



Ace Lab Systems
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Biological Safety Cabinet
Test Report : 9-140115-3

Work Order #: 109500

Ace ID#
R1217
 8134
 Next Test Due
Jan 2015

Institution: <u>Datarecovery.com</u>	Service Representative: <u>BROOKS, DARRYL</u>
Department: <u>N/A</u>	Date Tested: <u>01-15-14</u>
Address: <u>110 North Research Dr.</u>	Instrument Manufacturer: <u>Enviroco</u>
City, State, ZIP: <u>Edwardsville IL 62025</u>	Model: <u>111-Z04-UL</u>
Contact: <u>Laura Hunter</u>	Serial #: <u>S09-120V-00790</u>
Phone Number: <u>(800) 237-4200</u>	Location: _____

This unit meets the requirements of the following standards of specifications as of this date. Testing was performed in accordance with the criteria established by the National Sanitation Foundation, Standard Number 49 and/or Federal Standard 209E.

Tests Conducted

- | | |
|---|---|
| <input checked="" type="checkbox"/> Particle Count | <input checked="" type="checkbox"/> Electrical Safety |
| <input checked="" type="checkbox"/> HEPA Filter Leak Test | <input type="checkbox"/> Decontamination |
| <input type="checkbox"/> Velocity Profile and Volume | <input type="checkbox"/> Federal Standard 209E |
| <input checked="" type="checkbox"/> Face Velocity | <input type="checkbox"/> NSF No. 49 |
| <input type="checkbox"/> Airflow Smoke Patterns | <input checked="" type="checkbox"/> Manufacturer Specifications |
| <input checked="" type="checkbox"/> Lighting Intensity | |
| <input type="checkbox"/> Other _____ | |

Final Testing Results

- Unit Certified Unit Not Certified
- Remarks: FINAL TEST SATISFACTORY

Mag Gauge Reading: *WORK AREA meet CLASS 5 PER ISO 14644-1

N/A

+	+	+	+	+	+	+	+	+	+	93	90	95	83	90	116
+	+	+	+	+	+	+	+	+	+	78	84	88	90	92	99
+	+	+	+	+	+	+	+	+	+	84	81	86	87	92	87
+	+	+	+	+	+	+	+	+	+						
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Rear: / /
 Center: N/A N/A
 Front: / /

+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
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Sash Opening: N/A

Supply

Average Downflow Velocity: 90 Feet Per Minute 80-120 Range

Average Exhaust Velocity: N/A Feet Per Minute N/A Range
 Effective Filter Area: N/A Square Feet
 Exhaust Air Volume: N/A Cubic Feet Per Minute N/A Range

Smoke Airflow Patterns

This test insures that airflow is inward along the entire perimeter of the work access opening, that airflow within the work area is downward with no dead spots or refluxing, that outside air does not pass on or over the work surface, and there is no refluxing or escape of smoke from the biological safety cabinet.

Inside Cabinet

Meets Specifications

- Centerline of the work surface, 4 inches above the top of the work access opening. Yes No N/A
- One inch behind window, 6 inches above the top of the work access opening. Yes No N/A

Outside Cabinet

- Along the entire Perimeter of the work access opening, 1.5 in. from opening. Yes No N/A

Sash/window seal test

- Smoke shall be passed up the inside of the window 2 in (5cm) from the sides and along the top of the work area. Yes No N/A

Work Access Opening Airflow

Area of Access Opening: / Square Feet
 Calculated Velocity: N/A Feet Per Minute N/A Range
 Measured Velocity: / Feet Per Minute

HEPA Filter Leak Test

- No leaks above 0.01% Leaks Found Leaks Repaired
 Acceptance: Aerosol penetration shall not exceed 0.01%

Lighting Intensity

Visible Lighting Intensity: 33 Foot Candles at work Surface
 U.V. Lighting Intensity: N/A uW/cm sq. at work surface

Electrical Safety

- Pass Fail

Equipment Used

	Make and Model	Serial #	Cal Dat
Aerosol Photometer:	<u>TDA-25C</u>	<u>9623</u>	<u>03-13</u>
Air Velocity Meter:	<u>TE16346</u>	<u>97110212</u>	<u>11-13</u>
Particle Counter:	<u>A2400</u>	<u>000100515</u>	<u>09-13</u>

Darryl Brooks
 Field Service Engineer

Particle Counts

Customer DATA RECOVERY.COM
Manufacturer ENVIRO
Model 111-204-UL
Serial Number 509-120V-00790
Location _____

FEDERAL STANDARD 209E STATISTICS
AVERAGE PARTICLES / CUBIC FOOT

LOCATION 001, 13:58:16 JAN 15,14
CYCLES = 001, VOL = 1.000 CU FT
SIZE CUMULATIVE DIFFERENTIAL
0.3u 23.0 18.0
0.5u 5.0 4.0
1.0u 1.0 1.0
5.0u 0.0 0.0

LOCATION 002, 13:59:27 JAN 15,14
CYCLES = 001, VOL = 1.000 CU FT
SIZE CUMULATIVE DIFFERENTIAL
0.3u 32.0 29.0
0.5u 3.0 3.0
1.0u 0.0 0.0
5.0u 0.0 0.0

LOCATION 003, 14:00:36 JAN 15,14
CYCLES = 001, VOL = 1.000 CU FT
SIZE CUMULATIVE DIFFERENTIAL
0.3u 36.0 33.0
0.5u 3.0 3.0
1.0u 0.0 0.0
5.0u 0.0 0.0

LOCATION 004, 14:01:46 JAN 15,14
CYCLES = 001, VOL = 1.000 CU FT
SIZE CUMULATIVE DIFFERENTIAL
0.3u 28.0 28.0
0.5u 0.0 0.0
1.0u 0.0 0.0
5.0u 0.0 0.0

LOCATION 005, 14:02:56 JAN 15,14
CYCLES = 001, VOL = 1.000 CU FT
SIZE CUMULATIVE DIFFERENTIAL
0.3u 34.0 34.0
0.5u 0.0 0.0
1.0u 0.0 0.0
5.0u 0.0 0.0

MEAN OF THE AVERAGES

SIZE CUMULATIVE DIFFERENTIAL
0.3u 30.6 28.4
0.5u 2.2 2.0
1.0u 0.2 0.2
5.0u 0.0 0.0

SIZE STD DEV STD ERR 95% LCL
0.3u 5.2 2.3 35.5
0.5u 2.2 1.0 4.3
1.0u 0.4 0.2 0.6
5.0u 0.0 0.0 0.0