

VWR SINGLE-USE SOLUTIONS

EXPERTISE | CHOICE | SERVICES



Capabilities of VWR Single-Use Solutions



VWR IS A GLOBAL MANUFACTURER OF SINGLE-USE TRANSFER AND COLLECTION SYSTEMS.

Our capabilities are built on the combined resources of Integra Companies, STI, JM Separations, and PAW BioScience. Recently acquired by VWR, together these companies have more than 20 years of experience with developing fluid-handling solutions for bioprocess applications. They now operate as one global business with manufacturing facilities in the US and Europe.

Combined with the VWR distribution network, VWR Single-Use Solutions represents the only open architecture, single-use provider able to provide complete design, manufacturing, and logistics support to customers globally.



VWR Single-Use Solutions

EXPERTISE | CHOICE | SERVICES

We provide expertise, product choice, and services to help you navigate fluid handling challenges, component options, and quality and regulatory compliance constraints of the single-use world. At VWR, we can help solve unique problems in all areas of a biopharmaceutical manufacturing operation – to keep your production line running.

OUR CORE CAPABILITIES INCLUDE:

- Tanks and Tank Liners
- Pillow and 3D Bags
- Bag Mixing Systems
- Bottle Assemblies
- Hose and Tubing Manifolds
- Specialty Connectors
- Standard and Custom Products
- Product Development and Prototyping
- Product Sampling Solutions



EXPERTISE

A Collaborative Approach to Designing Your Solution

- Single-use experts with fluid connectivity knowledge and expertise
- Single-use, stainless, or hybrid facility design
- Traditional stainless steel-based facilities
- Helping you convert from self-assembled items

CHOICE

Access to an Unmatched Product Portfolio

- Open architecture with components sourced from multiple suppliers
- Unbiased integrator with global reach
- 100+ standard products available for many typical bioprocess operations

SERVICES

Designed to Keep Your Production Line Running

- Expedited design and approval process
- Drawings in under three days
- Complete validation packs in under three days
- Unmatched global logistics and planning



Managing Your Risk

QUALITY & REGULATORY COMPLIANCE SYSTEM TO MITIGATE RISKS

Single-use systems have been proven to enable a more flexible and cost effective approach to bio-pharma manufacturing. However, they must also meet the rigorous quality parameters and standards related to component qualification, manufacturing operations, in-process testing, and final product release. VWR Single-Use has implemented a fully documented quality system that is precisely managed with validated processes. VWR's quality systems, processes, facilities, and personnel are established and integrated to ensure that the end user is consistently receiving the reliable products necessary to assure the performance, robustness, and sterility of single-use systems with full lot traceability. To support these claims, a detailed Certificate of Compliance accompanies all single-use assemblies. Additionally, backing certifications for assembly components are retained by VWR and are readily available upon request.

OTHER KEY ASPECTS OF OUR QUALITY & REGULATORY COMPLIANCE SYSTEM TO MITIGATE RISKS INCLUDE:

Redundant Cleanroom Manufacturing Facilities

- Certified ISO Class 7 assembly rooms
- Validated equipment and processes

Certified ISO 9001 Quality System

- Compliant with FDA and EU cGMP requirements
- Robust and timely Complaint Handling and CAPA programs
- Risk-based quality management approach

Complete Regulatory Compliance Program

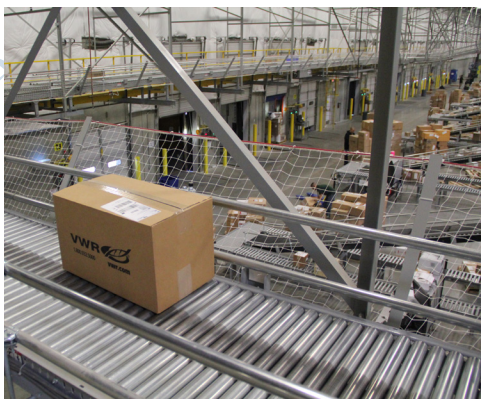
- Animal Origin Free or EMA/410/01 compliant materials
- Sterility Validation per ANSI/AAMI/ISO 11137 (VDmax25)
- Sterile Barrier Shelf-Life Validation per ANSI/AAMI/ISO 11607
- ISO-11137 Sterility Validation
- Endotoxin USP <85> & Particulate USP <788> lot release testing available
- BPOG Standardized Extractables Testing Protocol in use

MINIMIZING THE COMPLEXITY OF YOUR SUPPLY CHAIN SECURITY

Offering reliable and transparent supply chain solutions is what we do best. Built on a foundation of supply chain innovation, our goal is for our customers to have a consistent and reliable experience where ever they are in the world. We designed our quality and security programs to provide a customer centric approach that offers flexibility and solutions that decrease the complexity our customers experience around quality, regulatory, and security requirements. This includes operations that meet ISO and cGMP compliance standards and necessary document and product certificates.

