VWR
We Enable Science

VWR SINGLE-USE SOLUTIONS
EXPERTISE | CHOICE | SERVICES

Single-Use Solution capabilities

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, 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.

Integra Companies VWR Bioprocessing Division

STI VWR Bioprocessing Division

JM SEPARATIONS VWR Bioprocessing Division

PAW BioScience VWR Bioprocessing Division

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 style and 3-D 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 bioprocessing 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 reliable products necessary to ensure 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 programmes
- Risk-based quality management approach

Complete regulatory compliance programme

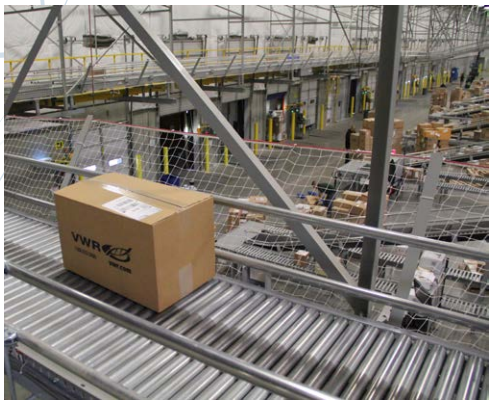
- Animal origin-free or EMA/410/01 compliant materials
- Sterility validation per ANSI/AAMI/ISO 11137 (VDmax25)
- Sterile barrier shelf life validation per ANSI/AAMI/ISO 11607
- ISO 11137 sterility validation
- Endotoxin USP <85> and particulate USP <788> lot-release testing available
- BPOG standardised extractables testing protocol in use
- Leachables + Extractables studies available of 7 different liquids for JMS Flex Film.

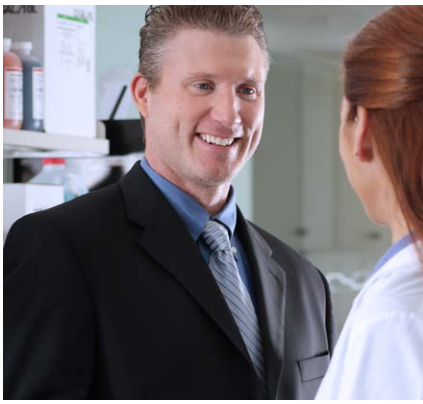
MINIMISING THE COMPLEXITY OF YOUR SUPPLY CHAIN SECURITY

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 wherever they are in the world. We designed our quality and security programmes 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 cGDP 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 using VWR's field-based technical experts across five continents who will help you match your requirements to high quality suppliers of bioprocessing materials
- **Supplier auditing and 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 Veeken, 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 media

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

OmniTop Sample Tubes
VWR SINGLE-USE

OMNITOP SAMPLE TUBES WITH OCTOCAP™

Novel devices designed to simplify bioprocess fluid sampling and 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.

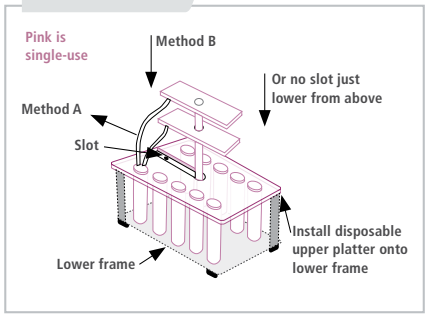
VWR can help you get connected. We offer complete custom single-use solutions for upstream, downstream and fill and finish stages of bioprocessing. From simple tubing sets, to complex mixing systems, all assemblies can be made customer-specific.

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.

