

## 47 mm ULTRA-WARE® Microfiltration Assembly with Fritted Glass Support and GL 45 Style Bottle

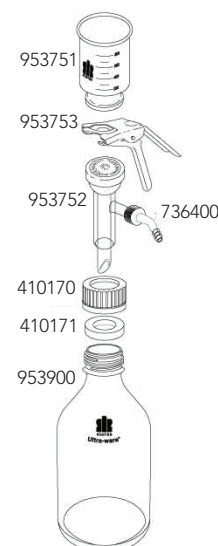
This filtration assembly is designed to collect filtrate directly into a media-style bottle.

- Supplied with funnel, clamp, fritted glass support base, tubing adapter, PBT cap, sealing ring and vacuum/pressure bottle
- Support base connects directly to bottle with unique cap and sealing ring
- Sealed-in 40-60 micron porosity fritted glass disc
- Vacuum and pressure rated from -1 to 1.5 bar
- Filtrate is collected directly into a media-type bottle when using a standard membrane filtration assembly
- All components are steam autoclavable
- 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
953750-5347	1

### Replacement Parts

Part Number	Description	Case Qty
953753-0000	47 mm Anodized Aluminum Clamp	1
953752-5047	47 mm Fritted Glass Support Base for Microfiltration Assembly	1
736400-1413	Tubing Adapter for Filtration Assembly, 1/4" x 13-425	1
410171-4226	42 mm PTFE/Silicone Sealing Ring	1
953751-0000	300 mL Glass Funnel, 47 mm	1
410170-4534	PBT GL-45 Cap with 34 mm Opening	1
953900-0010	1000 mL Vacuum/Pressure Bottle, 1.5 bar Operating Pressure	1



### Accessories

Part Number	Description	Case Qty
923910-0110	Pressure/Vacuum Diaphragm Pump, 115 VAC, 60 Hz, 4.2 Amps, Max free air capacity 1.1 CFM, Ultimate vacuum 25.5" Hg, Noise level <70 DB, 14.4 lb/6.5 kg; 3/8" hose barbs on inlet and outlet	1
953771-0000	500 mL Glass Funnel, 47 mm	1
953781-0000	1000 mL Glass Funnel, 47 mm	1

## 47 mm ULTRA-WARE® Microfiltration Assembly with Stainless Steel Support and GL 45 Style Bottle

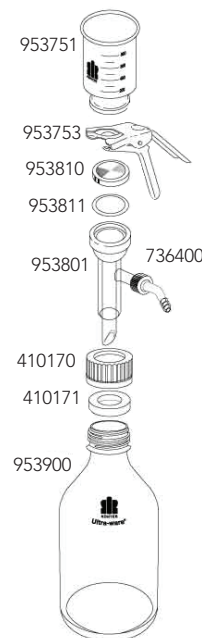
This adapter assembly is designed to allow connection of a 47 mm or 90 mm filtration support base with a straight drip tip to a bottle or reservoir with a GL 45 thread. It has a stainless steel support and is recommended for filtering viscous or proteinaceous solutions or to produce ultra-clean filtrate.

- Supplied with funnel, clamp, 304 stainless steel support screen, PTFE gasket, glass support base, tubing adapter with o-ring, PBT cap, sealing ring and vacuum/pressure bottle
- Filtrate is collected directly into a media-type bottle when using a standard membrane filtration assembly
- All components are steam autoclavable
- 80 x 80 304 stainless steel mesh, 0.0055" opening size, 19.4% open area, 0.007" wire diameter
- 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
953800-5347	1

### Replacement Parts

Part Number	Description	Case Qty
953753-0000	47 mm Anodized Aluminum Clamp	1
953810-0000	Stainless Steel Support Screen for 47 mm Filtration Assembly, 80 x 80 mesh, 304 stainless steel, 0.0095" opening size, 19.4% open area, 0.007" wire diameter	1
953811-4701	47 mm PTFE Support Screen Gasket	1
953801-5047	47 mm Glass Support Base	1
736400-1413	Tubing Adapter for Filtration Assembly, 1/4" x 13-425, Polypropylene with size 108 FKM O-ring	1
410171-4226	42 mm PTFE/Silicone Sealing Ring	1
953751-0000	300 mL Glass Funnel, 47 mm	1
410170-4534	PBT GL-45 Cap with 34 mm Opening	1
953900-0010	1000 mL Vacuum/Pressure Bottle, 1.5 bar Operating Pressure	1



