

# Aramus™ Cell Bank Manifold Kit

*Streamlined upstream processing for higher yield and lower contamination risk*

Aramus single-use manifold kits for master cell bank (MCB) and working cell bank (WCB) workflows can shorten your seed train process from weeks to days. Manifolds allow for aseptic filling, storage and seeding without requiring a sterile hood, enabling biomanufacturers considerable savings in upstream processing time, cost and space while reducing contamination risk.

Aramus cell banking manifolds allow users practicing seed train intensification to bank a much larger volume of highly concentrated cells while speeding up production runs. From bioreactor harvest to cryopreservation, Aramus completely closed processing solutions allow convenient fill and storage in liquid nitrogen (LN<sub>2</sub>) vapor or LN<sub>2</sub> submersion (-196°C) for extended periods. Once thawed, samples ranging from <20 ml to 2 L can be used to inoculate a much larger bioreactor (up to 50 L culture volume) depending on cell density achieved. This process greatly reduces contamination risks reduces washing steps and saves considerable time.

The Aramus cell banking assembly kits include:

- Manifold of 5x or 10x Aramus bags
- Bags sizes of 100 mL or 250 mL (custom available upon request)
- Weldable tubing for aseptic connect/disconnects enabling complete closed system processing
- Overwrap bags providing vapor barrier and additional protection for tubing
- Optional add-on: Cassettes for handling and storage in frozen conditions

## APPLICATIONS

- Cell banking for bioreactor intensification (MCB, WCB)
- Cryogenic storage of bulk drug or intermediates
- Critical product filling and dispensing
- Process sampling and archiving
- Cell line engineering
- Seed train optimization
- Adventitious agent screening and prevention

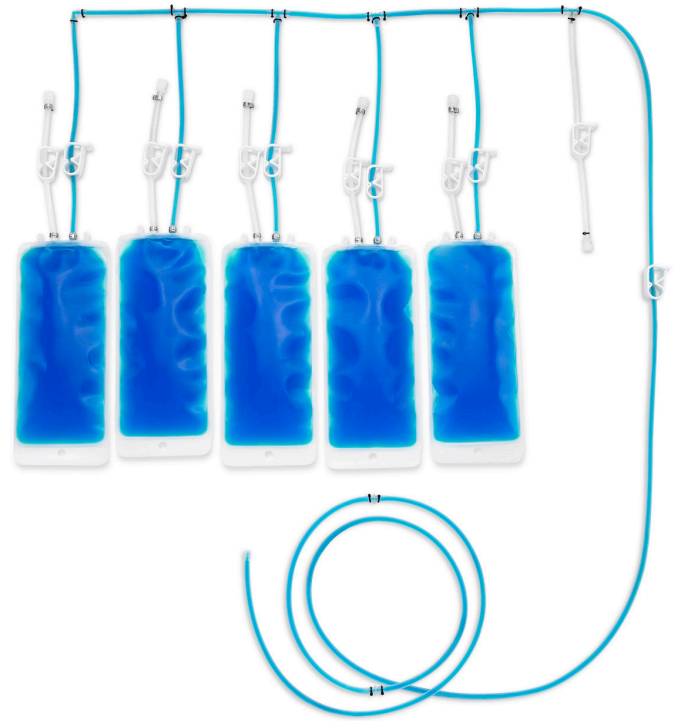


Figure 1. Aramus Cell Bank Manifold Kit, 5x 250 mL configuration.



Figure 2. 100 ml and 250 ml Aramus single-use assemblies, heat sealed in an EVA overwrap, encased in an aluminum cassette.

## FEATURES & BENEFITS

<b>Time saved in seed train expansion</b>	Up to 2 weeks saved during inoculum seed train compared to conventional process
<b>Lower operating costs</b>	Reduces staff operator hours and consumables costs per batch
<b>Reduce contamination risk</b>	Closed system processing with flexible options for aseptic connection and disconnection
<b>High reproducibility</b>	A single seed train expansion of high density cell banking (HDCB) process can be stored and then used to inoculate multiple bioreactors eliminating variation between bioreactor runs.
<b>Increased productivity</b>	Seed train operation no longer required before each batch resulting in higher annual production capacity.
<b>Low temperature operating range</b>	Reduces bag breakage and can be used in cold temperature applications to -196°C (-321°F) or lower without negatively affecting bag or boat fitment.
<b>Wide compatibility with cryo-preserved and cell lines</b>	Aramus material properties and manifold materials of construction low risk with DMSO and other common cryoprotective agents, combined with commonly used bioprocessing materials with established cell compatibility.