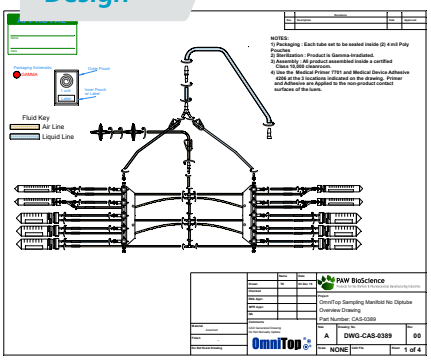
Our expertise in single-use technologies, diverse component options and open architecture model combine to deliver unique solutions such as:

- Custom transfer assemblies
- 3-D bags up to 3500 l
- Bag mixing systems
- Multi-bag and bottle manifolds
- Custom sampling solutions
- Filtration assemblies

Concept

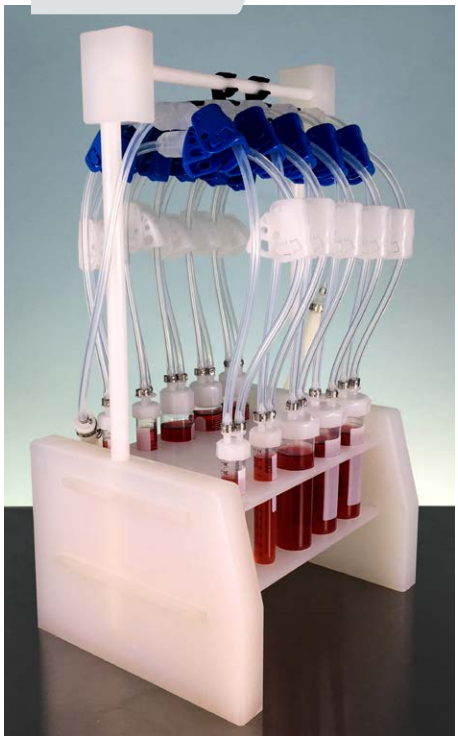


Design



Prototype

Your product



Standard VWR Single-Use Solutions

VWR Single-Use Solutions provide product choice to help you navigate the fluid handling challenges, component options plus 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	Tubing length (")	Cap size	Tubing connection	Tubing size (")	Cat. No.
125 ml (4 oz.)	Port 1: 24	38-430	Port 1: PP tube plug	Port 1: ⅛ x ¼	**734-2857**
	Port 2: 3		Port 2: 25 mm hydrophobic PE vent filter	Port 2: ⅛ x ¼	
250 ml (8 oz.)	Port 1: 24	38-430	Port 1: PP tube plug	Port 1: ⅛ x ¼	**734-2858**
	Port 2: 3		Port 2: 25 mm hydrophobic PE vent filter	Port 2: ⅛ x ¼	
500 ml (16 oz.)	Port 1: 24	38-430	Port 1: PP tube plug	Port 1: ⅛ x ¼	**734-2847**
	Port 2: 3		Port 2: 25 mm hydrophobic PE vent filter	Port 2: ⅛ x ¼	
1000 ml (32 oz.)	Port 1: 12	53B	Port 1: PP tube plug	Port 1: ⅜ x ½	**734-2848**
	Port 2: 3		Port 2: 50 mm PTFE vent filter	Port 2: ¼ x ⅜	
	Port 3: 12		Port 3: PP tube plug	Port 3: ⅜ x ½	
2000 ml (64 oz.)	Port 1: 12	53B	Port 1: PP tube plug	Port 1: ⅜ x ½	**734-2849**
	Port 2: 3		Port 2: 50 mm PTFE vent filter	Port 2: ¼ x ⅜	
	Port 3: 12		Port 3: PP tube plug	Port 3: ⅜ x ½	

Single-use tubing assemblies

Description	Details	Length (")	I.D. x O.D. (")	Cat. No.
Single-drop PP with TEE with clamps	Plug all ends; pinch clamps installed; gamma irradiated	12	⅛ x ¼	**734-2832**
Two-drop clamp PP TEE with clamps	Plug all ends; pinch clamps installed; gamma irradiated	12	⅛ x ¼	**734-2833**
50' roll with clamps	Plug on each end; pinch clamps installed; gamma irradiated	50	⅛ x ¼	**734-2834**
Mini TC jumper	¾" TC (with end cap, gasket and sanitary clamp) x plug; pinch clamp installed; gamma irradiated	36	⅛ x ¼	**734-2835**
C-Flex MPC body jumper	MPC coupling body (with sealing plug) x plug; pinch clamp installed; gamma irradiated	36	⅛ x ¼	**734-2836**
MPC insert jumper	MPC coupling body (with sealing plug) x plug; pinch clamp installed; gamma irradiated	36	⅛ x ¼	**734-2837**
¾" TC jumper	3/C-4" TC (with end clamp, gasket and sanitary clamp) x plug; pinch clamp installed; gamma irradiated	36	⅛ x ¼	**734-2838**
11½" TC jumper	11½" TC (with end cap, gasket and sanitary clamp) x plug; pinch clamp installed; gamma irradiated	36	⅜ x ½	**734-2839**
MPC body jumper	MPC coupling body (with sealing cap) x plug; pinch clamp installed; gamma irradiated	36	⅜ x ½	**734-2840**
MPC insert jumper	MPC coupling insert (with sealing cap) x plug; pinch clamp installed; gamma irradiated	36	⅜ x ½	**734-2841**
DAC jumper	GE DAC x plug; pinch clamp installed; gamma irradiated	36	⅜ x ½	**734-2842**
AQG jumper	Colder AQG x plug; pinch clamp installed; gamma irradiated	36	⅜ x ½	**734-2843**

