



PREISER SCIENTIFIC

ISO 9001:2015 Certified

Complete Source for the
Testing Laboratory
Instruments • Supplies • Chemicals



**COAL
METALS
MINERALS
AGGREGATES**

Since 1924, products you can trust, service you can rely on.

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Why Us?



About Preiser Scientific:

Established in 1924, our mission is to empower scientific advancement by providing laboratories worldwide with unparalleled quality, reliability and innovation in supplies and testing solutions. Every day, we strive to exceed expectations, drive innovation and uphold the highest standards of integrity and professionalism in all that we do. We are proud to be an ISO 9001:2015 Certified Company.

Why Us:

We specialize in meeting the specific needs of coal, metals, minerals and aggregates laboratories worldwide. Our comprehensive range of laboratory equipment, consumables and supplies is precisely tailored to support the rigorous testing and analysis requirements of these industries. Our deep understanding of the challenges faced in these industries enables us to provide customized solutions that optimize efficiency, accuracy and reliability.

Preiser Scientific's dedication to excellence is confirmed by our valued partnerships with industry leaders. We proudly serve the majority of the world's largest steelmakers, commercial labs and coal mines; selling to and supporting labs in over 100 countries. These collaborations underscore our reputation for delivering tailored solutions and superior support to the most discerning customers.

Choose Preiser Scientific as your trusted partner and experience the difference of specialized expertise and dedicated support for your laboratory needs.

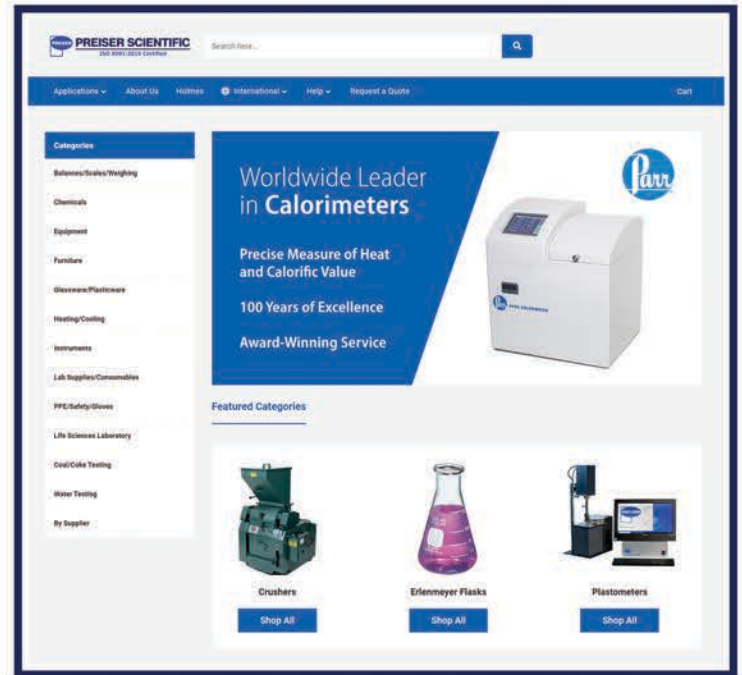
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Sample Preparation

Upgrade your laboratory with our comprehensive selection of equipment and customized solutions.



Minerals
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Preparation

Holmes Crushers and Pulverizers

The Holmes Crusher has powerful crushing ability and can maintain continuous operation. The custom alloy steel swing hammers ensure long life. Stressing safety in operation, open latch sensor will cut power to the motor. For ease of movement, the crusher is mounted on four casters. Optional actuator and dust control available. The rotor assemblies are reversible (end-for-end) for maximum hammer life. The Holmes Pulverizer is designed for small sample volumes of coal particles 3/16" and smaller. Constructed of painted steel and cast iron. Long service life design based on the heat-treated Rotor. Electrical design is for indoor non-hazardous environments and suitable for a variety of electricity needs. Multiple models available for Crushers and Pulverizers. Main case constructed of painted steel and cast iron. High quality materials and excellent paint process to ensure the equipment lasts for a long time. All Holmes sample preparation equipment can be combined with industrial robots to implement automated operation, improved work efficiency and increased safety. Additional models available.



Cat. # 91-6830

Crusher 401XL

Capacity of 4000 pounds per hour (3/8" screen plate) and 2500 pounds per hour (3/16" screen plate).



Cat. # 91-7122

Pulverizer 502XL

Designed for small sample volumes of coal particles 3/16" and smaller. Processing rate approximately 1 lb. per minute with 0.024" (60 mesh) hole screen plate.

Adaptable and Extensible Design

Efficient and unattended automatic sample preparation has enhanced the traditional working mode. Our design philosophy is to provide for efficiency, automation and safety. Holmes products have an open interface design, so they can be easily combined with industrial robots. With years of experience and the successful completion of some of the world's largest automation projects we can integrate into your production needs. Our team can help at the conception, design, review and implementation stages of your project.



Long Life and Safe Operation

- Highest average lifetime
- Main case constructed of painted steel and cast iron
- High quality materials and excellent paint process to ensure the equipment lasts for a long time
- The main rotor is heat-treated to achieve maximum life
- A quick-opening latch provides easy access
- Open latch sensor cuts power to the motor when the door is open
- Emergency stop button ensures that the operator can quickly stop the equipment in case of an emergency



Cat. #91-6899

Jaw Crusher

The Retsch BB Jaw Crushers are used for the rapid, effective precrushing and crushing of medium-hard, hard, brittle and tough materials. Its variety of materials offered, including heavy-metal free steel, its efficiency and safety make it ideal for sample preparation in laboratory and industrial settings. A jaw crusher is always at the very front of the sample preparation and quality control of materials. The main fields of application for a jaw crusher include building materials, mineralogy and metallurgy, ceramics and glass, materials science and environmental analysis. Additional Models Available.