### Accessories

Part Number	Description	Case Qty
923910-0110	Pressure/Vacuum Diaphragm Pump, 115 VAC, 60 Hz, 4.2 Amps, Max free air capacity 1.1 CFM, Ultimate vacuum 25.5" Hg, Noise level <70 DB, 14.4 lb/6.5 kg; 3/8" hose barbs on inlet and outlet	1
953771-0000	500 mL Glass Funnel, 47 mm	1
953781-0000	1000 mL Glass Graduated Funnel, 47 mm	1

### 47 mm ULTRA-WARE® Microfiltration Assembly with Fritted Glass Support

This 47 mm vacuum microfiltration assembly is used for general filtration and is designed to handle up to 500 mL of sample liquids for the analysis of particulate or microbiological contamination.

- Supplied with a 40-60 micron porosity fritted glass support base, a 300 mL graduated funnel, an anodized aluminum clamp and a #8 silicone stopper
- Funnels are graduated from 100 to 250 mL in 25 mL increments
- Prefilter size is 35 mm
- Approximate filter area is 9.6 cm<sup>2</sup>
- Connection to our 1 liter filtration flask (available as an accessory) is made with a #8 silicone stopper
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements

Part Number	Funnel Capacity (mL)	Overall Height (mm), Clamp Width (mm)	Case Qty
953755-0000	300	229 x 76	1

#### Replacement Parts

Part Number	Description	Case Qty
953753-0000	47 mm Anodized Aluminum Clamp	1
953752-0001	47 mm Fritted Glass Support Base	1
953751-0000	300 mL Glass Funnel 47 mm	1
953763-0801	#8 Silicone Stopper with 9/16" Hole for 1000 mL Filtration Flask	1



#### Accessories

Part Number	Description	Case Qty
953760-0000	1000 mL Filter Flask, #8 Stopper Joint, Fits Tubing ID 3/8"	1
953760-1002	1000 mL KimCote™ Filter Flask, #8 Stopper Joint, Fits Tubing ID 3/8"	1
953761-0000	100 mL Glass Funnel, 47 mm	1
953771-0000	500 mL Glass Funnel, 47 mm	1
953781-0000	1000 mL Glass Funnel, 47 mm	1

### 47 mm ULTRA-WARE® Microfiltration Assembly with PTFE-Faced Fritted Glass Support

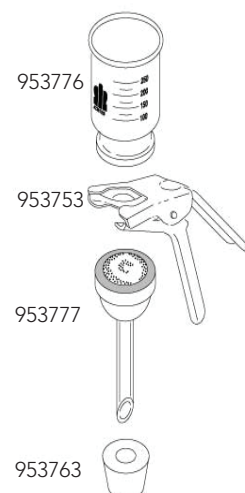
This 47 mm vacuum microfiltration assembly is used for autoclaving with the filter in place and is designed to handle up to 500 mL of sample liquids for the analysis of particulate or microbiological contamination.

- Supplied with a 40-60 micron porosity PTFE-faced fritted glass support base, a 300 mL PTFE-faced graduated funnel, an anodized aluminum clamp and a #8 silicone stopper
- PTFE coating prevents membrane from adhering to ground glass surface
- Funnels are graduated from 100 to 250 mL in 25 mL increments
- Prefilter size is 35 mm
- Approximate filter area is 9.6 cm<sup>2</sup>
- Connection to our 1 liter filtration flask (available as an accessory) is made with a #8 silicone stopper
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements.

Part Number	Funnel Capacity (mL)	Case Qty
953780-0000	300	1

#### Replacement Parts

Part Number	Description	Case Qty
953753-0000	47 mm Anodized Aluminum Clamp	1
953777-0001	47 mm PTFE-Faced Fritted Glass Support Base	1
953776-0000	300 mL PTFE-Faced Glass Funnel, 47 mm	1
953763-0801	#8 Silicone Stopper with 9/16" Hole for 1000 mL Filtration Flask	1



#### Accessories

Part Number	Description	Case Qty
953760-0000	1000 mL Filter Flask, #8 Stopper Joint, Fits Tubing ID 3/8"	1
953760-1002	1000 mL KimCote™ Filter Flask, #8 Stopper Joint, Fits Tubing ID 3/8"	1