VWR MAINTAINS SECURITY THROUGH:

- **Quality and Change Control:** through our own internal Quality Assurance team and Change Control systems to ensure compliance. Visit vwr.com to view our Change Notification video to learn about new enhancements!
- **Collaborative Planning, Forecasting, and Replenishment (CPFR):** enabling then demonstrating through service level reports on assurance of supply through the Critical Materials Care team who directly engage with our customers.
- **Documentation:** ensuring availability on vwr.com such as Certificates of Conformance, Quality, or Analysis and making them available with the SDS's.
- **Local Support:** by leveraging VWR's field-based technical experts across 5 continents who will help you match your requirements to high-quality suppliers of bioprocessing materials.
- **Supplier Auditing & Integrity:** conducting risk based audits enables us to understand the capabilities of new suppliers and collaborate effectively to promptly address CAPA's corrective and preventative actions if the need arises.



Advancing Innovation with Single-Use Expertise



JM BIOCONNECT® QUATTROMIX

An Innovative Single-Use Mixing System with Additional Benefits

By Dr. Andreas Frerix (Almatec),
edited by Tom van der Veeke, JM Separations

This unique, impeller-free single-use mixing system is based on fluid recirculation by using a pump—no need for rotating wetted parts that can be subject to friction.

In combination with a pumping device, this single-use mixing system becomes a multi-purpose system.

- Fill and empty the bag without an additional pump
- Perform post-mixing processes like sterile filtration, TFF filtration, flow through chromatography, and more
- Integrate in-line sensors, like pH, conductivity, temperature, and UV
- Integrate heat exchanger for cooling or heating of the media



Find out more about our innovative products through our library of articles.
vwr.com/bioprocessingtecharticles



OMNITOP SAMPLE TUBES® WITH OCTOCAP™

Novel Devices Designed to Simplify Bioprocess Fluid Sampling & Operations

By Tim Korwan and Ben Willemstyn,
 VWR BioProcess Division

The VWR BioProcess Division has designed a new generation of conical tube caps that are changing the landscape of sample collection.

Conical tubes provide an ideal closed system solution for product sampling and small volume transfers.

- Critical component in upstream and downstream bioprocess applications
- Reduce the risk of open vial sampling in the production of biologics
- Advance workflow efficiencies
- Increase overall process sterility assurance

Custom VWR Single-Use Solutions

Connecting various bioprocessing systems in a reliable, reproducible manner poses a significant challenge. The number of methods for interfacing with the process and interconnecting various components is staggering.

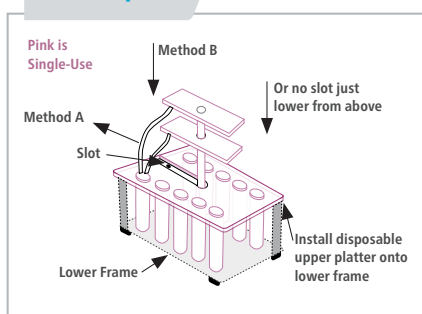
VWR can help you get connected. We offer complete custom single-use solutions for upstream, downstream, and fill and finish stages of bioprocessing. From simple tubing sets to complex mixing systems, all assemblies can be made customer-specific.

As an unbiased integrator of single-use solutions, our dedicated engineers work side-by-side with you to understand your goals, the environment, and the intricacies of your application. We then design, prototype, and deliver a secure, reliable assembly that achieves your desired results.

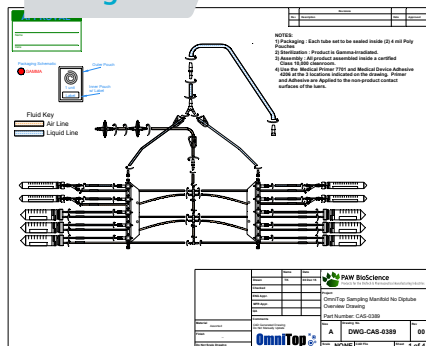
Our expertise in single-use technologies, diverse component options, and open architecture model combine to deliver unique solutions such as:

- Custom Transfer Assemblies
- 3-D Bags up to 3,500L
- Bag Mixing Systems
- Multi-Bag & Bottle Manifolds
- Custom Sampling Solutions
- Filtration Assemblies

Concept



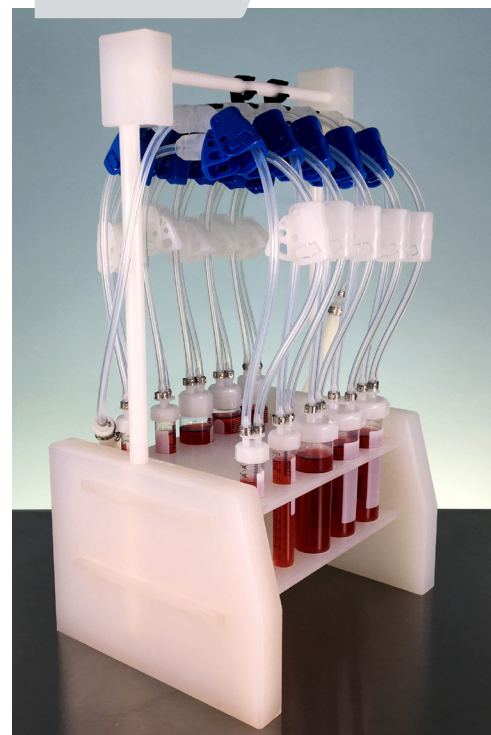
Design



Prototype



Your Product



Standard VWR Single-Use Solutions

VWR Single-Use Solutions provides product choice to help you navigate the fluid handling challenges, component options, and quality and regulatory compliance constraints of the single-use world. At VWR, we can help solve unique problems in all areas of a biopharmaceutical manufacturing operation – to keep your production line running.