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	Tubing length (")	Cap size	Tubing connection	Tubing size (")	Cat. No.
125 ml (4 oz.)	Port 1: 24	38-430	Port 1: PP tube plug	Port 1: 1/8 x 1/4	**734-2852**
	Port 2: 3		Port 2: 25 mm hydrophobic PE vent filter	Port 2: 1/8 x 1/4	
250 ml (8 oz.)	Port 1: 24	38-430	Port 1: PP tube plug	Port 1: 1/8 x 1/4	**734-2853**
	Port 2: 3		Port 2: 25 mm hydrophobic PE vent filter	Port 2: 1/8 x 1/4	
500 ml (16 oz.)	Port 1: 24	38-430	Port 1: PP tube plug	Port 1: 1/8 x 1/4	**734-2854**
	Port 2: 3		Port 2: 25 mm hydrophobic PE vent filter	Port 2: 1/8 x 1/4	
1000 ml (32 oz.)	Port 1: 24	38-430	Port 1: PP tube plug	Port 1: 1/8 x 1/4	**734-2855**
	Port 2: 3		Port 2: 25 mm hydrophobic PE vent filter	Port 2: 1/8 x 1/4	
2000 ml (64 oz.)	Port 1: 24	53B	Port1: PP tube plug	Port 1: 1/8 x 1/4	**734-2856**
	Port 2: 3		Port 2: 25 mm hydrophobic PE vent filter	Port 2: 1/8 x 1/4	
2000 ml (64 oz.)	Port 1: 12	53B	Port 1: PP tube plug	Port 1: 3/8 x 1/2	**734-2895**
	Port 2: 3		Port 2: 50 mm 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	Tubing length (")	Cap size	Tubing connection	Tubing size (")	Cat.No.
125 ml (4 oz.)	Port 1: 24	38-430	Port 1: PP tube plug	Port 1: 1/8 x 1/4	**734-2844**
	Port 2: 3		Port 2: 25 mm hydrophobic PE vent filter	Port 2: 1/8 x 1/4	
250 ml (8 oz.)	Port 1: 24	38-430	Port 1: PP tube plug	Port 1: 1/8 x 1/4	**734-2845**
	Port 2: 3		Port 2: 25 mm hydrophobic PE vent filter	Port 2: 1/8 x 1/4	
500 ml (16 oz.)	Port 1: 24	38-430	Port 1: PP tube plug	Port 1: 1/8 x 1/4	**734-2846**
	Port 2: 3		Port 2: 25 mm hydrophobic PE vent filter	Port 2: 1/8 x 1/4	
1000 ml (32 oz.)	Port 1: 24	38-430	Port 1: PP tube plug	Port 1: 1/8 x 1/4	**734-2850**
	Port 2: 3		Port 2: 25 mm hydrophobic PE vent filter	Port 2: 1/8 x 1/4	
2000 ml (64 oz.)	Port 1: 24	53B	Port1: PP tube plug	Port 1: 1/8 x 1/4	**734-2851**
	Port 2: 3		Port 2: 25 mm hydrophobic PE vent filter	Port 2: 1/8 x 1/4	
2000 ml (64 oz.)	Port 1: 12	53B	Port 1: PP tube plug	Port 1: 3/8 x 1/2	**734-2894**
	Port 2: 3		Port 2: 50 mm 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 mould parting lines on all critical sealing surfaces
- Gamma-stable, 25 - 40 kGY
- Autoclaveable at 123 °C for 30 minutes

