cytiva

ReadyCircuit Bags, Tubing Assemblies, and Filters

Instructions for Use

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1 Introduction

Description

The ReadyCircuit™ family of disposable bags, tubing assemblies, and filters enables the quick preparation of a wide range of fluid processing circuits to meet biotech and biopharm requirements. ReadyCircuit components are sterilized for aseptic operation, designed for quick assembly to save time, and are disposable.

This *Instructions for Use* manual describes the ReadyCircuit components and their assembly.

Read this before operating the product

All users must read the entire *Instructions for Use* before installing, operating or maintaining the product.

Always keep the *Instructions for Use* at hand when operating the product.

Do not install, operate, or perform maintenance on the product in any other way than described in the user documentation. If you do, you may be exposed or expose others to hazards that can lead to personal injury and you may cause damage to the equipment.

2 Safety instructions

About this chapter

Before using the Cytiva ReadyCircuit components, you must read, understand, and follow the instructions in this guide. Save these instructions and make them available to users of the mobile processing station and XL bin.

Definitions

This user documentation contains safety notices (WARNING, CAUTION, and NOTICE) concerning the safe use of the product. See definitions below.

WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury. It is important not to proceed until all stated conditions are met and clearly understood.

CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury. It is important not to proceed until all stated conditions are met and clearly understood.

NOTICE

NOTICE indicates instructions that must be followed to avoid damage to the product or other equipment.

Safety precautions

WARNING

Before using the ReadyCircuit components, all users must read and understand the entire contents of this chapter to become aware of the hazards involved.

WARNING
Do not hang bags larger than 20 L on bag support arms. Hanging bags larger than 20 L on bag support arms can cause injury or equipment damage from the processing station tipping over.

WARNING
Do not overpressurize ReadyCircuit components. Overpressurizing ReadyCircuit components can cause injury from the release of pressurized gasses or exposure to hazardous fluids.

WARNING
Do not exceed the maximum carrying capacity of the equipment supporting ReadyCircuit equipment. Exceeding the maximum carrying capacity of the equipment can cause equipment to fall leading to injury.

WARNING
Do not use the ReadyCircuit equipment for other than intended use to prevent injury.

WARNING
Route tubing, signal cables, and electrical cables neatly to prevent injury due to operator entanglement or tripping and to prevent equipment or product damage.

WARNING
When handling acidic, corrosive, or biologically active liquids in the bags, wear appropriate personal protective equipment such as safety glasses or face shields.

3 ReadyCircuit disposable bags

Inlet and outlet port configurations

ReadyCircuit bags are available in four configurations:

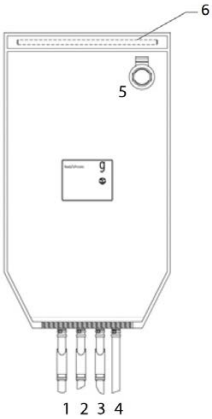
- Sample bags used for small volume applications
- Pillow bags used in the horizontal position
- Hanging pillow bags used with bag holders
- ReadyKart 3D bags used in large volume applications

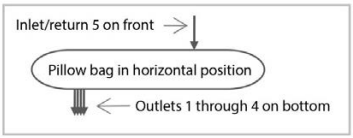
Note: *Port 5 is only included on pillow bags designed for TFF. When port 5 is not present, use port 1 as an inlet. The illustration below shows the positions of the ports on the bag.*

Note: *ReadyMate™, AseptiQuik™, and MPC connectors are offered on all ports except port 4 (Clave™ port).*

Hanging pillow bag

The illustration below shows the hanging pillow bag (for horizontal use).



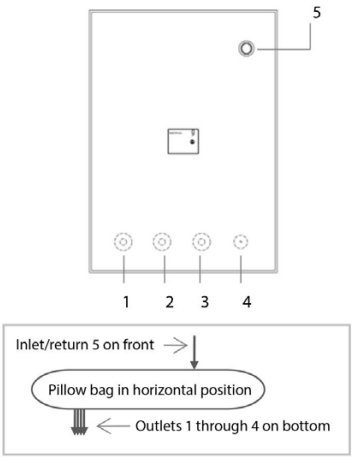


Part	Description
1	Inlet/outlet port
2	Outlet port
3	Flushing outlet
4	Clave port
5	Inlet/return port
6	Hanger rod slides in bag holders

Note: *For certain bag configurations, port 3 and 5 may not be present.*

50 L pillow bag (for horizontal use)

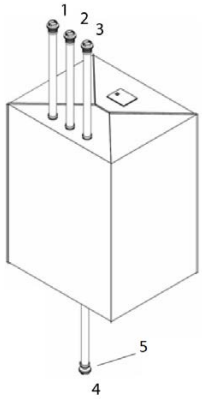
The illustration below shows the 50 L pillow bag (for horizontal use).



