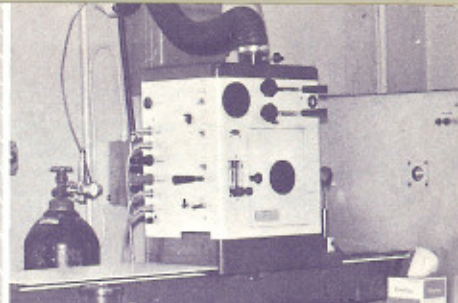


The **SPEX** Arc/Spark Stand

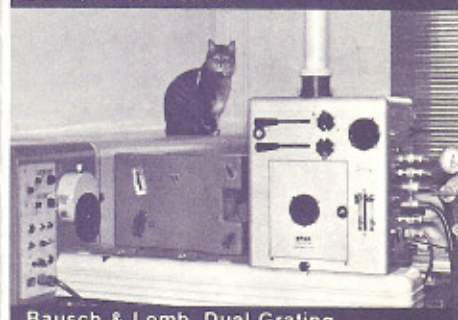
has been mated to
at least 500 spectrographs
including those of
APPLIED RESEARCH LABS
BAIRD-ATOMIC
BAUSCH & LOMB
HILGER
JARRELL-ASH
JOBIN & YVON
SHIMADZU
SPEX
ZEISS

The camera-happy pussycat belongs to Ed and Irene Van Dien of Spectro-Chem Laboratories, Inc., Franklin Lakes, N.J. She's the only one who insisted on a credit line.

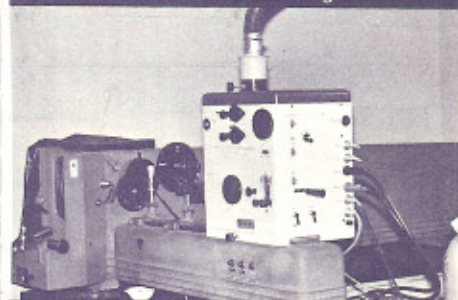
© 1969—SPEX INDUSTRIES, INC.



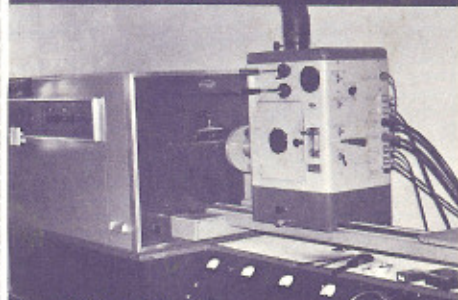
Baird, Direct Reader



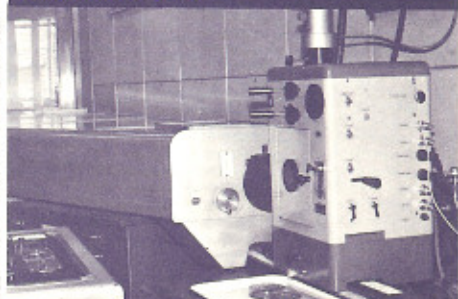
Bausch & Lomb, Dual Grating



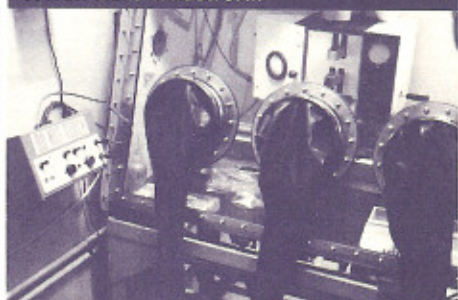
Bausch & Lomb, Littrow



Jarrell-Ash, Ebert



Jarrell-Ash, Wadsworth



Glove-Box Operation

QUESTIONNAIRE

(SEND COMPLETED COPY WITH PURCHASE ORDER)

NAME

ADDRESS

Type of spectrograph

Manufacturer

Approximate date of purchase

Vertical distance from top of optical bar to center of optical path.

Cross-sectional sketch of optical bar with approximate dimensions.

Does optical path run along center of optical bar? If not, specify.

