

# DISTILLATION



**Kimble®**  
A WORLD OF EXPERTISE IN YOUR HANDS



Manufactured from the highest quality borosilicate glass and featuring ground glass standard taper joints, the many products used for building distillation systems are available in a variety of categories including adapters, columns, column packing, heads, receivers, flasks, apparatus, and distillation systems.

Saving time and space, and using less sample material, the MIDI-VAP™ 4000 is a versatile ten position distillation system that can be used for the analysis of ammonia, cyanide, or phenols following EPA methods 350.1, 335.4, or 420.4 respectively.

Select from our many distillation products to design and construct the distillation system to meet your requirements. If specialty components or systems are needed, please submit a request to [customglass@kimble-chase.com](mailto:customglass@kimble-chase.com) to receive a quote to have it constructed for you by the hands of our glassware experts.

# Midi-Vap™ 4000

**Save Time!** MIDI-VAP 4000 Systems feature a pre-programmed digital controller with automated shut-off when reaction time is completed.

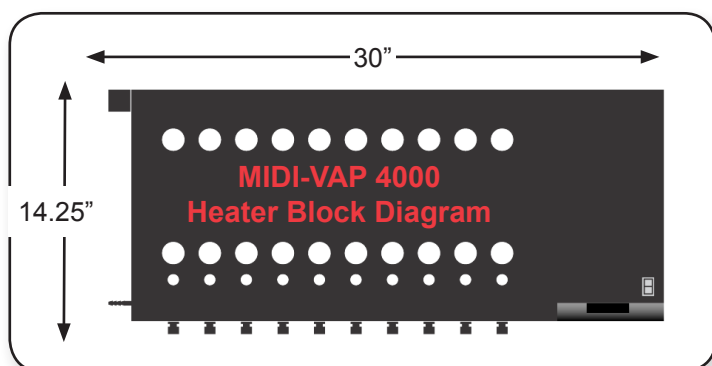
**Save Money!** MIDI-VAP 4000 Systems use 50 mL of sample. Less start-up material means cost savings to you and less reagent waste for disposal.

**Save Space!** 10-position manifold heater block requires less than two square feet of lab bench space.

## Heater Block

### Features

- New PTFE gasket prevents spills from entering the interior
- Heavy-duty insulated block facilitates rapid heating
- Isolated wiring eliminates damage from spills
- Easy to adjust needle valves provide accurate control
- Brass hose barbs are impervious to chemical attack
- Consistent, even heating



## System Specifications

- Corrosion resistant PTFE-coated case
- 30" x 14.25" footprint
- 115V / 1000W / 20A
- 115V UL / CSA certified
- 220V CE certified
- Overtemp protection switch
- Automatic shutoff

## Approximate Dimensions / Weight

Without Glassware: 30" L x 14.25" W x 7.5" H / ~38 lbs.

Assembled with Glassware: 30" L x 14.25" W x 20" H / ~45 lbs.

## Tubing

Precut with vacuum quick-disconnect fittings provided.

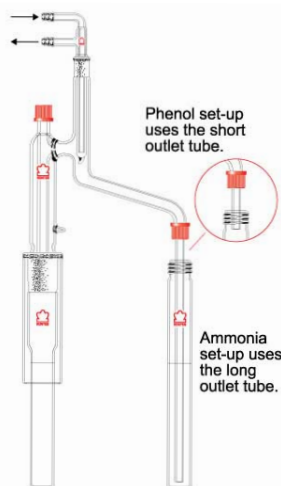
## Exclusive Watlow EZ-ZONE Digital Controller

### Features

- Pre-programmed heating cycles for dual temperature ranges
  - cyanide setting is 126 °C
  - ammonia and phenols is 165 °C
- Easy three-step setup saves time
- Automatic shutoff at test completion
- Amber light indicates heating in progress
- Easy to read LED display
- Optional temperature programming

## MIDI-VAP™ 4000 Ammonia and Phenol Complete System

The Midi-Vap 4000™ distillation system is designed to support the semi-automatic colorimetry methods for drinking, ground, surface and saline waters as well as domestic and industrial wastes. With the glassware provided in this system, it can be used for the analysis of ammonia or phenols. The unit footprint is approximately 16" x 30", and the height when assembled with the glassware is 24". The system features a ten-position heater block for consistent, even heating and a Watlow EZ-Zone digital controller with an easy-to-read LED display and automated shut-off. With a 50 mL sample volume, less start-up material translates to reduced analysis time and less reagent waste for disposal. *Reference: EPA/600/R-93/100: Methods for the Determination of Inorganic Substances in Environmental Sample.*



- Includes 10 sets of glassware used for the analysis of either ammonia or phenols, pre-cut tubing and 10-position manifold heater
- Glassware manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements

Part Number	Case Qty
479490-4000	1

### Replacement Parts

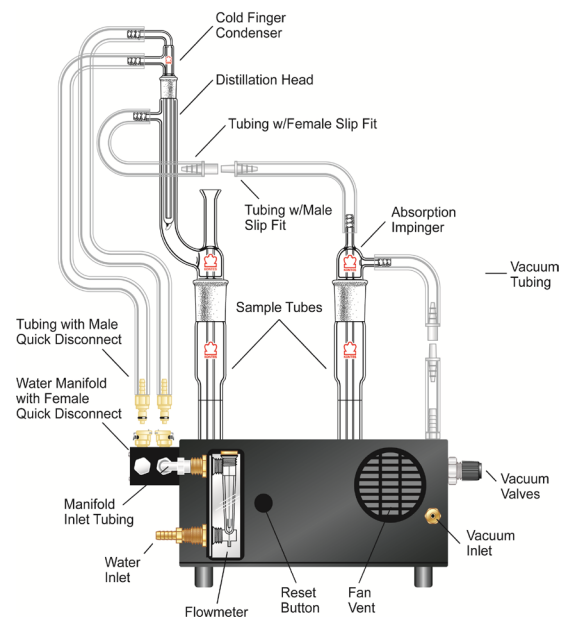
Part Number	Description	Case Qty
479459-0000	Midivap 4000 Ammonia/Phenol Glassware, 1 Set	1
479459-0005	Midivap 4000 Ammonia/Phenol Glassware, 5 Sets	1
720440-4000	MIDI-VAP™ 4000 Heater Only W/Tubing Kit, 115V	1
282000-0000	Cold Finger Condenser, 14/20 Joint, 1/4" Hose Connection, Approx. Overall Height 165 mm, Approx. Length Below Joint 100 mm, Standard Taper, Lower Drip Tip	1
479456-4501	Distilling Head for Ammonia/Phenol MI-DI-VAP™ 4000	1
479470-0050	Reaction Tube w/Draft Shield, 50mL, 29/42 for MIDI-VAP™ 4000	1
479458-0000	Short Stem Outlet Tube for Phenol MI-DI-VAP™ 4000	1
479458-0001	Long Stem Outlet Tube for Ammonia MI-DI-VAP™ 4000	1
479471-0050	Receiver Tube, GL25 Thread w/Cap, 50ml for MIDI-VAP™ 4000	1
410479-0014	Red High Temperature Open-Top GL-14 Screw Thread Cap, 180°C, PTFE/Silicone Liner	10
410480-0014	PTFE/Silicone Sealing Ring for GL-14 Caps	10
410481-0014	PTFE-faced Septa for GL-14 Caps	10
410479-0025	Red High Temperature Open-Top GL-25 Screw Thread Cap	10
479400-0018	Quick Disconnect, Inner for MIDI-VAP™	5
479400-0014	Quick Disconnect, Outer for MIDI-VAP™	5
479418-0043	Ammonia/Phenol Tubing Kit for MIDI-VAP™ 4000	1

## MIDI-VAP™ 4000 Cyanide Complete System

The Midi-Vap 4000™ distillation system is designed to support the semi-automatic colorimetry methods for drinking, ground, surface and saline waters as well as domestic and industrial wastes. With the glassware provided in this system, it can be used for the analysis of cyanide. The unit footprint is approximately 16" x 30", and the height when assembled with the glassware is 24". The system features a ten-position heater block for consistent, even heating and a Watlow EZ-Zone digital controller with an easy-to-read LED display and automated shut-off. With a 50 mL sample volume, less start-up material translates to reduced analysis time and less reagent waste for disposal. *Reference: EPA/600/R-93/100: Methods for the Determination of Inorganic Substances in Environmental Sample.*

- Includes 10 sets of glassware used for the analysis of cyanide, pre-cut tubing and 10-position manifold heater
- Glassware manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements

Part Number	Case Qty
479400-4000	1



### Replacement Parts

Part Number	Description	Case Qty
479460-0000	Midivap 4000 Cyanide Glassware 1 Set	1
479460-0005	Midivap 4000 Cyanide Glassware 5 Sets	1
720440-4000	MIDI-VAP™ 4000 Heater Only W/Tubing Kit, 115V	1
282000-0000	Cold Finger Condenser, 14/20 Joint, 1/4" Hose Connection, Approx. Overall Height 165 mm, Approx. Length Below Joint 100 mm, Standard Taper, Lower Drip Tip	1
479461-0000	Distilling Head for Cyanide MIDI-VAP™ 4000, Lower joint 29/42, Upper joint 14/20	1
479455-0050	Reaction/Absorption Tube, 50ml, 29/42	1
479462-0023	Absorption Impinger for Cyanide MI-DI-VAP™ 4000, 40-60 micron Porosity, 29/42	1
410479-0025	Red High Temperature Open-Top GL-25 Screw Thread Cap	10
479400-0018	Quick Disconnect, Inner for MIDI-VAP™	5
479400-0014	Quick Disconnect, Outer for MIDI-VAP™	5
479400-0022	Quick Disconnect, Vacuum Tubing for MIDI-VAP™	5
479418-0046	Cyanide Tubing Kit for MIDI-VAP™ 4000	1

## Ammonia Nitrogen Distillation Apparatus

Apparatus for determining the proteinaceous nitrogen content in water.