Fitting size	Material	Cat. No.
¼" HB x 1" TC	Polypropylene	**PAWB2AT-416-TC-10**
¼" HB x Mini TC	Polypropylene	**PAWB2AT-408-TC-10**
⅜" HB x 1" TC	Polypropylene	**PAWB2AT-616-TC-10**
⅜" HB x Mini TC	Polypropylene	**PAWB2AT-608-TC-10**
½" HB x 1" TC	Polypropylene	**PAWB2AT-816-TC-10**
½" HB x Mini TC	Polypropylene	**PAWB2AT-812-TC-10**
¾" HB x 1" TC	Polypropylene	**PAWB2AT-1216-TC-10**

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.

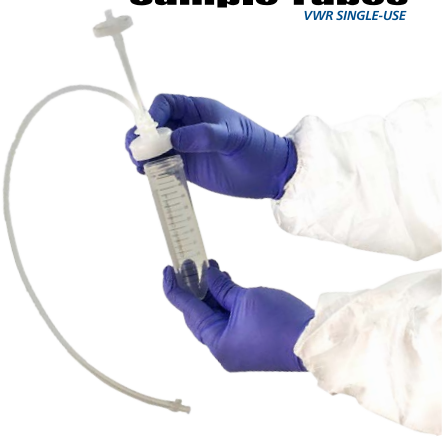
Caps work with any standard flange gasket as well. The built-in gasket saves time, money and eliminates gasket preparation by the end user.

- Standard sanitary clamp fitting per ASME BPE specifications
- Intended for single-use applications
- Fitting size: 1½" sanitary TC
- Gamma-stable, 25 - 40 kGY
- Autoclaveable at 123 °C for 30 minutes

Description	Packaging	Cat. No.
TC end caps with silicone gasket, 1"	Single, individually, double-poly pouched	**PAWBSTZ-EC-150-01**
TC end caps with silicone gasket, 1"	Pack of 10, bulk, double-poly pouched	**PAWBSTZ-EC-150-10**
TC end caps with silicone gasket, 1", gamma irradiated	Pack of 10, individually, double-poly pouched	**PAWBGTZ-EC-150-10**

OmniTop Sample Tubes

Sterile, single-use tubes for sampling and 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 0,2 µm vent filter and 18" of tubing (C-Flex® or silicone)

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

OmniTop assembly, C-Flex	Material	Cat. No.
15 ml sample tubes		
Gamma	Polypropylene	**734-2985**
Dip tube, gamma	Polypropylene	**734-2986**
Seal and trim, gamma	Polypropylene	**734-2987**
Dip tube, seal and trim, gamma	Polypropylene	**734-2988**
Gamma	Polystyrene	**734-2989**
Dip tube, gamma	Polystyrene	**734-2990**
Seal and trim, gamma	Polystyrene	**734-2991**
Dip tube, seal and trim, gamma	Polystyrene	**734-2992**
50 ml sample tubes		
Gamma	Polypropylene	**734-2993**
Dip tube, gamma	Polypropylene	**734-2995**
Seal and trim, gamma	Polypropylene	**734-2994**
Dip tube, seal and trim, gamma	Polypropylene	**PAWB50CTA-CF-DSL-S**

Each OmniTop tube comes with a pre-attached 0,2 µm vent filter and 18" of tubing (C-Flex®, TYGON®, silicone or PharMed®).

