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FRITSCH

# laborette® 27

## Rotary Cone Sample Divider

- Representative sample division
  Accurate samples up to 99.9%
- Safe for use with foodstuffs
- Variable division ratio

CE

TÜV CERT
DIN EN ISO 9001

# Rotary Cone Sample Divider “laborette 27“

## Field of application

Representative division of dry solids or suspensions.

Rotary cone sample dividers form a symbiosis with extremely accurate analytical instrumentation. They are used in research, development and quality control laboratories to provide small but representative sample quantities for meaningful analysis.

Rotary cone sample divider models "laborette 27" can also be used for division of liquid media or suspensions - without conversion. In particular in the division of suspensions with coarse-grained fractions, division with the rotary cone sample divider avoids the disturbing influence of segregation by sedimentation of coarse or heavier fractions.

## Method of operation

Traditional dividing methods such as "coning" or "quartering" and eccentric rotary sample division no longer meet the requirements of modern analytical techniques. Accurate sample division is now achieved by a combination of three principles of division within a single unit:

The sample is passed via a hopper onto a rotating dividing cone whose profile simulates the process of coning and quartering. The sample material passes over the surface of the rotating cone and is accelerated outwards by the centrifugal force of the entire system. From there it is fed into up to 30 separate channels. The individual samples are collected in glass sample bottles.

Because of the rotation and the number of channels of the dividing head, the number of divisions reaches up to 3000 dividing steps per minute, so the feed to each channel is made up of a very large number of separate samples - a distinguishing mark for good sample division. With its design, the "laborette 27" rotary cone sample divider can divide materials with an accuracy of 99.9 %.

## Design Characteristics

- A basic machine can be used with a choice of 6 dividing heads.
- Quick fit clamping device for sample bottles 250 ml and 500 ml
- Up to 3000 dividing steps per minute
- Ease of cleaning through removable dividing heads
- Maintenance free drive motor with slipping clutch, rotational speed 100 rpm
- Recyclable, robust cast aluminium housing

## Advantages

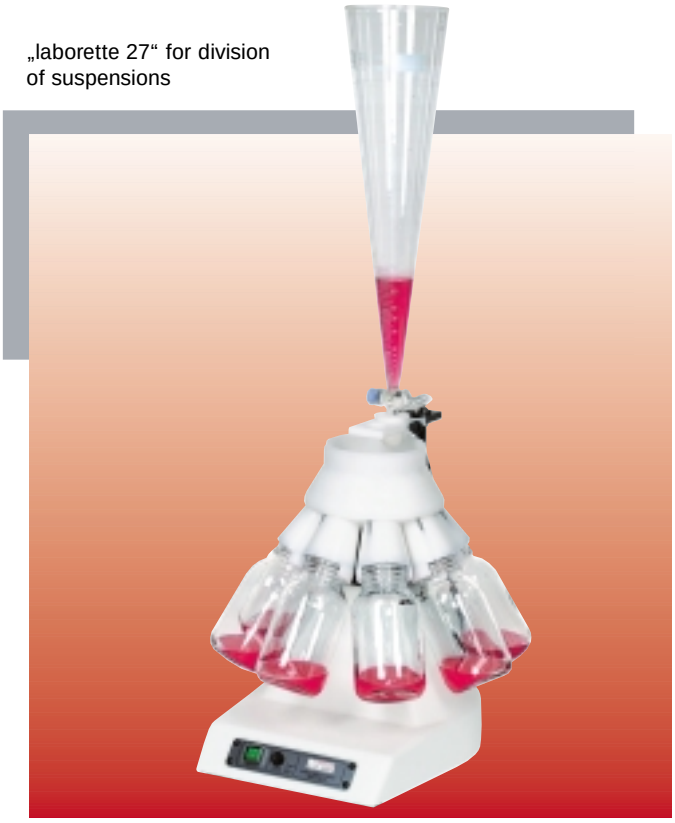
- Quick fit clamping of the sample bottles 250 ml and 500 ml as standard feature
- Representative sample division guaranteed
- Processes dry free flowing samples or suspensions without additional modification
- Choice of division ratios
- Compact - small footprint - light and portable
- Different sized collecting vessels in glass from 15 ml to 500 ml
- Materials safe for use with foodstuffs

# Rotary Cone Sample Divider “laborette 27“

dividing head 1:30

„laborette 27“ with
„laborette 24“

„laborette 27“ for division
of suspensions



- Controlled sample feeding using the vibratory feeder "laborette 24"
- TÜV approved safety
- 2 year FRITSCH guarantee

