Modular Filtration Manifolds and Related Assembly Components
3 Modular manifolds
4 Manifold bases in different sizes
5 Different columns for the assembling on manifold base
6 Universal conical column KM-N for stopper #8
7 Universal column RA-S for membrane with ø 47 or 50 mm
8 Special column RA-A or KM-A for plastic devices
9 Special column RA-D for Biosart® funnels
9 Special column RA-M for Microfil® funnels
10 Special column RA-E for membrane with ø 25 mm
10 Special column RA-F for Sentino®Filter funnels
11 Special column KM-B for Monitors 100 with membrane
11 Special column KM-P for distant devices connection
11 Standard assembly example
12 Manifold KMPC in PVC for special application
12 Manifold KMVS in SS for sterility test
13 Disposable filtration devices Ascle® U, Ascle® V and Bio Bact
14 Manifold's accessories and auxiliaries
Our Company is on microfiltration market since 1961
Through over 60 years of daily contacts with the users we have
acquired an outstanding expertise with the application needs
and inconveniences, especially when it is necessary to carry out
a number of multiple and separated analysis in a shorter time.

Our long established know-how and experience have led us in
2014 to redesign this filtration system, making it more flexible
and suitable to all applications using microfiltration membranes
for analytic purposes.

The result of the updating is the implementation of SpeedFlow
modular Manifolds as described in this catalogue with an increa-
sed number of auxiliary and additional components available for
a proper, simple and handy use.

*SpeedFlow* Manifolds Quality Warranty is CE certification, as
machine or quasi machine.
The SpeedFlow Manifold bases, as shown on left side, are available in four different sizes: 1, 3, 4 and 6 places. Manifolds that can be easily dismantled for the cleaning operations or to check each part. The assembling is even possible according to user’s needs, choosing among various uniform type, different type or mixed form type columns. The assembling choice is easily done when purchasing or in a later time, simply changing a type of column with another type of column.

The base structural materials is in satin Stainless Steel with sides handles in anodized aluminium. One side is fitted with hose-barb for 3 different diameters of vacuum hoses ø 8, 12 and 16 mm, the opposite side is fitted with a stopper. Hose-barb and stopper are interchangeable to facilitate the proximity to the vacuum source.

**Manifold basis in different sizes**

1 - 247310 – 1 place manifold base (width mm 240)
2 - 247330 – 3 places manifold base (width mm 420)
3 - 247340 – 4 places manifold base (width mm 560)
4 - 247360 – 6 places manifold base (width mm 780)
5 – Side detail with hose-barb (width mm 160 x H mm 100)
6 – Side detail with stopper
7 – Columns joint detail seen back-side, with stop hexagon socket screw and its allen screw on manifold base

**Purchase codes**

Select the suitable manifold width then make your columns choice among the ones shown in the following pages.
Different columns type in polished Stainless Steel are available (see illustration). Each column is supplied with a tap to close the vacuum or for the changing of the flux direction (see page 4). The tap is made in PTFE with a SS lever.

Column selection for the assembly on Manifolds bases on page 4

249306 - Column KM-N see page 6
Universal – Conical shaped for stopper #8 (with higher measure of Ø 41 mm) on which insert a filtration device.

249305 - Column RA-S see page 7
Universal - Mushroom shaped with SS sintered disc Ø 50 mm and PTFE gasket. Funnels are directly mounted on it.

249312 - Column RA-A see page 8
Special - Mushroom shaped with a disc in SS net Ø 41 mm. For funnels with separated membrane by Crami and Sartorius companies.

249308 - Column KM-A
Special - As the previous one RA-A but without SS disc. For filtering funnels with incorporated membrane by Crami, Pall and Sartorius companies.

249303 - Column RA-D see page 9
Special - Mushroom shaped with sintered SS disc and Ø 50 mm and PTFE gasket. Funnels by Sartorius are directly mounted on it.

249307 - Column RA-M
see page 9
Special - Mushroom shaped with SS net disc Ø 41 mm. Plastic funnel by Millipore are directly mounted on it.

