

Vibratory Sieve Shaker AS 450 control

General Information

The analytical sieve shaker AS 450 control is used in research & development, quality control of raw materials, interim and finished products as well as in production monitoring. The controllable electromagnetic drive offers an optimal adaption for every product. Sharp fractions are obtainable even after very short sieving times.

With the sieve shaker AS 450 control RETSCH have designed their first sieve for 400 mm and 450 mm sieves which operates with a three-dimensional sieving motion. It can be used for dry and wet sieving. The optimized electromagnetic drive with RETSCH's CET Technology allows for an amplitude up to 2.2 mm even with maximum loads up to 25 kg. This makes the AS 450 superior to all other known sieve shakers based on conventional electromagnetic or imbalance drives.



Application Examples

cement clinker, chemicals, coal, coke, construction materials, fillers, minerals, ores, plastics, sand, soils, ...

Product Advantages

- suitable for dry and wet sieving
- optional software EasySieve for control through RS232 serial interface, easy evaluation and documentation of results
- fulfils all criteria for measuring equipment related to ISO 9001
- maintenance-free
- easy operation, ergonomic design
- excellent separation efficiency even with short sieving times
- efficient electromagnetic drive
- 3-D throwing motion which ensures optimum use of the open sieve area and lets the sample move equally over the whole sieving surface
- CET Technology for controlled amplitude even with high loads (up to 25 kg)
- up to 14 fractions in one sieving operation
- free digital adjustment of all process parameters (time, amplitude or sieve acceleration, interval)
- memory for up to 9 SOPs
- mobile operation panel for comfortable handling

Features

Applications	separation, fractioning, particle size determination
Field of application	chemistry / plastics, construction materials, engineering / electronics, environment / recycling, geology / metallurgy, glass / ceramics

Vibratory Sieve Shaker AS 450 control

Feed material	powders, bulk materials, suspensions
Measuring range*	25 µm - 125 mm
Sieving motion	throwing motion with angular momentum - 3D movement
Max. batch / feed capacity	25 kg
Max. number of fractions	13 / 9 (min. 3)
Max. mass of sieve stack	50 kg
Amplitude	digital, 0.2 - > 2.2 mm
Sieve acceleration	0.6 -> 7.1 g
Time display	digital, 1 - 99 min
Interval operation	10 - 99 s
Storable SOPs	9
Suitable for dry sieving	yes
Suitable for wet sieving	yes
Serial interface	yes
Suitable sieve diameters	400 mm / 450 mm
Max. height of sieve stack	963 mm
Clamping devices	"standard", "comfort", each for wet and dry sieving
Electrical supply data	different voltages
Power connection	1-phase
W x H x D	714 x 435 x 658 mm
Net weight	~ 200 kg
Documentation	Operation & Application Video
Standards	CE

*depending on feed material and instrument configuration/settings

Vibratory Sieve Shaker AS 450 control

Videolink



<http://www.retsch.com/as450control>

Function Principle

RETSCH has patented the Continuous Energy Transformation Technology (CET Technology) on which the drive of the AS 450 control is based. The CET Technology provides a substantially higher energy input than the technology used in conventional sieve shakers. The AS 450 control achieves the highest amplitude even with maximum load which ensures optimum separation efficiency and high reproducibility.

The electromagnetic drive which lets the sieve stack vibrate continuously transfers its energy in a controlled way to the sieve plate, following the harmonic sinusoidal oscillation of alternating current.

The drive produces a 3D throwing motion that moves the product to be sieved equally over the whole sieving surface. The advantage: high stress capacity, extremely smooth operation and short sieving times with high separation efficiency.

