KANOMAX FMT

A Kanomax Company

NANOPARTICLE MEASUREMENT SOLUTIONS

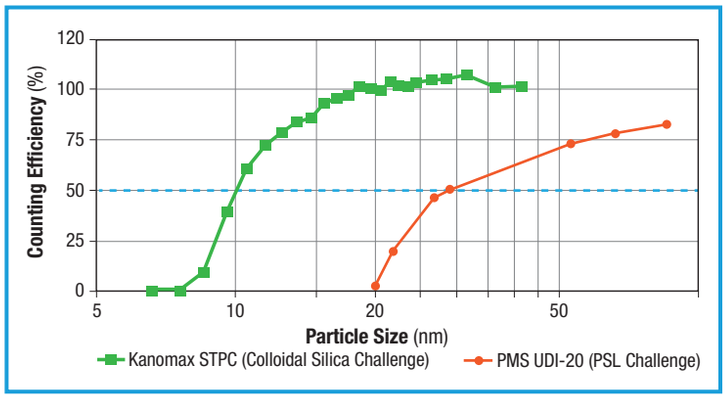
Scanning Threshold Particle Counter (STPC)

Model 9010

Monitor UPW System Health and Stability

- 50% detection efficiency at 10 nm
- Real-time, on-line nano particle monitor
- Counts particles of any shape, any refractive index, any composition
- Great for monitoring organics, colloidal silica, resin beds, and other yield killers in UPW that traditional OPC's miss

Counting Efficiency Comparison

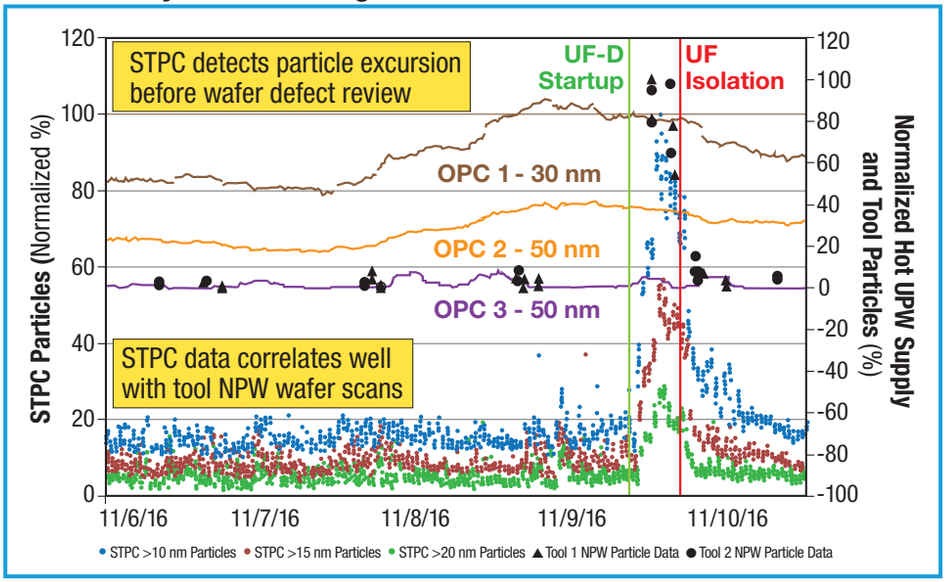


PMS data from the PMS Publication "Monitoring of ultrapure water (UPW) systems using the Ultra DI® 20 Liquid Particle Counter, Rev 5, 06.16.2015"