- Also very useful for preparing small quantities of glass-distilled water
- Can be used for phenol, selenium and fluoride determinations
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints	Case Qty
552500-1000	1000	24/40	1

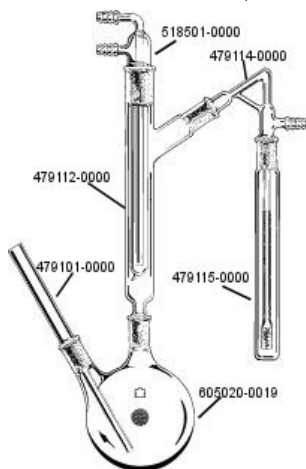
### Replacement Parts

Part Number	Description	Case Qty
605030-1524	Round Bottom Distilling Flask, 1000mL, Sidearm, 24/40 Joint	1
439000-2430	Graham Condenser, 300 mm Jacket Length, 24/40 Joints, Fits tubing ID 3/8", Approx. overall height 442 mm, Approx. condensing area 260 cm <sup>2</sup>	1
850800-2440	24/40 Hollow Glass Hex Head Stopper	1

## 19/38 Cyanide Distillation Apparatus

Apparatus for quantitative analysis of various industrial waste waters, saline and reagent grade water.

- Cyanide as hydrocyanic acid (HCN) is released from cyanide complexes by means of a reflux-distillation and absorbed in a scrubber containing a sodium hydroxide solution
- The cyanide ion in the absorbing solution is then determined colorimetrically or by volumetric titration
- Design features compact Standard Taper 19/38 joints
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints	Case Qty
479110-0000	1000	19/38	1

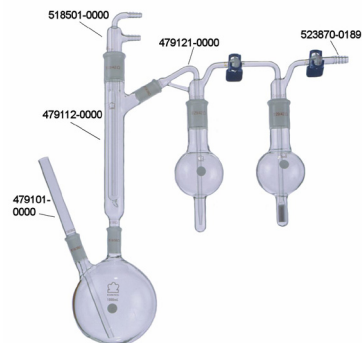
### Replacement Parts

Part Number	Description	Case Qty
479101-0000	Inlet Tube for Cyanide Apparatus, 19/38 Joint	1
479112-0000	Reflux Body for Cyanide Apparatus, 19/38 Lower and Side, 29/42 Upper	1
518501-0000	Cold Finger Joint, 29/42 Joint, 3/8" Hose Connection, Overall height 305 mm, Length below joint 195 mm, Standard Taper, Lower Drip Tip	1
479114-0000	Dispersion Tube for Cyanide Apparatus, 10-15 micron porosity, 19/38 Lower and Side Joints	1
479115-0000	Receiver Tube for Cyanide Apparatus, 19/38	1
605020-0019	Round Bottom Distilling Flask, 1000mL, 2 Neck, 19/38 Joint Sizes, Angled, Diameter 130 mm	1

## 19/38 Cyanide Distillation Apparatus with Separate Scrubber and Absorber

Cyanide distillation 19/38 apparatus with separate scrubber and absorber. Apparatus for removing interfering substances in quantitative analysis of industrial waste waters, saline and reagent grade water.

- Samples react with acid to convert cyanide to HCN
- The first bubbler acts as a scrubber to remove sulfides
- Cyanide is absorbed in the second bubbler
- Design features compact Standard Taper 19/38 joints
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints	Case Qty
479120-0000	1000	19/38	1

### Replacement Parts

Part Number	Description	Case Qty
479101-0000	Inlet Tube for Cyanide Apparatus, 19/38 Joint	1
479112-0000	Reflux Body for Cyanide Apparatus, 19/38 Lower and Side, 29/42 Upper	1
518501-0000	Cold Finger Joint, 29/42 Joint, 3/8" Hose Connection, Overall height 305 mm, Approx. length below joint 195 mm, Standard Taper, Lower Drip Tip	1
605020-0019	Round Bottom Distilling Flask, 1000mL, 2 Neck, 19/38 Joint Sizes, Angled, Diameter 130 mm	1
523870-0189	Hose Adapter, Socket, Spherical Joint size 18/9, Fits Tubing ID 1/2"	1
479121-0000	Scrubber Tube for Cyanide Apparatus, 19/38 Side, 29/42 Lower	1
675310-0019	Size 19 Polyacetyl, Spherical Joint Clamp, Lt Blue, fits joint sizes 18/7, 18/9	12



## 24/40 Center Neck Cyanide Distillation Apparatus

Center neck cyanide distillation apparatus 24/40. This apparatus has been successfully used in the analysis of industrial waste waters, saline and reagent grade water.

- Cyanide as hydrocyanic acid (HCN) is released from cyanide complexes by means of reflux-distillation and absorbed in a scrubber containing a sodium hydroxide solution
- The cyanide ion in the absorbing solution is then determined colorimetrically or by volumetric titration
- Heating mantle (pictured) is not included
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Feature	Case Qty
479100-0000	1000	45/50 Upper Standard Taper	1

### Replacement Parts

Part Number	Description	Case Qty
479101-0000	Inlet Tube for Cyanide Apparatus, 19/38 Joint	1
479102-0000	Reflux Condenser Tube, 24/40 Lower, 45/50 Upper, 19/38 Side	1
479103-0000	Cold Finger Condenser, 45/50 Joint, 3/8" Hose Connection, Overall height 300mm, Length below joint 140mm, no extended lower tip	1
479104-0000	Dispersion Tube, 10-15 micron Porosity, 19/38 Side, 29/42 Lower	1
479105-0000	Receiver Tube for Cyanide Apparatus, 29/42 Joint	1
605020-1419	Round Bottom Distilling Flask, 1000mL, 2 Neck, 24/40 and 19/38 Joint Sizes, Angled, Diameter 130 mm	1



### Accessories

Part Number	Description	Case Qty
675300-0019	Size 19 Polyacetyl Standard Taper Clamp, Blue, Fits joint sizes 19/22, 19/38	12
675300-0024	Size 24 Polyacetyl Standard Taper Clamp, Green, Fits joint sizes 24/40, 24/25	12
675300-0029	Size 29 Polyacetyl Standard Taper Clamp, Red, Fits joint sizes 29/42, 29/26	12

## General Distillation Apparatus

KIMAX® apparatus used in general purpose distillation and phenol distillation.



- Flask has a flat bottom and a distillation head with a 19/38 joint
- Supplied with a Standard Taper stopper
- Condenser is Graham-style, having a 200 mm jacket with a 19/38 joint at the top only
- For method, reference APHA Examination of Water and Wastewater: Method 4500-NH3 nitrogen (ammonia) in purified drinking water, natural water, and highly purified wastewaters (concentration < 20 µg/L)
- Method calls for use with tall form 50 mL Nessler Tubes (45315A & B-50)
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements

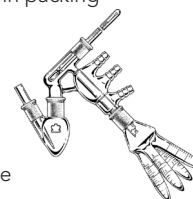
Part Number	Capacity (mL)	Standard Taper Joints	Case Qty
21500-500	500	19/38	1
21500-1000	1000	19/38	1

### Replacement Parts

Part Number	Description	Case Qty
21500G-500	500mL Distillation Apparatus Flask Only, 19/38 Joint, Standard Taper Stopper 22	1
21500G-1000	1000mL Distillation Apparatus Flask Only, 19/38 Joint, Standard Taper Stopper 27	1

## Short Path Compact Distillation Apparatus

- This design utilizes a thermometer bulb as column packing
- Compact head and condenser provide better separation by reducing wetted surfaces
- Cow-type receiver has tubes that are aligned for best product recovery
- Pear-shaped flask has a Standard Taper 10/18 side arm for a bleed tube
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Thermometer Standard Taper Joint	Case Qty
284800-0000	14/20	10/18	1

### Replacement Parts

Part Number	Description	Case Qty
275400-0035	Inlet, Bleed-Type, 10/18 Joint Size, 8mm OD Upper Tube, 0.5mm Tip ID, Length Below Joint 35mm, fits 10mL round bottom flasks	1
287100-0000	Short Path Distillation Head, 14/20 Joint, Thermometer joint 10/18, Fits Tubing ID 1/4", Overall height x width 105 x 95mm	1
288200-0000	Distillation Receiver for 288200-0000, Graduations from 0-3mL, Subdivisions 0.2mL, 3mL per Tube, 14/20 Joint	1
294750-0010	10mL Two Neck Heavy Wall Pear-Shaped Distilling Flask, Center joint 14/20, Side joint 10/18	1



## Dean Stark Distillation Apparatus

- Designed for solvents that are classified as either heavier than water or lighter than water
- Unit is compact in the Standard Taper 24/40
- Lower three-way stopcock provides a sample port, and the apparatus can be drained without disassembly
- Trap area is positioned well above the boiling flask
- Stopcock plug is 822501-0002
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints	Case Qty
535800-0000	1000	24/40	1



## Replacement Parts

Part Number	Description	Case Qty
457000-0175	Coil Type, Reflux Condensor, 24/40 Joints, Fits tubing ID 3/8", Cold Finger coil length 175mm, Condensing area 170 cm <sup>2</sup> , Overall height 340 mm	1
535801-0000	Moisture Test Receiver, 20mL, 24/40 Joint, Grad. x Subdiv. 0-3 x 0.2mL and 3-20 x 0.5mL, Overall height x width 355 x 130 mm, Y Stopcock with PTFE Stopcock Plug	1
601000-0724	1000 mL Round Bottom Flask, 24/40 Joint, Diameter 130 mm	1
822501-0002	Size 2 Three Way 120° Stopcock Plug, PTFE, 15.2/30 Plug Size (mm)	1

## Monier-Williams Sulfites Distillation Apparatus

For the determination of free sulfite and a reproducible portion of the bound sulfites in food, such as the carbonyl addition products.

