

Sieve Shakers

## IDEAL FOR

- SIEVING
- MEASURING THE QUANTITATIVE PARTICLE SIZE DISTRIBUTION OF SOLIDS AND SUSPENSIONS
- SEPARATING
- FRACTIONING

SIEVE SHAKERS

# EVERYTHING YOU NEED FOR SIEVING

The FRITSCH sieve range is the focused answer to all typical sieving tasks in the laboratory: three well-conceived instruments for every application, with FRITSCH concepts that make the work simpler and faster – easy to operate, reliable and long-lasting. For dry, wet and micro-precision sieving, with extensive accessories and the modified analysis software AUTOSIEVE. Typically FRITSCH!



With FRITSCH, you have chosen an internationally respected manufacturer of application-oriented laboratory instruments. For more than 90 years, laboratories worldwide have relied on our experience, quality,

**FRITSCH. ONE STEP AHEAD.**

service and innovation for fast industrial applications as well as for especially accurate results in control- and research laboratories.

See for yourself.



#### ANALYSETTE 3 SPARTAN

Simple sieving for  
all tasks



#### ANALYSETTE 3 PRO

Precise sieving  
with amplitude control



#### ANALYSETTE 18

Effective sieving  
of large quantities

## FRITSCH SIEVE SHAKERS: CONVENIENT, PRECISE, RELIABLE

- Dry, wet and micro-precision sieving
- Simple, ergonomic operation
- Fast, reproducible results
- Sample quantities between 0.05 g and 15 kg
- Sieve diameter from 100 mm to 450 mm, mesh widths from 5 µm–125 mm
- Can be used as testing equipment in accordance with DIN EN ISO 9001
- Automatic sieve evaluation with the extensive FRITSCH software AUTOSIEVE



# ANALYSETTE 3 PRO

## Precise sieving with automatic amplitude control

The high performance Vibratory Sieve Shaker ANALYSETTE 3 PRO offers everything you need for fast determination of quantitative particle size distribution in the laboratory. As a shaking sieve system with an electromagnetic drive oscillates the sieve stack into regulated vertical oscillations, and is the ideal solution for sieving sample quantities up to 2 kg and a measurement range from 5 µm to 63 mm. The ANALYSETTE 3 PRO is perfectly suited for fast quality control of incoming and outgoing products, offers user-friendly operation and is low-noise, robust and long-lasting.



## NEW: INTELLIGENT WET SIEVING

**FRITSCH Advantage** The specially developed FRITSCH wet sieving lid with 2 rotation nozzles for an uniform spraying of the material to be sieved from above and by an additional interposed sieving ring above the sieve with the largest amount of finely sieved material.

Your benefit: Improved sieving effect for faster results and the most efficient wet sieving that has ever existed.



**FRITSCH Advantage** The unique, warp-free FRITSCH EASYTWIST sieve stack tensioner for tensioning the sieve stack with high-quality, steel-reinforced plastic bands. Your benefit: Faster, simpler setup in just a few steps, unobstructed work without annoying rods, lower space requirements and more safety. Particularly beneficial: The tensioning system is already included in the instrument price.

**FRITSCH Advantage** The multilingual AUTOSIEVE programme for controlling the ANALYSETTE 3 PRO and for automatic evaluation, simple monitoring and documentation of your sieving results is supplied on a practical USB stick and is therefore very quickly installed. All you have to do is to connect a laboratory analysis balance (see ordering data, accessories for automatic evaluation of sieve analysis), and then weigh the sieves before and after sieving using differential weighing. AUTOSIEVE will do the rest. The software, which is suitable for Windows 7, XP and Vista, enables simple saving and retrieving of empty sieve weights, both of single sieves and complete sieve sets.

STANDARDS-COMPLIANT FOR INTEGRATION  
INTO ISO 9001 QUALITY MANAGEMENT



ANALYSETTE 3 PRO

**Especially simple**

The following functions can be conveniently controlled via the keyboard:

- Programme selection** You can store up to 9 individual sieve programmes to make your work even easier.
- Intermittent mode** For sieving voluminous material with low density to reduce the sieving time.
- Micro- and micro-intermittent mode** For micro-sieving of fine materials in the range from 5 µm to 100 µm.
- Energy-saving mode** the instrument switches automatically to standby

**Especially efficient** Up to 10 test sieves can be used simultaneously per working cycle allowing up to 5 sieving operations (interposed sieve pan and sieve alternately) to be performed at the same time.

**Especially safe** The optimum power consumption using the variable sieving frequency of the ANALYSETTE 3 PRO prevents a warming up of the sieving system.

**Especially clever** All functions can be controlled via a RS232 interface. The interface and AUTOSIEVE allow inspection of the sieving process via an online comparison of the set and actual amplitude.

**FRITSCH Advantage AMPCONTROL** for setting constant amplitude, which is automatically monitored and regulated. Your advantage: Guaranteed constant amplitude, meaning precisely reproducible sieving results in accordance with DIN 66165 and the possibility to calibrate and validate your ANALYSETTE 3 PRO as an inspection instrument in inspection of measuring and testing equipment according to ISO 9001.

**Especially convenient** All important sieving parameters such as sieving time and amplitude are entered directly via the clearly organised, ergonomically installed soft touchpad with digital display.



# ANALYSETTE 3 SPARTAN

## Simple sieving for all tasks

The little sister of the ANALYSETTE 3 PRO for all typical sieving tasks in the laboratory with optical adjustment of the amplitude on the running instrument. Complete with the practical FRITSCH sieve stack tensioning system, FASTWISJ, and the possibility of automatic evaluation of the sieve analysis using the extensive FRITSCH evaluation software AUTOSIEVE.



