

VWR[®]
FOR FILTRATION

Analytical filtration

Filtration for
Life Sciences

Other paper
products

**Whatever your application,
we have a solution**



FILTRATION

We hope that you will notice several things about the VWR range of products of filtration.

Choice – enough to cover almost every application without being overwhelming

Performance – market leading consistency and reliability

Value for money – products that don't cost a fortune to buy



TABLE OF CONTENTS

Analytical filtration

Syringe filters	3
Filter paper	3
Glass fiber	7
Thimbles	7
Funnels	8
Vacuum filtration units	10
Pumps and tubing	11
Stands, clamps and platforms	14

Filtration for Life Sciences

Sterile filtration	15
Bottle tops	17
Pumps and tubing	20
Concentrators	20
Micro centrifuges	21
Blotting	22

Other paper products

Phase separating paper	22
Benchtop protection	23
Weighing paper	23
Joseph paper	23
Lens cleaning	23



Syringe filters

Available with either PP, PTFE or nylon membrane. Membranes are available in either 0,2 or 0,45 μm pore size with the choice often made on analytical column packing size. If the column packing size is larger than 3 μm then use 0,45 μm and if 3 μm or smaller then use 0,2 μm .

- Suitable for HPLC: Low levels of UV-detectable extractables

PP membrane	These polyvalent filters are designed for the preparation of mixed samples. They fulfil a broad range of chemical compatibility for aqueous/organic mixtures.				
PTFE membrane	These PTFE membranes are designed for filtration of corrosive gases and organic solvents. Excellent chemical resistance. Ultimate compatibility for filtering harsh chemicals.				
Nylon membrane	These versatile filters are suitable for the preparation of aqueous and solvent-based samples. Chemical compatibility with esters, bases and alcohols. Offers a broad chemical resistance to common solvents. Not recommended for acids >1N or halogenated solvents.				
Pore size (μm)	\emptyset (mm)	Sterile	Pk	Cat. No.	
PP membrane					
0,2	25	-	100	514-0064	
0,45	25	-	100	514-0065	
PTFE membrane					
0,2	13	-	100	514-0068	
0,2	25	-	100	514-0070	
0,45	13	-	100	514-0069	
0,45	25	-	100	514-0071	
Nylon membrane					
0,2	25	-	100	514-0066	
0,45	25	-	100	514-0067	

Applications for VWR qualitative filter papers

Grade	410 305	403 313	402 302	415 401 301	413 303	600 310	417	315	307
Aluminium phosphate					X				
Aluminium hydroxide				X					
Barium carbonate					X				
Barium sulphate	X								
Chromatography		X							
Cobalt carbonate				X					
Cuprous oxide	X								
Drugs		X							
Fat content (in diary products)			X						
General qualitative filtration			X		X	X			
Lead chromate					X				
Lead sulphate	X								
Liquors		X							
Magnesium hydroxide				X					
Malt analysis in breweries (according to EBC standard)									X
Manganese carbonate	X								
Mercury iodide				X					
Pharmaceuticals		X							
Precipitates (coarse)				X				X	
Precipitates (gelatinous)								X	
Protein-free filtrations (clinical laboratory)		X							
Rapid filtrations			X	X			X		
Sulphides			X						
Tinctures		X							
Wine (clarification)	X								



Qualitative filter papers

Grade (plain)	Grade (folded)	Application
402	302	General grade for qualitative tasks. Suitable for most sulphides. Determination of total fat content in dairy products.
403	313	Drugs, pharmaceuticals, liquors, tinctures, chromatography and protein-free filtrations in the clinical laboratory.
410	305	Filtration of copper(I) oxide, lead sulphate, barium sulphate, manganese carbonate and more for analytical work. Suitable for extremely difficult filtration and for clarification of wine.
413	303	For routine laboratory work, suitable for student requirements in general chemistry. Suitable for filtration of aluminium phosphate, barium carbonate, lead chromate and more.
415	301	Coarse precipitates such as aluminium hydroxide, cobalt carbonate, mercury iodide, magnesium hydroxide and more.
417	NA	Rapid filtrations where fine particle retention is not required.
NA	307	For brewing industry. Embossed surface filter paper 70 g/m ² for malt analysis in breweries (according to EBC standard).
600	310	Qualitative filter paper for use in routine laboratories, universities and hospitals. Made of 100% cellulose with no binder.
NA	315	Gelatinous and coarse precipitates.

Grade	Weight	Thickness	Particle retention	Max. pore size	Min. pore size	Filtration speed	Wet burst strength	Dry burst strength
Plain filters								
401	84 g/m ²	0,2 mm	12 - 15 µm	50 µm	31 µm	40 s (Herzberg)	2 psi	11 psi
402		0,17 mm	8 - 12 µm	40 µm	23 µm	90 s (Herzberg)	2,5 psi	17 psi
403	87 g/m ²	0,15 mm	5 - 8 µm	30 µm	15 µm	250 - 300 s (Herzberg)	0,5 psi	12,5 psi
410	80 g/m ²		2 - 3 µm	20 µm	9 µm	2500 s (Herzberg)	1 psi	22 psi
413	73 g/m ²	0,16 mm	5 - 13 µm	45 µm	20 µm	350 s (Herzberg)	9 psi	28 psi
415	80 g/m ²		12 - 15 µm	50 µm	31 µm	8 s (Herzberg)	0,8 psi	8,5 psi
417	110 g/m ²	-	35 - 45 µm	-	-	11 s (Herzberg)	15 psi	35 psi
600	64 g/m ²	0,15 mm	13 µm	60 µm	25 µm	200 - 250 s (Herzberg)	6,5 psi	19 psi
Folded filters								
302	84 g/m ²	0,17 mm	8 - 12 µm	40 µm	23 µm	150 s (Herzberg)	2,5 psi	17 psi
313	87 g/m ²		5 - 8 µm	30 µm	15 µm	500 s (Herzberg)	0,5 psi	12,5 psi
305	84 g/m ²	0,14 mm	2 - 3 µm	20 µm	9 µm	2500 s (Herzberg)	3,5 psi	18 psi
303	73 g/m ²	0,16 mm	5 - 13 µm	45 µm	20 µm	160 s (Herzberg)	9 psi	28 psi
301	84 g/m ²	0,2 mm	12 - 15 µm	50 µm	31 µm	70 s (Herzberg)	2 psi	11 psi
307	70 g/m ²	-	8 µm	40 µm	23 µm	520 s (Herzberg)	-	-
310	64 g/m ²	0,15 mm	13 µm	60 µm	25 µm	110 s (Herzberg)	6,5 psi	19 psi
315	73 g/m ²	0,17 mm	17 - 30 µm	70 µm	40 µm	60 s (Herzberg)		17,5 psi

Grade	Size (mm)	Pk	Cat. No.
Plain filters			
401	55	100	516-0349
401	70	100	516-0350
401	125	100	516-0351
401	70 mm x 80 m	1 Roll	516-0282
402	150	100	516-0283
403	150	100	516-0289
410	75	100	516-0800
410	90	100	516-0801
410	110	100	516-0802
410	125	100	516-0803
410	150	100	516-0804
410	185	100	516-0805
413	15	100	516-0810
413	42,5	100	516-0811
413	55	100	516-0812
413	75	100	516-0813
413	90	100	516-0814
413	110	100	516-0815
413	125	100	516-0816
413	150	100	516-0817
413	185	100	516-0818
413	205	100	516-0819
413	240	100	516-0820
415	55	100	516-0830
415	75	100	516-0831
415	90	100	516-0832
415	110	100	516-0833
415	125	100	516-0834
415	150	100	516-0835
415	185	100	516-0836
415	205	100	516-0837



