

Lab Products and Services Price List 2019





Sartorius Lab Academy

Increase the Quality, Efficiency and Safety of Your Workflows

Sartorius offers customized training programs that cover your daily laboratory work topics that focus on making workflows more efficient and even more productive while increasing quality awareness.



Pipetting Academy



Filtration Academy



Lab Water Academy



Microbiology Academy



Weighing Academy

Interested in Sartorius Lab Academies? Contact your Sartorius representative for more information.

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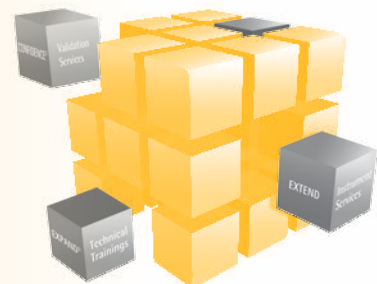
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Terms & Conditions

- (1) Prices – While the prices indicated in the price list are the maximum chargeable effective 1st April 2019, company reserves the right to revise the prices depending upon the changing market conditions. The company in such an event, reserves the right to invoice goods at the price, determined on the date of despatch. The prices mentioned in the prices list are the maximum and it is open to the dealers and others to sell products at prices lower than the ones indicated in the price list.
- (2) Taxes & duties – The prices mentioned in this Price List are inclusive of Excise Duty / Customs Duty whenever applicable but exclusive of all other applicable / additional taxes and levies. Exemption from taxes / duties can be sought by furnishing the applicable declaration / certificate, while placing the orders. Non furnishing of these documents will result in company charging / recovering applicable higher tax / duties.
- (3) Delivery –
 - (a) Freight – All orders of the value of ₹ 30000/- or more will be supplied F.O.R. destination by road transport or goods train. For goods of the value of less than ₹ 30000/-, the consignment will be despatched on freight to pay basis.
 - (b) Availability – All efforts will be made to make the goods available on time. However, company does not take any responsibility nor is liable for damages, delayed deliveries or non-delivery of goods on stipulated dates.
 - (c) Compliances – The dealers / customers / end users should comply with the local and central statutory requirements, such as obtaining the required licences, road permits, statutory licences etc., while placing the orders as well as when the goods are purchased / stored and used.
 - (d) Place of delivery – The sale may take place either from the Company's Clearing and Forwarding agent's premises or from the Company's main warehouse located at Nelamangala, Bangalore.
- (4) Payment – The Company formulates guidelines from time to time indicating the terms of payments i.e. on delivery or payment after expiry of specific number of days. The dealers / customers / end users shall comply with such terms and conditions of payment.
- (5) Amendment / Cancellation – Orders which are in writing, once placed, shall not be revoked or cancelled. So also the goods once despatched against the confirmed order, should not be returned and the Company shall not accept such returned goods.
- (6) Return of goods – The goods despatched, if deemed to be not as per the specifications or of quality requirements, should be returned to the place of invoice without much delay, in any case not later than 3 weeks from the date of such claims approved by our quality assurance department.
- (7) Insurance – The goods are packed with utmost care and forwarded at customer's risk. If the customer wants the goods to be insured, on his request, the Company will insure such goods in transit and the premium cost should be borne by the customer.
- (8) Any clarification on the contents of price list can be sought at the – Corporate Office - Bangalore



Sartorius

0.02

0.005 µl/min

rium[®] comfort



Laboratory Water Systems

1.	arium® Water Purification Systems	06
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1. arium® Water Purification Systems

Systems for delivering ASTM Type 1, Type 2 & Type 3 Grade Water



arium® pro Series
 Ultrapure water systems; any application-specific configuration can be selected

arium® comfort Series
 Combined pure and ultrapure water systems

arium® advance Series
 Pure water systems

- arium® laboratory-grade water purification systems enable you to perform your work flows faster and more reliably, make your daily lab work easier and ensure long-term economical operation.
- A choice of more than 70 arium® versions and flexible accessories is available to meet all your requirements on water quality and to cover any application.

The revolutionary combination of water quality and convenience



Reliable	Consistently high water quality and reproducible results
User friendly	Easy operation via multi-color touch display
Practical	SD Card slot to support documentation
Eco-friendly and Time saving	Saves your water resources and saves your time
Efficient	Optimized water usage ensured by clever iJust feature and innovative Bagtank technology

	arium® pro/DI	arium® pro UV	arium® pro UF	arium® pro VF
Resistivity (MΩ x cm)	18.2	18.2	18.2	18.2
TOC (ppb) @50 ppb feed water	≤5	≤2	≤5	≤2
Endotoxin (EU/ml)	n.a.	n.a.	< 0.001	< 0.001
DNases (pg/μl)	n.a.	n.a.	< 0.024	< 0.024
RNases (ng/ml)	n.a.	n.a.	< 0.004	< 0.004
Bacteria (CFU/1000 ml)	< 1	< 1	< 1	< 1
Flow rate (L/min)	Up to 2	Up to 2	Up to 1.7	Up to 1.7

arium® Advance Series

Product Water Quality	arium® advance EDI	arium® advance RO
Water type	Type 2 pure water	Type 3 pure water
Production output	5 l/h or 10 l/h	8, 16 or 24 l/h
Water dispensing flow rate	≤ 3 l/min	3 l/min
Typical conductivity	0.2 - 0.07 µS/cm compensated to 25°C	< 20 µS/cm
Typical resistivity	5 - 15 MΩ cm compensated to 25°C	< 0.05 MΩ x cm
Typical TOC reduction	95%	
Microorganism content	< 1 CFU/1,000 ml	< 1 CFU/1,000 ml
Particle content	< 1/ml	< 1/ml
Typical ion retention	-	up to 98%
Retention of dissolved organic substances (MW > 300 Dalton)	-	>99%
Particle and microorganism retention	> 99%	>99%

arium® Comfort Series

arium® comfort I

Product Water Quality

Product Water Quality	ASTM Type 1 ultrapure water	Type 3 pure water
Water type	ASTM Type 1 ultrapure water	Type 3 pure water
Production output	120 l/h	8 or 16 l/h
Water dispensing flow rate	up to 2 l/min	up to 3 l/min
Volume-controlled dispensing	2 l/m in 100 ml, 1 l or 5 l steps, depending on the total amount removed between 0.1 l and 60 l	-
Volume accuracy	3 % between 0.25 l and 60 l	-
Typical conductivity	0.055 µS/cm compensated to 25 °C	< 20 µS/cm
Typical resistivity	18.2 MΩ x cm compensated to 25 °C	< 0.05 MΩ x cm
Typical TOC reduction	-	-
TOC content (system with UV lamp)	≤ 2 ppb	-
TOC content (system without UV lamp)	< 5 ppb	-
Microorganism content	< 1 CFU/1,000 ml	< 1 CFU/1,000 ml
Particle content	< 1/ml	< 1/ml
Typical ion retention	-	up to 98%
Retention of dissolved organic substances (MW >3 00 Dalton)	-	>99%
Particle and microorganism retention	-	>99%

arium® comfort II

Product Water Quality

Product Water Quality	ASTM Type 1 ultrapure water	Type 2 pure water
Water type	ASTM Type 1 ultrapure water	Type 2 pure water
Production output	120 l/h	5 l/h or 10 l/h
Water dispensing flow rate	up to 2 l/min	up to 3 l/min
Volume-controlled dispensing	2 l/m in 100 ml, 1 l or 5 l steps, depending on the total amount removed between 0.1 l and 60 l	-
Volume accuracy	3 % between 0.25 l and 60 l	-
Typical conductivity	0.055 µS/cm compensated to 25 °C	0.2 - 0.07 µS/cm compensated to 25°C
Typical resistivity	18.2 MΩ x cm compensated to 25 °C	5 - 15 MΩ x cm compensated to 25°C
Typical TOC reduction	-	95%
TOC content (system with UV lamp)	≤ 2 ppb	-
TOC content (system without UV lamp)	< 5 ppb	-
Microorganism content	< 1 CFU/1,000 ml	< 1 CFU/1,000 ml
Particle content	< 1/ml	< 1/ml
Typical ion retention	-	-
Retention of dissolved organic substances (MW >3 00 Dalton)	-	-
Particle and microorganism retention	-	>99%

arium® mini Ultrapure Water Systems

Compact new systems for Type 1 grade water

Minimize your Space Requirements & Maximize your Performance



Systems at choice.
Rely on the highest water quality consistently - day in, day out.

arium® mini

- Standard version - Produces ASTM Type 1 grade ultrapure water
- Feed - Purified / RO / Distilled water

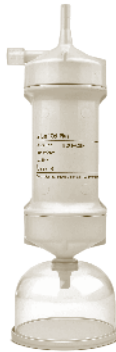
arium® mini plus

- Advanced version - Produces ASTM Type 1 grade Ultrapure water and ASTM Type 3 grade pure water
- Feed - Tap water

Why arium mini? Find some reasons here



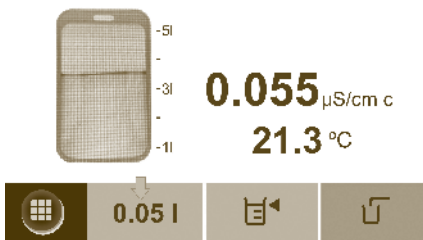
Unique Bagtank



Endotoxin free water



Easy cartridge replacement



Easy operation with multicolor touch display



Innovation and design awards

Applications	mini plus mini plus UV	mini mini UV
Buffer and media preparation	●	●
Preparation of reagents	●	●
IC (ion Chromatography)		●
GC-MS (gas chromatography-mass spectrometry)		●
HPLC (high-performance liquid chromatography)		●

2. ASTM Type 1 Ultrapure Water Systems

2.1 arium® mini

Order No.	Description	Water Quality	Price ₹	
H2O-MM-T	arium® mini	ASTM Type 1	On Request	Bench-top Systems
H2O-MM-UV-T	arium® mini with integrated UV-lamp	ASTM Type 1	On Request	
<hr/>				
H2O-S-Pack	Scientific Pack, qty. 1 unit	-	On Request	Consumables
H2O-CEL1	UV lamp (185 254 nm), qty. 1 unit	-	On Request	
H2O-CBS-5-S	5 l Bag, qty. 1 unit	-	On Request	
5441307H4--CE	Sterile final filter (Sartopore® 2 150 capsules, 0.2 µm pore size), qty. 1 unit	-	On Request	
H2O-CUF	CellPlus Ultrafilter, qty. 1 unit	-	On Request	

2.2 arium® mini essential

Order No.	Description	Price*	
H2O-MU-T	arium® mini essential	On Request	Bench-top Systems
H2O-MU-UV-T	arium® mini essential with integrated UV-lamp	On Request	

Order No.	Description	Price*	
H2O-S-Pack	Scientific Pack, qty. 1 unit	On Request	Consumables
H2O-CEL1	UV-lamp (185 254 nm), qty. 1 unit	On Request	
H2O-CBS-5-S	5 l Bag, qty. 1 unit	On Request	
5441307H4--CE	SterilePlus sterile final filter (Sartopore® 2 150 capsules, 0.2 µm pore size), qty. 1 unit	On Request	
H2O-CUF	CellPlus ultrafilter, qty. 1 unit	On Request	

2.3 arium® mini plus

Order No.	Description	Water Quality	Price ₹	
H2O-MA-T	arium® mini plus	ASTM Type 1 & Type 3	On Request	Bench-top Systems
H2O-MA-UV-T	arium® mini plus with integrated UV-lamp	ASTM Type 1 & Type 3	On Request	
<hr/>				
H2O-CPR	mini plus pre-treatment cartridge, qty. 1 unit	-	On Request	Consumables
H2O-S-Pack	Scientific Pack, qty. 1 unit	-	On Request	
H2O-CEL1	UV lamp (185 254 nm), qty. 1 unit	-	On Request	
H2O-CBS-5-S	5 l Bag, qty. 1 unit	-	On Request	
5441307H4--CE	Sterile final filter (Sartopore® 2 150 capsules, 0.2 µm pore size), qty. 1 unit	-	On Request	
H2O-CUF	CellPlus Ultrafilter, qty. 1 unit	-	On Request	





Laboratory Balance & Weights

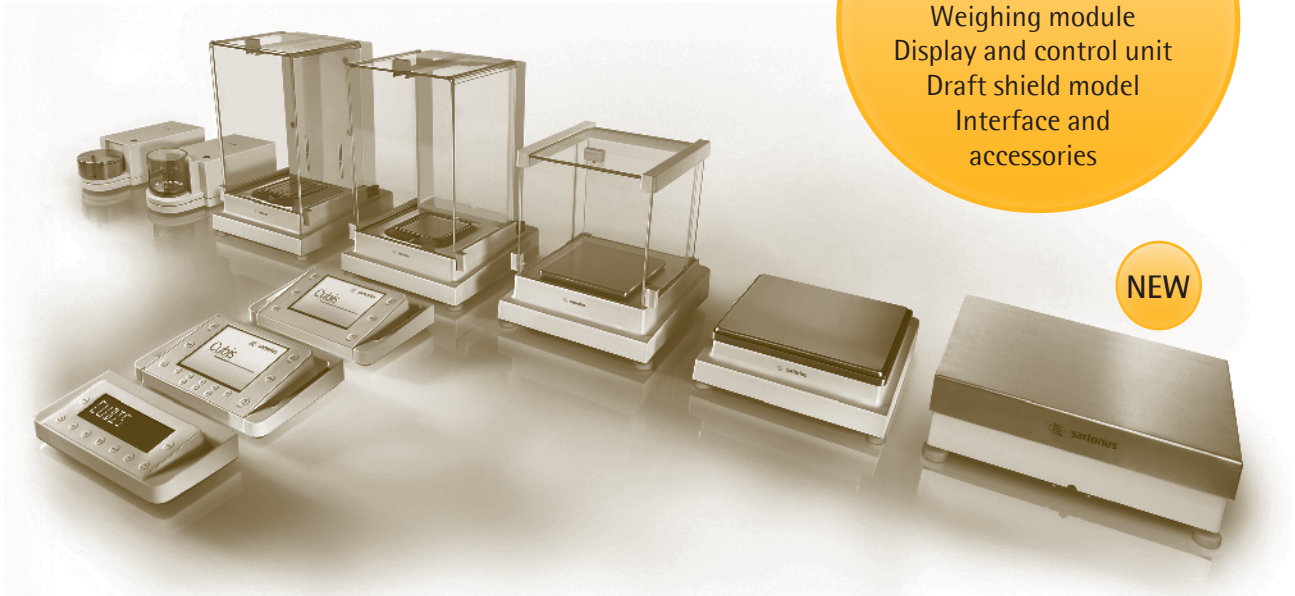
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4.	Speedcal Mobile	19
5.	Moisture Analyzer	20
5.1	LMA Series	21
5.2	MA Series	21

1. Laboratory Balance

1.1 Cubis® Premium Laboratory Balances – App-Solutely individual !

Select what you exactly need:

Weighing module
Display and control unit
Draft shield model
Interface and accessories



Features:

- Seamless connectivity with (LIMS)/ ELN
- Q-Level function: automatic motorized levelling
- Q-Guide user interface guides user interactively through setting
- Q-Apps. Individual, customer-specific application or software that can be downloaded into balance for better workflows integration



MSA – The Ultimate Solution

- Touch screen featuring high-resolution colour TFT for brilliant reproduction of test and graphics.
- Able to use personalised solutions with Q-Apps.



MSU – Classic and Universal

- High-resolution, generously sized, monochrome graphic display.
- Keys that feature positive click action and precise activation of functions.



MSE – Weighing Pure and Smile

- Large, high-contrast liquid crystal display.



1.2 Cubis® High-Capacity Micro Balances

With powerful new features and a better design your High Capacity Microbalance is now better than ever! Weigh Minimum Amounts of Sample Directly into Heavy Flasks.

Weighing Capacity of more than 60g and a Readability of 1µg



Features:

- Avoid Transfer Errors and Sample Loss: Reliably Weigh Small Samples Directly into Large Sample Containers of up to 50 MI
- Safety and Efficiency ensured with the Right Sample Holder for Each Container
- Best possible weighing performance achieved with a Resolution of up to 60 Million Divisions
- Choice of Integrated Q-Apps for more efficient and reliable working
- Easy Integration into Your Process



A flexible titanium sample holder comes standard with the Cubis® high capacity micro balance. This holder can be quickly positioned to accommodate different container sizes, such as long-necked flasks or HPCL bottle.



The extended space on large 50 mm diameter weighing pan is ideal for vessels requiring a larger support area to prevent them from tipping over (standard pan size on 66S and 66P weighing modules).

Weighing Modules	66S	66P	36S	36P	116P
Readability µg	1	1 10	1	1 10	2 10
Weighing capacity g	61	12 61	31	6 31	12 111
Typical stabilization time s	3.5	3.5	3.5	3.5	3.5
Typical response time s	10	10	10	10	10
Repeatability ± µg	4	10	2	8	4 10
Linearity ± µg	20	20	15	15	20
Off-center loading (eccentricity)* ± µg	20	20	15	15	30 (50)
Optimal minimum weight* mg	0.82	0.82	0.82	0.82	1.64

* According to USP (United States Pharmacopeia) Chapter 41, the optimal operating range is defined from 820 d to maximum weighing capacity. The optimal minimum weight is 820 d and, depending on the installation location and environmental conditions, his value may be higher.

The New Semi-Micro Balances: Secura® & Quintix®

Unique Features for Higher Performance and Flexibility

Features:

- **Easy-to-Clean Design:** Removable draft shield and weighing chamber – ensure the best possible cleaning results
- **Ergonomic Draft Shield:** One-Touch technology – the side doors of draft shield open at a simple touch, enable convenient sample loading, without any mishaps
- **Space-saving Footprint:** Compact footprint and integrated electronics – save up to 36% space
- **Intuitive Operation:** Forget having to read an instruction manual – the display prompts show you all you need to know
- **Specialized Weighing Pan:** For increasing weighing performance

Available with 0.01 mg readability now!



1.3 Secura®

	Model	Capacity [g]	Readability [g]	Pan Size [± g]	Linearity [mm in.]	Calibration Type	Price ₹
Micro Balances	MSA/MSU/MSE 3.6P	3	0.000001	0.004	30 1.18	isoCAL	On Request
	SECURA 26	20	0.000002	0.00001	50 1.97	isoCAL	On Request
Semi Micro Balances	SECURA125-10IN	120	0.00001	0.0001	80 3.1	isoCAL	On Request
	SECURA225D-10IN	120 220	0.00001 0.0001	0.0001 0.0002	80 3.1	isoCAL	On Request
Analytical Balances	SECURA124-10IN	120	0.0001	0.0002	90 3.5	isoCAL	On Request
	SECURA224-10IN	220	0.0001	0.0002	90 3.5	isoCAL	On Request
	SECURA324-10IN	320	0.0001	0.003	90 3.5	isoCAL	On Request
Milligram Balances	SECURA213-10IN	210	0.001	0.002	120 4.75	isoCAL	On Request
	SECURA313-10IN	310	0.001	0.002	120 4.75	isoCAL	On Request
	SECURA513-10IN	510	0.001	0.002	120 4.75	isoCAL	On Request
	SECURA613-10IN	610	0.001	0.002	120 4.75	isoCAL	On Request
	SECURA1103- 10IN	1100	0.001	0.002	120 4.75	isoCAL	On Request
Precision Balances	SECURA612-10IN	610	0.01	0.02	180 7	isoCAL	On Request
	SECURA1102-10IN	1,100	0.01	0.02	180 7	isoCAL	On Request
	SECURA2102-10IN	2,100	0.01	0.02	180 7	isoCAL	On Request
	SECURA3102-10IN	3,100	0.01	0.02	180 7	isoCAL	On Request
	SECURA5102-10IN	5,100	0.01	0.02	180 7	isoCAL	On Request
	SECURA6102-10IN	6,100	0.01	0.02	180 7	isoCAL	On Request

1.4 Quintix®

Model	Capacity [g]	Readability [g]	Pan Size [± g]	Linearity [mm in.]	Calibration Type	Price ₹
QUINTIX35-10IN	30	0.00001	0.0001	80 3.1	isoCAL	On Request
QUINTIX65-10IN	60	0.00001	0.0001	80 3.1	isoCAL	On Request
QUINTIX125D-10IN	60 120	0.00001 0.0001	0.0001 0.0002	80 3.1	isoCAL	On Request
QUINTIX64-10IN	60	0.0001	0.0002	90 3.5	Internal	On Request
QUINTIX124-10IN	120	0.0001	0.0002	90 3.5	Internal	On Request
QUINTIX224-10IN	220	0.0001	0.0002	90 3.5	Internal	On Request
QUINTIX213-10IN	210	0.001	0.002	120 4.75	Internal	On Request
QUINTIX313-10IN	310	0.001	0.002	120 4.75	Internal	On Request
QUINTIX513-10IN	510	0.001	0.002	120 4.75	Internal	On Request
QUINTIX613-10IN	610	0.001	0.002	120 4.75	Internal	On Request
QUINTIX412-10IN	410	0.01	0.03	180 7	Internal	On Request
QUINTIX612-10IN	610	0.01	0.03	180 7	Internal	On Request
QUINTIX1102-10IN	1,100	0.01	0.03	180 7	Internal	On Request
QUINTIX2102-10IN	2,100	0.01	0.03	180 7	Internal	On Request
QUINTIX3102-10IN	3,100	0.01	0.02	180 7	Internal	On Request
QUINTIX5102-10IN	5,100	0.01	0.02	180 7	Internal	On Request
QUINTIX6102-10IN	6,100	0.01	0.02	180 7	Internal	On Request
QUINTIX2101-10IN	2,100	0.1	0.3	180 7	Internal	On Request
QUINTIX5101-10IN	5,100	0.1	0.3	180 7	Internal	On Request
QUINTIX6101-10IN	6,100	0.1	0.3	180 7	Internal	On Request
QUINTIX5100-10IN	5,100	1	1	180 7	Internal	On Request
QUINTIX6100-10IN	6,100	1	1	180 7	Internal	On Request
Item	Description of Upgrade for Secura & Quintix					
YDP30	Premium GLP Lab Printer					On Request
69Y03285	Printer paper for GLP Lab Printer					On Request
69Y03286	Endless labels for GLP Lab Printer					On Request
YDP40	Standard Lab Printer					On Request
69Y03287	Printer paper for Standard (YDP40) printer, 5 rolls					On Request
YRB11Z	Battery Pack for Standard Lab Balances					On Request
YCC04-D09	Data cable mini USB USB A					On Request
YCC03-D09	Data cable mini USB RS232 9-pin					On Request
YCC03-D25	Data cable mini USB RS232 25-pin					On Request
YDK05	Density kit for 0.01 mg balances					On Request
YDK03	Density kit for 0.0001 g 0.001 g balances					On Request
YDK04	Density kit for 0.01 g balances					On Request
YFW01SQP	Filter weighing pan for 0.01 mg Balances					On Request
YWP01SQP	Weighing pan 90 mm for 0.01 mg balances					On Request
YSP01SQP	Weighing pan 80 mm, slitted, for 0.01 mg balance					On Request
YDS01SQP	Draft shield for 0.01 g 0.1 g 1 g balances					On Request
YDS02SQP	Draft shield for 0.001 g balances					On Request
YIB01-OUR	Ionizing blower for electrostatically charge of samples					On Request
YSTP01	Stat pen, for neutralize static electricity on samples					On Request
YWT09	Weighing table, made of wood, with decoupled centered granite plate					On Request
YWT03	Balance table, made of granite, with vibration dampeners					On Request
YWT04	Wall console for micro, analytical and precision balances					On Request

Semi Micro Balances

Analytical Balances

Milligram Balances

Precision Balances

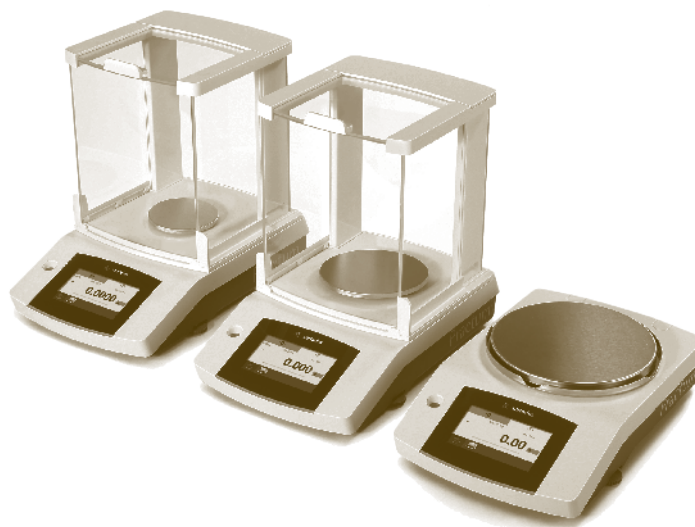
Accessories

Practum® Start Weighing Right

Features:

A Laboratory balance that has everything you need for standard applications. So you pay only for what you really need.

- USB Port and data transfer to excel
- Supervisor lock feature
- Comes standard with convenient, built-in applications




1.5 Practum®

	Model	Capacity [g]	Readability [g]	Pan Size [± g]	Linearity [mm in.]	Calibration Type	Price ₹	
Analytical Balances	PRACTUM64-10IN	60	0.0001	0.0002	90 3.5	External	On Request	
	PRACTUM124-10IN	120	0.0001	0.0002	90 3.5	External	On Request	
	PRACTUM224-10IN	220	0.0001	0.0002	90 3.5	External	On Request	
	PRACTUM213-10IN	210	0.001	0.002	120 4.75	External	On Request	
	PRACTUM313-10IN	310	0.001	0.002	120 4.75	External	On Request	
	PRACTUM513-10IN	510	0.001	0.002	120 4.75	External	On Request	
Precision Balances	PRACTUM412-10IN	410	0.01	0.03	180 7	External	On Request	
	PRACTUM612-10IN	610	0.01	0.03	180 7	External	On Request	
	PRACTUM1102-10IN	1,100	0.01	0.03	180 7	External	On Request	
	PRACTUM2102-10IN	2,100	0.01	0.03	180 7	External	On Request	
	PRACTUM3102-10IN	3,100	0.01	0.03	180 7	External	On Request	
	PRACTUM2101-10IN	2,100	0.1	0.3	180 7	External	On Request	
	PRACTUM5101-10IN	5,100	0.1	0.3	180 7	External	On Request	
	PRACTUM6101-10IN	6,100	0.1	0.3	180 7	External	On Request	
	PRACTUM5100-10IN	5,100	1	1	180 7	External	On Request	
	PRACTUM6100-10IN	6,100	1	1	180 7	External	On Request	
Accessories	Item	Description of Upgrade for Practum						
	YDP40	Standard Lab Printer						On Request
	69Y03287	Printer paper for Standard (YDP40) printer, 5 rolls						On Request
	YRB11Z	Battery Pack for Standard Lab Balances						On Request
	YCC04-D09	Data cable mini USB USB A						On Request
	YCC03-D09	Data cable mini USB RS232 9-pin						On Request
	YCC03-D25	Data cable mini USB RS232 25-pin						On Request
	YDK03	Density kit for 0.0001 g 0.001 g balances						On Request
	YDK04	Density kit for 0.01 g balances						On Request
	YDS01SQP	Draft shield for 0.01 g 0.1 g 1 g balances						On Request
	YDS02SQP	Draft shield for 0.001 g balances						On Request
	YIB01-OUR	Ionizing blower for electrostatically charge of samples						On Request
	YSTP01	Stat pen, for neutralize static electricity on samples						On Request
	YWT09	Weighing table, made of wood, with decoupled centered granite plate						On Request
YWT03	Balance table, made of granite, with vibration dampeners						On Request	
YWT04	Wall console for micro, analytical and precision balances						On Request	


2. Weight Sets

2.1 OIML Class E1

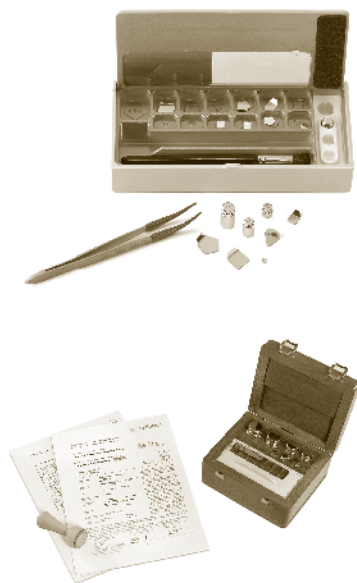
	Nominal Mass Value	Material	without DAkkS calibration certificate		with DAkkS calibration certificate	
			Order No.	Price ₹	Order No.	Price ₹
Weight sets with wire weights up to 500 mg 	1 mg–5 g	STE	YCS011-351-00	On Request	YCS011-351-02	On Request
	1 mg–100 g	STE	YCS011-511-00	On Request	YCS011-511-02	On Request
	1 mg–200 g	STE	YCS011-521-00	On Request	YCS011-521-02	On Request

Weight Sets

2.2 OIML Class E2

	Nominal Mass Value	Material	without DAkkS calibration certificate		with DAkkS calibration certificate	
			Order No.	Price ₹	Order No.	Price ₹
Weight sets with wire weights up to 500 mg 	1 mg–5 g	STF	YCS011-352-00	On Request	YCS011-352-02	On Request
	1 mg–100 g	STF	YCS011-512-00	On Request	YCS011-512-02	On Request
	1 mg–200 g	STF	YCS011-522-00	On Request	YCS011-522-02	On Request
	1 mg–1 kg	STF	YCS011-612-00	On Request	YCS011-612-02	On Request
	1 mg–5 kg	STF	YCS011-652-00	On Request	YCS011-652-02	On Request

Weight Sets



Weight Sets

Combination of Weights

● Weight without marking ○ Weight with marking

Range	Content	mg	g	kg
1 mg–5 g	1	●	●	
Total contents:	2	●○	●○	
11.11 g	5	●	●	
16 weights	10	●	●	
	20	●○	●○	
	50	●	●	
	100	●	●	
	200	●○	●○	
	500	●	●	
1 mg–100 g	1	●	●	
Total contents:	2	●○	●○	
211.11 g	5	●	●	
21 weights	10	●	●	
	20	●○	●○	
	50	●	●	
	100	●	●	
	200	●○	●○	
	500	●	●	
1 mg–200 g	1	●	●	
Total contents:	2	●○	●○	
611.11 g	5	●	●	
23 weights	10	●	●	
	20	●○	●○	
	50	●	●	
	100	●	●	
	200	●○	●○	
	500	●	●	
1 mg–1 kg	1	●	●	●
Total contents:	2	●○	●○	●○
2,111.11 g	5	●	●	●
25 weights	10	●	●	●
	20	●○	●○	●○
	50	●	●	●
	100	●	●	●
	200	●○	●○	●○
	500	●	●	●

Range	Content	mg	g	kg
1 mg–5 kg	1	●	●	●
Total contents:	2	●○	●○	●○
11,111.11 g	5	●	●	●
28 weights	10	●	●	●
	20	●○	●○	●○
	50	●	●	●
	100	●	●	●
	200	●○	●○	●○
	500	●	●	●
1 g–1 kg	1		●	●
Total contents:	2		●○	●○
2,110 g	5		●	●
13 weights	10		●	●
	20		●○	●○
	50		●	●
	100		●	●
	200		●○	●○
	500		●	●
1 g–5 kg	1		●	●
Total contents:	2		●○	●○
11,110 g	5		●	●
16 weights	10		●	●
	20		●○	●○
	50		●	●
	100		●	●
	200		●○	●○
	500		●	●
1 g–10 kg	1		●	●
Total contents:	2		●○	●○
21,110 g	5		●	●
17 weights	10		●	●
	20		●○	●○
	50		●	●
	100		●	●
	200		●○	●○
	500		●	●

3. Mass Comparator



- Manual Cubis® MCM mass comparators combine metrological expertise and integrated OIML R 111-1 workflows.
- A choice of 14 models is available with maximum capacities of 6 g to 64 kg and readabilities of 0.1 µg to 10 mg.
- All results are displayed with their measurement uncertainties.

Climate Module

- Models with a draft shield are supplied standard with a built-in climate module equipped with sensors for temperature, humidity and air pressure (external climate module for models without a draft shield).
- Climate data will then transferred automatically into the display unit to be included in the measurement of uncertainty calculation.

