



# The world's finest analysis equipment





For accurate, dependable results you can't buy a better test sieve than Endecotts. Its many features and the quality of manufacture make it the perfect measuring instrument.

Endecotts sieves not only look good but are designed and manufactured to offer qualities that make them extremely precise and accurate whilst offering good handling, nesting and strength.

Whether it's a standard test sieve, or something special for industries such as the diamond, coffee or agriculture you'll find the same meticulous quality in design and manufacture. Endecotts sieves are supplied in a complete range of aperture sizes, diameter sizes, depths, choice of materials and certified degrees of inspection to meet virtually every requirement.



# Manufactured to exceptional standards of quality and accuracy

Each sieve is individually made under the most stringent quality control procedures using only the finest materials.

The wirecloth is checked at every stage of manufacture either by optical projection or highly sophisticated computer scanning techniques. The final inspection is a precision measurement of apertures, and sieve frame dimensions. Only when we are satisfied it meets our exacting standards do we give it an Endecotts certificate of conformity.

The company has an enviable reputation as manufacturers of the world's finest test sieves. Skill, experience and modern production techniques help to ensure the finished product not only looks and feels right from the moment you open the box, but provides accuracy second to none.





## The same outstanding quality in sampling equipment

Endecotts offer much more than a range of extremely high quality sieves. The company's expertise in sample analysis has enabled them to develope a wide range of shakers suitable for all types of sieving and samples - shakers designed to produce the optimum sieving action for fast reproducible results.

They also produce sample preparation equipment and sample dividers, and can supply everything from sample collection, drying equipment to an extensive range of test sieves and related particle sizing equipmnet.







# For applications worldwide





Engineering



General Laboratory



Agriculture/Food



Research



Mining



Quarrying



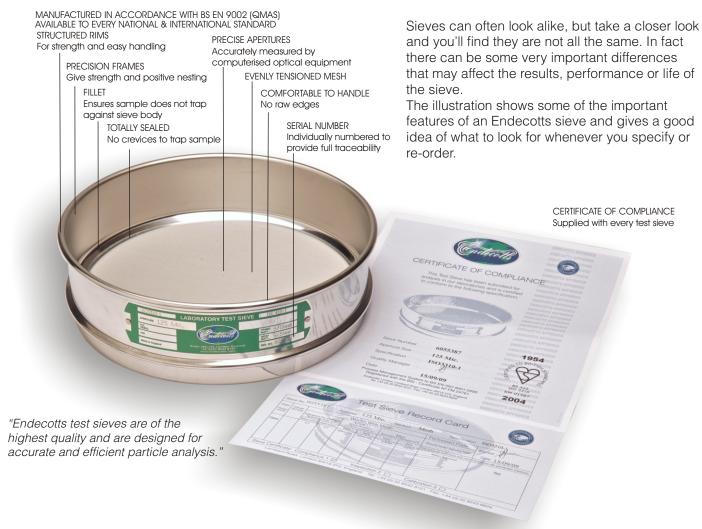
Abrasive Grain Industries



Construction

Major Industries using Test Sieves			
Industry	Application		
Construction	Quality Control Analysis and Grading of Soils, Aggregate, Minerals, Cement, etc.		
General Laboratories	Miscellaneous application of particle analysis and determination of particle size, Powder Process Industries, etc.		
Chemical and Pharmaceutical	Oil Exploration (analysis of minute fossils), Fuels, Explosives, Drugs, Medical & Pharmaceutical applications (Powders etc.)		
Mining	Quarries (Gravel and Sand), Coal Mines (Air pollution control), Grading and Particle Size Determination. Diamond Mines, Grading of Diamonds and Industrial Diamonds.		
Agriculture/Food	Confectionery and Food Manufacture, Miscellaneous Applications including kernals, etc.		
Education	Schools, Universities (training of techniques in particle size analysis and determination of particle size). Geological etc.		
Research	Research establishments engaged in original and general research. Various applications.		
Engineering	Steel Manufacturing Organisations, Foundries, Iron Works, etc. (Determination of particle size of sand moulds, grading of coke, etc.)		
Abrasive Grain Industries	Producers of precision materials for abrasive applications, i.e. grinding wheels and sandpaper.		

## What to look for in a precision test sieve



Endecotts test sieves can be supplied to a variety of different inspection levels depending on the information requirements specified.

## **Certified Test Sieves**

All test sieves manufactured to a National or International Specification are supplied with a Certificate of Compliance and individually serial numbered to provide full traceability.

#### **Inspected Test Sieves**

Test sieves inspected in accordance with the procedures listed in clause 5.2 and table 4 column 2 & 3 of ISO 3310: BS:410-1:2000. Each sieve is supplied with an Inspection Certificate stating separately the values for the average aperture in both the warp and weft direction of the wirecloth.

## **Calibrated Test Sieves**

Test sieves inspected and calibrated in accordance with procedures listed in clause 5.2 and table column 4 & 5 of ISO 3310: BS:410-1:2000. Each sieve is supplied with a calibration certificate recording the number of aperture and wire diameters measured, the average aperture size and standard deviation separately for the warp and weft direction. The type of weave will also be stated.

## **Mid Point Sieves**

Test sieves with the sieving medium specification tolerances reduced by 30%. Each sieve is supplied with a Calibration Certificate giving the range of tolerances and measurements taken.

#### **Matched Sieves**

sieves each fitted with a sieving medium having similar aperture characteristics. Each is supplied with a Calibration Certificate marked "Matched with sieve serial No....

## Re-Inspection Service

Used sieves are examined and inspected in accordance with the appropriate specification. Complying sieves are issued with a Compliance, Inspection or Calibration Certificate as requested by the customer.



# The widest range of test sieves available

Made to every National and International Standard

## **Woven Wire Mesh Sieves**

Endecotts woven wire mesh sieves are the most widely used test sieves for all types of laboratory sampling and particle size analysis. They are made with only the highest quality materials and are available in diameter sizes of 38,100, 150, 200, 250, 300, 315, 350 400, and 450 mm or in 3, 8, 12 or 18 inches.

They can be supplied with aperture sizes ranging from 125 mm down to 20 microns in full or half height versions. Woven wire mesh sieves are available in frame materials of either brass or stainless steel.

## **Perforated Plate Sieves**

Endecotts manufacture a wide range of perforated plate sieves for the many industries that require them. These are available in diameter sizes of 200, 300, 315, 350, 400 and 450 mm.

Aperture sizes range from 125 mm to 4 mm in square hole and 125 mm to 1 mm in round hole.