- To ensure a complete seal during the analysis, each joint should be clamped
- Five clamps are supplied with the complete apparatus
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



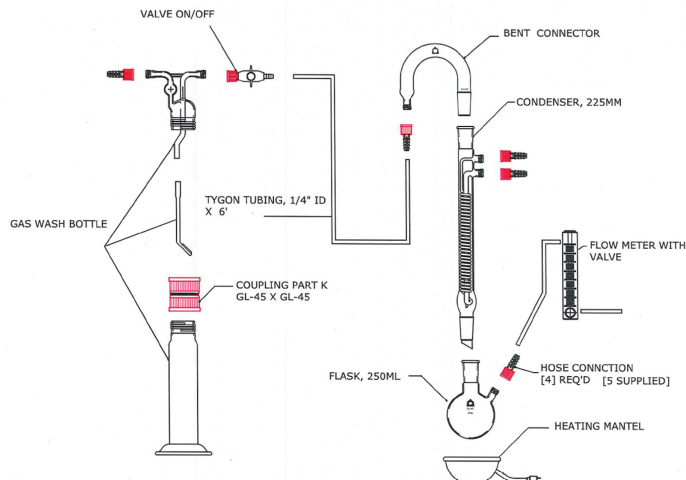
Part Number	Capacity (mL)	Standard Taper Joints	Case Qty
513800-0000	1000	24/40	1

## Replacement Parts

Part Number	Description	Case Qty
183000-2440	24/40 Inlet Hose, Fits Tubing ID 3/8", Overall Height 80mm	1
633030-0250	Addition Funnel, 250mL, 24/40 Joint, Size 2 PTFE Stopcock, Stopper joint size 24/25, Approx. height 326 mm	1
606000-1424	Round Bottom Distilling Flask, 1000mL, 3 Neck, 24/40 Joint Sizes, Vertical, Diameter 130 mm	1
513801-0000	Flask Inlet Adapter, Monier-Williams, 24/40 Joint	1
431000-2430	Allihn Condenser, Jacket Length 300 mm, 24/40 Joints, Fits tubing ID 3/8", Overall height 470 mm	1
513802-0000	Bubbler Tube, Monier-Williams, 24/40	1
675300-0024	Size 24 Polyacetyl, Standard Taper Clamp, Green, Fits joint sizes 24/40, 24/25	12

## Accessories

Part Number	Description	Case Qty
20024-100	100 mL To Deliver Class B Graduated Cylinder with Bumper Guard, Bumper Size 4, Height 255mm, Graduated Interval 5 to 100mL, Subdivision 1mL, Tolerance ±0.6 mL	24



527100-0000

## Alginate Assay Apparatus

Alginates assay apparatus for the determination of alginates referenced in the U.S. Pharmacopeia 36 test procedure, chapter 311.

- Includes a heating mantle, 250 mL two neck round bottom flask, flow meter with valve, 225 mm reflux condenser, bent connector, 6' flexible tubing, plastic valve, (5) plastic hose connectors, and a gas washing bottle with a GL-45 to GL-45 connector
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements

Part Number	Case Qty
527100-0000	1

**NEW!!!**

## 75° Distillation Bent

Distillation bent 75 degree adapters. Ideal for use as a stillhead adapter.

- With Standard Taper inner joints at each end
- Both joints are of the same size
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Overall Height (mm) x Overall Width (mm)	Case Qty
272900-0000	14/20	50 x 55	1
272900-1922	19/22	50 x 55	1
158000-2440	24/40	130 x 140	1
158000-2942	29/42	130 x 140	1

## 105° Distillation Bent

Distillation 105 degree bent adapters.

- Standard Taper inner joint at the bottom and Standard Taper outer joint at the top
- Joints are the same size
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Overall Height (mm) x Overall Width (mm)	Case Qty
157500-2440	24/40	140 x 110	1
157500-2942	29/42	150 x 115	1

## 105° Distillation Bent with Drip Tip

Bent 105 degree distillation adapters.

- Standard Taper inner drip joint at the bottom and Standard Taper outer joint at the top
- Joints are the same size
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Overall Height (mm) x Overall Width (mm)	Case Qty
273200-0000	14/20	70 x 55	1
273200-1922	19/22	70 x 55	1

## 105° Distillation Bent with Tapered Drip Tube

Distillation 105 degree bent adapters with tapered drip tube.

- Standard Taper outer joint at top
- Tapered drip tube extends into open receivers
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements

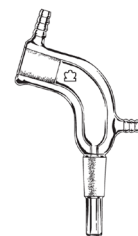


Part Number	Standard Taper Joints	Overall Height (mm) x Overall Width (mm)	Case Qty
273100-0000	14/20	65 x 65	1
157000-2440	24/40	115 x 115	1

## 105° Distillation Bent with Surrounding Jacket

Distillation 105 degree bent with surrounding jacket. Used for highly volatile condensates.

- Water jacket completely surrounds adapter
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Overall Height (mm) x Overall Width (mm)	Case Qty
159500-2440	24/40	210 x 145	1

## 105° Distillation Bent with Vacuum Take-Off and Outer Hose Connection

Bent with vacuum take-off distillation adapters 105 degree.

- Barbed hose connection
- Standard Taper inner joint with drip tip at the bottom and Standard Taper outer joint at the top
- Joints are the same size
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Fits Tubing ID (inches)	Case Qty
205600-1420	14/20	0.25	1
205600-1922	19/22	0.25	1
205600-2440	24/40	0.375	1

## 105° Distillation Bent with Vacuum Take-Off and Inner Hose Connection

Bent 105 degree with vacuum take-off inner distillation adapter.

- Barbed hose connection
- Standard Taper inner joint with drip tip at the bottom and Standard Taper outer joint at the top
- Joints are the same size
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements

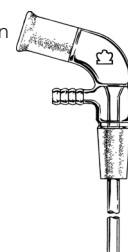


Part Number	Standard Taper Joints	Fits Tubing ID (inches)	Case Qty
276400-0000	14/20	0.25	1
276410-0000	19/22	0.25	1
205500-2440	24/40	0.375	1
205500-2942	29/42	0.375	1

## Long Stem 105° Distillation Bent with Vacuum Take-Off

Long Stem 105 degree Bent with Vacuum take-off Distillation Adapters

- With a hose connector and a drip tip
- Lower tube is extended to 200 mm and may be shortened
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Fits Tubing ID (inches)	Case Qty
206000-2440	24/40	0.375	1



## Extended 105° Distillation Bent with Vacuum Take-Off and Outer Hose Connection

- Barbed hose connection
- Standard Taper inner joint at the bottom and Standard Taper outer joint at the top
- Joints are the same size
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Fits Tubing ID (inches)	Case Qty
276405-0000	14/20	0.25	1

## Claisen Distillation Adapter

- Provides dual entry into a variety of flasks
- Compatible with 179700 glass BEVEL-SEAL™ inlet adapters or 179800 PTFE BEVEL-SEAL™ inlet adapters for thermometer use at either top opening
- Useful for reflux with addition-type reactions
- Joints are the same size
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Overall Height (mm) x Overall Width (mm)	Case Qty
273755-0000	14/20	95 x 64	1
273750-0000	14/20	113 x 69	1
273760-0000	19/22	125 x 72	1
161500-2440	24/40	155 x 92	1
161500-2942	29/42	165 x 105	1

## Claisen Distillation Adapter with 45° Side Inlet

- Provides two top inlets and one inlet on the side at a 45 degree angle
- Compatible with 179700 glass BEVEL-SEAL™ inlet adapters or 179800 PTFE BEVEL-SEAL™ inlet adapters for thermometer use at either top opening
- Useful for reflux with addition-type reactions
- Joints are the same size
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Overall Height (mm) x Overall Width (mm)	Case Qty
161600-2440	24/40	155 x 150	1

## Claisen Distillation Adapter with Thermometer Joint

- Distilling adapter with a Standard Taper 10/30 joint on the vertical side tube for a 75 mm immersion thermometer
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Thermometer Standard Taper Joint	Case Qty
161000-2440	24/40	10/30	1

## Claisen Distillation Adapter with BEVEL-SEAL™ Thermometer Joint

Used in distillation assemblies where adjustable immersion depth of the thermometer is desired.

- Threaded top BEVEL-SEAL™ connection for plain stem thermometers
- Vacuum-tight seal is achieved with the open top compression cap and FKM o-ring
- BEVEL-SEAL™ cap 410119-1307 is suitable for use to 200 °C
- Thread size is modified GPI 13-425 and FKM o-ring is size 010
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Overall Height (mm) x Overall Width (mm)	Case Qty
161100-2440	24/40	155 x 88	1

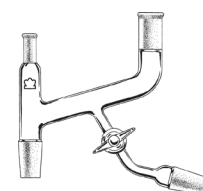


## Replacement Parts

Part Number	Description	Case Qty
410119-1307	Blue Glass-Filled Nylon 13-425 Open-Top Compression Cap, Hole Diameter 7 mm	12

## Claisen Distillation Adapter with Thermometer Joint and PTFE Stopcock

- Standard Taper 10/30 joint at the top of main tube for use with a 75 mm immersion thermometer
- Designed with a PTFE stopcock on the lower side tube
- Replacement stopcock plug is 821001-0004
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Thermometer Standard Taper Joint	Case Qty
164010-2440	24/40	10/30	1

## Replacement Parts

Part Number	Description	Case Qty
821001-0004	Size 4 Straight Bore Stopcock Plug, PTFE, 15.2/30 Plug Size (mm)	1



## Claisen Distillation Adapter with Side DripTip Tube and Thermometer Joint

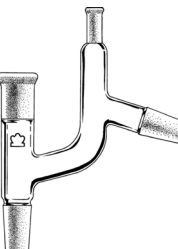
- Distilling adapter with a Standard Taper 10/18 joint on the vertical side tube for use with a 25 mm immersion thermometer
- All other Standard Taper joints are 14/20
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Thermometer Standard Taper Joint	Case Qty
274200-0000	14/20	10/18	1

## Claisen Distillation Adapter with Side Tube and Thermometer Joint

- Distilling adapter with a Standard Taper 10/30 joint on the vertical side tube for a 75 mm immersion thermometer
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Thermometer Standard Taper Joint	Case Qty
163000-2440	24/40	10/30	1

## 75° Connecting Distillation Adapter

75-degree connecting distillation adapters. For use as a component in atmospheric or vacuum distillations.

