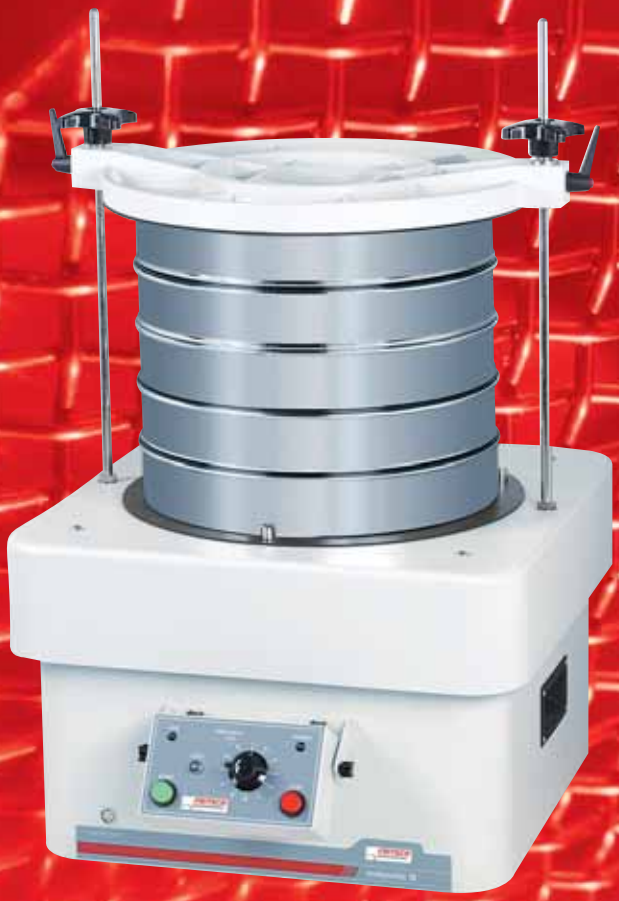
analysette 18



Heavy Duty Analytical Sieve Shaker

- Rapid sieving
- Large sieving quantities
- Test sieves up to 450 mm dia.

particle size analysis

quality control

sieving

for your lab

FRITSCH

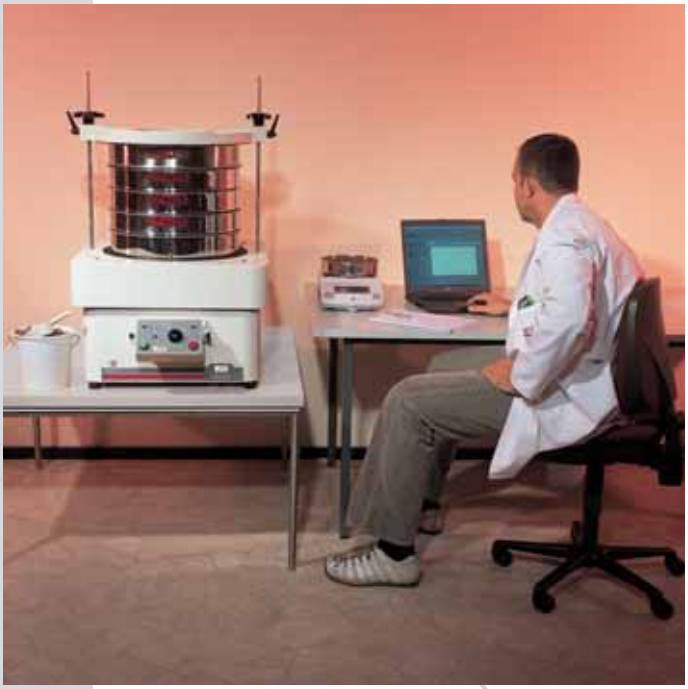
Heavy Duty Analytical Sieve Shaker

Field of application

The analysette 18 is primarily used for particle size analysis and grading of coarse-grained materials. The maximum feed quantity of 25 kg for sieving material and sieve stack means it can also be used in pilot plant production or in test series for larger quantities.