Industry Recognition

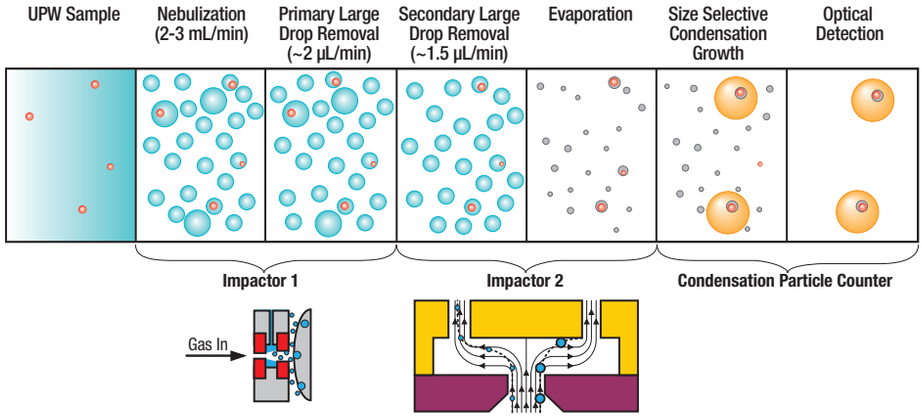
- The STPC is used for compliance with SEMI C79 "Guide to Evaluate the Efficacy of Sub-15 nm Filters used in Ultrapure Water (UPW) Distribution Systems."
- The STPC is used for compliance with the SEMI C93 "Guide for Determining the Quality of Ion Exchanged Resin used in Polish Applications of Ultrapure Water (UPW) Systems."

Online UPW System Monitoring

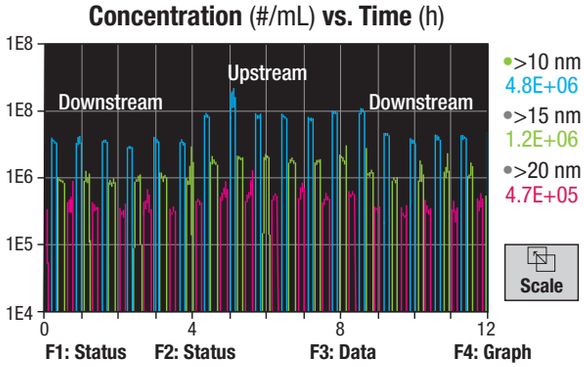


Lee et. all, UPW Micro 2017 Conference, Portland, OR.

Principle of Operation



Real-time Data Display



Patent Protected

- Patent numbers 8,272,253 and 8,573,034 have been issued to CTA and licensed by Kanomax FMT.
- Kanomax has applied for additional domestic and international patents for technology contained within the ScanningTPC.
- Patent number 7,852,465 has been issued to Kanomax FMT.

The STPC was developed in collaboration with CT Associates, Inc.

Specifications

Measurement range: 1E3 to 1E10 particles/mL
Inspection volume rate: 1-5 µL/min
Threshold sizes: 10-20 nm user selectable in 5 nm increments (50% detection efficiency)
Number of size channels: 1-3 (user configurable)
Dead time between channel adjustment: 2-5 minutes
Total flow rate: 50-280 mL/min
Response time to concentration change: <30 seconds
Inlet water pressure (online): 200-500 kPa (30-70 psig)
Compressed air/nitrogen flow rate/pressure: 2.5 std L/min CDA or Nitrogen, 340-410 kPa (50-60 psi) ANSI IS08573-1:2010 Class 2 for compressed air
Maximum UPW nonvolatile residue: 200 ppt at 10 nm threshold, 1 ppb at 20 nm
Wetted surface materials before nebulization: PFA, PTFE, PEEK, sapphire
Detector working fluid: Reagent-grade n-Butyl alcohol
Working fluid consumption rate: Approximately 150 mL/day (bottle lasts for one week)
Ambient temperature range: 15-35°C (59-95°F)
Ambient relative humidity range: 0-85% non condensing
Maximum water temperature: 50°C (122°F)
Dimensions (W × D × H): 42 × 43 × 27 (43 with bottle) cms, 16.7 × 16.8 × 10.5 (16.8 with bottle) inches
Weight: 16.1 Kg (35.5 lbs)
Power (Nebulizer): Universal 100-240 VAC, 50/60 Hz, 90 W max
Power (CPC): Universal 100-240 VAC, 50/60 Hz, 210 W max
Output: RJ-45 for Modbus, USB FlashDrive
Internal storage: Micro SD
Ultrapure water inlet: ¼ inch PFA Flaretek®
Waste outlet: ¼ inch SS Swagelok®
Compressed air inlet: ¼ inch SS Swagelok®
Detector vacuum: ¼ inch SS Swagelok® Port
Display: 7 inch TFT Color, touch panel
Shipping drain: Colder brand quick disconnect

Specifications subject to change without notice.

Kanomax FMT and the Kanomax Group have unique aerosol expertise and can deliver powerful solutions to your nanoparticle measurement challenges. Let's get started - connect with us today!

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