

RETSCHE Product Navigator

■ Milling

■ Sieving

Analytical Sieve Shakers

- AS 200
- AS 300
- AS 400
- AS 200 tap

Software

- EasySieve®

Test Sieves

■ Assisting

Sieving for perfect quality control



Improve your analyses and products with RETSCH!

Sieving analyses with RETSCH instruments produce exact and reproducible results. Our test sieves and sieve shakers comply with the requirements for the test materials monitoring according to DIN EN ISO 9000 ff. Customized evaluation software, sample dividers and an extensive range of accessories complement our solutions in the field of analytical sieving. This is the reason why RETSCH meets and exceeds the high requirements of its customers.

Retsch®

Solutions in Milling & Sieving

Sample dividers



Analytical sieve shakers



Test sieves



EasySieve® software



Cleaners and dryers



Superiority in detail – technology from RETSCH

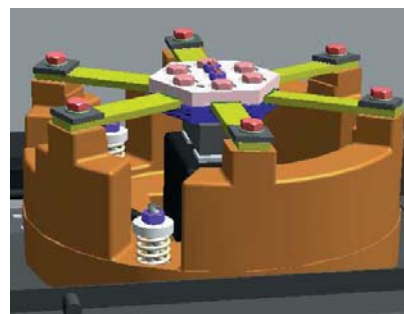
RETSCH products are used in the quality control of solids for a reason. From representative sample division to precise particle size analysis to professional maintenance of the test sieves – RETSCH offers you a complete equipment range for perfect results:

- **Sample dividers**
Division/extraction of representative partial samples from the bulk
- **Analytical sieve shakers**
High-tech devices in various sizes and types of sieving motion (throwing movement with angular momentum or horizontal circular motion), suitable for wet and dry sieving, can be calibrated
- **Test sieves**
comply with all relevant standards, can be calibrated, manufactured fully automatically which is unique in the world
- **EasySieve® software**
to control the sieve shaker, record weighing data and evaluate and document sieve analyses according to relevant rules and standards
- **Ultrasonic cleaners and dryers**
for the cleaning of test sieves and for the rapid, gentle drying of samples and test sieves

Many unique details make RETSCH products stand out – for perfect results and maximum working efficiency. Convince yourself!

Superior drive mechanism

The core of each RETSCH projection sieve shaker is the electromagnetic drive. It produces a throwing motion that moves the product to be sieved equally over the whole sieving surface. The drive can take a high stress load and is very effective, so that the sieving time is greatly reduced. Furthermore, this patented RETSCH technology runs without wear and does not require maintenance.



Ease of use and efficiency

Clamping test sieves does not get any easier, faster and safer than with the clamping device "comfort". The trick: simply press the upper lever to clamp the sieves tight. After the sieving is completed, the sieve stack can be withdrawn without having to completely take off the lid. Thus, time and power are saved.

In all "control" models, 9 different parameter combinations can be saved. Thus, repetitive sieve analyses can be performed quickly and efficiently. Errors due to wrong parameter entries are prevented.

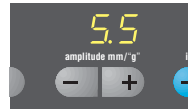




Unique operation in accelerated mode



Vibration height
in mm



Acceleration of the
sieve in "g"

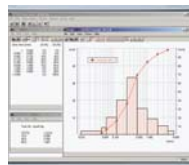
In RETSCH sieve shakers the intensity of the movement can be set either in mm as vibration height or in "g" as acceleration (acceleration due to gravity, 9.81 m/s^2), independent of the power frequency. "Sieving with

equal acceleration" means obtaining worldwide comparable and reproducible results, completely independent of operational parameters such as power frequency, load, age or condition of the machine. This feature is unique to RETSCH sieve shakers.

Calibration

All RETSCH analytical sieve shakers of the series "control" and all RETSCH test sieves can be calibrated and thus may be used in quality control according to DIN EN ISO 9000 ff. RETSCH supplies high-quality products that you can rely on.

Evaluation



All RETSCH model "control" sieve shakers are equipped with a serial interface to allow for an automated workflow. Using the software EasySieve®, the sieve shaker can be operated from a PC and the whole sieving and weighing process can be monitored and documented, visible for you on the screen.

High quality test sieves



Due to a unique and highly modern production process, RETSCH offers you test sieves of unparalleled quality and precision. Thus, RETSCH meets and exceeds the highest requirements of reliable particle size analyses. Better sieves guarantee better, exact results.

