



SP-230



SPA-260



SPA-261



SPA-262



SPA-267



SPA-268



SPA-264

GILSON SPINNING RIFFLER ASTM B215

Representative sample splitting by spinning riffler is the method of choice for sampling accuracy and reliability of the highest order with dry materials. Gilson's expertise in sampling and analyses of powders and granular material is utilized to produce this next-generation Spinning Riffler. The SP-230 features a custom designed touch-screen controller/display, minimal moving parts and an outer case designed for easy clean-up and maintenance. Operation is quieter and safer thanks to an isolated motor and vibrator, automatic belt-drive system and sample vessel enclosure. Both rotation speed and vibration level are displayed on and precisely controlled from the touch screen.

A built-in vibratory feeder provides a constant flow of material from a stainless steel hopper with 1L capacity. A durable urethane-based resin dividing head sharply separates flowing material into as many as sixteen 60ml glass sample

vessels. Standard Tube vessels may be used, or vials with screw-top caps in different sizes of amber or clear glass are available. The vials enable freshly divided samples to be capped and stored immediately, with minimal handling and little chance for contamination. Either type of vessel is contained within the drum during operation to minimize exposure of moving parts and contain spillage. The number of final fractions can be controlled by simply leaving tubes or vials out of the drum. Excess material will then flow directly into the drum. Rotation speed is continuously variable between 0–20rpm and the vibration amplitude of the feeder is variable as well. All adjustments are controlled and displayed on the touch screen. The unique, digitally controlled stepper motor turns a toothed belt and cogged drive wheel for accurate speed control with no slippage. A digitally controlled variable amplitude feeder ensures a constant and steady feed rate. A "sleep" mode conserves power when the unit is not operating. Main power supply voltage is automatically sensed, allowing any AC input from 85–264V, and 47–63Hz single phase. A power cord is supplied for use with standard North-American outlet configurations. Power cords for other configurations are readily available locally.

The SP-230 includes a sixteen-port Dividing Head, a set of sixteen Standard Tube Sample Vessels, a Sample Drum to contain the vessels and a Holder Plate for positioning the vessels in the drum. All are listed below as separate accessories for more efficient sample processing or as replacements. Threaded Glass Sample Vials with plastic cap are available by the dozen. **Product Dimensions:** 13x20.5x23in (330x521x584mm), WxDxH.

Gilson Spinning Riffler

Gilson Spinning Riffler	
Gilson Spinning Riffler, 85-264V, 47-63Hz	SP-230
Accessories	
Standard Test Tube, qty. 12	SPA-260
60ml, Clear Sample Vials with Screw Caps, qty. 12	SPA-261
40ml, Clear Sample Vials with Screw Caps, qty. 12	SPA-267
40ml, Amber Sample Vials with Screw Caps, qty. 12	SPA-268
20ml, Clear Sample Vials with Screw Caps, qty. 12	SPA-265
20ml, Amber Sample Vials with Screw Caps, qty. 12	SPA-266
Sample Vessel Holder Plate	SPA-262
Sample Drum	SPA-263
Dividing Head	SPA-264



The Gilson Spinning Riffler virtually eliminates operator error and bias associated with other types of sample dividing. The accuracy of spin riffling has been demonstrated in the 1968 M.Sc. thesis of A. A. Khan, Bradford University. Sampling tests based on a 60/40% mixture of coarse and fine sands produced the following comparisons:

COMPARISON OF SAMPLE DIVIDING METHODS

Method	Std. Dev. of Samples (%) σ	Var. (P_v)	Est. Max. Sample Error (%) E
Cone & Quartering	6.81	46.4	22.7
Scoop Sampling	5.14	26.4	17.1
Table Sampling	2.09	4.37	7.0
Chute Riffling	1.01	1.02	3.4
Spinning Riffling	0.125	0.016	0.42
Random Variation	0.076	0.0058	0.25



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