

Soxhlet Extraction Glassware Systems

Improved design prevents the trapping of liquid

Use these Soxhlet extraction systems to extract soluble components from a solid sample into an organic solvent. Place a sample in the thimble and heat the solvent contained in the flask. As the solvent vapors rise (passing through the extraction thimble), they enter the water-cooled condenser, and liquify. When the liquid level in the extractor reaches the top of the siphon tube, siphoning action returns the extract-enriched solvent to the flask.

Soxhlet-type extraction is used for continuous extraction of solids with a suitable solvent. The improved design includes a protected siphon tube, an enlarged vapor tube, and sloping seals to prevent the trapping of liquid. ⌘ joints connect the condenser to the extractor and the extractor to the flask. Uses paper, alundum, or extraction thimbles (order separately below). Choose from a reflux bulb-type Allihn condenser, or a more efficient Friedrich condenser, and a flat- or round-bottom flask.

All flasks have ⌘ joints. Purchase Allihn glassware as individual components or as a complete assembly (condenser, extractor body, and flask). Friedrich glassware is only available as individual components.

Components

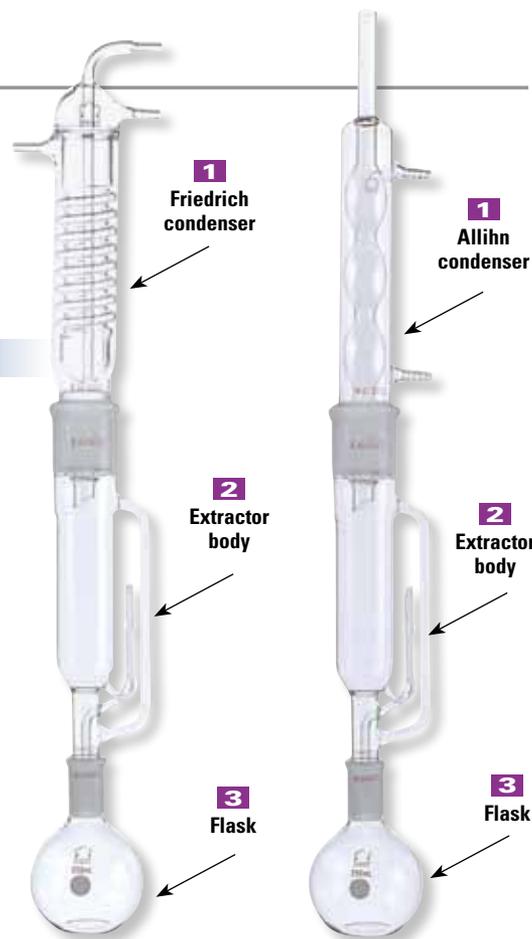
Key	Catalog no.	Description	Volume	Joint ⌘ Size	Price
Allihn-only glassware					
1	TW-99037-26	Condenser	125 mL	34/45	\$147.00
	TW-99037-28	Condenser	250 mL	45/50	180.00
	TW-99037-30	Condenser	300 mL	55/50	207.00
Friedrich only glassware					
1	TW-99037-32	Condenser	125 mL	34/45	219.00
	TW-99037-34	Condenser	250 mL	45/50	239.00
	TW-99037-36	Condenser	300 mL	55/50	250.00
Common Friedrich/Allihn glassware					
2	TW-99037-38	Extractor body	125 mL	Top: 34/45 Bottom: 24/40	185.00
	TW-99037-40	Extractor body	250 mL	Top: 45/50 Bottom: 24/40	232.00
	TW-99037-42	Extractor body	300 mL	Top: 55/50 Bottom: 24/40	254.00
3	TW-99037-44	Flat-bottom flask	125 mL	24/40	41.50
	TW-99037-46	Flat-bottom flask	250 mL	24/40	41.50
	TW-99037-48	Flat-bottom flask	300 mL	24/40	57.50
3	TW-99037-60	Round-bottom flask	125 mL	24/40	37.50
	TW-99037-62	Round-bottom flask	250 mL	24/40	37.50
	TW-99037-64	Round-bottom flask	300 mL	24/40	39.00
	TW-99037-66	Round-bottom flask	500 mL	24/40	39.00

Complete Assembly includes condenser, extractor body, and flask; order thimble separately from ad below

Catalog number	Condenser type	Flask type	Flask capacity	Body ID and length	Condenser (⌘) joint	Price
TW-99037-18	Allihn bulb condenser	Round bottom	500 mL	49 x 180 mm	55/50	\$508.00

REQUIRED SYSTEM Components

- 1 Condenser
- 2 Extractor body
- 3 Flask
- 4 Thimble



Order Friedrich components separately from table at left.

