

29000 SILICA GEL ADSORPTION APPARATUS, ASTM D936

For determination of aromatics in olefin-free gasolines.

Part	Item
A	Column
B	Reservoir
C	Receiver
D	Brass Joint
E	Complete

29010 STANDARD ADSORPTION COLUMN, (FIA), ASTM D1319

For determination of hydrocarbon types in liquid petroleum products by fluorescent indicator adsorption (FIA) method.

Part	Item
A	Upper Section
B	Lower Section

29011 TRUE-BORE ADSORPTION COLUMN (FIA), ASTM D1319

Used in same test as 29010.

Separator section is fabricated from precision bore capillary tubing with $\frac{1}{8}$ 12/2 joint connecting tip.

29020 ANILINE POINT APPARATUS, ASTM D611

For determination of aniline points of petroleum products.

Part	Item
A	Thin Film Tube
B	Pump Body
C	U-Tube

29030 ARSENIC DISTILLING APPARATUS, ASTM E50

For determination of arsenic and antimony.

Part	Item
A	Acid Bulb
B	Flask
C	Condenser

29050 BOILING RANGE APPARATUS, ASTM Method D1088

For determination of boiling point of butadiene.

- 29051 Still
- 29052 Lift Pump
- 29053 Vacuum Jacket

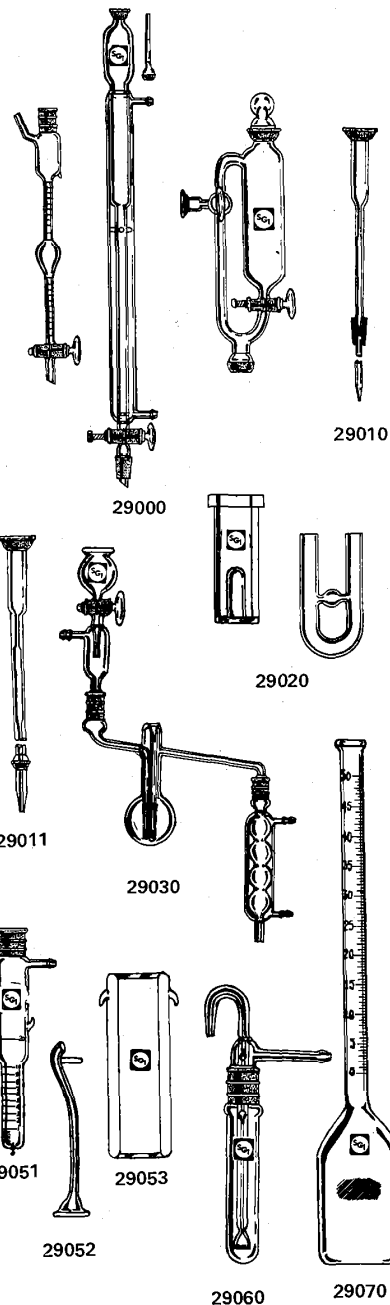
29060 FILTER STICK ASSEMBLY, ASTM D721

For determination of oil content of petroleum waxes.

Part	Item
A	Filter Stick
B	Test Tube
C	Complete

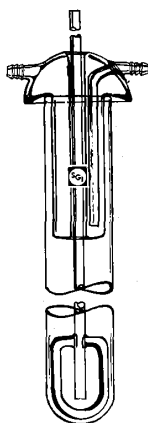
29070 BOTTLE, SULFONATION, ASTM D483

For determination of oil-soluble sodium petroleum sulfonates.





29080



29090

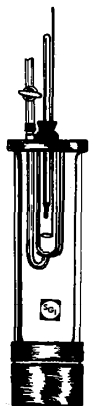
29080 PYCNOMETER, ASTM D-855-56

For determination of oil-soluble sodium petroleum sulfonates.