Manual Cubis® MCM mass comparators

	Model	Readability	Maximum Capacity [g]	Price	
Model without DAkkS calibration certificate for the climate module	MCM6.7	0.1 µg	6.1	On Request	
	MCM36	1 µg	31	On Request	
	MCM66	1 µg	61	On Request	
	MCM106	1 µg	111	On Request	
	MCM605	0.01 mg	610	On Request	
	MCM1005	0.01 mg	1,110	On Request	
	MCM1004	0.1 mg	1,110	On Request	
	MCM2004	0.1 mg	2,500	On Request	
	MCM5004	0.1 mg	5,100	On Request	
	MCM5003	1 mg	5,100	On Request	
	MCM10K3	1 mg	11,000	On Request	
	MCM40K3	1 mg	41,000	On Request	
	MCM60K3	2 mg	64,000	On Request	
	MCM60K2	10 mg	64,000	On Request	
Model with DAkkS calibration certificate for the climate module	MCM6.7-DAkkS	0.1 µg	6.1	On Request	
	MCM36-DAkkS	1 µg	31	On Request	
	MCM66-DAkkS	1 µg	61	On Request	
	MCM106-DAkkS	1 µg	111	On Request	
	MCM605-DAkkS	0.01 mg	610	On Request	
	MCM1005-DAkkS	0.01 mg	1,110	On Request	
	MCM1004-DAkkS	0.1 mg	1,110	On Request	
	MCM2004-DAkkS	0.1 mg	2,500	On Request	
	MCM5004-DAkkS	0.1 mg	5,100	On Request	
	MCM5003-DAkkS	1 mg	5,100	On Request	
	MCM10K3-DAkkS	1 mg	11,000	On Request	
	MCM40K3-DAkkS	1 mg	41,000	On Request	
	MCM60K3-DAkkS	2 mg	64,000	On Request	
	MCM60K2-DAkkS	10 mg	64,000	On Request	
	Model	Readability [g]	Maximum Capacity [kg]	Weighing Range, Electronic [kg]	Price
Model	CCI100K2	0.05	151	151	On Request
	CCI300K	1	303	303	On Request
	CCS600K	1	605	605	On Request
	CCT1000K	1	1,210	1,200	On Request
	CCS1000K	5	1,510	1,510	On Request
	CCT2000K	1	2,010	2,100	On Request
	CCS3000K	10	3,010	3,010	On Request

4. Speedcal Mobile

Fast Calibration of Multi-Channel Pipettes

Advantages

- Testing twelve channels as per DIN EN ISO 8655 10.3 within approximately 10 minutes saves time
- Unique system, available with either 4, 8, or 12 channels. with the option of subsequently adding up to 12 channels
- Conforms to all international (ISO17025) and international (ISO8655) regulations



Technical Specifications

Overview of the Sartorius Multi-Channel Pipette Calibration System

Model	Speedcal-M12	Speedcal-M8	Speedcal-M4
Number of channels	12	8	4
Sartorius weigh cells	12	8	4
Weighing capacity	21 g per channel	21 g per channel	21 g per channel
Resolution	0.01 mg	0.01 mg	0.01 mg
Taring range	-21 g per channel	-21 g per channel	-21 g per channel
Repeatability Standard deviation	0.02 mg	0.02 mg	0.02 mg
Stabilization time	<4 s	<4 s	<4 s
Sensitivity to temperature drift	1 ppm/°K	1 ppm/°K	1 ppm/°K
Max. volumes	21 ml per channel	21 ml per channel	21 ml per channel
Interface	Web Service	Web Service	Web Service
Weighing module dimensions	450 × 270 × 150 mm	450 × 270 × 150 mm	450 × 270 × 150 mm
Weight of weighing module	14 kg	12 kg	10 kg
E-box dimensions	600 × 450 × 150 mm	600 × 450 × 150 mm	600 × 450 × 150 mm
E-box weight	5 kg	5 kg	5 kg
Case transport weight	45 kg	45 kg	45 kg
Case transport dimensions	610 × 485 × 608 mm	610 × 485 × 608 mm	610 × 485 × 608 mm
Pallet transport weight	95 kg	93 kg	90 kg
Pallet transport dimensions	800 × 665 × 910 mm	800 × 665 × 910 mm	800 × 665 × 910 mm

5. Moisture Analyzer

5.1 LMA Series



Moisture Analyzer

Superior low-level moisture detection down to 0.001%. Conforms to ASTM standard D6980 for plastics/resins

	LMA100-SET-P	LMA110-SET
Display of results	0.1 mg, 0.001%	1mg, 0.01%
Balance capacity	100 g	40 g
Reproducibility of the measurement	Starting at an initial sample weight of approx. 1 g: $\pm 0.1\%$ Starting at an initial sample weight of approx. 5 g: $\pm 0.02\%$	Starting at an initial sample weight of approx. 1 g: $\pm 0.2\%$ Starting at an initial sample weight of approx. 5 g: $\pm 0.05\%$
Method of measurement	Loss on Drying	Loss on Drying
Recommended moisture range	0.001 – 99.999%	1.00 – 99.90%
Heat source	Four parallel infrared quartz cylinders	Four parallel infrared quartz cylinders
Modular configuration	Optional up to 4 heater modules connectable	Optional up to 2 heater modules connectable
Internal printer	Integrated thermal printer	Optional internal thermal printer, 40 character graphic
Temperature range and	30 – 210°C in one-degree increments	30 – 210°C in one-degree increments



LMA 200 PM

Microwave drying up to 300x faster compared to infrared moisture analyser for high moisture samples

	LMA 200 PM
Weighing capacity (g)	70
Measuring accuracy of the weighing system (g)	0.0001
Reproducibility on average for initial sample weight starting at approx. 1 g (%)	± 0.05
Sample carriers	90 mm d (3 1/2") glass fiber pads
Display modes	% moisture, ppm moisture, % volatile components, % dry weight (solids), ppm dry weight, g dry weight, mg loss on drying, % RATIO
Measuring range	Approx. 8–100% moisture
Sample heating	Microwave generator with 1,000 W input power
Power control for heating	2–100%, adjustable in 1% increments

5.2 MA Series



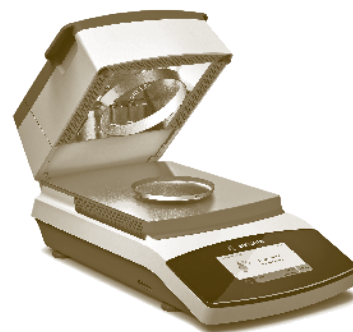
MA 100

Max. capacity of 100g with readability of 0.01%. Choice of halogen, ceramic and quartz heating elements

	MA 100
Max. weighing capacity	100 g
Repeatability, typical	Starting at an initial sample weight of approx. 1 g: $\pm 0.1\%$ starting at an initial sample weight of approx. 5 g: $\pm 0.02\%$
Readability	1 mg, 0.01% 0.1 mg, 0.001%
Typical sample quantity	5 – 15 g
Reading display	% moisture content (optionally available with conversion factor) % dry weight RATIO value mg weight loss g residue g/kg residue g/l residue
Temperature range and settings	30°C–180°C, stand-by temperature selectable from 30–100°C in increments of 1 degree
Sample heating	Infrared heating using a round ceramic heating element or halogen round heater or coiled quartz heating element (CQR)

MA160 - 1

Max. weighing capacity	200 g
Repeatability, typical	For initial sample weights of approx. ≥ 1 g: $\pm 0.2\%$ For initial sample weights of approx. ≥ 5 g: $\pm 0.05\%$
Readability	1 mg; 0.01%
Typical sample quantity	5 – 15 g
Display modes for results	Moisture content in %M and g dry weight in %S and g ATRO (ratio) in %M/S
Temperature range and settings	40°C – 200°C, in increments of 1°C Standby temperature selectable from 50°C – 120°C
Sample heating	Infrared radiation by an AURI heating unit, 600W
Methods	100 methods saved in the non-volatile memory
Data transfer	SD card: function for importing and exporting methods and results

**MA 160 - 1**

Max. capacity of 200g with readability of 0.01%. Infrared heating using an AURI heater. Chemical resistant glass touchscreen. Mini USB for direct data transfer. SD card for method import and data export. GLP compliance.

MA 37 - 1

Max. weighing capacity	70 g
Repeatability, typical	For initial sample weights of approx. ≥ 1 g: $\pm 0.2\%$ For initial sample weights of approx. ≥ 5 g: $\pm 0.05\%$
Readability	1 mg; 0.01%
Typical sample quantity	5 – 15 g
Display modes for results	Moisture content in %M and g dry weight in %S and g ATRO (ratio) in %M/S
Temperature range and settings	40°C – 200°C, in increments of 1°C Standby temperature selectable from 50°C – 120°C
Sample heating	Infrared metal heating elements

**MA 37 - 1**

Max. capacity of 70g with readability of 0.01%. Infrared metal heating elements. Chemical resistant glass touchscreen. Mini USB for direct data transfer. GLP compliance.

MA35M

Weighing range	35 g
Typical reproducibility of the weighing system	From around 1 g of weight of sample taken: $\pm 0.2\%$ From around 5 g of weight of sample taken: $\pm 0.05\%$
Readability	1 mg; 0.01%
Measurement display	% moisture, % dry mass, % ATRO, g residue
Typical sample quantity	5 – 15 g

**MA35M**

Max. capacity of 35g with readability of 0.01%. Infrared metal heating elements. Basic model without compromising accuracy flexibility or measurement accuracy.



MENU EDIT ADV

Pipetting
120.0 µl



Picus
120

sartorius

Liquid Handling Products

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1. Electronic Pipettes

1.1 Picus® NxT

	Order No.	Description	Price ₹	
Picus® NxT Electronic Pipettes	LH-745021	Picus NxT Electronic Pipette, 1-ch, 0.2-10 µl, AC-adaptor Universal	94,120	
	LH-745041	Picus NxT Electronic Pipette, 1-ch, 5-120 µl, AC-adaptor Universal	94,120	
	LH-745061	Picus NxT Electronic Pipette, 1-ch, 10-300 µl, AC-adaptor Universal	94,120	
	LH-745081	Picus NxT Electronic Pipette, 1-ch, 50-1000 µl, AC-adaptor Universal	94,120	
	LH-745101	Picus NxT Electronic Pipette, 1-ch, 100-5000 µl, AC-adaptor Universal	94,120	
	LH-745111	Picus NxT Electronic Pipette, 1-ch, 500-10000 µl, AC-adaptor Universal	94,120	
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	LH-745321	Picus NxT Electronic Pipette, 8-ch, 0.2-10 µl, AC-adaptor Universal	133,900	
	LH-745341	Picus NxT Electronic Pipette, 8-ch, 5-120 µl, AC-adaptor Universal	133,900	
	LH-745361	Picus NxT Electronic Pipette, 8-ch, 10-300 µl, AC-adaptor Universal	133,900	
	LH-745391	Picus NxT Electronic Pipette, 8-ch, 50-1200 µl, AC-adaptor Universal	133,900	
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	LH-745421	Picus NxT Electronic Pipette, 12-ch, 0.2-10 µl, AC-adaptor Universal	150,800	
	LH-745441	Picus NxT Electronic Pipette, 12-ch, 5-120 µl, AC-adaptor Universal	150,800	
	LH-745461	Picus NxT Electronic Pipette, 12-ch, 10-300 µl, AC-adaptor Universal	150,800	
	LH-745491	Picus NxT Electronic Pipette, 12-ch, 50-1200 µl, AC-adaptor Universal	150,800	

1.2 Picus®

	Order No.	Description	Price ₹	
Picus® Electronic Pipettes	735021	Picus® Electronic Pipette, 1-ch, 0.2-10 µl, AC-adaptor Universal	79,560	
	735041	Picus® Electronic Pipette, 1-ch, 5-120 µl, AC-adaptor Universal	79,560	
	735061	Picus® Electronic Pipette, 1-ch, 10-300 µl, AC-adaptor Universal	79,560	
	735081	Picus® Electronic Pipette, 1-ch, 50-1000 µl, AC-adaptor Universal	79,560	
	735101	Picus® Electronic Pipette, 1-ch, 100-5000 µl, AC-adaptor Universal	79,560	
	735111	Picus® Electronic Pipette, 1-ch, 500-10000 µl, AC-adaptor Universal	79,560	
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	735321	Picus® Electronic Pipette, 8-ch, 0.2-10 µl, AC-adaptor Universal	123,500	
	735341	Picus® Electronic Pipette, 8-ch, 5-120 µl, AC-adaptor Universal	123,500	
	735361	Picus® Electronic Pipette, 8-ch, 10-300 µl, AC-adaptor Universal	123,500	
	735391	Picus® Electronic Pipette, 8-ch, 50-1200 µl, AC-adaptor Universal	123,500	
	<hr/>			
	735421	Picus® Electronic Pipette, 12-ch, 0.2-10 µl, AC-adaptor Universal	139,100	
	735441	Picus® Electronic Pipette, 12-ch, 5-120 µl, AC-adaptor Universal	139,100	
	735461	Picus® Electronic Pipette, 12-ch, 10-300 µl, AC-adaptor Universal	139,100	
	735491	Picus® Electronic Pipette, 12-ch, 50-1200 µl, AC-adaptor Universal	139,100	

1.3 Charging stand

	Order No.	Description	Price ₹
Picus® Et eLINE® Charging Stand	730981	Picus® 1-Place Charging Stand, AC-adaptor Universal	28,600
	730991	Picus® 4-Place Charging Carousel, AC-adaptor Universal	57,480

The Most Sophisticated and Ergonomic Pipettes Ever!



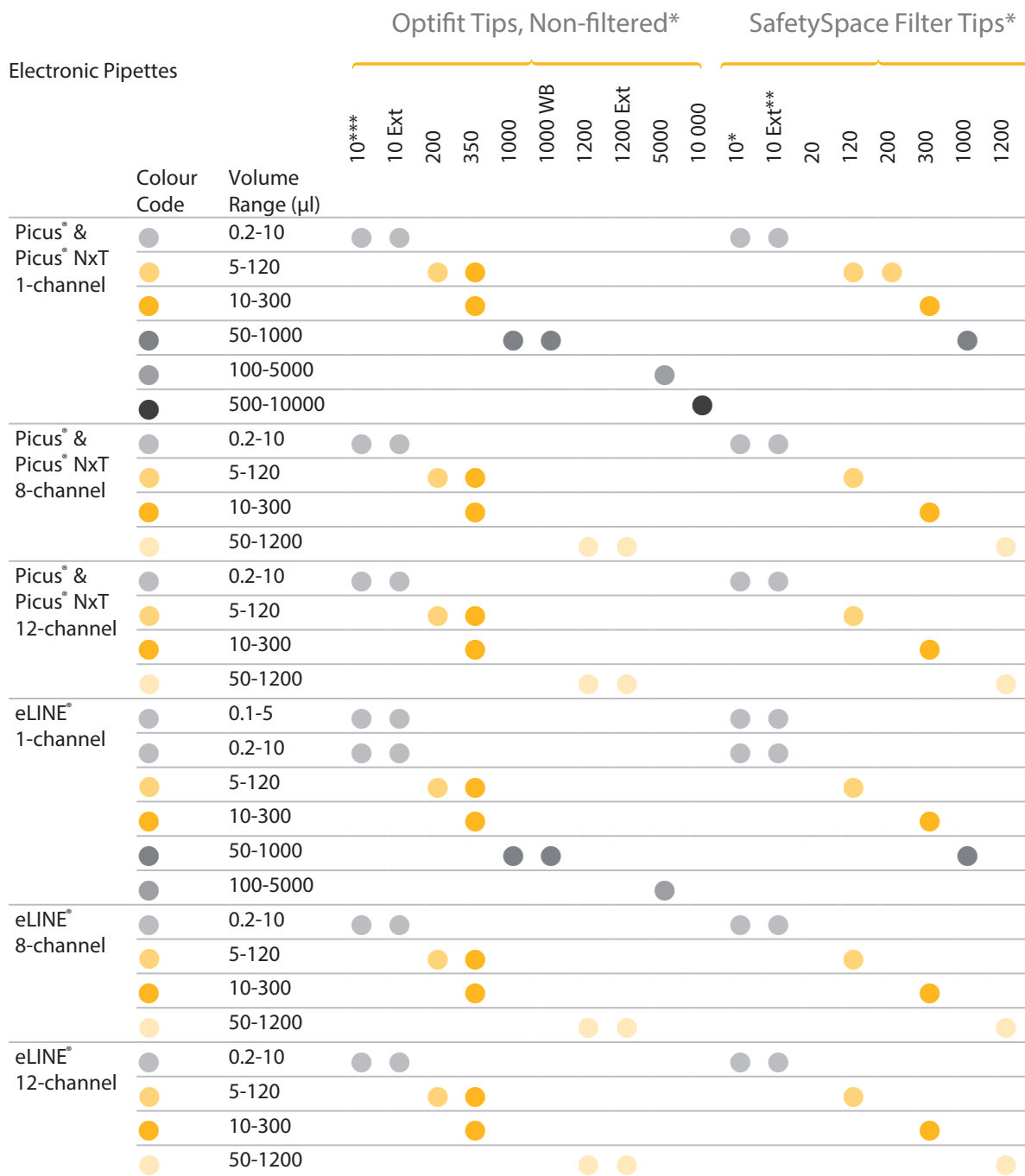
- Single-channel models cover a volume range of 0.2 µl – 10,000 µl, and multichannel models a range of 0.2 µl – 1,200 µl
- 8 pipetting modes and 6 additional modes
- Calibration adjustment in 1-, 2- or 3-points
- Possibility to store service and calibration related data
- Autoclavable lower parts (excl. 1200 µl models)
- Charging with charging stand or micro USB cable
- Possible to continue working with USB charging cable connected
- Li-Polymer battery enables charging in approx. 1 hour

Pipetting modes of Picus® and Picus® NxT

Pipetting Modes - in all models	Additional Modes - to be used in conjunction with the pipetting mode						
	Tracker	Mixing	Counter	Excess Volume Adjustment	Auto Dispensing	Repeated Blow-out*	Fast Dispensing
Pipetting	✓	✓	✓	✓		✓	
Reverse Pipetting	✓	✓		✓			
Manual Pipetting	✓					✓	
Multi Dispensing	✓	✓		✓	✓		
Diluting	✓		✓			✓	
Sequential Dispensing	✓			✓			
Multi Aspiration	✓					✓	
Titrate	✓						✓

*Only available in Picus® NxT models

Electronic Pipette Tip Selection Guide



* Note: Low Retention Tips are available in volumes up to 1200 µl.

** Filter tip with regular air gap

*** Extended inaccuracy and imprecision with pre-sterilized 10 µl tips

2. Mechanical Pipettes

2.1 Tacta

Order No.	Description	Price ₹
LH-729010	Tacta Mechanical Pipette, 1-ch, 0.1–3 µl	25,150
LH-729020	Tacta Mechanical Pipette, 1-ch, 0.5–10 µl	25,150
LH-729030	Tacta Mechanical Pipette, 1-ch, 2–20 µl	25,150
LH-729050	Tacta Mechanical Pipette, 1-ch, 10–100 µl	25,150
LH-729060	Tacta Mechanical Pipette, 1-ch, 20–200 µl	25,150
LH-729070	Tacta Mechanical Pipette, 1-ch, 100–1000 µl	25,150
LH-729080	Tacta Mechanical Pipette, 1-ch, 500–5000 µl	25,150
LH-729090	Tacta Mechanical Pipette, 1-ch, 1–10 ml	25,150
LH-729120	Tacta Mechanical Pipette, 8-ch, 0.5–10 µl	78,350
LH-729130	Tacta Mechanical Pipette, 8-ch, 5–100 µl	78,350
LH-729140	Tacta Mechanical Pipette, 8-ch, 30–300 µl	78,350
LH-729220	Tacta Mechanical Pipette, 12-ch, 0.5–10 µl	83,720
LH-729230	Tacta Mechanical Pipette, 12-ch, 5–100 µl	83,720
LH-729240	Tacta Mechanical Pipette, 12-ch, 30–300 µl	83,720
LH-729670	Tacta 3 -pack 10 Tacta 1 Channel pipettes 0.5–10 µl, 10–100 µl, 100–1000 µl, Sartorius Optifit Tips Racks 0.1–10 µl, 0.5–200 µl, 10–1000 µl 96 tips, Linear Stand, Pipette Holder	68,380
LH-729671	Tacta 3 -pack 20 Tacta 1 Channel pipettes 2–20 µl, 20–200 µl, 100–1000 µl, Sartorius Optifit Tips Racks 0.5–200 µl, 10–1000 µl 96 tips, Linear Stand, Pipette Holder	68,380
LH-729672	Tacta 4 -pack 20 Tacta 1 channel pipettes 0.5–10 µl, 2–20 µl, 20–200 µl, 100–1000 µl, Sartorius Optifit Tips Racks 0.1–10 µl, 0.5–200 µl, 10–1000 µl 96 tips, Linear Stand, Pipette Holder	81,900
LH-729673	Tacta 4-pack 100 Tacta 1 channel pipettes 0.5–10 µl, 10–100 µl, 20–200 µl, 100–1000 µl, Sartorius Optifit Tips Racks 0.1–10 µl, 0.5–200 µl, 10–1000 µl 96 tips, Linear Stand, Pipette Holder	81,900
LH-729674	Tacta 5-pack 10 Tacta 1 channel pipettes 0.5–10 µl, 10–100 µl, 20–200 µl, 100–1000 µl, 500–5000 µl, Sartorius Optifit Tips Racks 0.5–200 µl, 10–1000 µl 96 tips Tip Racks 5000ul 50 tips, Linear Stand, Pipette Holder	93,340
LH-729675	Tacta 5 -pack 20 Tacta 1 channel pipettes 2–20 µl, 10–100 µl, 20–200 µl, 100–1000 µl, 500–5000 µl, Sartorius Optifit Tips Racks 0.5–200 µl, 10–1000 µl 96 tips Tip Racks 5000ul 50 tips, Linear Stand, Pipette Holder	93,340
LH-729676	Tacta 3+1 -pack Tacta 1 channel 0.5–10 µl, 20–200 µl, 100–1000 µl and 8-channel 30–300 µl, Sartorius Optifit Tips Racks 0.1–10 µl, 0.5–200 µl, 5–350ul, 10–1000 µl 96 tips, Linear Stand, Pipette Holder	124,800
LH-729677	Tacta 3 -pack Max, Tacta 1 channel pipettes 100–1000 µl, 500–5000 µl, 1–10ml Sartorius Optifit Tips Racks 10–1000 µl 96 tips Tip, Bulk in Bag 0.1–5ml 100 tips, 1–10ml 250 tips, Linear Stand, Pipette Holder	68,380

Tacta

Perfectly Balanced – The Tacta Experience

Tacta Mechanical Pipettes

Feel the Comfort – Achieve Reliable Results

– Safe from Contamination

- Dual function volume locking
- Large clear display
- Proven precision
- Low Pipetting force
- Low Tip loading force
- Low Tip ejection force
- Easy cleaning
- Easy calibration adjustment
- Safe cone filter



Sartorius' most advanced mechanical pipette family

The mLINE®



Offers excellent ergonomics, performance and safety in manual pipetting. It is particularly designed for repetitive and long-lasting pipetting in order to prevent work related hand, arm and shoulder disorders or Repetitive Strain Injury (RSI).

mLINE® is recommended by health and safety officers around the globe.

- Excellent ergonomics to protect from injuries with the exceptionally light pipetting and tip ejection forces
- High accuracy and precision, also in repetitive, long-lasting pipetting
- Minimized risk of contamination with Safe-Cone Filters and full autoclavability
- Increased safety with volume lock preventing accidental volume changes while pipetting

2.2 mLINE®

	Order No.	Description	Price
mLINE®	725010	mLINE® Mechanical Pipette, 1-ch, 0.1-3 µl	21,250
	725020	mLINE® Mechanical Pipette, 1-ch, 0.5-10 µl	21,250
	725030	mLINE® Mechanical Pipette, 1-ch, 2-20 µl	21,250
	725050	mLINE® Mechanical Pipette, 1-ch, 10-100 µl	21,250
	725060	mLINE® Mechanical Pipette, 1-ch, 20-200 µl	21,250
	725070	mLINE® Mechanical Pipette, 1-ch, 100-1000	21,250
	725080	mLINE® Mechanical Pipette, 1-ch, 0.5-5 ml	21,250
	725090	mLINE® Mechanical Pipette, 1-ch, 1-10 ml	21,250
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	725120	mLINE® Mechanical Pipette, 8-ch, 0.5-10 µl	68,500
	725130	mLINE® Mechanical Pipette, 8-ch, 5-100 µl	68,500
	725140	mLINE® Mechanical Pipette, 8-ch, 30-300 µl	68,500
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	725220	mLINE® Mechanical Pipette, 12-ch, 0.5-10 µl	77,500
	725230	mLINE® Mechanical Pipette, 12-ch, 5-100 µl	77,500
	725240	mLINE® Mechanical Pipette, 12-ch, 30-300 µl	77,500

2.3 mLINE® Multipacks

	Order No.	Description	Price ₹
mLINE® Multipacks	LH-725661	mLINE® Pipette 3-pack 10 ■ mLINE® pipettes 0.5-10 µl, 10-100 µl, 100-1000 µl ■ Sartorius Optifit Tip tray box 0.1-10 µl, 0.5-200 µl, 10-1000 µl ■ Linear Stand	58,900
	LH-725662	mLINE® Pipette 3-pack 20 ■ mLINE® pipettes 2-20 µl, 20-200 µl, 100-1000 µl ■ Sartorius Optifit Tip tray box 0.5-200 µl, 0.5-200 µl, 10-1000 µl ■ Linear Stand	58,900
	LH-725663	mLINE® Pipette 4-pack ■ mLINE® pipettes 0.5-10 µl, 10-100 µl, 20-200 µl, 100-1000 µl ■ Sartorius Optifit Tip tray box 0.1-10 µl, 0.5-200 µl, 10-1000 µl ■ Linear Stand	69,250
	LH-725664	mLINE® Pipette 5-pack ■ mLINE® pipettes 2-20 µl, 10-100 µl, 20-200 µl, 100-1000 µl, 500-5000 µl ■ Sartorius Optifit Tip tray box 0.5-200 µl, 10-1000 µl, 5000 µl ■ Linear Stand	69,250
	LH-725665	mLINE® Pipette 3+1-pack ■ mLINE® pipettes 0.5-10 µl, 20-200 µl, 100-1000 µl and 8-channel 20-300 µl ■ Sartorius Optifit Tip tray box 0.1-10 µl, 0.5-200 µl, 5-350 µl, 10-1000 µl ■ Linear Stand	99,350

2.4 Proline® Plus

Order No.	Description	Price ₹
728010	Proline® Plus Mechanical Pipette, 1-ch, 0.1-3 µl	13,250
728020	Proline® Plus Mechanical Pipette, 1-ch, 0.5-10 µl	13,250
728030	Proline® Plus Mechanical Pipette, 1-ch, 2-20 µl	13,250
728040	Proline® Plus Mechanical Pipette, 1-ch, 5-50 µl	13,250
728050	Proline® Plus Mechanical Pipette, 1-ch, 10-100 µl	13,250
728060	Proline® Plus Mechanical Pipette, 1-ch, 20-200 µl	13,250
728070	Proline® Plus Mechanical Pipette, 1-ch, 100-1000 µl	13,250
728080	Proline® Plus Mechanical Pipette, 1-ch, 500-5000 µl	13,250
728090	Proline® Plus Mechanical Pipette, 1-ch, 1-10 ml	13,250
728120	Proline® Plus Mechanical Pipette, 8-ch, 0.5-10 µl	36,920
728130	Proline® Plus Mechanical Pipette, 8-ch, 10-100 µl	36,920
728140	Proline® Plus Mechanical Pipette, 8-ch, 30-300 µl	36,920
728220	Proline® Plus Mechanical Pipette, 12-ch, 0.5-10 µl	40,500
728230	Proline® Plus Mechanical Pipette, 12-ch, 10-100 µl	40,500
728240	Proline® Plus Mechanical Pipette, 12-ch, 30-300 µl	40,500
LH-728670	Proline Plus 3 -pack 10 Proline Plus 1 Channel pipettes 0.5-10 µl, 10-100 µl, 100-1000 µl, Sartorius Optifit Tips Racks 0.1-10 µl, 0.5-200 µl, 10-1000 µl 96 tips, Linear Stand, Pipette Holder x 3	35,800
LH-728671	Proline Plus 3 -pack 20 Proline Plus 1 Channel pipettes 2-20 µl, 20-200 µl, 100-1000 µl, Sartorius Optifit Tips Racks 0.5-200 µl, 10-1000 µl 96 tips, Linear Stand, Pipette Holder x 3	35,800
LH-728672	Proline Plus 4 -pack 20 Proline Plus 1 channel pipettes 0.5-10 µl, 2-20 µl, 20-200 µl, 100-1000 µl, Sartorius Optifit Tips Racks 0.1-10 µl, 0.5-200 µl, 10-1000 µl 96 tips, Linear Stand, Pipette Holder x 4	42,500
LH-728673	Proline Plus 4-pack 100 Proline Plus 1 channel pipettes 0.5-10 µl, 10-100 µl, 20-200 µl, 100-1000 µl, Sartorius Optifit Tips Racks 0.1-10 µl, 0.5-200 µl, 10-1000 µl 96 tips, Linear Stand, Pipette Holder x 4	42,500
LH-728674	Proline Plus 5-pack 10 Proline Plus 1 channel pipettes 0.5-10 µl, 10-100 µl, 20-200 µl, 100-1000 µl, 500-5000 µl, Sartorius Optifit Tips Racks 0.5-200 µl, 10-1000 µl 96 tips Tip Racks 5000 ul 50 tips, Linear Stand, Pipette Holder x 5	53,000
LH-728675	Proline Plus 5 -pack 20 Proline 1 channel pipettes 2-20 µl, 10-100 µl, 20-200 µl, 100-1000 µl, 500-5000 µl, Sartorius Optifit Tips Racks 0.5-200 µl, 10-1000 µl 96 tips Tip Racks 5000ul 50 tips, Linear Stand, Pipette Holder x 5	53,000
LH-728676	Proline Plus 3+1 -pack Proline Plus 1 channel 0.5-10 µl, 20-200 µl, 100-1000 µl and 8-channel 30-300 µl, Sartorius Optifit Tips Racks 0.1-10 µl, 0.5-200 µl, 5-350ul, 10-1000 µl 96 tips, Linear Stand, Pipette Holder x 4	66,250
LH-728677	Proline Plus 3 -pack Max Proline Plus 1 channel pipettes 100-1000 µl, 500-5000 µl, 1-10ml Sartorius Optifit Tips Racks 10-1000 µl 96 tips Tip, Bulk in Bag 0.1-5ml 100 tips, 1-10ml 250 tips, Linear Stand, Pipette Holder x 3	35,900
728515	Proline® Plus Mechanical Fixed Pipette, 1-ch, 5 µl	6,500
728520	Proline® Plus Mechanical Fixed Pipette, 1-ch, 10 µl	6,500
728530	Proline® Plus Mechanical Fixed Pipette, 1-ch, 20 µl	6,500
728535	Proline® Plus Mechanical Fixed Pipette, 1-ch, 25 µl	6,500
728545	Proline® Plus Mechanical Fixed Pipette, 1-ch, 50 µl	6,500
728550	Proline® Plus Mechanical Fixed Pipette, 1-ch, 100 µl	6,500
728560	Proline® Plus Mechanical Fixed Pipette, 1-ch, 200 µl	6,500
728565	Proline® Plus Mechanical Fixed Pipette, 1-ch, 250 µl	6,500
728567	Proline® Plus Mechanical Fixed Pipette, 1-ch, 500 µl	6,500
728570	Proline® Plus Mechanical Fixed Pipette, 1-ch, 1000 µl	6,500
728575	Proline® Plus Mechanical Fixed Pipette, 1-ch, 2000 µl	6,500
728580	Proline® Plus Mechanical Fixed Pipette, 1-ch, 5000 µl	6,500
728590	Proline® Plus Mechanical Fixed Pipette, 1-ch, 10 ml	6,500

Proline®
Plus
Mechanical
Pipettes

2.5 Proline®

	Order No.	Description	Price ₹
Proline® Mechanical Pipettes	720010	Proline® Mechanical Pipette, 1-ch, 0.1-2.5 µl	8,300
	720015	Proline® Mechanical Pipette, 1-ch, 0.5-10 µl	8,300
	720080	Proline® Mechanical Pipette, 1-ch, 2-20 µl	8,300
	720025	Proline® Mechanical Pipette, 1-ch, 5-50 µl	8,300
	720050	Proline® Mechanical Pipette, 1-ch, 10-100 µl	8,300
	720070	Proline® Mechanical Pipette, 1-ch, 20-200 µl	8,300
	720060	Proline® Mechanical Pipette, 1-ch, 100-1000 µl	8,300
	720110	Proline® Mechanical Pipette, 1-ch, 1000-5000 µl	8,300
	720210	Proline® Mechanical Pipette, 8-ch, 0.5-10 µl	31,600
	720220	Proline® Mechanical Pipette, 8-ch, 5-50 µl	31,600
	720240	Proline® Mechanical Pipette, 8-ch, 50-300 µl	31,600
	720310	Proline® Mechanical Pipette, 12-ch, 0.5-10 µl	35,000
720320	Proline® Mechanical Pipette, 12-ch, 5-50 µl	35,000	
720340	Proline® Mechanical Pipette, 12-ch, 50-300 µl	35,000	
	Order No.	Description	Price ₹
	722001	Proline® Mechanical Fixed Pipette, 1-ch, 5 µl	5,250
	722004	Proline® Mechanical Fixed Pipette, 1-ch, 10 µl	5,250
	722010	Proline® Mechanical Fixed Pipette, 1-ch, 20 µl	5,250
	722015	Proline® Mechanical Fixed Pipette, 1-ch, 25 µl	5,250
	722020	Proline® Mechanical Fixed Pipette, 1-ch, 50 µl	5,250
	722025	Proline® Mechanical Fixed Pipette, 1-ch, 100 µl	5,250
	722030	Proline® Mechanical Fixed Pipette, 1-ch, 200 µl	5,250
	722035	Proline® Mechanical Fixed Pipette, 1-ch, 250 µl	5,250
	722040	Proline® Mechanical Fixed Pipette, 1-ch, 500 µl	5,250
	722045	Proline® Mechanical Fixed Pipette, 1-ch, 1000 µl	5,250
	722050	Proline® Mechanical Fixed Pipette, 1-ch, 2000 µl	4,680
	722055	Proline® Mechanical Fixed Pipette, 1-ch, 5000 µl	4,680

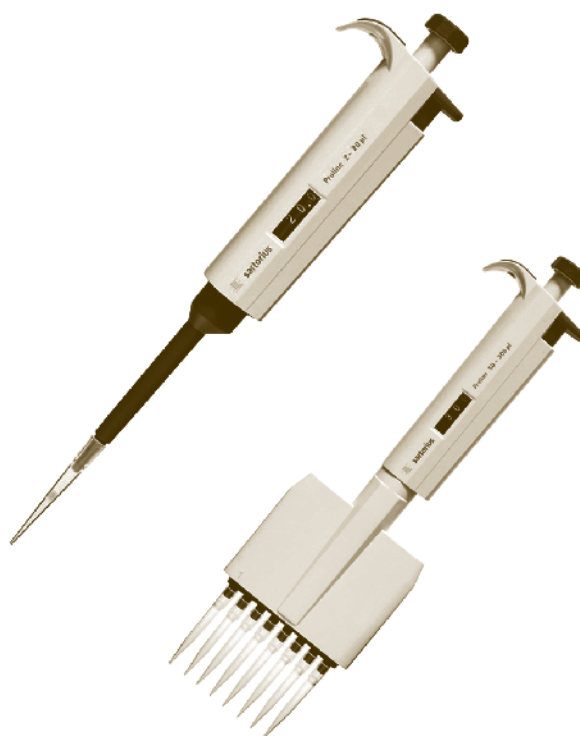
Proline® Mechanical Pipettes

The most affordable pipette

Our first mechanical pipette family, Proline®, is still in use in many laboratories around the globe, testifying to its timeless, practical design and reliability.