Cat. #91-7103

Disc Mill

The Retsch Model DM 200 is designed for preliminary and fine grinding of medium-hard, hard and brittle material. The feed material enters the dust-proof chamber from the filling hopper and is fed centrally between two vertical grinding discs. A moving grinding disc rotates against a fixed one and draws in the feed material. The processed sample exits the grinding gap and is collected in a receiver. The gap width between the discs is continually adjustable during operation in the range of 0.1mm to 5.0mm. An observation window is provided for visual setting and verification of the gap setting. The powerful DM 200 requires only a few minutes to achieve the desired grind size. Use on bauxite, chalk, coal, coke, concrete, granite, ores, quartz and many other materials.

- Excellent crushing performance
- Reproducible results due to accurate gap settings
- Hinged grinding chamber for easy cleaning



Cat. #91-6508

Vibratory Pulveriser

The Bico Vibratory Pulverizer is designed for the efficient grinding of production samples. The pulverizer uses two rings and a puck inside an 8" hardened chrome alloy steel grinding bowl. A specially designed motor directly coupled to a rotating eccentric swings the bowl and components at a precise speed and distance for maximum grinding efficiency. Rapidly reducing a 1/2" (13mm) wet or dry sample of mineral, ore, rock, soil and similar materials to a fine mesh of 400+. Includes starting switch and timer and an insulated cabinet for reduced operating noise. 1HP or 3HP, 50/60 Hz, 208/220/400 volt motor, 900RPM. Supplied with 2 rings, puck, and 250mL (8") diameter bowl.



Cat. #91-6509

Badger Jaw Crusher

The Bico Badger Jaw Crusher will efficiently reduce dry and friable material. Bico equipment will increase productivity and ease your operation. Exceptional crushing capacity with minimum power consumption is obtained by the unique movable jaw motion. This ensures maximum production in the lab and field. Ruggedly designed to absorb the shock and impact of constant use. Easy access to all parts for rapid cleaning and maintenance. New space saving motor mounting design. Feed hopper and safety guards standard with units supplied with a motor. Heavy duty fabricated steel main frame. Easy jaw adjustment. Manganese steel plates available. Capacity 1300 lbs per hour (590kg). Jaw capacity 5x7 in. (12.7x18cm). Reduction size 1/8" minimum, 3/4" maximum. 400RPM.



Cat. #91-6505

UA Pulverizer

The Bico Disc Pulverizer will accept a 1/4" dry, friable material and reduce it to a fine powder of 150-200 mesh at approximately 1 lb/minute (based on quartz). It is designed for the fine grinding of hard materials. The 8" grinding plates can be adjusted and locked into position to obtain the required particle size. Plates are offered in a variety of materials and hardness to suit the users' grinding needs and budget requirements.



Cat. #91-6450

Laboratory Grinding Mill / Crusher

The QCG System's grinding unit construction is sturdy cast iron, evenly coated for food handling. The grinding unit can be removed and disassembled for cleaning without the use of tools. Grinding plates are made of hard iron alloy designed for clog resistance and long life. Plate clearance easily adjusted by hand to change mesh. Rigid cast aluminum base and bearing for minimum weight. 3-point rubber pads for stability. Low current requirements, needs no special wiring. The tooth feed can perform both coarse and fine grinding, depending on the sample. Includes 4-CS plates. 115 V/1 Ph/60Hz. Additional Models Available.



Cat. #Z91-2290

Preiser Air Drying Oven

The Preiser Air Drying Oven provides for the partial drying of coal to bring it to near equilibrium with room temperature before further reduction and division in accordance with preferred test method. The oven is often used for drying float/sink samples. Large and roomy mechanical convection oven that comes with 6 shelves (12 shelves available).

- Control panel with solid-state digital temperature control that maintains temperature uniformity throughout the oven using two 24-hour interval timers to operate the heating elements and the fan motor.
- Temperature range from 0-105°F.
- Can be used with different drying trays:
 - 9 7/8 x 21 1/2 x 1 1/2 in. (20 x 55 x 4 cm), WxDxH
 - 16 x 21 x 1 1/2 in. (26 x 46 x 4 cm), WxDxH
 - 10 x 18 x 1 1/2 in. (26 x 46 x 4 cm), WxDxH
 - 16 x 16 x 1 1/2 in. (41 x 41 x 4 cm), WxDxH
- Oven dimensions: 36 x 29 1/2 x 78 1/2 in. (91.5 x 75 x 200 cm), WxDxH
- Weight: 290 lb. (131.5 kg)
- Electrical Options:
 - 120Vac/1Ph/60Hz
 - 240Vac/1Ph/60Hz
 - 230Vac/1Ph/50Hz

Sample Separation

Our products are industry leaders, setting the standard for precision and innovation.



Minerals
Coal • Metals
Aggregates





Cat. #91-8400

Holmes Sample Cutting Station

The Model 1400 Sample Cutting Station accepts crushed sample feed from a Holmes crusher. The belt conveyor discharges the sample over a reciprocation stainless steel cutter.

- Built to be used with the 401XL Crusher
- Constructed of painted steel
- Includes two sample containers that hold 1375 cu. in. each
- Splitter operation is either continuous or intermittent via a 0-150 second dial
- Dimensions: 35 x 86 x 62 in. WxDxH



Cat. #FRS-440750A

Preiser Rotary Sample Divider

The Preiser Rotary Sample Divider (RSD) provides fast and accurate sub-division of coal, minerals, ash and other granular samples. The RSD can be customized for throughput rate, sample top size and division ratio. It can be used for mixing samples prior to subdivision by processing sample several times through the RSD.