Part	Description
1	Outlet on bottom
2	Outlet on bottom
3	Flushing outlet on bottom
4	Clave port
5	Inlet/return on top

3-D bag

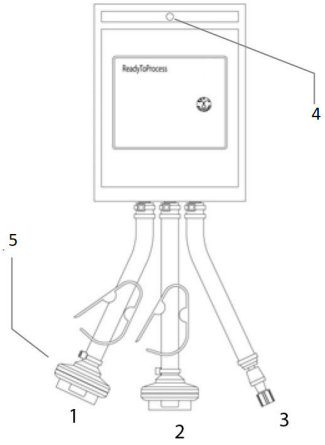
The illustration below shows the 3-D bag.



Part	Description
1	Inlet port
2	Inlet port
3	Inlet port
4	Drain outlet port
5	ReadyMate or AseptiQuik connector

Sample bag

The illustration below shows the sample bag.



Part	Description
1	Inlet/outlet port
2	Flushing outlet
3	Clave port
4	Hole for hanging bag
5	ReadyMate connector

Using hanging pillow bags

Suspend ReadyCircuit hanging bags (250 mL to 20 L) from ReadyKart bag hangers. The 1 to 20 L bags include a rod in the top of the bag that may be inserted into the channel of ReadyKart bag holders. For bags smaller than 1 L, the hole at the top of the bag can be used to hang the bag on any hanger.

Using pillow bags in the horizontal position

To use a hanging pillow bag in the horizontal position, select the appropriately sized ReadyKart tray. Trays are available to accommodate 2-D horizontal bags from 1 to 20 L in size. Follow the steps below to position the bags in the horizontal position.

Step	Action
1	Position the bag so that the end with the outlet ports faces the slotted end of the tray.
2	Slope the tray toward the outlet ports, to facilitate complete draining of horizontal bags. ***Note:*** *To slope the tray toward the outlet ports, use the tray height adjuster.* ***Note:*** *When using pillow bags designed for tangential flow filtration, the top inlet/return port should face up.*
3	Make sure proper mixing is achieved when using the horizontal tray during tangential flow filtration by setting the tray pitch to maximum using the pitch adjuster on the tray.
4	Place the top of the bag at the top of the pitch.

Using the 50 L pillow bag

Always use 50 L pillow bags in the horizontal position supported in a tray. Follow the steps below to use the 50 L pillow bag.

Step	Action
1	Place the bag in an appropriately sized tray with the outlet ports facing down through the slots in the bottom of the tray.
2	Use the tray height adjuster to slope the tray towards the outlet ports to facilitate complete draining of horizontal bags.

Using the 100 and 200 L 3-D ReadyKart bags

Follow the steps below to use the 100 and 200 L 3-D ReadyKart bags.

Step	Action
1	Install the 100 and 200 L 3-D ReadyKart bags by aligning the bag so that the tube on the bottom of the bag is routed through the hole at the bottom of the bin.
2	Place tubes that are on the top of the bag over the ReadyKart bin edge, taking care to align the vertical seals of the bag with the inner edges of the bin.
3	Clamp off all tubes except for the inlet line used to fill the bag.
4	Connect the inlet line to the source fluid using the ReadyMate connection. ***Note:*** *While filling the ReadyKart bag, the bag may shift due to the weight of the process fluid. For best results, make sure bag vertical seals remain aligned with the inner edges of the ReadyKart bin while the bag is being filled.*

4 ReadyCircuit tubing assemblies

Description of tubing assemblies

Basic tubing assemblies consist of lengths of tubing with ReadyMate disposable aseptic connectors at each end.

Other ReadyCircuit tubing assembly configurations include tubing or aseptic connectors integrated with components such as tees, pressure sensors, reducers, etc.

Connections of standard subassemblies or custom circuits are typically made with ReadyMate disposable aseptic connectors. However, depending upon the configuration, a circuit or tubing assembly may include AseptiQuik, TC, or Steam-Thru™ adapters to connect disposable fluid paths to stainless steel process equipment.

Connecting ReadyCircuit bags

For instructions on how to connect ReadyCircuit bags aseptically see *Chapter 7 Assembly of ReadyCircuit, on page 18*.

