# **FilterCup**™

Convenient, easy filtration. The FilterCup is a disposable filter funnel available in a range of 70 mm filter media. This convenient device is molded from polypropylene with an integral, heat bonded filter.

#### **Features and Benefits**

- Choice of glass microfiber and cellulose filter media
- 250 mL capacity
- >31 cm<sup>2</sup> filtration area



## **Chemical Compatibility**

Dilute Acids	Recommended
Dilute Bases	Recommended
Alcohols: Aliphatic	Recommended
Aldehydes	Recommended
Esters	Recommended
Ketones	Recommended
Hydrocarbons:	
Aliphatic	Recommended
Hydrocarbons:	
Aromatic	Limited Applications
Hydrocarbons:	
Halogenated	Not Recommended

**Note:** Paper Grade 113 contains a wet-strengthening agent which may leach out when used with solvents.

## **Ordering Information**

		Particle Retention		
Catalog Number	Filter Media	Liquid (μm)	Quantity/Pack	
1600-001	Grade 1	11	25	
1600-003	Grade 3	6	25	
1600-113	Grade 113	30	25	
1600-820	Grade GF/A	1.6	25	
1600-822	Grade GF/C	1.2	25	
1600-825	Grade GF/F	0.7	25	
FilterCup Stem with Stopper				
1600-900		_	1	

# **Disposable Filter Funnel**

Convenient to use. These disposable filter funnels contain Whatman brand filters. The 47 mm diameter filter can be easily removed for further analysis or culturing.

#### **Features and Benefits**

- 47 mm diameter Whatman brand filter
- Retrievable filter for further analysis
- Disposable for cleanliness and convenience
- 250 mL reservoir
- 0.45 µm cellulose nitrate available sterile for culturing

Catalog Number Filter Media		Quantity/Pack
1920-1441	Grade 41	5
1920-7001	WCN 0.45 µm grid sterile	5
1920-7113	WCN 0.45 μm grid sterile with pads	300



# 25 mm Disposable Filter Funnel

The 25 mm Disposable Filter Funnel is a convenient, disposable filter funnel containing Whatman brand filter media. This 25 mm diameter filter can be used in evaluation of processed proteins in TCA precipitation or binding assay procedures and can be easily removed for further analysis or culturing. The unit is composed of medical grade polypropylene, compatible with most solutions.

The 25 mm Disposable Filter Funnel is available with glass microfiber filters.

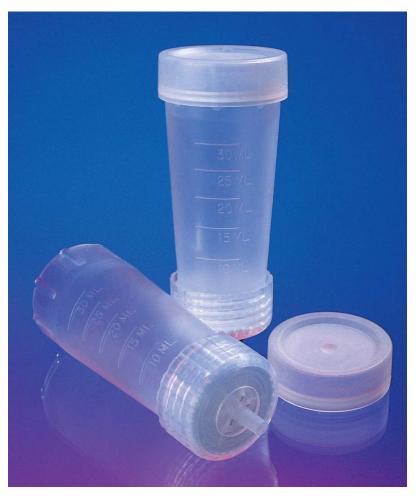
Typical applications include TCA precipitation, cell harvesting, tissue washing, protein precipitation and high recovery capture filtration.

#### **Chemical Resistance**

Both are compatible with aqueous solutions and most organic solvents. Caution should be used when working with strong acids or strong bases in these filter funnels.

#### **Features and Benefits**

- Disposable design eliminates dedicated glassware, ideal for radioactive applications
- Chemically resistant polypropylene housing allows for use with a wide range of aggressive solutions
- Designed for single use or batch sample processing
- Robotic friendly
- Removable filter allows for further processing
- Luer taper outlet for easy vacuum attachment



## **Ordering Information**

Catalog Number	Description	Nominal Particle Retention (µm)	Quantity/Pack	Volume Capacity
1922-1820	Grade GF/A	1.6	50	30 mL
1922-1822	Grade GF/C	1.2	50	30 mL

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# **AutoCup® Disposable Filter Funnel**

The AutoCup filter funnel is a convenient, disposable device for batch filtration of samples. Designed specifically for use with automated systems, AutoCup can also be used with a standard flask or manifold under vacuum. The device is fully compatible with Zymark® automated systems.

AutoCup is manufactured from pigment-free polypropylene and contains a choice of Nylon or PTFE membrane for use with aqueous and solvent solutions.