It is used wherever manual sieving is replaced by mechanical sieving in order to lower costs or achieve greater reproducibility. A maximum sample quantity of up to 6 kg can be processed in the measuring range 63 µm to 125 mm. Sieve process times are between 5 and 60 minutes.

Used with the evaluation programme AUTOSIEVE means that sieving results are not only available more quickly but are also more reliable. Weighing as well as calculation errors for the individual sieve fractions are thus avoided, as the computer carries out the complete analysis.



Method of operation

The analysette 18 is a vibratory sieving machine that has been specially designed for processing large quantities of material which requires sieving. It essentially avoids the disadvantages of lighter sieving machines in which the sample and sieve weights can sometimes bias the sieve results.

Two unbalanced motors installed in phase opposition under exactly defined angles create optimum vibration of the test sieves mounted on the sieve plate. Both motors are precision braked at the end of the sieving time.

This design means that the sieved materials are accelerated vertically as well as horizontally, causing the material to change direction continuously, thus producing shorter sieving times and sharper separation results.

quality control

Heavy Duty sieving Analytical Sieve Shaker

Heavy Duty Analytical Sieve Shaker

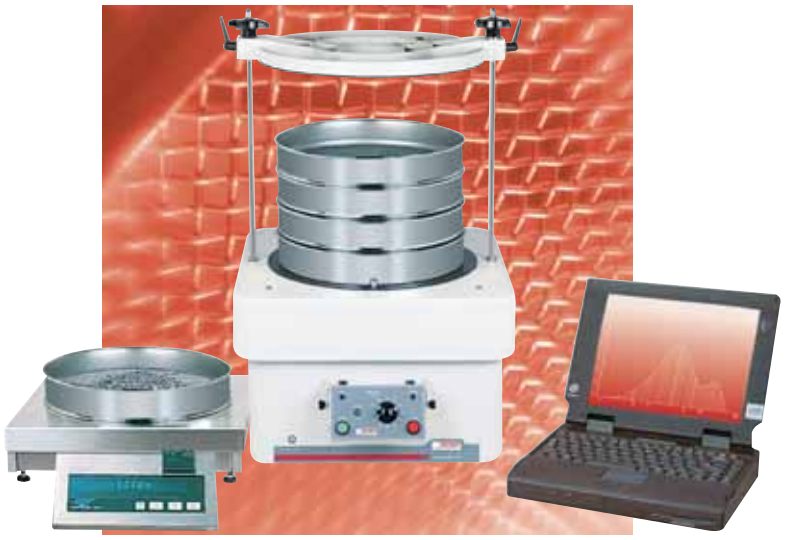
Advantages

- Large sieve material throughput
- Sieve diameters up to 450 mm can be used
- Sieves with mesh widths of 63 µm to 125 mm
- Material quantity up to 6 kg
- Short sieve times, exact cut-off points as a result of multi-dimensional movement processes
- Smooth, stable operation
- Low noise output
- Continuous operation possible
- Sieve set clamping device for constant conditions
- Protection against unauthorised use
- Sieves can be calibrated to ISO 9001 : 2000
- 2 year guarantee

Design Characteristics

- Takes up to 7 sieves plus sieving pan and sieve cover
- Robust construction for heavy-duty operating conditions
- Two maintenance-free unbalanced motors
- Universal support plate and clamping device for 200/8", 350, 400, 450 mm and/or 12, 16, 18 inch sieve diameter
- Quick locking and release mechanism for sieve clamping
- Simultaneous vertical and horizontal sieve vibratory movement
- Optimum transfer of energy to the sieve meshes
- Detachable control with 3 m mains lead
- Lockable control to protect against incorrect operation
- Stable operation through large, vibration-damping rubber feet fitted to the base
- Variable timer 5 to 60 minutes

heavy-duty large quantities dry sieving



analysette 18 with computer and balance for automatic sieve evaluation with AUTOSIEVE

Accessories

Test sieves

A maximum of 7 test sieves (65 mm high) with collecting pan and lid can be used for one sieving process. The test sieves are available in accordance with ISO 3310-1 and ASTM E-11-1995.

