

# Filtration Funnel Selection Guide

Microbiological Quality Control of Beverages, Water and Environmental Samples

One Manifold, Many Possibilities



Evaluating the microbiological quality of beverages, water, and environmental samples is crucial for any quality control laboratory. Membrane filtration is the preferred method for detecting and quantifying microorganisms in liquid samples due to its consistency and reliability. Enhance your daily microbiological testing with the Microsart® Manifold.

Select the appropriate filtration funnel for your specific testing needs:

- **Biosart® 250 Funnel** – Sustainability and time saving
- **Microsart® Funnel 100 and 250** – Reliability and time saving
- **Stainless Steel Funnel 100 and 500** – Sustainability and robustness

### Biosart® 250 Funnel

The Biosart® 250 Funnel is designed to ease microbiological and analytical quality assurance in various industries. This sterile 250 mL plastic funnel facilitates fast filtrations and high sample throughputs during routine testing. Its large inner diameter allows high flow rates, and the tapered inner walls permit thorough flushing of the funnel after filtration. The Biosart® 250 Funnel is reusable and can be autoclaved up to 50 times, significantly reducing waste and saving resources.



|                            |   |
|----------------------------|---|
| <b>Material</b>            | ▪ Polypropylene (PP)  |
| <b>Available volume</b>    | ▪ 250 mL  |
| <b>Graduation</b>          | ▪ 50, 100, 150, 200, 250 mL   |
| <b>Lid</b>                 | ▪ Not available   |
| <b>Unique feature</b>      | ▪ Reusable up to 50 times (autoclavable)<br>▪ Compatible with 47 and 50 mm membrane filters                           |
| <b>Advantage</b>           | ▪ Sterile upon delivery, time saving<br>▪ Sustainable solution  |
| <b>Special suitability</b> | ▪ Highly resistant to acids   |
| <b>Usability</b>           | ▪ Reusable and autoclavable up to 50 times  |
| <b>Product no.</b>         | ▪ 16407--25----ACK (single sterile packed)<br>▪ 16407--25----ALK (sterile packed in bags of 10 units, 5 bags per box) |

### Microsart® Funnel 100 and 250

These sterile plastic funnels are ideal for routine testing of water, food and beverages, pharmaceutical and cosmetic products. The large inner diameter ensures a high flow rate and the optimized shape allows a thorough rinsing of the system subsequent to filtration. They feature a click-fit closure for optimal sealing and a design that ensures no liquid retention.



|                            |  |
|----------------------------|--|
| <b>Material</b>            | ▪ Polypropylene (PP)   |
| <b>Available volume</b>    | ▪ 100 and 250 mL   |
| <b>Graduation</b>          | ▪ 20, 50, 100 (100 mL version)<br>▪ 50, 100, 200, 250 mL (250 mL version)      |
| <b>Lid</b>                 | ▪ Available  |
| <b>Unique feature</b>      | ▪ Click-fit  |
| <b>Advantage</b>           | ▪ Sterile upon delivery<br>▪ Time saving                                       |
| <b>Special suitability</b> | ▪ Highly resistant to acids  |
| <b>Usability</b>           | ▪ Single use only  |
| <b>Product no.</b>         | ▪ 16A07--10-----N (100 mL)<br>▪ 16A07--25-----N (250 mL)<br>▪ 1ZSF-K0007 (lid) |

### Stainless Steel Funnel

Designed for microbiological quality assurance, these reusable stainless steel funnels are available in capacities of 100 or 500 mL. They feature a special locking clamp for secure positioning and removal of the membrane filter. For traceability, each funnel has an individual serial number.



|                            |  |
|----------------------------|--|
| <b>Material</b>            | ▪ High-end stainless steel (AISI 304)  |
| <b>Available volume</b>    | ▪ 100 and 500 mL   |
| <b>Graduation</b>          | ▪ 50, 100 mL (100 mL version)<br>▪ 100, 200, 250, 300, 400, 500 mL (500 mL version)  |
| <b>Lid</b>                 | ▪ Available  |
| <b>Unique feature</b>      | ▪ Compatible with 47 and 50 mm membrane filters<br>▪ Funnel with 500 mL capacity available   |
| <b>Advantage</b>           | ▪ Flaming and autoclavable for decontamination<br>▪ Long shelf life  |
| <b>Special suitability</b> | ▪ Highly resistant to solvents   |
| <b>Usability</b>           | ▪ Usable for years   |
| <b>Product no.</b>         | ▪ 6981065 (100 mL version)<br>▪ 6981002 (500 mL version)<br>▪ 6981063 (lid for 100 mL version)<br>▪ 6981001 (lid for 500 mL version) |