Especially practical Optical display of the amplitude during sieving.

Up to 10 test sieves can be used simultaneously per working cycle allowing up to 5 sieving operations (interposed sieve pan and sieve alternately) to be performed at the same time.

**FRITSCH Advantage** The easy-to-use and time-saving sieve stack tensioner with steel-reinforced plastic bands is included in the instrument price.

The optimum power consumption using the variable sieving frequency of the ANALYSETTE 3 SPARTAN prevents warming up of the sieving system.

Especially simple Manual adjustment of the amplitude.

Exact entry of the sieving time via a precise digital timer on the ergonomically installed and robust soft touchpad.

ANALYSETTE 3 SPARTAN

## TECHNICAL DATA

|  | ANALYSETTE 3 PRO   | ANALYSETTE 3 SPARTAN   |
|--|--|--|
| Method of analysis   | Sieving  | Sieving  |
| Dry sieving  |  |  |
| Measuring range  | 20 µm 63 mm*   | 20 µm 63 mm*   |
| Max. sample quantity (approx.)   | for sieves < 63 mm: up to 2 kg*<br>for sieves < 100 µm: up to 100 g* | for sieves < 63 mm: up to 2 kg*<br>for sieves < 100 µm: up to 100 g* |
| Sieving time (approx.)   | 3 20 min*  | 3 20 min*  |
| Wet sieving  |  |  |
| Measuring range  | 20 µm 10 mm  | 20 µm 10 mm  |
| Max. sample quantity (approx.)   | 20 100 g*  | 20 100 g*  |
| Sieving time (approx.)   | 3 10 min*  | 3 10 min*  |
| Micro-precision sieving  |  |  |
| Measuring range  | 5 µm 100 µm  |  |
| Max. sample quantity (approx.)   | 0.05 0.5 g*  |  |
| Sieving time (approx.)   | 30 60 min*   |  |
| Max. weight of sieve stack   | 3 kg   | 3 kg   |
| Amplitude  | 0.1 3 mm   | 0.5 3 mm   |
| Amplitude control  | automatic  | manual   |
| Sieve diameters  | 100 mm, 200 mm or 8  | 100 mm, 200 mm or 8  |
| Max. number of sieves per sieve stack  | 10 (50 mm height)<br>or 16 (25 mm height)                            | 10 (50 mm height)<br>or 16 (25 mm height)                            |
| Max. height of sieve stack   | 550 mm   | 550 mm   |
| Automatic sieve analysis with evaluation software AUTOSIEVE  | Yes  | Yes  |
| Testing instrument calibration according to ISO 9001   | Yes  | No   |
| Interface  | Yes  | No   |
| Intermittent mode  | Yes  | No   |
| Memory for 9 parameter combinations  | Yes  | No   |
| Convertible to   |  |  |
| Vibratory Micro Mill PULVERISETTE 0  | Yes  | Yes  |
| Electrical details   | 100-240 V/1~, 50-60 Hz, 50 watt                                      | 100-240 V/1~, 50-60 Hz, 50 watt                                      |
| Weight   |  |  |
| Net/gross  | 21 kg / 26 kg  | 21 kg / 26 kg  |
| Dimensions w x d x h   |  |  |
| Bench top instrument   | 37 x 40 x 20 cm  | 37 x 40 x 20 cm  |
| Packing details w x d x h  |  |  |
| Cardboard box  | 50 x 43 x 30 cm  | 50 x 43 x 30 cm  |
| Emissions value of workplace according to DIN EN ISO 3746:2005 (depending on the material to be sieved and instrument configuration) | approx. 63 dB(A)   | approx. 63 dB(A)   |
| Order no.  | 03.7020.00   | 03.8020.00   |
| *Depending on the material to be sieved and the sieves used  |  |  |

## YOUR SIEVE SHAKER BECOMES A MILL

**FRITSCH Advantage** With just a few motions, your Sieve Shaker can be transformed into the Vibratory Micro Mill PULVERISETTE 0 for grinding and homogenising small sample quantities (filling volume 1 to 10 ml, feed particle size < 5 mm). And with the special FRITSCH cryo-box, grinding is even possible at low temperatures with liquid nitrogen. The ANALYSETTE 3 SPARTAN enables stable, uniform vibration in connection with the grinding set – the perfect milling solution!

The corresponding accessories can be found in the leaflet Ball Mills or at [www.fritsch.de](http://www.fritsch.de).



PULVERISETTE 0 Vibratory Micro Mill







# ACCESSORIES ANALYSETTE 3



## Sieves

For dry and wet sieving with mesh widths from 20  $\mu\text{m}$  to 63 mm. All are especially light, robust and manufactured in high quality (no soldered seam!). Highly alloyed stainless steel protects against corrosion and simplifies cleaning. Groove-free mesh transitions prevent contamination of the sieving material. Available in accordance with ISO 3310-1 or ASTM E-11-1995 in the diameters 200 mm (height 50 mm or 25 mm), 100 mm (height 40 mm) or 80 mm (height 25 mm). Every sieve is laser-engraved, optically measured and delivered with a compliance certificate.

## FRITSCH Micro-Precision Sieves

Available only from FRITSCH: With the micro-precision sieves, the ANALYSETTE 3 PRO is suitable for wet-sieving of fine materials from 5  $\mu\text{m}$  to 100  $\mu\text{m}$  and for dry sieving of the smallest sample quantities from 0.05 to 0.5 g. The micro-precision sieves of pure nickel feature a large open sieving surface. Blockages are reliably prevented by the etched-in holes that widen toward the bottom. The matching clamping set, sieve clamping lid, sieve pan, sieve spacer and fast locking clamp along with the large sieve surface permit efficient sieving.

