	5
Silicone/PTFE Cap Mat, Round Well for 1mL TrueTaper Plate		

Cat No.	Color	Qty
960185	Purple	5
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
99890	Blue	5
Pre-Slit Opaque Silicone/PTFE Cap Mat, Round Well		



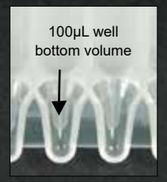
Cat No.	Color	Qty
99685	CLEAR	5
Silicone/PTFE Cap Mat, Round Well		
99690	CLEAR	5
Pre-Slit Silicone/PTFE Cap Mat, Round Well		

TrueTaper® COLLECTION PLATES

Available with SiliGuard™ SG Low Bind COATING

2mL TrueTaper®

96-Well Polypropylene Collection Plate



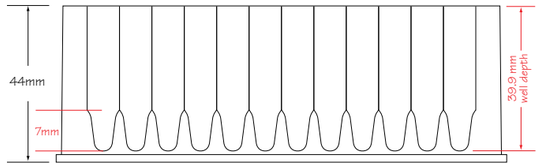
- **100µL** tapered bottom volume
- 2.0mL total volume capacity
- *Square* well with unique tapered bottom for **maximum sample recovery**
- *See Tech Note on Page 8*


968820

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*

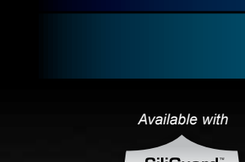
Cat. No.	Description	Volume	Qty
968820BL	2mL TrueTaper, Black	100µL bottom/2.0mL total	25



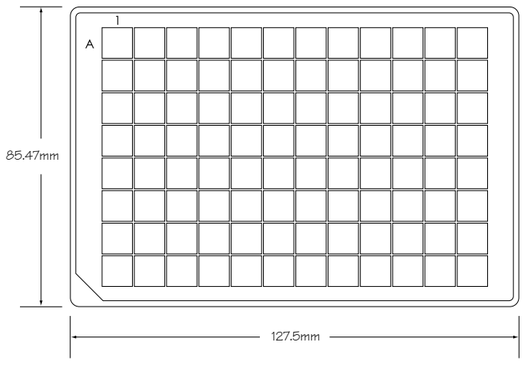
Resealable Silicone/PTFE Coated Cap Mats



Cat No.	Color	Qty
965008	Purple	5
Ultra Thin Square Well, Soft Silicone/ PTFE		
965085	Purple	5
Pre-Slit Ultra Thin Square Well, Soft Silicone/PTFE		



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





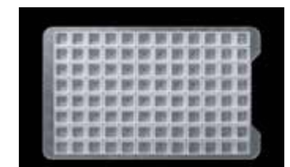
Cat No.	Color	Qty
964008	CLEAR	5
Ultra Thin Square Well, Soft Silicone/ PTFE		
964085	CLEAR	5
Pre-Slit Ultra Thin Square Well, Soft Silicone/PTFE		

Thicker Resealable Cap Mats

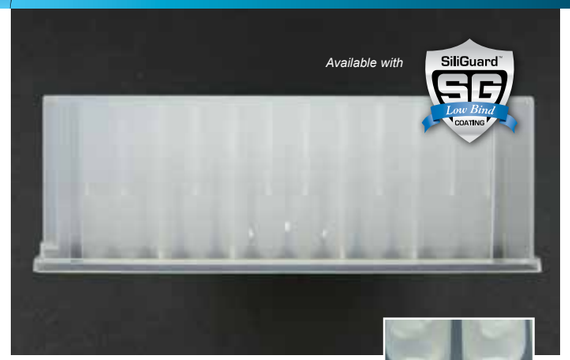


Cat No.	Color	Qty
968802	Blue	5
Square Well, Soft Silicone/PTFE		
968801	Blue	5
Pre-Slit Square, Soft Silicone/PTFE		

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***		

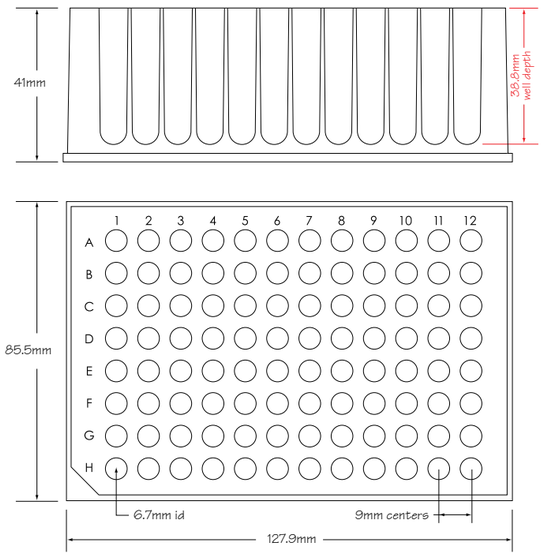




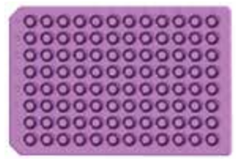
Advantage™ Standard 1mL Collection Plates with Round Wells & Round Bottoms

- 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



Resealable Silicone/PTFE Coated Round Well Cap Mats

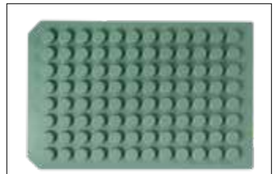


Cat No.	Color	Qty
965007	Purple	5

Ultra Thin Round Well, Soft Silicone/PTFE

Cat No.	Color	Qty
965075	Purple	5

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

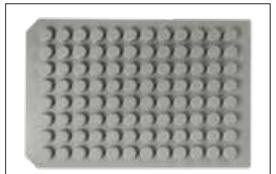


Cat No.	Color	Qty
963675	Green	5

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

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 2º - 8ºC 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 120ºC

Beige Rubber Cap Mats



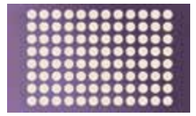
Cat No.	Color	Qty
96230	Beige	5

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

See page **5** for Sealing Film Details





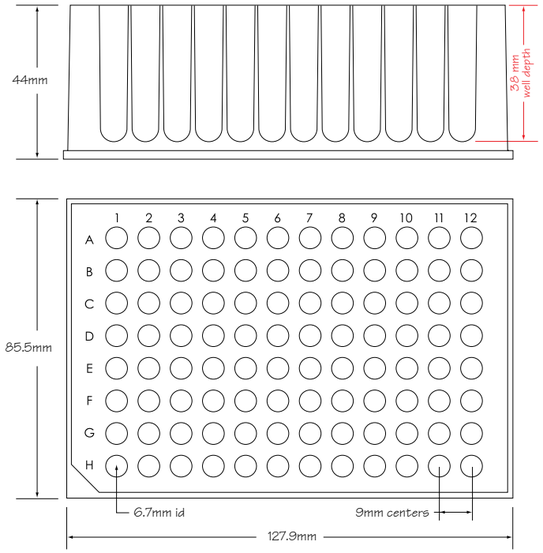
Old Favorite - *New Design!*

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

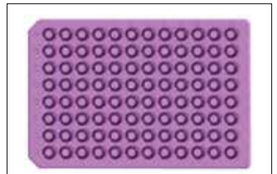
Sterilized plates are available upon request



TECH NOTE:

Configure in Agilent 1100 Autosampler: "96 DeepAgilent 41mm"

Resealable Silicone/PTFE Coated Round Well Cap Mats

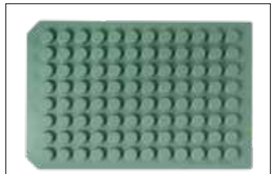


Cat No.	Color	Qty
965007	Purple	5

Ultra Thin Round Well, Soft Silicone/PTFE

Cat No.	Color	Qty
965075	Purple	5

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

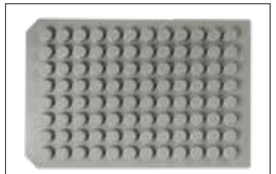


Cat No.	Color	Qty
963675	Green	5

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

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



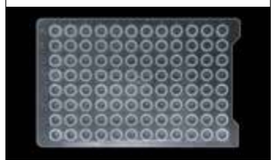
Cat No.	Color	Qty
967702	Blue	5

Soft Silicone/PTFE, Better Suited for 2º - 8ºC 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 120ºC

Beige Rubber Cap Mats



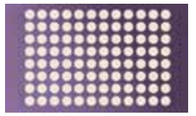
Cat No.	Color	Qty
96230	Beige	5

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

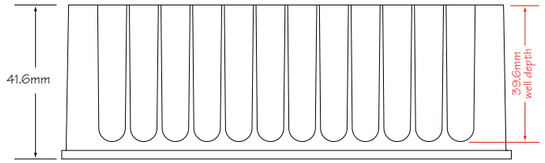
Pre-Slit PTFE Adh. Film, Round

96104	Purple	5

Round 96-Well Adhesive ***Resealable*** Silicone Sealing Film

See page **5** for Sealing Film Details

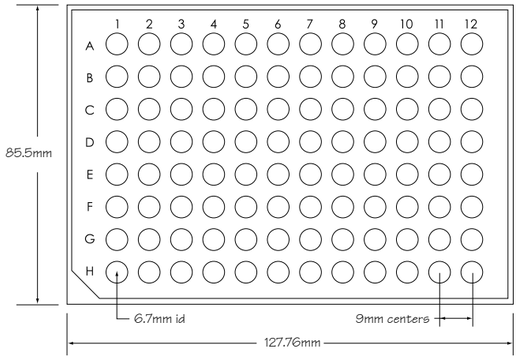




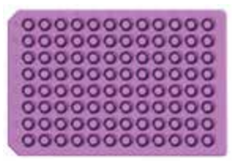
Advantage™ *Clear-Vu*™ 1mL Polypropylene Collection Plates with Round Well & Round Bottom

• 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



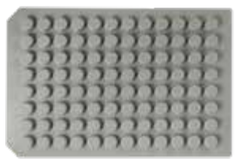
Resealable Silicone/PTFE Coated Round Well Cap Mats



Cat No.	Color	Qty
965007	Purple	5
Ultra Thin Round Well, Soft Silicone/ PTFE		
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 -80ºC)***		
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***		
96FPSO	Gray	5
Pre-Slit Round Well, Soft Silicone/ PTFE, ***good w/ aggressive solvents***		



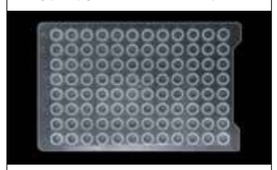
Cat No.	Color	Qty
964007	CLEAR	5
Ultra Thin Round Well, Soft Silicone/ PTFE		
964075	CLEAR	5
Pre-Slit Ultra Thin Round Well, Soft Silicone/PTFE		

Thicker Resealable Cap Mats



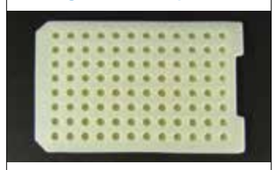
Cat No.	Color	Qty
967702	Blue	5
Soft Silicone/PTFE, Better Suited for 2º - 8ºC Autosampler Temperatures		
967701	Blue	5
Pre-Slit, Round, Soft Silicone/PTFE		

Polypropylene Round Cap Mats



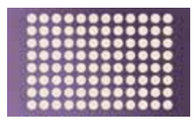
Cat No.	Color	Qty
96057	CLEAR	20
PP, Pierceable 'X' in Each Well		
96017	CLEAR	20
for Storage Only - up to 120ºC		

Beige Rubber Cap Mats



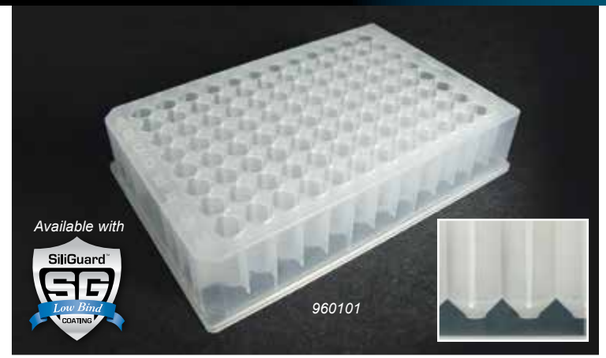
Cat No.	Color	Qty
96230	Beige	5
Beige Rubber Cap Mat, Round Well, ***Reduced Evaporation***		
96235	Beige	5
Pre-Slit Beige Rubber Cap Mat, Round		

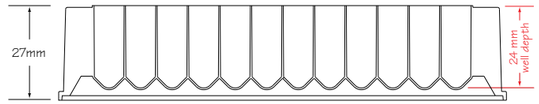
Pattern Adhesive Sealing Film



Cat No.	Color	Qty
961801	Purple	100
PTFE Adhesive Film, Ultra-thin, Round		
961802	Purple	100
Pre-Slit PTFE Adh. Film, Round		
96104	Purple	5
Round 96-Well Adhesive ***Resealable*** Silicone Sealing Film		

See page **5** for Sealing Film Details

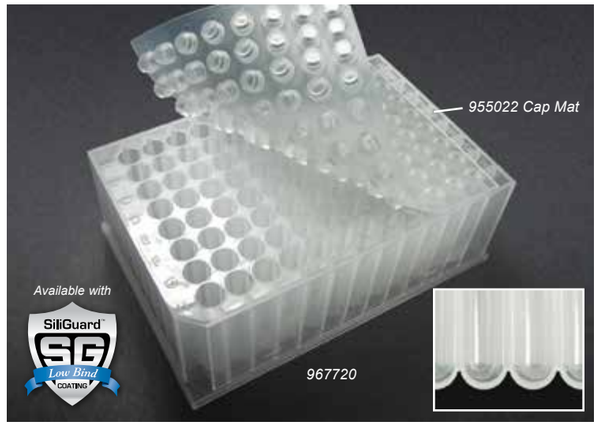


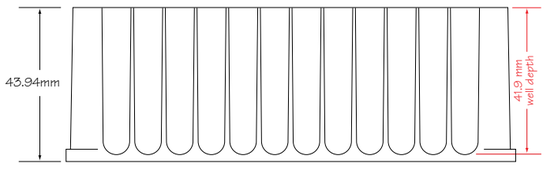


Advantage™ 1mL Half-Height 96-Well Collection Plate

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

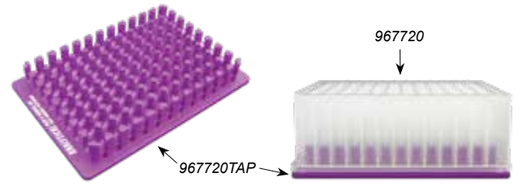
Use with Cap Mats 955011, 955022, 966011 or 966022 *(see below for details)*





2mL Round Well/Round Bottom Collection Plate

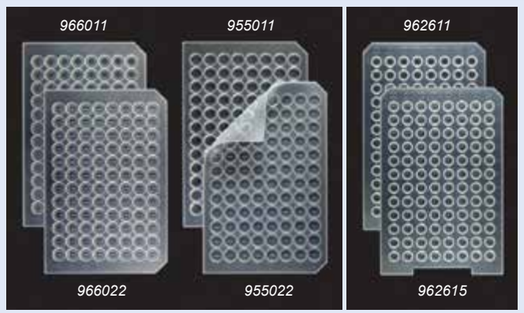
Cat. No.	Description	Volume	Qty
967720	2mL Round Well/Round Bottom 96-Well Collection Plate	2mL	25
967720GC	2mL Round Well/Round Bottom w/ **SiliGuard**	2mL	25



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	***Pre-Slit*** Silicone/PTFE Cap Mat, Shallow Plug, Wider Surface Area	5
966011	Silicone/PTFE Cap Mat, Deeper Plug, Thicker	5
966022	***Pre-Slit*** Silicone/PTFE Cap Mat, Deeper Plug, Thicker	5

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

962611	Clear Silicone/PTFE Cap Mat for Low Profile Collection Plates	5
962615	***Pre-Slit*** 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

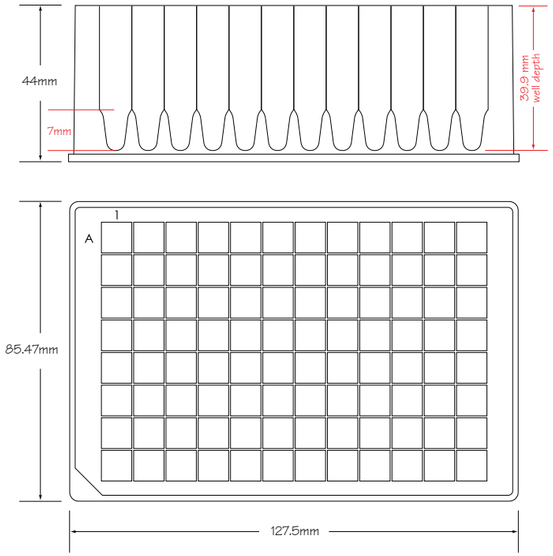


Advantage™ 2mL 96-Well Collection Plates
Square Well with V-Shaped Bottom

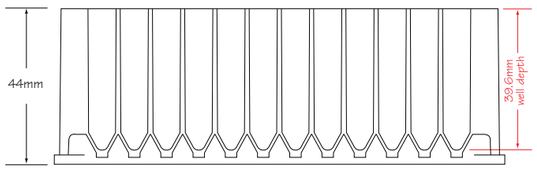
Cat. No.	Description	Material	Volume	Qty
59623-23	Square Top, V-Bottom Collection Plate	PP	2mL	10
59623-23GC	Square Top, V-Bottom w/ **SiliGuard**	PP	2mL	10
59623-23BK	**BLACK** Square Top, V-Bottom	PP	2mL	10

TrueTaper® COLLECTION PLATES

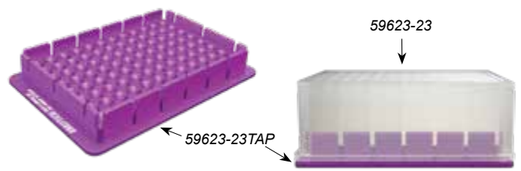
2mL TrueTaper®
96-Well Polypropylene Collection Plate



Use with these Cap Mats →



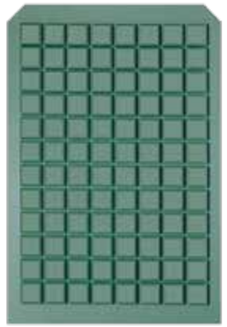
TECH NOTE:
Part no. 59623-23 - Transition from square sides to cone bottom is sloped - NO FLAT LEDGES.



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

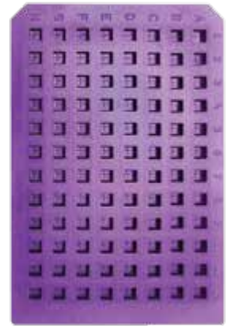


Cat No.	Color	Qty
963725	Green	5

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

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

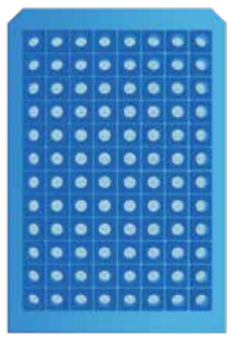
Pre-Slit Ultra Thin Square Well, Soft Silicone/PTFE

Rubber Roller
- Secures cap mat to plate



Cat No.	Qty
96400	Each

Thicker Resealable Silicone, PTFE Coated Cap Mats
- Use in Shimadzu autosamplers



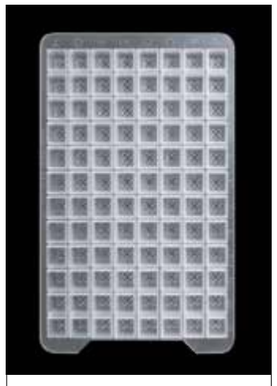
Cat No.	Color	Qty
968802	Blue	5

Square Well, Soft Silicone/PTFE, Better Suited for 2º - 8ºC Autosampler Temperatures

Cat No.	Color	Qty
968801	Blue	5

Pre-Slit Square Well, Soft Silicone/PTFE

Polypropylene Square Well Cap Mats



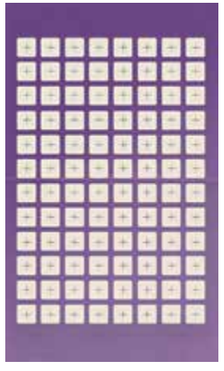
Cat No.	Color	Qty
2726	CLEAR	20

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

Cat No.	Color	Qty
3726	CLEAR	24

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

Pattern Adhesive PTFE Sealing Film (patented)



Cat No.	Color	Qty
961201	Purple	100

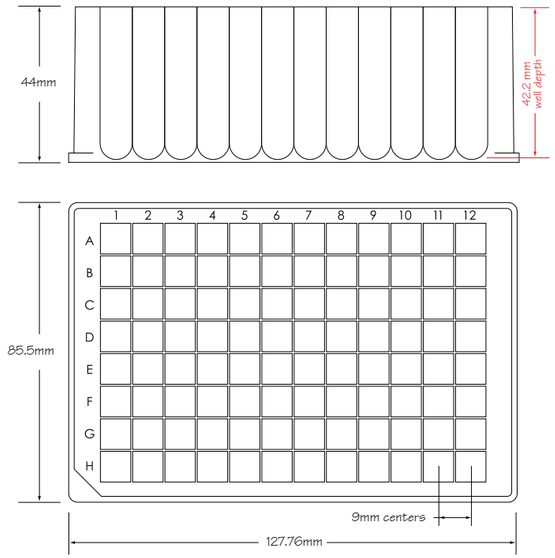
PTFE Adhesive Film, Square 96-Well Pattern, Ultra-thin

Cat No.	Color	Qty
961202	Purple	100

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

See page 5 for Sealing Film Details





Advantage™ 2mL Polypropylene 96-Well Collection Plates

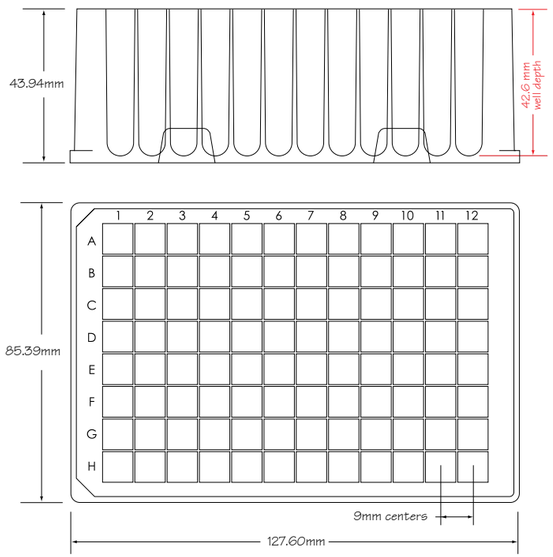
Square Well with Round Bottom

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

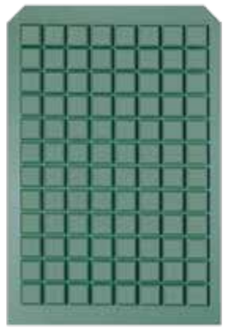
Square Well with Round Bottom

• 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

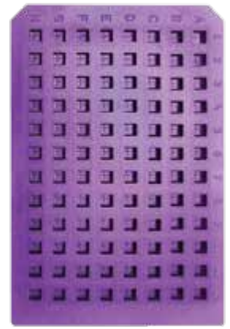


Cat No.	Color	Qty
963725	Green	5

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

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

Rubber Roller

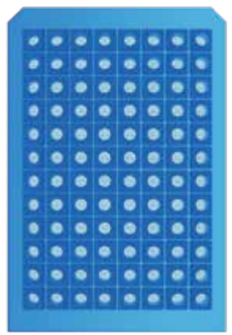
• Secures cap mat to plate



Cat No.	Qty
96400	Each

Thicker Resealable Silicone, PTFE Coated Cap Mats

• Use in Shimadzu autosamplers



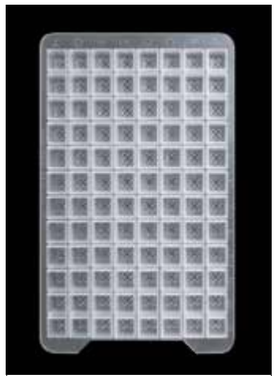
Cat No.	Color	Qty
968802	Blue	5

Square Well, Soft Silicone/PTFE, Better Suited for 2º - 8ºC Autosampler Temperatures

Cat No.	Color	Qty
968801	Blue	5

Pre-Slit Square Well, Soft Silicone/PTFE

Polypropylene Square Well Cap Mats



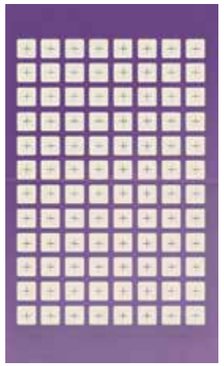
Cat No.	Color	Qty
2726	CLEAR	20

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

Cat No.	Color	Qty
3726	CLEAR	24

2mL Square Cap Mat, Low Temp. (-80º), 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

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

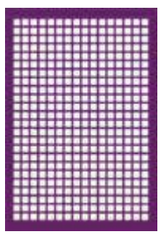
Cat. No.	Description	Volume	Qty
38120	384-Well Collection Plate, PP, Flat Bottom, Clear	120µL	24

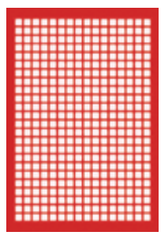
Cat. No.	Description	Volume	Qty
38200	384-Well Collection Plate, PP, Round Bottom, Clear	200µL	24
38200B	384-Well Collection Plate, PP, Round Bottom, Blue	200µL	24
38200G	384-Well Collection Plate, PP, Round Bottom, Green	200µL	24
38200R	384-Well Collection Plate, PP, Round Bottom, Red	200µL	24
38200Y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

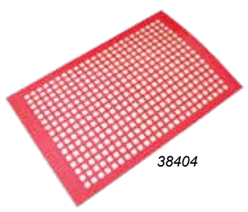
Cat. No.	Description	Volume	Qty
38400	384-Well Collection Plate, PP, Round Bottom, Clear	400µL	24
38400B	384-Well Collection Plate, PP, Round Bottom, Blue	400µL	24
38400G	384-Well Collection Plate, PP, Round Bottom, Green	400µL	24
38400R	384-Well Collection Plate, PP, Round Bottom, Red	400µL	24
38400Y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