### 47 mm ULTRA-WARE® Microfiltration Assembly with Stainless Steel Support

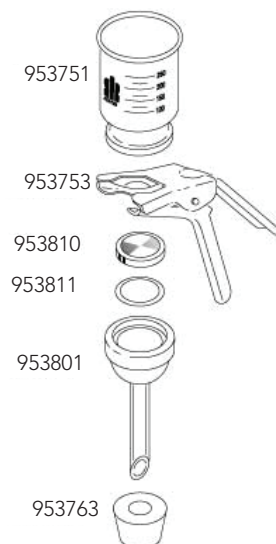
This 47 mm vacuum microfiltration assembly is designed to handle up to 500 mL of sample liquids for the analysis of particulate or microbiological contamination. It has a stainless steel support and is used for filtering viscous or proteinaceous solutions or to produce ultra-clean filtrate.

- Supplied with a 304 stainless steel support screen, a PTFE support screen gasket, a glass support base, a 300 mL graduated funnel, an anodized aluminum clamp and a #8 silicone stopper
- Funnels are graduated from 100 to 250 mL in 25 mL increments
- Prefilter size is 35 mm
- Approximate filter area is 9.6 cm<sup>2</sup>
- 80 x 80 304 stainless steel mesh, 0.0055" opening size, 19.4% open area, 0.007" wire diameter
- Connection to our 1 liter filtration flask (available as an accessory) is made with a #8 silicone stopper
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements

Part Number	Funnel Capacity (mL)	Overall Height (mm), Clamp Width (mm)	Case Qty
953805-0000	300	229 x 76	1

#### Replacement Parts

Part Number	Description	Case Qty
953753-0000	47 mm Anodized Aluminum Clamp	1
953810-0000	Stainless Steel Support Screen for 47 mm Filtration Assembly, 80 x 80 mesh, 304 stainless steel, 0.0095" opening size, 19.4% open area, 0.007" wire diameter	1
953811-0000	47 mm PTFE Gasket, 25/package (5 included with Glassware Set)	25
953801-0001	47 mm Glass Support Base	1
953751-0000	300 mL Glass Funnel, 47 mm	1
953763-0801	#8 Silicon Stopper with 9/16" Hole for 1000 mL Filtration Flask	1



#### Accessories

Part Number	Description	Case Qty
953760-0000	1000 mL Filter Flask, #8 Stopper Joint, 3/8" Hose Connection	1
953760-1002	1000 mL KimCote™ Filter Flask, #8 Stopper Joint, Fits Tubing ID 3/8"	1
953761-0000	100 mL Glass Funnel, 47 mm	1
953771-0000	500 mL Glass Funnel, 47 mm	1
953781-0000	1000 mL Glass Funnel, 47 mm	1

### 47 mm ULTRA-WARE® Microfiltration Assembly with Fritted Glass Support and Ground Joi

The 47 mm filtration apparatus with fritted glass support is recommended for routine filtration analysis of corrosive liquids and the removal of particulates from HPLC solvents.

- The ground joint connection eliminates the phthalate contamination that can occur when using silicone or neoprene stoppers
- The support base has a 40-60 micron porosity glass frit and an integral vacuum connection that is located above the drip tip to prevent contamination of the vacuum line with filtrate droplets
- Each apparatus is supplied with a funnel, an anodized aluminum clamp, a 47 mm fritted glass support base and a filtration flask
- Joints are 40/35
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements

Part Number	Flask Capacity (mL)	Funnel Capacity (mL)	Case Qty
953825-0000	1000	300	1
953835-0000	2000	500	1
953845-0000	4000	1000	1

#### Replacement Parts

Part Number	Description	Case Qty
953753-0000	47 mm Anodized Aluminum Clamp	1
953826-0000	47 mm, 40/35 Fritted Glass Support Base	1
953827-0000	1000 mL Flask, 40/35 inner joint	1
953828-0000	2000 mL Flask, 40/35 inner joint	1
953829-0000	4000 mL Flask, 40/35 inner joint	1
953751-0000	300 mL Glass Graduated Funnel, 47 mm	1
953771-0000	500 mL Glass Graduated Funnel, 47 mm	1
953781-0000	1000 mL Glass Graduated Funnel, 47 mm	1