Form follows function

RETSCH laboratory instruments also show their technical superiority from the outside. The AS 200 was awarded a prize for its modern, ergonomic design which at the same time expresses a high level of technical innovation.

Why particle size analysis?

The knowledge of particle size and distribution in disperse solids is very important for research and development, production and quality assurance.

The following list shows product properties that depend on the particle size distribution:

- mechanical properties of bulk goods
- surface reaction
- insulating and absorbing properties
- flavor
- mixability
- wear resistance
- filtration ability
- stress and breaking behavior
- agglomeration due to adhesive forces
- conductivity
- extinction

AS 200 basic / digit / control



Innovative technology that sets standards worldwide!

RETSCH analytical sieve shakers are used in research & development, quality control of raw materials, interim and finished products as well as in production monitoring. The three-stage series AS 200 provides a suitable instrument for every requirement and budget. The AS 300 is designed for larger feed quantities. All "control" models can be used as measuring instrument according to DIN EN ISO 9000 ff.

AS 200 control



The AS 200 control complies with the highest requirements in quality assurance. One particular characteristic makes this RETSCH product stand out from others: Instead of the vibration height, the **sieve acceleration**, which is **independent of the power frequency**, can be set. Thus, the AS 200 control ensures **comparable and reproducible sieving results worldwide**. It can be calibrated to ensure 100% reproducibility of sieving results, not only in one device, but among all AS 200 control units! Thus, the requirement for the **test materials monitoring according to DIN EN ISO 9000 ff** is met. Its microprocessor-controlled **measuring and control unit** ensures a constant vibration height. With regard to operational convenience, the AS 200 control meets and exceeds all standards of a modern laboratory. All sieving parameters – vibration height, time, interval – are set, displayed and monitored digitally. Up to **9 parameter combinations** can be stored for routine analyses. Through the **integrated interface** the instrument can be connected to a PC and controlled with the evaluation software EasySieve®. This program

enables you to control the whole sieving process and the subsequent documentation with convenience and accuracy.

The AS 200 control is indispensable for all users who attach importance to precision and operational convenience and work according to the guidelines of the GLP.

All RETSCH sieve shakers can be combined with various sieve clamping units. For frequent sieving processes, we recommend the user-friendly quick clamping unit "comfort".

AS 200 basic



The **economical alternative** of the series with familiar RETSCH quality and reliability. With analog adjustment of vibration height and sieving time.

AS 200 digit



The standard model of the AS 200 series is recommended whenever **digital time display, interval operation** and analog adjustment along with optical monitoring of the vibration height are required.

Benefits at a glance

- Sieving with 3D effect
- For sieves up to 203 mm (8") Ø
- Measuring range 20 µm to 25 mm
- Available in 3 models
- Easy operation, ergonomic design
- Low noise and maintenance-free
- 2-year warranty, conforms with CE standards

Technology of AS 200, AS 300

All sieve shakers of the series AS 200 and AS 300 work with an electromagnetic drive that is patented by RETSCH (EP 0642844). This drive produces a 3D throwing motion that moves the product to

be sieved equally over the whole sieving surface. The advantage: high load capacity, extremely smooth operation and short sieving times with high separation efficiency.



AS 300 control



grammed with **sieve acceleration independent of the power frequency** instead of vibration height. All sieving parameters are set, displayed and monitored digitally. The microprocessor-controlled **measuring device** monitors and automatically readjusts the vibration height in case of changes of the load or the voltage. The AS 300 control **can be calibrated**, and is thus suitable for test materials monitoring according to DIN EN ISO 9000 ff. Like all instruments of the series "control", the AS 300 has an **integrated interface**. Using the evaluation software EasySieve®, the instrument can be controlled and adjusted. With EasySieve®, all sieving parameters are displayed on screen before and during the sieving process.