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/(m^2.day.bar)
- Gamma radiation stable
- Inert polyethylene fluid contact layer

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

Need specific pillow bags?
Learn about customisation options – visit vwr.com/single-use

Description	Capacity	Port 1	Port 2	Pk	Cat. No.
2-Port Pillow Bags					
Welding	50 ml (1,69 oz.)	30 cm C-Flex 374¼ x ⅜" w/ pinch clamp and press-in plug	30 cm C-Flex 374¼ x ⅜" w/ pinch clamp and press-in plug	Case of 50	**734-2926**
Welding	500 ml (16,9 oz.)	30 cm C-Flex 374¼ x ⅜" w/ pinch clamp and press-in plug	30 cm C-Flex 374¼ x ⅜" w/ pinch clamp and press-in plug	Case of 35	**734-2927**
Welding	1 l (33,8 oz.)	30 cm C-Flex 374¼ x ⅜" w/ pinch clamp and press-in plug	30 cm C-Flex 374¼ x ⅜" w/ pinch clamp and press-in plug	Case of 30	**734-2928**
Luer	50 ml (1,69 oz.)	15 cm silicone platinum ¼ x ⅜" w/ pinch clamp and male Luer lock	15 cm silicone platinum ¼ x ⅜" w/ pinch clamp and female Luer lock	Case of 50	**734-2933**
Luer	500 ml (16,9 oz.)	15 cm silicone platinum ¼ x ⅜" w/ pinch clamp and male Luer lock	15 cm silicone platinum ¼ x ⅜" w/ pinch clamp and female Luer lock	Case of 35	**734-2934**
Luer	1 l (33,8 oz.)	15 cm silicone platinum ¼ x ⅜" w/ pinch clamp and male Luer lock	15 cm silicone platinum ¼ x ⅜" w/ pinch clamp and female Luer lock	Case of 30	**734-2935**
MPC	50 ml (1,69 oz.)	15 cm silicone platinum ¼ x ⅜" w/ pinch clamp and male MPC	15 cm silicone platinum ¼ x ⅜" w/ pinch clamp and female MPC	Case of 50	**734-2936**
MPC	500 ml (16,9 oz.)	15 cm silicone platinum ¼ x ⅜" w/ pinch clamp and male MPC	15 cm silicone platinum ¼ x ⅜" w/ pinch clamp and female MPC	Case of 35	**734-2937**
MPC	1 l (33,8 oz.)	15 cm silicone platinum ¼ x ⅜" w/ pinch clamp and male MPC	15 cm silicone platinum ¼ x ⅜" w/ pinch clamp and female MPC	Case of 30	**734-2938**

Description	Capacity	Port 1	Port 2	Port 3	Pk	Cat. No.
3-Port Pillow Bags						
Welding	5 l (1,3 gal.)	Injection site	30 cm C-Flex 374⅜ x ⅝" w/ pinch clamp and press-in plug	30 cm C-Flex 374⅜ x ⅝" w/ pinch clamp and press-in plug	Case of 15	**734-2929**
Welding	10 l (2,6 gal.)	Injection site	30 cm C-Flex 374⅜ x ⅝" w/ pinch clamp and press-in plug	30 cm C-Flex 374⅜ x ⅝" w/ pinch clamp and press-in plug	Case of 15	**734-2930**
Welding	20 l (5,3 gal.)	Injection site	30 cm C-Flex 374⅜ x ⅝" w/ pinch clamp and press-in plug	30 cm C-Flex 374⅜ x ⅝" w/ pinch clamp and press-in plug	Case of 15	**734-2931**
Welding	50 l (13,2 gal.)	Injection site	30 cm C-Flex 374⅜ x ⅝" w/ pinch clamp and press-in plug	30 cm C-Flex 374⅜ x ⅝" w/ pinch clamp and press-in plug	Case of 10	**734-2932**
MPC	5 l (1,3 gal.)	Injection site	15 cm silicone platinum ⅜ x ⅝" w/ pinch clamp and male MPC	15 cm silicone platinum ⅜ x ⅝" w/ pinch clamp and female MPC	Case of 15	**734-2939**
MPC	10 l (2,6 gal.)	Injection site	15 cm silicone platinum ⅜ x ⅝" w/ pinch clamp and male MPC	15 cm silicone platinum ⅜ x ⅝" w/ pinch clamp and female MPC	Case of 15	**734-2940**
MPC	20 l (5,3 gal.)	Injection site	15 cm silicone platinum ⅜ x ⅝" w/ pinch clamp and male MPC	15 cm silicone platinum ⅜ x ⅝" w/ pinch clamp and female MPC	Case of 15	**734-2941**
MPC	50 l (13,s2 gal.)	Injection site	15 cm silicone platinum ⅜ x ⅝" w/ pinch clamp and male MPC	15 cm silicone platinum ⅜ x ⅝" w/ pinch clamp and female MPC	Case of 10	**734-2942**