Perforated plate sieves can be supplied in frame materials of brass or stainless steel and all are manufactured to the highest engineering standards to ensure quality and accuracy.

Woven wire sieves and perforated plate sieves are available to every national and international standard. Other materials and sizes can be produced to order.

## **Microplate Sieves**

For very fine particle analysis Endecotts produce a range of microplate sieves made from electro-formerd nickel plate in stainless steel frames of 100 mm or 200 mm diameter. Available with unique self clearing apertures sizes from 75 to 5 microns. Microplate sieves are supplied with either round or square holes.



MICROPLATE SIEVES				
Aperture Size	Aperture type	Sieve Height		
75 μm 60 μm 50 μm 40 μm 30 μm 25 μm 20 μm 15 μm 5 μm	Round or Square Hole	Full or Half Height		



## **SPECIALS**

#### Half Height Sieves

where smaller quantities of sample are being analysed half height sieves are often used. These are available in diameters of 100, 200 or 300 mm and 3, 8 or 12 inches with the complete range of woven wire mesh or perforated plate sieving media. Other height options also available.



#### Airjet Sieves

These sieves are specifically designed for use with air jet systems. They are available in 200 mm diameter brass or stainless steel frames and an extensive range of aperture sizes. Supplied to meet the needs of your equipment.

New generation Airjet sieves are available on request.



# **Specifications**

## A table of the most widely used specifications

Endecotts Standard Woven Wire Mesh & Perforated Plate Sieves are available in all the sizes and materials specified in these tables



# Series ISO 3310:2000 Wire Mesh Series ISO 3310-1:2000 BS410-1:2000

International Test Sieve

Wire Mesh Series				
	3310-1:200			
	410-1:2000			
Nomina	l Aperture	Sizes		
mm	mm	$\mu$ m		
125.00	4.50	160		
112.00	4.00	150		
106.00	3.55	140		
100.00	3.35	125		
90.00	3.15	112		
80.00	2.80	106		
75.00	2.50	100		
71.00	2.36	90		
63.00	2.24	80		
56.00	2.00	75		
53.00	1.80	71		
50.00	1.70	63		
45.00	1.60	56		
40.00	1.40	53		
37.50	1.25	50		
35.50	1.18	45		
31.50	1.12	40		
28.00	1.00	38		
26.50	$\mu$ m	36		
25.00	900	32		
22.40	850	25		
20.00	800	20		
19.00	710			
18.00	630			
16.00	600			
14.00	560			
13.20	500			
12.50	450			
11.20	425			
10.00	400			
9.50	355			
9.00	315			
8.00	300			
7.10	280			
6.70	250			
6.30	224			
5.60	212			

5.00

200

## British Standard Sieve Series BS. 410:2000

ISO 3310-2:1999 BS410-2:2000				
No	ominal Ape	rture Sizes		
Roui Square mm 125.00 112.00 106.00 100.00 90.00 80.00 75.00 71.00 63.00 56.00 53.00	ominal Aper nd & 2 Holes mm 20.00 19.00 18.00 14.00 14.00 13.20 12.50 11.20 9.50 9.00	Round Hole Only mm 3.55 3.35 3.15 2.80 2.50 2.36 2.24 2.00 1.80 1.70 1.60		
50.00 45.00 40.00 37.50 35.50 31.50 28.00 26.50 25.00 22.40	5.00 8.00 7.10 6.70 6.30 5.60 5.00 4.75 4.50 4.00	1.40 1.25 1.18 1.12 1.00		

Perforated Plate Series

Sieve Diameters and Frame Materials				
Diameter	Height	Depth to Mesh or Plate	Frame Material	
mm 38.00 100.00 100.00 150.00 200.00 200.00 250.00 300.00 315.00 350.00 400.00 450.00	Full Full Half Full Half Full Half Full Half Full Full Full Full Full	mm 19.00 40.00 20.00 38.00 50.00 60.00 75.00 40.00 75.00 60.00 65.00 100.00	Br or SS Br or SS SS Br or SS SS Br or SS SS Br or SS SS SS SS SS SS SS	

## American Standard Sieve Series ASTM E11:95

on Alternative inch or No. 50 No. 20 10 No. 25 No. 30
inch or No. No. 20 No. 25
50 No. 20 10 No. 25
00 No. 35 25 No. 40 55 No. 45 00 No. 50 50 No. 60 12 No. 70 80 No. 80 50 No. 100 25 No. 120 06 No. 140 90 No. 170 75 No. 200 63 No. 270 45 No. 325 38 No. 400 32 No. 450 25 No. 500 20 No. 635

Sieve Diameters and Frame Materials				
Diameter	Height	Depth to Mesh or Plate	Frame Material	
3 in 8 in 8 in 12 in 12 in 18 in	Full Full Half Full Half Full	11/4 in 2 in 1 in 3 in 1 in 31/2 in	Br or SS Br or SS Br or SS Br or SS Br or SS	

## Extra Depth Sieves

Extensively used by the construction and cement industries. These extra depth sieves are available with a diameter size of 450 mm and a depth of 300 mm. Made from steel with woven wire mesh or perforated plate sieving mediums.



## Wet Washing Sieves

Extremely useful sieves where samples need to be separated with the help of wet washing. Available in 8 inch diameter by 4 or 8 inches deep or their metric equivalent with brass or stainless steel frames.

A complete range of aperture sizes with optional support medium for fine mesh.

#### **Lids & Receivers**

Lids, receiving pans and intermediate receiving pans are available in brass or stainless steel with the following diameters: 38, 100, 150, 200, 250, 300, 315, 400 and 450 mm as well as 3, 8, 12 or 18 inches. Half height receivers are also available.





## **Coffee Sieves**

# LAGORATORY TEXT SIEVE TO A STATE OF THE STAT

These sieves are specially designed for the coffee industry - and used for grading coffee beans. They are manufactured with brass or stainless steel frames of 8"/200 mm and fitted with round hole, stainless steel perforated plate. A complete

range is available in standard measurements. Other specs and designations are also available.

## **Diamond Sieves**



Endecotts Diamond Sieves are high precision measuring instruments specially manufactured to meet the strict requirements of the diamond industry. They offer a rapid and extremely accurate method of sizing.