Sieving aids

When sieving fine-grained materials, the use of vulkollan cubes can be beneficial.

Computer and accessories for evaluation programme AUTOSIEVE

- standard PC
  1 x RS232 interface
- standard printer
- balance with bi-directional serial interface

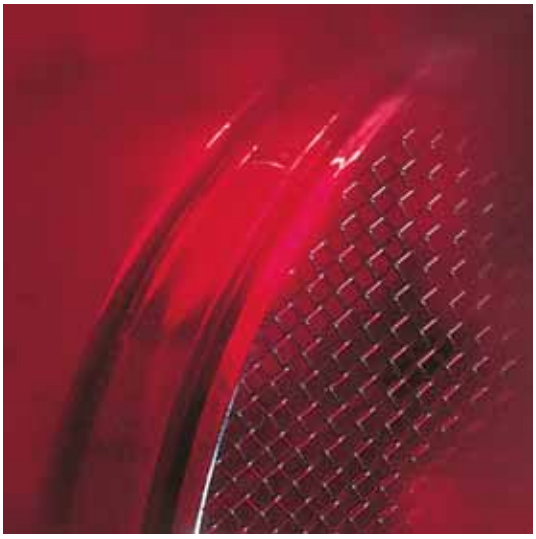
Further information on printer, PC and balance on request.

Automatic evaluation programme AUTOSIEVE

AUTOSIEVE for Windows™ is the professional software for automatic evaluation of sieve analysis. The software computes particle size distributions according to standard and also offers numerous options for further processing. Naturally the programme includes basic functions such as recording and management of sieve tare weights, monitoring of the balance and automatic computation of particle size distribution from the sieved fractions in conformity with pre-determined standards.

The control and evaluation programme AUTOSIEVE for Windows™ is automatically delivered with each heavy duty analytical sieve shaker analysette 18 free of charge.

Detailed brochure on the control and evaluation programme AUTOSIEVE available on request.



Technical data

method of analysis	dry sieving
measuring range	63 µm - 125 mm
max. sample quantity (approx.)	6 kg
sieving time (approx.)	5 - 60 min
max. sieve diameter	450 mm/18”
max. number of sieves per sieve stack	7 (65 mm height)
control and evaluation programme AUTOSIEVE	yes
electrical details	230 V/1~, 50 Hz, 480 watt 115 V/1~, 60 Hz, 290 watt
weight	net: 92 kg, gross: 129 kg
dimensions w x d x h	floor instrument: 58 x 58 x 39 cm
packing details	case: 76 x 76 x 76 cm

analysette 18

Ordering data

Order no.	Description
18.2020.00	**Heavy Duty Analytical Sieve Shaker analysette 18 without test sieves and sieve pan, incl. tensioning, sieve cover and control and evaluation programme AUTOSIEVE for Windows™** for 230 V/1~, 50 Hz
18.2010.00	for 115 V/1~, 60 Hz
37.1000.01	**Accessories for test sieves 400 mm dia.** sieving pan
37.0010.16	replacement seal ring NBR for test sieves 400 mm dia.
37.0200.16	**Sieving aids** 1 vulkollan cube (10 cubes per sieve)
	Test sieves frame and woven mesh of stainless steel 400 mm diameter, useful height 65 mm