- Lower and sidearm joints are inner Standard Taper joints; upper joint is outer Standard Taper joint
- Joints are same size
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Overall Height (mm) x Overall Width (mm)	Case Qty
274950-0000	14/20	105 x 55	1
275060-0000	19/22	105 x 75	1
167500-2440	24/40	155 x 105	1
167500-2942	29/42	165 x 115	1

## 75° Connecting Distillation Adapter with Thermometer Joint

Used in distillation assemblies.

- Outer Standard Taper top joint accommodates a thermometer
- Inner Standard Taper joints are at a 75° angle
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Thermometer Standard Taper Joint	Case Qty
274900-0000	14/20	10/18	1
274900-1922	19/22	10/18	1
167000-2440	24/40	10/30	1

## 75° Connecting Distillation Adapter with BEVEL-SEAL™

Used in distillation assemblies where adjustable immersion depth of the thermometer is desired.

- Threaded top BEVEL-SEAL™ connection for plain stem thermometers
- Vacuum-tight seal is achieved with the open top compression cap and FKM o-ring
- BEVEL-SEAL™ cap 410119-1307 is suitable for use to 200 °C
- Thread size is modified GPI 13-425 and FKM o-ring is size 010
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements

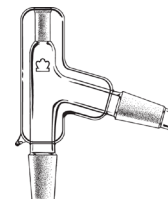


Part Number	Standard Taper Joints	Overall Height (mm) x Overall Width (mm)	Case Qty
274960-0000	14/20	75 x 50	1
274960-1922	19/22	75 x 50	1
167100-2440	24/40	155 x 100	1

## 75° Jacketed Connecting Distillation Adapter

Vacuum-jacketed, useful as a distilling head to connect a condenser with the top of a distillation column.

- The Standard Taper 10/30 top outer joint is for use with 75 mm immersion thermometers
- Inner joints are at a 75° angle to one another
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Thermometer Standard Taper Joint	Case Qty
167010-2942	29/42	10/30	1

## Connecting Distillation Adapter

Useful in the sub-boiling separation of mixtures having volatile components.

- Standard Taper inner joints are parallel
- Joints are the same size
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Distance Between Joints (mm)	Case Qty
275050-1420	14/20	100	1
169500-2440	24/40	200	1

## Connecting Distillation Adapter with Valved Vacuum Take-Off

Designed for purification and transfer of solvents under airless conditions.

- Incorporates a HI-VAC® valve with an 826601-0004 plug
- Standard Taper inner joints are parallel
- Lower joints are the same size
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements

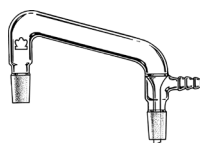


Part Number	Standard Taper Joints	Case Qty
216080-2440	24/40	1

## Connecting Distillation Adapter with Vacuum Hose Connection

Useful in the sub-boiling separation of mixtures having volatile components.

- Vacuum connection at side accepts 1/4" ID flexible tubing
- Sealed-in drip tip directs condensate
- Standard Taper inner joints are parallel
- Joints are the same size
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Distance Between Joints (mm)	Case Qty
275070-1420	14/20	100	1

## Foam-Type Distillation Traps

Placed above a boiling flask to prevent foaming-type reactions from entering either the distilling column or the condenser.

- Particularly useful with rotary evaporators
- 517000 series has baffles which allow vapor to continue through the column and condenser
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints: Outer; Inner	Bulb Diameter (mm)	Case Qty
275095-0000	14/20; 14/20	42	1
275095-2414	24/40; 14/20	50	1
197500-2440	24/40; 24/40	50	1
517000-2440	24/40; 24/40	65	1

## Thermometer Centering Device

Designed for 6.5 mm OD manual thermometer or 1/4" temperature sensor probe as used on standard Automated Distillation Apparatus with Kimble 26015-125 flasks.

- Fits glassware designed for rubber stopper size 2
- PTFE body with FKM o-ring seal assures proper centering of sensor probe in flask neck
- Cap material is yellow polypropylene
- Ref: ASTM Method D86

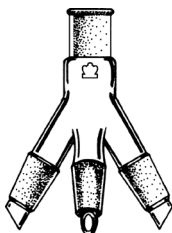


Part Number	Body OD (mm)	Case Qty
26015C-125	6.5	1

## Three-Way Micro-Distillation Distributor

Rotating three-way distributor for use with 251150 distillation adapter.

- Precise alignment allows distillate to drip directly into the receiver with no wetted surfaces or holdup
- Receiver arms are 120° apart
- All joints are 14/20 Standard Taper
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Case Qty
251175-0000	14/20	1

## Transfer Distillation Adapters

Used to transfer fluids between two flasks or as a one-piece distillation unit

- A variety of flasks or adapters may be connected to this unit to use at reduced pressure or under an inert atmosphere
- All joints are the same size
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Overall Height (mm) x Overall Width (mm)	Case Qty
211410-2440	24/40	155 x 270	1

## Distillation Column Packing Beads

May be used as mixing beads, boiling stones or packing for distillation columns.

- KIMAX® glass beads are highly resistant to attack by most cold or hot liquids and/or vapors
- Solid borosilicate beads are durable and will not disintegrate or affect delicate compounds
- Packed in 1 lb. (approximately 0.45 kg) containers, 360 cm³ total volume
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Diameter (mm)	Beads per cubic inch (Approx)	Case Qty
13500-3	3	550	1
13500-4	4	250	1
13500-5	5	125	1
13500-6	6	75	1

## Plain Distillation Column

Plain fractionating column with indents to support packing.

- A variety of packing materials may be used for better separations
- 286100-0000 has a drip tip at the bottom
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints; Overall Length (mm)	Type	Case Qty
286000-0021	14/20; 170	Plain Column	1
286000-0022	14/20; 190	Plain Column	1
286100-0000	14/20; 170	Plain Column with a Drip Tip	1

## Jacketed Distillation Column

- KIMAX® one-piece sealed unit with a Standard Taper outer joint at the upper end and a Standard Taper inner joint with drip tip at the lower end
- Inner tube has a single ring of indentations near the exit end to support packing material
- Supplied with a jacket so the column may also be used as a condenser
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Jacket Length (mm)	Case Qty
286820-0110	14/20	110	1
286810-0200	19/22	200	1
286810-0300	19/22	300	1
21805-300	24/40	300	1

## Micro Distilling Column

Micro-type distilling column designed to prevent flooding while retaining residue material.

- 569251 has hooks; 569261 does not
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Number of Chambers	Feature	Case Qty
569251-0319	3	Hooks	1
569261-0319	3	No hooks	1

## Micro Snyder Distillation Column

Snyder distilling column contains floating ball valves for improved vapor-liquid contact.

- 569001 series has hooks; 569011 series does not
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Column Length without Joint (mm)	Feature	Case Qty
569001-0219	115	Hooks	1
569001-0319	145	Hooks	1
569011-0219	115	No hooks	1
569011-0319	145	No hooks	1

## Snyder Distillation Column

Snyder distillation column with floating ball valves for improved vapor-liquid contact.

- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Column Length without Joint (mm)	Case Qty
503000-0121	24/40	225	1
503000-0122	24/40	375	1

## Improved Snyder Distillation Column

- Improved design speeds evaporation and reduces hold-up within the column
- Recoveries are excellent, e.g., with pesticides such as Lindane and Parathion in petroleum ether or ethyl ether
- Higher boiling solvents also may be used to good advantage
- Each chamber is approximately 50 mm long
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Column Length without Joint (mm)	Case Qty
503100-0002	24/40	120	1
503100-0003	24/40	170	1

## Vigreux Distillation Column

Vigreux distilling column with indentations over the entire length for improved vapor-liquid contact.

- KIMAX® column has a Standard Taper outer joint at the top and a Standard Taper inner joint at the bottom
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Column Length (mm)	Case Qty
286700-0000	14/20	130	1
286710-0300	19/22	300	1
503500-0221	24/40	150	1
503500-0222	24/40	300	1
503500-0223	24/40	600	1

## Vigreux Distillation Column with Drip Tip

- KIMAX® column has a Standard Taper outer joint at the top and a Standard Taper inner joint at the bottom
- Drip tip is provided at the lower end
- Inner tube has twelve sets of rings of indentations spaced approximately 14 mm apart
- Sets are alternately horizontal and slanted downward
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Jacket Length (mm)	Case Qty
21802-200	19/22	200	1



## Distillation Head with a Condenser and Medium Length Standard Taper Joints

Distillation head with a condenser sealed to the vertical tube

- Standard Taper 14/20 outer joint on the vertical tube can be converted to a thermometer joint using the 273500, size 21 bushing adapter
- The height of this joint is fixed in relation to the side arm, permitting use of 25 mm immersion thermometers
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Condenser Joint	Case Qty
286900-0000	14/20	14/35	1

## Distillation Head with a Condenser and Full Length Standard Taper Joints

Distillation head with condenser and full length standard taper joints.

