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Catalogue - cum - Price List
w. e. f. 1st April 2025
GST Extra as applicable



RIVIERA GLASS PVT. LTD., INDIA

The Laboratory Glassware Specialists

RIVIERA brand low expansion borosilicate glass specified in this catalogue is heat resistant, chemically neutral, thermally and mechanically strong and is type 3.3, the type which conforms to international standard ISO 3585. Typical glass composition is

SiO₂ - 81 % by weight B₂O₃ - 13 % by weight
 Na₂O / K₂O - 4 % by weight Al₂O₃ - 2 % by weight

RIVIERA brand borosilicate glass of 3.3 expansion has the same chemical properties as is generally required for borosilicate chemically neutral glass such as hydrolytic resistance, acid resistance class 1 and alkali resistance. Because of its low coefficient of expansion it gives high resistance to thermal shock. Similarly its optical properties are also good which make the absorption very negligible resulting in a clear and colourless glass.

RIVIERA borosilicate low expansion glass does not contain any materials which could constitute a hazard to man or the environment. The glass can be reused several times and disposed of without any difficulties.

Glass fabricators/manipulators may take note that the maximum use temperature and transforming temperature for RIVIERA Flasks is 500°C and 525°C, respectively.

DWK Life Sciences GmbH., Germany

The DWK Life Sciences is one of the world's leading manufacturers of borosilicate glass, a special glass invented by Dr. Otto Schott in 1887 and registered in 1938 under the trade name DURAN. With sites in Mainz, Wertheim and Pula, DWK Life Sciences has a complete value added chain from the glass melting process right through to glass forming and processing.

Over the last 85 years, DURAN glass has proven itself both in laboratories as well as in industrial and domestic applications. At the same time their special industrial glass is used in numerous industries, amongst others, mechanical engineering, the electrical industry and medical technology. Well-known companies spread across all continents trust in the quality of their products. DWK Life Sciences achieves solutions, based on close dialogue with the customers, which meet individual requirements and permit highly precise applications in widely varying sectors.

After its spin-off from SCHOTT AG and the DURAN GROUP, DWK Life Sciences currently combines the strengths of its long history with the constantly present visionary spirit of

the inventor Otto Schott.

The unique precision involved in the manufacturing and processing of DURAN glass is the foundation of their corporate philosophy and guideline for their day-to-day operations.

QUALITY WITHOUT COMPROMISE

Developing and manufacturing reliable and safe products in accordance with the highest quality possible quality standards is at the very centre of DWK Life Sciences's quality policy. Its Quality Management System conforms to DIN EN ISO 9001:2000 and is integrated into daily practice.

Name	Melt No.	Linear Coeff- cient of expansion α 20/300 10 ⁻⁶ K ⁻¹	Transformation Temperature C	Density g/Cm ³
DURAN	8330	3.3	525	2.23
SUPREMAX	8409	4.1	745	2.57
FIOLAX	8412	4.9	565	2.34
AR/GLAS/ Soda-lime- Silicate glass	8350	9.1	525	2.50

Types of glass for Laboratory Glassware manufacture

Laboratory Glassware can be manufactured from many types of glass like DURAN, SUPREMAX, FIOLAX, AR-GLAS etc whose basic characteristics can be seen from the table above.

Unless stated otherwise, all products are made of DURAN borosilicate glass. Articles made of other glasses are specifically indicated in the catalogue.

DURAN The Laboratory glassware from DWK Life Sciences

DURAN is borosilicate glass type 3.3 as specified in international standard ISO 3585 and DURAN products meet the most important international standards, for example, the German, British, American and French standards, Maximum chemical resistance, minimum thermal expansion and the resulting high resistance to thermal shock are its principal properties. This optimum physical and chemical performance makes DURAN the ideal material for use in the laboratory and for large-scale industrial plants for the chemical industry. Moreover, it is widely used on an industrial scale in all other areas of application in which extreme heat resistance, resistance to thermal shock, mechanical strength and exceptional chemical resistance are required.

Definition

Glass is an inorganic mixture fused at high temperature which solidifies on cooling but does not crystallize. Its basic components, network formers and modifiers are present in the form of oxides in ordinary glasses. Typical glass formers (network formers) are silica (SiO_2), boric acid (B_2O_3), Phosphoric acid (P_2O_5) and, under certain circumstances, also aluminum oxide (Al_2O_3). These substances are capable of absorbing (dissolving) certain amount of metal oxide without losing their glassy character. This means that the incorporated oxides do not participate as glass formers but modify certain physical properties of the glass structure as "Network modifiers".

Glass Structure

A large number of chemical substances solidify from the liquid state of melt in the form of glass. The glass formation depends on the cooling rate and requires mixed types of bonding (covalent bond and ionic bond) between the atoms or atom groups. As a result, glassforming products have a strong tendency while still in the melt for three-dimensional crosslinking by polymerisation in a largely random manner. Crystals are formed when the individual atoms form a regular three-dimensional arrangement in what is known as a "Crystal lattice", as soon as the particular substance changes from the liquid to the solid state. Glass, however, on cooling from the liquid state, forms a largely spatially random "network". The main components which participate in the glass formation are therefore called "network formers". Ions can be incorporated in this network of glass-forming molecules, as a result of which they tear up the network in certain places and modify the network structure and thus glass properties. That is why they are called "network modifiers".

Chemical composition of DURAN

DURAN glass which is used in the laboratory and in industrial scale chemical plant, due to its excellent chemical and physical properties, has the following typical composition :

81% by weight SiO_2	4% by weight $\text{Na}_2\text{O}/\text{K}_2\text{O}$
13% by weight B_2O_3	2% by weight Al_2O_3

Why is DURAN essential in the laboratory ?

Otto Schott's discovery of borosilicate glass was a vital step forward in the development of laboratory technology, for it enabled chemists to forge ahead into previously unexplored territory. Outstanding resistance to heat and thermal shock, excellent chemical durability and high mechanical strength are the properties which make it possible for borosilicate glass to be used under the most exacting conditions encountered in laboratory use.

DURAN is borosilicate glass 3.3 How do laboratories benefit from its special properties ?

Chemical properties

DURAN's chemical durability is far better than that of most metals and other materials, even over long periods of contact and at temperatures of up to 100°C .

The action of water and acids only releases small amounts of ions (mainly monovalent) from the glass. Future attack is inhibited by the very thin and almost nonporous silica gel layer that then forms on the surface of the glass.

DURAN is highly resistant to water, neutral and acid solutions, concentrated acids, mixtures of acids, chlorine, bromine, iodine and organic substances.

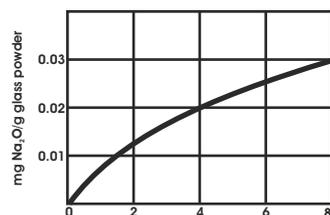
Only hydrofluoric acid, solutions containing fluoride ions (e.g. ammonium fluoride), very hot phosphoric acid and alkaline solutions attack the surface of the glass, the degree of attack increasing as the concentration and temperature rise.

DURAN borosilicate glass is made from carefully selected raw materials so that it is virtually free from impurities, particularly heavy metals. This means that no contamination (even in ppm) of highly critical analysis solutions can occur when DURAN laboratory apparatus is used.

DURAN complies with the following requirements : hydrolytic resistance class 1, ISO 719-HGB1, acid resistance class 1 and alkali resistance 2, ISO 659-A2.

Resistance to water

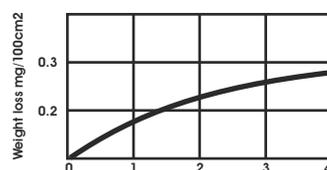
DURAN is specified as hydrolytic resistance class ISO 719-HGB 1 because in glass powder tests to DIN 12111, ISO 719, only 0.026 ml HCl (0.01 mol/l) is dissipated from 1 g of glass powder after being held in water at 98°C for one hour. This corresponds to an alkali weight loss of 0.008 mg Na_2O per 1 g glass powder.



Water attack on DURAN as a function of time (100°C) to DIN 12 111, ISO 719

Acid resistance

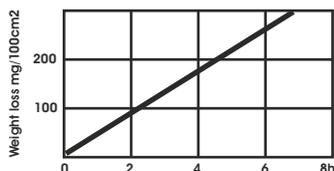
DURAN is specified as acid resistance class 1 because in tests to DIN 12116 on fire polished DURAN surfaces a weight loss of only $0.3 \text{ mg}/\text{dm}^2$ is measured after boiling for three hours in 18% hydrochloric acid.



Acid attack on DURAN as a function of time to DIN 12 116

Alkali resistance

DURAN is specified as alkali resistance class ISO 695 - A2 because in tests to DIN 52322, ISO 695, on fire polished DURAN surfaces a weight loss of only 134 mg/dm² is measured after boiling for three hours in a mixture comprising equal parts by volume of sodium hydroxide solution (concentration 1 mol/l) and sodium carbonate solution (concentration 0.5 mol/l)



Alkali attack on DURAN as a function of time to DIN 52 322, ISO 695

Thermal properties

DURAN has a very low coefficient of expansion and this gives it a high resistance to thermal shock.

Its maximum permissible operating temperature is 500°C for short term use and its thermal shock resistance is more than 3 times greater than that of conventional glass. Its linear coefficient of expansion over the temperature range 20°C to 300°C is $3.3 \times 10^{-6} /K$

Optical properties

DURAN shows no noticeable absorption in the visible region of the spectrum and it, therefore, appears clear and colourless. Where fairly large thickness is involved (e.g. when viewing a tube axially) a greenish tint can be seen.

For use with light-sensitive materials the surface of the glass can be amber stained. This causes heavy absorption in the shortwave range. The absorption limit of tinted glass is approximately 500nm.

In the spectral range of approximately 310 to 2200nm the absorption of DURAN is negligible.

Ecologically harmless

Special glass is considered completely safe ecologically. Glass is manufactured from natural raw materials (sand, calcium carbonate and sodium carbonate) and does not contain any materials which could be released and constitute a hazard to man or the environment. Glass can be reused several times and disposed of without difficulties.

Use in microwave apparatus

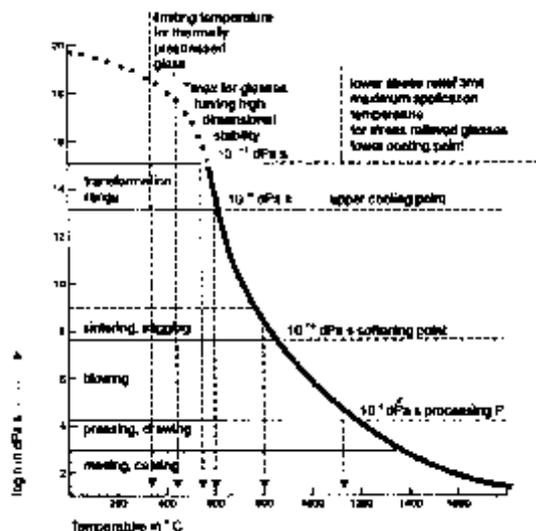
DURAN laboratory glass is suitable for use in microwave apparatus. These excellent chemical and physical properties make DURAN the ideal material for laboratory and pilot plant use.

Physical properties and characteristics

For the processing of DURAN by glassblowers

Maximum use Temperature 500°C
 Transforming Temperature 525°C
 As per DIN-ISO 3585

Upon cooling from the melting temperature (10¹ to 10³ dPa s), the glasses go through a wide range of viscosity, which ranges from a relatively viscous region (at about 10⁴ to 10⁸ dPa s) to the plastic range (10⁸ to 10¹² dPa s) and up into the known elastic brittle state (> 10¹³ dPa s). Thus, glass shows a constant increase in viscosity upon cooling and has no solidification point as is the case for crystalline substances. For the processing of glass, certain sections of the viscosity range are of particular importance. In the transformation range, the elastic brittle behaviour of the glass changes to a noticeably viscous behaviour with increasing temperature, which significantly changes all physical and chemical properties as a function of temperature. Thus the temperature region of the transformation range determines the elimination of stress during heating and the onset of stresses during cooling of the glass. The position of the transformation range is indicated by the transformation temperature T_g DIN 52324.



Normal temperature dependence / viscosity curve of DURAN glass. Viscosity ranges of important processing techniques, position of fixed points of viscosity and various limiting temperatures

To eliminate permanent stresses, DURAN is heated to a maximum temperature of 550°C and kept at this temperature for 30 minutes. For the cooling which follows, the cooling rates listed in the table on below are recommended.

Temperature range	550 to 480 °C	480 to 400 °C	400 to 20 °C
Glass thickness	Cooling rate		
3 mm	12deg/min	24deg/min	to 480 deg/min
6 mm	3 deg/min	6 deg/min	to 120 deg/min
12 mm	0.8deg/min	1.6 deg/min	to 32 deg/min



These data are those of today's knowledge and are intended to provide information on DURAN products and their possible applications. Thus, their meaning is not to ensure certain properties of the products or their suitability for a particular application purpose.

HIRSCHMANN LABORGERATE GmbH & Co. KG. GERMANY

The Volumetric Laboratory Glassware Specialists.

The Company was founded in 1967 by Mr. A. M. Hirschmann, who started in a very modest way producing volumetric glassware for laboratories.

Today, after 31 years, they operate in many countries across the globe and are acknowledged as one of the leading companies in Europe in volumetric glassware having a 25% market share.

All the products have the registered trademark HIRSCHMANN EM-TECHCOLOR and all the patents are owned by Mr. Hirschmann and members of the staff. The offered products are of very high quality, developed and produced in house with help of computer operated & computer controlled - all the programmes are developed in house - working steps so that a high productivity is associated with high quality at all times.

These EM - TECHCOLOR volumetric glassware are produced using generally the high quality DURAN glass manufactured in Germany because from experience they found out, it is the most precise and dependable.

As a recognition of their efforts, their R & D production, sales and distribution are certified and accredited as per ISO 9001 - a copy of their ISO 9001 certificate is shown in the following page.

Volumetric Glassware - Classification

Volumetric glasswares like Pipettes, Burettes, Volumetric Flasks and Measuring cylinders are divided into Classes "A", "AS", and "B".

The class indicates the suitability for certification, degrees of accuracy and DELIVERY and WAITING times.

DELIVERY TIME is the time the liquid meniscus needs to pass from the calibration mark to standstill at the tip or at the second calibration mark.

WAITING TIME starts when the liquid meniscus is in the tip or at the second calibration mark has come to a stop. During the waiting time, "residual liquid" flows downwards from the glass wall. This causes a new rise of the meniscus. After the waiting time, the pipette tip is wiped on the wall of the vessel. A small amount of liquid remains in the narrow section of the tip. But this has been taken into account during calibration.

Generally, the accuracy, tolerances and delivery time vary

with the rated volume. The waiting times are pre-set.

CLASS "A" & "AS" - Volumetric Glassware of Classes "A" & "AS" are suitable for certification. They have the same accuracy tolerances but differ in their delivery and waiting times. Glassware of class "AS" have faster delivery time with larger tip apertures.

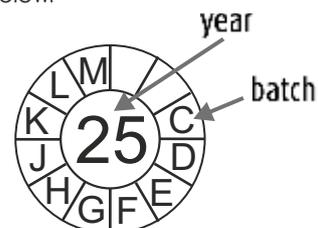
CLASS "B" - Volumetric Glassware of Class "B" are not suitable for certification. They have larger tolerances than Classes "A" & "AS".

Certificate of Conformity

For volumetric glassware to be used for research, commercial and pharmaceutical sectors the new German Federal Weights and Measures Regulation of 12th August 1988 calls for conformity certification from the side of the manufacturer instead of issuance of an individual certificate of examination by the manufacturer or by an authorised testing institute. This means that random samples from each production batch are examined, by using prescribed measuring and test equipments. Only when the values of these samples are better than the legally permitted levels, are the products of this batch allowed to be marketed commercially with conformity certification.

Non-conformity arising from human error in the production process cannot be ruled out with the traditional process of certifying conformity. To completely eliminate the human error factor, all EM-TECHCOLOR branded volumetric glassware which are conformity certified are calibrated not 'by hand' but exclusively by a computer - controlled robot. This robot measures the volumes out into the glassware, identifies the meniscus optoelectronically and marks the volumetric glassware. Thereby the robot continuously performs a self analysis and non-conformity arising out of the traditional process is completely eliminated.

In addition to the above mentioned perfect quality assurance HIRSCHMANN now offers an identification/traceability label for all conformity certified volumetric glassware which shows the production year and an alphabet to identify the production batch. A sample of the label is given below.



The label on above shall be printed on every individual conformity certified volumetric glassware of EM TECHCOLOR brand.



TRACEABILITY AS REQUIRED BY ISO 9000.

Apart from the documentation of test equipment which is required to date every volumetric glassware exactly, HIRSCHMANN also offers traceability demanded by ISO 9000. Should any inconsistencies occur when using any EM-TECHCOLOR conformity certified volumetric glassware in any laboratory, HIRSCHMANN is able to check back each production batch document even after many years. However, in case any laboratory wish to document their quality control individually HIRSCHMANN is able to offer on request and on payment of Rs. 600/- per piece an individual conformity certificate.

Thus HIRSCHMANN manufactured EM-TECHCOLOR branded conformity certified volumetric glassware with dated batch identification is ideal for the documentation of volumetric measurement and for total traceability as demanded by ISO 9000.

Cleaning of Laboratory Glassware

Cleaning

Laboratory glassware can be cleaned manually in a dipping bath or by machine in a laboratory dishwashing machine. A wide range of cleaners and disinfectant cleaners is available for both methods in specialist stores. In order to take good care of the laboratory apparatuses, they should be cleaned immediately after use at low temperature, a short residence time and low alkalinity. Laboratory apparatuses which have come into contact with infectious substances are first cleaned and then sterilised with hot air or steam. This is the only way to prevent impurities from sticking on to the glass and prevent damage of the glasses caused by any adhering chemicals.

Manual cleaning

Wiping and scouring with a cloth or sponge, each of which is impregnated with a cleaning solution, are generally known. Laboratory glasses must never be treated with abrasive scouring agents or sponges, since this would damage the surface. In the dipping bath procedure the laboratory glasses are as a rule, placed into the cleaning solution at room temperature for 20 to 30 minutes, then rinsed with tap water and then distilled water. Do not lengthen the time of exposure or increase the temperature except in the case of persistent impurities. In the case of laboratory glasses, lengthy times of exposure at more than 70°C should be avoided in alkaline media, since this may result in destruction of the print.

Machine cleaning

The machine cleaning of laboratory glasses in the laboratory dishwasher is a milder treatment than cleaning in a dipping bath. The glasses only come into contact with the cleaning solution during the relatively short washing cycles, when this solution is sprayed on to the glass surface via spray or injector nozzles.

Important notes for the user !

When working with glass, the limits of this material upon change in temperature and mechanical stress must be heeded and strict safety precautions must be observed :

- Never subject glassware to abrupt changes in temperature. Thus, do not remove it from the drying oven while hot and place it on a cold or, which is worse, a wet laboratory bench. This is true in particular of thick walled glassware, such as suction flasks or desiccators.
- Provide apparatuses with a support via a suitable stand and set up free of stress. Use for example, PTFE corrugated bellows to compensate for stresses or vibrations.
- Glass apparatus (e.g. filtering flasks, desiccators, etc.) Must be handled with care when under pressure or vacuum.
- To avoid setting up stresses in the glass, glass vessels under vacuum or pressure should not be heated from one side or with an open flame.
- Before evacuating or pressurising glass vessels always check visually that they are not damaged in any way (heavy scratching or other mechanical damage.) Damaged items should not be used under vacuum or pressure.
- Never subject to abrupt changes in pressure for example never aerate evacuated glassware abruptly. Flat bottomed glassware (for examples Erlenmeyer or flat-bottomed flasks) must not be subjected to pressure or vacuum.

Notes on complaints :

In spite of all the quality control measures should you have a product complaint in relation to laboratory glasswares included in this catalogue, then please contact our Authorised Dealers or us directly.



Plastics used with laboratory glass		Temperature resistance up to °C
PE	Polyethylene	- 40 to+ 80
PP ²	Polypropylene	- 40 ⁴ to+ 140 ⁴
PBT ²	Polybutyleneteraphthlat	- 45 to+ 200 ³
PTFE ²	Polytetrafluoroethylene	- 200 to+ 260
FEP	Tetra-Fluor-Ethylene/Hexafluor-Propylene	- 200 to+ 200
ETFE ²	Partially crystalline ethylene/ tetrafluoroethylene copolymer	-100 to+ 180
VMQ ²	Silicone rubber	- 50 to+ 230
EPDM	Ethylene/propylene-diene-rubber	- 45 to+ 150
PU ¹	Polyurethane	- 20 to+ 135
FKM	Fluorinated rubber	- 20 to+ 200
POM	Polyoxymethylene	- 40 to+ 90

¹ All laboratory glasses coated with PU may only be cleaned while moist in order to avoid any electrostatic charge which may form.

² These plastic types are recommended by the BGA (Bundesgesundheitsamt-Federal Department of Health) in accordance with the specifications applicable in each case.

³ Changes in colour may occur at temperature stresses above 180°C.

⁴ For a short time without mechanical stress.

Chemical resistance of plastics

Classes of substances + 20°C	PE	PP	PBT	PTFE/FEP	ETFE	VMQ	EPDM	PU	FKM	POM
Alcohols, aliphatic	++	++	++	++	++	+	+	++	-	+
Aldehydes	+	+	++	++	++	+		++		+
Alkaline solutions	++	++	+/-	++	++	-	++	++	+	+
Esters	+	+	+	++	++	-	++	+	-	-
Ethers	-	-	+	++	++	-	-	+	-	+
Hydrocarbons aliphatic	-	++	++	++	++	-	++	++	++	+
Hydrocarbons aromatic	-	+	+/-	++	++	-	+	++	++	+
Hydrocarbons halogenated	-	+		++	++	-	+	-	++	+
Ketones	+	+	+/-	++	+	-	++	+	-	+
Acids dilute or weak	++	++	++	++	++	-	++	++	++	+
Acids, trated or strong	++	++	+	++	++	-	++	+	++	-
Acids, oxidising (oxidising agents)	-	+	-	++	+	-	-	+	+	-

++ = very good resistance

+ = good to limited resistance

- = low resistance

Riviera



NOW
INTRODUCING



Marked Riviera Glassware



Laboratory Glassware - RIVIERA



Products Shown are Illustrative only



KVQA

Certificate of Registration

(Quality Management System)

KVQA CERTIFICATION SERVICES PVT. LTD.

This is to certify that the Quality Management System of

Riviera Glass Pvt. Ltd.

**TS-73, Thiru Vi Ka Industrial Estate, Ekkatuthangal,
Chennai-600032, Tamil Nadu, India**

has been found to comply with the requirements of

ISO 9001:2015

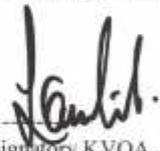
This Certificate is valid for the following Product or service range

Manufacturing of Laboratory Scientific Glassware.

1st Surveillance Due On: 08/10/2025: Done On:
2nd Surveillance Due On: 08/10/2026: Done On:

Certificate No.: KDACQ202411025

Date of Issue: 08, November, 2024
Valid Until: 07, November, 2027*

Issued by 
Authorised Signatory KVQA



eiaaci

مركز الإمارات العالمي للاعتماد
Emirates International Accreditation Centre

CB-QMS-045

To Check the Status of the Certification kindly log on to www.kvqa.in
F-300, Sector - 63, Noida U.P. India. Ph- +91-120-2495551
Email : delhi@kvqaIndia.com

*Subject to successful completion of surveillance audits

Beakers

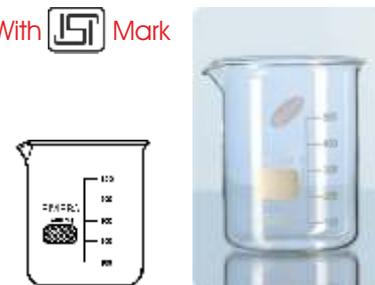
Beakers, Low Form, with Graduation and Spout,
 Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

IS 2619: 2018

 With  Mark

Cat No.	Capacity ml	O. D. mm	Height mm	Qty. Per Pack Pcs
70100 08	5	22	32	10
70100 10	10	26	37	10
70100 14	25	34	52	10
70100 17	50	42	62	10
70100 24	100	50	72	10
70100 29	150	60	82	10
70100 36	250	70	97	12
70100 41	400	80	113	12
70100 44	500	85	118	6
70100 48	600	90	128	6
70100 54	1000	105	148	6
70100 63	2000	130	188	4
70100 68	3000	150	214	1
70100 73	5000	170	274	1
70100 86	10000	220	360	1

*5 ml & 10 ml will be supplied without graduation

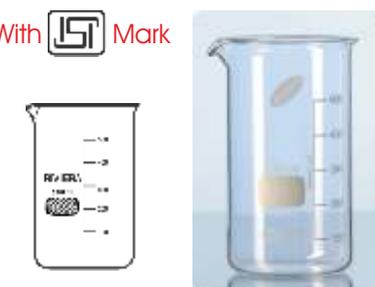


Beakers, Tall Form, with Graduation and Spout,
 Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

IS 2619: 2018

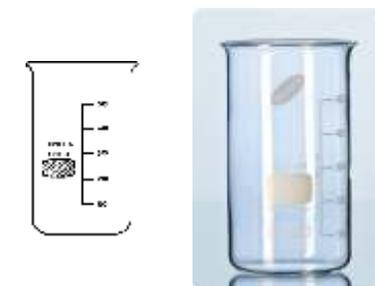
 With  Mark

Cat No.	Capacity ml	O. D. mm	Height mm	Qty. Per Pack Pcs
70110 17	50	38	72	24
70110 24	100	48	82	24
70110 29	150	54	97	12
70110 36	250	60	123	12
70110 44	500	79	140	6
70110 54	1000	95	183	6
70110 63	2000	120	244	1



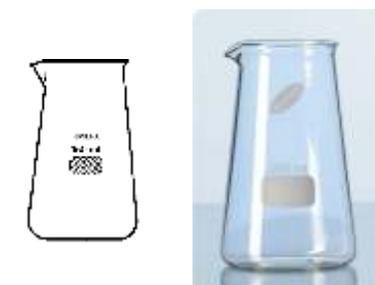
Beakers, Tall Form, with Graduation without Spout,
 Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	O. D. mm	Height mm	Qty. Per Pack Pcs
70120 36	250	60	120	12
70120 44	500	80	140	6
70120 54	1000	95	180	6



Beakers, Philips with Spout,
 Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Base dia mm	Height mm	Qty. Per Pack Pcs
70130 36	250	68	110	10
70130 44	500	88	145	10



Bottles

Bottles, B.O.D., with I/C Stopper, RIVIERA Suitable for determination of B.O.D. in industrial effluents, wastes and water as per method specified by the American Public Health Association



Cat No.	Capacity ml	O. D. mm	Qty. Per Pack Pcs
74100 365	300	73 x 131	10

Bottles Reagent, Narrow Mouth, Plain, Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA



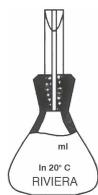
Cat No.	Capacity ml	Qty. Per Pack Pcs
70200 18	60	10
70200 25	125	10
70200 36	250	10
70200 44	500	10
70200 54	1000	8
70200 63	2000	8
70200 65	2500	1
70200 73	5000	1

Bottles Reagent, Narrow Mouth, AMBER, Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA



Cat No.	Capacity ml	Qty. Per Pack Pcs
70210 18	60	10
70210 25	125	10
70210 36	250	10
70210 44	500	10
70210 54	1000	8
70210 63	2000	8

Bottles, Relative Density, Accuracy as per IS 5717 : 1970 with Capillary Bore, I/C Teflon Stopper, Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA



Cat No.	Capacity ml	Capacity Tolerance ± mm	Max. Body Dia x Height mm	Joint Size	Qty. Per Pack Pcs
70910 10	10	1	29 x 48	10/15	10
70910 25	25	2	40 x 55	10/15	10
70910 50	50	3	50 x 65	10/15	2

Bottles, Weighing, with I/C Stopper, Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA



Cat No.	Capacity ml	App. O. D. x Ht. of Bottle only mm	Qty. Per Pack Pcs
70900 05	5	20 x 40	10
70900 15	15	25 x 65	10
70900 25	25	30 x 65	10
70900 60	60	40 x 90	4

Bottles, Weighing, Squat Form, with I/C Stopper, Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA



Cat No.	Capacity ml	App. O. D. X Ht. of Bottle only mm	Qty. Per Pack Pcs
70900 20	20	50 x 35	10
70900 40	40	60 x 40	10



RIVIERA Reagent Bottles, made from 3.3 Borosilicate Glass, narrow neck, with PP Screw Caps are now available in both Clear and Amber stained glass. Highly suitable for pouring of liquids as the necks have a PP pouring ring which prevents the liquids from dripping. Bottles with PP Screw Caps and Pouring Rings are fully autoclavable up to 140°C

Amber stained bottles are particularly suitable for storage of light sensitive chemicals

Both the bottles, be it clear or amber have the features normally associated with borosilicate glass 3.3 expansion - chemically neutral, heat resistant and thermal shock proof

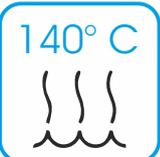
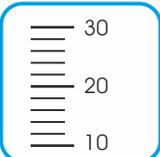
Bottles from 100ml to 20,000ml have single thread size with GL 45 caps. For 25ml and 50ml the thread and cap sizes are GL 25 and GL 32 respectively

25ml Bottles, Being small in size does not come with Pouring Rings

While autoclaving do remember to close the bottles loosely to ensure pressure equalisation.

Reagent Bottle

Narrow Mouth with PP Screw Cap

 Chemical Resistant	BORO 3.3 GLASS	 WHITE Printing
140° C 	 PP	 30 20 10





REAGENT BOTTLES WITH PP SCREW CAPS, RIVIERA

REAGENT BOTTLE, Narrow Mouth with PP Screw Cap, Clear, RIVIERA



Cat No.	Capacity ml	Thread GL	O. D mm	Height mm	Qty Per Pack
71801 145	25	25	36	70	10
71801 175	50	32	46	87	10
71801 245	100	45	56	100	10
71801 365	250	45	70	138	10
71801 445	500	45	86	177	10
71801 545	1000	45	101	225	10
71801 635	2000	45	136	260	6
71801 695	3000	45	158	295	1
71801 735	5000	45	181	320	1
71801 865	10000	45	235	405	1
71801 915	20000	45	296	505	1

25 ml Bottles will be supplied without pouring ring. Height indicated is of Bottle Only

REAGENT BOTTLE, Narrow Mouth with PP Screw Cap, Amber, RIVIERA



Cat No.	Capacity ml	Thread GL	O. D mm	Height mm	Qty Per Pack
71806 145	25	25	36	70	10
71806 175	50	32	46	87	10
71806 245	100	45	56	100	10
71806 365	250	45	70	138	10
71806 445	500	45	86	177	10
71806 545	1000	45	101	225	10
71806 635	2000	45	136	260	6
71806 695	3000	45	158	295	1
71806 735	5000	45	181	320	1
71806 865	10000	45	235	405	1
71806 915	20000	45	296	505	1

25 ml Bottles will be supplied without pouring ring. Height indicated is of Bottle Only

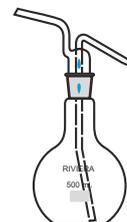
**THE IDEAL
BOTTLES FOR
STORAGE
AND
SAMPLING**



Flasks

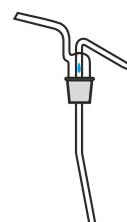
Gas Washing Flask, Flat Bottom, Complete with I/C Pressure and Delivery Tube, Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Joint Size	Qty. Per Pack Pcs
74210 36	250	24/29	10
74210 44	500	24/29	10
74210 54	1000	29/32	10



I/C Pressure and Delivery Tube, only for Gas Washing Flask, Flat Bottom, Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Joint Size	Qty. Per Pack Pcs
74211 36	250	24/29	10
74211 44	500	24/29	10
74211 54	1000	29/32	10



Bottles

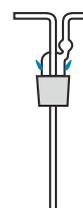
Bottles, Gas Washing, Complete with I/C Pressure and Delivery Tube, Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Joint Size	Qty. Per Pack Pcs
74212 25	125	29/32	10
74212 36	250	29/32	10
74212 44	500	29/32	10



I/C Pressure and Delivery Tube only for Gas Washing Bottle, Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Joint Size	Qty. Per Pack Pcs
74213 25	125	29/32	10
74213 36	250	29/32	10
74213 44	500	29/32	10





DURAN

CONNECTION SYSTEMS





Bottles

Bottles only for Gas Washing Bottle,

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA



Cat No.	Capacity ml	App. O. D. x Ht. of Bottle only mm	Qty. Per Pack Pcs
74214 25	125	50 x 165	10
74214 36	250	60 x 190	10
74214 44	500	70 x 245	10

SEPTA: SEPTAS made from silicon are available in various sizes for sample tests in R & D laboratories and biotechnological research centres. These products are manufactured in accordance with the size and bonding material. Due to features like non permeability and low volatility the silicon SEPTAS are best suited for sealing applications. The quality of rubber used in latest moulding process is of excellent grade to obtain precise shape of SEPTAS.

Cat No.	Capacity ml	Qty. Per Pack Pcs
1077610 14	B 14	
77610 19	B 19	10
77610 24	B 24	10
77610 29	B 29	10
77610 34	B 34	10

Bottles, Wash, LDPE Plastic, RIVIERA

Bottles & delivery tubes made of chemically resistant low density polyethylene, flexible with screw cap.