VWR® Sterile Polycarbonate Single-Use Flask and Tubing Assemblies

Polycarbonate Flasks feature weldable tubing to provide the maximum amount of flexibility and reliability. When used with sterile VWR® Tube Sets, custom possibilities are endless.

C-Flex Tubing Assemblies are designed for a broad spectrum of applications and unique features that make them a superior alternative to others. Ideally use with Sterile VWR® Bottle or Flask Assemblies.

Sterile Flasks and Tubing are assembled in an ISO Class 7 cleanroom and manufactured from USP Class VI materials.



Single-Use Flask Assemblies

Capacity, mL (oz.)	Tubing Length, in.	Cap Size	Tubing Connection	Tubing Size, in.	Cat. No.
125 (4)	Port 1: 24	38-430	Port 1: PP Tube Plug	Port 1: 1/8 x 1/4	10830-700
	Port 2: 3		Port 2: 25mm Hydrophobic PE Vent Filter	Port 2: 1/8 x 1/4	
250 (8)	Port 1: 24	38-430	Port 1: PP Tube Plug	Port 1: 1/8 x 1/4	10830-702
	Port 2: 3		Port 2: 25mm Hydrophobic PE Vent Filter	Port 2: 1/8 x 1/4	
500 (16)	Port 1: 24	38-430	Port 1: PP Tube Plug	Port 1: 1/8 x 1/4	10830-278
	Port 2: 3		Port 2: 25mm Hydrophobic PE Vent Filter	Port 2: 1/8 x 1/4	
1000 (32)	Port 1: 12	53B	Port 1: PP Tube Plug	Port 1: 3/8 x 1/2	10830-280
	Port 2: 3		Port 2: 50mm PTFE Vent Filter	Port 2: 1/4 x 3/8	
	Port 3: 12		Port 3: PP Tube Plug	Port 3: 3/8 x 1/2	
2000 (64)	Port 1: 12	53B	Port 1: PP Tube Plug	Port 1: 3/8 x 1/2	10830-290
	Port 2: 3		Port 2: 50mm PTFE Vent Filter	Port 2: 1/4 x 3/8	
	Port 3: 12		Port 3: PP Tube Plug	Port 3: 3/8 x 1/2	

Single-Use Tubing Assemblies

Description	Details	Length, in.	I.D. x O.D., in.	Cat. No.
Single Drop PP with TEE with Clamps	Plug all ends; pinch clamps installed; gamma irradiated	12	1/8 x 1/4	10830-692
Two Drop Clamp PP TEE with Clamps	Plug all ends; pinch clamps installed; gamma irradiated	12	1/8 x 1/4	10830-694
50' Roll with Clamps	Plug on each end; pinch clamps installed; gamma irradiated	50	1/8 x 1/4	10830-258
Mini TC Jumper	3/4" TC (with end cap, gasket, and sanitary clamp) x plug; pinch clamp installed; gamma irradiated	36	1/8 x 1/4	10830-260
C-Flex MPC Body Jumper	MPC coupling body (with sealing plug) x plug; pinch clamp installed; gamma irradiated	36	1/8 x 1/4	10830-262
MPC Insert Jumper	MPC coupling body (with sealing plug) x plug; pinch clamp installed; gamma irradiated	36	1/8 x 1/4	10830-264
3/4" TC Jumper	3/4" TC (with end cap, gasket, and sanitary clamp) x plug; pinch clamp installed; gamma irradiated	36	1/8 x 1/4	10830-266
1 1/2" TC Jumper	1 1/2" TC (with end cap, gasket, and sanitary clamp) x plug; pinch clamp installed; gamma irradiated	36	3/8 x 1/2	10830-268
MPC Body Jumper	MPC coupling body (with sealing cap) x plug; pinch clamp installed; gamma irradiated	36	3/8 x 1/2	10830-270
MPC Insert Jumper	MPC coupling insert (with sealing cap) x plug; pinch clamp installed; gamma irradiated	36	3/8 x 1/2	10830-272
DAC Jumper	GE DAC x plug; pinch clamp installed; gamma irradiated	36	3/8 x 1/2	10830-274
AQG Jumper	Colder AQG x plug; pinch clamp installed; gamma irradiated	36	3/8 x 1/2	10830-276

Standard VWR Single-Use Solutions



VWR® Sterile Single-Use Bottle Assemblies

Sterile containers are available in PETG or polycarbonate, each with weldable tubing to provide the maximum amount of flexibility and reliability.

