

2005/2006 Edition

S.S. Vacuum Manifolds and Filter Holders



M A N I F O L D S & H O L D E R S



speedflow series



ADVANTEC MFS, Inc.

Crami Amafilter Group

Tecnologia per il laboratorio e l'industria

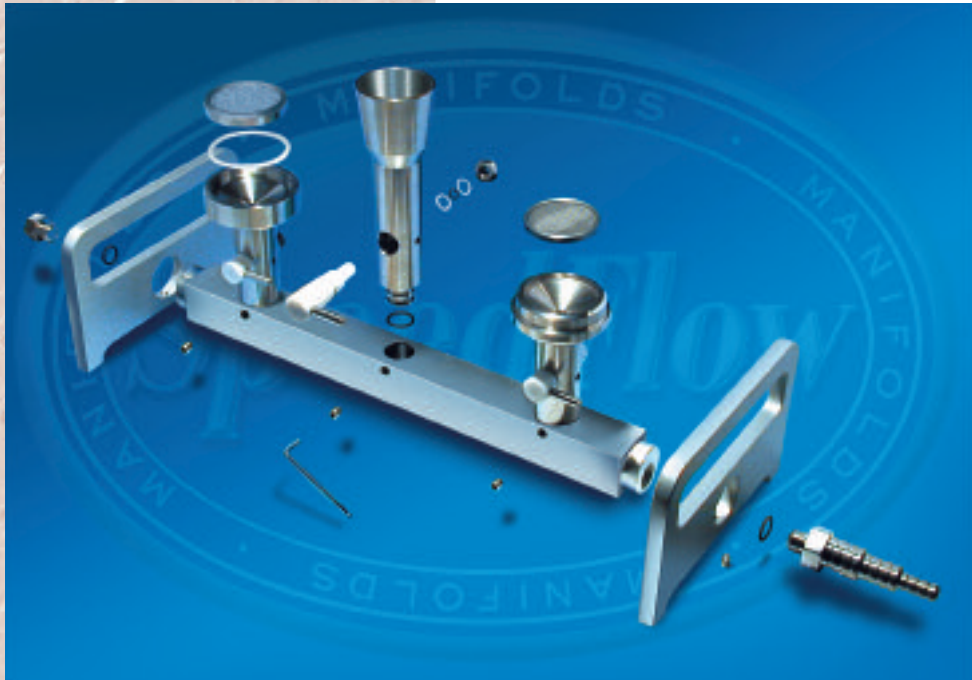


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Manifolds and Filter Holders