- Simple take-off unit with a condenser sealed to the adapter at a 75° angle
- With bottom and side Standard Taper inner drip joints
- Standard Taper 10/30 outer joint on top accepts a 75 mm immersion thermometer
- Hose connections are designed to fit 3/8" ID flexible tubing
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Thermometer Standard Taper Joint	Case Qty
514000-2440	24/40	10/30	1

## Short Path Distillation Head

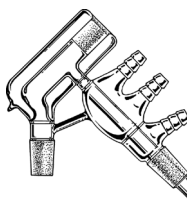
- When a Standard Taper thermometer is inserted in the top of this apparatus, the bulb and stem serve as column packing
- Close-coupled condenser and vacuum connection offer an extremely short condensate travel path
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Fits Tubing ID (inches)	Case Qty
287100-0000	14/20	0.25	1
287110-0000	19/22	0.25	1
513750-0000	24/40	0.375	1
513750-2942	29/42	0.375	1

## Short Path Vacuum Jacketed Distillation Head

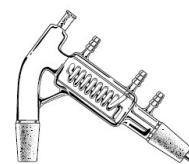
- Vacuum-jacketed design for more efficiency
- When a Standard Taper thermometer is inserted in the top of this apparatus, the bulb and stem serve as column packing
- The close-coupled condenser and vacuum connection offer an extremely short condensate travel path
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Fits Tubing ID (inches)	Case Qty
287150-0000	14/20	0.25	1
513770-0000	24/40	0.375	1

## Short Path Improved Distillation Head

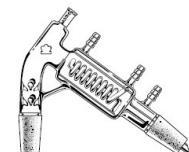
- Excellent for use when distilling solvents with medium to high boiling points
- Designed with a combination cold coil and Leibig condenser
- Water flows into the middle hose connection through the coil and exits the outer jacket through the top hose connection
- Top outer joint is Standard Taper 10/30 for use with a 51 mm immersion thermometer
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joint: Lower	Fits Tubing ID (inches)	Case Qty
513810-2440	24/40	0.375	1

## Short Path Improved Vigreux Distillation Head

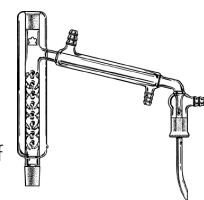
- Excellent for use when distilling solvents with medium to high boiling points
- Designed with a combination cold coil and Leibig condenser
- Vigreux indentations improve efficiency
- Water flows into the middle hose connection and through the coil and exits the outer jacket through the top hose connection
- Top outer joint is Standard Taper 10/30 for use with a 51 mm immersion thermometer
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joint: Lower	Fits Tubing ID (inches)	Case Qty
513850-2440	24/40	0.375	1

## Vacuum Jacketed Vigreux Distillation Head with Condenser

- Distillation head with a condenser sealed to a jacketed Vigreux distilling column
- Standard Taper thermometer joint on the top of the vertical column
- Vacuum adapter section of this apparatus takes a 287902 distribution adapter and four receiving flasks
- Joints may be held with springs or Standard Taper polyacetal clamp
- Stabilizing bar runs perpendicularly between vertical column and vacuum adapter
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Fits Tubing ID (inches)	Case Qty
287320-0000	14/20	0.25	1

## Accessories

Part Number	Description	Case Qty
287902-0000	Distribution Adapter for 287900	1
675300-0014	Size 14 Polyacetyl, Standard Taper Clamp, Yellow, Fits joint sizes 14/20, 14/35	12



## Short Path Vigreux Distillation Head

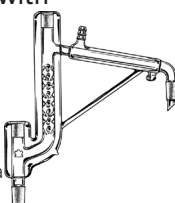
- Design uses Vigreux indentations for increased surface area within the vapor path. This promotes better refluxing prior to condensation, yielding a better separation
- With a Standard Taper thermometer in place, the bulb and stem serve as column packing
- Closely coupled condenser and vacuum connections provide a short condensate travel path
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Fits Tubing ID (inches)	Case Qty
287120-0000	14/20	0.25	1

## Vacuum Jacketed Vigreux Distillation Head with Condenser and Two Thermometer Joints

- Jacketed Vigreux distillation head with two Standard Taper joints for 25 mm immersion thermometers
- Integral West condenser is braced for strength
- Drip joint on the condenser may be connected to a variety of receivers
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



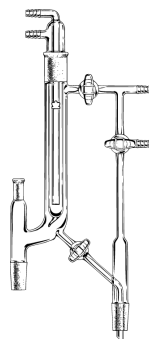
Part Number	Standard Taper Joints	Fits Tubing ID (inches)	Case Qty
287450-0000	14/20	0.25	1

### Accessories

Part Number	Description	Case Qty
288251-0000	Receiver, Graduated Tube, 14/20 Joint Size, 12mL, Grad. x Subdiv. 0-2 x 0.1mL and 2-12 x 0.2mL, Overall Length 142mm	1
675300-0014	Size 14 Polyacetyl, Standard Taper Clamp, Yellow, Fits joint sizes 14/20, 14/35	12

## Variable Reflux Distillation Head with Glass Plugs

- Rotation of cold finger condenser allows collection of distillate or return to flask
- Stopcocks allow removal of the product or a receiver change without interrupting the distillation
- Lower receiver joint has a drip tip
- The distance between column/condenser top and bottom stopcocks is 135 mm
- Standard Taper 10/30 outer side joint accepts a 75 mm immersion thermometer
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



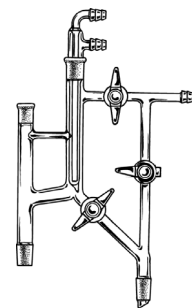
Part Number	Standard Taper Joints: Column, Others	Fits Tubing ID (inches)	Case Qty
518500-2440	24/40, 29/42	0.375	1

### Accessories

Part Number	Description	Case Qty
518501-0000	Cold Finger Joint, 29/42 Joint, 3/8" Hose Connection, Approx. overall height 305 mm, Approx. length below joint 195 mm, Standard Taper, Lower Drip Tip	1

## Variable Reflux Distillation Head with PTFE Plugs (Large)

- Rotation of cold finger condenser allows collection of distillate or return to flask
- Standard Taper outer joint at top requires a 75 mm immersion thermometer
- Stopcocks have PTFE plugs
- The top and bottom are 821001-0002 and the middle is 822001-0002
- Distillate can be removed or receivers changed using PTFE stopcocks
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Fits Tubing ID (inches)	Case Qty
287630-0000	14/20	0.25	1

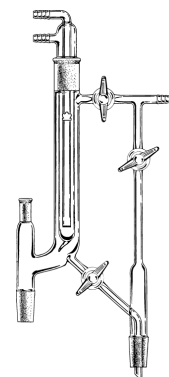
### Accessories

Part Number	Description	Case Qty
282000-0000	Cold Finger Condenser, 14/20 Joint, 1/4" Hose Connection, Approx. Overall Height 165 mm, Approx. Length Below Joint 100 mm, Standard Taper, Lower Drip Tip	1



## Variable Reflux Distillation Head with PTFE Plugs (Small)

- Rotation of cold finger condenser allows collection of distillate or return to flask
- Stopcocks allow removal of the product or a receiver change without interrupting the distillation
- Lower receiver joint has a drip tip
- Standard Taper 10/30 outer side joint accepts a 75 mm immersion thermometer
- Stopcock plugs are PTFE
- Top and bottom plugs are 821001-0004 and the side is 824001-0004
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Column Standard Taper Joints	Condenser Standard Taper Joints	Case Qty
518530-2440	24/40	29/42	1

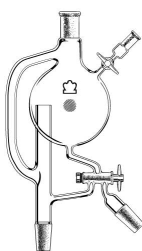
### Accessories

Part Number	Description	Case Qty
518501-0000	Cold Finger Joint, 29/42 Joint, 3/8" Hose Connection, Approx. overall height 305 mm, Approx. length below joint 195 mm, Standard Taper, Lower Drip Tip	1
518532-2440	Distilling Head for Variable Reflux, 24/40 Joint	1

## Modified Solvent Distillation Head

Designed to maintain distilled solvents in an inert atmosphere.

- The top of the main vapor tube is open, with an additional vapor tube to decrease the risk of pressure buildup
- The upper sampling port has a 4 mm stopcock with a Standard Taper 14/20 outer joint for the head
- A double-oblique stopcock with a Standard Taper 14/20 inner joint allows removal of distilled solvent or return to flask
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements

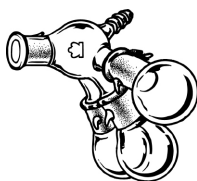


Part Number	Capacity (mL)	Standard Taper Joints: Lower and Upper	Case Qty
518550-1450	500	24/40	1

## 14/20 Distillation Receiver Cow Type with Three Receivers

Distillation receivers 14/20 cow type with three receivers.

- Cow-type design having three receivers spaced 45° apart
- Condensers with drip joints will protrude into the spherical section, keeping wetted surfaces and product hold-up to a minimum
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Fits Tubing ID (inches)	Case Qty
287800-0000	14/20	0.25	1

### Replacement Parts

Part Number	Description	Case Qty
287801-0000	Distribution Adaptor for 287800-0000	1

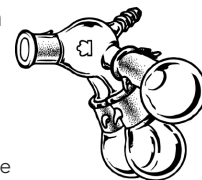
### Accessories

Part Number	Description	Case Qty
675300-0014	Size 14 Polyacetyl, Standard Taper Clamp, Yellow, Fits joint sizes 14/20, 14/35	12

## 24/25 Distillation Receiver Cow Type with Three Receivers

Distillation receivers cow-type with 3 receivers.

- Cow-type design having three receivers spaced 45° apart
- Condensers with drip joints will protrude into the spherical section, keeping wetted surfaces and product hold-up to a minimum
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Standard Taper Joints	Standard Taper Joint to Condenser	Case Qty
535750-0000	24/40	24/25	1

### Replacement Parts

Part Number	Description	Case Qty
535751-0000	Distribution Adapter for 535800-0000, 24/40 Joints	1

### Accessories

Part Number	Description	Case Qty
675300-0024	Size 24 Polyacetyl, Standard Taper Clamp, Green, Fits joint sizes 24/40, 24/25	12

## 14/20 Four Place Angled Rotating Distillation Receiver

Four place rotating distillation receivers 14/20.

Rotating distillation receiver allows four flasks to be progressively filled.



- Vacuum adapter is bent at a 105° angle
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements

Part Number	Capacity (mL)	Standard Taper Joints	Case Qty
287900-0000	15	14/20	1

### Replacement Parts

Part Number	Description	Case Qty
287901-0000	Vacuum Adapter	1
287902-0000	Distribution Adapter	1

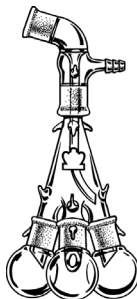
### Accessories

Part Number	Description	Case Qty
675300-0014	Size 14 Polyacetyl, Standard Taper Clamp, Yellow, Fits joint sizes 14/20, 14/35	12

## 19/22 Four Place Angled Rotating Distillation Receiver

Four place angled rotating distillation receivers. Rotating distillation receiver allows four flasks to be progressively filled.

- Vacuum adapter is bent at a 105° angle
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints	Case Qty
287910-0000	25	19/22	1

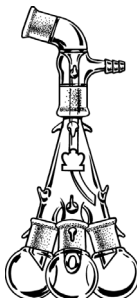
### Accessories

Part Number	Description	Case Qty
675300-0019	Size 19 Polyacetyl, Standard Taper Clamp, Blue, Fits joint sizes 19/22, 19/38	12

## 24/40 Four Place Angled Rotating Distillation Receiver

Four place angled rotating distillation receivers 24/40. Rotating distillation receiver allows four flasks to be progressively filled.