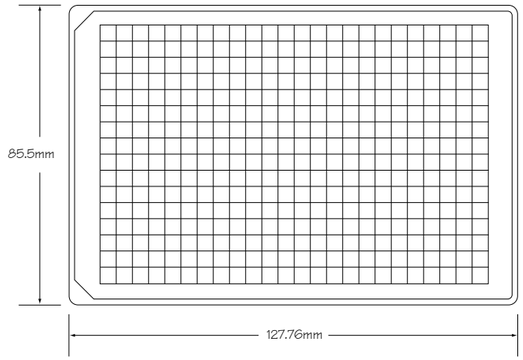
384-Well Pattern Adhesive PTFE (Teflon®) Sealing Film

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	348-Well, 10 mil Adhesive Silicone Sealing Film, Resealable, Red	5

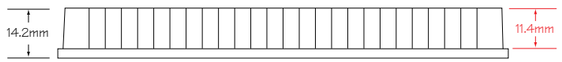

38402


38402SL

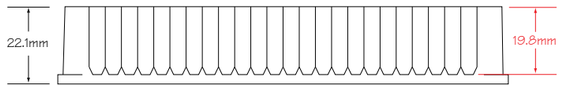

38404



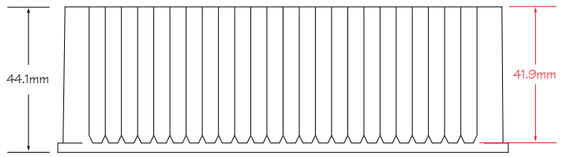
120µL, Flat Bottom

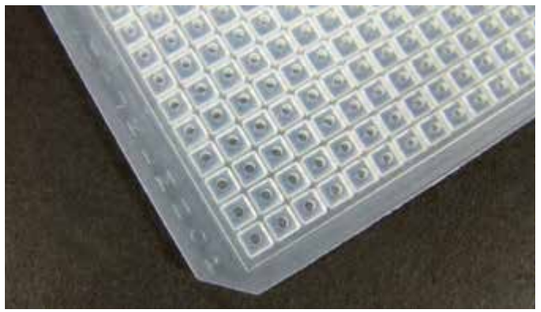


200µL, Round Bottom



400µL, Round Bottom





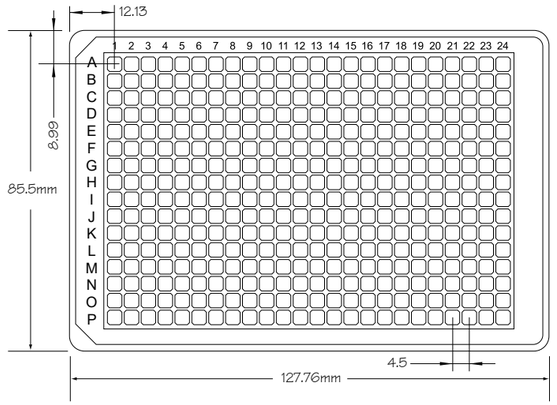
384-Well Soft Silicone Cap Mats & Accessories

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

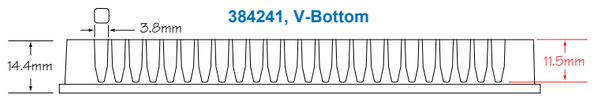

384201

384-Well Collection Plates

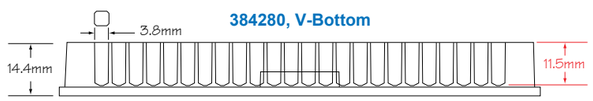
Cat. No.	Description	Volume	Qty
384241	384-Well Collection Plate, **V-Bottom**, Polypropylene	1-90µL	100
384280	384-Well Collection Plate, **V-Bottom**, Polypropylene	13-120µL	100
384201	384-Well Collection Plate, **Flat Bottom**, Polypropylene	15-145µL	100



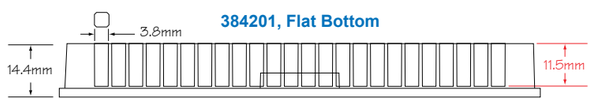
384241, V-Bottom

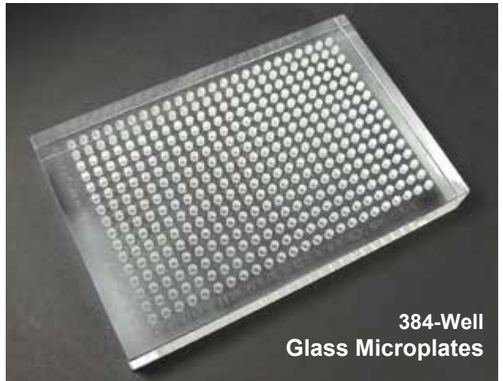


384280, V-Bottom

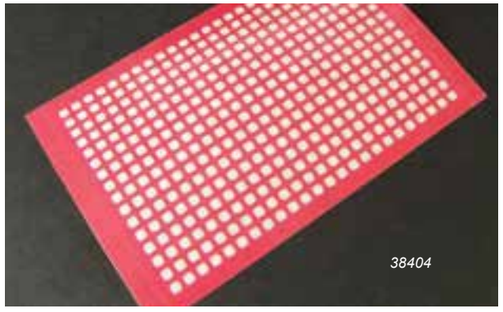


384201, Flat Bottom




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

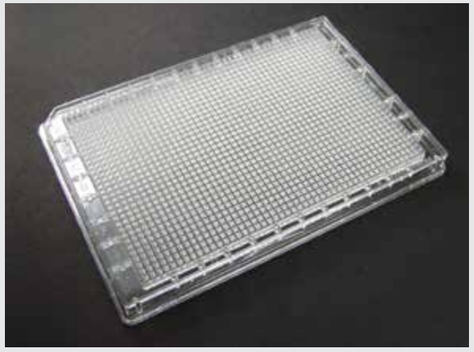

38404

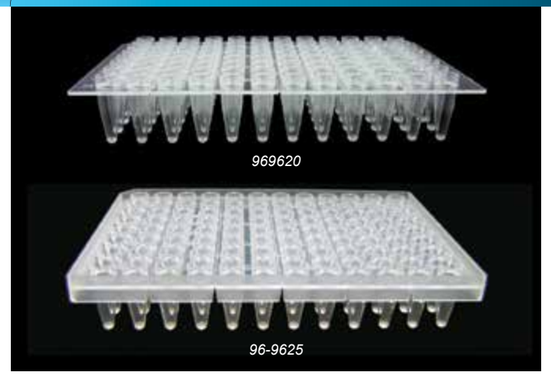
384-Well, 10 mil Adhesive Silicone Sealing Mat
Gas Permeable, Breathable (Ideal for cell growth)

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

Available with SiliGuard SG Low Bind Coating

- 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 *(Alternative to Robbins Plate)*	100
969620B	Clear 250µL PCR Plate, 3mm Rim Around Each Well, Blue	100
969620Y	Clear 250µL PCR Plate, 3mm Rim Around Each Well, Yellow	100
96-9625	Clear 250µL PCR Plate, 3mm Rim Around Each Well, *(Alternative to Corning® Plate)*	100

Thin Wall PCR Plates

Available with SiliGuard SG Low Bind Coating

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

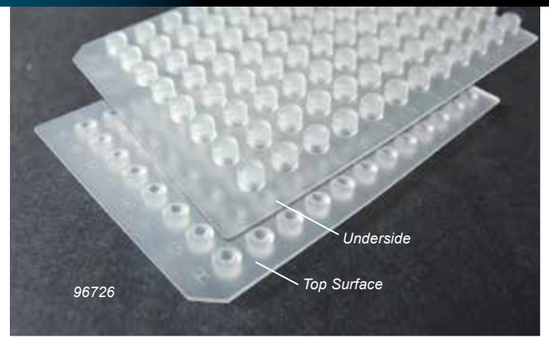
Cat. No.	Description	Qty
969610	Clear 200µL PCR Plate, Flat Well Rim	100
969610B	**Blue** 200µL PCR Plate, Flat Well Rim	100



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	**Blue** 100µL Skirted Low Profile Plate	100
For chemical illuminescent and fluorescent procedures:		
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.

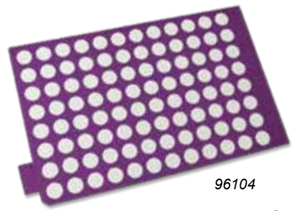




Cap Mats for PCR Plates

Cat. No.	Description	Qty
96726	PCR Silicone Cap Mat	5
96727	PCR **Pre-slit** Silicone Cap Mat	5
96727-8	PCR **Pre-slit** 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	**Purple** PTFE Adhesive Film, Round 96-Well Pattern, Ultra-thin	100
96893	White Teflon Film, Round 96-Well Pattern	100
96823	**Black** Teflon Film, Round 96-Well Pattern	100



Standard Sealing Films

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

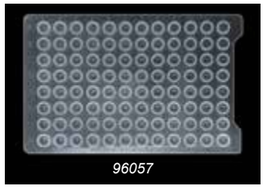
Cat. No.	Description	Qty
968120	**Aluminum** Foil Film for PCR, **1.5**mils, Pierceable	100
964012	Clear **Polypropylene** Film for PCR, **2**mils, *not pierceable*	100

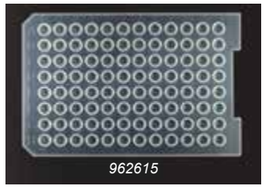




1.2mL Polypropylene Tubes in 96-Well Blocks

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	***Pre-Slit*** 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.







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, **Pierceable**, 8 Caps/Strip	125

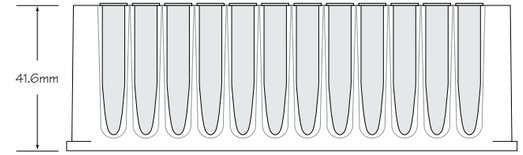
PRODUCT TIP:

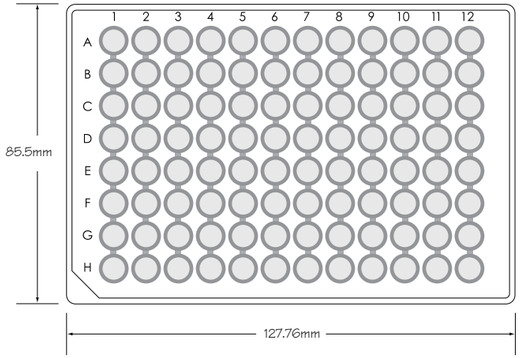
For more options of individual tubes in a 96-well format, look at Flexi-Tier (page 26), Collection Plates w/Inserts (page 30) and Select-A-Vial (page 32).

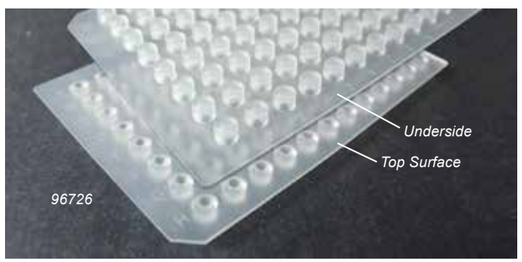
Deep Well Plates with 600µL 8-Tube Strips

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









PCR Cap Mats for 600µL Polypropylene Tubes

Cat. No.	Description	Qty
96726	PCR Silicone Cap Mat with 6mm Plugs	5
96727	PCR **Pre-slit** Silicone Cap Mat with 6mm Plugs	5
96727-8	6mm **Pre-Slit** 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	24-Well	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	24-Well	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	24-Well	5

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



Cat. No.	Format	Partitions	Qty
48685	48-Well	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	48-Well	100

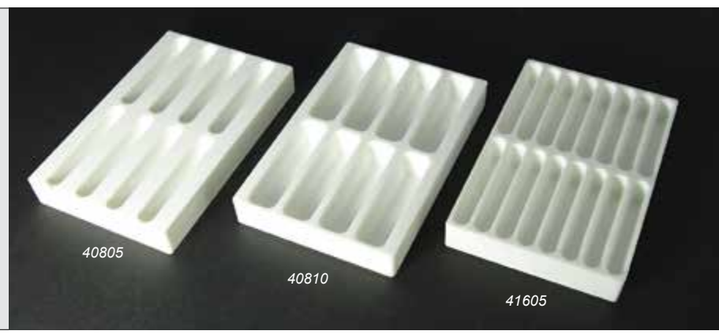
Pierceable Santoprene **Cap Mat** for 48-Well Plates, White

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

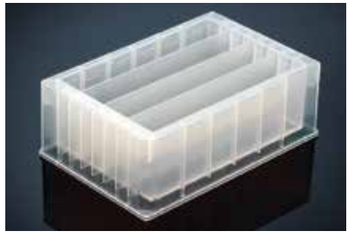




V-Troughs

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





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



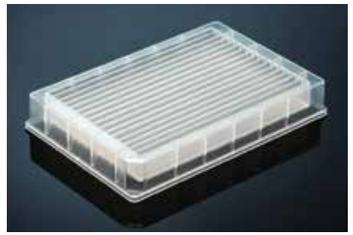
Cat. No.	Format	Partitions	Qty
47005	Columns	12 Columns	25

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
24296	Columns	24 Columns	25

Low Profile PP Reservoir, 3.3mL/column, 78mL max, Height: 19mm, Well Bottom Shape: Pyramid



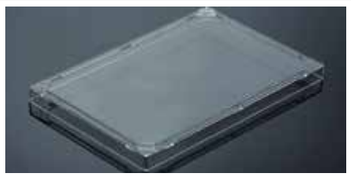
Cat. No.	Format	Partitions	Qty
47025	Special	12 Columns, 2 Rows	25

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



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

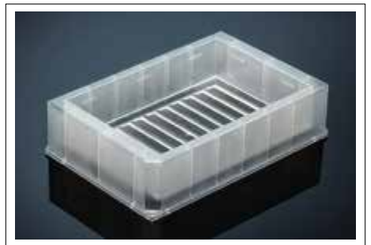
PRODUCT TIP:

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



Cat. No.	Format	Partitions	Qty
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



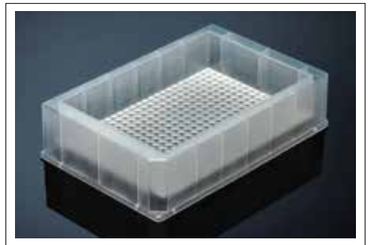
Cat. No.	Format	Partitions	Qty
96173	Open	None, **96**-Well Base	25

Deep Well PP Reservoir, 287mL max Volume, Height: 44mm, Well Bottom Shape: Pyramid



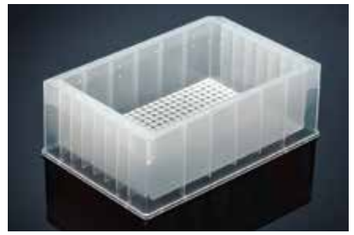
Cat. No.	Format	Partitions	Qty
38481	Open	None, **384** Well Base	25

Low Profile PP Reservoir, 92mL max Volume, Height: 19mm, Well Bottom Shape: Pyramid



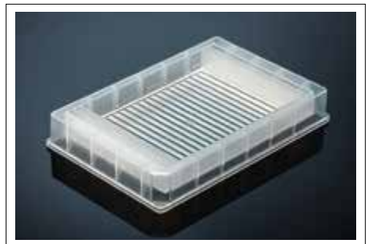
Cat. No.	Format	Partitions	Qty
38455	Open	None, **384** Well Base	25

Half Height PP Reservoir, 170mL max Volume, Height: 30.6mm, Well Bottom Shape: Flat



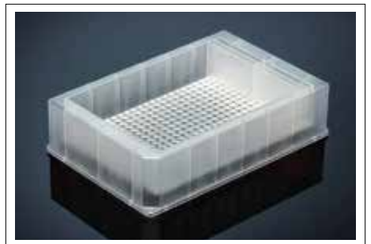
Cat. No.	Format	Partitions	Qty
38471	Open	None, **384** Well Base	25

Deep Well PP Reservoir, 282mL max Volume, Height: 44mm, Well Bottom Shape: Pyramid



Cat. No.	Format	Partitions	Qty
38485	Special	4 Controls, 24 Column Base	25

Low Profile PP Reservoir, 3.25mL/control, 86.3mL main, Height: 19mm, Well Bottom Shape: Pyramid



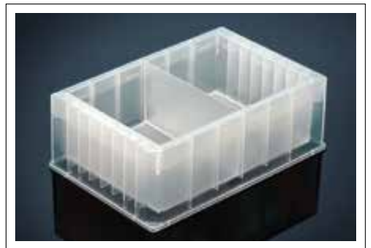
Cat. No.	Format	Partitions	Qty
38444	Special	4 Controls, **384**-Well Base	25

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



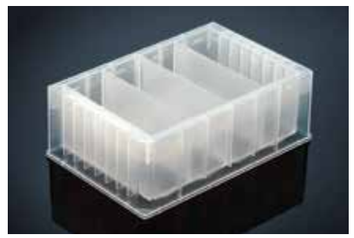
Cat. No.	Format	Partitions	Qty
962144	Columns	2 Columns	25

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

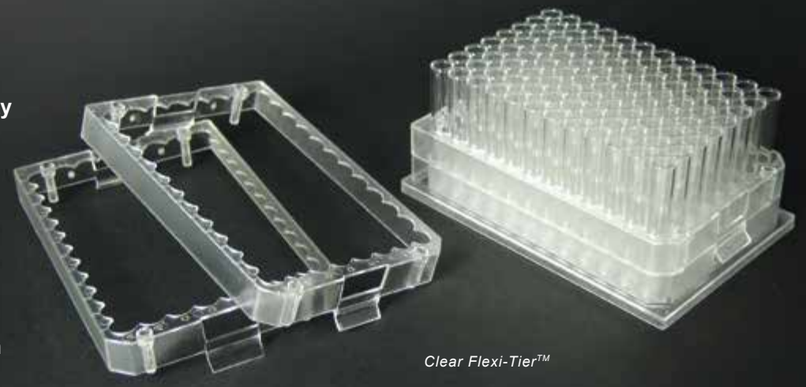


Cat. No.	Format	Partitions	Qty
96733	Columns	4 Columns	25

Deep Well PP Reservoir, 73mL/column, 292mL max, Height: 44mm, Well Bottom Shape: Pyramid

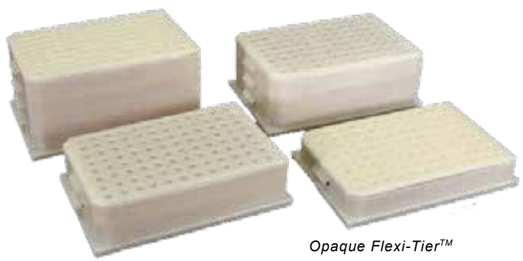
Flexi-Tier™

- 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



Clear Flexi-Tier™





Opaque Flexi-Tier™

Compatible with all autosampler & robotic systems



96-Position Flexi-Tier™ Complete Opaque Systems*

Heat Resistance up to 80ºC

See **Aluminum Bases** for low temperature (-20º to -80ºC) 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 150ºC

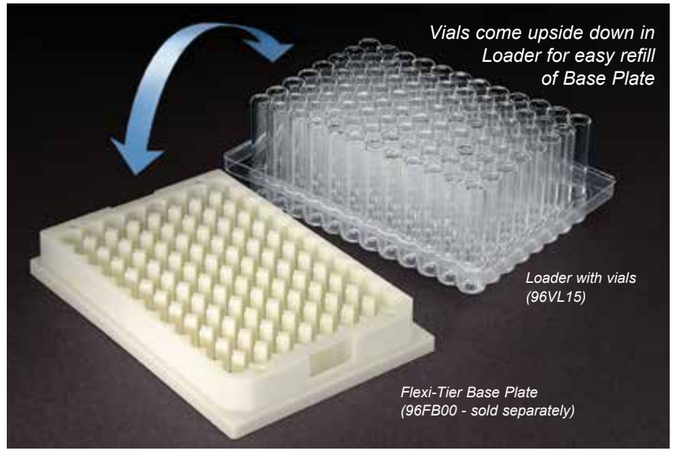
See **Aluminum Bases** for low temperature (-20º to -80ºC) applications

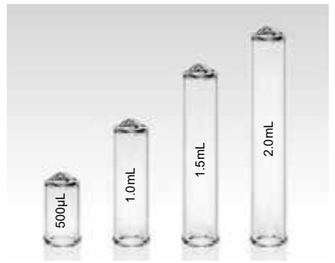
Cat. No.	Size	Material & Style	Base	Qty
96FP05-C	0.5mL	Clear Conical Glass	Clear	Each
96FP10-C	1.0mL	Clear Conical Glass	Clear	Each
96FP15-C	1.5mL	Clear Conical Glass	Clear	Each
96F220-C	2.0mL	Clear Conical Glass	Clear	Each
96F220A-C	2.0mL	Amber Conical Glass	Clear	Each
96BB05-C	0.5mL	Clear Flat Bottom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

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.



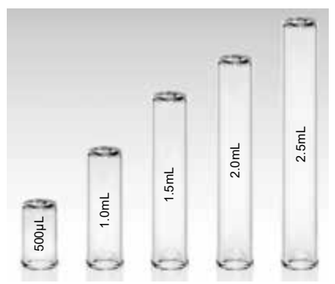


Conical Bottom Clear Glass Vials

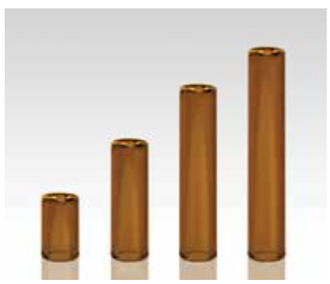


Conical Bottom Amber Glass Vials

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



Flat Bottom Clear Glass Vials



Flat Bottom Amber Glass Vials

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

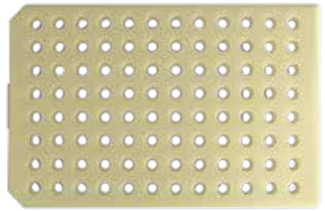
Bulk, Loose Glass Inserts

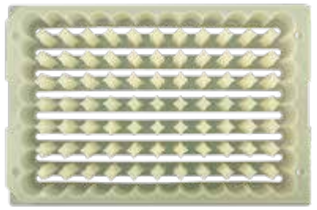
Cat. No.	Type	Style	Volume	Qty
96F005	Conical	Clear	0.5mL	100
96F010	Conical	Clear	1.0mL	100
96F015	Conical	Clear	1.5mL	100
96F020	Conical	Clear	2.0mL	100
96F005A	Conical	Amber	0.5mL	100
96F010A	Conical	Amber	1.0mL	100
96F015A	Conical	Amber	1.5mL	100
96F020A	Conical	Amber	2.0mL	100
96F605	Flat Bottom	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

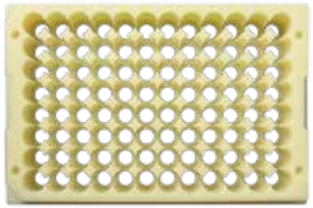


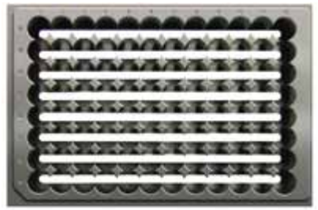
Flexi-Tier™ Collection Plate Accessories

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

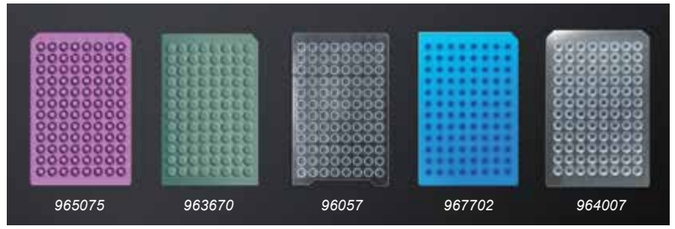
Advantage™ 96-Well Aluminum Base Plates

- 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

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


96A002


965075 963670 96057 967702 964007

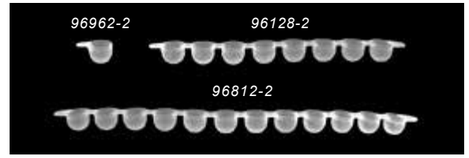
Cap Mats For Flexi-Tier & Aluminum Collection Systems

Cat. No.	Description	Qty
965007	Ultra Thin Round Well, Soft Silicone/PTFE, Purple	5
965075	***Pre-Slit*** Ultra Thin Round Well, Soft Silicone/PTFE, Purple	5
963675	Round Well, Silicone/PTFE, Green	5
963670	***Pre-Slit*** 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	***Pre-Slit*** 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	***Pre-Slit*** Molded PTFE/Silicone Liner, White	5
96FSC3STRIP	***Pre-Slit*** Molded PTFE/Silicone 8 Position Strip Liner	12
96FSC3PLUG	***Pre-Slit*** 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


96962-2 96128-2 96812-2


96FSC2-12


96FSC2PLUG

Advantage™ 96-Well Aluminum Collection System for High Throughput

Conforms to SLAS

- **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, **Pre-Slit** Silicone/PTFE Cap Mat, Pre-Assembled	1
96385	96-Well Plate (27P687), 0.7mL Flat Bottom Glass Inserts, CLEAR 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 Purple 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.