#### Accessories

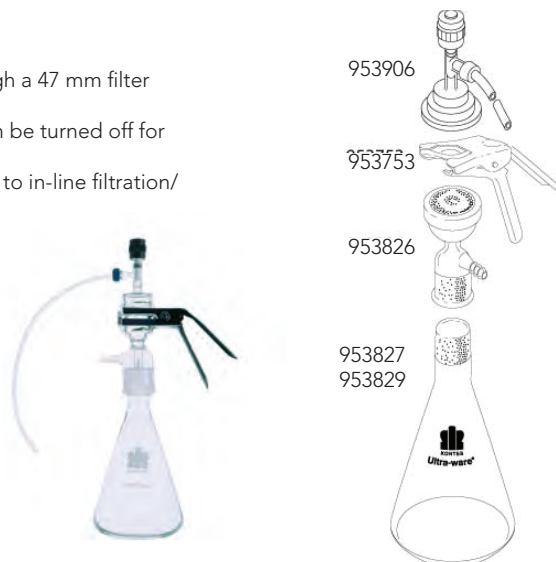
Part Number	Description	Case Qty
676001-4035	PTFE Sleeves for Greaseless Connections, Fit Standard Taper Joint 40/35	6
953830-0000	40/35 Glass Cap	1
953761-0000	100 mL Glass Funnel, 47 mm	1

### 47 mm ULTRA-WARE® Microfiltration Assembly with Solvent Pick-Up Adapter and Ground Joint

This all glass microfiltration system eliminates pouring HPLC solvents into funnels.

- The solvent pickup adapter draws solvent directly from a reagent bottle through a 47 mm filter and into a filter flask
- After filtration is complete, the HI-VAC valve on the solvent pickup adapter can be turned off for vacuum degassing
- Existing ULTRA-WARE® and Millipore filtration assemblies are easily converted to in-line filtration/degassing by replacing existing funnels with solvent pickup adapters. They clamp to support bases in the same way that funnels do
- This system comes with a solvent pickup adapter, a coarse porosity fritted glass filter base, an inner joint flask and an aluminum clamp
- Filter base has an integral hose connection above the filtrate drip tip to prevent contamination of the vacuum line with filtrate droplets
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements.

Part Number	Flask Capacity (mL)	Standard Taper Joints	Case Qty
953820-1047	1000	40/35	1
953820-4047	4000	40/35	1



#### Replacement Parts

Part Number	Description	Case Qty
953753-0000	47 mm Anodized Aluminum Clamp	1
953826-0000	47 mm, 40/35 Fritted Glass Support Base	1
953827-0000	1000 mL Flask, 40/35 inner joint	1
953829-0000	4000 mL Flask, 40/35 inner joint	1
953906-0047	47 mm Standard Pickup Adapter with 1/4" OD PTFE tubing	1

#### Accessories

Part Number	Description	Case Qty
953830-0000	40/35 Glass Cap	1

### 47 mm Microfiltration Assembly with Stainless Steel Support and Ground Joint

The 47 mm filtration apparatus with stainless steel support is recommended when filtering viscous or proteinaceous solutions to give the maximum flow rate.

- This apparatus is also used to produce ultra-clean filtrate since the stainless steel screen will not shed particles into the filtrate
- The ground joint connection eliminates the possible phthalate contamination that can occur when using silicone or neoprene stoppers
- Each apparatus is supplied with a funnel, an anodized aluminum clamp, a stainless steel support screen, a PTFE gasket, a 47 mm glass support base and a filtration flask
- 80 x 80 304 stainless steel mesh, 0.0055" opening size, 19.4% open area, 0.007" wire diameter
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements

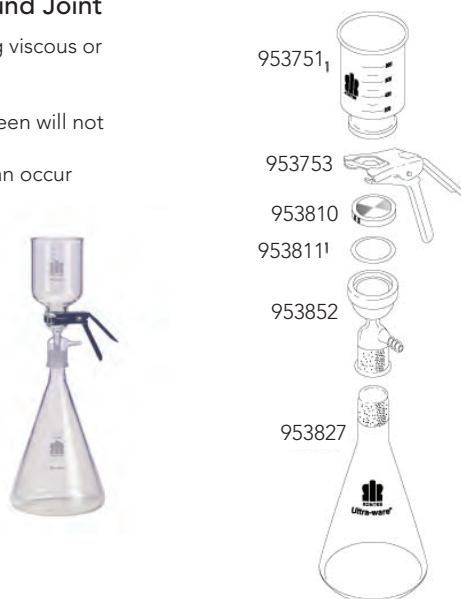
Part Number	Flask Capacity (mL)	Funnel Capacity (mL)	Case Qty
953855-1047	1000	300	1