Sieve clamping lid, sieve pans and interposed sieve pans for dry sieving. For observation of the sieving process, sieve clamping lids made of plexiglas are available for FRITSCH test sieves of 100 mm or 200 mm/80 mm diameter. You also receive a clamping lid made of polyamide (without window) to sieve materials for which metallic contamination must be avoided. Of course, we also offer corresponding sieve pans and sieves made of plastic. Sieve pans and interposed sieve pans for multiple sieving operations in a single process are available in stainless steel for all sieve sizes.



## CERTIFICATES

For certification of the ANALYSETTE 3 PRO as an inspection instrument, a 3.1 EN 10204 inspection certificate as well as a form for IQ/OQ documentation are available. A 3.1 EN 10204 inspection certificate is also offered for FRITSCH test sieves in accordance with ISO 3310-1.

Of course, we would also be happy to recertify your Vibratory Sieve Shaker ANALYSETTE 3 PRO and FRITSCH test sieves according to ISO 3310-1 at our headquarters in Idar-Oberstein or directly at your location.

IQ/OQ documentation is also available for the ANALYSETTE 3 SPARTAN.



**Sieve clamping lid, interposed sieve rings and sieve pans for wet sieving**  
Only available from FRITSCH: During wet sieving with test sieves (200 mm/ 8 ), the practical clamping lid with 2 rotation nozzles ensures an uniform spraying of the sieving material and an optimal sieving effect. Special interposed sieving rings with three nozzles are available for simultaneous spraying of the top and bottom sieves. A sieve clamping lid of plexiglas with 1 nozzle is also offered for wet sieving with 100 mm test sieves. The corresponding sieve pans with outlet are available for all sieve sizes.

**Universal sieve tensoning system TorqueMaster**  
For precise results: The electrically tensioned and easy-to-operate FRITSCH TorqueMaster applies constant and reproducible tensioning forces to the sieve stack through precisely controlled fastening of the sieve clamping lid. Essential when using the ANALYSETTE 3 PRO as inspection instrument according to ISO 9001.

**Sieving aids**  
For dry sieving of materials with a high share of fine particles, 10 mm agate balls or 20 mm rubber balls should be used as sieving aids for medium and large sieves and 5 mm agate balls for fine sieves. Your advantage: They prevent clogging of the sieve mesh.



### Gentle cleaning: LABORETTE 17

Clean the sensitive test sieves and micro-precision sieves intensively and gently with the FRITSCH Ultrasonic Cleaners LABORETTE 17. This allows you to avoid undesired contamination and extend the service life of the sieves. Two volume sizes are available: 5.6 l or 28 l.

More information at [www.fritsch.de](http://www.fritsch.de)



# ANALYSETTE 18

## Effective sieving of large quantities

The ANALYSETTE 18 is the robust, Heavy Duty Analytical Sieve Shaker from FRITSCH. It can effortlessly sieve up to 15 kg of material between 20 µm and 125 mm. The three-dimensional sieving motion ensures particularly fast sieving results without manual re-sieving, and also optimal reproducibility.



**FRITSCH Advantage** Universal support plate for sieves with diameters of 200, 250, 300, 315, 350, 400 and 450 mm as well as 8, 12, 16 or 18 . Sieves with mesh width from 20 µm to 125 mm in accordance with ISO 3310-1 and ASTM E-11-1995 are available.

For sieving of fine-grained materials or agglomerates, the use of for example vulkollan cubes are recommended.



**Especially reproducible** Constant amplitude at all times due to automatic amplitude control with continuous acceleration measurement of the whole sieve stack.

**Especially comfortable** The ANALYSETTE 18 is operated by remote control via a separate, handy operating unit.

## TECHNICAL DATA

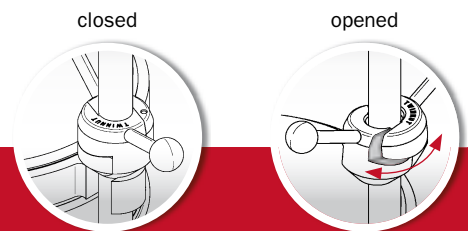
|  |   |
|--|---|
| Method of analysis                                   | ANALYSETTE 18   |
| Dry sieving  | Sieving   |
| Measuring range                                      | 20 µm–125 mm*   |
| Max. sample quantity (approx.)                       | 15 kg*  |
| Sieving time (approx.)                               | 5–60 min*   |
| Max. weight of sieve stack                           | 42 kg   |
| Amplitude  | 0.1–2 mm  |
| Amplitude control                                    | Automatic   |
| Sieve diameters                                      | 200 mm, 250 mm, 300 mm, 315 mm, 350 mm,<br>400 mm, 450 mm and 8", 12", 16", 18" |
| Max. number of sieves per sieve stack                | 12 (65 mm height)   |
| Max. height of sieve stack                           | 845 mm  |
| Automatic sieve analysis                             |   |
| with evaluation software AUTOSIEVE                   | Yes   |
| Testing instrument calibration according to ISO 9001 | Yes   |
| Interface  | Yes   |
| Intermittent mode                                    | Yes   |
| Memory for 10 parameter combinations                 | Yes   |

|  |                                       |
|--|---------------------------------------|
| Electrical details   | ANALYSETTE 18                         |
|  | 230 V/1~, 50-60 Hz, 200 watt          |
|  | 115 V/1~, 50-60 Hz, 200 watt          |
| Weight   |                                       |
| Net/gross  | 135 kg/157 kg                         |
| Dimensions w x d x h   |                                       |
| Floor instrument   | 58 x 59 x 130 cm                      |
| Packing details w x d x h  |                                       |
| Wooden case  | 84 x 79 x 55 cm                       |
| Emissions value of workplace according to DIN EN ISO 3746:2005 (depending on the material to be sieved and instrument configuration) | approx. 73 dB(A)                      |
| Order no.  | 230 V/1~, 50–60 Hz 115 V/1~, 50–60 Hz |
|  | 18.3020.00 18.3010.00                 |

