

MOFLO ASTRIOS EQ

Key Points for Astrios *EQ*:

1. Small Particle FSC Enhancement Module:

- 2 PMT channels delivers 0.2 um to 30 um resolution capability
- Forward scatter detection support for 6 laser paths
- Minimum triggering threshold reduced to 0.001% to allow more resolution
- Minimum allowable PMT voltages now 100V to extend dynamic range usability
- Seven independent application-ready FSC Masks enhance scatter population resolution
- ABS ND filter set. 0.3, 0.6, 1.0, 1.3, 2.0
- Fluidic and air filtration enhancements:
 - Sheath filter 0.04 um particles
 - Air filter 0.01um particles

2. Six-way sort purity > 99 % Purity:

- Using any IntelliSort supported nozzle
- At event rates up to 70,000 eps (70 um nozzle at 60 psi, using a Purify sort mode and a starting population at 1 % positive events)

3. Integrated Bio Safety Hood: Baker SterilGARD II BSL2 Cabinet

- Engages a 3-stage interlock function within 10-sec of detection of Biocontainment failure to:
- prevent or stop sorting processes
- prevent or stop sample flow processes
- prevent or stop sheath flow processes

4. Summit v6.2 Software Evolves Even Further:

- Support for multiple forward scatter parameters in Summit and FCS file format
- Forward scatter channels are named based upon their fixed position in a new FSC mini-POD



5. Filters and Fluorochromes, Summit v6.2 Software Control:

- The **Astrios** filter configuration, which includes placement of filters, dichroics, mirrors, etc., is significant in that it serves as experiment documentation and enables the operator to restore the instrument to a configuration used in a previous experiment.
- This release improves user maintenance of filters and adds support for the new forward-scatter "mini-POD."
- **Permit users to define custom filters:** Users can employ custom-defined filters on the Astrios instrument. Custom-defined filters integrate for display on the **Astrios** touch-panel, QC criteria and execution, as well as other features associated with company-provided filters.
- Permit users to specify filters within (FSC) Mini-POD: Users can now view a "mini-POD" that contains up to two forward scatter, where the user can configure filters independently before each detector.
- Astrios EQ release intends to support only Forward Scatter (FSC) parameters on the mini-POD for this release (not forward fluorescence).
- Side-Scatter parameter (SSC) is movable by the user and exchanged for a fluorescence (FL) parameter.
- Filter editing on the **Astrios** touch-panel allows the Side-Scatter (SSC) parameter to be re-located, but only accommodates for a single SSC parameter for each POD.
- The QC criteria and run-results are now displayed on the "POD-display" on the **Astrios** touch-panel.
- Filter configurations can be extracted from or applied to an instrument: Summit now automatically stores the filter configuration in the FCS file. This can be retrieved and applied to any Astrios instrument. Summit can also restore the instrument's default configuration.
- Filter configurations can be printed: Summit can display and print the filter configuration as part of the Run Report, both of which are available when connected to an instrument or can be later extracted from an FCS file.
- Permit Users to Specify Optical Masks within (FSC) Mini-POD: An "optical mask" is positioned before each detector in the (FSC) Mini-Pod, which is configurable by the user to various factory-provided masks. These enable user configuration to make detectors more sensitive to smaller, or larger particles, consistent with the optical behavior of the various factory-provided masks (2S, 2M and 3P masks).

6. Auto-QC Evolution:

- · Improved accuracy and speed of auto laser-delay.
- Laser delay instructions now remind user to adjust laser output.
- QC no longer forces triggering off FSC. Auto- QC and Laser Delay will use the current trigger channel, including a SSC.
- For the FSC channels with PMTs, auto QC will adjust their voltage and compare their CVs against limits.
- The QC pass/fail indicator (check-mark/X) is now displayed on the POD widgets.
- The QC panel help now includes troubleshooting hints, which address common QC failure patterns and how to adjust the instrument to overcome them.

7. Windows 7 Professional on Client Workstation

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