Order no. ISO 3310-1	ISO 3310-1 mesh width	ASTM E-11-1995	Order no. ISO 3310-1	ISO 3310-1 mesh width	ASTM E-11-1995
34.0040.02 •	125 mm		34.3000.02	1.25 mm	~ no. 16 = 1.18 mm
34.0060.02 •	90 mm		34.3100.02	1.12 mm	
34.0000.02 •	63 mm		34.3200.02 •	1 mm	≙ no. 18 = 1 mm
34.0080.02 •	45 mm		34.3300.02	900 µm	
34.0100.02 •	31.5 mm		34.3400.02	800 µm	~ no. 20 = 0.85 mm
34.0200.02	25 mm	≙ 1“ = 25 mm	34.3500.02 •	710 µm	≙ no. 25 = 0.71 mm
34.0300.02 •	22.4 mm	≙ 7/8“ = 22.4 mm	34.3600.02	630 µm	~ no. 30 = 0.6 mm
34.0400.02	20 mm		34.3700.02	560 µm	
34.0600.02	18 mm	~ 3/4“ = 19 mm	34.3800.02 •	500 µm	≙ no. 35 = 0.5 mm
34.0800.02 •	16 mm	≙ 5/8“ = 16 mm	34.3900.02	450 µm	
34.0900.02	14 mm	~ 0.53“ = 13.2 mm	34.4000.02	400 µm	~ no. 40 = 0.425 mm
34.1000.02	12.5 mm	~ 1/2“ = 12.5 mm	34.4100.02 •	355 µm	≙ no. 45 = 0.355 mm
34.1100.02 •	11.2 mm	≙ 7/16“ = 11.2 mm	34.4200.02	315 µm	~ no. 50 = 0.3 mm
34.1200.02	10 mm	~ 3/8“ = 9.5 mm	34.4300.02	280 µm	
34.1300.02	9 mm		34.4400.02 •	250 µm	≙ no. 60 = 0.25 mm
34.1400.02 •	8 mm	≙ 5/16“ = 8 mm	34.4500.02	224 µm	
34.1500.02	7.1 mm	~ 0.265“ = 6.7 mm	34.4600.02	200 µm	~ no. 70 = 0.212 mm
34.1600.02	6.3 mm	≙ 1/4“ = 6.3 mm	34.4700.02 •	180 µm	≙ no. 80 = 0.18 mm
34.1700.02 •	5.6 mm	~ no. 3 1/2 = 5.6 mm	34.4800.02	160 µm	~ no. 100 = 0.15 mm
34.1800.02	5 mm	~ no. 4 = 4.75 mm	34.4900.02	140 µm	
34.2000.02 •	4 mm	≙ no. 5 = 4 mm	34.5000.02 •	125 µm	≙ no. 120 = 0.125 mm
34.2100.02	3.55 mm	≙ no. 6 = 3.35 mm	34.5100.02	112 µm	
34.2200.02	3.15 mm		34.5200.02	100 µm	~ no. 140 = 0.106 mm
34.2300.02 •	2.8 mm	≙ no. 7 = 2.8 mm	34.5400.02 •	90 µm	≙ no. 170 = 0.09 mm
34.2400.02	2.5 mm	~ no. 8 = 2.36 mm	34.5600.02	80 µm	
34.2600.02 •	2 mm	≙ no. 10 = 2 mm	34.5800.02	71 µm	~ no. 200 = 0.075 mm
34.2700.02	1.8 mm		34.6000.02 •	63 µm	≙ no. 230 = 0.063 mm
34.2800.02	1.6 mm	~ no. 12 = 1.7 mm			
34.2900.02 •	1.4 mm	≙ no. 14 = 1.4 mm	• = ISO (standard international)		

	Test sieves and sieving accessories in other diameters and mesh widths on request. All above mesh widths are also available as test sieves with 200 mm/8” dia.
	Accessories for automatic evaluation of sieve analysis **Control and evaluation programme AUTOSIEVE for Windows™** is automatically delivered with each heavy duty analytical sieve shaker analysette 18 free of charge. Request detailed brochure!
	Laboratory analysis balance, computer, colour ink-jet printer and laser printer on request.

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FRITSCH

Fritsch GmbH
Manufacturers of Laboratory Instruments
Industriestrasse 8 · 55743 Idar-Oberstein · Germany
Phone: +49 67 84 70 0 · Fax: +49 67 84 70 11
E-Mail: info@fritsch.de · Internet: www.fritsch.de