AS 300 control



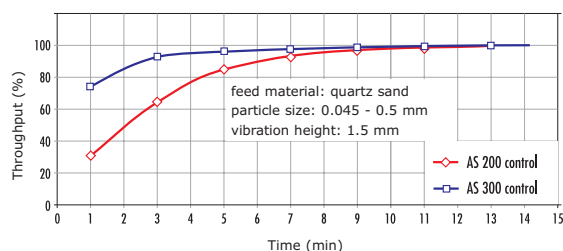
The AS 300 control is specifically designed for test sieves with a diameter of 305 mm (12"). Compared to sieves with a diameter of 200 mm, a 2.25 times larger sieving surface is thus available. Therefore, the average sieving times can be greatly reduced with the AS 300 control. Another advantage is the **large feed quantity** (up to 6 kg) that can be separated in one working run. Repetitive operations can be greatly simplified with the possibility to **store up to 9 parameter combinations** directly in the sieving instrument. For perfectly reproducible sieving results, the AS 300 control can be pro-

The AS 300 control is the ideal instrument for quick sieving of larger product quantities. It meets all requirements in the field of quality control due to its operational convenience, reproducibility and long lifetime.

Benefits at a glance

- Sieving with 3D effect
- For sieves up to 315 mm Ø
- Measuring range 36 µm to 40 mm
- 9 parameter combinations can be stored
- Short sieving times with large sieving surface and effective movement of the product to be sieved
- Low noise and maintenance-free
- 2-year warranty, conforms with CE standards

Comparison AS 200 / AS 300 with high feed quantity

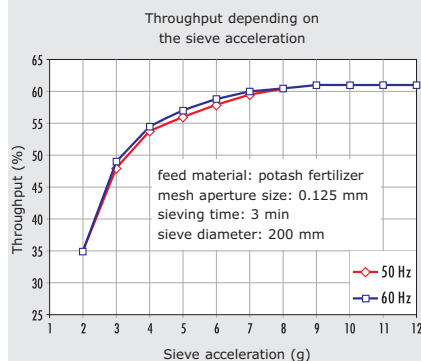


This chart exemplifies the average sieving times of an AS 200 control and an AS 300 control under equivalent circumstances.

The worldwide unique RETSCH technology: sieving with controlled acceleration!

The sieve shakers AS 200 control and AS 300 control are activated in their natural frequency. This means, the sieving frequency changes with the loading of the instrument. It depends on the weight of the sieve stack and the quantity of the loaded product to be sieved. In order to ensure the reproducibility of the results even in short-time sieving procedures, the default setting of the vibration height can be switched to **sieve acceleration** (sieving with equal acceleration). Thus, the instruments work completely **independent of operational parameters** such as **power frequency, loading, age, or condition** of the unit.

Therefore, the RETSCH sieve shakers AS 200 control and AS 300 control are the only sieve shakers to feature the possibility of eliminating influences of error by different sieving frequencies via automatic adjustment of the amplitude (**patents D 19 522 987, USA 5,791,494**). An amplitude of more than 2 mm can be achieved under all nominal load conditions, and the sieve acceleration achieved in this can be as high as 17 g ($1 \text{ g} = 9.81 \text{ m/s}^2$).



The chart makes it clear: even with large differences in the frequency, sieving processes with equal acceleration always achieve fully matching results, independent of the sieving time. This is because the sieve acceleration is the decisive factor for the quick passage of the particles through the sieve.

AS 400 control



Sieving on one level

The RETSCH AS 400 control is used for the sieving of dry goods with test sieves of a diameter up to 400 mm. The uniform, horizontal circular motion ensures exact separation of the product to be sieved. Fine and coarse-grained goods as found in the areas of milling, brewing, chemical industry, quarries, soil testing, woodworking and plastics industry, can be exactly separated with the AS 400 control. The horizontal circular motion is particularly suitable for the separation of certain products, as milled grain, splints and similar materials. For the testing of plastics (grainy moulding materials), the DIN 53 477 even requires the circular sieving motion.

AS 400 control



The AS 400 control can be used as test instrument for the quality control according to DIN EN ISO 9000 ff. Due to the **controlled drive** the AS 400 control yields reproducible results worldwide. The desired number of revolutions / sieve acceleration and sieving time are set, displayed and monitored digitally. The instrument is supplied with a test certificate and can be **recalibrated**. If desired, the rotation direction can be set to alternate in the interval. Up to **9 sieving programs** can be directly stored for routine analyses.

An integrated counter mass **ensures stability** even with a high mass of the sieve stack. The instrument can also be secured to the laboratory bench if desired. The base plate can take **very high loads** due to 4 eccentric guides. The AS 400 control has an **integrated interface** for controlling all sieving parameters via the EasySieve® software. The required interface cable is included in delivery.

The AS 400 control is a robust device, which meets highest requirements due to its superior technology. With the option to install clamping devices for sieves with diameters from 100 mm to 400 mm (4" to 16") the AS 400 is **particularly versatile** and suitable for a wide range of applications.