249304 - Column RA-E see page 10
codice 249304
Special - Mushroom shaped with SS net disc Ø 19 mm. It accepts funnels for membrane Ø 25 mm.

249313 - Column RA-F see page 10
Special - Mushroom shaped with SS net disc Ø 41 mm. Plastic funnels by Sentino® Filter 4870 and 4871 Pall Company are directly mounted on it.

249309 - Column KM-B see page 11
Special - Mushroom shaped with polished plain and central suction hole. Graduated Monitor (with internal diameter 46 mm) are mounted, produced by Crami, Sartorius, Bio-Set or other brands.

249310 - Column KM-P see page 11
Special - Hose barb shaped for vacuum hose with internal Ø 8 or 12 mm, to connect filtration instruments or separated and independent devices.

Columns common spare parts

249221 - PTFE tap with SS lever, complete with washers and O-ring
249221.1 - PTFE tap complete with washers and O-ring, without lever
249304.1 - O-ring on column joint (pack of 6 pcs)
249304.2 - PTFE gasket Ø 27 mm on column base (pack of 6 pcs)
KM-N • universal column for assembled filter holders

This is the most commonly known and used column as it was the first one to be introduced in the market. It accepts all filtration holders available on the market as long as slipped into a stopper #8 (external ø 41 mm)

249200 - Silicone stopper #8 with 15 mm hole
249201 - Silicone stopper #8B with 10 mm hole

249306 - Column KM-N

Various holders assembly example

1 - Stainless steel Ø 47 or 50 mm, supplied on demand with 100, 250 or 500 ml funnel (Crami)
2 - Glass Ø 47 mm, supplied on demand with 100, 300, 500 or 1000 ml funnel (Advantec)
3 - Glass Ø 90 mm, with 1000 ml funnel (Advantec)
4 - Polysulfone Ø 47 mm, supplied on demand with 300 or 500 ml funnel (Advantec)
5 - Glass Ø 13 mm, with funnel 100, 500 or 1000 ml (Advantec)
6 - Glass Ø 25 mm, with funnel 15, 150 or 300 ml (Advantec)

Note: all these holders are supplied with stopper #8 or #8B.
RA-S • universal column for ø 47 or 50 mm membrane

This mushroom shaped column with polished inner part is supplied with a PTFE gasket and a membrane support disc in sintered SS Ø 50 mm.

249305 - Column RA-S

On this column it’s possible to mount funnels with different form, held by a clamp (unless different descriptions), as in the following list:
1 - 249070 (Advantec) - Glass 100 ml, graduated
2 - 249120 (Advantec) - Glass 300 ml, graduated
3 - 249080 (Advantec) - Glass 500 ml, graduated
4 - 249085 (Advantec) - Glass 1000 ml, graduated
5 - 249180 (Crami) - Stainless Steel 500 ml, (optional lid), graduated 250 e 500 ml
6 - 249185 (Crami) - Stainless Steel 250 ml, clamp not required, graduated each 50 ml
7 - 249190 (Crami) - Stainless Steel 100 ml, clamp not required
8 - 249170 (Advantec) - Blue aluminium clamp
9 - 249090 (Advantec) - Silicone lid (optional)
   for 249120, 249080 and 249185
10 - 249186 (Crami) - Stainless Steel lid (optional)
    for 249180

Spare parts
249110 – Sintered SS disc Ø 50mm
249100 – PTFE gasket Ø 50 mm, settled under the disc (pack of 6 pcs)

Prefilter devices, SS PR-50 and glass PR-47

This accessory provides a physical separation on two filters which have been set up in series, to clarify first then to refine. They accept membranes Ø 47 or 50 mm and are fitted with a standard clamp.

1 - PR-50 – code 245331 – SS prefilter device, including SS net disc, (code 249140) and clamp (code 249170).
2 - PR-47 – code 245318 – Glass prefilter device, including SS net disc (code 249140) and clamp (code 249170).
• **RA-A and KM-A columns**

This mushroom shaped column with polished inner part is supplied with a disc support in SS net membrane Ø 41 mm.