\* Depending on the material to be sieved and the sieves used



Especially practical and safe The ANALYSETTE 18 is supplied with the TwinNut quick fastening system for sieves and clamping lids. This safely ensures constant tensioning pressure and stability of the sieve stack.



Especially efficient Up to 12 test sieves (65 mm height) with sieve pans and lid can be used per working cycle.

FRITSCH Advantage The multilingual AUTOSIEVE programme for automatic evaluation, simple monitoring and documentation of your sieving results is supplied on a practical USB stick and is therefore very quickly installed. All you have to do is to connect a laboratory analysis balance, and then weigh the sieves before and after sieving using differential weighing. AUTOSIEVE will do the rest. The software, which is suitable for Windows 7, XP and Vista, enables simple saving and retrieving of empty sieve weights, both of single sieves and complete sieve sets (see ordering data, accessories for automatic evaluation of sieve analysis).

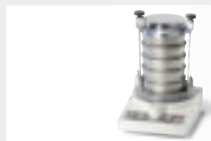
ANALYSETTE 18

## ORDERING DATA

Order no. Article

## VIBRATORY SIEVE SHAKER

## ANALYSETTE 3 PRO + SPARTAN



- Instrument without clamping lid, test sieves and sieve pan  
 03.7020.00 Model PRO, for 100-240 V/1~, 50-60 Hz  
 03.8020.00 Model SPARTAN, for 100-240 V/1~, 50-60 Hz
- Accessories for dry sieving  
 31.2020.00 Clamping lid plexiglas for test sieves 200 mm/8 dia.  
 31.2050.00 Clamping lid polyamide (without window) for all test sieves up to 200 mm/8 dia.  
 31.2100.00 Sieve tensioning system TorqueMaster (consisting of clamping lid plexiglas for test sieves 200 mm/8 dia. and electrical tool 100-240 V/1~, 50-60 Hz)  
 31.2010.00 Clamping lid plexiglas for test sieves 100 mm dia.  
 31.1300.03 Interposed sieve pan made of stainless steel 200 mm dia., 50 mm height  
 31.1320.03 Interposed sieve pan made of stainless steel 8 dia., 2 height  
 31.1000.03 Sieve pan made of stainless steel 200 mm dia., 50 mm height  
 31.1020.03 Sieve pan made of stainless steel 8 dia., 2 height  
 31.1040.03 Sieve pan made of stainless steel 100 mm dia., 40 mm height
- Accessories for wet sieving  
 31.0400.00 Clamping lid plexiglas with 2 rotation nozzles for test sieves 200 mm/8 dia.  
 31.1100.03 Sieve pan made of stainless steel with outlet 200 mm dia., 50 mm height  
 31.0240.00 Interposed sieving ring with 3 nozzles for test sieves 200 mm dia.  
 31.1120.03 Sieve pan made of stainless steel with outlet 8 dia., 2 height  
 31.0250.00 Interposed sieving ring with 3 nozzles for test sieves 8 dia.  
 31.2040.00 Clamping lid plexiglas with 1 nozzle for test sieves 100 mm dia.  
 31.1140.00 Sieve pan made of stainless steel with outlet 100 mm dia., 40 mm height
- Accessories for micro-precision sieving  
 (Only possible with ANALYSETTE 3 PRO)  
 33.1200.00 Clamping set for micro-precision sieves 100 mm dia.  
 (= 3 screws + clamps, without clamping lid, sieve pan and micro-precision sieves)  
 33.1050.00 Clamping lid aluminium/plexiglas with 1 nozzle  
 33.1150.00 Funnel (sieve pan) of aluminium with outlet  
 33.1000.00 Sieve spacer made of aluminium with 2 seal rings  
 33.1100.00 Fast locking clamp made of stainless steel  
 (See ordering example page 13)
- Certification  
 96.0010.00 Inspection certificate 3.1 EN 10204 for FRITSCH Sieve Shaker ANALYSETTE 3 PRO  
 96.0200.00 IQ/OQ documentation (questionnaire format - for filling out by customer) for FRITSCH Sieve Shaker ANALYSETTE 3 PRO  
 96.0100.00 IQ/OQ documentation (questionnaire format - for filling out by customer) for FRITSCH Sieve Shaker ANALYSETTE 3 SPARTAN  
 31.0900.00 Inspection certificate 3.1 EN 10204 for FRITSCH test sieves according to ISO 3310-1
- Accessories for automatic evaluation of sieve analysis  
 03.2900.00 Software AUTOSIEVE for Windows for control and automatic evaluation of sieve analysis  
 03.2600.00 Laboratory analysis balance, up to 4.1 kg (- 0.01 g) with RS232 interface, incl. computer connection cable
- Sieving aids  
 55.0050.05 Agate ball 5 mm dia. (15 pcs. per sieve)  
 55.0100.05 Agate ball 10 mm dia. (10 pcs. per sieve)  
 31.0180.15 Rubber ball 20 mm dia. (5 pcs. per sieve)
- Sieve covers  
 31.1200.03 Sieve cover made of stainless steel for test sieves 200 mm dia.  
 31.1220.03 Sieve cover made of stainless steel for test sieves 8 dia.  
 31.1240.03 Sieve cover made of stainless steel for test sieves 100 mm dia.
- Replacement seal rings  
 31.0010.16 Replacement seal ring NBR for test sieves 200 mm/8 dia., 50 mm/2 height, 200 mm dia., 25 mm height  
 31.0520.16 Replacement seal ring NBR for test sieves 100 mm dia.  
 84.0230.15 Replacement seal ring NBR (2 each for 33.1000.00)