- Vacuum adapter is bent at a 105° angle
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints	Case Qty
544000-2440	50	24/40	1

### Replacement Parts

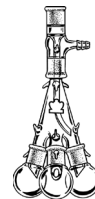
Part Number	Description	Case Qty
536002-0000	Distribution Adapter for Rotating Receiver, 24/40 Joints	1
544001-2440	Vacuum Adapter for Rotating Receiver 544000, 24/40 Joint	1

### Accessories

Part Number	Description	Case Qty
675300-0024	Size 24 Polyacetyl, Standard Taper Clamp, Green, Fits joint sizes 24/40, 24/25	12

## Four Place Rotating Distillation Receiver

- Rotating distillation receiver allows four fractions to be collected
- Vacuum adapter has a vertical orientation
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints	Case Qty
288100-0000	15	14/20	1

### Replacement Parts

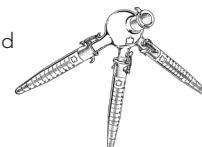
Part Number	Description	Case Qty
288101-0000	Vacuum Adaptor for 288100-0000	1
287902-0000	Distribution Adapter for 287900	1

### Accessories

Part Number	Description	Case Qty
675300-0014	Size 14 Polyacetyl, Standard Taper Clamp, Yellow, Fits joint sizes 14/20, 14/35	12

## Short Path Distillation Receivers

- 135° angle between center line of condenser and receivers enables distillate to fall directly into receivers
- This receiver can be used with the 284800 short path distillation apparatus
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Reservoir Capacity (mL)	Standard Taper Joints	Case Qty
288050-0000	12	14/20	1

### Replacement Parts

Part Number	Description	Case Qty
288250-0000	Distillation Receiver Graduated Tube with Hooks; Capacity (mL) 12; Overall Length (mm) 142; Standard Taper Joints 14/20; Grad Intervals (mL) 0.1-2 in 0.1, 2-12 in 0.2	1
288051-0000	Distribution Adaptor for 288050-0000	1

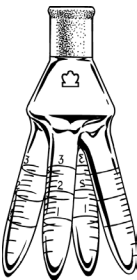
### Accessories

Part Number	Description	Case Qty
675300-0014	Size 14 Polyacetyl, Standard Taper Clamp, Yellow, Fits joint sizes 14/20, 14/35	12

## Cow Type Distillation Receiver with Single Standard Taper Joint

This receiver is a component of the 284800 distillation apparatus.

- Cow-type having single Standard Taper joint at the top
- Four graduated 3 mL lower receiver tubes are accessible via a syringe or pipet for product recovery
- Receiver tubes are graduated
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints	Case Qty
288200-0000	3 per tube	14/20	1

## Distillation Receiver Graduated Tube

Distillation receiver graduated tube

- Useful as a centrifuge or extraction tube as well as a receiver
- Uses Standard Taper polyacetal clamps, not included
- 288250 series has hooks for springs; 288251 series does not
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL); Standard Taper Joints	Feature	Case Qty
288250-0000	12; 14/20	Hooks	1
288251-0000	12; 14/20	No Hooks	1
288251-0040	40; 14/20	No Hooks	1

## Bidwell-Sterling Moisture Test Distillation Receiver

Bidwell-Sterling designed for the determination of moisture in foods and organics.

- 751351 has a drip tip
- Made to ASTM specifications E123
- Also conforms to many methods of the American Oil Chemists Society
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity; Graduation Intervals (mL)	Standard Taper Joints	Case Qty
751350-0005	5; 0.1	24/40	1
751351-0005	5; 0.05	24/40	1

## Modified Dean Stark Distillation Receiver

- KIMAX® distilling receiver with full length Standard Taper 24/40 joints and a siphon return arm
- Sidearm bridge equalizes pressure
- Designed from ASTM Specification E123, Style A
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints	Case Qty
22012-10	10	24/40	1

## Dean Stark Distillation Receiver

Ideally suited for the determination of water content in organic solvents.

- Dean Stark design for solvents that are classified as either heavier than water or lighter than water
- Unit is compact in both the Standard Taper 24/40 and Standard Taper 14/20 sizes
- Lower three-way stopcock provides a sample port, and the apparatus can be drained without disassembly
- Trap area is positioned well above the boiling flask
- Thermometer joint is Standard Taper 10/30. Stopcock plug is 822501-0002
- Ref: Design suggested by Dr. A. J. East, Celanese Corp
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints	Case Qty
535801-0000	20	24/40	1

## Round Bottom Short Neck Flask

- KIMAX® round bottom boiling flask with a short neck and a medium length Standard Taper joint
- Ref: ASTM Method D322
- Designed from ASTM Specification E1403, Type II, Class III requirements
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints	Case Qty
25276-100	100	14/20	12
25276-250	250	14/20	12
25277-100	100	19/22	12
25277-250	250	19/22	12
25277-500	500	19/22	12
25285-50	50	24/40	12
25285-100	100	24/40	12
25285-200	200	24/40	12
25285-250	250	24/40	12
25285-300	300	24/40	12
25285-500	500	24/40	12
25285-1000	1000	24/40	12
25285-2000	2000	24/40	6
25285-3000	3000	24/40	6

## Round Bottom Flask with Tooled Top

- KIMAX® round-bottomed boiling flask
- Reinforced tooled top
- Designed from ASTM Specification E1403, Type II, Class I, requirements
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Rubber Stopper Size	Case Qty
25200-250	250	5	12
25200-500	500	6	6

## Single Standard Taper Neck Round Bottom Flasks

- Single neck flask with a Standard Taper outer joint
- Heavy wall
- Ref: ASTM Method D95
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints	Case Qty
294000-0005	5	14/20	1
294010-0005	5	19/22	1
294000-0010	10	14/20	1
294010-0010	10	19/22	1
294000-0015	15	14/20	1
294010-0015	15	19/22	1
294000-0025	25	14/20	1
294010-0025	25	19/22	1
294000-0035	35	14/20	1
294000-0050	50	14/20	1
294010-0050	50	19/22	1
601000-0124	50	24/40	1
601000-0129	50	29/42	1
294000-0100	100	14/20	1
294010-0100	100	19/22	1
601000-0224	100	24/40	1
601000-0229	100	29/42	1
601000-2224	125	24/40	1
601000-2229	125	29/42	1
601000-0324	200	24/40	1
294000-0250	250	14/20	1
294010-0250	250	19/22	1
601000-0424	250	24/40	1
601000-0429	250	29/42	1
601000-0524	300	24/40	1
601000-0526D	300	29/26	1
601000-0529	300	29/42	1
294000-0500	500	14/20	1
294010-0500	500	19/22	1
601000-0624	500	24/40	1
601000-0629	500	29/42	1
601000-0645	500	45/50	1
601000-0724	1000	24/40	1
601000-0729	1000	29/42	1
601000-0734	1000	34/45	1
601000-0745	1000	45/50	1
601000-0755	1000	55/50	1
601000-0824	2000	24/40	1
601000-0829	2000	29/42	1
601000-0845	2000	45/50	1
601000-0924	3000	24/40	1
601000-0929	3000	29/42	1
601000-0945	3000	45/50	1
601000-1024	5000	24/40	1
601000-1045	5000	45/50	1
601000-1145	12000	45/50	1
601000-1255	22000	55/50	1

## Long Single Neck Round Bottom Flasks

- Single long neck flask with a Standard Taper outer joint
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints	Case Qty
296250-0010	10	14/20	1
296250-0050	50	14/20	1
601010-0129	50	29/42	1
296250-0100	100	14/20	1
601010-0224	100	24/40	1
601010-2524	150	24/40	1
601010-0324	200	24/40	1
601010-0429	250	29/42	1
601010-0524	300	24/40	1
601010-0624	500	24/40	1
601010-0629	500	29/42	1
601010-0724	1000	24/40	1
601010-0729	1000	29/42	1
601010-0924	3000	24/40	1

## Single Standard Taper Neck with Side Tubulation

- Heavy wall round-bottom flask with Standard Taper center neck with side Standard Taper tubulation
- Side tubulation has one 773900 rubber adapter with a 1/4" hole for access with thermometers or gas inlet tubes
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints	Case Qty
294410-0000	250	19/22	1

## Single Spherical Joint Neck Round Bottom Flasks

- Single neck flask with a Spherical Joint socket
- Useful as rotary evaporator condensate collection flask or as a replacement for European designation KS 20/35
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints	Case Qty
601050-0128	50	28/15	1
601050-0136	50	35/25	1
601050-0236	100	35/25	1
601050-0428	250	28/15	1
601050-0628	500	28/15	1
601050-0635	500	35/20	1
601050-0636	500	35/25	1
601050-0735	1000	35/20	1
601050-0736	1000	35/25	1
601050-0835	2000	35/20	1
601050-0836	2000	35/25	1
601050-0935	3000	35/20	1
601050-0936	3000	35/25	1
601050-1036	5000	35/25	1



## Angled Two Neck Round Bottom Flask

Distilling round bottom flask with angled side neck

- Two-neck heavy wall flask with Standard Taper outer joints
- Side neck is angled
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints: Center, Side	Case Qty
294990-0010	10	14/20, 14/20	1
294990-0015	15	14/20, 14/20	1
294990-0025	25	14/20, 14/20	1
295000-0025	25	19/22, 14/20	1
295010-0025	25	19/22, 19/22	1
294990-0050	50	14/20, 14/20	1
295010-0050	50	19/22, 19/22	1
294990-0100	100	14/20, 14/20	1
295010-0100	100	19/22, 19/22	1
605020-0210	100	24/40, 41942	1
605020-0224	100	24/40, 24/40	1
294990-0250	250	14/20, 14/20	1
295010-0250	250	19/22, 19/22	1
605020-0610	250	24/40, 41942	1
605020-0624	250	24/40, 24/40	1
605020-4824	250	29/42, 24/40	1
294990-0500	500	14/20, 14/20	1
605020-1010	500	24/40, 41942	1
605020-1110	500	29/42, 41942	1
605020-1024	500	24/40, 24/40	1
605020-0019	1000	19/38, 19/38	1
605020-1410	1000	24/40, 41942	1
605020-1419	1000	24/40, 19/38	1
605020-1424	1000	24/40, 24/40	1
605020-1524	1000	29/42, 24/40	1
605020-1824	2000	24/40, 24/40	1
605020-2224	3000	24/40, 24/40	1
605020-2624	5000	24/40, 24/40	1
605020-2924	5000	45/50, 24/40	1