Grade	Size (mm)	Pk	Cat. No.
Plain filters			
415	250	100	516-0838
415	330	100	516-0839
417	90	50	516-0821
417	110	50	516-0822
417	125	50	516-0823
417	150	50	516-0824
417	185	50	516-0825
417	205	50	516-0826
417	250	50	516-0827
417	330	50	516-0828
417	500	50	516-0829
600	420x520	500	516-0309
600	460x570	100	516-0880
Folded filters			
302	125	100	516-0284
302	150	100	516-0285
302	185	100	516-0286
302	240	100	516-0287
302	320	100	516-0288
313	125	100	516-0806
313	150	100	516-0807
313	185	100	516-0808
313	240	100	516-0809
305	125	100	516-0290
305	150	100	516-0291
305	185	100	516-0292
305	240	100	516-0293
303	100	100	516-0294
303	110	100	516-0295
303	130	100	516-0296
303	150	100	516-0297
303	190	100	516-0298
303	250	100	516-0299
303	270	100	516-0300
303	330	100	516-0301
301	125	100	516-0276
301	150	100	516-0277
301	185	100	516-0278
301	240	100	516-0279
301	270	100	516-0280
301	320	100	516-0281
307	320	100	516-0310
310	70	100	516-0302
310	100	100	516-0303
310	130	100	516-0304
310	150	100	516-0305
310	190	100	516-0306
310	250	100	516-0307
310	330	100	516-0308
315	130	100	516-0840
315	150	100	516-0841
315	190	100	516-0842
315	250	100	516-0843
315	330	100	516-0844
315	400	100	516-0845

Nitrogen-free filters, grade 521

Nitrogen-free filters for determination of nitrogen content in steel and iron samples dissolved in acid. Filtration of fine precipitates to dissolve according Kjeldahl method.

Weight	85 g/m ²
Thickness	0,17 mm
Filtration speed	650 s (Herzberg)

Grade	Size (mm)	Pk	Cat. No.
521	90	100	516-0316
521	100x100	100	516-0317



Applications for VWR quantitative filter papers

Grade	424	434	474	454
Alkali carbonate	X			
Aluminium hydroxide				X
Aluminium phosphate			X	
Antimony	X			
Arsenic	X			
Barium sulphate (cold)		X		
Calcium fluoride		X		
Cobalt sulphide				X
Cuprous oxide		X		
General quantitative analyses			X	
Iron sulphide	X			
Lead chromate	X			
Lead dioxide		X		
Lead sulphide	X			
Nickel sulphide		X		
Oils and grease (insoluble impurities)		X		
Precipitates (coarse)				X
Precipitates (fine)		X		
Precipitates (gelatinous)				X
Sand content (in dairy products)	X			
Silver chromate			X	
Silver sulphide	X			
Whiteness (in pulp in paper mills)	X			
Zinc ammonium phosphate			X	
Zinc sulphide		X		
Zirconium hydroxide				X



Quantitative filter papers

Grade	Application
424	Filtration of lead sulphide, iron sulphide, silver sulphide, alkali carbonate, lead chromate, arsenic, antimony, cadmium and food stuffs. Determination of sand content in dairy products. Determination of whiteness in pulp in paper mills.
434	Analysis of very fine precipitates such as lead dioxide, calcium fluoride, nickel sulphide, zinc sulphide, cold barium sulphate and cuprous oxide. Determination of insoluble impurities in greases, animal and vegetable oils.
454	Retention of zirconium hydroxide, aluminium hydroxide, cobalt sulphide and other coarse or gelatinous precipitate.
474	General quantitative analyses. Also for filtration of aluminium phosphate, zinc ammonium phosphate and silver chromate.

Grade	424	434	454	474
Weight	84 g/m ²			
Thickness	0,17 mm	0,14 mm	0,18 mm	0,16 mm
Particle retention	8 - 12 µm	2 - 3 µm	15 - 12 µm	5 - 8 µm
Max. pore size	40 µm	20 µm	50 µm	30 µm
Min. pore size	23 µm	9 µm	31 µm	15 µm
Filtration speed	150 s (Herzberg)	2500 s (Herzberg)	70 s (Herzberg)	450 s (Herzberg)
Wet burst strength	2,5 psi	3,5 psi	2 psi	3 psi
Dry burst strength	17 psi	18 psi	11 psi	12 psi

Grade	Size (mm)	Pk	Cat. No.	Grade	Size (mm)	Pk	Cat. No.
424	70	100	516-0264	454	70	100	516-0852
424	90	100	516-0265	454	90	100	516-0853
424	110	100	516-0266	454	110	100	516-0854
424	125	100	516-0267	454	125	100	516-0855
424	150	100	516-0268	454	150	100	516-0856
424	185	100	516-0269	454	185	100	516-0857
434	70	100	516-0270	474	70	100	516-0846
434	90	100	516-0271	474	90	100	516-0847
434	110	100	516-0272	474	110	100	516-0848
434	125	100	516-0273	474	125	100	516-0849
434	150	100	516-0274	474	150	100	516-0850
434	185	100	516-0275	474	185	100	516-0263
454	55	100	516-0851				



Glass fibre filters

Binder-free glass fibre filters feature fast flow rates, high loading capacity, wide thermal tolerance and excellent precipitate retention.

Grade	Application
691	Ideal for radioimmunoassay of weak beta emitters by scintillation counting and for filtration of precipitated proteins, cells and cell debris. Also used for gravimetric determination of airborne particulates and air pollution monitoring.
692	Recommended for use in filtration of suspended solids in industrial effluents and also as pre-filters for membranes.
693	Used for clarification and monitoring of suspended solids in wastewater and water and in marine chemistry to filter particulate components in sea water and in biochemistry for cell harvesting in radioimmunoassay procedures and for binders analysis.
696	Used for filtration and monitoring of air pollution and water, and also cell harvesting.
698	Due to its higher efficiency, in particle retention for smaller particles, than other glass fibre grades, 698 is suitable for the clarification of protein solutions, filtration of liquids prior to HPLC and critical applications.

Grade	Weight	Thickness	Particle retention	Filtration speed	Dry burst strength
691	52 g/m ²	0,26 mm	1,6 µm	60 s (Herzberg)	1,75 psi
692	143 g/m ²	0,7 mm	1,0 µm	200 s (Herzberg)	7 psi
693	52 g/m ²	0,26 mm	1,2 µm	100 s (Herzberg)	2,2 psi
696	65 g/m ²	0,28 mm	1,5 µm	60 s (Herzberg)	2,5 psi
698	75 g/m ²	0,45 mm	0,7 µm	310 s (Herzberg)	5 psi

Grade	Size (mm)	Pk	Cat. No.	Grade	Size (mm)	Pk	Cat. No.
691	21	100	516-0858	693	55	100	516-0870
691	24	100	516-0859	693	70	100	516-0871
691	42,5	100	516-0860	693	90	100	516-0872
691	47	100	516-0861	693	110	100	516-0888
691	55	100	516-0862	693	125	100	516-0889
691	70	100	516-0863	693	150	100	516-0890
691	90	100	516-0864	696	24	100	516-0873
691	110	100	516-0865	696	42,5	100	516-0874
691	125	100	516-0866	696	47	100	516-0875
691	150	100	516-0867	696	55	100	516-0876
692	24	100	516-0881	696	90	100	516-0877
692	47	100	516-0882	696	110	100	516-0878
692	55	100	516-0883	696	125	100	516-0879
692	70	100	516-0884	698	25	100	516-0343
692	90	100	516-0885	698	42,5	100	516-0344
693	21	100	516-0886	698	47	100	516-0345
693	24	100	516-0868	698	55	100	516-0346
693	42,5	100	516-0887	698	70	100	516-0347
693	47	100	516-0869	698	90	25	516-0348

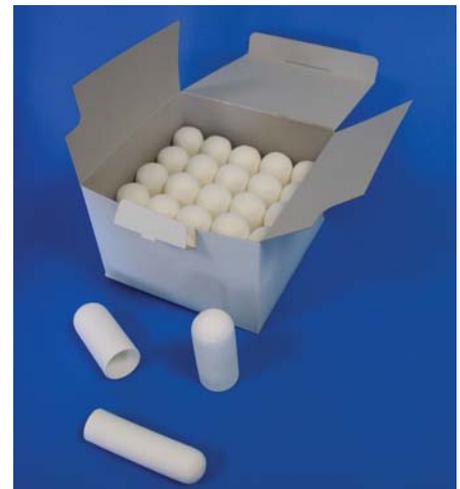
Extraction thimbles, grade 501

Pure cellulose cotton

Suitable for all types of extractors (Soxhlet, Büchi, Gerhardt and more).