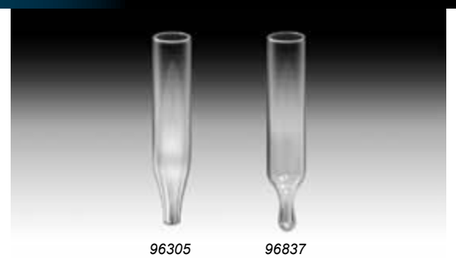
Loose & Assembled 0.7mL Inserts - *Silanized*

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

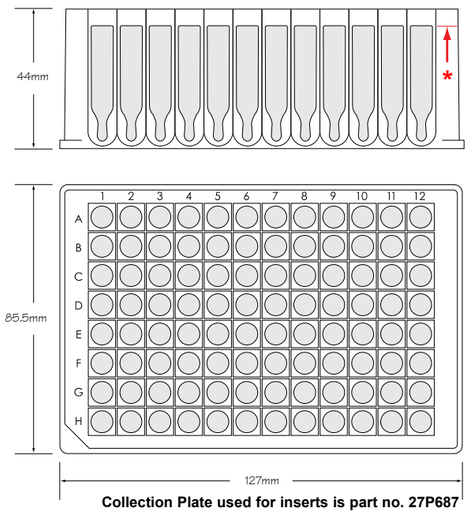
**** 0.7mL glass Inserts do not reach the top surface of the collection plate - use these square-well cap mats:***

96-Well Square Cap Mats

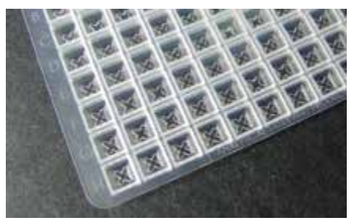
Cat. No.	Description	Qty
2726	2mL Autosampler Compatible Square PP Cap Mat with 'X' on Surface	20
964008	CLEAR Ultra Thin Silicone/PTFE Square Cap Mat	5
964085	CLEAR **Pre-Slit**, Ultra Thin Silicone/PTFE Square Cap Mat	5
965008	Purple Ultra Thin Silicone/PTFE Square *Mighty Mat*	5
965085	Purple **Pre-Slit**,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



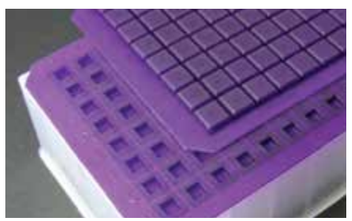




Collection Plate used for inserts is part no. 27P687


2726


964085

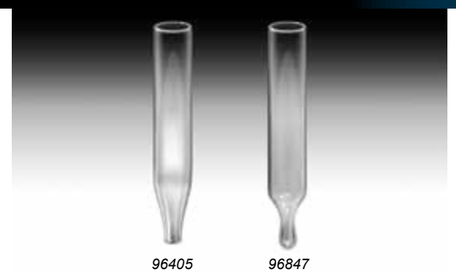

965085

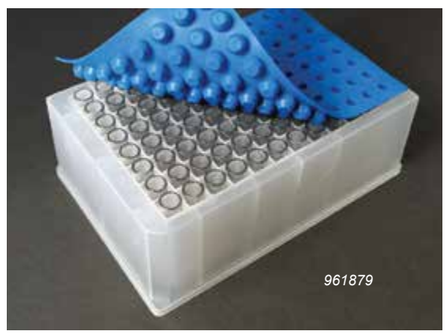
Loose & Assembled 1mL Flat Bottom Inserts

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, ***Pre-slit*** Clear Silicone/PTFE Cap Mat	1
96489	96-Well Plate, 1mL Flat Bottom Glass Inserts, ***Pre-slit*** Blue 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, ***Pre-slit*** Clear Silicone/PTFE Cap Mat	1
961879	96-Well Plate, Tapered 1mL Glass Inserts, ***Pre-slit*** Blue Silicone/PTFE Cap Mat	1





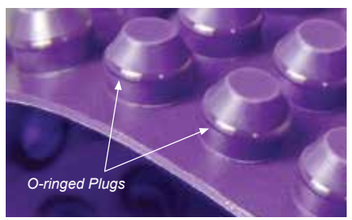
Loose & Assembled 1mL Inserts - *Silanized*

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

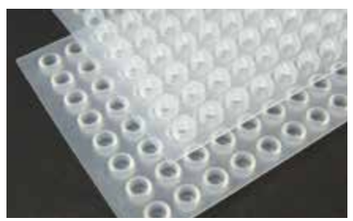
**** 1mL glass Inserts extend beyond the top surface of the collection plate - use these round-well cap mats:***

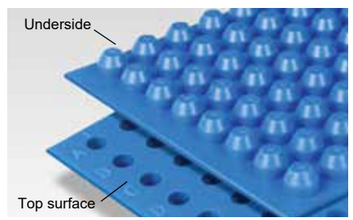
96-Well Round Cap Mats

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



960181


99690



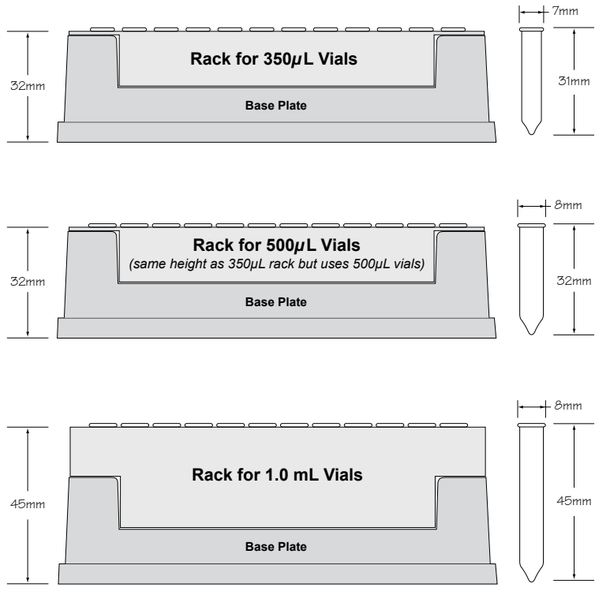
99890

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

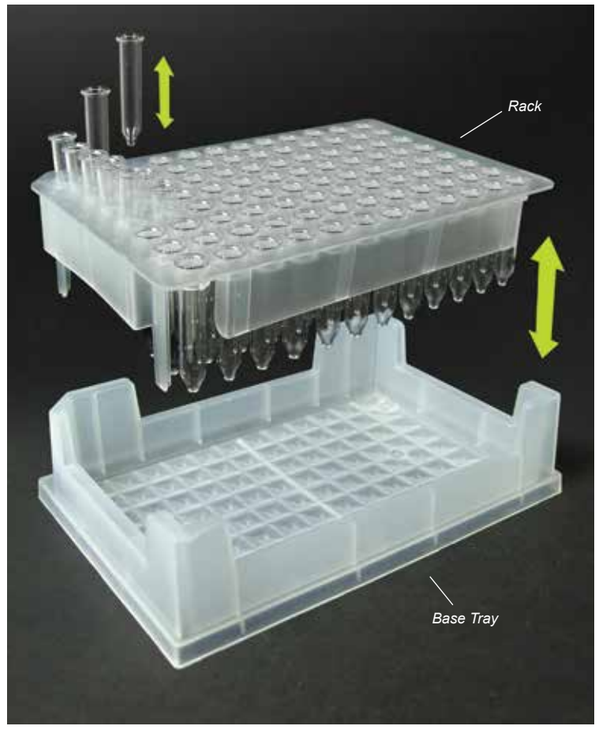
Cat. No.	Description	Qty
27350	350µL Clear Conical Glass Inserts in Rack and Base Tray	Each
27350S	350µL ***Silanized*** Conical Glass Inserts in Rack and Base Tray	Each
27500	500µL Clear Conical Glass Inserts in Rack and Base Tray	Each
27500S	500µL ***Silanized*** Conical Glass Inserts in Rack and Base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

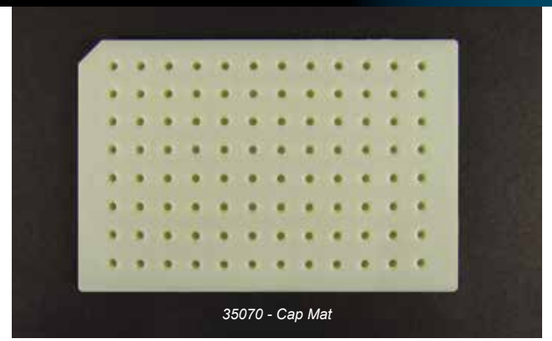
Assembled Glass Inserts in Racks Only

Cat. No.	Description	Qty
35078	350µL Clear Conical Glass Inserts in Rack Only	6 Racks/Pkg
35078S	350µL ***Silanized*** Conical Glass Inserts in Rack Only	6 Racks/Pkg
50078	500µL Clear Conical Glass Inserts in Rack Only	6 Racks/Pkg
50078S	500µL ***Silanized*** 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 ***Silanized*** Conical Glass Inserts in Rack Only	6 Racks/Pkg

PRODUCT NOTE:

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

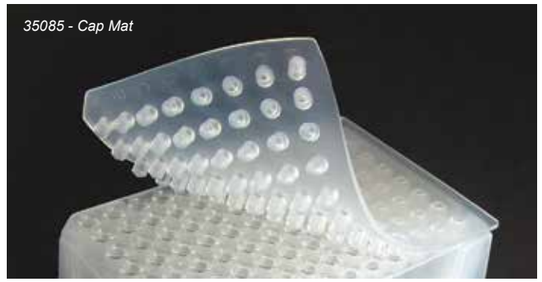




Beige Rubber Cap Mats for Select-A-Vial

For 350µL Vials

Cat. No.	Description	Qty
35070	Rubber Cap Mat for 350µL Conical Inserts	5
35075	***Pre-Slit*** 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	***Pre-Slit*** Silicone/PTFE Cap Mat for 350µL Conical Inserts	5



Base Tray

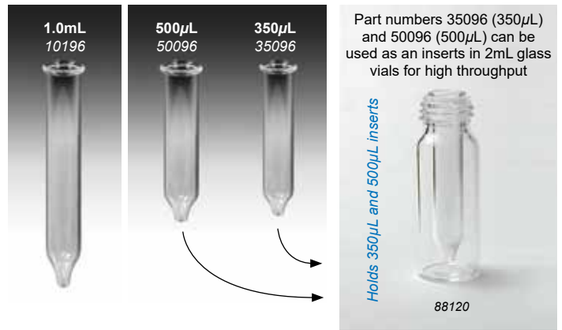
Cat. No.	Description	Qty
20096	Clear Base for All Racked Glass Inserts	6



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	***Pre-Slit*** Rubber Cap Mat for 500µL & 1mL Conical Inserts	5



Bulk, Loose Glass Inserts

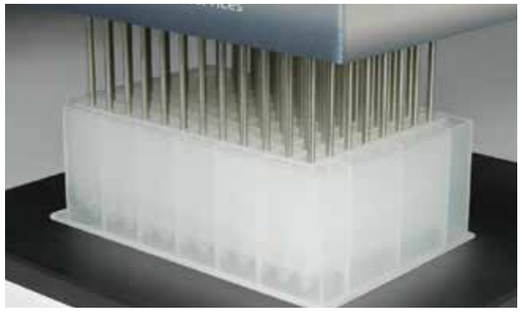
Cat. No.	Description	Qty
35096	350µL Clear Conical Glass Inserts	100
35096S	350µL ***Silanized*** Conical Glass Inserts	100
50096	500µL Clear Conical Glass Inserts	100
50096S	500µL ***Silanized*** Conical Glass Inserts	100
10196	1.0mL Clear Conical Glass Inserts	100
10196S	1.0mL ***Silanized*** Conical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



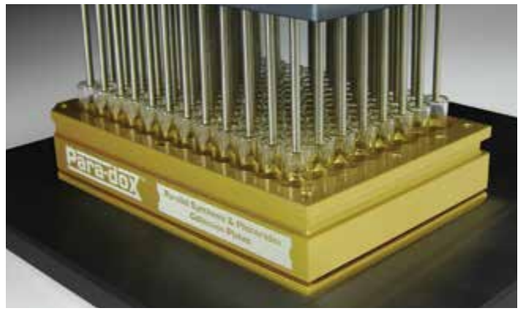
PRODUCT NOTE:

Requires regulated air supply set between 80-110 psi

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*

Collection Plate Accessories
EquaVAP® Blowdown Evaporators

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



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***

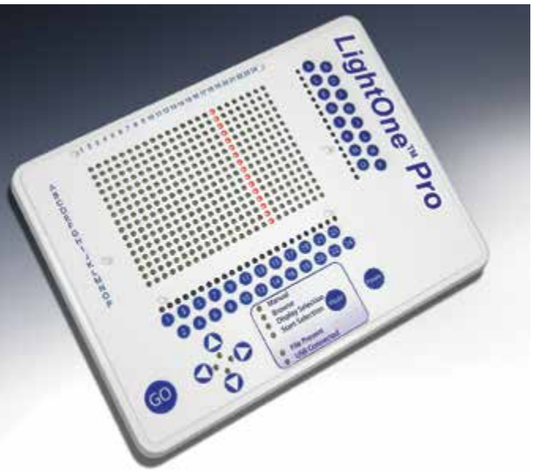
The LightOne Illuminator is a compact, bench top pipetting aid for enhanced visualization of 96-well plates. It provides illumination of specific wells during dispensing and as a stand-alone device, requires no computer interface. The illumination may be advanced manually or automatically using a user-defined 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**
- **15º Stand**
- **25º 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

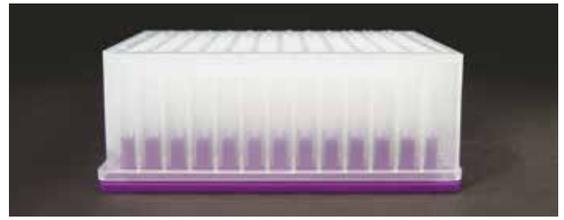


Thermal Adapter Plates

- **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.









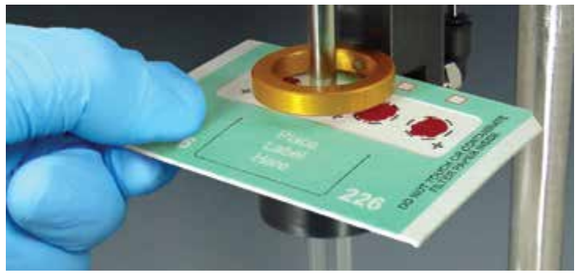
Thermal Adapter Plates

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**

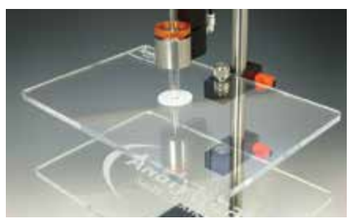


Punch Size	Complete System[1]	Pod Only[2]	Replacement Cutters[3]	Replacement Glass Pipette
3 mm	327300	327301	327903	327888
4 mm	327400	327401	327904	
5 mm	327500	327501	327905	
6 mm	327600	327601	327906	

(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



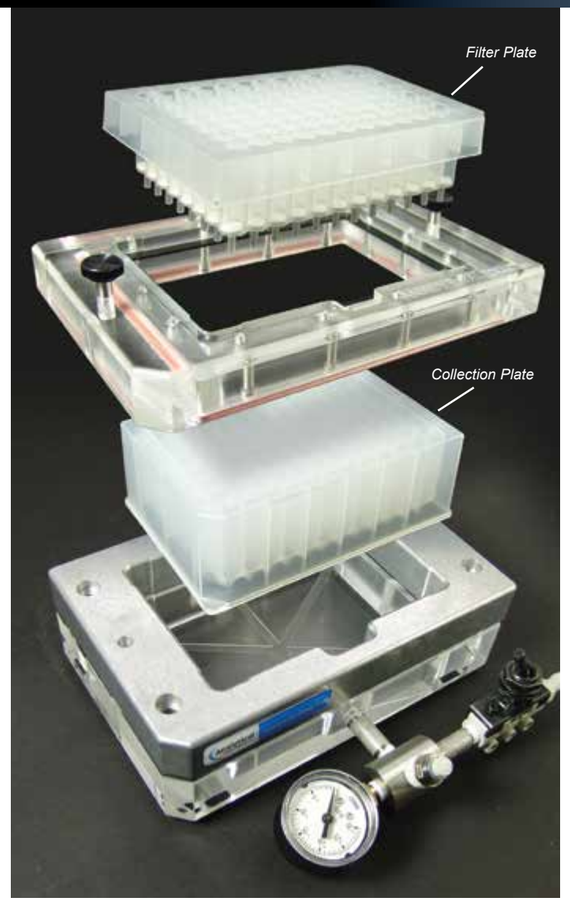
Operation requires air supply, set between 90-110 psi.



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





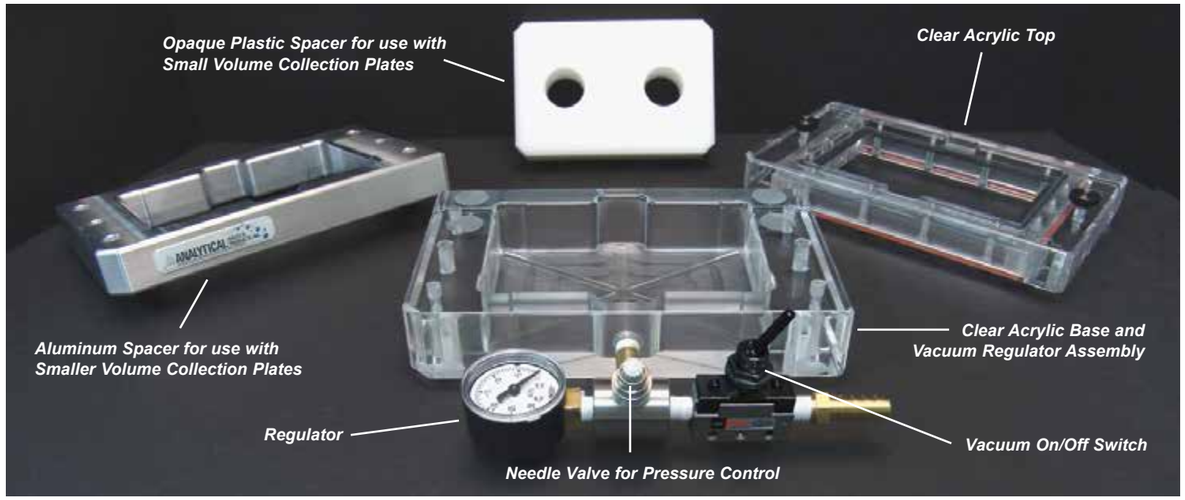
Vacuum Manifold Filtration System

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





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).

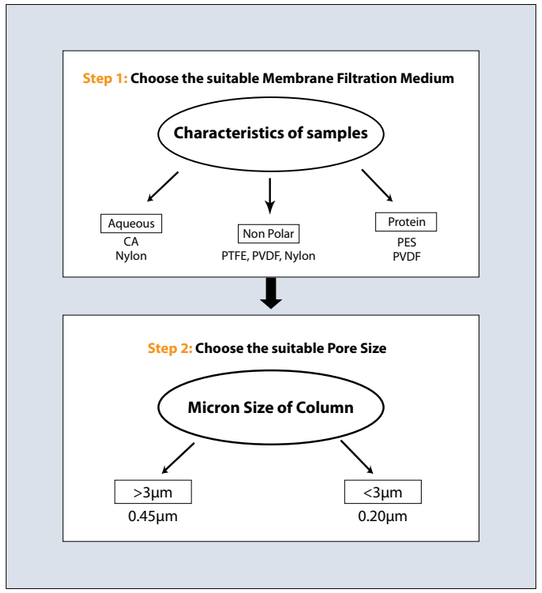
Cover Filter Plate and Vortex.

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.

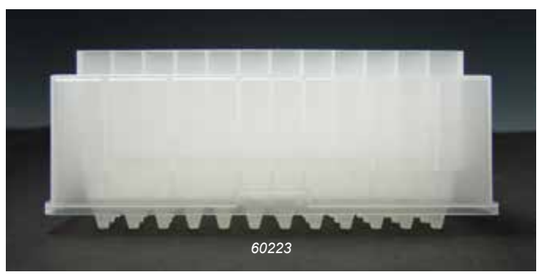
NOTE: Each well can hold up to 1.0 mL of liquid above the filter. ACN or MeOH will not break through our filter plates for hours.

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

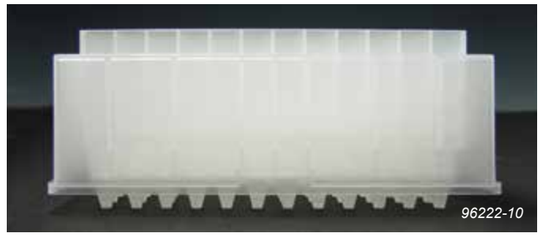
Cat. No.	Description	Qty
60223	2mL, 96-Well Plate w/ Grated Screen	1
60223-5	2mL, 96-Well Plate w/ Grated Screen	5
60223-10	2mL, 96-Well Plate w/ Grated Screen	10
60223-25	2mL, 96-Well Plate w/ Grated Screen	25

Drug Discovery 96-Well Filter Plates

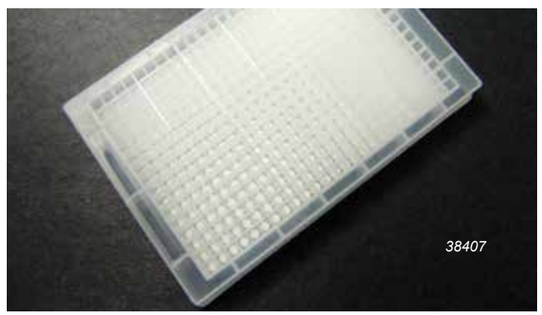
- **Low Protein Binding**
- **General Filtration**







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

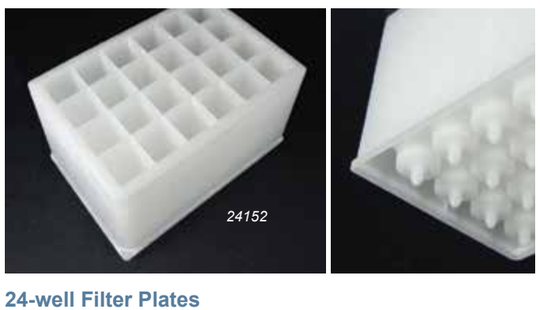
General Biological Filtration - Aqueous Sample

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



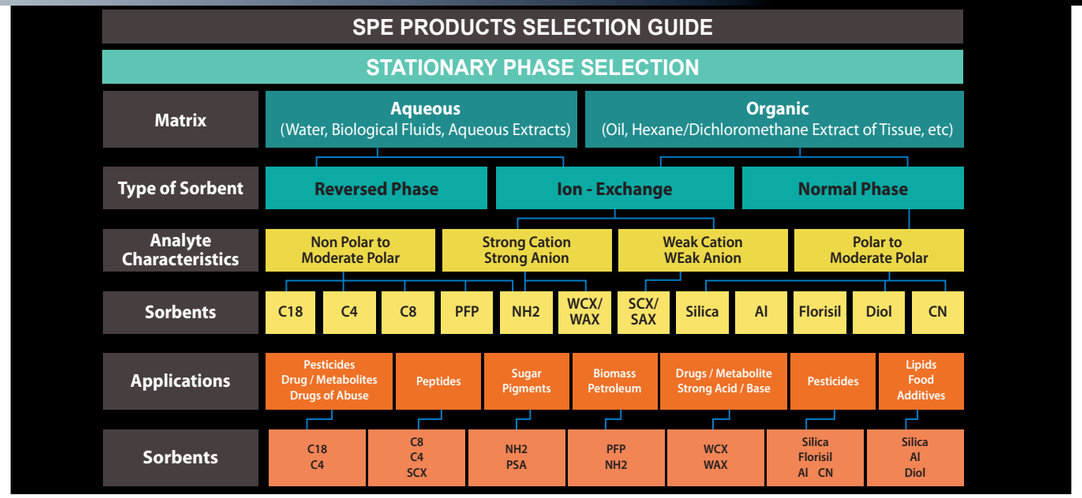
Molecular Weight Cut-off (MWCO) Filter Plates

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

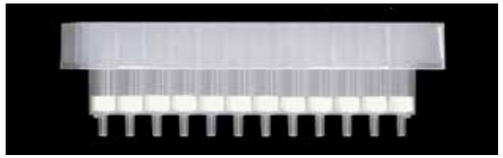


24-well Filter Plates

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.