Sieve pans made of stainless steel with and without outlet are also available in 200 mm dia., 25 mm height and 8 dia., 1 height.

Order no. Article

## SPECIAL ACCESSORIES

## ANALYSETTE 3 PRO + SPARTAN

- 31.2010.00 Accessories for grinding and homogenising small sample quantities  
 Grinding head for conversion to Vibratory Micro Mill PULVERISETTE 0  
 Request a detailed Ball Mills leaflet with information on the Vibratory Micro Mill PULVERISETTE 0 as well as mortars and balls.

Accessories for gentle cleaning of test sieves and micro-precision sieves  
 For gentle cleaning of the test sieves and micro-precision sieves, we recommend the FRITSCH Ultrasonic Cleaners LABORETTE 17.  
 More information can be found at [www.fritsch.de](http://www.fritsch.de).

Recertification of the Vibratory Sieve Shaker ANALYSETTE 3 PRO and FRITSCH test sieves according to ISO 3310-1 on request.

Computer, colour ink jet printer and laser printer on request.

# ORDERING DATA

Order no. Article

## TEST SIEVES

**ANALYSETTE 3 PRO + SPARTAN**  
Frame and mesh wire made of stainless steel  
with compliance certifi cate  
100 mm/200 mm/80 dia.



| ISO 3310-1 • Mesh width • mm/µm |                              | ASTM • E-11-1995 • mesh |                              |
|---------------------------------|------------------------------|-------------------------|------------------------------|
| Order no.                       | 200 mm dia.,<br>50 mm height | Order no.               | 200 mm dia.,<br>50 mm height |
| 30.0000.03                      | 63 mm                        |                         |                              |
| 30.0080.03                      | 45 mm                        |                         |                              |
| 30.0100.03                      | 31.5 mm                      |                         |                              |
| 30.0200.03                      | 25 mm                        | 35.0200.03              | 1 = 25 mm                    |
| 30.0300.03                      | 22.4 mm                      | 35.0300.03              | 7/8 = 22.4 mm                |
| 30.0400.03                      | 20 mm                        |                         |                              |
| 30.0500.03                      | 19 mm                        | 35.0600.03              | 3/4 = 19 mm                  |
| 30.0600.03                      | 18 mm                        |                         |                              |
| 30.0800.03                      | 16 mm                        | 35.0800.03              | 5/8 = 16 mm                  |
| 30.0900.03                      | 14 mm                        | 35.0900.03              | 0.53 = 13.2 mm               |
| 30.1000.03                      | 12.5 mm                      | 35.1000.03              | 1/2 = 12.5 mm                |
| 30.1100.03                      | 11.2 mm                      | 35.1100.03              | 7/16 = 11.2 mm               |
| 30.1200.03                      | 10 mm                        | 35.1200.03              | 3/8 = 9.5 mm                 |
| 30.1300.03                      | 9 mm                         |                         |                              |
| 30.1400.03                      | 8 mm                         | 35.1400.03              | 5/16 = 8 mm                  |
| 30.1500.03                      | 7.1 mm                       | 35.1500.03              | 0.265 = 6.7 mm               |
| 30.1600.03                      | 6.3 mm                       | 35.1600.03              | 1/4 = 6.3 mm                 |
| 30.1700.03                      | 5.6 mm                       | 35.1700.03              | 3 1/2 = 5.6 mm               |
| 30.1800.03                      | 5 mm                         | 35.1800.03              | 4 = 4.75 mm                  |
| 30.1900.03                      | 4.5 mm                       |                         |                              |
| 30.2000.03                      | 4 mm                         | 35.2000.03              | 5 = 4 mm                     |
| 30.2100.03                      | 3.55 mm                      | 35.2100.03              | 6 = 3.35 mm                  |
| 30.2200.03                      | 3.15 mm                      |                         |                              |
| 30.2300.03                      | 2.8 mm                       | 35.2300.03              | 7 = 2.8 mm                   |
| 30.2400.03                      | 2.5 mm                       | 35.2400.03              | 8 = 2.36 mm                  |
| 30.2500.03                      | 2.24 mm                      |                         |                              |
| 30.2600.03                      | 2 mm                         | 35.2600.03              | 10 = 2 mm                    |
| 30.2700.03                      | 1.8 mm                       |                         |                              |
| 30.2800.03                      | 1.6 mm                       | 35.2800.03              | 12 = 1.7 mm                  |
| 30.2900.03                      | 1.4 mm                       | 35.2900.03              | 14 = 1.4 mm                  |
| 30.3000.03                      | 1.25 mm                      | 35.3000.03              | 16 = 1.18 mm                 |
| 30.3100.03                      | 1.12 mm                      |                         |                              |
| 30.3200.03                      | 1 mm                         | 35.3200.03              | 18 = 1 mm                    |
| 30.3300.03                      | 900 µm                       |                         |                              |
| 30.3400.03                      | 800 µm                       | 35.3400.03              | 20 = 850 µm                  |
| 30.3500.03                      | 710 µm                       | 35.3500.03              | 25 = 710 µm                  |
| 30.3600.03                      | 630 µm                       | 35.3600.03              | 30 = 600 µm                  |
| 30.3700.03                      | 560 µm                       |                         |                              |
| 30.3800.03                      | 500 µm                       | 35.3800.03              | 35 = 500 µm                  |
| 30.3900.03                      | 450 µm                       |                         |                              |
| 30.4000.03                      | 400 µm                       | 35.4000.03              | 40 = 425 µm                  |
| 30.4100.03                      | 355 µm                       | 35.4100.03              | 45 = 355 µm                  |
| 30.4200.03                      | 315 µm                       |                         |                              |
| 30.4250.03                      | 300 µm                       | 35.4200.03              | 50 = 300 µm                  |
| 30.4300.03                      | 280 µm                       |                         |                              |
| 30.4400.03                      | 250 µm                       | 35.4400.03              | 60 = 250 µm                  |
| 30.4500.03                      | 224 µm                       |                         |                              |
| 30.4600.03                      | 200 µm                       | 35.4600.03              | 70 = 212 µm                  |
| 30.4700.03                      | 180 µm                       | 35.4700.03              | 80 = 180 µm                  |
| 30.4800.03                      | 160 µm                       | 35.4800.03              | 100 = 150 µm                 |
| 30.4900.03                      | 140 µm                       |                         |                              |
| 30.5000.03                      | 125 µm                       | 35.5000.03              | 120 = 125 µm                 |
| 30.5100.03                      | 112 µm                       |                         |                              |
| 30.5200.03                      | 100 µm                       | 35.5200.03              | 140 = 106 µm                 |
| 30.5400.03                      | 90 µm                        | 35.5400.03              | 170 = 90 µm                  |
| 30.5600.03                      | 80 µm                        |                         |                              |
| 30.5700.03                      | 75 µm                        | 35.5800.03              | 200 = 75 µm                  |
| 30.5800.03                      | 71 µm                        |                         |                              |
| 30.6000.03                      | 63 µm                        | 35.6000.03              | 230 = 63 µm                  |
| 30.6200.03                      | 56 µm                        |                         |                              |
| 30.6300.03                      | 53 µm                        | 35.6200.03              | 270 = 53 µm                  |
| 30.6400.03                      | 50 µm                        |                         |                              |
| 30.6600.03                      | 45 µm                        | 35.6600.03              | 325 = 45 µm                  |
| 30.6800.03                      | 40 µm                        |                         |                              |
| 30.6900.03                      | 38 µm                        | 35.7000.03              | 400 = 38 µm                  |
| 30.7000.03                      | 36 µm                        |                         |                              |
| 30.7200.03                      | 32 µm                        | 35.7200.03              | 450 = 32 µm                  |
| 30.7600.03                      | 25 µm                        | 35.7600.03              | 500 = 25 µm                  |
| 30.7800.03                      | 20 µm                        | 35.7800.03              | 635 = 20 µm                  |