Using the proven clamping device "comfort" the sieve stack can be fastened conveniently with two simple steps. For occasional sieving processes we recommend the inexpensive clamp "standard".

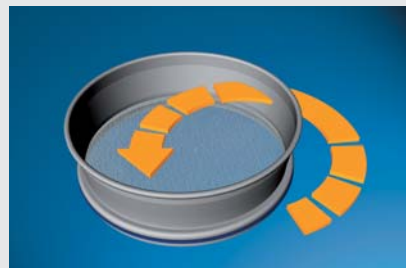
Benefits at a glance

- Sieving with circular sieving motion according to DIN 53477
- For sieves up to 400 mm Ø
- Measuring range 45 µm to 63 mm
- Easy operation, ergonomic design
- Low noise and maintenance-free
- 2-year warranty, conforms with CE standards

Technology of the AS 400

The base plate performs horizontal circular motions with a radius of 15 mm (according to DIN 53477). The speed of 50 to 300 rpm is electronically controlled. It is continuously adjustable to meet the requirements of the product to be

sieved. The actual value of the number of revolutions is digitally displayed. The base plate is driven by a robust, maintenance-free drive motor with a power of 125 Watt. The power is transmitted via an eccentric.



AS 200 tap

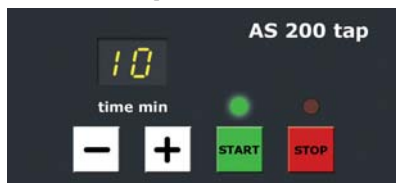


Mechanizing hand sieving

The RETSCH AS 200 tap is suitable for dry sieving with test sieves of 200 mm or 8" diameter. The combination of horizontal, circular sieving motions with vertical taps reproduces the principle of hand sieving. The uniform mechanical action ensures reliable and reproducible measurement results.

This special type of sieving motion used by the AS 200 tap is specified in various standards for particle size analysis of materials such as activated carbon, diamonds, spices, metal powders, abrasives or cement.

AS 200 tap



Operating the AS 200 tap is **exceptionally easy and safe**. The integrated clamping device allows for sieve stacks with up to 12 sieves, plus pan, depending on the height of the sieve frame. The sieving time is set from 1 to 99 minutes via a digital display. The number of rotations and taps is fixed and cannot be adjusted. The tapping motion can be deactivated, if required. A safety switch and an anti-trap pro-

tection **provide maximum safety** when working with the AS 200 tap.

Thanks to an **integrated interface**, the AS 200 tap can be controlled with the evaluation software EasySieve®. This program enables you to control the whole sieving process and the subsequent documentation with convenience and accuracy. The required interface cable is part of the delivery scope.

The AS 200 tap is a robust sieve shaker which requires no maintenance. The sound-enclosure cabinet helps to substantially reduce noise emission.

Benefits at a glance

- Sieving with circular motion and vertical taps
- For 200 mm / 8" sieves
- Measuring range 20 µm to 25 mm
- Safe and easy operation
- Robust and maintenance-free
- Sound-enclosure cabinet with CE mark
- 2-year warranty



AS 200 tap technology

The AS 200 tap is equipped with a powerful single-phase a.c. motor. The sieve plate performs horizontal circular motions with a radius of 14 mm.

The mechanical gear keeps the number of oscillations (280 min^{-1}) as well as the number of taps (150 min^{-1}) constant, even with high loads.