- All contact parts are constructed of stainless steel
- Can be used to produce 1 to 16 sample splits in various combinations. Select divider segments on the basis of nominal top size, capacity and sample division ratios. Segments available to produce 1/16th, 1/8th and 1/4th splits.
- Hopper is 1.8 cubic feet (51 liters) with a 4x6 in. gate to allow accurate splits of samples up to 1-1/3 in. top size (4.25cm).
- Feed rate is adjustable to allow greatest level of sampling precision
- Hopper feed section can be used alone to feed small jaw crushers and pulverizers
- "U" cover acts as sample stream cutters and prevents sample loss. Covers must equal the number of sample dividers
- Dimensions: 33 x 56 x 44 in. WxDxH; Weight: 235lb



Cat. #91-8140

Holmes Riffle/Splitter

The Model 70XL is a totally enclosed, floor model sample riffle consisting of feed chutes, spouts and two drawers of type-304 stainless steel. This riffle has 18 spouts, 3/4" wide for minus-6 mesh coal. Optional tilt lugs are available for containers and are bolted to the feed chute.

- The safety enclosure is 18-gauge steel
- Chutes, spouts and drawers also available in galvanized steel
- Bolted construction is used for the enclosure and in areas out of the sample flow
- Dimensions: 17 x 31 x 35-3/4 in. WxDxH Weight: 120lb
- Additional sizes and configurations are available



Cat. #91-9000

Testing Screen System

The Gilson Testing Screen System makes it easy to size laboratory samples. The Testing Screen (TS-1) handles sample batches up to one cubic foot and separates from two to seven sizes simultaneously in three to five minutes. Designed primarily for the 4 inch to No. 4 size range, the screen will handle smaller amounts of finer materials down to No. 200 mesh.

- Makes tests quick and accurate while separating up to 7 sizes per test
- Few moving parts, low maintenance, sturdy construction
- Large selection of convenience accessories
- The TS-1 is a hydraulic clamping model



Cat. #91-7101

Rotating Sample Divider

The Retsch PT 100 Rotating Sample Divider, designed for use with small samples, divides the sample so exactly that the composition of each fraction of the sample corresponds exactly to that of the original bulk sample. This procedure guarantees a very high degree of dividing accuracy and reproducibility with both fine and coarse materials. The material feed and dividing processes take place automatically, without interruption and without loss of material. Includes the DR-100-75/40 Feeder and Stand and ten 250mL sample bottles. Use with coal, coke, coffee, construction materials, fertilizers, grains, metal powders, minerals, sand and many more materials.



Cat. #91-7590

Sample Splitter Model SP-1

The Gilson Sample Splitter Model SP-1 is used for the reduction of test samples that are too large to be conveniently handled. Divides sample such that each half is representative of the original total sample. A single splitter handles any material, from sand up to heavy aggregate sizes. The splitter chute, consisting of aluminum or plated steel bars with a locating rod passed through their lower ends, provides wide flexibility in sizes of chute openings. Adjustment of the 24" chute width is in even increments. Heavy welded steel construction that stands at a convenient loading height. Loading hopper holds up to a cubic foot of material. Lever actuated clamshell hopper opens on center line of splitter chute. Material pans (2) slide under each half of the splitter chute or a bag loading chute may replace a pan to return half of the charge to a sample bag. Dimensions: 19 x 29 x 39 in. WxDxH. 136 lbs, comes fully assembled in crate.



Cat. #91-9184

Sieve Shaker

The W. S. Tyler® RO-TAP Sieve Shaker has a unique two-dimensional operation: A horizontal, circular motion and a vertical, tapping motion. The special action allows material particles to stratify and "seek" critical openings in the test media. This unit provides the most accurate and consistent particle analysis testing. The RX-29 model is designed for testing with 8" diameter test sieves; the RX-30 model is designed for testing with 12" diameter test sieves.

- Requires minimal maintenance
- Features 99 minute digital timer/clock, tolerance, 0.1 seconds
- Each unit is test run and serialized prior to shipment
- Overall dimensions 28 x 21 x 25 in. (71 x 54 x 63.5 cm) WxDxH
- Shipping weight 190 lbs. (86 kg)



Cat. #91-9002

Vibratory Sieve Shaker

The Retsch AS200 sieve shakers are used in research & development, quality control of raw materials, interim and finished products as well as in production monitoring. The controllable electromagnetic drive offers an optimal adaptation for every product. Sharp fractions are obtained even after short sieving times.

The AS 200 digital sieve shaker is recommended whenever controlled amplitude, digital display of vibration height and time and interval operation are required. Application examples include cement clinker, chemicals, coffee, construction materials, fertilizers, fillers, flours, grains, metal powders, minerals, nuts, plastics, sand, seeds, soils, washing and powder.



Cat. #90-2004

Preiser Pulp Density and Specific Gravity Scale

The Preiser Pulp Density and Specific Gravity Scale improves the determination of pulp density, the specific gravity of pulps and liquids and the specific gravity of dry solids.

- Obtain weight of sample in grams or kilograms
- Determine specific gravity of liquid or pulp
- Determine percent solids in the pulp of any given specific gravity
- Perform specific gravity of dry solids
- Includes interchangeable dial faces

Sample Analysis

Our advanced analysis equipment features the world's leading technologies and most trusted brands, all backed by award-winning service.

Minerals
Coal • Metals
Aggregates





Cat. #90-4060

Parr 6420EA Expanded Calorimeter

The 6420 Expanded Automatic Isoperibol Calorimeter represents the next evolutionary step in the Parr Automated Calorimeters. Inclusive and compact, the instrument incorporates a closed loop cooling subsystem into the calorimeter. This subsystem uses a thermoelectric cooler assembly attached directly to a one liter water tank which supplies cooling water to the calorimeter. This model features the fixed vessel and bucket design allowing for automated bucket and jacket fill as well as automated vessel fill and rinse. The 6420 EA requires one minute of operator time per test, allowing a technician to operate up to four calorimeters simultaneously.