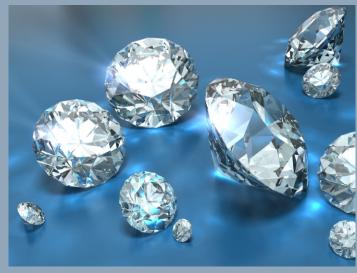
Fixed plate sieves are available in stainless steel bodies of 200 mm or 8" in full or half height. These can be nested for ease of use.

Produced from stainless steel.

Both fixed plate and interchangeable plate sieves are available in a range of aperture sizes.



Standard sieves in woven wire or round hole perforated plate are used to determine coffee bean size that affects the quality of coffee.



Diamonds are graded accordingly to size. Sieves are offered for industrial and precious diamond particle sizing applications

# SPECIALIST SIEVES

## **Grid Sieves**

## **Grain Sieves**





Used to determine the flakiness index of aggregates. Endecotts grid sieves are manufactured to fully conform to the requirements of EN 933-3:1997. The 300 x 300 mm sieves are made entirely of stainless steel and are

strong, durable and anticorrosive. They can be supplied as a single item or as a set of 13 sieves complete with a receiving pan. Endecotts Grain Sieves are specially manufactured to meet the requirements of ISO 5223.

They are used by Government Intervention Boards and similar organisations worldwide for testing grains and cereals. They are available in 200 mm diameter brass or stainless steel frames in full or half height depths with mild or stainless steel slotted plate. Slot sizes as table below.

Grid Sieves				
Part No	Slot Width	Particle Size Fraction	Net Weight unpacked	
Grid-40.00	40.0 mm	80 mm - 63 mm	1.7kg	
Grid-31.50	31.5 mm	63 mm - 50 mm	1.8kg	
Grid-25.00	25.0 mm	50 mm - 40 mm	1.9kg	
Grid-20.00	20.0 mm	40.0 mm - 31.5 mm	2.0kg	
Grid-16.00	16.0 mm	31.5 mm - 25.0 mm	2.1kg	
Grid-12.50	12.5 mm	25 mm - 20 mm	2.2kg	
Grid-10.00	10.0 mm	20 mm - 16 mm	2.3kg	
Grid-8.00	8.0 mm	16.0 mm - 12.5 mm	2.5kg	
Grid-6.30	6.3 mm	12.5 mm - 10.0 mm	2.6kg	
Grid-5.00	5.0 mm	10 mm - 8 mm	2.8kg	
Grid-4.00	4.0 mm	8.0 mm - 6.3 mm	2.9kg	
Grid-3.15	3.15 mm	6.3 mm - 5.0 mm	3.1kg	
Grid-2.50	2.5 mm	5 mm - 4 mm	3.2kg	

Grain Sieves				
Slot Size	Plate Material			
3.55 mm x 20.0 mm	Full or Half	Mild or Stainless Steel		
2.50 mm x 20.0 mm	Full or Half	Mild or Stainless Steel		
2.24 mm x 20.0 mm	Full or Half	Mild or Stainless Steel		
2.20 mm x 20.0 mm	Full or Half	Mild or Stainless Steel		
2.00 mm x 20.0 mm	Full or Half	Mild or Stainless Steel		
1.90 mm x 20.0 mm	Full or Half	Mild or Stainless Steel		
1.80 mm x 20.0 mm	Full or Half	Mild or Stainless Steel		
1.70 mm x 20.0 mm	Full or Half	Mild or Stainless Steel		
1.00 mm x 20.0 mm	1.00 mm x 20.0 mm Full or Half Mild or Stainless Steel			
Slot widths of 2.25 mm are available on request				

# SIEVE CALIBRATION

# **Calibration Samples**

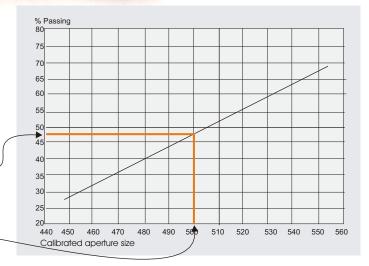
For accurate test sieve calibration



Traceable to the National Physical Laboratory

## How to accurately calibrate test sieves in a matter of minutes

- Select the calibration sample size that matches the aperture size of the sieve.
- 2. Place a weighed sample on the sieve under test and shake for 2 minutes.
- 3. Weigh the sample again and calculate the percentage passing through the sieve.
- 4. Simply read off the percentage passing along a graph like this supplied with every Calibration Sample...
- 5. ...and the mean average aperture size in µm can be read off here against the graph



## What are calibration samples?

Endecotts calibration samples are microspheres formed of sodalime glass that range from 3.35 mm down to 20 micron sizes. Because of the precise nature and extent of the range of spheres, samples can be supplied to enable the accurate calibration of individual sieves to an accuracy of approx 1µm. The microspheres pass over, almost, the total surface of the sieve enabling more apertures to be examined than with any other method. Consequently, calibration samples are one of the most accurate methods of sieve calibration available.

Endecotts glass microspheres are calibrated by an external laboratory who are recognised as one of the leading particle analysis laboratories by the BCR, and by 20 other leading European particle size analysis laboratories.

The table opposite lists the nominal aperture size of a specific sieve and the appropriate Calibration Sample required (Product Code).

The samples are supplied in 'Single Use' vials complete with calibration certificate.