**249312 - Column RA-A**

On this column it's possible to mount a range of funnels as follow:

1. **Ascle® U** 100 or 250 (Crami), see page 13
2. **Microsart® Funnel** 100 or 250 (Sartorius Company), code 16A07

This identical to the previous one column is supplied without a membrane disc support.

**249308 - Column KM-A**

It accepts devices equipped with filtering membrane as follow:

3. **Ascle® V** 100 or 250 (Crami), see page 13
4. **MicroFunnel®** 100 or 300 Pall Life Science Company, fixed on its adapter 4890
5. **Microsart® Filter** 100 or 250 Sartorius Company
6. **Biosart®** 100 Monitors, supplied with its adapter, code 16424 Sartorius Company
**RA-D • column for BioSart® 250 funnels and stainless steel funnels**

This mushroom shaped column with conical polished inner part is supplied with PTFE gasket and a disc in sintered SS Ø 50 mm as support of membrane.

**249303 - Column RA-D**

Similar to Sartorius column 16840 type, accepts funnel as follow:
- **BioSart® 250 Funnel**, 16407
- **BioSart® 100 Monitors**, through its adapter 16424
- In **stainless steel** 40, 100 and 500 ml capacity.

Fixed with a light finger pressure and bayonet fitting, or with a proper spring lever.

---

**RA-M • column for Microfil® 100 e 250 funnels**

This mushroom shaped column with conical polished inner part is supplied with a disc holder of SS net membrane Ø 41 mm as support of membrane.

**249307 - Column RA-M**

This column accepts Microfil® (Millipore Company), funnels 100 or 250 ml capacity, fixed with a light fingers pressure.
This mushroom shaped column with conical polished inner part is supplied with a disc in SS net Ø 25 mm as support of membrane.

249304 - Column RA-E

This column accepts different type of funnels, held by a clamp, as listed below:
1 - 245111 (Advantec)
   Glass 15 ml, graduated
2 - 245115 (Advantec)
   Glass 150 ml, graduated
3 - 245114 (Advantec)
   Glass 300 ml, graduated
4 - 245022 (Advantec)
   Glass 500 ml, graduated
5 - 245113 (Advantec)
   Blue aluminium clamp
6 - 245051R Stainless Steel, 250 ml graduated

RA-F • Column for Sentino® Filter 100 e 250 funnels

This mushroom shaped column with conical polished inner part is supplied with a disc in SS net Ø 41 mm as support of membrane.

249313 - Column RA-F

This column accepts filtration funnels Sentino® Filter by Pall, 100 e 250 ml, fixed with a light finger pressure. It's similar to adapter Pall type 4891
**KM-B • column for Monitors BioBatt 100 and BioSart® 100**

**249309 - Column KM-B**

In this mushroom shaped column are mounted graduated filtration devices BioBatt 100 (Crami, see page 13), BioSet, BioSart®100 (Sartorius), Whatman or equivalent, simply by a light finger pressure.

---

**KM-P • column for distant devices connection**

**249310 - Column KM-P**

This column is Ø 8 or 12 mm hose barb shaped. This allows an independent connection with different separated devices that need vacuum for his performance.

---

**The scheme is showing a standard recommended Manifold assembly**

1- Manifold 2- Different filter holders 3- Vacuum hose 4- Non return valve 5- Glass waste filtrate vessel 6- Hose with tap used to empty the flask (flasks with 5 or 10 lt capacity) 7- Water-trap to protect the electric pump 8- Hydrophobic filter for extra pump protection (optional) 9- Vacuum pump
**KMPC manifold in PVC for special applications (Advantec®)**

This universal type manifold made of PVC allows the mounting of filter holders through a stopper size #8 and it's suggested when aggressive agents products are used. It's commonly used with glass or plastic devices and an equally resistant vacuum pump.

- **code 246110** – Manifold KMPC3 in PVC 3 places
- **code 246120** – Manifold KMPC6 in PVC 6 places

**Vacuum pump** resistant to chemical aggressive components, dry portable type, electric (220 V), noise 50 dB, equipped with temperature sensor.