JM BioConnect® 3-D 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 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 1/2 x 3/4" w/ pinch clamp and male MPX

Port 2: 50 cm silicone platinum 1/2 x 3/4" w/ pinch clamp and female MPX

3-D cubic bags

Capacity	Pk	Cat. No.
200 l (52,8 gal.)	**Case of 5**	**734-2960**
500 l (132,1 gal.)	**Case of 4**	**734-2961**

Rigid outer support containers for 3-D cubic bags

Description	Capacity	Pk	Cat. No.
Plastic, foldable	500 l (132,1 gal.)	**1**	**734-2964**
Plastic, foldable	200 l (52,8 gal.)	**1**	**734-2962**
Stainless steel	200 l (52,8 gal.)	**1**	**734-2963**
Stainless steel	500 l (13,1 gal.)	**1**	**734-2965**

Other volumes available on request.

JetMixer mixing system.

JM BioConnect® single-use tank liners

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

- 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.

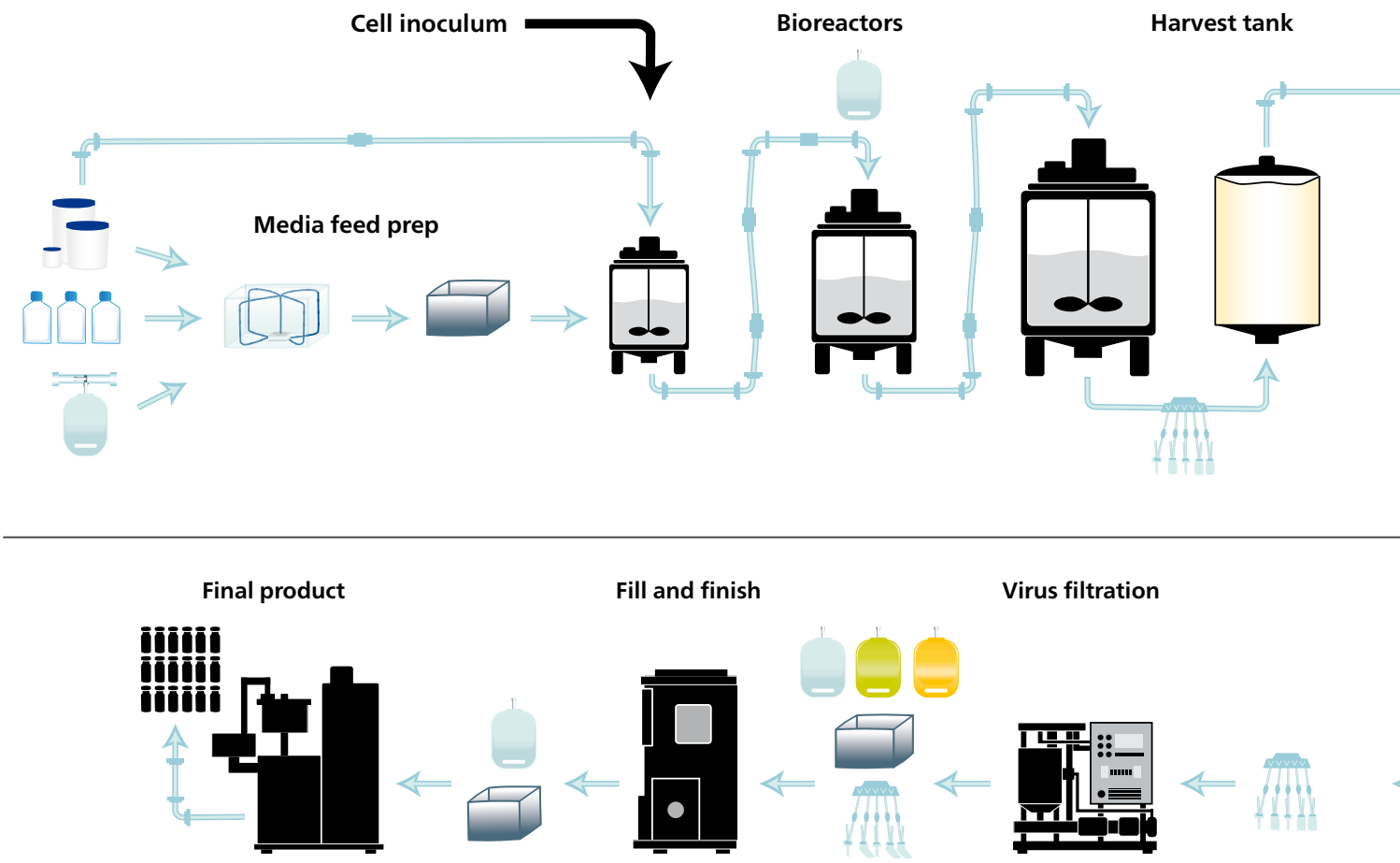
The fluid contact layer is a medical grade LLDPE. To minimise gas diffusion, an EVOH layer is coextruded between the inner and outer layers. The outer, non contact strength layer is formed from polyamide and is coextruded with polyethylene to create a bonding layer. The film is USP Class VI and animal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