Nominal	Aperture	Product	Nominal	Aperture	Product
Aperture	Range	Code	Aperture	Range	Code
20 µm	15 - 25 µm	ZSICSA020	315 µm	255 - 355 µm	ZSICSA300
25 μm	20 - 32 µm	ZSICSA025	355 µm	300 - 425 µm	ZSICSA355
32 µm	25 - 38 µm	ZSICSA032	400 µm	355 - 500 µm	ZSICSA425
36 µm	32 - 45 µm	ZSICSA038	425 µm	355 - 500 µm	ZSICSA425
38 µm	32 - 45 µm	ZSICSA038	450 µm	355 - 500 µm	ZSICSA425
40 µm	32 - 45 µm	ZSICSA038	500 µm	425 - 600 µm	ZSICSA500
45 µm	38 - 53 µm	ZSICSA045	560 µm	500 - 710 µm	ZSICSA600
50 μm	45 - 63 μm	ZSICSA053	600 µm	500 - 710 µm	ZSICSA600
53 µm	45 - 63 µm	ZSICSA053	630 µm	500 - 710 μm	ZSICSA600
56 µm	45 - 63 μm	ZSICSA053	710 µm	600 - 850 µm	ZSICSA710
63 µm	53 - 75 μm	ZSICSA063	800 µm	710 µm - 1 mm	ZSICSA850
71 µm	63 - 90 µm	ZSICSA075	850 µm	710 µm - 1 mm	ZSICSA850
75 µm	63 - 90 µm	ZSICSA075	900 µm	710 µm - 1 mm	ZSICSA850
80 µm	63 - 90 µm	ZSICSA075	1.00 mm	850 μm - 1.18 mm	ZSICSA-1.00
90 µm	75 - 106 μm	ZSICSA090	1.12 mm	1.0 - 1.4 mm	ZSICSA-1.18
100 µm	90 - 125 μm	ZSICSA106	1.18 mm	1.0 - 1.4 mm	ZSICSA-1.18
106 μm	90 - 125 μm	ZSICSA106	1.25 mm	1.0 - 1.4 mm	ZSICSA-1.18
112 µm	90 - 125 μm	ZSICSA106	1.40 mm	1.18 - 1.7 mm	ZSICSA-1.40
125 µm	106 - 150 μm	ZSICSA125	1.60 mm	1.4 - 2.0 mm	ZSICSA-1.70
140 µm	125 - 180 μm	ZSICSA150	1.70 mm	1.4 - 2.0 mm	ZSICSA-1.70
150 µm	125 - 180 µm	ZSICSA150	1.80 mm	1.4 - 2.0 mm	ZSICSA-1.70
160 µm	125 - 180 µm	ZSICSA150	2.00 mm 2.24 mm	1.7 - 2.36 mm 2.0 - 2.8 mm	ZSICSA-2.00 ZSICSA-2.36
180 µm	150 - 212 μm 180 - 250 μm	ZSICSA180 ZSICSA212	2.24 mm 2.36 mm	2.0 - 2.8 mm	ZSICSA-2.36 ZSICSA-2.36
200 µm		ZSICSA212 ZSICSA212			ZSICSA-2.36 ZSICSA-2.36
212 µm 224 µm	180 - 250 μm 180 - 250 μm	ZSICSA212 ZSICSA212	2.50 mm 2.80 mm	2.0 - 2.8 mm 2.36 - 3.35 mm	ZSICSA-2.80
250 µm	212 - 300 µm	ZSICSA212 ZSICSA250	3.15 mm	2.84 - 4.0 mm	ZSICSA-2.80 ZSICSA-3.35
280 μm	250 - 355 µm	ZSICSA200 ZSICSA300	3.35 mm	2.84 - 4.0 mm	ZSICSA-3.35
300 μm	250 - 355 µm	ZSICSA300	3.55 mm	2.84 - 4.0 mm	ZSICSA-3.35
300 pm	200 - 200 μπ	201007000	0.00 11111	2.04 - 4.0 111111	201007-0.00

Each individual calibration sample is supplied with a Certificate of Calibration

# CLEANING & MAINTENANCE

## **Ultrasonic Cleaner**

## The best way to clean your sieves

Sieves should be cleaned after each analysis and replaced in their storage containers. Most of the "near mesh size" particles which block the apertures can usually be removed by inverting the sieve and gently tapping the frame. If this fails the underside of the mesh may be stroked gently with an Endecotts sieve brush specially designed for use on test sieves with apertures over1mm.

For sieves with smaller apertures and almost any other application the most efficacious method is the use of an ultrasonic cleaner.

Endecotts ultrasonic cleaner has been specially designed for cleaning test sieves and is also suitable for general laboratory

It is easy to operate and extremely efficient to use.

The all stainless steel construction is ergonomically designed to give a long trouble free life.

Endecotts ultrasonic cleaner is environmentally friendly, operating on 5.7 litres of organic solvent free water. It is equipped with 4 high frequency transducers 35KHz at 2 x 240W.

A sieve up to 200mm or 8" in diameter is placed in the basket in order to commence with the cleaning procedure.

The control panel enables the user to set the operating time: Cycle time: 0-15 minutes or continuous.



#### **SPECIFICATIONS**

Suitable for 1 sieve 200 mm x 50 mm, 8" x 2" or smaller

Time setting: 0-15 minutes or continuous

Container volume: 5.7 litres

Oscillating tank: Dia. x H 24.5 x 13 cm

HF continuous maximum output: 35 kHz, 2 x 240 W

Power connection: 1-phase Overall size: Dia. x H 260 x 260 mm

Net weight: 5kg

Current consumption: 0.5A

## Sieve Brushes

These double ended sieve brushes are specially designed for cleaning sieves with medium or large apertures. They have coarse bristles at one end and fine at the other.



# What to look for in a good sieve shaker

There are three essential characteristics to look for in a good test sieve shaker. It should generate an effective sieving action for tests to reach an ultimate end point. The end point should be reached in the shortest possible time. The results achieved should be reproducible.

The construction of the shaker is all important too if it is to provide a long trouble free life. One powered by an electromagnet has the distinct advantage of no mechanical parts that might need servicing or replacing.

Other useful features that can increase performance, shorten sieving time or simply make life easy are, amplitude vibration control, continuous or intermittent vibration control, timer, correct and consistent clamping pressure, anti-vibration feet and low noise level.

At Endecotts we design and engineer our shakers around the key features listed above. We ensure that the design performance provides the optimum sieving action to the sieves to give rapid accurate results.

As manufacturers of test sieves we understand how sieves and shakers interrelate. This knowledge is built into every model. So too are the same skills and exacting engineering standards that have made Endecotts the finest test sieves in the world.



#### **AVOIDING BLOCKED APERTURES**

A feature of the sieving action is the rapid vertical movement imparted by the shaker. The movement is continuously helping to clear apertures and avoid them blinding.



ANTI-VIBRATION FEET maintain optimum performance and avoid shaker 'walking'.

## 3D Performance

Vertical vibration is generated by the on/off frequency of the electromagnet. However, vertical vibration is not enough to impart the correct movement for sieving. The shaker needs to twist

the sieve stack - this rotating action ensures the sample passes over the full surface of the sieve and the maximum number of apertures to give rapid accurate results.





## EXTENSIVE CONTROL

A number of Endecotts shakers are fitted with a high degree of control over all shaker functions - a feature extremely useful for many materials and in many industries.





#### UNIQUE CLAMPING

Endecotts shakers are fitted with a unique clamping device enabling the clamp plate to be fitted in seconds. It also ensures the clamp plate secures the sieves with consistent pressure to provide consistent results and longer sieve life.