- Isoperibol calorimetry
- Automated bucket and jacket fill as well as vessel fill and rinse
- Automatic cooling
- 6-7 tests per hour
- Fixed vessel cylinder with removable head
- Operator time per test is one minute
- 0.1% precision class instrument



Cat. #90-4062

Parr 6220EA Expanded Calorimeter

The 6220EA is a microprocessor controlled, isoperibol oxygen vessel calorimeter which is widely used for both routine and occasional calorific tests. It uses the time-tested Parr 1108P style oxygen vessel and oval bucket in a compact calorimeter, producing reliable results with good repeatability, but differing from the 6420 EA model in that the vessel and the bucket both must be removed from the calorimeter and refilled manually for each test, thereby requiring more of the operator's time than the automatic and semi-automatic models. All sensors, controls and jacketing in the 6220 EA calorimeter are built into a single, compact cabinet to provide a self-contained operating unit.

Preiser Ash Fusion System with Single or Dual Control Tower for Single or Dual Furnace Models

The Ash Fusion System is designed to determine ash cone deformation temperatures in coal, coke and biomass ash. The Ash Fusion System uses an nCompass Control System furnace controller coupled to a PC based operating and analysis software package developed by Preiser Scientific. The system can allow either one or two independent furnaces operating simultaneously. Single furnace units can be upgraded to dual systems.



Cat. #Z90-8252



Cat. #Z90-8252



Cat. #Z91-3400

Includes: PC with Windows OS, one Plastometer furnace assembly, control box, cabling, and software



Cat. #Z212
Crucible



Cat. #Z205
Stir Shaft



Cat. #Z672
Barrel

Preiser Plastometer

The Preiser Plastometer is a market leader with PC/Control Box Head Unit & Solder Pot/Cables/Software. Used to determine the fluidity of coking coal. The Plastometer uses a commercial PC linked to an instrument specific interface and control box. Inter-unit cabling uses reduced size connections and a USB link to the host PC. The Plastometer head unit and solder pot retain the market leading proven assemblies outfitted with advanced component mounting and other mechanical improvements.

The instrument interface box to our system is unique in that it is equipped to allow single, double, triple or quadruple instrument operation of a mix of desired Dilatometer and/or Plastometer instrument types. This can be specified at time of purchase or expanded at a later time. The Plastometer is used for the determination of plastic properties by the Gieseler constant-torque methods. It is designed to meet relevant ASTM and ISO standards for the analysis of coking coals.

- Windows OS with easy future upgradability
- Increased accuracy and repeatability
- Improved interface and reporting capabilities
- Expandable to four units with one controller
- Data sampling aligned to customer needs
- Easy calibration of thermocouples
- Easy test setup
- Internal 4000 Dial Divisions/Revolutions Resolution
- Low torque optical controller
- Solder pot temperature control
- PDF test results for easy and effective use
- Expandable test results in SciLab, MatLab or CSV format
- Remote assistance available



Cat. #Z91-3410

Includes: PC with Windows OS, one Dilatometer furnace assembly, control box, cabling, and software

Preiser Dilatometer

The market-leading Preiser Dilatometer is used to determine the expansion and contraction characteristics of coking coal. The Dilatometer represents a completely new instrument design. The Dilatometer uses a commercial PC linked to an instrument specific interface and control box. Inter-unit cabling uses reduced size connections and a USB link to the host PC. The Dilatometer furnace retains the market leading proven assemblies outfitted with advanced mechanical improvements. The instrument interface box is unique in that it is equipped to allow single, double, triple or quadruple instrument operation of a mix of desired Dilatometer and/or Plastometer instrument types. This can be specified at time of purchase or expanded at a later time.

The fully automatic system is designed to meet relevant ASTM and ISO standards for the analysis of coking coal.

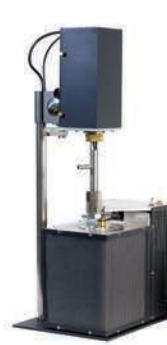
- Windows OS with easy future upgradability
- Increased accuracy and repeatability
- Improved interface and reporting capabilities
- Expandable to four units with one controller
- Data sampling aligned to customer needs
- Easy calibration of thermocouple and LVDTs
- Easy test setup
- Accurate furnace temperature control
- PDF test results for easy and effective use
- Expandable test results in SciLab, MatLab or CSV format
- Remote assistance available

Preiser Plastometer/Dilatometer

The Preiser combination Plastometer/Dilatometer can be any variation up to four units total. Simply add the additional Plastometer head/solder pot assembly and/or Dilatometer furnace assembly with the appropriate interface card and the system will automatically recognize and reconfigure the unit(s).



Preiser Plastometer / Dilatometer



Preiser Plastometer



Preiser Dilatometer



Cat. #94-8542

Preiser Double Drum Tumbler

The Preiser Double Drum Tumbler is designed and manufactured to comply with multiple standard test methods for tumble testing coal, metals, minerals, and aggregates, including abrasion of iron ore pellets and sinter by the tumbler test.

The drum is made of 1/4" thick A-36 steel plate with welded seams. It is 36" I.D., 41 1/2" long and has two pieces of stainless steel angle iron inside. The access doors, one on either side of the drum to access the separate chambers, slide in a track to prevent the operator from having to lift the door off the drum. These access doors will be locked using quick lockdown cams.

The tumbler is controlled with a programmable logic controller (PLC) and a 3" monochrome touch screen and push buttons for start, stop, jog and e-stop. Lock-out/Tag-out is accomplished by way of a rotary disconnect and individual motor circuit breakers.



Cat. #90-8545

LGO Box Furnace (Ashing)

The Thermo Scientific LGO Box Furnace utilizes the latest technical advances in heating elements, insulation and temperature control integrated into a self-contained cabinet with Thermo Scientific Lindberg/Blue M LGO box Furnaces. Furnaces feature proprietary LGO (light gauge overbend) heating elements and Thermo Scientific Moldatherm insulation for efficient and economical transfer of heat to chamber, with low exterior temperatures. Variable heat-up rate eliminates thermal shock to materials with inherently quick heat up and cool down rates.

