

## PC-2300 LASER PARTICLE COUNTER



### Calibration:

Spectrex provides three sealed calibration standards with each unit. Each standard contains a precise number of NIST traceable polystyrene spheres of known size in suspension and are sealed with inert Argon gas. These standards have a proven stability of more than 2 years and provide efficient calibration within 10 minutes.

### Applications:

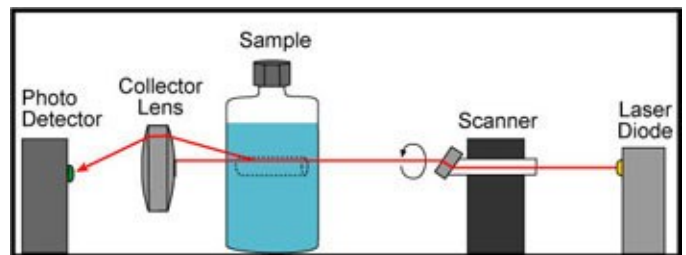
- Field Hydrology
- Water Treatment Plants
- Hydraulic Fluids and Oil QC
- Silts and Sediment Sizing
- University Laboratories
- Pharmaceutical Manufacturers
- Oil Refineries and On-site drilling
- Bottling & Beverage Operations
- Oceanographic Studies
- Liquid Chromatography Solvent QC
- Cooling Power and Waste Water Filter Efficiency
- Particle Agglomeration Studies
- Particle Settling Characteristics
- Corrosive Chemical and Solvent Sizing
- Vial and Ampule Inspection
- De-ionized Water and Acid Testing
- Cell Counting

### Features:

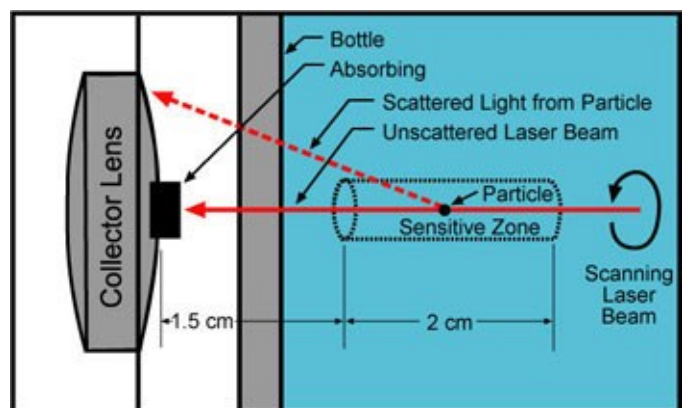
- Complete Portability. Use it Anywhere!
- Easy Do-It-Yourself Calibration (sealed standards provided)
- Compact and Rugged (floats)
- Quickly Counts & Sizes (16 seconds min.)
- Custom Easy-to-Use Software
- Eliminates Sample Flushing
- Built in magnetic stirrer