ISO 565 R20/3 (main sizes)

If you would like a test sieve in other diameters, please take note of the ordering examples to the right.

Recertification of FRITSCH test sieves according to ISO 3310-1 on request.

Ordering example for test sieves in other diameters

200 mm dia., 50 mm height,  
200 mm dia., 25 mm height,  
80 dia., 20 height,  
100 mm dia., 40 mm height

|   | Deviation from standard sieve size                         | ISO 3310-1 mesh width mm/µm | ASTM E-11-1995 mesh       |
|---|--|-----------------------------|---------------------------|
| Test sieve<br>5 mm mesh width,<br>200 mm dia.,<br>height 50 mm<br>= standard size |  | For example<br>30.1800.03   | For example<br>35.1800.03 |
| Test sieve<br>5 mm mesh width,<br>200 mm dia.,<br>height 25 mm                    | Replace 5 <sup>th</sup> position = 0 in the order no. by 1 | For example<br>30.1810.03   | For example<br>35.1810.03 |
| Test sieve<br>5 mm mesh width,<br>8 dia., height 2                                | Replace 5 <sup>th</sup> position = 0 in the order no. by 2 | For example<br>30.1820.03   | For example<br>35.1820.03 |
| Test sieve<br>5 mm mesh width,<br>100 mm dia.,<br>height 40 mm                    | Replace 5 <sup>th</sup> position = 0 in the order no. by 4 | For example<br>30.1840.03   | For example<br>35.1840.03 |

Test sieves and sieving accessories in other diameters and mesh widths on request.  
Test sieves made of polyamide are available on request.  
Test sieves and sieving accessories can not be exchanged or returned!