C8

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

C8

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

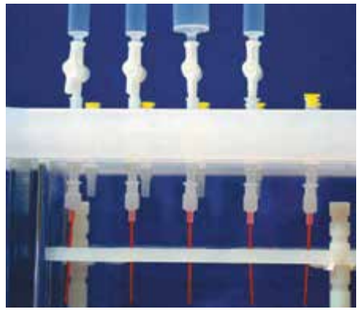
Replacement Parts for **24 Position** Vacuum Manifold

Cat. No.	Description	Qty
2101-24	24 Position Glass Chamber	Each
2102-24	Cover, Gaskets and 24 Stopcocks	Each
2103-24	Vacuum Gauge, Valve & Glass Block	Each
2104-24	24 Position Collection Rack	Each
2105-24	Plate for 16mm Test Tubes	Each
2106-24	Plate for 13mm Test Tubes	Each
2107-24	Gaskets for 24 Position	2
2108-24	Stainless Steel Outlet Needles	24
2109-24	Polypropylene Outlet Needles	24
2111-24	Dimple Plate	Each
2113-24	Base Plate	Each
2114-24	Drying Attachment	Each
2115-24	One-Way Stopcocks	24

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)*. 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®

Photoredox Catalysis & Parallel Synthesis Reaction Blocks

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 -78ºC – 150ºC**
- **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 — *Pages 52, 53*



10421-Case*



Gen II

107240

Micro 24-Position Photoredox Catalysis, Gen II



Gen II

103960

Micro 96-Position Photoredox Catalysis, Gen II



24250

Micro 24-Position Photoredox Catalysis



96970

Micro 96-Position Photoredox Catalysis

For 8x30mm (1mL) Clear Glass Shell or Crimp Top Vials — *Pages 54-57*



84001-Case*



Gen II

101960

Standard 96-Position Photoredox Catalysis, Gen II



Gen II

104960

Standard 96-Position Parallel Synthesis, Gen II



Gen II

102960

Standard 96-Position Photoredox LIGHTWEIGHT



96973/
96960

Standard 96-Position Photoredox/Parallel Synthesis



84008-Case*



Gen II

102240



Gen II

105240

Standard 24-Position Photoredox Catalysis/Parallel Synthesis, Gen II



24253



24249

Standard 24-Position Photoredox Catalysis/Parallel Synthesis



489900

48-Position TCR
(page 50)

For 12x32mm (2mL) Crimp/Snap Vials — *Pages 58, 59*



11211-Case



Gen II

101480

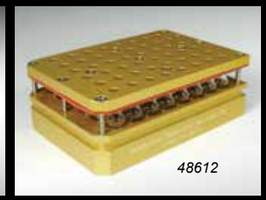
HPLC 48-Position Photoredox Catalysis, Gen II



Gen II

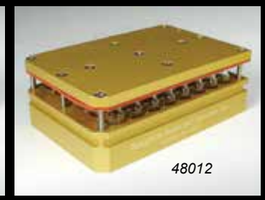
104480

HPLC 48-Position Parallel Synthesis, Gen II



48612

HPLC 48-Position Photoredox Catalysis



48012

HPLC 48-Position Parallel Synthesis

For 15x45mm (4mL) Clear Glass Screw Vials — *Pages 60, 61*



31531-Case



Gen II

101240

1 Dram 24-Position Photoredox Catalysis, Gen II
(18mm well spacing)



Gen II

104240

1 Dram 24-Position Parallel Synthesis, Gen II
(18mm well spacing)



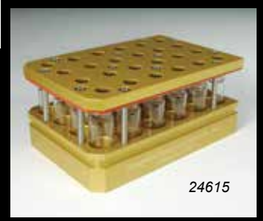
Gen II

101250

1 Dram 24-Position Photoredox Catalysis, Gen II
w/ Temperature Transfer Cover

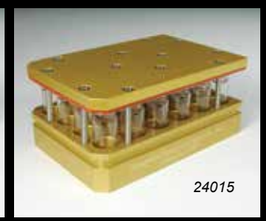


24-Position TCR
(page 51)



24615

1 Dram 24-Position Photoredox Catalysis
(20mm well spacing)



24015

1 Dram 24-Position Parallel Synthesis
(20mm well spacing)



24626

1 Dram 24-Position Photoredox Catalysis
(18mm well spacing)

For 17x60mm (8mL) Clear Glass Screw Vials — *Pages 62, 63*



31760-Case



Gen II

103240

2 Dram 24-Position Photoredox Catalysis, Gen II
(18mm well spacing)



Gen II

106240

2 Dram 24-Position Parallel Synthesis, Gen II
(18mm well spacing)



24617

2 Dram 24-Position Photoredox Catalysis



24017

2 Dram 24-Position Parallel Synthesis

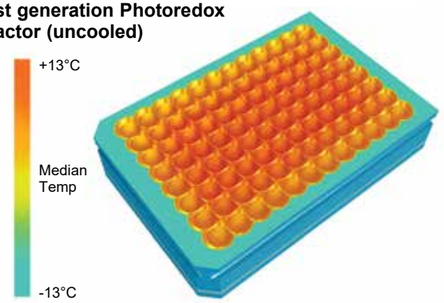
** See page 65 for Vial Loader Trays*



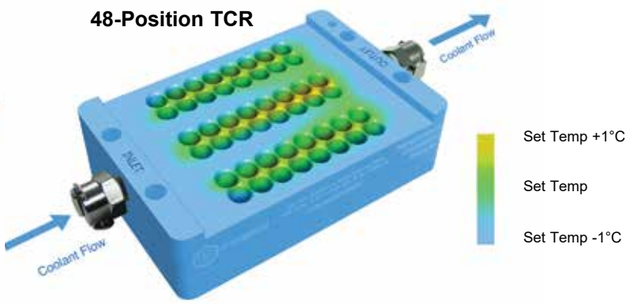
Temperature Controlled Reactors (TCR) for 8x30mm (1mL) and 15x45mm (1 Dram) Vials

- 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

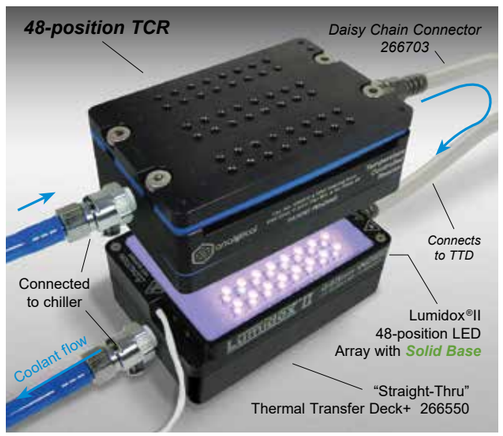
First generation Photoredox Reactor (uncooled)



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)
LUM22418LS255	UVC-255	LUM22418LS445	445-INDIGO
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

24-Position TCR with Temperature Transfer Cover

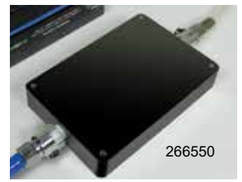
Perfect for those who prefer to cap their vials instead of sealing them with the standard aluminum lid, rubber mat and PFA film that come with the block assembly. When used in conjunction with a Thermal Transfer Deck+ (TTD+) and external liquid chiller, the cover helps control excessive heat generated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



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







Gen II

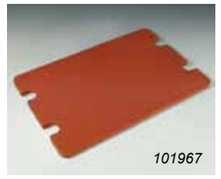


Micro 96-Position Photoredox Catalysis Aluminum Reaction Blocks, Gen II

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







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

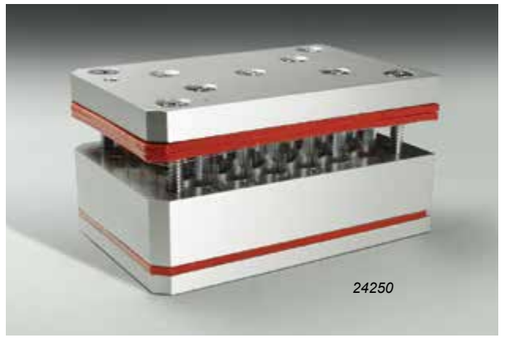
Benefits of the Gen II line include:

- 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:

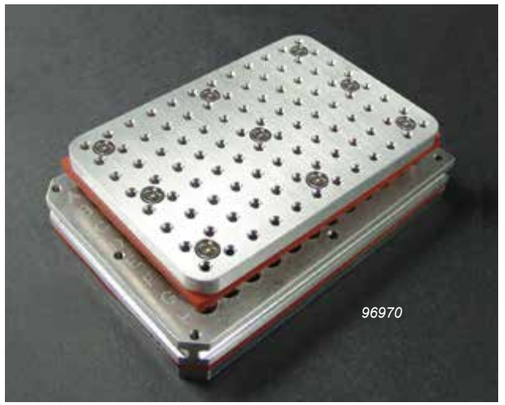
- Port for thermocouple, sensors, etc.
- Corner holes on both the lid and the bottom for accessory attachment
- Larger holes in lid to accommodate a variety of needle sizes
- Uses only one 1/8" rubber mat compared to two 1/16" mats on previous versions (makes for easier assembly)

Vials (sold separately)









Recommended for top performance!

Assembled 4x21mm Vials in Stackable Tray

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



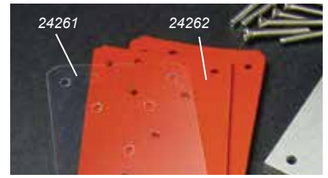
Cat. No.	Description
96342	Assembled Stackable Tray Loaded with 4x21mm Flat-Bottom Vials (10421-CASE), Includes Tray and Vials

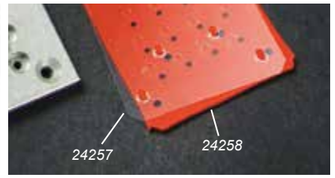
Micro 24-Position Photoredox Catalysis Aluminum Reaction Blocks

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)*

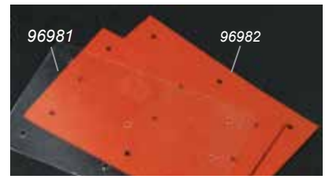


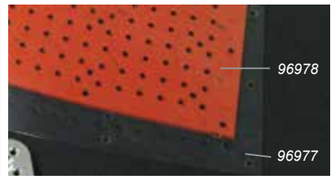


Micro 96-Position Photoredox Catalysis Aluminum Reaction Blocks

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









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

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
101964	Bottom PFA Film for Gen II 96-Position Reactor (101960)	Each

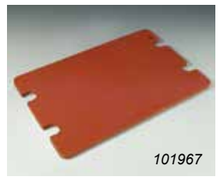
Standard 96-Position Parallel Synthesis Aluminum Reaction Blocks, Gen II
for 1mL, 8x30mm Glass Inserts

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 Gen II 96 Position Reactor (104960)	25PK
104964	Bottom PFA Film for Gen II 96-Position Reactor (104960)	Each

Gen II





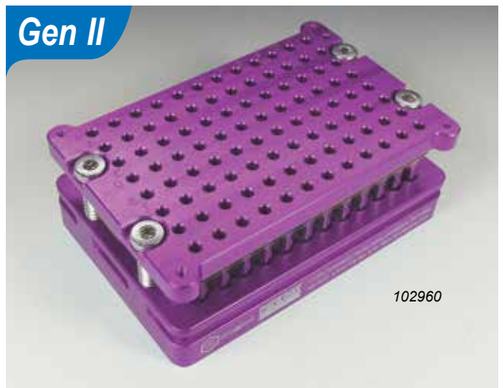




Replacement Parts *(for photoredox AND parallel synthesis Gen II 96-position blocks)*

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

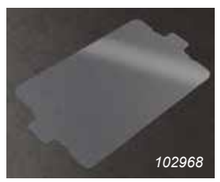
- 37% lighter than Gen II, 96-position standard 4-bolt reactor
- Great for use on a low-capacity balance with a 500g max limit
- Reduced weight allows for better centrifuge performance
- 9mm Well Spacing

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

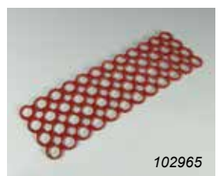
96-Position Reactor Assembly Weight*

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.*











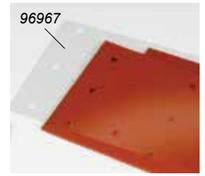


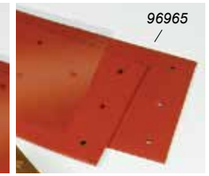
Standard 96-Position Photoredox Catalysis Aluminum Reaction Blocks
for 1mL, 8x30mm Glass Inserts

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)*

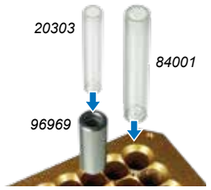
Cat. No.	Description	Qty
96967	Replacement Films for 96-Position Optimization Block	25
96965	Replacement Mats for 96-Position Optimization Block	25
1/2"SCREW96	1/2" Bottom Screws	100
1"SCREW	1" Top Screws	100

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*).

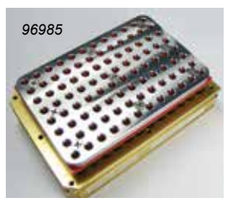
Cat. No.	Description	Qty
96969	Anodized Aluminum Spacers 5x31mm inserts	96





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 **8x30**mm 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







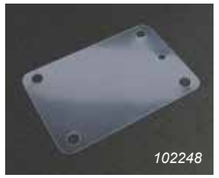


Standard 24-Position Photoredox Catalysis Aluminum Reaction Blocks, Gen II
for 1mL, 8x30mm Glass Inserts

Catalog No.	Description	Qty
102240	Gen II, 24 Position, 4-BOLT, **Photoredox** 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, **Parallel Synthesis** 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

Gen II Rack Adapter for 24 Well, 9mm Spacing Gen II Reactors
(for photoredox AND parallel synthesis blocks)

Catalog No.	Description	Qty
102249	Gen II Rack Adapter for 24 Well, 9mm Spacing Gen II Reactors	Each

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.

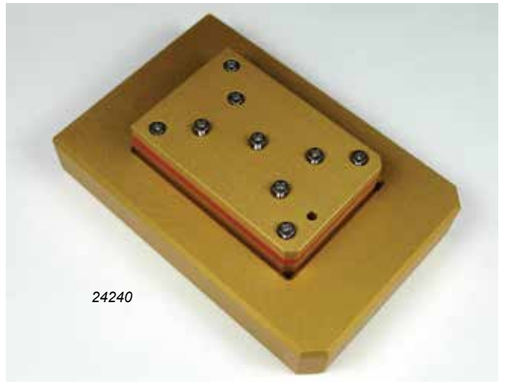
Parallel Synthesis Block, Gen II



Photoredox Catalysis Block, Gen II





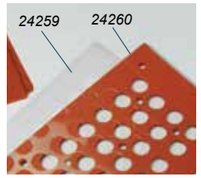




TECH NOTE:
Replace PFA Films with every use for best performance

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

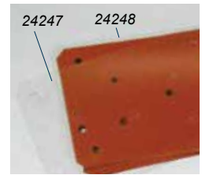
Cat. No.	Description	Qty
24253	Photoredox 24-Position Block Assembly. Includes Vial Rack, Top Cover, Bottom Cover, PFA Films, Rubber Mats, Screws	Each
24259	Replacement Bottom Films for 24 Position, Photoredox Block	25
24260	Replacement Bottom Mats for 24 Position, Photoredox Block	25



Applies to photoredox block assembly (24253) only

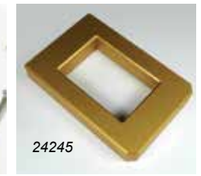
Standard 24-Position Parallel Synthesis Aluminum Reaction Blocks
for 1mL, 8x30mm Glass Inserts

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, *no Rack Adapter*	Each









Replacement Partsv *(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



SD1000 Battery Powered Screwdriver



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

Gen II



Gen II



HPLC 48-Position Photoredox Catalysis Aluminum Reaction Blocks, Gen II

for 2mL, 12x32mm Vials

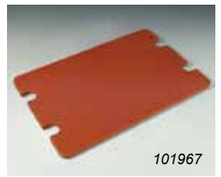
Catalog No.	Description	Qty
101480	Gen II, 48 Position, 4-BOLT, Photoredox Reaction Block for 12mm OD (2mL) Vials, with 13mm Well Spacing	Each

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

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

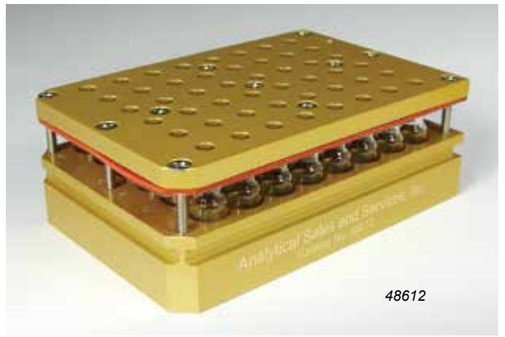
Reactors for both applications are nearly identical. The difference lies in the base (vial rack) of the block. Reactors for parallel synthesis have wells with closed bottoms, whereas photoredox blocks have wells with open holes in the bottom allowing for light transmission via a **Lumidox®II Array,**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

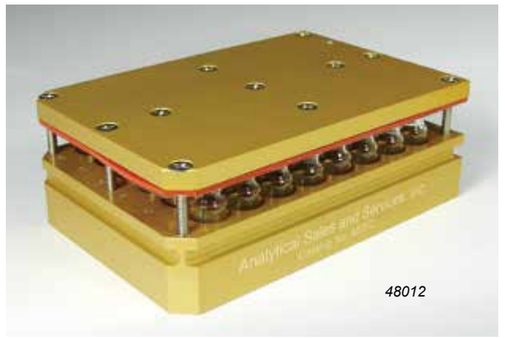
Parallel Synthesis Block, Gen II



Photoredox Catalysis Block, Gen II







HPLC 48-Position Photoredox Catalysis Aluminum Reaction Blocks

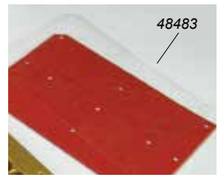
for 2mL, 12x32mm Vials

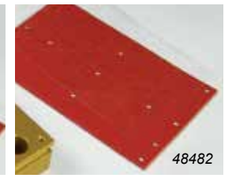
Catalog No.	Description	Qty
48612	48-Position **Open Top/Open Bottom** Aluminum Reaction Block for 12mm (2mL) OD Vials. Includes: Base Plate, Cover, Screws, PFA Film and 2 Rubber Mats	Each

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)*

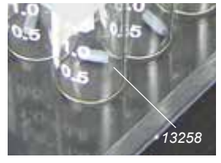
Catalog No.	Description	Qty
48482	Rubber Mats for 48 Position (12mm OD) Reaction Blocks	25
48483	PFA films for 48 Position (12mm OD) Reaction Blocks	25
VSCREW48	1 1/4” Screws for 48-Position Aluminum Reaction Plate	100











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

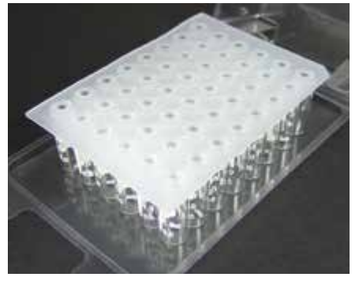
Magnetic Stir Bars

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

Accessories

12 x 32mm vials (sold separately)

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



48-Position Numbered Crimp Vial Assembly for Reaction Blocks

Cat. No.	Description	Qty
48221M	48-Position **Numbered** 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 HPC 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

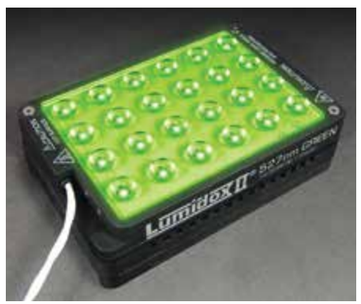






Replacement Parts *(for photoredox AND parallel synthesis Gen II 24-position blocks)*

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



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

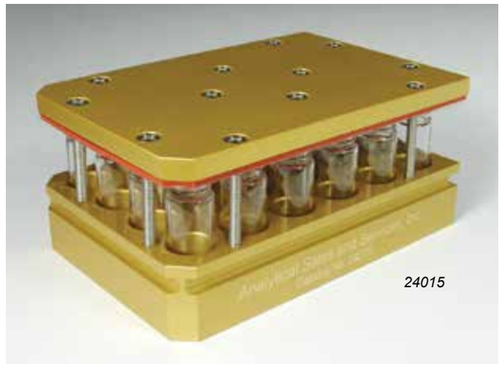
Perfect for those who prefer to cap their vials instead of sealing them with the standard aluminum lid, rubber mat and PFA film that come with the block assembly. When using the block assembly in conjunction with a Thermal Transfer Deck+ (TTD+) and external liquid chiller, the cover helps control excessive 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 (20mm spacing)

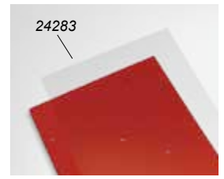
for 4mL (1 Dram), 15x45mm Vials

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

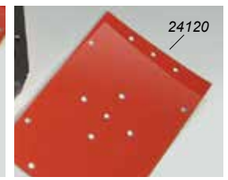


1 DRAM, 24-Position Photoredox Catalysis Aluminum Reaction Blocks with 18mm Spacing

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








31531

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


31554

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



103240

Gen II



106240

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



101248



101247



SHS6140

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

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.

Parallel Synthesis Block, Gen II

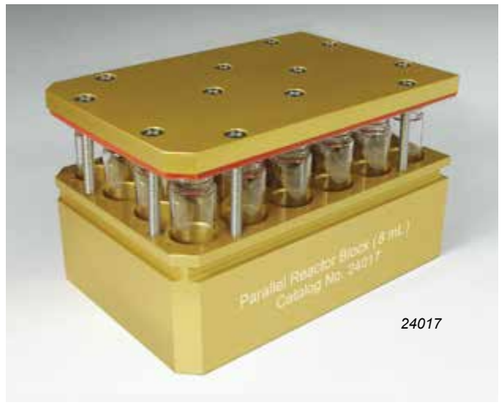


Photoredox Catalysis Block, Gen II





24617



24017



31760

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



31542

TECH NOTE:

Replace PFA Films with every use for best performance

2 DRAM, 24-Position Photoredox Catalysis Aluminum Reaction Blocks

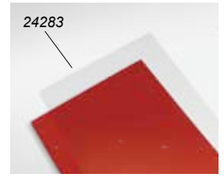
for 8mL (2 Dram), 17x60mm Vials

Cat. No.	Description	Qty
24617	24-Position, **Open Top/Open Bottom** 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





24282



VSCREW24

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

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



SD1000 Battery Powered Screwdriver



13258

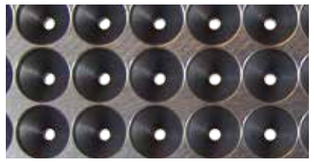
Accessories

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

Powder Transfer Plates

Use to easily transfer powder from vial to vial or to mix powders between vials

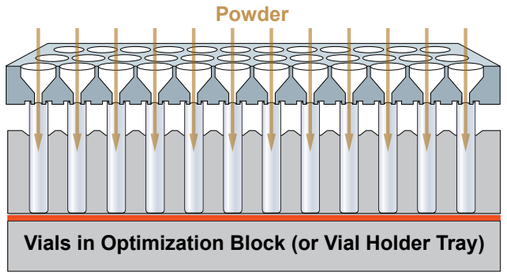
- **Wide funneled holes guide powder into vials**
- **Grooves on bottom surface "lock" vials into position to avoid spillage**



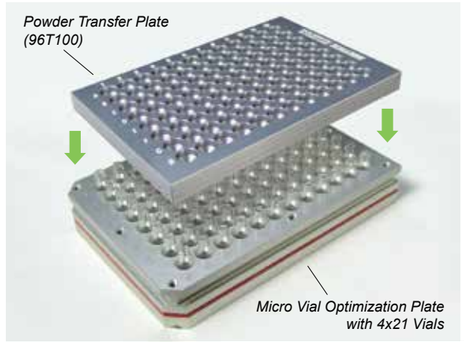
Top Surface



Bottom Surface



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*



Powder Transfer Plate for 4x21mm Vials

Easily dispense powder into 4x21mm (50µL) Micro Vials

Use with:

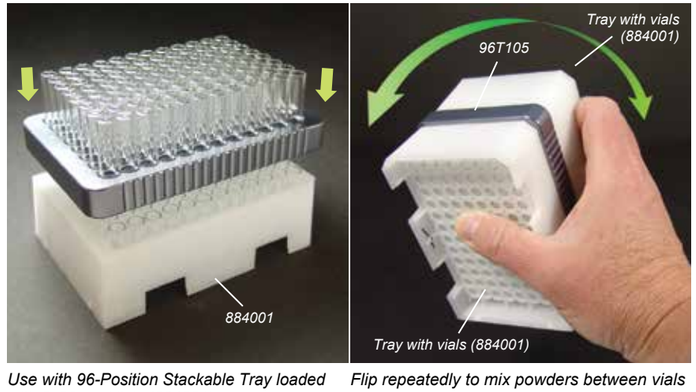
- 96-Position Polypropylene Tray with 4x21mm Vials (96342)
- 4x21mm Vials (10421-Case) in 96-Position Micro Optimization Block (96970)

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

Powder Transfer Plate for 8x30mm, 1mL Vials

Cat. No.	Description	Qty
96T105	Powder Transfer Plate for 8x30mm, 1mL Vials	Ea
884001	96-Position Stackable Tray with 8x30mm Shell Vials	Ea





Use with 96-Position Stackable Tray loaded with 8x30mm Vials (884001)

Flip repeatedly to mix powders between vials

Powder Transfer Plates for 15mm x 45mm, 4mL Vials

Cat. No.	Description	Qty
24T101	Powder Transfer Plate, 24-Well (with 20mm Spacing) for 15 x 45mm, 4mL Vials	Each
24T100	Powder Transfer Plate, 24-Well (with 18mm Spacing) for 15 x 45mm, 4mL Vials	Each



Assembled Vials in Stackable Trays

Recommended for top performance!