## Accessories

### Dividing Heads

- Dividing heads with division ratios 1:8, 1:10 and 1:30
- Dividing heads of anodized aluminium for materials and suspensions with abrasive properties
- Dividing heads of POM plastic for non abrasive materials
- Dividing heads of PTFE coated aluminium for aggressive solids and suspensions which attack POM plastic or aluminium

### Feeding

Use of the vibratory feeder "laborette 24" with uniform controlled material feed once again ensures division accuracy. In this way materials which exhibit a poor flow behaviour, e.g. cement or limestone, can still be accurately divided.

### The sample delivery funnel

A choice of funnels in polymethylene plastic are available in four different diameters 5, 10, 15 and 22 mm to suit the particle size of the sample being divided.

| **Features** | **Rotary Cone Sample Divider** | | |
|---|---|---|---|
| Division ratio | **Division 1:8** | **Division 1:10** | **Division 1:30** |
| Materials | Polyoxymethylene plastic or aluminium | Polyoxymethylene plastic or aluminium | Polyoxymethylene plastic or PTFE coated aluminium |
| Number of possible sub-samples | 8 | 10 | 3 |
| Max. Permissible particle size | 10 mm | 10 mm | 2.5 mm |
| Max. feed volume | 4000 ml | 2500 ml | 300 ml |
| Capacity of sample glass container | 250, 500 ml* | 250 ml* | 15, 20, 30 ml |

* thread of the glass container: GL 55

## Technical Data

| | | | |
|---|---|---|---|
| Electrical details | 230 V/1~, 50-60 Hz, 90 W<br>115 V/1~, 50-60 Hz, 90 W | Weight<br>Dimensions w x d x h<br>Packing Details | net 8 kg, gross 11 kg<br>27 x 45 x 46 cm<br>Carton 64 x 40 x 52 cm |

## Ordering Data

| Order No. | Description | For rapid fax quotation tick here |
|---|---|---|
| | **Rotary Cone Sample Divider „laborette 27“**<br>**without dividing head** | |
| 27.1420.00 | for 230 V/1~, 50-60 Hz | |
| 27.1410.00 | for 115 V/1~, 50-60 Hz | |
| | **Dividing head** including funnel<br>Division ratio 1:8 | |
| 27.1300.00 | POM plastic, including 8 sample bottles with screw lid 500 ml and funnel 10 mm diameter | |
| 27.1150.00 | aluminium, including 8 sample bottles with screw lid 500 ml and funnel 10 mm diameter | |
| | Division ratio 1:10 | |
| 27.5150.00 | POM plastic, including 10 sample bottles with screw lid 250 ml and funnel 10 mm diameter | |
| 27.4150.00 | aluminium, including 10 sample bottles with screw lid 250 ml and funnel 10 mm diameter | |
| | Division ratio 1:30 | |
| 27.6150.00 | POM plastic, including 3 sample bottles with screw lid 15 ml and funnel 10 mm diameter as well as 1 funnel each of 5 mm diameter for dry- resp. wet division | |
| 27.2150.00 | PTFE coated aluminium, including 3 sample bottles with screw lid 15 ml and funnel 10 mm diameter as well as 1 funnel each of 5 mm diameter for dry- resp. wet division | |
| | **Accessories** | |
| 27.1500.17 | protective device, polyacryl (not illustrated) | |
| 27.1450.00 | sample bottle 250 ml | |
| 27.1460.00 | sample bottle 500 ml | |
| 83.3100.00 | sample bottle 15 ml | |
| 83.3110.00 | sample bottle 20 ml | |
| 83.3120.00 | sample bottle 30 ml | |
| 27.1290.16 | funnel 5 mm diameter | |
| 27.1330.16 | funnel 5 mm diameter (only for division of suspensions with dividing head, division ratio 1:30) | |
| 27.1200.16 | funnel 10 mm diameter | |
| 27.1210.16 | funnel 15 mm diameter | |
| 27.1220.16 | funnel 22 mm diameter | |
| | **Accessories for automatic feeding**<br>**Vibratory Feeder "laborette 24" with V-shaped channel** | |
| 24.0030.00 | for 200-240 V/1~, 50-60 Hz | |
| 24.0040.00 | for 100-120 V/1~, 50-60 Hz | |
| 24.9100.00 | stand for feeder | |



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