- Determination of free lipids content in foods and fat content in milk powder
- Determination of oil content in oleaginous products
- Extraction and quantification of various components

I-ØxH (mm)	Pk	Cat. No.
19x90	25	516-0000
22x80	25	516-0252
25x80	25	516-0253
25x100	25	516-0254
28x80	25	516-0255
30x80	25	516-0256
30x100	25	516-0257
33x60	25	516-0258
33x80	25	516-0259
33x100	25	516-0260
33x118	25	516-0261
41x123	25	516-0262



Funnels, analytical

PP, translucent

Designed for use with standard filter paper. Cone angle 60°.

- Inner ribs at an angle of 58° for rapid filtration
- Outer ribs prevent air from being trapped under the filter paper
- Very good chemical and temperature resistance



Funnel O-Ø (mm)	Stem length (mm)	Stem O-Ø (mm)	Length (mm)	Pk	Cat. No.
35	49,3	6,3	75,8	12	221-0243
45	52,0	7,1	84,6	12	221-0244
55	59,5	7,1	103,4	12	221-0245
65	61,4	6,4	111,7	12	221-0246
75	76,3	6,8	139,4	6	221-0247
90	89,0	8,2	164,0	6	221-0248
100	95,4	9,1	180,0	4	221-0249
160	154,0	14,0	280,0	2	221-0250



Funnels with short stem, disposable

PP or PS

Suitable for use with standard filter paper.

- Good chemical resistance
- Good temperature resistance
- PP funnels are autoclavable

Funnel O-Ø (mm)	Stem O-Ø (mm)	Length (mm)	Stem length (mm)	Pk	Cat. No.
PP					
55	7,4/4,3	71,3	27,1	100	221-0252
65	7,4/4,3	74,4	22,7	100	221-0251
PS					
55	7,4/4,3	71,3	27,1	100	221-0253

Disposable paper lab funnel

Made of clay-coated heavy paper stock

Good alternative to disposable plastic funnels. Environmentally friendly paper product will naturally biodegrade in the standard municipal waste stream. Helps to reduce cross contamination.

- Innovative "backrest" allows hands-free use when pouring viscous liquids
- Fits a wide variety of openings
- Maximum flexibility - cut stem to any desired opening size or shape
- Apply a minimum of pressure and the funnel will stay in position
- Use with virtually any liquid or powder*

* Not recommended for hot liquids.

Capacity (ml)	Pk	Cat. No.
186	25	221-0274





Funnels with long stem



Borosilicate glass, grade 3.3

With smooth internal walls.

- Very good chemical resistance
- High temperature resistance
- Minimal thermal expansion, giving relatively high resistance to temperature changes

ISO 4798

Stem O-Ø (mm)	Stem length (mm)	Pk	Cat. No.
65	150	2	221-0172
80	150	2	221-0173
110	180	2	221-0174

Funnels with short stem



Borosilicate glass, grade 3.3

With smooth internal walls.

- Very good chemical resistance
- High temperature resistance
- Minimal thermal expansion giving relatively high resistance to temperature changes

ISO 4798

Funnel O-Ø (mm)	Stem O-Ø (mm)	For filter Ø (mm)	Stem length (mm)	Pk	Cat. No.
35	6	45 - 55	35	2	221-0175
45	6	55 - 70	45	2	221-0176
55	8	70 - 90	55	2	221-0177
70	8	110 - 125	70	2	221-0178
80	10	125 - 150	80	2	221-0179
100	10	150 - 185	100	2	221-0180
120	16	185 - 240	120	2	221-0181
150	16	240 - 270	150	2	221-0182



Büchner funnels

White glazed porcelain

For paper or membrane filtration discs.

Capacity (ml)	For filter Ø (mm)	Plate Ø (mm)	Pk	Cat. No.
10	27	29	1	511-0048
25	40	43	1	511-0049
40	45	48	1	511-0055
75	55	62	1	511-0056
135	70	77	1	511-0057
250	90	97	1	511-0058
500	110	116	1	511-0059
700	125	130	1	511-0065
1100	150	156	1	511-0066
1900	185	192	1	511-0067
4000	240	248	1	511-0068
7000	270	296	1	511-0069
9500	320	334	1	511-0075

Filtration crucibles

Porcelain, with porous bottom

Porosity	Capacity (ml)	Plate Ø (mm)	Pk	Cat. No.
1	8	25	2	511-0275
2	8	25	2	511-0276
3	8	25	2	511-0277
1	15	30	2	511-0278
2	15	30	2	511-0279
3	15	30	2	511-0280
1	25	35	2	511-0281
2	25	35	2	511-0282
3	25	35	2	511-0283
1	35	40	2	511-0284
2	35	40	2	511-0285
3	35	40	2	511-0286
1	50	45	2	511-0287
2	50	45	2	511-0288
3	50	45	2	511-0289



Vacuum filtering flasks, Büchner, with KECK™ assembly set



DURAN Group

DURAN® borosilicate glass

For vacuum use.

- Up to 2000 ml in Erlenmeyer shape, from 3000 ml bottle shape
- Inclusive assembly set with removable hose connection, screw and seals
- Fulfils "Equipment and product safety regulations"
- USP Standard

DIN 12476 and ISO 6556 (only Erlenmeyer shape)

Capacity (ml)	Height (mm)	Ø ext. (mm)	Neck I-Ø (mm)	Pk	Cat. No.
100	105	65	24	1	511-0330
250	155	85	34	1	511-0331
500	185	105	34	1	511-0332
1000	230	135	45	1	511-0333
2000	255	166	60	1	511-0334
3000	295	170	58	1	511-0325
5000	360	185	68	1	511-0326
10000	420	240	70	1	511-0327
15000	500	257	70	1	511-0328
20000	535	290	70	1	511-0329

Description	Pk	Cat. No.
Spare parts		
Replacement silicone rubber seal	1	519-4312
KECK™ assembly set	1	519-4311



Conical sleeves for vacuum filtration



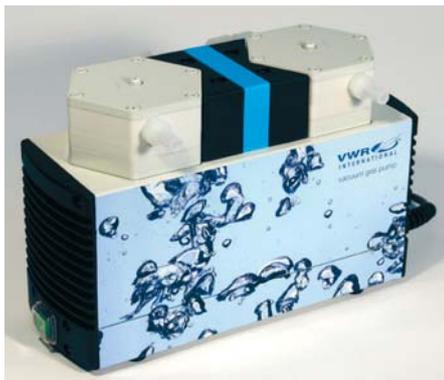
Rubber, autoclavable

Conical, for use with filtering flasks and filtering funnels.

Colour	Nominal Ø bottom (mm)	Nominal Ø top (mm)	Pk	Cat. No.
Grey	12	21	1	519-4405
Grey	17	27	1	519-4410
Grey	21	33	1	519-4415
Grey	27,5	41	1	519-4420
Grey	33	53	1	519-4425
Grey	48	68	1	519-4430
Grey	58	78	1	519-4435
Grey	66	89	1	519-4440

Description	Pk	Cat. No.
Set of 8 sleeves		
Set of 8 pieces ext. Ø 21 to 89 mm, grey	1 SET	519-4400





Diaphragm vacuum pump, VP 820



Dual-head, dry running diaphragm pump for a wide range of laboratory applications. It pumps, compresses and evacuates without affecting media, i.e. media remains uncontaminated. The pump includes a diaphragm with patented tension optimisation, which allows the pump to be smaller and prolongs the service life of the diaphragm.