5 ReadyCircuit tubing assemblies with sensors

Overview

ReadyCircuit tubing assemblies can include temperature, pressure, and conductivity sensors. The sensors can be used with SciLog™ BioProcessing Systems SciTemp™, SciPres™, and SciCon™ monitors (part numbers 080-790, 080-690, and 080-590 respectively).

Connection procedure

Follow the steps below to assemble ReadyCircuit with sensors.

Step	Action
1	Install the sensor tubing assembly into your ReadyCircuit system.
2	Connect the sensor to your SciLog monitor using the cable and OEM instructions supplied with your SciLog monitor. See *Chapter 7 Assembly of ReadyCircuit, on page 18*.

6 ReadyToProcess filters (TFF and NFF)

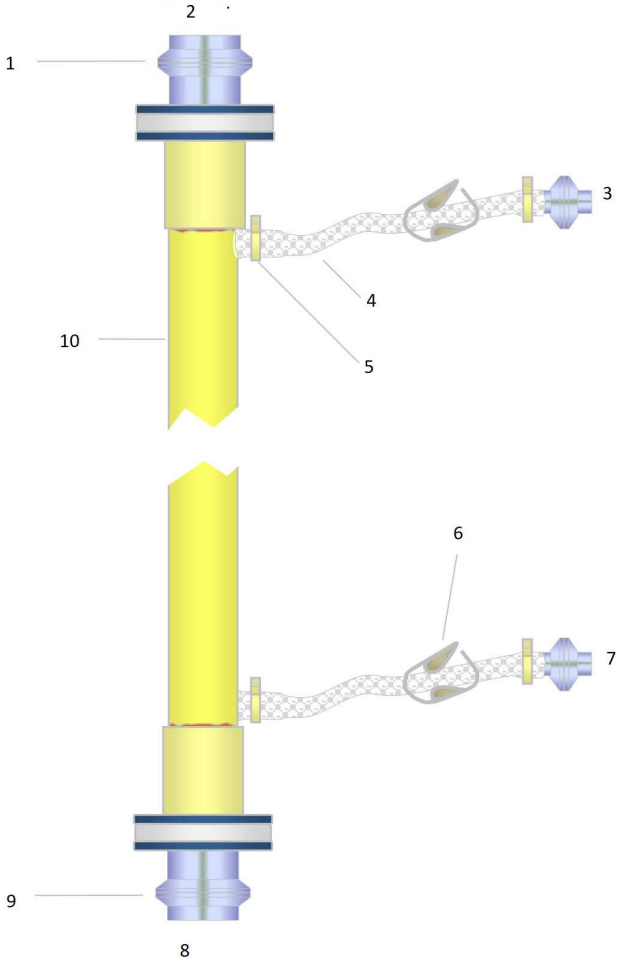
Description

ReadyToProcess™ filter assemblies include sterile tangential flow filtration and normal flow filtration filter capsules configured with tubing and ReadyMate disposable aseptic connectors. You can quickly integrate ReadyToProcess filters into your filtration system using the disposable aseptic connectors. See How to Connect ReadyCircuit in *Chapter 7 Assembly of ReadyCircuit, on page 18*.

ReadyToProcess filter illustration

The typical ReadyToProcess filter includes a feed port, retentate port, and two permeate ports, as shown in the illustration.

The following illustration shows the ReadyToProcess filter with descriptions of each part.



Part	Description
1	ReadyMate aseptic disposable connector
2	Retentate port
3	Permeate port
4	Flexible tubing
5	Tubing clamp
6	Flow control clamp

Part	Description
7	Permeate port
8	Feed port
9	ReadyMate aseptic disposable connector
10	Hollow fiber cartridge

Removing the outer protective bag

Before opening the outer bag, reference the catalog number on the filter and check its performance specifications to make sure that the filter meets your application requirements. Record the batch number and serial number of the filter. Follow the steps below to avoid stretching the protective bag.

Step	Action
1	To open the outer protective bag, grip each side of the bag just below the seal and pull the seal apart.
2	Repeat this procedure to open the inner protective bag.

Connecting ReadyCircuit filters aseptically

For instructions on how to connect filters to your fluid processing system see *Chapter 7 Assembly of ReadyCircuit, on page 18*.

Operating guidelines

Several important preconditioning steps must be completed before use of a ReadyCircuit hollow fiber cartridge or normal flow filtration capsule. For more information about the filters see *Instructions for Use 28922684*. For general guidelines see the tables below.