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

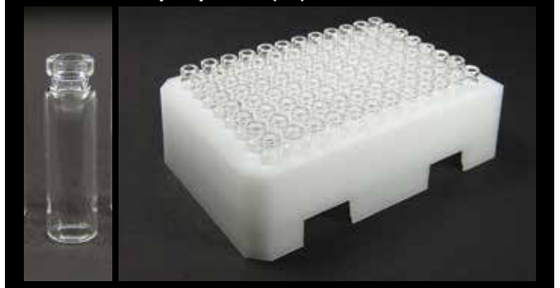
8x30mm Crimp Top Vials in Loaders

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 **8x30**mm Crimp Top Vials (84008-CASE), Includes Tray and Vials	Each

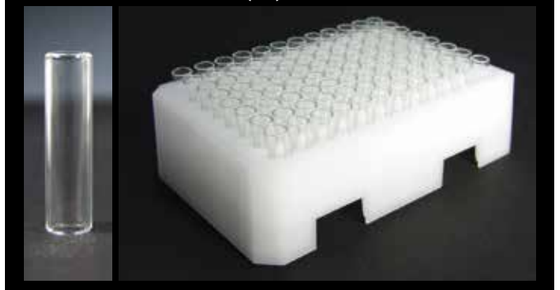
Shell Vials in Loaders

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 **8x30**mm 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)



Cat. No.	Description	Qty
96242	Assembled Stackable Tray Loaded with **5x31**mm Flat-Bottom Vials (20303-CASE), Includes Tray and Vials	Each

Lumidox® II

Photon Generation Devices



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 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 Chem Electrochemistry Assemblies** *(see page 78)*

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 compli-mentary 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 Controller



Lumidox® II Controller

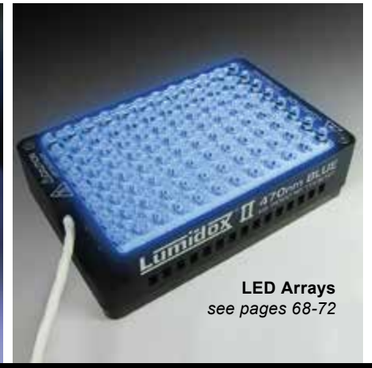
- Controls the output of a Lumidox Array or LumLamp
- Select one of 5 levels of optical power (STAGES). STAGES are displayed in easy to read, easy to calculate whole numbers.
- Onboard illumination elapsed timer
- Automatic countdown shut-off timer
- **USB Enabled API** - for advanced users running their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

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

Peripheral Devices



LumLamp
see page 77



LED Arrays
see pages 68-72

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)

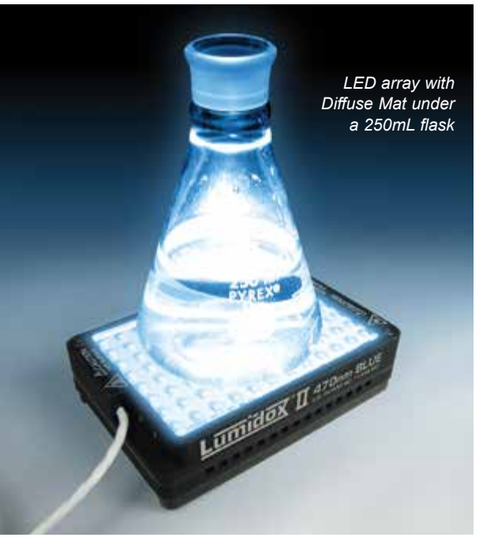
STAGE 1 - 100mW
STAGE 2 - 110mW
STAGE 3 - 115mW
STAGE 4 - 120mW
STAGE 5 - 125mW

Low Output (good for cell culture and PCR)

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



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



LED array with Diffuse Mat under a 250mL flask

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)

	STAGE 1		STAGE 2		STAGE 3		STAGE 4		STAGE 5	
Wavelength	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*

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



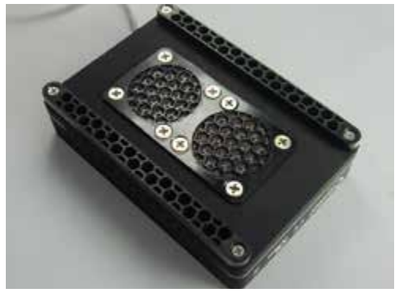
Diffuse Mat Surface

- 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

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 it's 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)

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

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*



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

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)

* 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 37ºC, 95% humidity

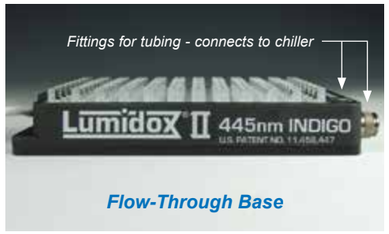
96-Position LED Arrays



Active Cooling Base



Solid Base



Flow-Through Base

96-Position LED Arrays with **Lens Mat**

		Active Cooling Base	Flow-Through Base*	Solid Base*
Wavelength (nm)	**Description**	**Catalog No.**	**Catalog No.**	**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



Active Cooling Base



Solid Base



Flow-Through Base

96-Position LED Arrays with **Diffuse Mat**

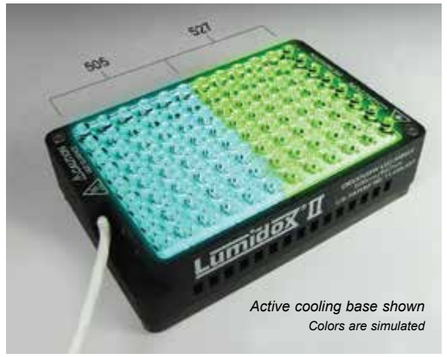
		Active Cooling Base	Flow-Through Base*	Solid Base*
Wavelength (nm)	**Description**	**Catalog No.**	**Catalog No.**	**Catalog No.**
UV365	Lumidox II 96-Position LED Array with Diffuse Mat	LUM296DA365	LUM296DF365	LUM296DS365
UV375	Lumidox II 96-Position LED Array with Diffuse Mat	LUM296DA375	LUM296DF375	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



Active cooling base shown
Colors are simulated (UV light is invisible)



Active cooling base shown
Colors are simulated (UV light is invisible)



Active cooling base shown
Colors are simulated



96-Well Single Wavelength Array with Lens Mat

*Solid base shown**

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 Discovery LED Arrays with **Lens Mat**

		Active Cooling Base	Flow-Through Base*	Solid Base*
Wavelength (nm)	**Description**	**Catalog No.**	**Catalog No.**	**Catalog No.**
UV375 UV385 UV395	Discovery 1 LED Array w/ Lens Mat *(4 rows of 8 LEDs per wavelength)*	LUM296LAG1	LUM296LFG1	LUM296LSG1
UV405 445-INDIGO 470-BLUE 590-AMBER	Discovery 2 LED Array w/ Lens Mat *(3 rows of 8 LEDs per wavelength)*	LUM296LAG2	LUM296LFG2	LUM296LSG2
505-CYAN 527-GREEN	Discovery 3 LED Array w/ Lens Mat *(6 rows of 8 LEDs per wavelength)*	LUM296LAG3	LUM296LFG3	LUM296LSG3
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)*

		Active Cooling Base	Flow-Through Base*	Solid Base*
Wavelength (nm)	**Description**	**Catalog No.**	**Catalog No.**	**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

		Active Cooling Base	Flow-Through Base*	Solid Base*
Wavelength (nm)	**Description**	**Catalog No.**	**Catalog No.**	**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



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.).

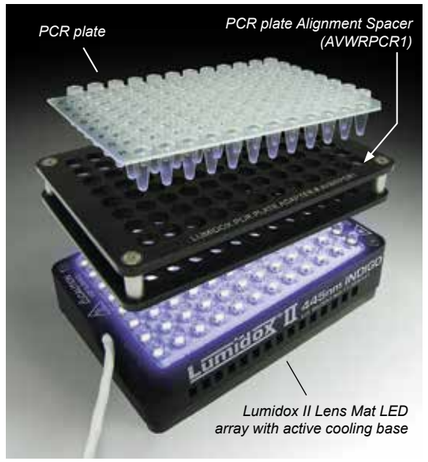
** Ports are not user configurable on the Straight-Thru TTD*



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 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 Alignment Spacers

For Low Output (<50mW) Experimentation

Designed for low output applications using **Lens Mat** arrays *(not compatible with diffuse mat arrays)*. Run your array at a stage with an appropriate output and enviroment. Higher output levels and temperatures can deform the alignment spacer. While these Alignment Spacers provide the most practical method for consistent positioning of your samples over the LEDs, if higher output (>50mW per LED) is desired, you can manually position your sample plate over the array without a spacer.

We currently produce Alignment Spacers 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)

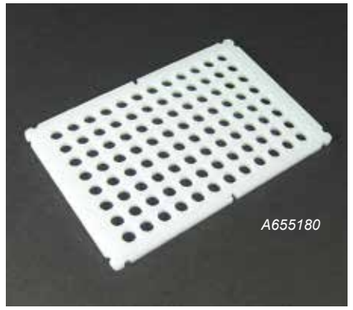
Alignment Spacers are available for any standard cell culture plate by request.

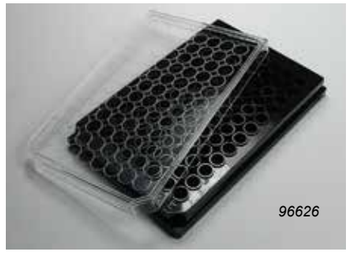
Lumidox® II Controller

- 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.

Lumidox®II Photon Generation Devices
Cell Culture Plates, LED Arrays & Alignment Spacers









***24 well setup** with Lumidox 24-well LED Array - See page 24 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 Alignment Spacer

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



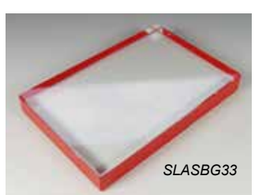
PCR Plate Alignment Spacer

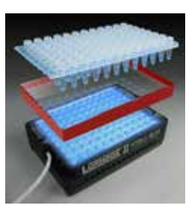
Catalog No.	Description
AVWRPCR1	PCR Plate Alignment Spacer for Lumidox®II 96-position LED Lens Mat Arrays

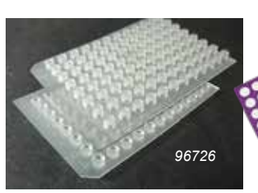
Borofloat 33 Glass Block

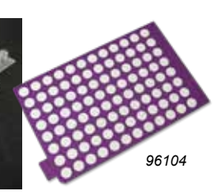
Use to reduce the amount of light intensity delivered to your samples by increasing the distance between the samples and the light source (LED array).

Catalog No.	Description
SLASBG33	Borofloat 33 Glass Block









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



TCube Edge



MC280OLE

Recommended Chillers:

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



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)





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:







Reflector Types:

15º Narrow Spot Beam	30º Medium Beam
40º Wide Beam	80º Extra Wide Beam

LumLamps are available in the following wavelengths:

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

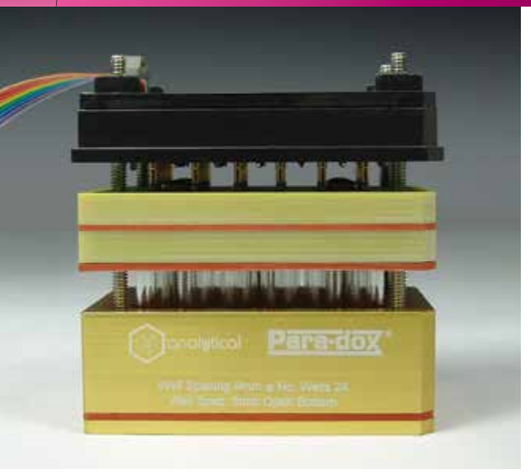


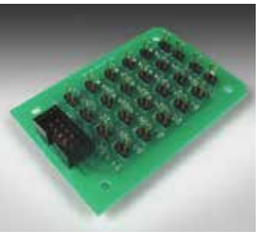
Lumidox Controllers come with one pair of UV protective goggles. Additional goggles can be purchased.

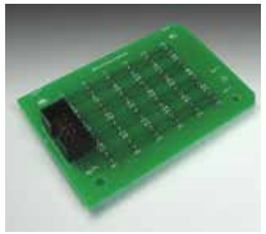


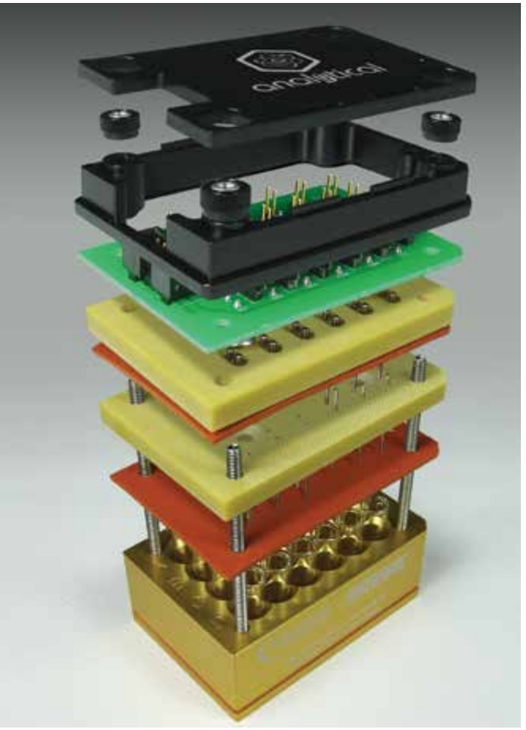
UV Safety Goggles

Catalog No.	Description	Qty
UVGoggles	Additional UV Safety Goggles	Each









HTe-Chem Electrochemistry Assemblies

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

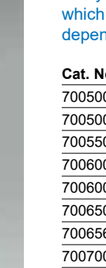
HTe-Chem Assemblies & Kits

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

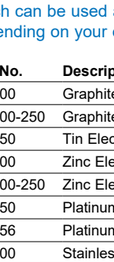
Electrodes for HTe-Chem Assemblies

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

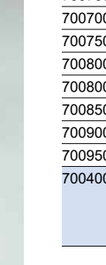
Cat. No.	Description	Qty
700500	Graphite Electrodes	30
700500-250	Graphite Electrodes - Bulk Pack	250
700550	Tin Electrodes	25
700600	Zinc Electrodes	25
700600-250	Zinc Electrodes - Bulk Pack	250
700650	Platinum Electrodes	25
700656	Platinum Electrodes - Row Pack	6
700700	Stainless Steel Electrodes	25
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



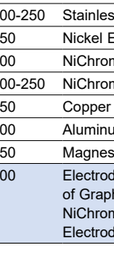
700500



700850

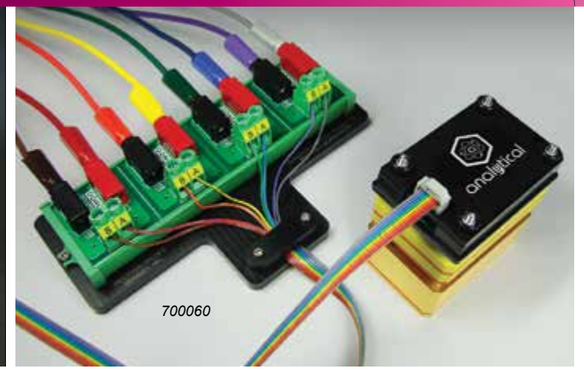


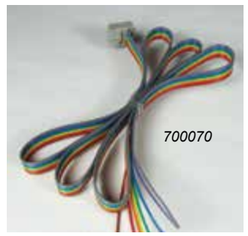
700900

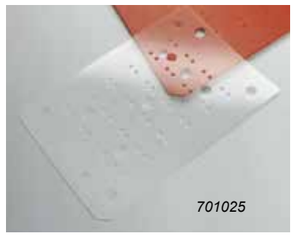


700950









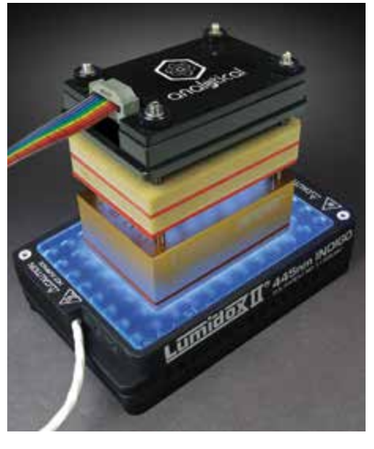






Power Supply and Accessories

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-Chem Assembly	25
24260	Bottom Rubber Mats	25
84001-CASE	1mL Clear Glass Shell Vial	1000





LED array with active cooling base shown

For experimentation with electrophotochemical reactions, HTe-Chem assemblies are fully compatible for use with Lumidox®II 24-well, 9mm spaced LED arrays.

See page 72 for more information

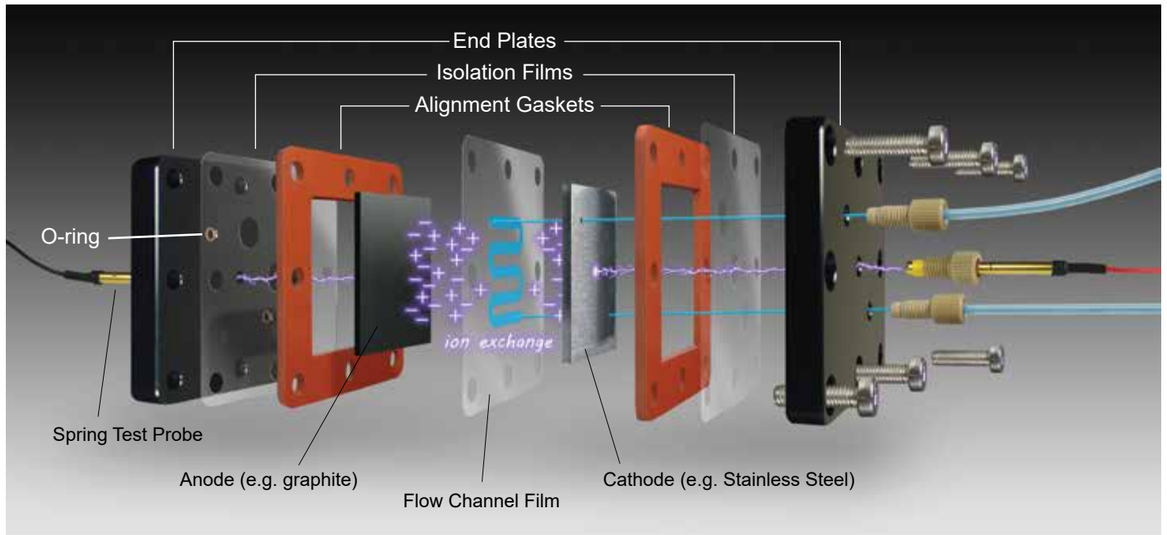
Flow Electrolysis

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.

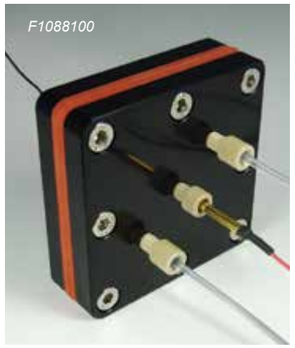
Analytical is pleased to offer a solution in the form of a standardized flow electrolysis setup. This new and upcoming technology allows for rapid and efficient production of complex chemical compounds via flow electrolysis. With an interelectrode gap smaller than a millimeter, and the introduction of 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

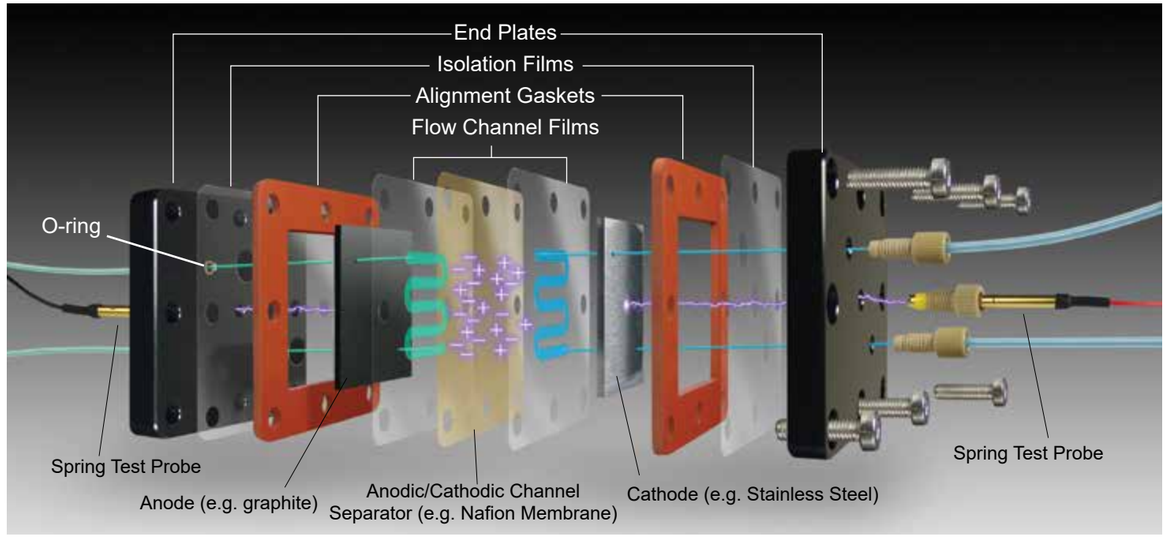
Assembly includes:

- 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.



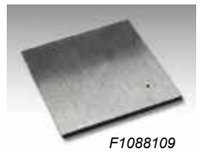


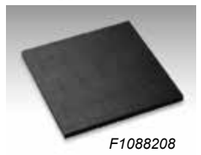
Flow Electrolysis Divided Cell (dual stream) Assembly

Assembly includes:

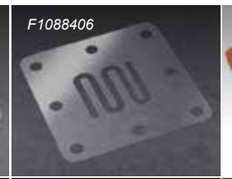
- Impervious Graphite Plate Electrode with holes (anode)
- 316L Stainless Steel Plate Electrode (cathode)
- Flow Channel PFA Films (2 Meandering, 2 Tangential, 2 Simple)
- Isolation Layer PFA Films (2)
- Nafion Ion Exchange Channel Separator Membrane
- Orange Silicone Rubber Alignment Gaskets (2)
- Viton 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



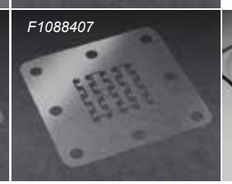














Electrode Plates and Consumable Accessories

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
F1088405	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



MONOCON™

Controls 1 Gen II HotSleeve+ column heaters*



MULTICON™

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 avalable soon, call for details.*

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 5ºC above ambient to 130ºC
- 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



Monocon - Back

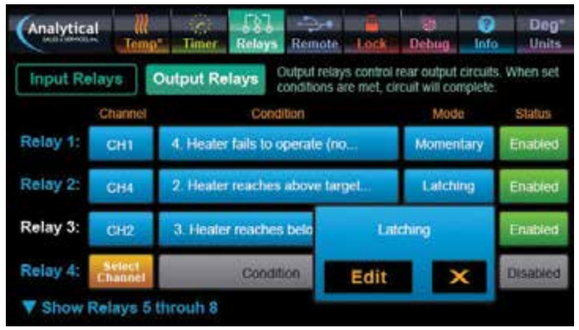


Multicon - Back

Touchscreen Interface













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

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: 5ºC above ambient to 130ºC
- 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



Shown with heater (not included)

MonoSLEEVE™ Controller

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

MonoSLEEVE is the second generation of the original Hot-Sleeve controller. With it's 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*)



Shown with heaters (not included)

MultiSLEEVE™ Controller

- **Controls up to 4 column heaters simultaneously**
- **Self-calibrating**
- **Plug & Play smart heater technology**
- **Heats capillary Columns, N_2, sheath gas lines, etc.**
- **4 independent channels**
- **Used in multiplexing applications**
- **Temperature range from 25ºC to 85ºC**
- **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 2ºC 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 ± 0.1ºC, ensuring optimum performance.

Born in NEW JERSEY, Made in the USA

** HotSleeve+ is the "smart" version of the original HotSleeve. AgileSleeve+ is the "smart" version of AgileSleeve.* ***Note: MonoSLEEVE and MultiSLEEVE will only accept HotSleeve+ and AgileSleeve+ heaters.***

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.

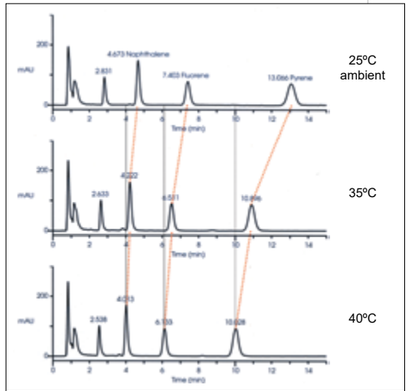
HotSleeve+™

Column Heater

- **Self-calibrating**
- **Temperature range from 5ºC above ambient to 85ºC**
- **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**

Born in NEW JERSEY, Made in the USA





70:30 CH_3CN:HOH • 0.25mL/min • UV Detection: 248nm

A temperature fluctuation as little as 2ºC 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 5ºC above ambient to 100ºC**
- **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

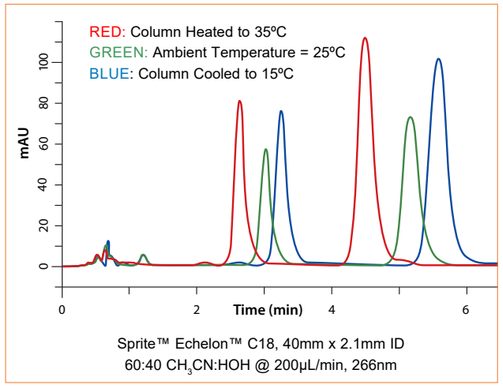


Cold Sleeve™
Column Cooler/Heater

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 5º to 55ºC with 0.2ºC accuracy. A double insulated cover maintains temperature stability within the chamber ± 0.2ºC. 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



Sprite™ Echelon™ C18, 40mm x 2.1mm ID
60:40 CH_3CN:HOH @ 200µL/min, 266nm

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.

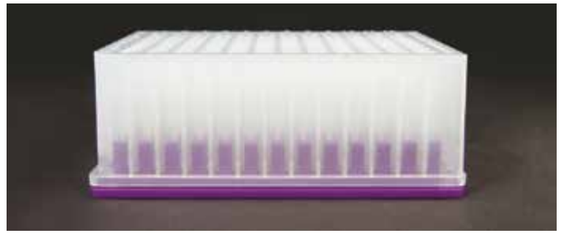


Thermal Adapter Plates

• 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

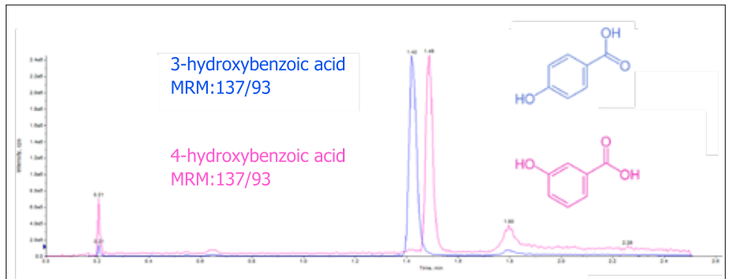
Providing Retention Beyond Other C18

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.



Chromatograms of two separate injections of the isomers overlaid for easier comparison.

