

Electromagnetic Sieve Shaker



EMS-08

8 or 16 Sieve Capacity Particle Size Analyser



Tri-dimensional Sifting Motion

- The instrument produces tri-dimensional movement combining a vertical movement with a rotation of the material to be sifted on the surface of the sieve



Particle size analysis



Programmable sieving duration



Low noise

2

Modes

Modes of Sifting

- Continuous
- Intermittent (helps to clear blocked apertures)



Low Maintenance

- Instrument is powered by an electromagnetic drive which has no rotating parts, making it maintenance free and quiet in operation



Isolation of Vibrations from Work Surface

- Non-metallic springs and anti-vibration mountings are fitted to isolate vibrations from work surfaces and reduce noise levels

QbD

Quality by Design

- The instrument is powered by an electromagnetic drive which has no rotating parts, making it maintenance free and extremely quiet in operation
- Programmable shake time from 1 min to 99 mins
- The vibratory action produced by the power unit moves the sample all over the sieve in a unique way producing faster and more efficient sieving
- Amplitude level of 0.5 mm to 2.00 mm
- 16 x 2 character alphanumeric display
- Intermittent and continuous shifting motion with 15 programmable levels of amplitude
- The top plate of the sieve shaker has clearly marked calibrated lines to aid visual inspection of the amplitude
- The instrument is fitted with a special clamping device that ensures that the sieves are held firmly and allows them to be quickly removed and replaced
- Suitable for dry and wet sieving



Electromagnetic Sieve Shaker



Capacity
(200 mm dia)

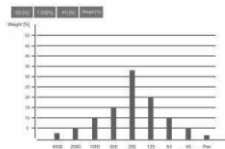
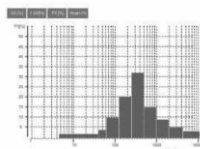


Capacity
(100 mm dia)



User friendly

SieveEasy™ Particle Size Analyzer Software



Advantages of our sieves



ISO Certificate

Raw Data Readings

Aperture Sizes (mm)

Sr No.	X	Y	Sr No.	X	Y	Sr No.	X	Y
1)	0.505	0.504	41)	0.496	0.506	81)		
2)	0.5	0.504	42)	0.51	0.511	82)		
3)	0.5	0.504	43)	0.503	0.497	83)		
4)	0.498	0.504	44)	0.502	0.498	84)		
5)	0.503	0.506	45)	0.496	0.5	85)		
6)	0.494	0.504	46)	0.498	0.498	86)		
7)	0.499	0.505	47)	0.491	0.509	87)		
8)	0.502	0.507	48)	0.499	0.5	88)		
9)	0.492	0.493	49)	0.499	0.502	89)		
10)	0.498	0.503	50)	0.496	0.505	90)		
11)	0.498	0.502	51)	0.496	0.511	91)		
12)	0.497	0.505	52)	0.494	0.511	92)		
13)	0.503	0.494	53)	0.486	0.508	93)		
14)	0.498	0.496	54)	0.498	0.512	94)		
15)	0.499	0.495	55)	0.5	0.504	95)		
16)	0.498	0.495	56)	0.493	0.507	96)		
17)	0.504	0.507	57)	0.504	0.507	97)		
18)	0.499	0.493	58)	0.496	0.51	98)		
19)	0.502	0.505	59)	0.5	0.5	99)		
20)	0.498	0.509	60)	0.494	0.505	100)		
21)	0.493	0.508	61)					
22)	0.5	0.506	62)					
23)	0.495	0.505	63)					
24)	0.501	0.503	64)					
25)	0.49	0.504	65)					
26)	0.494	0.509	66)					
27)	0.494	0.505	67)					
28)	0.499	0.512	68)					
29)	0.503	0.506	69)					
30)	0.498	0.504	70)					
31)	0.497	0.505	71)					
32)	0.5	0.51	72)					
33)	0.496	0.503	73)					
34)	0.502	0.503	74)					
35)	0.498	0.507	75)					
36)	0.504	0.508	76)					
37)	0.492	0.512	77)					
38)	0.496	0.512	78)					
39)	0.501	0.493	79)					
40)	0.505	0.511	80)					

Summary Statistics

(in millimeter)	X	Y
Mean Wire Diameter:	0.315	0.311
Standard Deviation:	0.001	0.002
Minimum Wire Diameter:	0.314	0.308
Maximum Wire Diameter:	0.317	0.313