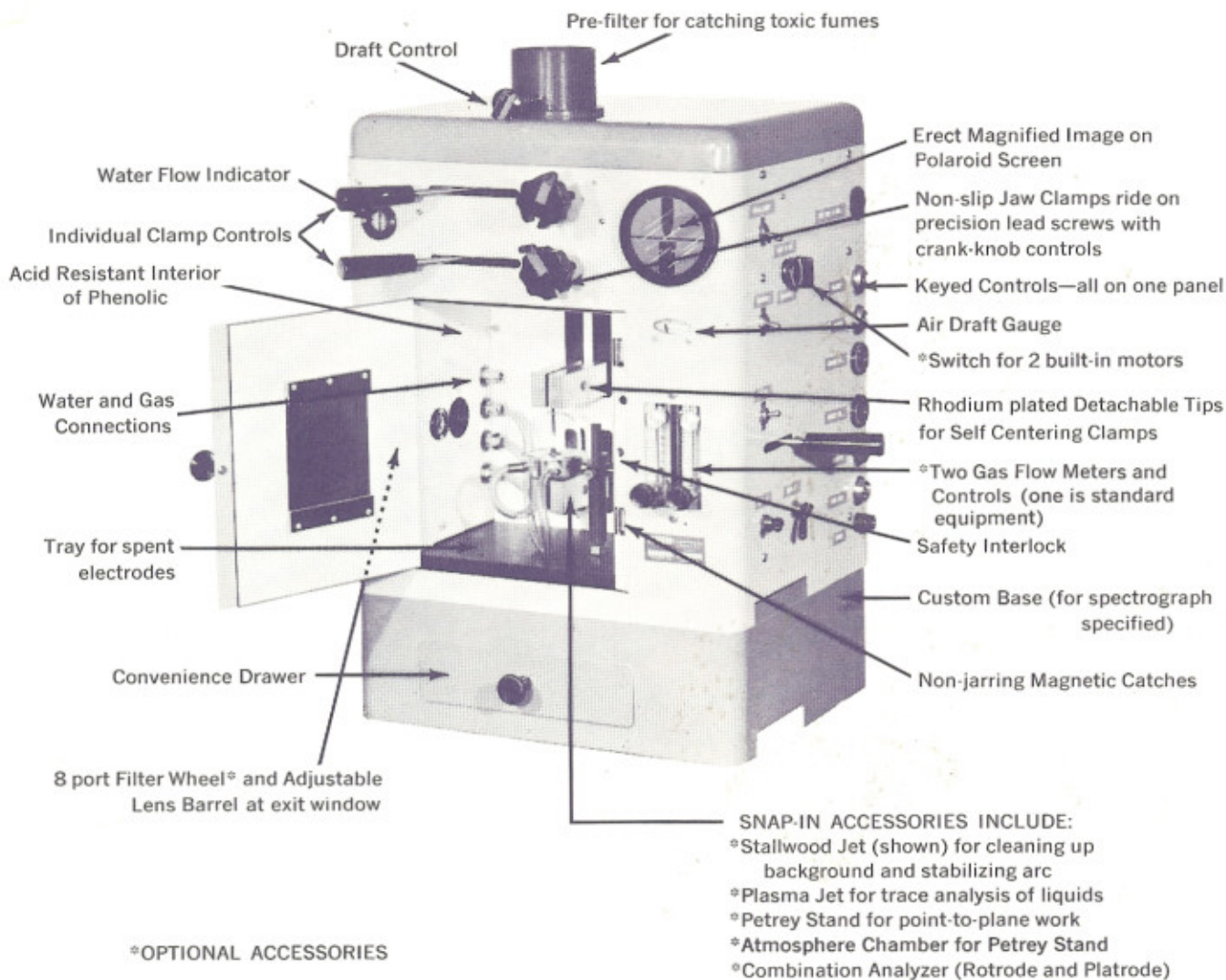
As operator faces arc/spark stand, is the slit of the spectrograph to his left or to his right?

What is the diameter of the lens closest to the Arc Stand?
(This information needed if lens is to be mounted in barrel of 9010).