Instrumentation: LC-MS/MS Triple quadropole; UHPLC pressures 50x2.1mm, 1.8µm (PN ADV8108)

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)
		2.1
		Cat. No.
Length (cm)	2	ADV8106
	3	ADV8107
	5	ADV8108
	10	ADV8117

Echelon™ 3µm Columns

Particle size: **3µm** Pore size: 100Å

C18		Internal Diameter (mm)
		2.1
		Cat. No.
Length (cm)	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: 430m2/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	
		75µm	150µm
		Cat. No.	**Cat. No.**
Length (cm)	3	ET1637	ET1631
	5	ET1657	ET1651
	10	ET1617	ET1611
	15	ET1675	ET1615
	25	ET1627	ET1625

Echelon™ Microbore Columns

Particle size: 4µm Pore size: 100Å

C18		Internal Diameter (mm)		
		0.3	0.5	1.0
		Cat. No.	**Cat. No.**	**Cat. No.**
Length (cm)	3	ADV0303185	ADV0305185	ADV0310185
	5	ADV0503185	ADV0505185	ADV0510185
	10	ADV1003185	ADV1005185	ADV1010185
	15	ADV1503185	ADV1505185	ADV1510185
	25	ADV2503185	ADV2505185	ADV2510185
Particle size: **3µm**				
	5	ADV0503183		

Echelon™ C18 Analytical Columns

Particle size: 4µm Pore size: 100Å

C18		Internal Diameter (mm)		
		2.1	3	4.6
		Cat. No.	**Cat. No.**	**Cat. No.**
Length (cm)	3	ADV8021	ADV8030	ADV8029
	5	ADV8008	ADV8004	ADV8000
	10	ADV8009	ADV8005	ADV8001
	15	ADV8010	ADV8006	ADV8002
	25	ADV8011	ADV8007	ADV8003

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



ADV-GuardFF



ADV-GuardFM

Echelon™ C18 Semi-Prep & Prep Columns

Particle size: 5µm Pore size: 100Å

C18		Internal Diameter (mm)	
		10	20
		Cat. No.	**Cat. No.**
Length (cm)	5	ADV820510	ADV820520
	10	ADV821010	ADV821020
	15	ADV821510	ADV821520
	25	ADV822510	ADV822520

Echelon™ Prep & Semi-Prep Guard Cartridges & Holders



ADV10-HOLD30

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



ADV20-HOLD25



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.

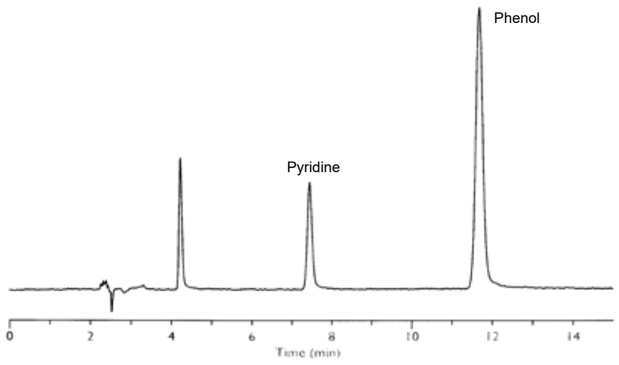
Basic and acidic drugs and peptides can be chromatographed efficiently with little or no buffer, where acetic acid or formic acid can be substituted for TFA resulting in significant signal increase.

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


ADV-GuardFF


ADV-GuardFM

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^2/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
Sprite LC1842	5µm, 40mm x 2.1mm ID
Sprite LC1822	5µm, 20mm X 2.1mm ID
Sprite LC1832	5µm, 10mm x 2.1mm ID

Cat. No.	Description
Sprite L10-1842	10µm, 40mm x 2.1mm ID
Sprite L10-1822	10µm, 20mm x 2.1mm ID
Sprite L10-1832	10µm, 10mm X 2.1mm ID

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

Lancer™ Guard Cartridges & Holders

PEEK Guard Cartridges
5µm, 20mm x 2.1mm

Cat. No.	Description	Qty
ADV-H8185	C8 PEEK Guard Cartridge	5
ADV-H185	C18 PEEK Guard Cartridge	5
ADV-CNP5	Cyano PEEK Guard Cartridge	5
ADV-PHN5	Phenyl PEEK Guard Cartridge	5

Stainless Steel Guard Cartridges
5µm, 20mm x 3.2mm

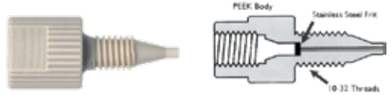
Cat. No.	Description	Qty
ADV-H208	C8 SS Guard Cartridge	5
ADV-H218	C18 SS Guard Cartridge	5
ADV-HCN	Cyano SS Guard Cartridge	5
ADV-H1PH	Phenyl SS Guard Cartridge	5

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

48513 *48555*

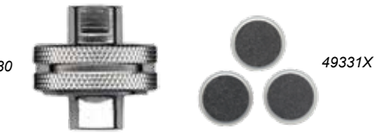


Cat. No.	Description	Qty
48555	Low Dead Volume UHPLC SS Inline Filter Holder with 0.5µm x 0.062" SS Frit	Each
48513	Replacement SS 0.5µm x 0.062" Frit, 2µL	5
~~48222~~	~~UHPLC SS Inline Holder w/ 0.5µm x 0.25" SS Frit~~	DISC
48313	Replacement SS 0.5µm x 0.25" Frit	5

High Pressure Semi-Prep Inline Filters

For SFC, place before the mixer

49330 *49331X*



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

49360



1/8" OD tubing

Cat. No.	Description	Qty
49360	Semi-Prep Filter w/ 10µm Frit with 5/16-24 Flat Bottom Port	Each

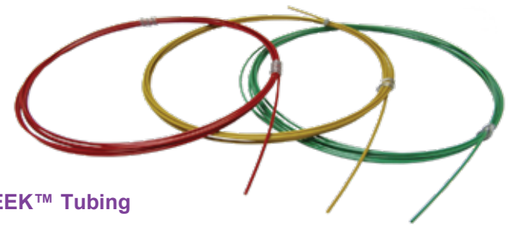
Prep Inline Filter (For SFC, place before the Column)

- 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

49230 ***49230DR***





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 340-380µmOD 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 SteelTubing *(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

4132-04



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

HAND TIGHTEN ONLY!

Assemblies

UHPLC, Pre-Finished, One-Piece Flexible Stainless Steel Tubing with Finger Tight Stainless Steel Fittings

Rated to 27,000 psi



- 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

Born in NEW JERSEY, Made in the USA

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***

Born in NEW JERSEY, Made in the USA



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**



Cat No.	Qty
1654	Each

PEEK™ Fat Head Fitting



Cat No.	Qty
1655	Each

PEEK™ X-Long Fat Head Fitting



Cat No.	Qty
66514-1	5

PEEK™ Fitting



Cat No.	Qty
66517-1	5

PEEK™ Long Fitting

HPLC Plugs



Cat No.	Qty
66313-3	5

1/16" OD Black Delrin®, 10-32 Threads, Coned Port



Cat No.	Qty
66312-5	5

1/16" OD Red Delrin®, 10-32 Threads, Coned Port



Cat No.	Qty
1608	Each

1/16" OD Stainless Steel, 10-32 Threads, Coned Port



Cat No.	Qty
1610	Each

1/8" OD Stainless Steel, 5/16" Coned Port



Cat No.	Qty
59557	Each

White Delrin Plug for 3/16" OD, 5/16-24 Flat Bottom Port



Cat No.	Qty
66008	Each

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**



Cat No.	Qty
66519-1	5

PEEK™ Fitting w/ 55142 Ferrules, 10-32 Threads



Cat No.	Qty
55330X	10

Long PEEK™ Fitting w/ 55142 Ferrules, 10-32



Cat No.	Qty
55142X	10

PEEK Ferrules for 10-32 Fingertight Fittings



Cat No.	Qty
55142NX	10

Natural Tefzel (ETFE) Ferrules for 10-32 Fingertight Fittings



Cat No.	Qty
55301X	10

PEEK™ Fitting with 55162 Ferrules, 1/4-28 Threads, for 1/8" OD Tubing



Cat No.	Qty
55162	Each

PEEK Ferrules for 1/4-28 Fingertight Fittings

Stainless Steel Two Piece Fittings



Cat No.	Qty
1330X	10

Stainless Steel Nut for 1/32" OD Tubing



Cat No.	Qty
1333X	10

Stainless Steel Long Nut for 1/32" OD Tubing



Cat No.	Qty
1320X	10

Stainless Steel Ferrule for 1/32" OD Tubing

Ultra High Pressure SS Two Piece Fittings

• Rated to **28,800 psi**



Cat No.	Qty
1183X	10

SS Ferrule for 1/32" OD Tubing



Cat No.	Qty
1286X	10

SS Nut with 1283X Ferrule for 1/16" OD Tubing

Rheodyne® RheFlex® Stainless Steel Two Piece Fittings

for Cone-Bottom Ports

Cat No.	Qty
46000-1094	5

10-32, 1/16" OD SS Fittings Set



Cat No.	Qty
46000-1114	5

10-32, 1/16" OD SS Long Fittings Set



Cat No.	Qty
46000-1624	5

10-32, 1/16" OD SS X-Long Fittings Set



Cat No.	Qty
46000-1104	5

Replacement SS Ferrules for 10-32, 1/16" OD SS Fittings



Cat No.	Qty
46000-0824	Each

5/16-24", SS Fittings Set for 1/8" OD Tubing

Rheodyne® RheFlex® PEEK™ Two Piece Fittings

for Cone-Bottom Ports



Cat No.	Qty
46000-0544	5

10-32, 1/16" OD PEEK Fittings Set



Cat No.	Qty
46000-0554	5

10-32, 1/16" OD PEEK Short Fittings Set



Cat No.	Qty
46000-0514	5

10-32, 1/16" OD PEEK Replacement Ferrules



Cat No.	Qty
46000-0904	5

10-32, 1/16" OD PEEK Plug



Cat No.	Qty
46000-0784	Each

5/16-24, 1/8" OD PEEK™ Fittings Set



Cat No.	Qty
46000-3604	10

M4, for 1/32" OD Tubing

PEEK™ Ultra High Pressure Fingertight Fittings

One-Piece Fittings

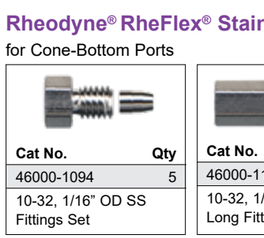


66518-3



60126X

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. Holds up to 5,000 psi.	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. Hold up to 15,000 psi.	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

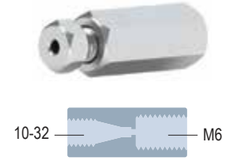


10-32 Female to Female Adapters - *for **1/16”** OD Tubing*



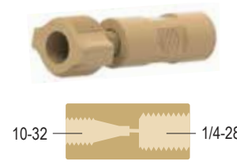
Cat No.	Qty
59626	Each

PEEK™ Adapter, 0.020”ID, 10-32 to M6



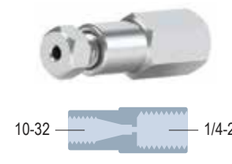
Cat No.	Qty
415874	Each

Stainless Steel Adapter, 0.040” ID, 10-32 to M6



Cat No.	Qty
59627	Each

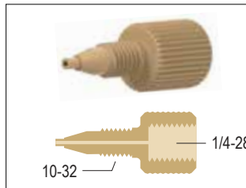
PEEK™ Adapter, 0.020”ID, 10-32 to 1/4-28



Cat No.	Qty
415834	Each

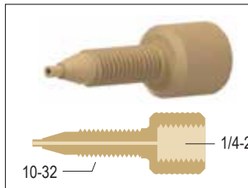
Stainless Steel Adapter, 0.040” ID, 10-32 to 1/4-28

1/4-28 Female to Male Adapters - *for **1/16”** OD Tubing*



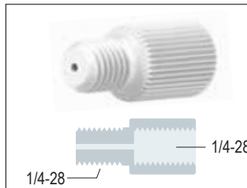
Cat No.	Qty
59652	Each

PEEK™ Long Adapter, 0.030”ID, 1/4-28 Female to 10-32 Coned Male



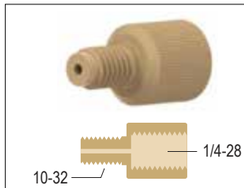
Cat No.	Qty
59654	Each

PEEK Extra-Long Adapter 0.030”ID, 1/4-28 Female to 10-32 Coned Male



Cat No.	Qty
59671	Each

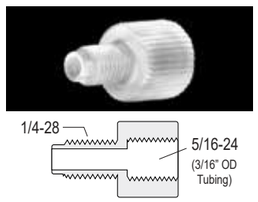
Teflon® Adapter, 0.040”ID, 1/4-28 Female to 1/4-28 Flat Male



Cat No.	Qty
59672	Each

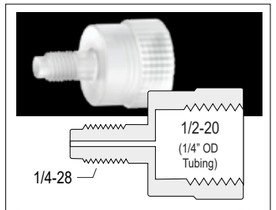
PEEK™ Adapter, 0.050”ID, 1/4-28 Female to 10-32 Flat Male

1/4-28 Male to Female Adapters



Cat No.	Qty
59681	Each

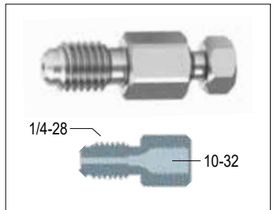
Kel-F® (PCTFE) Adapter, 1/4-28 Flat Male to 5/16-24 Flat Female



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*



Cat No.	Qty
64402	Each

Stainless Steel ZDV Union, 0.020" ID



Cat No.	Qty
66213-4	Each

Stainless Steel ZDV Union, 0.010" ID



Cat No.	Qty
64438	Each

Stainless Steel ZDV Union, 0.062" ID



Cat No.	Qty
1615	Each

Valco SS Union 21.6mm x 0.25mm (0.009") ID



Cat No.	Qty
66212-4	Each

Waters® Compatible SS ZDV Union, 0.02"ID

PEEK™ ZDV Unions - *for 1/16" OD Tubing*



Cat No.	Qty
59704	Each

PEEK ZDV Union, 10-32, 0.020" ID



Cat No.	Qty
66414-2	Each

PEEK ZDV Union, 10-32, 0.010" ID



Cat No.	Qty
59742-01	Each

10-32 ZDV Union 0.010" ID w/o Fittings

For 1/8" OD Tubing



Cat No.	Qty
59703	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*



Cat No.	Qty
415924	Each

SS Adapter, 0.04" ID, 1/16" Female to 1/8" Female



Cat No.	Qty
52235X	10

SS Male Nut, 1/4-28 Coned, for 1/8" OD



Cat No.	Qty
52236	Each

Replacement SS Ferrule for 1/8" OD Tubing

PEEK™ and Stainless Steel Tees & Crosses - *for 1/16" OD Tubing*



Cat No.	Qty
66415-2	Each

PEEK™ Tee, 0.020" ID



Cat No.	Qty
66413-2	Each

PEEK Tee 0.020" ID, Body Only



Cat No.	Qty
59728	Each

PEEK™ Tee, 0.05" ID



Cat No.	Qty
1625	Each

PEEK™ Tee, 0.01" ID



Cat No.	Qty
1626	Each

PEEK™ Cross, 0.01" ID



Cat No.	Qty
64428	Each

SS Tee, 0.020" ID



Cat No.	Qty
64429	Each

SS Tee, 0.040" ID



Cat No.	Qty
1602	Each

SS Tee, 0.25mm ID



Cat No.	Qty
1603	Each

SS Cross, 0.25mm ID

PEEK™ MicroTee

For 1/16" OD Tubing

- Thru-Hole: 0.006" (0.150µm)
- Void Volume: 58nL
- 5000 psi



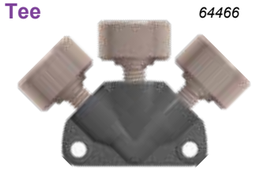
Cat. No.	Description	Qty
59890	MicroTee for 1/16" Tubing. Includes (3) 55132 Micro Ferrules, (3) 59416 Female Nuts	Each

PEEK™ Static Mixing Tee

64466

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



2576

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		
8576	6 Inlet SS Manifold, 0.08" ID	Ea.

Rheodyne® Fittings

For Cone-Bottom Ports



Cat No.	Qty
46000-1094	5

10-32,1/16" OD Stainless Steel Fitting Set



Cat No.	Qty
46000-1114	5

10-32,1/16" OD Stainless Steel Long Fitting Set



Cat No.	Qty
46000-1624	5

10-32,1/16" OD Stainless Steel Extra-Long Fitting Set



Cat No.	Qty
46000-1104	5

Stainless Steel Replacement Ferrules

Valco Fittings

For 1/16" OD Tubing



Cat No.	Qty
64322	Each

Stainless Steel ZDV Union .02", .103µL Swept Volume



Cat No.	Qty
1615	Each

Stainless Steel Union, 21.6mm x 0.25mm (0.009") ID



Cat No.	Qty
1602	Each

Stainless Steel Tee, 0.25mm (0.009") ID



Cat No.	Qty
~~1603~~	DISC

Stainless Steel Cross, 0.25mm (0.009") ID



Cat No.	Qty
~~ADV-VN5~~	DISC

Stainless Steel Nut



Cat No.	Qty
~~ADV-VF5~~	DISC

Stainless Steel Ferrule



Cat No.	Qty
~~1608~~	DISC

Stainless Steel Column Plugs, 5/16"-24 ports

For 1/8" OD Tubing



Cat No.	Qty
1610	Each

SS Column Plug, 5/16"-24 ports, ***for 1/8" OD Tubing***

Standard Fittings

For 1/16" OD Tubing



Cat No.	Qty
66212-4	Each

Stainless Steel ZDV Union, .02" ID, 0.10µL Swept Volume



Cat No.	Qty
64450X	10

Stainless Steel Nut, M6 Coned Port



Cat No.	Qty
64410X	10

Stainless Steel Nut, Waters Compatible



Cat No.	Qty
64401X	10

Stainless Steel Ferrule, 10-32 or M6 coned port



Cat No.	Qty
85001	Each

Long Fill Port for 22g Needles, Use with 1/16" OD Fittings



Cat No.	Qty
86001	Each

Short Fill Port for 22g Needles, Use w/ 1/16" OD Fittings

For 1/8" OD Tubing



Cat No.	Qty
52235X	10

Stainless Steel Nut, 1/4-28 port ***for 1/8" OD Tubing***



Cat No.	Qty
52236X	10

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



Cat No.	Qty
83132	Each

UHP PEEK/SS Union for 1/32" OD Tubing Includes Nuts & Ferrules, 0.006 " ID, 5nL Dead Volume



Cat No.	Qty
83360	Each

UHP PEEK/SS Union for 360 µm OD Tubing Includes Nuts & Ferrules, 0.006 " ID, 5nL Dead Volume



Cat No.	Qty
83133	Each

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



Cat No.	Qty
84161	Each

SS UHP ZDV Union, 0.020" ID



Cat No.	Qty
64411	Each

SS UHP ZDV Union, .007 ID



Cat No.	Qty
84163	Each

SS UHP Tee, 0.020" ID



Cat No.	Qty
84174	Each

SS UHP Cross, 0.020" ID



Cat No.	Qty
84175	Each

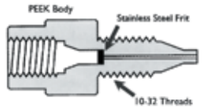
SS UHP Adapter for 1/16" to 1/32" OD Tubing

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!





1605

Cat No.	Qty
1605	Each
Advantage™ 0.5µm Direct Connect Fingertight Pre-Column Filter	

Cat No.		Qty
1620	***BEST SELLER***	Each
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



49430



49429X

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

49330



49331X



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
48555	Each
Low Dead Volume UHPLC SS Inline Filter Holder with 0.5µm x 0.062” SS Frit (48513)	



Cat No.	Qty
48513	5
0.5µm x 0.062” SS Replacement Frit, 2µL	

Inline Filter (Between pump & injector)



Cat No.	Qty
49314	Each
SS Inline Filter w/ 2µm Frit, (49100X)	



Cat No.	Qty
49100X	10
2µm SS 0.250” SS Replacement Frit	



Cat No.	Qty
48135	Each
Low Volume, Inline Filter w/ 2µm Frit, (48155)	



Cat No.	Qty
48155	10
2µm x 0.250” SS Replacement Frit	



Cat No.	Qty
48335	Each
Low Volume Inline Filter w/ 0.5µm Frit (48313)	



Cat No.	Qty
48313	5
0.5µm x 0.250” SS Replacement Frit	

Pre-Column Filters



Cat No.	Qty
49315	Each
SS Pre-Column Filter with 2µm Frit (49101X)	



Cat No.	Qty
49316	Each
SS Pre-Column Filter with 0.5µm Frit (49102X)	



Cat No.	Qty
49101X	10
2µm SS Replacement Frit, .062” x .062” x 0.250”	



Cat No.	Qty
49103X	10
0.5µm SS Replacement Frit, .094” x .062” x 0.250”	



Cat No.	Qty
52401X	10
2µm SS Replacement Frit, .125” x .062” x 0.250”	



Cat No.	Qty
49356	Each
PEEK™ Pre-Column Filter w/ .5µm Frit (49701)	



Cat No.	Qty
49355	Each
PEEK™ Pre-Column Filter w/ 2µm Frit (49700)	



Cat No.	Qty
49700X	10
2µm PEEK™ Replacement Frit, .062” x .062” x 0.250”	



Cat No.	Qty
49701X	10
0.5µm PEEK™ Replacement Frit, .062” x .062” x 0.250”	



Cat No.	Qty
52402X	10
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



49318



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



Cat No.	Qty
59200X	10

Blue ETFE Ferrules



Cat No.	Qty
59200NX	10

Natural ETFE Ferrules



Cat No.	Qty
59200R	Each

Red ETFE Ferrule



Cat No.	Qty
59221	Each

Polypropylene Ferrule



Cat No.	Qty
59240X	10

ETFE Small Valve Ferrule w/ Sealing Ring, Rated to 2600 psi on ETFE Tubing. *Can also be used in 10-32 Flat-Bottom Ports*



Cat No.	Qty
59201X	10

Black Delrin® Nuts



Cat No.	Qty
59202X	10

Red Delrin® Nuts



Cat No.	Qty
59204	Each

Cream Delrin® Nuts



Cat No.	Qty
59205X	10

Green Delrin® Nuts



Cat No.	Qty
59210X	10

Blue Extra-Long Tefzel® Nut for Dionex Systems



Cat No.	Qty
59230	Each

PEEK™ Nuts



Cat No.	Qty
59235X	10

Short PEEK™ Nuts



Cat No.	Qty
59286	Each

Natural PPS Headless Nut



Cat No.	Qty
59207X	10

M6 Black 1/16" Flangeless Nut

Flangeless Nuts & Ferrules

*For **1/8"** OD Tubing, 1/4-28 Flat-Bottom Ports*

• Rated to 500 psi



Cat No.	Qty
59300X	10

Yellow Tefzel® Ferrule, for 1/4-28 & M6 Flat-Bottom Ports



Cat No.	Qty
59300NX	10

Natural Tefzel® Ferrule



Cat No.	Qty
59340X	10

Natural Tefzel® Small Valve Ferrule w/ Sealing Ring, up to 3000 psi on ETFE Tubing



Cat No.	Qty
59301X	10

Black Delrin® Nuts



Cat No.	Qty
59302	Each

Red Delrin® Nuts



Cat No.	Qty
59303	Each

White Delrin® Nuts



Cat No.	Qty
59305X	10

Green Delrin® Nuts



Cat No.	Qty
59306X	10

Blue Delrin® Nuts



Cat No.	Qty
59308X	10

Black Delrin® Short Nuts



Cat No.	Qty
59315	Each

Tefzel® Nuts



Cat No.	Qty
59320X	10

Polypropylene Nuts



Cat No.	Qty
59330X	10

PEEK™ Nuts



Cat No.	Qty
59335X	10

PEEK™ Short Nuts



Cat No.	Qty
59345X	10

Tefzel® Short Nuts



Cat No.	Qty
59307X	10

Black Delrin M6 Nut for 1.8, 2.0, 3.0mm & 1/8" OD Tubing

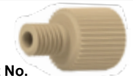
Flangeless Nuts & Ferrules

*For **1/16"** OD Tubing, 10-32 Flat-Bottom Ports*



Cat No.	Qty
95811X	10

Flangeless Nut for 1/16"OD Tubing, 10-32 Flat-bottom, PEEK/Tefzel



Cat No.	Qty
56111X	10

Flangeless Nut for 1/16" OD Tubing, *can only be used with 59240X Ferrule*



Cat No.	Qty
59240X	10

Tefzel Small Valve Flangeless Ferrule for 1/16" OD Tubing, Natural

*For **3/16"** OD Tubing, 5/16 Flat-Bottom Ports*



Cat No.	Qty
59133	Each

Tefzel Blue Flangeless Ferrule for 3/16" or 4.0mm OD Tubing, Blue



Cat No.	Qty
97132X	10

Flangeless Fitting for 3/16" or 4.0mm OD Tubing, PEEK Nut, Blue ETFE ferrule

One-Piece Fingertight Flangeless Fitting



Cat No.	Qty
59249	Each

PEEK™ One Piece Fitting (1/4-28) for 1/16" Tubing



Cat No.	Qty
59349	Each

PEEK™ One Piece Fitting (1/4-28) for 1/8" Tubing

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



Cat No.	Qty
59250X	10

PEEK Ferrule w/ Stainless Steel Locking Ring, 1/4-28 or M6 Flat-Bottom Port



Cat No.	Qty
59255X	10

PEEK™ Nuts, 1/4-28 Port



Cat No.	Qty
59259X	10

Yellow ETFE Ferrule w/ Stainless Steel Locking Ring, 1/4-28 Flat-Bottom Port



Cat No.	Qty
59252X	10

Delrin® Nuts, 1/4-28 Port

*For **1/16"** OD Tubing, 10-32 Flat-Bottom Ports*

• Rated to 5,000psi



Cat No.	Qty
57652	Each

Super Flangeless Short Hex PEEK Nut, rated to 5000 psi 10-32 Flat bottom port



Cat No.	Qty
57655	Each

Long Super Flangeless Hex PEEK Nut, rated to 5000 psi 10-32 Flat bottom port



Cat No.	Qty
57653	Each

Super Flangeless Short Knurl, PEEK Nut, rated to 5000 psi 10-32 Flat bottom port



Cat No.	Qty
57250X	10

Super Flangeless Ferrule w/ SS Locking ring, rated to 5k psi, 10-32 Flat bottom port