## SPECIFICATIONS

<b>Sterilization</b>	Gamma irradiation 25 to 40 kGy
<b>Operating temperature</b>	-196°C to 121°C [-321°F to 250°F]
<b>Integrity testing</b>	All Aramus subassemblies are 100% pressure decay leak tested in production before shipment

## FLUID PATH COMPLIANCE

Component	ADCF	USP <661>	USP <85>	USP <87>	USP <88>/ Class VI	ISO-10993
Aramus bag subassembly	Free	Pass	Pass	Pass	Pass	Pass
Tpe and silicone tubing	Free	Pass	Pass	Pass	Pass	Pass
Connectors/luers	Free	Pass	Pass	Pass	Pass	Pass

Aramus Cell Bank Manifold Kit, 10x 100 mL

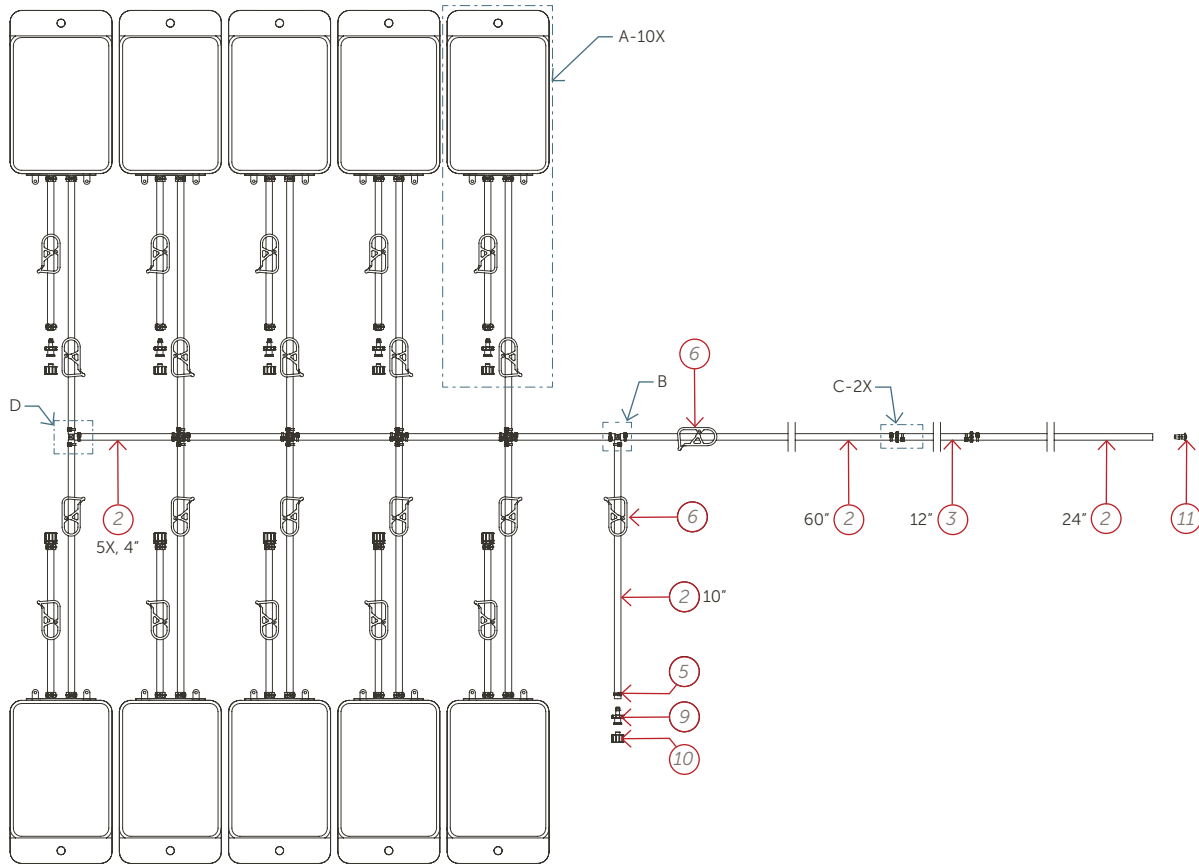


Figure 3. drawing of the Aramus Cell Bank Manifold Kit, 10x 100 mL (PN SU-ADM-000049K).

Table 1. Standard component list for the Aramus Cell Bank Manifold Kit

Item	Description
1	Aramus subassembly, 100 mL
2	Advantaflex tubing, $\frac{1}{8}$ " $\times$ $\frac{1}{4}$ "
3	APSPG pump silicone tubing, $\frac{1}{8}$ " $\times$ $\frac{1}{4}$ "
4	Oetiker, degreased, 8 mm
5	Cable tie, PA66, 1.8 mm $\times$ 71.1 mm
6	Ratchet tube clamp, PP, 12 mm ID 12
7	Fitting, coupler, PP, $\frac{1}{8}$ "
8	Fitting, tee, PP, $\frac{1}{8}$ "
9	Connector, luer, PP, female, $\frac{1}{8}$ "
10	Plug, luer, PP
11	Press-in plug, PP, $\frac{1}{8}$ "
12	Fitting, cross, PP, $\frac{1}{8}$ "
13	Bag, overwrap, EVA, 140 $\times$ 300 mm

## ORDERING INFORMATION

Table 2. List of Standard Product Offerings

Part number*	Description	What's included	MOQ	Additional overwrap PN	Corresponding cassette PN
SU-ADM-000048K	Aramus Cell Bank Manifold Kit, 5x 100 mL	5-bag manifolds, 5 EVA overwraps	5	SU-OW-01-14-30-S	SU-FS-0.10-C2
SU-ADM-000049K	Aramus Cell Bank Manifold Kit, 10x 100 mL	10-bag manifolds, 10 EVA overwraps	5	SU-OW-01-14-30-S	
