

ROTARY MICRO RIFFLER™

rotary powder sample splitter

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.

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 cm³ 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.

Quantachrome



Rotary Micro Riffler Specifications

Vibrator Bowl: Aluminum (Nickle-Plated Available)

Max. Capacity: 120 cm³

Collector Tube

Volumes: 4 cm³ and 15 cm³

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.)