These vessels are assembled in an ISO Class 7 cleanroom and are manufactured from USP Class VI materials. When used with sterile VWR® Tube Sets, custom possibilities are endless.

Assemblies have been designed with a broad spectrum of applications in mind, including life sciences and general lab use, environmental assays, and production and cleanroom applications.



Polycarbonate Assemblies

Capacity, mL (oz.)	Tubing Length, in.	Cap Size	Tubing Connection	Tubing Size, in.	Cat. No.
125 (4)	Port 1: 24	38-430	Port 1: PP Tube Plug	Port 1: 1/8 x 1/4	10830-302
	Port 2: 3		Port 2: 25mm Hydrophobic PE Vent Filter	Port 2: 1/8 x 1/4	
250 (8)	Port 1: 24	38-430	Port 1: PP Tube Plug	Port 1: 1/8 x 1/4	10830-304
	Port 2: 3		Port 2: 25mm Hydrophobic PE Vent Filter	Port 2: 1/8 x 1/4	
500 (16)	Port 1: 24	38-430	Port 1: PP Tube Plug	Port 1: 1/8 x 1/4	10830-306
	Port 2: 3		Port 2: 25mm Hydrophobic PE Vent Filter	Port 2: 1/8 x 1/4	
1000 (32)	Port 1: 24	38-430	Port 1: PP Tube Plug	Port 1: 1/8 x 1/4	10830-696
	Port 2: 3		Port 2: 25mm Hydrophobic PE Vent Filter	Port 2: 1/8 x 1/4	
2000 (64)	Port 1: 24	53B	Port 1: PP Tube Plug	Port 1: 1/8 x 1/4	75835-990
	Port 2: 3		Port 2: 50mm Hydrophobic PTFE Vent Filter	Port 2: 1/4 x 3/8	
2000 (64)	Port 1: 24	53B	Port 1: PP Tube Plug	Port 1: 3/8 x 1/2	10830-698
	Port 2: 3		Port 2: 50mm PTFE Vent Filter	Port 2: 1/4 x 3/8	
	Port 3: 12		Port 3: PP Tube Plug	Port 3: 3/8 x 1/2	

PETG Assemblies

Capacity, mL (oz.)	Tubing Length, in.	Cap Size	Tubing Connection	Tubing Size, in.	Cat. No.
125 (4)	Port 1: 24	38-430	Port 1: PP Tube Plug	Port 1: 1/8 x 1/4	10830-292
	Port 2: 3		Port 2: 25mm Hydrophobic PE Vent Filter	Port 2: 1/8 x 1/4	
250 (8)	Port 1: 24	38-430	Port 1: PP Tube Plug	Port 1: 1/8 x 1/4	10830-294
	Port 2: 3		Port 2: 25mm Hydrophobic PE Vent Filter	Port 2: 1/8 x 1/4	
500 (16)	Port 1: 24	38-430	Port 1: PP Tube Plug	Port 1: 1/8 x 1/4	10830-296
	Port 2: 3		Port 2: 25mm Hydrophobic PE Vent Filter	Port 2: 1/8 x 1/4	
1000 (32)	Port 1: 24	38-430	Port 1: PP Tube Plug	Port 1: 1/8 x 1/4	10830-298
	Port 2: 3		Port 2: 25mm Hydrophobic PE Vent Filter	Port 2: 1/8 x 1/4	
2000 (64)	Port 1: 24	53B	Port 1: PP Tube Plug	Port 1: 1/8 x 1/4	75835-988
	Port 2: 3		Port 2: 50mm Hydrophobic PTFE Vent Filter	Port 2: 1/4 x 3/8	
2000 (64)	Port 1: 12	53B	Port 1: PP Tube Plug	Port 1: 3/8 x 1/2	10830-300
	Port 2: 3		Port 2: 50mm PTFE Vent Filter	Port 2: 1/4 x 3/8	
	Port 3: 12		Port 3: PP Tube Plug	Port 3: 3/8 x 1/2	



SterilEnz® -II/AT: Pre-Gasketed Sanitary Fittings for Single-Use Systems

SterilEnz-II/AT are the only single-use connectors that come with a platinum cured, medical grade silicone gasket mechanically attached to the fitting face.



- Standard sanitary clamp fitting, per ASME BPE Specifications
- USP Class VI and ADCF Compliant materials; certificate included
- Zero mold parting lines on all critical sealing surfaces
- Gamma-stable, 25 - 40 kGY
- Autoclaveable at 123°C for 30 minutes

Fitting Size	Material	Cat. No.
1/4" HB x 1" TC	Polypropylene	75838-678
1/4" HB x Mini TC	Polypropylene	75838-676
3/8" HB x 1" TC	Polypropylene	75838-668
3/8" HB x Mini TC	Polypropylene	75838-680
1/2" HB x 1" TC	Polypropylene	75838-672
1/2" HB x Mini TC	Polypropylene	75838-670
3/4" HB x 1" TC	Polypropylene	75838-674

SterilEnz® -II/EC: Pre-Gasketed Polypropylene End Caps

These are the only End Caps that come equipped with a medical grade silicone gasket pre-attached to the fitting face. This feature prevents operators from misaligning or dropping gaskets during assembly.