- Capacity 0.6 cu. ft. (16.4 L)
- Temperature 100°C to 1200°C
- Multisegment, single program
- Temperature control digital multi seg/1 prog
- Interior 12 x 11 x 11 in. (33 x 27.9x 17.8 cm) WxDxH
- Exterior 24 x 23 x 27 in. (61 x 58.4 x 68.6 cm) WxDxH



Cat. #Z94-8543

Preiser Coke Reactivity Index (CRI)

The Preiser CRI provides a high-quality, precision system for determining Coke Reactivity Index (CRI) and Coke Strength After Reaction (CSR) to ASTM Standard D-5341. The ASTM standard was developed to simulate the major weakening processes - chemical reaction with carbon dioxide gas and physical abrasion - encountered by coke lumps as they descend through a blast furnace.



Cat. #Z94-8543

Preiser Coke Strength After Reaction (CSR)

The Preiser CSR performs in accordance with ASTM methods, producing the coke/carbon dioxide reaction in a regulated atmosphere vessel within a high temperature furnace. Preiser CRI/CSR represents a stable and efficient design in temperature accuracy and gas flow control, and allows the sample to fully react, improving the reliability of the results. The reacted and cooled coke is then transferred to the strength-after-reaction tumbler where it is tumbled for a specific number of revolutions.



Cat. #92-1208

Carbon/Sulfur Analyzer

The Eltra Carbon/Sulfur Analyzer provides safe, precise and reliable elemental analysis of carbon (C) and sulfur (S) in predominantly organic matrices such as soils, waste, wood, oil, coal and coke. ELTRA offers the combustion analyzer ELEMENTRAC CS-r with IR detection. The CS-r with up to 4 infrared cells is designed for carbon and sulfur measurement over a very wide concentration range. It uses a horizontal resistance furnace with ceramic tube, which operates in a range from 600 °C to 1550 °C. The CS-r elemental analyzer meets or exceeds the requirements of all common ASTM, DIN, EN or ISO standards for elemental analysis.



Cat. #92-1204

Carbon/Sulfur Analyzer with Autoloader

The ELTRA CS580A Helios system has a vertical furnace and equipped with an automatic sample loader for analysis of large numbers of samples without operator intervention. The sample loader is available in two versions to accommodate 36 or 130 crucibles.

Analyzer

Dimensions: 22 x 24 x 40 in. WxDxH (56x 61 x 102 cm)

Weight: 200lb (90.7 kg)

Autoloader

Dimensions: 34 x 18 x 14 in. WxDxH (86 x 46 x 35.6 cm)

Weight: 34lb (15.5 kg)



Cat. #90-8259

Thermostep ML TGA

The ELTRA TGA Thermostep ML is a thermogravimetric analyzer which determines various parameters such as moisture, volatiles and ash at user-defined temperatures and atmospheres in a single analysis. ASTM Compliant for Ash, Moisture, Volatiles; D7852 (Coal/Coke), D73448-08e1 (Solid Combustion Residue).

Dimensions: 21.5 x 24.5 x 20.5 in. WxDxH (55 x 62 x 52 cm)

Weight: 143lb (65 kg)



Cat. #92-1632

Total Organic Carbon Analyzer, TOC-L Series

The Shimadzu TOC analyzer utilizes the Shimadzu-designed, global standard, 680°C combustion catalytic oxidation/non-dispersive infrared (NDIR) detection method and offers the optimum selection of performance features and options to meet the specific requirements for your TOC testing. Samples from aqueous samples ranging from ultrapure water, drinking water, wastewater, brine water and seawater to solid and gaseous samples (with optional equipment) can be analyzed.



Cat. #92-1633

Mine Gas Analyzer

The Shimadzu Mine Gas Analyzer utilizes capillary and packed gas chromatograph, GC-2014 Series. The Shimadzu GC-2014 Mine Gas System offers a turnkey solution for the analysis of H₂, O₂, N₂, CH₄, CO, CO₂, C₂H₆, C₂H₄ and C₂H₂. The all-metal construction makes this workhorse GC rugged enough for use in the lab or in an industrial setting. Shimadzu uses its modular GC-2014 gas chromatograph, which provides state-of-the-art performance for a wide range of applications from capillary to packed column analysis, as a building block for dozens of configurations for various industries from Natural Gas to Petroleum to Atmospheric Gas.



Cat. #92-1631

Energy Dispersive X-ray Fluorescence Spectrometer

The Shimadzu EDX-7200 is a flagship model of the EDX series in pursuit of high sensitivity, high speed and high precision. This model supports new regulations and directives for consumer and environmental compliance, such as RoHS/ELV, REACH, and TSCA with full exclusive screening analysis kits. EDX-7200 offers superior energy resolution compared to previous models by incorporating a state-of-the-art SDD detector. This reduces the effects of overlapping peaks of different elements, enhancing the reliability of the analysis results.



Cat. #Z90-8253

Digital Ash Fusion System

The Carbolite CAF G5 is designed to test ash fusibility of coal and coke, and optionally, the increasingly popular determination of biomass or solid recovered fuels testing and conforms to the Standards ISO 540, ASTM D-1857/D-1857M, DD CEN/TS 15370-1 (biomass) and DD CEN/TR 15404 (solids recovered fuels (SRF)). Its automatic and continuous recording of digital images frees the technician for other tasks while tests are in progress with the ability to review the results later. With a maximum temperature of 1600°C (2910°F), this instrument is suitable for both biomass and coal testing. 220-240V, 1 Phase, 50/60Hz, CAFG5-CO-230SN.



Cat. #Z90-7928

Swelling Number Index Furnace

The Carbolite SNF furnace is designed to test the swelling index number of coal in accordance with standard test methods.