Capacity	Pk	Cat. No.
2-D tank liners		
19 l (5 gal.)	Case of 20	**734-2943**
38 l (10 gal.)	Case of 20	**734-2944**
50 l (13,2 gal.)	Case of 20	**734-2945**
100 l (26,4 gal.)	Case of 20	**734-2946**
200 l (52,8 gal.)	Case of 15	**734-2947**
300 l (79,2 gal.)	Case of 15	**734-2948**
560 l (147,9 gal.)	Case of 10	**734-2949**

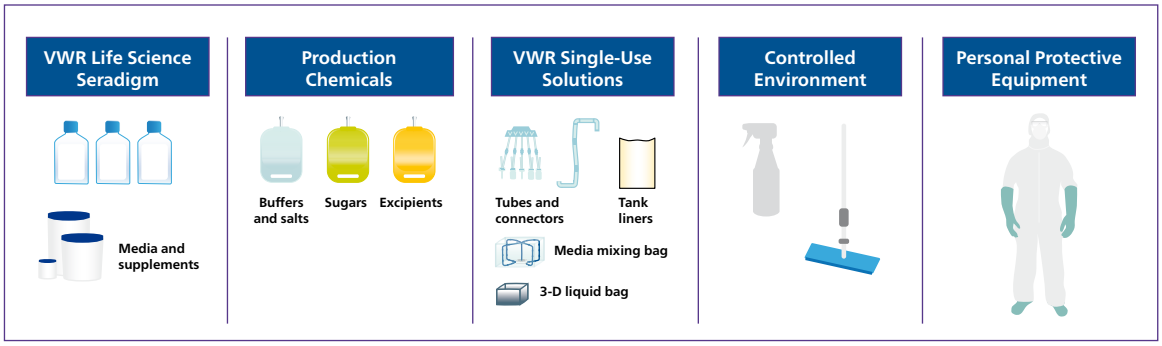
Customised liners available on request.