Order data

Vibratory Sieve Shaker AS 450

for test sieves 400/450 mm (please order clamping device (AS 450 control), test sieves and collecting pan separately)

30.026.0001

AS 450 control, 230 V, 50/60 Hz, without clamping device

other electrical versions available for the same price

Clamping devices AS 450 control

32.662.0015

Clamping device "standard", for test sieves 400/450 mm Ø

32.662.0016

Clamping device "comfort", for test sieves 400/450 mm Ø

32.662.0017

Wet sieving clamping device "standard", for test

Vibratory Sieve Shaker AS 450 control

32.662.0018	sieves 400/450 mm Ø Wet sieving clamping device "comfort", for test sieves 400/450 mm Ø
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Sieve stacks AS 450

60.166.000998	Sieve stack consisting of 10 test sieves (ISO 3310-1), 400 mm Ø, 65 mm height (63 µm, 125 µm, 250 µm, 500 µm, 1 mm, 2 mm, 4 mm, 8 mm, 16 mm, 31.5 mm) and collecting pan
60.168.000999	Sieve stack consisting of 7 test sieves (ISO 3310-1), 450 mm Ø, 100 mm height (63 µm, 125 µm, 250 µm, 500 µm, 1 mm, 2 mm, 4 mm) and collecting pan
60.167.000998	Sieve stack consisting of 10 test sieves (ASTM E11), 400 mm Ø, 65 mm height, (230 mesh, 120 mesh, 60 mesh, 35 mesh, 18 mesh, 10 mesh, 5 mesh, 5/16", 5/8", 1.1/4") and collecting pan
60.169.000999	Sieve stack consisting of 7 test sieves (ASTM E11), 450 mm Ø, 100 mm height (230 mesh, 120 mesh, 60 mesh, 35 mesh, 18 mesh, 10 mesh, 5 mesh) and collecting pan

Accessories for test sieves

Test Sieves 400 mm Ø

60.010.000400	Collecting pan, stainless steel, 400 mm Ø, height 65 mm
60.220.000400	Intermediate pan, stainless steel, 400 mm Ø, height 65 mm
60.935.000400	Intermediate ring, stainless steel, 400 mm Ø, height 65 mm
69.540.0050	Sieve lid, stainless steel, 400 mm Ø
69.440.0070	Collecting pan with outlet, stainless steel, 400 mm Ø, height 70 mm
69.421.000400	Venting ring for wet sieving, stainless steel, 400 mm Ø, height 65 mm
05.114.0048	O-ring for test sieves, 400 mm Ø

Test Sieves 450 mm Ø

60.010.000450	Collecting pan, stainless steel, 450 mm Ø, height 50 mm
60.220.000450	Intermediate pan, stainless steel, 450 mm Ø, height 100 mm
60.935.000450	Intermediate ring, stainless steel, 450 mm Ø, height 100 mm
69.545.0050	Sieve lid, stainless steel, 450 mm Ø
69.445.0084	Collecting pan with outlet, stainless steel, 450 mm Ø, height 85 mm
69.421.000450	Venting ring for wet sieving, stainless steel, 450 mm

Vibratory Sieve Shaker AS 450 control

Ø, height 100 mm

05.114.0012

O-ring for test sieves, 450 mm Ø

Test Sieves

400 mm Ø x 65 mm height

ISO 3310/1

stainless steel with wire gauze

60.166.000025	25 µm *
60.166.000032	32 µm *
60.166.000036	36 µm
60.166.000038	38 µm
60.166.000040	40 µm *
60.166.000045	45 µm
60.166.000050	50 µm *
60.166.000053	53 µm
60.166.000056	56 µm
60.166.000063	63 µm *
60.166.000071	71 µm
60.166.000075	75 µm
60.166.000080	80 µm *
60.166.000090	90 µm
60.166.000100	100 µm *
60.166.000106	106 µm
60.166.000112	112 µm
60.166.000125	125 µm *
60.166.000140	140 µm
60.166.000150	150 µm
60.166.000160	160 µm *
60.166.000180	180 µm
60.166.000200	200 µm *
60.166.000212	212 µm
60.166.000224	224 µm
60.166.000250	250 µm *
60.166.000280	280 µm
60.166.000300	300 µm
60.166.000315	315 µm *
60.166.000355	355 µm
60.166.000400	400 µm *
60.166.000425	425 µm
60.166.000450	450 µm
60.166.000500	500 µm *
60.166.000560	560 µm