The most affordable in the Sartorius line of mechanical pipettes, Proline® is ideal for universities and colleges or any laboratory seeking a cost-efficient, yet practical and reliable liquid-handling tool. Due to its relatively light weight, high accuracy and precision, it is also used by many professionals.

- Wide range of pipettes, both adjustable and fixed volume available
- Relaxed grip with ergonomic finger support
- Reduced risk of contamination with Safe-Cone Filters available for models > 10 µ



New "EASY BULK" Tips Ask for Special Price!!!

3. Pipette Tips

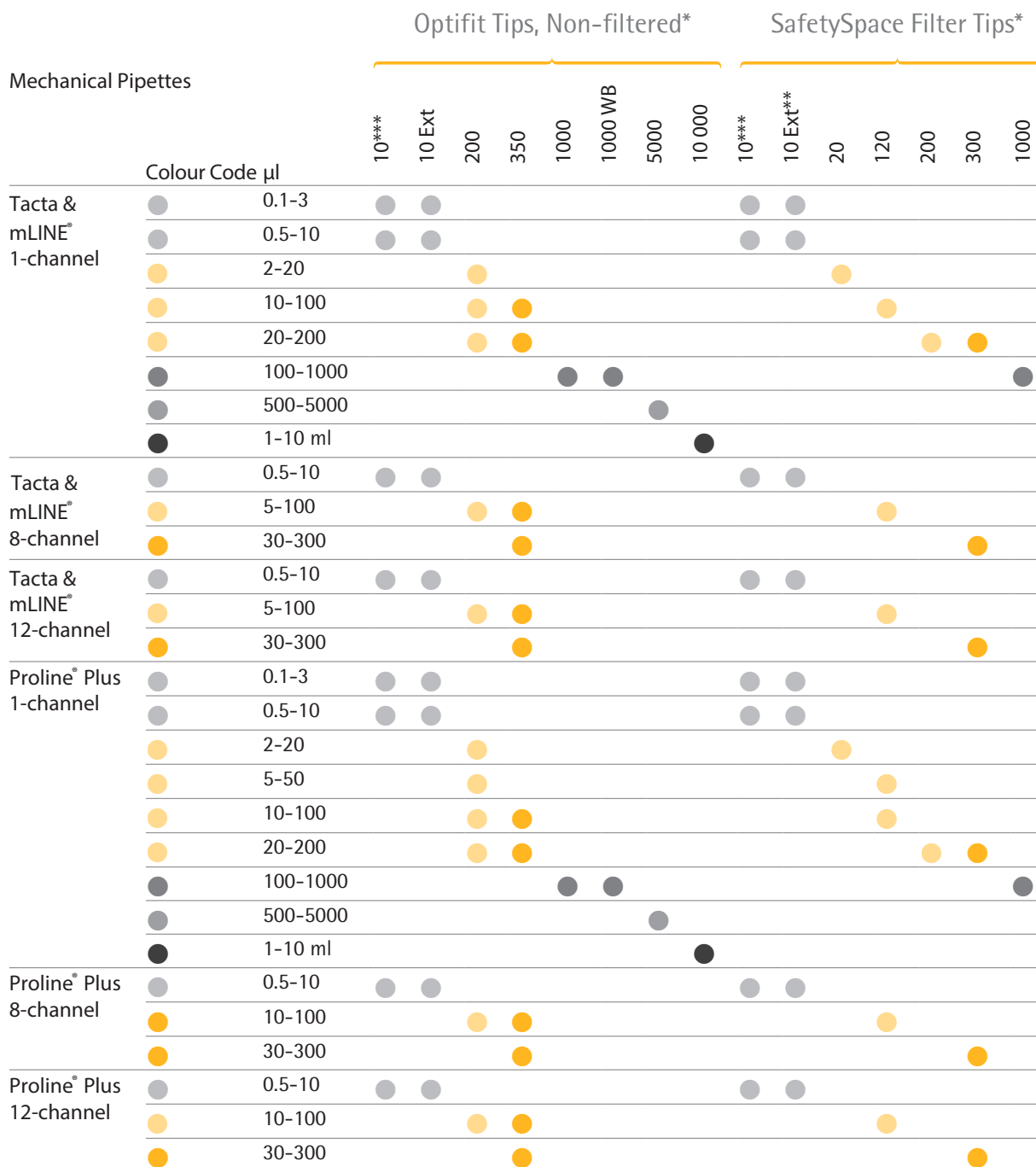
3.1 Optifit Tips

Order No.	Description	Price ₹	Optifit Tips
790010	Optifit Tip 10, Single Tray (10 × 96)	4,250	
790011	Optifit Tip 10, Single Tray (10 × 96), presterilized	4,780	
790012	Optifit Tip 10, Refill Tower (10 × 96)	4,150	
790013	Optifit Tip 10, Refill Pack (20 × 96), presterilized	7,150	
790014	Optifit Tip 10, Bulk Box (1000)	1,850	
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783210	Tip 10 Extended, Single Tray (10 × 96)	6,200	
783211	Tip 10 Extended, Single Tray (10 × 96), presterilized	9,900	
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790200	Optifit Tip 200, Single Tray (10 × 96)	3,150	
790201	Optifit Tip 200, Single Tray (10 × 96), presterilized	5,570	
790202	Optifit Tip 200, Refill Tower (10 × 96)	2,880	
790203	Optifit Tip 200, Refill Pack (15 × 96), presterilized	4,650	
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790350	Optifit Tip 350, Single Tray (10 × 96)	4,250	
790351	Optifit Tip 350, Single Tray (10 × 96), presterilized	6,650	
790352	Optifit Tip 350, Refill Tower (10 × 96)	3,550	
790353	Optifit Tip 350, Refill Pack (15 × 96), presterilized	5,650	
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791000	Optifit Tip 1000, Single Tray (10 × 96)	3,500	
791001	Optifit Tip 1000, Single Tray (10 × 96), presterilized	6,500	
791002	Optifit Tip 1000, Refill Pack (10 × 96)	3,400	
791003	Optifit Tip 1000, Refill Pack (10 × 96), presterilized	4,420	
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791020	Optifit Tip 1000 Wide Bore, Single Tray (10 × 96)	5,450	
791021	Optifit Tip 1000 Wide Bore, Single Tray (10 × 96), presterilized	8,250	
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791200	Optifit Tip 1200, Single Tray (10 × 96)	7,550	
791201	Optifit Tip 1200, Single Tray (10 × 96), presterilized	10,000	
791202	Optifit Tip 1200, Refill Pack (10 × 96)	6,150	
791203	Optifit Tip 1200, Refill Pack (10 × 96), presterilized	7,650	
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791210	Optifit Tip 1200 Extended, Single Tray (10 × 96)	8,700	
791211	Optifit Tip 1200 Extended, Single Tray (10 × 96), presterilized	11,150	
791212	Optifit Tip 1200 Extended, Refill Pack (10 × 96)	6,800	
791213	Optifit Tip 1200 Extended, Refill Pack (10 × 96), presterilized	8,350	
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780304	Optifit Tip 5000, Single Tray (1 × 50)	1,560	
780305	Optifit Tip 5000, Single Tray (1 × 50), presterilized	2,150	
780300	Optifit Tip 5000, Bulk Box (100)	1,560	
780308	Optifit Tip 5000, Bulk Carton (1000)	6,760	

3.2 Optifit Tips-Flexibulk

LH-B790204	Optifit Tip 200, Flexibulk 960 pcs	1,450
LH-B790354	Optifit Tip 350, Flexibulk 960 pcs.	1,450
LH-B791004	Optifit Tip 1000, Flexibulk 480 pcs.	1,250
LH-B791024	Optifit Tip 1000 Wide Bore, Flexibulk 480 pcs.	1,250
LH-B791204	Optifit Tip 1200, Flexibulk 480 pcs.	1,650
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780310	Optifit Tip 10000, Bulk Box (100) (for Midi Plus)	4,680
LH-780316	Optifit Tip 10000, Bulk Box (250)	5,800
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790910	Empty Tip Boxes for tips 10, 300 and 350 (10 boxes)	2,600
790920	Empty Tip Boxes for tips 1000 and 1200 (10 boxes)	2,600

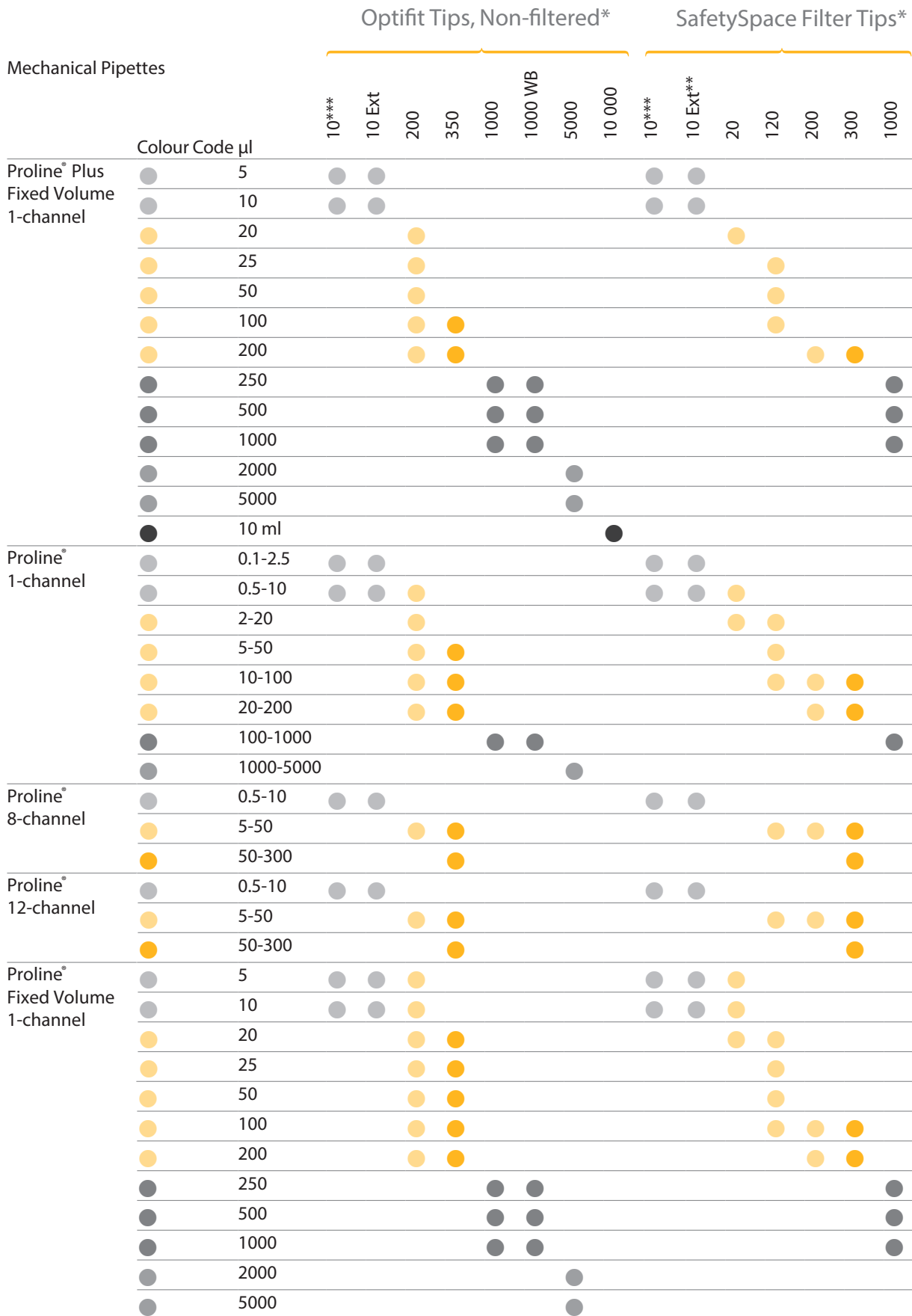
Mechanical Pipette Tip Selection Guide



* Note: Low Retention Tips are available in volumes up to 1200 µl.

** Filter tips with regular air gap

*** Extended inaccuracy and imprecision with pre-sterilized 10 µl tips



3.3 Low Retention Optifit Tips

	Order No.	Description	Price ₹
Low Retention Optifit Tips	LH-L790010	Optifit Tip, Low Retention, 0.1-10 µl, Single Tray (10 × 96)	5,500
	LH-L790012	Optifit Tip, Low Retention, 0.1-10 µl, Refill Tower (10 × 96)	4,150
	LH-L790200	Optifit Tip, Low Retention, 0.5-200 µl, Single Tray (10 × 96)	6,000
	LH-L790202	Optifit Tip, Low Retention, 0.5-200 µl, Refill Tower (10 × 96)	3,400
	LH-L790350	Optifit Tip, Low Retention, 5-350 µl, Single Tray (10 × 96)	7,250
	LH-L790352	Optifit Tip, Low Retention, 5-350 µl, Refill Tower (10 × 96)	4,150
	LH-L791000	Optifit Tip, Low Retention, 10-1000 µl, Single Tray (10 × 96)	8,100
	LH-L791200	Optifit Tip, Low Retention, 50-1200 µl, Single Tray (10 × 96)	9,550
	LH-L791210	Optifit Tip, Low Retention, 50-1200 µl Ext., Single Tray (10 × 96)	9,550

3.4 SafetySpace™ Filter Tips

	Order No.	Description	Price ₹
SafetySpace™ Filter Tips	790011F	SafetySpace™ Filter Tip, 0.1-10 ul, Pre-sterilized, Single Tray (10 × 96)	6,750
	783201	Filter Tip, 0.1-10 ul Extended, Pre-sterilized, Single Tray (10 × 96)	6,750
	790021F	SafetySpace™ Filter Tip, 0.5-20 ul, Pre-sterilized, Single Tray (10 × 96)	7,850
	790101F	SafetySpace™ Filter Tip, 2-120 ul, Pre-sterilized, Single Tray (10 × 96)	8,450
	790201F	SafetySpace™ Filter Tip, 5-200 ul, Pre-sterilized, Single Tray (10 × 96)	7,650
	790301F	SafetySpace™ Filter Tip, 5-300 ul, Pre-sterilized, Single Tray (10 × 96)	6,500
	791001F	SafetySpace™ Filter Tip, 50-1000 ul, Pre-sterilized, Single Tray (10 × 96)	10,150
	791211F	SafetySpace™ Filter Tip, 50-1200 ul, Pre-sterilized, Single Tray (10 × 96)	10,150

3.5 Low Retention SafetySpace™ Filter Tips

	Order No.	Description	Price ₹
Low Retention SafetySpace™ Filter Tips	LH-LF790011	SafetySpace™ Filter Tip, Low Retention, 0.1-10 µl, Pre-sterilized, Single Tray (10 × 96)	7,650
	LH-LF790021	SafetySpace™ Filter Tip, Low Retention, 0.5-20 µl, Pre-sterilized, Single Tray (10 × 96)	8,650
	LH-LF790101	SafetySpace™ Filter Tip, Low Retention, 5-120 µl, Pre-sterilized, Single Tray (10 × 96)	9,350
	LH-LF790201	SafetySpace™ Filter Tip, Low Retention, 5-200 µl, Pre-sterilized, Single Tray (10 × 96)	9,350
	LH-LF790301	SafetySpace™ Filter Tip, Low Retention, 5-300 µl, Pre-sterilized, Single Tray (10 × 96)	7,150
	LH-LF791001	SafetySpace™ Filter Tip, Low Retention, 50-1000 µl, Pre-sterilized, Single Tray (10 × 96)	10,980
	LH-LF791211	SafetySpace™ Filter Tip, Low Retention, 50-1200 µl, Pre-sterilized, Single Tray (10 × 96)	12,150

Tip Selection Guide per Application

Tip Type	Optifit Tips			SafetySpace Filter Tips	Low Retention Tips
Purity	Standard	Free of DNase, RNase & endotoxins	Pre-sterilized & free of DNase, RNase and endotoxins	Pre-sterilized & free of DNase, RNase and endotoxins	
Regular pipetting applications	✓				
Applications where prevention of cross-contamination is vital		✓	✓	✓	
Pipetting liquids with low surface tension (e.g. detergents, solvents)					✓

Pipette Tips Information

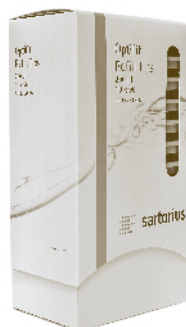
Optifit Tips

Volume Range	Length	Packaging	Low Retention	Purity Level		Tips/Unit	Order Code	
				Free of RNase, DNase, endotoxins	Pre-sterilised			
● 0.1-10 µl	31.5 mm	Single Tray	●	●	●	10 x 96	790010	
		Single Tray		●		●	10 x 96	LH-L790010
		Single Tray		●		●	10 x 96	790011
		Refill Tower		●		●	10 x 96	790012
		Refill Tower		●		●	10 x 96	LH-L790012
		Refill Pack		●		●	20 x 96	790013
		Bulk in Box		●		●	1000	790014
● 0.1-10 µl	Extended 46 mm	Single Tray	●	●	●	10 x 96	783210	
		Single Tray		●		●	10 x 96	783211
● 0.5-200 µl	51 mm	Single Tray	●	●	●	10 x 96	790200	
		Single Tray		●		●	10 x 96	LH-L790200
		Single Tray		●		●	10 x 96	790201
		Refill Tower		●		●	10 x 96	790202
		Refill Tower		●		●	10 x 96	LH-L790202
		Refill Pack		●		●	15 x 96	790203
		FlexiBulk		●		●	960	LH-B790204
● 5-350 µl	54 mm	Single Tray	●	●	●	10 x 96	790350	
		Single Tray		●		●	10 x 96	LH-L790350
		Single Tray		●		●	10 x 96	790351
		Refill Tower		●		●	10 x 96	790352
		Refill Tower		●		●	10 x 96	LH-L790352
		Refill Pack		●		●	15 x 96	790353
FlexiBulk	●	●	960	LH-B790354				
● 10-1000 µl	71.5 mm	Single Tray	●	●	●	10 x 96	791000	
		Single Tray		●		●	10 x 96	LH-L791000
		Single Tray		●		●	10 x 96	791001
		Refill Pack		●		●	10 x 96	791002
		Refill Pack		●		●	10 x 96	791003
		FlexiBulk		●		●	480	LH-B791004

Pipette Tips Packing Options








Single tray racks



Refill towers



Optifit Tips

Volume Range	Length	Packaging	Low Retention	Purity Level		Tips/Unit	Order Code
				Free of RNase, DNase, endotoxins	Pre-sterilised		
● 10-1000 µl	Wide bore tip 68.5 mm	Single Tray	●	•	•	10 x 96	791020
		Single Tray		•		10 x 96	791021
		FlexiBulk		•		480	LH-B791024
							
● 50-1200 µl	71.5 mm	Single Tray	•	•	•	10 x 96	791200
		Single Tray		•		10 x 96	LH-L791200
		Single Tray		•		10 x 96	791201
		Refill Pack		•		10 x 96	791202
		Refill Pack		•		10 x 96	791203
		FlexiBulk		•		480	LH-B791204
							
● 50-1200 µl	Extended 90 mm	Single Tray	•	•	•	10 x 96	791210
		Single Tray		•		10 x 96	LH-L791210
		Single Tray		•		10 x 96	791211
		Refill Pack		•		10 x 96	791212
		Refill Pack		•		10 x 96	791213
							
● 100-5000 µl	150 mm	Single Tray	•	•	•	50	780304
		Single Tray		•		50	780305
		Bulk in Box				100	780300
		Bulk in Carton				1000	780308
							
● 1-10 ml	155 mm	Bulk in Box				250	LH-780316
							

Pipette Tips Packing Options










FlexiBulk




Single refill packs

Pipette Tips Information

SafetySpace Filter Tips

Volume Range	Length	Packaging	Low Retention	Purity Level		Tips/Unit	Order Code
				RNase, DNase, endotoxin- free	Pre- steri- endotoxin- lised		
● 0.1-10 µl 	31.5 mm	Single Tray Single Tray	●	●	●	10 x 96 10 x 96	790011F LH-LF790011
● 0.5-20 µl 	51 mm	Single Tray Single Tray	●	●	●	10 x 96 10 x 96	790021F LH-LF790021
● 2-120 µl 	51 mm	Single Tray Single Tray	●	●	●	10 x 96 10 x 96	790101F LH-LF790101
● 5-200 µl 	52.5 mm	Single Tray Single Tray	●	●	●	10 x 96 10 x 96	790201F LH-LF790201
● 5-300 µl 	52.5 mm	Single Tray Single Tray	●	●	●	10 x 96 10 x 96	790301F LH-LF790301
● 50-1000 µl 	78 mm	Single Tray Single Tray	●	●	●	10 x 96 10 x 96	791001F LH-LF791001
● 50-1200 µl 	90 mm	Single Tray Single Tray	●	●	●	10 x 96 10 x 96	791211F LH-LF791211

Filter Tips with Regular Air Gap

Volume Range	Length	Packaging	Low Retention	Purity Level		Tips/Unit	Order Code
				RNase, DNase, endotoxin- free	Pre- steri- endotoxin- lised		
● 0.1-10 µl 	46 mm	Single Tray		●	●	10x96	783201

4. Pipetting Aid

	Order No.	Description	Price ₹
Pipetting Aids	710931	Midi Plus, 1-100 ml + AC-adaptor	47,320

5. Bottle-top Dispensers

	Order No.	Description	(Increment)	Price ₹
Bottle-top Dispensers	LH-723060	Prospenser 0.2-1 ml	(0.05 ml)	42,000
	LH-723061	Prospenser 0.4-2 ml	(0.05 ml)	42,000
	LH-723062	Prospenser 1-5 ml	(0.10 ml)	42,000
	LH-723063	Prospenser 2-10 ml	(0.25 ml)	52,570
	LH-723064	Prospenser 5-30 ml	(0.50 ml)	57,800
	LH-723065	Prospenser 10-60 ml	(1 ml)	57,800
	LH-723070	Prospenser Plus 0.2-1 ml	(0.05 ml)	44,150
	LH-723071	Prospenser Plus 0.4-2 ml	(0.05 ml)	44,150
	LH-723072	Prospenser Plus 1-5 ml	(0.10 ml)	44,150
	LH-723073	Prospenser Plus 2-10 ml	(0.25 ml)	58,760
	LH-723074	Prospenser Plus 5-30 ml	(0.50 ml)	62,920
	LH-723075	Prospenser Plus 10-60 ml	(1 ml)	65,000

6. Digital Burettes

	Order No.	Description	(Increment)	Price ₹
Digital Burettes	LH-723080	Biotrate 10 ml	(0.01 ml)	99,350
	LH-723081	Biotrate 20 ml	(0.01 ml)	110,000
	LH-723082	Biotrate 50 ml	(0.01 ml)	110,000



Biotrate, Digital Burette

Bottle-top dispenser

- Chemical resistance and fully autoclavable
- Light to use and ergonomics
- Exact volume setting (incremental)
- Anti-drip closure cap
- Wide range of accessories available including bottle adapters, dispensing heads, and aspiration tubes

Biotrate Digital Burettes

- Chemical resistance and autoclavable liquid pathway
- Light to use and ergonomics
- Large and clear display, long life battery
- Anti-drip closure cap
- Wide range of accessories available including bottle adapters, dispensing heads, and aspiration tubes



New Prospenser



New Prospenser Plus

7. Pipette Stands

Order No.	Description	Price ₹
LH-725630	Carousel Stand for 6 mechanical pipettes	7,800
725610	Pipette Holder for one mLINE® Proline® Plus pipette	780
725620	Linear Stand	5,720
721259	Proline® Holder	700

Pipette
Stands

8. Filters

Order No.	Description	Price ₹
LH-7129120	Replacement Filter for Midi Plus Pipetting Controllers, 0.45 µm, non-sterile, 5 pcs	3,750
LH-7129130	Replacement Filter for Midi Plus Pipetting Controller, 0.2 µm, pre-sterilized, 5 pcs	5,450
721005	Safe-Cone Filter (Stø), ø 6.73 mm, 50 pcs (For Sartorius 5 ml and 10 ml pipettes)	1,450
721006	Safe-Cone Filter (Stø), ø 5.33 mm, 50 pcs (For Sartorius 100-1000 µl pipettes)	1,450
721007	Safe-Cone Filter (Stø), ø 3.15 mm, 50 pcs (For Sartorius 20-200 µl pipettes)	1,450
721008	Safe-Cone Filter (Stø), ø 2.51 mm, 50 pcs (For Sartorius 10-100 µl, 5-100 µl pipettes)	1,450
721014	Safe-Cone Filter (Stø), ø 1.83 mm, 50 pcs (For Sartorius 2-20 µl pipettes)	1,450
721015	Safe-Cone Filter (Plus), ø 6.73 mm, 50 pcs (For Sartorius 5 ml and 10 ml pipettes)	2,680
721016	Safe-Cone Filter (Plus), ø 5.33 mm, 50 pcs (For Sartorius 100-1000 µl pipettes)	2,680
721017	Safe-Cone Filter (Plus), ø 3.15 mm, 50 pcs (For Sartorius 20-200 µl pipettes)	2,680
721018	Safe-Cone Filter (Plus), ø 2.51 mm, 50 pcs (For Sartorius 10-100 µl, 5-100 µl pipettes)	2,680

Filters

9. Accessories

Order No.	Description	Price ₹
721009	Tweezers for Safe-Cone Filter replacement	700
783500	Reagent Vessel, 120 ml	3,900
723103	Elbow Pad (1 pcs)	4,680
LH-711017	Midi Plus Adapter Set for 5 ml tip	4,800
LH-711018	Midi Plus Adapter Set for 10 ml tip	4,800
726203	mLINE® Calibration tool	950
726001	mLINE® Color caps	350

Accessories

Midi Plus Pipetting Controller

- Electronic cordless pipetting controller
- Fits all commonly used glass or plastic pipettes 1 - 100 ml.
- Stepless speed control
- Hydrophobic autoclavable filter protects the device in case of over aspiration



Sartorius Midi Plus

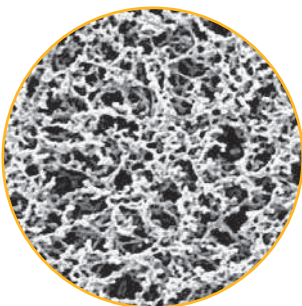
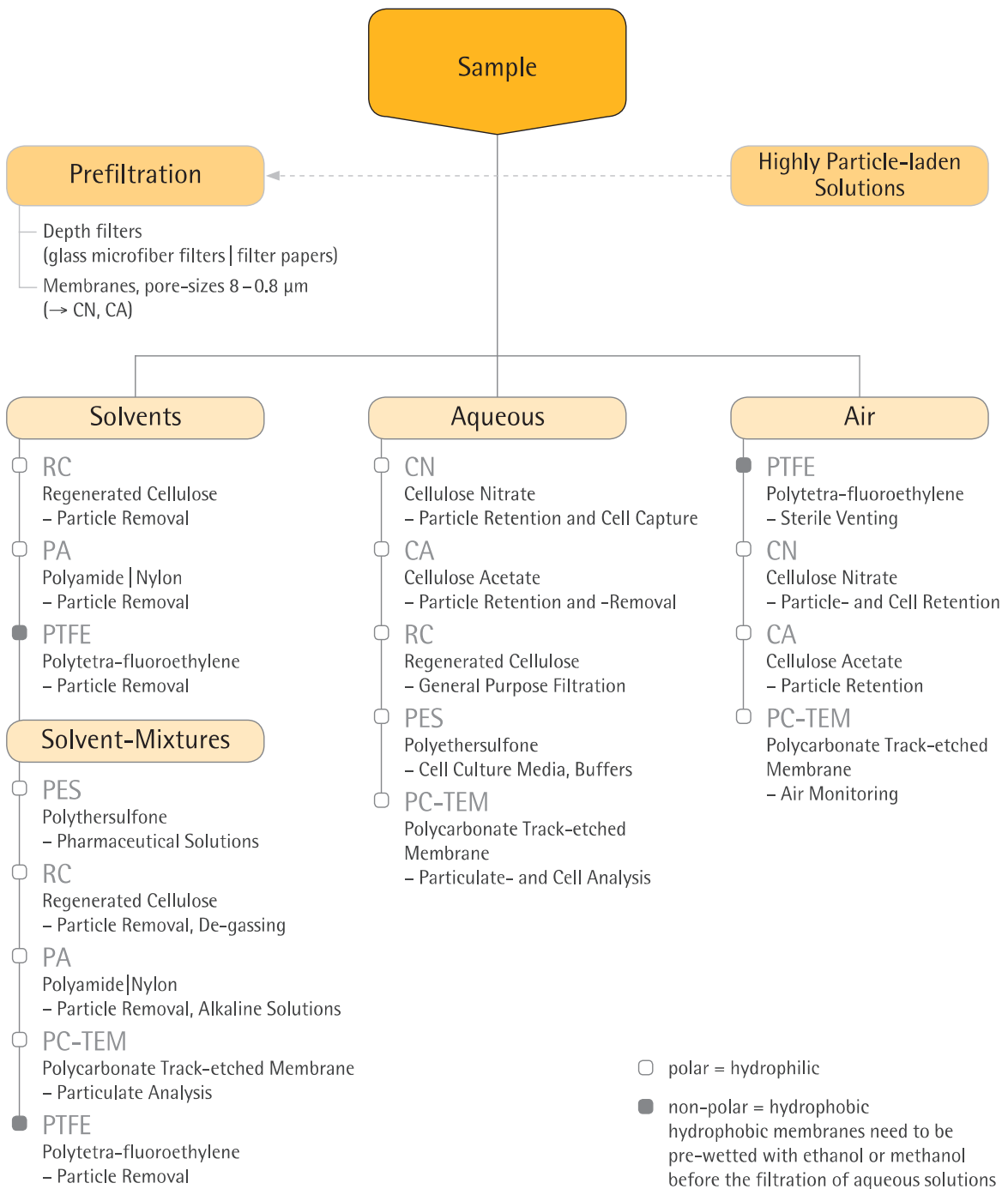




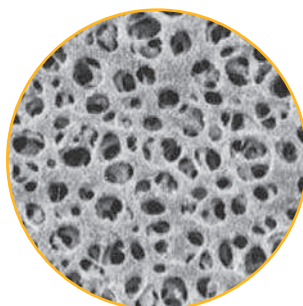
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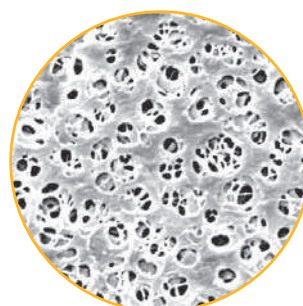
Membrane Filtration – Quick Selection Guide



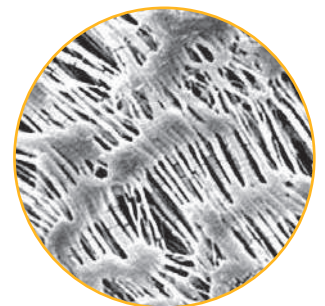
CN 0.2 μm



CA 0.2 μm

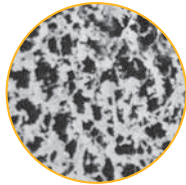


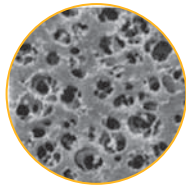
PES 0.2 μm

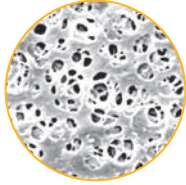


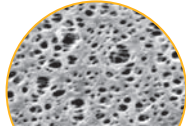
PTFE 0.2 μm

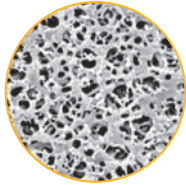
Specifications

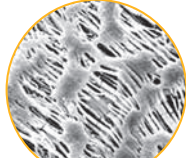
Type	Pore Size (μm)	Thickness (μm)	Bubble Point (bar)	Water Flow Rate (ml/min/cm ² /bar)	Burst Pressure (bar)	Cellulose Nitrate
11327	0.2	130	4.2	25	≥ 0.35	
11306	0.45	130	2.4	70	≥ 0.3	
11305	0.65	130	2	130	≥ 0.25	
11304	0.8	130	1.4	200	≥ 0.2	
11303	1.2	130	1	200	≥ 0.2	
11302	3	130	0.5	430	≥ 0.2	
11342	5	130	0.5	570	≥ 0.15	
11301	8	130	0.3	750	≥ 0.1	