Hollow fiber filter specifications

		Maximum pressure from the pump discharge at 20°C	Maximum permeate pressure at 20°C
UF TFF Hollow Fiber Filters		0.4 MPa (4 barg, 60 psig)	0.1 MPa (1 barg, 15 psig)
MF TFF Hollow Fiber Filters	0.1 µm pore size	0.2 MPa (2 barg, 30 psig)	0.1 MPa (1 barg, 15 psig)
	0.2 µm pore size	0.17 MPa (1.7 barg, 25 psig)	
	0.45 and 0.65 µm pore size	0.10 MPa (1 barg, 15 psig)	

Normal flow filtration capsule specifications

Type of capsules	Maximum feed pressure at 40°C
NFF capsules	0.5 MPa (5 barg, 72 psig)
NFF capsules supplied within tubing assembly	0.1 MPa (1 barg, 15 psig)

WARNING

For capsules supplied without tubing assemblies, do not exceed 0.5 MPa (5 barg, 72 psig) at 40°C during operation. If this limit is exceeded, the product body could fail and injure the operator or damage equipment.

WARNING

Only use ULTA™ TFF capsules with fluids that are compatible with the materials of the capsules. If incompatible fluids are used, the product body could fail and injure the operator or damage equipment.

7 Assembly of ReadyCircuit

Components used in the assembly

ReadyCircuit is assembled by using clamps and ReadyMate disposable aseptic connectors (DACs).

How to assemble the ReadyCircuit

Disposable fluid paths can be attached to stainless steel process equipment by connecting ReadyCircuit TC or Steam-Thru adapters. Make sure to include the following actions when connecting ReadyCircuit assembly:

- Press ReadyMate disposable aseptic connectors together.
- Hold ReadyMate connectors together to preassemble your system without making the aseptic connection until you are sure you have configured your system properly.
- Use one of the following parts to complete the assembly procedure of the ReadyCircuit.
  - ReadyClamp clamps
  - connectors
  - Clave sampling ports

WARNING
Do not place excessive strain on tubing connection points. Excessive bending or pulling on tubing and fittings can result in leaks of hazardous process fluids, leading to injury.

Illustrations

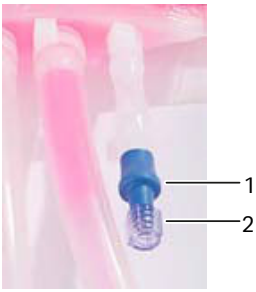
The following sections show illustrations of ReadyClamp and ReadyMate connectors and the Clave sampling port.

Illustration of a disposable ReadyClamp

ReadyClamp is a single use clamp designed to fit the ReadyMate Disposable Aseptic Connector (DAC) and other 1½" sanitary fittings that conform to ISO Standard 2852 for Sanitary Couplings. ReadyClamp is a lightweight clamp for traceable, tamper proof connections.

Illustration of a standard BioClamp™

Illustration of Clave port



Part	Description
1	Blue Luer™ fitting
2	Clear plastic cap

Connecting ReadyMate connectors with BioClamp or ReadyClamp

Note: *Gloves must be worn throughout all the steps mentioned below to maintain an aseptic environment.*

ReadyCircuit tubing assemblies are sterile. To maintain sterility throughout the build of the fluid processing system, connect the ReadyCircuit bag using disposable aseptic connectors. Follow the steps below to connect the disposable aseptic connectors.

Step	Action
1	Remove the clamp from the packaging and open it.
2	Remove the plastic cap from each ReadyMate DAC.
3	Remove the paper from the face of each DAC.
4	Tilt the DACs as shown in the illustration below.
	
5	Bring the connectors close and press together until a click sound can be heard.
6	Bring the tabs together.
	
7	Hold the neck of one of the mated ReadyMate connectors.
	

Step	Action
8	Pull both tabs out from the connectors, until the protective film is removed.

NOTICE
Hold only one ReadyMate connector while pulling out the protective film. Holding both ReadyMate connectors can result in compressive forces being applied to the ReadyMate faces, making it difficult to pull the protective film out.

9 Fit the clamp around DAC connection. Align the frosted area and the arrow of the DAC toward the opening of the clamp. Apply a standard BioClamp or a disposable ReadyClamp to the connector assembly to lock it.