# Quick Facts

|                                     | Microsart® Funnel | Biosart® 250 Funnel | Stainless Steel Funnel |
|-------------------------------------|-------------------|---------------------|------------------------|
| Sterile upon delivery               | Yes               | Yes                 | No                     |
| Autoclavable (121 °C or 134 °C)     | No                | Yes                 | Yes                    |
| Sterilizable by dry heat (180 °C)   | No                | No                  | Yes                    |
| Flame sterilizable                  | No                | No                  | Yes                    |
| Lid available                       | Yes               | No                  | Yes                    |
| Sample filtration visible from side | Yes               | Yes                 | No                     |
| Time saving                         | Yes               | Yes                 | No                     |

## Manifolds and Base Support with Frit



|                   |   |  |  |
|-------------------|---|--|--|
| Used with         | Microsart® Funnel 100 and 250   | Biosart® 250 Funnel  | Stainless Steel Funnel (100 and 500 mL)  |
| Membrane filter Ø | 47 mm   | 47 or 50 mm  | 47 or 50 mm  |
| Order. No.        | <b>Manifold for Microsart® Funnels:</b><br>168M1-MS (1 branch manifold)<br>168M2-MS (2 branch manifold)<br>168M3-MS (3 branch manifold)<br>168M6-MS (6 branch manifold)<br>168ZA-A0001 (spare part base support only) | <b>Manifold for Biosart® 250 Funnels:</b><br>168M1-BS250 (1 branch manifold)<br>168M3-BS250 (3 branch manifold)<br>168M6-BS250 (6 branch manifold)<br>168ZA-B0001 (spare part base support only) | <b>Manifold with 100 mL Stainless Steel Funnels:</b><br>168M1-SS100 (1 branch manifold)<br>168M3-SS100 (3 branch manifold)<br>168M6-SS100 (6 branch manifold)<br><br><b>Manifold with 500 mL Stainless Steel Funnels:</b><br>168M1-SS500 (1 branch manifold)<br>168M3-SS500 (3 branch manifold)<br>168M6-SS500 (6 branch manifold)<br>168ZA-B0001 (spare part base support only) |

## Chemical Compatibility of Filtration Funnels\*

\*Note: The chemical compatibility can vary based on the full system (membrane filter, manifold, vacuum pump). Therefore, we recommend that you confirm compatibility with the liquid you wish to filter by performing a trial filtration run before you begin with actual filtration.

|                        | Microsart® Funnel | Biosart® 250 Funnel | Stainless Steel Funnel |
|------------------------|-------------------|---------------------|------------------------|
| <b>Solvents</b>        |                   |                     |                        |
| Acetone                | ■                 | ■                   | ■                      |
| Acetonitrile           | ■                 | ■                   | ■                      |
| Benzene                | -                 | -                   | ■                      |
| Benzyl alcohol         | ■                 | ■                   | ■                      |
| n-Butanol              | ■                 | ■                   | ■                      |
| Chloroform             | -                 | -                   | ■                      |
| Cyclohexane            | ■                 | ■                   | ■                      |
| Diethyl ether          | ■                 | ■                   | □                      |
| Dimethyl formamide     | ■                 | ■                   | ■                      |
| Ethanol, 98%           | ■                 | ■                   | ■                      |
| Ethyl acetate          | -                 | -                   | □                      |
| Ethylene glycol        | ■                 | ■                   | □                      |
| Formamide              | ■                 | ■                   | ■                      |
| Glycerine              | ■                 | ■                   | ■                      |
| n-Heptane              | -                 | -                   | ■                      |
| n-Hexane               | ■                 | ■                   | ■                      |
| Isobutanol             | ■                 | ■                   | ■                      |
| Isopropanol            | ■                 | ■                   | ■                      |
| Isopropyl acetate      | ■                 | ■                   | -                      |
| Methanol, 98%          | ■                 | ■                   | ■                      |
| Methyl acetate         | ■                 | ■                   | ■                      |
| Methylene chloride     | -                 | -                   | □                      |
| Methyl Cellosolve      | ■                 | ■                   | □                      |
| Methyl ethyl ketone    | ■                 | ■                   | ■                      |
| Methyl isobutyl ketone | ■                 | ■                   | □                      |
| Monochlorobenzene      | ■                 | ■                   | ■                      |
| Nitrobenzene           | ■                 | ■                   | □                      |
| n-Pentane              | -                 | -                   | -                      |
| Perchloroethylene      | -                 | -                   | □                      |
| Pyridine               | -                 | -                   | ■                      |
| Carbon tetrachloride   | -                 | -                   | □                      |
| Tetrahydrofuran        | -                 | -                   | ■                      |
| Toluene                | -                 | -                   | ■                      |
| Trichloroethane        | -                 | -                   | □                      |

