

## SAMPLE PRETREATMENT EQUIPMENT

**SCP SCIENCE** Sample Pretreatment Equipment, such as Jaw Crushers, Pulverizers, Sample Splitters and Grinders all of which are engineered with high quality components. They are used to crush / pulverize / grind large sample sizes into small, homogeneous, representative samples. These samples may then be prepared for XRF analysis (as pressed powder pellets) or ICP / ICP-MS / AA analysis (as acid-digested, liquid samples).

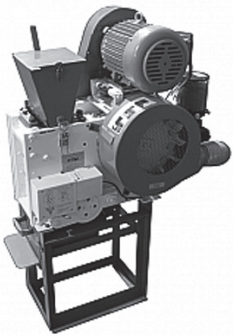
Depending on the application, **SCP SCIENCE** provides the proper equipment to satisfy your analytical needs and maximize the precision of your final results. Markets include the cement, mining, glass, geological, metal alloys, and environmental industries.

- 14** Jaw Crusher SP-5000
- 14** Soft Material Grinder SP-3000
- 15** Swing Mill Grinder SP-2000
- 15** Rotary Arm Sample Splitter
- 16** Open Pan Riffle Sample Splitter

## Sample Pretreatment Equipment

### JAW CRUSHER SP-5000

Jaw Crusher SP-5000 is manufactured for heavy duty workloads. Standard automatic lubrication enables worry-free operation. Adjust jaws quickly and easily. Complete with one set of smooth or serrated jaws.



Features
Powered by 5 HP motor
Crushes 5" x 7" samples to -10 mesh in one pass
Integrated forced blown air system to reduce bearing temperatures - Provides a longer life span for system parts

Jaw Set Style	Alloy	Catalog No.	Description	Catalog No.
Serrated	Chrome-Moly Steel	010-010-120	208V, 60 Hz	010-010-106
			230V, 50 Hz	010-010-108
Serrated	Chrome Steel	010-010-121	<b>Specifications</b>	
Serrated	Mild Steel	010-010-122		
Serrated	Manganese	010-010-123	Capacity (in/cm)	5 x 7 / 13 x 18
Smooth	Chrome-Moly Steel	010-010-130	Power	3 Phase, 60 cycles, 5HP
Smooth	Chrome Steel	010-010-131	Size (in/cm)	22W x 41D x 59H / 56W x 104D x 150H
Smooth	Mild Steel	010-010-132	Weight (lb/kg)	1000 / 455
Smooth	Manganese	010-010-133		

### SOFT MATERIAL GRINDER SP-3000

Ideal instrument to reduce 20 to 80 grams of medium to soft material into the desired mesh size. Complete with a metal plate perforated with 1/16" (10 mesh) holes. A set of rotating knives cuts and shears the sample against a set of stationary knives in the grinding chamber. The process continues until the material is fine enough to pass through the mesh screen at the bottom of the chamber.



When specifying screen size, note that the average particle size of the ground material that passes through a screen is always much smaller than the holes in that screen. For example, a typical medium-hard sample passed through a 35 mesh (0.425 mm) screen, yields a particle distribution in which 95% of the material particle size is less than 115 mesh (0.125 mm) and 40% is less than 270 mesh (0.053 mm).

Features	Description	Catalog No.
Easily-removable, sealed, sample receptacle - Allows for maintenance-free operation	208V, 60 Hz	010-010-300
Manufactured with a dual-stage feeding hopper - Eliminates dust from escaping	230V, 50 Hz	010-010-305

Specifications	
Capacity (grams)	20-80
Power	3 Phase, 1HP
Size (in/cm)	17W x 28D x 40H / 43W x 71D x 102H
Weight (lb/kg)	264/120

## Sample Pretreatment Equipment SWING MILL GRINDER SP-2000

### Specifications

Catalog Number	010-010-200 (208V, 60 Hz)
Catalog Number	010-010-250 (230V, 50 Hz)
Capacity (in/cm)	5 x 7 / 13 x 18
Power	3 Phase, 1HP
Size (in/cm)	25W x 25D x 41H / 64W x 64D x 104H*
Weight (lb/kg)	1056/480

### Adapter Plates Catalog No.

For one 20 ml or 50 ml grinding dish	010-010-221
For three 20 ml or 50 ml grinding dishes	010-010-222

Swing Mill Grinder SP-2000 has a manual self-adjusting clamp to maintain sealing pressure to prevent sample loss during grinding. Manufactured with a solid stainless steel frame with sound dampening lining.

### Features

- Powered by 1 HP motor
- Available triple head adapter plate to grind 3 separate samples of 10-50 grams simultaneously
- Mountable electronic timer may be placed on either side of the system for easy accessibility
- A wide variety of sample dishes in various capacities and alloys are available



Specifications	Capacity (ml)	Diameter (mm)	Adapter Required	Catalog No.
Chrome-Moly Steel	50	108	Yes	010-010-201
Chrome-Moly Steel	100	140	No	010-010-202
Chrome-Moly Steel	250	222	No	010-010-203
Chrome Steel	50	108	Yes	010-010-204
Chrome Steel	100	140	No	010-010-205
Chrome Steel	250	222	No	010-010-206

## ROTARY ARM SAMPLE SPLITTER

Rotary Arm Sample Splitter offers variable speed control for precise divisions. Manufactured with 3 receiving drawers and a 15-liter capacity hopper. The reject bin is located at the bottom of the system.

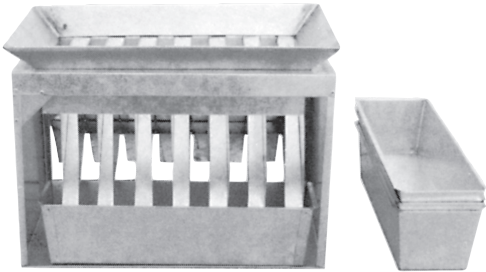
### Features

- Accepts media up to 3/4" in size
- Fully enclosed with an outlet for dust extraction



## Sample Pretreatment Equipment

### OPEN PAN RIFFLE SAMPLE SPLITTER



Constructed in stainless or galvanized steel, the sample splitter has a wide application since it can be used for fine aggregates as well as many coarse sizes. Sample is poured into the hopper chute and the riffle splitter divides it into two equal portions that discharge into separate pans. The split is then repoured until the desired number of representative samples are obtained. The sample splitters are available with riffle openings of 3/8" or larger, and with splitter sizes of 229 mm x 305 mm (9" x 12") and 229 x 457 mm (9" x 18").

Catalog No. (Prefix)	Stainless (Suffix)	Galvanized (Suffix)	Description	Riffle Size (in./mm)	Number of Riffles
010-010	-801	-802	Riffle, 229 x 305 mm ID, complete with (1) Pan and Stand	0.375 / 9.53	32
010-010	-803	-804	Riffle, 229 x 305 mm ID, complete with (1) Pan and Stand	0.5 / 12.7	24
010-010	-805	-806	Riffle, 229 x 305 mm ID, complete with (1) Pan and Stand	0.625 / 15.9	18
010-010	-807	-808	Riffle, 229 x 457 mm ID, complete with (1) Pan and Stand	0.375 / 9.53	48
010-010	-809	-810	Riffle, 229 x 457 mm ID, complete with (1) Pan and Stand	0.5 / 12.7	32
010-010	-811	-812	Riffle, 229 x 457 mm ID, complete with (1) Pan and Stand	0.625 / 15.9	28
010-010	-850	-851	Sample Pan, Small for 229 x 305 mm Riffle	---	---
010-010	-852	-853	Sample Pan, Large for 229 x 457 mm Riffle	---	---