NOTE: With a B&L Dual Grating Spectrograph having a reflective (rather than refractive) external illuminator, it is necessary that the mirrors therein have a focal length of 7.25". If 6" focal length mirrors are in your illuminator they must be replaced. The proper mirrors are available from us at \$180.00/pair.

ARC/SPARK STAND

Left or right hand models adapt to most new spectrographs or will modernize your existing equipment.



9010

ARC/SPARK STAND, 115v., 50-60 Hz, includes Flowmeter and Water Cooling Connections, specify type of spectrograph and the direction light must emerge as operator views stand, 15" x 12" x 21", 129 lb

Each \$1585.00

9010A

ADAPTER FOR B&L SPECTROGRAPH

Each \$ 40.00

ALL OTHERS

Each \$ 75.00

PETREY STAND

(SPEX SPEAKER, Vol. IV—No. 2)

Petrey Stand has removable, motorized turntable for sampling a large area to minimize segregation effects. A jet of gas may be directed at the gap to reduce matrix effects. Alignment of sample is simplified with use of viewing mirror. Capable of supporting up to 20 pounds, the Petrey Stand is snapped in and out of the upper electrode jaws in seconds.

9011 **PETREY STAND**, complete with 2, 3 or 4 mm spacer (specify); mirror; turntable; hold-down spring, 2 rpm motor. Fits in upper jaws of 9010, 5 lb
Each \$180.00

9012 **MOTOR**, 2 rpm or 10 rpm (specify). Note: The 2 rpm motor is included with and recommended for the 9011 Petrey Stand; the 10 rpm motor is included with the 3400 Combination Analyzer. If it is desired to add either the Petrey Stand or the Combination Analyzer at a later date, it is necessary to order one or both motors with the basic arc/spark stand.
Each \$ 22.00

9013 **BLOWER-FILTER ASSEMBLY**, includes 6' length of 3" dia. Flexhaust, pre-filter, filter box designed to remove 99.97% of all particles 0.3 microns or greater, 75 cfm blower 115 v., 60 Hz
Each \$165.00

9017 **PROJECTION LAMP**, replacement.
Each \$ 2.75

9020 **JAW TIPS**, rhodium plated brass, replacement set of 4.
Set \$125.00

9020-S **JAW TIPS**, for short (to 1/2") electrodes, set of 4.
Set \$145.00

9021 **FILTER WHEEL**, mounts on 9010, indexes at each of 8 ports.
Each \$ 80.00

9022 **NEUTRAL FILTER**, quartz, specify 50%, 20%, 12%, or 6% transmittance
Each \$ 24.00

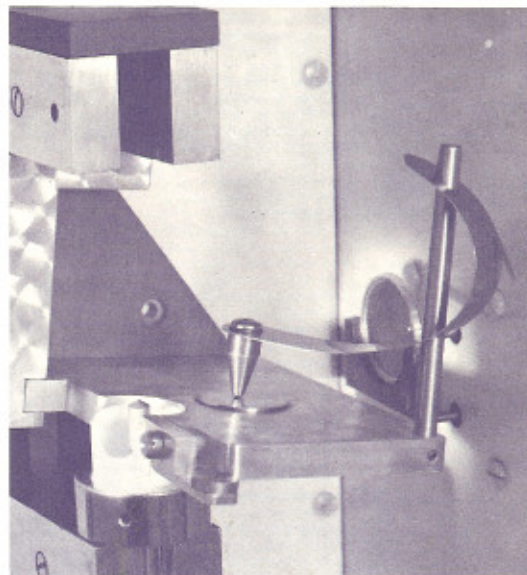
9023-C **FILTER**, clear glass, cuts off below 3200A to eliminate overlapping orders
Each \$ 6.00

9023-R **FILTER**, red glass, cuts off below 6000A to eliminate overlapping orders when photographing red and infrared spectra.
Each \$ 6.00