Cat No.	Capacity ml	Qty. Per Pack Pcs
1074200 36	250	10
74200 44	500	10

OIL BATH

(With built in stirrer)



All Aluminium Body

250°C

PID Controller

BLDC Motor

Burettes

Burettes, Straight Bore Stopcock, Accuracy as per Class 'A', IS 1997 : 2008
 with Individual Certificate of Performance, Made from Heat Resistant,
 Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Graduation Division ml	Tolerance \pm ml	App. Total Height mm	Qty. Per Pack Pcs
70301 60	10	0.05	0.03	530	5
70301 70	25	0.10	0.05	530	5
70301 75	50	0.10	0.05	780	5
70301 80	100	0.20	0.10	830	5



Burettes Straight Bore Stopcock, Accuracy as per Class 'B', IS 1997 : 2008
 Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Graduation Division ml	Tolerance \pm ml	App. Total Height mm	Qty. Per Pack Pcs
70300 60	10	0.05	0.05	530	5
70300 70	25	0.10	0.10	530	5
70300 75	50	0.10	0.10	780	5
70300 80	100	0.20	0.20	830	5

Burettes, Rotaflow Needle Valve Stopcock, Accuracy as per IS 1997 : 2008
 Class 'A', with Individual Certificate of Performance, Made from Heat Resistant,
 Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Graduation Division ml	Tolerance \pm ml	App. Total Height mm	Qty. Per Pack Pcs
70401 60	10	0.05	0.03	530	5
70401 70	25	0.10	0.05	530	5
70401 75	50	0.10	0.05	780	5
70401 80	100	0.20	0.10	830	5

Burettes, Rotaflow Needle Valve Stopcock, Accuracy as per IS 1997 : 2008
 Class 'B', Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Graduation Division ml	Tolerance \pm ml	App. Total Height mm	Qty. Per Pack Pcs
70400 60	10	0.05	0.05	530	5
70400 70	25	0.10	0.10	530	5
70400 75	50	0.10	0.10	780	5
70400 80	100	0.20	0.20	830	5



Burettes



Burettes, Automatic, Straight Bore Stopcock with Glasskey, IS 1997 : 2008
 White Graduation, Accuracy as per Class 'A', with Individual Certificate of Performance,
 Complete with Reservoir, Made from Heat Resistant, Low Expansion Borosilicate Glass,
 RIVIERA

Cat No.	Capacity ml	Qty. Per Pack Pcs
70312 60	10	1
70312 70	25	1
70312 75	50	1
70312 80	100	1



Burettes, Automatic, Straight Bore Stopcock with Glasskey, IS 1997: 2008
 White Graduation, Accuracy as per Class 'B', Complete with Reservoir,
 Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Qty. Per Pack Pcs
70311 60	10	1
70311 70	25	1
70311 75	50	1

* Reservoir Capacity : 500 ml for 10 ml and 2000 ml for 25 & 50 ml size.

Burettes, Automatic, Rotaflow Stopcock, White Graduation, IS 1997 : 2008
 Accuracy as per Class 'A', with Individual Certificate of Performance, Complete with
 Reservoir, Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Qty. Per Pack Pcs
70412 60	10	1
70412 70	25	1
70412 75	50	1
70412 80	100	1

Burettes, Automatic Zero, Rotaflow Stopcock, White Graduation, IS 1997: 2008
 Accuracy as per Class 'B', Complete with Reservoir, Made from Heat Resistant,
 Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Qty. Per Pack Pcs
70411 60	10	1
70411 70	25	1
70411 75	50	1

* Reservoir Capacity : 500 ml for 10 ml and 2000 ml for 25 & 50 ml size.



Reservoir for Automatic Burette, RIVIERA

Cat No.	Capacity ml	Joint Size	Qty. Per Pack Pcs
71820 44	500	B 29	1
71820 63	2000	B 34	1
71820 73	5000	B 34	1

Condensers

Condensers, Liebig, with Sealed Inner Tube,

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	App. Length of Jacket mm	App. Overall Height mm	Ground Joint	Qty. Per Pack Pcs
70800 20	200	345	19/15	1
70800 30	300	445	19/15	1
70800 40	400	545	19/15	1



Condensers, Liebig, Drip Tip with I/C Inner and Outer Joint,

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

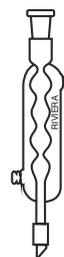
Cat No.	App. Length of Jacket mm	App. Overall Height mm	Socket Joint	Cone Joint	Qty. Per Pack Pcs
70810 20	200	350	19/26	19/26	1
70810 30	300	450	24/29	24/29	1
70810 40	400	550	24/29	24/29	1



Condensers, Allihn, Drip Tip with I/C Inner and Outer Joint,

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	App. Length of Jacket mm	App. Overall Height mm	Socket Joint	Cone Joint	Qty. Per Pack Pcs
70811 20	200	350	19/26	19/26	1
70811 30	300	450	24/29	24/29	1
70811 40	400	550	24/29	24/29	1



Condensers, Graham, Coil Distillate type, Drip Tip with I/C Inner and Outer Joint,

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

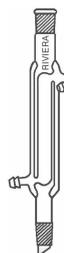
Cat No.	App. Length of Jacket mm	App. Overall Height mm	Socket Joint	Cone Joint	Qty. Per Pack Pcs
70812 30	300	450	24/29	24/29	1
70812 40	400	550	24/29	24/29	1
70812 50	500	650	24/29	24/29	1



Condensers, Double Surface, Davies,

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	App. Length of Jacket mm	Socket Joint	Cone Joint	Qty. Per Pack Pcs
70813 159	150	19/26	19/26	1
70813 219	200	19/26	19/26	1
70813 319	300	19/26	19/26	1
70813 324	300	24/29	24/29	1
70813 329	300	29/32	29/32	1





Cylinders



Cylinders, Colour Comparison, Nessler, Flat Bottom,

IS 4161:1967

Graduated, Accuracy as per Class 'B', Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Approximate O. D. x Height mm	Qty. Per Pack Pcs
70600 75	50	25 x 150	10
70600 80	100	34 x 180	10



With  Mark



Cylinders, Measuring, Class 'B', Graduated,

IS 878 : 2008

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Graduation Division ml	Tolerance ± ml	Qty. Per Pack Pcs
70700 60	10	0.2	0.20	2
70700 70	25	0.5	0.50	2
70700 75	50	1.0	1.00	2
70700 80	100	1.0	1.00	2
70700 86	250	2.0	2.00	2
70700 90	500	5.0	5.00	2
70700 93	1000	10.0	10.00	1



With  Mark



Cylinders, Measuring, Class 'A', Graduated, with Individual Certificate

IS 878 : 2008

of Performance, Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Graduation Division ml	Tolerance ± ml	Qty. Per Pack Pcs
70703 60	10	0.2	0.10	2
70703 70	25	0.5	0.25	2
70703 75	50	1.0	0.50	2
70703 80	100	1.0	0.50	2
70703 86	250	2.0	1.00	2
70703 90	500	5.0	2.50	2
70703 93	1000	10.0	5.00	1



With  Mark



Cylinders, Measuring, Class 'B', Graduated, with I/C Joint

IS 878 : 2008

and Glass stopper, Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Joint Size	Qty. Per Pack Pcs
70701 60	10	B 10	2
70701 70	25	B 14	2
70701 75	50	B 14	2
70701 80	100	B 19	2
70701 86	250	B 24	2
70701 90	500	B 34	2
70701 93	1000	B 34	1



ceramus[®] classic
dispensing as perfect
as it could be

Desiccators

Desiccators, Plain, Clear Glass, RIVIERA

Cat No.	Max. I. D. mm	Overall Height mm	Qty. Per Pack Pcs
74300 46	120	180	1
74300 57	160	230	1
74300 61	210	300	1
74300 66	240	340	1
74300 69	300	420	1



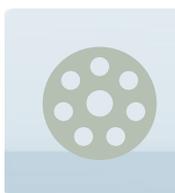
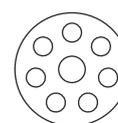
Desiccators, Vacuum, Clear Glass, RIVIERA

Cat No.	Max. I. D. mm	Overall Height mm	Qty. Per Pack Pcs
74310 57	160	285	1
74310 61	210	347	1
74310 66	240	381	1
74310 69	300	467	1



Porcelain Plates for all Desiccators, RIVIERA

Cat No.	DN	Qty. Per Pack Pcs
74320 46	100	1
74320 57	150	1
74320 61	200	1
74320 66	240	1
74320 69	300	1



Dishes

Dishes, Evaporating, Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Max. O. D. x Height mm	Qty. Per Pack Pcs
71700 41	90	80 x 45	10
71700 44	170	105 x 55	2
71700 54	600	150 x 80	2



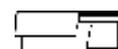
Dishes, Crystallizing, Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Max. O. D. x Height mm	Qty. Per Pack Pcs
71600 44	300	95 x 55	6
71600 54	900	140 x 75	4
71600 59	2000	190 x 90	1

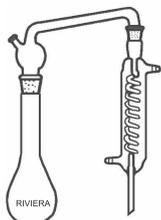


Dishes, Petri, Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	O. D. x Height mm	Qty. Per Pack Pcs
71500 40	50 x 17	10
71500 42	80 x 17	10
71500 48	100 x 17	10
71500 52	150 x 20	10
71500 59	200 x 20	10



Distilling Apparatus



Distilling Apparatus, with Graham Condenser, Interchangeable Joints,

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA Used for determination of Nitrogen in organic compounds. In this assembly digestion & distillation stages can both be performed. Flask supplied with 24/29 and condenser supplied with 19/26 outer I/C joints.

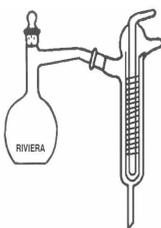
Cat No.	Capacity ml	Qty. Per Pack Pcs
73300 05	500	1



Distilling Apparatus, with Graham Condenser, Interchangeable Joints and Interchangeable Stopper,

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA Used for batch production of distilled water of high purity and other general purpose batch distillation with the facility for addition from the I/C stoppered neck on the flat bottom flask.

Cat No.	Capacity ml	Condenser Jacket Length mm	I/C Joint	Qty. Per Pack Pcs
73400 05	500	200	19/26	1



Distilling Apparatus, with Friedrichs Condenser, Interchangeable Joints and Interchangeable Stopper,

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA Used for batch production of distilled water of high purity and other general purpose batch distillation for increased distillation rates with the facility for addition from the I/C stoppered neck on the flat bottom flask.

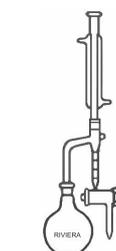
Cat No.	Capacity ml	Condenser Jacket Length mm	I/C Joint	Qty. Per Pack Pcs
73500 20	2000	350	24/29	1



Distilling Apparatus, with Friedrichs Condenser and Interchangeable Joint,

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA Incorporates a special Friedrichs condenser with a vapour tube rising to the top.

Cat No.	Capacity ml	Condenser Jacket Length mm	I/C Joint	Qty. Per Pack Pcs
73600 10	1000	495	34/35	1



Distilling Apparatus, Dean and Stark, for Moisture Testing as per I.P specifications,

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA Apparatus consists of 10 ml receiver with graduation & 19/26 outer joint with 24/29 inner joint, round bottom flask 1000 ml with 24/29 centre joint and Liebig Condenser of 200 ml jacket length with 19/26 joint.

Cat No.	Capacity of Receiver ml	Qty. Per Pack Pcs
73700 10	10	1

Extraction Apparatus

Extraction Apparatus, Soxhlet, Complete with Allihn Condenser, with Interchangeable Joint, Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Capacity Flask ml	Qty. Per Pack Pcs
73000 15	60	150	1
73000 25	100	250	1
73000 50	200	500	1



Condensers, Allihn, only for Extraction Apparatus (Cat No. 73000)
 Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	I/C Joint Bottom	Qty. Per Pack Pcs
73020 15	34/35	1
73020 25	40/38	1
73020 50	50/42	1



Extractors only, Soxhlet. with Interchangeable Joint,

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA
 Extractors are provided with a bulb to aid in siphoning action by means of a siphon tube near the top which is protected from accidental damage by a vapour tube.

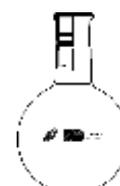
Cat No.	Capacity ml	I/C Joint Top	I/C Joint Bottom	Qty. Per Pack Pcs
73010 15	60	34/35	24/29	1
73010 25	100	40/38	24/29	1
73010 50	200	50/42	24/29	1



FB Flask only for Extraction Apparatus,

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Qty. Per Pack Pcs
73030 150	150	1
73030 250	250	1
73030 500	500	1



Precision Water bath

(With built in stirrer)

SS304 Tank

Drain Valve

BLDC Motor

PID Controller

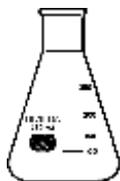


Flasks

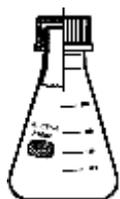
Flasks, Erlenmeyer, Conical, Narrow Mouth, with Graduation

IS 1381: 2003

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

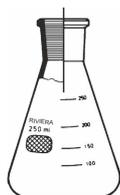


Cat No.	Capacity ml	Dia Base mm	Neck Dia mm	Height mm	Qty. Per Pack Pcs
71400 10	10	37	15	60	10
71400 14	25	42	22	75	10
71400 17	50	51	22	90	10
71400 24	100	64	22	105	10
71400 29	150	72	28	124	10
71400 36	250	85	34	145	10
71400 44	500	105	34	180	10
71400 54	1000	131	42	220	10
71400 63	2000	166	50	280	4
71400 68	3000	187	50	310	1
71400 73	5000	220	50	365	1



Flasks, Erlenmeyer, Conical with PP Screw Cap, Autoclavable up to 140°C, RIVIERA

Cat No.	Capacity ml	Qty. Per Pack Pcs
71803 365	250	10
71803 445	500	10
71803 545	1000	10



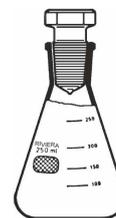
Flasks, Erlenmeyer, Conical with I/C Joint, RIVIERA

Cat No.	Capacity ml	Joint Size	Qty. Per Pack Pcs
781010 14	25	B 14	10
781020 14	25	B 19	10
781030 14	25	B 24	10
781010 17	50	B 14	10
781020 17	50	B 19	10
781030 17	50	B 24	10
781010 24	100	B 14	10
781020 24	100	B 19	10
781030 24	100	B 24	10
781040 24	100	B 29	10
781020 36	250	B 19	10
781030 36	250	B 24	10
781040 36	250	B 29	10
781050 36	250	B 34	10
781020 44	500	B 19	4
781030 44	500	B 24	4
781040 44	500	B 29	4
781050 44	500	B 34	4
781030 54	1000	B 24	2
781040 54	1000	B 29	2
781050 54	1000	B 34	2
781030 63	2000	B 24	2
781040 63	2000	B 29	2
781050 63	2000	B 34	2

Flasks

Flasks, Erlenmeyer, Conical with I/C Joint and Glass Stopper, RIVIERA

Cat No.	Capacity ml	Joint Size	Qty. Per Pack Pcs
781010 145	25	B 14	10
781020 145	25	B 19	10
781030 145	25	B 24	10
781010 175	50	B 14	10
781020 175	50	B 19	10
781030 175	50	B 24	10
781020 245	100	B 19	10
781030 245	100	B 24	10
781030 365	250	B 24	10
781040 365	250	B 29	10
781030 445	500	B 24	4
781040 445	500	B 29	4
781030 545	1000	B 24	2
781040 545	1000	B 29	2
781030 635	2000	B 24	2
781040 635	2000	B 29	2
781050 635	2000	B 34	2



Flasks, Iodine Determination with Glass Stopper,

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Joint Size	Qty. Per Pack Pcs
74400 24	100	B 24	10
74400 36	250	B 24	10
74400 44	500	B 24	10
74400 54	1000	B 24	10



Flasks, Erlenmeyer, Conical, Wide Mouth, with Graduation

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Dia Base mm	Neck Dia mm	Height mm	Qty. Per Pack Pcs
71410 24	100	70	34	110	24
71410 36	250	85	50	142	6
71410 44	500	105	50	175	6
71410 54	1000	130	56	220	6



Flasks, Flat Bottom, Narrow Neck,

IS 1381Part 1: 2003

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Max Dia mm	Neck Dia mm	Height mm	Qty. Per Pack Pcs
73900 14	25	42	20	90	10
73900 17	50	51	26	90	10
73900 24	100	64	26	105	10
73900 29	150	75	28	132	10
73900 36	250	85	34	138	10
73900 44	500	105	34	163	10
73900 54	1000	131	42	190	10
73900 64	2000	166	50	230	6
73900 68	3000	186	50	300	1
73900 73	5000	224	58	320	1
73900 86	10000	279	65	360	1



Flasks

Flasks, Round Bottom, Narrow Neck,

IS 1381 Part 1: 2003

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA



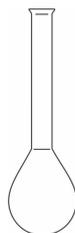
Cat No.	Capacity ml	Max Dia mm	Neck Dia mm	Height mm	Qty. Per Pack Pcs
74000 14	25	42	20	90	10
74000 17	50	51	26	95	10
74000 24	100	64	26	110	10
74000 29	150	75	28	137	10
74000 36	250	85	34	143	10
74000 44	500	105	34	168	10
74000 54	1000	131	42	200	10
74000 64	2000	166	50	240	6
74000 68	3000	190	50	305	1
74000 73	5000	224	58	350	1
74000 86	10000	279	65	380	1
74000 91	20000	350	78	505	1

Flasks, Filtering, Conical Shape, with Glass Hose Connection suitable for Vacuum use, Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA



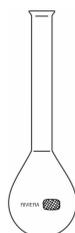
Cat No.	Capacity ml	Dia Base mm	Neck Dia mm	Height mm	Qty. Per Pack Pcs
72100 24	100	72	24	105	10
72100 36	250	87	34	145	10
72100 44	500	107	34	175	10
72100 54	1000	138	45	230	10
72100 63	2000	168	45	275	4
72100 73	5000	237	55	390	4

Flasks, Kjeldahl, without I/C Joint, Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA



Cat No.	Capacity ml	Max Dia mm	Neck Dia mm	Height mm	Qty. Per Pack Pcs
74500 44	500	100	29	340	6
74500 51	800	118	34	365	6

Flasks, Kjeldahl, with I/C Joint, Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA



Cat No.	Capacity ml	Joint Size	Qty. Per Pack Pcs
74501 44	500	B 24	6
74501 51	800	B 24	6

Riviera Individually calibrated
Volumetric Flasks USP
Volumetric Flasks Class A
Measuring Cylinders Class A
Volumetric Pipettes Class A
Burettes & Automatic Burettes Class A



Now ACCESS your
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 <p>Download Riviera Glass - Certificates App</p>	 <p>Enter the Individual Traceability No. Printed on the Glassware and Click GO</p>	 <p>Download the Certificate</p>	 <p>Store Certificate in pdf Format or Print</p>

Riviera Glass - Certificates App



Flasks

Flasks, Volumetric, with Interchangeable Glass Stopper, Accuracy as per **Class 'A', USP,** Marking in White colour, with Individual Certificate of Performance, Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA



Cat No.	Capacity ml	Tolerance ± ml	Joint Size	Qty. Per Pack Pcs
71022 55	5	0.02	10/19	20
71022 60	10	0.02	10/19	20
71022 65	20	0.03	10/19	20
71022 70	25	0.03	10/19	20
71022 75	50	0.05	12/21	20
71022 80	100	0.08	14/23	20
71022 85	200	0.10	14/23	12
71022 86	250	0.12	14/23	12
71022 90	500	0.15	19/26	12
71022 93	1000	0.30	24/29	12



With  Mark

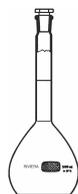


Flasks, Volumetric, with Interchangeable Glass Stopper, IS 915:2012 Accuracy as per Class 'A', Marking in Amber Colour, with Individual Certificate of Performance, Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Tolerance ± ml	Joint Size	Qty. Per Pack Pcs
71029 55	5	0.025	10/19	20
71029 60	10	0.025	10/19	20
71029 65	20	0.040	10/19	20
71029 70	25	0.040	10/19	20
71029 75	50	0.060	12/21	20
71029 80	100	0.100	14/23	20
71029 85	200	0.150	14/23	12
71029 86	250	0.150	14/23	12
71029 90	500	0.250	19/26	12
71029 93	1000	0.400	24/29	12



With  Mark



Flasks, Volumetric, with Interchangeable Glass Stopper, IS 915:2012 Accuracy as per Class 'A', Marking in White colour, with Individual Certificate of Performance, Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Tolerance ± ml	Joint Size	Qty. Per Pack Pcs
71020 55	5	0.025	10/19	20
71020 60	10	0.025	10/19	20
71020 65	20	0.040	10/19	20
71020 70	25	0.040	10/19	20
71020 75	50	0.060	12/21	20
71020 80	100	0.100	14/23	20
71020 85	200	0.150	14/23	12
71020 86	250	0.150	14/23	12
71020 90	500	0.250	19/26	12
71020 93	1000	0.400	24/29	12

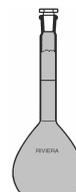
Flasks

Flasks, Volumetric, with I/C Glass Stopper, **AMBER**

IS 915:2012

 Accuracy as per Class 'A', **White** Coloured Marking, Made from Heat Resistant,
 Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Capacity Tolerance \pm ml	Stopper Size	Qty. Per Pack Pcs
71026 55	5	0.025	10/19	20
71026 60	10	0.025	10/19	20
71026 65	20	0.040	10/19	20
71026 70	25	0.040	10/19	20
71026 75	50	0.060	12/21	20
71026 80	100	0.100	14/23	20
71026 85	200	0.150	14/23	12
71026 86	250	0.150	14/23	12
71026 90	500	0.250	19/26	12
71026 93	1000	0.400	24/29	12

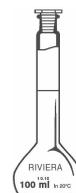
 With  Mark


Flasks, Volumetric, with I/C Glass Stopper, **Amber**

IS 915:2012

 Accuracy as per Class 'B', **Amber** Coloured Marking, Made from Heat Resistant,
 Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Capacity Tolerance \pm ml	Stopper Size	Qty. Per Pack Pcs
71019 55	5	0.05	10/19	20
71019 60	10	0.05	10/19	20
71019 65	20	0.08	10/19	20
71019 70	25	0.08	10/19	20
71019 75	50	0.12	12/21	20
71019 80	100	0.20	14/23	20
71019 85	200	0.30	14/23	12
71019 86	250	0.30	14/23	12
71019 90	500	0.50	19/26	12
71019 93	1000	0.80	24/29	12

 With  Mark


Flasks, Volumetric, with I/C Glass Stopper, **White**

IS 915:2012

 Accuracy as per Class 'B', **White** Coloured Marking, Made from Heat Resistant,
 Low Expansion Borosilicate Glass, RIVIERA

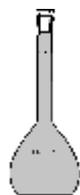
Cat No.	Capacity ml	Capacity Tolerance \pm ml	Stopper Size	Qty. Per Pack Pcs
71000 55	5	0.05	10/19	20
71000 60	10	0.05	10/19	20
71000 65	20	0.08	10/19	20
71000 70	25	0.08	10/19	20
71000 75	50	0.12	12/21	20
71000 80	100	0.20	14/23	20
71000 85	200	0.30	14/23	12
71000 86	250	0.30	14/23	12
71000 90	500	0.50	19/26	12
71000 93	1000	0.80	24/29	12

 With  Mark


Flasks



With  Mark



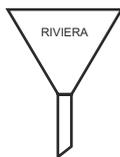
Flasks, Volumetric, with I/C Glass Stopper, AMBER

IS 915:2012

Accuracy as per Class 'B', Marking in White colour, Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Capacity Tolerance \pm ml	Stopper Size	Qty. Per Pack Pcs
71010 55	5	0.05	10/19	20
71010 60	10	0.05	10/19	20
71010 65	20	0.08	10/19	20
71010 70	25	0.08	10/19	20
71010 75	50	0.12	12/21	20
71010 80	100	0.20	14/23	20
71010 85	200	0.30	14/23	12
71010 86	250	0.30	14/23	12
71010 90	500	0.50	19/26	12
71010 93	1000	0.80	24/29	12

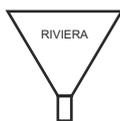
Funnels



Funnels, Plain, 60° Angle, Long Stem,

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Diameter mm	Qty. Per Pack Pcs
73100 33	50	6
73100 38	65	6
73100 41	75	6
73100 46	100	2



Funnels, Powder, Short Stem,

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Diameter mm	Qty. Per Pack Pcs
2 73100 47	125	
2 73100 48	150	
2 73100 50	200	



Funnels, Separating, Pear Shape, with Rotaflow Stopcock & I/C Stopper,

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Stopper Size	Qty. Per Pack Pcs
71114 18	60	14/23	2
71114 24	100	19/26	2
71114 36	250	19/26	2
71114 44	500	24/29	1
71114 54	1000	29/32	1



Funnels, Separating, Pear Shape, with Glass Stopcock & I/C Stopper,

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Stopper Size	Qty. Per Pack Pcs
71115 18	60	14/23	2
71115 24	100	19/26	2
71115 36	250	19/26	2
71115 44	500	24/29	1
71115 54	1000	29/32	1

Funnels

Funnels, Separating, Globe Shape, with Rotaflow Stopcock & I/C Stopper,

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Stopper Size	Qty. Per Pack Pcs
71113 25	125	19/26	2
71113 36	250	19/26	2
71113 44	500	24/29	1
71113 54	1000	29/32	1
71113 63	2000	29/32	1



Funnels, Separating, Globe Shape, with Glass Stopcock & I/C Stopper,

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Stopper Size	Qty. Per Pack Pcs
71112 25	125	19/26	2
71112 36	250	19/26	2
71112 44	500	24/29	1
71112 54	1000	29/32	1
71112 63	2000	29/32	1



Filter Crucibles with Sintered Disc

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Porosity Grade	Qty. Per Pack Pcs
72000 151	15	G 1	10
72000 152	15	G 2	10
72000 153	15	G 3	10
72000 154	15	G 4	10
72000 301	30	G 1	10
72000 302	30	G 2	10
72000 303	30	G 3	10
72000 304	30	G 4	10
72000 501	50	G 1	10
72000 502	50	G 2	10
72000 503	50	G 3	10
72000 504	50	G 4	10



Funnels, Buchner Type, with Sintered Disc,

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Porosity Grade	Qty. Per Pack Pcs
72010 0351	35	G 1	1
72010 0352	35	G 2	1
72010 0353	35	G 3	1
72010 0354	35	G 4	1
72010 0801	80	G 1	1
72010 0802	80	G 2	1
72010 0803	80	G 3	1
72010 0804	80	G 4	1
72010 2001	200	G 1	1
72010 2002	200	G 2	1
72010 2003	200	G 3	1
72010 2004	200	G 4	1





Pipeline Filters

Pipeline Filters, with Sintered Disc,

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA



Cat No.	Capacity ml	Porosity Grade	Qty. Per Pack Pcs
72020 901	90	G 1	1
72020 902	90	G 2	1
72020 903	90	G 3	1
72020 904	90	G 4	1

Pipettes

Pipettes, Graduated, Clear Glass, Short - Line, Graduated to Tip,

Amber Stain Graduation, (Serological type), Class 'B', RIVIERA Brand



Cat No.	Capacity ml	Graduation Division ml	Tolerance ± ml	Total Length ±5mm	Qty. Per Pack Pcs
72600 14	0.10	0.01	0.01	320	10
72600 21	0.20	0.02	0.01	320	10
72600 29	0.50	0.05	0.01	320	10
72600 33	1.00	0.01	0.01	350	10
72600 41	2.00	0.02	0.02	350	10
72600 53	5.00	0.05	0.05	350	10
72600 60	10.0	0.10	0.10	350	10
72600 70	25.0	0.20	0.20	470	10



With  Mark



Pipette, Transfer, Volumetric,

IS 1117: 1975

Accuracy as per Class 'A', Made from Heat Resistant, Low Expansion Borosilicate Glass, with Individual Certificate of Performance, RIVIERA

Cat No.	Capacity ml	Tolerance ± ml	Qty. Per Pack Pcs
72710 33	1	0.008	25
72710 40	2	0.010	25
72710 55	5	0.015	25
72710 60	10	0.020	25
72710 65	20	0.030	25
72710 70	25	0.030	25
72710 75	50	0.050	12
72710 80	100	0.080	6



With  Mark



Pipettes, Transfer, Volumetric,

IS 1117 : 1975

Accuracy as per Class 'B', Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Tolerance ± ml	Qty. Per Pack Pcs
72700 33	1	0.015	25
72700 40	2	0.020	25
72700 55	5	0.030	25
72700 60	10	0.040	25
72700 65	20	0.060	25
72700 70	25	0.060	25
72700 75	50	0.100	12
72700 80	100	0.150	6

Tubes

Culture Tubes, Round Bottom, with Screw Cap and Silicone Liner,
 Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	O. D. x Length mm	Qty. Per Pack Pcs
71300 055	5	16 x 75	100
71300 105	10	16 x 125	100
71300 305	30	25 x 100	100
71300 605	60	25 x 200	100



Culture Tubes, Round Bottom, Amber, with Screw Cap and Silicone Liner,
 Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	O. D. x Length mm	Qty. Per Pack Pcs
71310 055	5	16 x 75	100
71310 105	10	16 x 125	100
71310 305	30	25 x 100	100
71310 605	60	25 x 200	100



Culture Tubes, Flat Bottom, with Screw Cap and Silicone Liner,
 Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	O. D. x Length mm	Qty. Per Pack Pcs
71200 055	5	16 x 50	100
71200 155	15	25 x 57	100
71200 305	30	25 x 95	100



Culture Tubes, Flat Bottom, AMBER, with Screw Cap and Silicone Liner,
 Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	O. D. x Length mm	Qty. Per Pack Pcs
71210 055	5	16 x 50	100
71210 155	15	25 x 57	100
71210 305	30	25 x 95	100



PP Caps only for Culture tubes with Silicone Liner, RIVIERA

Cat No.	Suitable For OD mm	Qty. Per Pack Pcs
71220 016	16	100
71220 025	25	100



Tubes, Centrifuge, Conical, Ungraduated, Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Dia mm	Total Length ± 5 mm	Qty. Per Pack Pcs
72800 15	15	19	120	100
72800 50	50	33	150	100



Tubes

Tubes, Centrifuge, Conical, White Graduation,

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA



Cat No.	Capacity ml	Dia mm	Total Length ± 5 mm	Qty. Per Pack Pcs
72810 15	15	19	120	100
72810 50	50	33	150	100

Test Tubes, with Rim, Borosilicate Glass, Made from Heat Resistant, Low Expansion Borosilicate Glass, (suitable for heating applications), RIVIERA



Cat No.	Size mm	Qty. Per Pack Pcs
71100 001	10 x 75	100
71100 002	12 x 75	100
71100 003	12 x 100	100
71100 004	15 x 125	100
71100 005	15 x 150	100
71100 006	18 x 150	100
71100 007	25 x 100	50
71100 008	25 x 150	50
71100 009	25 x 200	50
71100 010	32 x 200	25
71100 011	38 x 200	25

Test Tubes, without Rim, Borosilicate Glass, Made from Heat Resistant, Low Expansion Borosilicate Glass, (suitable for heating applications), RIVIERA



Cat No.	Size mm	Qty. Per Pack Pcs
71110 001	10 x 75	100
71110 002	12 x 75	100
71110 003	12 x 100	100
71110 004	15 x 125	100
71110 005	15 x 150	100
71110 006	18 x 150	100
71110 007	25 x 100	50
71110 008	25 x 150	50
71110 009	25 x 200	50
71110 010	32 x 200	25
71110 011	38 x 200	25

Kettles

KETTLES offered below are designed for organic reactions of viscous liquids.

Covers are provided with openings containing interchangeable joints for quick assembly with condensers and stirrers, RIVIERA.



Cat No.	Capacity ml	Body Dia mm	Height mm	Qty. Per Pack Pcs
74600 05	500	95	178	1
74600 10	1000	108	178	1
74600 20	2000	140	190	1
74600 40	4000	140	343	1

Kettles, Watch Glass, Clamps

Bottoms for Reaction Kettles, Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Capacity ml	Qty. Per Pack Pcs
74610 05	500	1
74610 10	1000	1
74610 20	2000	1
74610 40	4000	1



Covers for Reaction Kettles

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Size mm	Qty. Per Pack Pcs
74620 05	500	1
74620 10	1000	1
74620 20	2000	1
74620 40	4000	1



Covers for 500 & 1000ml capacity are interchangeable, with four 24/29 I/C joints.
 For 2000 & 4000ml capacity covers have three 24/29 & one 34/35 I/C joint

Vessels, Wide Mouth, Flat Flange, 100 mm I. D. & 150 mm O. D., RIVIERA

Cat No.	Capacity ml	Height mm	Qty. Per Pack Pcs
70009 01	1000	170	1
70009 02	2000	205	1
70009 05	5000	260	1
70009 10	10000	320	1
70009 20	20000	400	1



Lids for Reaction Vessels, Flat Flange and Interchangeable Joints

Made from Heat Resistant, Low Expansion Borosilicate Glass, RIVIERA

Cat No.	Centre Joint	Parallel Joint	Side Joint 5	Side Joint 10	Side Joint 15	Qty. Per Pack Pcs
74700 2232	19/26	19/26	24/29	19/26		1
74700 2111	19/26	14/23	14/23	14/23	29/32	1
74700 4111	29/32	14/23	14/23	14/23	29/32	1



Watch Glass Dishes, RIVIERA

Cat No.	O. D. mm	Qty. Per Pack Pcs
71900 41	80	10
71900 46	100	10
71900 52	125	10
71900 57	150	10



Plastic Clamps for Joint Fittings

Cat No.	Joint Size	Qty. Per Pack Pcs
77600 14	B 14	10
77600 19	B 19	10
77600 24	B 24	10
77600 29	B 29	10





Glass Reactor Bench Model

Product Overview

A Glass Reactor Bench Model is a compact laboratory-scale reaction system designed for chemical synthesis, crystallization, distillation, and polymerization. Built with high-quality borosilicate glass and corrosion-resistant components, it ensures safe and efficient operations in R&D and pilot-scale studies.