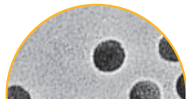
Type	Pore Size (μm)	Thickness (μm)	Bubble Point (bar)	Water Flow Rate (ml/min/cm ² /bar)	Burst Pressure (bar)	Cellulose Acetate
11107	0.2	120	2.9	24	0.8	
11106	0.45	120	1.9	69	0.7	
11105	0.65	120	1.5	115	0.7	
11104	0.8	120	1	200	0.5	
12303	1.2	120	0.8	320	0.4	
12342	5	120	0.4	570	0.25	

Type	Pore Size (μm)	Thickness (μm)	Bubble Point (bar)	Water Flow Rate (ml/min/cm ² /bar)	Burst Pressure (bar)	Regenerated Cellulose
18407	0.2	170	4.4	15	-	
18406	0.45	170	2.9	30	-	

Type	Pore Size (μm)	Thickness (μm)	Bubble Point (bar)	Water Flow Rate (ml/min/cm ² /bar)	Burst Pressure (bar)	Polyethersulfone
15458	0.1	150	3.8	10	≥ 0.6	
15407MI	0.2	150	3.5	25	≥ 0.5	
15406	0.45	150	2.6	46	≥ 0.5	

Type	Pore Size (μm)	Thickness (μm)	Bubble Point (bar)	Water Flow Rate (ml/min/cm ² /bar)	Burst Pressure (bar)	Polyamide
25007	0.2	115	3.2	15	≥ 0.25	
25006	0.45	115	2.3	35	≥ 0.23	

Type	Pore Size (μm)	Thickness (μm)	Bubble Point (bar)	IPA Flow Rate (ml/min/cm ² /bar)	Burst Pressure (bar)	Hydrophobic PTFE
11807	0.2	65	1.4	11	-	
11806	0.45	80	0.9	20	-	
11803	1.2	100	0.45	80	-	
11842	5	100	0.10	250	-	

Type	Pore Size (μm)	Thickness (μm)	Bubble Point (bar)	Water Flow Rate (ml/min/cm ² /bar)	Burst Pressure (bar)	Polycarbonate Track-Etched
23007	0.2	25	4.8	≥ 10	≥ 0.7	
23006	0.4	25	2.5	≥ 30	≥ 0.7	

1. Cellulose Nitrate Membrane Filters

Order No.	Pore Size	Dia.	Pack Size	Price ₹
Type 113, white, non sterile 11301--13-----N	8	13	100	2,750
11301--25-----N	8	25	100	3,450
11301--37-----N	8	37	100	On Request
11301--47-----N	8	47	100	4,150
11301--50-----N	8	50	100	On Request
11301--70-----G	8	70	25	On Request
11301-100-----G	8	100	25	On Request
11301-100-----N	8	100	100	On Request
11302--13-----N	3	13	100	3,100
11302--25-----N	3	25	100	3,150
11302--47-----N	3	47	100	3,950
11302--50-----N	3	50	100	On Request
11302--90-----G	3	90	25	On Request
11302-100-----G	3	100	25	On Request
11302-120-----G	3	120	25	On Request
11303--13-----N	1.2	13	100	3,850
11303--25-----N	1.2	25	100	3,950
11303--47-----N	1.2	47	100	4,150
11303--50-----N	1.2	50	100	On Request
11303--90-----G	1.2	90	25	On Request
11303-100-----G	1.2	100	25	On Request
11304--13-----N	0.8	13	100	2,900
11304--20-----N	0.8	20	100	On Request
11304--25-----N	0.8	25	100	3,150
11304--30-----N	0.8	30	100	On Request
11304--37-----N	0.8	37	100	On Request
11304--47-----N	0.8	47	100	3,880
11304--50-----N	0.8	50	100	4,150
11304--90-----G	0.8	90	25	On Request
11304-100-----G	0.8	100	25	On Request
11305--13-----N	0.65	13	100	2,800
11305--25-----N	0.65	25	100	2,900
11305--47-----N	0.65	47	100	4,150
11305--50-----N	0.65	50	100	On Request
11305-100-----N	0.65	100	100	On Request
11306--13-----N	0.45	13	100	2,600
11306--20-----N	0.45	20	100	On Request
11306--25-----N	0.45	25	100	1,850
11306--30-----N	0.45	30	100	On Request
11306--37-----N	0.45	37	100	On Request
11306--47-----N	0.45	47	100	2,650
11306--50-----N	0.45	50	100	3,150
11306--85-----N	0.45	85	100	On Request
11306--90-----G	0.45	90	25	On Request
11306--90-----N	0.45	90	100	On Request
11306-100-----G	0.45	100	25	On Request
11306-100-----N	0.45	100	100	On Request
11306-110-----N	0.45	110	100	On Request
11327--13-----N	0.2	13	100	3,150
11327--25-----N	0.2	25	100	On Request
11327--47-----N	0.2	47	100	3,350
11342--13-----N	5	13	100	3,800
11342--25-----N	5	25	100	4,200
11342--47-----N	5	47	100	4,650
11342--50-----N	5	50	100	On Request
11342--90-----G	5	90	25	On Request

Pore Size = μm Dia. = mm

2. Cellulose Acetate Membrane Filters

Order No.	Pore Size	Dia.	Pack Size	Price ₹
11104--13-----N	0.8	13	100	2,700
11104--25-----N	0.8	25	100	2,800
11104--47-----N	0.8	47	100	3,900
11104--50-----N	0.8	50	100	On Request
11104--90-----N	0.8	90	100	On Request
<hr/>				
11105--25-----N	0.65	25	100	2,750
11105--47-----N	0.65	47	100	4,250
11105--50-----N	0.65	50	100	On Request
11105--90-----N	0.65	90	100	On Request
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11106--13-----N	0.45	13	100	1,750
11106--25-----N	0.45	25	100	1,850
11106--30-----N	0.45	30	100	On Request
11106--37-----N	0.45	37	100	On Request
11106--47-----N	0.45	47	100	2,500
11106--50-----N	0.45	50	100	On Request
11106--85-----N	0.45	85	100	On Request
11106--90-----G	0.45	90	25	On Request
11106-100-----G	0.45	100	25	On Request
11106-100-----N	0.45	100	100	On Request
<hr/>				
11107--13-----N	0.2	13	100	2,100
11107--20-----N	0.2	20	100	On Request
11107--25-----N	0.2	25	100	2,450
11107--30-----N	0.2	30	100	On Request
11107--47-----N	0.2	47	100	2,900
11107--50-----N	0.2	50	100	On Request
11107--90-----G	0.2	90	25	On Request
11107-100-----G	0.2	100	25	On Request
11107-100-----N	0.2	100	100	On Request
<hr/>				
12303--25-----N	1.2	25	100	6,300
12303--47-----N	1.2	47	100	6,900
12303--50-----N	1.2	50	100	On Request
12303-100-----G	1.2	100	25	On Request
<hr/>				
12342--25-----N	5	25	100	6,850
12342--47-----N	5	47	100	7,100

Type 111,
white, non
sterile

Type 123,
white, non
sterile

3. Regenerated Cellulose Membrane Filters

Order No.	Pore Size	Dia.	Pack Size	Price ₹
18406--13-----N	0.45	13	100	2,730
18406--25-----N	0.45	25	100	4,284
18406--47-----N	0.45	47	100	6,405
18406--50-----N	0.45	50	100	On Request
18406-100-----G	0.45	100	25	On Request
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18407--13-----N	0.2	13	100	3,444
18407--25-----N	0.2	25	100	4,568
18407--47-----N	0.2	47	100	6,983
18407--50-----N	0.2	50	100	On Request
18407-100-----G	0.2	100	25	On Request

Type 184,
white, non
sterile

4. Polyethersulfone Membrane Filters

Order No.	Pore Size	Dia.	Pack Size	Price ₹
15406--25-----N	0.45	25	100	3,570
15406--47-----N	0.45	47	100	4,500
15406--50-----N	0.45	50	100	On Request
<hr/>				
15407--25----MIN	0.2	25	100	3,750
15407--47----MIN	0.2	47	100	4,900
15407--50----MIN	0.2	50	100	On Request
15407--90----MIK	0.2	90	50	On Request
<hr/>				
15458--25-----N	0.1	25	100	4,150
15458--47-----N	0.1	47	100	5,350
15458--50-----N	0.1	50	100	On Request

Type 154
White
non-Sterile

Pore Size = μm

Dia. = mm

5. Polyamide Membrane Filters

	Order No.	Pore Size	Dia.	Pack Size	Price ₹
Type 250 White non-Sterile	25006--13-----N	0.45	13	100	1,850
	25006--25-----N	0.45	25	100	3,450
	25006--47-----N	0.45	47	100	4,700
	25006--50-----N	0.45	50	100	On Request
	25006--90-----G	0.45	90	25	On Request
	25007--13-----N	0.2	13	100	1,995
	25007--25-----N	0.2	25	100	4,350
	25007--47-----N	0.2	47	100	4,470
	25007--50-----N	0.2	50	100	On Request
	25007--55-----N	0.2	55	100	On Request
25007--90-----G	0.2	90	25	On Request	

6. Polycarbonate Track-etched Membrane Filters

	Order No.	Pore Size	Dia.	Pack Size	Price ₹
Type 230 White non-Sterile	23006--25-----N	0.4	25	100	11,550
	23006--47-----N	0.4	47	100	15,330
	23007--25-----N	0.2	25	100	10,100
	23007--47-----N	0.2	47	100	14,400
	23007--50-----N	0.2	50	100	15,250

7. Hydrophobic PTFE Membrane Filters

	Order No.	Pore Size	Dia.	Pack Size	Price ₹
Type 118 Hydrophobic White non-Sterile	11803--13-----N	1.2	13	100	4,200
	11803--25-----N	1.2	25	100	5,650
	11803--47-----N	1.2	47	100	10,900
	11803--50-----N	1.2	50	100	On Request
	11803--90-----G	1.2	90	25	On Request
	11803-100-----G	1.2	100	25	On Request
	11806--13-----N	0.45	13	100	3,550
	11806--25-----N	0.45	25	100	5,900
	11806--37-----N	0.45	37	100	On Request
	11806--47-----N	0.45	47	100	10,500
	11806--50-----N	0.45	50	100	On Request
	11806--90-----G	0.45	90	25	On Request
	11806-100-----G	0.45	100	25	On Request
	11807--13-----N	0.2	13	100	4,000
	11807--25-----N	0.2	25	100	5,150
	11807--47-----N	0.2	47	100	10,850
	11807--50-----N	0.2	50	100	On Request
	11807--90-----G	0.2	90	25	On Request
	11807-100-----G	0.2	100	25	On Request
	11842--25-----N	5	25	100	On Request
	11842--42-----N	5	42	100	On Request
	11842--47-----G	5	47	25	On Request
	11842--47-----N	5	47	100	On Request
	11842--50-----N	5	50	100	On Request
	11842-100-----G	5	100	25	On Request

8. Cellulose Nitrate Membranes for Protein Blotting, DNA|RNA Blotting, Dot|Slot Blot Screening, Colony|Plaque Screening

	Order No.	Description	Pore Size	Length [m]	Width [cm]	Price ₹
Type 118 White non-Sterile	11327-----41BL	Cellulose nitrate	0.22	3	30	14,400
	11306-----41BL	Cellulose nitrate	0.45	3	30	42,350

Pore Size = μm Dia. = mm

9. Blotting Papers

Order No.	Grade	Size [mm]	Thickness [mm]	g/m ²	Pack Size	Price ₹
FT-2-518-580600N	BF 1	580 × 600	0.16	90	100	16,150
FT-2-519-300600N	BF 2	300 × 600	0.35	195	100	18,250
FT-2-519-460570N	BF 2	460 × 570	0.35	195	100	23,000
FT-2-519-580600N	BF 2	580 × 600	0.35	195	100	21,550
FT-2-527-200200N	FN 100	200 × 200	0.35	195	100	7,100
FT-2-527-260410N	FN 100	260 × 410	0.35	195	100	15,700
FT-2-527-460570N	FN 100	460 × 570	0.35	195	100	30,550
FT-2-527-580600K	FN 100	580 × 600	0.35	195	50	20,400
FT-2-527-580680K	FN 100	580 × 680	0.35	195	50	21,550
FT-2-520-580600K	BF 3	580 × 600	0.76	330	50	24,450
FT-2-520-135155N	BF 3	135 × 155	0.76	330	100	5,850
FT-2-520-200200N	BF 3	200 × 200	0.76	330	100	8,925
FT-2-520-460570K	BF 3	460 × 570	0.76	330	50	22,600
FT-2-521-150150G	BF 4	150 × 150	1.3	550	25	3,100
FT-2-521-580600G	BF 4	580 × 600	1.3	550	25	17,500
FT-2-521-110170G	BF 4	110 × 170	1.3	550	25	475
FT-2-521-580580G	BF 4	580 × 580	1.3	550	25	19,450

10. Ultrafiltration Membrane Filter Discs, Type 144, 145 and 146, for the Concentration, Purification and Removal of Proteins

Order No.	Description	Cut-off	Dia. [mm]	Pack Size	Price ₹
14429--25-----D	Ultrafilter Hydrosart®	5,000 MWCO	25	10	7,100
14429--47-----D	Ultrafilter Hydrosart®	5,000 MWCO	47	10	10,150
14429--63-----D	Ultrafilter Hydrosart®	5,000 MWCO	63	10	13,170
14429--76-----D	Ultrafilter Hydrosart®	5,000 MWCO	76	10	21,250
14439--25-----D	Ultrafilter Hydrosart®	10,000 MWCO	25	10	7,100
14439--47-----D	Ultrafilter Hydrosart®	10,000 MWCO	47	10	11,150
14439--63-----D	Ultrafilter Hydrosart®	10,000 MWCO	63	10	13,200
14439--76-----D	Ultrafilter Hydrosart®	10,000 MWCO	76	10	21,300
14459--47-----D	Ultrafilter Hydrosart®	30,000 MWCO	47	10	11,150
14459--63-----D	Ultrafilter Hydrosart®	30,000 MWCO	63	10	13,150
14529--47-----D	Ultrafilter CTA	5,000 MWCO	47	10	8,100
14539--47-----D	Ultrafilter CTA	10,000 MWCO	47	10	8,100
14539--50-----D	Ultrafilter CTA	10,000 MWCO	50	10	8,100
14549--43-----D	Ultrafilter CTA	20,000 MWCO	43	10	7,100
14549--47-----D	Ultrafilter CTA	20,000 MWCO	47	10	8,100
14549--47-----N	Ultrafilter CTA	20,000 MWCO	47	100	73,830
14549--63-----D	Ultrafilter CTA	20,000 MWCO	63	10	11,150
14609--47-----D	Ultrafilter PES	1,000 MWCO	47	10	8,100
14629--25-----D	Ultrafilter PES	5,000 MWCO	25	10	6,100
14629--47-----D	Ultrafilter PES	5,000 MWCO	47	10	8,100
14629--63-----D	Ultrafilter PES	5,000 MWCO	63	10	11,150
14629--76-----D	Ultrafilter PES	5,000 MWCO	76	10	17,250
14639--25-----D	Ultrafilter PES	10,000 MWCO	25	10	6,100
14639--47-----D	Ultrafilter PES	10,000 MWCO	47	10	8,100
14639--63-----D	Ultrafilter PES	10,000 MWCO	63	10	11,150
14639--76-----D	Ultrafilter PES	10,000 MWCO	76	10	17,250
14650--47-----D	Ultrafilter PES	50,000 MWCO	47	10	8,100
14659--47-----D	Ultrafilter PES	30,000 MWCO	47	10	8,100
14659--63-----D	Ultrafilter PES	30,000 MWCO	63	10	11,150
14668--47-----D	Ultrafilter PES	100,000 MWCO	47	10	11,150
14668--63-----D	Ultrafilter PES	100,000 MWCO	47	10	11,150
14679--47-----D	Ultrafilter PES	300,000 MWCO	47	10	8,100

Sartolab® RF | BT

Disposable Filter Systems and Bottle Top Filters



Sartolab® Disposable Sterile Filter Systems and Bottle Top Filters are designed for the vacuum filtration of tissue culture media and components, biological fluids, and other aqueous solutions.

The Sartolab® disposable 150 mL, 250 mL, 500 mL and 1000 mL bottles are designed as storage containers for sterile media, buffers, or other aqueous solutions.



These products are for laboratory use only. Not for human parenteral applications.

Materials

The filter funnels, dust covers and receiver bottles are manufactured from virgin, heavy metal-free polystyrene. The tubing adapters, filter adapters, and the plug seal caps are made from heavy metal-free polyethylene. Sartolab® filter systems are available with polyethersulfone membranes. All units are sterilized by gamma irradiation.

Performance

The filter units contain membranes integrally sealed to a support grid designed to maximize flow and reduce foaming and protein denaturation.

The membrane is compatible with most aqueous solutions and tested for use in cell culture applications.

Filter Systems

The filter adapter utilizes a gasket design to ensure a vacuum-tight seal on the receiver | storage bottle. Each filter unit also contains a convenient tubing adapter that will fit most vacuum hoses.

The bottles are single-use containers. They cannot withstand autoclaving or use at temperatures greater than 70 °C. The suitability of the bottles for storage of solutions below 0 °C depends both on the solution and the storage conditions. Many aqueous solutions, including culture media, have been successfully frozen and stored at temperatures down to -20 °C. However, a trial run under actual conditions is strongly recommended to test the suitability of the bottles for frozen storage.

11. Sartolab®

Order No.	Description	Membrane Housing	Pore size [µm]	[cm ²]	Pack Size	Price ₹
Sartolab® Vacuum Filtration Units	18080-----M Sartolab® 150v- Polyethersulfone sterile	PES PP	0.2	150	3	11,550
	180C1-----E Sartolab® RF 150 sterile	PES PS	0.2	18	12	5,775
	180C2-----E Sartolab® RF 500 sterile	PES PS	0.2	39	12	9,240
	180C3-----E Sartolab® RF 1000 sterile	PES PS	0.2	62	12	10,650
	180C4-----K Sartolab® BT 150 sterile	PES PS	0.2	18	48	24,675
	180C5-----E Sartolab® BT 500 sterile	PES PS	0.2	39	12	8,610
	180C6-----E Sartolab® BT 1000 sterile	PES PS	0.2	62	12	10,290
	180C7-----E Sartolab® RF 250 sterile	PES PS	0.2	24	12	5,880
	180C8-----E Sartolab® RF 1000 sterile	PES PS	0.1	62	12	12,100
	180A1-----E Sartolab® RF 250 sterile	CA PS	0.45	24	12	11,655
	180A2-----E Sartolab® RF 500 sterile	CA PS	0.45	39	12	19,300
	180A3-----E Sartolab® RF 1000 sterile	CA PS	0.45	62	12	28,100
	180A4-----E Sartolab® BT 500 sterile	CA PS	0.45	39	12	12,150

Order No.	Description	Membrane Housing	Pore Size	[cm ²]	Pack Size	Price ₹
Sartolab® P 20 Pressure Filter Units	18052-----D Sartolab®-P 20 Hosetail w Filling Bell sterile	CA PC	0.2	20	10	10,150
	18053-----D Sartolab®-P 20 Luer Lock w Filling Bell sterile	CA PC	0.2	20	10	10,150
	18056-----D Sartolab®-P 20 Plus Hosetail w Filling Bell sterile	GF CA PC	0.2	20	10	14,175
	18058-----D Sartolab®-P 20 Plus Luer Lock w Filling Bell sterile	GF CA PC	0.2	20	10	14,175
	18068-----D Sartolab®-P- 20 Plus Hosetail w Filling Bell sterile	GF PES PC	0.2	20	10	14,175
	18072-----D Sartolab®-P GF non sterile	GF PC			10	6,615
	18075-----D Sartolab®-P 20 Luer Lock sterile	PES PC	0.2	20	10	10,500
	18099 Integrity test holder for Sartolab®-P				1	45,500



PES: Polyethersulfone

CA: Cellulose Acetate

PC: Polycarbonate

PS: Polystyrene

GF: Glass Fiber

12. Sartoclear Dynamics® Lab

12.1 Kits for Harvesting Mammalian Cell Culture upto 15 ml

Order No.	Description	Pack size	Price ₹	
	Filtration of up to 15 ml Mammalian Cell Culture			
SDLP--0015-----C	Sartoclear Dynamics® Lab P15 Kit comprising 6 × 20 ml syringes prefilled with 0.5 g of DE, filling tubes and 6 × 0.22 µm PES sterile filters	6	On Request	Sartoclear Dynamics® Lab P15 Kit

Technical Specification

Typical Results

Cell Type	Cell Density	Viability	Mab Concentration before Filtration	Mab Concentration after Filtration	Recovery Rate
CHO DG44	16 × 106 cells/mL	78%	6.02 g/L	5.77 g/L	96%
CHO DG44	38 × 105 cells/mL	48%	0.43 g/L	0.43 g/L	100%



DE Syringe

Syringe material	Syringe barrel and plunger rod: polypropylene Stopper: latex-free elastomer
Syringe cap	Polyamide
Filling tube material	Polypropylene
Filter aid	0.5 g highly pure diatomaceous earth (Celpure® C300 – pharmaceutical – grade)*

* Celpure® is a trademark of Advanced Minerals

Sterile Filter

Housing material	Polycarbonate
Prefilter material	100 % high-purity quartz, binder-free
Filter material	0.2 µm polyethersulfone
Filter diameter	61 mm
Filtration area	20 cm ²
Connector inlet	Female luer lock
Connector outlet	Hose barb
Hold-up volume	Approx. 3 mL
Housing burst pressure	> 5 bar 72.5 psi
Sterilization	EO sterilization

12.2 Kits for Harvesting Mammalian Cell Culture from 150 ml to 1 l

Order No.	Description	Pack size	Price ₹	
	Filtration of up to 150 ml Mammalian Cell Culture			
SDLV-0150-05C--2	Sartoclear Dynamics® Lab V, 150 ml, 5 g Filtration of up to 150 ml with 5 g DE per unit. Contents: <ul style="list-style-type: none"> • 2 × 180C1-----E (24 × Sartolab RF 150; 0.22 µm; PES, single-packaged; sterile) • 1 × SDLKG-05.0-----2 (24 × pouches of filter aid, 5 g) 	24	On Request	Sartoclear Dynamics® Lab V150 Kits
SDLV-0150-02C--E	Sartoclear Dynamics® Lab V, 150 ml, 2 g Filtration of up to 150 ml with 2 g of DE per unit. Contents: <ul style="list-style-type: none"> • 1 × 180C1-----E (12 × Sartolab RF 150; 0.22 µm; PES; single-packaged; sterile) • 1 × SDLKG-01.0-----2 (24 × pouches of filter aid, 1 g) 	12	On Request	

Order No.	Description	Pack size	Price ₹	
	Filtration of up to 250 ml Mammalian Cell Culture	24	On Request	
SDLV-0250-10C--2	Sartoclear Dynamics® Lab V, 250 ml, 10 g Filtration of up to 250 ml with 10 g of DE per unit. Contents: <ul style="list-style-type: none"> • 2 × 180C7-----E (24 × Sartolab RF 250; 0.22 µm; PES; single-packaged; sterile) • 1 × SDLKG-10.0-----2 (24 × pouches of filter aid, 10 g) 			Sartoclear Dynamics® Lab V150 Kits
SDLV-0250-05C--2	Sartoclear Dynamics® Lab V, 250 ml, 5 g Filtration of up to 250 ml with 5 g of DE per unit. Contents: <ul style="list-style-type: none"> • 2 × 180C7-----E (24 × Sartolab RF 250; 0.22 µm; PES; single-packaged; sterile) • 1 × SDLKG-05.0-----2 (24 × pouches of filter aid, 5 g) 	24	On Request	

Order No.	Description	Pack size	Price ₹
Filtration of up to 500 ml Mammalian Cell Culture			
Sartoclear Dynamics® Lab V150 Kits	SDLV-0500-20C--E Sartoclear Dynamics® Lab V, 500 ml, 20 g Filtration of up to 500 ml with 20 g of DE per unit. Contents: <ul style="list-style-type: none"> • 1 × 180C2-----E (12 × Sartolab RF 500; 0.22 µm; PES; single-packaged; sterile) • 1 × SDLKG-10.0-----2 (24 × pouches of filter aid, 10 g) 	12	On Request
SDLV-0500-10C--2	Sartoclear Dynamics® Lab V, 500 ml, 10 g Filtration of up to 500 ml with 10 g DE per unit. Contents: <ul style="list-style-type: none"> • 2 × 180C2-----E (24 × Sartolab RF 500; 0.22 µm; PES; single-packaged; sterile) • 1 × SDLKG-10.0-----2 (24 × pouches of filter aid, 10 g) 	24	On Request
SDLV-0500-05C--2	Sartoclear Dynamics® Lab V, 500 ml, 5 g Filtration of up to 500 ml with 5 g DE per unit. Contents: <ul style="list-style-type: none"> • 2 × 180C2-----E (24 × Sartolab RF 500; 0.22 µm; PES; single-packaged; sterile) • 1 × SDLKG-05.0-----2 (24 × pouches of filter aid, 5 g) 	24	On Request

Order No.	Description	Pack size	Price ₹
Filtration of up to 1 l Mammalian Cell Culture			
Sartoclear Dynamics® Lab V1000 Kits	SDLV-0250-10C--2 Sartoclear Dynamics® Lab V, 1,000 ml, 40 g Filtration of up to 1 l with 40 g of DE per unit. Contents: <ul style="list-style-type: none"> • 1 × 180C3-----E (12 × Sartolab RF 1000; 0.22 µm; PES; single-packaged; sterile) • 2 × SDLKG-10.0-----2 (48 × pouches of filter aid, 10 g) 	12	On Request
SDLV-0250-05C--2	Sartoclear Dynamics® Lab V, 1,000 ml, 20 g Filtration of up to 1 l with 20 g of DE per unit. Contents: <ul style="list-style-type: none"> • 1 × 180C3-----E (12 × Sartolab RF 1000; 0.22 µm; PES; single-packaged; sterile) • 1 × SDLKG-10.0-----2 (24 × pouches of filter aid, 10 g) 	12	On Request
SDLV-1000-10C--2	Sartoclear Dynamics® Lab V, 1,000 ml, 10 g Filtration of up to 1 l with 10 g of DE per unit. Contents: <ul style="list-style-type: none"> • 2 × 180C3-----E (24 × Sartolab RF 1000; 0.22 µm; PES; single-packaged; sterile) • 1 × SDLKG-10.0-----2 (24 × pouches of filter aid, 10 g) 	24	On Request

Typical Performance Specifications

The filterability of mammalian cell cultures depends on various factors, e.g., cell type, density and viability of the cells.

Since cell cultures can be very different, we recommend that you use 10, 20 or 40 g of filter aid per liter of cell culture.

Using a Sartolab® RF unit with double the volume of the solution to be filtered can also accelerate a filtration run (higher surface area of filtration).

Below is a table with a few examples for guidance:

Cell Line	Cell Density	Viability	Volume	Qty. of Filter Aid Pouches per Filtration	Order Number of the Kit
CHO Cells	15 Mio. cells/mL	86%	500 mL	2 pouches of 10 g	SDLV-0500-20C--E
CHO Cells	14 Mio. cells/mL	3.2%	1,000 mL	4 pouches of 10 g	SDLV-1000-40C--E
HEK Cells	8 Mio. cells/mL	90%	500 mL	2 pouches of 10 g	SDLV-0500-20C--E
HEK Cells	4 Mio. cells/mL	94%	500 mL	1 pouch of 5 g	SDLV-0500-05C--2



Minisart® -Help-to-Find





Please refer to Minisart® RC, NY or SRP for the highest chemical compatibility, page 8.

Please refer to Minisart® NML or Minisart® High Flow on page 12.

Several additional Minisart® for venting and special purposes could be found on page 16.

Sample Composition	Aqueous		Aqueous Solvents		
	<input type="checkbox"/> All Aqueous Solutions Buffers, Protein Analysis	<input type="checkbox"/> All Aqueous Solutions Tissue Culture Media	<input type="checkbox"/> Aqueous Solvent Mixtures Solvents	<input type="checkbox"/> Solvent Mixtures Solvents	<input type="checkbox"/> Solvents Gases Acids Bases
	<input type="checkbox"/> SFCA Surfactant-Free Cellulose Acetate	<input type="checkbox"/> PES Polyethersulfone	<input type="checkbox"/> RC Regenerated Cellulose	<input type="checkbox"/> NY Polyamide, Nylon	<input type="checkbox"/> PTFE Polytetrafluoroethylene
	Hydrophilic				Hydrophobic

Pore Sizes	Sterilization		Sample Preparation Clarification Particle Removal					Prefiltration
	<input type="checkbox"/> Small Bacteria Mycoplasma Colloids >0.1	<input type="checkbox"/> UHPLC, etc. (Columns <3 µm Particles) Bacteria	<input type="checkbox"/> HPLC, etc. (Columns >3 µm Particles) Particles	<input type="checkbox"/> Particles Yeast Cells	<input type="checkbox"/> Particles Yeast Cells	<input type="checkbox"/> Particles Yeast Cells Platelets	<input type="checkbox"/> Large Particles Rubber Grit Cells	<input type="checkbox"/> Glass Prefilter Glass+Membrane Highly Particle- laden Samples
	<input type="checkbox"/> 0.1 µm	<input type="checkbox"/> 0.2 µm	<input type="checkbox"/> 0.45 µm	<input type="checkbox"/> 0.65 µm	<input type="checkbox"/> 0.8 µm	<input type="checkbox"/> 1.2 µm	<input type="checkbox"/> 5 µm	<input type="checkbox"/> GF (Glass Fibre)

Sample Volume				
	<input type="checkbox"/> 1 – 200 ml	<input type="checkbox"/> 1 – 100 ml	<input type="checkbox"/> 0.5 – 15 ml	<input type="checkbox"/> 0.05 – 1 ml
	<input type="checkbox"/> 28 mm for up to 200 ml	<input type="checkbox"/> 25 mm for up to 100 ml	<input type="checkbox"/> 15 mm for up to 15 ml	<input type="checkbox"/> 4 mm for up to 1 ml



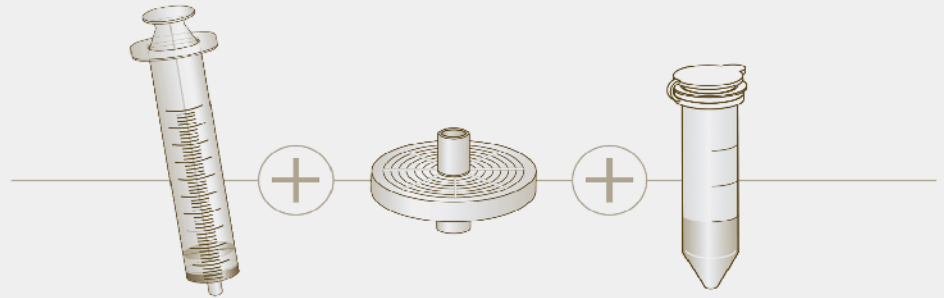
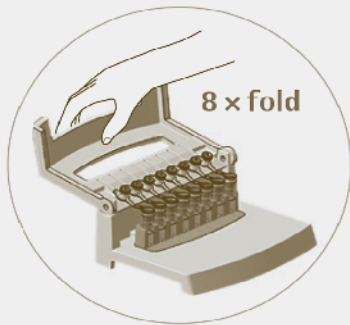
Sample Preparation Techniques

Choose the Best Solution for Your Needs

Claristep®
Filtration System

or

Syringe Filters
for processing one sample at a time



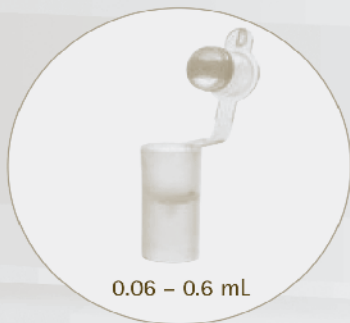
Analytical Sample Volumes Run Small

Get the Particle-free Volume You Really Need

Syringeless Solution

or

Different Diameters
for different sample volumes



13. Syringeless Filters Claristep®

	Order No.	Description	Membrane Housing	Pore Size	Dia.	Pack Size	Price ₹
Syringeless Filters Claristep®	17C07FT---96	Claristep® RC syringeless filter	RC PP	0.2	9.7	96	On request
	17C07FT--480	Claristep® RC syringeless filter	RC PP	0.2	9.7	480	On request
	17C06FT---96	Claristep® RC syringeless filter	RC PP	0.45	9.7	96	On request
	17C06FT--480	Claristep® RC syringeless filter	RC PP	0.45	9.7	480	On request
	17C--M8	Claristep® Multiplex Station with Tray	-	-	-	1	On request
	17C--S1	Claristep® Tray for Multiplex Station	-	-	-	1	On request