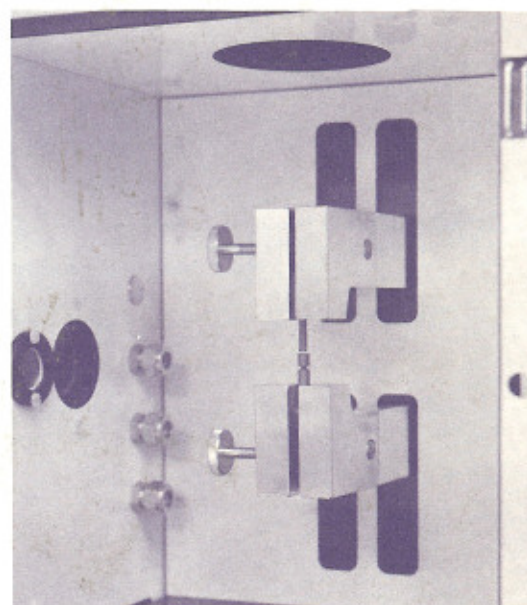
9023-Y **FILTER**, yellow glass, cuts off below 4500A to reduce overlapping orders when photographing visible spectrum.
Each \$ 6.00

9023-UV **FILTER**, ultraviolet transmitting for photographing 2250-3500A
Each \$ 15.25

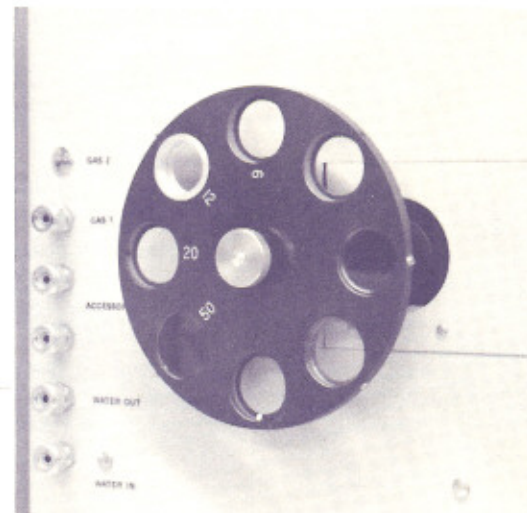
3200 **CIRCULATING PUMP ASSEMBLY**, includes pump, 7 gal. polyethylene container, 20 feet of Tygon tubing, 115 vac., 14 lb
Each \$120.00



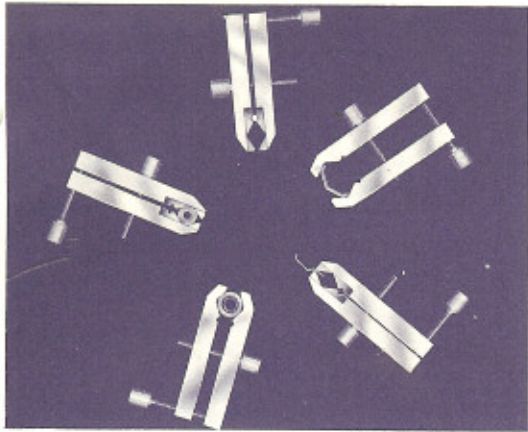
9011



9020-S



9021

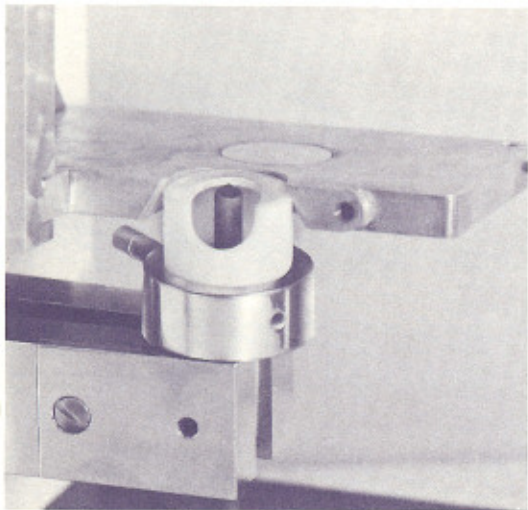


3300

3300

PETREY STAND SAMPLE CLAMP, used for gripping small and/or irregular samples on Petrey Stand.