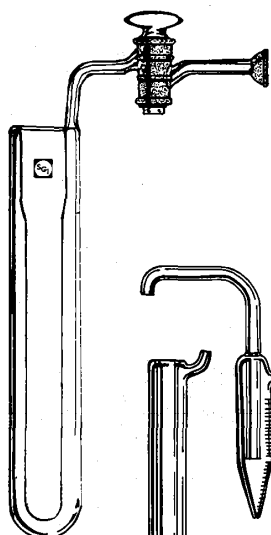
29090 OXIDATION CELL, ASTM D943 IP157

For the determination of Oxidation of Inhibited Steam-turbine oils.

Part	Item
A	Mushroom Condenser
B	Oxidation Tube
C	Oxygen Delivery Tube
D	Complete



29100



29110

29100 FREEZING POINT APPARATUS, ASTM D910 *

Federal Standard Method 1411; for determining the freezing point of aviation fuels, using liquid nitrogen, liquid air, or mixture of dry ice and gasoline as a coolant.

Part	Item
A	Freezing Tube
B	Dewar Flask
C	Brass Cap
D	Complete

29101 FREEZING POINT TUBE, ASTM D-910

Freezing tube only. Same as Part A of 29100 except the stopcock has been removed and the tube evacuated and sealed for maximum efficiency at one vacuum.

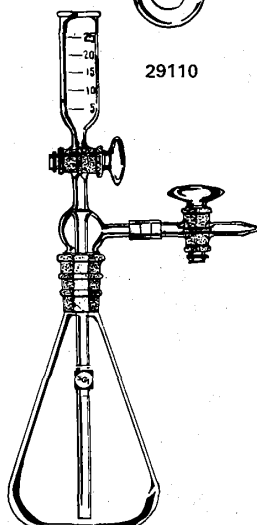
29110 FREEZING POINT TUBE, ASTM D1015

Freezing point tube for precise experimental measurement of the freezing point.

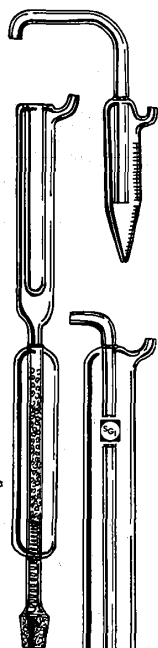
29120 APPARATUS FOR DETERMINATION OF OXYGEN IN BUTADIENE ASTM D1021

For determination of oxygen in Light Hydrocarbon vapors. The joint is 24/40 F and the stopcocks are 2 mm F .

Part	Item
A	Head, 24/40 F
B	Flask, 500 ml.
C	Complete



29120



29130

29130 DISTILLATION APPARATUS, ASTM D1023-52

For the determination of residue separation from Butadiene. Apparatus consists of three stems, dedymerizing column, cold trap and chloroform trap. The column has a 24/40 F joint on bottom and is filled with 1/8" glass helices. Also used in ASTM D1024 analysis.

Part	Item
A	Dedymerizing Column
B	Cold Trap
C	Chloroform Trap
D	Complete



29150 DISTILLATION APPARATUS, ASTM D1949

For separation of Tetraethyllead and Tetramethyllead in gasoline. The column has a 10/30 J joint at top and 24/40 J inner joint on bottom and is 300 mm in length, packed with 5 mm glass beads, with sealed in sidearm take off. Vacuum jacketed and silvered with 1/2" strip for visual observation. Thermometer is not included.

Part	Item
A	Column, 300 mm x 12 mm I.D.
B	Flask, 200 ml.
C	Condenser, 100 mm
D	Complete

29160 DEPENTANIZATION APPARATUS, ASTM D-2001 *

For testing for depentanization of gasoline and naphthas by distillation. The column is 13 mm I.D. x 500 mm long with knock-out condenser and cold trap dewar type condenser. The receiver is a 12.5 ml. graduate with a 19/38 J joint. The joints on the column are 24/40 J outer at top, 24/40 J inner on bottom, 7/25 J thermowell and 12/5 J joint take-off. This column is vacuum jacketed with strip silvering for thermal and visual properties. Power requirements: 115 vac., 50/60 Hz, 3 amps cabinet size is 13" wide by 33 1/4" high by 8" deep with a net weight of 20 lbs. Cabinet is constructed of medium gauge stainless steel with rubber bumper feet for protection of laboratory cabinet top.

