



Innovation Empowers Sample Preparation,
Intelligence Achieves Simplicity



AF400 Rotating Tube Divider



蚂蚁源科学仪器（北京）有限公司
ANTS SCIENTIFIC INSTRUMENTS (BEIJING) CO., LTD.



AF400 Rotating Tube Divider

Rotating Tube Divider AF400 is an adjustable reduction ratio dispenser for bulk loose samples with a feed size of up to 10mm. It is capable of handling the reduction of larger sample sizes while providing representative dust-free portioning. Different dividing bottom cones can get 1, 2 or 3 samples, and different dividing ratios can be obtained by adjusting the width of the dividing slit. In addition, the reduction analyzer AF400 can be configured for use with the AF300 autosampler to improve the precision of sample distribution.



Working Principle



The sample enters the rotating tube divider at a uniform speed by using the vibratory feeder, all samples are uniformly distributed on the dispensing circumference of the bottom cone through the deflector tube rotating at a certain speed in the upper cone. The replaceable bottom cone has one, two or three sample portions and can be set with a slit width that is not limited by the number of stages. With each revolution of the deflector a corresponding proportion of the sample is fed into the receiving vessel and the remaining sample is fed into the waste receiving vessel..

Application



Grains
Cereals



Building
Materials



Soil



Seeds



Metal
Powders



Sand



Minerals



Flours



Chemical
Compound



Chemical
Reagent



Fertilizer



Furnace
Slag

Technical Information

Technical parameter	AF400 rotating tube divider
Feed material	bulk loose materials
Material feed size	≤10mm (Depends on the nature of the sample and the grinding environment)
Number of divisions	1 ~ 3
Time setting	Digital, 1 ~ 99 min / continuous operation
Rotary speed	50 ~ 120rpm (customizable)
Bottom cones	1 sample outlet; 2 sample outlet; 3 sample outlets
Slot width, continuously adjustable	1 sample outlet 0 ~ 159mm, 2 sample outlets 0 ~ 110mm 3 sample outlets 0 ~ 53mm (Customized)
Max. dividing ratio	1 sample outlet 1 × 1:5, 2 sample outlets 2 × 1:7.2, 3 sample outlets 3 × 1:15 (Customized)
Min. dividing ratio	1:26 (Three bottom cones can be used)
Container volume	250ml, 500ml
Volume of reject collector	30L (Customized)
W × H × D	590mm × 1430mm × 600mm
Net weight	Approx. 55Kg
Electrical supply data	AC220V, 50Hz/60Hz, 100W

Calculation of Seam Width

The maximum reduction ratio depends on the maximum adjustable slit width above the bottom cone. The minimum reduction ratio depends on the maximum size of the sample particles to be reduced. It has been analyzed that the slit width should be at least 3 times the maximum feed size of the sample, so that smaller feed sizes result in smaller sample volumes.

Split seam width calculation formula: $W = QN/QA \times L$

W: Split seam widths to be set

QN: Volume of samples dispensed

QA: Total volume of feed

L: Cone circumference (795mm for all three types, customizable)

For example, if you need to separate 300 ml from 3000 ml of sample, you need to set the slit width to 79.5 mm by using the formula.



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Milling Series

 AM100S Vibratory Ball Mill	 AM200S Mortar Grinder	 AM300 Cutting Mill	 AM300S Cutting Mill	 AM350 Beater Mill	 AM360 Turbo Mill	 AM400S Planetary Ball Mill
 AM410 Planetary Ball Mill	 AM420 Planetary Ball Mill	 AM500S High Speed Rotary Mill	 AM600S Knife Mill	 AM700 Jaw Crusher	 AM710 Extrusion Crusher	 AM750S Bench Jaw Crusher
 AM800 Disc Mill	 AM800CC Disc Mill	 AM810 Disc Mill	 AM900 Vibratory Disc Mill	 AM950 Vibratory Disc Mill		

Assisting Series

 AF100S 3D Vibratory Sieve Shaker	 AF150 Horizontal Sieve Shaker	 AF200S Sample Automatic Divider	 AF300 Vibratory Feeder
 AF400 Rotating Tube Divider	 AF450 Rotating Sample Divider	 AF500 3D Sample Mixer	 AF510 3D Sample Mixer

Intelligent Series

 AISP1678 / AISP1700 Intelligence Soil Preparation System
 ADV1001 / ADV1001CS Vacuum Microwave Drying Series

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