Vibratory Sieve Shaker AS 450 control

60.166.000600	600 µm
60.166.000630	630 µm *
60.166.000710	710 µm
60.166.000800	800 µm *
60.166.000850	850 µm
60.166.000900	900 µm
60.166.001000	1.00 mm *
60.166.001120	1.12 mm
60.166.001180	1.18 mm
60.166.001250	1.25 mm *
60.166.001400	1.40 mm
60.166.001600	1.60 mm *
60.166.001700	1.70 mm
60.166.001800	1.80 mm
60.166.002000	2.00 mm *
60.166.002240	2.24 mm
60.166.002360	2.36 mm
60.166.002500	2.50 mm *
60.166.002800	2.80 mm
60.166.003150	3.15 mm *
60.166.003350	3.35 mm
60.166.003550	3.55 mm
60.166.004000	4.00 mm *
60.166.004500	4.50 mm
60.166.004750	4.75 mm
60.166.005000	5.00 mm *
60.166.005600	5.60 mm
60.166.006300	6.30 mm *
60.166.006700	6.70 mm
60.166.007100	7.10 mm
60.166.008000	8.00 mm *
60.166.009000	9.00 mm
60.166.009500	9.50 mm
60.166.010000	10.00 mm *
60.166.011200	11.20 mm
60.166.012500	12.50 mm *
60.166.013200	13.20 mm
60.166.014000	14.00 mm
60.166.016000	16.00 mm *
60.166.018000	18.00 mm
60.166.019000	19.00 mm
60.166.020000	20.00 mm *

Vibratory Sieve Shaker AS 450 control

60.166.022400	22.40 mm
60.166.025000	25.00 mm *
60.166.026500	26.50 mm
60.166.028000	28.00 mm
60.166.031500	31.50 mm *
60.166.035500	35.50 mm
60.166.037500	37.50 mm
60.166.040000	40.00 mm *
60.166.045000	45.00 mm
60.166.050000	50.00 mm *
60.166.053000	53.00 mm
60.166.056000	56.00 mm
60.166.063000	63.00 mm *
60.166.071000	71.00 mm
60.166.075000	75.00 mm
60.166.080000	80.00 mm *
60.166.090000	90.00 mm
60.166.100000	100.00 mm *
60.166.106000	106.00 mm
60.166.112000	112.00 mm

125.00 mm *

450 mm Ø x 100 mm height

ISO 3310/1

	stainless steel with wire gauze
60.168.000036	36 µm
60.168.000038	38 µm
60.168.000040	40 µm *
60.168.000045	45 µm
60.168.000050	50 µm *
60.168.000053	53 µm
60.168.000056	56 µm
60.168.000063	63 µm *
60.168.000071	71 µm
60.168.000075	75 µm
60.168.000080	80 µm *
60.168.000090	90 µm
60.168.000100	100 µm *
60.168.000106	106 µm
60.168.000112	112 µm

Vibratory Sieve Shaker AS 450 control

60.168.000125	125 µm *
60.168.000140	140 µm
60.168.000150	150 µm
60.168.000160	160 µm *
60.168.000180	180 µm
60.168.000200	200 µm *
60.168.000212	212 µm
60.168.000224	224 µm
60.168.000250	250 µm *
60.168.000280	280 µm
60.168.000300	300 µm
60.168.000315	315 µm *
60.168.000355	355 µm
60.168.000400	400 µm *
60.168.000425	425 µm
60.168.000450	450 µm
60.168.000500	500 µm *
60.168.000560	560 µm
60.168.000600	600 µm
60.168.000630	630 µm *
60.168.000710	710 µm
60.168.000800	800 µm *
60.168.000850	850 µm
60.168.000900	900 µm
60.168.001000	1.00 mm *
60.168.001120	1.12 mm
60.168.001180	1.18 mm
60.168.001250	1.25 mm *
60.168.001400	1.40 mm
60.168.001600	1.60 mm *
60.168.001700	1.70 mm
60.168.001800	1.80 mm
60.168.002000	2.00 mm *
60.168.002240	2.24 mm
60.168.002360	2.36 mm
60.168.002500	2.50 mm *
60.168.002800	2.80 mm
60.168.003150	3.15 mm *
60.168.003350	3.35 mm
60.168.003550	3.55 mm
60.168.004000	4.00 mm *
60.168.004500	4.50 mm