Technical Specifications

Parameter	Specification
Model Variants	Single-Jacketed / Double-Jacketed
Volume Range	250 mL to 10 L
Material	Borosilicate Glass 3.3
Temperature Range	-40°C to +200°C
Pressure Range	Atmospheric to Mild Vacuum
Stirring Mechanism	Overhead Motorized Stirrer (Variable Speed)
Jacketed Options	Heating / Cooling Circulation
Sealing System	PTFE-lined Mechanical Seal
Ports	Multiple Inlets for Additions & Sampling
Support Structure	Stainless Steel / PTFE Coated Frame
Control System	Digital Speed Control

Optional Accessories

- pH & Temperature Probes
- Overhead Stirrers
- Vacuum Pump for Reduced Pressure Reactions
- Recirculating Chiller for Temperature Control
- Pressure Valves & Safety Features

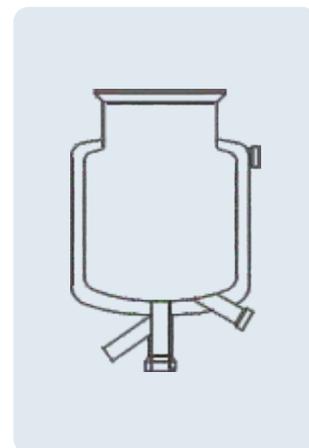


REACTOR ACCESSORIES :

Reactor Vessel Single Jacketed, Riviera

Cat No.	Capacity Litres	Flange DN mm	Jacket	Jacket Capacity Litres	Qty Per Pack Pcs.
40007 25	0.25	100	Single	0.30	1
40007 50	0.50	100	Single	0.42	1
40007 75	0.75	100	Single	0.52	1
40007 100	1.00	100	Single	0.74	1
40007 200	2.00	150	Single	1.45	1
40007 300	3.00	150	Single	2.00	1
40007 500	5.00	150	Single	3.12	1
40007 1000	10.00	200	Single	4.32	1
40007 1500	15.00	200	Single	5.62	1
40007 2000	20.00	200	Single	10.56	1

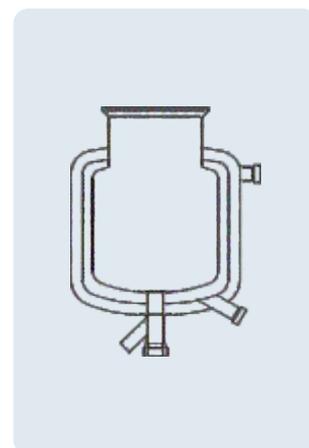
Flush Bottom Valve is included



Reactor Vessel Double Jacketed, Riviera

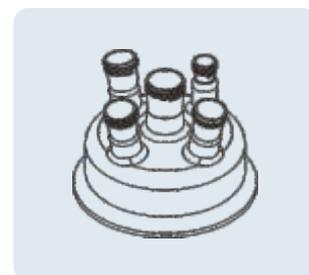
Cat No.	Capacity Litres	Flange DN mm	Jacket	Jacket Capacity Litres	Qty Per Pack Pcs.
40008 25	0.25	100	Double	0.30	1
40008 50	0.50	100	Double	0.42	1
40008 75	0.75	100	Double	0.52	1
40008 100	1.00	100	Double	0.74	1
40008 200	2.00	150	Double	1.45	1
40008 300	3.00	150	Double	2.00	1
40008 500	5.00	150	Double	3.12	1
40008 1000	10.00	200	Double	4.32	1

Flush Bottom Valve is included



Lid Glass Dome Type, Riviera

Cat No.	Flange I D mm	No. of Nozzles	Centre Nozzle	Side Nozzle	Temp Sensor Nozzle	Qty Per Pack Pcs.
40006 342	100	5	24/29	29/32	19/22	1
40006 542	150	5	34/35	29/32	19/22	1
40006 552	200	5	34/35	34/35	19/22	1
40016 552	300	5	34/35	34/35	19/22	1

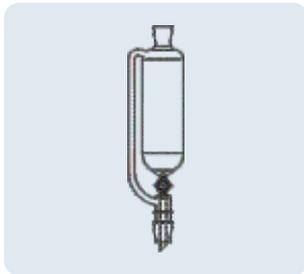


Condenser, Riviera

Cat No.	Dia Ø mm	Length mm	Qty Per Pack Pcs.
40005 520	80	520	1
40005 450	65	450	1
40005 320	60	320	1
40005 260	50	260	1

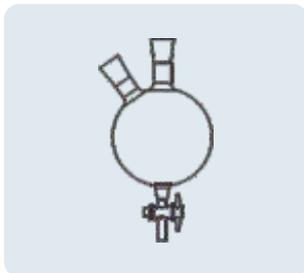


Feeding Funnel, Riviera



Cat No.	Capacity ml	Connection Nozzle Size	Qty Per Pack Pcs.
40004 1505	1000	34/35	1
40004 1004	1000	29/32	1
40004 0054	500	29/32	1
40004 0252	250	19/22	1
40004 0102	100	19/22	1

Receiver Vessel, Riviera



Cat No.	Volume Capacity ml	Centre Nozzle	Side Nozzle	Qty Per Pack Pcs.
40003 2502	250	24/29	19/22	1
40003 5002	500	24/29	19/22	1
40003 1023	1000	24/29	19/22, 24/29	1
40003 2023	2000	24/29	19/22, 24/29	1

Quick Release Clamp, Riviera



Cat No.	Flange Dia Ø	Qty Per Pack Pcs.
40001 0060	60	1
40001 0100	100	1
40001 0150	150	1
40001 0200	200	1

Agitator Accessories, Riviera

- Universal Guide
- Pitch Blade Turbine Rotor Shaft
- Centrifuge Rotor Shaft
- Anchor Rotor Shaft
- Adjustable Rotor Pitch Blade

Flasks

Flasks, Flat Bottom, Centre Neck, with I/C Joint, RIVIERA

Cat No.	Capacity ml	Joint Size	Qty. Per Pack Pcs
740010 36	250	B 14	4
740020 36	250	B 19	4
740030 36	250	B 24	4
740040 36	250	B 29	4
740050 36	250	B 34	4
740010 44	500	B 14	4
740020 44	500	B 19	4
740030 44	500	B 24	4
740040 44	500	B 29	4
740050 44	500	B 34	4
740020 54	1000	B 19	2
740030 54	1000	B 24	2
740040 54	1000	B 29	2
740050 54	1000	B 34	2
740070 54	1000	B 45	2
740090 54	1000	B 55	2
740030 64	2000	B 24	2
740040 64	2000	B 29	2
740050 64	2000	B 34	2
740070 64	2000	B 45	2
740030 68	3000	B 24	1
740040 68	3000	B 29	1
740050 68	3000	B 34	1
740070 68	3000	B 45	1
740090 68	3000	B 55	1
740030 73	5000	B 24	1
740040 73	5000	B 29	1
740050 73	5000	B 34	1
740070 73	5000	B 45	1
740090 73	5000	B 55	1



* For Flask Capacities 25 ml to 100 ml - Prices on Request



Flasks

Flasks, Round Bottom, Centre Neck, with I/C Joint, RIVIERA



Cat No.	Capacity ml	Joint Size	Qty. Per Pack Pcs
760010 36	250	B 14	4
760020 36	250	B 19	4
760030 36	250	B 24	4
760040 36	250	B 29	4
760050 36	250	B 34	4
760010 44	500	B 14	4
760020 44	500	B 19	4
760030 44	500	B 24	4
760040 44	500	B 29	4
760050 44	500	B 34	4
760020 54	1000	B 19	2
760030 54	1000	B 24	2
760040 54	1000	B 29	2
760050 54	1000	B 34	2
760070 54	1000	B 45	2
760090 54	1000	B 55	2
760030 64	2000	B 24	2
760040 64	2000	B 29	2
760050 64	2000	B 34	2
760070 64	2000	B 45	2
760030 68	3000	B 24	1
760040 68	3000	B 29	1
760050 68	3000	B 34	1
760070 68	3000	B 45	1
760090 68	3000	B 55	1
760030 73	5000	B 24	1
760040 73	5000	B 29	1
760050 73	5000	B 34	1
760070 73	5000	B 45	1
760090 73	5000	B 55	1
760050 86	10000	B 34	1
760070 86	10000	B 45	1
760090 86	10000	B 55	1
760090 91	20000	B 55	1

* For Flask Capacities 25 ml to 100 ml - Prices on Request

Flasks

Flasks, Round Bottom, Two Necks, Centre Neck and One Angled Side Neck, each with I/C Joint, RIVIERA

Cat No.	Capacity ml	Centre Joint Size	Side Joint Size	Qty. Per Pack Pcs
762031 36	250	B 24	B 14	4
762032 36	250	B 24	B 19	4
762031 44	500	B 24	B 14	4
762032 44	500	B 24	B 19	4
762031 54	1000	B 24	B 14	2
762032 54	1000	B 24	B 19	2
762031 64	2000	B 24	B 14	2
762032 64	2000	B 24	B 19	2
762052 64	2000	B 34	B 19	2
762032 68	3000	B 24	B 19	1
762052 68	3000	B 34	B 19	1
762053 68	3000	B 34	B 24	1
762052 73	5000	B 34	B 19	1
762053 73	5000	B 34	B 24	1
762063 73	5000	B 40	B 24	1
762052 86	10000	B 34	B 19	1
762053 86	10000	B 34	B 24	1
762073 86	10000	B 45	B 24	1
762074 86	10000	B 45	B 29	1
762075 86	10000	B 45	B 34	1
762095 86	10000	B 55	B 34	1
762097 86	10000	B 55	B 45	1
762095 91	20000	B 55	B 34	1
762097 91	20000	B 55	B 45	1



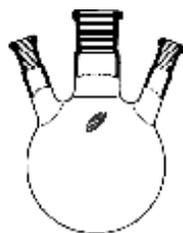
Flasks, Round Bottom, Two Necks, Centre Neck and One Parallel Side Neck, each with I/C Joint, RIVIERA

Cat No.	Capacity ml	Centre Joint Size	Side Joint Size	Qty. Per Pack Pcs
761031 36	250	B 24	B 14	4
761032 36	250	B 24	B 19	4
761031 44	500	B 24	B 14	4
761032 44	500	B 24	B 19	4
761031 54	1000	B 24	B 14	2
761032 54	1000	B 24	B 19	2
761031 64	2000	B 24	B 14	2
761032 64	2000	B 24	B 19	2
761052 64	2000	B 34	B 19	2
761032 68	3000	B 24	B 19	1
761052 68	3000	B 34	B 19	1
761053 68	3000	B 34	B 24	1
761052 73	5000	B 34	B 19	1
761053 73	5000	B 34	B 24	1
761063 73	5000	B 40	B 24	1
761052 86	10000	B 34	B 19	1
761053 86	10000	B 34	B 24	1
761073 86	10000	B 45	B 24	1
761074 86	10000	B 45	B 29	1
761075 86	10000	B 45	B 34	1
761095 86	10000	B 55	B 34	1
761097 86	10000	B 55	B 45	1
761095 91	20000	B 55	B 34	1
761097 91	20000	B 55	B 45	1



Flasks

Flasks, Round Bottom, Three Necks, Centre Neck and Two Angled Side Necks, each with I/C Joint, RIVIERA

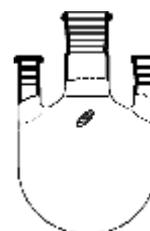


Cat No.	Capacity ml	Centre Joint Size	Side Joint Size	Qty. Per Pack Pcs
762121 36	250	B 19	B 14	4
762222 36	250	B 19	B 19	4
762131 36	250	B 24	B 14	4
762232 36	250	B 24	B 19	4
762141 36	250	B 29	B 14	4
762242 36	250	B 29	B 19	4
762121 44	500	B 19	B 14	4
762222 44	500	B 19	B 19	4
762131 44	500	B 24	B 14	4
762232 44	500	B 24	B 19	4
762141 44	500	B 29	B 14	4
762242 44	500	B 29	B 19	4
762131 54	1000	B 24	B 14	2
762232 54	1000	B 24	B 19	2
762333 54	1000	B 24	B 24	2
762242 54	1000	B 29	B 19	2
762252 54	1000	B 34	B 19	2
762353 54	1000	B 34	B 24	2
762131 64	2000	B 24	B 14	2
762232 64	2000	B 24	B 19	2
762242 64	2000	B 29	B 19	2
762252 64	2000	B 34	B 19	2
762353 64	2000	B 34	B 24	2
762363 64	2000	B 40	B 24	2
762232 68	3000	B 24	B 19	1
762252 68	3000	B 34	B 19	1
762353 68	3000	B 34	B 24	1
762363 68	3000	B 40	B 24	1
762252 73	5000	B 34	B 19	1
762555 73	5000	B 34	B 34	1
762363 73	5000	B 40	B 24	1
762383 73	5000	B 50	B 24	1
762252 86	10000	B 34	B 19	1
762353 86	10000	B 34	B 24	1
762373 86	10000	B 45	B 24	1
762474 86	10000	B 45	B 29	1
762575 86	10000	B 45	B 34	1
762595 86	10000	B 55	B 34	1
762797 86	10000	B 55	B 45	1
762595 91	20000	B 55	B 34	1
762797 91	20000	B 55	B 45	1

Flasks

Flasks, Round Bottom, Three Necks, Centre Neck and Two Parallel Side Necks, each with I/C Joint, RIVIERA

Cat No.	Capacity ml	Centre Joint Size	Side Joint Size	Qty. Per Pack Pcs
761121 36	250	B 19	B 14	4
761222 36	250	B 19	B 19	4
761131 36	250	B 24	B 14	4
761232 36	250	B 24	B 19	4
761141 36	250	B 29	B 14	4
761242 36	250	B 29	B 19	4
761121 44	500	B 19	B 14	4
761222 44	500	B 19	B 19	4
761131 44	500	B 24	B 14	4
761232 44	500	B 24	B 19	4
761141 44	500	B 29	B 14	4
761242 44	500	B 29	B 19	4
761131 54	1000	B 24	B 14	2
761232 54	1000	B 24	B 19	2
761333 54	1000	B 24	B 24	2
761141 54	1000	B 29	B 14	2
761242 54	1000	B 29	B 19	2
761252 54	1000	B 34	B 19	2
761353 54	1000	B 34	B 24	2
761272 54	1000	B 45	B 19	2
761373 54	1000	B 45	B 24	2
761131 64	2000	B 24	B 14	2
761232 64	2000	B 24	B 19	2
761333 64	2000	B 24	B 24	2
761141 64	2000	B 29	B 14	2
761242 64	2000	B 29	B 19	2
761252 64	2000	B 34	B 19	2
761353 64	2000	B 34	B 24	2
761363 64	2000	B 40	B 24	2
761272 64	2000	B 45	B 19	2
761373 64	2000	B 45	B 24	2
761232 68	3000	B 24	B 19	1
761252 68	3000	B 34	B 19	1
761353 68	3000	B 34	B 24	1
761363 68	3000	B 40	B 24	1
761272 68	3000	B 45	B 19	1
761373 68	3000	B 45	B 24	1
761252 73	5000	B 34	B 19	1
761353 73	5000	B 34	B 24	1
761555 73	5000	B 34	B 34	1
761363 73	5000	B 40	B 24	1
761272 73	5000	B 45	B 19	1
761373 73	5000	B 45	B 24	1
761383 73	5000	B 50	B 24	1
761252 86	10000	B 34	B 19	1
761353 86	10000	B 34	B 24	1
761373 86	10000	B 45	B 24	1
761474 86	10000	B 45	B 29	1
761575 86	10000	B 45	B 34	1
761595 86	10000	B 55	B 34	1
761797 86	10000	B 55	B 45	1
761595 91	20000	B 55	B 34	1
761797 91	20000	B 55	B 45	1



Flasks

Flasks, Round Bottom, Four Necks, Centre Neck and Three Angled Side Necks, each with I/C Joint, RIVIERA



Cat No.	Capacity ml	Centre Joint Size	Side Joint Size	Qty. Per Pack Pcs
762000 44	500	All Sizes	All Sizes	4
762000 54	1000	All Sizes	All Sizes	2
762000 64	2000	All Sizes	All Sizes	2
762000 68	3000	All Sizes	All Sizes	1
762000 73	5000	All Sizes	All Sizes	1
762000 86	10000	All Sizes	All Sizes	1
762000 91	20000	All Sizes	All Sizes	1

Note : While placing Order, required Joint Sizes should be specified



Flasks, Round Bottom, Four Necks, Centre Neck and Three Parallel Side Necks, each with I/C Joint, RIVIERA

Cat No.	Capacity ml	Centre Joint Size	Side Joint Size	Qty. Per Pack Pcs
761000 44	500	All Sizes	All Sizes	4
761000 54	1000	All Sizes	All Sizes	2
761000 64	2000	All Sizes	All Sizes	2
761000 68	3000	All Sizes	All Sizes	1
761000 73	5000	All Sizes	All Sizes	1
761000 86	10000	All Sizes	All Sizes	1
761000 91	20000	All Sizes	All Sizes	1

Note : While placing Order, required Joint Sizes should be specified

Silica Ware



CHEMICAL PROPERTIES

Fused Silica is neutral to all halogens and acids irrespective of temperature or concentration except hydro-fluoric and phosphoric acid. Phosphoric acid affects fused silica only at high temperatures and can be concentrated successfully in silica vessels. For all ordinary purposes they can be used with phosphoric acid. Sulphuric, Nitric and Hydrochloric acids or any mixture of these acids, do not affect Fused Silica even at temperatures upto 1000°C.

Strong alkalis react with fused silica. Cleaning of Silica ware regularly can ensure good service. Salts and basic oxides react at elevated temperatures, particularly above their melting point. The extent of reaction is largely determined by the thermal diffusion of impurities into the fused silica. Alkali metals have the highest diffusivity and are the most damaging.

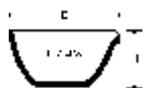
THERMAL PROPERTIES - THERMAL EXPANSION Mean value of the coefficient of thermal expansion between 0 and 800°C - $5.5 \times 10^{-7}/^{\circ}\text{C}$. Fused silica is neutral to abrupt temperature changes. Vitreous silica is highly viscous. Viscosity drops uniformly as the temperature rises over softening point. Average Co-efficient expansion 0° to 800°C $5.5 \times 10^{-7}/^{\circ}\text{C}$

<i>Thermal Conductivity</i>	<i>Temp</i>	<i>CAI</i>
		$\text{cm}^{-1}\text{Sec}^{-1} \text{ }^{\circ}\text{C}^{-1}$
	20°C	36×10^{-4}
	100°C	38×10^{-4}
	250°C	41×10^{-4}
	500°C	50×10^{-4}
	800°C	57×10^{-4}
	1000°C	65×10^{-4}
<i>Specific heat</i>	<i>Temp°C</i>	<i>Cal/g</i>
	0	0.166
	100	0.200
	500	0.275
	1000	0.290
Softening temp.	1700°C	
Annealing temp.	1150°C	
Working temp.	1900°C to 2000°C	
Operating temp. (Continuous)	1050°C	
Operating temp. (intermittent)	1350°C	



Silica Ware

Silica Basin with Spout, Round Form, RIVIERA



Cat No.	Nominal Capacity ml	Diameter (D) mm	Height (H) mm	Qty. Per Pack Pcs
78500 03	20	55	23	10
78500 06	45	75	27	10
78500 09	70	87	33	10
78500 12	85	94	36	10
78500 15	100	100	45	10
78500 18	200	113	47	10
78500 24	400	142	63	10

Silica Basin with Spout, Deep Form, RIVIERA



Cat No.	Nominal Capacity ml	Diameter (D) mm	Height (H) mm	Qty. Per Pack Pcs
78501 03	10	40	18	10
78501 06	15	50	25	10
78501 09	45	60	30	10
78501 12	90	80	45	10
78501 15	170	100	55	10

Silica Basin with Spout, Flat Form, RIVIERA



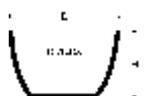
Cat No.	Nominal Capacity ml	Diameter (D) mm	Height (H) mm	Qty. Per Pack Pcs
78502 03	20	69	15	10
78502 06	25	79	15	10
78502 09	75	101	20	10
78502 12	125	131	23	10

Silica Capsules Circular, RIVIERA



Cat No.	Nominal Capacity ml	Diameter (D) mm	Height (H) mm	Qty. Per Pack Pcs
78503 03	10	40	15	10
78503 06	20	48	15	10
78503 09	25	54	15	10

Silica Crucible without Lid, Low Form, RIVIERA



Cat No.	Nominal Capacity ml	Diameter (D) mm	Height (H) mm	Qty. Per Pack Pcs
78504 03	15	41	25	10
78504 06	25	47	28	10
78504 09	50	57	37	10
78504 12	80	67	45	10
78504 15	100	70	48	10
78504 18	150	82	51	10

Silica Ware

Silica Lid, Low Form, RIVIERA

Cat No.	Nominal Capacity ml	Qty. Per Pack Pcs
78505 03	15	10
78505 06	25	10
78505 09	50	10
78505 12	80	10
78505 15	100	10
78505 18	150	10



Silica Crucible without Lid, Tall Form, RIVIERA

Cat No.	Nominal Capacity ml	Diameter (D) mm	Height (H) mm	Qty. Per Pack Pcs
78506 03	20	35	38	10
78506 06	30	43	39	10
78506 09	50	51	51	10
78506 12	200	73	81	10



Silica Crucible Lid, Tall Form, RIVIERA

Cat No.	Nominal Capacity ml	Diameter (D) mm	Height (H) mm	Qty. Per Pack Pcs
78507 03	20	Suit To Crucible	Suit To Crucible	10
78507 06	30	Suit To Crucible	Suit To Crucible	10
78507 09	50	Suit To Crucible	Suit To Crucible	10
78507 12	200	Suit To Crucible	Suit To Crucible	10



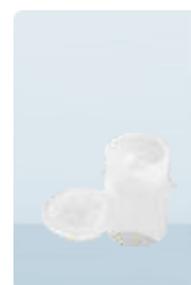
Silica Moisture Dish with Lid, RIVIERA

Cat No.	Nominal Capacity ml	Diameter (D) mm	Height (H) mm	Qty. Per Pack Pcs
78508 03	8	38	11	10
78508 06	20	54	12	10
78508 09	35	75	12	10



Silica Volatile Matter Crucible with Lid, RIVIERA

Cat No.	Diameter (D) mm	Height (H) mm	Qty. Per Pack Pcs
78509 03	25	38	10
78509 06	Only Lid		10
78509 09	Only Plunger		10



QUARTZ WARE



Vitreous Silica is the glassing modification of silcondioxide with a purity of 99.9% in the transparent form and is called fused silica. All our silica ware products are made out of fused silica.

Fused silica is completely unaffected by acids such as sulphuric, nitric and hydrochloric, however, it can be affected by hdrofluric acid and at high temperatures also by phosphoric acid. Hot alkalies and certain metallic oxides also react on fused silica.

Fused silica is boron free

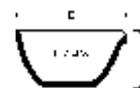
They are of very low expansion and hence have excellent dimensional stability and thermal shock resistance.

Electrical resistivity (at 350°C)	7 x 10 ⁷ ohm cm
Average co-efficient of expansion	5.5 x 10 ⁻⁷ / °C
Softening point	1685° C
Annealing point	1200° C
Operating temperature (continuous)	1050° C
Operating temperature (intermittent)	1350° C
Working temperature	1950° C
Strain point	1120° C

Quartz Ware

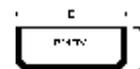
Quartz Basin with Spout, Round Form, RIVIERA

Cat No.	Nominal Capacity ml	Diameter (D) mm	Height (H) mm	Qty. Per Pack Pcs
78406 03	20	55	23	10
78406 06	45	75	27	10
78406 09	70	87	33	10
78406 12	85	94	36	10
78406 15	100	100	39	5
78406 18	200	113	47	5



Quartz Capsules Circular, RIVIERA

Cat No.	Nominal Capacity ml	Diameter (D) mm	Height (H) mm	Qty. Per Pack Pcs
78407 03	10	40	15	10
78407 06	20	48	15	10
78407 09	25	54	15	10



Triangles on Nickel Chrome wire, Quartz, RIVIERA

Cat No.	Nominal Length mm	Nominal Dia. Of Inscribed circle D mm	Qty. Per Pack Pcs
78409 03	38	20	10
78409 06	44	24	10
78409 09	50	28	10
78409 12	58	32	10
78409 15	63	34	10



Quartz Crucible without Lid, Low Form, RIVIERA

Cat No.	Nominal Capacity ml	Diameter (D) mm	Height (H) mm	Qty. Per Pack Pcs
78401 03	15	41	25	10
78401 06	25	47	28	10
78401 09	50	57	37	10
78401 12	80	67	45	10
78401 15	100	70	48	10
78401 18	150	82	51	10



Quartz Lid, Low Form, RIVIERA

Cat No.	Nominal Capacity ml	Qty. Per Pack Pcs
78402 03	15	10
78402 06	25	10
78402 09	50	10
78402 12	80	10
78402 15	100	10
78402 18	150	10





Quartz Ware

Quartz Muffle Tray Rod Type, RIVIERA

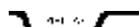


Cat No.	No. Of Holes	Qty. Per Pack Pcs
1078408 02	2	
1078408 06	4	



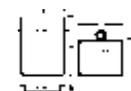
Quartz Crucible without Lid, Tall Form, RIVIERA

Cat No.	Nominal Capacity ml	Diameter (D) mm	Height (H) mm	Qty. Per Pack Pcs
78403 06	30	39	43	10
78403 09	50	51	51	10
78403 12	200	73	81	10



Quartz Crucible Lid, Tall Form, RIVIERA

Cat No.	Nominal Capacity ml	Diameter (D) mm	Height (H) mm	Qty. Per Pack Pcs
78404 06	30	Suit To Crucible	Suit To Crucible	10
78404 09	50	Suit To Crucible	Suit To Crucible	10
78404 12	200	Suit To Crucible	Suit To Crucible	10



Quartz Volatile Matter Crucible with Lid, RIVIERA

Cat No.	Diameter (D) mm	Height (H) mm	Qty. Per Pack Pcs
78405 03	25	38	10
Spares			
78405 06	Only Lid		10
78405 09	Only Plunger		10

Quartz Ware

Quartz Beaker with Spout, Low form RIVIERA

Cat No.	Capacity ml	Diameter mm	Height mm	Qty. Per Pack Pcs
78410 03	25	35	45	1
78410 06	50	40	60	1
78410 09	100	50	70	1
78410 12	150	60	80	1
78410 15	250	70	95	1
78410 18	500	85	115	1
78410 21	1000	105	145	1



Quartz Conical Flask, Wide Mouth, RIVIERA

Cat No.	Capacity ml	Approx. O.D. x Height mm	Approx. Neck O.D. mm	Qty. Per Pack Pcs
78411 03	100	70 x 110	34	1
78411 06	150	74 x 118	34	1
78411 09	250	85 x 142	50	1



Quartz Measuring Cylinder with Spout RIVIERA

Cat No.	Capacity ml	Qty. Per Pack Pcs
1 78412 03	5	
1 78412 06	10	
1 78412 09	25	
1 78412 12	50	
1 78412 15	100	
1 78412 18	250	
1 78412 21	500	



Quartz volumetric flask with Quartz Stopper, RIVIERA

Cat No.	Capacity ml	Tolerance mm	Joint Size mm	Qty. Per Pack Pcs
78413 03	5	0.025	C 10/13	1
78413 06	10	0.025	C 10/13	1
78413 09	25	0.040	C 10/13	1
78413 12	50	0.060	C 10/13	1
78413 15	100	0.100	C 14/15	1
78413 18	250	0.150	C 14/15	1
78413 21	500	0.250	C 19/20	1
78413 24	1000	0.400	C 19/20	1





ULTRAPURE

Water Purification System

Final
0.2 μ
Filter

Type I
& Type III

Online
Resitivity
Conductivity
& Temperature



APPLICATIONS:

TYPE I

- **Chromatography:** HPLC, UPLC, LC-MS and GC
- **Elemental Analysis:** AA, GFAA, ICP-MS, ICP-OES and ILC
- Cell Culture
- Molecular Biology and Bio-chemistry PCR, DNA
- Sequencing, DNA Microarray, Electrophoresis and
- Blotting

TYPE III

- Analytical techniques with sensitivity at ppm level or above such as pH measurement or Kjeldahl test.
- Chemical Synthesis: Reagents Preparation.
- Staining Solutions Preparation for Histology
- **Instrument Feed:** Feed Water for Clinical Analyzers, Water Bath, Glassware Washing Machines, Stainless Steel Autoclaves.
- **ULTRAPURE LAB WATER:** Auto-rinsing to ensure consistent water quality LPSope Sensing Cell displays accuracy of Conductivity & Resistivity automatically

CAT.No: 72280 000

ULTRAPURE

Water Purification System

ULTRAPURE LAB WATER

- Auto-rinsing to ensure consistent water quality
- Sensing Cell displays accuracy of Conductivity & Resistivity automatically

USER FRIENDLY

- One-touch clip type filters: Easy replacement
- Modular design for easy maintenance

SAFETY FUNCTION

- LPS Switch regulates water pressure for smooth operation

ECONOMICAL

- Pure & Ultrapure lab water system at competitive cost

All heavy metals & water traceable metals well within the limit as per IP/IS/USP Standards

NOTE : Based on feed water we will customize Lab Water purification system

SALIENT FEATURES

- Booster Pump :** System incorporates Low noise, High pressure pump.
- UF/UV Module :** Controls the Microbial load, Pyrogens, RNase, DNase & TOC Reduction.
- AC Module :** Removes free chlorine.
- Flush mode :** Pre-programmed re-circulation cycle to maintain quality of water & cartridge life.
- Storage Tank :** Fitted with water level controller & Vent Filter provides effective protection against airborne contaminants.
- Two-in-one system :** Two spouts for TYPE - I & TYPE - III Water.
- End Point Filter :** Process water filtered through 0.2µm filter.
- Pre-treatment Module :** Designed to treat the raw water and produce feed water (within the limit of potable water/soft water).
- Equipment :** Compact table top model.
- Input Voltage :** 230 V AC

Pure & Ultrapure Lab Water Purification System Specifications

System Feed Water Requirements:		RO/DM
Water Source		RO/DM
Conductivity (µs/cm)		< 100
Pressure (Bar)		0.1 - 6
Temperature (°C)		Up to 30
Feed Chlorine (ppm)		< 10
Silt Density Index		< 12
TOC (ppb)		< 1000
pH		4 - 10

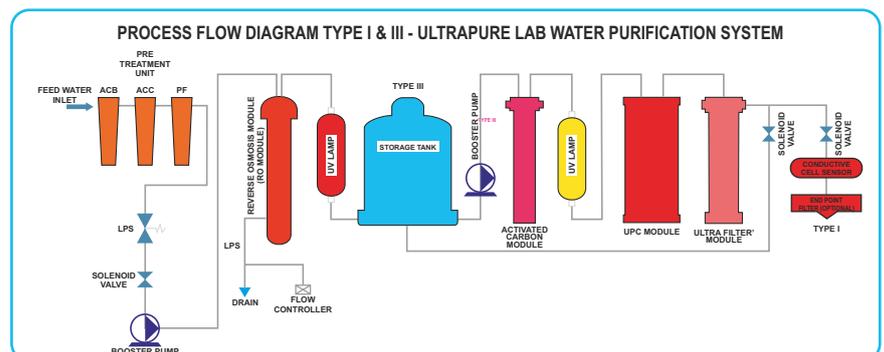
Riviera - ULTRA Type - I System Water Specifications		LCD Digital
Display		LCD Digital
Resistivity (MΩ cm at 25°C)		18.2
TOC (ppb)		< 5
Product Water DNase (pg/ml)		< 5
Product Water Microorganisms (CFU/ml)		< 1
Product Water Pyrogens (EU/ml)		< 0.001
Product Water RNase (pg/ml)		< 1
Flow Rates (L/m)		1.2 - 1.5

Riviera - ULTRA Type - III System Water Specifications		
Inorganics		Ionic Rejection up to 99%
TOC (ppm)		Organic Rejection up to 99%
Bacteria (CFU/ml)		< 1
Particles		> 99% Rejection
Flow Rates (L/m)		Upto 10,15, 20 & 30

Dimension (mm) H x W x D	550 x 400 x 450
Approx. Weight (kg)	32

All heavy metals & water traceable metals well within the limit as per IP/IS/USP Standards

Cat No.	Description	Maximum Price Rs/Pc
72280 000	Ultrapure Water Purification System, Riviera	P O R





ZERO WATER WASTAGE DISTILLATIONS

Fully
Automatic
Operation

All
Quartz
Distillation

20 Ltr
Reservoir



Be a part of this wonderful initiative to **SAVE WATER...**

Riviera launches a revolutionary product in the Indian market zero water wastage ALL QUARTZ DOUBLE DISTILLATION UNITS it uses the concept of Zero water wastage condenser column cooling system in distillation units which recycles the water by the method of forced convective heat exchange; hence it prevents wastage of precious natural resource – water. If your average consumption of double distilled water is 20 liters per day, we can

save upto 600 liters of water everyday. Annually we can save upto 2,00,000 liters of water

Water is a scarce and finite resource, and only 3.5% of the Earth's water is available for drinking. Overuse and misuse of water can put people and other living things in life-threatening situations. Join Riviera's efforts in making our laboratory water distillation units zero water wastage. Lets conserve water the most precious life forming element.

" The earth, the air, the land and the water are not an inheritance from our forefather's but on loan from our children" - MAHATMA GANDHI)

ZERO WATER WASTAGE DISTILLATIONS

SALIENT FEATURES

Zero water wastage stills are manufactured from superior quality quartz glass, the unit is incorporated with a high quality coil condenser and boiler system, combined with a Quartz sheathed heater which provides a high quality pyrogen-free distilled water output.

