Quantachrome

RIFFLERS

rotary powder sample splitters

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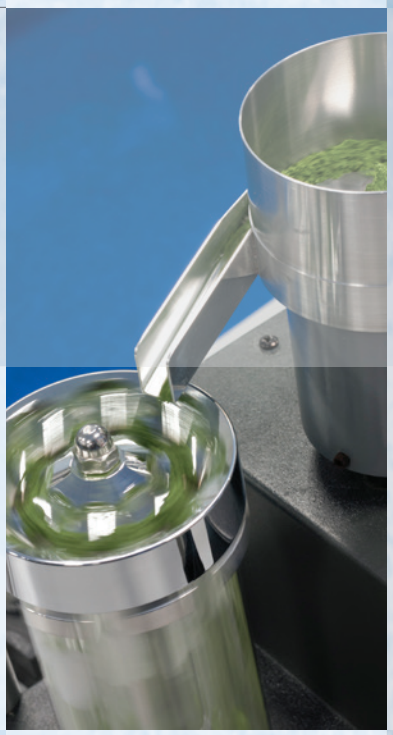
Rotary Micro Riffler™

Sieving Riffler™



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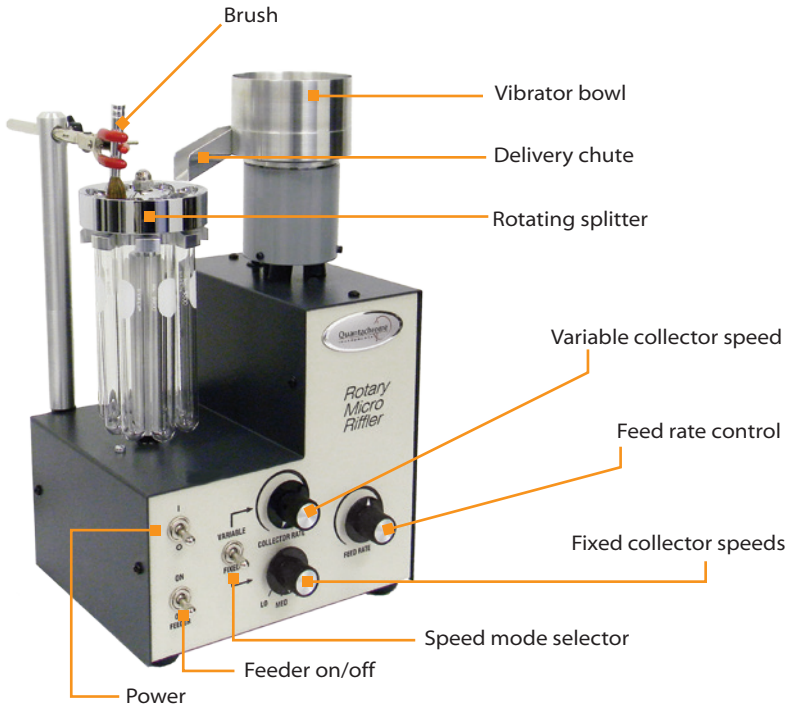
INSTRUMENTS

ROTARY MICRO RIFFLER™
rotary powder sample splitter

RIFFLERS



The **Rotary Micro Riffler**™ easily and automatically divides samples into eight(8) smaller representative samples for analysis. By repetitive divisions of the collected smaller samples, the desired final sample size can be easily obtained.

The Rotary Micro Riffler has two basic components: a circular vibrating bowl and a sample collector. The vibrating bowl is amplitude variable and controls the delivery rate of the initial powder sample. The collector consists of a rotating splitter holding eight test tubes. The size of the test tube may be varied to accommodate the initial sample size. Test tubes afford simple filling, emptying and cleaning.

To accommodate materials of different flow ability the Rotary Micro Riffler has two sets of controls: one for the delivery rate and the second for the rotation rate of the collectors. By varying these two controls, accurate divisions of any powder may be achieved, regardless of particle size or density, in a reasonable time.

To divide a sample, up to 120 cm^3 of powder is loaded into the vibrator bowl. The vibrator bowl automatically feeds the collector and the test tubes rotating below the feed chute. After all the material has been delivered into the test tubes, further reduction in sample size may be accomplished by emptying the contents of one or more of the test tubes into the bowl and repeating the procedure until the desired sample size is achieved.

Introduction

Physical measurements, such as particle size, surface area, density, etc. and chemical analysis of crushed ores for example often require reduction of large quantities into smaller samples. Therefore it is necessary that the powder sub-sample used for analysis be representative of the initial lot or batch for reproducible and valid data.

Both of Quantachrome's rifflers are designed to accurately and reproducibly prepare such representative powder samples from larger laboratory or bulk quantities using the statistically superior method of spin, or rotary, riffling.