Overview of RETSCH sieve shakers

Performance data	AS 200 basic	AS 200 digit	AS 200 control	AS 300 control	AS 400 control	AS 200 tap
Applications	separation, fractioning, particle size determination					
Feed material	powders, bulk materials, suspensions				powders, bulk materials	
Measuring range*	20 µm to 25 mm		36 µm to 40 mm		45 µm to 63 mm	20 µm to 25 mm
Max. batch / feed capacity	3 kg	3 kg	3 kg	6 kg	5 kg	3 kg
Max. number of fractions**	9 / 17	9 / 17	9 / 17	9 / 17	7 / 9 / 17	7 / 13
Max. mass of sieve stack	4 kg	4 kg	6 kg	10 kg	15 kg	6 kg
Adjustment of sieving parameters						
Amplitude / rpm	analog, 0 - 3 mm	analog, 0 - 3 mm	digital, 0.2 - 3 mm	digital, 0.2 - >2 mm	digital, 50 - 300 rpm	fixed, 280 rpm, 150 taps
Sieve acceleration	-	-	1.0 - 15.1 g	1.0 - >10.0 g	0.04 - 1.51 g	-
Time	analog, 1 - 60 min	digital, 1 - 99 min	digital, 1 - 99 min	digital, 1 - 99 min	digital, 1 - 99 min	digital, 1 - 99 min
Interval operation	-	10 s (fixed)	10 - 99 s	10 - 99 s	1 - 10 min	-
Memory for 9 sieving programs	-	-	yes	yes	yes	-
Motion of product to be sieved	throwing motion with angular momentum		throwing motion with angular momentum		horizontal circular motion	horizontal circular motion with taps
Suitable for sieving of wet products	yes	yes	yes	yes	-	-
Serial interface	-	-	yes	yes	yes	yes
Including test certificate / can be calibrated	-	-	yes	yes	yes	-
*depending on feed material and used sieve set **depending on the used sieve sizes						
Technical data						
Suitable sieve diameters	100 mm to 200 mm / 8"		100 mm to 315 mm		100 mm to 400 mm	200 mm / 8"
Height of sieve stack	up to 450 mm		up to 450 mm		up to 450 mm	up to 350 mm
W x H x D	400 x 230 x 350 mm		400 x 235 x 400 mm		540 x 260 x 507 mm	700 x 650 x 450 mm
Net weight	approx. 30 kg		approx. 35 kg		approx. 70 kg	approx. 68 kg
Noise values (noise measurement according to DIN 45635-31-01-KL3)						
Measuring conditions: 5 test sieves; vibration height 1.5 mm; feed material quartz sand; particle size <1 mm						
Emission value with regard to workplace	L _{pAeq} 63 dB(A)		L _{pAeq} 59 dB(A)		L _{pAeq} 58.4 dB(A)	L _{pAeq} 82/66 ¹ dB(A)
¹ with sound-enclosure cabinet						

Sieve clamping devices



Sieve clamping device
"comfort"



Sieve clamping device
"standard"



Sieve clamping device
"economy"



Universal wet sieve
clamping device "comfort"



Universal sieve clamping
device "standard"

With RETSCH clamping devices the sieves can be clamped safely, quickly and conveniently. The quick clamping devices "comfort" are particularly user-friendly and time-efficient. With universal sieve clamping devices, test sieves of a diameter of 100 – 203 mm (8") can be attached. As an option, they are also available for the sieving of wet materials.

For the sieve shaker AS 200 tap no clamping device is required.

Clamping cover	Clamping elements	Stand rod	Dry sieving	Wet sieving	Acrylic plastic window
Sieve clamping devices			AS 200 AS 300 AS 400	AS 200 AS 300 AS 400	
comfort	quick clamping elements	smooth	■ ■ ■	- ■ -	yes
standard	quick clamping nuts	threaded	■ ■ ■	- ■ -	yes
economy	quick clamping nuts	threaded	■ - -	- - -	none
Universal sieve clamping devices					
comfort	quick clamping elements	smooth	■ - -	■ - -	yes
standard	quick clamping nuts	threaded	■ - -	■ - -	yes
All clamping devices of AS 200 are also suitable for AS 300					
All clamping devices of AS 200 and AS 300 are also suitable for AS 400					

Control, evaluation, documentation with EasySieve®



Benefits at a glance

- Automatic registration, evaluation and administration of measurement data
- Measurement protocol in accordance with standards
- Complex transformation into charts and tables
- Data link of different measurement instruments
- Automatic detection and configuration of common analytical scales
- Comprehensive data export
- Comprehensive help text, detailed manual

Simple, fast, and reliable

EasySieve, the software for particle size analyses, is able to automatically control the necessary measurement and weighing procedures – from the registration of the weight of the sieve up to the evaluation of the data.

Due to the logical design of the software the user can easily get started with the program. He is lead through the process step by step.

System requirements

- Pentium PC
- for automatic control:
 - PC with free serial* interfaces
 - scale with serial* interface
 - sieve shaker with serial* interface (e.g. AS 200 control, AS 300 control, AS 400 control, AS 200 tap)

*A RS232-USB Adapter is available

EasySieve® Standard or EasySieve® Comfort

Two different versions of EasySieve® are available: Standard and Comfort. EasySieve® Comfort offers enhanced possibilities for data transfer to LIMS systems, for graphical display of trend analyses as well as for the determination of special characteristics. Available in German and in English.