- The distillation unit is very easy and safe to assemble and maintain.
- Both the acrylic safety screen and the cabinet lids are removable giving untravalled access to the quartz distillation components.
- Screw threads are incorporated on all water connections so hoses can be fitted and removed easily and safely without risk of breakage.
- The unique condenser design ensures that the droplets of distilled water remains in contact with cooling coils for the longest possible time producing cold distilled water.
- A flow-sensing-device will detect any reduction in the flow of cooling water below the required level and will turn off the still before it can overheat.
- As a fail-safe device there is an over temperature sensor mounted in the boiling chamber.
- This is a fully automated unit, ensuring that 20liters of distilled water is always available for consumption. As distilled water is consumed the unit automatically turns ON until the reservoir is filled to its original position. Once filled unit automatically turns OFF.
- Boiler, Condenser & Heater are detachable hence cleaning or replacement of any component can be done at customer's site only without the need of factory repair

Cat No:	72215 40
Output	4 liters/hr double distilled
Boiler	Quartz
Condenser	Quartz
Conductivity μScm^{-1}	0.1
Temperature of Distillate	30 - 40 °C
Pyrogen content	Pyrogen free
Electrical supply (Distillation Unit)	220 or 240, 50-60Hz, double phase, 6kW
Electrical Supply (Chiller Unit)	6kW, 3 phase,
Maximum Price Rs./Pc	Price on Request

Design and specifications are subject to change without prior notice, no liability accepted

All Quartz Double Distillation Smart Series



COMPACT DESIGN:

This unit has the smallest foot print in its class compared to Standard model. Its fully enclosed cabinet ensures maximum safety and ease of operation

FULLY AUTOMATIC OPERATION:

This unit has fully automatic operational features thus making the unit very easy to use. In presence of un-interrupted water flow and power the unit automatically maintains any desired preset amount of distilled water ready at all times for usage. And the unit automatically shuts OFF once the reservoir is full and automatically turns ON when the water in the reservoir reduces, thus making it fully automatic.

Features :

- Compact Design
- Fully Automatic Operation.
- Latest Microprocessor Controller With Numeric Display.
- Built-in Troubleshoot Analyzer.
- Electronic Grade-1 Quartz Raw Material.
- Built-in Timer Function.
- Built-in Boiler Overheat Protection.
- Built-in Condenser Water Flow Monitoring System
- Built-in Automatic Shut Off of Cooling Water When Power Fails To Save Water.
- Built-in Reservoir Controller.
- Audio Cum Display of failure Indication.

Cat. No:	72220 2500
Output	2.5 litres/hr, Double distilled
Boiler	Quartz
Condenser	Quartz
pH	6.9 – 7.0
Conductivity, μScm^{-1}	< 0.8-1.2 x 10 ⁶
Temperature	65 – 75°C
Pyrogen content	Pyrogen free
Water supply	1.5 litre/min,
Electricity supply	220 - 240V, 50-60Hz Single phase
Power requirement	4.5kW



Note: Due to challenges in accurately measuring the pH value of high purity water and the questionable reliability of the obtained values no pH limits have been established for grade 1 or grade 2 water. The given conductivity is applies to freshly produced water at 20°C free from carbon dioxide. Temperature, the amount of carbon dioxide absorbed, and other impurities from the storage containers all have an impact on conductivity readings.

Spares :

Cat No :	72220 2500
Capacity	2.5 litre/hr
Description	Cat No.
Boiler	72220 2505
Second boiler / Condenser	72220 2506

All Quartz Double Distillation Panel Series

In the All Quartz Double Distillation units all components in contact with water are made of Quartz Glass which unlike ordinary laboratory glass is non hygroscopic and resistant to H₂O. These properties ensure the high purity required for distilled water. The apparatus is constructed using high quality electronic grade quartz making it ideal for producing ultra pure water to meet research and bio-technological requirements.

Note: Due to challenges in accurately measuring the pH value of high purity water and the questionable reliability of the obtained values no pH limits have been established for grade 1 or grade 2 water. The given conductivity is applies to freshly produced water at 20°C free from carbon dioxide. Temperature, the amount of carbon dioxide absorbed, and other impurities from the storage containers all have an impact on conductivity readings.



Specifications

Cat. No:	72240 010	72240 015	72240 020	72240 025	72240 040	72240 050
Output	1.0 litres/hr, Double distilled	1.5 litres/hr Double distilled	2.0 litres/hr Double distilled	2.5 litres/hr Double distilled	4.0 litres/hr Double distilled	5.0 litres/hr Double distilled
Boiler	Quartz	Quartz	Quartz	Quartz	Quartz	Quartz
Condenser	Quartz	Quartz	Quartz	Quartz	Quartz	Quartz
pH	6.9 – 7.0	6.9 – 7.0	6.9 – 7.0	6.9 – 7.0	6.9 – 7.0	6.9 – 7.0
Conductivity, μScm^{-1}	<0.8-1.2 x 10 ⁻⁶	<0.8-1.2 x 10 ⁻⁶	<0.8-1.2 x 10 ⁻⁶	<0.8-1.2 x 10 ⁻⁶	<0.8-1.2 x 10 ⁻⁶	<0.8-1.2 x 10 ⁻⁶
Temperature	65 – 75°C	65 – 75°C	65 – 75°C	65 – 75°C	65 – 75°C	65 – 75°C
Pyrogen content *	Pyrogen free	Pyrogen free	Pyrogen free	Pyrogen free	Pyrogen free	Pyrogen free
Water supply	40 litre/hr	60 litre/hr	65 litre/hr	70 litre/hr	85 litre/hr	120 litre/hr
Electricity supply	220-240V, Single phase	220-240V, Single phase	220 or 240V, Single phase	220-240V, Single phase	220-240V, Double phase	220-240V, Double phase
Power requirement	2kW	3kW	4kW	4.5kW	6kW	8kW

Optional Accessories.

- The Automatic Electronic Dual cut-off system is used along with the Water Distillation unit to protect the distiller during water supply failure. Its cuts off the power supply in two cases.
 - In case of water failure to condenser, the power supply to the unit is cut-off automatically, by means of Flow Switch
 - In case of water failure to the Boiler, the power supply to the unites cut off automatically by means of pt-100sensor.
- Quartz Storage Vessel for collection of distillate.
- Additional Bulb Condenser to bring down the temperature of distillate.
- MCB (prevents system from any short circuit).
- Water Softener / DM Plant / Pre-filter / 5 Stage RO System to reduce the scaling in the boiler.
- Water Circulator to avoid wastage of cooling water.

Spares :

Cat No :	72240 010	72240 015	72240 020
Capacity	1.0 liter/hr	1.5 liter/hr	2.0 liter/hr
Description	Cat No.	Cat No.	Cat No.
Boiler	72240 011	72240 0151	72240 021
Second boiler cum Condenser	72240 012	72240 0152	72240 022

Cat No :	72240 025	72240 040	72240 050
Capacity	2.5 liter/hr	4.0 liter/hr	5 liter/hr
Description	Cat No.	Cat No.	Cat No.
Boiler	72240 0251	72240 041	72240 051
Second boiler cum Condenser	72240 0252	72240 042	72240 052



Quartz Single Distillation

Quartz Boiler, Borosilicate Condenser

RQSD PANEL SERIES

This range of quartz single distillation provides answers to pure water requirements. High quality electronic grade quartz boiler ergonomic design together with minimum maintenance combine to provide a product that give reliable service for years. The water distillate obtained from quartz single distillation is better when compared with water distillate obtained from other type/method of Distillation. The unique condenser design ensures that the droplets of distilled water remain in contact with the cooling coil for the longest possible time producing cold distilled water and pre-heating the boiler feed to increase efficiency.

Specifications

Cat. No:	72230 010	72230 020	72230 030	72230 040	72230 050
Output	1.0 litres/hr,	2.0 litres/hr,	3.0 litres/hr,	4.0 litres/hr,	5.0 litres/hr,
	Single Distilled				
Boiler	Quartz	Quartz	Quartz	Quartz	Quartz
Condenser	Borosilicate	Borosilicate	Borosilicate	Borosilicate	Borosilicate
pH	6.0 – 7.0	6.0 – 7.0	6.0 – 7.0	6.0 – 7.0	6.0 – 7.0
Conductivity, μScm^{-1}	1×10^{-6}				
Temperature	65 – 75°C				
Pyrogen content	Pyrogen free				
*Water supply	30 litre/hr	40 litre/hr	50 litre/hr	60 litre/hr	65 litre/hr
Electricity supply	220 - 240V,				
Power requirement	1.0kW	1.5kW	2.0kW	3.0kW	4.0kW
	Single phase				

Spares :

Cat No :	72230 010	72230 020	72230 030	72230 040	72230 050
Capacity	1.0 litre/hr	2.0 litre/hr	3.0 litre/hr	4.0 litre/hr	5.0 litre/hr
Description	Cat No.	Cat No.	Cat No.	Cat No.	Cat No.
Boiler	72230 110	72230 120	72230 130	72230 140	72230 150
Condenser	72230 210	72230 220	72230 230	72230 240	72230 250

Optional Accessories

- 1) The Automatic Electronic Dual cut-off system is used along with the Water Distillation unit to protect the distiller during water supply failure. Its cuts off the power supply in two cases.
 - a) In case of water failure to condenser, the power supply to the unit is cut-off automatically, by means of Flow Switch
 - b) In case of water failure to the Boiler, the power supply to the unit is cut off automatically by means of pt-100 sensor.
- 2) Quartz Storage Vessel/ reservoir for collection of distillate.
- 3) MCB (prevents system from any short circuit).
- 4) Water Softener/DM Plant/Pre-filter/ 5 Stage RO System to reduce the scaling in the boiler.
- 5) Water Circulator to avoid wastage of cooling water

Note: Due to challenges in accurately measuring the pH value of high purity water and the questionable reliability of the obtained values no pH limits have been established for grade 1 or grade 2 water. The given conductivity is applies to freshly produced water at 20°C free from carbon dioxide. Temperature, the amount of carbon dioxide absorbed, and other impurities from the storage containers all have an impact on conductivity readings.

Quartz Single Distillation

Quartz Boiler, Quartz Condenser RQSD PANEL SERIES

This range of quartz single distillation provides answers to pure water requirements. High quality electronic grade quartz boiler ergonomic design together with minimum maintenance combine to provide a product that give reliable service for years. The water distillate obtained from quartz single distillation is better when compared with water distillate obtained from other type/method of Distillation. The unique condenser design ensures that the droplets of distilled water remain in contact with the cooling coil for the longest possible time producing cold distilled water and pre-heating the boiler feed to increase efficiency.



Specifications

Cat. No:	72220 10	72220 20	72220 30	72220 40	72220 50
Output	1.0 litres/hr,	2.0 litres/hr,	3.0 litres/hr,	4.0 litres/hr,	5.0 litres/hr,
	Single Distilled				
Boiler	Quartz	Quartz	Quartz	Quartz	Quartz
Condenser	Quartz	Quartz	Quartz	Quartz	Quartz
pH	6.0 – 7.0	6.0 – 7.0	6.0 – 7.0	6.0 – 7.0	6.0 – 7.0
Conductivity, μScm^{-1}	2×10^{-6}				
Temperature	65 – 75°C				
Pyrogen content	Pyrogen free				
*Water supply	30 litre/hr	40 litre/hr	50 litre/hr	60 litre/hr	65 litre/hr
Electricity supply	220 - 240V,				
Power requirement	1.0kW	1.5kW	2.0kW	3.0kW	4.0kW
	Single phase				

Spares :

Cat No :	72220 010	72220 020	72220 030	72220 040	72220 050
Capacity	1.0 litre/hr	2.0 litre/hr	3.0 litre/hr	4.0 litre/hr	5.0 litre/hr
Description	Cat No.	Cat No.	Cat No.	Cat No.	Cat No.
Boiler	72220 105	72220 205	72220 305	72220 405	72220 505
Condenser	72220 106	72220 206	72220 306	72220 406	72220 506

Optional Accessories

- 1) The Automatic Electronic Dual cut-off system is used along with the Water Distillation unit to protect the distiller during water supply failure. Its cuts off the power supply in two cases.
 - a) In case of water failure to condenser, the power supply to the unit is cut-off automatically, by means of Flow Switch
 - b) In case of water failure to the Boiler, the power supply to the unit is cut off automatically by means of pt-100 sensor.
- 2) Quartz Storage Vessel/ reservoir for collection of distillate.
- 3) MCB (prevents system from any short circuit).
- 4) Water Softener/DM Plant/Pre-filter/ 5 Stage RO System to reduce the scaling in the boiler.
- 5) Water Circulator to avoid wastage of cooling water

Note: Due to challenges in accurately measuring the pH value of high purity water and the questionable reliability of the obtained values no pH limits have been established for grade 1 or grade 2 water. The given conductivity is applies to freshly produced water at 20°C free from carbon dioxide. Temperature, the amount of carbon dioxide absorbed, and other impurities from the storage containers all have an impact on conductivity readings.

Cabinet Distillation



Specifications

Cat. No:	72212 15	72212 25	72212 40	72213 15	72213 25	72213 40
Output	1.5 litres/hr, Single Distilled	2.5 litres/hr, Single Distilled	4 litres/hr, Single Distilled	1.5 litres/hr, Double Distilled	2.5 litres/hr, Double Distilled	4 litres/hr, Double Distilled
Boiler	Borosilicate	Borosilicate	Borosilicate	Borosilicate	Borosilicate	Borosilicate
Condenser	Borosilicate	Borosilicate	Borosilicate	Borosilicate	Borosilicate	Borosilicate
pH	5.5 – 6.0	5.5 – 6.0	5.5 – 6.0	5.5 – 6.0	5.5 – 6.0	5.5 – 6.0
Conductivity, μScm^{-1}	3×10^{-6}	3×10^{-6}	3×10^{-6}	1×10^{-6}	1×10^{-6}	1×10^{-6}
Temperature	65 – 75°C	65 – 75°C	65 – 75°C	65 – 75°C	65 – 75°C	65 – 75°C
Pyrogen content	Pyrogen free	Pyrogen free	Pyrogen free	Pyrogen free	Pyrogen free	Pyrogen free
*Water supply	1 litre/min	1.5 litre/min,	2 litre/min,	1 litre/min	1.5 litre/min,	2 litre/min,
Electricity supply	220 or 240V,	220 or 240V,	220 or 240V,	220 or 240V,	220 or 240V,	220 or 240V,
Power requirement	Single phase 1.5kW	single phase 2kW	Single phase 3kW	Single phase 3kW	Double phase 4kW	Double phase 6kW

Spares :

Cat No :	72212 15	72212 25	72212 40
Capacity	1.5 litre/hr	2.5 litre/hr	4 litre/hr
Description	Cat No.	Cat No.	Cat No.
Condenserr	72201 157	72212 257	722210 043
Boiler	72201 1555	72212 2555	722210 0415
Heater	72201 1566	72212 2566	722210 0426

Cat No :	72213 15	72213 25	72213 40
Capacity	1.5 litre/hr	2.5 litre/hr	4 litre/hr
Description	Cat No.	Cat No.	Cat No.
Condenser	72201 157	72213 257	722210 043
First Boiler	72201 1555	72213 2555	722210 0415
Second Boiler	72201 1556	72213 2556	722210 1416
Heater	72201 1566	72213 2566	722210 0426

Optional Accessories.

- 1) Quartz Storage Vessel for collection of distillate.
- 2) MCB (prevents system from any short circuit).
- 3) Water Softener/DM Plant/Pre-filter/ 5 Stage RO System to reduce the scaling in the boiler.
- 4) Water Circulator to avoid wastage of cooling water

Note: Due to challenges in accurately measuring the pH value of high purity water and the questionable reliability of the obtained values no pH limits have been established for grade 1 or grade 2 water. The given conductivity is applies to freshly produced water at 20°C free from carbon dioxide. Temperature, the amount of carbon dioxide absorbed, and other impurities from the storage containers all have an impact on conductivity readings.

Horizontal Single Distillation



Specifications

Cat. No:	72211 15	72211 25	72211 40	72220 015	72220 025	72220 040
Output	1.5 litres/hr, Single Distilled	2.5 litres/hr, Single Distilled	4 litres/hr, Single Distilled	1.5 litres/hr, Single Distilled	2.5 litres/hr, Single Distilled	4 litres/hr, Single Distilled
Boiler	Borosilicate	Borosilicate	Borosilicate	Quartz	Quartz	Quartz
Condenser	Borosilicate	Borosilicate	Borosilicate	Quartz	Quartz	Quartz
pH	5.5 – 6.0	5.5 – 6.0	5.5 – 6.0	6.0 – 7.0	6.0 – 7.0	6.0 – 7.0
Conductivity, μScm^{-1}	3×10^{-6}	3×10^{-6}	3×10^{-6}	2×10^{-6}	2×10^{-6}	2×10^{-6}
Temperature	65 – 75°C	65 – 75°C	65 – 75°C	65 – 75°C	65 – 75°C	65 – 75°C
Pyrogen content	Pyrogen free	Pyrogen free	Pyrogen free	Pyrogen free	Pyrogen free	Pyrogen free
*Water supply	1 litre/min	1.5 litre/min,	2 litre/min,	1 litre/min	1.5 litre/min,	2 litre/min,
Electricity supply	220 or 240V,	220 or 240V,	220 or 240V,	220 or 240V,	220 or 240V,	220 or 240V,
Power requirement	Single phase 1.5kW	single phase 2kW	Single phase 3kW	Single phase 1.5kW	Double phase 2kW	Double phase 3kW

Spares :

Cat No :	72211 15	72211 25	72211 40
Capacity	1.5 litre/hr	2.5 litre/hr	4 litre/hr
Description	Cat No.	Cat No.	Cat No.
Condenser	72201 157	72211 257	722210 043
Boiler	72201 1553	72211 2553	722210 0413
Heater	72201 156	72211 256	722210 0425

Cat No :	72220 015	72220 025	72220 040
Capacity	1.5 litre/hr	2.5 litre/hr	4 litre/hr
Description	Cat No.	Cat No.	Cat No.
Condenser	72220 1502	72220 2502	72220 4002
Boiler	72220 1501	72220 2501	72220 4001
Heater	72220 1503	72220 2503	72220 4003

Optional Accessories.

- 1) Quartz Storage Vessel/ Reservoir for collection of distillate.
- 2) MCB (prevents system from any short circuit).
- 3) Water Softener/DM Plant/Pre-filter/5 Stage RO System to reduce the scaling in the boiler.
- 4) Water Circulator to avoid wastage of cooling water

Note: Due to challenges in accurately measuring the pH value of high purity water and the questionable reliability of the obtained values no pH limits have been established for grade 1 or grade 2 water. The given conductivity is applies to freshly produced water at 20°C free from carbon dioxide. Temperature, the amount of carbon dioxide absorbed, and other impurities from the storage containers all have an impact on conductivity readings.

Horizontal Double Distillation



Specifications

Cat. No:	72211 1515	72211 2525	72211 4040	72220 1515	72220 2525	72220 4040
Output	1.5 litres/hr, Double Distilled	2.5 litres/hr, Double Distilled	4 litres/hr, Double Distilled	1.5 litres/hr, Double Distilled	2.5 litres/hr, Double Distilled	4 litres/hr, Double Distilled
Boiler	Borosilicate	Borosilicate	Borosilicate	Quartz	Quartz	Quartz
Condenser	Borosilicate	Borosilicate	Borosilicate	Quartz	Quartz	Quartz
pH	5.5 – 6.0	5.5 – 6.0	5.5 – 6.0	6.9 – 7.0	6.9 – 7.0	6.9 – 7.0
Conductivity, μScm^{-1}	1×10^{-6}	1×10^{-6}	1×10^{-6}	$0.8 - 1.2 \times 10^{-6}$	$0.8 - 1.2 \times 10^{-6}$	$0.8 - 1.2 \times 10^{-6}$
Temperature	65 – 75°C	65 – 75°C	65 – 75°C	65 – 75°C	65 – 75°C	65 – 75°C
Pyrogen content	Pyrogen free	Pyrogen free	Pyrogen free	Pyrogen free	Pyrogen free	Pyrogen free
*Water supply	1 litre/min	1.5 litre/min,	2 litre/min,	1 litre/min	1.5 litre/min,	2 litre/min,
Electricity supply	220 or 240V,	220 or 240V,	220 or 240V,	220 or 240V,	220 or 240V,	220 or 240V,
Power requirement	Single phase 3kW	single phase 4kW	Single phase 6kW	Single phase 3kW	Double phase 4kW	Double phase 6kW

Spares :

Cat No :	72211 1515	72211 2525	72211 4040
Capacity	1.5 litre/hr	2.5 litre/hr	4 litre/hr
Description	Cat No.	Cat No.	Cat No.
1st Boiler	72201 1553	72211 2553	722210 0413
2nd Boiler	72201 1554	72211 2554	722210 0414
Condenser	72201 157	72211 257	722210 043
Heater	72201 156	72211 256	722210 0425

Cat No :	72220 1515	72220 2525	72220 4040
Capacity	1.5 litre/hr	2.5 litre/hr	4 litre/hr
Description	Cat No.	Cat No.	Cat No.
1st Boiler	72220 1501	72220 2501	72220 4001
2nd Boiler	72220 1505	72220 2507	72220 4005
Condenser	72220 1502	72220 2502	72220 4002
Heater	72220 1503	72220 2503	72220 4003

Optional Accessories.

- 1) Quartz Storage Vessel/ Reservoir for collection of distillate.
- 2) MCB (prevents system from any short circuit).
- 3) Water Softener/DM Plant/Pre-filter/5 Stage RO System to reduce the scaling in the boiler.
- 4) Water Circulator to avoid wastage of cooling water

Note: Due to challenges in accurately measuring the pH value of high purity water and the questionable reliability of the obtained values no pH limits have been established for grade 1 or grade 2 water. The given conductivity is applies to freshly produced water at 20°C free from carbon dioxide. Temperature, the amount of carbon dioxide absorbed, and other impurities from the storage containers all have an impact on conductivity readings.

Horizontal Basic

Singe Distillation

Specifications

Cat. No:	72200 15	72200 25	722211 040
Output	1.5 litres/hr	2.5 litres/hr	4 litres/hr
	Single Distilled	Single Distilled	Single Distilled
Boiler	Borosilicate	Borosilicate	Borosilicate
Heater	Quartz	Quartz	Quartz
Condenser	Borosilicate	Borosilicate	Borosilicate
pH	5.0 – 6.0	5.0 – 6.0	5.0 – 6.0
Conductivity, μScm^{-1}	$<3.0 \times 10^{-6}$	$<3.0 \times 10^{-6}$	$<3.0 \times 10^{-6}$
Temperature	65 – 75°C	65 – 75°C	65 – 75°C
Pyrogen content *	Pyrogen free	Pyrogen free	Pyrogen free
Water supply	0.5 litre/min	0.75 litre/min,	1 litre/min,
Electricity supply	220 or 240V,	50-60Hz,	220 or 240V,
	Single phase	Single phase	Single phase
Power requirement	1.5kW	2kW	3kW



Spares :

Cat No :	72200 15	72200 25	722211 040
Capacity	1.5 litre/hr	2.5 litre/hr	4 litre/hr
Description	Cat No.	Cat No.	Cat No.
Boiler	72200 154	72200 25	722211 0411
Condenser	72200 157	72200 257	722211 043
Heater	72200 156	72200 256	722211 042

Accessories optional:

- Mono cut off system : detects low or no water to condenser and automatically turns OFF the system.
- Softener/ DM plant / 5 stage RO system to reduce scaling in boiler.

Note: Due to challenges in accurately measuring the pH value of high purity water and the questionable reliability of the obtained values no pH limits have been established for grade 1 or grade 2 water. The given conductivity is applies to freshly produced water at 20°C free from carbon dioxide. Temperature, the amount of carbon dioxide absorbed, and other impurities from the storage containers all have an impact on conductivity readings.

Horizontal Basic

Double Distillation

Specifications

Cat. No:	72200 1515	72200 2525	722211 4040
Output	1.5 litres/hr,	2.5 litres/hr	4 litres/hr
	Double Distilled	Double Distilled	Double Distilled
Boiler	Borosilicate	Borosilicate	Borosilicate
Heater	Quartz	Quartz	Quartz
Condenser	Borosilicate	Borosilicate	Borosilicate
pH	5.0 – 6.0	5.0 – 6.0	5.0 – 6.0
Conductivity, μScm^{-1}	$<1.0 \times 10^{-6}$	$<1.0 \times 10^{-6}$	$<1.0 \times 10^{-6}$
Temperature	65 – 75°C	65 – 75°C	65 – 75°C
Pyrogen content *	Pyrogen free	Pyrogen free	Pyrogen free
Water supply	1 litre/min	1.5 litre/min,	2 litre/min,
Electricity supply	220 or 240V,	50-60Hz,	220 or 240V,
	Single phase	Double phase	Double phase
Power requirement	3kW	4kW	6kW



Spares :

Cat No :	72200 1515	72200 2525	722211 4040
Capacity	1.5 litre/hr	2.5 litre/hr	4 litre/hr
Description	Cat No.	Cat No.	Cat No.
1st Boiler	72200 154	72200 254	722211 0411
2nd Boiler	72200 155	72200 255	722211 0412
Condenser	72200 157	72200 257	722211 043
Heater	72200 156	72200 256	722211 042

Accessories optional:

- Dual Mono cut off system : detects low or no water to condenser and automatically turns OFF the system.
- Softener/ DM plant / 5 stage RO system to reduce scaling in boiler.

Note: Due to challenges in accurately measuring the pH value of high purity water and the questionable reliability of the obtained values no pH limits have been established for grade 1 or grade 2 water. The given conductivity is applies to freshly produced water at 20°C free from carbon dioxide. Temperature, the amount of carbon dioxide absorbed, and other impurities from the storage containers all have an impact on conductivity readings.

Horizontal Distillation

With Built-in Thermostatic Cutoff



Specifications

Cat. No:	72214 15	72214 25	72214 40	72214 1515	72214 2525	72214 4040
Output	1.5 litres/hr	2.5 litres/hr	4 litres/hr	1.5 litres/hr	2.5 litres/hr	4 litres/hr
	Single Distilled	Single Distilled	Single Distilled	Double Distilled	Double Distilled	Double Distilled
Boiler	Borosilicate	Borosilicate	Borosilicate	Borosilicate	Borosilicate	Borosilicate
Condenser	Borosilicate	Borosilicate	Borosilicate	Borosilicate	Borosilicate	Borosilicate
pH	5.5 – 6.0	5.5 – 6.0	5.5 – 6.0	5.5 – 6.0	5.5 – 6.0	5.5 – 6.0
Conductivity, μScm^{-1}	3×10^{-6}	3×10^{-6}	3×10^{-6}	1×10^{-6}	1×10^{-6}	1×10^{-6}
Temperature	65 – 75°C	65 – 75°C	65 – 75°C	65 – 75°C	65 – 75°C	65 – 75°C
Pyrogen content	Pyrogen free	Pyrogen free	Pyrogen free	Pyrogen free	Pyrogen free	Pyrogen free
*Water supply	1 litre/min	1.5 litre/min,	2 litre/min,	1 litre/min	1.5 litre/min,	2 litre/min,
Electricity supply	220 or 240V,	220 or 240V,	220 or 240V,	220 or 240V,	220 or 240V,	220 or 240V,
Power requirement	Single phase 1.5kW	single phase 2kW	Single phase 3kW	Single phase 3kW	Double phase 4kW	Double phase 6kW

Spares :

Cat No :	72214 15	72214 25	72214 40
Capacity	1.5 litre/hr	2.5 litre/hr	4 litre/hr
Description	Cat No.	Cat No.	Cat No.
Boiler	72214 1555	72214 2555	72214 0415
Condenser	72214 157	72214 257	72214 043
Heater	72214 1566	72214 2566	72214 0426

Cat No :	72214 1515	72214 2525	72214 4040
Capacity	1.5 litre/hr	2.5 litre/hr	4 litre/hr
Description	Cat No.	Cat No.	Cat No.
First Boiler	72214 1555	72214 2555	72214 0415
Second Boiler	72214 1556	72214 2556	72214 0416
Condenser	72214 157	72214 257	72214 043
Heater	72214 1566	72214 2566	72214 0426

Optional Accessories.

- 1) Quartz Storage Vessel for collection of distillate.
- 2) MCB (prevents system from any short circuit).
- 3) Water Softener/DM Plant/Pre-filter/5 Stage RO System to reduce the scaling in the boiler.
- 4) Water Circulator to avoid wastage of cooling water

Note: Due to challenges in accurately measuring the pH value of high purity water and the questionable reliability of the obtained values no pH limits have been established for grade 1 or grade 2 water. The given conductivity is applies to freshly produced water at 20°C free from carbon dioxide. Temperature, the amount of carbon dioxide absorbed, and other impurities from the storage containers all have an impact on conductivity readings.

Horizontal Metal Heater

Singe Distillation

Specifications

Cat. No:	722210 040
Output	4 litres/hr, single distilled
Heater	Chrome Plated Copper Heater
Boiler	Borosilicate
Condenser	Borosilicate
pH	5.0 – 6.5
Conductivity, μScm^{-1}	$3.0 - 4.0 \times 10^{-6}$
Temperature	65 – 75°C
Pyrogen content	Pyrogen free
*Water supply	1 litre/min
Electricity supply	220 or 240V,
Power requirement	Single phase 3 kW
Dimention (w x d x h)	500 x 150 x 450

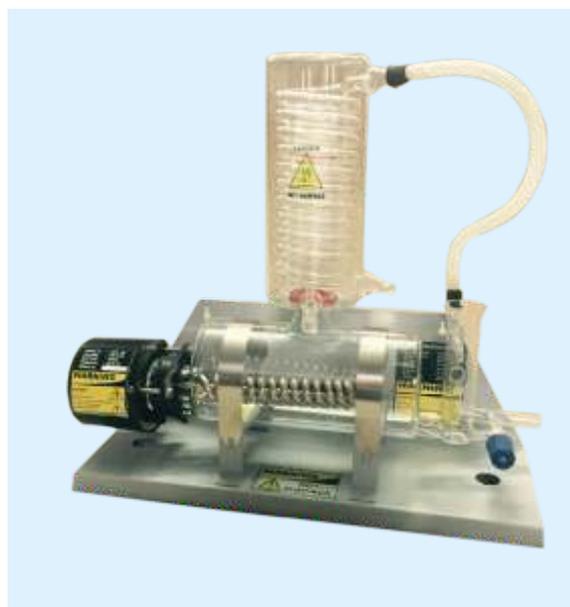
Spares :

Cat No.	722210 040
Capacity	4 litre/hr
Description	Cat No.
Condenser	722210 043
Boiler	722210 041
Heater	722210 042

Accessories optional:

- Softener/ DM plant / 5 stage RO system to reduce scaling in boiler.
- Mono cut off without thermostat

Cat No :	Description
72250 000	Digital PID Auto cut off system with audio alarm for single stage distillation (capacity 1.5 to 5 liter/hr) and also for double stage (capacities upto 2.5 liters/hr)
72250 100	Digital PID Auto cut off system with audio alarm for double stage (capacities 5 liters/hr)
72200 200	Mono cut off system with thermostat
72200 300	Dual mono cutoff with thermostat
72200 100	Mono cut off without thermostat
72260 000	Water softener
72260 001	Resin for water softener
72240 0008	Quartz Storage Vessel 1 Ltr Capacity
72240 0009	Additional Bulb Condenser
72240 0010	MCB Safety Switch
72240 0011	Water Chiller upto 2.5 Ltr
72240 0012	Water Chiller upto 5 Ltr



Note: Due to challenges in accurately measuring the pH value of high purity water and the questionable reliability of the obtained values no pH limits have been established for grade 1 or grade 2 water. The given conductivity is applies to freshly produced water at 20°C free from carbon dioxide. Temperature, the amount of carbon dioxide absorbed, and other impurities from the storage containers all have an impact on conductivity readings.

Warranty Clause for Riviera Distillation Units:

The above equipment is warranted with following conditions:

- The items supplied will carry a warranty of 12 months from the date of the invoice against manufacturing defects. The company will repair or replace the parts going defective free of cost during the warranty period. Vacuumatic items and consumables like bulb, fuse, heater, battery, etc. are not covered under warranty.
- Glass parts do not carry any warranty after installation.
- Complaints arising out of mishandling willful or through ignorance, negligence or resulting from accidents, attempted repairs, and inadequate power supply, fluctuation in voltage, general wear and tear are not covered under this warranty.
- Complaints should be communicated to the warrantor in writing.



All Glass Filter Flask for Filter Holder 47mm Excellent suitability for vacuum filtration of liquids for analysis, especially suitable for HPLC set up, both solvent and mobile phases.

Cat No.	Description	Qty. Per Pack Pcs
73200 544	Complete set Parts only	1
73200 504	Flask for all glass filter holder 47mm	1
73200 502	Funnel for all glass filter holder 47mm	1
73200 503	Filter base for all glass filter holder 47mm	1
73200 501	Clamp	1

Very good compatibility with chemicals including very aggressive solvents - all parts made of borosilicate glass.

Specifications :

Filter size : 47mm dia.
Effective Filtration area : 9.60 cm²
Filter flask capacity : 1000 ml
Funnel capacity : 300 ml
Spring clamp : Anodised Aluminum
Pressure : Vacuum only



Portable, Oil-Free Vacuum Pump, Rivotek Excellent suitability for HPLC & Filtration applications. Supplied complete with Vacuum Gauge & Regulator.

Salient Features :

- No Lubrication required
- Noiseless performance
- Light weight & portable
- Oil-free construction
- Practically maintenance free
- All parts manufactured from special graded Aluminum die cast material
- Diaphragms made of special 2-ply Nylon reinforced Neoprene Rubber
- TEFLON, VITON diaphragms available

- Valves made of Ss316

- Built-in micro suction filter
- Extra large bearings for smooth trouble free operation

Applications :

- Laboratories
- Pollution Control Equipments
- Medical Instruments
- Dentistry
- Chemical Analysers
- Suction Apparatus

Cat No.	Max Flow Ltrs./Min.	Max Vacuum Inches of Hg	Max Pressure Psi	Approx. Weight Kg	Motor HP	Qty. Per Pack Pcs
21202 500	15	27	35	4.10	1/16	1
7001 0519	Moisture trap for above Pump					



Glass Filter Holder 47mm : Excellent suitability for microbiological application.