#### Replacement Parts

Part Number	Description	Case Qty
953753-0000	47 mm Anodized Aluminum Clamp	1
953810-0000	Stainless Steel Support Screen for 47 mm Filtration Assembly, 80 x 80 mesh, 304 stainless steel, 0.0095" opening size, 19.4% open area, 0.007" wire diameter	1
953811-0000	47 mm PTFE Gasket, 25/package (5 included with Glassware Set)	25
953852-0001	47 mm, 40/35 Glass Base	1
953827-0000	1000 mL Flask, 40/35 inner joint	1
953751-0000	300 mL Glass Funnel, 47 mm	1

#### Accessories

Part Number	Description	Case Qty
676001-4035	PTFE Sleeves for Greaseless Connections, Fit Standard Taper Joint 40/35	6
953828-0000	2000 mL Flask, 40/35 inner joint	1
953829-0000	4000 mL Flask, 40/35 inner joint	1
953830-0000	40/35 Glass Cap	1
953761-0000	100 mL Glass Funnel, 47 mm	1
953771-0000	500 mL Glass Funnel, 47 mm	1
953781-0000	1000 mL Glass Funnel, 47 mm	1



### Adapter Assembly with GL 45 Thread

This adapter assembly is designed to allow connection of a 47 mm or 90 mm filtration support base with a straight drip tip to a bottle or reservoir with a GL 45 thread.

- Filtrate is collected directly into a media-type bottle when using a standard membrane filtration assembly
- All components are steam-autoclavable
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements.

Part Number	Screw Thread	Case Qty
179950-4532	GL 45	1

### Replacement Parts

Part Number	Description	Case Qty
179951-3213	Filtration Adapter Assembly Body Only, 33 expansion borosilicate glass	1
410171-2916	29 mm PTFE/Silicone Sealing Ring	1
410171-4226	42 mm PTFE/Silicone Sealing Ring	1
410170-3220	PBT GL-32 Cap with 20 mm Opening	1
736400-1413	Hose Barb Connector for Filtration Assembly, 1/4" x 13-425	1
410170-4534	PBT GL-34 Cap with 34 mm Opening	1



### Accessories

Part Number	Description	Case Qty
953907-0000	Solvent Bottle Adapter, GL 45 to 4L Solvent Bottle, Made from PBT, Autoclavable	1

### 90 mm ULTRA-WARE® Microfiltration Assembly with Fritted Glass Support

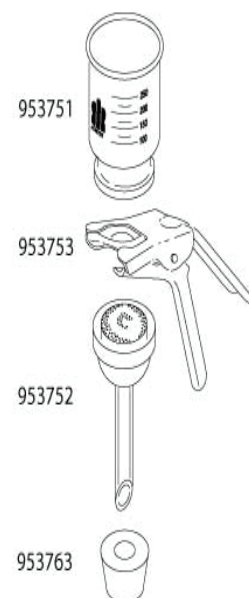
The 90 mm vacuum microfiltration assemblies are designed for large sample volumes or samples with high particulate loads that would tend to clog a 47 mm diameter filter. The assembly with fritted glass support is used for general filtration.

- Filtration rates are up to four times faster than 47 mm filters
- The funnel is graduated from 300 to 1000 mL in 50 mL increments
- Maximum funnel capacity is 1100 mL
- Prefilter size is 70 mm diameter; approximate filter area is 38.5 cm<sup>2</sup>
- Connection to our 1 liter filtration flask (available as an accessory) is made with a #8 silicone stopper
- Unit is supplied with a 40-60 micron porosity fritted glass support base, a 1 liter graduated funnel, an anodized aluminum clamp and a #8 silicone stopper
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements.

Part Number	Funnel Capacity (mL)	Overall Height (mm), Clamp Width (mm)	Case Qty
953755-0090	1000	160 x 350	1

### Replacement Parts

Part Number	Description	Case Qty
953753-0090	90 mm Anodized Aluminum Clamp	1
953752-0090	90 mm Fritted Glass Support Base	1
953781-0090	1000 mL Glass Funnel, 90 mm	1
953763-0801	#8 Silicone Stopper with 9/16" Hole for 1000 mL Filtration Flask	1



### Accessories

Part Number	Description	Case Qty
953760-0000	1000 mL Filter Flask, #8 Stopper Joint, Fits Tubing ID 3/8"	1
953760-1002	1000 mL KimCote™ Filter Flask, #8 Stopper Joint, Fits Tubing ID 3/8"	1

### 90 mm ULTRA-WARE® Microfiltration Assembly with Replaceable Fritted Glass Support

The 90 mm vacuum microfiltration assemblies are designed for large sample volumes or samples with high particulate loads that would tend to clog a 47 mm diameter filter. The assembly with replaceable fritted glass support is used for general filtration.