Replacement Parts

Part No.	Description
A	Distilling column
B	Knockout condenser
C	Vented Dewar coldtrap
D	12.5 ml. distilling receiver
E	100 ml. distilling flask
F	Unsilvered Dewar flask
G	Retainer springs (2 required)
H	100 ml. heating mantle
I	Stand
J	Complete

29170 ANALYTICAL ADSORPTION COLUMN, ASTM D2002

For testing isolation of saturates from low-olefinic naphthas. Similar to 29010 except that the joint is 14/35 J at top and the column has a 47 mm bulb reservoir for more sample volume. The bore diameter of the silica-gel section is 8 mm for more and faster separation.

Part	Item	J Joints	J Joints
A	Adsorption Column	14/35	28/15
B	Feed Adapter	14/35	28/15
C	Complete		

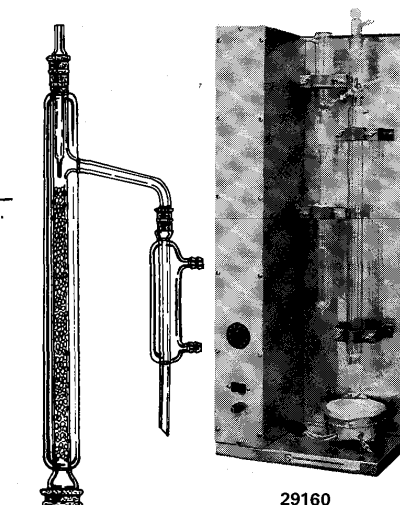
29180 HIGH EFFICIENCY SILICA-GEL COLUMN, ASTM D2003

For the isolation of representative saturates fractions from depentanized hydrocarbon mixtures that distill below 430° F. It is applicable for samples containing from 0 to 35 percent olefinic hydrocarbons. Top joint is 28/15 J outer, bottom joint is 14/35 J inner.

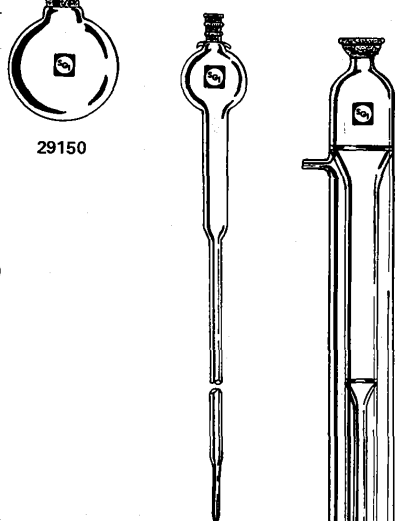
29190 DISTILLING HEAD AND BULB, ASTM D2006

For the determination of the composition of petroleum oils and asphalts in terms of asphaltenes, polar compounds, unsaturated hydrocarbons, Group II or second acidaffins, and unsaturated hydrocarbons. The joints are 24/40

Part	Item
A	Distilling Head
B	Flask, 100 ml.
C	Complete

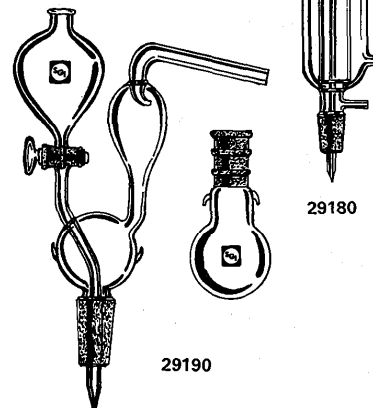


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SGI 29250 Color Comparison Unit "Color Box"

The SGI **Color Box** is designed for use in color comparison tests utilizing Nessler Tubes. This unit allows quality control personnel to better detect slight color variations, where such variations are critical to product integrity. The **Color Box** can be used with tests such as ASTM D-1209 and A. P. H. A. Standard Methods for visual color comparison of clear solvents, monomers, intermediate chemicals, water and waste water. The **Color Box** will yield higher technician visual accuracy by reducing the amount of external light influence, which often occurs using wooden test tube racks with white plastic reflectors.