Super Flangeless Fittings

*For **1/8"** OD Tubing, 1/4-28 Flat-Bottom Ports*



Cat No.	Qty
59331	10

Super Flangeless PEEK™ Nut



Cat No.	Qty
59387	10

Super Flangeless PPS Nut, Headless, Natural



Cat No.	Qty
59350X	10

PEEK Ferrule w/ SS Locking Ring, Rated to 2,500 psi



Cat No.	Qty
59360X	10

PEEK One-Piece Ferrule, Rated to 1,500 psi



Cat No.	Qty
59359X	10

ETFE Ferrule w/ SS Locking Ring, Yellow, Rated to 1,000 psi

Large Bore Flangeless Fittings & Ferrules

*For **1/16"** OD Tubing, 5/16 Flat –Bottom*



Cat No.	Qty
59136	Each

Natural PEEK Flangeless Nut, 5/16-24 Flat-Bottom



Cat No.	Qty
59200	Each

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*



Cat No.	Qty
65655	10

PEEK Flangeless Nut & Ferrule for 1/4" Tubing, 1/2-20, Black

*For **1/8"** OD Tubing, 5/16 Flat-Bottom*



Cat No.	Qty
97130	Each

Flangeless Fitting for 1/8"OD Tubing, 5/16-24 Flat-bottom, PEEK/Tefzel



Cat No.	Qty
59300X	10

Flangeless Ferrule, Tefzel for 1/8" OD Tubing



Cat No.	Qty
59130	Each

PEEK Nut for 1/8" OD Tubing, 5/16-24 Flat-Bottom Port



Cat No.	Qty
59134	Each

PEEK™ ZVD Union, 5/16-24 Female Both Ends



Cat No.	Qty
59135	Each

PEEK™ Adapter 1/4-28 F to 5/16-24 F

*For **3/16"** OD Tubing, 5/16 Flat-Bottom Ports*



Cat No.	Qty
97132	Each

Flangeless Fitting for 3/16" OD Tubing, 5/16-24 Flat-bottom port, 500 psi, PEEK/Tefzel



Cat No.	Qty
59132	Each

PEEK Nut for 3/16" OD Tubing, 5/16-24 Flat-Bottom Port



Cat No.	Qty
59133	Each

Blue Tefzel Flangeless Ferrule, Rated to 500 psi, 5/16 Bottom Port

*For **5/16"** OD Tubing, 1/2-20 Flat-Bottom Ports*



Cat No.	Qty
89662	Each

Flangeless Fitting for 5/16" OD Tubing,1/2-20 Flat-Bottom Port Rated up to 250psi, PEEK/Tefzel



Cat No.	Qty
89660	Each

Flangeless ETFE Ferrule for 5/16" OD Tubing ½-20 Flat-Bottom port

Large Bore **Super** Flangeless Fittings & Ferrules

*For **1/16" OD** tubing, 5/16 Flat-Bottom Ports*



Cat No.	Qty
97141	Each

Super Flangeless Fitting for 1/16" OD tubing, 5/16-24 Flat-bottom, PEEK/Tefzel



Cat No.	Qty
59259X	10

Yellow Super Flangeless Ferrule for 1/16" OD tubing, with SS Lock Ring Tefzel

*For **1/8" OD** tubing, 5/16 Flat-Bottom Ports*



Cat No.	Qty
59359	10

Super Flangeless Ferrule for 1/8" OD Tubing, with SS Locking Ring, Tefzel

Large Bore **Super** Flangeless Fittings & Ferrules with Locking Rings

*For **3/16"** OD tubing, 5/16 Flat-Bottom Ports*



Cat No.	Qty
97137X	Each

Super Flangeless fitting for 3/16 OD tubing,5/16-24 Flat Bottom port, 500 psi Black PEEK/Green ETFE/SST



Cat No.	Qty
59140X	10

Green ETFE PEEK Ferrule w/ SS Locking ring, rated to 500 psi, 5/16 – Bottom port

Unions

PEEK™ Webbed Unions, 1/4-28



Cat No.	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



Cat No.	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



Cat No.	Qty
59603	Each
Natural Delrin® Union	
59620	Each
Natural Polypropylene Union	
59623	Each
Natural Tefzel® Union	

PEEK™ Y-Connectors



Cat No.	Qty
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



Cat No.	Qty
59712	Each
0.02" ID for 1/16" OD Tubing	
59713	Each
0.05" ID for 1/8" OD Tubing	

Tefzel® Tees



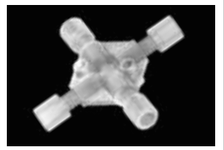
Cat No.	Qty
59632	Each
0.02" ID for 1/16" OD Tubing	
59633	Each
0.05" ID for 1/8" OD Tubing	

PEEK™ Crosses



Cat No.	Qty
59722	Each
0.02" ID for 1/16" OD Tubing	
59723	Each
0.05" ID for 1/8" OD Tubing	

Tefzel® Crosses



Cat No.	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



Cat No.	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



Cat No.	Qty
59628	Each
Tefzel® Female Luer to 1/4-28 Female	



Cat No.	Qty
59629	Each
Tefzel® Female Luer to 10-32 Female	

Female to Male Adapters



Cat No.	Qty
59604	Each
Delrin® F Luer to 1/4-28 M	
59618	Each
PP F Luer to 1/4-28 M	
59624	Each
Tefzel® F Luer to 1/4-28 M	



Cat No.	Qty
59642	Each
Tefzel® Female Luer to 10-32 Male	

Quick Connect Luer Adapters

PEEK



Cat No.	Qty
59656	Each
PEEK Natural Male Luer to 10-32 Female	



Cat No.	Qty
59659	Each
PEEK Natural Female Luer to 10-32 Female	



Cat No.	Qty
59655	Each
PEEK Red Male Luer to 1/4-28 Female	



Cat No.	Qty
59658	Each
PEEK Red Female Luer to 1/4-28 Female	



Cat No.	Qty
59660	Each
PEEK Black Female Luer to M6 Female	



Cat No.	Qty
59657	Each
PEEK Black Male Luer to M6 Female	

Tefzel



Cat No.	Qty
59675	Each
Tefzel Red Male Luer to 1/4-28 Female	



Cat No.	Qty
59678	Each
Tefzel Red Female Luer to 1/4-28 Female	



Cat No.	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
910-3000	Each

Complete Inline Check Valve Assembly



Cat No.	Qty
910-3001	Each

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
59655	Each

Quick Connect Adapter, Luer Male to 1/4-28 Female



Cat No.	Qty
59696	Each

Quick-Stop Luer Check Valve Assembly, Inc: Valve, Luer Adapter & Nut/Washer Set



Cat No.	Qty
59697	Each

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



Switching Valve



Cat No.	Qty
65100L	Each

Right Angle Flow Switching Valve, 4 Ports



Cat No.	Qty
65100T	Each

3-Way Flow Switching Valve, 4 Ports



Cat No.	Qty
65100D	Each

4-Way Diagonal Flow Switching Valve, 4 Ports

Shut Off Valves

- Place between solvent reservoir and pump and quickly and safely change solvent with a turn of the switch



Cat No.	Qty
59782	Each

Tefzel, .02” ID for 1/16” OD Tubing



Cat No.	Qty
59783	Each

Tefzel, .04” ID for 1/8” OD Tubing



Cat No.	Qty
59311	Each

Tefzel® Plug for 1/4-28 Flat Bottom 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

Inline Check Valves

- 2,000psi

Standard



Cat No.	Qty
910-3301	Each

Inlet Check Valve, 1/4-28 M to 1/4-28 F, Cracking Pressure: **15** psi



Cat No.	Qty
910-3302	Each

Outlet Check Valve, 1/4-28 M to 1/4-28 F, Cracking Pressure: **15** psi



Cat No.	Qty
910-3315	Each

Inlet Check Valve, 1/4-28 M to 1/4-28 F, Cracking Pressure: **3** psi



Cat No.	Qty
910-3316	Each

Outlet Check Valve, 1/4-28 M to 1/4-28 F, Cracking Pressure: **3** psi

Nonmetallic



Cat No.	Qty
910-3320	Each

Inlet Check Valve, 1/4-28 M to 1/4-28 F, Cracking Pressure: **1** psi



Cat No.	Qty
910-3340	Each

Inlet/Outlet Check Valve, 10-32 F to 10-32 F, Cracking Pressure: **1 psi**

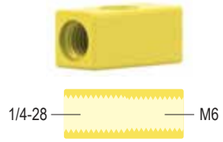
M4 Fittings for 1/32” OD Tubing



Cat No.	Qty
46000-3374	Each

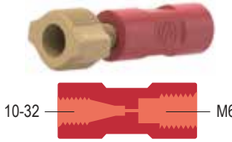
Natural PEEK™ RheFlex Fitting, M4

Metric Adapters



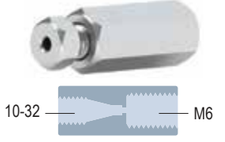
Cat No.	Qty
59621	Each

Tefzel Metric Adapter, 1/4-28 Female to M6 Female



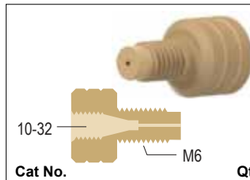
Cat No.	Qty
59626	Each

PEEK™ Adapter, 0.020” ID, 10-32 Female to M6 Female



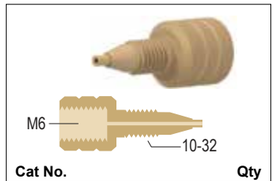
Cat No.	Qty
415874	Each

Stainless Steel Adapter, 0.040” ID, 10-32 Female to M6 Female



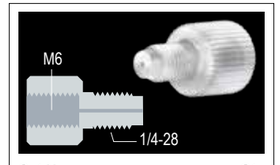
Cat No.	Qty
65011	Each

PEEK™ Adapter, 10-32 Female to M6 Male



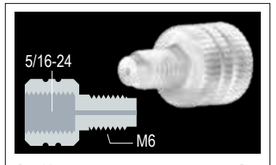
Cat No.	Qty
59650	Each

PEEK™ Adapter, M6 Female to 10-32 Male



Cat No.	Qty
59670	Each

Kel-F Adapter, M6 Female to 1/4-28 Male



Cat No.	Qty
59673	Each

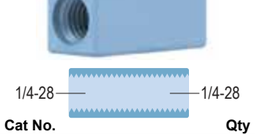
Kel-F® Adapter, 5/16-24 Female to M6 Male

Low Pressure Unions



Cat No.	Qty
59602	Each

Black Delrin® Metric Webbed Union, 0.020 ID



Cat No.	Qty
59622	Each

Blue ETFE Metric Webbed Union, 0.020 ID

Solvent Filters

General Use Inlet Solvent Filters, 40mL/min



Cat No.	Qty
49302A	Each

10µm SS Inlet Filter, w/Flangeless Fitting for 1/8”OD Tubing



Cat No.	Qty
49302	Each

10µm SS Inlet Filter with stem for 1/16” ID Tubing



Cat No.	Qty
49220	Each

10µm SS Inlet Filter, for 1/8” OD Tubing, Nut Not Included



Cat No.	Qty
49242	Each

2µm SS Inlet Filter, for 1/8” OD Tubing, Nut Not Included

For Waters® Analytical HPLC Systems, 40mL/min



Cat No.	Qty
49310	Each

10µm SS Filter w/Stem for 1/8” ID x 3/16” OD Tubing

For Preparative HPLC Systems, 100mL/min



Cat No.	Qty
49225	Each

20µm SS Inlet Filter w/Stem for 1/16” ID Tubing



Cat No.	Qty
49225A	Each

20µm SS Inlet Filter w/Flangeless Fittings for 1/8” OD Tubing



Cat No.	Qty
49226A	Each

10µm SS Inlet Filter for 5/16” OD Tubing



Cat No.	Qty
49227A	Each

10µm SS Inlet Filter for 1/4” OD Tubing



Cat No.	Qty
49230A	Each

20µm SS Inlet Filter for 1/4” OD Tubing



Cat No.	Qty
49311	Each

10µm SS Inlet Filter w/ Stem for 1/16” ID Tubing



Cat No.	Qty
49311A	Each

10µm SS Inlet Filter w/ Flangeless Fittings for 1/8” OD Tubing



Draws from the Bottom

SS Bottom-of-the-Bottle™ Solvent Filter Assemblies

• 40mL/min



Cat No.	Qty
49551	Each

Replaceable 2µm Filter Assembly for 1/8” OD Tubing



Cat No.	Qty
49522X	10

2µm Stainless Steel Filter Cups



Cat No.	Qty
49550	Each

Replaceable 10µm Filter Assembly for 1/8” OD Tubing



Cat No.	Qty
49520X	10

10µm Stainless Steel Filter Cups

Biocompatible Solvent Filters

• 40mL/min



Cat No.	Qty
49426	Each

10µm UHMWPE Filter, for 1/8” OD Tubing, Complete Unit



Cat No.	Qty
49427	5

10µm UHMWPE Filter Cups

Specialty Tools



Cat No.	Qty
61629	Each

Ferrule Remover Tool



Cat No.	Qty
66788	Each

Stainless Steel Combo Tool



Cat No.	Qty
1506	Each

Mini Flashlight



Cat No.	Qty
59298	Each

Extender Tightening Tool for Standard Head Fittings



Cat No.	Qty
59299	Each

Aluminum Flangeless Nut Extender Tool for Standard Head Fittings



Cat No.	Qty
68290	Each

Extender Tool for Micro Heads



Cat No.	Qty
ADV9851	Each

Stainless Steel Tubing Straightener



Cat No.	Qty
FS-101	Each

Ferrule Saver

Cutters



Cat No.	Qty
1651	Each

Advantage™ Polymer Tubing Cutter with 5 port sizes

1652	Each

Replacement Blade for PN 1651



Cat No.	Qty
49327	Each

PEEK™ Tubing Cutter for 1/16” - 1/8” OD Tubing

49329	Each

PEEK™ Tubing Cutter for 3/16” - 5/16” OD Tubing

49328	5

Repl. Blades for 49327 & 49329



Cat No.	Qty
1650	Each

1/16” OD SS Tubing Cutter Pliers



Cat No.	Qty
1551	Each

1/16” and 1/8” OD SS Tubing Cutter

1552	Each

Replacement Cutter Wheel



Cat No.	Qty
TT1001	Each

Rotary Stainless Steel Tubing Cutter for 1/16” OD Tubing

TT1002	Each

Rotary Stainless Steel Tubing Cutter for 1/8” OD Tubing

TT1003	3

Replacement Blades

Wrenches



49304	Each

1/4” x 5/16” Open End Wrench

49320	Each

3/8” x 7/16” Open End Wrench

49305	Each

1/2” x 9/16” Open End Wrench



Cat No.	Qty
Wrench-6	Each

6” Adjustable Wrench

Wrench-8	Each

8” Adjustable Wrench

Wrench-10	Each

10” Adjustable Wrench

Wrench-12	Each

12” Adjustable Wrench

Tool Kit



Cat No.	Qty
ADV9850	Each

Advantage™ Chromatography Tool Kit Includes: Pliers, Hex Wrenches, Fittings Wrench, Column Wrenches, Assorted Screwdrivers and Storage Box

Tubing Clips



Cat No.	Qty
1600	Each

Tubing Clip, Holes for 1/16” and 1/8” OD Polymer Tubing. SS Spring Clip Fits Glassware up to 4mm Thick

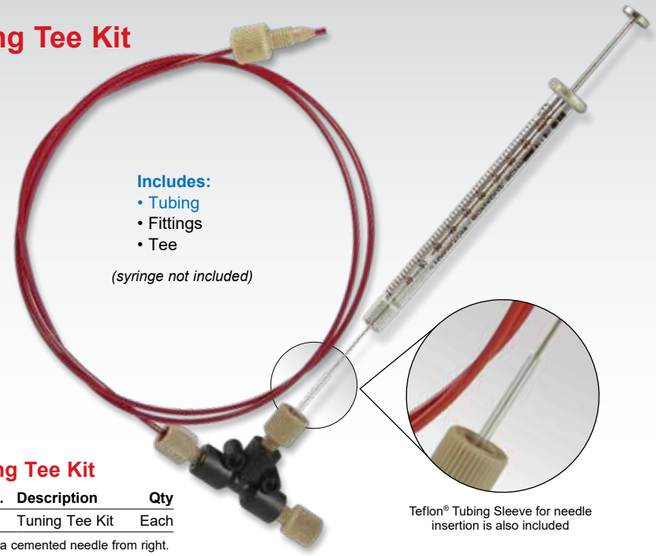
Fittings Storage Cabinets



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



Includes:
- Tubing
- Fittings
- Tee

(syringe not included)

Teflon® Tubing Sleeve for needle insertion is also included

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

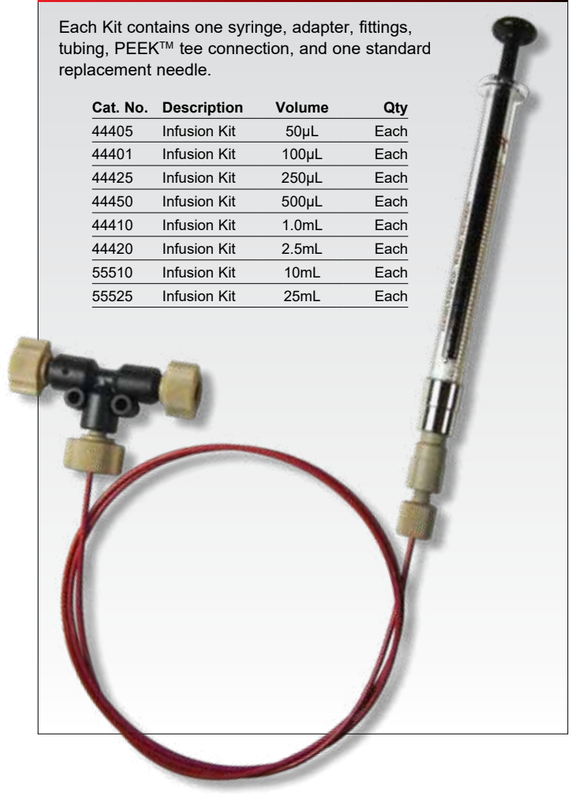
Point Style No. 2



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



8V2672

Cat. No.	Description	Qty
8V2172	C72 Vertical 10 Port Injector	Each
8V2672	C72 Vertical 6 Port Injector	Each

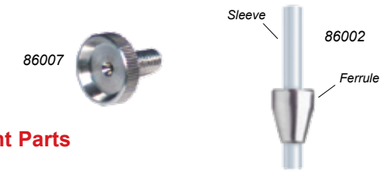
Rated to 20,000psi:

Cat. No.	Description	Qty
8V0620	C72 Vertical 6 Port Injector	Each

Replacement Parts for 6 Port Injector



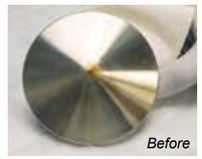
Cat. No.	Description	Qty
97561	Rotor Seal for C72 (C72 - 16R6)	Each
97565	Stator for C72	Each



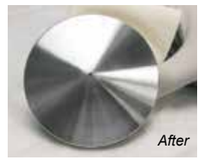
Replacement Parts

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 ***Easy Fit - Feels Like Butter***	5
86002RE	CTC PAL Needle Guide, ***Tight Fit***	5





Before



After

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



97002

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



9997010

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**



99SL10CW

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



SL5CW

Valco SS Sample Loops

with End Fittings for W-Type Valves

Cat. No.	Description
SL5CW	5µL Sample Loop
SL2KCW	2mL Sample Loop
SL5KCW	5mL Sample Loop
SL10KCW	10mL Sample Loop

Valco PEEK™ Sample Loops

with End Fittings for W-Type Valves

Cat. No.	Description
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

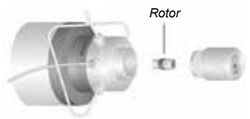
Models C6W & C10W HPLC Valves

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~~	*DISC*
~~ADVEPC10W~~	~~EPC10W 10 Port Injector w/ Microelectric Actuator~~	*DISC*
ADVDC10W	10 Port Replacement Valve	Each
ADVDC10WK-1	"Keyed" 10 Port Replacement 10-Port Valve	Each
~~ADVEPCA-CE~~	~~Model EPCA-CE Actuator Control~~	*DISC*

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



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

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

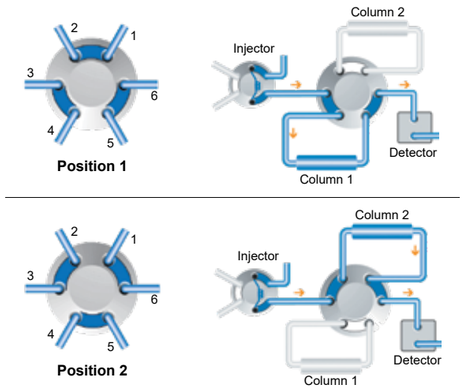
CTC PAL Needle Guide, Plastic Sleeve, for Valco
Easy Fit - Feels Like Butter

Cat No.	Qty
86002RE	5

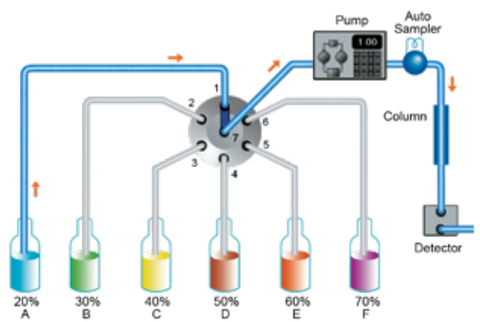
CTC PAL Needle Guide, ***Tight Fit***



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 **Switching Valve**, Stainless Steel	Each
VXH593-983	6 Position, 7 Port **Selector Valve**, Stainless Steel	Each

VXH Module Specifications:	
Maximum Pressure	**15,000 psi (1,034 bar)**
Power Requirements	100-120 VAC, 50-60 Hz
Regulatory Compliance	CE Mark
Remote Control	USB, PC, BCD, Level Logic
Operating Temperature	0º – 40ºC, non-condensing
Storage Temperature	0º – 75ºC
Dimensions	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

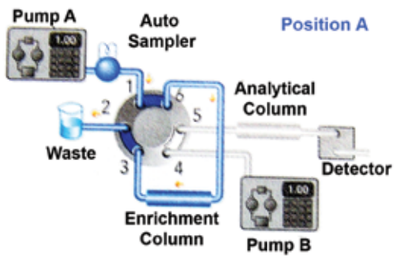


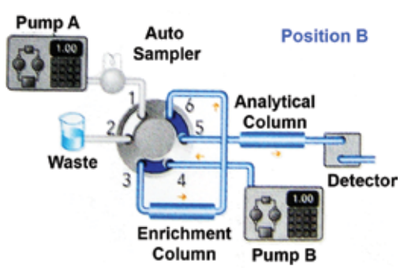
Replacement Stainless Steel Fittings

Cat. No.	Description	Qty
1286X	SS Nuts & Ferrules	10



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	0º – 40ºC, non-condensing
Storage Temperature	0º – 75ºC
Dimensions	117mm x 76mm x 128mm (4.6" x 3.0" x 5.0")





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 ***Nano*** 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



Tubing fits directly into valve with use of special ferrules, no fittings are required

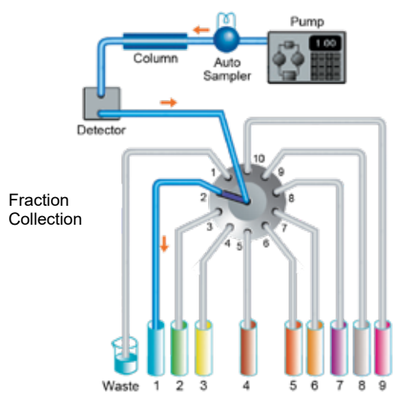
Low Pressure Automatic Switching & Selector Valves

- ***Rated to 125psi***
- ***Pre-pump solvent selection***
- ***Post column fraction collection***
- ***Fittingless tubing connection***
- ***Flexible automation with USB and RS-232 remote communication***



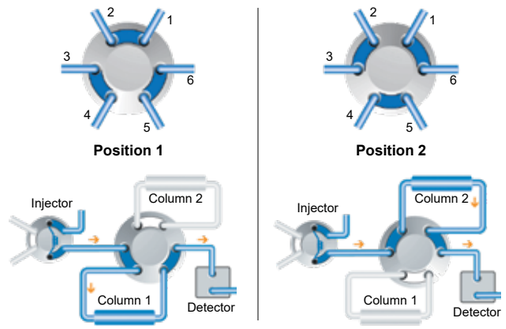
Catalog No.	Description	Qty
~~VXL554-260~~	~~2 Position, 6 Port Low Pressure **Switching Valve** with Fittingless Tubing Connection~~	DISC
VXL554-670	6 Position, 7 Port Low Pressure **Selector Valve** with Fittingless Tubing Connection	Each
VXL555-494	6 Position, 7 Port, Low Pressure, Large Bore **Selector 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

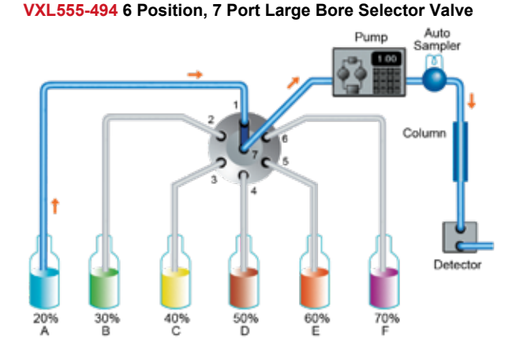


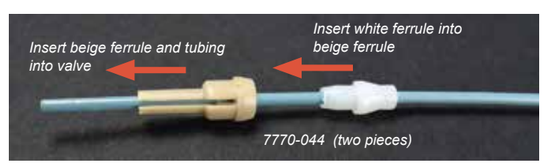
VXL Module Specifications:	
Maximum Pressure	**125 psi (9 bar)**
Power Requirements	100-120 VAC, 50-60 Hz
Regulatory Compliance	CE Mark
Remote Control	USB, PC, BCD, Level Logic
Operating Temperature	0º – 40ºC, non-condensing
Storage Temperature	0º – 75ºC
Dimensions	117mm x 76mm x 128mm (4.6" x 3.0" x 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**



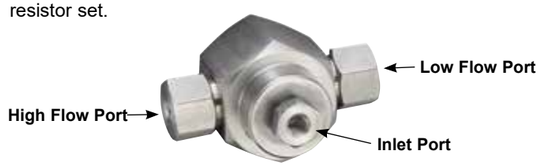
Advantage™ Fixed Flow Splitters are shipped with resistors installed that deliver the nominal stated split ratio. The split ratios have a tolerance range of ±10%. The exact split ratio is measured and is stated on the certificate shipped with the splitter. The input flow rate can be adjusted to compensate 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

$$\text{Split Ratio} = \frac{\text{Inlet Flow - Low Flow}}{\text{Low Flow}}$$

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

Selecting the Right Size Mixer Cartridge

Analytical Sales offers static mixers with volumes that range from .05µL to 1.5mL. Choosing the right size is a trade-off between delay volume, mixing noise, and step gradient definition and repeatability.