- 100% oil-free pumping, so media cannot be contaminated when pumping and evacuating
- For medium aggressive gases and vapours
- Maintenance-free, quiet running

Delivery information: Includes diaphragm pump with thermal switch, mains fuse, connecting cable with plug and hose connectors for hoses with 9 mm internal diameter.

Model	VP 820
Flow rate (l/min)	20*
Working overpressure (bar)	1,0
Final pressure (abs.) (mbar)	8
Protection class	IP 44
WxDxH (mm)	110x304x204
Weight (kg)	9,3

Model	Pk	Cat. No.
VP 820 with EU-plug	1	181-0071
VP 820 with CH-plug	1	181-0072
VP 820 with UK-plug	1	181-0073

* Flow rate at atmospheric pressure

Membrane dry vacuum pump/compressor, VP 80 and VP 130



The VP 80 and VP 130 can be used as vacuum and pressure pumps and set a standard for efficient vacuum utility. Use these pumps for affordable vacuum in applications where corrosion resistance is not required. The pumps can be used for vacuum filtration of aqueous solutions or aqueous fumes including buffers, but they are not recommended for pumping acidic, basic, or organic fumes.

These VWR Collection vacuum/pressure pumps are designed for continuous unattended operation and have two dial gauges with manual regulators to be able to adjust and to easily monitor the required vacuum or pressure level.

- Vacuum and pressure pump all in one
- WOB-L® piston technology
- Compact, easy to clean, easy handling
- Easy monitoring and vacuum regulation
- Lightweight construction

Delivery information: Delivered with EU-, UK-, CH-plug, instruction manual, vacuum and pressure regulator, vacuum and pressure gauge, silencer and water trap.

Model	VP 80	VP 130
Flow rate (l/min)	38	18
Flow rate (m ³ /h)	2,3	1,1
Vacuum (mbar)	80	133
Final pressure (abs.) (mbar)	5200	7900
Motor output (kW)	0,19	0,093
WxDxH (mm)	254x191x229	206x224x254
Weight (kg)	5,3	

Description	Pk	Cat. No.
Vacuum pump/compressor VP 80	1	181-0309
Vacuum pump/compressor VP 130	1	181-0308

Description	Pk	Cat. No.
Accessories		
Maintenance kit for VP 80 pump	1	181-0313
Maintenance kit for VP 130 pump	1	181-0312





Mini diaphragm vacuum pump, VP 86



Single head, dry running diaphragm pump for a wide range of laboratory applications. It pumps, compresses and evacuates without affecting media, i.e. media remains uncontaminated. Includes diaphragm with patented tension optimisation, which allows the pump size to be smaller and extends the service life of the diaphragm.

- 100% oil-free pumping, so media is not contaminated when pumping, evacuating or compressing
- For neutral to mildly aggressive gases and vapours
- Maintenance-free, quiet running

Delivery information: Includes diaphragm pump with thermal switch, mains fuse, connecting cable with plug and hose connector for hoses with 4 mm internal diameter.

Model	VP 86
Flow rate (l/min)	6*
Working overpressure (bar)	2,4
Vacuum (mbar)	250
Final pressure (abs.) (mbar)	100
Protection class	IP 20
WxDxH (mm)	90x164x141
Weight (kg)	1,9

Model	Pk	Cat. No.
VP 86 with EU-plug	1	181-0067
VP 86 with UK-Plug	1	181-0065
VP 86 with CH-plug	1	181-0068

* Flow rate at atmospheric pressure

Compact vacuum pumps for filtration and solid phase extraction

VWR by Vacuubrand

Vacuum filtration is one of the most common applications used for sample preparation in chemistry, microbiology, wastewater control and other analytical processes. The VP 100 and VP 100 C diaphragm pumps offer a compact, high performance and easy to use solution which is perfect for both single and multiple filtrations.

This new development, based on the highly successful technology of the three-stage diaphragm pump series MD 1 and MD 1C, provides a well proven and extraordinary long diaphragm lifetime. The functional, space saving and innovative design with visible top-mounted power switch ensures convenient and quick operation for day-to-day lab work. Robust PTFE diaphragms and valves provide optimum chemical resistance. An optional manual control valve with gauge enables variable fine adjustment of the pumping speed.

- Convenient, quick and simple to use due to the new top-mounted power switch
- Whisper quiet and ultra-low vibration resulting from a new patented motor mounting
- Requires minimal benchtop space
- Maintenance-free drive system and proven long diaphragm life
- High chemical resistance (especially VP 100 C)



Model	VP 100	VP 100 C
No. of stages		3
Flow rate (m ³ /h)		0,7
Vacuum (mbar)		100

Description	Pk	Cat. No.
Diaphragm pump VP 100 for aqueous filtration and solid phase extraction (EU-plug)	1	181-0235
Diaphragm pump VP 100 for aqueous filtration and solid phase extraction (UK-plug)	1	181-0237
Diaphragm pump VP 100 for aqueous filtration and solid phase extraction (CH-plug)	1	181-0236
Diaphragm pump VP 100 C - chemically resistant (EU-plug)	1	181-0238
Diaphragm pump VP 100 C - chemically resistant (UK-plug)	1	181-0240
Diaphragm pump VP 100 C - chemically resistant (CH-plug)	1	181-0239

Water jet pump

Brand

PP, grey

For generating a vacuum and evacuating liquids and vapours (a catchpot or cooling trap may have to be fitted upstream).

- Extremely low water consumption (190 l/h at 3,5 bar flow pressure)
- Constant final pressure (16 mbar at 12 °C water temperature)
- Good suction capacity; ~400 l air per hour (against atmospheric pressure, 12 °C water temperature, 3,5 bar flow pressure)
- Good chemical resistance - the media to be transported only comes into contact with parts made from PP, FKM and PTFE
- Max. temperature in continuous operation 80 °C

Delivery information: Includes the water jet pump, an R 3/4» cap nut, an R 1/2» reducing adapter, a hose nozzle (10 - 12 mm external diameter) for the water connector and a hose connector with 6 - 9 mm external diameter that can be unscrewed for the vacuum connection.



Description	Flow rate pressure/ suction (l/min)	Final pressure (mbar)	Water pressure (bar)	Water consumption (l/h)	Temperature	Length (mm)	Pk	Cat. No.
Water jet pump	6,67	16	3,5	190	80 °C	210	1	181-9100

Description	Pk	Cat. No.
Accessories		
Reducing adapter, R 3/8", for water jet filter pump	1	181-9111
Reducing adapter, M 22x1, for water jet filter pump	1	181-9112



VWR  **CATALYST**
We Enable Science Through Services

Calibration and certification

Servicing and repairs

Maintenance contracts

technical.services@eu.vwr.com

Bossheads, universal

- Light robust design
- With easy action, T-screws for fixing

Material	Spanning width (mm)	Pk	Cat. No.
Laboral aluminium alloy	1,5 - 13	5	241-0143
Laboral aluminium alloy	2 - 16	5	241-0017
Stainless steel	2 - 16	2	241-0109
Aluminium bronze	8 - 27	2	241-0025
Stainless steel	8 - 27	2	241-0110



Clamps

Laboral aluminium alloy

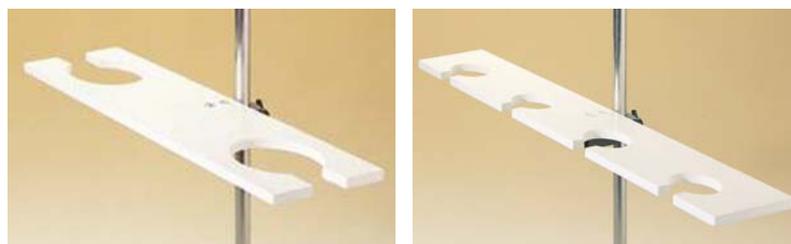
- Round jaws covered in vinyl to protect clamped items
- With one easy action knurled screw for securing

Spanning width (mm)	Pk	Cat. No.
15 - 65	5	241-0020

Funnel holder

PP, white

- Stainless steel bosshead to fit rods up to 12 mm diameter
- Acid resistant



Description	Pk	Cat. No.
Funnel holder for 4 funnels up to 100 mm diameter	1	241-0105
Holder for 2 separating funnels, apertures 65 mm diameter	1	241-0106



Laboratory stands

Support stands (B): Cast iron stand base, painted with hammer finish, steel support rod

With eccentrically attached support rod.