Feature	Comfort	Standard
General information		
Windows®, interface	Windows® 95/98/ME/NT/2000/XP (others on request)	Windows® 95/98/ME/NT/2000/XP (others on request)
ASTM and Tyler Mesh	x	-
Password protection for sieve analysis	x	x
Serial no. for sieves	x	-
Sieve analysis with		
• nominal mesh size	x	x
• actual mesh size	x	-
Automatic simultaneous data transfer	x	-
Administration of measurement data	unlimited	unlimited
Data import and export	x	x
CD manual / online help	x	x
Measurement protocol (according to DIN 66 165)	x	x
Tables		
Throughput values Q3 (x)	x	x
Residual values (1-Q3(x))	x	x
Fraction p3	x	x
Fraction Δm (proportional masses)	x	x
Distribution density q3(x)	x	x
log. distribution density q3*(x)	x	x
Actual mesh size	x	-
Diagram		
combined representation of several analyses	x	x
Curve representation	x	x
Distribution density		
• x-axis	lin, log	lin, log
• y-axis	lin, log, RRSB	lin, log, RRSB
Windowing (Zoom)	x	x
Cumulative curve (throughput) Q3 (x)	x	x
Residual curve (1-Q3 (x))	x	x
Fraction p3/histogram	x	x
Lin. Division density q3(x)	x	x
Log. Division density q3*(x)	x	x
Trend analysis	x	-
Limit value graph with specifications limits	x	x
2 representation possibilities (including right y-axis)	x	x
Reference particles (registration of external particle size division)	x	x
Parameters		
Fineness parameters, 3 values Q3 (x)	x	x
Quantile particle size, 3 values x (Q3)	x	x
RRSN parameters	x	x
Sauter mean diameter X St	x	-
Splinter value	x	x
Specific interface		
• volume related Sv	x	-
• mass related Sm	x	-
Unequal grade of granularity	x	x
AFS particle fineness No.	x	-

A new generation of RETSCH test sieves



Production process:

1. Data entry
2. Welding
3. Lasering
4. 100% optical inspection

Advanced Manufacturing Process

The demands made of particle size analysis are constantly increasing. This is also reflected in the greater requirements made in the standard ISO 3310.

In order to adapt our test sieves to these requirements, RETSCH has developed a unique manufacturing process that guarantees a previously unattained quality and consistency in sieve production. In addition, a logistic manufacturing system makes it possible to record each and every material used in the process.

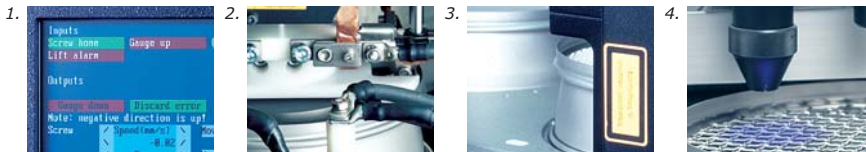
Precision and Compatibility

The sieves are fully compatible with RETSCH's existing products and can be combined with other sieves without any problems. Beyond this, there's something important for you: each and every sieve that leaves our company includes a test report or, at your request, a special inspection certificate in conformity with ISO 3310-1. RETSCH's calibration certificates ensure a higher statistical reliability and document our continual quest for perfection.

RETSCH's sieves are available in the four most widely used sizes:

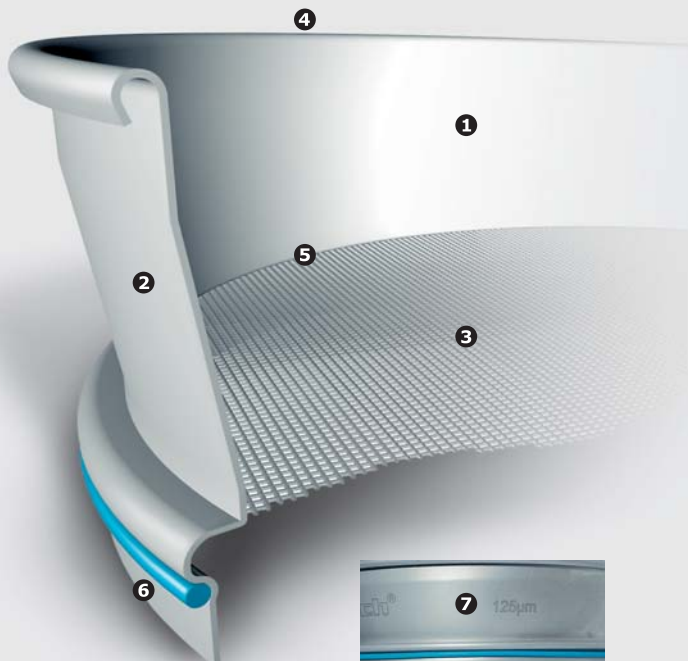
- 200 x 50 mm**
- 200 x 25 mm**
- 203 x 50 mm (8"x 2").**
- 203 x 25 mm (8"x 1").**