Caps work with any standard flange gasket as well. The built-in gasket saves time, money, and eliminates gasket preparation by the end-user.

- Standard sanitary clamp fitting per ASME BPE specifications
- Intended for single-use applications
- Fitting size: 1 1/2" Sanitary TC
- Gamma-stable, 25 - 40 kGY
- Autoclaveable at 123°C for 30 minutes

Description	Packaging	Cat. No.
TC End Cap with Silicone Gasket, 1"	Single Individually, Double Poly Pouched	75875-266
TC End Cap with Silicone Gasket, 1", Gamma Irradiated	PK/10 Individually, Double Poly Pouched	75875-270
TC End Cap with Silicone Gasket, 1"	PK/10 Bulk, Double Poly Pouched	75875-268

OmniTop Sample Tubes®

Sterile, Single-Use Tubes for Sampling & Fluid Transfer

OmniTop Sample Tubes® are a convenient device that can be used for fluid sampling or addition.

Each OmniTop tube comes with a pre-attached 0.2µm vent filter and 18" of tubing (C-Flex® or Silicone)

- Sterile, single-use, and cost effective
- 15mL & 50mL tubes in polypropylene, polystyrene, and glass (Pyrex®)
- Aseptically weld-on to bioreactors
- Aseptically disconnect using the Genesis sealer
- Can be customized and used with a variety of standard or aseptic connectors
- Available individually packaged or configured in multi-tube manifold systems



OmniTop Assembly, C-Flex®	Material	Cat. No.
15 mL Sample Tubes		
Gamma	Polypropylene	75840-758
Gamma	Polystyrene	75840-766
Dip Tube, Gamma	Polypropylene	75840-754
Dip Tube, Gamma	Polystyrene	75840-762
Dip Tube, Seal and Trim, Gamma	Polypropylene	75840-756
Dip Tube, Seal and Trim, Gamma	Polystyrene	75840-764

Each OmniTop tube comes with a pre-attached 0.2µm vent filter and 18" of tubing (C-Flex®, TYGON®, silicone or PharMed®).

OmniTop Assembly, C-Flex®	Material	Cat. No.
50 mL Sample Tubes		
Seal and Trim, Gamma	Polypropylene	75840-760
Seal and Trim, Gamma	Polystyrene	75840-768
Gamma	Polypropylene	75840-774
Dip Tube, Gamma	Polypropylene	75840-770
Seal and Trim, Gamma	Polypropylene	75840-776
Dip Tube, Seal and Trim, Gamma	Polypropylene	75840-772

Standard VWR Single-Use Solutions

JM BioConnect® Disposable Pillow Bags

JM BioConnect Disposable Pillow Bags are made from proprietary JMS Flex Film, which features a polyethylene inner and outer layer and a high oxygen barrier layer.

- High quality standards
- High clarity and flexibility
- High oxygen barrier: 0.1 cc/(m².day.bar)
- GAMMA radiation stable
- Inert polyethylene fluid contact layer

JMS Flex Film has a high clarity and flexibility, and it is resistant to a wide range of chemicals. Pillow bags are designed 2D-style and have hose barb ports heat-sealed into the bottom of the bag. The bags are available from 50mL to 50L volume. Pillow Bags are designed for hanging which facilitates complete fluid recovery and ease of handling.



Need specific Pillow Bags?
Learn about customization options –
visit vwr.com/single-use