1 / 1

Wire Diameter (mm)

Sr No.	X	Y	Supervisor:	AJIT K.
1)	0.314	0.31		
2)	0.317	0.311	Signature/Date	02/06/2023
3)	0.314	0.308		
4)	0.315	0.312		
5)	0.314	0.311		
6)	0.315	0.31		
7)	0.317	0.313		
8)	0.316	0.312		
9)	0.315	0.313		
10)	0.316	0.31		

This Sieve CONFORMS with
the ISO 3310-1:2016(E)
Measurement System
Specifications

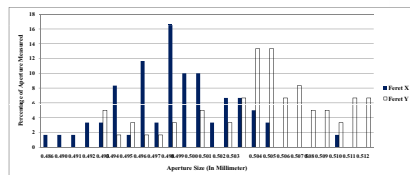
Date: 02/06/2023

ISO Certificate (Optional)

Inspection Sieve Certificate
Wire Cloth Size Verification Report

Report Number:	230949	06022023	Specification Data From ISO 3310-1:2016(E)
Customer:	Zyklus Lifesciences Limited - Morarja.		
Selected Sieve Number:	230949	Nominal aperture	500 µm
Calibration Date:	02/06/2023	Average aperture Variation	+/- 16.2 µm
Technician:	AJT K.	Max Standard Deviation	+30.0 µm
Apertures Measured:	40	Maximum Tolerance	580.5 µm
Wire Diameters Measured:	10	Typical Wire Diameter	0.315 mm
		Wire Diameter Tolerance	0.270 - 0.360 mm

Statistics and Specification	X	Y	Pass/Fail Status of Measured Apertures	X	Y
Average Aperture Size(mm)	0.498	0.504	1. Does the average aperture size pass test?	PASS	PASS
Standard Deviation(mm)	0.004	0.005	2. Does the sample pass the maximum Permissible error test?	PASS	PASS
Minimum Aperture Size(mm)	0.485	0.483	3. Does the sample pass the max. Standard Deviation test?	PASS	PASS
Maximum Aperture Size(mm)	0.510	0.512	4. Does the sample pass the Wire Diameter test?	PASS	PASS



Measurement System Calibration and Traceability Statement

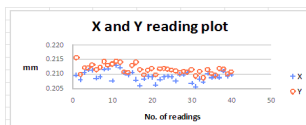
This sieve/cloth has been inspected for compliance with all applicable specification using an NMM per the ISO 3310-1:2016(E) standard specification for Wire Cloth and sieves for Testing purpose.
Standard Used : Stage Micrometer. Cert No. TIA/GS/001/22.

Inspection Sieve Certificate (Standard)

Inspection Sieve Certificate
Wire Cloth Size Verification Report

Report Number	200596	05062020	212 mm
Relative Humidity 50 ± 10%	Temperature 20 ± 2°C	Nominal Opening	
Date	May 06, 2020	ASTM No.	70
Selected Sieve Number	200596	Average Opening Variation	+/- 7.8 um
Frame, Mesh Material	S.S. 316	Max Standard Deviation	+ 16.5 um
Sieve Diameter	100 mm	Maximum Tolerance	259.1 um
Openings Measured	40	Typical Wire Diameter	0.140 mm
Wire Diameters Measured	10	Wire Diameter Tolerance	0.120 - 0.170 mm

Table: X Readings				Table: Y Readings				Summary Statistics (mm)			
Value	Frequency	%		Value	Frequency	%		Sr No.	X	Y	
0.203 - 0.204	0.000	0.000		0.203 - 0.204	0.000	0.000		1)	0.141	0.144	
0.205 - 0.206	3.000	7.500		0.205 - 0.206	0.000	0.000		2)	0.140	0.143	
0.207 - 0.208	8.000	20.000		0.207 - 0.208	0.000	0.000		3)	0.142	0.144	
0.209 - 0.210	18.000	45.000		0.209 - 0.210	9.000	22.500		4)	0.144	0.143	
0.211 - 0.212	9.000	22.500		0.211 - 0.212	22.000	55.000		5)	0.142	0.144	
0.213 - 0.214	1.000	2.500		0.213 - 0.214	8.000	20.000					
0.215 - 0.216	0.000	0.000		0.215 - 0.216	1.000	2.500					
0.217 - 0.218	0.000	0.000		0.217 - 0.218	0.000	0.000					
0.219 - 0.221	0.000	0.000		0.219 - 0.221	0.000	0.000					
TOTAL	40.000	100.000		TOTAL	40.000	100.000					



This Sieve CONFORMS with Electrolab India Pvt Ltd Measurement System Specifications

We confirm that measuring device used are calibrated.
Measurement Device : NMM
Standard Used : Stage Micrometer. Cert No. TIA/GS/019/19
certificate electronically generated. Also valid without signature.