Vibratory Sieve Shaker AS 450 control

60.168.004750	4.75 mm
60.168.005000	5.00 mm *
60.168.005600	5.60 mm
60.168.006300	6.30 mm *
60.168.006700	6.70 mm
60.168.007100	7.10 mm
60.168.008000	8.00 mm *
60.168.009000	9.00 mm
60.168.009500	9.50 mm
60.168.010000	10.00 mm *
60.168.011200	11.20 mm
60.168.012500	12.50 mm *
60.168.013200	13.20 mm
60.168.014000	14.00 mm
60.168.016000	16.00 mm *
60.168.018000	18.00 mm
60.168.019000	19.00 mm
60.168.020000	20.00 mm *
60.168.022400	22.40 mm
60.168.025000	25.00 mm *
60.168.026500	26.50 mm
60.168.028000	28.00 mm
60.168.031500	31.50 mm *
60.168.035500	35.50 mm
60.168.037500	37.50 mm
60.168.040000	40.00 mm *
60.168.045000	45.00 mm
60.168.050000	50.00 mm *
60.168.053000	53.00 mm
60.168.056000	56.00 mm
60.168.063000	63.00 mm *
60.168.071000	71.00 mm
60.168.075000	75.00 mm
60.168.080000	80.00 mm *
60.168.090000	90.00 mm
60.168.100000	100.00 mm *
60.168.106000	106.00 mm
60.168.112000	112.00 mm

125.00 mm *

400 mm Ø x 65 mm height

Vibratory Sieve Shaker AS 450 control

ASTM E 11

	stainless steel with wire gauze
60.167.000025	25 µm; 500 Mesh
60.167.000032	32 µm; 450 Mesh
60.167.000038	38 µm; 400 Mesh
60.167.000045	45 µm; 325 Mesh
60.167.000053	53 µm; 270 Mesh
60.167.000063	63 µm; 230 Mesh
60.167.000075	75 µm; 200 Mesh
60.167.000090	90 µm; 170 Mesh
60.167.000106	106 µm; 140 Mesh
60.167.000125	125 µm; 120 Mesh
60.167.000150	150 µm; 100 Mesh
60.167.000180	180 µm; 80 Mesh
60.167.000212	212 µm; 70 Mesh
60.167.000250	250 µm; 60 Mesh
60.167.000300	300 µm; 50 Mesh
60.167.000355	355 µm; 45 Mesh
60.167.000425	425 µm; 40 Mesh
60.167.000500	500 µm; 35 Mesh
60.167.000600	600 µm; 30 Mesh
60.167.000710	710 µm; 25 Mesh
60.167.000850	850 µm; 20 Mesh
60.167.001000	1.00 mm; 18 Mesh
60.167.001180	1.18 mm; 16 Mesh
60.167.001400	1.40 mm; 14 Mesh
60.167.001700	1.70 mm; 12 Mesh
60.167.002000	2.00 mm; 10 Mesh
60.167.002360	2.36 mm; 8 Mesh
60.167.002800	2.80 mm; 7 Mesh
60.167.003350	3.35 mm; 6 Mesh
60.167.004000	4.00 mm; 5 Mesh
60.167.004750	4.75 mm; 4 Mesh
60.167.005600	5.60 mm; 3.5 Mesh
60.167.006300	6.30 mm; 1/4 "
60.167.006700	6.70 mm; 0.265 "
60.167.008000	8.00 mm; 5/16 "
60.167.009500	9.50 mm; 3/8 "
60.167.011200	11.20 mm; 7/16 "
60.167.012500	12.50 mm; 1/2 "
60.167.013200	13.20 mm; 0.530 "
60.167.016000	16.00 mm; 5/8 "