- **code 22530T** – CMK300, flow rate 18 lt/min (suggested for 3 places manifolds)
- **code 22540T** – CMK400, flow rate 34 lt/min (suggested for 6 places manifolds)

---

**KMVS manifold in SS for sterility test**

This universal type manifold made of SS AISI 304 allows the mounting of filter holders by the stopper size #8, and it's equipped with a second manifold for the fluxing of filter holders STU (special on sterility applications)

- **code 246010** – Manifold KMVS3 in SS 3 places
- **code 246020** – Manifold KMVS6 in SS 6 places

**STU – Sterility test device**

Filter holder entirely assembled to perform sterility test with antibiotics or pharmaceutical products.

- **code 245700** - Complete unit ready to use
Ascle® U - Disposable funnel with separated membrane

Fast and secure filtering system for bacteriological filtration purpose

Ascle® V - Disposable funnel equipped with membrane

Fast and secure filtering system for bacteriological filtration purpose

Bio-Bact 100 - Monitors equipped with membrane for bacteriological analysis

Fast and secure filtering system for filtration and transformation on Petri dish, ready for incubation

### TECHNICAL DATA

- Funnel 100 or 250 ml, sterile
- Packages of 100 pcs divided in 10 sterile boxes
- Supplied with 100 separated gridded and sterile membranes, in individual pack
- Single-use type, easy to manage
- In use on RA-A column see page 8

### TECHNICAL DATA

- Funnel 100 or 250 ml, sterile
- Packages of 75 and 50 pcs divided in single sterile boxes unit
- Square membranes are incorporated and pre-mounted
- Single-use type, easy to manage
- In use on KM-A column see page 8 (code 249308) or on RA-A column removing the supporting holder

### TECHNICAL DATA

- Funnels 100 ml, composed of a base with membrane, graduated cylinder and lid (all in a sterile bag)
- Packages of 50 pcs divided in single sterile boxes unit
- Membranes in Ø 47 mm are gridded, incorporated and ready for use
- Disposable type, easy to manage
- In use on KM-B column see page 11 (code 249309)

### Purchase codes

#### 100 ml funnels and membranes

<table>
<thead>
<tr>
<th>Code</th>
<th>μ</th>
<th>ø  mm</th>
<th>Colour</th>
</tr>
</thead>
<tbody>
<tr>
<td>A47U100+A020H</td>
<td>47</td>
<td>white</td>
<td></td>
</tr>
<tr>
<td>A47U100+A045H</td>
<td>47</td>
<td>white</td>
<td></td>
</tr>
<tr>
<td>A47U100+A080H</td>
<td>47</td>
<td>white</td>
<td></td>
</tr>
<tr>
<td>A47U100+A045R</td>
<td>47</td>
<td>black</td>
<td></td>
</tr>
<tr>
<td>A47U100+A080R</td>
<td>47</td>
<td>black</td>
<td></td>
</tr>
</tbody>
</table>

#### 250 ml funnels and membranes

<table>
<thead>
<tr>
<th>Code</th>
<th>μ</th>
<th>ø  mm</th>
<th>Colour</th>
</tr>
</thead>
<tbody>
<tr>
<td>A47U250+A020H</td>
<td>47</td>
<td>white</td>
<td></td>
</tr>
<tr>
<td>A47U250+A045H</td>
<td>47</td>
<td>white</td>
<td></td>
</tr>
<tr>
<td>A47U250+A080H</td>
<td>47</td>
<td>white</td>
<td></td>
</tr>
<tr>
<td>A47U250+A045R</td>
<td>47</td>
<td>black</td>
<td></td>
</tr>
<tr>
<td>A47U250+A080R</td>
<td>47</td>
<td>black</td>
<td></td>
</tr>
</tbody>
</table>