## M100

## Mini footprint - maxi performance

- Time & amplitude controls for optimum performance
- Quiet operation
- Compact
- Portable
- Maintenance free
- Easy to use
- Affordable

Suitable for 100 mm, 3" diameter sieves

Sieves supplied separately



## Minor M200

The low cost solution to fast easy sieving

- Quiet operation
- Maintenance free
- Compact
- Portable
- Easy to use
- Affordable



Suitable for 200 mm, 8" or 100 mm diameter sieves

Sieves supplied separately

The low cost M100 is an excellent small laboratory shaker designed for 100 mm and 3" diameter sieves. It is robust, lightweight and provides the user with complete control over amplitude and vibration time.

Common with all Endecotts shakers the M100 imparts the optimum vibration movement to the sieves to ensure rapid and accurate results.

Fitted with an electromagnetic drive - the shaker is not only maintenance free but has no rotating parts to wear out. Another advantage of this type of drive is 'quiet operation'.

Simply load the sieve stack, clamp into place. Set the 0 to 60 minute timer or select 'l' for continuous sieving. Set the amplitude setting to the optimum level for the sample under test.

The M100 will accommodate up to three 100 mm, 3" or 4" diameter sieves plus a lid and receiver.

#### **SPECIFICATIONS**

Dimensions: 260 x 160 x 320 mm (D x W x H)
Lightweight: Weighs only 10kg
Timer: 0 to 60 min or continuous
Power: 230V 50Hz 80VA
115V 60Hz 60VA
Other voltages on request
Accommodates: Up to 3 full height
100 mm, 4" or 3"

The Minor M200 has been designed and manufactured to combine low cost with the benefits of a well designed and engineered shaker incorporating many features usually found only on larger manager mana

It is ideal for the laboratory or plant since it is compact and genuinely portable (weighing only 17kg). There are no rotating parts in the Minor M200 consequently it is quiet in operation and maintenance free. The sieve stack is held firmly in position between the location and clamp plates by poly fibre straps these allow the whole unit to be packed away in a space less than 200 mm high.

Simply set the 0 to 60 minute timer for a timed operation or select "I" for continuous sieving

The vibrating action imparts a precise movement to the sieve stack ensuring efficient sieving and excellent repeatability.

The Minor M200 is fitted with anti-vibration feet to ensure good stability.

#### SPECIFICATIONS

Compact: Only 250 mm diameter footprint Height: 180 mm excl. sieve stack Lightweight: Weighs only 17kg Location for 100 mm sieves Timer: 0 to 60 min or continuous Power: 230V 50Hz 80VA 115V 60Hz 60VA Other voltages on request Accommodates: Up to 8 full height

200 mm (8") sieves

## Octagon D200 DIGITAL

## The high performance digital shaker

For 200 mm & 8 in diameter sieves

- Easily set to maximum efficiency
- Total operator control
- Non blinding '3D' sieving action
- Compact
- Portable
- No mechanical moving parts
- Precise sieve clamping
- Suitable for wet or dry sieving

#### THE Octagon D200 CONTROLS

- 1. Start/reset button
- 2. Mains light
- Separate LEDs display: Setting and running times, time or amplitude setting mode, intermittent vibration setting mode and amplitude level.
- 4. Power light
- 5. Increment control
- 6. Decrement control
- 7. Continuous or intermittent vibration switch
- 8. Mode switch





Sieves supplied separately



#### Suitable for wet sieving

The Endecotts wet sieving conversion kit includes top clamping plate with a Perspex cover and spray rose, watertight seals and a stainless steel receiver with drainage spout.

# D300 NEW

## The ideal electromagnetic sieve shaker

Accepts both 200mm and 300mm diameter sieves

- Total operator control
- Easily set to maximum efficiency
- Economical
- No mechanical moving parts
- Suitable for wet and dry sieving



The Octagon D200 Digital is ideal for laboratory or on site use. It is robust, compact and sufficiently lightweight to be portable. A digital display makes the setting functions very straightforward. The Octagon D200 Digital is powered by an electromagnetic drive which has no rotating parts to wear making it maintenance free and extremely quiet in operation. The vibratory action produced by the power unit moves the sample over the sieve in a unique way producing faster more efficient sieving, while the rapid vertical movements also help to keep the apertures from blinding.

The Octagon's digital controller is used to set both the process time and the amplitude

setting while a further control enables the vibration to run continuously or intermittently. Intermittent vibration improves performance and helps to clear apertures that may have become blocked. The controller will also set the duration of the 'on' and 'off' times of the vibration. The Octagon D200 Digital offers total flexibility enabling optimum settings to be established for virtually any material under test. The shaker is fitted with a new and totally unique clamping device which ensures sieves are held firmly without overtightening and allows them to be quickly removed and replaced. Non-metallic springs and anti-vibration mountings are fitted to isolate vibrations from work surfaces and reduce noise levels.

#### **SPECIFICATIONS**

Height excluding rods: 210 mm Diameter: 410 mm (Handles: 2 x 35 mm) Unpacked Weight: 43kg Packed Weight: 55kg Power Supply: 230V 50Hz 300VA 115V 60Hz 300VA

Accommodates up to 8 full height and 18 half height 200 mm / 8" diameter sieves plus lid and receiver.

Bridging the gap between the Octagon D200 and D450 the NEW D300 has been developed using the same advanced technology as the D450. It is extremely versatile accepting both 200mm and 300mm diameter sieves. Like the D200 and D450 this machine gives the operator total control of the sieving process."

## **SPECIFICATIONS**

Height: 210 mm (700 mm sieve stack)
Diameter: 506 mm
Weight: 86 kg
Power: 800 VA
Amplitude: 2.5 mm
Accommodates: Up to 7 full height
300mm diameter sieves

# **HEAVY DUTY SHAKERS**

## D450 DIGITAL

## Outstanding control on a heavy duty shaker

For larger diameter sieves

- Total operator control
- Easily set to maximum efficiency
- No mechanical moving parts
- Suitable for wet or dry sieving



## **EFL2000**

## The ideal heavy duty shaker

For sieves up to 315 mm & 12 in diameter sieves



Sieves supplied separately

- Simple to operate
- Quick release clamps ensure consistent clamping pressure
- Low noise level
- Accommodates sieves from 200 mm to 315 mm diameter
- Fitted with anti-vibration feet
- 5 60 minute timer or continuous setting
- Suitable for wet or dry sieving

By utilising the same dynamic control panel as the D200 the D450 offers outstanding control features. The complete vibration system has been built to handle the sample weights involved with larger diameter sieves eliminating the problems involved with lighter weight machines. These two features combine to give an extremely high performance shaker in the 450 range.