The **Color Box** consists of:
Welded seam anodized aluminum housing with removable PVC tube holder capable of holding 9 long form Nessler Tubes. (5 standards, 4 sample tubes). The 50ml Nessler Tubes can be used with removable inserts. See below for ordering information.

The **Color Box** utilizes an 17" fluorescent tube light with rapid starter, fuse protected and has a power indicator light. Use of the fluorescent tube eliminates excessive heat build up, which can occur with incandescent light sources.

Ordering Information:

Part No.	Description	Part No.	Description
Color Box	Color Comparison Unit, Dimensions: 15" (38 cm) by 18.5" (47 cm) by 5" (13 cm) deep	29250-1600	Color comparison tube, 100ml size Matched set of 6 tubes, 1 set per case
29250-0000	115V / 60 HZ	29250-2000	Color comparison tube, 50ml size 20 by 312mm with 19/12 cap, matched set of 6 tubes, 1 set per case tubes, 9 per set
29250-0230	230V / 50 HZ	29250-2100	Color comparison tube, 100ml size 24 by 390mm with 19/12 cap, matched set of 6 tubes, 1 set per case
29250-0001	Removable clear acrylic inserts for use with 50ml		
29250-1100	Color comparison tube, Nessler, 20 mm by 300mm Unmatched, 50ml graduation mark, 18 per case		
29250-1200	Color comparison tube, Nessler, 24mm by 375mm Unmatched, 50 & 100ml graduation, 18 per case		
29250-1500	Color comparison tube, Matched set of 6 - 50ml Size tubes, 20mm by 300mm, 2 sets per case		



Low Cost Optical Cells for Color Measurement Spectrophotometers



10 x 40 x 50 & 20 x 40 x 50 mm cells

SSI's low cost optical cell is perfect for colorimeter test Spectrophotometers in the 400 to 700 nm spectral range. The SGI optical cells manufactured from mandrel formed borosilicate rectangular tubing. All sides are fused, not glued, allowing the cell to be used with solvents, acids or air sensitive chemicals which attack epoxies in glued cells. Virgin Teflon lids, screw threads with Teflon lined caps, and glass stoppered tops for air sensitive materials are available. These low cost cells offer highly reproducible and repeatable results from cell lot to cell lot, but at an economical price.

The sizes listed below are a small sample of the sizes available. Just contact SGI for your custom size, application or closure.

All of the below listed cell depth can have opposing sides optically polished to improve reproducibility from cell to cell (except 29260-0025). Please add GP Suffix to below part numbers for optical polishing of 2 opposing sides.

Stock No.	D x W x H ID in mm	Closure and Description	Stock No.	D x W x H ID in mm	Closure and Description
29260-0010	10 x 40 x 40	Open Cell, no top	29260-0033	20 x 40 x 50	Teflon lid only
29260-0011	10 x 40 x 40	6 cells or more	29260-0035	20 x 40 x 50	Cell with screw thread top
29260-0015	10 x 40 x 40	Teflon lid only			
29260-0020	10 x 40 x 50	Open cell, no top	29260-0037	20 x 40 x 50	Cell with # 13 penny head stopper
29260-0021	10 x 40 x 50	6 Cells or more	23001-0013		# 13 penny head stopper only
29260-0025	10 x 40 x 50	Cell with screw thread top	29260-0039	20 x 40 x 80	Open cell, no top
29260-0027	10 x 40 x 50	Cell with # 13 stoppered top	29260-0043	20 x 40 x 100	Open cell, no top
23000-0013		# 13 penny head stopper only	29260-0045	20 x 40 x 200	Open cell, no top
29260-0029	20 x 40 x 75	Open cell, no top	29260-0047	20 x 50 x 90	Open cell, no top
29260-0030	20 x 40 x 50	Open cell, no top	29260-0050	50 x 50 x 50	Open cell, no top
29260-0031	20 x 40 x 50	6- cells or more	29260-0051	50 x 50 x 50	Teflon lid only
			29260-0075	50 x 50 x 75	Open cell, no top
			29260-0100	50 x 50 x 100	Open cell, no top