Minisart® with PP Housing

14.1 Minisart® Syringe Filters | Regenerated Cellulose | R.C

Order No.	Description	Pore Size	Dia.	Pack Size	Price ₹
17821-----K	Minisart® RC4 non sterile	0.2	4	50	3,990
17821-----Q	Minisart® RC4 non sterile	0.2	4	500	38,325
17822-----K	Minisart® RC4 non sterile	0.45	4	50	4,100
17822-----Q	Minisart® RC4 non sterile	0.45	4	500	38,325
17761-----ACK	Minisart® RC15 sterile (ETO)	0.2	15	50	4,750
17761-----K	Minisart® RC15 non sterile	0.2	15	50	4,400
17761-----Q	Minisart® RC15 non sterile	0.2	15	500	38,325
17762-----K	Minisart® RC15 non sterile	0.45	15	50	4,400
17762-----Q	Minisart® RC15 non sterile	0.45	15	500	38,325
17764-----ACK	Minisart® RC25 sterile (ETO)	0.2	25	50	4,410
17764-----K	Minisart® RC25 non sterile	0.2	25	50	4,400
17764-----Q	Minisart® RC25 non sterile	0.2	25	500	39,150
17764-----S	Minisart® RC25 non sterile	0.2	25	200	19,425
17765-----K	Minisart® RC25 non sterile	0.45	25	50	4,400
17765-----Q	Minisart® RC25 non sterile	0.45	25	500	39,150
17765-----S	Minisart® RC25 non sterile	0.45	25	200	19,425

Connector Outlet: Male Luer Slip

14.2 Minisart® Syringe Filters | Nylon | NY

Order No.	Description	Pore Size	Dia.	Pack Size	Price ₹
1776B-----K	Minisart® NY15 non sterile	0.2	15	50	3,990
1776B-----Q	Minisart® NY15 non sterile	0.2	15	500	35,805
1776C-----K	Minisart® NY15 non sterile	0.45	15	50	3,990
1776C-----Q	Minisart® NY15 non sterile	0.45	15	500	35,805
17845-----ACK	Minisart® NY25 sterile (ETO)	0.2	25	50	4,200
17845-----Q	Minisart® NY25 non sterile	0.2	25	500	36,855
17846-----ACK	Minisart® NY25 sterile (ETO)	0.45	25	50	4,200
17846-----Q	Minisart® NY25 non sterile	0.45	25	500	36,855

Connector Outlet: Male Luer Slip

14.3 Minisart® Syringe Filters | Polytetrafluoroethylene | P.T.F.E

Order No.	Description	Pore Size	Dia.	Pack Size	Price ₹
17844-----Q	Minisart® SRP4 non sterile	0.2	4	500	38,000
17820-----K	Minisart® SRP4 non sterile	0.45	4	50	3,970
17820-----Q	Minisart® SRP4 non sterile	0.45	4	500	38,100
17558-----K	Minisart® SRP15 non sterile	0.2	15	50	5,670
17558-----Q	Minisart® SRP15 non sterile	0.2	15	500	55,000
17573-----ACK	Minisart® SRP15 sterile (ETO)	0.2	15	50	6,200
17573-----K	Minisart® SRP15 non sterile	0.2	15	50	5,670
17573-----Q	Minisart® SRP15 non sterile	0.2	15	500	54,915
17559-----K	Minisart® SRP15 non sterile	0.45	15	50	5,300
17559-----Q	Minisart® SRP15 non sterile	0.45	15	500	51,000
17574-----K	Minisart® SRP15 non sterile	0.45	15	50	5,250
17574-----Q	Minisart® SRP15 non sterile	0.45	15	500	50,450
17576-----K	Minisart® SRP25 non sterile	0.45	25	50	6,250
17576-----Q	Minisart® SRP25 non sterile	0.45	25	500	60,350
17576-----S	Minisart® SRP25 non sterile	0.45	25	200	28,500
17575-----ACK	Minisart® SRP25 sterile (ETO)	0.2	25	50	6,450
17575-----K	Minisart® SRP25 non sterile	0.2	25	50	6,350
17575-----Q	Minisart® SRP25 non sterile	0.2	25	500	61,350
17575-----S	Minisart® SRP25 non sterile	0.2	25	200	28,250
1757A-----Q	Minisart® SRP25 with hose barb	0.2	25	500	On Request

Connector Outlet: Male Spike (17558, 17559) Male Luer Slip (All others)

Pore Size = µm

Dia. = mm

Technical Specifications

Specifications for

Minisart® RC | SRP | NY | PES with 4 | 15 | 25 mm membrane filtration area Ø

Housing material	Polypropylene (PP)
Membranes	RC = Regenerated Cellulose NY = Polyamide SRP = hydrophobic PTFE = Polytetrafluoroethylene PES = Polyethersulfone
Glass fiber pre-filter	NY Plus: Ultrapure quartz, 0.7 µm particle retention
Application limits	Max. recommended operating pressure 4.5 bar 65 psi
Housing burst pressure	> 7 bar 102 psi
Max. temperature	121 °C, 30 min (autoclavable)
Sterilization	Non-sterile Minisart® can be autoclaved or sterilized by ethylene oxide sterilization (EO)

Minisart® type with regards to membrane	RC 0.2 µm	RC 0.2 µm	RC 0.45 µm	SRP 0.2 µm
Non-sterile packs: 50 (K), 200 (S), 500 (Q), 1000 (R) sterile packs: individual packaged, 50 (ACK)	K S Q R	ACK	K S Q R	K S Q ACK
Bubble point (≥)	with water 3.0 bar 44 psi	with water 4.6 bar 67 psi	with water 2.0 bar 29 psi	with ethanol 1.4 bar 20 psi
Flow rate, 4 mm Ø = 0.07 cm² filter area Hold-up volume¹: 5 – 10 µl (► ml/min)				
with water at 1 bar	0.5	–	1.5	– ³
with methanol at 1 bar	1.5	–	3.0	2.0
with air at 0.1 bar	– ²	–	– ²	30
Flow rate, 15 mm Ø = 1.7 cm² filter area Hold-up volume¹: 30 – 100 µl (► ml/min)				
with water at 1 bar	20	10	40	– ³
with methanol at 1 bar	55	25	105	55
with air at 0.1 bar	– ²	– ²	– ²	800
Flow rate, 25 mm Ø = 4.8 cm² filter area Hold-up volume¹: 100 – 200 µl (► ml/min)				
with water at 1 bar	80	50	160	– ³
with methanol at 1 bar	160	90	325	160
with air at 0.1 bar	– ²	– ²	– ²	1800
Water penetration point	–	–	–	> 4.0 bar 58 psi ³
Sterile filtration capability acc. to BCT	no ⁵	yes	no	yes
Pyrogen free according to USP				yes
Cytotoxicity (17575-ACK)	No inhibition with MRC-5 (human lung cells) and L929			

¹ Hold-up volume after air purge.

² Hydrophilic membranes can filter dry air or gas but become impermeable to air or gas when wetted!

³ Hydrophobic membranes cannot be wetted with aqueous solutions unless you overcome their water penetration point or pre-wet them using an organic solvent (e.g. ethanol)

⁴ PES is suitable for solutions only containing up to 30% MeOH

⁵ According to bacterial challenge test (BCT) with 10⁷ Brevundimonas diminuta. Non-sterile RC Minisart® types are optimized for sample preparation and are not suitable for sterile filtration according to the BCT. All other non-sterile Minisart® types with 0.2 mm pore size can be sterilized by autoclaving or EO before use for sterile filtration.

14.4 Minisart® Syringe Filters | Polyethersulfone | P.E.S

Order No.	Description	Pore Size	Dia.	Pack Size	Price ₹
1776D-----ACK	Minisart® PES15 sterile (ETO)	0.2	15	50	On Request

Connector Outlet: Male Luer Lock

14.5 Minisart® Syringe Filters | Glass Fiber with Nylon | G.F. + N.Y.

Order No.	Description	Pore Size	Dia.	Pack Size	Price ₹
1784B-----K	Minisart® NY25 Plus non sterile	0.2	25	50	16,250
1784B-----Q	Minisart® NY25 Plus non sterile	0.2	25	500	1,14,350
1784C-----K	Minisart® NY25 Plus non sterile	0.45	25	50	16,250
1784C-----Q	Minisart® NY25 Plus non sterile	0.45	25	500	1,14,450

Connector Outlet: Male Luer Slip

Pore Size = µm Dia. = mm

SRP 0.45 µm	NY 0.2 µm	NY 0.45 µm	NY Plus 0.2 µm	NY Plus 0.45 µm	PES 0.2 µm
K S Q	K Q R ACK	K Q R ACK	K Q	K Q	K Q ACK
with ethanol 0.9 bar 13 psi	with water 3.0 bar 44 psi	with water 2.0 bar 29 psi	with water 3.0 bar 44 psi	with water 2.0 bar 29 psi	with water 3.2 bar 46 psi
– ³	–	–	–	–	1.5
4.5	–	–	–	–	– ⁴
60	–	–	–	–	– ²
– ³	20	40	–	–	40
150	40	110	–	–	– ⁴
1600	– ²	– ²	–	–	– ²
– ³	50	100	50	100	100
260	70	200	70	200	– ⁴
3000	– ²	– ²	– ²	– ²	– ²
> 3.0 bar 44 psi ³	–	–	–	–	–
no	yes	no	yes	no	yes

Minisart® with MBS Housing

Specifications for

Minisart® High Flow | NML | NML Plus with 28 mm accessible membrane filtration area Ø, 100 – 150 µl hold-up volume¹

Minisart® HY | Acticosart with 26 mm accessible membrane filtration area Ø, 100 – 150 µl hold-up volume¹

Minisart® Air with 15 mm accessible membrane filtration area Ø, 100 µm hold-up volume¹

Housing material	Methacrylate butadiene styrene (MBS)
Membranes	High Flow: PES = Polyethersulfone, NML: (SF) CA = (Surfactant-free) Cellulose Acetate, NML Plus: (SF) CA = (Surfactant-free) Cellulose Acetate, HY Acticosart Air: hydrophobic PTFE = Polytetrafluoroethylene
Glass fiber pre-filter	NML Plus: Binder-free GF, 0.7 µm particle retention
Application limits	High Flow: Max. recommended operating pressure 6.0 bar 87 psi NML, NML Plus, HY, Air: Max. recommended operating pressure 4.5 bar 65 psi Acticosart: Max. recommended operating pressure 1 bar 14.5 psi
Housing burst pressure	> 7 bar 102 psi (not determined for Acticosart)
Max. temperature	60°C, not autoclavable
Sterilization	Non-sterile Minisart® High Flow, NML, NML Plus can be or sterilized by ethylene oxide (EO) or Gamma sterilization Non-sterile Minisart® HY, Acticosart, Air* can be sterilized by ethylene oxide (EO)

14.6 Minisart® Syringe Filters | Glass Fiber | G.F.

Order No.	Description	Pore Size	Dia.	Pack Size	Price ₹
17824-----K	Minisart® GF non sterile	-	28	50	8,250
17824-----Q	Minisart® GF non sterile	-	28	500	66,150

14.7 Minisart® Syringe Filters | Glass Fiber with Cellulose Acetate | G.F. + C.A.

Order No.	Description	Pore Size	Dia.	Pack Size	Price ₹
17823-----K	Minisart® NML Plus sterile (ETO)	0.2	28	50	15,000
17823-----Q	Minisart® NML Plus non sterile	0.2	28	500	89,350
17829-----K	Minisart® NML Plus sterile (ETO)	0.45	28	50	15,000
17829-----Q	Minisart® NML Plus non sterile	0.45	28	500	89,400
17825-----Q	Minisart® NML Plus non sterile	1.2	28	500	89,400

Connector Outlet: Male Luer Lock

Pore Size = µm

Dia. = mm

Minisart® type with regards to membrane	PES 0.1 µm	PES 0.2 µm	PES 0.45 µm	CA 0.2 µm	CA 0.45 µm	CA 0.65 µm	CA 0.8 µm
Non-sterile packs: 500 (Q, HYQ), 1000 (R), sterile packs: individual packaged, 50 (K, GUK, HYK, HNK)	K	K GUK Q	K GUK Q	K GUK Q	K GUK Q	K	K GUK Q
Bubble point (≥)	with water 5.0 bar 73 psi	with water 3.2 bar 46 psi	with water 2.0 bar 29 psi	with water 3.2 bar 46 psi	with water 2.0 bar 29 psi	with water 1.3 bar 19 psi	with water 0.8 bar 12 psi

Flow rate for^{2|3} (► ml/min)

28 mm Ø with water at 1 bar	40	140	220	60	180	250	400
15 mm Ø with air at 0.1 bar	-	-	-	-	-	-	-
26 mm Ø with air at 0.1 bar	-	-	-	-	-	-	-

Water penetration point

Sterile filtration capability⁴ acc. to BCT	yes	yes	no	yes	no	no	no
Pyrogen free according to USP				yes	yes		

Cytotoxicity No inhibition with MRC-5 (human lung cells) and L929

² Hydrophilic membranes can filter dry air or gas but become impermeable to air or gas when wetted!

³ Hydrophobic membranes cannot be wetted with aqueous solutions unless you overcome their water penetration point.

⁴ According to bacterial challenge test (BCT) with 10⁷ Brevundimonas diminuta. All non-sterile Minisart® types listed above can be sterilized according to the sterilization recommendation in this table.

* Minisart® Air can be sterilized by Gamma sterilization according to the following parameters: Range 25 – 40 kGy (validated with 50 kGy).

14.8 Minisart® Syringe Filters | Polyethersulfone | P.E.S

Order No.	Description	Pore Size	Dia.	Pack Size	Price ₹
16532-----GUK	Minisart® High Flow gamma sterile	0.2	28	50	4,550
16532-----K	Minisart® High Flow sterile (ETO)	0.2	28	50	4,450
16532-----Q	Minisart® High Flow non sterile	0.2	28	500	41,040
16533-----GUK	Minisart® High Flow gamma sterile	0.45	28	50	4,850
16533-----K	Minisart® High Flow sterile (ETO)	0.45	28	50	4,580
16533-----Q	Minisart® High Flow non sterile	0.45	28	500	41,580
16537-----K	Minisart® High-Flow sterile (ETO)	0.45	28	50	4,400
16537-----Q	Minisart® High-Flow non sterile	0.45	28	500	42,120
16541-----K	Minisart® High-Flow sterile (ETO)	0.2	28	50	4,480
16541-----Q	Minisart® High-Flow non sterile	0.2	28	500	43,200
16553-----K	Minisart® High-Flow sterile (ETO)	0.1	28	50	5,010

Connector Outlet: Male Luer Lock (16532, 16537, 16553) Male Luer Slip (16533, 16541)

14.9 Minisart® Syringe Filters | Surfactant-Free Cellulose Acetate | S.F.C.A

Order No.	Description	Pore Size	Dia.	Pack Size	Price ₹
16532-----GUK	Minisart® High Flow gamma sterile	0.2	28	50	4,800
16532-----K	Minisart® High Flow sterile (ETO)	0.2	28	50	4,700
16532-----Q	Minisart® High Flow non sterile	0.2	28	500	43,000
16533-----GUK	Minisart® High Flow gamma sterile	0.45	28	50	5,100
16533-----K	Minisart® High Flow sterile (ETO)	0.45	28	50	4,800
16533-----Q	Minisart® High Flow non sterile	0.45	28	500	43,650
16537-----K	Minisart® High-Flow sterile (ETO)	0.45	28	50	4,620
16537-----Q	Minisart® High-Flow non sterile	0.45	28	500	44,250
16541-----K	Minisart® High-Flow sterile (ETO)	0.2	28	50	4,800
16541-----Q	Minisart® High-Flow non sterile	0.2	28	500	45,350
16553-----K	Minisart® High-Flow sterile (ETO)	0.1	28	50	5,300

Connector Outlet: Male Luer Lock (16534, 16555, 16592, 17593, 17594) Male Luer Slip (17597, 17598, 16569, 17528)

Pore Size = µm Dia. = mm

CA 1.2 µm	CA 5.0 µm	GF+CA 0.2 µm	GF+CA 0.45 µm	GF+CA 1.2 µm	GF 0.7 µm	PTFE 0.2 µm	PTFE 1.0 µm	Actico- sart	PTFE (Air) 0.2 µm
K Q	K Q	K Q	K Q	Q	K Q	HYK HYQ Q	HYQ	Q	Q HNK
with water 0.7 bar 10 psi	with water 0.4 bar 6 psi	with water 3.2 bar 46 psi	with water 2.0 bar 29 psi	with water 0.7 bar 10 psi	with water 0.5 bar 7 psi	with ethanol 1.4 bar 20 psi	with ethanol 0.5 bar 7 psi	with ethanol 0.9 bar 13 psi	with ethanol 0.9 bar 13 psi
500	600	60	160	350	450	-	-	-	-
-	-	-	-	-	-	-	-	-	2000
-	-	-	-	-	-	2000	4000	2300	-
-	-	-	-	-	-	> 4.0 bar 58 psi ³	> 1.5 bar 22 psi ³	n.a.	> 3.0 bar 44 psi ³
no	no	yes	no	no	no	yes	no	n.a.	yes
	yes					yes			

Chemical Compatibility Guide

	Material								Minisart® Types									
	PES membrane	SFCA membrane	PTFE membrane	RC membrane	Nylon membrane	GF depth filter	Housing MBS	Housing PP	Minisart® highFlow	Minisart® NML Ophthalsart	Minisart® NML Plus	Minisart® NML GF	Minisart® HY Minisart® Air	Minisart® RC	Minisart® NY	Minisart® NY Plus	Minisart® SRP	Minisart® PES
Filter Membrane	PES	SFCA	PTFE	RC	PA				PES	SFCA	SFCA		PTFE	RC	PA	PA	PTFE	PES
Pre-Filter						GF			-	-	GF	GF	-	-	-	GF	-	-
Housing Material							MBS	PP	MBS	MBS	MBS	MBS	MBS	PP	PP	PP	PP	PP
Sterilization																		
Ethylene oxide	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++
Gamma irradiation	++	++	- ¹	++	-	++	++	-	++	++	++	++	- ¹	-	-	-	-	-
Autoclaving 121 °C, 30 min	++	++	++	++	++	++	-	++	-	-	-	-	-	++	++	++	++	++
Solvents																		
Acetone	-	-	++	++	++	++	-	++	-	-	-	-	-	++	++	++	++	-
Acetonitrile	-	-	++	++	++	++	-	++	-	-	-	-	-	++	++	++	++	-
Gasoline	+	++	++	++	++	++	+	++	+	+	+	+	+	++	++	++	++	+
Benzene	+	+	++	++	++	++	-	++	-	-	-	-	-	++	++	++	++	+
Benzyl alcohol	+	+	++	++	++	++	-	+	-	-	-	-	-	++	++	++	++	+
n-Butyl acetate	-	-	++	++	++	++	-	++	-	-	-	-	-	++	++	++	++	-
n-Butanol	++	++	++	++	++	++	+	++	+	+	+	+	+	++	++	++	++	++
Cellosolve	+	-	++	++	++	++	-	++	-	-	-	-	-	++	++	++	++	+
Chloroform	-	-	++	++	++	++	-	++	-	-	-	-	-	++	++	++	++	-
Cyclohexane	-	-	++	++	++	++	+	+	-	-	-	+	+	+	+	+	+	-
Cyclohexanone	-	-	++	++	++	++	-	+	-	-	-	-	-	+	+	+	+	-
Diethylacetamide	-	-	++	++	++	++	-	++	-	-	-	-	-	++	++	++	++	-
Diethyl ether	-	+	++	++	++	++	-	++	-	-	-	-	-	++	++	++	++	-
Dimethyl formamide	-	-	++	+	+	++	-	++	-	-	-	-	-	+	+	+	++	-
Dimethylsulfoxide	-	-	++	++	++	++	-	++	-	-	-	-	-	++	++	++	++	-
Dioxane	-	-	++	++	++	++	-	++	-	-	-	-	-	++	++	++	++	-
Ethanol, 98%	++	++	++	++	++	++	-	++	-	-	-	-	-	++	++	++	++	++
Ethyl acetate	-	-	++	++	++	++	-	+	-	-	-	-	-	+	+	+	+	-
Ethylene glycol	++	+	++	++	++	++	++	++	++	+	+	++	++	++	++	++	++	++
Formamide	++	-	++	+	++	++	++	++	++	-	-	++	++	+	++	++	++	++
Glycerin	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++
n-Heptane	+	+	++	++	++	++	++	+	+	+	+	+	++	+	+	+	+	+
n-Hexane	+	+	++	++	++	++	++	+	+	+	+	+	++	+	+	+	+	+
Isobutanol	++	+	++	++	++	++	-	++	-	-	-	-	-	++	++	++	++	++
Isopropanol	++	++	++	++	++	++	-	++	-	-	-	-	-	++	++	++	++	++
Isopropyl acetate	-	-	++	++	++	++	-	++	-	-	-	-	-	++	++	++	++	-
Methanol, 98%	+	-	++	++	++	++	-	++	-	-	-	-	-	++	++	++	++	+
Methyl acetate	-	-	++	++	++	++	-	+	-	-	-	-	-	+	+	+	+	-
Methylene chloride	-	-	++	++	++	++	-	++	-	-	-	-	-	++	++	++	++	-
Methyl ethyl ketone	-	+	++	++	++	++	-	+	-	-	-	-	-	+	+	+	+	-
Methyl isobutyl ketone	-	-	++	++	++	++	-	+	-	-	-	-	-	+	+	+	+	-
Monochlorobenzene	+	+	++	++	++	++	-	+	-	-	-	-	-	+	+	+	+	+
Nitrobenzene	-	-	++	++	+	++	-	+	-	-	-	-	-	+	+	+	+	-
n-Pentane	++	++	++	++	++	++	+	+	+	+	+	+	+	+	+	+	+	+
Perchloroethylene	-	-	++	++	++	++	-	+	-	-	-	-	-	+	+	+	+	-

Chemical Compatibility Guide

	Material								Minisart® Types										
	PES membrane	SFCA membrane	PTFE membrane	RC membrane	Nylon membrane	GF depth filter	Housing MBS	Housing PP	Minisart® HighFlow	Minisart® NML Ophthalsart	Minisart® NML Plus	Minisart® NML GF	Minisart® HY	Minisart® Air	Minisart® RC	Minisart® NY	Minisart® NY Plus	Minisart® SRP	Minisart® PES
Filter Membrane	PES	SFCA	PTFE	RC	PA				PES	SFCA	SFCA		PTFE	RC	PA	PA	PTFE	PES	
Pre-Filter						GF			-	-	GF	GF	-	-	-	GF	-	-	
Housing Material							MBS	PP	MBS	MBS	MBS	MBS	MBS	PP	PP	PP	PP	PP	PP
Solvents (continued)																			
Pyridine	-	-	++	++	++	++	-	++	-	-	-	-	-	++	++	++	++	-	
Carbon tetrachloride	-	-	++	++	++	++	-	+	-	-	-	-	-	+	+	+	+	-	
Tetrahydrofuran	-	-	++	++	++	++	-	++	-	-	-	-	-	++	++	++	++	-	
Toluene	-	+	++	++	++	++	-	+	-	-	-	-	-	+	+	+	+	-	
Trichloroethane	-	-	++	++	+	++	-	+	-	-	-	-	-	+	+	+	+	-	
Trichloroethylene	-	+	++	++	++	++	-	+	-	-	-	-	-	+	+	+	+	-	
Xylene	-	+	++	++	++	++	-	+	-	-	-	-	-	+	+	+	+	-	
Acids																			
Acetic acid, 25%	+	+	++	++	-	++	+	++	+	+	+	+	+	++	-	-	++	+	
Acetic acid, 80%	-	-	++	+	-	++	-	+	-	-	-	-	-	+	-	-	+	-	
Hydrofluoric acid, 25%	+	-	++	+	-	++	+	+	+	-	+	+	+	+	-	-	+	+	
Hydrofluoric acid, 50%	+	-	++	+	-	++	-	+	-	-	-	-	-	+	-	-	+	+	
Perchloric acid, 25%	-	-	++	-	-	++	-	+	-	-	-	-	-	-	-	-	+	-	
Phosphoric acid, up to 10%	+	+	++	-	-	++	+	+	+	+	+	+	+	-	-	-	+	+	
Phosphoric acid, 86%	+	+	++	-	-	++	-	+	-	-	-	-	-	-	-	-	+	+	
Nitric acid, 30%	+	-	++	-	-	++	+	+	+	-	-	+	+	-	-	-	+	+	
Nitric acid, conc.	-	-	++	-	-	++	-	-	-	-	-	-	-	-	-	-	-	-	
Hydrochloric acid, 15%	++	+	++	-	-	++	+	+	+	+	+	+	+	-	-	-	+	+	
Hydrochloric acid, 20%	++	-	++	-	-	++	+	+	+	-	-	+	+	-	-	-	+	+	
Sulfuric acid, 25%	+	-	++	+	-	++	++	++	+	-	-	++	++	+	-	-	++	+	
Sulfuric acid, 98%	-	-	++	-	-	++	-	-	-	-	-	-	-	-	-	-	-	-	
Trichloroacetic acid, 25%	-	-	++	++	-	++	-	+	-	-	-	-	-	+	-	-	+	-	
Bases																			
Ammonia, 1N	++	+	++	+	++	++	+	++	+	+	+	+	+	+	++	++	++	++	
Ammonium hydroxide, 25%	+	+	++	+	++	+	-	+	-	-	-	-	-	+	+	+	+	+	
Potassium hydroxide, 32%	++	-	++	-	+	+	-	++	-	-	-	-	-	-	+	+	++	++	
Sodium hydroxide, 1N	++	-	++	+	++	+	-	++	-	-	-	-	-	+	++	+	++	++	
Sodium hydroxide, 32%	++	-	++	-	+	-	-	+	-	-	-	-	-	-	+	-	+	+	
Aqueous solutions																			
Formaldehyde, 30%	+	++	++	+	++	++	+	+	+	+	+	+	+	+	+	+	+	+	
Sodium hypochlorite, 5%	++	-	++	-	-	++	+	+	+	-	-	+	+	-	-	-	+	+	
Hydrogen peroxide, 35%	++	-	++	-	-	++	+	++	+	-	-	+	+	-	-	-	++	++	
pH range																			
pH 1-14	-	-	++	-	-	++	-	++											
pH 1-13	++	-	++	-	-	++	-	++											
pH 3-14	+	-	++	+	++	++	-	++											
pH 3-12	++	-	++	++	++	++	+	++											
pH 4-8	++	++	++	++	++	++	++	++											

Legend

High Resistance	++
Limited Resistance	+
Not Resistant	-

¹ gamma irradiation feasible for Minisart® Air

Contact time: 24 hours at 20 °C. Chemical compatibilities can be influenced by various factors. Therefore, we recommend that you confirm compatibility with the liquid you want to filter by performing a trial filtration run before you start your actual filtration.

15. Filter Holders

15.1 Re-usable, 13 mm Syringe Filter Holders



PTFE Holder for Solvents and Chemicals

Made completely of PTFE, this holder is unaffected by chemicals and contains no trace elements which could be released into the liquid being filtered. It is therefore extremely well suited for particle removal from samples and reagents for analytical methods, such as NMR samples. Other

benefits of this application are the low hold-up volume, the easy cleaning and the drying at a temperature of 180°C. The construction of the holder ensures leak proof sealing without a sealing ring, and avoids twisting of the membrane filter when the top is tightened onto the base.

Specifications

Connectors	Female Luer Lock inlet, luer slip outlet
Chemical compatibility	As for PTFE
Filtration area	0.5 cm ²
Materials	PTFE top and bottom parts
Max. operating pressure	5 bar 500 kPa 72.5 psi
Membrane filter diameter	13 mm
Sterilization	By autoclaving (max. 134°C) or by dry heat (max. 180°C)
Hold-up volume	Less than 0.03 ml after overcoming the bubble point (0.3 ml before)

Order No.	Description	Pack Size	Price ₹
16574	PTFE syringe filter holder, 13 mm	1	29,925



Polycarbonate Holder for Aqueous Solutions

This inexpensive filter holder is made of clear, autoclavable polycarbonate. The silicone gasket enables a leak-free

filtration at pressures of up to 7 bar by simply screwing it together manually. Filter supports in the top and bottom parts allow filtration in either direction.

Specifications

Connectors	Female Luer Lock inlet, luer slip outlet
Chemical compatibility	As for polycarbonate and silicone
Filtration area	0.5 cm ²
Materials	Polycarbonate top and bottom part, silicone gasket
Max. operating pressure	7 bar 700 kPa 101.5 psi
Membrane filter diameter	13 mm
Sterilization	By autoclaving at 121°C
Hold-up volume	Less than 0.2 ml after overcoming the bubble point (0.3 ml before)

Order No.	Description	Pack Size	Price ₹
16514-----E	Polycarbonate 13 mm syringe filter holder	12	8,505
6980569	Silicon gasket, 10 x 14.9 x 0.5 mm	10	1,260



All-Glass Vacuum Filter Holder

Order No.	Description	Pack Size	Price ₹
16309	Borosilicate glass Funnel, base and flask, sintered glass frit in a PTFE ring and viton O-ring (45 x 3 mm) underneath, anodized aluminium clamp Funnel capacity 250 ml Filtrate flask capacity 1 liter Membrane filter diameter 50mm (or 47 mm)	1	28,350



15.2 Re-usable, 25 mm Syringe Filter Holders



Stainless Steel Holder for Solvents and Chemicals

Made of stainless steel, this holder is heat-resistant, and the chemical compatibility depends only on the inserted filter type.

The top part can easily be mounted on the bottom part using the enclosed tightening tool. Filter supports in the top and bottom parts allow filtration in either direction.

Specifications

Connectors	Female Luer Lock inlet, luer slip outlet
Chemical compatibility	As for stainless steel
Filtration area	3 cm ²
Materials	Stainless steel (1.4305) top and bottom parts
Max. operating pressure	7 bar 700 kPa 101.5 psi
Membrane filter diameter	25 mm
Sterilization	By autoclaving (max. 134°C) or by dry heat (max. 180°C)
Hold-up volume	Less than 0.1 ml after overcoming the bubble point (0.3 ml before)

Order No.	Description	Pack Size	Price ₹
16214	Stainless Steel Syringe Filter Holder, 25 mm		23,940
6980595	Tightening tool, Polyman 24/5		630



Polycarbonate Holder for Aqueous Solutions

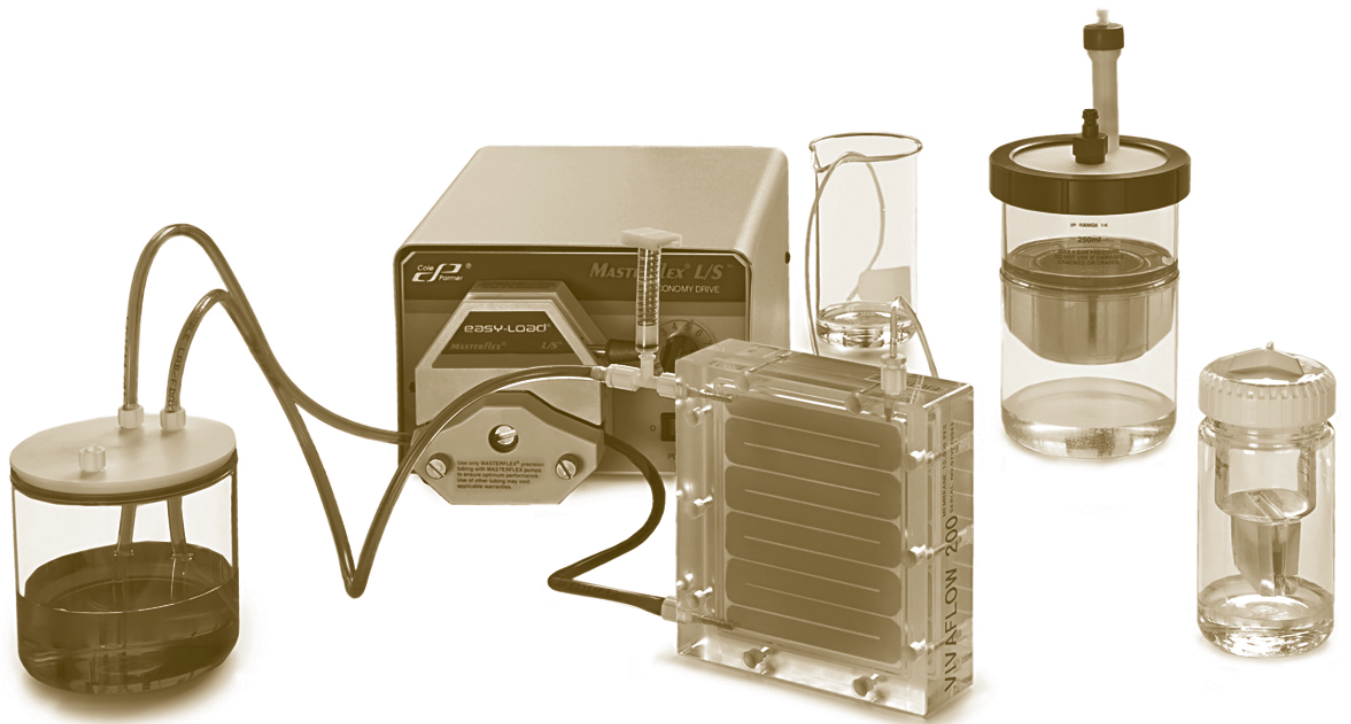
This inexpensive filter holder is made of clear, autoclavable polycarbonate. The silicone gasket enables a leak-free filtration

at pressures of up to 7 bar by simply screwing it together manually. Filter supports in the top and bottom parts allow filtration in either direction.