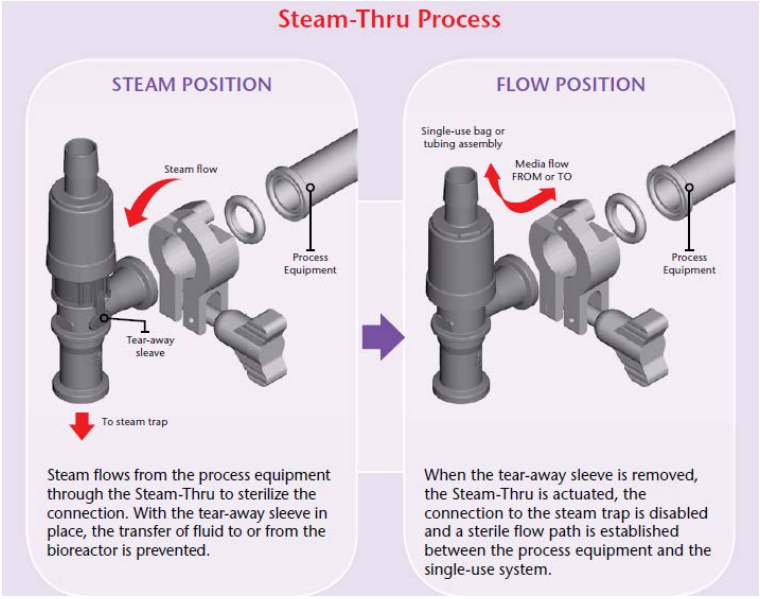
10 Use hand pressure to wrap the clamp around the DAC and properly seat the DAC in the clamp channel. Hold the clamp in position.

11 While holding the DAC in position, pull back the free end of the black cable tie and thread it into the black latching head of the tie located in the opposing clamp. Pull on the cable tie end to secure the clamp around the DAC.

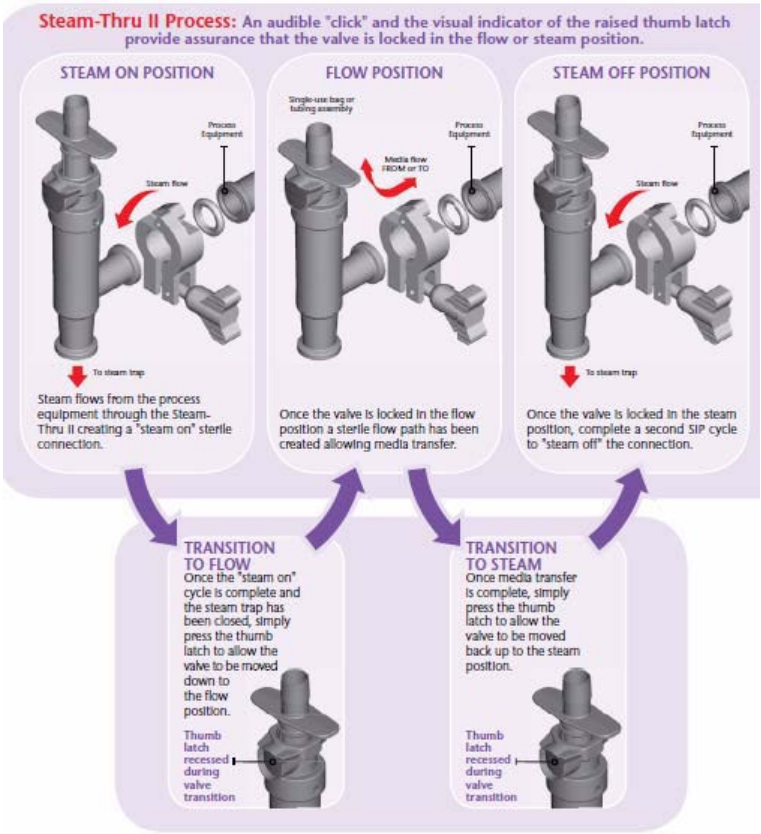
Step	Action
12	Use a cable tie tensioning tool to tighten the cable tie until at least one "X" on the strap becomes visible. When this point is achieved, apply tension and twist cable tie tensioning tool to cut the strap.  ***Note:*** *Apply maximum 22.7 kg (50 pounds) of cable tension.*

Using Steam-Thru connectors

Follow the instructions below to attach your ReadyCircuit components using Steam-Thru connectors.[1]



1 Instruction reprinted with permission from the Colder Products Company catalog CAAT2024 5/08 3M/RRD.



Using Clave connectors

Many ReadyCircuit bags incorporate Clave connectors that enable needle-free sampling of process fluids. To use a Clave connector, follow the steps below.