### **Features and Benefits**

- 20 mL sample volume. Ideal for batch processing of laboratory samples
- Manufactured using no adhesives or additives. Ensures sample purity
- Versatile and easy to use.
  Suitable for use under vacuum or in automated systems

### **Applications**

- Drug discovery synthesis
- Sample clarification
- Sample filtration
- Combinatorial chemistry
- Batch preparation



# **Typical Data**

Housing	Polypropylene
Volume	20 mL
Filtration Area	4.7 cm <sup>2</sup>
Filter Diameter	25.7 mm
Maximum Pressure	10 psi

Catalog Number	Membrane	Pore Size (µm)	Quantity/Pack
1602-0465	Nylon	0.45	250
1602-0475	PTFE	0.45	250

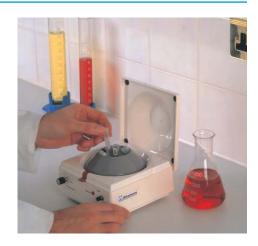
# **VectaSpin™ Centrifuge Filter Tubes**

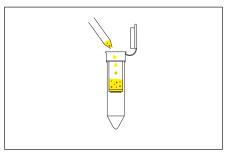
Whatman VectaSpin centrifuge filters are ideal for the quick and easy preparation of a wide range of laboratory samples by centrifugation. The centrifuge filters are available in 400 µL, 3 mL and 20 mL sizes and are produced from pigment free polypropylene to eliminate sample contamination.

VectaSpin centrifuge filters are supplied with a range of filtration and separation media. A 10 µm mesh is available for the filtration of coarse

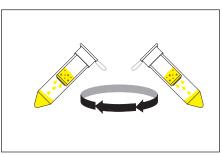
particulates. VectaSpin Micro and VectaSpin 3 are also available with a range of ultrafiltration membranes which can separate macromolecules, such as proteins, based on differences in their molecular weights.

The centrifuge filters are compatible with all common centrifuge rotors and holders. Filtrate can be stored in the receiving tube after centrifugation eliminating the need for a separate storage tube.



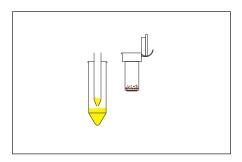


Step 1. Place the filter insert in the outer tube, open the cap and add your sample material to the insert.



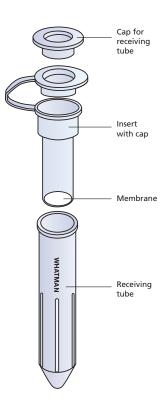
## Step 2.

Seal the insert using the integral cap and place the whole tube in the centrifuge head. The tubes are designed to fit standard rotors. You can now spin your sample for an appropriate time.



### Step 3.

Remove the filter insert. The filtrate can either be decanted from the outer tube or you can store it in the tube itself using the loose cap supplied.



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# VectaSpin 3™

#### **Features and Benefits**

- 3 mL sample capacity is ideal for many laboratory samples
- Store filtrate in receiving tube, reducing costs and saving time in the laboratory
- Frosted area on tube for easy sample identification

## **Applications**

- HPLC sample preparation
- Biotechnology and life science
- Environmental research
- Removal of microspheres in aqueous solution
- Filtration of river waters
- Protein separation from sample matrices





## **Ordering Information**

VectaSpin 3				
Catalog Number	Membrane	Pore Size (µm)	Quantity/Pack	
Microfiltration				
6831-0405	PVDF	0.45	25	
6832-0405	Polypropylene	0.45	25	
Ultrafiltration	Ultrafiltration (MWCO)			
6835-3005	Polysulfone	30 K	25	
6835-1005	Polysulfone	10 K	25	
Coarse Filtration				
6838-0005	Polypropylene Mesh	10	25	

# **VectaSpin™ Micro**

#### **Features and Benefits**

- 400 µL sample capacity is ideal for small sample preparation
- Quick and easy-to-use. Supplied ready assembled saving time in the laboratory
- Prefilter versions available for difficult-to-filter samples
- Frosted area on tube for easy sample identification



## **Applications**

- Removal of cells from culture media
- Particle removal from solvents
- Liquid chromatography sample preparation
- Removal of bacteria from sample material
- Fractionation/purification of proteins

VectaSpin Micro				
Catalog Number	Membrane	Pore Size (µm)	Quantity/Pack	
Microfiltration				
6830-0021	Anopore	0.02	100	
6830-0201	Anopore	0.2	100	
6833-0201	Polysulfone	0.2	100	
6833-0401	Polysulfone	0.45	100	
Ultrafiltration	Ultrafiltration (MWCO)			
6835-3001	Polysulfone	30 K	100	
6835-1101	Polysulfone	100 K	100	
6834-1001	Cellulose acetate	12 K	100	
6834-2001	Cellulose acetate	20 K	100	
Coarse Filtration				
6838-0002	Polypropylene mesh	10	25	