## Two Vertical Neck Round Bottom Flasks

Distilling round bottom flask with two vertical necks

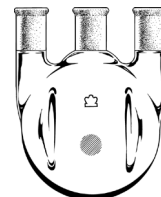
- Two-neck heavy wall flask with Standard Taper outer joints on both vertical necks
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints: Center, Side	Case Qty
605000-0224	100	24/40, 24/40	1
605000-0624	250	24/40, 24/40	1
605000-1024	500	24/40, 24/40	1
605000-1224	500	34/45, 24/40	1
605000-1424	1000	24/40, 24/40	1
605000-1624	1000	34/45, 24/40	1
605000-1824	2000	24/40, 24/40	1
605000-2024	2000	34/45, 24/40	1

## Indented Three Vertical Neck Round Bottom Flasks

- This flask is also referred to as a Morton flask
- Heavy wall
- Three-neck round bottom flask with Standard Taper outer joints, all vertical
- Indentations enhance agitation when stirring
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints: Center, Side	Case Qty
609400-0224	500	24/40, 24/40	1
609400-0624	1000	24/40, 24/40	1
609400-1324	2000	45/50, 24/40	1
609400-2124	5000	45/50, 24/40	1

## Three Vertical Neck Round Bottom Flask

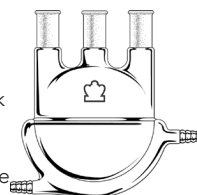
- Three-neck heavy wall round-bottom flask with Standard Taper outer joints
- Side necks are vertical
- Ref: ASTM Method D1744
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints: Center, Side	Case Qty
606000-0224	100	24/40, 24/40	1
606000-0624	250	24/40, 24/40	1
606000-4824	250	29/42, 24/40	1
606000-4829	250	29/42, 29/42	1
606000-1024	500	24/40, 24/40	1
606000-1124	500	29/42, 24/40	1
606000-1129	500	29/42, 29/42	1
606000-1224	500	34/45, 24/40	1
606000-1424	1000	24/40, 24/40	1
606000-1524	1000	29/42, 24/40	1
606000-1529	1000	29/42, 29/42	1
606000-1624	1000	34/45, 24/40	1
606000-1729	1000	45/50, 29/42	1
606000-1824	2000	24/40, 24/40	1
606000-1924	2000	29/42, 24/40	1
606000-1929	2000	29/42, 29/42	1
606000-2124	2000	45/50, 24/40	1
606000-2224	3000	24/40, 24/40	1
606000-2324	3000	29/42, 24/40	1
606000-2329	3000	29/42, 29/42	1
606000-2524	3000	45/50, 24/40	1
606000-2624	5000	24/40, 24/40	1
606000-2824	5000	34/45, 24/40	1
606000-2924	5000	45/50, 24/40	1

## Jacketed Three Vertical Neck Round Bottom Flasks

- Jacketed three-neck round-bottom reaction flask with Standard Taper outer joints, all vertical
- Heavy wall
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints: Center, Side	Case Qty
609500-0524	500	24/40, 24/40	1

## Full Length Three Vertical Neck Round Bottom Flasks

- KIMAX® flask with a center neck that extends above the side necks
- Full length Standard Taper 24/40 joints
- Designed from ASTM Specification E1378, Type III requirements
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints	Case Qty
26246-500	500	24/40	1

## Angled Three Neck Round Bottom Flask

- Three-neck heavy wall round-bottom flask with Standard Taper outer joints
- Side necks are angled
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints: Center, Side	Case Qty
295550-0015	15	14/20, 14/20	1
295550-0015	15	19/22, 14/20	1
295550-0025	25	14/20, 14/20	1
295510-0025	25	19/22, 19/22	1
295550-0050	50	14/20, 14/20	1
295500-0050	50	19/22, 14/20	1
295510-0050	50	19/22, 19/22	1
295550-0100	100	14/20, 14/20	1
295500-0100	100	19/22, 14/20	1
295510-0100	100	19/22, 19/22	1
606020-0219	100	24/40, 19/38	1
606020-0224	100	24/40, 24/40	1
295550-0250	250	14/20, 14/20	1
295500-0250	250	19/22, 14/20	1
295510-0250	250	19/22, 19/22	1
606020-0624	250	24/40, 24/40	1
606020-4829	250	29/42, 29/42	1
295550-0500	500	14/20, 14/20	1
295510-0500	500	19/22, 19/22	1
606020-1024	500	24/40, 24/40	1
606020-1124	500	29/42, 24/40	1
606020-1129	500	29/42, 29/42	1
606020-1224	500	34/45, 24/40	1
606020-1324	500	45/50, 24/40	1
606020-1424	1000	24/40, 24/40	1
606020-1529	1000	29/42, 29/42	1
606020-1624	1000	34/45, 24/40	1
606020-1824	2000	24/40, 24/40	1
606020-1924	2000	29/42, 24/40	1
606020-1929	2000	29/42, 29/42	1
606020-2124	2000	45/50, 24/40	1
606020-2224	3000	24/40, 24/40	1
606020-2624	5000	24/40, 24/40	1
606020-2724	5000	29/42, 24/40	1
606020-2924	5000	45/50, 24/40	1

## Four Vertical Neck Round Bottom Flasks

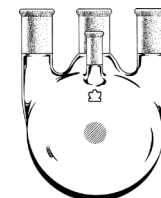
- Four-neck heavy wall round bottom flask with Standard Taper outer joints, all vertical
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints: Center, Side	Case Qty
607000-4724	250	24/40, 24/40	1
607000-0224	500	24/40, 24/40	1
607000-0324	500	29/42, 24/40	1
607000-0329	500	29/42, 29/42	1
607000-0424	500	34/45, 24/40	1
607000-0524	500	45/50, 24/40	1
607000-0624	1000	24/40, 24/40	1
607000-0724	1000	29/42, 24/40	1
607000-0729	1000	29/42, 29/42	1
607000-0824	1000	34/45, 24/40	1
607000-0924	1000	45/50, 24/40	1
607000-1124	2000	29/42, 24/40	1
607000-1129	2000	29/42, 29/42	1
607000-1224	2000	34/45, 24/40	1
607000-1324	2000	45/50, 24/40	1
607000-1529	3000	29/42, 29/42	1
607000-1624	3000	34/45, 24/40	1
607000-1724	3000	45/50, 24/40	1
607000-1729	3000	45/50, 29/42	1
607000-1924	5000	29/42, 24/40	1
607000-2024	5000	34/45, 24/40	1
607000-2124	5000	45/50, 24/40	1

## Four Vertical Neck Round Bottom Flasks with Thermometer Joint

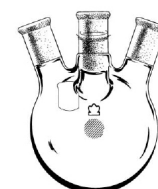
- Four-neck heavy wall round-bottom flask with Standard Taper outer joints, all vertical
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints: Center, Side	Case Qty
606200-0124	250	29/42, 24/40	1
606200-0224	500	24/40, 24/40	1
606200-0324	500	29/42, 24/40	1
606200-0424	500	34/45, 24/40	1
606200-0624	1000	24/40, 24/40	1
606200-0724	1000	29/42, 24/40	1
606200-0824	1000	34/45, 24/40	1
606200-1024	2000	24/40, 24/40	1

## Four Angled Side Neck Round Bottom Flasks

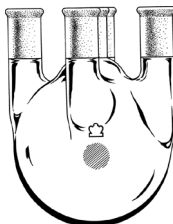
- Four-neck heavy wall flask with Standard Taper outer joints
- Side necks are angled
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints: Center, Side	Case Qty
295790-0025	25	14/20, 14/20	1
295790-0050	50	14/20, 14/20	1
295790-0100	100	14/20, 14/20	1
295790-0250	250	14/20, 14/20	1
606300-0124	250	24/40, 24/40	1
606300-0224	500	24/40, 24/40	1

## Five Vertical Neck Round Bottom Flasks

- Five-neck heavy wall round-bottom flask with vertical Standard Taper outer joints
- Side necks are 90° apart
- Where possible, vertical necks will be supplied
- On small flasks having large necks, positioning may have to be made at an angle
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints: Center, Side	Case Qty
607500-0224	500	24/40, 24/40	1
607500-0624	1000	24/40, 24/40	1
607500-1024	2000	24/40, 24/40	1

## Jointed Distilling Flasks

- Standard Taper 24/40
- 1000 mL capacity
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints	Case Qty
605030-1524	1000	24/40	1

## Flat Bottom Short Neck Boiling Flask

- KIMAX® boiling flask with a short Standard Taper 24/40 joint neck
- Designed from ASTM Specification E1403, Type I, Class IV requirements
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Case Qty
25055-125	125	12
25055-250	250	12
25055-300	300	12
25055-500	500	12
25055-1000	1000	12

## Flat Bottom Florence Flask

- KIMAX® flasks have a low coefficient of expansion to resist thermal shock
- They are constructed with sturdy walls to minimize mechanical breakage and reinforced tooled tops for strength and a secure stopper fit
- Designed from ASTM Specification E1403, Type I, Class I requirements
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Rubber Stopper Size	Case Qty
25000-500	500	6	6
25000-1000	1000	8	6
25000-6000	6000	11	1

## Heavy Wall Flat Bottom Boiling Flask

- Single neck flat bottom heavy wall flask with a Standard Taper outer joint
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints	Case Qty
601500-0124	50	24/40	1
601500-2124	100	24/40	1
601500-0224	125	24/40	1
601500-0324	250	24/40	1
601500-0545	250	45/50	1
601500-0424	300	24/40	1
601500-0429	300	29/42	1
601500-0524	500	24/40	1
601500-0529	500	29/42	1
601500-0624	1000	24/40	1
601500-0629	1000	29/42	1
601500-0645	1000	45/50	1
601500-0824	2000	24/40	1
601500-0829	2000	29/42	1
601500-0845	2000	45/50	1
601500-0929	3000	29/42	1
601500-1024	6000	24/40	1
601500-1045	6000	45/50	1

## RAY-SORB® Boiling Flask with a Short neck and Full Length 24/40 Standard Taper joint

- KIMAX® boiling flask is RAY-SORB® processed to provide protection to solutions sensitive to light of the shorter wavelengths
- Less than 1% transmission below 400 nm and approximately 5% transmission from 400-600 nm
- Short neck
- Flat bottom
- Full length 24/40 joint
- Designed from ASTM Specification E1403, Type I, Class IV requirements
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements and then RAY-SORB® processed

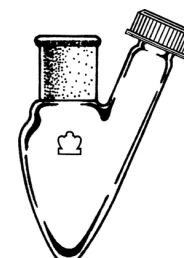


Part Number	Capacity (mL)	Case Qty
25057-250	250	1

## Pear Shaped BEVEL-SEAL™ Distilling Flasks with Side Arm

Flask designed for vacuum distillations.