#### **SPECIFICATIONS**

Height excluding rods: 280 mm Diameter: 685 mm Unpacked Weight: 140kg Packed Weight: 170kg Power Supply: 230V 50Hz 1280VA 115V 60Hz 1600VA Other voltages on request

Accommodates up to 11 x 250 mm diameter sieves, 9 x 300 mm, 9 x 315mm, 11 x 350 mm, 10 x 400 mm or 7 x 450 mm plus lid and receiver (or inch

Capacity increased with half height sieves.

The EFL has been specially designed to operate with heavy samples without the loss of performance. It is equipped with a dynamic power source that ensures the right vibration is imparted to the sample for fast, accurate and reproducible tests.

The vertical movement is fixed ensuring the sample spends maximum time seeking apertures rather than being suspended in mid air. The unique vibratory action also helps keep the apertures clear and free from blinding. A special clamping device ensures sieves are held firmly without overtightening and allows them to be quickly removed and replaced.

replaced.
The timer can be pre-set for any duration up to 60 minutes or continuous. The EFL has non-corrodible, non-metallic springs.

#### **SPECIFICATIONS**

Diameter: 510 mm (Handles 2 x 35 mm) Unpacked Weight: 83kg Packed Weight: 100kg Power Supply: 230V 50Hz 485VA 115V 60Hz 390VA

Other voltages on request

#### Model EFL2000

Accommodates up to 12 full height, 24 half height sieves of 200 mm/8 in; 7 full height sieves of 250 mm or 6 full height or 12 half height sieves of 315 mm. Includes lid and receiver.

## **Air Jet Sizer**

## One of the most economic and efficient methods of sizing particles in the micron range

- Extremely efficient
- Fast sieving times
- Suitable for dry material of 20 µm upward
- Sieving action keeps apertures clear
- Air flow fluidises and helps to separate sample
- Ideal for electrostatic materials
- Variable vacuum control
- Safety micro-switch

Most sieving operations on the Airjet sizer take only a matter of minutes. Useful functions including the ability to regulate the level of vacuum, and constant or timed operation help to achieve optimum performance.

The Airjet Sizer is ideal for sieving difficult and very fine dry particles from 20 µm upward. It is easy to use, extremely efficient and provides accurate reproducible results.

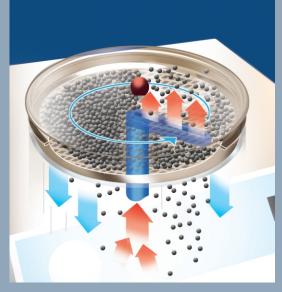
The Airjet Sizer is supplied complete with its own separate vacuum source which connects to the back of the sizer. Electrical power for the vacuum unit is supplied by a connector on the Airjet Sizer enabling a single on/off switch to supply power to both units.



## **OPERATION**

An Endecotts Airjet sieve of the appropriate aperture size is placed in the airtight mounting plate bracket and a sealed lid is placed on top of the sieve. Vacuum is applied to the chamber beneath the sieve drawing air out of the sieve through the apertures and carrying with it any undersize particles. To create a continuous flow positive pressure air is drawn into the sieve through a channel in a rotating arm placed immediately below the microplate or sieve mesh. The incoming air creates a wave within the sample helping to fluidise the sample and clear any blocked apertures.

Undersize sample is discharged into the vacuum unit.



## **SPECIFICATIONS**

Weight: 12kg Air volume: 480 litres/min (Maximum) Air pressure: Adjustable from 10-85 millibar (negative pressure) Timer range: 0 - 10 mins Sieve diameter: 200 mm Airjet sieves available through Endecotts

Dimensions: 345 mm x 375 mm x 295 mm

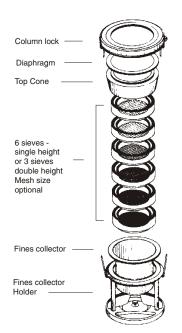
Aperture range: 20 µm - 1 mm Operating voltage: 220 - 240V 50/60Hz Power consumption: 25VA plus Extraction units are available on request

# AIR ASSISTED SIEVING

## **Sonic Sifter**

## Fast accurate separation down to 5 micron

- Outstanding value
- Simple to operate
- Unique action
- Very quick cycle time typically less than one minute
- Virtually no attrition of sample
- Virtually no screen wear
- Very quiet operation





The Sonic Sifter is a precision instrument for the rapid separation of a wide variety of dry particles and powders in the fine micron range.

It will successfully separate samples down to 5 micron in as little as one minute, sometimes less, with consistent repeatability.

The sieving action, which can be varied for different densities and textures of material, is unique. A vertical column of air is made to oscillate through a sieve or set of sieves. The motion of the air alternately lifts the sample and then assists it through the sieve apertures. The oscillation amplitude is variable. A vertical mechanical pulse may also be applied to the sieves at regular intervals to break down any clustered particles and help eliminate any blinding of the apertures.

An important feature of the Sonic Sifter

height of six single sieves. Where less

#### **SPECIFICATIONS**

Height: 585 mm Height with door open: 734 mm Width: 254 mm Depth: 302 mm Unpacked Weight: 15.4kg Packed Weight: 29kg Power Supply: 230V 50Hz100VA 115V 60Hz 50VA

Other voltages on request

## Sieves for the Sonic Sifter

010	VCO IOI LI		Jiitoi
Aperture	Standard Sieves	Special Sieves	Precision Sieves
	Fitted with stainless steel woven wire mesh Max six per column	Fitted with stainless steel woven wire mesh Double depth max three per column	Fitted with electroformed nickel plate Only one sieve per stack recommended
150 μm 125 μm	0	-	0
106 µm 105 µm	0	-	0
100 μm 95 μm	-	-	0
90 μm 85 μm	0	-	0
80 μm 75 μm	0	-	0
70 μm 65 μm	-	-	0
63 µm 60 µm	0 -	-	0
55 μm 53 μm	0	-	0 - 0
50 μm 45 μm	0	-	-
40 μm 38 μm	0	-	O -
35 μm 32 μm	-	0	O -
30 μm 25 μm	-	- 0	0
20 μm 15 μm	-	0	0
10 μm 5 μm	-	-	0

# ACCESSORIES

# **Endecotts** wide range of sample probes



Endecotts can supply a wide variety of sample collection probes for all types of sample collection. Most of the items shown here are from the popular stainless steel range.