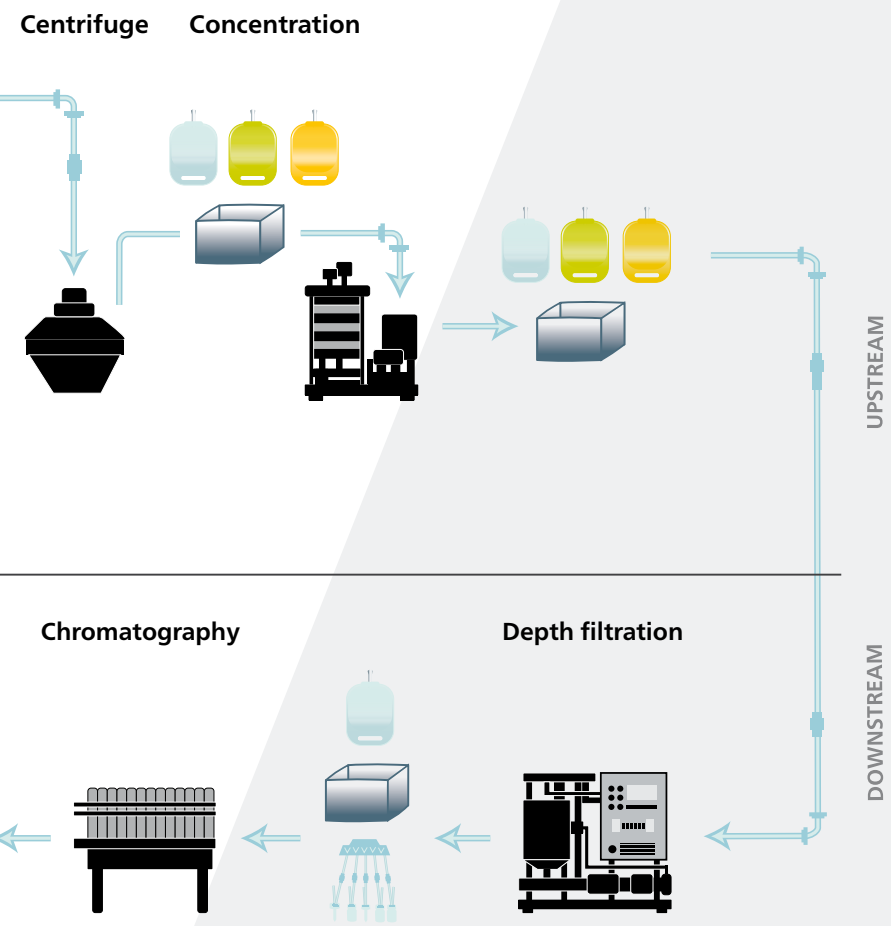
Capacity	Pk	Cat. No.
3-D tank liners		
50 l (13,2 gal.)	Case of 20	**734-2950**
100 l (26,4 gal.)	Case of 20	**734-2951**
200 l (52,8 gal.)	Case of 15	**734-2952**
300 l (79,2 gal.)	Case of 15	**734-2953**
560 l (147,9 gal.)	Case of 10	**734-2954**

Delivering innovative product choice throughout your process



Process image key





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
- 2-D and 3-D single-use bag assemblies, mixing bags and tank liners – pages 12-13
- Media and additives
- Serum
- Biological buffers
- Inorganic salts

DOWNSTREAM

- Single-use tube assemblies – page 9
- Process sampling solutions – page 11
- 2-D and 3-D single-use bag assemblies and mixing bags
- Sugars/carbohydrates
- Biological buffers
- Inorganic salts
- Excipients: Proteins and amino acids

FINAL FILL

- Single-use tube assemblies – page 9
- Process sampling solutions – page 11
- 2-D and 3-D single-use bag assemblies and mixing bags
- Biological buffers
- Inorganic salts
- Sugars/carbohydrates
- Excipients: Proteins and amino acids

ENVIRONMENTAL CONTROL

- Cleanroom garments
- Cleaning systems
- Disinfectants and detergents
- Gloves, wipes and swabs
- Equipment for contamination control

VWRCATALYST SERVICES

- On-site services
- Procurement and supply management services
- Kitting services

Enabling your process with innovative choice

VWR Life Science Seradigm

Fetal bovine serum

Calf serum

Supply assurance

Quality assurance measures at 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 and additives

Proteins and amino acids

Excipients

VWR Custom Manufacturing Services

Strategic sourcing

cGDP compliant warehousing

VWR Single-Use Solutions

Standard and custom tubing assemblies

Buffer and media transfer

Sterile filtration

Bioreactor feed and harvest

Bulk drug substance

Aseptic sampling and filling

2-D and 3-D bag assemblies plus tank liners

Application-specific connections

Sampling methods

Mixing vessels

Controlled Environment

Protective apparel

Cleanroom gloves

Cleaning systems

Detergents and cleaners

Wipes

Production supplies

Mats and flooring

Procurement and supply management services

VWRCATALYST
Bioprocessing facility support

01/2018-MR-KS

FOR FURTHER INFORMATION, PLEASE CONTACT YOUR LOCAL SALES OFFICE
VWR.COM/BIOPROCESSING

©2018 VWR

ZPROVWRI12320-EN