# VectaSpin 20™

#### **Features and Benefits**

- 20 mL sample capacity is ideal for large volume samples
- Screw top cap for easy sample storage

## **Applications**

- Easy particle removal from large volume samples
- Environmental sample filtration
- Batch sample filtration
- Sample preparation and collection
- Ligand binding studies
- Buffer exchange



# **Ordering Information**

VectaSpin 20					
Catalog Number Membrane Pore Size (µm) Quantity/Pack					
Microfiltration					
6830-0218	Anopore Plus with prefilter	0.2	10		
6832-0408	Polypropylene	0.45	10		
Coarse Filtration					
6838-0008	Polypropylene mesh	10	10		
6838-0009	Polypropylene mesh	10	100		

# **Typical Data**

	VectaSpin Micro	VectaSpin 3	VectaSpin 20
Housing (pigment free)	Polypropylene	Polypropylene	Polypropylene
Insert Capacity	400 μL	3 mL	20 mL
Receiving Tube Capacities			
with insert	1.25 mL	5 mL	25 mL
without insert	2.0 mL	10 mL	50 mL
Maximum Force	10,000 G	5,000 G*	2,075 G*
Tube Dimensions	42 mm x 10.6 mm	87 mm x 16.4 mm	35 mm dia. x 117 mm (with cap)
			31 mm dia. x 104 mm (without cap)
Cap			
material	Polypropylene	Polypropylene	Polypropylene
closure	N/A	N/A	Screw-on
Minimum Force for RCF** (polypropylene 0.45 μm)	N/A	2,000 G	N/A
Temperature Resistance			
in use	+4°C to +40°C	+4°C to +40°C	+4°C to +40°C
for sample storage			
(without filter insert)	−70°C to +50°C	−70°C to +50°C	−70°C to +50°C
Insert			
material	Polypropylene	Polypropylene	Polypropylene
overall height	N/A	N/A	61 mm

<sup>\*</sup>Do not use at centrifugal forces above the recommended maximum.

Other Considerations: Ultrafiltration

The cellulose acetate and polysulfone membranes contain glycerin as a wetting agent. This may be removed if necessary by pre-rinsing with distilled water or buffers. Transparent spots may appear on filters under higher levels of humidity. These are due to the glycerin and do not affect performance of the filter.

#### Whatman\*

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<sup>\*\*</sup>All other devices no minimum RCF.

# **Filter Tubes**

Versatile Whatman Filter Tubes are designed to prepare and filter samples in batches using standard SPE vacuum manifolds and automated systems. The devices feature a rigid pigment-free polypropylene housing, a filter support and a choice of filter media. The polypropylene housing is autoclavable for repeated use and ensures excellent chemical and biomolecule compatibility with minimum extractables. The filter media is securely welded into the tube to ensure that the filter cannot be bypassed and no sample is lost.

Filter Tubes are available with 1PS filters and PTFE membranes for chemical compatibility with solvents. The 1PS Filter Tube contains Whatman Phase Separator filter media and is ideal for the quick and easy separation of solvent and aqueous phase layers.

#### **Features and Benefits**

- 6, 12 and 60 mL tube capacities
- Autoclavable, saving time and money in the laboratory
- Wide solvent compatibility is ideal for combinatorial chemistry applications

## **Applications**

- Sample preparation and clean-up
- Combinatorial chemistry
- Drug synthesis
- Sample and batch filtration
- Custom made SPE device



## **Typical Data**

Housing	Polypropylene (pigment free)
Inlet Connection	Standard tube opening
Outlet Connection	Male slip luer
Maximum Force	100 psi for PTFE (not available for 1PS)
Filtration Area:	
6 mL	1.2 cm <sup>2</sup>
12 mL	1.4 cm <sup>2</sup>
60 mL	5.3 cm <sup>2</sup>
Weight:	
6 mL	3.2 g
12 mL	4.8 g
60 mL	18.8 g
Bubble Point for PTFE Filter Tubes (in Isopropanol):	
1.0 μm	9 psi
5.0 μm	2 psi

Catalog Number	Membrane	Pore Size (µm)	Capacity (mL)	Quantity/Pack
6984-0610	PTFE	1.0	6	50
6984-0650	PTFE	5.0	6	50
6984-1210	PTFE	1.0	12	40
6984-1250	PTFE	5.0	12	40
6987-0699	1PS	_	6	50
6987-1299	1PS	_	12	40
6987-6099	1PS	_	60	100