- For testing the free swelling index number of coal
- Also known as the crucible swelling number
- For testing to BS ISO 501 and ASTM D-720

30mA (RCD) residual current circuit breaker, protects the operator (because the test requires operation with the door open during heating)

- Precise PID temperature control using 132 controller
- Supplied with wire crucible holder



Cat. #Z91-1632

Preiser Moisture Oven

The Preiser Model 100 Moisture Oven is designed to determine the moisture content of coal as per ASTM Standard D-3173. It consists of a specially designed low temperature oven coupled with a microprocessor based temperature control system for drying samples up to 115°C.

- The oven, controls and air system are housed in a compact "table top" cabinet
- The cylindrical stainless steel dryer chamber is 8" diameter x 9½" deep
- Input air passes through the manual control flow meter which is adjustable from 0-25 L/min
- After it passes through the flow meter, it is preheated and passed into the oven chamber, over the samples, and out the rear mounted exhaust port
- Accessory Z91-1632-05 and Z91-1632-06 Combination Crucible/Weighting Bottle Trays permit multiple samples to be dried at the same time in a convenient manner
- 20 x 22 x 15 in., WxDxH, 53lb



Cat. #FRS-41000A

Preiser Free Swelling Index

The Preiser Free Swelling Index is used for the determination of the Free Swelling Index of coal by the electric furnace method as designated by ASTM Standard D-720. The Free Swelling Index test is a rapid, small-scale, empirical method for measuring the free-swelling properties of coal. Results of the test may be used as an indication of the coal's coking characteristics, and have also been used as an index of the extent to which coal has been oxidized or weathered.

- Rapid and easy
- Small scale
- Empirical method
- 8 x19x8 in., WxDxH; Weight 24lb



Cat. #91-2348

General Protocol Ovens

The Thermo Scientific Heratherm Ovens are available in three different models. Choose gravity, mechanical or convection technology.

Perform routine applications simply and safely with Thermo Scientific Heratherm General Protocol Ovens. These ovens provide an ideal heating and drying solution for research, clinical or industrial needs.

From simple drying of glassware to the most complex and carefully controlled heating applications, your oven is an invaluable part of your daily work. The Heratherm oven range includes an array of solutions to match your needs.



Cat. #Z90-9300

Preiser Hardgrove Grindability

The Preiser Scientific Grindability Tester is a compact precision built instrument designed specifically for the determination of the relative hardness or abrasive potential of coal. The unit is constructed in strict accordance with ASTM Designation D409 and conforms to procedures proposed by ISO for the determination of the Hardgrove Grindability index of coal and coke.

- Stationary lower steel grinding bowl is mated with an upper grinding ring consisting of eight steel balls that rotate at 20RPM
- Grinding ring is rotated by a motor/belt driven spindle to which 29kg of removable weights are attached that bear onto the eight rotating balls
- A counter/switch assembly totals the number of revolutions and automatically stops the machine at the end of 60 revolutions
- Sample loading is remarkably easy because of the design of the machine. Machine is virtually maintenance free
- Shipping weight 180 lbs, 24 x 18 x 25 in. WxDxH



Cat. #91-2639

Orion Star A329 pH / ISE / Conductivity / DO Meter Kit

The Thermo Scientific Orion Star A329 includes the benefits of the Star A320 series pH/ISE, conductivity and DO meters in one convenient system. Easily view individual measurements on a full screen display and quickly toggle to a split screen display to view multiple measurements simultaneously.

- 8107UWMD ROSS Ultra Triode pH/ATC electrode
- 013010MD Orion 4-cell conductivity sensor
- 087010MD Orion optical DO sensor with calibration sleeve and stainless steel probe guard
- Orion pH 4,7,10 buffers and rinse solution pouches (10pk each) and ROSS storage solution
- Orion 1413 μS conductivity standard pouches (10pk)



Cat. #91-2679

DR900 Colorimeter

The Hach DR900 colorimeter allows quick and easy access to your most-used testing methods. This colorimeter is waterproof, dustproof and field durable. With an intuitive user interface, easy data transfer abilities and the ability to test up to 90 of the most commonly tested water methods, the DR 900 makes water testing in harsh field environments a little less challenging. See the partial list of available parameters below, more parameters are available.

H2O2	Bromine	Hardness	Org. Carbon	Boron
Barium	Flouride	Nitrate	Zinc	Aluminum
Cyanide	Nitrate	Sulfate	Potassium	Copper
Nickel	Silica	Sulfide	Color	Molybdenum
Phosphorous	Turbidity	Chromium	Manganese	COD
pH	Chloramine	Iron	DO	Chlorine, Free and Total

See our website for all your water testing needs in the field and lab!

Water Monitoring



Cat. #90-2619

Checker

The Hanna Checker series hand-helds bridge the gap between simple chemical test kits and professional instrumentation. The contoured style of this Checker fits in your palm and pocket perfectly and the large LCD is easy to read. The auto shut-off feature assures the battery life will not be drained if you forget to turn it off. Every Checker is a single parameter, simplifying field checks on the go.

Parameters Include: Free Chlorine, Total Chlorine, Free Phosphate, Free Iodine, Free Iron, LR Fluoride, Calcium, HR Silica, Color of Water, ULR Phosphorus, Alkalinity, ULR Nitrite, HR Phosphorus, HR Nickel, HR Phosphate, HR Chromium, HR Ammonia, LR Ammonia, UHR Total Chlorine and ULR Total Chlorine.



Cat. #90-2587P

Natural Wide Mouth Round HDPE Sample Containers

The Quality Environmental Containers (QEC) round containers are well-suited for field sampling and laboratory use with solids, semi-solids, powders and viscous liquids.

Sizes: 2, 4, 8, 16, 32, 64 and 128 ounces available



Cat. #22-4954

Telescoping Dipper

The Bel-Art Telescoping Dipper is for taking samples of water, sewage, wastes and effluents from lakes, streams, tanks or ponds, the water sample dipper provides a long reach for otherwise inaccessible spots. 1000ml graduated polypropylene plastic pitcher mounted on an aluminum tube handle. Handle has 3 parts, a 91cm (3') lower section, a 112cm (44") telescoping section and an additional 91cm (3') upper section. Minimum handle length is 91cm (3'), maximum length is 274cm (9').