Each \$ 35.00

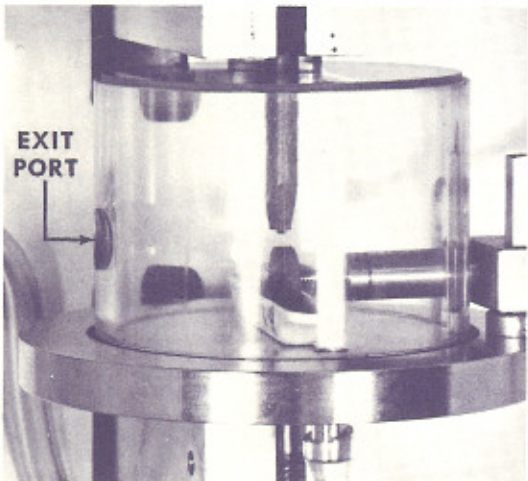


3310

3310

ATMOSPHERE CHAMBER FOR PETREY STAND, complete with 2 and 3 mm spacer and length of Tygon tubing. Takes standard 0.242" dia. graphite counter electrode

Each \$ 65.00



3400

ENCLOSED COMBINATION ANALYZER

(SPEX SPEAKER, Vol. VI—No. 1)

One of the oldest, still one of the best methods for analyzing solutions is with the rotating graphite disc. Powered by a 10 rpm, built-in motor, through an insulated flexible shaft, our rotrode is mounted in the lower electrode jaws. A Pyrex cover may be placed over the sample to permit sparking in inert gases, a feature permitting the analysis of flammables. The accessory may also be used vertically as a platrode for the analysis of briquets or dried salts.

3400

COMBINATION ANALYZER, for the analysis of solutions by either the rotrode or platrode techniques. A stainless steel and a spare tantalum shaft are provided; also one 3401 porcelain boat and one 3403 aluminum boat, 4 lb

Each \$220.00

3401

PORCELAIN BOAT, spare.

Dozen \$ 12.00

3402

PLATFORM, for the analysis of 1/4" or 1" dia. pellets.

Each \$ 13.00

3403

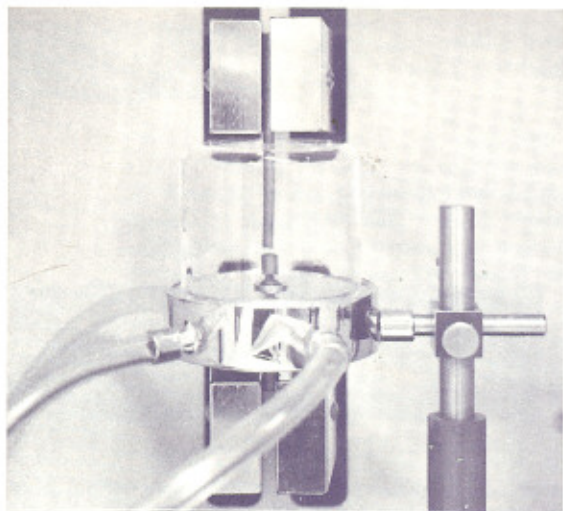
ALUMINUM BOAT

Each \$ 6.00

3404

PYREX COVER, spare.

Each \$ 15.00



9027

ENCLOSED STALLWOOD JET

(SPEX SPEAKER, Vol. VII—No. 3)

Jacketed in a sheath of gas, the arc is constrained from wandering and the result is far greater stability and sensitivity. By using an argon:oxygen mixture, cyanogen bands virtually disappear, opening up hundreds of angstroms where the persistent lines of many elements appear.

9026

QUARTZ DOME, for use with 9027, spare (it is suggested that several be purchased as they should be cleaned before a sample is arced).