Cat No.	Description	Qty. Per Pack Pcs
73210 444	Complete set Parts only	1
73210 413	Flask for all glass filter holder 47mm	1
73210 412	Funnel for all glass filter holder 47mm	1
73210 414	Filter base for all glass filter holder 47mm complete with Neoprene Stopper	1
73210 411	Clamp	1
73210 415	Perforated Neoprene Stopper only	1

Funnel capacity : 300 ml
Spring clamp : Anodised Aluminum
Stopper - Perforated-Neoprene

Specifications :

Filter size : 47mm dia.
Effective Filtration area: 9.60cm²
Filter flask capacity: 1000 ml



Glass Filter Holder 25mm: Excellent suitability for microbiological application.

Cat No.	Description	Qty. Per Pack Pcs
73220 224	Complete set Parts only	1
73220 213	Flask for filter holder 25mm	1
73220 212	Funnel for filter holder 25mm	1
73220 214	Filter base for filter holder 25mm complete with Neoprene Stopper	1
73220 211	Clamp	1
73220 215	Perforated Neoprene Stopper only	1

Specifications :

Filter size : 25mm dia.
Filter flask capacity : 125 ml
Funnel capacity : 15 ml
Spring clamp : Anodised Aluminum
Stopper -Perforated-Neoprene



Membrane Filters

Riviera Membrane Filters are ideal to serve the industries which desire fine filtration. These Membrane Filters are used extensively for removal of particulate, bacteria and virus' from liquids as well as from air

Cellulose Nitrate Membrane Filter - Type RCN, RIVIERA

Cellulose Nitrate Membrane Disc filters are hydrophilic, non-media migrating, biologically inert, plain white absolute membrane filter available in wide range of pore size from 0.22µm to 0.80 µm.

Features and Benefits :

- Absolute Retention
- High Flow rates
- Narrow pore size distribution
- Low extractable levels

Applications :

- Sample Preparations
- Microbiological studies
- Filtration of Aqueous solution.

Specifications :

- Retention Efficiency: 0.22 µm : LRV > 7 for Br. diminuta
- Sterilisation: Autoclavable at 121°C
- Maximum Operating Temp: 80°C continuous
- Maximum Operating Pressure: 5 kg/cm2
- Bio safety: Passes the Biological tests for Class VI plastics as described in USP.
- Oxidizable Matter: Passes as per USP.

Integrity Test Data

Porosity Size µm	Wetting Fluid	Bubble Point		Water Flow Rate ml/min/cm ² at DP=10psi at 20 °C
		psi	kg/cm2	
0.22	Water	52	3.65	20
0.45	Water	33	2.32	46
0.80	Water	14	0.98	259

Cat No.	Porosity µm	Dia Base mm	No. of Sheets per Box	No. of Boxes per Case
75400 4722	0.22	47	100	10
75400 4745	0.45	47	100	10
75400 4780	0.80	47	100	10

Cellulose Nitrate Membrane Filter, GRIDDED - Type RGCN, RIVIERA

RGCN membranes are made of cellulose nitrate, a material which assures effective retention with high flow rates. These membranes are useful for water microbiology. A grid is printed on the surface to facilitate colonies.

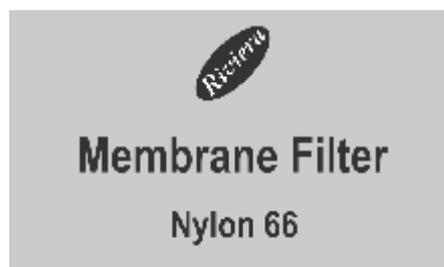
Features and Benefits :

- High Flow rates.
- Non inhibiting ink grids.
- Validated for microbial recovery.

Applications :

- RGCN membranes are useful for water microbiology. The printed grid eases the counting of bacterial colonies, micro colonies etc, and in no way influences the growth of bacteria.

Cat No.	Porosity µm	Dia Base mm	No. of Sheets per Box	No. of Boxes per Case
75600 4722	0.22	47	100	10
75600 4745	0.45	47	100	10
75600 4780	0.80	47	100	10



Membrane Filters

Nylon - 66 Membrane Filter - Type RN, RIVIERA

Nylon membrane disc filter are double layered hydrophilic, non media migrating, biologically inert, flexible, durable, plain white absolute membrane filter offering wide chemical compatibility.

Features and Benefits :

- Absolute Retention
- Wide chemical compatibility
- Not extractable
- High heat resistance
- Base of handling

Specifications :

- Retention Efficiency: 0.22 μm : LRV > 7 for Br. diminuta
- Sterilisation: Autoclavable at 121°C
- Maximum Operating Temp: 80°C continuous
- Maximum Operating Pressure: 5 kg/cm²
- Bio safety: Passes the Biological tests for Class VI plastics as described in USP.
- Oxidizable Matter: Passes as per USP.

Integrity Test Data

Porosity Size μm	Wetting Fluid	Bubble Point		Water Flow Rate ml/min/cm ² at DP=10psi at 20 °C
		psi	kg/cm ²	
0.22	Water	52	3.65	14.5
0.45	Water	33	2.32	38.5
0.80	Water	14	0.98	125

Cat No.	Porosity μm	Dia Base mm	No. of Sheets per Box	No. of Boxes per Case
75500 4722	0.22	47	100	10
75500 4745	0.45	47	100	10
75500 4780	0.80	47	100	10

Edge Hydrophobic Membrane Disc Filter, - Type REHCN, RIVIERA

REHCN Membranes are used for sterility testing of antibiotics & drugs containing bacteriostats. 6 mm rim is hydrophobic and rest of the membrane is hydrophilic. The hydrophobic edge does not allow drug to seep under the rim of the filter holder. This ensures complete removal of the drug during flushing so that growth of any micro-organisms which have been retained on the membrane is not inhibited due to the residual drug, improving the sensitivity and reliability of the test.

Specifications :

- Sterilisation: Autoclavable at 121°C
- Maximum Operating Temp: 80°C continuous
- Maximum Operating Pressure: 5 kg/cm²
- Bio safety: Passes the Biological tests for Class VI plastics as described in USP.
- Oxidizable Matter: Passes as per USP.

Porosity Size μm	Wetting Fluid	Bubble Point		Water Flow Rate ml/min/cm ² at DP=10psi at 20 °C
		psi	kg/cm ²	
0.45	Water	33	2.32	46

Cat No.	Porosity μm	Dia Base mm	No. of Sheets per Box	No. of Boxes per Case
75700 4745	0.45	47	100	10



Chemical Compatibility

Table below shows the chemical compatibility of various laboratory filtration products with some commonly used solvents. All products were exposed to specified chemicals for 72 hours at 25°C.

Reagents	Cellulose Nitrate	Nylon 66
Solvents		
Acetone	N	G
Acetonitrile	N	G
Benzene	G	G
Benzyl Alcohol	N	G
Benzyl Alcohol 4%	F	G
Diethyl Ether	N	G
Dimethyl Formamide	N	G
Ethyl Acetate	N	G
Ethylene Glycol	N	G
Hexane	G	G
Iso Propyl Alcohol	G	G
Methanol	N	G
Methylene Chloride	G	G
n-Butanol	G	G
Peanut Oil	G	G
Tetrahydrofuran/water(50:50)	N	G
Toluene	F	G
Trichloroethylene	G	G
Acids		
Hydrochloric Acid 37%	N	N
Hydrochloric Acid 10 %	G	G
Nitric Acid 67%	N	N
Nitric Acid 7%	G	G
Sulphuric Acid 10%	G	G
Bases		
Ammonium Hydroxide 25%	N	G
Sodium Hydroxide 32%	N	G
Potassium Hydroxide 32%	N	N

G : Good, **N** : Not recommended, **F** : Fair

Certificate of Registration

This is to Certify that
Quality Management System of

RIVIERA GLASS PRIVATE LIMITED

2, C-2116, OBROI GARDEN ESTATE, CHANDIVALI STUDIO ROAD, ANDHERI
EAST, MUMBAI SUBURBAN, MAHARASHTRA, INDIA.

has been assessed and found to conform to the requirements of

ISO 9001:2015

for the following scope :

MANUFACTURING OF SCIENTIFIC AND LABORATORY EQUIPMENT USED IN
THE FIELD OF PHARMACEUTICAL INDUSTRIES, AGRICULTURAL INSTITUTES,
HOSPITALS, EDUCATIONAL INSTITUTES AND VARIOUS GOVERNMENT
RESEARCH ORGANIZATIONS.

IAF CODE : 19,15

Certificate No	: 24EQMC24	Issuance Date	: 07/02/2024
Initial Registration Date	: 07/02/2024		
Date of Expiry*	: 06/02/2027		
1st Surv. Due	: 07/01/2025	2nd Surv. Due	: 07/01/2026



Director



Assurance Quality Certification LLC

Head Office: Sharjah Media City, SHAMS, Sharjah, UAE, e-mail: info@aqceworld.com,

Key Location: A-60, Sector - 2, Noida, Uttar Pradesh, 201301, India.

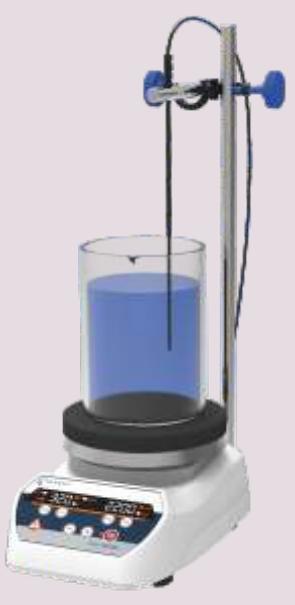
*Validity of the Certificate is subject to successful completion of surveillance audit on or before of due date. (In case surveillance audit is not allowed to be conducted, this certificate shall be suspended/withdrawn).

Certificate Verification: Please Re-check the validity of certificate at <http://www.aqceworld.com/activeclients.aspx> or www.aqceworld.com at Active Clients.

Certificate is the property of Assurance Quality Certification LLC and shall be returned immediately when demanded.

Instruments - RIVOTEK,
NEUATION, EUTECH

Instruments - RIVOTEK, NEUATION, EUTECH



Products Shown are Illustrative only

Certificate of Compliance



PRODUCT CERTIFICATE
EC Attestation of Conformity

RIVIERA GLASS PVT. LTD.

2, C-2116, OBEROI GARDEN ESTATE, CHANDIVALI STUDIO ROAD,
ANDHERI EAST, MUMBAI SUBURBAN, 400072, INDIA.

Directive:- 2001/95/EC

For The following product:

ORBITAL SHAKERS, INCUBATORS SHAKERS (COOLING & NON-COOLING), BOD
INCUBATORS & BACTERIOLOGICAL INCUBATORS, ROCKERS, WATER BATHS
AND SHAKERS, CIRCULATORS BATHS, ULTRASONIC SONICATOR BATHS, OIL
BATHS, TEST TUBE ROTATORS / MIXERS, PERISTALTIC PUMPS, HEATING
BLOCKS / DRY BATHS, HEATING MANTELS, HOT PLATES, WARMERS, HOT AIR
OVENS, HYBRIDIZATION OVEN AND FURNACE, AUTOCLAVE STEAM
STERILIZERS HUMIDITY CHAMBERS

In accordance with
TCF No. CE/01

The present certificate exclusively refers to the product above identified, in accordance
to TCF submitted in PICL. Any Changes or modification implemented on the mentioned
Product will not be covered by this certificate.

Registration No.: PICL/CE/0224/3873
Certificate Issue Date: 07.02.2024
1st Surveillance: 02.2025

Certificate Expire Date: 06.02.2027
2nd Surveillance: 02.2026

Head of Certificate



This Certificate of Registration is granted subject to the Regulations approved by the Board.
PROGRESSIVE INTERNATIONAL CERTIFICATIONS LTD.
Office 4, 219, Kensington High Street, Kensington, London, W8 6BD, England.
E-mail: info@picluc.com, Website: www.picluc.com
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Diaphragm Type COMPRESSORS CUM VACUUM PUMPS

Portable, Oil-free vacuum pumps

Salient Features

- No Lubrication required.
- Noiseless.
- Absolutely portable.
- Totally oil free construction.
- Practically maintenance free.
- All parts made from Special graded aluminum die cast material for light weight and good strength.
- Diaphragms are made of special 2 ply Nylon, reinforced neoprene rubber,
- Special diaphragms are available (Teflon, Viton) on request at extra cost.
- Valves made of SS 316 material.
- Built in micro suction filter.
- Extra Large bearings for trouble free and smooth running.
- Pumps available with single as well as three phase motors.
- Pumps available with flame proof motors (Cat. No. 7001 0012).
- Pumps available with Chemical resistive parts(PP, Teflon contact parts) (Cat. No. 7001 0007/8)



Instruments - RIVOTEK,
NEUATION, EUTECH

Applications as vacuum pump

- Laboratories
- Pollution control equipments electro-plating
- Material handling equipments
- Desoldering station
- Medical instruments
- Dentists
- Chemical analysis
- Suction machines
- Photographic developing machines

Applications as compressor

- Flame photometer
- Agitation of chemicals in electro-plating
- Agitation of film in drying tank
- Oil-free spray painting
- Artist air brush
- Operating small pneumatic tools
- Laminating press
- Nebuliser
- Plastic welding

Note :

1. Vacuum gauge and regulator are fitted with Cat. No. 21202 500 only as standard supply. Moisture trap if required will be supplied at extra cost. For specific application mentioned above other than general laboratory use, please consult Riviera Mumbai office before ordering.
2. Avoid using the pump to handle air with heavy dust & organic, acidic or basic vapors.
3. The values of max pressure, max vacuum & max flow mentioned above are measured very close to the pump head within tolerance of $\pm 3\%$. The mechanical gauge wherever supplied carries reading accuracy of ± 1 division and not covered under warranty.

Single Stage

Max Flow rate **15 LPM**
Max Pressure **25 PSIG**

Max. Vac. Inch Hg	Approx. Weight kg	Motor HP	Appx. Dim mm
22	2.7	1/20	175 x 110 x 140



Cat No.	Diaphragm Description
7001 0001	Neoprene
7001 1001	Teflon

Single Stage reduced dimensions

Max Flow rate **15 LPM**
Max Pressure **25 PSIG**

Max. Vac. Inch Hg	Approx. Weight kg	Motor HP	Appx. Dim mm
22	2.5	1/20	150 x 110 x 140



Cat No.	Diaphragm Description
7001 0002	Neoprene
7001 1002	Teflon

Diaphragm Type

COMPRESSORS CUM VACUUM PUMPS

Double Stage In Parallel

Max Flow rate **25 LPM**
Max Pressure **25 PSIG**

Max. Vac. Inch Hg	Approx. Weight kg	Motor HP	Appx. Dim mm
22	4.2	1/16	220 x 120 x 140



Cat No.	Diaphragm Description
7001 0004	Neoprene
7001 1004	Teflon

Single Stage

Max Flow rate **45 LPM**
Max Pressure **40 PSIG**

Max. Vac. Inch Hg	Approx. Weight kg	Motor HP	Appx. Dim mm
22	6.2	1/8	220 x 120 x 180



Cat No.	Diaphragm Description
7001 0006	Neoprene
7001 1006	Teflon

Chemical Resistive Parts

Single Stage

Max Flow rate - **30 LPM** • Max Pressure - **10 PSIG**

Max. Vac. Inch Hg	Approx. Weight kg	Motor HP	Appx. Dim mm
22	5.8	1/8	235 x 155 x 200



Cat No.	Diaphragm Description
7001 0007	Teflon

Chemical Resistive Parts

Double Stage

Max Flow rate - **50 LPM** • Max Pressure - **10 PSIG**

Max. Vac. Inch Hg	Approx. Weight kg	Motor HP	Appx. Dim mm
22	8.7	1/4	325 x 155 x 200



Cat No.	Diaphragm Description
7001 0008	Teflon

Double Stage In Series

Max Flow rate **45 LPM**
Max Pressure **60 PSIG**

Max. Vac. Inch Hg	Approx. Weight kg	Motor HP	Appx. Dim mm
27	9	1/4	290 x 120 x 180



Cat No.	Diaphragm Description
7001 0009	Neoprene
7001 1009	Teflon

Double Stage In Parallel

Max Flow rate **75 LPM**
Max Pressure **40 PSIG**

Max. Vac. Inch Hg	Approx. Weight kg	Motor HP	Appx. Dim mm
22	9.0	1/4	290 x 120 x 180



Cat No.	Diaphragm Description
7001 0010	Neoprene
7001 1010	Teflon

Flame Proof Motor

Max Flow rate **45 LPM**
Max Pressure **35 PSIG**

Max. Vac. Inch Hg	Approx. Weight kg	Motor HP	Appx. Dim mm
22	18.0	1/4, FPM	325 x 150 x 250



Cat No.	Diaphragm Description
7001 0012	Neoprene
7001 1012	Teflon

Double Stage with VGR

Max Flow rate **15 LPM**
Max Pressure **35 PSIG**

Max. Vac. Inch Hg	Approx. Weight kg	Motor HP	Appx. Dim mm
27	4.1	1/16	220 x 110 x 140



Cat No.	Diaphragm Description
21202 500	Neoprene
21202 1500	Teflon

OPTIONAL ACCESSORIES

Cat No.	Description
7001 0513	Vacuum gauge and regulator
7001 0524	Glycerin Filled Vacuum gauge & regulator
7001 0514	Pressure gauge and regulator
7001 0519	Moisture trap

Warranty Clause for Vacuum Pumps:

The above equipment is warranted with following conditions:

- All Rivotek, vacuum pumps will carry warranty of 12 months from the date of invoice against manufacturing defects. The company will repair or replace the parts going defective free of cost during the warranty period. The warranty for electric/electronic parts does not hold good if the equipment is connected to fluctuating mains voltage beyond $\pm 10\%$ of the standard supply voltage i.e. 230v, 50hz.
- Malfunctioning of the pump caused due to entry of foreign material inside the pump is not covered under warranty.
- Warranty is not applicable to damages occurring due to accident, negligence and misuse by the user.
- Complaints should be communicated to the warrantor in writing.

Rotary Evaporator



Cat No.	7004 3000
Lift Type	Motorised
Condenser Type	Verticle/Horizontal
Rotation Speed (RPM)	20-250
Vapour Tube	Single piece with Sleeve for Easy Removal
Integrated Combi-Clip	Yes
Suitable flask size (ml)	50-3000 ml
Evaporating Flask Capacity	1000 ml
Receiving Flask Capacity	1000 ml
Rotation speed	Potentiometric knob
Motor Power (W)	60
Heating Capacity (W)	1300
Total Power (W)	1360
Temperature Range(°C)	Ambient to 210 °C
Temperature Accuracy(°C)	1
Overheat Protection	Safety Cutoff over +5°C
Temperature Display	Digital LED
Temperature Control	Electronic PID Control
Secondary Protection Cutoff	250°C
Material Heating Bath	SS316L
Volume Heating Bath (L)	4.5L Dia 255mm Suitable 50-3000ml
Bath Position	Flexible to extend to suit flask size
Sealing ring	Graphic fille PTFE
Power Supply	230 VAC 50Hz

Note : Suitable Vacuum Pump can be supplied, POR



Chiller Specifications

Cat No. :	1920 0005
Temperature Range:	Ambient to 10°C
Temperature Controller:	Microprocessor Digital PID Temperature controller cum indicator
Accuracy:	+/-1 °C
Temp. Stability:	+/-0.1 °C
Sensor:	PT100 Sensor
Bath Volume:	5 Ltrs
Flow rate:	15 Ltrs per minute
Pump Type:	Chemical resistant magnetic pump
Circulating Pump:	Circulating Pump to circulate liquid / water to an external source in closed loop condition
Pump Pressure:	0.5 bar
Load / Outlet:	1 Outlet in Series
Level Indicator:	Parallel Front panel scale provided for minimum & maximum water level indication
Water Filling:	Manual Filling
Inner chamber:	Stainless steel
Outer chamber:	Aluminum powder coated
Power Supply:	230 VAC@ 50 Hrz



Design and specifications are subject to change without prior notice, no liability accepted

Magnetic Door	BLDC Motor	Laminar Air Flow	Eccentric Counter Balance
10°C to 60°C	Stackable	24 HOURS	Upto 250 RPM



Incubator Shaker

WITH COOLING (STACKABLE BOD INCUBATOR)

Salient Features

- Three times the capacity of a floor shaker in virtually the same footprint
- Built for both sensitive eukaryotic culture applications with contamination-reducing, covered corner design, single-piece chamber and tight temperature uniformity and for demanding prokaryotic culture applications
- Rugged construction, wide speed range and no limits on “hard shake” speed, even when stacked three-high
- Electronic components and chiller units are easily accessed from the front during regular maintenance or service
- Insulated, fold-up door with easy access to platform flasks.
- Wide-view window and xenon light provide high visibility for harvesting
- Heavy-gauge cold-rolled aluminum exterior
- Type 316 stainless-steel chamber with covered corners; holds 2L Erlenmeyer flasks, has xenon light with switch
- Magnetic door gasket for tight seal
- Built-in timer function 1 min to 99 min or continuous

Specifications

Incubator Shaker with cooling, Floor Model. (Heavy Duty shaker)		
Cat No.	50084 160	50084 250
Flask capacity with the following options	2000ml x 9 Nos. 1000ml x 9 Nos. 500ml x 16 Nos. 250ml x 36 Nos. 100ml x 60 Nos.	2000ml x 12 Nos. 1000ml x 15 Nos. 500ml x 24 Nos. 250ml x 35 Nos. 100ml x 70 Nos.
Speed	25 - 250 rpm	
Display	Digital RPM Indicator with motion drive feedback control	
Motion	Orbital	
Control	Feedback control System	
Temperature Range	10°C to 60°C	
Controller	Digital temperature controller PID type	
Accuracy	± 1°C	
Circulation	Blower assembly for uniform temperature	
Refrigerant	408 gas	
Material	Heavy-gauge Cold-rolled Steel Chamber	
Position of Fan	Horizontal dual blower fan positioned at the back of the shaker for uniform circulation & suction	
Chamber Illumination	Light provided to view the samples	
Driver Motor	BLDC Motor	
Speed Sensor	Built in Hall sensor	
Temperature sensor	PT100 sensor	
Driving Mechanism	Heavy duty castng mechanism with eccentric counter weight balanced drive	
Platform Size	550 mm x 550 mm	800 mm x 550 mm
Inner Chamber Dimensions	W x D x H (650 x 600 x 420) mm	W x D x H (860 x 700 x 420) mm
Outer Chamber Dimensions	W x D x H (950 x 780 x 620) mm	W x D x H (1225 x 875 x 625) mm
Inner Chamber	Stainless Steel 316	
Outer Chamber	Aluminium powder coated	
Input Voltage	230VAC@ 50Hz	

Kjeldahl Distillation

Automatic Distillation System with Touch Screen Display

- Automatic Dilution, Automatic Alkali Addition
- Automatic Steam injection, Process over indication with alarm
- With inbuilt delay time features
- Micro brilliant distillate control with adjustable sensor
- TFT Color Touch Screen Display
- Adjustable steam power: 10-100%
- Auto online water saving mechanism
- Auto deactivation of System on error diagnosis
- Distillation Capacity: 15-20 Samples/hr, Nitrogen Recovery > 99.5%
- Automatic Reagent level sensor with alarm (Alkali).
- High grade Stainless steel non corrosive steam cylindrical Generator
- Stainless Steel additional safety spill tray
- Including all Safety features
- Electrical Requirement: 230V/50Hz AC Single Phase

Cat. No.	Description	Qty per Pack Pcs
1701 6000	Automatic Kjeldahl Distillation System with Touch Screen Display	1



Instruments - RIVOTEK, NEUATION, EUTECH

Macro Block Digestion System

- Four Place, Six Place, Eight Place, Twelve place Macro Block Digestion System (Suitable for plants, soils, water, food & feed, Fertilizers & Pesticides samples)
- Automatic Macro, (4S, 6S, 8S & 12S) Microprocessor based digestion system PID Temperature Controller
- Aluminium Block of 250 ml capacity with Digital Temperature Controller
- Temperature Range: Range: 50-450°C
- Inbuilt digital integrated timer with Auto Sequence
- Auto time Cut off / Timer
- 7 Segment Digital Display
- Inbuilt safety features like auto error indication, auto over temperature protection and auto sensor break Protection.
- (4S,6S,8S & 12S) Digestion Tubes (Macro) 250 ml, SS Insert Rack, Exhaust Manifold System with Teflon adaptors, cooling Support Rack, Easy auto fix spring clamps,
- EPDM Hose for removal of acid fumes
- Electrical Requirement: 220V/50Hz Ac mains

Cat. No.	Description	Qty per Pack Pcs
1701 0400	Macro Block Digestion System, 4 Tubes	1
1701 0600	Macro Block Digestion System, 6 Tubes	1
1701 0800	Macro Block Digestion System, 8 Tubes	1
1701 0012	Macro Block Digestion System, 12 Tubes	1



Scrubber System

- Acid Neutralizer Scrubber System
- Vacuum Giant Aspirator pump
- Tank Capacity: 8 liters,
- Alkali container capacity: 2 liters
- Water container capacity: 2 liters
- Outer cover: MS Powder Coated
- Tank: PP Tank (Polypropylene tank- Acid Resistive)
- Pump: Seal less Teflon coated impeller pump- (To avoid leakage of water)
- Electrical Requirement: 230V/50Hz AC Single Phase

Cat. No.	Description	Qty per Pack Pcs
1701 5000	Scrubber System for Kjeldahl, 3 Stages	1



Design and specifications are subject to change without prior notice, no liability accepted

Orbital Shaker

(Single/Double Platform)



Cat No.	50081 101	50081 102	50081 103	50081 104
Micro-Processor Based	Yes	Yes	Yes	Yes
Capacity (No. of 250ml Flasks)	9 Flasks	16 Flasks	25 Flasks	32 Flasks
Capacity may vary as per Flask Sizes & Combinations				
Display Type	Alpha Numeric LCD 16x2 LARGE DISPLAY			
Motor Type	Brushless	Brushless	Brushless	Brushless
RPM-Range	10-300	10-300	10-300	10-300
Shaking Tray Material	SS 304	SS 304	SS 304	SS 304 (Dual Platform)
RPM Control	Digital	Digital	Digital	Digital
Eccentricity	20mm	20mm	20mm	20mm
Timer	999 mins	999 mins	999 mins	999 mins
Alarm Audio/Visual	Yes	Yes	Yes	Yes

Note: Lotus clamps for holding the flasks in the above shakers to be ordered separately (listed below)



Duran Baffled Flasks

When cultivating microorganisms Erlenmeyer flasks on an orbital shaker,

the oxygen intake is frequently the limiting factor for cell growth. The DURAN Erlenmeyer flask with four baffles on the bottom interrupts the laminar flow to create a turbulent flow. The surface of the liquid and the gas exchange surface is increased, so that the oxygen intake can be increased.

Compulsory Accessories

Lotus clamps (removable) for holding the Flasks in Orbital Shakers to be ordered separately

Cat No.	Flask Capacity ml	No. of Lotus Clamp required for			
		50081 101	50081 102	50081 103	50081 104
50081 602	100	9	16	25	36
50081 603	250	9	16	25	36
50081 604	500	9	9	16	25
50081 605	1000	4	5	9	16

Incubator Shaker

NEW ARRIVALS

- LCD Display**
- Timer**
- BLDC Motor**
- 300 RPM**
- Digital RPM Controller**
- 24 HOURS**



Instruments - RIVOTEK, NEUATION, EUTECH

Cat No.	50082 002	50082 004	50082 006
Micro-Processor Based	Yes	Yes	Yes
Single Controller	Yes	Yes	Yes
All in One Display	Yes	Yes	Yes
Display Type	Graphic LCD 128 x 64	Graphic LCD 128 x 64	Graphic LCD 128 x 64
Motor Type	Brushless	Brushless	Brushless
RPM-Range	10-300	10-300	20-400
RPM Control	Digital	Digital	Digital
RPM Calibration	Digital	Digital	Digital
Eccentricity	20mm	20mm	25mm
Temperature Range	Ambient +5°C to 60°C	Ambient +5°C to 60°C	Ambient +5°C to 60°C
Temperature Accuracy	0.1°C	0.1°C	0.1°C
PID Control	Yes	Yes	Yes
Self Auto-Tuning	Yes	Yes	Yes
Timer	99:59 (HH:mm)	99:59 (HH:mm)	99:59 (HH:mm)
Capacity (No. of 250 ml Flasks)	9 Flasks	16 Flasks	25 Flasks
Capacity may vary as per Flask Sizes & Combinations			
Extra Shelf for Storage	Optional (POR)	Yes	Yes
Shaking Tray Material	SS 304	SS 304	SS 304
Inner Chamber	SS 304	SS 304	SS 304
Outer Body	Powder Coated MS	Powder Coated MS	Powder Coated MS
Inbuilt Led Light	Yes	Yes	Yes
Inbuilt UV Light	Optional	Optional	Optional
Alarm Audio/Visual	Yes	Yes	Yes
Data Logging	Optional	Optional	Yes (1000 readings)
PC Software Included	Optional	Optional	Yes

Incubator Shaker - GMP Models, available on request

Riviera

RivOTEK

LCD Display	Timer
BLDC Motor 	300 RPM
Digital RPM Controller	24 HOURS



BOD Incubator Shaker

(Single/Double Platform)

NEW ARRIVALS

Cat No.	50084 001	50084 002	50084 102	50084 003
Micro-Processor Based	Yes	Yes	Yes	Yes
Single Controller	Yes	Yes	Yes	Yes
All in One Display	Yes	Yes	Yes	Yes
Display Type	Graphic LCD 128 x 64 Large Display	Graphic LCD 128 x 64 Large Display	Graphic LCD 128 x 64 Large Display	4.3" Coloured TFT Touch Screen
Motor Type	Brushless	Brushless	Brushless	Brushless
RPM-Range	10-300	10-300	20-400	10-300
RPM Control	Digital	Digital	Digital	Digital
Eccentricity	20mm	20mm	25mm	20mm
Temperature Range	10°C to 70°C	5°C to 80°C	5°C to 80°C	-5°C to 80°C
Temperature Accuracy	0.1°C	0.1°C	0.1°C	0.1°C
PID Control	Yes	Yes	Yes	Yes
Self Auto-Tuning	Yes	Yes	Yes	Yes
Timer	99:59 (HH:mm)	99:59 (HH:mm)	99:59 (HH:mm)	99:59 (HH:mm)
Capacity	16 x 250 ml Flasks	16 x 500 ml Flasks	16 x 500 ml Flasks	16 x 500 ml Flasks
Capacity may vary as per Flask Sizes & Combinations				
Extra Shelf for Storage	Yes	Yes	Yes	Yes
Shaking Tray Material	SS 304	SS 304	SS 304	SS 304
Inner Chamber Sides	Cornered	Corner-Less	Corner-Less	Corner-Less
Inner Chamber	SS 304	SS 304	SS 304	SS 304
Outer Body	Powder Coated MS	Powder Coated MS	Powder Coated MS	Powder Coated MS
Inbuilt Led Light	Yes	Yes	Yes	Yes
Inbuilt UV Light	Optional	Optional	Optional	Optional
Alarm Audio/Visual	Yes	Yes	Yes	Yes
Data Logging	Optional	Optional	Yes (1000 readings)	Yes (1000 readings)
Pendrive Interface	N.A.	N.A.	N.A.	Yes
PC Software Included	Yes, if Data Logging	Yes, if Data Logging	Yes	Yes
Multi-Program	No	No	Yes	Yes

Note: The 3 KVA Capacity, Servo Controlled Voltage Stabilizer is a must for the above B.O.D. Incubators. POR

Compulsory Accessories

Lotus clamps (removable) for holding the Flasks in Orbital Shakers to be ordered separately

Cat No.	Flask Capacity ml	No. of Lotus Clamp required for			
		50084 001	50084 002	50084 102	50084 003
50081 602	100	16	25	25	25
50081 603	250	16	25	25	25
50081 604	500	9	16	16	16
50081 605	1000	5	9	9	9

Riviera

BOD Incubators

RIVOTEK

NEW ARRIVALS

LCD Display

Timer



Instruments - RIVOTEK,
NEUATION, EUTECH

Cat No.	6101 004	6101 006	6101 010	6101 012	6101 015
Capacity (Litres)	112	171	280	340	425
Volume (CFT)	4	6	10	12	15
Micro-Processor Based	Yes	Yes	Yes	Yes	Yes
Single Controller	Yes	Yes	Yes	Yes	Yes
All parameters Displayed together (°C, Timer)	Yes	Yes	Yes	Yes	Yes
Display Type (by default)	Alpha Numeric LCD	Alpha Numeric LCD	Alpha Numeric LCD	Alpha Numeric LCD	Graphic LCD
Upgradeable	16x2 Large	16x2Large	16x2Large	16x2Large	128x64
Temperature Range	5 to 70.0°C	5 to 70.0°C	5 to 70.0°C	5 to 70.0°C	5 to 70.0°C
Temperature Accuracy	0.1°C	0.1°C	0.1°C	0.1°C	0.1°C
PID Control	Yes	Yes	Yes	Yes	Yes
Self Auto-Tuning	Yes	Yes	Yes	Yes	Yes
Alarm Over Shoot/Drop	Yes	Yes	Yes	Yes	Yes
Timer	99:59(HH:mm)	99:59(HH:mm)	99:59(HH:mm)	99:59(HH:mm)	99:59(HH:mm)
Timer Enable/Disable Option	Yes	Yes	Yes	Yes	Yes
Timer Start after	Yes	Yes	Yes	Yes	Yes
Temperature achieved					
Door Open Detection	Yes	Yes	Yes	Yes	Yes
Multi-Program	No	No	No	No	Yes
Shelf for Storage	2	2	3	3	3
Shelf Material	SS 304	SS 304	SS 304	SS 304	SS 304
Forced Air Convection	Yes	Yes	Yes	Yes	Yes
Fan Control	Automatic	Automatic	Automatic	Automatic	Automatic
Fan Timer	Yes	Yes	Yes	Yes	Yes
Inner Chamber Sides	Cornered	Corner-Less	Corner-Less	Corner-Less	Corner-Less
Inner Chamber	SS 304	SS 304	SS 304	SS 304	SS 304
Outer Body	MS	MS	MS	MS	MS
Inbuilt Led Light	No	Yes	Yes	Yes	Yes
Inbuilt UV Light	No	No	Optional	Optional	Optional
Alarm Audio/Visual	Yes	Yes	Yes	Yes	Yes
Alarm After process Completes	Yes	Yes	Yes	Yes	Yes
Data Logging					Yes
No. of Data loggings					Yes (1000 readings)
USB Interface	Optional	Optional	Optional	Optional	Yes
PC Software Included					Yes
Real Time Clock					Yes