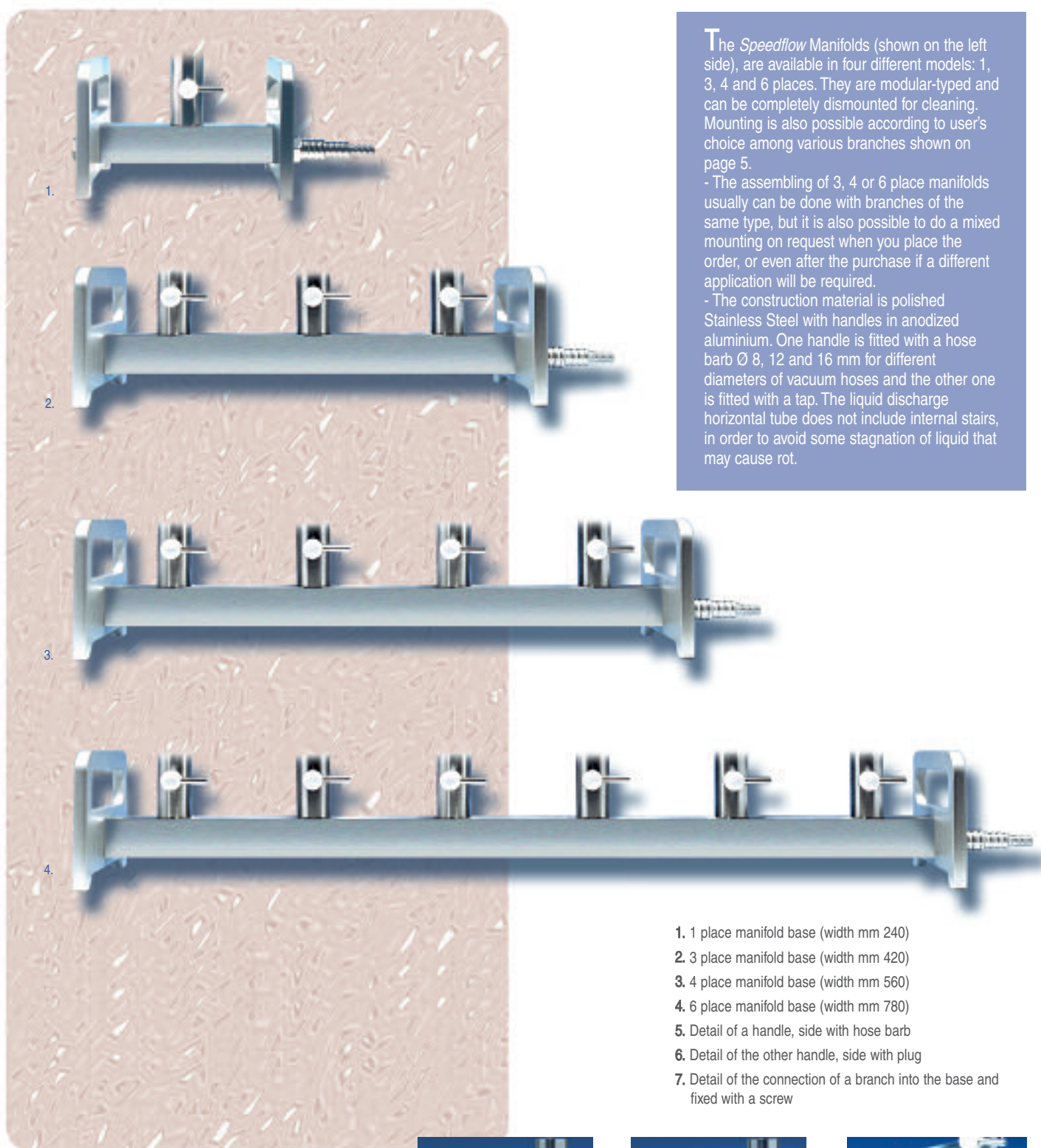
Our company has been present in the micro-filtration business since 1960. Through over 40 years of daily contacts with the users we have acquired an outstanding expertise with their application needs especially when it is necessary to carry out a number of multiple analysis in a short time.

Our long established know-how and experience led to the project of a manifold suitable for all requirements of today's laboratories, reliable and flexible at the same time.

Result of this project is the filtration Manifold **Speedflow** described in this catalogue with all accessories and various additional components available for a simple and handy use.



Laboratory Manifolds



Different branches for manifold assembling



Five types of branches in polished Stainless Steel are available as shown above. Each branch is supplied with a tap to close the vacuum or for other requirements (see page 7). The tap is made in PTFE with a SS lever.

Branch for KM-N Manifold

Conical shaped for a silicone stopper # 8 for the mounting of complete filter holders. The following manifolds are assembled with this branch:

- KM1-N** 1 place (item 246030)
- KM3-N** 3 place (item 246040)
- KM4-N** 4 place (item 246060)
- KM6-N** 6 place (item 246050)

Branch for RA-S Manifold

Mushroom shaped with conical polished inner part. It is equipped with a PTFE gasket and a Ø 50 mm disc in sintered SS, which is compatible with membranes Ø 47 or 50 mm. Various types of funnel can be mounted upon this branch: in graduated glass with 100, 300, 500 and 1000 ml of capacity or in SS with 100, 250 and 500 ml capacity. The following manifolds are assembled with this branch:

- RA1-SS** 1 place (item 246226)
- RA3-S** 3 place (item 246227)
- RA4-S** 4 place (item 246229)
- RA6-S** 6 place (item 246228)

Branch for RA-M Manifold

Mushroom shaped with conical polished inner part. It is equipped with a Ø 41 mm disc made with an SS net, that is the support for a conical 100 or 250 ml funnel filter Microfil (made by Millipore company). These funnels can be mounted by a light hand pressure. The following manifolds are assembled with this branch:

- RA1-M** 1 place (item 246230)
- RA3-M** 3 place (item 246231)
- RA4-M** 4 place (item 246233)
- RA6-M** 6 place (item 246232)

Branch for RA-E Manifold

Little mushroom shaped with conical polished inside. It is equipped with a Ø 19 mm disc made with a SS net, that is the support for a membrane Ø 25 mm. Various types of funnel can be mounted upon this branch: in graduated glass with 15, 150, 300 or 500 ml of capacity. The following manifolds are assembled with this branch:

- RA1-E** 1 place (item 246234)
- RA3-E** 3 place (item 246235)
- RA4-E** 4 place (item 246241)
- RA6-E** 6 place (item 246236)

Branch for RA-NXT Manifold

Exterior taper compatible with 40/35 female joint for the mounting of Phase/Fraction Collectors for microanalysis. The following manifolds are assembled with this branch:

- RA1-NXT** 1 place (item 246237)
- RA3-NXT** 3 place (item 246238)
- RA4-NXT** 4 place (item 246240)
- RA6-NXT** 6 place (item 246239)

Prefilter holder PR-50 and PR-47

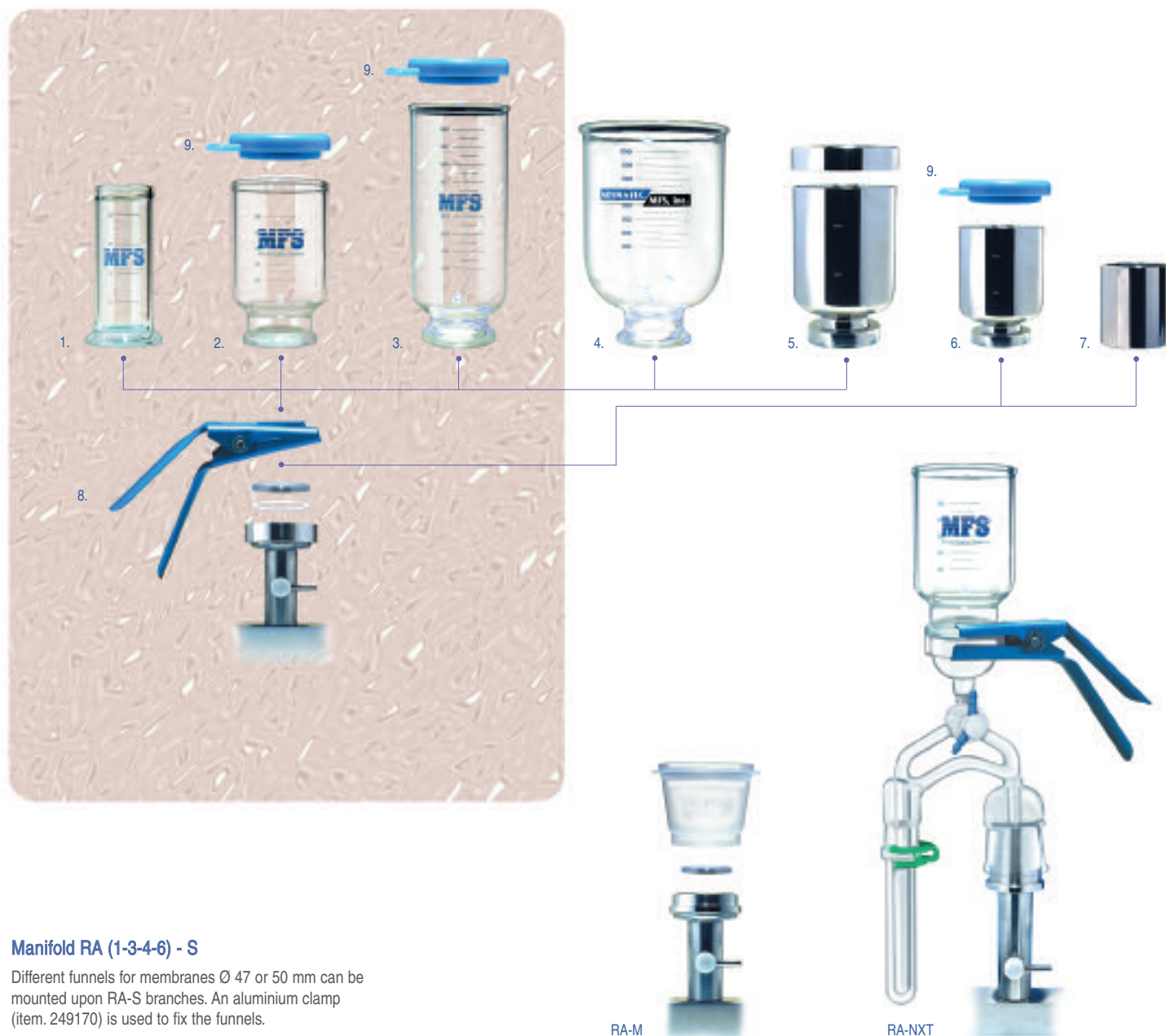
This accessory provides a physical separation of two filters which have been set up in series, e.g. a prefilter and a membrane. Both accessories are fitted with a disc made with a SS net and may be used with Ø 47 or 50 mm membranes which are fixed with a standard clamp.