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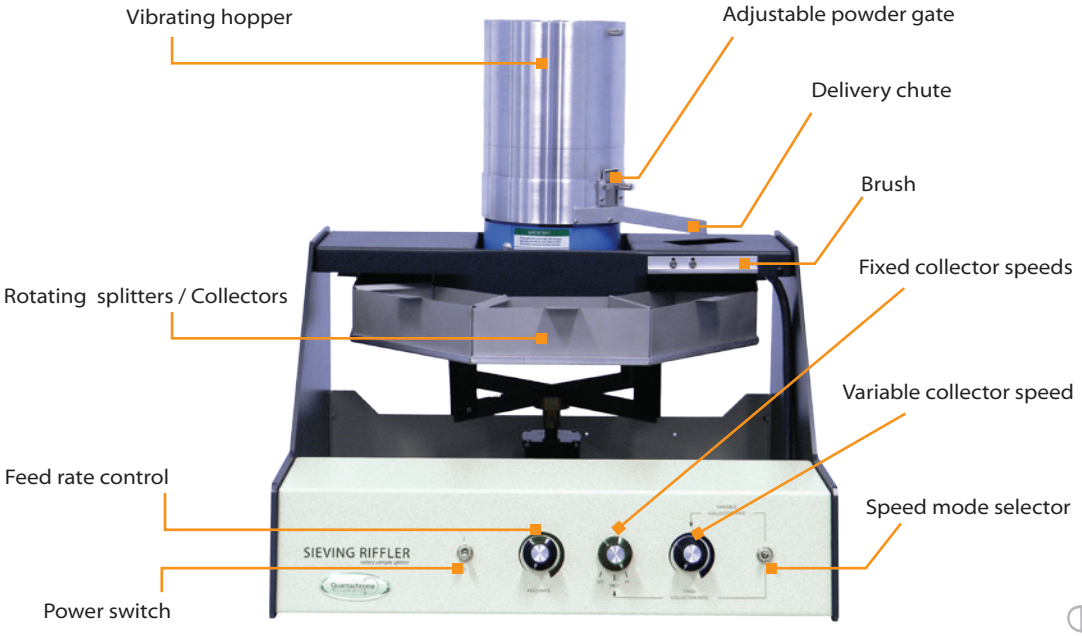
Rotary Micro Riffler Specifications	
Vibrator Bowl:	Aluminum (Nickle-Plated Available)
Max. Capacity:	120 cm^3
Collector Tube Volumes:	4 cm^3 and 15 cm^3
Max. Particle Size:	2.5 mm
Electrical:	110-120V or 220-240V, 50/60 Hz
Height:	33 cm (13 in.)
Width:	20 cm (7.75 in.)
Depth:	18.5 cm (7.25 in.)
Weight:	7.3 kg (16 lbs.)

SIEVING RIFFLER™
rotary powder sample splitter

Note:
When ordering the Sieving Riffler, please specify the sieve size you require.



The **Sieving Riffler**™ is designed to handle larger quantities of powder than the Rotary Micro Riffler. Additionally, particles larger than a particular size and / or foreign bodies can be excluded from the riffling process by attaching a sieve to the top of the hopper.

The Sieving Riffler has three basic components: a cylindrical vibrating hopper, a rotating sample collector table and a replaceable sieve. The collector is divided into eight (8) removable stainless steel compartments. The sieve is mounted on top of the vibrating hopper. The Sieving Riffler offers the same controls over collector speed and delivery rate as the Rotary Micro Riffler.

To divide a sample, the hopper is filled or partly filled with sample. The vibrator amplitude is set to automatically feed the powder into the rotating collectors. After all the material has been delivered, further reduction in sample size may be achieved by emptying the contents of one or more collector back into the hopper for additional splitting. When the amount of sample to be re-riffled is no longer reasonable for the Sieving Riffler, smaller samples can be obtained by splitting the contents of one compartment on the Rotary Micro Riffler. The durable stainless steel collectors are appropriate for both laboratory and industrial environments.

Microns	Mesh
2360	8
2000	10
1700	12
1180	16
1000	18
850	20
710	25
600	30
500	35
425	40
355	45
300	50
250	60
212	70
180	80
150	100
125	120
106	140
90	170
75	200
63	230
53	270
45	325

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RIFFLERS

Sieving Riffler Specifications

Max. Capacity:	2500 cm^3
Collector Compartment Volume:	300 cm^3
Max. Particle Size:	5 mm
Sieve Diameter:	5 in.
Sieve Material :	Brass- (some sizes also available in Stainless Steel)
Electrical:	110-120V or 220-240V, 50/60 Hz
Height:	51cm (20 in.)
Width:	51cm (20 in.)
Depth:	51cm (20 in.)
Weight:	29 kg (63 lbs.)

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- Gas Sorption Isotherms
- Surface Area
- Pore Size, Pore Size Distribution
- Porosity, Pore Zeta Potential
- Chemisorption, TPR/TPO/TPD
- Water Sorption Behavior
- True Solid Density
- Tapped Density

Quantachrome Instruments' quality management system is certified to be in accordance with ISO9001:2008.

Not only are Quantachrome products the instruments of choice in academia, but the technology conceived and developed by our expert staff is applied in industrial laboratories worldwide, where research and engineering of new and improved porous materials is ongoing. Manufacturers also rely on porous materials charac-terization technology to more precisely specify bulk materials, to control quality, and to isolate the source of pro-duction problems with greater efficiency.

Quantachrome is also recognized as an excellent resource for authoritative analysis of your samples in our fully equipped, state-of-the-art powder characterization laboratory, LabQMC (www.labqmc.quantachrome.com, qc.lab@quantachrome.com).

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