Each \$ 20.65
10 \$185.00

9027

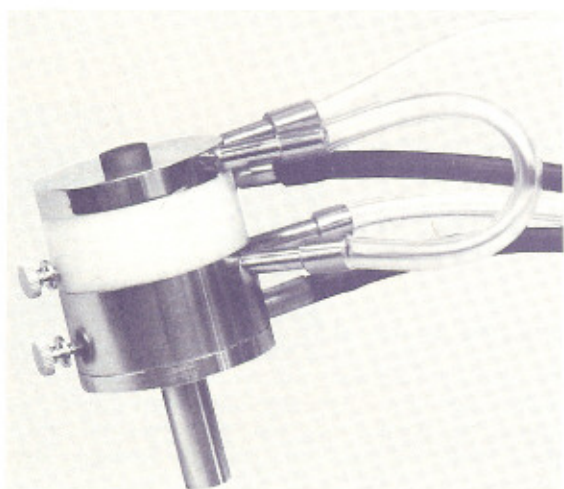
ENCLOSED STALLWOOD JET, water-cooled, fits most arc stands, may be used with 1/8", 3/16" or 1/4" dia. electrodes, with one 9026 quartz dome, 4 lb

Each \$165.20

9029

TOGGLE VALVE AND FLOW METER, 5-40 CFH for factory installation only in Spex No. 9010 Arc/Spark Stand (required for use with 9030).

Each \$ 55.00



9030

PLASMA JET SOLUTION ANALYZER

(SPEX SPEAKER, Vol. VIII—No. 1)

This accessory permits the direct analysis of almost any liquid, flammable or not, with the greatest precision and sensitivity of any liquid technique. Utilizing a 20 ampere dc arc, the Plasma Jet requires no sample preparation, only a short flush-out time between samples.

9030

PLASMA JET SOLUTION ANALYZER, fits in most arc/spark stands. Includes water-cooled jet assembly with atomizer (medium bore unless otherwise specified), and graphite upper control rings, graphite lower anode rings, Teflon sample holder, 4 lb requires 9029.

\$275.00

9030-6

THORIATED TUNGSTEN ROD, 1/8" dia. x 7" long.

\$ 5.00

9030-5U

UPPER CONTROL RING, graphite.

\$ 16.00/C

9030-5L

LOWER ANODE RING, graphite.

\$ 19.00/C

9030-7

HEATED SOLUTION CONTAINER, ALUMINUM, 115v., 50-60 Hz, useful for analyzing substances which dissolve at elevated temperatures, or to reduce viscosity of some liquids, or melt materials such as waxes.

\$ 60.00

9030-8

SAMPLE HOLDER, Teflon with polyethylene cover, 4 ml capacity. Spare, each \$ 5.25

10 \$ 42.00

9030-4131

ATOMIZER, SMALL-BORE, useful for gas analysis. \$ 42.00

9030-4038

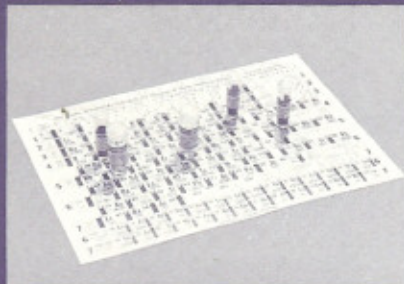
ATOMIZER, MEDIUM-BORE, useful for general analysis of liquids. \$ 42.00

9030-4140

ATOMIZER, LARGE-BORE, useful for analyzing slurries and suspensions, gas oils and other viscous petroleum products. \$ 42.00

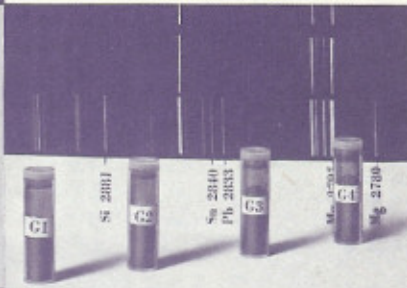
PURE MATERIALS

PERIODIC CHART OF THE ATOMS
© THE WELCH SCIENTIFIC CO.



Of our 200-odd metals, oxides, etc., 25 contain less than 1 ppm and 90 contain less than 10 ppm total metallic impurities. The list is yours for the asking.

POWDER STANDARDS



These "specialties of the house" come with full instructions for the semiquantitative determination of over 70 elements.

NYLON-LUCITE SIEVE SETS



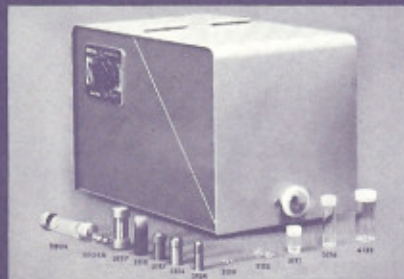
On unique telescoping frames, 100, 200, 325 and 400 mesh screens separate up to four fractions in one operation, leaving no metallic contamination.