Of course, we guarantee compatibility with other standard sieves.



Seven Unique Benefits

Our unique manufacturing process ensures an optimum design with each and every sieve. Experience yourself the benefits of increased quality analyses as well as improved handling and service life of the sieves.



- 1.** One piece construction and fabric-transition without any grooves to prevent cross contamination (no solder*, no epoxy, no residues, etc.)
- 2.** A high degree of corrosion resistance and ease of cleaning due to high-alloy stainless steel (specification: 316)
- 3.** 15% lighter than traditional sieves while at the same time increasing the free sieve area
- 4.** Previously unattained product quality due to fully automatic production and extensive optical inspection with optimum design
- 5.** Innovative resistance welding technology guarantees permanently tight sieve fabric
- 6.** Maximum stability and optimum sealing when used in sieve stacks
- 7.** Clear and precise labeling of the sieves with full traceability based on individualized laser engraving

*for sieves up to 5.6 mm (#3.1/2).
As from 6.3 mm lead-free silver solder is used.

Maximum precision for exact results

Test sieves with Ø of 100 / 150 / 305 (12") / 400 mm

- Sieve meshes, frames and labeling comply with standards
- Tested 5 times, with test report
- According to ISO, ASTM, BS
- Individual inspection certificate for test materials monitoring according to ISO 9000 ff available on request
- Stainless steel wire sieve mesh, 20 µm to 125 mm
- Also available with perforated plate, round or square



Sieve accessories



For the various test sieves, matching collecting pans, collecting pans with outlet, intermediate pans, intermediate rings and sieve covers are available. Sieving aids and sieve racks complete the range of accessories.

Please refer to our price list for order data of the test sieves and the available accessories.

Comparison Chart for
European and American
Sieve Standards

ISO	ASTM	ISO	ASTM
[µm]	[#]	[mm]	[#]
20	635	1,00	18
25	500	1,12	
32	450	1,18	16
36		1,25	
38	400	1,40	14
40		1,60	
45	325	1,70	12
50		1,80	
53	270	2,00	10
56		2,24	
63	230	2,36	8
71		2,50	
75	200	2,80	7
80		3,15	
90	170	3,35	6
100		3,55	
106	140	4,00	5
112		4,50	
125	120	4,75	4
140		5,00	
150	100	5,60	3.1/2
160		6,30	1/4 in.*
180	80	6,70	0.265 in.
200		7,10	
212	70	8,00	5/16 in.
224		9,00	
250	60	9,50	3/8 in.
280		10,00	
300	50	11,20	7/16 in.
315		12,50	1/2 in.*
355	45	13,20	0.530 in.
400		14,00	
425	40	16,00	5/8 in.
450			
500	35		
560			
600	30		
630			
710	25		
800			
850	20		
900			

* ASTM
supplementary
values

Tested quality – with certificates

RETSCH certificates

Prior to delivery, each sieve is optically measured and a **test report** is issued.

On request, an **inspection certificate** with the measuring results in tabular and graphical form is delivered. For test sieves according to ISO 3310-1 a **calibration certificate** with detailed statistics is available.

Calibration service

As a special service, we offer to re-calibrate your test sieves. After the standard measuring process, all relevant data are recorded and confirmed in the **calibration certificate**, if desired.