- Filtration rates are up to four times faster than 47 mm filters
- The funnel is graduated from 300 to 1000 mL in 50 mL increments
- Maximum funnel capacity is 1100 mL
- Prefilter size is 70 mm diameter and the approximate filter area is 38.5 cm<sup>2</sup>
- Connection to our 1 liter filtration flask (available as an accessory) is made with a #8 silicone stopper
- Unit is supplied with a 40-60 micron porosity fritted glass disc, a 90 mm glass support base, a 1000 mL graduated funnel, an anodized aluminum clamp and #8 silicone stopper
- The fritted glass support disc can be replaced if it becomes clogged or exchanged if sample-to-sample cross-contamination is a concern
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements

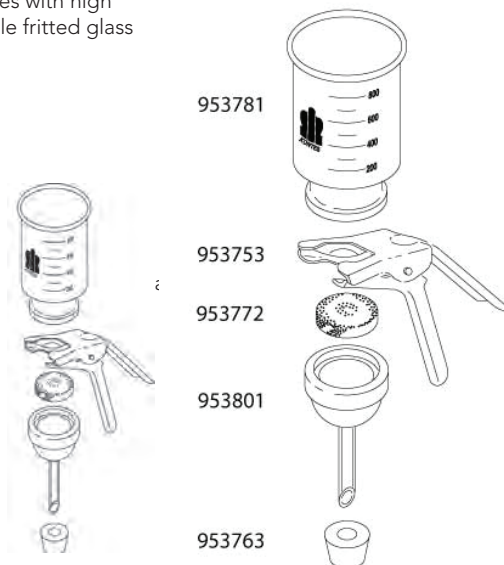
Part Number	Funnel Capacity (mL)	Overall Height (mm), Clamp Width (mm)	Case Qty
953770-0090	1000	350 x 160	1

#### Replacement Parts

Part Number	Description	Case Qty
953753-0090	90 mm Anodized Aluminum Clamp	1
953772-0090	90 mm 40-60 micron porosity Fritted Glass Support Disc	1
953801-0090	90 mm Glass Support Base	1
953781-0090	1000 mL Glass Funnel, 90 mm	1
953763-0801	#8 Silicone Stopper with 9/16" Hole for 1000 mL Filtration Flask	1

#### Accessories

Part Number	Description	Case Qty
953760-0000	1000 mL Filter Flask, #8 Stopper Joint, Fits Tubing ID 3/8"	1
953760-1002	1000 mL KimCote™ Filter Flask, #8 Stopper Joint, Fits Tubing ID 3/8"	1



### 90 mm ULTRA-WARE® Microfiltration Assembly with Stainless Steel Support

The 90 mm vacuum microfiltration assemblies are designed for large sample volumes or samples with high particulate loads that would tend to clog a 47 mm diameter filter. This assembly with stainless steel support is used for filtering viscous or proteinaceous solutions or to produce ultra-clean filtrate.

- Filtration rates are up to four times faster than 47 mm filters
- The funnel is graduated from 300 to 1000 mL in 50 mL increments
- Prefilter size is 70 mm diameter, and the approximate filter area is 38.5 cm<sup>2</sup>
- Connection to our 1 liter filtration flask (available as an accessory) is made with a #8 silicone stopper
- Maximum funnel capacity is 1100 mL
- This unit is supplied with a 304 stainless steel support screen, a glass support base, a 300 mL graduated funnel, an anodized aluminum clamp and a # 8 silicone stopper
- 80 x 80 304 stainless steel mesh, 0.0055" opening size, 19.4% open area, 0.007" wire diameter
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements

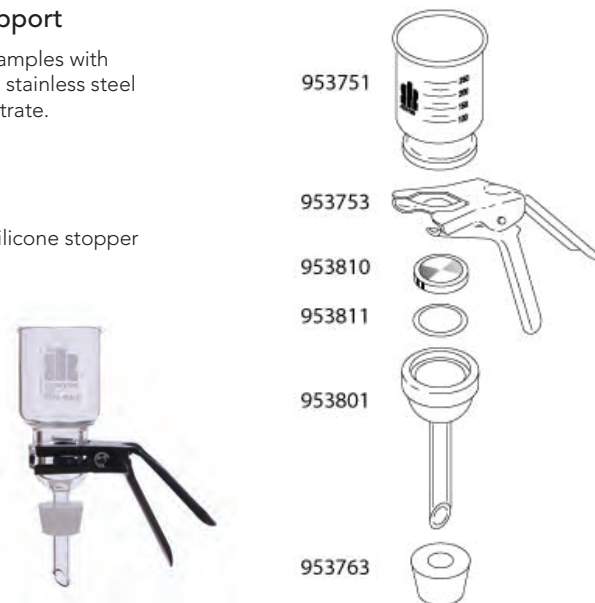
Part Number	Funnel Capacity (mL)	Overall Height (mm), Clamp Width (mm)	Case Qty
953805-0090	1000	350 x 160	1

#### Replacement Parts

Part Number	Description	Case Qty
953753-0090	90 mm Anodized Aluminum Clamp	1
953810-0090	Stainless Steel Support Screen for 90 mm Filtration Assembly, 80 x 80 mesh, 304 stainless steel, 0.0095" opening size, 19.4% open area, 0.007" wire diameter	1
953801-0090	90 mm Glass Support Base	1
953781-0090	1000 mL Glass Funnel, 90 mm	1
953763-0801	#8 Silicone Stopper with 9/16" Hole for 1000 mL Filtration Flask	1

#### Accessories

Part Number	Description	Case Qty
953760-0000	1000 mL Filter Flask, #8 Stopper Joint, Fits Tubing ID 3/8"	1
953760-1002	1000 mL KimCote™ Filter Flask, #8 Stopper Joint, Fits Tubing ID 3/8"	1



## 90 mm ULTRA-WARE® Microfiltration Assembly with Fritted Glass Support and Ground Joint

The 90 mm filtration assembly with fritted glass support is designed for large volume filtration analysis of corrosive liquids or samples with high particulate loads that would tend to clog a 47 mm diameter filter. This unit is also recommended for filtering large volumes of HPLC solvents.

- The ground glass connection eliminates the possibility of phthalate contamination that can occur when using silicone or neoprene stoppers
- Each apparatus is supplied with 1000 mL funnel; 90 mm, 40-60 micron porosity, fritted glass support base; anodized aluminum clamp; and filtration flask
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements

Part Number	Funnel Capacity (mL)	Flask Capacity (mL)	Case Qty
953825-0090	1000	1000	1
953835-0090	1000	2000	1
953845-0090	1000	4000	1



### Replacement Parts

Part Number	Description	Case Qty
953753-0090	90 mm Anodized Aluminum Clamp	1
953826-0090	Fritted Glass Support Base 90 mm, 40/35 outer joint	1
953827-0000	1000 mL Flask, 40/35 inner joint	1
953828-0000	2000 mL Flask, 40/35 inner joint	1
953829-0000	4000 mL Flask, 40/35 inner joint	1
953781-0090	1000 mL Glass Funnel, 90 mm	1

### Accessories

Part Number	Description	Case Qty
676001-4035	PTFE Sleeves for Greaseless Connections, Fits Standard Taper Joint 40/35	6
953830-0000	40/35 Glass Cap	1

## 90 mm ULTRA-WARE® Microfiltration Assembly with Replaceable Frit and Ground Joint

The 90 mm filtration apparatus with replaceable fritted glass support is recommended for large volume filtration analysis of corrosive liquids or samples with high particulate loads.

- The glass support disc can be replaced if it becomes clogged or if sample-to-sample contamination is a concern
- Like the apparatus with fritted glass support, the ground joint connection eliminates the possibility of phthalate contamination that can occur when using silicone or neoprene stoppers
- Each apparatus is supplied with 1000 mL funnel, 90 mm glass support base, 40-60 micron porosity fritted glass disc, anodized aluminum clamp and filtration flask
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements

Part Number	Flask Capacity (mL)	Funnel Capacity (mL)	Case Qty
953840-2090	2000	1000	1
953840-4090	4000	1000	1



### Replacement Parts

Part Number	Description	Case Qty
953752-0090	90 mm Fritted Glass Support Base	1
953753-0090	90 mm Anodized Aluminum Clamp	1
953772-0090	90 mm 40-60 micron porosity Fritted Glass Support Disc	1
953828-0000	2000 mL Flask, 40/35 inner joint	1
953829-0000	4000 mL Flask, 40/35 inner joint	1
953841-0090	90 mm, 40/35 Glass Base	1
953781-0090	1000 mL Glass Funnel, 90 mm	1