## MICRO-PRECISION SIEVES

**ANALYSETTE 3 PRO**  
Frame made of stainless steel, sieve foil and grid made of pure nickel,  
100 mm dia., according to ISO 3310-3



| Order no.  | Aperture width µm    | Open sieve area = % | mesh = number of holes per linear inch |
|------------|----------------------|---------------------|--|
| 32.0050.00 | Aperture width 5 µm  | 2.8                 | 1016                                   |
| 32.0100.00 | Aperture with 10 µm  | 11.2                | 1016                                   |
| 32.0150.00 | Aperture with 15 µm  | 9.8                 | 570                                    |
| 32.0200.00 | Aperture with 20 µm  | 17.5                | 570                                    |
| 32.0250.00 | Aperture with 25 µm  | 10.4                | 403                                    |
| 32.0300.00 | Aperture with 30 µm  | 14.9                | 403                                    |
| 32.0350.00 | Aperture with 35 µm  | 12.6                | 317                                    |
| 32.0400.00 | Aperture with 40 µm  | 16.5                | 317                                    |
| 32.0450.00 | Aperture with 45 µm  | 8.5                 | 203                                    |
| 32.0500.00 | Aperture with 50 µm  | 10.5                | 203                                    |
| 32.0600.00 | Aperture with 60 µm  | 9.3                 | 159                                    |
| 32.0700.00 | Aperture with 70 µm  | 12.6                | 159                                    |
| 32.0800.00 | Aperture with 80 µm  | 16.5                | 159                                    |
| 32.0900.00 | Aperture with 90 µm  | 20.9                | 159                                    |
| 32.1000.00 | Aperture with 100 µm | 25.7                | 159                                    |

Ordering example for micro-precision sieves

Example of an order for a sieve stack with 4 micro-precision sieves:

- 4 micro-precision sieves of choice
- 1 clamping lid, aluminium/plexiglas with 1 nozzle (order no. 33.1050.00)
- 1 funnel (sieve pan) made of aluminium with outlet (order no. 33.1150.00)
- 5 sieve spacers made of aluminium with 2 seal rings (order no. 33.1000.00)
- 6 fast locking clamps made of stainless steel (order no. 33.1100.00)
- clamping set for micro-precision sieves with 100 mm dia.

Please note: one sieve spacer and two locking clamps more than the number of sieves must be ordered.



Order no. Article

HEAVY DUTY ANALYTICAL SIEVE SHAKER

ANALYSETTE 18



Instrument without test sieves and sieve pan, incl. tensioning and sieve cover

18.3020.00 for 230 V/1~, 50-60 Hz  
18.3010.00 for 115 V/1~, 50-60 Hz

Accessories for test sieves 400 mm dia.

37.1000.01 Sieve pan made of stainless steel 400 mm dia.  
37.1100.01 Interposed sieve pan made of stainless steel 400 mm dia.  
37.0010.16 Replacement seal ring NBR for test sieves 400 mm dia.

Accessories for automatic evaluation of sieve analysis

03.2900.00 Software AUTOSIEVE for Windows  
for control and automatic evaluation of sieve analysis

Sieving aids

37.0200.16 1 vulkollan cube (minimum 20 cubes per sieve)

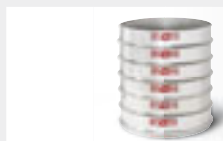
Laboratory analysis balance, computer, colour ink jet printer and laser printer on request.

Order no. Article

TEST SIEVES

ANALYSETTE 18

Frame and mesh wire made of stainless steel with compliance certificate  
400 mm dia., useful height 65 mm



| Order no.<br>ISO 3310-1 | Mesh width<br>mm/µm | ASTM • E-11-1995<br>mesh |
|-------------------------|---------------------|--------------------------|
| 34.0040.02              | 125 mm              |                          |
| 34.0050.02              | 100 mm              |                          |
| 34.0060.02              | 90 mm               |                          |
| 34.0000.02              | 63 mm               |                          |
| 34.0080.02              | 45 mm               |                          |
| 34.0100.02              | 31.5 mm             |                          |
| 34.0200.02              | 25 mm               | ≙ 1 = 25 mm              |
| 34.0300.02              | 22.4 mm             | ≙ 7/8 = 22.4 mm          |
| 34.0400.02              | 20 mm               |                          |
| 34.0600.02              | 18 mm               | ~ 3/4 = 19 mm            |
| 34.0800.02              | 16 mm               | ≙ 5/8 = 16 mm            |
| 34.0900.02              | 14 mm               | ~ 0.53 = 13.2 mm         |
| 34.1000.02              | 12.5 mm             | ~ 1/2 = 12.5 mm          |
| 34.1100.02              | 11.2 mm             | ≙ 7/16 = 11.2 mm         |
| 34.1200.02              | 10 mm               | ~ 3/8 = 9.5 mm           |
| 34.1300.02              | 9 mm                |                          |
| 34.1400.02              | 8 mm                | ≙ 5/16 = 8 mm            |
| 34.1500.02              | 7.1 mm              | ~ 0.265 = 6.7 mm         |
| 34.1600.02              | 6.3 mm              | ≙ 1/4 = 6.3 mm           |
| 34.1700.02              | 5.6 mm              | ~ no. 31/2 = 5.6 mm      |
| 34.1800.02              | 5 mm                | ~ no. 4 = 4.75 mm        |
| 34.2000.02              | 4 mm                | ≙ no. 5 = 4 mm           |
| 34.2100.02              | 3.55 mm             | ≙ no. 6 = 3.35 mm        |
| 34.2200.02              | 3.15 mm             |                          |
| 34.2300.02              | 2.8 mm              | ≙ no. 7 = 2.8 mm         |
| 34.2400.02              | 2.5 mm              | ~ no. 8 = 2.36 mm        |
| 34.2600.02              | 2 mm                | ≙ no. 10 = 2 mm          |
| 34.2700.02              | 1.8 mm              |                          |
| 34.2800.02              | 1.6 mm              | ~ no. 12 = 1.7 mm        |
| 34.2900.02              | 1.4 mm              | ≙ no. 14 = 1.4 mm        |
| 34.3000.02              | 1.25 mm             | ~ no. 16 = 1.18 mm       |
| 34.3100.02              | 1.12 mm             |                          |
| 34.3200.02              | 1 mm                | ≙ no. 18 = 1 mm          |
| 34.3300.02              | 900 µm              |                          |
| 34.3400.02              | 800 µm              | ~ no. 20 = 0.85 mm       |
| 34.3500.02              | 710 µm              | ≙ no. 25 = 0.71 mm       |
| 34.3600.02              | 630 µm              | ~ no. 30 = 0.6 mm        |
| 34.3700.02              | 560 µm              |                          |
| 34.3800.02              | 500 µm              | ≙ no. 35 = 0.5 mm        |
| 34.3900.02              | 450 µm              |                          |
| 34.4000.02              | 400 µm              | ~ no. 40 = 0.425 mm      |
| 34.4100.02              | 355 µm              | ≙ no. 45 = 0.355 mm      |
| 34.4200.02              | 315 µm              | ~ no. 50 = 0.3 mm        |
| 34.4300.02              | 280 µm              |                          |
| 34.4400.02              | 250 µm              | ≙ no. 60 = 0.25 mm       |
| 34.4500.02              | 224 µm              |                          |
| 34.4600.02              | 200 µm              | ~ no. 70 = 0.212 mm      |
| 34.4700.02              | 180 µm              | ≙ no. 80 = 0.18 mm       |
| 34.4800.02              | 160 µm              | ~ no. 100 = 0.15 mm      |
| 34.4900.02              | 140 µm              |                          |
| 34.5000.02              | 125 µm              | ≙ no. 120 = 0.125 mm     |
| 34.5100.02              | 112 µm              |                          |
| 34.5200.02              | 100 µm              | ~ no. 140 = 0.106 mm     |
| 34.5400.02              | 90 µm               | ≙ no. 170 = 0.09 mm      |
| 34.5600.02              | 80 µm               |                          |
| 34.5800.02              | 71 µm               | ~ no. 200 = 0.075 mm     |
| 34.6000.02              | 63 µm               | ≙ no. 230 = 0.063 mm     |