BOD Incubators - GMP Models, available on request

Riviera

RIVOTEK

NEW ARRIVALS

LCD Display

Timer



High Accuracy PID Temperature Controlling

Bacteriological Incubators

Cat No.	6500 0003	6500 0004	6500 0005	6500 1005	6500 0006
Capacity (Litres)	95	125	225	255	350
Chamber Size (inches)	18 x 18 x 18	18 x 18 x 24	24 x 24 x 24	18 x 24 x 36	24 x 24 x 36
Micro-Processor Based	Yes	Yes	Yes	Yes	Yes
Single Controller	Yes	Yes	Yes	Yes	Yes
All parameters Displayed together (°C, Timer)	Yes	Yes	Yes	Yes	Yes
Display Type (by default) Upgradeable	Alpha Numeric LCD 16x2 JUMBO	Graphic LCD 128x64			
Temperature Range	Amb. to 100.0°C	Amb. to 100.0°C	Amb. to 100.0°C	Amb. to 100.0°C	Amb. to 100.0°C
Temperature Accuracy	0.1°C	0.1°C	0.1°C	0.1°C	0.1°C
PID Control	Yes	Yes	Yes	Yes	Yes
Self Auto-Tuning	Yes	Yes	Yes	Yes	Yes
Alarm Over Shoot/Drop	Yes	Yes	Yes	Yes	Yes
Timer	99:59(HH:mm)	99:59(HH:mm)	99:59(HH:mm)	99:59(HH:mm)	99:59(HH:mm)
Timer Enable/Disable Option	Yes	Yes	Yes	Yes	Yes
Door Open Defection	Yes	Yes	Yes	Yes	Yes
Multi-Program	No	No	No	No	Yes
Shelf for Storage	3	3	3	3	3
Shelf Material	SS 304	SS 304	SS 304	SS 304	SS 304
Forced Air Convection	Yes	Yes	Yes	Yes	Yes
Fan Control	Automatic	Automatic	Automatic	Automatic	Automatic
Fan Timer	Yes	Yes	Yes	Yes	Yes
Inner Chamber Sides	Cornered	Corner-Less	Corner-Less	Corner-Less	Corner-Less
Inner Chamber	SS 304	SS 304	SS 304	SS 304	SS 304
Outer Body	MS	MS	MS	MS	MS
Inbuilt Led Light	No	Yes	Yes	Yes	Yes
Inbuilt UV Light	No	No	Optional	Optional	Optional
Alarm Audio/Visual	No	No	Optional	Optional	Optional
Data Logging					Yes
No. of Data Loggings					1000
USB Interface	Optional	Optional	Optional	Optional	Yes
PC Software Included					Yes
Real Time Clock					Yes

Bacteriological Incubators - GMP Models, available on request

Riviera

Hot Air Oven



Instruments - RIVOTEK,
NEUATION, EUTECH

Cat No.	6400 0002	6400 0003	6400 0004	6400 0005	6400 0006
Capacity (Litres)	45	95	125	225	350
Chamber Size	14 x 14 x 14	18 x 18 x 18	18 x 18 x 24	24 x 24 x 24	24 x 24 x 36
Micro-Processor Based	Yes	Yes	Yes	Yes	Yes
Single Controller	Yes	Yes	Yes	Yes	Yes
All parameters Displayed together (°C, Timer)	Yes	Yes	Yes	Yes	Yes
Display Type (by default)	Alpha Numeric	Alpha Numeric	Alpha Numeric	Alpha Numeric	Graphic LCD
Upgradeable	LCD 16x2 Large	LCD 16x2 Large	LCD 16x2 Large	LCD 16x2 Large	128x64
Temperature Range	Amb. to 250.0°C	Amb. to 250.0°C	Amb. to 250.0°C	Amb. to 250.0°C	Amb. to 250.0°C
Temperature Accuracy	0.1°C	0.1°C	0.1°C	0.1°C	0.1°C
PID Control	Yes	Yes	Yes	Yes	Yes
Self Auto-Tuning	Yes	Yes	Yes	Yes	Yes
Alarm Over Shoot/Drop	Yes	Yes	Yes	Yes	Yes
Timer	99:59(HH:mm)	99:59(HH:mm)	99:59(HH:mm)	99:59(HH:mm)	99:59(HH:mm)
Timer Enable/Disable Option	Yes	Yes	Yes	Yes	Yes
Door Open Detection	Yes	Yes	Yes	Yes	Yes
Multi-Program	No	No	No	No	Yes
Shelf for Storage	3	3	3	3	3
Shelf Material	SS 304	SS 304	SS 304	SS 304	SS 304
Forced Air Convection	Yes	Yes	Yes	Yes	Yes
Fan Control	Automatic	Automatic	Automatic	Automatic	Automatic
Fan Timer	Yes	Yes	Yes	Yes	Yes
Inner Chamber Sides	Cornered	Cornered	Corner-Less	Corner-Less	Corner-Less
Inner Chamber	SS 304	SS 304	SS 304	SS 304	SS 304
Outer Body	MS	MS	MS	MS	MS
Inbuilt Led Light	No	No	Yes	Yes	Yes
Inbuilt UV Light	No	No	No	Optional	Optional
Alarm Audio/Visual	Yes	Yes	Yes	Yes	Yes
Data Logging					Yes
No. of Data Loggings					1000
USB Interface	Optional	Optional	Optional	Optional	Yes
PC Software Included					Yes
Real Time Clock					Yes

Hot Air Oven - GMP Models, available on request

Table Top Centrifuge

(Non Cooling Models)

LCD Display

Timer

BLDC Motor



Cat No.	1800 0016	1800 0020	1800 0021	1800 0022	1800 0023
Micro-Processor Based	Yes	Yes	Yes	Yes	Yes
Single Controller	Yes	Yes	Yes	Yes	Yes
All in One Display	Yes	Yes	Yes	Yes	Yes
Display Type	Alpha Numeric	Alpha Numeric	Alpha Numeric	Graphic LCD	4.3" Coloured
	LCD 16x2	LCD 16x2	LCD 16x2	128x64	Touch Screen
Motor Type	Brushless	Brushless	Brushless	Brushless	Brushless
Maximum RPM	16000	20000	20000	20000	20000
RPM/RCF Display	Yes	Yes	Yes	Yes	Yes
Control RPM RCF Both	No	No	Optional	Yes	Yes
Timer	99:59 (HH:mm)	99:59 (HH:mm)	99:59 (HH:mm)	99:59 (HH:mm)	99:59 (HH:mm)
Manual Lid Lock	Yes	Yes	Yes	Yes	Yes
Electronic Lid Lock	Optional	Optional	Yes	Yes	Yes
Dynamic Brake	Optional	Yes	Yes	Yes	Yes
Imbalance	Optional	Optional	Yes	Yes	Yes
Acceleration Setting	Yes	Yes	Yes	Yes	Yes
De-Acceleration Setting	Yes	Yes	Yes	Yes	Yes
Multi-Program	Yes	Yes	Yes	Yes	Yes
Auto-Rotor Recognition	No	No	No	No	Optional
Rotor Head included	1.5mL/2mL x 12 Position Adapter 0.2/0.5mL	1.5mL/2mL x 12 Position Adapter 0.2/0.5mL	1.5mL/2mL x 12 Position Adapter 0.2/0.5mL	1.5mL/2mL x 12 Position Adapter 0.2/0.5mL	1.5mL/2mL x 12 Position Adapter 0.2/0.5mL
Rotor Heads Options (POR)	Multiple Angle Heads 1.5mL, 2mL, 5mL, 15mL, 50mL, PCR Strip	Multiple Angle Heads 1.5mL, 2mL, 5mL, 15mL, 50mL, 100mL, PCR Strip	Multiple Angle Heads Swing Heads 1.5mL, 2mL, 5mL, 15mL, 50mL, 100mL, 96 Well Plate PCR Strip	Multiple Angle Heads Swing Heads 1.5mL, 2mL, 5mL, 15mL, 50mL, 100mL, 96 Well Plate, PCR Strip	Multiple Angle Heads Swing Heads 1.5mL, 2mL, 5mL, 15mL, 50mL, 100mL, 96 Well Plate, PCR Strip

Note : Also available Refrigerated Models, POR



Precision Water Bath

(With built in stirrer)



Instruments - RIVOTEK, NEUATION, EUTECH

Salient Features

- Corrosion-resistant stainless steel chamber coupled with aluminium powder coated base for rust free long life baths.
- Digital PID temperature controller for accurate sensor of temperature and high durable heaters.
- Maintenance-free operation.
- Built in stirrer helps to maintain uniform temperature stability in the bath
- Heavy gauge SS304 Tanks with Rounded corners for quick and easy cleaning.
- Corrosion-resistant stainless steel, holed chamber shelf protects temperature sensor and heater while allowing better heat transfer to the water.
- Quick-connect drain valve makes emptying of bath water fast and easy for cleaning and moving



Cat No.	50124 001	50124 002	50124 003
Capacity (L)	5 liters	10 liters	20 liters
Temperature Range	Ambient + 5°C to 100°C		
Temperature Uniformity (@37°C)	± 0.2°C		
Temperature Stability (@37°C)	± 0.3°C		
Circulation	By PTFE STIR BAR		
Internal Dimensions in mm	325x265x100	325x265x150	530x325x150
Power Consumption (W)	2A, 230Volts, 400 watts	4A, 230Volts, 900 watts	9A, 230Volts, 1600 watts

- SS304 Tank**
- Drain Valve**
- BLDC Motor**
- PID Controller**

Note : Acrylic/SS Lid, POR

Water Bath with Digital PID & Safety Controller

Salient Features

- Inner chamber is made of thick gauge S.S. 304 grade for STD / GMP.
- Outer Body with powder coating only for – STD Model.
- Outer Body made of S.S. 304 grade only for – GMP Model.
- Concentric rings of 3" dia i.e. (75 mm).
- Temperature range: Ambient + 5°C to 99 °C
- Temperature controller - Digital PID Controller.
- Safety controller - Analog safety controller to avoid Overshoot of SET Temperature.
- Provided with indicating lamp & on/off switch.
- Electrically operated on 230V AC single phase power.



Cat No.	Cap in Ltrs.	Model	Size D x W x H in mm	Holes	Watt	Inner Chamber	Outer Chamber
50192 004	9	STD	325 x 300 x 150	6	1000	S. S. 304	MS Powder Coated
50192 005	15	STD	500 x 300 x 150	12	2000	S. S. 304	MS Powder Coated
50191 004	9	GMP	325 x 300 x 150	6	1000	S. S. 304	S. S. 304
50191 005	15	GMP	500 x 300 x 150	12	2000	S. S. 304	S. S. 304

Water Bath Double-walled (Thermostatic Controlled)



Salient Features

- Inner chamber is made of thick gauge S.S. 304 grade sheet, with minimum joint. STD/GMP
- Outer MS with Powder Coating only for - STD model
- Outer made up of S.S. 304 grade sheet only for GMP model
- Specially made extra long heating elements for high heat dissipation, uniformity & longer life.
- The gap between the two walls is filled with glass wool.
- Lid is made up of S.S. 304 with 6 holes & 12 holes of 3" dia.
- Provided with indicating lamps and on/off switch.
- Temp range Ambient +5 °C to 99 °C
- Operation on 240 volts AC

Cat No.	Cap in Ltrs.	Size D x W x H in mm	Holes	Watt	Inner Chamber	Outer Chamber
50192 000	9	325 x 300 x 100	6	1000	S. S. 304	MS Powder Coated
50192 001	15	500 x 300 x 100	12	2000	S. S. 304	MS Powder Coated
50191 000	9	325 x 300 x 100	6	1000	S. S. 304	S. S. 304
50191 001	15	500 x 300 x 100	12	2000	S. S. 304	S. S. 304

Water Bath Shakers



Salient Features

- Body Material : MS Painted with powder coating.
- Tray material : Stainless Steel. SS cover is provided.
- Temp. Range Ambient +5 °C to 99 °C
- Digital Display with microprocessor based PID Controller of Accuracy $\pm 1^\circ\text{C}$ by using PT 100 as sensor
- Shaking speed 20 - 200 / 10-100 stroke per min. (without load)
- Supplied with SS Gabled Cover.
- Continuous operation limit, maximum upto 10-12 hours

Cat No.	Type	Tank Size L x D x H mm	Tray Size L x D x H mm	Stroke Speed per min.
50111 001	Reciprocating (Horizontal)	350 x 300 x 160	250 x 250 x 110	10 -100
50111 002	Reciprocating (Horizontal)	450 x 350 x 160	350 x 300 x 110	10 -100
50111 003	Orbital	400 x 375 x 250	325 x 325	20 -200

Note: SS Lotus clamps for holding the flasks in the above shakers to be ordered separately

Compulsory Accessories

Cat No.	Flask Capacity ml	No. of SS Lotus Clamp required for tray size		
		250 x 250 mm	325 x 325 mm	350 x 300 mm
50081 501	50	9	16	20
50081 502	100	9	16	20
50081 503	250	5	8	9
50081 504	500	4	8	6
50081 505	1000	-	4	-

Water Bath with Digital PID Controller

Salient Features

- Inner chamber is made of thick gauge S.S. 304 grade for STD / GMP
- Outer Body with powder coating only for –STD Model.
- Outer Body made of S.S. 304 grade only for – GMP Model.
- Concentric rings of 3" dia i.e. (75 mm)
- Temperature range: Ambient + 5 °C to 99 °C
- Temperature controller - Digital PID Controller.
- Provided with indicating lamp & on/off switch
- Electrically operated on 230V AC single phase power



Cat No.	Cap in Ltrs.	Model	Size D x W x H in mm	Holes	Watt	Inner Chamber	Outer Chamber
50192 002	9	STD	325 x 300 x 100	6	1000	S. S. 304	MS Powder Coated
50192 003	15	STD	500 x 300 x 100	12	2000	S. S. 304	MS Powder Coated
50191 002	9	GMP	325 x 300 x 100	6	1000	S. S. 304	S. S. 304
50191 003	15	GMP	500 x 300 x 100	12	2000	S. S. 304	S. S. 304

Water Bath with Circulator

Salient Features

- Body Material - MS Painted with Powder coating
- Bath inner material - SS 304.
- Digital display with microprocessor based PID Controller to ± 1.0 °C accuracy by using PT 100 sensor.
- Temperature Range ambient +5 °C to 95 °C
- Fitted with Circulator for uniformity of temperature inside the Bath.



Cat No.	Temp. Range °C	Working Space (including circulator) mm	Cover	No. of Rack
50121 001	Amb. +5 to 95	300 x 175 x 160	SS Gabled	2
50121 002	Amb. +5 to 95	350 x 300 x 160	SS Flat	Not provided

Note: - For supplying the racks, test tube dimensions have to be mentioned.

Standard size of Test Tube for Water Bath Circulator is give below

Rack 1		Rack 2		
0.5 ml	1.5 ml	13 mm	16 mm	19 mm
15 Holes	10 Holes	8 Holes	3 Holes	3 Holes

Circulator for Water Bath

Salient Features

Portable device with Pump. Digital display with microprocessor based PID Controller temperature. Temperature ranges from ambient to 80 °C and is controlled to ± 1.0 °C using PT-100 as sensor. Circulator is supplied without metal or glass tank.

Note:For using the above circulator, the bath or tank should have a minimum depth of 160 mm and the volume of water should be 15 to 20 Liters.

Cat No.	Description
50121 501	Circulator for Water Bath



Water Bath with Outbath Circulation



Cat No.	Temp. Range °C	Working Space (including circulator) mm	Cover	Outbath Circulation
50121 0015	Amb. to 95°C	300 x 175 x 160	SS Gabled	Provided
50121 0025	Amb. to 95°C	350 x 300 x 160	SS Gabled	Provided

Oil Bath

(With built in stirrer)

Salient Features

Corrosion-resistant aluminium chamber powder coated for rust free long life oil baths. Digital **PID temperature controller** for accurate sensor of temperature and high quality durable heaters for temperatures **up to 250° C degree**. **Maintenance-free operation**. Built in stirrer helps to maintain uniform temperature stability in the bath. Quick-connect drain valve makes emptying of bath water fast and easy for cleaning and moving. Flask holder SS rods available to connect on both sides of the instrument to firmly hold the glasswares of various sizes and shapes depending on the model.



All Aluminium Body

250°C

PID Controller

BLDC Motor

Cat No.	50132 004	50132 005	50132 006	50132 007
Capacity (L)	250ml	500ml	1000ml	2000ml
Temperature Range	Ambient + 5° to 250 °C			
Circulations	By PTFE STIR BAR			
Sensor	PT 100			
Speed	2000 rpm			
Motor	High torque BLDC motor			
Power Consumption (W)	230Volts, 300 watts	230Volts, 650 watts	230Volts, 800 watts	230Volts, 1500 watts
Internal Dimensions in mm	100mm dia 55mm length	140mm dia 60mm length	178mm dia 80mm length	220mm dia 140mm length

Oil Bath

Salient Features

Bath Material - SS 304, Single walled without insulation, Heater material used in Bath - SS 316, Bakelite Handles are provided to bath. Temperature range Ambient +5 to 250 °C by separate temperature control unit with ±1.0°C accuracy controlled by microprocessor based PID Controller using a PT-100 sensor. A unit can be kept 2 mtrs away from the oil bath. Oil bath can be used for heating round bottom glass flasks.



Cat No.	Capacity Litres	Dimensions Dia x Depth mm
50131 001	1	165 x 90
50131 002	2	205 x 115
50131 003	3	225 x 130
50131 004	5	270 x 155
50131 005	10	335 x 190
50131 006	20	400 x 220

Hot Plate Digital Round

Round surface heating plate, body made of MS Powder coated. Top Plate made of cast iron. Temp upto 350°C Fitted with Digital Control.

Cat No.	Dimension in inches	Rating in kW
50020 2008	8	1.2
50020 2009	9	1.5
50020 2012	12	2.0

Hot Plate Round

Round surface heating plate, body made of MS Powder coated. Top Plate made of cast iron. Temp upto 350°C Fitted with Thermostatic Control.

Cat No.	Dimension in inches	Rating in kW
50020 0008	8	1.2
50020 0009	9	1.5
50020 0012	12	2.0

Hot Plate Digital Rectangular

Rectangular surface heating plate, body made of MS Powder coated. Top Plate made of cast iron. Temp upto 350°C Fitted with Digital Control.

Cat No.	Dimension in inches	Rating in kW
50022 1012	10 x 12	1.0
50022 1016	10 x 16	1.2
50022 1218	12 x 18	2.0
50022 1824	18 x 24	3.0

Hot Plate Rectangular

Rectangular surface heating plate, body made of MS Powder coated. Top Plate made of cast iron. Temp upto 350°C Fitted with Thermostatic Control.

Cat No.	Dimension in inches	Rating in kW
50021 1012	10 x 12	1.0
50021 1016	10 x 16	1.2
50021 1218	12 x 18	2.0
50021 1824	18 x 24	3.0




Instruments - RIVOTEK, NEUATION, EUTECH



Strong
Durable

Riviera Range of
Beakers



Heating Mantles

MS powder coated Aluminum metal body up to 20 ltrs., MS body for 50, 100 & 200 ltrs. with energy regulator, switch and indicating lamp, max temp (approx. 400 °C).

Cat No.	Model	Capacity ml	Watts	Voltage
9000 0002	Heating Mantles with Energy Regulator	100	60	230
9000 0003	Heating Mantles with Energy Regulator	250	85	230
9000 0004	Heating Mantles with Energy Regulator	500	150	230
9000 0005	Heating Mantles with Energy Regulator	1,000	200	230
9000 0006	Heating Mantles with Energy Regulator	2,000	300	230
9000 0007	Heating Mantles with Energy Regulator	3,000	450	230
9000 0008	Heating Mantles with Energy Regulator	5,000	2 x 300	230
9000 0009	Heating Mantles with Energy Regulator	10,000	2 x 600	230
9000 0010	Heating Mantles with Energy Regulator	20,000	3 x 665	230



Heating Mantles, (Digital)

Construction of these laboratory heating mantles are similar to standard heating mantle but the temperature is controlled by digital temperature controller. Temperature range Ambient +5 to 400 °C These laboratory heating mantles are designed to take only one size of flask. Various sizes are available to fit around bottom flasks of capacity from 1000 ml to 5000 ml. The snug fit of the heating surface, which is in close contact with the flask, ensures good thermal efficiency.

Cat No.	Model	Capacity	Watts
9100 0003	Heating Mantles - Digital	250	85
9100 0004	Heating Mantles - Digital	500	150
9100 0005	Heating Mantles - Digital	1000	200
9100 0006	Heating Mantles - Digital	2000	300
9100 0007	Heating Mantles - Digital	3000	450
9100 0008	Heating Mantles - Digital	5000	2 x 300

Extraction and Kjeldahl Apparatus for research laboratories

MS powder coated. Available with 4 & 6 heaters with energy regulator control, max temp (approx. 400 °C).



Cat No.	Capacity ml	No. of Controls	Watts
9001 0001	100	4	400
9001 0002	250	4	600
9001 0003	500	4	800
9001 0004	1000	4	1200
9001 0006	100	6	600
9001 0007	250	6	900
9001 0008	500	6	1200
9001 0009	1000	6	1800

Note : Also available, Models with Digital Temp Controller and Timer. Price on Request

Optional Accessories

for Extraction and Kjeldahl Apparatus, RIVOTEK



Cat No.	Description
9002 0001	Finger Clamp with Boss Head



Dry Bath Incubator

(DUAL BLOCK 1.5ML X 48 TUBES)

Cat No.	50032 001
Temperature Range	Ambient +5°C to 100 °C
Controller	PID Digital temperature Controller
Accuracy	± 0.5°C
Block Size	100 x 75 x 38
Block capacity (Single)	1.5ml x 24 tubes
No. of Blocks	2 Blocks
Block	High grade non porous aluminum
Safety	Thermostatic cut-off



Instruments - RIVOTEK, NEUATION, EUTECH

Heating Block

The body made of MS Powder coated. Temperature range ambient to 100 °C controlled to ± 1.0°C by digital display with microprocessor based PID Controller display using PT 100 as sensor.

Cat No.	Description
50031 001	Heating Block with 3 nos. interchangeable aluminum blocks of 75 x 50 x 50mm size for accommodating 0.5ml., 1.5ml Eppendorf & 12mm test tubes.
50031 003	Heating Block with 3 nos. interchangeable aluminum blocks of 75 x 50 x 50mm size for accommodating 0.5ml., 1.5ml Eppendorf & 16mm test tubes.
50031 004	Heating Block with 3 nos. interchangeable aluminum blocks of 75 x 50 x 50mm size for accommodating 0.5ml., 1.5ml Eppendorf & 19mm test tubes.
50031 005	Single Heating Block with 150 x 75 x 50mm size accommodating 50 tubes of 10mm Dia. for LAL test
50031 002	Single Heating Block with 150 x 100 x 50mm size accommodating 60 tubes of 10mm Dia. for LAL test



Different Block capacities available, Price on Request

Steristoppers



“Seal in Sterility”
 “Trust in Precision”
 Steristoppers
 by Heinz Herenz

HEINZ HERENZ

Test Tube Rotator,

- Speed Variable from 5 - 50 RPM (Without Load)
- Permanent magnet DC geared motor.
- Noise-free silent operation.
- Constant current speed control circuit for steady speed.
- Powder coated M. S. body.

(Note : While placing the order, please specify the dimensions of the tubes you propose to use as per details given below)



Cat No.	Description
50022 001	Test Tube Rotator with 0.5 ml Eppendorf tubes 24 Nos. & 1.5 ml Eppendorf tubes 24 Nos.
50022 002	Test Tube Rotator with Ø 16/19 mm Test tubes 12 Nos.
50022 003	Test Tube Rotator with Ø 30 mm Test tubes 8 Nos.

Optional Accessories for Test Tube Rotator

Cat No.	Description
50022 501	Digital Timer (0 - 99 min)
50022 502	Digital RPM

Universal Cell-Mixer, Plate Type

- Suitable for mini tissue culture work and blood suspensions without sedimentation or foaming.
- Also suitable for vigorous agitation and end to end mixing.
- Tubes can be mounted at any angle from horizontal to vertical, tubes with respect to axis of rotation.
- Different sizes from 12 mm to 25 mm dia can be accommodated.
- Speed Variable 5 - 50 rpm (without load)



Cat No.	Description
50023 001	Universal Cell Mixer with 0.5 ml (Ø 8 mm) Eppendorf tubes 12 Nos.
50023 002	Universal Cell Mixer with 1.5 ml (Ø 11 mm) Eppendorf tubes 12 Nos.
50023 003	Universal Cell Mixer with Ø 13 to 27 mm Test tubes 8 Nos.

Bunsen Burner - Digital

CUP fitted in S.S. housing, insulated with high density ceramic wool insulation. Control box at bottom side finished with powder coated paint finish.

- Size of cup : 55 mm Dia x 47 mm Ht.
- Stainless Steel cylindrical body SS 304 with mirror finish
- Control Panel made of MS
- Maximum working temp. 500 °C. Approximate Temperature.
- The temperature is controlled by digital PID temperature controller.
- Fuse fitted on backside for overload protection.(SAFETY)
- Rating: 350 W
- Operated on 230 Volts AC, 50 Hz, 1 Phase



Cat No.	Model	Type	Dia mm	Height mm	Shape	Watts
9200 000	Bunsen Burner (Digital)	Refractory crucible	55	47	Conical	350

Rocking Platform Digital

- Rocking Platform can be used for many applications like gel staining, culture aeration, bathing, blotting membranes etc.
- A metal platform with non slip rubber mat moves in a gentle 'See Saw' motion.
- The movement is controlled precisely with a DC motor.
- Cushion and rubber feet prevent unit from 'slipping'.
- Time can be set from 1 min to 99 mins. or continuous

Cat. No.	50051 101	50051 102
No. of Racks	1	2
Motor:	D.C.	
Maximum Speed:	60 strokes	
Speed controller:	Analogue	
Timer:	Digital	
Time range:	1-99mins/Cont.	
Platform Size:	25 x 25 cm	25 x 25 cm, 2 platforms
Weight:	4 kgs.	6 kgs.
Dimension:	25 x 25 x 17.5 cms	25 x 25 x 35 cms
Input Voltage:	230V, 50Hz, A.C. Supply	



Rocking Platform Analog

- Body Material is MS painted with Epoxy Powder.
- Tray Material is SS.
- Shaking speed: 8-60 strokes per min. (without load)
- Permanent Magnet Geared DC motor as driving mechanism is used
- Tray Size in mm : 300 x 275 x 25

Cat No.	No. of Tiers
50051 001	1
50051 002	2



Peristaltic Pump

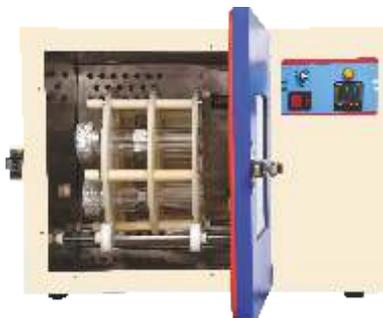
- Single Channel
- Body material- MS with Powder coating
- Stage made up of cast aluminum with black epoxy powder paint
- Rollers of cast Nylon
- Supplied with 1 meter transparent silicon tube
- Pumps with different flow rate are available

Cat No.	Flow Rates	Tube Size mm
50171 001	6-60 ml/Hour	I. D. 1 / O. D. 3
50171 002	10-80 ml/min	I. D. 2 / O. D. 4
50171 003	80-650 ml/min.	I. D. 4 or 6 / O. D. 5 or 7
50171 004	110-900 ml/min	I. D. 6 / O. D. 9



Hybridization Oven

The Hybridization oven is designed to use for molecular biology labs to prehybridize or hybridize the membranes used in blotting techniques. Modern designs combine a hybridization station, active mixing capability, accurate temperature control, into one compact bench top unit.



Specifications

- Interior Material : SS 304
- Exterior Material : MS coated powder coated
- Temperature range : (5 °C above Ambient) to 90°C
- Observation : Viewing Glass Window is provided
- Temperature control : By Digital Display with microprocessor based PID Controller of accuracy ± 0.10 °C by using PT – 100 as Sensor
- A carrier to hold bottles (6 nos. of 60 mm dia x 200 mm length) can be easily placed or removed from the rotor mechanism
- One bottle can be taken out without removing the carrier. The carrier rotates with the Bottles parallel to the door at variable speed of 2 – 15 RPM.
- Supplied without bottles, removable rocking platform SS tray is also supplied.
- Electrically operated on 230 V AC



Cat No.	Outer Chamber Dimensions L x D x H (mm)	Inner Chamber Dimensions L x D x H (mm)	Volume in Ltrs.	Rating Watts
50161 001	650 x 525 x 485	350 x 350 x 400	50	650

Cat No.	Hybridization Bottle Dimensions Dia x Depth mm	Type of Bottle	Maximum No. of Bottles
50161 501	60 x 200	Fabricated out of Borosilicate Glass with leak proof screw cap	6

Microplate Shaker

- Body Material is MS painted with Epoxy Powder. Tray Material is SS.
- Shaking speed: 100-1500 strokes per min
- Permanent Magnet Geared DC motor with 1 mm dia. Orbital motion is used.



Cat No.	Tray Size
50091 001	180 x 150 mm. With springs 2 multi well plates can be placed on the tray

Incubator Micro Plate Shakers

- Temp. Range Ambient + 5 °C to 60°C
- Digital display with microprocessor based PID Controller with PT 100 sensor and accuracy ± 1 °C.
- Fitted with re-circulation fan to maintain temperature uniformity.
- The body material is MS powder coated; inner material is SS 304 ; Tray material is SS.
- Drive mechanism is powered by Permanent Magnet Geared DC motor.
- Continuous operation limit, maximum upto 10-12 hours



Cat No.	Tray Size mm	Chamber Size in mm	Stroke Length	Stroke Speed per min.
50092 001	180 x 150 2 plates of 96 wells can be placed.	270 x 255 x 100	1 mm dia. orbit	100 to 1500

Touch Screen Ultrasonic Processor (Sonicator)



This is the new generation series of Probe Sonicator with uniform ultrasonic frequency 20khz and 30khz. The enclosure is soundproof with portable design. The height adjustment mechanism adds more ergonomics to the design. The TFT touch screen display with user friendly interface and PLC are programmed in a way to give advance features such as Power Amplitude control, 8 Sample processing profiles, Data Logging of Date and Time vs Temperature. This equipment is designed to handle temperature-controlled sonication tasks with temperature range from Ambient 28 °C to 70 °C. It also has feature of programmable timer up to 99 minutes. This product finds its application in wide range of industries including pharmaceuticals, cosmetics, food processing, nano technology labs, defence sectors amongst others.



Instruments - RIVOTEK, NEUATION, EUTECH

Specifications:

Ultrasonic Power, Watts	150	250
Ultrasonic Frequency Khz	20	
Probe Tip Diameter, mm	3 / 6	6
Sample Volume	1-150	10-250
Probe Material	Titanium Alloy (Ti-6Al-4V)	
Sealed Converter	PZT (Energy Converter)	
Display	4.3" Touch Screen	
Programmable Timer(ON/OFF Pulse)	99 min	
ON/OFF Duty Cycle	1 to 20 sec	
Working Temperature Range	25 to 70°C	
Display Resolution for Temp.	0.1°C	
Temperature Stability	1°C	
User Profiles	01 to 08	
Supply Power Spec	230VAC , 50 Hz	

Cat No.	Description
1710 0003	Touch Screen Probe Sonicator, Power 150 watts with Titanium Probe Tip, 3 mm
1710 0006	Touch screen probe sonicator, Power 150 watts with Titanium Probe Tip, 6 mm
1710 1006	Touch Screen Probe Sonicator, Power 250 Watts with Titanium Probe Tip, 6 mm



KERN Balances

Made in Germany

Ultrasonic Processor (Sonicator)

Specifications:



Ultrasonic Power, Watts	150	250	500
Ultrasonic Frequency, Khz	20		
Probe Diameter mm	3	3 / 6	18
Sample Volume ml	1 - 150	20 - 150	25 - 500
Display	LED		
Programmable	Set 10 programs		
PID Controller	Microcontroller Based and Programmable		
ON/OFF Pulse, sec	1 to 99		
Programmable Timer, min.	1 to 99		
Probe Material	Titanium Alloys (Ti-6Al-4V)		
Sealed Converter	PZT (Energy Converter)		
Tuning	Manual Tuning & Frequency Control		
Temperature Range, °C	0°C to 150°C		
Temperature Sensor	PT 100 Sensor		
Operating Voltage	AC 220-203V & 50/60 Hz; Single phase		
Standard Supply :	Ultrasonic Generator, Ultrasonic Cable, Temperature Sensor (PT100), Sealed Converter, Probe, Wrench Set, Support Stand		

Cat No.	Description
1700 0003	Ultrasonic Power 150 Watts with Titanium Probe Tip, 3 mm
1700 1003	Ultrasonic Power 250 Watts with Titanium Probe Tip, 3 mm
1700 1006	Ultrasonic Power 250 Watts with Titanium Probe Tip, 6 mm
1700 2020	Ultrasonic Power 500 Watts with Titanium Probe Tip, 18 mm

Optional Accessories

Cat No.	Description
1700 0505	Sound Enclosure
1700 0506	Laboratory Jack

Chiller Sonicator Bath

System : The system consists of 2 parts.