### Accessories

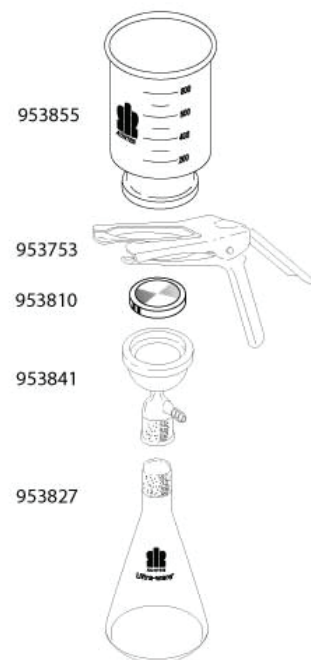
Part Number	Description	Case Qty
676001-4035	PTFE Sleeves for Greaseless Connections, Fits Standard Taper Joint 40/35	6
953830-0000	40/35 Glass Cap	1

## 90 mm ULTRA-WARE® Microfiltration Assembly with SS Support and Ground Joint

The 90 mm filtration apparatus with stainless steel support is recommended when filtering large volumes of viscous or proteinaceous solutions to give the maximum flow rate.

- This unit is also used to produce ultra clean filtrate since the screen will not shed particles into the filtrate
- Each apparatus is supplied with stainless steel support screen, glass support base, 1000 mL funnel, anodized aluminum clamp and filtration flask
- 80 x 80 304 stainless steel mesh, 0.0055" opening size, 19.4% open area, 0.007" wire diameter
- Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements

Part Number	Funnel Capacity (mL)	Flask Capacity (mL)	Case Qty
953855-1090	1000	1000	1



### Replacement Parts

Part Number	Description	Case Qty
953753-0090	90 mm Anodized Aluminum Clamp	1
953810-0090	Stainless Steel Support Screen for 90 mm Filtration Assembly, 80 x 80 mesh, 304 stainless steel, 0.0095" opening size, 19.4% open area, 0.007" wire diameter	1
953827-0000	1000 mL Flask, 40/35 inner joint	1
953841-0090	90 mm, 40/35 Glass Base	1
953781-0090	1000 mL Glass Funnel, 90 mm	1

### Accessories

Part Number	Description	Case Qty
953830-0000	40/35 Glass Cap	1
676001-4035	PTFE Sleeves for Greaseless Connections, Fits Standard Taper Joint 40/35	6

### Recommended Procedures for Maximum Filter Life of Fritted Ware

**New Filters** - Wash new filters using suction with hot hydrochloric acid solution, followed by a water rinse.

**Pressure Limits** - The maximum safe differential pressure on a disc is 15 pounds per square inch.

**Thermal Shock** - Fritted ware has less resistance to thermal shock than non-porous glassware, hence excessive rapid temperature changes and direct exposure to a flame should be avoided. Heating in a furnace to 500 °C may be done safely, provided the heating and cooling are gradual. Dry ware may be put into a furnace that is set at 150 °C, but attainment of a constant weight is usually done at 105°-110 °C.

#### Cleaning of Used Filters

In many cases, precipitates can be removed by rinsing with water from the underside, with the pressure not exceeding 15 pounds per square inch. The suggestions that follow will be helpful in dealing with material that cannot be removed by the reverse water-wash.

The use of strong alkalis, strong hydrofluoric acid and phosphoric acid should be avoided. Also, mechanical scratching of the surfaces will weaken the discs.

Precipitate	Removal Agent
Albumen	Hot ammonia or hydrochloric acid.
Aluminous and siliceous residues	2% hydrofluoric acid followed by concentrated sulfuric acid. Rinse immediately with water until no trace of acid can be detected.
Copper or iron oxides	Hot hydrochloric acid plus potassium chlorate.
Glucose	Hot mixed sulfuric acid and nitric acid.
Fatty materials	Carbon tetrachloride
Mercuric sulfide	Hot aqua regia (concentrated nitric acid and hydrochloric acid)
Mercury	Hot nitric acid
Organic Matter	Hot concentrated cleaning solution, or hot concentrated sulfuric acid with a few drops of sodium nitrite. (Bichromate cleaning solutions tend to permanently strain fritted ware which is undesirable for biochemical or pharmaceutical work.)
Silver chloride	Ammonium or sodium hyposulfite.