Description	Capacity	Port 1	Port 2	Cat. No.	Unit
2-Port Pillow Bags					
Welding	50 mL (1.69 oz)	30 cm C-Flex 374 1/4 x 3/8" w/ Pinch Clamp and Press-in Plug	30 cm C-Flex 374 1/4 x 3/8" w/ Pinch Clamp and Press-in Plug	75874-848	Case of 50
Welding	500 mL (16.9 oz)	30 cm C-Flex 374 1/4 x 3/8" w/ Pinch Clamp and Press-in Plug	30 cm C-Flex 374 1/4 x 3/8" w/ Pinch Clamp and Press-in Plug	75874-850	Case of 35
Welding	1 L (33.8 oz)	30 cm C-Flex 374 1/4 x 3/8" w/ Pinch Clamp and Press-in Plug	30 cm C-Flex 374 1/4 x 3/8" w/ Pinch Clamp and Press-in Plug	75874-354	Case of 30
Luer	50 mL (1.69 oz)	15 cm Silicone Platinum 1/4 x 3/8" w/ Pinch Clamp and Male Luerlock	15 cm Silicone Platinum 1/4 x 3/8" w/ Pinch Clamp and Female Luerlock	75874-364	Case of 50
Luer	500 mL (16.9 oz)	15 cm Silicone Platinum 1/4 x 3/8" w/ Pinch Clamp and Male Luerlock	15 cm Silicone Platinum 1/4 x 3/8" w/ Pinch Clamp and Female Luerlock	75874-366	Case of 35
Luer	1 L (33.8 oz)	15 cm Silicone Platinum 1/4 x 3/8" w/ Pinch Clamp and Male Luerlock	15 cm Silicone Platinum 1/4 x 3/8" w/ Pinch Clamp and Female Luerlock	75874-368	Case of 30
MPC	50 mL (1.69 oz)	15 cm Silicone Platinum 1/4 x 3/8" w/ Pinch Clamp and Male MPC	15 cm Silicone Platinum 1/4 x 3/8" w/ Pinch Clamp and Female MPC	75874-370	Case of 50
MPC	500 mL (16.9 oz)	15 cm Silicone Platinum 1/4 x 3/8" w/ Pinch Clamp and Male MPC	15 cm Silicone Platinum 1/4 x 3/8" w/ Pinch Clamp and Female MPC	75874-372	Case of 35
MPC	1 L (33.8 oz)	15 cm Silicone Platinum 1/4 x 3/8" w/ Pinch Clamp and Male MPC	15 cm Silicone Platinum 1/4 x 3/8" w/ Pinch Clamp and Female MPC	75874-374	Case of 30
3-Port Pillow Bags					
Welding	5 L (1.3 gal)	Injection Site	30 cm C-Flex 374 3/8 x 5/8" w/ Pinch Clamp and Press-in Plug	75874-356	Case of 15
Welding	10 L (2.6 gal)	Injection Site	30 cm C-Flex 374 3/8 x 5/8" w/ Pinch Clamp and Press-in Plug	75874-358	Case of 15
Welding	20 L (5.3 gal)	Injection Site	30 cm C-Flex 374 3/8 x 5/8" w/ Pinch Clamp and Press-in Plug	75874-360	Case of 15
Welding	50 L (13.2 gal)	Injection Site	30 cm C-Flex 374 3/8 x 5/8" w/ Pinch Clamp and Press-in Plug	75874-362	Case of 10
MPC	5 L (1.3 gal)	Injection Site	15 cm Silicone Platinum 3/8 x 5/8" w/ Pinch Clamp and Female MPC	75874-376	Case of 15
MPC	10 L (2.6 gal)	Injection Site	15 cm Silicone Platinum 3/8 x 5/8" w/ Pinch Clamp and Female MPC	75874-378	Case of 15
MPC	20 L (5.3 gal)	Injection Site	15 cm Silicone Platinum 3/8 x 5/8" w/ Pinch Clamp and Female MPC	75874-380	Case of 15
MPC	50 L (13.2 gal)	Injection Site	15 cm Silicone Platinum 3/8 x 5/8" w/ Pinch Clamp and Female MPC	75874-382	Case of 10

JM BioConnect® 3D Cubic Bags

Designed to fit in existing support containers, bags are also delivered together with a matching version made of plastic or stainless steel. Each bag has two ports on top, each consisting of silicone platinum tubing with MPX-connectors.

Bags are made from proprietary JMS Flex Film, which features a polyethylene inner and outer layer and a high oxygen barrier layer. JMS Flex Film has a high clarity and flexibility, and it is resistant to a wide range of chemicals.

- Delivered gamma irradiated and ready-to-use
- Bag film is compliant to EP 3.1.5; compliant to ISO 10993-4, -5, -6, -10, -11
- USP Class VI; animal derived component free (ADCF)

Port 1: 50 cm Silicone Platinum $\frac{1}{2} \times \frac{3}{4}$ " w/ Pinch Clamp and Male MPX

Port 2: 50 cm Silicone Platinum $\frac{1}{2} \times \frac{3}{4}$ " w/ Pinch Clamp and Female MPX

3D Cubic Bags

Capacity, L (gal.)	Cat. No.	Unit
200 (52.8)	75876-048	Case of 5
500 (132.1)	75876-050	Case of 4

Rigid Outer Support Container for 3D Cubic Bags

Description	Capacity, L (gal.)	Cat. No.	Unit
Plastic, Foldable	500 (132.1)	75876-056	Each
Plastic, Foldable	200 (52.8)	75876-052	Each
Stainless Steel	200 (52.8)	75876-054	Each
Stainless Steel	500 (132.1)	75876-058	Each



JM BioConnect® Single-Use Tank Liners

- Designed to fit in cylindrical vessels
- No cleaning after media preparation
- Medical grade, multi-layer film
- For bioprocess applications
- USP Class VI and animal derived component free (ADCF)

After installing the Tank Liner into a vessel and filling it with liquid, powder can be added to the vessel and the mixing process can start by using an overhead agitator. When mixing is finished, it's possible to pump the mixed liquid into sterile bags by using a sterile filter in order to have sterile media and buffers.