- A) Ultrasonic Chamber.
- B) Cooling System consists of cooling coils, condenser & compressor of suitable capacity. This helps in maintaining the required temperature in the Ultrasonic Chamber.



Technical Specifications:

Tank Size	10 L	20 L	30 L
Model	Table Top	Table Top	Floor Mounted
Tank Size	12" x 10" x 6"	18" x 12" x 6"	14" x 14" x 10"
Basket Size	11" x 9" x 5"	17" x 11" x 5"	12" X 12" X 8"
Inner body material	SS 304(16 SWG thickness) with rounded corners & mirror finish		
Outer body material	SS 304 (18 SWG thickness with matt finish)		
Total Solvent Capacity	10 ltrs	20 ltrs	30 ltrs
Electric Supply	230V AC, 50Hz, Single phase		
Power Output (Ultrasonic)	250 watt	400 watt	500 watt
Timer	0-99 min With Digital Display of set & actual.		
Temperature controller	Digital temperature controller with setting range 10°C to max 30°C.		
Display Resolution	1°C		
Cooling System	Hermetically sealed Compressor, CFC free Refrigerant		
Auto degassing	Preset for 5 Min.		
PSP	Pulse sweep power for uniform distribution of Ultrasonic energy		
Frequency	33 kHz \pm 3 KHz.		
Transducers	Imported make PZT type bonded at the Bottom of the tank with weld bond technique		
Ultrasonic Generator	Advanced latest IGBT based SMPS		
Drain	$\frac{1}{2}$ " Drain with Ball valve will be provided.		
Legs	Rubber Bush	Rubber Bush	Castor Wheels
Bath Liquid	Water/ Solvent		
Standard Accessories	Basket, Mains cable, SS 304 Lid		

Cat No.	Tank Capacity Ltrs.	Tank Size in Inches L x W x H	Overall Dimensions in inches L x W x H	Ultrasonic Power Watts
1910 0010	10	12 x 10 x 6	18 x 18 x 20	250
1910 0020	20	18 x 12 x 6	24 x 20 x 20	400
1910 0030	30	14 x 14 x 10	22 x 22 x 36	500



Ultrasonic Cleaners

Specifications:



Bath Material	SS 304
Outer Body Material & Lid	SS 304
Ultrasonic Generator	Advanced latest MOSFET/IGBT based SMPS
Frequency	40 ± 3 KHz (Except 1.5 Ltrs which is 30 KHz)
Transducer	Imported make PZT crystals bonded on the base of the tank with weld bond technique.
SS Basket	Provided
Temp Control	Preset @ 45°C max (for 1.5 Ltrs.), Ambient to 60°C through Digital Temp Controller
Built-in Digital Timer	Provided (15 Min for 1.5 Ltr and 99 Min for all other capacities)
Electric supply	230V/ 50Hz AC, single phase.
Drain	Drain valve provided at the rear side of the tank (not included for 1.5 litre model)

Cat No.	Tank Cap In Ltrs.	Tank Clear Size in mm	Ultrasonic Power Watts
1900 0002	2.0	240 x 135 x 65	50
1900 0005	5.0	230 x 230 x 100	100
1900 0010	10.0	300 x 240 x 150	250
1900 0020	20.0	350 x 300 x 200	400
1900 0030	30.0	380 x 380 x 200	500
1900 0050	50.0	555 x 300 x 300	750

Warranty Clause for RIVOTEK, Instruments:

The above equipment is warranted with following conditions:

- The warranty is valid for twelve months from the date of invoice of the equipment.
- The scope of this warranty is limited to the general performance of the equipment and components used. Vacuumatic and consumable items like fuse, heater, battery, lamp etc. are not covered under warranty.
- Complaints arising out of mishandling willful or through ignorance, negligence or resulting from accidents, attempted repairs, and inadequate power supply, fluctuation in voltage, general wear and tear are not covered under this warranty.
- Complaints should be communicated to the warrantor in writing.
- All genuine complaints arising from manufacturing defects will be attended to free of cost during the warranty period.



Vacuum Oven - Rectangular STD Model

Cat No.	Temp. Range	Chamber Size L x H x D in inches	Chamber Size L x H x D in cms
6701 0002	50 °C to 200 °C	12 x 12 x 16	30 x 30 x 40
6701 0003	50 °C to 200 °C	14 x 14 x 20	35 x 35 x 50
6701 0004	50 °C to 200 °C	18 x 18 x 24	45 x 45 x 60
6701 0005	50 °C to 200 °C	20 x 20 x 30	50 x 50 x 75

Vacuum Oven - Rectangular GMP Model

Cat No.	Temp. Range	Chamber Size L x H x D in inches	Chamber Size L x H x D in cms
6702 0002	50 C to 200 C	12 x 12 x 16	30 x 30 x 40
6702 0003	50 C to 200 C	14 x 14 x 20	35 x 35 x 50
6702 0004	50 C to 200 C	18 x 18 x 24	45 x 45 x 60
6702 0005	50 C to 200 C	20 x 20 x 30	50 x 50 x 75

Vacuum Oven - (Round)- STD Model

Cat No.	Temp. Range	Chamber Size Dia x Depth in inches	Chamber Size Dia x Depth in cms
6601 0001	50 C to 200 C	9 x 12	22 x 30
6601 0002	50 C to 200 C	12 x 15	30 x 38

Vacuum Oven - (Round)- GMP Model

Cat No.	Temp. Range	Chamber Size Dia x Depth in inches	Chamber Size Dia x Depth in cms
6602 0001	50 C to 200 C	9 x 12	22 x 30
6602 0002	50 C to 200 C	12 x 15	30 x 38

Vacuum Oven - Optional Accessories

Cat No.	Description
6602 0502	Microprocessor based PID Controller with printer interface to connect to EPSON Dot Matrix Printer. Date, Time and Temperature can be printed whereas Print interval can be set between 1 to 999 minutes. (Supplied without printer)
6602 0503	Safety Controller with alarm in case of overshoot of temp.
6701 0507	Oil Sealed High Vacuum Pump



Muffle Furnace Light Weight - STD Model

Cat No.	Temp. Range	Muffle Size D x L x W in inches	Muffle Size D x L x W in cms
6901 0001	up to 1000 °C Working temp. up to 950 °C	9 x 4 x 4	22 x 10 x 10
6901 0002	up to 1000 C Working temp. up to 950 °C	10 x 5 x 5	22 x 12 x 12
6901 0003	up to 1000 C Working temp. up to 950 °C	12 x 6 x 6	30 x 15 x 15

Muffle Furnace Light Weight - GMP Model

Cat No.	Temp. Range	Muffle Size D x L x W in inches	Muffle Size D x L x W in cms
6902 0001	up to 1000 C Working temp. up to 950 C	9 x 4 x 4	22 x 10 x 10
6902 0002	up to 1000 C Working temp. up to 950 C	10 x 5 x 5	22 x 12 x 12
6902 0003	up to 1000 C Working temp. up to 950 C	12 x 6 x 6	30 x 15 x 15

Muffle Furnace - Optional Accessories

Cat No.	Description
6902 0502	Microprocessor based PID Controller with printer interface to connect to EPSON Dot Matrix Printer. Date, Time and Temperature can be printed whereas Print interval can be set between 1 to 999 minutes. (Supplied without printer)
6902 0503	Safety Controller with alarm in case of overshoot of temp.

Autoclave - Fully Automatic - GMP Model

Cat No.	Temp. Range	Size of Working Chamber in inches	Volume Ltrs.
6302 0035	Factory set for 121 °C	12 dia x 20 ht	35
6302 0052	Factory set for 121 °C	14 dia x 22 ht	52
6302 0095	Factory set for 121 °C	18 dia x 24 ht	95
6302 0175	Factory set for 121 °C	22 dia x 30 ht	175

Important Note:

1. Calibration certificate with IQ, OQ, and PQ Protocols will be provided only for GMP Models
2. On site validation service for GMP Models is available (P.O.R)
3. Semi-automatic Models available, (P.O.R)

Features :

- Powerful Servo DC motor for speed under varying load
- Stirring speeds fro 200 - 2200 RPM allows easy stirring of even highly viscous liquids
- Maximum temperature upto 550°C from room temperature, Accuracy: $\pm 1^\circ\text{C}$
- Timer range: 1 to 999 min. and infinite mode
- 6 intelligent heating modes to suite your precision requirements
- Auto Restart Mode: Restarts the hotplate after power is restored with same parameters
- Capacity upto 20L suitable for large batches of samples
- Robust nanocrystalline ceramic heating plate offers high resistance to chemical & temperature shocks
- Isolated electric components with a safe drain channel for accidental spillage
- Safe temperature setting upto 575 °C to prevent temperature to raise beyond set limits irrespective of situation
- Keypad lock to prevent accidental changes of parameters
- Option of selecting temperature units: °C/°F



- Dedicated Display for both Set & Actual Temperature
- PT-1000 temperature sensor generates error codes pertaining to it's contact with the media
- Option to select Plate or Probe Temperature Display
- Pulse mode for thorough stirring of media by changing the direction of stirring

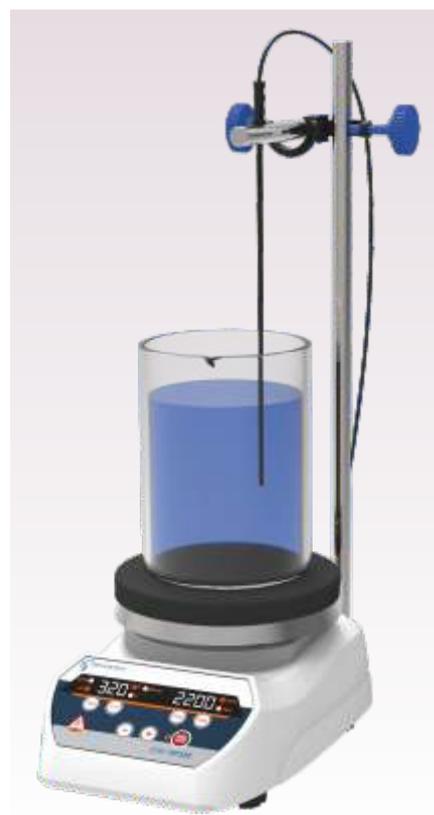
Specifications	iStir HP 550 - Prime
Motor Type	Servo DC Motor
Number of Stirring positions	1
Stirring Quantity	20 L (Max.) H ₂ O
Stirring Bar Length	25 mm (Max.)
Power Consumption	1250 W
Heating Temperature Range	Room Temperature to 550°C
Speed Control	10 RPM/Step
Set-up Pate Material	Ceramic
Housing Material	Aluminum Alloy
Protection Class	IP21
Timer Advances Series	1 min to 999 min & infinite mode
Programmable Pulse	30 to 99 Sec.
Set-up Plate Dimensions	180X180 mm
Unit Dimensions	330 x 225 x 113 mm
Weight	4.9 kg

Cat No.	Product Code	Suitable for
3004 300	HS20 - 1001	Hot Plate Magnetic Stirrer – 220V, Max Temp. 550 °C

Features :

- DC Motor for better performance
- Safe Temperature setting upto 345°C
- Variable speed from 200-2200 RPM
- Variable timer from 1 to 999 min. and infinite mode
- Microprocessor controlled
- Variable temperature setting from room temperature to 320°C, Accuracy: $\pm 1\%$
- Large clear display
- Power intermittent mode: Auto restart mode after power restores for remaining operation
- Option of selecting temperature units: °C/ °F
- Spacing saving design/ small footprint
- Separate display for speed & temperature/ time
- PT-1000 temperature probe
- Option of selecting plate material while placing order

Specifications	iStir HP 320
Capacity	10L (max.) H ₂ O
Power Consumption	650 W
Heater Temperature	Ambient to 320°C
Variable Speed	200 to 2200 RPM in steps of 10 RPM
Run Time	1 to 999 min. & infinite
Set-up Plate Dimensions	140 mm (5 inches)
Set-up Plate Material	Ceramic Coated SS
Housing Material	ABS Plastic
Weight	2.2 kg
Dimensions	156 X 248 X 148 mm
Protection Class	IP21



Cat No.	Product Code	Suitable for
3004 001	HS20-3212	Hotplate Magnetic Stirrer, Max Temperature 320 °C with Ceramic Coated SS top

Features :

- Electric break for immediate stopping of device from opening the lid
- Highly durable robust construction
- Intelligent design to provide carbon dust insulation and safe drainage provision
- Compact design to save valuable space & can be used in fume hoods & cold rooms
- Speed of 6000 RPM for enhanced performance
- Speed accuracy of ± 100 RPM
- Closed rotor design for sample protection

Specifications	iFuge M08
Rotor Capacity	8 place closed rotor for 1.5/2.0 ml microtubes
Speed (RPM)	6000
Speed RCF (g)	2000
Digital Display	No
Electronic Safety breaks	Yes
Noise Level	< 55 db
Power Supply	220VAC, 50Hz
Power Consumption	15 W
Dimensions	162 X 157 X 115 mm



Cat No.	Product Code	Suitable for
3012 1000	M08-1212	Micro Centrifuge, fix speed of 6000 RPM

Features :

- No Moving parts -truly maintenance free
- Low aspect ratio (just 13/14 mm thick)
- Software driven gradual acceleration
- Microprocessor controlled with last run memory feature
- Pulse mode-reverses the direction every 30 seconds for proper mixing
- Universal power supply –small wall mount power adapter
- IP 65 compliant design (water spill resistant)
- Corrosion resistant SS top surface to fight harsh chemicals
- Synchronized speed setting (Multi-position)



Specifications	iStir UNO	iStir Quattro
Max RPM	1500	1200
Max Setting	From 15 RPM to every 50 RPM	
Capacity ml (H ₂ O)	1 X 800	4 x 400
Time setting	1 to 99 min	
Digital Display	Yes	
Recommended bar length mm	25	
Pulse function	Yes	
Sync Mode	NA	Yes
Last run memory	Yes	
Dimensions (W x D x H) in mm	124 x 191 x 14.5	457 x 126 x 13.4
Power Consumption	5 W	13 W
Weight	400 gm	1.5 Kg
Protection class	IP 65 compliant design (water spill resistant)	

Cat No.	Product Code	Suitable for
3006 100	MS01-1111	Motor less ultra slim single position magnetic stirrer with 1500 RPM
3006 200	MS01-4110	Motor less ultra slim 4 position magnetic stirrer with 1200 RPM

Optional Accessories

Cat No.	Product Code	Suitable for
3006 000	SB25	Magnetic bar (L X D) 25x 8 mm

Features : (Mini Vortex Mixers)

- Tiny Vortex with small footprint
- BLDC motor for maintenance free long life
- Smart & robust design- Press activation & suspension
- Robust construction with dia cast aluminum base and rubber pads for stable & salient operation



Features : (Vortex Mixers)

- Brushless DC motor fitted with ball bearing for efficient noiseless operation
- Adjustable speed range with accuracy of $\pm 5\%$
- Time setting 0 to 999 min (iSwix VT)
- Programmable pulse mode function (iSwix VT)
- 3-way switch for touch, continuous & stand-by mode
- Visual indication marker for max speed applicable for various attachments

Specifications	iSwix Jr VT	iSwix	iSwix VT
Max RPM	4500	2800	4200
Orbital diameter mm	4.5	4.0	
Motor type	BLDC	AC Synchronous	BLDC
Digital Display	No	No	Yes
Max Load Capacity gm	100	500	
Max tube diameter	30 mm test tube	Optional Tubes adapters available	
Press activation	Yes	3 way switch	
Speed setting	Yes	Yes	
Time setting	No	No	Yes
Dimensions (W x D x H) in mm	100 x 100 x 70	205 x 136 x 138.5	
Power supply	24 VDC	220 VAC, 50 Hz	24 VDC
Power Consumption	14 W	20 W	
Weight	0.5 kg	3 kg	

Cat No.	Product Code	Suitable for
3004 100	iSwix Jr VT	Analog tiny vortex mixer with variable speed
3003 200	iSwix	Analog vortex mixer with variable speed, 230 VAC operated
3004 200	iSwix VT	Digital vortex mixer with variable speed & time

Optional Accessories

Cat No.	Product Code	Suitable for
3005 001	VM-A1	Universal Attachment
3005 002	VM-A3	Micro plate attachment for iSwix/iSwix VT Vortex Mixer
3005 003	VM-A4	Flask attachment for iSwix/iSwix VT Vortex Mixer
3005 004	VM-A2	Micro Centrifuge Tubes attachment for iSwix/iSwix VT Vortex Mixer
3005 005	VM-A6	Round Disc for for iSwix/iSwix VT Vortex Mixer

CERTIFICATE OF REGISTRATION

This is to certify that the management system of:

Eutech Instruments Pte Ltd. (Part of Thermo Fisher Scientific, Inc.)

Main Site: 7 Gul Circle, #2M-01,
Singapore, 629563, Singapore

See appendix for additional sites and additional site scopes

has been registered by Intertek as conforming to the requirements of:

ISO 9001:2015

The management system is applicable to:

- Overall scope: The design and manufacture of water quality measuring instruments. - Sub Site Scope: R&D and Technical Service department.

Certificate Number:

CERT-0121989

Initial Certification Date:

24 March 2011

Date of Certification Decision:

11 June 2024

Issuing Date:

11 June 2024

Valid Until:

05 August 2027



Calin Moldovean

President, Business Assurance

Intertek Testing Services NA,
Inc. dba Intertek,
4700 Broadmoor SE Suite 200 Kentwood,
Michigan 49512, United States



Rapid and consistent laboratory results

Eutech 1700 Series Bench Meters



thermo scientific



Bench meters



Eutech 1720 Conductivity Bench Meter

Streamline your conductivity, salinity and total dissolved solids (TDS) sample measurements



Eutech 1710 pH/mV Bench Meter

Simplify your pH and redox sample measurements

- The large, bright backlit display makes it easy to read and record sample measurements
- The meters small footprint helps reduce the amount of required bench space
- Critical data is automatically saved to the 500-point meter data log and can be exported via the meters communication port to a computer or printer
- The meters non-volatile meter memory preserves settings and data in the event of power loss
- On-screen icons indicate measurement stability status to support confidence in your readings
- All meters allow for automatic or manual temperature compensation and a one-point offset ATC temperature probe calibration

Models		EBPH171003	EBEC172001
pH Bench Meter & Conductivity Meter			
Measuring Parameters		pH/mV/Temp	Conductivity/TDS/Salinity/Temp.
pH	Range	-2.00 to 18.00 pH	-
	Resolution	0.1, 0.01 pH	-
	Relative accuracy	±0.01 pH ± 1 LSD	-
	Calibration points	1 to 5 points	-
	Calibration method	Automatic buffer recognition with manual buffer entry option	-
	Calibration pH buffer sets	USA (pH 1.68, 4.01, 7.00, 10.01, 12.45) NIST (pH 1.68, 4.01, 6.86, 9.18, 12.45)	-
ORP	Range	±2000 mV	-
	Resolution	0.1 mV	-
	Relative accuracy	±0.2 mV or ±0.05 % of the reading, whichever is greater	-
	Calibration points	1 point	-
	Offset adjustment	Up to ±250 mV	-
Conductivity	Range	-	0.00 µS to 500.0 mS **
	Resolution	-	0.01, 0.1, 1 µS; 0.01, 0.1 mS
	Relative accuracy	-	±0.5% reading ±1 LSD
	Calibration points	-	1 to 5 points
	Calibration method	-	Automatic standard recognition with manual entry option
	Temp Compensation	-	Linear (0 to 10 %/°C) or off
	Reference temperature	-	15.0, 20.0, 25.0 or 30.0°C
TDS	Range	-	0.00 ppm to 500.0 ppt ## (1.00 TDS factor)
	Resolution	-	0.01, 0.1, 1 ppm; 0.01, 0.1 ppt
	Relative accuracy	-	±0.5% reading ±1 LSD
	Calibration points	-	1 to 5 points
	TDS factor	-	0.40 to 1.00
Salinity	Range	-	0.00 to 80.0 ppt
	Resolution	-	0.01, 0.1 ppt
	Relative accuracy	-	±0.5% reading ±1 LSD
	Calibration points	-	1 point
	Modes	-	Natural Seawater (ppt)
Temperature	Range	-5.0 to 105.0 °C	
	Resolution	0.1 °C	
	Relative accuracy	±0.3 °C	
	Calibration points	1 point	
	Offset adjustment	Up to ±5 °C	
Meter Features	Display	5-inch LCD with backlight	
	Data log	500 sets with time and date	
	Date format	Selectable, DD-MM-YYYY or MM-DD-YYYY	
	Input	BNC, ATC	Input DIN
	Data output / Data output format	Data output Computer or printer/ CSV or print	
	Calibration log	Active pH, Rel mV, temperature with time and date	Active conductivity, salinity, TDS, temperature with time and date
	Calibration alarm	Yes, 1 to 168 hours or off	
	Electrode Stand	Yes, electrode stand with meter-attachable bracket	
	Power requirements	100-240 VAC, 50-60Hz, 9 DC adapter, 1.3A	
Standard Supply	Electrode	Included ECFC7252201B double junction gel-filled plastic-body pH electrode. ORP electrode to be ordered separately	Included CONSEN9501D 2-cell K = 1.0 ULTEM -body conductivity/ATC electrode
Dimensions (LxWxH) ; Weight	198.3 mm x 155.2 mm x 61.7 mm		
	700 grams		

** 1 mS = 1000 µS ## 1 ppt = 1000 ppm

Product Code	Cat No.	Description
EBPH171003	8058 001	Eutech 1710 pH/mV bench meter with ECFC7252201B double junction gel-filled plastic-body pH electrode, PH5TEMB01P stainless steel ATC temperature probe, electrode stand, PC cable, and universal power adapter
EBEC172001	8059 001	Eutech 1720 conductivity bench meter with CONSEN9501D 2-cell K = 1.0 ULTEM -body conductivity/ATC electrode, electrode stand, PC cable, and universal power adapter

OPTIONAL ACCESSORIES

CONSEN9501D	8050 010	2-Cell Conductivity/ATC Electrode, stainless steel sensor, Ultem-body (700,2700,1720 series)
ECFC7252201B	8052 006	General Purpose Plastic-body Double Junction Gel-Filled pH Combination Electrode, 12x90mm, BNC connector, 1m cable length
ECFC7960201B	8052 008	General Purpose Plastic-body Double Junction Gel-Filled ORP Electrode, 12x90mm, BNC connector, 1m cable length

Deluxe to Standard Bench pH Meters To Suit Your Pocket

Work Better And Faster

Experience Results

**Deluxe Bench pH/mV/°C/°F Meter
Perfect Choice For QC,
R&D Laboratories, Productions Plants**

- ▶ Fulfill Your Requirement For 5 Point Calibration, GLP & Printer Password Protection for Setup and Calibration



ECPH27005E-P, pH Meter With Special pH Electrode EC620131 & Printer



ECPH27005E, pH Meter With Special Electrode EC620131

Features :

- Up to 6-point calibration with auto-buffer recognition
- Non-volatile memory holds up to 500 data points-time and date-stamped for GLP compliance
- Cal-due alarm-no more out-dated calibrations!
- Bi-directional RS232 for easy data transfer to computer
- Password protection for setup and calibration



User-friendly & accurate

Standard Bench pH/mV/°C/°F Meter



ECPH70042GS with special pH electrode EC620131

- ▶ **Ideal choice for 5 point calibration requirements in Laboratories, productions plants**

Features :

- Large, comprehensive screen that displays readings, calibration points and electrode indicator
- Ready indicator alerts when readings are stable
- **Up to 5-point push button calibration with auto-buffer recognition**
- Non-volatile memory holds up to 100 data points
- Integral electrode holder



Bench Meters

Models		ECPH70042S	ECPH70042GS	ECPH27005E	ECPH27005E-P
Bench Meters pH/mV/Temperature					
Measuring Parameter		pH /mV/ °C / °F		pH /mV/ °C / °F	
pH	Range	-2.00 to 16.00 pH		-2.000 to 20.000 pH	
	Resolution	0.01 pH		0.1 / 0.01/ 0.001 pH (selectable)	
	Accuracy	± 0.01 pH		± 0.002 pH + 1 LSD	
ORP	Range	± 2000 mV		± 2000 mV	
	Resolution	0.1 (± 199.9 mV) / 1 mV (beyond)		0.1 mV	
	Accuracy	± 0.2(± 199.9 mV) / ± 2 mV (beyond)		± 0.2 mV	
Temp. Range	Range	0.0 to 100.0°C (32.0 to 212.0°F)		0.0 to 100.0°C (32.0 to 212.0°F)	
	Resolution	0.1 °C /0.1 °F		0.1°C /0.1°F	
	Accuracy	±0.3°C / ±0.5°F (0 to 70°C)		± 0.3°C /±0.5°F (0 to 70°C)	
ATC /MTC		0 to 100°C (pH only)		0 to 100°C (pH only)	
Buffer Options		USA (pH 1.68, 4.01, 7.00, 10.01,12.45) NIST (1.68, 4.01, 6.86, 9.18, 12.45)		USA, NIST, DIN, User 1, User 2, Custom	
No. of pH Calibration Points		5 points		6 points	
Built-in Electrode Arm		Yes		Yes	
Memory		100 Data sets		500 Data sets	
GLP		---		Yes	
Input		DC socket, BNC, 2.5 mm phono (ATC), phono (reference)		DC socket, BNC, 2.5 mm phono (ATC), phono (reference), phono (RS232)	
Output		---		RS 232C (via cable)	
Printer		---		Included AN-270 Dot Matrix Printer	
Electrode		Included ECFC7252101B	Included EC620131	Included EC620131	
Temperature Probe		Included PH5TEMB01P			
Power Requirements		Included, 100 /240VAC SMPS Power Adapter, 9V,6W, CENTRE +ve		Included, 100 /240VAC SMPS Power Adapter, 9V,6W	
Dimensions (LxWxH);Weight	Meter	17.5 (L) x 15.5 (W) x 6.9 (H) cm ; 650 g			
	Boxed	30.8 (L) x 23.5 (W) x 12.4 (H) cm ; 1800 g			

Instruments - RIVOTEK,
NEUATION, EUTECH

Product Code	Cat No	Description
ECPH70042S	8042 006	pH 700 meter with plastic body, open pore pH electrode ECFC7252101B , ATC Probe PH5TEMB01P, integral electrode holder & 100/240 VAC Adapter (ORP Electrode to be ordered separately)
ECPH70042GS	8042 007	pH 700 meter with glass body, open pore pH electrode EC620131 , ATC Probe PH5TEMB01P, integral electrode holder & 100/240 VAC Adapter (ORP Electrode to be ordered separately)
ECPH27005E	8057 013	pH 2700 meter with glass body, open pore pH electrode EC620131, ATC Probe PH5TEMB01P; integral electrode holder, 100/240 VAC Adapter and RS232 cable (ORP Electrode to be ordered separately)
ECPH27005E-P	8057 014	pH 2700 meter with glass body, open pore pH electrode EC620131, ATC Probe PH5TEMB01P; integral electrode holder, 100/240 VAC Adapter, RS232 cable and AN-270 Dot Matrix Printer (ORP Electrode to be ordered separately)
EC620131	8034 015	Glass-body pH combination electrode, reference double junction ,Ag/AgCl Sealed, 12 x 120 mm, BNC connector, 1m cable length
ECFC7960101B	8052 007	General purpose plastic-body single junction gel-filled ORP electrode, 12 x 90mm, BNC connector, 1m cable length
ECFC7960201B	8052 008	General purpose plastic-body double junction gel-filled ORP electrode, 12 x 90mm, BNC connector, 1m cable length
AN-270	8057 015	Dot Matrix Printer, Brand ANTECH
ECPH5TEMB01P	8034 003	ATC Probe (for Tutor, pH 510, pH 700, Ion 700, pH 2700, Ion 2700), 1m cable length

Conductivity Bench Meters

Models		CON 2700	CON 700
Cond/TDS/Salinity Bench Meters Specifications			
Measuring Parameter		Conductivity / TDS / Salinity / Resistivity / °C / °F	Conductivity / TDS / °C / °F
Highlights		Graphic LCD with backlight & extensive display	Large LCD with dual display
Conductivity	Range	0.050 μ S to 500.0 mS	0.01 to 200.0 mS
	Resolution	0.01 / 0.1 μ S; 0.001 / 0.01 / 0.1 mS	0.01 / 0.1 / 1 μ S; 0.01 / 0.1 mS
	Accuracy	± 1 % full scale	
	Cal. Points	Up to 5	
TDS	Range (Depending On TDS Factor)	0.050 ppm to 500 ppt (@ TDS factor 1.00)	0.01 to 100 ppt @ 0.5 TDS factor (to 200 ppt @ 1.0 TDS factor)
	Resolution	0.01 / 0.1 ppm; 0.001 / 0.01 / 0.1 ppt	0.01 / 0.1 / 1 ppm; 0.01 / 0.1 ppt
	Accuracy	± 1 % full scale	
	Cal. Points	Up to 5	Manual (5 points); maximum 1 per range
Salinity	Range	0 to 80.0 ppt	–
	Resolution	0.01 / 0.1 ppm; 0.001 / 0.01 / 0.1 ppt	–
	Accuracy	± 1 % full scale	–
	Cal. Points	Up to 5	–
Resistivity	Range	2.000 Ω to 20.0 M Ω	–
	Resolution	0.01 / 0.01 Ω ; 0.001 / 0.1 k Ω ; 0.01 M Ω	–
	Accuracy	± 1 % full scale	–
	Cal. Points	Up to 5	–
Temperature	Range (Meter)	0.0 to 100.0 °C / 32.0 to 212.0 °F	
	Resolution	0.1 °C / 0.1 °F	
	Accuracy	± 0.3 °C / ± 0.5 °F	± 0.5 °C / ± 0.9 °F
	Coefficient	Linear & pure ; 0.000 to 10.000 % (per °C)	0.00 to 10.00 % (per °C)
	Normalization	15.0 to 30.0 °C / 59.0 to 86.0 °F	
	Compensation	ATC / MTC	
Meter Features	GLP	Yes	–
	Cell Constant	0.010 to 10.000	0.1 / 1.0 / 10.0 (Selectable)
	Datalogging	Yes	–
	Memory	500 data sets	100 data sets
	LCD Display	Graphic LCD with backlight (5.9 x 7.8 cm)	Custom dual-display LCD (5.6 x 7.5 cm)
	Input	DC socket, 8-pin DIN (2-cell or 4-cell)	DC socket, 8-pin DIN (2-cell)
	Output	RS232	–
	Power	9 V DC adapter, 1.3 A (100 / 240 VAC, SMPS)	
Dimensions (LxWxH); Weight	Meter	17.5 x 15.5 x 6.9 cm ; 650 g	
	Boxed	30.8 x 23.5 x 12.4 cm ; 1800 g	

• 1 mS/cm = 1000 μ S/cm (μ S: microSiemens / mS: milliSiemens) • 1 ppt = 1000 ppm (ppm: parts per million / ppt: parts per thousand)

Product Code	Cat No.	Description
ECCON270043S	8057 010	Eutech CON 2700 Meter With 4-Cell Conductivity Probe K=0.530, Integral Electrode Holder & 100/240 VAC Adapter, RS232 cable
ECCON70043S	8050 009	Eutech CON 700 Meter With Conductivity/ATC Probe CONSEN9501D ,K=1.0, Integral Electrode Holder & 100/240 VAC Adapter
OPTIONAL ACCESSORIES		
CONSEN9501D	8050 010	2-Cell Conductivity/ATC Electrode, stainless steel sensor, Ultem-body (700,2700,1720 series)
CONSEN9201D	8057 016	4-Cell Conductivity/ATC Electrode K=0.530, Graphite Sensor, Epoxy-Body (2700,1720 series)
93X546101	8057 012	2-Cell Conductivity/ATC Electrode, 0.1 cell constant, SS Sensor, Epoxy-Body (700,2700,1720 series)

Models		PC 2700	PC 700
Multi-Parameter Bench Meters			
Measuring Parameter		pH / ORP / Ion / Conductivity / TDS / Salinity / Resistivity / °C / °F	pH / ORP / Conductivity / TDS / °C / °F
Highlights		Graphic LCD with backlight & extensive display	Large LCD with dual display
pH	Range	-2.000 to 20.000 pH	-2.00 to 16.00 pH
	Resolution	0.1 / 0.01 / 0.001	0.01 pH
	Accuracy	±0.002 pH	±0.01 pH
	Cal. Points	Up to 6	Up to 5
ORP	Range	±2000.0 mV	±2000.0 mV
	Resolution	0.1 mV	0.1 mV (±199.9 mV) ; 1 mV (beyond)
	Accuracy	±0.2 mV	±0.2 mV (±199.9 mV) ; ±2 mV (beyond)
Ion	Range	0.001 to 19999	—
	Resolution	2 or 3 digits	—
	Accuracy	0.5 % full scale (monovalent) ; 1 % full scale (divalent)	—
	Cal. Points	2 to 8	—
Conductivity	Range	0.050 µS to 500.0 mS	0.01 to 200.0 mS/cm
	Resolution	0.01 / 0.1 µS ; 0.001 / 0.01 / 0.1 mS	0.01 / 0.1 / 1 µS ; 0.01 / 0.1 mS
	Accuracy	± 1% full scale	
	Cal. Points	Up to 5	
TDS	Range (Depending On TDS Factor)	0.050 ppm to 500 ppt (@ TDS factor 1.00)	0.01 to 100 ppt @ 0.5 TDS factor (to 200 ppt @ 1.0 TDS factor)
	Resolution	0.01 / 0.1 ppm, 0.001 / 0.01 / 0.1 ppt	0.01/ 0.1/ 1 ppm, 0.01/ 0.1 ppt
	Accuracy	± 1% full scale	
	Cal. Points	Up to 5	
Salinity	Range	0 to 80.0 ppt	—
	Resolution	0.01 / 0.1 ppm; 0.001 / 0.01 / 0.1 ppt	—
	Accuracy	± 1% full scale	—
	Cal. Points	Up to 5	—
Resistivity	Range	2.000 Ω to 20.0 MΩ	—
	Resolution	0.01 / 0.1 Ω ; 0.001 / 0.1 kΩ ; 0.01 MΩ	—
	Accuracy	± 1% full scale	—
	Cal. Points	Up to 5	—
Temperature	Range	0.0 to 100.0 °C / 32.0 to 212.0 °F	
	Resolution	0.1° C / 0.1 °F	
	Accuracy	± 0.3 °C / ± 0.5 °F	± 0.5 °C / ± 0.9 °F
	Coefficient	Linear & pure ; 0.000 to 10.000 % (per °C)	0.00 to 10.00 % (per °C)
	Normalization	15.0 to 30.0 °C / 59.0 to 86.0 °F	15.0 to 30.0 °C (adjustable)
Meter Features	Compensation	ATC / MTC	
	GLP	Yes	—
	Cell Constant	0.010 to 10.000	0.1 / 1.0 / 10.0 (Selectable)
	Datalogging	Yes	—
	Memory	500 data sets	100 data sets
	LCD Display	Graphic LCD with backlight (5.9 x 7.8 cm)	Custom dual-display LCD (5.6 x 7.5 cm)
	Input	DC socket, 2.5 mm phono (ATC), BNC, 8-pin DIN (2-cell or 4-cell)	DC socket, BNC, 8-pin DIN (2-cell)
	Output	RS232	—
	Power	9 V DC adapter, 1.3 A (100 / 240 VAC, SMPS)	9 V DC adapter, 3.3 A (100/240 VAC, SMPS)
Dimensions (LxWxH); Weight	Meter	17.5 x 15.5 x 6.9 cm ; 650 g	
	Boxed	30.8 x 23.5 x 12.4 cm ; 1800 g	

* Maximum 199.9 ppt depending on factor setting ** Maximum 500.0 ppt depending on factor setting

Product Code	Cat No.	Description
ECPC70043S	8050 012	Eutech PC 700 Meter With pH Electrode (ECFC7252101B), Conductivity Probe (CONSEN9501D) & include 100/240 VAC power adapter and an integral electrode holder.
ECPC270043S	8057 001	PC 2700 Meter With pH Electrode (ECFG7370101B), 4-Cell Conductivity/ATC Electrode, Graphite Sensor, Epoxy-Body(CONSEN9201D),Integral Electrode Holder & 100/240 VAC Adapter, RS232 cable
OPTIONAL ACCESSORIES		
ECFC7960201B	8052 008	General purpose plastic body double junction gel-filled ORP Electrode, 12x 90mm, BNC Connector 1 meter cable length
ECCONSEN9501D	8050 010	Conductivity Electrode Ultem-body, ATC, Cell Constant=1.0, 16 x 144mm, 1 m cable
ECCONSEN9201D	8057 016	4-Cell Conductivity/ATC Electrode K=0.530, Graphite Sensor, Epoxy-Body (2700,1720 series)

Instruments - RIVOTEK, NEUATION, EUTECH

PC 2700

pH/ORP/Ion/Conductivity/TDS/Salinity/Resistivity/°C/°F

Your all-in-one solution for multi-parameter research work in the lab! The new PC 2700 is accurate, reliable and intuitive with user-friendly functions. Meter comes with a multi-data screen that includes Temperature, electrode status, calibration points, date and time along with your desired measurement parameter. PC 2700 measures pH, ORP, Ion, Conductivity, TDS, Salinity, or Resistivity!