Specifications

Connectors	Female Luer Lock inlet, luer slip outlet
Chemical compatibility	As for polycarbonate and silicone
Filtration area	3 cm ²
Materials	Polycarbonate top and bottom parts, silicone gasket
Max. operating pressure	7 bar 700 kPa 101.5 psi
Membrane filter diameter	25 mm
Sterilization	By autoclaving at 121°C
Hold-up volume	Less than 0.3 ml after overcoming the bubble point (0.6 ml before)

Order No.	Description	Pack Size	Price ₹
16517-----E	Polycarbonate syringe filter holder 25 mm	12	9,660



Ultrafiltration Devices

1.	Centrifugal Concentrators	64
1.1	Vivaspin® 500	65
1.2	Vivaspin® 2	66
1.3	Centrisart I	68
1.4	Vivaspin® Turbo 4	69
1.5	Vivaspin® 6	70
1.6	Vivaspin® Turbo 15	71
1.7	Vivaspin® 15R	72
1.8	Vivaspin® 20	73
2.	Vivaflow Concentrators	75
2.1	Vivaflow® 50 50R 200	78
2.2	Vivaflow® Accessories	78
3.	Centrifugal Concentrators (DNA)	79
3.1	Vivacon® 500	79
3.2	Vivacon® 2	80
4.	Static Concentrators	81
4.0	Vivapore®	81



Ultrafiltration

Ultrafiltration is a convective process that uses anisotropic semi-permeable membranes to separate macromolecular species and solvents primarily on the basis of size. It is particularly appropriate for the concentration of macromolecules and can also be used to purify molecular species or for solvent exchange. Ultrafiltration is a gentle, non denaturing method that is more efficient and flexible than alternative processes.

Sartorius offers an extended range of membranes to cover the great majority of ultrafiltration requirements:

Polyethersulfone (PES)

Cellulose triacetate (CTA)

Hydrosart®

Typical applications for ultrafiltration

- Concentration| desalting of proteins, enzymes, DNA, monoclonal antibodies, immunoglobulins, virus & nanoparticles
- Free drug, hormone assays
- Removal of primers from PCR amplified DNA
- Removal of labelled amino acids and nucleotides
- HPLC sample preparation
- Deproteinization of samples
- Recovery of biomolecules from cell culture supernatants, lysates
- General purpose laboratory concentration and desalting of proteins, enzymes, cells, DNA, biomolecules, antibodies and immunoglobulins
- Mammalian cell harvesting
- Cell washing, virus purification, cell debris removal, depyrogenation

Process alternatives

Sartorius offers a comprehensive range of process alternatives for the filtration and concentration of biological samples. Below is a guide to selecting the most suitable filtration method, depending on sample volume, equipment available, filtration speed and process control desired.



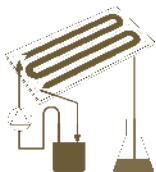
Centrifugal concentrators (100 µl to 100 ml starting volumes) Centrifugation provides the vector to clear solvent and micro molecules through the ultrafiltration membrane and into a filtrate container positioned below. This is a gentle process that is characterised by quick set up and fast filtration speeds with most solutions. Sartorius offers twelve alternative centrifugal devices covering volumes from 100 µl up to 100 ml.



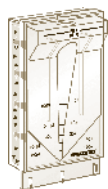
Pressure ultrafiltration (5 to 250 ml starting volume) Pressurised air or an inert gas is used to provide the filtration vector. For fastest filtration, Vivacell products are used with an orbital laboratory shaker. Agitation is used to impede macromolecules from polarising on the membrane surface and reducing filtration speed. Vivaspin® 20, Vivacell 70, Vivacell 100 and Vivacell 250 can be run with gas pressure.



Pressure-fugation is a unique Sartorius method that combines gas pressure with centrifugation. This is the fastest concentration method with process times typically 30 to 50% faster than centrifugation alone. Vivaspin® 20 and Vivacell 70 can be operated this way (5 to 50 ml starting volumes).



Cross flow (100 ml to several litres starting volume) The solution to be processed is pumped under pressure across an ultrafiltration membrane and then returned to the original reservoir. The solution is progressively concentrated or purified as solvent and micro-molecules pass through the membrane into a separate filtrate vessel. Vivaflow 50 and 200 are offered for this procedure.



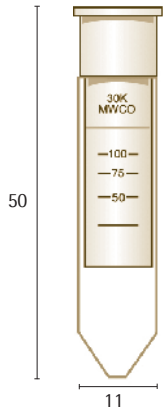
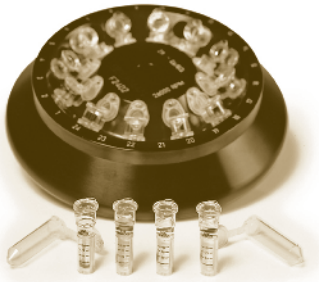
Solvent absorption (1 to 20 ml starting volume) This technique uses an absorbent cellulose pad mounted behind the ultrafiltration membrane to draw solvents and micro solutes through the membrane. Retained macromolecules are concentrated into the bottom of the sample container. No additional equipment is required. Two Vivapore devices are offered for this procedure with maximum initial sample volumes ranging from 1 to 20 ml.

1.1 Vivaspin® 500

100 µl to 500 µl samples

Vivaspin® 500 µl centrifugal filter units offer a simple, one step procedure for sample preparation. They can effectively be used in a fixed angle rotors accepting 2.2 ml centrifuge tubes.

The patented vertical membrane design and thin channel filtration chamber (US 5,647,990), minimises membrane fouling and provides high speed concentrations, even with particle laden solutions.



Technical specifications

Concentrator capacity	Swing bucket rotor	do not use
	Fixed angle rotor	500 µl
Dimensions	Total length	50 mm
	Width	11 mm
	Active membrane area	0.5 cm ²
	Hold-up volume, membrane and support	< 5 µl
	Dead stop volume	5 µl
Materials of construction	Body	Polycarbonate
	Filtrate vessel	Polycarbonate
	Concentrator cap	Polycarbonate
	Membrane	Polyethersulfone

Equipment required

Centrifuge	Rotor type	Fixed angle
	Minimum rotor angle	40°
	Rotor cavity	To fit 2.2 ml (11 mm) conical bottom tubes
	Maximum speed	15,000 g
Concentrate recovery	Pipette type	Fixed or variable volume
	Recommended tip	Thin gel loader type

Ordering information

Order No.	Pack Size	MWCO	Price ₹
VS0191	25	3	11,250
VS0192	100	3	38,800
VS0111	25	5	11,250
VS0112	100	5	38,800
VS0101	25	10	11,250
VS0102	100	10	38,800
VS0121	25	30	11,250
VS0122	100	30	38,800
VS0131	25	50	11,250
VS0132	100	50	38,800
VS0141	25	100	11,250
VS0142	100	100	38,800
VS0151	25	300	11,250
VS0152	100	300	38,800
VS0161	25	1	11,250
VS0162	100	1	38,800
VS0171	25	0.2 µm	11,250

MWCO / Molecular weight cut-off = Kilo Daltons (kDa) / x1000 Daltons (Da)

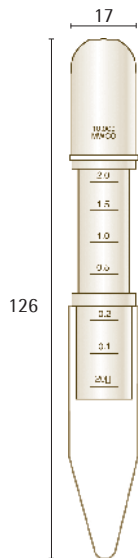
1.2 Vivaspin® 2

Choice of membranes

0.4–2 ml samples

The Vivaspin® 2 bridges the gap between the 500 µl and 4 ml centrifugal concentrators. This device combines the speed of the classic Vivaspin® products with low internal surface and membrane area for superior recoveries from very dilute solutions.

Also unique to the Vivaspin® 2, is the choice of directly pipetting the concentrate from the dead stop pocket built into the bottom of the concentrator, or alternatively reverse spinning into the concentrate recovery cap which can then be sealed for storage. Both methods result in near total concentrate recoveries.



Available with a choice of PES, Cellulose Triacetate and Hydrosart® membranes, Vivaspin® 2 offers the highest flexibility for process optimisation.

Technical specifications

Concentrator capacity	Swing bucket rotor	3 ml
	Fixed angle rotor	2 ml
Dimensions	Total length	126 mm
	Width	17 mm
	Active membrane area	1.2 cm ²
	Hold-up volume of membrane	< 10 µl
	Dead stop volume	8 µl
Materials of construction	Body	Polycarbonate
	Filtrate vessel	Polycarbonate
	Concentrator cap	Polycarbonate
	Membrane	PES, CTA, HY
Equipment required		
Centrifuge		
Rotor type	Swing bucket	Fixed angle
Minimum rotor angle	-	25°
Rotor cavity	To fit 15 ml (17 mm) conical bottom tubes	To fit 15 ml (17 mm) conical bottom tubes
Maximum speed	4,000 g	12,000 g upto 50 kDa
	-	9,000 g above 100 kDa
	-	8,000 g for HY & CTA (All kDa)
Concentrate recovery		
Pipette type	Fixed or variable volume	Fixed or variable volume
Recommended tip	Thin gel loader type	Thin gel loader type

Ordering information | Polyethersulfone membrane (PES)

Order No.	Pack Size	MWCO	Price ₹
VS0291	25	3	14,400
VS0292	100	3	48,150
VS0211	25	5	14,400
VS0212	100	5	48,150
VS0201	25	10	14,400
VS0202	100	10	48,150
VS0221	25	30	14,400
VS0222	100	30	48,150
VS0231	25	50	14,400
VS0232	100	50	48,150
VS0241	25	100	14,400
VS0242	100	100	48,150
VS0251	25	300	16,750
VS0252	100	300	51,066
VS0261	25	1	16,750
VS0262	100	1	51,060
VS0271	25	0.2 µm	16,750
VS0272	100	0.2 µm	58,197
VS02S1	25	5,000–100,000	16,750

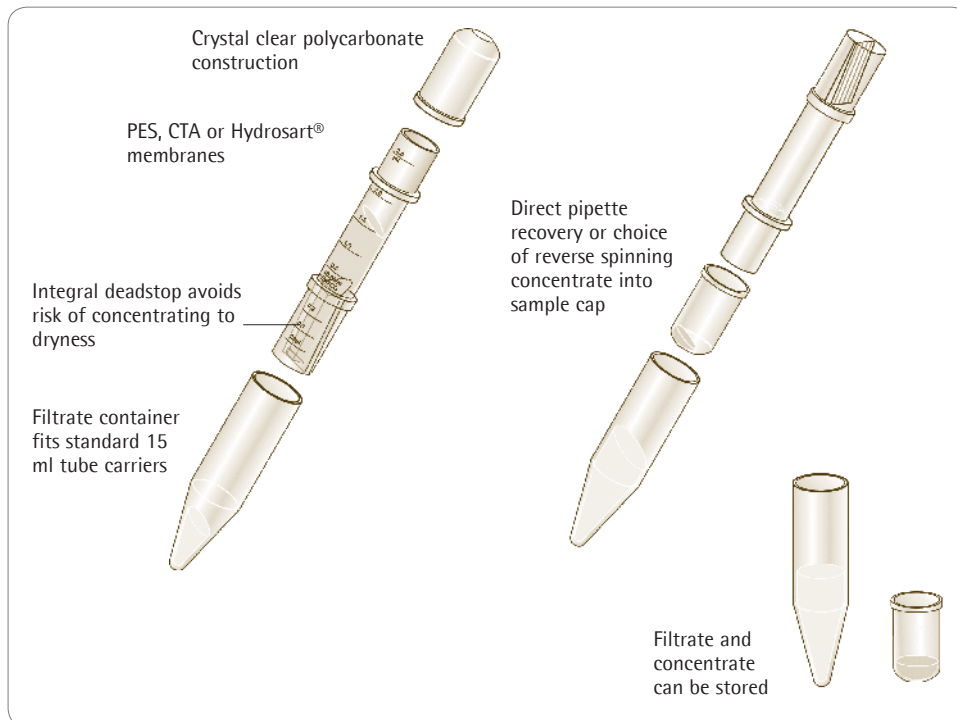
MWCO / Molecular weight cut-off = Kilo Daltons (kDa) / ×1000 Daltons (Da)

Ordering information | Hydrosart® membrane (HY)

OrderNo.	PackSize	MWCO	Price ₹
VS02H91	25	2	15,250
VS02H92	100	2	46,500
VS02H11	25	5	15,250
VS02H12	100	5	46,500
VS02H01	25	10	15,250
VS02H02	100	10	46,500
VS02H21	25	30	15,250
VS02H22	100	30	46,500

Ordering information | Cellulose Triacetate membrane (CTA)

OrderNo.	PackSize	MWCO	Price ₹
VS02U1	25	5	15,250
VS02U2	100	5	46,500
VS02V1	25	10	15,250
VS02V2	100	10	46,500
VS02X1	25	20	15,250
VS02X2	100	20	46,500



MWCO / Molecular weight cut-off = Kilo Daltons (kDa) / x1000 Daltons (Da)

1.3 Centrisart I

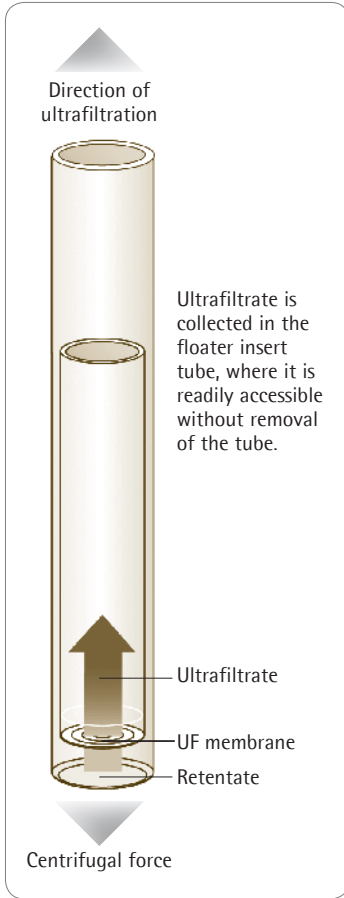
0.5–2.5 ml samples

Centrisart I is a ready to use unit for small volume centrifugal ultrafiltration to separate proteins from low molecular weight substances in biological samples.

Centrisart I features a unique design, ultrafiltration in the opposite direction to the centrifugal force. This is so effective in preventing premature blockage of the filter that even whole blood samples can be deproteinized. The ultrafiltrate is collected in the floater insert tube, where it is readily accessible without removing the tube.

Typical applications include:

- drug binding studies
- determination of metabolites in serum
- protein removal from blood samples
- cleaning of liposomes
- virus removal



Technical specifications

Concentrator capacity	Swing bucket rotor	2.5 ml
	Fixed angle rotor	2.5 ml
Dimensions	Total length	93 mm
	Width	14 mm
	Active membrane area	0.79 cm ²
	Hold-up volume of membrane	< 5 µl
	Dead stop volume	100 µl
Materials of construction	Centrifuge tube	Polystyrene
	Floater tube	Cellulose propionate
	Cap	Polyethylene
	Membrane	CTA, PES

Equipment required

Centrifuge

Rotor type	Swing bucket	Fixed angle
Minimum rotor angle	–	25°
Rotor cavity	To fit 15 ml (17 mm)	To fit 15 ml (17 mm)
	conical bottom tubes	conical bottom tubes
Maximum speed	2,500 g	2,000 g

Concentrate recovery

Pipette type	Fixed or variable volume	Fixed or variable volume
Recommended tip	Thin gel loader type	Thin gel loader type

Ordering information

Order No.	Pack Size	Material	MWCO	Price ₹
13209-----E	12	3x(5k, 10k, 20k, 100k)	Variety	8,300
13229-----E	12	Cellulose triacetate	5	8,300
13239-----E	12	Cellulose triacetate	10	8,300
13249-----E	12	Cellulose triacetate	20	8,300
13269-----E	12	Polyethersulfone	100	8,300
13279-----E	12	Polyethersulfone	300	8,300

MWCO / Molecular weight cut-off = Kilo Daltons (kDa) / x1000 Daltons (Da)

1.4 Vivaspin® Turbo 4



CONCENTRATE IN HALF THE TIME!

2–4 ml samples

The Vivaspin® Turbo 4 device is an optimal solution for protein concentration from dilute samples.

Highest flow rates are achieved due to their double verticle membranes which minimize protein polarization and subsequent fouling of the membrane. Additionally, their sleek internal profile ensures maximum process speeds right down to the last drops.

The UV joining technology allows for a smooth joint transition between membrane and plastic housing, allowing complete sample recovery from the unique pipette friendly deadstop pocket. The dead stop pocket is an impermeable concentrate pocket integrally moulded below the membrane surface, thereby eliminating the risk of filtration to dryness.

Technical specifications

Concentrator capacity	Swing bucket rotor	4 ml
	Fixed angle rotor	4 ml
Dimensions	Total length	122.5 mm
	Width	17 mm
	Active membrane area	3.2 cm ²
	Hold-up volume of membrane	< 10 µl
	Dead stop volume	40 µl (Swing out) 30 µl (Fixed)
Materials of construction	Concentrator cap & tube	Polypropylene
	Membrane	Polyethersulfone
	Concentrator insert	Styrene butadiene co-polymer

Equipment required

Centrifuge

Rotor type	Swing bucket	Fixed angle
Minimum rotor angle	–	25°
Rotor cavity	To fit 15 ml (17 mm) conical bottom tubes	To fit 15 ml (17 mm) conical bottom tubes
Maximum speed	4,000 g upto 50 kDa	7,500 g upto 50 kDa
	3,000 g above 100 kDa	5,000 g above 100 kDa

Concentrate recovery

Pipette type	Fixed or variable volume	Fixed or variable volume
Recommended tip	Thin gel loader type	Thin gel loader type

Ordering information

Order No.	Pack Size	MWCO	Price ₹
VS04T91	25	3	21,400
VS04T92	100	3	66,340
VS04T11	25	5	21,400
VS04T12	100	5	66,340
VS04T01	25	10	21,400
VS04T02	100	10	66,340
VS04T21	25	30	21,400
VS04T22	100	30	66,340
VS04T31	25	50	21,400
VS04T32	100	50	66,340
VS04T41	25	100	21,400
VS04T42	100	100	66,340

MWCO / Molecular weight cut-off = Kilo Daltons (kDa) / x1000 Daltons (Da)

1.5 Vivaspin® 6

2–6 ml samples

Vivaspin® 6 ml concentrators have been developed to offer increased volume flexibility and performance.

Vivaspin® 6 can process an impressive 6 ml in either swing bucket or fixed angle rotors accepting standard 15 ml conical bottom test tubes.

The Vivaspin® 6 features twin vertical membranes for unparalleled filtration speeds and 100x plus concentrations. Remaining volume is easy to read off the printed scale on the side of the concentrator and the modified dead stop pocket further simplifies direct pipette recovery of the final concentrate.



Technical specifications

Concentrator capacity	Swing bucket rotor	6 ml
	Fixed angle rotor	6 ml
Dimensions	Total length	122 mm
	Width	17 mm
	Active membrane area	2.5 cm ²
	Hold-up volume of membrane	< 10 µl
	Dead stop volume	30 µl
Materials of construction	Body	Polycarbonate
	Filtrate vessel	Polycarbonate
	Concentrator cap	Polycarbonate
	Membrane	Polyethersulfone

Equipment required

Centrifuge

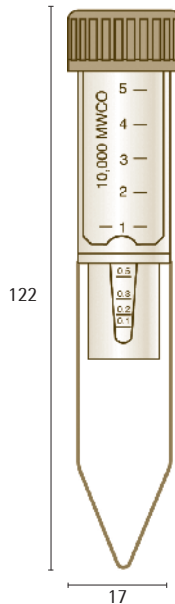
Rotor type	Swing bucket	Fixed angle
Minimum rotor angle	-	25°
Rotor cavity	To fit 15 ml (17 mm) conical bottom tubes	To fit 15 ml (17 mm) conical bottom tubes
Maximum speed	4,000 g	10,000 g upto 50 kDa 6,000 g upto 100 kDa

Concentrate recovery

Pipette type	Fixed or variable volume	Fixed or variable volume
Recommended tip	Thin gel loader type	Thin gel loader type

Ordering information

Order No.	PackSize	MWCO	Price ₹
VS0691	25	3	17,300
VS0692	100	3	68,000
VS0611	25	5	17,300
VS0612	100	5	68,000
VS0601	25	10	17,300
VS0602	100	10	68,000
VS0621	25	30	17,300
VS0622	100	30	68,000
VS0631	25	50	17,300
VS0632	100	50	68,000
VS0641	25	100	17,300
VS0642	100	100	68,000
VS0651	25	300	17,300
VS0652	100	300	68,000
VS0661	25	1	17,300
VS0662	100	1	68,000
VS0671	25	0.2 µm	17,300
VS0672	100	0.2 µm	68,000
VS0651	25	5.000-100.000	25,450



MWCO / Molecular weight cut-off = Kilo Daltons (kDa) / x1000 Daltons (Da)

1.6 Vivaspin® Turbo 15



4 – 15 ml

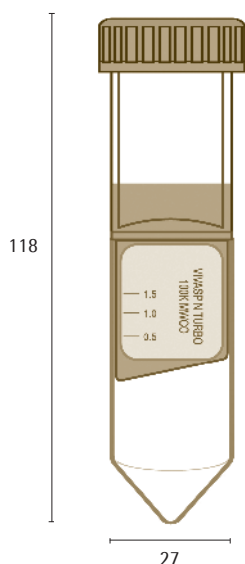
Vivaspin® Turbo 15 allows fastest sample concentration with highest recoveries. This device can handle up to 15 ml sample volume in swing bucket rotors and 11 ml in fixed angle rotors accepting 50 ml centrifuge tubes. The Vivaspin® Turbo 15 optimized design and sleek internal profile ensure maximum process speeds right the way down to the last few micro litres leading to > 100 fold concentration.

The UV joining technology allows for a smooth joint transition between membrane and plastic housing, allowing the collection of the complete concentrated sample into the unique pipette friendly angular dead stop pocket.

Technical specifications

Materials	Body	Styrene butadiene copolymer
	Filtrate vessel	Polypropylene
	Concentrator cap	Polypropylene
	Membrane	Polyethersulfone (PES)
Dimensions	Total length (concentrator insert)	77 mm
	Total length (in tube with cap)	118 mm
	Diameter (concentrator insert)	27 mm
	Active membrane area	7.2 cm ²
	Hold up volume of membrane	<10 µl
	Dead stop volume in swing out	100 µl
	Dead stop volume in fixed angle	60 µl
Concentrator capacity	Swing bucket rotor	15 ml
	Fixed angle rotor (25°)	11 ml
Maximum speed	Swing bucket rotor	4,000 g upto 50 kDa
	Fixed angle rotor (25°)	
Sterilization	ETO or 70% EtOH	
Removal of endotoxins [Depyrogenization]	Flushing with 1N NaOH	

CONCENTRATE IN HALF THE TIME!



Ordering information

Order No.	PackSize	MWCO	Price ₹
VS15T91	12	3	14,071
VS15T92	48	3	51,895
VS15T11	12	5	14,071
VS15T12	48	5	51,895
VS15T01	12	10	14,071
VS15T02	48	10	51,895
VS15T21	12	30	14,071
VS15T22	48	30	51,895
VS15T31	12	50	14,071
VS15T32	48	50	51,895
VS15T41	12	100	14,071
VS15T42	48	100	51,895

MWCO / Molecular weight cut-off = Kilo Daltons (kDa) / x1000 Daltons (Da)

1.7 Vivaspin® 15R



2–15 ml samples

Vivaspin® 15R is a member of the Vivaspin® product family with all the unique features of Sartorius concentrators including a patented vertical membrane and a dead stop. Vivaspin® 15R is targeting the volume segment 2 to 15 ml with a modified regenerated cellulose membrane; Hydrosart®. This membrane is ideal where extremely high recovery with very low adsorption is needed, for example in applications such as desalting and concentration of Ig fractions.

- Ultimate recovery at low adsorption (95-98%)
- Extremely short concentration time (30x in 15 min.)
- Convenient application protocol with easy handling
- Easy scale-up to Vivaflow 200 with Hydrosart® membrane for volumes up to 5 litres
- Very small hold up volume (< 20 µl)

Technical specifications

Concentrator capacity	Swing bucket rotor	15 ml
	Fixed angle rotor	12.5 ml
Dimensions	Total length	116 mm
	Width	30 mm
	Active membrane area	3.9 cm ²
	Hold-up volume of membrane	< 20 µl
	Dead stop volume	30 µl
Materials of construction	Body	Polycarbonate
	Filtrate vessel	Polycarbonate
	Concentrator cap	Polycarbonate
	Membrane	Hydrosart®

Equipment required

Centrifuge

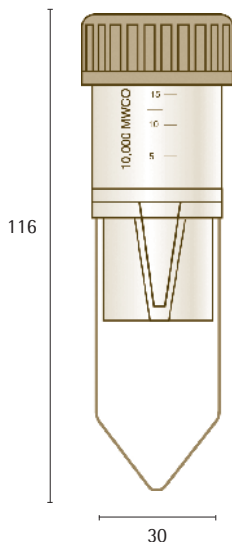
Rotor type	Swing bucket	Fixed angle
Minimum rotor angle	–	25°
Rotor cavity	To fit 50 ml (30 mm)	To fit 50 ml (30 mm)
	conical bottom tubes	conical bottom tubes
Maximum speed	3,000 g	6,000 g

Concentrate recovery

Pipette type	Fixed or variable volume	Fixed or variable volume
Recommended tip	Thin gel loader type	Thin gel loader type

Ordering information

Order No.	Pack Size	MWCO	Price ₹
VS15RH91	12	2	14,150
VS15RH92	48	2	48,700
VS15RH11	12	5	14,150
VS15RH12	48	5	48,700
VS15RH01	12	10	14,150
VS15RH02	48	10	48,700
VS15RH21	12	30	14,150
VS15RH22	48	30	48,700



MWCO / Molecular weight cut-off = Kilo Daltons (kDa) / x1000 Daltons (Da)

1.8 Vivaspin® 20

5–20 ml samples

Vivaspin® 20 ml centrifugal concentrators have been developed to offer increased volume flexibility and performance.

Vivaspin® 20 handles up to 20 ml in swing bucket centrifuges and 14 ml in 25° fixed angle rotors accepting 50 ml centrifuge tubes.

Featuring twin vertical membranes for unparalleled filtration speeds the Vivaspin® 20 can achieve 100x plus concentrations. Remaining volume is easy to read off the printed scale on the side of the concentrator and the modified dead stop pocket further simplifies direct pipette recovery of the final concentrate.

More process flexibility

Vivaspin® 20 is available with unique accessories and operating methods that are designed to provide more process flexibility and further time saving.

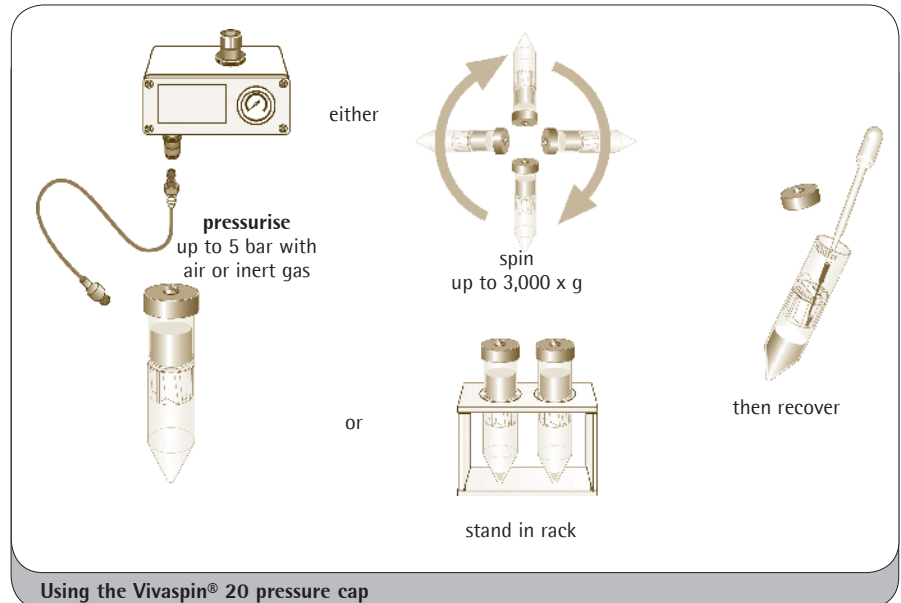
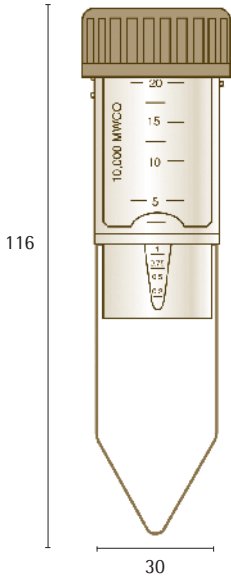
Gas pressure filtration

When an appropriate centrifuge is unavailable, or for single sample processing, Vivaspin® 20 can be filled with up to 15 ml and then pressurised for bench top concentration. For even faster processing, gas pressure can be combined with centrifugal force. "Pressure-fugation" is particularly suitable for difficult or viscous samples such as serum, or when using a low process temperature which reduces filtration speed, and generally when minimum process time is essential.



Technical specifications

Concentrator capacity	Swing bucket rotor	20 ml
	Fixed angle rotor	14 ml
	With pressure head	15 ml
Dimensions	Total length	116 mm
		125 mm with pressure head
	Width	30 mm
	Active membrane area	6.0 cm ²
	Hold-up volume of membrane	< 20 µl
	Dead stop volume	50 µl
Materials of construction	Body	Polycarbonate
	Filtrate vessel	Polycarbonate
	Concentrator cap	Polycarbonate
	Pressure head	Acetal/aluminium
	Membrane	Polyethersulfone



MWCO / Molecular weight cut-off = Kilo Daltons (kDa) / x1000 Daltons (Da)

Desalting of Concentrated Sample

Diafiltration cup is filled with buffer solution

Solvent in sample is continuously replaced by fresh buffer solution

Remaining salts and contaminants are progressively cleared through membrane



Desalting with Vivaspin® 20

In this procedure following concentration, a diafiltration cup is filled with buffer and then spun one time to achieve 98% salt removal. This compares to the need for two spins to achieve the same result with the traditional refill and re-spin procedure.

The improved performance is due to the constant washing action of the buffer solution in the diafiltration cup as it replaces solvent and salts as they pass through the ultrafiltration membrane.

Equipment required

Centrifuge

Rotor type	Swing bucket	Fixed angle	Pressure fuge
Minimum rotor angle	-	25°	Swing bucket
Rotor cavity	To fit 50 ml (30 mm) conical bottom tubes	To fit 50 ml (30 mm) conical bottom tubes	(5 bar max)
Maximum speed	5,000 g upto 50 kDa 3,000 g above 100 kDa	8,000 g upto 50 kDa 6,000 g above 100 kDa	3,000 g upto 50 kDa 2,000 g above 100 kDa

Concentrate recovery

Pipette type	Fixed or variable volume	Fixed or variable volume
Recommended tip	Thin gel loader type	Thin gel loader type

Ordering information

Order No.	Pack Size	MWCO	Price ₹
VS2091	12	3	14,800
VS2092	48	3	52,800
VS2011	12	5	14,800
VS2012	48	5	52,800
VS2001	12	10	14,800
VS2002	48	10	52,800
VS2021	12	30	14,800
VS2022	48	30	52,800
VS2031	12	50	14,800
VS2032	48	50	52,800
VS2041	12	100	14,800
VS2042	48	100	52,800
VS2051	12	300	14,800
VS2052	48	300	52,800
VS2061	12	1	14,800
VS2062	48	1	52,800
VS2071	12	0.2 µm	14,800
VS2072	48	0.2 µm	52,800
VS20S1	12	5.000-0.2 µm	14,800
VSA005	12		3,250

VIVASPIN IVD products

Order No.	Pack Size	Description	Material	MWCO	Price ₹
VS2001IVD	12	Vivaspin 20	PES	10	14,800
VS2002IVD	48	Vivaspin 20	PES	10	52,800
VS0601IVD	25	Vivaspin 6	PES	10	17,500
VS0602IVD	100	Vivaspin 6	PES	10	68,500
VS04T01IVD	25	Vivaspin Turbo 4	PES	10	21,400
VS04T02IVD	100	Vivaspin Turbo 4	PES	10	66,400
VS15T01IVD	12	Vivaspin Turbo 15	PES	10	14,150
VS15T02IVD	48	Vivaspin Turbo 15	PES	10	51,900

NOTE: The order no(s) in Vivaspin 20, Vivaspin 6, Vivaspin turbo 4 and Vivaspin turbo 15 ending with IVD are given with IVD certificate

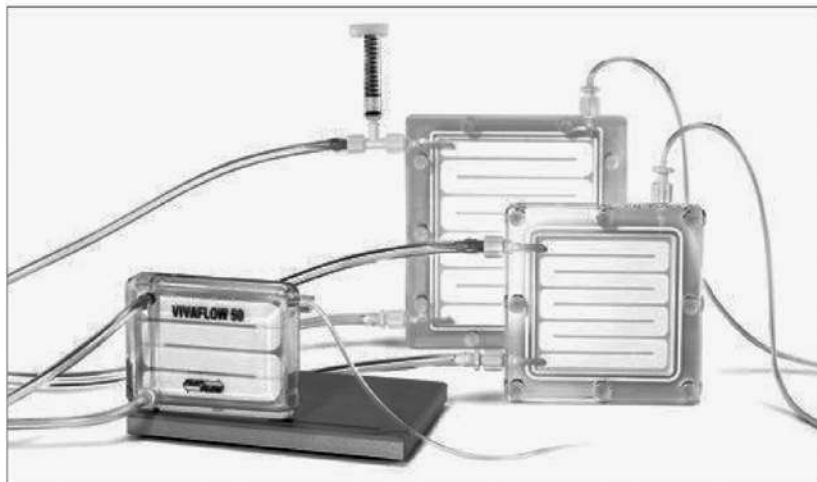
Optional pressure accessories

Air pressure controller (APC) complete with pressure gauge, regulator, over-pressure safety valve, female connector to Sartorius pressure products and 1 m extension line (4 mm pneumatic tubing) with male and female connectors and 1 m of 6 mm inlet tubing	Prod no. VCA002	29,700
Charge valve	Prod no. VCA005	6,100
VS20 pressure head	Prod no. VCA200	6,400

MWCO / Molecular weight cut-off = Kilo Daltons (kDa) / x1000 Daltons (Da)

Unique, "Plug & Play" Laboratory Crossflow Devices

Vivaflow® 50 | 50R | 200



Crossflow Concentration

Introduction

Vivaflow crossflow devices have been designed for use in research and are ideal for concentration and diafiltration of aqueous samples with volumes ranging from 100 ml to 5 l. They achieve concentrations of 10-fold to 50 fold, depending on the initial sample volume.

