Particle Sizing

Size does matter

Datasheet **Particle Sizing** Test Sieves

Test Sieves

Precision, High Quality Test Sieves Designed for Accurate and Efficient Particle Size Analysis

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A Comprehensive Range of Test Sieves

Essa maintains substantial stocks of our own privately labelled test sieves in a range of common diameters: 100 mm, 200 mm, 300 mm and 450 mm.

These test sieves are manufactured to internationally recognised quality assurance standards. They are individually checked throughout manufacture either by optical projection or highly sophisticated computer scanning techniques and are certified for compliance with ISO 3310.

Each sieve is issued with a unique serial number and a certificate of compliance for full product traceability.

Essa specialises in sieves of stainless steel frame and mesh construction that are inherently more robust, durable and corrosion resistant than traditional brass sieves.

Benefits and Features of the Essa Test Sieve

Sieves can often look alike, but take a closer look and you'll find that they are not all the same. In fact there can be some very important differences that may affect the results, performance or life of the sieve.

Here are some the key features you will find in the Essa test sieve:

- Sturdy rim: strong and easy to handle
- Exact frame: rugged and uniform with positive nesting
- Fillet: no sample is trapped between the mesh and the frame
- Ergonomically designed: no raw edges and comfortable to handle
- Evenly tensioned mesh: precise and accurate results
- No cavities: totally sealed frame with no crevices to trap sample
- Precision mesh: high-tech optical equipment accurately measures apertures
- Fully traceable: individually numbered serial number
- High quality stainless steel frame: minimal corrosion and long lasting

Essa's test sieves are complimented by a range of robust sieve shakers that handle screens up to 450 mm in diameter.

Pictured to the left is the Essa 3D Digital sieve shaker that accommodates 8 full height 200 mm diameter sieves plus lid and receiver.

Datasheet **Particle Sizing** Test Sieves

Diameter	100 mm	200 mm	200 mm	300 mm	300 mm	450 mm	450 mm
Height	40 mm	50 mm	50 mm	75 mm	75 mm	100 mm	100 mm
Specification	ISO 3310-1	ISO 3310-1	ISO 3310-2	ISO 3310-1	ISO 3310-2	ISO 3310-1	ISO 3310-2
Frame	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Wire Mesh or SHPP*	Stainless Steel Mesh	Stainless Steel Mesh	Stainless Steel SHPP	Stainless Steel Mesh	Mild Steel SHPP	Stainless Steel Mesh	Mild Steel SHPP
Smallest Aperture	20 um	20 um	5.0 mm	20 um	5.0 mm	38 um	5.0 mm
Largest Aperture	19.0 mm	19.0 mm	125.0 mm	19.0 mm	125.0 mm	19.0 mm	125.0 mm

* SHPP = Square Hole Perforated Plate

Please note that other aperture sizes and specification sieves are available upon request. The details above indicate our commonly stocked ranges.

The International Standards ISO 3310 - Parts 1 & 2 are adopted by a number of National Standards bodies

	ISO 3310-1	ISO 3310-2
United Kingdom	BS 410-1	BS 410-2
Germany	DIN ISO 3310-1	DIN ISO 3310-2
France	NF ISO 3310-1	NF ISO 3310-2
Japan	JIS Z 8801-1	JIS Z 8801-2

This list is not exhaustive, however, with a few exceptions, the International Standard is likely to meet most requirements.

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Distributor:

Sample Preparation
Sampling
Automation
Metallurgical
Laboratory
Particle Sizing

Intelligent Solutions to Mineral Sampling, Preparation and Testing

Datasheet **Particle Sizing** Sieve Shaker Model 3D Digital

Sieve Shaker Model 3D Digital

High Performance Digital Sieve Shaker

Analytical Sieve Shaker Ideal for Laboratory or On Site Applications

Unique non-blinding sieving action

Sample both vibrated vertically and rotated over the full sieve surface in minimum time

Compact - robust - portable

Quiet and maintenance free

Electromechanical drive means no rotating moving parts to wear

User friendly clamping device

Innovative design provides fast clamping and consistent pressure

Digital controller

Easily set time and amplitude plus either continuous or intermittent operation

Accommodates 8 full height 200 mm diameter sieves plus lid and receiver

Digital display indicates all parameter settings

Suitable for dry and wet sieving

For tests that require wet sieving Essa offer a conversion kit suitable for the 3D Digital. The kit includes top clamping plate with a Perspex cover and spray rose, watertight seals and a stainless steel receiver with drainage spout

essa

Datasheet **Particle Sizing** Sieve Shaker Model 3D Digital

1. Continuous or intermittent vibration switch
2. Start / reset button
3. Mains light
4. LED display: setting & running time; time or amplitude setting mode; intermittent vibration setting mode; and amplitude level
5. Power light
6. Increment control
7. Decrement control
8. Mode switch

The 3D 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 of the microprocessor controlled functions very straightforward.