The fluid contact layer is a medical grade LLDPE. To minimize gas diffusion, an EVOH layer is coextruded between the inner and outer layers. The outer, non-contact strength layer is formed from polyamide and is coextruded with polyethylene to create a bonding layer. The film is USP Class VI and animal derived component free (ADCF).

Customization options available –
visit vwr.com/single-use

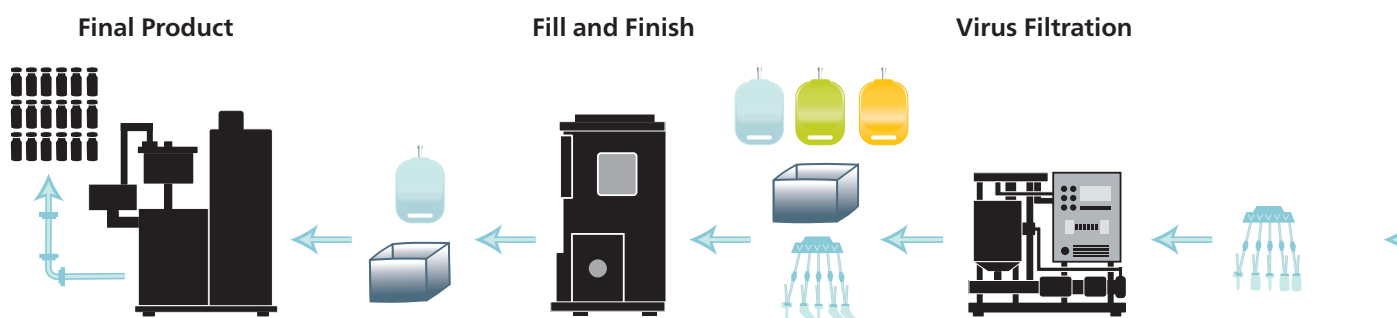
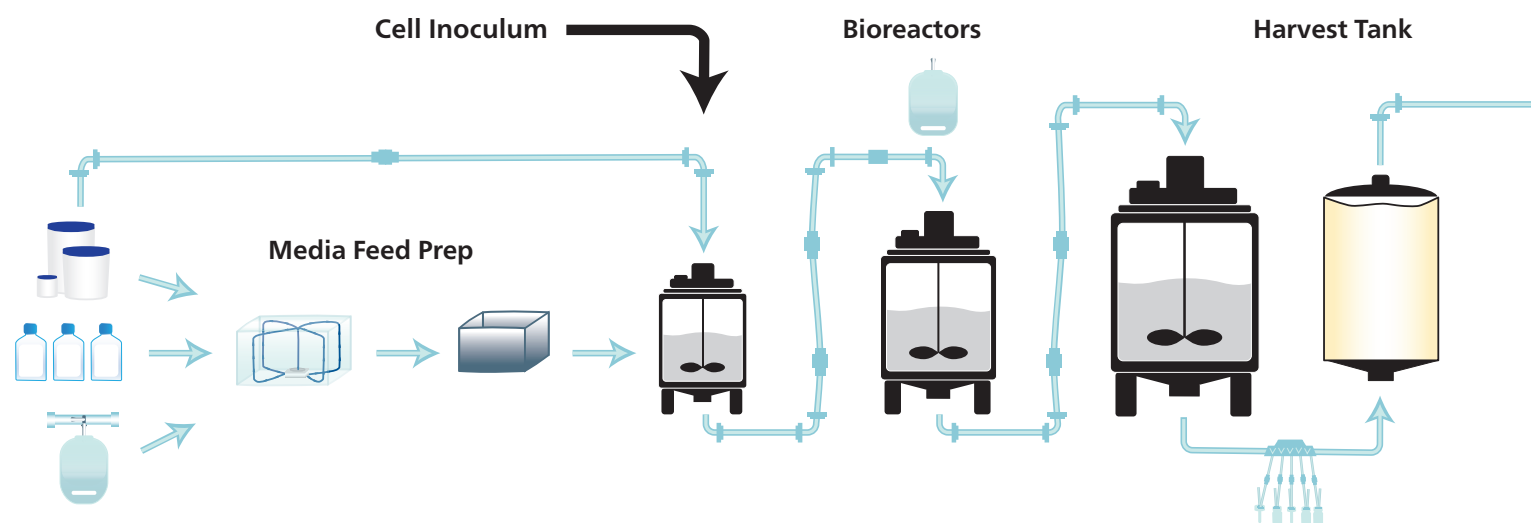


Capacity, L (gal)	Cat. No.	Unit
2D Tank Liners		
19 (5)	75874-384	Case of 20
38 (10)	75874-386	Case of 20
50 (13.2)	75874-388	Case of 20
100 (26.4)	75874-390	Case of 20
200 (52.8)	75874-392	Case of 15
300 (79.2)	75874-394	Case of 15





Capacity, L (gal)	Cat. No.	Unit
560 (147.9)	75874-396	Case of 10
3D Tank Liners		
50 (13.2)	75874-398	Case of 20
100 (26.4)	75874-400	Case of 20
200 (52.8)	75874-402	Case of 15
300 (79.2)	75874-404	Case of 15
560 (147.9)	75874-406	Case of 10