Important: they can be mounted only on Manifolds type RA-S.

- 1) **PR-50** - (item 245331) - prefilter holder in SS, fitted with disc in SS net and clamp.
- 2) **PR-47** - (item 245318) - prefilter holder in glass, fitted with disc in SS net and clamp.

Different configurations available

(mod. RAx-S, RAx-M and RAx-NXT)



Manifold RA (1-3-4-6) - S

Different funnels for membranes Ø 47 or 50 mm can be mounted upon RA-S branches. An aluminium clamp (item. 249170) is used to fix the funnels.

- 1) Item 249070 – Glass Funnel, 100 ml, graduated
- 2) Item 249120 – Glass Funnel, 300 ml, graduated
- 3) Item 249080 – Glass Funnel, 500 ml, graduated
- 4) Item 249085 – Glass Funnel, 1000 ml, graduated
- 5) Item 249180 - Funnel in Type 316 SS, 500 ml, graduated at 250-500 ml with lid
- 6) Item 249185 - Funnel in Type 316 SS, 250 ml, graduated at each 50 ml (clamp not required)

- 7) Item 249190 - Funnel in Type 316 SS, 100 ml (clamp not required)
- 8) Item 249170 - Anodized aluminium Clamp
- 8) Item 249090 – Silicone Lid

Manifold RA (1-3-4-6) - M

Only **Microfil**® funnels in PP, produced by Millipore company, with base Ø 47 mm, capacity of 100 or 250 ml, graduated can be mounted upon these branches

Manifold RA (1-3-4-6) - NXT

Only the Phase/Fraction Collectors for microanalysis produced by Advantec/MFS company or equivalent product can be mounted upon RA-NXT branches

Item 245594 - P/FC-2A Ø 47 mm with support of membrane in glass

Item 245595 - P/FC-2B Ø 47 mm with support of membrane type 316 SS

Item 245596 - P/FC-2C Ø 47 mm with support of membrane in PTFE

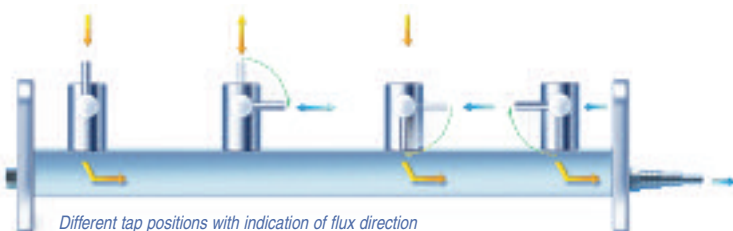
This is the most commonly used manifold as it was the first one to be introduced in the market. In fact by using a # 8 stopper it is possible to mount all types of filter holders available.



Manifold KM (1-3-4-6) -N

Complete filter holders can be mounted on KM-N branches such as:

- 1) - Type 316 SS Ø 47 mm, through a stopper # 8 (Crami Amafilter Group)
- 2) - Glass with funnel 300 or 500 ml Ø 47 mm, through a stopper # 8
- 3) - Glass with funnel 1000 ml Ø 90 mm, through a stopper # 8
- 4) - Polysulfone with funnel 300 or 500 ml Ø 47 mm, through a stopper # 8B
- 5) - Glass with funnel 150 ml Ø 13 mm, through a stopper # 8B
- 6) - Glass with funnel 500 ml Ø 25 mm, through a stopper # 8B



Different tap positions with indication of flux direction

Manifold RA (1-3-4-6) - E

Different types of funnels Ø 25 mm fixed with a standard clamp can be mounted upon RA-E branches.

