



COFFEE PRO PROFESSIONAL SIEVE ANALYSIS KIT FOR COFFEE GRIND ANALYSIS AND BEAN GRADING

The new Coffee Pro Portable Sieve Analysis Kit includes the worlds first truly portable laboratory grade sieve shaker, designed for use in the field. Equipped with a full set of Endecotts Certified Brass Grind Analysis Sieves in ASTM Designations #12, #16, #20, #30, #40, #50, along with receiving pan, lid, and 500 gram pocket balance, all neatly packed in a hard plastic carrying case.



INSPECTION GRADE
CERTIFIED WIRE MESH
SIEVES FURNISHED WITH
INSPECTION CERTIFICATES.

PERFORATED PLATE
COFFEE BEAN GRADING
SIEVES AVAILABLE



PORTABLE SIEVE
ANALYSIS KIT

FEATURES

MAINTENANCE FREE

ELECTROMAGNETIC VIBRATION

ANTIVIBRATION FEET

0-60 MINUTE TIMER

VARIABLE AMPLITUDE

SIMPLE CLAMPING SYSTEM

ACCOMODATES (6) 100 mm
HALF HEIGHT SIEVES
OR (3) 100 mm FULL HEIGHT
SIEVES

PORTABLE



500 GRAM MINIATURE
BALANCE
COMPLETE WITH
CALIBRATION WEIGHT



NYLON &
BRASS SIEVE
BRUSHES

SPECIFICATIONS

DIMENSIONS

M100 Shaker
26cm x 16 cm x 32cm

CASE
19" x 17" x 8"

PACKED WEIGHT
25 lbs

POWER SUPPLY
230 V 50 HZ
115 V 60 HZ

The grind distribution chart below (Fig 1.) shows the optimal percentage of grinds to be retained on each of the sieves listed, for each of the brew types, according to research done by the coffee brewing institute, and later revised by MPE in Chicago.

Other studies suggest, especially where disc grinders are employed, it is important to ensure that the fines (Amount passing the # 50 sieve) do not exceed 20 percent, because amounts over that, have been found to produce a bitter taste.

Whatever the case, the particle size distribution of the finished ground coffee will have a significant bearing on the taste, because as the grind size is reduced, the relative surface area of the grinds is increased. Smaller grinds require less contact time with water to achieve optimal extractions. This is why Espresso has such a relatively short contact time.

As the burrs on a grinder wear out, the particle size distribution will change, as will the characteristics of the final product, unless a grind analysis program is instituted.

Grind analysis as a quality control measure in remote locations like cafes, has always been a problem without a solution. Hand shakers are difficult to operate in a repeatable manner. Standard sieve shakers weigh hundreds of pounds, or are too bulky to tote around.

The M100 Sieve Shaker is a miniaturized laboratory grade sieve shaker, utilizing an electro-magnetic motor to provide agitation. The amplitude may be varied, as well as the cycle time, helping to ensure accurate particle size analysis.

ORIGINAL CBC SPECIFICATIONS										
GRIND		E.P.	REGULAR	ADC	DRIP	FINE	VENDING	EUROPEAN		
								COARSE	MEDIUM	FINE
OTHER NAMES		Regular	Um	Autodrip Silex	All-Purpose Universal	Silex Food Service	Single Cup Vend	NS	NS	Espresso
CONVERSION CHART		ASTM #12 =TYLER #10 =1.70mm	ASTM #16 =TYLER #14 =1.18mm	ASTM #20 =TYLER #20 =.850mm	ASTM #30 =TYLER #28 =.600mm	ASTM #40 =TYLER #35 =.425mm	ASTM #50 =TYLER #48 =.300mm			
MESH SIZES										
TYLER	ASTM									
No (s) 10/14 Sieves	ASTM No(s) 12/16 Sieves	NS	33%	NS	7%	0%	NS	NS	NS	NS
No (s) 20/28 Sieves	ASTM No(s) 20/30 Sieves	NS	55%	NS	73%	70%	NS	NS	NS	NS
Pan	Pan	NS	12%	NS	20%	30%	NS	NS	NS	NS
Particle size (u)*	Particle size (u)*	NS	1020	NS	840	720	NS	NS	NS	NS
Avg. Sieve Mesh (Opening)	Avg. Sieve Mesh (Opening)	NS	16 (0.0390")	NS	20 (0.300")	24 (0.278")	NS	NS	NS	NS
Avg. Particle Dia. (cells) +	Avg. Particle Dia. (cells) +	NS	26	NS	21	18	NS	NS	NS	NS
Avg. Particle per gram	Avg. Particle per gram	NS	1200	NS	2200	3500	NS	NS	NS	NS
Exposed Granule Area (CM2)	Exposed Granule Area (CM2)	NS	46	NS	57	67	NS	NS	NS	NS
NORTH AMERICAN INDUSTRY NORMS										
GRIND		E.P.	REGULAR	ADC	DRIP	FINE	VENDING	EUROPEAN		
								COARSE	MEDIUM	FINE
OTHER NAMES		Regular	Um	Autodrip Silex	All-Purpose Universal	Silex Food Service	Single Cup Vend	NS	NS	Espresso
CONVERSION CHART		ASTM #12 =TYLER #10 =1.70mm	ASTM #16 =TYLER #14 =1.18mm	ASTM #20 =TYLER #20 =.850mm	ASTM #30 =TYLER #28 =.600mm	ASTM #40 =TYLER #35 =.425mm	ASTM #50 =TYLER #48 =.300mm			
MESH SIZES										
TYLER	ASTM									
No (s) 10/14 Sieves	ASTM No(s) 12/16 Sieves	35%	27%	17%	8%	2%	NS	NS	NS	NS
No (s) 20/28 Sieves	ASTM No(s) 20/30 Sieves	42%	60%	65%	65%	62%	10%	NS	NS	NS
No. 35 Sieves	ASTM No(s) 40 Sieve	N/A	N/A	N/A	N/A	N/A	35%	N/A	50% 65%	
No. 48 Sieves	ASTM No(s) 50 Sieve	N/A	N/A	N/A	N/A	N/A	35%	N/A		
Pan	Pan	13%	13%	18%	27%	36%	20%	52%	20%	32%
Particle size (u)*	Particle size (u)*	1050	925	825	775	645	400	600	480	360
Avg. Sieve Mesh (Opening)	Avg. Sieve Mesh (Opening)	16 (0.0390")	18 (0.278")	20 (0.0328")	22 (0.0300")	26 (0.0242")	40 (0.0165")	28 (0.0232")	32 (0.0195")	42 (0.0138")
Avg. Particle Dia. (cells) +	Avg. Particle Dia. (cells) +	26	23	21	19	16	10	15	12	9
Avg. Particle per gram	Avg. Particle per gram	1,100	1,600	2,300	2,800	4,800	20,000	NS	12,000	28,000
Exposed Granule Area (CM2)	Exposed Granule Area (CM2)	45	50	58	62	74	118	80	102	134
SOURCES: Modern Processing Equipment Chicago Ill. ASTM E-11										