- For any given flow rate, the more the mixing volume the better the mixing, and the lower the baseline noise.
- The smaller the mixing volume, the better the definition and sharpness of step gradients.
- Multi-pump gradient systems typically require far less mixing volume than low pressure single pump gradient systems.
- A 150µL inline static mixer can be added after a dynamic mixer to further reduce mixing noise.

Multi-pump High Pressure Gradient

Linear Gradients
Larger mixing volume can be tolerated for a particular flow rate, whereas the larger the volume, the lower the mixing noise. The upper limits to mixing volume will be the maximum delay time that can be tolerated, and possible distortion (tailing) of the gradient at the beginning and end of the gradient. The lower limit will be defined by the amount of mixing noise that can be tolerated. (See chart for specific recommendations)

Cartridge Selection Guide	
Flow Rate (µL/min)	**Mixer Cartridge Volume (µL)**
0-5	5
5-10	10
10-20	25
20-150	50
15-500	150
500+	250

Binary or Ternary- Steady State Composition
Always select the largest volume that will still provide an acceptable delay volume. In general, the more mixing volume, the better the mixing will be. For most pump systems, a 150µL cartridge will provide adequate mixing.

Examples of this type of pump system include:

- Shimadzu® 10 AD and 10 ADVP
- Beckman System Gold®
- Gilson® Model 305
- Hewlett Packard® Model 1100

Single-pump Low Pressure Mixing Gradient Systems

Linear Gradients
These systems generally require more mixing volume to perform linear gradients than multi-pump high pressure systems. This is because in a low pressure system, the composition can only be changed once every pump stroke. Since the pump stroke volume of most pumps is 100µL, and it takes a mixer volume that is about 3 times the batch volume to provide adequate mixing, we need a minimum of 350µL of mixer volume to do adequate mixing. More insoluble combinations may require even more mixing volume.

In general, choose the largest size mixer cartridge that will still provide an acceptable delay volume. For most applications this will be at least 350µL.

Binary or Ternary - Steady State Composition
Always select the largest volume that will still provide an acceptable delay time. In general, the more mixing volume, the better the mixing will be. For most applications this will be at least 350µL.

PRODUCT NOTE:

Use low volume (smaller than 50µL) static bed mixers for all your ballistic gradient applications. Smallest internal volume maintains gradient precision and accuracy.

Stainless Steel Static Mixers

Micro Flow

		Complete Assembles			
					
		Inline	**Binary**	**Ternary**	**Cartridge**
Volumes (µL)	0.5	1300200-31	1300240-31	1300340-31	1300000-31
	1	1300200-41	1300240-41	1300340-41	1300000-41
	2	1300200-21	1300240-02	1300340-02	1300000-21
	5	1300200-51	1300240-05	1300340-05	1300000-51
	10	1300201-01	1300240-10	1300340-10	1300000-01
	25	1300202-51	1300240-25	1300340-25	1300002-51
Housing		1300200-00	1300240-00	1300340-00	

High Flow

		Complete Assembles			
					
		Inline	**Binary**	**Ternary**	**Cartridge**
Volumes	800µL	1300800-00	1320800-00	1330800-00	1400800-00
	1.0mL	1300111-00	1320111-00	1330111-00	1400100-00
	1.5mL	1300150-00	1320150-00	1330150-00	1400150-00
Housing		130043-10	130043-20	130043-30	

Low Volume

		Complete Assembles			
					
		Inline	**Binary**	**Ternary**	**Cartridge**
Volumes	50µL	1300205-01	1300105-01	1300305-01	1300005-01
	150µL	1300215-01	1300115-01	1300315-51	1300015-01
	250µL	1300225-01	1300125-01	1300325-51	1300025-01
Housing		1300000-00	1300100-00	1300300-00	

Analytical Flow

		Complete Assembles			
		Inline	**Binary**	**Ternary**	**Cartridge**
Vol.	350µL	1300350-01	1300235-01	1300435-51	1300035-01
	500µL	1300500-01	1300150-01	1300450-51	1300050-01
Housing		1300042-10	1300042-20	1300042-30	

Biocompatible PEEK™ and UHPLC Static Bed Mixers are also available. Call for details.

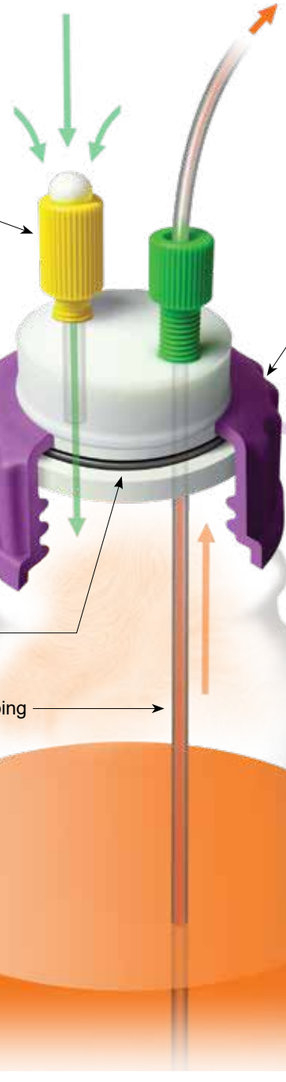
Application Notes

Canary Safe™

Mobile Phase Safety Caps, Waste Caps, Air Filters & Accessories



Mobile Phase Bottle Safety Caps



Outgoing Mobile Phase

Incoming Air

Filter Check Valve
A one-way valve that filters incoming air as solvent is drawn out and keeps harmful vapors from escaping. It also keeps a vacuum from forming in the bottle.

Screw Cap

Viton O-ring
Ensures air-tight seal between cap and mobile phase bottle

Tubing

Mobile Phase

PTFE Body
Rotates freely within the screw cap (until tightened) allowing for easy removal of cap without twisting or tangling tubing lines.



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






CC1003


CC1004


CC1001R


CC1002G


CA4599


CA4506


CA4503


CA4567


CA2932


CA4501

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



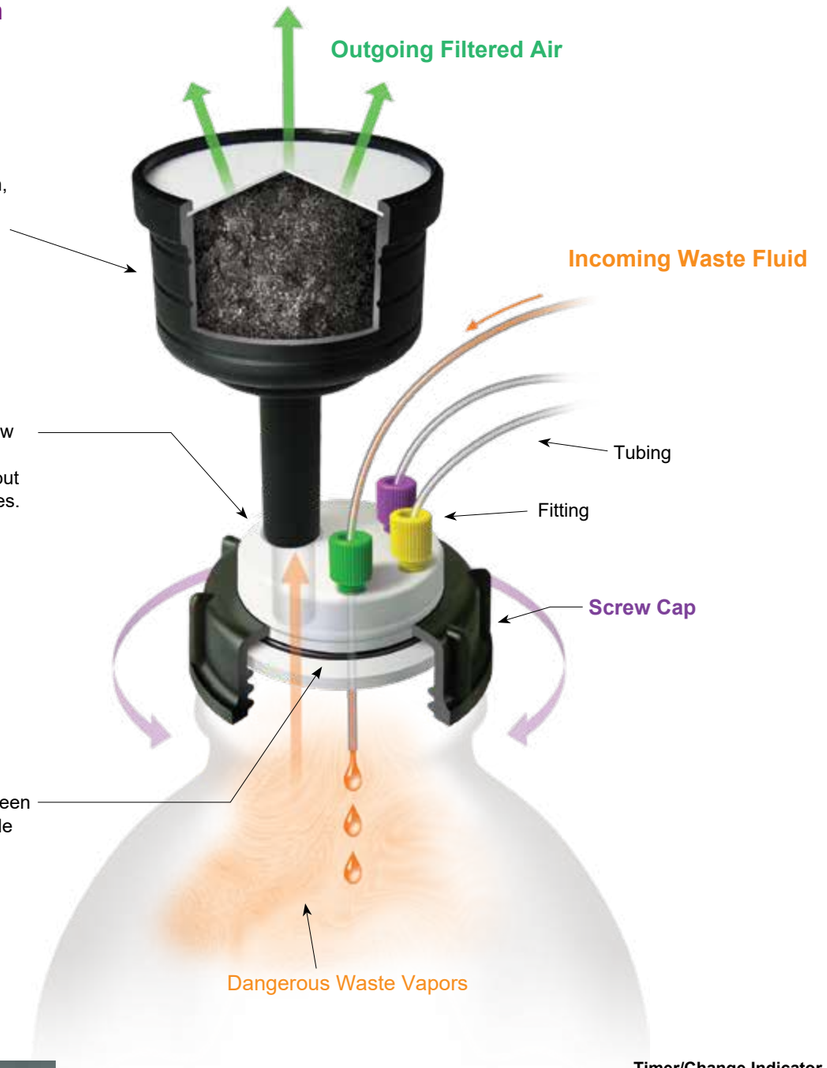
Cat. No.	Thread	Description
CC1011	GL45	1 Std 1/8” OD Tubing Port, Shut-Off Valve
CC1012	GL45	2 Std 1/8” OD Tubing Ports, Shut-Off Valves
CC1013	GL45	3 Std 1/8” OD Tubing Ports, Shut-Off Valves
CC1014	GL45	4 Std 1/8” OD Tubing Ports, Shut-Off Valves

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 H2 SO4 (sulfuric acid) for Volatile Bases	6 Months
CX6020	M	Exhaust Filter with KOH (potassium hydroxide) for Volatile Acids	6 Months

Canary-Safe™ Solvent Safety Products
Safety Waste Caps













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




CJX01




CJX02



Cat. No.	Description	Qty
CJX01	Exhaust Filter Fitting/***Long*** Adapter for Stainless Steel Port on JustRite Waste Container	Each
CJX02	Exhaust Filter Fitting/***Short*** 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.


CLPP12752

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


CJR01

PEEK Port


CJR02

Stainless Steel Port

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 **Gray PEEK** Ports on JustRite Waste Cans, 3 Standard ports for 1/8" OD Tubing, 1 Port for Barbed Connector	Each
CJR02	Long Adapter for **Stainless Steel** Port on JustRite Waste Can, 3 Standard Ports for 1/8" OD Tubing, 1 Port for Barbed Connector	Each
CJR03	PTFE Adapter for **Gray PEEK** Ports on JustRite Waste Cans, 3 Ports for 3/16" Tubing, 1 Port for Barbed Connector	Each
CJR04	Long Adapter for **Stainless Steel** Port on JustRite Waste Can, 3 Ports for 3/16" Tubing, 1 Port for Barbed Connector	Each


CF5025

CJR02

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


CF5025


CF5022

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


1651



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


59249 59349

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


CF5002 CF5003 CF5001

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


CF5009 CF5008 CF5007 CF5006

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, 8-12mm / 4-8mm	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.



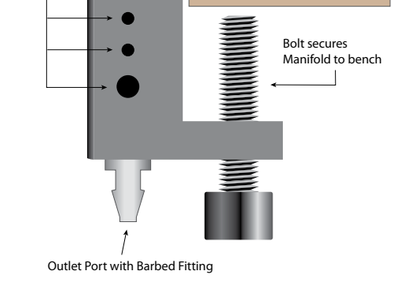
Another sensor an be set to detect high fluid level in your waste container.


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:

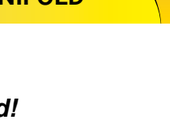


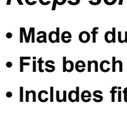
Multi-Inlet Waste Manifold

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



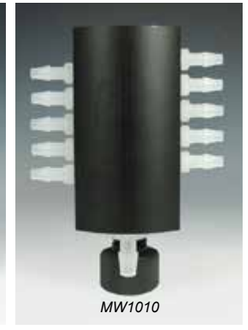


For 1/16" or 2.5mm tubing, use these fittings *(sold separately)*

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


MW0802


MW0010


MW1010


MW0406


MW0523



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	300µL Polypropylene MicroVial	1000
88275	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

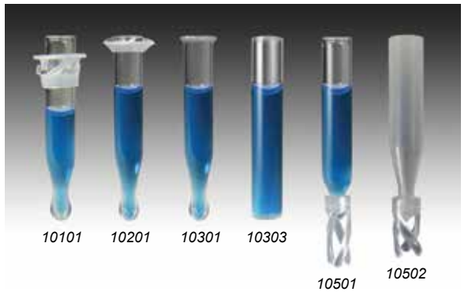
**TPX is a clear PP material.*



80095



80077SL



10101 10201 10301 10303 10501 10502

PRODUCT NOTE:

We have the capability to Silanize all of our glass inserts & vials

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

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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

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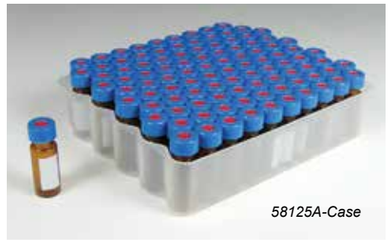


88535

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58126-Case



58125A-Case

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 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



90003



96054



96096



481232



9mm Screw Vials & Caps in Unassembled Kits

CERTIFIED AT NO ADDITIONAL CHARGE

Cat. No.	Description	Qty
99006-Case	2mL Clear Glass Vial, PTFE/Silicone Lined Cap	1000
99006G-Case	2mL Clear Glass Vial, PTFE/Silicone Lined Green Cap	1000
99006R-Case	2mL Clear Glass Vial, PTFE/Silicone Lined Red 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 Amber Glass Vial w/ Marking Spot, PTFE/Silicone Lined Cap	1000
99006ASL-Case	2mL Amber 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 Amber 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/ **Pre-slit** PTFE/Silicone Liner, < 2µL Dead Volume	100
86868SL	1.2mL Clear Glass, Max. Recovery 12 x 32mm Vial, Assembled Screw Cap w/ **Pre-slit, Non-Bonded** 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 Amber Glass, PTFE/Silicone Lined Screw Cap	100
99024	2mL Clear Glass, Pre-Slit PTFE/Silicone Lined Screw Cap	100
99024A	2mL Amber Glass, Pre-Slit PTFE/Silicone Lined Screw Cap	100
99062	2mL Clear Glass, PTFE/Silicone/PTFE Lined Screw Cap	100
99062A	2mL Amber 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 Green Screw Caps with PTFE/Silicone Liners	1000
99669R-Case	9mm Red Screw Caps with PTFE/Silicone Liners	1000
99669W-Case	9mm White Screw Caps with PTFE/Silicone Liners	1000

Minimum Interference, Maximum Performance!



CERTIFIED AT NO ADDITIONAL CHARGE

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/ ***Pre-Slit*** 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/ ***Pre-Slit*** 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/ ***Pre-Slit*** MSQ Liners	1000
99005A-Case	2mL Amber Glass MSQ Vials	Screw Thread Caps w/ MSQ Liners	1000
99005ASL-Case	2mL Amber Glass MSQ Vials	Screw Thread Caps w/ ***Pre-Slit*** MSQ Liners	1000
99005AM-Case	2mL Amber Glass MSQ Vials w/ Marking Spot	Screw Thread Caps w/ MSQ Liners	1000
99005AMSL-Case	2mL Amber Glass MSQ Vials w/ Marking Spot	Screw Thread Caps w/ ***Pre-Slit*** MSQ Liners	1000
99015AM-Case	2mL Amber Glass MSQ Vials w/ Marking Spot	Snap Caps w/ MSQ Liners	1000
99015AMSL-Case	2mL Amber Glass MSQ Vials w/ Marking Spot	Snap Caps w/ ***Pre-Slit*** 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/ ***Pre-Slit*** MSQ Liners	100
99003AM	2mL Amber Glass MSQ Vials w/ Marking Spot & 300µL Fused Glass Insert	Screw Thread Caps w/ MSQ Liners	100
99003AMSL	2mL Amber Glass MSQ Vials w/ Marking Spot & 300µL Fused Glass Insert	Screw Thread Caps w/ ***Pre-Slit*** MSQ Liners	100



Screw Thread Caps with MSQ Liners

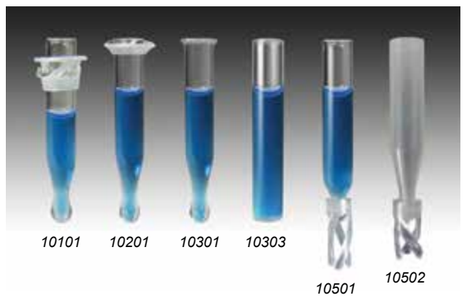
Cat. No.	Description	Qty
91944-Case	Screw Thread Caps w/ MSQ Liners	1000
91946-Case	Screw Thread Caps w/ ***Pre-Slit*** MSQ Liners	1000


11231 11231M 11232 11232M 12320 11203 11203A 11235 11236 11234 11237

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.*


10101 10201 10301 10303 10501 10502


51125

10mm Solid Caps with Liners

Cat. No.	Description	Qty
11555	Black Polypropylene, PTFE Liner	1000


10028 10028SL

10mm Screw Caps with Liners

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


52248-Case

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


11221 11222 11271

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


90120

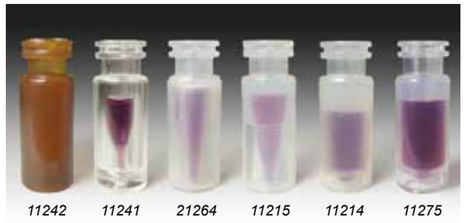

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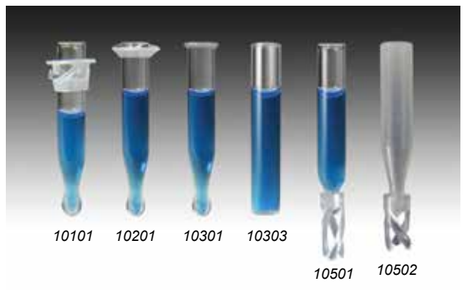
Crimpers, Decrimpers & Decappers

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, Blue	100
87787SL	1.5mL Clear Snap/Crimp Vial, Pre-Slit PTFE/Silicone Lined Cap, **Black**	100
87203	**300µL** Clear Glass MicroVial w/Marking Spot	100
87233	**300µL Amber** 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 **Amber** Glass	1000
11212M-Case	2mL **Amber** Glass w/ Marking Spot	1000

Limited Volume Crimp/Snap Vials

Cat. No.	Description	Qty
11242	100µL Glass/**Amber** Plastic MicroVials	100
11210	TPX MicroVials with 300µL Volume Inserts	1000
11230-Case	100µL Clear Polypropylene MicroVials	1000
11241	Plastic MicroVials with 300µL Glass Inserts	100
21264-Case	Polypropylene MicroVials with 300µL Inserts	1000
11254-Case	500µL Clear Polypropylene MicroVials	1000
11215-Case	500µL Polypropylene MicroVials	1000
11217-Case	500µL TPX MicroVials	1000
11275-Case	750µL Clear Polypropylene MicroVials	1000
11214-Case	750µL Polypropylene MicroVials	1000
11218-Case	750µL TPX MicroVials	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	Clear, Silicone/PTFE Lined Cap	1000
20044B-Case	Blue, Silicone/PTFE Lined Cap	1000
20044SL-Case	Clear, **Pre-Slit**, Silicone/PTFE Lined Cap	1000
20044ST-Case	Clear, **Starburst Slit** Silicone/PTFE Lined Cap	1000

** Other colors options are available*



Base Plates

Custom 12x32mm Vial Storage and Transfer Bases

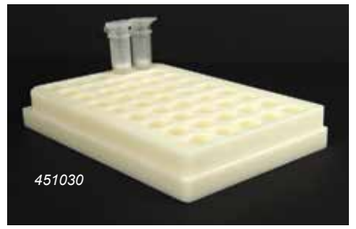
Cat. No.	Description	Qty
96054	54 Well Custom Flat Bottom Base Plate	Each
481232	48 Well Custom Flat Bottom Base Plate	Each



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

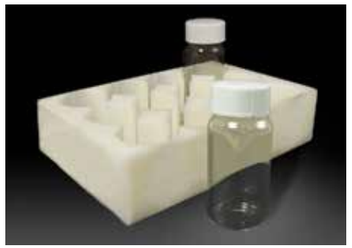
Cat. No.	Description	Qty
24150	50 Well Custom Flat Bottom Base Plate	Each
451030	45 Well Custom Flat Bottom Base Plate	Each



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

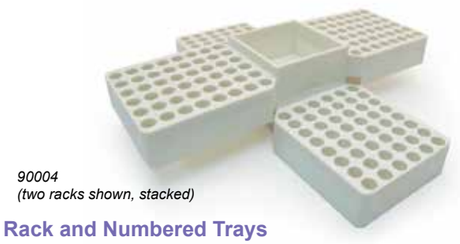
- Holds 17x60mm 8mL Scintillation Vials

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



90004
(two racks shown, stacked)

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



31531 *31531M* *31534* *31532* *31532M*

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


30501 *30507*

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


30020 *53126* *53127* *570045*

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


31554

Cat. No.	Description	Qty
31554-Case	PTFE Lined Cap	1000
31556-Case	Polycone Lined Cap	1000


30872 *30871*

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



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


961234

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 -196ºC to +121ºC
- 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, Caps Sold Separately	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 Amber Self-standing Microtubes	1000
16501	2mL Clear Self Standing PP Micro-Centrifuge Tube	1000
16501A	2mL Amber Self Standing PP Micro-Centrifuge Tube	1000
16461	Amber Caps with O-ring & Loop	1000
16561	Amber 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, Green	1000
15267R	Micro Centrifuge Caps with O-Rings, Red	1000
15267W	Micro Centrifuge Caps with O-Rings, White	1000
15267Y	Micro Centrifuge Caps with O-Rings, Yellow	1000



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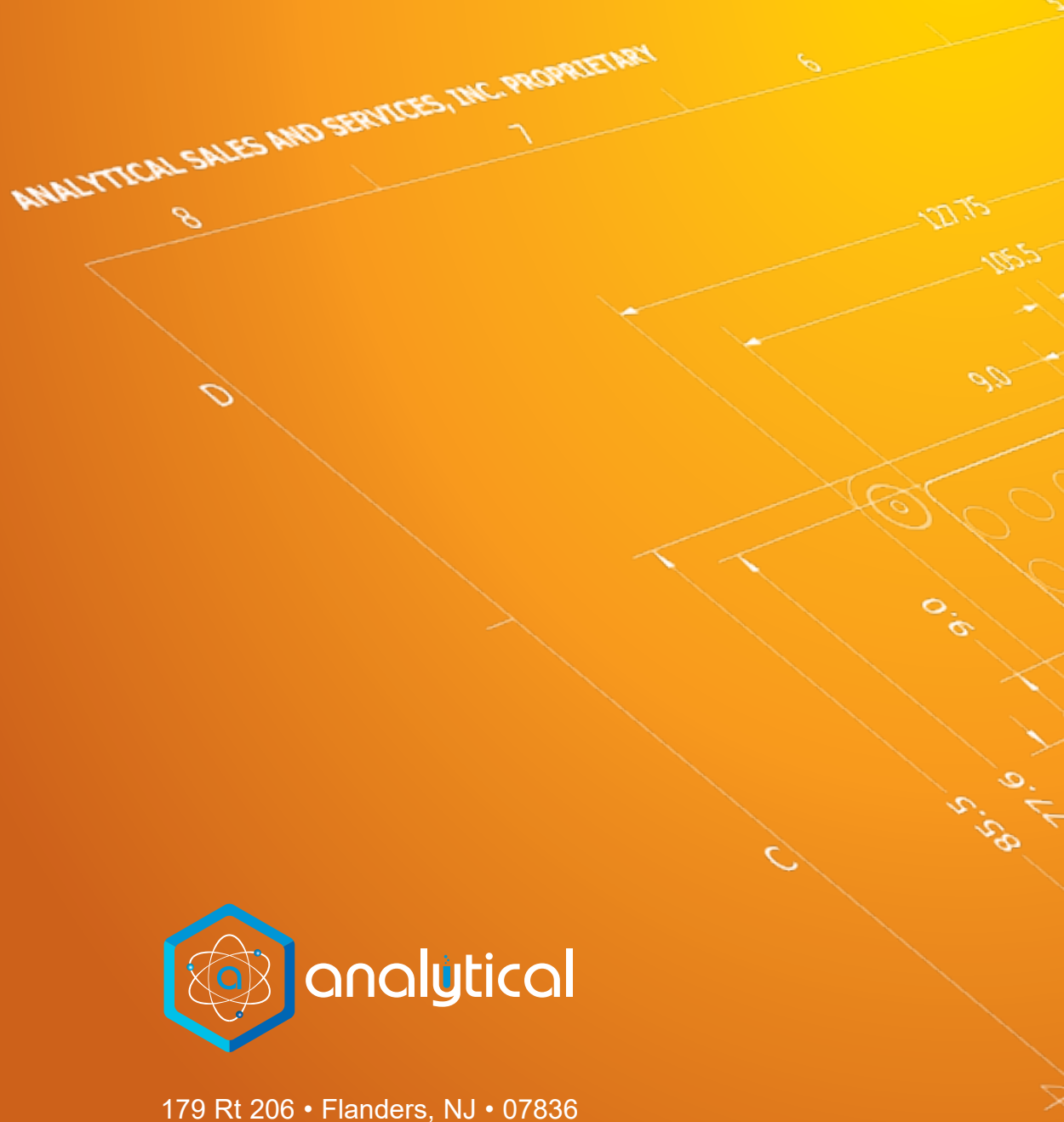
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