## Hand Held Sample Dividers



These hand held sample dividers will subdivide material samples into two smaller portions by a single pass or further subdivisions can be attained by multiple passes. The important feature of Endecotts sample dividers is that each

subdivision retains the characteristics of the original sample.
Based on the recommendations of BS 5309 and BS 3406/1.
Produced in stainless steel with slot widths of either 6.35 mm (1/4 in) or 12.7 mm (1/2 in)

## Sample Scoops

Heavy duty sample scoops produced in highest quality 316 stainless steel. Crevice free to reduce contamination and easy to clean.



# **SAMPLE COLLECTION**

## Powder Lance

Manufactured from high quality 316 stainless steel for the collection of large volume samples of cohesive powders. Along one side of the lance is a slot one edge of which forms a scraper. The sampler is inserted into the bulk and



rotated - the scraper simply scoops sample into the slot. The screw tip can be removed and the sample pushed out into a suitable container using the sample ejection rod.

## Sack Bag Sampler



Collection with 200 ml or 500 ml bottles

Specially designed with a 'chisel' end to enable samples to be taken through the sides of a sack or bag. Manufactured in 316 Stainless Steel. Choice of collection methods.

Simply pierce the bag using the sampler and allow the required sample volume to flow into the sampler tube. A bottle adapter can be used to take samples of 250 ml or 500 ml. The open ended version allows as much sample as required to be poured out into a bag or other receptacle.

Also available a 500 mm cleaning brush.

## Sleeve Sampler

Ideal for taking samples of free flowing powders and granules. Samples from depths up 2,500 mm. Robust construction in high quality 316 stainless steel. Inserting the sampler into the bulk forces sleeve up sample chamber to close opening. At required depth pull the sampler up enough to open the chamber and allow the sample to fill it.

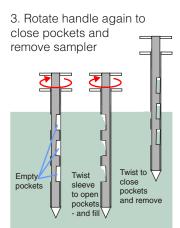


## **Pocket Sampler**

Similar to the Slot Sampler above but with pockets in the inner rod for taking a set of multi level samples from free flowing powders and granules. The sampler is simple to use and comes with a removable tip for thorough cleaning.

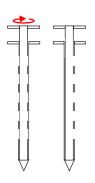
Manufactured in 316 Stainless Steel.

- 1. Insert the sampler into the product
- 2. At the required depth open pockets by rotating sleeve sample will fill collecting pockets.



## Slot Sampler

The Slot Sampler is ideal for taking samples of free flowing powders and granules, even slightly cohesive powders where a large volume of



sample is required without the need to retain the distribution from different depths. Produced in high quality 316 stainless steel.

A rotating sleeve is used to open and close slots in a hollow core and fill with sample. The sample can be recovered by simply tipping it out through the open end of the handle of the sampler. A bottle can be fitted to the sampler for easier handling.

## Tip Sampler

Designed for heavy duty applications. Similar to the sleeve sampler but with an outer tube and inner rod. The tube slides back to reveal a collecting cavity behind the tip. Once at the required depth the sleeve is slid back, allowing the cavity to fill with sample. The sleeve is closed and the probe withdrawn. Manufactured in 316 stainless steel in standard nominal lengths of 600 mm, 1000 mm and 1500 mm and is designed for heavy duty applications. A disposable polypropylene version is also available.







Sample can be discharged from the open end of the slot sampler or directly into a sample bottle





# **Fluid Bed Dryer**

## Simply the most efficient method of drying samples for analysis

A bench top unit for the rapid drying of chemicals, foodstuffs and minerals prior to sieve analysis and other tests.

#### Fast

Drying times range from a few seconds to minutes.

#### Efficient

High rates of heat transfer ensure faster and more homogeneous drying than oven, microwave or vacuum drying.

#### Versatile

Suitable for most granular and powder materials.

## Reproducible results

Precise controls ensure uniform and reproducible results.

#### Easy to use

Manageable controls with straightforward settings

The FBD 2000 offers significant

advantages over conventional drying techniques.

microwave and vacuum drying.
Drying times range from a few
seconds to minutes. Complete
drying is usually achieved in
under 15 minutes.

How the FBD 2000 operates A powerful fan delivers the high volume air flow from the base unit into a special tub assembly which holds the sample material.

The flow of heated air passes through a diffuser gauze which supports the bed and evenly distributes the air as it passes into the tub.

A filter bag at the top of the tub keeps the sample in while allowing the air, moisture and gases to escape.

FLUID BED DRYER

TEMPERATURE CONTROL Air is heated by a 2kW electric heater and can be set to any temperature up to 200°C.

#### TIMED CYCLE

A built in digital timer enables the drying time to be pre-set and the drying operation to be carried out unattended. At the end of the cycle time an alarm sounds and the unit switches off automatically.

## AIR FLOW

The air flow rate and fluidisation velocity are infinitely variable from 0.4 to 2.4 m /min volume (0.9 to 5 m/sec speed).

Optimum levels can be set by observing the sample behaviour within the glass tubs.

FILTER BAG MATERIAL
Filter bags are usually nylon or
terylene with other materials
available for more aggressive
conditions such as sustained
high temperature drying.

## Accessories

Single tubs come in 2 and 5 litre sizes in either stainless steel or glass. A multi-tub unit with 4 x 300 ml tubs is also available for drying four samples simultaneously. Glass tubs are particularly useful for observing the fluidisation process to establish optimum settings.



An attachment is also available for the efficient drying of test sieves.

The FBD 2000 is a compact, portable dryer. Its powerful air delivery system makes drying a very fast operation. The fluidisation mixes and separates the particles minimising the risk of abrasion and the creation of lumps resulting in a truly representative sample.

The comprehensive set of controls makes it ideal for use in the laboratory on a wide selection of materials.

High air flow rates provide high rates of heat transfer and ensure much faster and more homogeneous drying than other methods such as oven,

## **SPECIFICATIONS**

Max. Sample Weight: 5kg Voltage Rating: 115V or 230V 50Hz or 60Hz Power Consumption: 2.6 KVA Dimensions: 260 x 340 x 495 mm H x W x D Weight: 19kg

# SAMPLE PREPARATION & ANALYSIS

## Consistometer

## The economical, accurate method of checking viscosity

- Low cost
- Ease of use
- Suitable for a variety of tests
- Provides a consistent platform for tests
- Requires only 75 ml of sample
- Stainless steel construction
- Engraved graduations for accurate results
- Leveling screws and spirit level enable accurate set up
- Available in 2 versions -Standard or Extended

The Consistometer is a low cost, durable, instrument for accurately checking laboratory or production samples against consistency, viscosity or flow rate standards.