- Firm, non slip stand
- Available in three different sizes
- Robust, corrosion resistant

Description	Length (mm)	Width (mm)	Arm length (mm)	Pk	Cat. No.
Support stands (B)					
Support stand (B) with rod (500 mm length, 8 mm Ø)	225	140	-	1	241-0093
Support stand (B) with rod (800 mm length, 12 mm Ø)	250	160	-	1	241-0094
Support stand (B) with rod (1000 mm length, 16 mm Ø)	270	180	-	1	241-0095

Retort rods, unthreaded, Labomeca®

Stainless steel, hollow

- Very good chemical resistance
- Durable hollow rods reducing weight in support constructions

Ø (mm)	Length (mm)	Pk	Cat. No.
12	500	3	241-0069
12	1000	3	241-0072
12	2000	2	241-0075
16	500	1	241-0085
16	1000	1	241-0086
16	2000	1	241-0087





VWR filtration systems

The VWR range of disposable, sterile laboratory filtration systems has been designed to bring a new level of productivity for your laboratory.

Whether for the preparation of buffers, tissue culture media, microbiological media and other biological fluids or for the filtration of buffers prior to chromatography, this system when used with the optional pedestal or cradle will:

Improve productivity

- Permanent vacuum hose connection increases throughput
- Fast connection of filter to base decreases set-up time
- Large low protein binding, 90 mm filter membrane (500 and 1000 ml units) increases throughput

Easy to use

- Front-facing funnel graduation marks enhance readability
- Quick-Connect™ Technology requires just one hand to connect unit to base
- Large bottle cap accommodates labelling information and acts as a handle
- Vacuum control is accessible and user friendly
- Smooth, contoured surfaces make cleaning easy

Minimise risk of spills and contamination

- Weighted pedestal base is built for stability
- Fail-safe unit placement in base
- Ergonomically designed bottle and bottle cap improve handling
- Low profile funnel/bottle unit with wide base is tip resistant
- Robust, crack resistant bottle withstands cap tightening



How it works



1. Quick-Connect™ pedestal base or cradle ring allows for hands-free filtration – weighted for extra stability
2. Forward facing, large, raised graduation marks allow for easy view of volumes
3. Available in 0,1/0,2 and 0,45 µm PES asymmetric membrane filters
- 3b. Quick-Connect™ vacuum pedestal ensures that the unit is always correctly placed, reducing set-up time
4. Vacuum on/off switch located at the front for extra convenience
5. Available in a media storage bottle or centrifuge funnel system
6. Vacuum hose adapter to use with conventional filtration set-ups



Easy initial set-up of VWR filtration system



1. Connect the vacuum hose just once to the back of the Quick-Connect™ pedestal
2. Place filter on the Quick-Connect™ pedestal - the vacuum connects automatically
3. Once fluid has been added to the funnel, turn the on/off switch to the on position

Choose the funnel and receiver combination that meets your requirements



Storage bottles

These bottles are sold pre-sterilised and are available in low extractable plastics; PC, PS and PETG. The PC media bottle can withstand up to ten autoclave cycles and offers good alcohol resistance. PS bottles are used for general purpose cell culture aqueous solutions, and PETG bottles for general laboratory solution storage.

The narrow bottle shoulder, combined with moulded finger grips, improve the ability to securely grip the bottle with gloved hands. The innovative cap also allows for easy uncapping, tightening and bottle stacking.

PS bottle with PP cap

- Do not autoclave
- Stable to 80° C
- Appropriate for weak acid, weak base and dilute alcohol

PC bottle with PP cap

- Autoclavable
- Stable to 135° C
- Appropriate for weak acid, weak base and alcohol

PETG bottle with PP cap

- Low temperature stability – do not heat
- Good cold resistance
- Gas impermeable
- Appropriate for weak acid and alcohol



1. Flat writing surface
2. Bottle cap
3. Additional head space to allow 15% dilutions
4. Finger grips
5. Crystal clear bottle
6. High visibility, raised graduations
7. Wide, stable base



Bottle top vacuum filtration systems, High Performance



Designed for the preparation of buffers, tissue culture media, microbiological media and other biological fluids. These vacuum filtration systems feature large diameter Pall High Performance PES membranes for guaranteed performance and maximum throughput. The full assembly includes a filtration unit and a receiver bottle with an ergonomic shape, moulded finger grips and a patented bottle cap. The centrifuge tube and funnel system allows the user to filter fluids directly into a 15 or 50 ml tube.

Each separate piece is compatible with the Quick-Connect™ pedestal base providing a convenient on/off vacuum flow control, which allows for a convenient one-time vacuum hose connection and one handed operation. A cradle ring is also available for use with existing laboratory stands. Systems are available with 0,1 µm (mycoplasma filtering grade), 0,2 µm (sterilising grade) or 0,45 µm (clarification grade) asymmetric PES membranes. All items are made from FDA grade, Class VI materials and are gamma sterilised VD Max 10⁻⁶ in a 100,000 cleanroom in ISO 13485 standard facility.

- Quick-Connect™ pedestal base or cradle ring allows for hands-free filtration. Weighted for extra stability
- Quick-Connect™ pedestal base ensures that the unit is always correctly placed
- Forward-facing, large, raised graduation marks allow for easy visualisation of volumes
- Vacuum on/off switch located at the front
- Vacuum hose adapter to use with conventional filtration set-ups

Delivery information: Complete system includes filtration funnel (PS), media bottle (PS) or centrifuge tube (PP) and hose adapter.

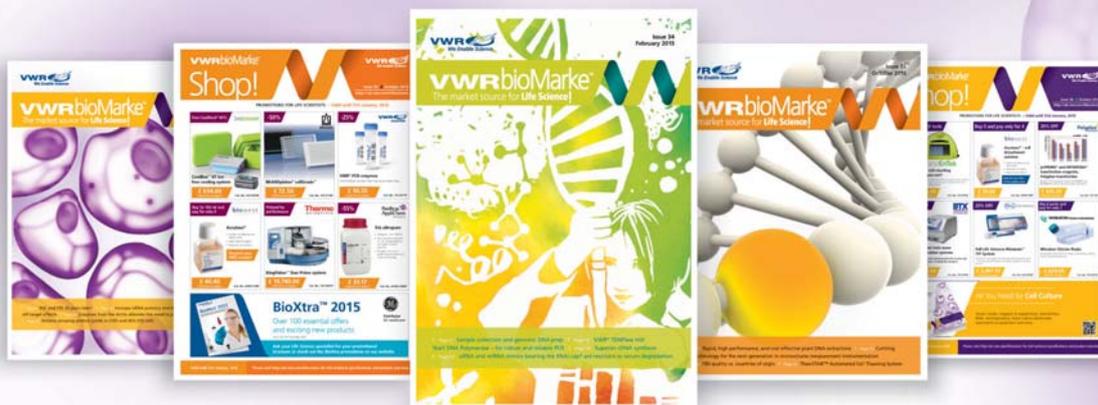
You can choose between complete systems and filtration funnels only. For the complete systems there is a choice of receivers:

- 15 or 50 ml centrifuge tubes
- 250, 500 or 1000 ml media bottles

Description	Membrane	Capacity (ml)	Pore size (µm)	Membrane Ø (mm)	Pk	Cat. No.
Complete filtration units						
Centrifuge tube filtration unit	PES	15	0,1	40	24	514-0367
Centrifuge tube filtration unit	PES	15	0,2	40	24	514-0317
Centrifuge tube filtration unit	PES	15	0,45	40	24	514-0318
Centrifuge tube filtration unit	PES	50	0,1	40	24	514-0366
Centrifuge tube filtration unit	PES	50	0,2	40	24	514-0308
Centrifuge tube filtration unit	PES	50	0,45	40	24	514-0309
Media bottle filtration unit	PES	250	0,1	66	12	514-0348
Media bottle filtration unit	PES	250	0,2	66	12	514-0296
Media bottle filtration unit	PES	250	0,45	66	12	514-0299
Media bottle filtration unit	PES	500	0,1	90	12	514-0349
Media bottle filtration unit	PES	500	0,2	90	12	514-0297
Media bottle filtration unit	PES	500	0,45	90	12	514-0300
Media bottle filtration unit	PES	1000	0,1	90	12	514-0350
Media bottle filtration unit	PES	1000	0,2	90	12	514-0298
Media bottle filtration unit	PES	1000	0,45	90	12	514-0301
Filtration funnels only						
Filtration funnel for centrifuge tube	PES	15	0,1	40	48	514-0363
Filtration funnel for centrifuge tube	PES	15	0,2	40	48	514-0364
Filtration funnel for centrifuge tube	PES	15	0,45	40	48	514-0365
Filtration funnel for centrifuge tube	PES	50	0,1	40	48	514-0359
Filtration funnel for centrifuge tube	PES	50	0,2	40	48	514-0360
Filtration funnel for centrifuge tube	PES	50	0,45	40	48	514-0362
Filtration funnel for media bottle	PES	250	0,1	66	24	514-0354
Filtration funnel for media bottle	PES	250	0,2	66	24	514-0302
Filtration funnel for media bottle	PES	250	0,45	66	24	514-0305
Filtration funnel for media bottle	PES	500	0,1	90	24	514-0355
Filtration funnel for media bottle	PES	500	0,2	90	24	514-0303
Filtration funnel for media bottle	PES	500	0,45	90	24	514-0306
Filtration funnel for media bottle	PES	1000	0,1	90	24	514-0358
Filtration funnel for media bottle	PES	1000	0,2	90	24	514-0304
Filtration funnel for media bottle	PES	1000	0,45	90	24	514-0307

Capacity (ml)	Pk	Cat. No.
PS bottles with PP cap, sterile		
250	24	391-0283
500	24	391-0284
1000	24	391-0286
PC bottles with PP cap, sterile		
250	24	391-0297
500	24	391-0298
1000	24	391-0299
PETG bottles with PP cap, sterile		
250	24	391-0294
500	24	391-0295
1000	24	391-0296
PS bottles with PP cap, non sterile		
250	24	391-0317
500	24	391-0318
1000	24	391-0319
PC bottles with PP cap, non sterile		
250	24	391-0321
500	24	391-0322
1000	24	391-0323
PETG bottles with PP cap, non sterile		
250	24	391-0314
500	24	391-0315
1000	24	391-0316
Description		
Accessories		
Quick-Connect™ pedestal base	1	514-0319
Cradle ring	1	514-0324

Research tools for medical life scientists



The VWRbioMarke-programme.

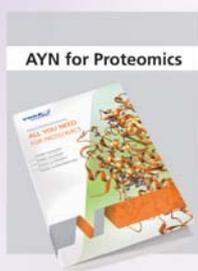
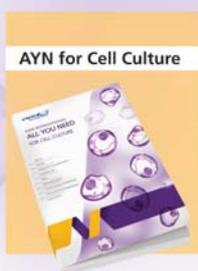
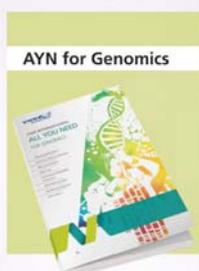
If you're not registered to receive materials from the programme then please contact your local VWR sales office or go to vwr.com

VWRbioMarke magazin - innovations and new products in genomics, proteomics and cell biology

VWRbioMarke shop - special offers especially for Life Scientists

'All You Need' Guides

Available as printed (hard) copy or PDF/flip catalogue via our website vwr.com



Bottle top vacuum filtration systems, Standard Line



PS funnel and collection reservoir

Systems for vacuum filtration of aqueous solutions including cell culture media, buffers or other biological fluids.

PES membrane: Low protein binding and low extractables. Ideal for tissue culture applications.

0,2 µm: Ideal for sterilisation applications and media preparation

0,45 µm: Ideal for buffer clarification

- Each individual unit is lot numbered for traceability
- Once filtration is complete, solution can be stored in the collection reservoir until needed

Non pyrogenic, non cytotoxic

ISO 10993-5, 1999

Packaging: Individually packed in easy to peel bags, receiver bottle cap is individually wrapped.

Delivery information: Full unit includes the filtration funnel with either 0,2, or 0,45 µm PES membrane, vacuum port, lid, collection reservoir and cap for storage.



Description	Capacity (ml)	Pore size (µm)	Membrane Ø (mm)	Pk	Cat. No.
Complete filtration units					
Complete filtration unit	150	0,2	50	12	514-0328
Complete filtration unit	150	0,45	50	12	514-0329
Complete filtration unit	250	0,2	50	12	514-0330
Complete filtration unit	250	0,45	50	12	514-0331
Complete filtration unit	500	0,2	75	12	514-0332
Complete filtration unit	500	0,45	75	12	514-0333
Complete filtration unit	1000	0,2	91	12	514-0334
Complete filtration unit	1000	0,45	91	12	514-0335
Filtration cups only					
Filtration cup	150	0,2	50	24	514-0336
Filtration cup	150	0,45	50	24	514-0337
Filtration cup	250	0,2	50	24	514-0338
Filtration cup	250	0,45	50	24	514-0339
Filtration cup	500	0,2	75	24	514-0340
Filtration cup	500	0,45	75	24	514-0341
Filtration cup	1000	0,2	91	24	514-0342
Filtration cup	1000	0,45	91	24	514-0343
PS reservoir bottles (caps included)					
Reservoir bottle with cap	150			24	514-0344
Reservoir bottle with cap	250			24	514-0345
Reservoir bottle with cap	500			24	514-0346
Reservoir bottle with cap	1000			24	514-0347



Syringe filters

Available with either Cellulose Acetate or PES membrane. Sterile membranes with 0,2 µm pore size are ideal for sterile filtration applications and those with 0,45 µm pore size can be used for clarifications. The sterile syringe filters are gamma irradiated to prevent cytotoxic residues caused by alternative sterilisation methods.

- Cellulose acetate membranes' surfaces are not treated by wetting agents. This is especially useful for cell culture applications
- PES membranes show very low levels of extractables and high flow rates. Ideal for cell culture applications
- Certified non pyrogenic and non cytotoxic
- Delivered with certificate

** Retains 10⁷ *brevundimonas diminuta* per cm² according to modified ASTM F838

Pore size (µm)	Ø (mm)	Sterile	Pk	Cat. No.
Cellulose acetate membrane				
0,2 **	25	+	50	514-0061
0,2 **	25	-	100	514-0060
0,45	25	+	50	514-0063
0,45	25	-	100	514-0062
PES membrane				
0,2	25	+	50	514-0073
0,2	25	-	100	514-0072
0,45	25	+	50	514-0075
0,45	25	-	100	514-0074

Tubing, silicone



Silicone, translucent, peroxide cross-linked

For laboratory and medical applications, pharmacies, biotechnology, fermentation and pharmaceutical production. Biologically neutral (USP Class VI). Compliant with Eur. Ph. (2nd ed.).