SU-ADM-000050K	Aramus Cell Bank Manifold Kit, 5x 250 mL	5-bag manifolds, 5 EVA overwraps	5	SU-OW-01-14-30-S	SU-FS-0.25-C2
SU-ADM-000051K	Aramus Cell Bank Manifold Kit, 10x 250 mL	10-bag manifolds, 10 EVA overwraps	5	SU-OW-01-14-30-S	

\*Aramus standard manifold kit part numbers are intended as an easy starting point. Configured options including different volume Aramus bags and/or with PE holding or waste bags available upon request.

Sample kits are also available upon request.

Consult the table below for recommended accessories for configured solutions.

Table 3. List of Standard Aramus Bag Sizes and Associated Cassettes and Overwrap Options

Aramus bag chamber size	Recommended cassette PN	Aramus estimated fill volume (in cassette)	Recommended EVA overwrap
20 mL	SU-FS-0.05-C2	20 mL	SU-OW-01-14-30-S
36 mL	SU-FS-0.04-C2	36 mL	SU-OW-01-09-18-S
50 mL	SU-FS-0.05-C2	50 mL	SU-OW-01-14-30-S
80 mL	SU-FS-0.08-C2	80 mL	
100 mL	SU-FS-0.10-C2	100 mL	
250 mL	SU-FS-0.25-C2	200 mL	
500 mL	SU-FS-0.50-C2	350 mL	SU-OW-01-17-38-S
1 L	SU-FS-0001-C2	-*	SU-OW-01-20-38-S
2 L	SU-FS-0002-C2	-*	SU-OW-01-28-50-S

\*Contact Entegris technical support for additional questions regarding the above information. In addition, contact Entegris to determine the optimal configurations for your specific needs as well as details on instructions for use.

#### FOR MORE INFORMATION

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit [entegris.com](http://entegris.com) and select the [Contact Us](#) link to find the customer service center nearest you.

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