#### Bio-Bact 100 funnels

<table>
<thead>
<tr>
<th>Code</th>
<th>μ</th>
<th>ø  mm</th>
<th>Colour</th>
</tr>
</thead>
<tbody>
<tr>
<td>BB-47MCE010SW</td>
<td>0.1</td>
<td>47</td>
<td>white</td>
</tr>
<tr>
<td>BB-47MCE022SW</td>
<td>0.22</td>
<td>47</td>
<td>white</td>
</tr>
<tr>
<td>BB-47MCE045SW</td>
<td>0.45</td>
<td>47</td>
<td>white</td>
</tr>
<tr>
<td>BB-47MCE080SW</td>
<td>0.8</td>
<td>47</td>
<td>white</td>
</tr>
<tr>
<td>BB-47PES010SW</td>
<td>0.1</td>
<td>47</td>
<td>white</td>
</tr>
<tr>
<td>BB-47PES022SW</td>
<td>0.22</td>
<td>47</td>
<td>white</td>
</tr>
<tr>
<td>BB-47PES045SW</td>
<td>0.45</td>
<td>47</td>
<td>white</td>
</tr>
<tr>
<td>BB-47PVLO22SW</td>
<td>0.22</td>
<td>47</td>
<td>white</td>
</tr>
<tr>
<td>BB-47PVLO45SW</td>
<td>0.45</td>
<td>47</td>
<td>white</td>
</tr>
</tbody>
</table>

For further details contact us
**Waste bottle accessories**

1) Waste vacuum glass flasks  
   - code 06004 – capacity 5 liters  
   - code 06005 – capacity 10 liters

2) Flask type 1 - mounted with a stopper type (3) as shown below

3) Rubber stopper to empty vacuum flasks, equipped with 2 SS connections for vacuum hose Ø 8 mm, vent tap and a series of vacuum hoses  
   - code 04016 – size #16

4) Waste in PP (polypropylene) vessel  
   - capacity 4000 ml - autoclavable, hose connection Ø 8 mm, overflow valve and draining on its base  
   - code 22548R – capacity 4000 ml

5) Waste vessel with hose connections  
   - Ø 8 mm and overflow valve  
   - code 22512R – PES, capacity 1200 ml  
   - code 22520R – PC, capacity 2000 ml  
   - code 22530R – PC, capacity 3000 ml

6) Glass flasks Wolf system, equipped with silicone stopper, SS connection for the vacuum hose, vent tap and non-return valve  
   - code 06011 – glass, capacity 1 liter  
   - code 06012 – glass, capacity 2 liter

7) PC (polycarbonate) vessels with hose Ø 8 mm connection, overflow valve  
   - code 22510R – in PC, capacity 1 liter  
   - code 22520R – in PC, capacity 2 liters

**Flask traps**

8) Dry portable pump type, electric (220 V), noise 50 dB, equipped with trap and temperature sensor  
   - code 225300 – RCK300, flow rate 18lit/min (suggested for 1 or 3 places manifold)  
   - code 225400 – RCK400, flow rate 34 lt/min (suggested for 4 or 6 places manifold)

9) Dry portable pump, electric (220 V), for aggressive products, noise 50 db, with temperature sensor  
   - code 22530T – CMK300, flow rate 18lt/min (suggested for 1 or 3 places manifold)  
   - code 22540T – CMK400, flow rate 34 lt/min (suggested for 4 or 6 places manifold)

10) Oil portable pump type, electric (220 V), noise 52 dB, with temperature sensor  
    - code 225130 – TNK 130, rate flow 70 lt/min (suggested for 3, 4 or 6 places manifold)  
    - code 225150 – TNK 150, rate flow 127 lt/min (suggested for 6 places manifold)
11) Water tap flow pump type
code 22781 – in plastic, connections 1/2" or 3/4" (suggested for 1 or 3 places manifold)
code 22783 – in chrome plated metal, with hose connector and vacuum gauge (suggested for 1 or 3 places manifold)

12) Hand lever pump type
code 22791 – in plastic, with vacuum gauge (suggested for 1 place manifold)

13) Non-returne valve to stop the inverse air flow (reflux)
code 22795 – In plastic with hosebarb in 3 diameter sizes

14) Hydrophobic PTFE filter Ø 50 mm, to protect the electric pump from water flow
code MD-50JP050AN – 0,5 µ in PTFE (pack of 10 pcs)

15) Rubber vacuum hose
code 07201 – internal ø 8 mm

Various examples