- Good physical properties, pliant, elastic and flexible
- Suitable for use with foodstuffs in accordance with FDA
- Produced in compliance with GMP conditions, ISO 13485, certificate of conformity supplied with each roll

Temperature resistance: -50 to +200 °C (briefly up to +250 °C)

Hardness (Shore durometer A): 60 ±5

Density: 1,16



Ø int. (mm)	Ø ext. (mm)	Wall thickness (mm)	Pk	Cat. No.
6,00	9,00	1,50	15 m	228-0717
6,00	9,00	1,50	25 m	228-0718
6,00	10,00	2,00	15 m	228-0719
6,00	10,00	2,00	25 m	228-0720
6,00	12,00	3,00	15 m	228-0721
6,00	12,00	3,00	25 m	228-0722
9,00	13,00	2,00	15 m	228-0729
12,00	15,50	1,75	15 m	228-1509
12,00	15,50	1,75	25 m	228-1526
12,00	17,00	2,50	15 m	228-1510
12,00	17,00	2,50	25 m	228-1527



Centrifugal filters

PP insert and receiver tube

MWCO filters are ideal to concentrate, purify and desalt peptides, proteins, oligonucleotides, DNA and RNA.

The 0,2 and 0,45 µm centrifugal filters are used for particulate removal, sample clarification or pre-filtration clean up of large agarose or acrylamide gel debris prior to further purification with a MWCO device.

- Low binding, typical recovery greater than 90%
- Sealed membrane

Fits rotors that accept 1,5 ml tubes

Dead volume	Filtration area (cm ²)	Max. RCF (xg)	Sample volume (µl)	Temperature (°C)
PES (polyethersulfone) membrane				
<5 µl	0,28	14000	Max. 500	0...40
Nylon membrane				
<5 µl	0,28	14000	Max. 500	0...40

MWCO (kD)	Colour code	Pk	Cat. No.
PES (polyethersulfone) membrane			
3	Grey	100	516-0227
3	Grey	500	516-0228
10	Blue	100	516-0229
10	Blue	500	516-0230
30	Red	100	516-0231
30	Red	500	516-0232

Pore size (µm)	Colour code	Pk	Cat. No.
Nylon membrane			
0,2	Turquoise	100	516-0233
0,2	Turquoise	500	516-0234
0,45	Purple	100	516-0235
0,45	Purple	500	516-0236

Racks, microcentrifuge tube



PP, colour coded

Space for up to 80x1,5 or 2,0 ml microcentrifuge tubes. 5x16 array with conical shaped holes to hold microtubes securely.

- Perfect for freezer use
- Side handles for secure handling
- Numbered for easy sample identification

Ordering information: The assorted colour set includes one rack each in blue, green, pink, yellow and orange.



No. of holes	WxDxH (mm)	Colour	Pk	Cat. No.
80 (5x16)	225x67x29	Natural	5	211-0204
80 (5x16)	225x67x29	Orange	5	211-0205
80 (5x16)	225x67x29	Yellow	5	211-0206
80 (5x16)	225x67x29	Blue	5	211-0207
80 (5x16)	225x67x29	Green	5	211-0208
80 (5x16)	225x67x29	Pink	5	211-0209
80 (5x16)	225x67x29	Assorted	5	211-0210



Racks, microcentrifuge tube



PP, coloured

For 96 (8x12) microtubes with 0,5 ml capacity or 96 microtubes with 1,5/2 ml capacity. Conical tapered openings to hold tubes securely. Complete with snap-on lid, which can also be used as a protective base.

- Perfect for freezer use
- Side handles for secure handling
- Numbered for easy sample identification

Ordering information: The assorted colour set includes one rack each in blue, green, pink, yellow and orange.

No. of holes	WxDxH (mm)	Colour	Pk	Cat. No.
96 (8x12)	246x121x51	Natural	5	211-0213
96 (8x12)	246x121x51	Yellow	5	211-0214
96 (8x12)	246x121x51	Blue	5	211-0215
96 (8x12)	246x121x51	Green	5	211-0216
96 (8x12)	246x121x51	Pink	5	211-0217
96 (8x12)	246x121x51	Assorted	5	211-0218

Microcentrifuges, ventilated/refrigerated, Micro Star 17 / 17R



The Micro Star 17 and 17R microcentrifuges combine power, versatility and convenience in a safe, compact, easy to use laboratory instrument. Both the ventilated Micro Star 17 and the refrigerated Micro Star 17R are designed to accelerate the routine sample preparation process. The special biocontainment rotor lid for one click rotor opening and closing shortens retrieval time compared to screw on lids.

- Quiet and powerful performance up to 17 000 xg
- 'Click' biocontainment rotor lid keeps the user and the samples safe
- Easy operation; intuitive controls and bright, easy to read displays

Ordering information: Supplied with 24-place rotor for 1,5/2,0 ml tubes and aerosol-tight rotor lid.



Model	Temperature (°C)	Max. speed (min ⁻¹)	Max. RCF (xg)	Timer	Noise level (dB(A))	WxDxH (mm)
Micro Star 17	-	13300	17000	1 – 99 min (in increments of 1 min) + Hold mode	<56	225x243x352
Micro Star 17R	-9...+40				<50	330x295x445

Description	Pk	Cat. No.
Microcentrifuge, ventilated, Micro Star 17	1	521-1646
Microcentrifuge, refrigerated, Micro Star 17R	1	521-1647



Blotting paper, grade 703

Ideal for use as wicks in protein and nucleic acid blotting. Provides a uniform flow of buffer through the gel to the transfer membrane in a blotting sandwich. Also suitable for use in removing gels from glass supports.

- Made of 100% cotton fibre
- Uniform and smooth
- Produced using ultrapure water
- Contains no additives

Grade	Weight	Thickness	Herzberg flow rate	Klemm wicking rate test
703	185 g/m ²	0,38 mm	250 s per 100 ml at 10 cm head of water	626 s per 7,5 cm rise

Description	Dimensions (mm)	Pk	Cat. No.
Sheets	70x100	100	732-0596
Sheets	100x150	100	732-0605
Sheets	140x160	100	732-0603
Sheets	150x150	100	732-0607
Sheets	200x200	100	732-0593
Sheets	460x570	100	732-0591

Blotting pads, grade 707

This super thick paper is used to complete the blotting sandwich. Smooth, uniform texture ensures continuous contact of buffer from the chamber through the gel and transfer membrane.

- Made of 100% cotton fibre
- Produced using ultrapure water
- Contains no additives
- Cleaner and more consistent than paper towels

Weight	Thickness	Herzberg flow rate	Klemm wicking rate test
703 g/m ²	2,60 mm	120 s per 100 ml at 10 cm head of water	96 s per 7,5 cm rise

Description	Dimensions (mm)	Pk	Cat. No.
Sheets	50x75	50	732-0608
Sheets	70x80	50	732-0604
Sheets	70x100	50	732-0594
Sheets	100x140	50	732-0598
Sheets	110x130	50	732-0601
Sheets	110x140	50	732-0595
Sheets	110x180	50	732-0600
Sheets	130x200	50	732-0602
Sheets	140x160	50	732-0599
Sheets	140x200	50	732-0597
Sheets	160x180	50	732-0606
Sheets	200x200	50	732-0592



Phase separating paper, grade 511

Hydrophobic filter paper used for separation of aqueous solutions from organic solutions.