Order data

Analytical sieve shaker AS 200				Item No.
AS 200 (not including clamping device, test sieves and collecting pan)				control
AS 200	100-240 V, 50/60 Hz	basic	digit	30.018.0001
AS 200	230 V, 50 Hz	30.016.0001	30.015.0001	-
AS 200	120 V, 60 Hz	30.016.0005	30.015.0005	-
Clamping devices, complete for AS 200				dry sieving
economy	for test sieves 100/150/200/203 mm (8") Ø			32.662.0003
standard	for test sieves 200/203 mm (8") Ø			32.662.0002
comfort	for test sieves 200/203 mm (8") Ø			32.662.0001
Universal clamping devices, complete for AS 200			wet sieving	dry sieving
standard	for test sieves 100/150/200/203 mm (8") Ø		32.662.0007	32.662.0005
comfort	for test sieves 100/150/200/203 mm (8") Ø		32.662.0006	32.662.0004
Accessories for AS 200				
Sieve stack, 200 mm Ø, 50 mm height, consisting of 8 test sieves acc. to ISO 3310/1 (45 µm, 63 µm, 125 µm, 250 µm, 500 µm, 1 mm, 2 mm, 4 mm) and collecting pan				60.131.000999
Sieve stack, 203 mm (8") Ø, 50 mm height, consisting of 8 test sieves acc. to ASTM (325 mesh, 230 mesh, 120 mesh, 60 mesh, 35 mesh, 18 mesh, 10 mesh, 5 mesh) and collecting pan				60.150.000999
Test sieve rack for 10 test sieves 200/203 mm (8") Ø				32.012.0001
IQ/OQ documentation for AS 200 control				99.200.0001
Analytical sieve shaker AS 300				Item No.
AS 300 (not including clamping device, test sieves and collecting pan)				control
AS 300	100-240 V, 50/60 Hz			30.021.0001
Clamping devices, complete for AS 300			wet sieving	dry sieving
standard	for test sieves 305 mm (12")/315 mm Ø		32.662.0012	32.662.0008
comfort	for test sieves 305 mm (12")/315 mm Ø		32.662.0014	32.662.0009
All clamping devices of AS 200 are also suitable for AS 300				
Accessories for AS 300				
Sieve stack, 305 mm (12") Ø, 40 mm height, consisting of 7 test sieves acc. to ISO 3310/1 (0.63 mm, 1.25 mm, 2.5 mm, 5 mm, 10 mm, 20 mm, 31.5 mm) and collecting pan				60.158.000999
Sieve stack, 305 mm (12") Ø, 40 mm height, consisting of 7 test sieves acc. to ASTM (30 mesh, 16 mesh, 8 mesh, 4 mesh, 3/8", 3/4", 1 1/4") and collecting pan				60.159.000999
IQ/OQ documentation for AS 300 control				99.200.0002
Analytical sieve shaker AS 400				Item No.
AS 400 (not including clamping device, test sieves and collecting pan)				control
AS 400	100-240 V, 50/60 Hz			30.022.0001
Clamping devices, complete for AS 400				dry sieving
standard	for test sieves 400 mm Ø			32.662.0010
comfort	for test sieves 400 mm Ø			32.662.0011
All clamping devices of AS 200 and AS 300 are also suitable for AS 400				
Accessories for AS 400				
Sieve stack, 400 mm Ø, 65 mm height, consisting of 6 test sieves acc. to DIN 3310/1 (0.5 mm, 1 mm, 2 mm, 5 mm, 10 mm, 20 mm) and collecting pan				60.166.000999
Sieve stack, 400 mm Ø, 65 mm height, consisting of 6 test sieves acc. to ASTM (35 mesh, 18 mesh, 10 mesh, 4 mesh, 3/8", 3/4") and collecting pan				60.167.000999
Analytical sieve shaker AS 200 tap				Item No.
AS 200 tap (incl. sieve cover for test sieves up to 203 mm / 8" Ø, not including test sieves and collecting pan)				
AS 200 tap	230 V, 50 Hz, incl. sound-enclosure cabinet, conforms with CE standards			30.025.1001
AS 200 tap	120 V, 60 Hz, incl. sound-enclosure cabinet, conforms with CE standards			30.025.1002
AS 200 tap	230 V, 50 Hz			30.025.0001
AS 200 tap	120 V, 60 Hz			30.025.0002

For additional accessories as evaluation software, test sieves, sieve covers, collecting pans, sieving aids etc. please refer to our price list.
For more details on our sample dividers, rapid dryers and ultrasonic cleaning baths see our "Assisting" brochure.



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RETSCH – Your specialist for sample preparation offers you a comprehensive range of equipment. Please request information on our crushers, mills, sample dividers, feeders as well as cleaning and drying machines.