Technician - AJIT K

Standard accessories



Locking Arm (Horizontal)
for 200mm Dia Test Sieves
Part no - 0501A00002



Locking Arm (Horizontal)
for 100mm Dia Test Sieves
Part no - 0501A00071



Vertical Rod (Set of 2)
Part no - 0501A00065

Optional accessories



Backlight knob to fit
locking arm (set of 2)
Part no - 0501A00001



Lid & receiver for 200 mm
dia test sieves
Part no - 0501A00004



Lid & receiver for 100 mm
dia test sieves
Part no - 0501A00005



Wet sieve attachment
for 200mm Dia
Part no - 0501A00006



Cares and Maintenance

- Clean sieves by sonicating them in water or a special detergent (Eg. deconex[®] 12 basic) to ensure accurate and reproducible sieving results
- It is advised not to run the machine without proper locking and tightening both the locking knobs, this may result in an abnormal sound and can damage the machine

Specifications

Model	EMS - 8	
	230 Volts	110 Volts
Product code	M.S. : 520100 S.S. : 540100	M.S. : 510100 S.S. : 530100
Dry sieving	Standard	
Mode of operation	Continuous and intermittent	
Intermittent operation	At intervals (0.5 sec)	
Capacity	Up to 8 sieves of 200 mm dia x 50 mm h Up to 16 sieves of 100 mm dia x 25 mm h	
Shake time	Programmable from 1 min to 99 min	
Amplitude level	0.5 mm to 2.00 mm	
Display	16 x 2 character LCD	
Power level	Programmable (from 5 to 20)	
Noise level	<61 dB without sieves at maximum amplitude <71 dB with sieves and material at maximum amplitude	
Power	220/230V AC, 50 Hz, 600 VA	
Dimensions (W x H x D)	312 mm x 339 mm x 270 mm	
Weight	50 Kgs (without sieves)	

Test Sieve Sizes 200 mm dia x 50 mm h and 100 mm dia x 25 mm h		
ISO Nominal Aperture Supplementary		
Sizes R40/3	ASTM E11-01	B. S.S. E11-01
4.00 mm	No. 4	-
3.35 mm	No. 6	No. 5
2.80 mm	No. 7	No. 6
2.36 mm	No. 8	No. 7
2.00 mm	No. 10	No. 8
1.70 mm	No. 12	No. 10
1.40 mm	No. 14	No. 12
1.18 mm	No. 16	No. 14
1.00 mm	No. 18	No. 16
850 µm	No. 20	No. 18
710 µm	No. 25	No. 22
600 µm	No. 30	No. 25
500 µm	No. 35	No. 30
425 µm	No. 40	No. 36
355 µm	No. 45	No. 44
300 µm	No. 50	No. 52
250 µm	No. 60	No. 60
212 µm	No. 70	No. 72
180 µm	No. 80	No. 85
150 µm	No. 100	No. 100
125 µm	No. 120	No. 120
106 µm	No. 140	No. 150
90 µm	No. 170	No. 170
75 µm	No. 200	No. 200
63 µm	No. 230	No. 240
53 µm	No. 270	No. 300
45 µm	No. 325	No. 350
38 µm	-	-

ELECTROLAB

Our Products

- Complete range of Dissolution Testers • Dissolution Media Preparator • Friability Testers • Tablet Hardness Testers
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The information contained in this document is believed to be correct but ELECTROLAB accepts no liability for any errors and reserves the right to alter specifications without notice November, 2019

ELECTROLAB (India) PVT. LTD. (CIN NO : U33110MH2002PTC136735)

Head Office: 401, Tirupati Udyog, I. B. Patel Road, Off. Western Express Highway, Goregaon (East), Mumbai - 400 063, India.

+91 - 22 - 4041 3131 sales@electrolabgroup.com

Factory: EL 23/24, T. T. C., Electronic Zone, M. I. D. C, Mahape, Navi Mumbai - 400 710, India.

+91 - 22 - 4161 3122 www.electrolabgroup.com