ISO (standard international)

When ordering test sieves, please quote if the sieves should be delivered according to ISO 3310-1 or ASTM.

Test sieves and sieving accessories in other diameters and mesh widths on request.

All above mentioned mesh widths are also available as test sieves with 200 mm/8 dia.

Test sieves and sieving accessories are not subject to exchange!



## FRITSCH contact!

Yet another key advantage of FRITSCH: Personal consultation and comprehensive service from our experts – practically anywhere in the world.

If you have questions about FRITSCH laboratory instruments and their application, don't hesitate to call us!

+49 67 84 70 0

[www.fritsch.de](http://www.fritsch.de)

## FRITSCH Particle Sizing

Particle size determination via static laser scattering, dynamic light scattering and dynamic image analysis are important methods for the measurement of particle size distributions in the nanometer range up to several millimeters. These methods are characterised by short measuring times, reproducible results and extensive analysis possibilities.

### ANALYSETTE 12

DynaSizer

➤ Dynamic light scattering



### ANALYSETTE 22

MicroTec plus and NanoTec plus

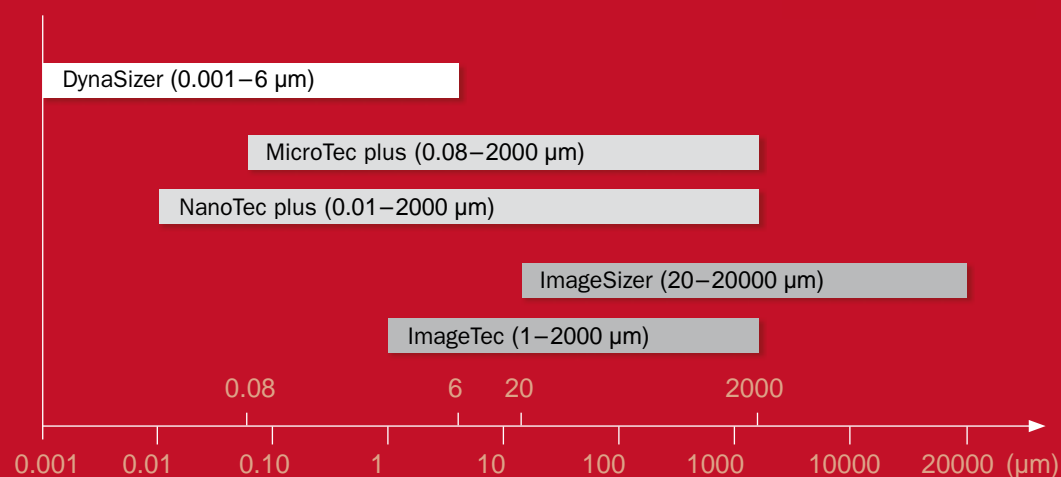
➤ Static light scattering



### ANALYSETTE 28

ImageSizer and ImageTec

➤ Dynamic Image Analysis



Our expert, Dr. Günther Crolly, would be happy to advise you!

+49 67 84 70 138

[crolly@fritsch.de](mailto:crolly@fritsch.de)

[www.fritsch-sizing.com](http://www.fritsch-sizing.com)





Fritsch GmbH

Milling and Sizing

Industriestrasse 8

55743 Idar-Oberstein

Germany

Phone +49 67 84 70 0

Fax +49 67 84 70 11

[info@fritsch.de](mailto:info@fritsch.de)

[www.fritsch.de](http://www.fritsch.de)