BORON CARBIDE & SILICON CARBIDE MORTARS & PESTLES



For hand grinding of unusually hard substances choose among bowl diameters from 1/2" to 3", all smooth, chemically inert, free of bonding agents and near the top of the list in Knoop hardness.

MIXER/MILL® No. 5100



Put electricity to work grinding or mixing powders. The No. 5100 will take care of quantities up to 10 ml. . . .

MIXER/MILL® No. 8000



the No. 8000 handles up to 25 ml. Both 5100 and 8000 have an assortment of plastic, alumina, steel and tungsten carbide vials for quickly getting problems down to reasonable size—like —325 mesh.

SHATTERBOX®



This is the big, really tough machine for fast action. Not much will withstand the onslaught of the tungsten carbide puck and ring in its tungsten carbide grinding container. Two or three minutes do the job for up to 100 ml.

FREEZER/MILL®



Our cool new grinder makes powder from the gummiest things such as animal tissue, plastic or wax by impact-grinding under liquid nitrogen. We'll gladly send literature, of course, but if you would really like convincing send us your problem sample to test grind.



INDUSTRIES, INC./BOX 798/METUCHEN, N. J. 08840/☎ (201) 549-7144

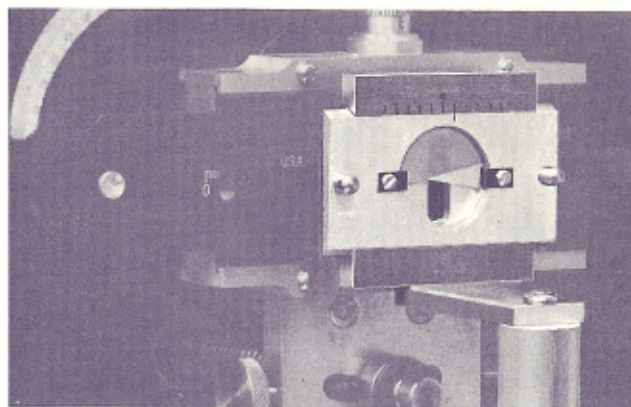
THREE-STEP NEUTRAL FILTER

(SPEX SPEAKER, Vol. VI—No. 2)

The three-step neutral filter is constructed with wedges of evaporated metal and is so mounted in a slide that it can be pushed horizontally across the center of the optical path, reducing the density of intense lines to readable values.

When placed at the focus position (the slit in stigmatic spectrographs, Sirk's focus in astigmatic instruments), the height of the steps can be made to vary up to about 5mm, when used in conjunction with the fishtail of the spectrograph. Furthermore, it is possible to utilize either the 20% filter alone or the 4% and 100% as a two-step filter simply by sliding it in place. An engraved scale is provided to permit resetting positions.

The No. 1090 filter is mounted on an offset post to fit standard riders and still be placed as close as possible to the position of vertical focus.



1090 Three-Step Neutral Filter Assembly, on offset post. Please specify the diameter of the post necessary to fit the rider of your spectrograph (normally 1/2", 5/8" or 3/4") 4" x 2" x 8"
4 lb Each \$145.00

ORDERING INFORMATION

Minimum order \$10.00

Terms are net 30 days to rated firms. To avoid delays purchasers who have not transacted any previous business with Spex Industries should include commercial references or remittance with the initial order.

Shipments will be made F.O.B. Destination anywhere within the continental United States via our choice of transportation. Any premium transportation, packaging or invoicing requested will be additionally invoiced.

Authorized dealers in foreign countries are listed below. In the United States and countries not listed orders should be sent directly to Spex Industries, Inc., Box 798, Metuchen, N.J. 08840.

Foreign orders will be accepted subject to U.S.A. regulations and shipped F.O.B. Metuchen, N.J. 08840.

SPEX INDUSTRIES, INC. • BOX 798, METUCHEN, N.J. 08840