It uses little bench space yet is probably the simplest, most accurate method of conducting a variety of flow associated tests. It is already widely used in the chemical, paint, cosmetic and food processing industries.

It provides a single parameter for a variety of flow tests which can be carried out over any period under as near identical conditions as possible.

The Consistometer is manufactured from stainless steel engraved with a series of precise graduations at 0.5 cm intervals.

To ensure accurate reproducibility the instrument is levelled using the adjustment screws and spirit level.

This instrument is sometimes known as a "Bostwick Consistometer"



## METHOD OF USE

Ameasured sample, usually 75 ml, is placed in the reservoir behind the gate.

The gate is released, by pressing the lock release lever - the spring action ensures it opens instantaneously.

As the fluid flows down the instrument its progress can be accurately measured using the graduated scale. By comparing the flow rate to specified time periods the physical properties of the sample can be calculated.

## **SPECIFICATIONS**

Standard Consistometer Length: 300 mm Trough length: 240 mm

Extended Consistometer Length: 414 mm Trough length: 354 mm

Width: 88 mm Height: 104 mm Material: Stainless Steel







Offering a range of Mills/Crushing equipment for various applications.

Glen Creston is an associate company of Endecotts Ltd

## Bespoke Milling Machinery

Glen Creston Ltd. manufactures and supplies an extensive range of quality standard machines for grinding, mixing, crushing and dispersion applications.

We also manufacture/design bespoke machines to customer's specific requirements for grinding and crushing applications.

These machines are suitable for processing a wide range of materials such as chemicals, minerals, pharmaceuticals, soil, cement, coal, aggregates, agricultural products, plus many more.

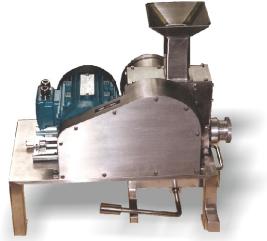
We have an "in house" Test laboratory where we evaluate customer sample materials.

The origin of Glen Creston Ltd dates back to 1955 when the company was established in a small office/factory in North London

The company remained in that area of London for over 55 years, relocating to more spacious and modern facilities in South West London during 2008. Glen Creston Ltd and Endecotts Ltd (the world renowned manufacturer of test sieves, shakers and analysis equipment) are both part of the Endecotts International Ltd group.

The McCrone Micronising Mill business was acquired by the Company in 2009.

Glen Creston are UK representatives for Essa products which are manufactured in Australia.



All Stainless Steel Pellet Jaw Crusher



Roller Crusher Mill

Our experienced staff are always available to offer technical support, customer and after sales service. Our policy is constantly to review and identify the requirements of our customers. We strive to develop and introduce new products and therefore welcome all enquiries and suggestions that will assist in enhancing our range and existing services.

For further information please contact us. E-mail: enquiries@glencreston.com
Tel: +44 (0)20 8545 9140
Fax: +44 (0)20 8417 0857

Or visit our website www.glencreston.com



# MILLING EQUIPMENT

# **McCrone Micronising Mill**

## Rapid particle size reduction for qualitative & quantitative analysis



The McCrone Micronising mill is widely acknowledge to be one of the most effective means of reducing sample to sub-micron sizes suitable for X-Ray diffraction; X-Ray Fluorescence; Infra-Red Spectroscopy and Atomic Absorption Analysis.

What makes it so effective is the unique grinding action of the cylinders producing both linear contact blows and planar shearing. The result is a short grinding time with virtually no sample loss, as well as exceptionally even particle distribution. There is virtually no chemical degradation of the particles and a significant reduction in the crystal lattice disturbance. The McCrone Mill is used throughout the world in laboratories where integrity of the sample is of paramount importance.

The Mill is indispensable for leading geologists, chemists, mineralogists and materials scientists.

#### Particularly suitable for

- Carbides
- Nitrides
- Borides
- Cement
- Clay
- Shale
- Mica and many other materials
- Minimises sample damage and contamination
- Ensures narrow range, reproducible particle size
- Minimal maintenance
- Bench mounted
- Timer up to 30 minutes
- Choice of grinding elements
- Wet and dry grinding
- Rapid results (3-30 minutes depending on material)

The McCrone Micronising Mill rapidly reduces samples by a unique vibratory grinding action. Each element within the grinding vessel moves with respect to its neighbour so as to produce linear contact blows and planar shearing.

The grinding vessel consists of a 125ml capacity polypropylene jar fitted with a screw capped gasketless polyethylene closure. The jar is packed with an ordered array of forty-eight identical cylindrical grinding elements which are available in either Agate or Corundum.

Depending on the material grinding time is between 3 and 30 minutes and optimum

grinding efficiency is usually achieved with 2ml of sample.

There is minimal particle damage to surfaces and the internal structure.

## Sample Preparation Kit for Initial Reduction

When required initial material too large for the McCrone Mill can be rapidly and easily reduced to suitable sizes by use of the sample preparation kit.

For further information please contact us.
E-mail:
enquiries@glencreston.com
Tel: +44 (0)20 8545 9140
Fax: +44 (0)20 8417 0857
Or visit our website

www.glencreston.com



## **SPECIFICATIONS**

Max. Initial particle Size: 0.5 mm Final particle size: Down to 4/5 micron

Accepts up to 4ml of sample material

Weight: 9kg

Dimensions 480 x 175 x 160 mm (L x W x H)

220-240v 50Hz or 110-115v 60Hz

## Endecotts products at work around the world



Endecotts, a world class company - helping to build and develop a better future for everyone.

Endecotts sample analysis equipment is used in more laboratories worldwide than products supplied by any other manufacturer.

The company's test sieves are available in a wide range of sizes to meet every National and International standard and virtually every specification.

To manufacture a high quality measuring instrument capable of meeting the demands of a worldwide market - we have to be good. To produce the finest sieves in the world we have to be the

best. Whether it is agriculture, engineering, mining, pharmaceuticals or some other critical area where accurate analysis is vital you know you can rely on the name Endecotts - worldwide. Why settle for less?



Endecotts head office and production facility in West London

## ...international distribution

Endecotts have a global network of distributors.

With agents and distributors in over 80 countries worldwide and on every continent we can quickly supply a wide range of high quality, sample analysis to our customers around the globe. For the name and contact of your nearest distributor email or call us.



Endecotts' policy is one of continuous development and we reserve the right to alter our specifications without prior notice.



## WORLD CLASS ANALYSIS EQUIPMENT

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