- Threaded sidearm has an open-top nylon cap
- BEVEL-SEAL™
- Heavy wall
- Cap can be coupled with an o-ring to accommodate a thermometer or a gas inlet tube
- A penetrable liner may be used to sample a reaction mixture using a syringe
- Supplied complete with one size 010 FKM o-ring and one PTFE-faced silicone liner
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints	Case Qty
251450-0015	15	14/20	1

## Pear Shaped Boiling Flasks

- Single-neck flask with a Standard Taper outer joint at top
- Heavy wall
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints	Case Qty
294250-0005	5	14/20	1
294260-0005	5	19/22	1
294250-0010	10	14/20	1
294260-0010	10	19/22	1
294250-0015	15	14/20	1
294260-0015	15	19/22	1
294250-0025	25	14/20	1
294260-0025	25	19/22	1
294250-0035	35	14/20	1
294260-0035	35	19/22	1
294250-0050	50	14/20	1
294260-0050	50	19/22	1
608700-0124	50	24/40	1
294250-0075	75	14/20	1
294260-0075	75	19/22	1
294250-0100	100	14/20	1
294260-0100	100	19/22	1
608700-0224	100	24/40	1
608700-0229	100	29/42	1
608700-0424	200	24/40	1
294250-0250	250	14/20	1
608700-2524	250	24/40	1
608700-0524	300	24/40	1
608700-0624	500	24/40	1

## Pear Shaped Heavy Wall Distilling Flasks with Side Tubulation

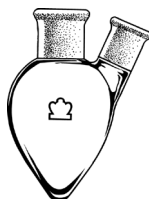
- Pear-shaped flask with a Standard Taper outer joint and 7 mm ID side tabulation
- Heavy wall
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints	Case Qty
294500-0010	10	14/20	1

## Pear Shaped Two Neck Heavy Wall Distilling Flasks

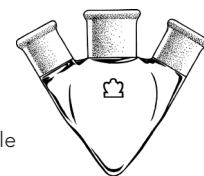
- Two-neck flask with outer joints
- Heavy wall
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints: Center, Side	Case Qty
294750-0010	10	14/20, 10/18	1
294760-0050	50	14/20, 14/20	1

## Pear Shaped Three Neck Heavy Wall Distilling Flasks

- Three-neck flask with outer joints
- Heavy wall
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Standard Taper Joints: Center, Side	Case Qty
295740-0050	50	14/20, 14/20	1

## Tooled Neck Kjeldahl Flasks

- KIMAX® flasks have a reinforced bead at the top
- The 500 and 800 mL sizes have tooled necks to provide an accurate stopper fit and to reduce the possibility of breakage in use
- The 500 and 800 mL size necks are tooled to take rubber stoppers especially made for Kjeldahl flasks
- The 10 and 30 mL are designed from ASTM Specification E147 and larger sizes are designed from ASTM Specification E1377, Type I requirements
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Rubber Stopper Size	Case Qty
27400-30	30	0	18
27400-100	100	1	24
27400-500	500	6	24
27400-800	800	7	18

## Accessories

Part Number	Description	Case Qty
16040-55	Kjeldahl Cylindrical Connecting Bulb, Approx. Diameter 55 mm, Approx. Length 120 mm, 11-12mm Lower Tube OD	1



## Engler Distilling Flasks

KIMAX® distilling flask. Distillation.

- Sidearm tube is sealed at an angle of 75° from the neck and is 137 ± 3 mm from the bottom of the flask
- Designed from ASTM Specification E133 and intended for use in ASTM D86, D233, D801, and D802
- Ref: ASTM Method D86
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Rubber Stopper Size	Case Qty
26015-125	125	2	24

## Engler Distilling Flasks with Three Reference Lines

For use with *Haage automatic distillation apparatus* or others that call for three thermometer depth insertions.

- KIMAX® distilling flask, same as 26015-125, except with three reference lines
- Ref: ASTM D86
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Rubber Stopper Size	Case Qty
26016-125	125	2	24

## Barrett Distilling Flasks

- Barrett flasks made to ASTM E133 specifications
- These flasks feature smooth, consistent, heavy walls for uniform heating and minimal breakage
- Supplied with one cork for the sidearm
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements



Part Number	Capacity (mL)	Rubber Stopper Size	Case Qty
610910-0125	125	2	12
610900-0200	200	3	24

## FLOW-WATCHMAN™ Flowmeter

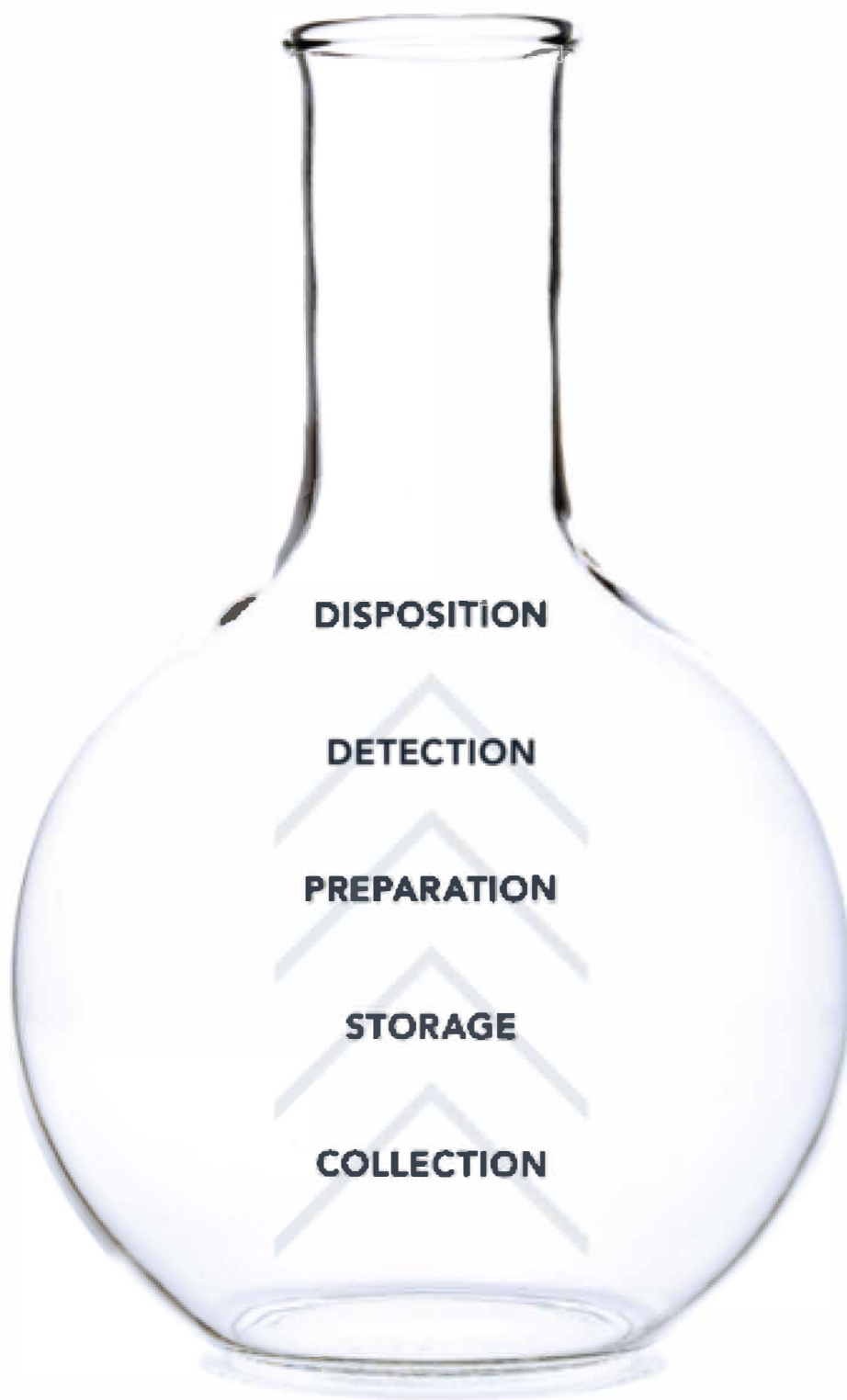
Keep an eye on cooling water with the Flow-Watchman™ - a device for the visual indication of liquid flow.



- Molded of clear polycarbonate with an inert nylon indicator ball
- Flow indication is visible from a distance
- Usable with water down to a flow range of approximately 100 mL/minute, which is adequate for even the smallest cold finger condensers
- The upper flow limit is in excess of 1 liter/minute
- Unit operates in any position
- Lightweight all-plastic construction
- Requires no auxiliary support

Part Number	Fits Tubing ID (inches)	Max Pressure (psi)	Case Qty
626250-0000	41643	10	1





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