

### General:

Akron's Human Serum Albumin (HSA) 25% Closed System Solutions (CSS)<sup>™</sup> is packaged in sterile Ethylene-vinyl acetate (EVA) bags with multiple connection options, allowing for easy incorporation into modern closed-system cell culture bioprocessing protocols. The closed-system packaging of Akron's HSA 25% CSS increases safety and ease of use by enabling the introduction of supplement material into culture media in a fully contained manner.

A clean space and proper aseptic technique are recommended when handling Akron's HSA 25% CSS. Do not place heavy objects directly on top of the HSA 25% CSS bag, as too much pressure can jeopardize the integrity of the packaging. Each unit comes with a poly bag over-pouch and multiple units are packed into a storage cassette; it is recommended to keep the product within this cassette box for storage and thawing.

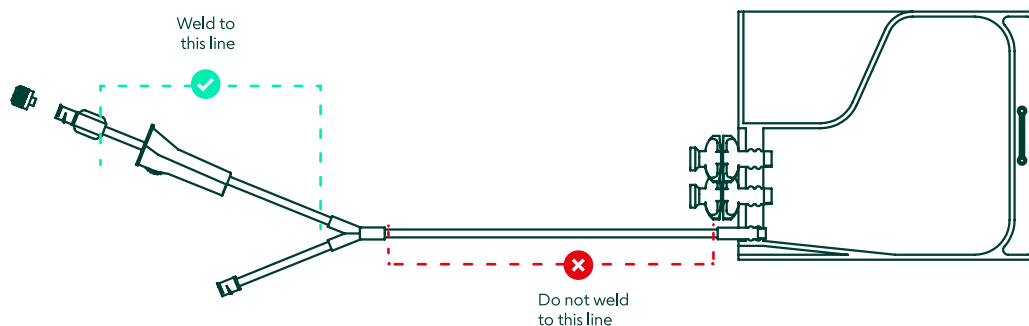
### Method 1 – Weldable Connection:

Akron's HSA CSS comes with a single proximal tube that splits into two shorter distal tubes used for an inlet and an outlet. Do not attempt welding to the longer proximal tube section; it is not weldable material.

The shortest tube has been used as an inlet tube and has been fuse sealed at the end. It is not recommended to use this portion.

The second distal portion comes with a rolling clamp and a female Luer lock adapter on the end. This portion is recommended to use as an outlet tube. This outlet tube is made from weldable polyvinyl chloride (PVC) material (2.5 mm ID x 4.1 mm OD). To make a weldable connection to HSA CSS, follow the proceeding steps:

- Place outlet tubing into tube welding machine along with process line.
- Run standard aseptic welding protocol.
- Release the rolling clamp on the outlet tube now welded to your process line.
- Allow solution from HSA 25% CSS bag to flow into your process line.
  - User can facilitate transfer by hand compressing the bag to expunge the HSA 25% CSS material.
  - User can allow for reverse flow to ensure full mixing of HSA solution with culture media.





## Human Serum Albumin (HSA) 25% Closed System Solutions (CSS)<sup>™</sup>

Bags (60 mL) Cat. # AR1037-0060 | Bags (100 mL) Cat. # AR1037-0100

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### Method 2 - Direct Connection via Female Luer Lock Adapter

Akron's HSA CSS comes with a direct connection option on the outlet tube. To attach male Luer tubing to the female Luer adapter for use as an outlet port, follow the proceeding steps:

- Introduce the HSA CSS bag along with the male Luer tubing into a BSC in an aseptic manner.
- Remove cap from the female Luer adapter.
- Clean the female Luer adapter with a pre-moist 70% alcohol wipe.
- Clean the male Luer connection with a fresh pre-moist 70% alcohol wipe.
- Connect male Luer tubing to female Luer connector, turning to lock into place.
- Release the rolling clamp on the outlet tube now directly connected to the male Luer tubing.
- Allow solution from HSA CSS bag to flow into your process line.
  - User can facilitate transfer by hand compressing the bag to expunge the HSA CSS material.
  - User can allow for reverse flow to ensure full mixing of HSA solution with culture media.

### Method 3 – Spike Port Adapter:

Two tear-off EVA spike ports are included as optional outlets. With the use of a spike adapter, these ports allow for any desired tubing material and any desired connectors to be attached to the product. To make a spike port connection to Akron's HSA 25% CSS, follow the proceeding steps:

- Introduce the HSA 25% CSS bag along with the desired spike adapter into a BSC in an aseptic manner.
- Tear off the protective EVA tab from chosen spike port (the port has another internal membrane seal).
- Insert a sterile spike, with desired adapter connections attached, into the port in a single continuous motion, puncturing the inner seal and fully inserting the spike into the bag.
- Connect your process line to the inserted adapter using the weldable tubing or direct connectors attached.
- Release any clamp that may be attached to the adapter tubing.
- Allow solution from HSA 25% CSS bag to flow into your process line.
  - User can facilitate transfer by hand compressing the bag to expunge the HSA 25% CSS material.
  - User can allow for reverse flow to ensure full mixing of HSA solution with culture media.

For more information on our available products or for technical assistance, see contact info below.  
For contract orders under master supply agreement, please inquire.