Jm 
SEPARATIONS
VWR Bioprocessing Division

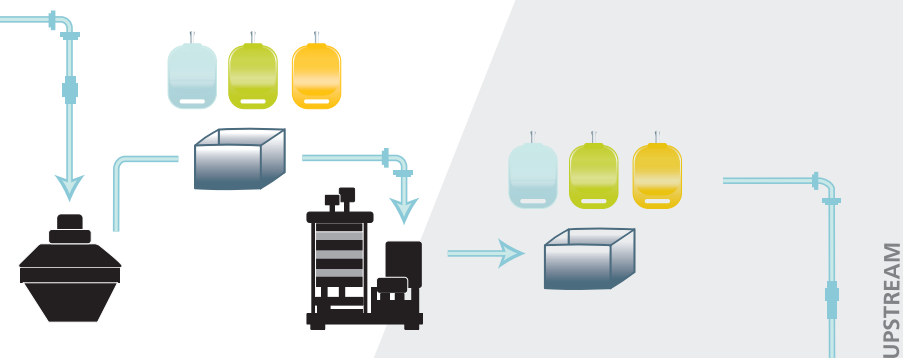
Delivering Innovative Product Choice Throughout Your Process



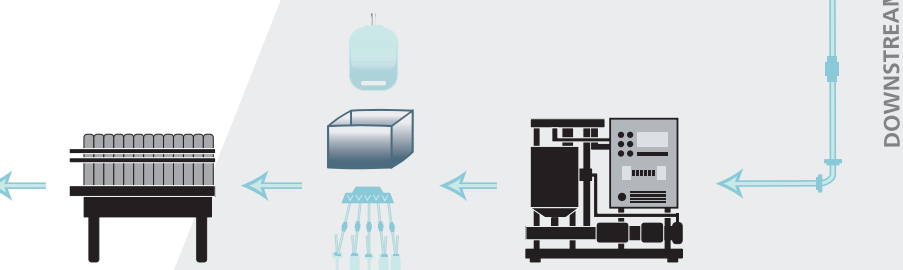
Process Image Key

VWR Life Science Seradigm	Production Chemicals	VWR Single-Use Solutions	Controlled Environment	Personal Protective Equipment
 <p>Media & Supplements</p>	 <p>Buffers & Salts Sugars Excipients</p>	 <p>Tubes and Connectors Tank Liners Media Mixing Bag 3D Liquid Bag</p>		

Centrifuge Concentration



Chromatography



UPSTREAM:

- Single-Use Tube Assemblies – page 9
- Single-Use Flask and Bottles – pages 9-10
- Sanitary Connectors and End Caps – page 11
- Process Sampling Solutions – page 11
- 2D and 3D Single-Use Bag Assemblies, Mixing Bags and Tank Liners – pages 12-13
- Media & Additives
- Serum
- Biological Buffers
- Inorganic Salts

DOWNSTREAM:

- Single-Use Tube Assemblies – page 9
- Process Sampling Solutions – page 11
- 2D and 3D Single-Use Bag Assemblies, Mixing Bags – pages 12-13
- Sugars/Carbohydrates
- Biological Buffers
- Inorganic Salts
- Excipients: Proteins & Amino Acids

FINAL FILL:

- Single-Use Tube Assemblies – page 9
- Process Sampling Solutions – page 11
- 2D and 3D Single-Use Bag Assemblies, Mixing Bags – pages 12-13
- Biological Buffers
- Inorganic Salts
- Sugars/Carbohydrates
- Excipients: Proteins & Amino Acids

ENVIRONMENTAL CONTROL:

- Protective Apparel
- Cleaning Systems
- Disinfectants
- Wipers
- Production Supplies

Enabling Your Process with Innovative Choice



VWR Life Science Seradigm

Fetal Bovine Serum
Calf Serum
Assurance of Supply
Quality Assurance
Measures at the Source
Multiple Lot Testing
Fully Certified Supply
Chain for Traceability by
the International Serum
Industry Association (ISIA)
Consistent, Reliable
Performance

Production Chemicals

Biological Buffers
Carbohydrates
Inorganic Salts
Media & Additives
Proteins & Amino Acids
Excipients
VWR Custom
Manufacturing
Services
Strategic Sourcing
cGMP Compliant
Warehousing

VWR Single-Use Solutions

Standard & Custom
Tubing Assemblies
Buffer & Media Transfer
Sterile Filtration
Bioreactor Feed
& Harvest
Bulk Drug Substance
Aseptic Sampling & Filling
2D and 3D Bag Assemblies
& Tank Liners
Application Specific
Connections
Sampling Methods

Controlled Environment

Protective Apparel
Cleanroom Gloves
Cleaning Systems
Detergents & Cleaners
Wipers
Production Supplies
Mats & Flooring
Procurement & Supply
Management Services
VWRCATALYST
Bioprocessing Facility
Support



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