Plug and Play Convenience

The clear Vivaflow housing allows visual monitoring of the sample at all times. The devices are easy to set up and need only a standard peristaltic pump to operate.

Our Vivaflow range offers the right crossflow device for every concentration need:

Vivaflow 50 is a disposable, modular crossflow device, which can be easily scaled up to 6 units that run both in parallel and in series. Designed as unique interlocking modules, the units are conveniently connected in the required number on an aluminum stand according to the scaleup level required. Vivaflow 50 saves regeneration time and is the economical choice for concentration and buffer exchange of 0.1 ml to 3 l samples containing proteins, viruses and nanoparticles.

Vivaflow 50R is a reusable crossflow device featuring a unique, low-binding regenerated cellulose membrane, Hydrosart®. Therefore, it is the ideal choice for concentrating expensive samples like viruses and antibodies. Vivaflow 50R can be scaled up with one additional unit to increase the flow speed for concentrating initial sample volumes of up to 1 l.

Vivaflow 200, like Vivaflow 50R, is a reusable crossflow device, but is available in a choice of membranes: Hydrosart® and PES. This device is perfect for concentrating expensive samples like viruses and antibodies. Vivaflow 200 can be scaled up with one additional unit to increase the flow speed for concentrating initial sample volumes of up to 5 l.

- Easy to Operate Using a Standard Pump
- Unique Volume Range from 0.1 l to 5 l
- Fast Concentration
- High Recoveries

Applications

Vivaflow devices lend themselves to a multitude of different concentration applications whenever larger volumes of sample need to be concentrated in a lab environment.

Typical applications and areas of use include the following:

- Antibody | recombinant protein concentration | diafiltration in biopharma research
- Concentration of small production lots of proteins for diagnostic purposes
- Concentration of viruses from cell culture supernatants or of environmental samples
- Nanoparticle concentration

Summary

Sartorius offers a complete range of Vivaflow crossflow devices for scientists and lab technicians who need to reliably concentrate or rebuffer and | or diafilter aqueous samples with initial volumes of up to 5 l. Unlike other crossflow cassettes on the market, Vivaflow is a dedicated laboratory product that meets the demand for ease of use without requiring any additional non-standard instrumentation. Just a standard laboratory peristaltic pump is all that is needed to operate Vivaflow units.

Vivaflow Working Principle

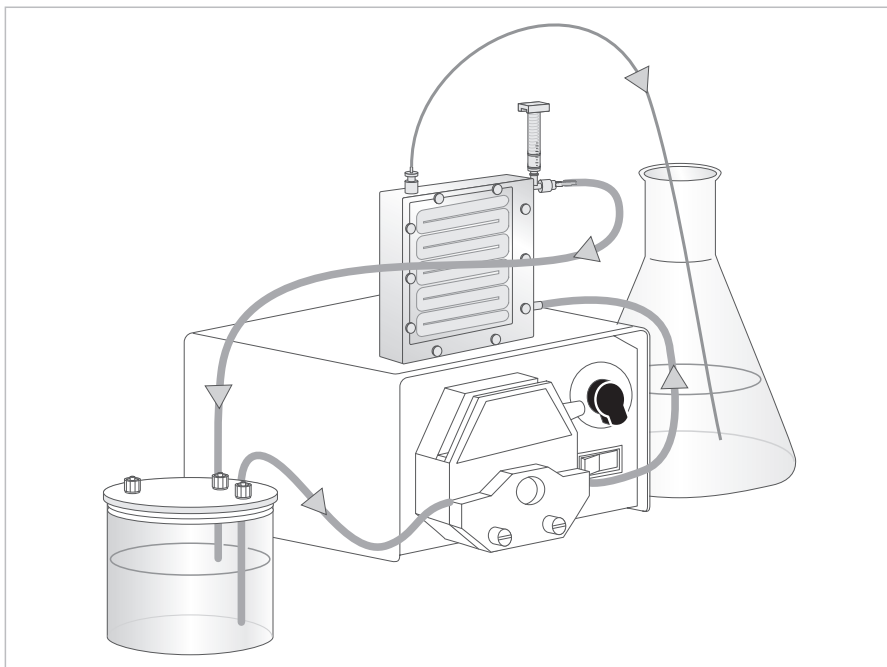


Diagram 1: Operating Vivaflow cassettes

Vivaflow cassettes are crossflow devices that contain an ultrafiltration membrane and are operated by using a standard peristaltic pump to recirculate a sample through them. The thin-channel, flip-flow recirculation path geometry of all Vivaflow modules provides high crossflow velocities with minimum pump speed requirements of 200 – 400 ml/min. A special flow restrictor at the outlet tubing readily generates back pressure in each cassette, resulting in the concentration of the sample and separation of sample constituents as the sample flows across the membrane. While the sample is recirculated by the pump, the filtrate is collected in a separate vessel. Concentration can be stopped anytime the desired volume is achieved.

A single 50 cm² module typically reduces 500 ml to 15 ml in less than 50 min. Virtually total recovery of the concentrate is achieved with a single rinse.

Guide to Selecting the Right Vivaflow Device

Sample Volume [l]	Vivaflow 50 No. of Units	Vivaflow 50R No. of Units	Vivaflow 200 No. of Units
0.1 – 0.25	1	1	NR
0.25 – 0.5	1 – 2	1 – 2	NR
0.5 – 1	2	2	1
1 – 2	3 – 4	NR	1
2 – 3	4 – 6	NR	2
3 – 4	NR	NR	2
4 – 5	NR	NR	2

NR: Not Recommended

Table 1: Overview of the optimal operating volumes for the various Vivaflow systems

Operating Conditions for Vivaflow 50, 50R and Vivaflow 200

Pump flow	200–400 ml/min
Maximum pressure	4 bar (60 psi)
Pressure drop across inlet outlet	0.5 bar (7 psi)
Maximum temperature	60°C

Diafiltration with Vivaflow Devices

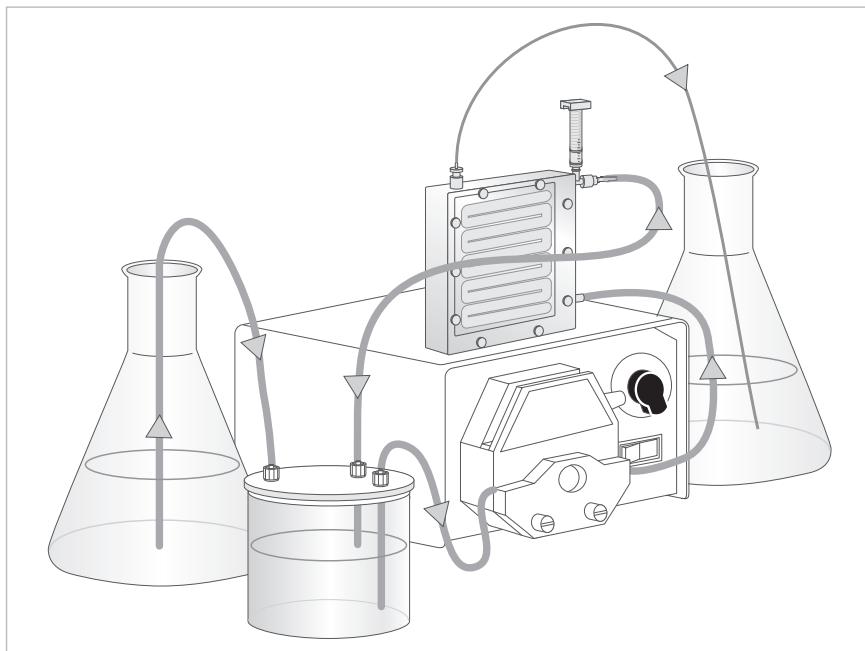


Diagram 2: Diafiltration with Vivaflow

Convenient Diafiltration with Vivaflow
Vivaflow crossflow devices are ideal not only for sample concentration. They are just as easy to use for buffer exchange and | or diafiltration.

The diafiltration reservoir (order number VFA006) makes both the concentration step and the subsequent diafiltration step exceptionally convenient. The sample is concentrated using the diafiltration reservoir to hold a sample. When the requested concentration has been achieved, a tube leading into an additional buffer vessel will transfer new buffer into the system as the filtration run continues. The sample concentration and volume remain constant because buffer is gradually exchanged with the volume in the new vessel.

Technical Specifications

	Vivaflow 50	Vivaflow 50R	Vivaflow 200
Materials of construction			
Main housing	Polycarbonate	Acrylic	Acrylic
Flow channel	TPX (PMP)	Acrylic	Acrylic
Membrane support	TPX (PMP)	Polypropylene	Polypropylene
Membrane seals and O rings	Silicone	Silicone	Silicone
Pressure indicator	Polypropylene, SS** spring	Polypropylene, SS** spring	Polypropylene, SS** spring
Flow restrictor	Polypropylene	Polypropylene	Polypropylene
Fittings	Nylon	Nylon	Nylon
Tubing	PVC (medical grade)	PVC (medical grade)	PVC (medical grade)
Dimensions			
Overall L H W	107 84 25 mm	100 100 24 mm	126 138 38 mm
Channel W H	15 mm 0.3 mm	7.5 0.4 mm	10 mm 0.4 mm
Active membrane area	50 cm ²	50 cm ²	200 cm ²
Unrecoverable concentrate	1.5 ml	1.7 ml	5.3 ml
Hold-up volume (module)			
Min. recirculation volume	< 10 ml	10 ml	< 20 ml
Non-recoverable hold-up	< 0.5 ml	< 0.5 ml	< 1 ml
Operating Conditions			
Pump flow rate	200–400 ml/min	200–400 ml/min	200–400 ml/min
Maximum pressure	3 bar (45 psi)	3 bar (45 psi)*	3 bar (45 psi)*
Maximum temperature	60°C	60°C	60°C

* Pressure drop across inlet | outlet 0.5 bar (7 psi)

** SS= Stainless steel

Tangential/ Cross flow Ultrafiltration Device

2.1 Vivaflow Complete Systems

Order No.	Description	Pack Size	Price ₹	
VF5S02	Pump (240 V), Easy Load Pump Head (size 16), tubing, 500 ml sample diafiltration reservoir, module stand, pressure indicator, T connectors, series interconnectors	1	158,360	Vivaflow 50 (0.1 to 3 litres)
VF5S02	Pump (240 V), Easy Load Pump Head (size 16), tubing, 500 ml sample diafiltration reservoir	1	154,080	Vivaflow 200/50R (0.5 to 5 litres)

2.2 Vivaflow Cassettes

Order No.	Pack Size	Description	Material	MWCO	Price ₹	
VF05H1	1	Vivaflow 50R	Hydrosart®	5	38,250	Vivaflow 50R
VF05H0	1	Vivaflow 50R	Hydrosart®	10	38,250	
VF05H2	1	Vivaflow 50R	Hydrosart®	30	38,250	
VF05H4	1	Vivaflow 50R	Hydrosart®	100	38,250	
VF05C4	2	Vivaflow 50	Regenerated Cellulose	100	18,725	Vivaflow 50
VF05P9	2	Vivaflow 50	Polyethersulfone	3	18,725	
VF05P1	2	Vivaflow 50	Polyethersulfone	5	18,725	
VF05P0	2	Vivaflow 50	Polyethersulfone	10	18,725	
VF05P2	2	Vivaflow 50	Polyethersulfone	30	18,725	
VF05P3	2	Vivaflow 50	Polyethersulfone	50	18,725	
VF05P4	2	Vivaflow 50	Polyethersulfone	100	18,725	
VF05P7	2	Vivaflow 50	Polyethersulfone	0.2µm	18,725	
VF20H9	1	Vivaflow 200	Hydrosart®	2	64,250	Vivaflow 200
VF20H1	1	Vivaflow 200	Hydrosart®	5	64,250	
VF20H0	1	Vivaflow 200	Hydrosart®	10	64,250	
VF20H2	1	Vivaflow 200	Hydrosart®	30	64,250	
VF20H4	1	Vivaflow 200	Hydrosart®	100	64,250	
VF20P9	1	Vivaflow 200	Polyethersulfone	3	64,250	
VF20P1	1	Vivaflow 200	Polyethersulfone	5	64,250	
VF20P0	1	Vivaflow 200	Polyethersulfone	10	64,250	
VF20P2	1	Vivaflow 200	Polyethersulfone	30	64,250	
VF20P3	1	Vivaflow 200	Polyethersulfone	50	64,250	
VF20P4	1	Vivaflow 200	Polyethersulfone	100	64,250	
VF20P7	1	Vivaflow 200	Polyethersulfone	0.2 µm	64,250	
VFA003	3 meters	Tygon Size 15 Pump Tubing & Luer Fittings			5,550	Vivaflow Accessories
VFA004	3 meters	Tygon Size 16 Pump Tubing & Luer Fittings			3,900	
VFA005	1	Y Connector (size 15 to 2 x size 16)			1,150	
VFA006	1	500 ml Sample Diafiltration Reservoir			14,800	
VFA009	1	Flow Restrictors (set of 2 x 0.4. 0.6. 0.8 mm)			1,500	
VFA012	1	Master flex Easy Load Pump Head – Size 16			36,250	
VFA013	1	Master flex Easy Load Pump Head – Size 15			36,250	
VFA016	1	Vivaflow 50 Stand (one or two stack position)			17,150	
VFA020	1	PressureIndicator (0.5–3 bar)			3,300	
VFA030	2	T Connectors for Running 2 Stacks			1,800	
VFA031	6	Series Interconnectors			3,000	
VFA032	10	Female Luer Fittings Size16			1,250	
VFA034	1	Tubing Set for Vivaflow 50			7,850	
VFA035	6	Flow Restrictor 0.6 mm			1,800	
VFA036	10	Female Luer Fittings Size 15			1,750	
VFP001	1	Masterflex Economy Drive Peristaltic Pump 230V			93,500	

MWCO / Molecular weight cut-off = Kilo Daltons (kDa) / x1000 Daltons (Da)

3.1 Vivacon® 500

For DNA sample desalting and concentration



Vivacon® 500 centrifugal concentrators offer the optimal solution for DNA and protein concentration and buffer exchange applications. For optimal performance with very dilute samples, e.g. forensic samples, Vivacon® 500 is equipped with the patented regenerated cellulose membrane Hydrosart®.

High recoveries and excellent reproducibilities are paired with convenience offered by molecular weight cut-off printed on individual devices.

The possibility of a re-spin after sample processing assures complete concentrate recovery which is especially important when working with low sample concentrations.

Vivacon® 500-PCR Grade

When using DNA amplification technologies, any traces of DNA originating from the equipment have to be eliminated. Vivacon® 500-PCR Grade units are treated with ethylene oxide (ETO) in a validated process in order to deactivate all traces of DNA that might interfere with subsequent amplification procedures.

Technical specifications

Concentrator capacity	Fixed angle rotor	0.5 ml
Dimensions	Total length (Concentration)	45 mm
	Total length (Back spin)	47.5 mm
	Width	12.4 mm
	Active membrane area	0.32 cm ²
	Hold-up volume of membrane	< 5 µl
	Dead stop volume (40° rotor)	5 µl
Materials of construction	Body	Polycarbonate
	Filtrate Vessel	Polypropylene

Ordering information

Order No.	Pack Size	Material	ds-Nucleotide Cut-off (bp)	MWCO	Price ₹
VN01H91	25	Hydrosart®	>10	2	14,500
VN01H92	100	Hydrosart®	>10	2	47,500
VN01H01	25	Hydrosart®	>30	10	14,500
VN01H02	100	Hydrosart®	>30	10	47,500
VN01H21	25	Hydrosart®	>50	30	14,500
VN01H22	100	Hydrosart®	>50	30	47,500
VN01H31	25	Hydrosart®	>300	50	14,500
VN01H32	100	Hydrosart®	>300	50	47,500
VN01H41	25	Hydrosart®	>600	100	14,500
VN01H42	100	Hydrosart®	>600	100	47,500
VN01H81	25	Celluloseacetate	>750	125	13,550
VN01H82	100	Celluloseacetate	>750	125	44,700
VN01HL12	12	Hydrosart®	4+ units each of 2. 10. 30K		12,450
VN01HH12	12	Hydrosart®	4+ units each of 30. 50. 100K		12,450
VN01H21ETO	25	Hydrosart®	>50	30	20,900
VN01H22ETO	100	Hydrosart®	>50	30	69,550
VN01H23ETO	500	Hydrosart®	>50	30	2,62,150
VN01H31ETO	25	Hydrosart®	>300	50	19,800
VN01H32ETO	100	Hydrosart®	>300	50	47,500
VN01H41ETO	25	Hydrosart®	>600	100	20,900
VN01H42ETO	100	Hydrosart®	>600	100	66,850
VN01H81ETO	25	Celluloseacetate	>750	125	14,700
VN01H82ETO	100	Celluloseacetate	>750	125	47,650

MWCO / Molecular weight cut-off = Kilo Daltons (kDa) / x1000 Daltons (Da)

3.2 Vivacon® 2

For DNA sample desalting and concentration

Vivacon® 2 centrifugal concentrators offer the optimal solution for DNA and protein concentration and buffer exchange applications. For optimal performance with very dilute samples, e.g. forensic samples, Vivacon® 2 is equipped with the patented regenerated cellulose membrane Hydrosart®.

High recoveries and excellent reproducibilities are paired with convenience offered by volume graduation and molecular weight cut-off printed on individual devices.

The possibility of a re-spin after sample processing assures complete concentrate recovery which is especially important when working with low sample concentrations.

Vivacon® 2-PCR Grade units are treated with ethylene oxide (ETO) in a validated process in order to deactivate all traces of DNA that might interfere with subsequent amplification procedures.



Technical specifications

Concentrator capacity	Fixed angle rotor	2 ml
Dimensions	Total length (Concentration)	125 mm
	Total length (Back spin)	115 mm
	Width	16 mm
	Active membrane area	0.95 cm ²
	Hold-up volume of membrane	10 µl
	Dead stop volume (25° rotor)	55 µl
Materials of construction	Body	Polycarbonate
	Filtrate Vessel	Polypropylene
	Back spin vial	Polypropylene
	Concentrator cap	Polypropylene

Ordering information

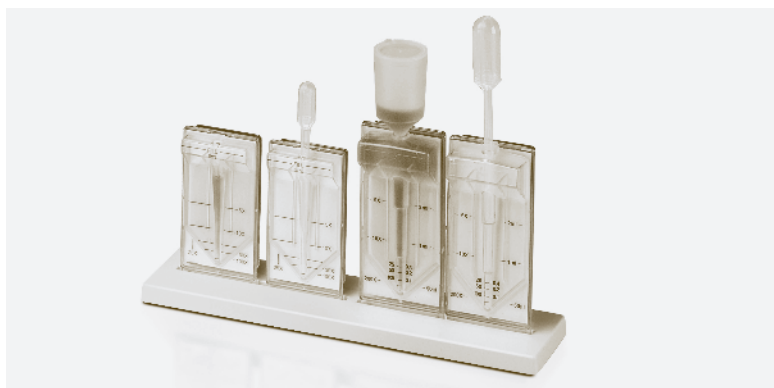
Order No.	Pack Size	Material	ds-Nucleotide Cut-off (bp)	MWCO	Price ₹
VN02H91	25	Hydrosart®	>10	2	16,500
VN02H92	100	Hydrosart®	>10	2	59,500
VN02H01	25	Hydrosart®	>30	10	16,500
VN02H02	100	Hydrosart®	>30	10	59,500
VN02H21	25	Hydrosart®	>50	30	16,500
VN02H22	100	Hydrosart®	>50	30	59,500
VN02H31	25	Hydrosart®	>300	50	16,500
VN02H32	100	Hydrosart®	>300	50	59,500
VN02H41	25	Hydrosart®	>600	100	16,500
VN02H42	100	Hydrosart®	>600	100	59,500
VN02H81	25	Celluloseacetate	>750	125	16,500
VN02H82	100	Celluloseacetate	>750	125	59,500
VN02H21ETO	25	Hydrosart®	>50	30	26,250
VN02H22ETO	100	Hydrosart®	>50	30	91,800
VN02H31ETO	25	Hydrosart®	>300	50	26,250
VN02H32ETO	100	Hydrosart®	>300	50	91,800
VN02H41ETO	25	Hydrosart®	>600	100	26,250
VN02H42ETO	100	Hydrosart®	>600	100	91,800
VN02H81ETO	25	Celluloseacetate	>750	125	26,250
VN02H82ETO	100	Celluloseacetate	>750	125	91,800

NOTE: The order no(s) in Vivacon 500 and Vivacon 2 ending with ETO are PCR-grade.

MWCO / Molecular weight cut-off = Kilo Daltons (kDa) / x1000 Daltons (Da)

4.0 Static Ultrafiltration Devices

Vivapore 5 | 10 | 20



Vivapore Concentrators, left Vivapore 5, right Vivapore 10 | 20

Vivapore concentrators offer exceptional ease of use and flexibility for the concentration of macromolecules from dilute solutions, especially in a clinical environment.

Depending on the configuration and reservoir volume of the Vivapore selected, starting volumes may vary from 1 to 20 ml and up to 400 × concentrations may be achieved.

Membranes used in Vivapore devices are highly hydrophilic and have been specially formulated to provide low protein binding and high filtration speed without the need for pressure or vacuum.

Features

- Individual, disposable, CE certified units
- Efficient concentration (up to 400 × depending on product selected)
- Printed, easy-to-read graduation marks indicate concentration level
- High speed concentrations, even with particle-laden solutions
- 7,500 Dalton membrane cut off
- Up to 98% recovery rate
- No additional equipment required
- 50 µl dead stop volume – guaranteed sample recovery

Applications

- Concentration of urine, cerebrospinal fluid or plasma to intensify proteins indicating abnormal or pathological states (e.g. Bence Jones proteins in urine), for analysis by electrophoresis or immunoelectrophoresis.
- Concentrating proteins in urine (Bence-Jones protein)
- Concentrating other clinical samples prior to electrophoresis or immunoelectrophoresis
- Concentration of dilute body fluids (e.g., human milk, saliva, semen, tears, cervical and amniotic fluids, sputum) to intensify proteins indicating abnormal or pathological states
- Improved band visualization of dilute protein solutions prior to electrophoresis
- Cell washing and harvesting
- Buffer exchange or desalting
- Concentrating enzymes or isoenzymes (alkaline phosphatase, lactic dehydrogenase, etc.)

Easy to use – Minimal hands-on time

Safe – No cross contamination

Economical – No need for additional equipment

Guaranteed sample recovery – Built in dead stop volume

Easiest operation method

- Pipette sample into device
- Device can be left unattended until desired concentration is achieved
- Recover concentrate with Pasteur pipette
- Optional expansion of the sample volume capacity with expansion reservoir for Vivapore 10 | 20 (VP A 006)

Bence-Jones Protein Recovery

The level at which Bence-Jones proteins indicate a pathological condition is 0.06 mg/ml (Damacco). The Vivapore is able to recover and allow visualization of at least 0.008 mg/ml Bence-Jones proteins – well below that required by the clinician. (Ref. Damacco, Waldestrom, Acta Medica Scandinavica [1968] 184 403-409.)

Order No.	Pack Size	Description	Material	MWCO	Price ₹	
VP0501	30	Vivapore 5 (With Stand & Recovery Pipettes)	Polyethersulfone	7.5	21,150	Vivapore 5
VP0502	100	Vivapore5 (Requires Stand)	Polyethersulfone	7.5	60,450	
VP0503	4	Vivapore5 (With Stand & Recovery Pipettes)	Polyethersulfone	7.5	3,650	
VP2001	30	Vivapore 10 20 (With Stand & Recovery Pipettes)	Polyethersulfone	7.5	23,000	Vivapore 10 20
VP2002	100	Vivapore 10 20 (Requires Stand)	Polyethersulfone	7.5	66,000	
VP2003	4	Vivapore 10 20 (With Stand & Recovery Pipettes)	Polyethersulfone	7.5	4,380	
VPA002	6	Disposable Stand For 4 Units			2,990	Vivapore Accessories
VPA005	100	Plastic Recovery Pipettes (Vivapore 10 20)			1,880	
VPA006	10	Reservoir Expansion			2,990	
VPA007	100	Plastic Recovery Pipettes (Vivapore 5)			1,755	

MWCO / Molecular weight cut-off = Kilo Daltons (kDa) / x1000 Daltons (Da)





Centrifuges

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1. Centrisart® Centrifuges

	Order No.	Description	Price ₹
Centrisart® Centrifuges	A-14-1EU	Centrifuge 220–240 V 50 60 Hz	On Request
	A-14C-1EU	Centrifuge with cool. 220–240 V 50 60 Hz	On Request
	D-16C-1EU	Centrifuge with cool. 220–240 V 50 60 Hz	On Request
	G-16-1EU	Centrifuge 220–240 V 50 60 Hz	On Request
	G-16C-1EU	Centrifuge with cool. 220–240 V 50 60 Hz	On Request
	G-26C-1EU	Centrifuge with cool. 220–240 V 50 60 Hz	On Request
	A-14-1EU-SET	Centrifuge 220–240 V 50 60 Hz & YCSR-A1C	On Request
	A-14C-1EU-SET	Centrifuge cool. 220–240 V & YCSR-A1C	On Request

2. Accessories

2.1 Rotors

	Order No.	Labeling	Description	for Model	Price ₹
Rotors	YCSR-S1B	S1B	Swing rotor for centrifuge D-16C	D-16C	On Request
	YCSR-S2B	S2B	Swing rotor for centrifuge G-16	G-16, G-16C	On Request
	YCSR-S3B	S3B	Swing rotor for centrifuge G-26C	G-26C	On Request
	YCSR-A1C	A1C	Fixed Angle rotor for 12 × Vivaspin 500	A-14, A-14C	On Request
	YCSR-A4B	A4B	Fixed Angle rotor 24 × 1.5ml / 2ml for D-16 from AI	D-16C	On Request
	YCSR-A5B	A5B	Fixed Angle rotor 6 × 50 ml for G-16 from AI	G-16, G-16C	On Request
	YCSR-A6B	A6B	Fixed Angle rotor 24 × 1.5 ml for G-16 from AI	G-16, G-16C	On Request
	YCSR-A7B	A7B	Fixed Angle rotor 4 × 80 ml for G-16 from AI	G-16, G-16C	On Request
	YCSR-A8B	A8B	Fixed Angle rotor 6 × 85 ml for G-16 from AI	G-16, G-16C	On Request
	YCSR-A9B	A9B	Fixed Angle rotor 6 × 50 ml for D-16C from AI	D-16C	On Request
	YCSR-A0B	A0B	Fixed Angle rotor 6 × 50 ml for G-16 from AI	G-16, G-16C	On Request
	YCSR-S5B	S5B	Swingout rotor for microtiter plates incl carrier sets, max height 56 mm, max load 335 g per carrier, for D-16C and G-26C	D-16C, G26C	On Request
	YCSR-S6B	S6B	Swingout rotor for microtiter plates incl carrier sets, max height 56 mm, max load 335 g per carrier, for G-16 and G-16C	G-16, G-16C	On Request
	YCSR-A2B	A2B	Fixed Angle rotor 24 × 2 ml for A-14 from AI	A-14	On Request

2.2 Buckets

	Order No.	Labeling	Description	for Rotor	Price ₹
Buckets	YCSB-B8B	B8B	Set of Buckets (2) for rotor S2B 85 mm diameter	S2B	On Request
	YCSB-B9B	B9B	Set of Buckets (2) for rotor S1B & S3B 45 mm diameter	S1B, S3B	On Request

Ultimate Speed & Maximum Reliability

Ranges from very compact and space-saving micro-centrifuges to universally applicable benchtop centrifuges with a total capacity of up to 1600mL



Centrisart® A-14



Centrisart® A-14C



Centrisart® D-16C

Max. speed rpm	14,800	15,000	15,300
Max. capacity	24 x 2 ml	24 x 1.5 - 2 ml	4 x 100 ml
Max. gravitational field	16,162 g	16,602 g	21,460 g
Min. speed rpm	200	200	100, low speeds also possible
Temperature range	-	-10 °C to + 40 °C	-10 °C to + 40 °C

2.3 Adapters

Order No.	Labeling	Description	for Buckets	Price ₹
YCSA-C2B	C2B	Adapter for 10 reaction tubes 5ml, 2pc	B8B	On Request
YCSA-C3B	C3B	Adapter for 5 culture tubes 15 ml 2pc	B8B	On Request
YCSA-C4B	C4B	Adapter for 3 culture tubes 50 ml 2pc	B8B	On Request
YCSA-C5B	C5B	Adapter for 1 bottle 250 ml 2pc	B8B	On Request
YCSA-C6B	C6B	Adapter for 20 reaction vials 1.5 2.0 ml 2pc	B8B	On Request
YCSA-C7B	C7B	Adapter for 9 culture tubes 15 ml 2pc	B8B	On Request
YCSA-C8B	C8B	Adapter for 4 culture tubes 50 ml 2pc	B8B	On Request
YCSA-R9B	R9B	Adapter for 1 culture tube 50 ml, 2 pc	B9B	On Request
YCSA-R0B	R0B	Adapter for 2 culture tubes 15 ml, 2 pc	B9B	On Request
YCSA-RAB	RAB	Adapter for 4 reaction tubes 1.5 2.0 ml, 2 pc	B9B	On Request
YCSA-RBB	RBB	Adapter for 1 tube 30 ml, 2 pc	B9B	On Request
YCSA-RCB	RCB	Adapter for 3 reaction tubes 5 ml, 2 pc	B9B	On Request
YCSA-RDB	RDB	Rubber cushion for 100 ml glass tube, 2 pc	B9B	On Request
YCSA-1		Adapter for 0.25 0.4 ml Vials 2pc		On Request
YCSA-2		Adapter for 0.5 0.75ml Vials 2pc		On Request
YCSA-3		Adapter for 1.5 ml Vials 2pc		On Request
YCSA-4		Adapter for 0.2 ml PCR Tubes 2pc		On Request
YCSA-5		Adapter für 15 ml vials 2pc		On Request
YCSA-S5B		Adapter for microtiter plates, 1 Set = 2 pieces for S5B	S5B	On Request
YCSA-S6B		Adapter for microtiter plates, 1 Set = 2 pieces for S6B	S6B	On Request

Adapters

2.4 Miscellaneous

Order No.	Description	for Rotor Buckets	Price ₹
YCSM-A1C	Lid for fix-anged-rotor A1C	A1C	On Request
YCSM-B8B	Lid for Bucket B8B	B8B	On Request
YCSM-B9B	Lid for Bucket B9B	B9B	On Request
YCSM-A1B	Lid for fix-anged-rotor A2B	A2B	On Request
YCSM-B1C	Lid for swing-out rotor S6B	S6B	On Request

Miscs

2.5 Tables

Order No.	Description	for Centrifuge	Price ₹
YCST-D16C	Table for centrifuge D-16C	D-16C	On Request
YCST-G16C	Table for centrifuge G-16C	G-16C	On Request
YCST-G16	Table for centrifuge G-16	G-16C	On Request
YCST-G26C	Table for centrifuge G-26C	G-26C	On Request

Tables



Centrisart® G-16



Centrisart® G-16C



Centrisart® G-26C

Max. speed rpm	15,300	15,300	26,000
Max. capacity	4 x 400 ml	4 x 400 ml	6 x 85 ml
Max. gravitational field	21,460 g	21,460 g	61,973 g
Min. speed rpm	200	100	100
Temperature range	-	-10 °C to + 40 °C	-20 °C to + 40 °C



Sartorius
Microsart®e.jet 100
Date of issue: 10/2011
Date of expiry: 10/2016
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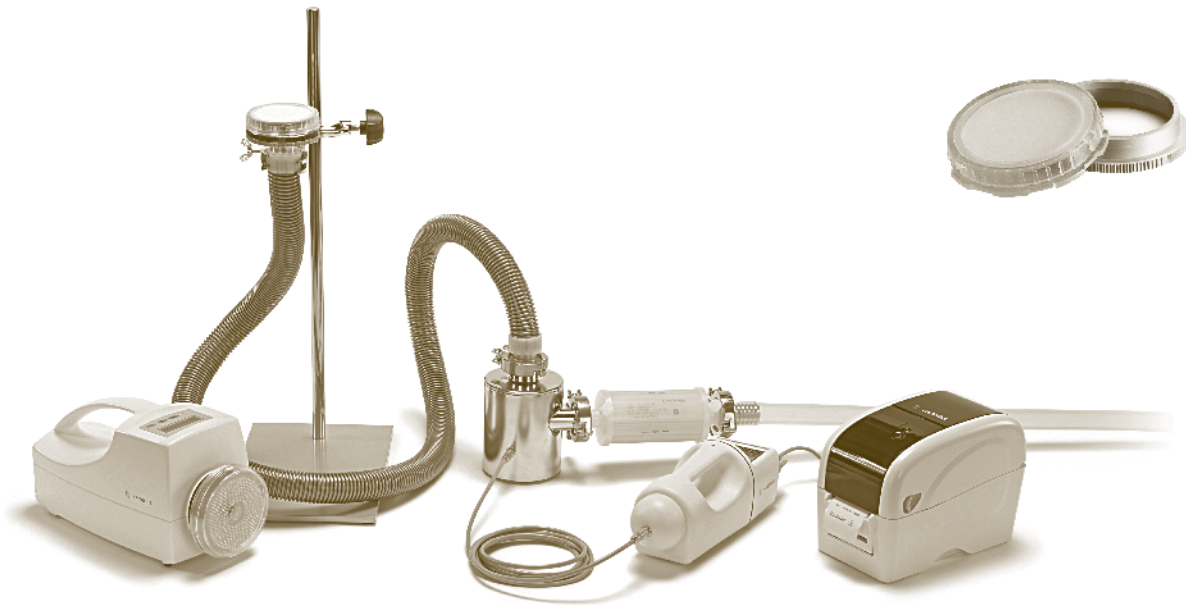
Tablet mill
Sartorius



Microbiological Analysis

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MD8 airscan® Air Sampler for Critical Applications



Gelatin Membrane

Filter Method:

For quantitative, validatable air monitoring in isolators and clean rooms **We think small in air sampling to retain 99.9995% of Bacillus subtilis niger and 99.94% of T3 coli phages**

We think smart - Rather than try to be all things we focus on what we do best to all people. We are separation specialists in the detection and collection of microorganisms. in liquid media and air via membrane filtration.

