

## Cleanroom Commissioning Report

In accordance with

BS EN ISO 14644-2:2000 to prove continued compliance with ISO 14644-1:1999

Date of Validation: 28<sup>th</sup> April 2016

Customer's Name: The E-Juice Factory T/A LiquidRage

Address: Unit 18, Enterprise Park Brunel Road  
Leominster Herefordshire  
HR6 0LX

Status Of Room During Test:	As built
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Highest Particle Count:

Particle Count Test Result		Sample Size	$m^3$	
Particle Size	Count per $m^3$		Passed	Failed
0.3 micron	45,800		✓	
0.5 micron	5,760		✓	
1.0 micron	4,810		✓	
3.0 micron	2,400		✓	
5.0 micron	1,450		✓	
10.0 micron	495		✓	

Considered Particle Size - 0.5, 1.0 and 5.0

ISO Grade Achieved – ISO 7 Achieved

Validation carried out by: Jack Evett

Signed:



Date: 17/05/2016

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## Particle Counts

Particle Count Test Result (Pos. 1) Sample Size $m^3$			
Particle Size	Count per $m^3$	Passed	Failed
0.3 micron	45,800	✓	
0.5 micron	5,940	✓	
1.0 micron	4,810	✓	
3.0 micron	2,260	✓	
5.0 micron	1,170	✓	
10.0 micron	283	✓	

Particle Count Test Result (Pos. 2) Sample Size $m^3$			
Particle Size	Count per $m^3$	Passed	Failed
0.3 micron	48,100	✓	
0.5 micron	5,760	✓	
1.0 micron	4,730	✓	
3.0 micron	2,400	✓	
5.0 micron	1,450	✓	
10.0 micron	495	✓	

Particle Count Test Result (Pos. 3) Sample Size $m^3$			
Particle Size	Count per $m^3$	Passed	Failed
0.3 micron	8,020	✓	
0.5 micron	1,060	✓	
1.0 micron	707	✓	
3.0 micron	247	✓	
5.0 micron	177	✓	
10.0 micron	35	✓	

Particle Count Test Result (Pos. 4) Sample Size $m^3$			
Particle Size	Count per $m^3$	Passed	Failed
0.3 micron	7,560	✓	
0.5 micron	919	✓	
1.0 micron	389	✓	
3.0 micron	177	✓	
5.0 micron	141	✓	
10.0 micron	35	✓	

Particle Count Test Result (Pos. 5) Sample Size $m^3$			
Particle Size	Count per $m^3$	Passed	Failed
0.3 micron			
0.5 micron			
1.0 micron			
3.0 micron			
5.0 micron			
10.0 micron			

Particle Count Test Result (Pos. 6) Sample Size $m^3$			
Particle Size	Count per $m^3$	Passed	Failed
0.3 micron			
0.5 micron			
1.0 micron			
3.0 micron			
5.0 micron			
10.0 micron			

Particle Count Test Result (Pos. 7) Sample Size $m^3$			
Particle Size	Count per $m^3$	Passed	Failed
0.3 micron			
0.5 micron			
1.0 micron			
3.0 micron			
5.0 micron			
10.0 micron			

Particle Count Test Result (Pos. 8) Sample Size $m^3$			
Particle Size	Count per $m^3$	Passed	Failed
0.3 micron			
0.5 micron			
1.0 micron			
3.0 micron			
5.0 micron			
10.0 micron			

Particle Count Test Result (Pos. 9) Sample Size $m^3$			
Particle Size	Count per $m^3$	Passed	Failed
0.3 micron			
0.5 micron			
1.0 micron			
3.0 micron			
5.0 micron			
10.0 micron			

Particle Count Test Result (Pos. 10) Sample Size $m^3$			
Particle Size	Count per $m^3$	Passed	Failed
0.3 micron			
0.5 micron			
1.0 micron			
3.0 micron			
5.0 micron			
10.0 micron			

## Airflow Results

<b>Average Airflow Per Filter – m/s (Face Velocity)</b>	m/s 0.53
<b>Filter Area Per Filter - m<sup>2</sup> Length x Width</b>	m <sup>2</sup> 0.79
<b>Air Volume Per Filter - m<sup>3</sup>/hr Filter Area (m<sup>2</sup>) x Average Airflow (m/s) x 3600 (seconds in an hour) = m<sup>3</sup>/hr</b>	m <sup>3</sup> /hr 1,507
<b>Total Airflow Volume - Σ Of All Filters m<sup>3</sup>/hr</b>	Σm <sup>3</sup> /hr 1,507
<b>Room Dimensions And Volume – Vol m<sup>3</sup> Length x Width x Height</b>	mm x mm x mm = m <sup>3</sup> 2.95 x 2.95 x 2.3 = 20
<b>Air Changes Per Hour Total Airflow Vol (m<sup>3</sup>/hr) ÷ Room Vol (m<sup>3</sup>)</b>	m <sup>3</sup> /hr ÷ m <sup>3</sup> = Air changes per hour 75

## Filter Results

	Passed	Failed	Replaced/Calibrated
HEPA Filter Condition 1.	✓		
Pre-Filter Condition 1.	✓		
Filter Seals Condition 1.	✓		
Low Airflow Alarm	✓		
Hours Run Indicated	N/A		hrs

## Pressure Differentials

Cleanroom to Atrium: N/A	Pa
Atrium to Atmosphere: N/A	Pa
NOTES:	N/A

## Test Equipment Used

Make	Model	Serial Number	Calibration Date
Particle Counter	3900	644191	06/05/2015
Anemometer	AV-2	103348	02/12/2015
Photometer	N/A	N/A	N/A
Aerosol Generator	N/A	N/A	N/A