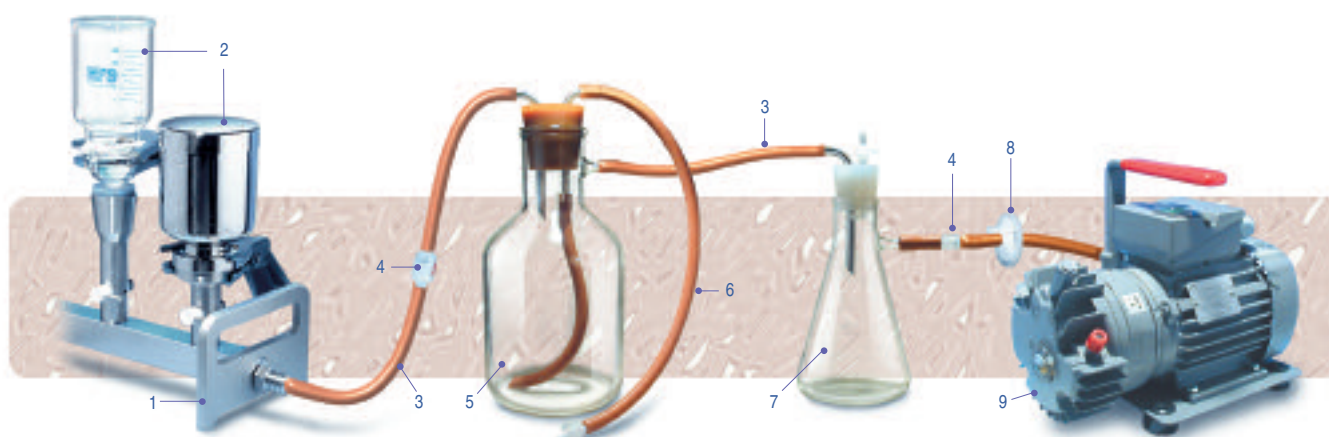
- 1) Item 245111 – Glass funnel 15 ml, graduated
- 2) Item 245115 - Glass funnel 150 ml, graduated
- 3) Item 245114 - Glass funnel 300 ml, graduated
- 4) Item 246311 – Glass funnel 500 ml, graduated
- 5) Item 245113 - Clamp



Example of Manifold assembly

The scheme is showing a possible configuration of the **SpeedFlow** Manifolds.

- 1) Manifold
- 2) Different Filter Holders
- 3) Vacuum hose
- 4) Non-return valve
- 5) Big flask receiving the filtrate
- 6) Hose with tap used to empty the flask
- 7) Water-trap to protect the electric pump
- 8) Hydrophobic filter for extra protection
- 9) Electric or water pump



Accessories and additional components for Manifolds

- 1) TSilicone stopper with SS connection for
 Ø 8 mm acuum hose
 Item 04011 - # 11 for 1 l flask
 Item 04017 - # 14 for 2 l flask
 Item 04013 - # 16 for 5/10 l flask



- 2) Rubber stopper with SS connection for Ø 8 mm
 vacuum hose and vent tap
 Item 04015 - # 16 for 5/10 l flask
- 3) Silicone stopper with SS connection for Ø 8 mm
 vacuum hose and vent tap
 Item 04014 - # 11 for 1 l flask
 Item 04012 - # 14 for 2 l flask
- 4) Rubber stopper for empty vacuum flask, fitted
 with 2 SS connections for Ø 8 mm vacuum hose
 Item 04016 - # 16 for 5/10 l flask
- 5) Vacuum flask to collect filtrate, may also work as
 trap to prevent damage to vacuum line
 Item 06002 - glass, 1 l capacity
 Item 06003 - glass, 2 l capacity
- 6) Woullf system flask: may also work as a trap to
 prevent liquid from damaging pump or vacuum
 line, fitted with silicone stopper and vent tap
 Item 06011 - glass, 1 l capacity
 Item 06012 - glass, 2 l capacity

- 7) Big cylindrical vacuum flasks to collect filtrate
 (without stopper)
 Item 06004 - glass, 5 l capacity
 Item 06005 - glass, 10 l capacity
 Item 06015 - glass, 20 l capacity
- 8) Vacuum flask type 7) fitted with stopper as described in 4)
- 9) Water vacuum plastic pump
 Item 22781 - for 1/2" or 3/4" taps
- 10) Water vacuum chrome-brass pump with vacuum gauge
 Item 22783 - for a tap with hose barb

- 11) Handle portable vacuum plastic pump with vacuum gauge
 Item 22791 - operates manually
- 12) Electric vacuum pump, 220V
 Item 22704 - rotary vane in oil, 48 l/min
 Item 22742 - rotary vane oil free, 46 l/min
- 13) Non return valve, to prevent reflux
 Item 22795 - In plastic, with hose barb of three diameters
- 14) Filter Ø 50 mm, to protect the electric pump, with conical
 hose barb
 Item MD-50CP045AN - with MCE membrane 0,45 micron
 Item MD-50JP050AN - with Hydrophobic PTFE membrane 0,5
 micron
- 15) Rubber vacuum hose
 Item 07201 - vacuum hose, internal Ø 8 mm



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