



## The AccuSizer A7000 SIS for USP <788> Particulate Matter Injections Testing

The new PSS AccuSizer A7000 SIS system is the most advanced instrument available for USP <788> testing. It meets or exceeds all requirements in USP <788> by providing size and count data at the required 10 & 25  $\mu\text{m}$  and easily passes all system standardization tests described in USP <1788>. The unique technology designed into the A7000 SIS provides capabilities not available in any other liquid particle counter due to each component being the highest specification/performance on the market. The A7000 is not just a liquid particle counter; it is a sophisticated particle size analyzer as well.

- Measure size and concentration from 0.5 – 400  $\mu\text{m}$
- Sample conservation after measurement
- 512 size channels defining the complete distribution
- 21 CFR 11 features with security management

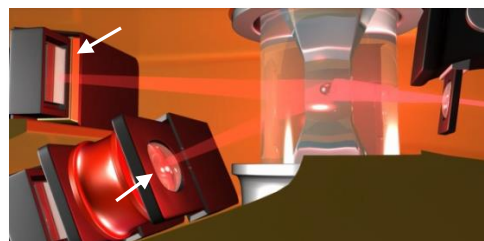
Classical light obscuration sensors familiar to pharmaceutical scientists performing USP<788> testing typically have a lower particle size limit near 2  $\mu\text{m}$ . The LE400 sensor uses two detectors (extinction + scattering) to extend the range to 0.5-400  $\mu\text{m}$ .

A 512 channel pulse height analyzer provides high resolution results so this isn't just a counter – use it as a particle size analyzer on any of your other samples. The AccuSizer software allows conversion from number to volume distribution so results can be compared to other techniques like laser diffraction.

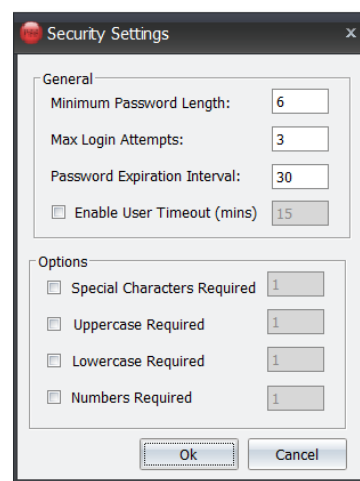
The AccuSizer software is a sophisticated package that automates USP <788> testing including pass/fail criteria and acceptance approval.



AccuSizer 7000 SIS System



LE400 Sensor Principle



Software Security Settings

# ACCUSIZER A7000 SIS

## Technical Specifications\*

<b>Principle</b>	Single particle optical sizing (SPOS) for high resolution particle size and concentration (particles/mL) analysis. Counts and sizes particles individually, not an ensemble method.
<b>Configurations</b>	Includes sensor, counter and syringe sampler system. Syringe volumes of 0.5-25 mL, 512 size channels, conforms to USP <788>
<b>Sensor</b>	LE400-05; 0.5-400 µm when used alone, light extinction and scattering, summation calibration, particle sensitivity to 10 PPT, concentration limit 9000 particles/mL, size accuracy 2%, count accuracy 10%, recommended flow rate = 30 mL/min, but can be calibrated at other flow rates depending on configuration.
<b>Sample</b>	150 µL - 25 mL (or larger with multiple syringe pulls). Sample is recovered after the measurement process
<b>Options</b>	Auto-sampler Magnetic stirrer for Autosampler IQ/OQ documentation for user or complete PSS installation 21CFR Part 11 software
<b>Power</b>	100-120 VAC, 60 Hz or 220-240 VAC, 50 Hz

### Screen captures from the USP <788> software features

Physical Properties - USP 788	
Volume per container (mL)	1.0
Number of containers	25

Sample	Run Date/Time	Containers (#)	Container Volume (mL)	Sample Volume (mL)	≥ 10 µm (#)	≥ 10 µm (#/Container)	≥ 25 µm (#)	≥ 25 µm (#/Container)
USP Test SVP Preservation Activated Rep. 2	12/12/2016 18:09	25	1.0	5.0	2	0	0	0
USP Test SVP Preservation Activated Rep. 3	12/12/2016 18:10	25	1.0	5.0	7	1	1	0
USP Test SVP Preservation Activated Rep. 4	12/12/2016 18:11	25	1.0	5.0	2	0	0	0

≥ 10 µm Mean (#)	≥ 10 µm Mean (#/Container)	≥ 25 µm Mean (#)	≥ 25 µm Mean (#/Container)
4	0	0	0

TEST Criteria	RESULT
(Mean #/Container ≥ 10 µm) ≤ 6000 /Container AND (Mean #/Container ≥ 25 µm) ≤ 600 /Container (PASS)	PASS

General	
Measurement volume	5 mL
Syringe Flow Rate	30 mL/min
Size threshold	0.5 µm
Sample run time	10 sec
Replicates	4
Tare volume	1 mL
Air gap volume	1 mL
Delay between replicates	0 sec
<input type="checkbox"/> Perform flush before each replicate <input checked="" type="checkbox"/> Preserve sample	
<input type="checkbox"/> Pull tare volume before each replicate <input type="checkbox"/> Pull/Push mixing before each replicate	
Cycles	0
Volume	0 mL
Flow Rate	30 mL/min
Sensor Mode	
<input type="radio"/> Extinction <input checked="" type="radio"/> Summation	
Background mode	Concentration
Background measurement	500 counts/mL
Stirrer	
Speed	50 %
Delay sampling until stirrer has run for:	0 seconds

\*Sample dependent and may require hardware options, subject to change without notice

Particle Sizing Systems

Building solutions one particle at a time.