Some of Our World Class Vendors



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Major Product Listing

AUTOCLAVES/ STERILIZERS

Benchmark
Boekel
Heidolph/
Tuttnauer
Market Forge

BALANCES & WEIGHTS

A&D
Ohaus
Rice Lake
Sartorius

BATHS

Boekel
Duratech
Julabo
Polyscience
Sonicor Instrument
Techne
Thermo Scientific

BIOMEDICAL

Corning
Difco
Falcon

BOTTLES/ CONTAINERS

Bel-Art
Dynalon
DWK/Wheaton
Nalge
QEC
Qorpak
Scientific Specialties

CALORIMETERS

Parr

CARTS

Labconco
Lakeside
Rubbermaid

CENTRIFUGES

Heitch
LW Scientific
Raven

CHEMICALS & SOLUTIONS

Avantor/Baker/
Macron
Columbus Chemical
GFS
GJ Chemicals
LabChem
Lamotte
Ricca

CHROMATOGRAPHY

Avantor/Baker
EM Science
Hamilton
SGE
UVP
Whatman

CLEANERS

Alconox

COAL/COKE TESTING EQUIPMENT

Carbolite/Verder

Eltra
Gilson
QCG
Holmes Bros.
Milestone
Parr

Precision Samplers
Preiser Scientific
Thermo Scientific

CONDUCTIVITY METERS

Oakton
Thermo Scientific/Orion

CRUSHERS/ PULVERIZERS

Bico
Holmes
Retsch/Verder
Metso

DIGITAL CAMERAS

Accu-scope
Meiji, Unitron

DISPENSERS/DILUTERS

Bel-Art
BrandTech
Eppendorf
Hamilton
Scilogex
Thermo
Scientific/Barnstead/
Lab Industries

DISSOLVED OXYGEN

Oakton
Orion
Wheaton
YSI

DISTILLING & DEMINEALIZERS

Dynalon
Labconco
Labstrong
Thermo
Scientific/Barnstead

ELECTROPHORESIS

Shelton
UV Products

ENVIRONMENTAL MONITORING

Global Water
Shimadzu

EXTRACTION APPARATUS

Corning
Labconco
Neutec-Velp

FILTER PAPER & MEMBRANE FILTERS

Ahlstrom/E&D
Advantec MFS
Pall Gelman
Sartorius
Whatman
I.W. Tremont

FTIR

Shimadzu

FURNACES

Barnstead/Thermolyne
Carbolite/Verder
Ransom & Randolph
Lindberg

FURNITURE/FUME HOODS

Diversified Woodcraft
Hemco
Labconco
Leonard Peterson & Co.
Prime Industries, Inc.

GAS

CHROMATOGRAPHY

Shimadzu

GLASSWARE

AMK Glass
Corning
Kimble-Kontes
Wheaton/DWK

GLASSWARE WASHERS

Labconco

GLOVES

Ansell/High Five
Microflex
Kimberly Clark
Safeskin

HEATING TAPES & MANTLES

Glas-col

HOT PLATES

Benchmark
Corning
New Star
Scilogex
Thermo Scientific

INCUBATORS

Boekel
Shelton
Thermo Scientific

KARL FISCHER TITRATORS

Xylem

MASS SPECTROPHOTOMETRY

Shimadzu

MICROSCOPES & ACCESSORIES

Accu-scope
Ken-A-Vision
LW Scientific
Lumenera DMC
Meiji
Unitron
Vee Gee

NITROGEN/KJELDAHL

Glastron
Labconco
Neutec-Velp

OVENS

Binder
Boekel
Despatch
Precision Scientific

ThermoScientific
Thermolyne
Quincy Labs

PETROLEUM TESTING

Boekel
Gilson
Humboldt
Koehler

pH METERS & ELECTRODES

Corning
Lovibond
Oakton
Thermo Scientific/Orion
Xylem/YSI

PLASTICWARE

Bel-Art
Dynalon
Falcon
Globe Scientific
Nalge
Saint Gobain

PIPETTORS

Bel-Art
BrandTech
Eppendorf
Hirschmann
Nichiryo
Scilogex
Thermo Scientific/
Barnstead/Lab Industries

PORCELAINWARE

Coors

PPE

Hand Sanitizer
Masks, Respirators
Face Shields, Goggles

PLASTICS/POLYMERS

Dynisco

PUMPS/VACUUM PUMPS

Gast
Hyvac
Little Giant
New Star
Thermo Scientific

REFRACTOMETERS

Atago
Leica
Vee Gee

REFRIGERATORS & FREEZERS

Barnstead
Binder
Marvel
Scientemp
Revco

SHAKERS/ROTATORS

Eberbach
Gilson
Glas-Col
Pro Scientific
Scilogex
Thermo Scientific/

SIEVES & SIEVE SHAKERS

Gilson
Retsch/Verder
WS.Tyler

SPECTROPHOTOMETERS & COLORIMETERS

Hanna
Lovibond
Thermo Scientific/Orion

SAFETY EQUIPMENT

Airgas
Daloz
Eagle
Scimatco
3M

STIRRERS

Benchmark
Corning
Glas-Col
Scilogex
Talboys
Thermo Scientific/
Barnstead/Thermolyne

SULFUR ANALYZER

ELTRA/Verder

SYRINGES

Air-Tite
Becton Dickinson
Hamilton
Propper

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Control Co.
Chase Instrument/
Kessler
Thermco Products
YSI

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Hanna
Schott
Thermo Scientific

TOTAL ORGANIC CARBON ANALYZERS

Shimadzu

VISCOMETERS

A&D
Boekel

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Chemetrics
Continental Hydrodyne
Global Water
Hach
Hanna
Lamotte
Lovibond
Oakton
Pall
Phipps & Bird
Raven
Thermo Scientific/Orion
Whatman
Wheaton
YSI