The 3D 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 3D Digital'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 both the on and off times of the vibration.

The 3D Digital offers total flexibility enabling optimum settings to be established for virtually any material under test.

Essa's 3D Digital shakers are fitted with a new and totally unique clamping device. It ensures sieves are held firmly without over-tightening 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.

Technical Data

Height (including rods)	730 mm
Diameter	410 mm (handles: 2 x 35 mm)
Unpacked weight	43 kg
Packed weight	65 kg
Power supply	220-240 V / 50 Hz / 300 VA 100-110 V / 60 Hz / 300 VA Other voltages & frequencies on request
Sieve capacity (200 mm or 8")	8 full height or 18 half height
Sieve capacity (100 mm or 3")	12 full height or 24 half height

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Sample Preparation
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Intelligent Solutions to Mineral Sampling, Preparation and Testing

Model OST450 SIEVE SHAKER

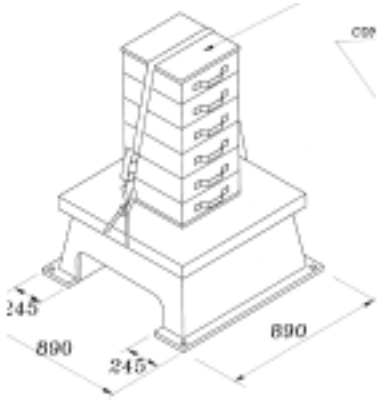
For dry sieving with 450mm square or round sieves

The OST450 is a heavy duty, floor mounted oscillating sieve shaker (or table) which was originally designed to satisfy the requirements of recognised international standards particularly associated with the laboratory screen sizing of iron ore. Subsequently it has also been applied in a number of applications where customers need a heavy duty laboratory screen to process larger volumes of other minerals including coal.

The OST450 can be fitted with up to eight 450 mm square perforated plate sieves or up to ten 450 mm diameter standard BS or ASTM perforated plate or wire mesh test sieves.

The sieve stack on the OST450 is oscillated in a circular motion in the horizontal plane by a three phase 1.5kW electric motor driving to a mechanical cam system. A positive vertical component of motion is also imparted to the sieve stack by an electromagnetic vibrator integrated into the oscillating table to assure optimum screening efficiency.

While the dual drive system of the OST450 results in relatively quiet operation of the unladen machine, the movement of the material being screened in the sieve stack can create a degree of noise which will typically require the unit to be located away from operating personnel. When this is not practical then Labtech Essa can offer an optional extra sound enclosure for the unit.



The OST450 is supplied as standard complete with a separate IP55 enclosed on/off control station for customer installation remote from the unit. An optional extra timer can be included in this control station.

Labtech Essa are manufacturers of 450mm square sieves and international distributors of a complementary range of 100, 200, 300 & 450mm diameter wire mesh and perforated plate test sieves to BS410.

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SUSPENDED SIEVE SHAKER

An electro-mechanical shaker for suspended mounting and carrying up to two off 450mm diameter standard test sieves.

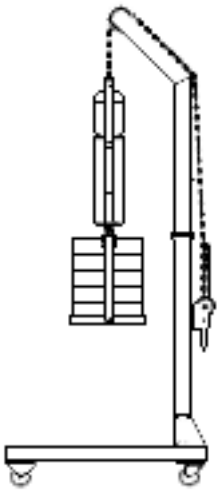
This unique shaker is specifically designed to be fitted with up to two off 450mm diameter test sieves of any aperture.

Drive is by a special 240volt, 50hz, single phase electric motor to a rotating eccentic mass assembly that causes the sieves to oscillate in a mainly horizontal plane.

It is supplied as standard to process essentially dry materials but a wet sieving option is available.

The shaker can be suspended from any suitably robust hook.

An optional wheel mounted stand with a manual winch is available to suspend the sieve stack at a maximum height equivalent to a 220 litre drum. The sieve stack can be lowered to floor level.



Optional castor mounted suspension stand with manual winch

OPTIONS AVAILABLE:

- **Labtech Essa test sieves**
- 3 phase drive motor
- International motor voltages
- Wet sieving attachment
- Suspension stand on lockable castors; with manual winch
- Adaptor for 300-mm diameter test sieves

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