Vibratory Sieve Shaker AS 450 control

60.167.019000	19.00 mm; 3/4 "
60.167.022400	22.40 mm; 7/8 "
60.167.025000	25.00 mm; 1 "
60.167.026500	26.50 mm; 1.06 "
60.167.031500	31.50 mm; 1 1/4 "
60.167.037500	37.50 mm; 1 1/2 "
60.167.045000	45.00 mm; 1 3/4 "
60.167.050000	50.00 mm; 2 "
60.167.053000	53.00 mm; 2.12 "
60.167.063000	63.00 mm; 2 1/2 "
60.167.075000	75.00 mm; 3 "
60.167.090000	90.00 mm; 3 1/2 "
60.167.100000	100.00 mm; 4 "
60.167.106000	106.00 mm; 4.24 "

125.00 mm; 5 "

450 mm Ø x 100 mm height

ASTM E 11

	stainless steel with wire gauze
60.169.000038	38 µm; 400 Mesh
60.169.000045	45 µm; 325 Mesh
60.169.000053	53 µm; 270 Mesh
60.169.000063	63 µm; 230 Mesh
60.169.000075	75 µm; 200 Mesh
60.169.000090	90 µm; 170 Mesh
60.169.000106	106 µm; 140 Mesh
60.169.000125	125 µm; 120 Mesh
60.169.000150	150 µm; 100 Mesh
60.169.000180	180 µm; 80 Mesh
60.169.000212	212 µm; 70 Mesh
60.169.000250	250 µm; 60 Mesh
60.169.000300	300 µm; 50 Mesh
60.169.000355	355 µm; 45 Mesh
60.169.000425	425 µm; 40 Mesh
60.169.000500	500 µm; 35 Mesh
60.169.000600	600 µm; 30 Mesh
60.169.000710	710 µm; 25 Mesh
60.169.000850	850 µm; 20 Mesh
60.169.001000	1.00 mm; 18 Mesh
60.169.001180	1.18 mm; 16 Mesh

Vibratory Sieve Shaker AS 450 control

60.169.001400	1.40 mm; 14 Mesh
60.169.001700	1.70 mm; 12 Mesh
60.169.002000	2.00 mm; 10 Mesh
60.169.002360	2.36 mm; 8 Mesh
60.169.002800	2.80 mm; 7 Mesh
60.169.003350	3.35 mm; 6 Mesh
60.169.004000	4.00 mm; 5 Mesh
60.169.004750	4.75 mm; 4 Mesh
60.169.005600	5.60 mm; 3.5 Mesh
60.169.006300	6.30 mm; 1/4 "
60.169.006700	6.70 mm; 0.265 "
60.169.008000	8.00 mm; 5/16 "
60.169.009500	9.50 mm; 3/8 "
60.169.011200	11.20 mm; 7/16 "
60.169.012500	12.50 mm; 1/2 "
60.169.013200	13.20 mm; 0.530 "
60.169.016000	16.00 mm; 5/8 "
60.169.019000	19.00 mm; 3/4 "
60.169.022400	22.40 mm; 7/8 "
60.169.025000	25.00 mm; 1 "
60.169.026500	26.50 mm; 1.06 "
60.169.031500	31.50 mm; 1 1/4 "
60.169.037500	37.50 mm; 1 1/2 "
60.169.045000	45.00 mm; 1 3/4 "
60.169.050000	50.00 mm; 2 "
60.169.053000	53.00 mm; 2.12 "
60.169.063000	63.00 mm; 2 1/2 "
60.169.075000	75.00 mm; 3 "
60.169.090000	90.00 mm; 3 1/2 "
60.169.100000	100.00 mm; 4 "
60.169.106000	106.00 mm; 4.24 "

125.00 mm; 5 "