|                           | Microsart® Funnel | Biosart® 250 Funnel | Stainless Steel Funnel |
|---------------------------|-------------------|---------------------|------------------------|
| <b>Solvents</b>           |                   |                     |                        |
| Trichloroethylene         | -                 | -                   | □                      |
| Xylene                    | -                 | -                   | □                      |
| <b>Acids</b>              |                   |                     |                        |
| Acetic acid, 25%          | ■                 | ■                   | □                      |
| Acetic acid, 96%          | ■                 | ■                   | -                      |
| Hydrofluoric acid, 25%    | ■                 | ■                   | -                      |
| Hydrofluoric acid, 50%    | ■                 | ■                   | -                      |
| Perchloric acid, 25%      | ■                 | ■                   | -                      |
| Phosphoric acid, 25%      | ■                 | ■                   | -                      |
| Phosphoric acid, 85%      | ■                 | ■                   | -                      |
| Nitric acid, 25%          | ■                 | ■                   | ■                      |
| Nitric acid, 65%          | -                 | -                   | ■                      |
| Hydrochloric acid, 25%    | □                 | □                   | -                      |
| Hydrochloric acid, 37%    | -                 | -                   | -                      |
| Sulfuric acid, 25%        | ■                 | ■                   | -                      |
| Sulfuric acid, 98%        | -                 | -                   | -                      |
| Trichloroacetic acid, 25% | ■                 | ■                   | -                      |
| <b>Bases</b>              |                   |                     |                        |
| Ammonium hydroxide, 25%   | ■                 | ■                   | ■                      |
| Potassium hydroxide, 32%  | ■                 | ■                   | □                      |
| Sodium hydroxide, 32%     | ■                 | ■                   | □                      |
| <b>Aqueous Solutions</b>  |                   |                     |                        |
| Formaline, 30%            | ■                 | ■                   | ■                      |
| Sodium hypochlorite, <20% | ■                 | ■                   | -                      |
| Hydrogen peroxide, 35%    | □                 | □                   | □                      |

All data is based on room temperature (20 °C).

■ = compatible

□ = limited compatibility

- = not compatible, not recommended

# Order Information

| Order no.        | Information  | Size |
|------------------|--|------|
| 16A07--10-----N  | Microsart® Funnel 100, sterile, sealed in tubular bags                                 | 100  |
| 16A07--25-----N  | Microsart® Funnel 250, sterile, sealed in tubular bags                                 | 96   |
| 1ZSF-K0007       | Lids for Microsart® Funnel   | 100  |
| 16407--25----ACK | Biosart® Funnel 250, sterile, single-packed  | 50   |
| 16407--25----ALK | Biosart® Funnel 250, sterile, in bags  | 50   |
| 6981065          | 100 mL Stainless Steel Funnel (spare part)   | 1    |
| 6981063          | Lid for 100 mL Stainless Steel Funnel  | 1    |
| 6981002          | 500 mL Stainless Steel Funnel (spare part)   | 1    |
| 6981001          | Lid for 500 mL Stainless Steel Funnel  | 1    |
| 168M1-MS         | Microsart® 1 branch Manifold for Microsart® 100 and 250 funnels                        | 1    |
| 168M2-MS         | Microsart® 2 branch Manifold for Microsart® 100 and 250 funnels                        | 1    |
| 168M3-MS         | Microsart® 3 branch Manifold for Microsart® 100 and 250 funnels                        | 1    |
| 168M6-MS         | Microsart® 6 branch Manifold for Microsart® 100 and 250 funnels                        | 1    |
| 168M1-BS250      | Microsart® 1branch Manifold for Biosart® 250 Funnels                                   | 1    |
| 168M3-BS250      | Microsart® 3 branch Manifold for Biosart® 250 Funnels                                  | 1    |
| 168M6-BS250      | Microsart® 6 branch Manifold for Biosart® 250 Funnels                                  | 1    |
| 168M1-SS100      | Microsart® 1 branch Manifold for 100 mL Stainless Steel Funnels                        | 1    |
| 168M3-SS100      | Microsart® 3 branch Manifold for 100 mL Stainless Steel Funnels                        | 1    |
| 168M6-SS100      | Microsart® 6 branch Manifold for 100 mL Stainless Steel Funnels                        | 1    |
| 168M1-SS500      | Microsart® 1 branch Manifold for 500 mL Stainless Steel Funnels                        | 1    |
| 168M3-SS500      | Microsart® 3 branch Manifold for 500 mL Stainless Steel Funnels                        | 1    |
| 168M6-SS500      | Microsart® 6 branch Manifold for 500 mL Stainless Steel Funnels                        | 1    |
| 168ZA-A0001      | Base support with frit for Microsart® Funnel 100 & 250 (spare part)                    | 1    |
| 168ZA-B0001      | Base support with frit for Biosart® 250 Funnel and Stainless-Steel Funnel (spare part) | 1    |

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