Step	Action
1	Grip the blue Luer fitting and remove the clear plastic cap.
2	Swab the Luer fitting in accordance with your facility protocol.
3	Connect a needle-free syringe and withdraw the sample.
4	Remove the syringe and screw the protective cap back on the Clave Luer fitting.

8 Disposal or recycling of bags after use

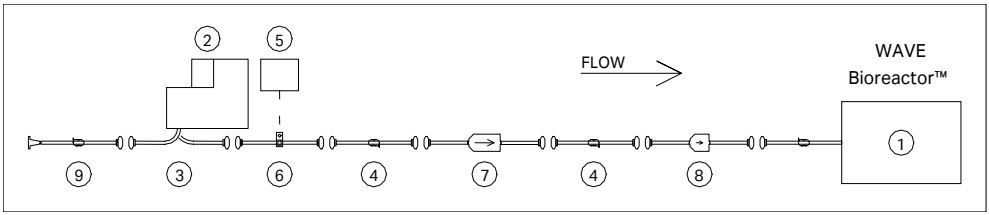
Disposal according to local regulations

Several options exist for disposal or recycling of bags after use, including: chemical pretreatment and disposal, incineration, and passivation and pelletization. The users should determine their preferred method based on the options available to them within their region in accordance with applicable laws.

9 Examples of typical ReadyCircuit systems

Media fill application

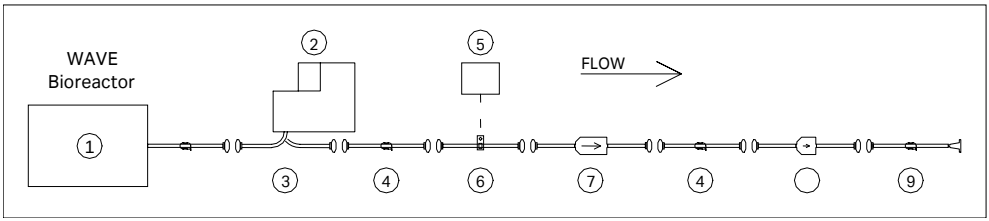
The following schematic and specifications show the system configuration for a typical media fill application.



Item	Description	XSmall	Small	Medium	Large	X Large	XX Large	XXX Large
1	Cellbag™ size (L)	2	10	20	50	100	200	500
1	Maximum culture volume (L)	1	5	10	25	50	100	200
7	Optional GF filter, 0.6 micron (size in inches)	4	4	4	4	10	10	20
8	HC or MR filter (size in inches)	2	2	2	2	5	5	10
3	Pumpsil™ tube (ID x wall x length)	1/4" x 3/32" x 24"						
2	Watson-Marlow pump head	520SR						
5, 6	Optional pressure indicator and sensor	3/8", SciPres						
4	Optional jumper	1/4" ID, low pressure, 1', 3', or 5' long						
9	1-1/2" TC jumper	1/4" ID, low pressure						
	Cart (not shown)	Mini ReadyKart						

Cell harvest application

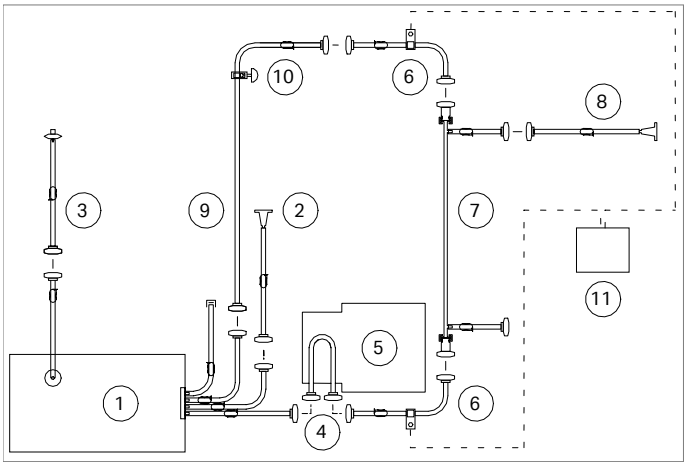
The following schematic and specifications show the system configuration for a typical cell harvest application.



