

CHEMFREE WATER SYSTEMS ELECTROSTATIC FILTER PARTICLE ANALYSIS REPORT

Tests completed by Particle Measurement Technology Co., Ventura, CA
Lab Project #94367

Test was performed in a pharmaceutical facility on a process 800-ton chiller/cooling tower system
with a 3,000 gallon capacity

PARTICLE COUNTS PER 100mL TEST PORTION

	Before Chemfree Filter Installation (07-25-2001)	After Chemfree Electrostatic Filter (08-29-2001)
Micron		
1 - 3	1,309,584	159,706
3 - 5	101,488	25,626
5 - 10	63,808	13,422
10 -15	11,952	1,992
15 -25	13,056	2,182
Over 25	22,720	1,306
TOTAL 100/mL	1,522,608	204,234

TEST METHOD: Samples analyzed by electro-optical particle analyzer employing the light scattering principle of operation in a dilute ratio 1:15 with filtered water and particle data corrected

SOLIDS PER 100 LITERS OF SYSTEM VOLUME (mm3)

	Before Chemfree Filter Installation (07-25-2001)	After Chemfree Filter Installation (08-29-2001)
Micron		
1 - 5	17	3
5 - 10	27	6
Over 10	15,327	893
TOTAL/100 Liters	15,371 154 ppm	901 9 ppm

TEST METHOD: Samples analyzed by electro-optical particle analyzer employing the light scattering principle of operation in a dilute ratio 1:1 with filtered water and particle data corrected

NOTE: Typical sand filter size for this application would use 300 gallon per backwash.
Chemfree filter backwash water used: 0