Complete Allihn extraction assembly 99037-10 shown above or order Allihn components separately from table at left.

Soxhlet Extraction Glassware

Extract soluble components from solids samples

This Soxhlet glassware is made of low extractable borosilicate glass and come complete with extractor, condenser, and flask. Model 99036-00 has screw thread connections; models 99036-10 and -20 have ground glass joints. An extraction thimble is required to support the sample within the extractor—order separately in the table or on page 451.

Soxhlet glassware				4 Extraction thimbles	
Catalog number	Capacity allowance	Flask joint	Price	Catalog number	Price/pk of 25
TW-99036-00	25 mL	Threaded	\$455.00	TW-99036-50	\$51.50
TW-99036-10	125 mL	24/40	433.00	—	—
TW-99036-20	250 mL	24/40	467.00	TW-29821-04	138.00



99036-10



4 Thimble 29821-04

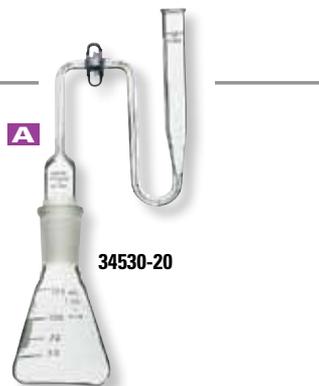
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Hot plates on pages 785–788 and Stirrers on pages 1608–1629

Extraction and Analytical Glassware

A Arsinic Generator determines inorganic arsenic as per diethylthiocarbamate photometric method, which meets EPA, USP, and ACS specifications. Includes 125-mL flask, absorber, arsine scrubber, and Keck® ball-joint clip.

Catalog number	Capacity	Price
TW-34530-20	125 mL	\$140.00



B Distillation Apparatus is used for the batch production of high purity distilled water. Condenser tubulations: 10 mm OD. Condenser jacket length: 200 mm.

Catalog number	Capacity	Price
TW-34510-20	500 mL	\$385.00
TW-34510-22	1000 mL	425.00



C Cyanide Distillation Apparatus tests for soluble and insoluble cyanides in water. Meets EPA and ASTM requirements. Includes round-bottomed flask with inlet tube and funnel opening, adsorber jacket with top, and cold finger with jacket.

Catalog number	Capacity	Price
TW-34510-30	500 mL	\$823.00



D Distilling Apparatus for Kjeldahl Determinations is used to find nitrogen in organic compounds. Perform both digestion and distillation steps in the flask. Includes 200-mm Graham condenser, 500-mL Kjeldahl flask, and connecting tube.

Catalog number	Capacity	Price
TW-34530-10	500 mL	\$478.00



E Kuderna-Danish Concentrators boil away samples to allow testing for pesticides or other pollutants prior to instrumental analysis. Include three-ball Snyder column with venting dimples and graduated collection tube. Available with or without springs mounted on collection tube.

Catalog number	Capacity	Total height	Price
Concentrators without springs			
TW-34530-01	500 mL	615 mm	\$400.00
TW-34530-03	1000 mL	720 mm	408.00
Concentrators with springs			
TW-34530-04	250 mL	580 mm	388.00
TW-34530-00	500 mL	615 mm	345.00
TW-34530-02	1000 mL	720 mm	400.00



F Solvent Recovery Head is used for the condensation and collection of solvents. Use with Kuderna-Danish concentrator 34530-01 or -03. Length: 150 mm.

Catalog number	Description	Qty	Price
TW-34511-00	Solvent recovery head	1pk	\$193.00
TW-34511-02		4/cs	723.00



G Extractor for Fluids Heavier than Water is used with solvents of heavier specific gravity than sample liquid being extracted. Includes extractor, Allihn condenser, and boiling flask. Meets EPA, RCRA, and CLP standards. Total height: 710 mm.

Catalog number	Capacity	Price
TW-34510-10	1 L	\$578.00



H Accelerated One-Step™ Modular Extractor/Concentrator performs drying, extraction, concentration, and drying—all in one apparatus! Features PTFE hydrophobic membranes for speedy drying. Meets EPA and CLP standards. Includes extractor cup and body, Snyder sidearm, membrane assembly, and connectors. Order concentrator tube and condenser separately below to fit your specific application.

Catalog number	Description	Price
TW-34510-00	Extractor/concentrator	\$1880.00
TW-34510-01	Concentrator tube, 100 mL	202.00
TW-34510-02	Jacketed concentrator tube, 100 mL	292.00
TW-34510-03	Allihn condenser	207.00



Extractor/concentrator 34510-00 shown with jacketed concentrator tube 34510-02 and Allihn condenser 34510-03

Find MORE!