We think small

By paying attention to many of the "smaller" aspects of the air monitoring process we can make a big difference in the "cleanliness" of your clean room and the "isolation performance" of your isolators.

Features

- Agar-free air monitoring of cleanrooms with Gelatin Membrane Filters (GMF) and MD8® Airscan
- Continuous sampling with 1 filter for up to 8 hours
- Gas tight packaging for use in isolators
- Aseptic transfer of GMF in Biosafe® Bags
- Stainless steel sampling head can be inline sterilized with H₂O₂

AirPort MD8

The New Portable Air Sampler



- Battery operated and portable so it can be used everywhere
- Battery power level clearly indicated so constant performance during sampling is guaranteed
- Ergonomically designed and easy to clean
- Flexible options for customized use including adjustable air throughput and air flow rate
- Parameters last used are stored even after automatic shut-off
- Can be calibrated on-site

The Gelatin Membrane Filter

Method offers

- High retention rate for microorganisms and viruses
- Protection of microorganisms sampled from drying out
- Use of a variety of nutrient media

Specifications

AirPort MD8

Volume flow regulation	By an integrated impeller wheel.
Volume flow adjustable	30 l/min., 40 l/min., 50 l/min. and 125 l/min.
Fixed given sample volumes	25, 50, 100, 250, 500, 750 and 1000 liters. In addition, the sample volume can be chosen manually in 5-liter steps.
Operational life with one	Approx. 4.5 hours for 50 l/min battery charge
Noise level	For gelatine membrane filters 48 dB (A)
Weight	Approx. 2.5 kg
Dimensions (L+W+H)	300+135+165 mm
Inclusive adapter	17801 (for disposable gelatine filter units) 17803 (for BACTair™ Plates)

Power Supply

Battery	NiMH 16.8 Volt/3800 mAh
Battery charger input	100–240 V/47–63 Hz/600 mA
Battery charger output	24 V/1000 mA
Charging time	Approx. 4.5 hours for empty battery

1. Air Monitoring

1.1 MD8 Air Samplers and Accessories

	Order No.	Description			Price ₹	
MD8 Air Samplers	16746	MD8 airscan, 230 V, 50 Hz			On Request	
	16757	MD8 AirPort, battery operated and portable air sampler incl. Battery charger			On Request	
MD8 Accessories	16756	Calibration unit for MD8 airscan and AirPort MD8			On Request	
	16970	Support Stand			On Request	
	17085	Plastic hose, 2 m, PVC			On Request	
	17088	Plastic hose, 5 m, PVC			On Request	
	17208	Case for MD8 airscan			On Request	
	17655	Filter holder for Gelatine filters in ALK version, aluminium			On Request	
	17656	Filter stack (consisting of 10 filter holders 17655), aluminium			On Request	
	17657	Set of connectors (consisting of 17658 and 17659), aluminium			On Request	
	17658	Connector (air sampler inlet to flexible hose), aluminium			On Request	
	17659	Connector (flexible hose to filter holder adapter), aluminium			On Request	
	17660	Middle part of filter stack, aluminium			On Request	
	17661	End cap for filter stack, aluminium			On Request	
	17662	Silicone tubing, 25 x 3 mm (1 m state length required), aluminium			On Request	
	17801	Adapter for gelatin filter disposables to MD8 airscan amd MB8 AirPort			On Request	
	1ZE---0003	Remote control via PLC interface unit for MD8 airscan			On Request	
	1ZE---0004	Remote control via PC laptop for MD8 airscan			On Request	
	17016	Adapter (DN 25 hose barb to 1"-1½" sanitary flange) to connect MD8 airscan to an isolator via silicone tubing and a filter capsule			On Request	
	17033	Clamp for 1"-1½" sanitary flanges			On Request	
	17030	Adapter (DN 30 hose barb to 1"-1½" sanitary flange) to connect MD8 airscan to an isolator via flexible PVC hose and filter capsule, stainless steel			On Request	
	17801---001	Adapter for gelatin filter units, stainless steel 1.4404			On Request	
	17659---001	Connector (flexible hose to filter holder adapter), hose nipple, stainless steel			On Request	
	17659---003	Connector (flexible hose to filter holder adapter), tri clamp, stainless steel			On Request	
	5181307T9--SS--A	Sartofluor Capsules with PTFE membrane and sanitary flange inlet and outlet, for sterile air filtration inserted between the MD8 airscan and isolator. 0.2 µm pore size, 4 pieces per pack			On Request	
	69898525	Battery charger for AirPort MD8 with chargeable plugs for worldwide use			On Request	
	BACTair™ Accessories	17803	Adapter for BACTair™ Culture Media Plates on to MD8 AirPort			On Request
	Consumables					
		Order No.	Description			Price ₹
BACTair™ Culture Media Plates	14320-110----ACD	Culture media plate, sterile, Caso Agar (TSA)	110	10 single packed	On Request	
	14321-110----ACD	Culture media plate, sterile, Sabouraud Agar	110	10 single packed	On Request	
	1ZPX-D0002	Cover for BACTair™ Culture media plates, 10 x 2 pieces per pack			On Request	

Order No.	Description	Price ₹			
17528--80----ACD	Disposable gelatin filter units, sterile, individually packed in 1 PE bag	80	10 triple packed	On Request	Gelatin Filter Disposables
17528--80----BZD	Disposable gelatin filter units, sterile, individually packed in 3 PE bags	80	10 triple packed	On Request	
17528--80----VPD	Disposable gelatin filter units, sterile, individually packed in 3 PE	80	10 triple packed	On Request	
12602--37----ALK	Gelatin membrane filter	37	50	On Request	Gelatin Disc Filter
12602--47----ALK	Gelatin membrane filter	47	50	On Request	
12602--47----ALN	Gelatin membrane filter	47	100	On Request	
12602--50----ALK	Gelatin membrane filter	50	50	On Request	
12602--50----ALN	Gelatin membrane filter	50	100	On Request	
12602--80----ALK	Gelatin membrane filter	80	50	On Request	
11301--80----ALN	Cellulose nitrate membrane filters, white	80	100	On Request	Further Consumables for MD8 airscan Air
11404--80----ALN	Cellulose nitrate membrane filters, white with black grid	80	100	On Request	
13004--80----ALN	Cellulose nitrate membrane filters, gray with white grid	80	100	On Request	

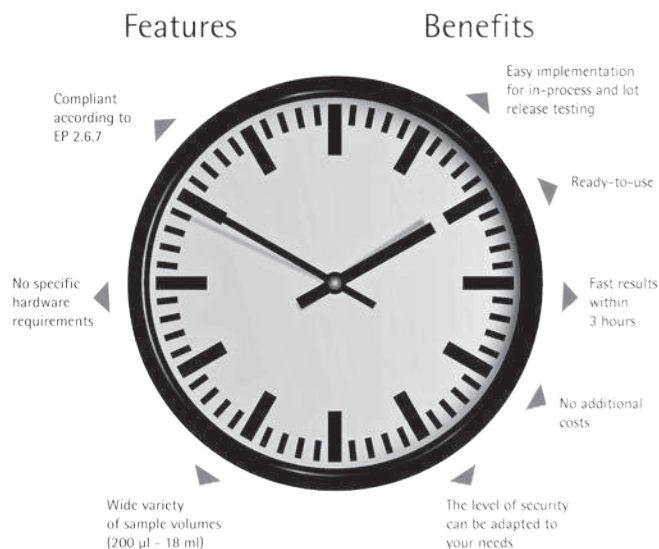
Rapid Detection Kit for Mycoplasma

- Mycoplasma real-time PCR assays All levels of contamination control
- Maximum reliability – performance proved in validation and proficiency tests
- Highest flexibility – different protocols for various sample materials
- High stability – reagents lyophilized in aliquots



Microsart[®] AMP Mycoplasma

The Microsart[®] AMP Mycoplasma utilizes quantitative, real-time PCR as the method of choice. The kit is EP 2.6.7 and EP 2.6.21 compliant and is suitable for sensitive and robust detection of Mycoplasma contaminations for different raw materials in a biopharmaceutical process. With the ability to be very flexible in sample volume and sample preparation, the kit is specifically designed for: the control of fermentation materials, for in-process controls, and for lot release testing of finished products.



Note: For more details on different types of kit please refer Page No. 103.

2. Microbial Enumeration

2.1 Microsart Emotion

	Order No.	Pore Size [µm]			
Microsart Emotion	16712	Fully automatically membrane filter dispenser. Dispenses either in a touch-free mode via an optical sensor or at the touch of a button.			On Request
	Order No.	Pore Size [µm]	Ø [mm]	Pack Size	Price ₹
Type 114, white with black grid, sterile	Microsart® emotion Membrane Filters Cellulose Nitrate, for detection of bacteria with dyed media, particle count and microscopy, individually, sterile packaged				
	White membrane with black grid, type 114				
	11406Z-47----SCM	0.45	47	3 x 100	11,800
	11406Z-50----SCM	0.45	50	3 x 100	11,800
	114H6Z-47----SCM	0.45 High Flow	47	3 x 100	11,800
	Cellulose Nitrate, green membrane with dark green grid, type 138				
Type 138, green with dark green grid, sterile	13806Z-47----SCM	0.45	47	3 x 100	11,800

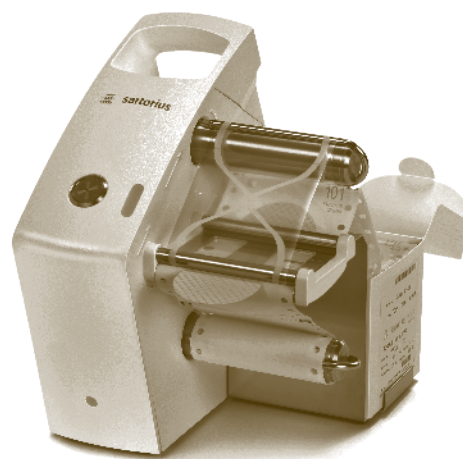
Microsart® e.motion Dispenser & Membrane Filters

Microsart® e.motion prevents unwanted dispensing of several membrane filters at a time – it's simple, "fail-safe," and fast.

The clear, compact design of the dispenser

Benefit from when using the Microsart® e.motion dispenser:

- Fully automated membrane filter dispenser
- Works hands-free by an optical sensor
- Works by touch button
- Compact design
- Rapid and reliable transport due to sprocket feed roll technology
- Easy insertion of the filter band
- Easy-to-clean



The membrane filter band specially designed for the Microsart® e.motion.

Benefit from when using the Microsart® e.motion membrane filters:

- Outstanding recovery rates for microorganisms
- 0.45 µm are acc. to ISO 7704
- Multi-fit: Fits into various dispensers
- Protective paper-free
- Packaged on a special pleated band
- Product data are printed on
- High Flow membranes available
- Gamma irradiated, 25kGray

2.2 Gridded Membrane Filters

	Order No.	Pore Size [µm]	Ø [mm]	Pack Size	Price ₹
Type 114, white with black grid, sterile	For detection of bacteria with dyed media, particle count & microscopy, individually, sterile packaged				
	Cellulose nitrate white membrane with black grid, type 114				
	11407--47----ACN	0.2	47	100	3,800
	11406--47----ACN	0.45	47	100	4,250
	11406--47----ACR	0.45	47	1,000	21,000
	11406--50----ACN	0.45	50	100	10,200
	11406--50----ACR	0.45	50	1,000	21,000
	11405--47----ACN	0.65	47	100	4,800
	11404--47----ACN	0.8	47	100	5,100
	11404--50----ACN	0.8	50	100	4,950

2.2 Gridded Membrane Filters (contd.)

Order No.	Pore Size [μm]	\emptyset [mm]	Pack Size	Price ₹	
Cellulose nitrate white membrane with green grid, type 139					
13906--47----ACN	0.45	47	100	5,100	Type 139, white with green grid, sterile
13906--50----ACN	0.45	50	100	11,000	
Providing optimal contrast to light-colored or transparent bacteria colonies, individually, Sterile packaged					
Cellulose nitrate green membrane with dark green grid, type 138					
13806--47----ACN	0.45	47	100	4,500	Type 138, white with green grid, sterile
13806--50----ACN	0.45	50	100	11,150	
For detection of yeasts and molds, particle count and microscopy, individually, sterile packaged					
Cellulose nitrate gray membrane (after wetting black) with white grid, type 130					
13006--47----ACN	0.45	47	100	4,500	Type 130, gray (after wetting black) with white grid, sterile
13006--50----ACN	0.45	50	100	4,500	
13005--47----ACN	0.65	47	100	4,700	
13004--47----ACN	0.8	47	100	5,100	
13004--50----ACN	0.8	50	100	18,700	
Cellulose nitrate membrane filters, white, for colony count, sterility testing, particle count & microscopy, type 113, individually, sterile packaged					
11306--47----ACN	0.45	47	100	4,500	Nitrate membrane filters, white, sterile
11305--47----ACN	0.65	47	100	7,100	
11304--47----ACN	0.8	47	100	9,000	
Cellulose acetate membrane filters, white, for sterility testing and colony count, if cellulose nitrate is not compatible, particle count & microscopy, type 111, individually, sterile packaged					
11107--47----ACN	0.2	47	100	4,600	Nitrate membrane filters, white, sterile
11106--47----ACN	0.45	47	100	4,900	
Cellulose nitrate membrane filters, white with black grid, for colony count & sterility testing, Individually Sterile Packed, type 131, 3 mm hydrophobic edge					
13106--47----ACN	0.45	47	100	14,700	Nitrate membrane filters, hydrophobic edged, sterile
13107--47----ACN	0.2	47	100		
Cellulose nitrate membrane filters, white with black grid, for colony count & sterility testing, non-sterile, type 131, 3 mm hydrophobic edge					
13106--47----HCN	0.45	47	100	14,700	Nitrate membrane filters, hydrophobic edged, non-sterile
Cellulose acetate membrane filters, white with black grid, 3 mm hydrophobic edge for colony count & sterility testing, if cellulose nitrate is not compatible, non-sterile					
13507--47----N	0.2	47	100	12,500	Acetate membrane filters, hydrophobic edged, non-sterile
13506--47----N	0.45	47	100	12,500	
type 131, white with black grid, 6 mm hydrophobic edge					
13107--47----HCN	0.2	47	100	12,750	Acetate membrane filters, hydrophobic edged, non-sterile
13106--47----HCN	0.45	47	100	12,750	
type 6 mm hydrophobic edge					
13506--47----HCN	0.45	47	100	9,800	Acetate membrane filters, hydrophobic edged, non-sterile
13507--47----HCN	0.2	47	100	10,200	

3. Combisart®

Order No.	Pore Size [µm]	Ø [mm]	Pack Size	Price ₹
Combisart® individual system and multi-branch manifolds, made of high-grade stainless steel, pre-assembled with stainless steel funnels and lids				
Combisart® 16219-CS	Combisart® individual filter holder, stainless steel, 100 ml			On Request
16201-CS	Combisart® individual filter holder, stainless steel, 500 ml			On Request
16824-CS	Combisart® 3-branch stainless steel manifold 100 ml			On Request
16828-CS	Combisart® 3-branch stainless steel manifold 500 ml			On Request
16832-CS	Combisart® 6-branch stainless steel manifold 100 ml			On Request
16831-CS	Combisart® 6-branch stainless steel manifold 500 ml			On Request
16841	Combisart® 1-branch stainless steel manifold, without frit			On Request
16842	Combisart® 3-branch stainless steel manifold, without frits			On Request
16843	Combisart® 6-branch stainless steel manifold, without frits			On Request
16840	Combisart® base support with frit, stainless steel, to accommodate stainless steel funnels			On Request
1ZU---0002	Microsart Base 47 mm, stainless steel			On Request
16844	Combisart® 1-branch stainless steel manifold			On Request
16844-CS	Combisart® 1-branch manifold, stainless steel, preassembled with 1 + 100 ml stainless steel funnel and lid			On Request
16845-CS	Combisart® 1-branch manifold, stainless steel, preassembled with 1 + 500 ml stainless steel funnel and lid			On Request
16848-CJ	Microsart® Combi:jet: 2-fold manifold without filter holders Made of stainless steel			On Request
16847-CJ	Microsart® Combi:jet: 2-fold manifold without filter holders Made of stainless steel (classical version)			On Request
16510	Polycarbonate filter	47	1	15,800

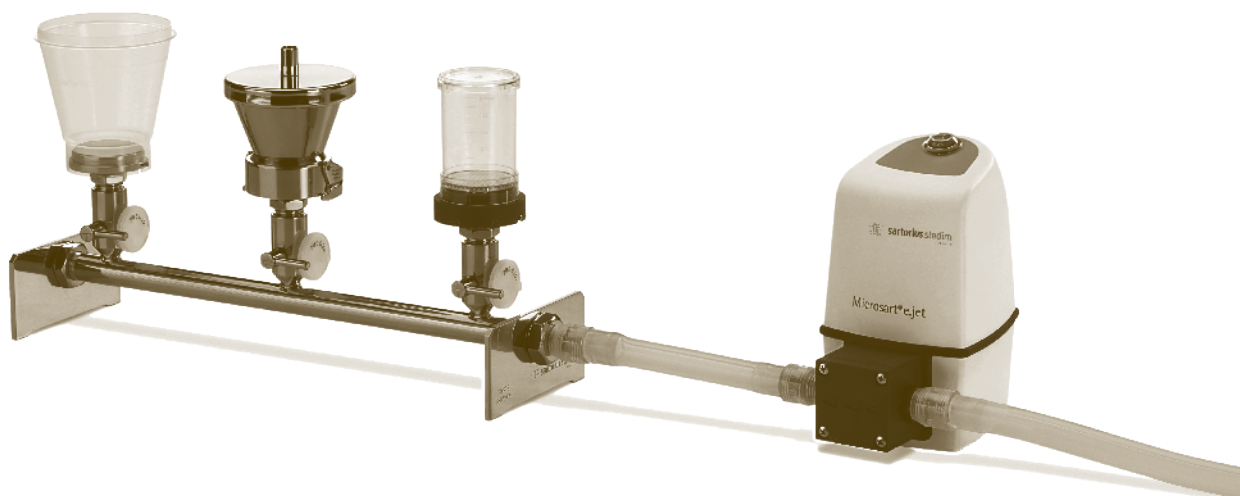
Combisart® –The Economic Way for Fast and Reliable Colony Counting

Total Reliability Based on a Proven Concept

At the heart of the Combisart® system is a high-grade stainless steel manifold or individual system designed to accommodate all types of filter holders and funnels such as:

- Ready-to-use units like Microsart® Funnels 100 and 250, Microsart® @filter 100 and 250, Biosart® 100 Monitors and Biosart® 250 Funnels
- Flammable units such as stainless steel funnels for colony counting Autoclavable reusable funnels made of glass or polycarbonate

A special feature of the Combisart® system is the stainless steel three-way valve (tap). They allows the vacuum for each filter holder to be individually controlled and each filter station to be sterilely vented. This rules out secondary contamination of the underside of the filter



4. Microsart® Family

Order No.	Pore Size [µm]	Ø [mm]	Pack Size	Price ₹
Microsart® @filter 100 – Bag version, 100 ml Capacity, sterile packed in bags				
16D01--10-07--BL	0.2		60	19,500
16D01--10-H6--BL	0.45		60	24,500
16D03--10-H6--BL	0.45		60	24,500
16D02--10-06--BL	0.45		60	24,500
16D05--10-06--BL	0.45		60	24,500
16D01--10-07--TG	0.2		24	13,500
16D01--10-H6--TG	0.45		24	15,500
Microsart® @filter 250 – Bag version, 100 ml Capacity, sterile packed in bags				
16D01--25-07--BK	0.2		60	22,550
16D01--25-H6--BK	0.45		60	22,550
16D02--25-06--BK	0.45		48	22,450
16D03--25-H6--BK	0.45		48	22,450
16D03--25-05--BK	0.65		48	22,250
16D01--25-07--TF	0.2		16	9,500
16D01--25-H6--TF	0.45		16	9,500

Microsart®
Family

Microsart®
Filter

Microsart® @filter 100 | Microsart® @filter 250

Sterile Disposable Filter Units for Advanced Colony Counting

Safe and Reliable

- Sterile Packaged
Sterilization at the point of use is not required
- Fully Disposable Base and Funnel
Preparation-and sterilization-free procedure reduces the risk of secondary contamination
- Optimized Design and Materials
No liquid remains after filtration, eliminates the need of rinsing
- Easy Handling – Click-Fit Closure
Fast in routine analysis, eliminates the risk of leakage
- Economy – Adaptable on Combisart®
Given flexibility, no additional investment required
- Transparent Funnel Material
Visibility of the complete filtration



5. Sterility Testing

Sterility Test Systems

Sterisart® NF is a completely closed system for the sterility testing of pharmaceutical products

- Ergonomical and safe handling
- Reliable results
- Flexible use
- Sartochem® & CA membrane for high retention of microbes, low adsorption and high mechanical stability
- Gas-impermeable packaging for use in isolators
- Large color-coded clamps for optimized use with gloves



Sterisart® Universal Pump



- Enhanced safety due to the closed system without ventilation
- Robust stainless steel housing
- Compact and ergonomic construction
- Pump available with special software with 21 CFR compliance

	Order No.	Description	Price ₹
Sterisart® Universal Pump	16420	Sterisart® Universal Pump	On Request
	16419	Sterisart® Universal Pump	On Request
Sterisart® Sterility Test Systems	16466-----GBD	Sterisart NF	On Request
	16467-----GBD	Sterisart NF	On Request
	16468-----GBD	Sterisart NF	On Request
	16469-----GBD	Sterisart NF	On Request
	16475-----GBD	Sterisart NF	On Request
	16476-----GBD	Sterisart NF	On Request
	16477-----GBD	Sterisart NF	On Request
	16478-----GBD	Sterisart NF	On Request

6. GL45 MYCAP™ Bottle Closures

Order No.	Description	Price ₹	
MYCAP13950100A	2 port GL45 MYCAP™bottle closure 100ml	On Request	Series A GL45 MYCAP™ Bottle Closures
MYCAP13950250A	2 port GL45 MYCAP™bottle closure 250ml	On Request	
MYCAP13950500A	2 port GL45 MYCAP™bottle closure 500ml	On Request	
MYCAP13951000A	2 port GL45 MYCAP™bottle closure 1000ml	On Request	
MYCAP13952000A	2 port GL45 MYCAP™bottle closure 2000ml	On Request	
MYCAP13950100B	2 port GL45 MYCAP™bottle closure 100ml	On Request	Series B GL45 MYCAP™ Bottle Closures
MYCAP13950250B	2 port GL45 MYCAP™bottle closure 250ml	On Request	
MYCAP13950500B	2 port GL45 MYCAP™bottle closure 500ml	On Request	
MYCAP13951000B	2 port GL45 MYCAP™bottle closure 1000ml	On Request	
MYCAP13952000B	2 port GL45 MYCAP™bottle closure 2000ml	On Request	
MYCAP13950100C	2 port GL45 MYCAP™bottle closure 100ml	On Request	Series C GL45 MYCAP™ Bottle Closures
MYCAP13950250C	2 port GL45 MYCAP™bottle closure 250ml	On Request	
MYCAP13950500C	2 port GL45 MYCAP™bottle closure 500ml	On Request	
MYCAP13951000C	2 port GL45 MYCAP™bottle closure 1000ml	On Request	
MYCAP13952000C	2 port GL45 MYCAP™bottle closure 2000ml	On Request	
MCX01250204A	2-Port MYCAP™; for 125 ml Corning Erlenmeyer Flask; Aseptiquik® S	On Request	MYCAP™ CCX Transfer Caps
MCX02500204A	2-Port MYCAP™; for 250 ml Corning Erlenmeyer Flask	On Request	
MCX01250204W	2-Port MYCAP™; for 125 ml Corning Erlenmeyer Flask; 8 in. × ¼ in. C-Flex®	On Request	
MCX02500204W	2-Port MYCAP™; for 250 ml Corning Erlenmeyer Flask; 8 in. × ¼ in. C-Flex	On Request	
MCX01250204B	2-Port MYCAP™; for 125 ml Corning Erlenmeyer Flask; 8 in. × ¼ in. C-Flex	On Request	
MCX02500204B	2-Port MYCAP™; for 250 ml Corning Erlenmeyer Flask; 8 in. × ¼ in. C-Flex	On Request	



7. Rapid Testing Mycoplasma Contamination Control

Order No.	Description	Price ₹		
SMB95-1001	Microsart® AMP Mycoplasma, Mycoplasma real-time PCR, EP 2.6.7 validated	25 reactions	On Request	Mycoplasma Contamination Control
SMB95-1002	Microsart® AMP Mycoplasma, Mycoplasma real-time PCR, EP 2.6.7 validated	100 reactions	On Request	
SMB95-1003	Microsart® ATMP Mycoplasma, Mycoplasmen real-time PCR, EP 2.6.7 validated for Advanced Therapy Medicinal Products	25 reactions	On Request	
SMB95-1004	Microsart® ATMP Mycoplasma, Mycoplasmen real-time PCR, EP 2.6.7 validated for Advanced Therapy Medicinal Products	100 reactions	On Request	
SMB95-1005	Microsart® RESEARCH Mycoplasma, Testing of cell culture materials in research	25 reactions	On Request	
SMB95-1006	Microsart® RESEARCH Mycoplasma, Testing of cell culture materials in research	100 reactions	On Request	
SMB95-2002	Microsart® AMP Coating Buffer, for use with Vivaspin units for high sample volume	20 × 2 ml	On Request	
SMB95-2003	Microsart® AMP Extraction Kit, DNA isolation kit for use with Microsart AMP Mycoplasma	50 extractions	On Request	





Cell Analysis Systems

1.	IncuCyte® Live Cell Analysis	100
1.1	IncuCyte® Systems and Software	100
2.	IntelliCyt® Cell Analysis	101
2.1	iQue® Screener Instruments	101

1. IncuCyte® Live Cell Analysis

1.1 IncuCyte® Systems and Software

	Order No.	Description	Price ₹
System	4647	IncuCyte® S3 HD/ 2CLR System Package, includes instrumentation, controller, and software	On Request
	4689	IncuCyte® S3 IncuStore S, extends controller storage to 49 TB	On Request
Software	9600-0010	IncuCyte® NeuroTrack Software Module	On Request
	9600-0011	IncuCyte® Angiogenesis Software Module	On Request
	9600-0012	IncuCyte® Cell Migration Software Application Module	On Request
	9600-0015	IncuCyte® Chemotaxis Software Module	On Request
	9600-0019	IncuCyte® Spheroid Software Module	On Request

Cell Analysis Systems IncuCyte® S3 Live Cell Analysis

Real-time automated measurements of cell health, movement and function—inside your incubator.



The IncuCyte® S3 Live-Cell Analysis System is a flexible assay platform that automatically acquires and analyzes HD phase and fluorescent images of living cells, around the clock, for days, weeks, or months!

Essen Bioscience, makers of IncuCyte Live Cell Analysis Systems are now a part of Sartorius Group!



Ask new questions

- Devise new experiments not previously possible.
- Conduct routine monitoring and get answers to unique scientific questions with kinetic, image-based measurements.



Get new answers

- Never miss a data point with real-time continuous analysis.
- Profile cell-specific and time-dependent biological activity.
- Visualize and validate results with images and movies.



Improve productivity

- Enjoy walk-away convenience as images are automatically acquired and analyzed.
- Multiplex measurements in 96- and 384-well assay formats.
- Accommodate multiple users and applications simultaneously.



Protect your cells

- Perform analysis without removing cells from the incubator or disturbing cultures.
- Maintain cell health and morphology with non-perturbing reagent formulations.

For more information about IncuCyte® Live Cell Analysis Systems, please visit www.essenbioscience.com or contact your Sartorius representative.

IncuCyte®
by ESSEN BIOSCIENCE

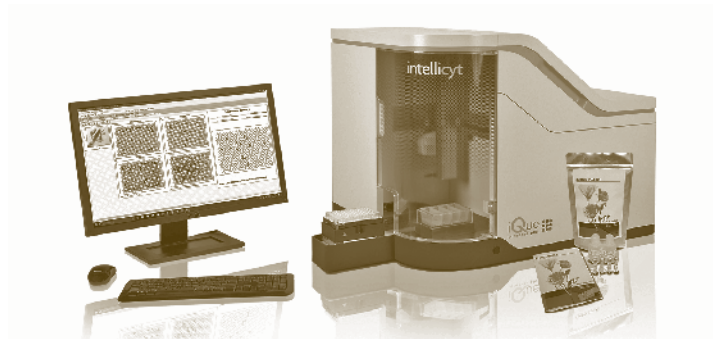
2. IntelliCyt® Cell Analysis

2.1 iQue® Screener Instruments

Order No.	Description	Price ₹	
91221	iQue® Screener PLUS 220V(EU) Blue-Red Configuration including: -iQue® Screener PLUS with 2 lasers (BR), 8 parameters, 220V UPS -iQue® Screener PLUS Computer Workstation with ForeCyt® System Software (1 license) 1 Year Instrument Warranty (Computer Warranty from manufacturer (Dell))	On Request	iQue® Screener Instrument
91059	iQue® Screener PLUS 220V(EU) Violet-Blue-Red Configuration including: -iQue® Screener PLUS with 3 lasers (VBR), 15 parameters, 220V UPS, -iQue® Screener PLUS Computer Workstation with ForeCyt® System Software (1 license) 1 Year Instrument Warranty (Computer Warranty from manufacturer (Dell))	On Request	
91219	iQue® Screener PLUS 220V(EU) Violet-Yellow-Blue Configuration including: - iQue® Screener PLUS with 3 lasers (VYB), 15 channels, 220V UPS, - iQue® Screener PLUS Computer Workstation with ForeCyt® System Software (1 license) 1 Year Instrument Warranty (Computer Warranty from manufacturer (Dell)) **NOTE: VYB Configuration IS NOT Compatible with QBeads Products	On Request	
91234	Refurbished iQue® Screener PLUS 220 V (EU) Violet-Blue-Red Configuration	On Request	
91204	iQue® Screener PLUS HD 220 V (EU) Blue-Red Configuration	On Request	

IntelliCyt® Cell Analysis iQue Screener Platform- Cellular Insight at the Speed of Light

An integrated screening platform offering instrumentation, software, and reagents, that works seamlessly together to provide rapid, high content analyses of cells and secreted proteins.



Intellicyt, makers of iQue Screener Plus Systems are now a part of Sartorius Group!

The IntelliCyt Advantage



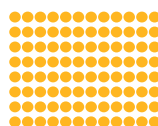
Speed

- Faster plate processing, minutes, not hours
- Mix and read samples
- Faster time to results



Miniaturization

- Consumes less reagents
- Conserves precious cells
- Saves money



Content

- Rich, multiplexed, per-cell content
- Cell and beads together
- Secreted protein analysis



Usability

- Automated workflow
- Validated reagents
- Easiest software you will ever love



Insight

- Link information
- Run scenarios
- Create knowledge
- Make decisions

For more information about iQue Screener Plus Systems, please visit www.intellicyt.com or contact your Sartorius representative.

intellicyt®
A SARTORIUS COMPANY

Notes

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Notes

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Notes

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Your preferred calibration lab is now NABL accredited !



Certificate no. : C-1416

NABL calibration services offered

- Volume Calibration – Pipettes
- Mass Calibration – Weights
- Mass Calibration – Balances

NABL Calibration – Pipettes

Order No.	Description	Price
84kmp14	Single Channel Mechanical Pipette	1,500.00
84kmp02	Eight Channel Mechanical Pipette	4,000.00
84kmp10	Twelve Channel Mechanical Pipette	4,500.00
84kmp04	Single Channel Electronic Pipette	2,000.00
84kmp05	Eight channel Electronic Pipette	4,500.00
84kmp12	Twelve channel Electronic Pipette	5,000.00



NABL Calibration – Weights

Order No.	Description	Price
84GAW20-5	Weight set E2 class (1mg to 200g)	40,000.00
84GAW21-5	Weight set F1/F2 class (1mg to 200g)	20,000.00
84GAW10	Assorted Single Weights E2/F1/F2 (1mg to 500g)	2,500.00



NABL Calibration – Balances

Note: Prices are on request for on-site Calibration of all type of Lab balances.

Contact your Sartorius representative for more information about Sartorius NABL and maintenance Services

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