### Operational Theory:

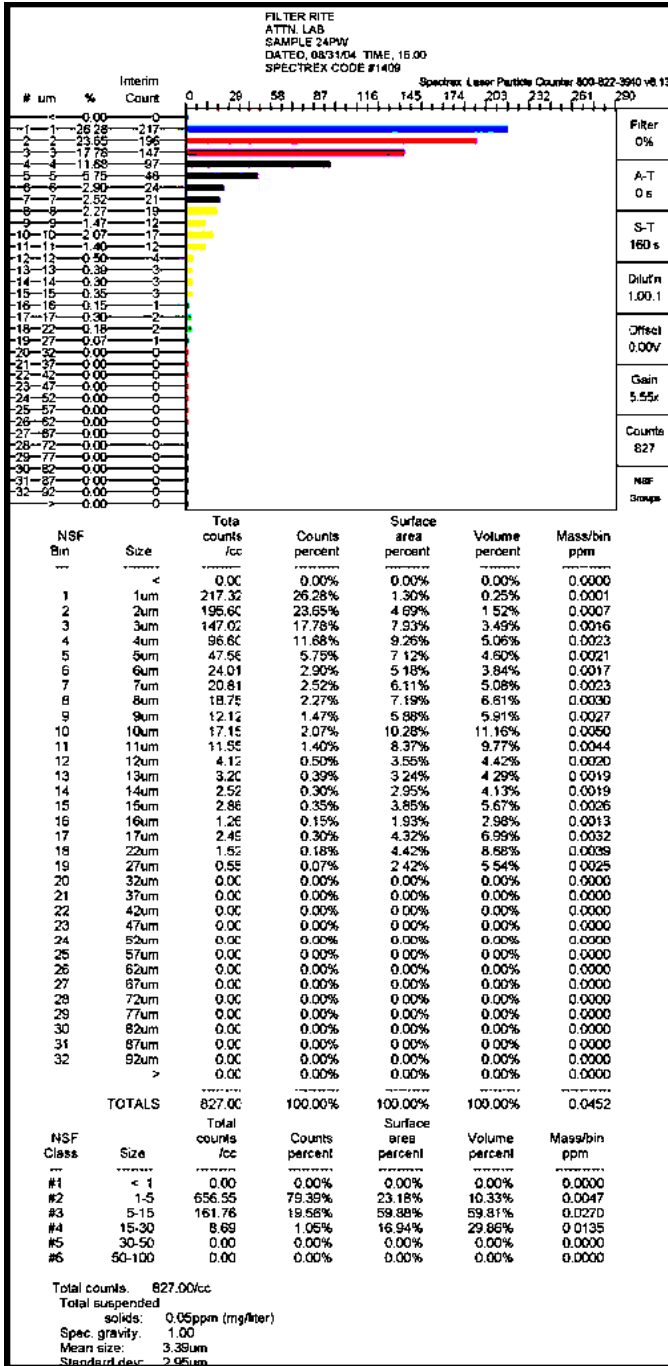
Utilizing the principle of “near angle light scatter,” a revolving laser beam passes through the walls of a glass container or a flow-thru cell. When it is directed through a central “sensitive zone” the PC-2300 not only counts the particles in suspension, but tabulates their size as well. The analog signals generated by the light pulses are routed to a computer and digitized.



Optical Schematic of the Laser Particle Counter



Detail of Laser Optics



Sample Print-out

## SuperCount® Software:

Developed by Spectrex, the custom interfacing electronics and proprietary software provide an easy means of analyzing and saving data generated by the PC-2300. SuperCount® provides instant sizing information and generates a printout with count information and a histogram of size distribution in addition to indicating:

- Absolute Counts
- Mean Size
- Mass Distribution
- Percentage Distribution
- Standard Deviation
- Total Suspended Solids

The dilution factor can be automatically computed to give absolute counts for liquids as dense as sludge! SuperCount® also is loaded with a special bonus program for hydraulic fluids and Phi classifications.

\* NAS, SAE, and ISO classifications.

## Options:

- **Opacity Meter** - provides an instantaneous measurement of the sample's opacity to correlate with computer calculations.
- **Small Vial Attachment** - follows for use of 5ml vials or ampoules.
- **Flow-Thru-Cell** - Spectrex stocks various sizes of flow-thru-cells and can manufacture cells to customer specifications. Cells are also available for testing at high pressure and temperatures.
- **Datacom** - a 21 CFR 11 compliant product for pharmaceutical and other applications that require secure liquid particle data logging. (See our website for more information)

## Specifications:

**Size :** 9.5" x 14.5" x 6"

**Typical Bottle Size:** 15-60 mm inside diameter

**Detectable Particle Size:** From 0.5µm - 100µm.

**Weight:** 15 lbs

**Bottle Material:** Transparent, scratch-free glass

**Power:** 115v 60Hz AC, 12v car jack or internal battery (battery runtime is 5 hours)