Use Keck® clamps to securely hold your glassware assemblies. Visit our "Clamps & Supports" section for a complete selection on pages 272-286.



Extraction Thimbles

Seamless, high-purity filters for extraction and air monitoring

Thimble filters are used in Soxhlet apparatus for dust sampling, and for extracting soluble components using organic solvents. Thimbles are made of cellulose, glass fiber, or silica fiber. Typical applications include analysis of fats, oils, grease, organics, pesticides, pollutants, and additives in plastic/rubber materials.

Cellulose Thimbles are suitable for extraction of organic compounds and dust sampling. Lipid content is <0.1% by weight; thickness is 1.5 mm.

Glass Fiber Thimbles of borosilicate glass are acid washed for minimum trace metal content. They are acid resistant (except hydrofluoric) and ideal for high-temperature extractions up to 932°F (500°C). Thickness is 1.6 mm.

Quartz Fiber Thimbles are tapered for ease in loading into stack samplers. Heat resistant up to 1832°F (1000°C). Thickness is 2.2 mm.



29821-12



Used in Soxhlet apparatus for sampling and extraction applications

Catalog number	dia x H	Qty/pk	Price/pk
Cellulose thimbles (Grade No. 84)			
TW-29821-44	19 x 90 mm	25	\$ 113.00
TW-29821-08	22 x 65 mm		113.00
TW-29821-02	25 x 60 mm		113.00
TW-29821-46	25 x 80 mm	25	113.00
TW-29821-10	25 x 90 mm		113.00
TW-29821-48	25 x 100 mm		113.00
TW-29821-50	28 x 100 mm		132.00
TW-29821-14	30 x 80 mm	25	132.00
TW-29821-12	30 x 100 mm		132.00
TW-29821-04	33 x 80 mm		138.00
TW-29821-52	33 x 100 mm		138.00
TW-29821-06	43 x 123 mm		182.00
Glass fiber thimbles (Grade No. 86R)			
TW-29821-16	19 x 90 mm	25	188.00
TW-29821-20	25 x 90 mm		188.00
TW-29821-18	25 x 100 mm		200.00
TW-29821-24	30 x 80 mm	25	200.00
TW-29821-22	30 x 100 mm		188.00
TW-29821-26	33 x 80 mm		300.00
TW-29821-28	43 x 123 mm		350.00
Quartz fiber thimbles (Grade No. 88R)			
TW-29821-30	19 x 90 mm	25	275.00
TW-29821-32	25 x 100 mm		275.00
TW-29821-36	30 x 80 mm		275.00
TW-29821-34	30 x 100 mm		275.00

Chemistry Kits

Enable standard laboratory assemblies to be constructed with ease and efficiency!

Perform standard laboratory operations—these complete kits include everything you need for basic laboratory functions. Kits include a variety of sizes for conducting experiments at various volume stages. The wall thickness of the Pyrex® round boiling flasks provide the proper balance between thermal expansion and mechanical strength for a uniform heating surface. Use for applications such as distillation, reaction with gas evolution, preparation or recovery, simple reflux; reflux with addition, fractional distillation and vacuum distillation. Standard joint sizes make assembly easy.

Catalog number	LZ-67972-30	LZ-67972-40
Joint size	19/22	24/40
Column	Distillation column, 190 mm	—
Condensers	West condenser, 190 mm	Liebig condenser column Cold finger condenser
Round bottom boiling flasks	25, 50, 100, 250, 500 mL	100, 250, 500 mL
Funnels	125 mL pear-shaped separatory funnel with PTFE stopcock Bleed tube	100 mL cylindrical funnel, graduated, with PTFE stopcock Reaction vessel tube
Tubes	Vacuum connecting tube 3-way connecting tube	Drying tube —
Tube adapters	Claisen connecting tube Straight adapter with thermometer opening	Outlet adapter Distilling adapter Connecting adapter (2) Vacuum distilling adapter
Thermometer	—	1 glass thermometer
Thermometer holder	1 rubber holder	1 rubber holder
Pyrex stopper	1 stopper	1 stopper
Price	\$877.00	\$1120.00



Kit 67972-30 includes complete laboratory glassware assortment in a convenient carrying case with protective foam inserts.

Chemware® Boiling Stones

Boiling stones of PTFE promote efficient boiling, prevent superheating, and minimize bumping during reflux and speed distillation. Stones will not scratch or abrade glassware. Maximum temperature is 550°F (288°C). Bottle contains 1 lb (450 g).

Catalog number	Description	Price/lb
LZ-01199-00	Boiling stones	\$86.50



01199-00