Major Vendor Listing

A&D ENGINEERING
Analytical Balances, Scales

ACCU-SCOPE
Microscopes, Cameras,
Stereomicroscopes

AHLSTROM/E&D
Filter Paper

AIRGAS
Safety Items

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Lab Glass Cleaners

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MICROFLEX**
Butyl, Nitrile, Latex Gloves

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Chemicals, Solutions, Spill
Kits

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BECTON DICKINSON
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Centrifuges, Falcon

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Laboratory Plasticware

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Autoclaves, Hot
Plates/Stirrers

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Ovens
Freezers
Incubators

BICO
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ASTM Equipment, Ovens

BRANDTECH
Dispensers, Pipettors

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Systems

CHASE INSTRUMENTS
Thermometers,
Hydrometers

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HYDRODYNE**
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DESPATCH
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DIFCO/BBL
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Benchtop Extruder

DYNALON
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GILSON
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**GLAS-COL
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GLOBAL WATER
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GLOBE SCIENTIFIC
Pipettes, Slides

HACH
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Buffers
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HEMCO
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Sample Splitters

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Equipment

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KEN-A-VISION
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Conductivity Meters

OHAUS
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Sampling

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Grinders, Sample Dividers,
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Mills

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Standards, Sanitizer

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SAINT GOBAIN
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Dispensers, Shakers,
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Baths

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Total Organic Carbon
XRF

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Timers, Thermometers

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Heating Blocks

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PRODUCTS**
Thermometers,
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Heating Tapes, Hot
Plates, Incubators,
Melting Point
Apparatus, Ovens,
Spectrophotometers,
Stills, Stirrers, Titrators

UNITED SCIENTIFIC
Lab coats, Aprons

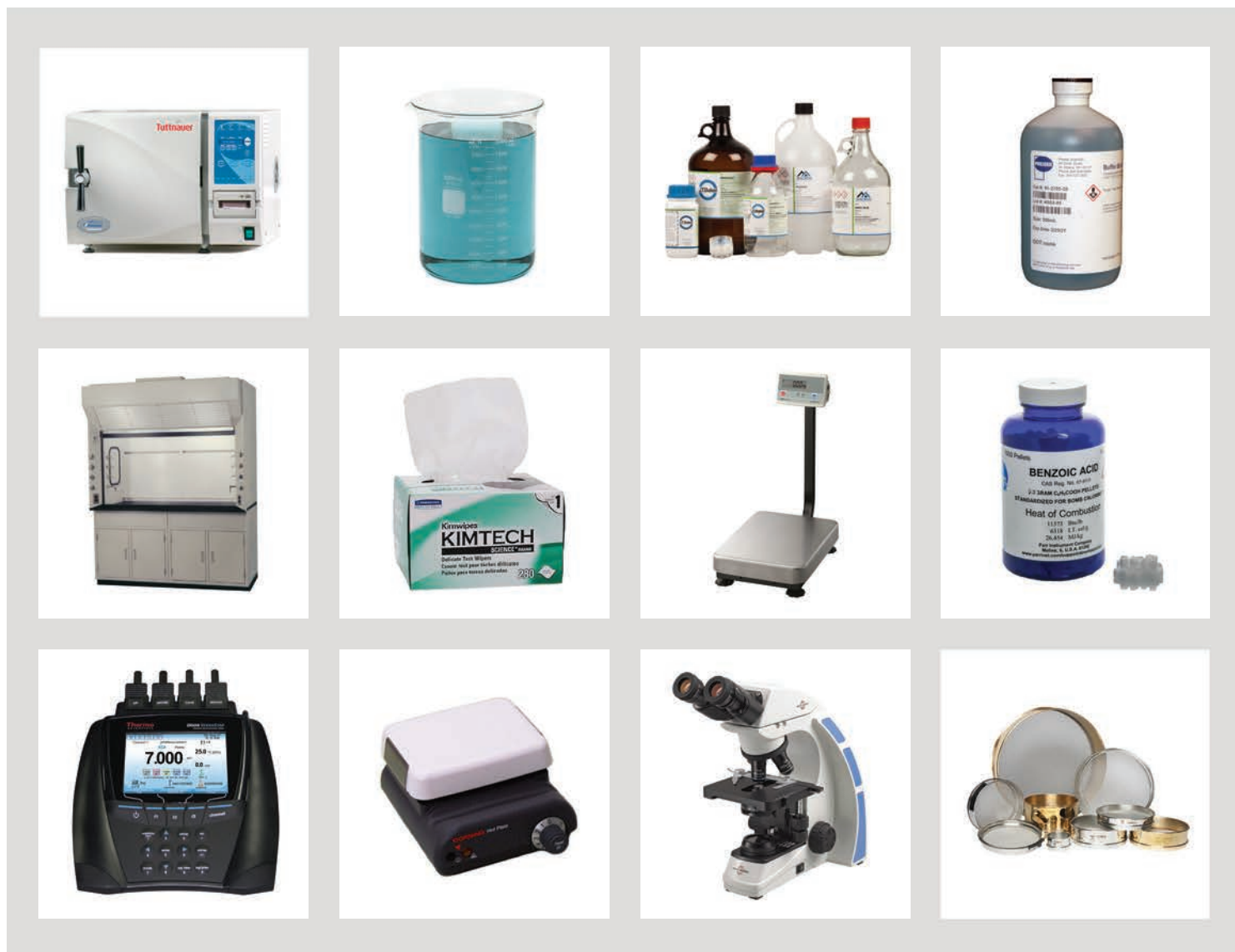
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YSI
Dissolved Oxygen,
Conductivity, pH



PREISER SCIENTIFIC

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Preiser Scientific Distribution Center

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Preiser Scientific Sales Office

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Preiser Scientific China Sales Office

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Chaoyang District, Beijing, China

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