Item	Description	XSmall	Small	Medium	Large	XLarge	XX Large
1	Cellbag size (L)	2	10	20	50	100	200
1	Maximum culture volume (L)	1	5	10	25	50	100
7	GF filter, 5 micron (size in inches)	4	4	4	4	10	10
8	HC or MR filter (size in inches)	2	2	2	2	5	5
3	Pumpsil tube (ID x wall x length)	1/4" x 3/32" x 24"					
2	Watson-Marlow pump head	520SR					
5, 6	Optional pressure indicator and sensor	3/8", SciPres					
4	Optional jumper	1/4" ID, low pressure, 1', 3', or 5' long					
9	1-1/2" TC jumper	1/4" ID, low pressure					
	Cart (not shown)	Mini ReadyKart					

Tangential flow filtration

The following schematic illustration and the specification show the system configuration for a typical tangential flow filtration application.



Item	Description	Small		Medium		Large		Extra large		Jumbo	
1	Vertical or horizontal TFF reservoir size (L)	1		5		10		20		50 (horizontal only)	
2	Reservoir fill (1-1/2" TC)	1/4"		3/8"		1/2"				3/4"	
3	Reservoir vent size	1/4"									
4	Pumpsil tube (ID x wall in inches)	1/4 x 3/32	1/4 x 1/8	3/8 x 3/32	3/8 x 1/8	1/2 x 1/8				3/4 x 3/32	
5	Pump and pump head (Watson-Marlow B)	520R	620R	520R	620R					720R	
6	Pressure sensor(s)	3/8"				3/4"					
7	TFF	3	3x2	4	4x2	5	6	8	9	35	55
8	High pressure permeate tubing size (1-1/2" TC)	1/4"				3/8"		1/2"		3/4"	
9	Retentate tube (ID x length)	1/4" x 3'	1'4" x 5'	3/8" x 3'	3/8" x 5'	1/2" x 3'	1/2" x 5'	1/2" x 3'	1/2" x 5'	3/4" x 3'	3/4" x 5'
10	Retentate PCV	Small								Large	
11	Pressure indicator (SciLog)	SciPres									

Item	Descrip-tion	Small	Medium	Large	Extra large	Jumbo
	Cart (not shown)	Minim ReadyKart				Standard Ready-Kart

10 Specifications for ReadyCircuit components

Temperatures

Processing temperature (liquid temperature): 2°C to 45°C

Operating temperature (ambient temperature): 2°C to 45°C

Cycles

Maximum number of cycles: 3

Maximum operational cycle time: 8 hours, continuous at maximum pump RPM

Pressures — tubing in tubing assemblies

Maximum working pressures for the three types of tubing found in ReadyCircuit components:

Cflex: 1 barg (15 psig) at 20°C

Reinforced silicone (AdvantaPure™): 4 barg (60 psig) at 20°C

Pump tubing (Pumpsil) 6.3 to 9.1 mm (1/4 to 3/8 inch): 1.7 barg (25 psig) at 20°C

Pump tubing (Pumpsil) 12.7 to 19 mm (1/2 to 3/4 inch): 1 barg (15 psig) at 20°C

Pressures — UF CFF filters

Maximum pressure from the pump discharge: 4.1 barg (60 psig) at 20°C

Maximum permeate pressure: 1 barg (15 psig) at 20°C

Pressures — MF CFF filters

Maximum pressure from the pump discharge at 20°C:

2.0 barg (30 psig) for 0.1 µm pore size

1.7 barg (25 psig) for 0.2 µm pore size

1.0 barg (15 psig) for 0.45 and 0.65 µm pore size

Maximum permeate pressure: 1 barg (15 psig) at 20°C

Pressures — NFF filters

Maximum feed pressure: 1 barg (15 psig)

Microbiologics claims

Endotoxin — For process fluid contact surfaces, endotoxin level is < 0.25 EU/ mL using a water extraction method.

Sterility — standard and custom circuits

For custom and standard circuits, each subassembly and component is sterile for all fluid contact surfaces. Validated sterile at an SAL of 10-6 according to AAMI TIR33:2005 and the principles of ISO/AAMI 11137-1:2006.

Extractables

TOC: Each subassembly flushed (post sterilization) to reduce the TOC level to below 0.5 ppm.

Conductivity: Each subassembly flushed (post sterilization) to reduce the conductivity level to below 1.3 µs/cm.

Transportation and storage

The table below shows different allowed temperatures and the corresponding shelf life, depending on the bag type.

Product	Allowed temperature limits	Temperature interval	Shelf life
Unfilled bag	-20°C to 45°C	N/A	N/A
2-D bags filled with process fluids	-80°C to 45°C	1°C to 45°C	30 days
		-80°C to 0°C	3 years
3-D bags filled with process fluids	2°C to 45°C	2°C to 45°C	30 days

Chemical compatibility

The following table shows chemical resistance information for ReadyCircuit wetted components.

