

## Assembly and use of the Cytomatrix™ Spinner System

**1.0 Purpose:** To properly assemble components of the Cytomatrix Spinner System for cell culture.

### **2.0 Materials:**

- 2.1 One or more inoculated matrix cassette assembly packages (CB-760).
- 2.2 Starwheel assembly package (CB-755).
- 2.3 Media
- 2.4 Sterilized glass vessel with caps (CB-175)

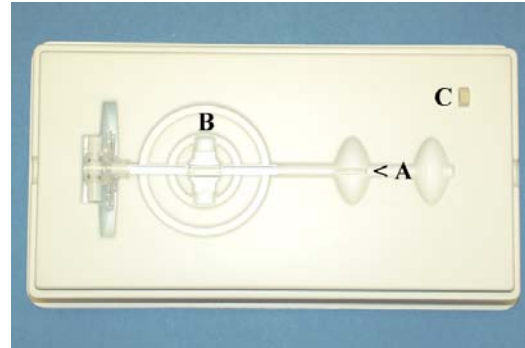
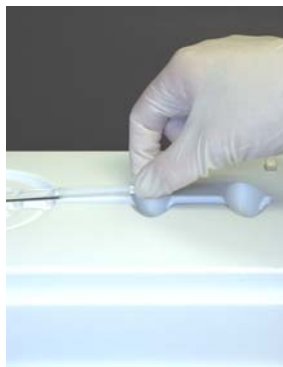


Figure 1. Starwheel Assembly (SWA) Tray. A = Shaft tab, B = SWA stabilizer, C = Lock nut.

### **3.0 Procedure:**

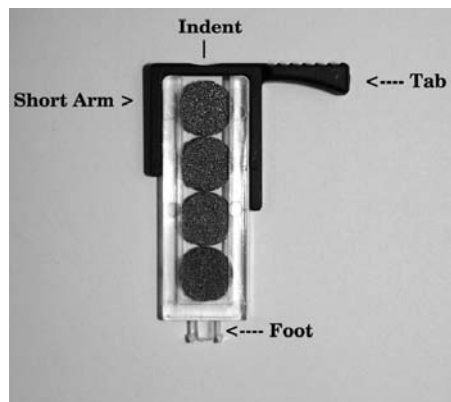
- Step 1. Remove Starwheel assembly (SWA) tray from heat sealed bag and place in hood.
- Step 2. Place sterile vessel and tissue culture plate containing matrix cassette assembly (MCA) (from incubator) into hood.

Step 3.



- By grasping the shaft tab **ONLY** (shown above, left), remove the SWA and place upright into the assembly stabilizer (shown above, right).
- *Important Note: Do not touch below shaft tab as this will compromise sterility.*

Step 4.



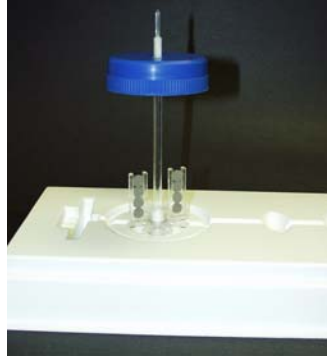
- Remove MCAs from the tissue culture plate by placing index finger and thumb on the tab of the matrix cassette handle. *Note: Touch only the black handle.*
- Tilt forward to a standing position by pivoting the MCA on its foot
- To help stabilize the MCA for insertion into the SWA, position index finger on the indent of the matrix cassette handle while thumb and middle finger engage the tab.

Step 5.



- Position foot of matrix cassette over insertion slot in SWA arm (shown above, left). Slowly push matrix cassette assembly in a downward motion until the foot clicks into position. *Note: One arm of the SWA has been marked with a tab to serve as a reference for positioning.*
- Remove handle of MCA by pushing tab downward (shown above, middle) and twisting short arm away (shown above, right). Discard the handle.
- Repeat above steps until all MCAs have been loaded. To help facilitate loading, the SWA can be repositioned by rotating it 180 degrees and placed back into the stabilizer.

Step 6.



- Place vessel cap onto the shaft of the loaded SWA and thread to the bottom.

Step 7.



- Fill vessel with 190-220 ml of media.
- Place SWA into vessel and tighten cap.
- Adjust the height of the SWA to minimize the space between the SWA bottom and the flask bottom (approx. 1 cm). *Note: It is important that the matrices are below the level of the media.*
- To secure assembly, place lock nut on shaft and tighten to cap.
- Loosen side arm caps to facilitate air exchange.

Step 8. Place vessel onto stir plate in humidified incubator and rotate at 2 rpm.