- Usable as a disposable separating funnel

Filtration speed	200 s (Herzberg)
Thickness	0,2 mm
Weight	85 g/m ²

Grade	Size (mm)	Pk	Cat. No.
511	90	100	516-0311
511	110	100	516-0312
511	125	100	516-0313
511	150	100	516-0314
511	185	100	516-0315



Bench protectors

High quality, smooth, absorbent paper that quickly absorbs liquid spills with a thick, laminated polyethylene layer that prevents seeping onto the work surface.

- Retains leaked reagents in radio-chemical laboratories and prevents radioactive contamination
- Enables recovery of leaked, expensive materials
- Breakage protection for hard surfaces
- Absorption layer for water or solvent moisture chambers
- Ideal, impermeable protective material for lining animal cages

Absorbance rate 115-9220 and 115-9221: 500 ml/m²

Absorbance rate 115-0673: 750 ml/m²



Colour	LxW (mm)	Packed	Pk	Cat. No.
Bench protectors				
White	570x460	50 single sheets	50	115-9220
White	50000x460	1 roll of 50 m	1	115-9221
Maxi bench protectors				
White	460x570	50 single sheets	50	115-0673



Weighing paper, grade 531

For weighing of a range of substances (viscous products, powders, paste and liquids).

Size (mm)	Weight	Thickness (mm)	Pk	Cat. No.
100x100	45 g/m ²	0,06	250	516-0318

Joseph paper, grade 551

Absorbent paper, suitable for cleaning and drying of glass containers, tubes, microscopic plates, bottles, etc.

Thickness (mm)	0,07
Weight	25 g/m ²

Description	LxW (mm)	Pk	Cat. No.
Plain	350x500	500	111-5005
Plain	350x500	500	111-5007
Folded	350x500	800	111-5009
Folded	350x500	40	111-5006



Lens cleaning tissues, grade 541

100% exotic fibres

These tissues are suitable for cleaning various optical lenses such as objectives, binoculars, magnifying glasses, spectacles as well as optical fibre filaments.

Thickness: 0,04 mm

Weight: 12 g/m²

Size (mm)	Packed	Pk	Cat. No.
80x100	1x500 sheets	500	111-5003
100x150	25x25 sheets	625	111-5004

Austria

VWR International GmbH
Graumannsgasse 7
1150 Vienna
Tel.: +43 1 97 002 0
Fax: +43 1 97 002 600
Email: info@at.vwr.com

Belgium

VWR International bvba
Researchpark Haasrode 2020
Geldenaaksebaan 464
3001 Leuven
Tel.: 016 385 011
Fax: 016 385 385
Email: vwrbe@be.vwr.com

Czech Republic

VWR International s. r. o.
Veetee Business Park
Pražská 442
CZ - 281 67 Stříbrná Skalice
Tel.: +420 321 570 321
Fax: +420 321 570 320
Email: info@cz.vwr.com

Denmark

VWR - Bie & Berntsen
Transformervej 8
2860 Søborg
Tel.: 43 86 87 88
Fax: 43 86 87 90
Email: info@dk.vwr.com

Finland

VWR International Oy
Valimotie 9
00380 Helsinki
Tel.: 09 80 45 51
Fax: 09 80 45 52 00
Email: info@fi.vwr.com

France

VWR International S.A.S.
Le Périgares – Bâtiment B
201, rue Carnot
94126 Fontenay-sous-Bois cedex
Tel.: 0 825 02 30 30 (0,15 € TTC/min)
Fax: 0 825 02 30 35 (0,15 € TTC/min)
Email: info@fr.vwr.com

Germany

VWR International GmbH
Hilpertstraße 20a
D - 64295 Darmstadt
Freecall: 0800 702 00 07
Fax: 0180 570 22 22*
Email: info@de.vwr.com
*0,14 €/Min. aus d. dt. Festnetz

Hungary

VWR International Kft.
Simon László u. 4.
4034 Debrecen
Tel.: (52) 521-130
Fax: (52) 470-069
Email: info@hu.vwr.com

Ireland / Northern Ireland

VWR International Ltd /
VWR International (Northern Ireland) Ltd
Orion Business Campus
Northwest Business Park
Ballycoolin
Dublin 15
Tel.: 01 88 22 222
Fax: 01 88 22 333
Email: sales@ie.vwr.com

Italy

VWR International PBI S.r.l.
Via San Giusto 85
20153 Milano (MI)
Tel.: 02-3320311/02-487791
Fax: 800 152999/02-40090010
Email: info@it.vwr.com

The Netherlands

VWR International B.V.
Postbus 8198
1005 AD Amsterdam
Tel.: 020 4808 400
Fax: 020 4808 480
Email: info@nl.vwr.com

Norway

VWR International AS
Haavard Martinsens vei 30
0978 Oslo
Tel.: 02290
Fax: 815 00 940
Email: info@no.vwr.com

Poland

VWR International Sp. z o.o.
Limbowa 5
80-175 Gdansk
Tel.: 058 32 38 200 do 204
Fax: 058 32 38 205
Email: info@pl.vwr.com

Portugal

VWR International -
Material de Laboratório, Lda
Edifício Neopark
Av. Tomás Ribeiro, 43- 3 D
2790-221 Carnaxide
Tel.: 21 3600 770
Fax: 21 3600 798/9
Email: info@pt.vwr.com

Spain

VWR International Eurolab S.L.
C/ Tecnología 5-17
A-7 Llinars Park
08450 - Llinars del Vallès
Barcelona
Tel.: 902 222 897
Fax: 902 430 657
Email: info@es.vwr.com

Sweden

VWR International AB
Fagerstagatan 18a
163 94 Stockholm
Tel.: 08 621 34 00
Fax: 08 621 34 66
Email: kundservice@se.vwr.com

Switzerland

VWR International GmbH
Lerzenstrasse 16/18
8953 Dietikon
Tel.: 044 745 13 13
Fax: 044 745 13 10
Email: info@ch.vwr.com

Turkey

VWR International Laboratuvar
Teknolojileri Ltd.Şti.
Orta Mah. Cemal Gürsel
Caddesi
Ördekcioglu İşmerkezi No.32/1
34896 Pendik - Istanbul
Tel.: +90216 598 2900
Fax: +90216 598 2907
Email: info@pro-lab.com.tr

UK

VWR International Ltd
Customer Service Centre
Hunter Boulevard - Magna Park
Lutterworth
Leicestershire
LE17 4XN
Tel.: 0800 22 33 44
Fax: 01455 55 85 86
Email: uksales@uk.vwr.com

Australia

VWR International, Pty Ltd.
Level 1, Unit 1a/60 Enterprise Place
Tingalpa, Queensland 4173
Tel.: 1300 727 696
Fax: 1300 135 123

China

VWR International China Co., Ltd
Shanghai Branch
Room 256, No. 3058 Pusan Road
Pudong New District
Shanghai 200123
Tel.: +86-21-5898 6888
Fax: +86-21-5855 8801
Email: info_china@vwr.com

India

VWR Lab Products Private Limited
135/12, Brigade Towers, 2nd Floor
Front wing, Brigade Road,
Bengaluru, India - 560 025
Tel.: +91-80-41117125/26 (Bengaluru)
Tel.: +91-2522-647911/922 (Mumbai)
Fax: +91-80-41117120
Email: vwr_india@vwr.com

New Zealand

Global Science - A VWR Company
241 Bush Road
Albany 0632, Auckland
Tel.: 0800 734 100
Fax: 0800 999 002
Email: sales@globalscience.co.nz

Singapore

VWR Singapore Pte Ltd
18 Gul Drive
Singapore 629468
Tel.: +65 6505 0760
Fax: +65 6264 3780
Email: sales@sg.vwr.com

GO TO **VWR.COM** FOR
THE LATEST NEWS,
SPECIAL OFFERS AND
DETAILS OF YOUR LOCAL
VWR DISTRIBUTOR