Chemical	Concentration	Time/cycle	No. of cycles	Temperature
Sodium hydroxide (static)	0.5 N	7 days	1	25°C
Sodium hydroxide (dynamic)	0.5 N	8 hours	1	25°C
Aqueous buffers, pH 4 to 10	< 0.3 M	8 hours	3	25°C

The following table shows chemical resistance information for ReadyCircuit non-wetted components.

Chemical	Concentration (% w/v)	Cycle	No. of cycles	Temperature
Ethanol	70%	Wipe	5	25°C
Isopropanol	70%	Soak and wipe	5	25°C

SciTemp FlowThru

Note: *All wetted materials are made of animal-free compounds. Compatible with most sanitizing agents such as NaOH, Hypochlorite. Sensors can be repeatedly autoclaved.*

Specification	Description
Material, Fluid Contact	Fluid Contact: medical grade polysulfone
Sensor type	Thermistor, Epoxy Coated, 2252 Ohms
Temperature range/accuracy	± 0.10°C in the 4.0°C to 70.0°C range
Temperature display	Resolution two decimal places (0.05°C)
Sensor connectors	Lockable and waterproof
Sensor microchip	EPROM stored sensor ID and calibration factor

SciPres FlowThru

Type	Description
Material, Fluid Contact	Medical grade polysulfone
Sensor type	Medical grade, silicone piezoresistive sensing element with on chip temperature compensation
Sensor isolation	Insoluble silicone dielectric gel isolates sensing element from process solution
Pressure range	0.034 MPa (0.34 barg to 4.1 barg, - 5 psig to 60 psig)
Pressure accuracy	± 0.002 MPa (± 0.02 barg, ± 0.30 psig)
Pressure resolution	0.00007 MPa (0.0007 barg, ± 0.05 psig)
Temperature range	0°C to 60°C
Sensor microchip	EPROM stored sensor ID and calibration factor
Sensor connector and cables	Lockable and waterproof

SciCon FlowThru

Type	Description
Material, Fluid Contact	Natural polypropylene (PP) or polysulfone (PS) w/gold electrodes; medical grade
Sensor type	4-electrode conductivity cell, factory calibrated, ready to use

Type	Description
Conductivity range	1 µS/cm to 200 mS/cm. Resolution: 0.1 µS/cm
Accuracy, high range	± 0.25 mS in the 10 mS to 200 mS range
Accuracy, low range	± 3 µS in the 0°C to 100 µS range
Temperature range	4°C to 50°C
Temperature probe	Thermistor, factory calibrated
Temperature accuracy	± 0.5°C
Sensor microchip	EPROM stores device ID, cell constant, temp offset and factory calibration data
Pre-calibration	47 µS at 25.0°C using standard traceable to NIST
Sensor connector and cables	Lockable and waterproof

Regulatory claims

USP Class VI for wetted parts, USP <88>. USP General Mouse Safety. Hemolysis, ISO 10993-4 Cytotoxicity USP L929 MEM Elution Test ISO 10993-5 Animal free Origin for wetted parts per EMEA/410/01 part 6.4 (alternatively — manufacturing under denaturating conditions). Material certificates and full traceability (biopharmaceutical class) for all wetted parts CFR Part 1771, Indirect Food Additives: Polymers.

11 Related literature

This section contains information about the related literature for ReadyCircuit bags.

Data files	Product code
ReadyToProcess Single-use Fortem products	29600222
ReadyToProcess Bins	29108480
ReadyToProcess Single-use Fortem Products (Made in China)	29960644
ReadyCircuit bags and tubing assemblies	28960644
ReadyKart mobile processing station	28960648
ReadyToProcess hollow fiber cartridges	28922683
Sterile ReadyToProcess ULTA NFF capsules	28925793
ReadyMate disposable aseptic connectors	28937902

Instructions for use	Product code
ReadyCircuit bags, tubing assemblies, and filters	28960646
ReadyToProcess XL Bin	29097794
ReadyKart mobile processing station	28960647
Sterile RTP hollow fiber cartridges	28922684
Sterile ReadyToProcess ULTA NFF capsules	28960822
ReadyMate disposable aseptic connectors	28938570
ReadyClamp	28940620

Quick reference guides	Product code
ReadyCircuit components	28975067
ReadyKart mobile processing station	28975072
ReadyToProcess CFF cartridge	28977640

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