Multi-Parameter : Deluxe Bench



Stability display – faded out and then turns completely black when stable

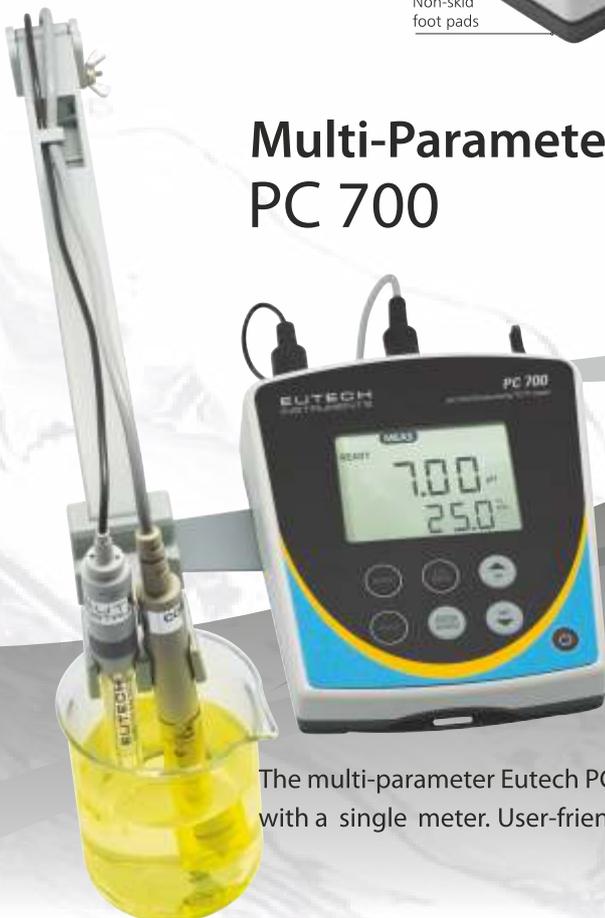


Bright backlight/illuminated display



Download the latest software from our website

Multi-Parameter PC 700



The multi-parameter Eutech PC 700 measures pH, ORP, conductivity and temperature with a single meter. User-friendly with advanced features and a large custom-size display

EUTECH
INSTRUMENTS
Technology Made Easy...

pH ORP Bench Meters

pH ORP Bench Meters Specifications		ECPH51042S	ECPH51042S-I
			
pH	Range	0.00 to 14.00 pH	
	Resolution	0.01 pH	
	Accuracy	±0.01 pH	
	Calibration	1 to 5 Points	
mV	Range	± 1999 mV	
	Resolution	0.1 (± 199.9 mV) / 1 mV (Beyond ± 199.9 mV)	
	Accuracy	± 0.2(+ 199.9 mV) / ± 2 mV (Beyond ± 199.9 mV)	
Temperature	Range	0.0 to 100.0 °C	
	Resolution	0.1 °C	
	Accuracy	±0.3 °C	
	ATC	Yes (0 to 100 °C)	
Meter Features	Memory	100 Data Sets	
	Output	Recorder (+2000 mV)	
	Input	BNC, phono (ATC)	
	Power Requirements	9 V DC adapter for 120 VAC or 220 VAC, 500 mA	
Standard Supply	Electrode	Eutech make ECFC7252101B, plastic body single junction pH combination electrode, BNC connector, 1m cable length included . ORP electrode to be ordered separately	Indigenous make AN-786-1, glass- body pH combination electrode, BNC connector, 1m cable length included. ORP electrode to be ordered separately
	Temperature Probe	Eutech make ATC probe PH5TEMB01P included	Indigenous make ATC probe included
Dimension (LxWxH); Weight	Meter	23 (L) x 18 (B) x 6 (H) cm ; 750 g	
	Boxed	40 (L) x 26 (B) x 9 (H) cm ; 1400 g	

Instruments - RIVOTEK, NEUATION, EUTECH

Product Code	Cat No.	Description
ECPH51042S	8042 002	CyberScan pH 510 pH/mV Meter with Single junction Plastic pH Electrode ECFC7252101B, ATC probe , Integral electrode holder & Power adapter
ECPH51042S-I	8042 003	CyberScan pH 510 pH/mV Meter with Indigenous Glass pH electrode AN-786-1 Indigenous ATC probe, Integral electrode holder & Power adapter
OPTIONAL ACCESSORIES		
ECFC7252101B	8034 004	General Purpose Plastic-body Single Junction Gel-Filled pH Combination Electrode, 12x90mm, BNC connector, 1m cable length
AN-786-1	8034 009	General Purpose Glass-body Refillable Indigenous pH Combination Electrode, BNC connector, 1m cable length
ECFC7960201B	8052 008	General Purpose Plastic-body Double Junction Gel-Filled ORP Electrode, 12x90mm, BNC connector, 1m cable length
ECFC7960101B	8052 007	General Purpose Plastic-body Single Junction Gel-Filled ORP Electrode, 12x90mm, BNC connector, 1m cable length
ECPH5TEMB01P	8034 003	ATC Probe (for pH 510), 1m cable length
60X030130	8050 007	100 /240VAC SMPS Power Adapter with US/UK/EUR/Japan plug ,9V,6W, CENTRE +ve (for Cyberscan 510 series)

Conductivity/TDS | Handheld Meters

Conductivity/ TDS Handheld Meters Specifications		ECCONWP15003K	ECCON603PLUSK	ECTDS603PLUSK
Measuring Parameter		Conductivity/TDS/°C	Conductivity/°C	TDS//°C
Conductivity	Range	0 to 200 mS	0- 19.99, 19.9-199.9, 199- 1999 µS/cm; 2.00- 19.99, 20.0 - 199.9 mS/cm	-
	Resolution	0.01 µS to 0.1mS	0.01, 0.1, 1 µS/cm ; 0.01 , 0.1 mS/cm; (0.05% of full scale)	-
	Accuracy	± 1% of full scale		-
TDS	Range	0 to 200 ppt	-	0- 9.99, 10-99.9, 100-999 ppm; 1.0-9.99 , 10- 99.9 ppt
	Resolution	0.01 ppm to 0.1 ppt	-	0.01, 0.1 ,1 ppm; 0.01,0.1 ppt (0.05% of full scale)
	Accuracy	± 1% of full scale	-	± 1% of full scale
	TDS Factor	1.0	-	0.4 to 1.0
Calibration Points		Auto/Manual (Conductivity), Manual (TDS; 1 point per range)	4 points (1 per range auto), 5 points (1 per range manual)	5 points (1 per range manual)
Temperature	Range	-10.0 to 110.0° C (14.0 to 230.0 °F)		0.0 to 100 °C (32 to 212 °F)
	Resolution	0.1° C / 0.1 °F		
	Accuracy	± 0.5 ° C / ± 0.9 °F		
	Compensation	Automatic/ Manual from -10 to 110 °C	ATC/MTC (0 to 80.0 °C)	
	Normalization	20 or 25 °C		
Meter Features	Temp. Coefficient	0.0- 10.0%	0.0- 3.0%	
	Cell Constant	0.1,1.0,10.0	-	
	Memory	Up to 150 data sets	-	
	Operating Temperature	0 to 50 °C		
	LCD Display	Three line custom LCD	Single display LCD (4.5 x2.3 cm)	
Dimensions (L x W x H); Weight	Meter	20 x 8.3 x 5.7 cm; 0.5kg	15.7 x 8.5 x 4.2 cm/255g	
	Boxed	23 x 23 x 7 cm; 0.7kg	36 x 28 x 8 cm/ 1555 g	

Product Code	Cat No.	Description
ECCONWP15003K	8050 002	CON150 meter, Conductivity cell (K = 1.0), Grip-Clip, two AA batteries, hard carry case, calibration solutions
ECCON603PLUSK	8050 001	COND 6+ Conductivity Meter with electrode ECCONSEN91B & Conductivity carrying kit set
ECTDS603PLUSK	8051 001	TDS 6+ TDS Meter with electrode ECCONSEN91B & TDS carrying kit set
Optional Accessories		
ECCONSEN91B	8050 003	2 Stainless Steel Rings Ultem-body Electrode with ATC, cell constant K = 1.0, 16x144 mm, BNC connector, 1m cable length (for CON 6+ , TDS 6+ , Salt 6+)
ECCONSEN91W	8050 004	2 Stainless Steel Rings Ultem-body Electrode with ATC, cell constant K = 1.0, 16x144 mm, 6-pin connector, 1m cable length (for CON 150)
ECCONSEN72W	8050 005	2 Platinum Rings Epoxy-body Electrode with ATC, cell constant K = 0.1, 16x110 mm, 6-pin connector, 1m cable length (for CON 150)
ECCONSEN92W	8050 006	2-Cell Conductivity/ATC Electrode, 10.0 cell constant, Platinum Sensor, Epoxy-Body (for CON 150)
60x426 401	8050 011	100 /240VAC SMPS Power Adapter with US/UK/EUR/Japan plug , 9V,6W, Centre +ve (for CON 150)

pH/ORP Handheld Meters

pH/ORP Handheld Meters Specifications		CyberScan Dual-Display	EcoScan Single-Display
		ECPHWP15002K	ECPH602PLUSK
			
Measuring Parameter		pH/ORP/°C	
pH	Range	-2.00 to 16.00 pH	0.00 to 14.00 pH
	Resolution	0.01 pH	
	Accuracy	±0.01 pH	
	Calibration Points	Up to 5 points (USA/ NIST), Up to 6 points (DIN)	Up to 3
	Buffer Sets	USA(1.68, 4.01, 7.00, 10.01, 12.45), NIST (1.68, 4.01, 6.86, 9.18, 12.45), DIN	USA (pH 4.01,7.00, 10.01) NIST(pH 4.01, 6.86, 9.18) Pb (pH 4,10, 6.97)
ORP	Range	±2000 (Electrode optional)	±1000 mV
	Resolution	0.1mV up to ±999; 1 mV beyond	0.1 mV(+ 199.9mV) ;1 mV (> + 199.9mV)
	Accuracy	±0.2mV + 2LSD or +0.5% of reading; whichever is greater	+0.2mV (+ 199.9mV);2 mV (>+ 199.9mV)
	Calibration	±200mV	-
	Range	-10.0 to 110.0 °C(14.0 to 230.0 °F)	0.0 to 100.0 °C
	Resolution	0.1 °C / 0.1 °F	0.1 °C
	Accuracy	±0.5 °C / ±0.9 °C	±0.5 °C
Meter Features	Temperature Compensation	ATC/MTC	ATC/MTC (0 to 100 °C)
	Memory	Upto150Datasets	-
	Power Requirements	2x1.5VAA batteries(included) orACAdapter(Optional)	4x 1.5 V 'AAA' Alkaline batteries
Dimensions (LxWxH) ; Weight	Meter	20 x 8.3 x 5.7 cm; 0.5 kg	15.7 x 8.5 x 4.2 cm; 255 g
	Boxed	23 x 23 x 7 cm; 0.7 kg	36 x 28 x 8 cm; 1555 g

Instruments - RIVOTEK, NEUATION, EUTECH

Product Code	Cat No.	Description
ECPHWP15002K	8052 003	pH 150 Meter with double-junction pH electrode & ATC probe, Grip-Clip™, two AA batteries, hard carry case, pH buffers, storage solution, rinse solution
ECPH602PLUSK	8052 002	pH 6 + pH/ORP Meter with single junction pH electrode ECFC7252101B, ATC probe & pH carrying kit set
Optional Accessories		
ECPH5TEM01P	8052 004	ATC probe (for pH 6 + , pH 5 + , pH 150 only); 1m cable length
ECFC7252101B	8034 004	General Purpose Plastic-body Single Junction Gel-Filled pH Combination Electrode, 12x90mm, BNC connector, 1m cable length
ECFC7252201B	8052 006	General Purpose Plastic-body Double Junction Gel-Filled pH Combination Electrode, 12x90mm, BNC connector, 1m cable length
ECFC7960101B	8052 007	General Purpose Plastic-body Single Junction Gel-Filled ORP Electrode, 12x90mm, BNC connector, 1m cable length
ECFC7960201B	8052 008	General Purpose Plastic-body Double Junction Gel-Filled ORP Electrode, 12x90mm, BNC connector, 1m cable length
60x426 401	8050 011	100 /240VAC SMPS Power Adapter with US/UK/EUR/Japan plug, 9V,6W, CENTRE + ve (for pH 150)

pH & Conductivity Handheld Meters with PC Interface

pH & Conductivity Handheld Meters with PC Interface Specifications		ECPHWP45002K	ECCONWP45003K
Measuring Parameter		pH / mV / ION / °C	Conductivity / TDS / Salinity / °C
pH	Range	-2.00 to 16.00 pH	—
	Resolution	0.01 pH	—
	Accuracy	±0.01 pH	—
	Calibration Points	Up to 6 points (USA, NIST, DIN Custom)	—
mV	Range	±2000 mV	—
	Resolution	0.1 mV ±999.9 mV; 1 mV beyond	—
	Accuracy	±0.2 mV +2 LSD or +0.5 % of reading; whichever is greater	—
	Calibration	±200mV	—
ION	Range	0.0 to 2000 ppm	—
	Resolution	0.01/0.1/1 ppm	—
	Accuracy	±0.5 % full scale (monovalent); ± 1% full scale (divalent);	—
	Calibration Points	From 2-4 or 2-5 points; 0.10, 1.00, 10.0, 100.0 & 1000 / 0.20, 2.00, 20.0, 200.0 & 2000 / 0.50, 5.00, 50.0 & 500.0	—
Conductivity	Range	—	0 to 200 mS
	Resolution	—	0.01 µS to 0.1 mS
	Accuracy	—	±1% full scale
	Calibration	—	Auto/manual; 1 point/range
TDS	Range	—	0 to 200 ppt (TDS factor 1.0)
	Resolution	—	0.01 ppm to 0.1 ppt
	Accuracy	—	±1% full scale
	Calibration	—	Manual; 1 point/range
Salinity	Range	—	0 to 50 ppt
	Resolution	—	0.01
	Accuracy	—	±1% full scale
	Calibration	—	Manual; 1 point
Temperature	Range	-10.0 to 110.0 °C (14.0 to 230.0 °F)	
	Resolution	0.1 °C/ °F	
	Accuracy	±0.5 °C; ±0.9 °F	
	Calibration	Offset in 0.1 increments, ±10 °C or ±18 °F	
Display	Custom LCD with backlight		
Memory	Stores up to 500 data sets		
Output	USB, RS232 output with optional data cable		
Real-Time Clock	Time and date stamp on Calibration and stored data		
Power	Two AA batteries (included), AC adapter (optional)		
Dimensions (LxWxH) ; Wt.	Meter	20 x 8.3 x 5.7 cm; 0.5 kg	
	Boxed	23 x 23 x 7 cm; 0.7 kg	

Product Code	Cat No.	Description
ECPHWP45002K	8052 015	pH 450 Meter Kit with double-junction pH electrode ECFC7252201B and ATC probe, Grip-Clip™, two AA batteries, hard carry case, USB cable, pH buffers, storage solution, rinse solution. ORP electrode & ION electrode to be ordered separately.
ECCONWP45003K	8050 015	CON 450 Meter Kit, conductivity cell ECCONSEN91W (K = 1.0), Grip-Clip™, two AA batteries, hard carry case, USB cable, calibration solutions
Optional Accessories		
ECFC7252201B	8052 006	General Purpose Plastic-body Double Junction Gel-Filled pH Combination Electrode, 12x90mm, BNC connector, 1m cable length
ECFC7960201B	8052 008	General Purpose Plastic-body Double Junction Gel-Filled ORP Electrode, 12x90mm, BNC connector, 1m cable length
ECCONSEN91W	8050 004	2 Stainless Steel Rings Ultem-body Electrode with ATC, cell constant K = 1.0, 16x144 mm, 6-pin connector, 1m cable length
ECCONSEN72W	8050 005	2 Platinum Rings Epoxy-body Electrode with ATC, cell constant K = 0.1, 16x110 mm, 6-pin connector, 1m cable length
ECCONSEN92W	8050 006	2-Cell Conductivity/ATC Electrode, 10.0 cell constant, Platinum Sensor, Epoxy-Body
60x426 401	8050 011	100 /240VAC SMPS Power Adapter with US/UK/EUR/Japan plug, 9V, 6W, Centre + ve

Salinity | Pocket Tester & Handheld

Unlike other conventional testers, the SaltTestr® 11 offers ±1 % full scale accuracy

More User-Friendly

- Direct temperature readout in ° C and ° F
- Large screen display
- Battery-level indicator
- Non-volatile memory

High Accuracy

- ±1 % full scale accuracy
- Automatic Temperature Compensation (ATC)

More Savings

- Replaceable sensors
- Advanced power-conserving design

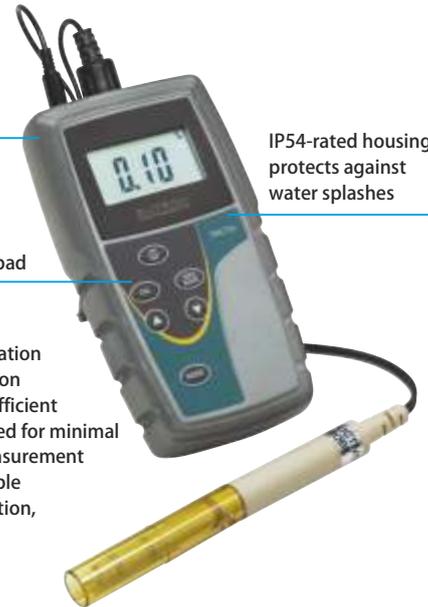


Protective rubber boot doubles up as stand

Splashproof keypad

IP54-rated housing protects against water splashes

- Measures in ppt & %
- Quick and easy push-button calibration
- User customisation for normalisation temperature and temperature coefficient
- Electrode with built-in ATC designed for minimal air bubble entrapment during measurement
- Rugged all-in-one meter kit available
- Other features include: HOLD function, auto-off, self-diagnostics



Instruments - RIVOTEK, NEUATION, EUTECH

Salinity Pocket Tester & Handheld Meter Specifications		ECSALT603PLUSK	SALTTEST11
Measuring Parameter		Salinity/°C	
Highlights		High accuracy and wide range Salinity measurements	Large dual-display
Salinity (TDS)/%	Range	1.0 to 50.0 ppt/0.1 to 5.00 %	0 to 10.00 ppt*
	Resolution	0.1 ppt/0.01 %	0.10 ppt
	Accuracy	±1 % Full scale	
Temperature	Calibration Point	1 (manual)	
	Range	-10.0 to 110.0 °C	0 to 50 °C/32 to 122 °F
	Resolution	0.1 °C	0.1° C / 0.1 °F
	Accuracy	±0.5 °C	± 0.5 °C / ± 0.9 °F
	Compensation	ATC	
	Coefficient (Per °C)	0.0- 3.0%	2 %
Meter Features	Normalization	20.0 or 25.0 °C	25.0 °C
	Auto-Off	20 Mins after last key pressed	8.5 Mins after last key pressed
Power Requirements	Waterproof (IP67)	No	Yes
	Batteries	4x 1.5 V 'AAA' Batteries	4x 1.5 V 'A76' Micro alkaline batteries
LCD Display		Dual display LCD (4.5 x2.3 cm)	Single display LCD (2.1 x2.7 cm)
Dimensions (LxWxH); Weight	Meter	15.7x 8.5x 4.2 cm/255g	16.5x 3.8cm/90g
	Boxed	36x 28 x 8 cm/ 1555 g	18.5x6.5x5 cm/ 200 g

* 1 ppt = 1000 ppm (ppm: parts per million / ppt: parts per thousand)

Product Code	Cat.No.	Description
ECSALT603PLUSK	8003 007	Salt 6 + Salinity Meter with electrode ECCONSEN91B & Salinity carrying kit set
SALTTEST11	8003 006	Waterproof SaltTestr 11 large display tester
Optional Accessories		
ECCONSEN91B	8050 003	2 Stainless Steel Rings Ultem-body Electrode with ATC, cell constant K = 1.0, 16x144 mm, BNC connector, 1m cable length (for CON 6 + , TDS 6 + , Salt 6 +)
ECTDSENSOR	8014 007	Replacement sensor for waterproof SaltTestr 11 & SaltTestr, 2-pin type

Eutech Instruments With a Difference

Same Reliability, More Convenience

Economy waterproof eco pocket tester series



Click-Lock Battery Compartment

All Push Button Operation

IP67 Waterproof Housing

Transparent Protective Cap

Easy to use

Large easy to read LCD

Auto-Calibration

Automatic Temperature Compensation

Waterproof Handheld Meters 450 series



81 % Larger Three Line Display 450 series add backlight

Battery Life Indicator

All Measurements Include Temperature in °C or °F

View Electrode Slope or Probe Efficiency At-A-Glance

Calibration Due Reminder
Set automatic notifications from 0 - 60 days

Increased Memory:
500 points with date/time for 450 series

450 series offers upgradable firmware and also can utilize Free Communication Software

Rugged Housing Floats & Meets Waterproof IP67 Rating (With rubber covers)

Utilizes New and Improved Grip-Clip Electrode Holder

Uses Only Two AA Batteries or Optional Universal Power Supply

Integral Built-In-Stand for table use or wall mounting

450 Models Offer Output for USB or RS232

FC **UL** **CE** **RoHS**

Handy multi-parameter pocket testers 35 series

Measure up to 5 parameters with one tester
pH, Conductivity, TDS, Salinity and Temperature



IP67 waterproof housing



Large custom dual display LCD



User-replaceable sensor



Double junction sensor minimizes clogging and contamination



Maintain Accuracy and Extend Life of instruments...

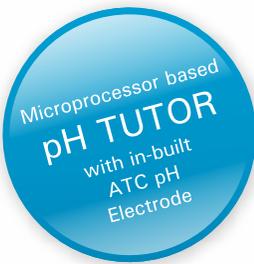
Standardize on a regular basis.
Calibration solutions for pH, TDS,
Conductivity, Redox, Salinity

Choice of
480 ml Bottles
1000 ml Bottles
20x 20 ml Sachets



CyberScan pH Tutor pH/°C

Simple, Economical And Accurate



Easy to read LCD display provides optimum view

Simple push-button calibration



IP54 rated splash proof tactile keypad ensures efficient meter operation



pH Tutor

pH Tutor		
Measuring Parameter		pH/°C
Highlights		Dual display standard bench
pH	Range	0.00 to 14.00 pH
	Resolution	0.01pH
	Accuracy	±0.01pH
	Calibration Points	Up to 3
	Buffer Sets	USA, NIST
Temperature	Range	0 to 100°C
	Resolution	0.1 °C
	Accuracy	±0.3 °C
Meter Features	Temperature Compensation	ATC/MTC (0 to 100°C)
	Input	BNC, phono
	Power Requirements	9 V DC Adapter, 500 mA (220 VAC)
Dimensions (LxWxH); Weight	Meter	23 x 18 x 6 cm ; 570 g
	Boxed	40 x 26 x 9 cm ; 1200 g

Order Code	ECPHTUTOR-D	ECPHTUTOR-S	ECPHTUTOR-I
pH Electrode	EUTECH "3-in-1" pH/Temp Order Code ECFC7352901B	EUTECH Electrode Order Code ECFC7252101B	Indigenous pH Electrode Order Code AN-786-1
Stand	Indigenous electrode stand		



Product Code	Cat No.	Description
ECPHTUTOR-D	8034 001	Cyberscan pH tutor pH meter with plastic-body "3-in-1" pH/Temp.(ATC in-built) ECFC7352901 combination electrode, 12x90mm, BNC connector, 1m cable length, indigenous electrode holder and power adapter
ECPHTUTOR-S	8034 002	CyberScan pH Tutor pH meter with single junction pH electrode ECFC7252101B combination electrode, 12x90mm, BNC connector, 1 m cable length, indigenous electrode holder and power adapter. ATC probe to be ordered separately
ECPHTUTOR-I	8034 010	CyberScan pH Tutor meter with indigenous refillable glass pH electrode AN-786-1, BNC connector, 1m cable length, indigenous electrode stand and power adapter. ATC probe to be ordered separately
ECFC7252101B	8034 004	General purpose plastic-body single junction gel-Filled pH combination electrode, 12x90mm, BNC connector, 1m cable length
ECFC7350401B	8034 006	General purpose glass-body single junction refillable pH combination electrode, annular ceramic reference junction with protective sensor guard, 12x110mm, BNC connector, 1m cable length & 10ml refilling electrolyte
ECFC7352901B	8034 005	General purpose plastic-body "3-in-1" pH/Temp. combination electrode, 12x90mm, BNC connector, 1m cable length (for pH Tutor)
AN-786-1	8034 009	General purpose glass-body refillable indigenous pH combination electrode, BNC connector, 1m cable length, Make ANTECH.
ECPH5TEMB01P	8034 003	ATC Probe, 1m cable length (for pH Tutor)
60X030130	8050 007	100 /240VAC SMPS Power Adapter with US/UK/EUR/Japan plug, 9V,6W, CENTRE + ve (for Tutor)

pH Electrodes

**Electrode
Selection
Guide**



Instruments - RIVOTEK,
NEUATION, EUTECH

ELECTRODES

Product Code	Cat No.	Description	Application Code	pH Range	Temp. Range °C	Length (mm)	Dia. (mm)	Internal Reference
ECFC7352901B	8034 005	Plastic body	L	1 – 13	0 to 80	110	12	Ag/AgCl (S)
ECFG7350401B	8034 006	Glass body	A,F	0 – 13	0 to 100	110	12	Ag/AgCl®
ECFG6351101B	8034 013	Glass body	J	0 – 13	0 to 100	55	8	Ag/AgCl (S)
ECFC7252101B	8034 004	Plastic body	A, L	1 – 13	0 to 80	110	12	Ag/AgCl (S)
Ec620131	8034 015	Glass body	A,B,C,D,L,O,Q	0 – 14	0 to 80	120	12	Ag/AgCl (S)
EC620130	8034 016	Glass body	A,B,C,G,L,O,Q	0 – 14	0 to 80	160	12	Ag/AgCl (R)
EC620132	8034 017	Plastic body	A,B,G,L,O,Q	0 – 14	0 to 60	105	12	Ag/AgCl (S)
Ec620133	8034 018	Glass body	A,B,J,O,Q	2 – 11	0 to 50	80	6	Ag/AgCl (S)
ECFG7252001B	8034 020	Glass body	I	0 – 12	0 to 100	110	12	Ag/AgCl (R)
ECFG7370101B	8034 021	Glass body	B, O	0 – 13	0 to 100	110	12	Ag/AgCl (R)
ECFG4390401B	8034 022	Glass body	B, C, M	0 – 13	-5 to 80	55	4	Calomel (R)

- | | |
|---|---|
| <p>A General purpose, aqueous pH measurements.
Quality control, general laboratory and aquarium water</p> <p>B Tris buffers, clinical, and biological media containing proteins, creams, fats, and cosmetics.</p> <p>C Research measurements, fruit juices, beer, milk and yogurt.</p> <p>D High viscosity solutions such as emulsions, suspensions, paints and varnishes where frequent cleaning of the reference is necessary.</p> <p>F Low temperature measurements.</p> <p>G Low ionic strength solutions, such as high purity water.</p> <p>I Surface Measurement such as paper, skin, textile, leather & agar plates</p> | <p>J Solid or semi-solid samples such as cheese, meats, fruits, bread, or other similar samples.</p> <p>L Portable pH meters; field and school use.</p> <p>M Micro sample, such as semi micro currettes and NMR tube.</p> <p>N Test tube measurements.</p> <p>O Reference contamination problems that require a double junction reference, such as media containing sulfides, bromides, iodides, and cyanides.</p> <p>P Measurements in long, narrow vessels.</p> <p>Q Soil pH measurements.</p> |
|---|---|

Conductivity TDS | Pocket Testers

Conductivity/ TDS Pocket Testers Specifications		EC Waterproof Large Dual-Display Pocket Tester		TDS Waterproof Large Dual-Display Pocket Tester	
		ECTestr 11+	ECTestr 11	TDSTestr 11+	TDSTestr 11
					
Measuring Parameter		Conductivity/°C/°F		TDS/°C/°F	
Highlights		Multi-range	Dual-range	Multi-range	Dual-range
Conductivity	Range	.. to 200.0µS/cm .. to 2000µS/cm .. to 20.00 mS/cm	.. to 2000 µS/cm .. to 20.00 mS/cm	.. to 100.0 ppm .. to 1000 ppm .. to 10.00 ppt*	.. to 1000 ppm .. to 10.00 ppt*
	Resolution	0.1 µS/cm 1 µS/cm 0.01 mS/cm	10 µS/cm 0.10 mS/cm	0.1 ppm 1 ppm 0.01 ppt	10 ppm 0.10 ppt
	Accuracy	± 1% full scale			
TDS Factor		-		0.40 to 1.00 (Selectable)	
Calibration Points		3 Auto, 3 Manual	2 Auto, 2 Manual	3 Manual	2 Manual
Temperature	Range	0 to 50.0 °C or 32.0 to 122.0 °F			
	Resolution	0.1 °C/°F			
	Accuracy	± 0.5 °C/0.9 °F			
	Calibration Window	± 5.0 °C/9.0 °F			
Meter Features	ATC	Yes (0 to 50 °C or 32.0 to 122.0 °F)			
	Sensor Type	Cup	Dip	Cup	Dip
	Temperature Coefficient	2% per °C			
	Normalization Temperature	25.0 °C			
	Non-Volatile Memory	Yes			
	Auto-Off	8.5 Mins after last key pressed			
	Operating Temperature	0.0 to 50.0 °C			
	LCD Display	Custom dual-display 2.7 cm (H) x 2.1 cm (W)			
	Power	4x 1.5 V 'A76' Micro alkaline batteries			
	Battery Life	> 150 Hours			
Dimensions (LxWxH); Weight	Tester	16.5 x 3.8 cm ; 90 g			
	Boxed	22 x 6 x 5 cm ; 170 g			

1 mS/cm = 1000 µS/cm (µS: microSiemens / mS: miliSiemens)

* 1 ppt = 1000 ppm (ppm: parts per million / ppt: parts per thousand)

Product Code	Cat No.	Description
ECTEST11PLS	8036 009	Waterproof ECTestr11+ multi range tester with ATC & temperature display (0 - 200.0 µS/cm; 0 - 2000 µS/cm; 0 - 20.00 mS/cm)
ECTEST11	8036 008	Waterproof ECTestr11 dual range tester with ATC & temperature display (0 - 2000 µS/cm; 0 - 20.00 mS/cm)
TDSTEST11PLS	8037 009	Waterproof TDSTestr11+ multi range tester with ATC & temperature display (0 - 100.0 ppm; 0 - 1000 ppm; 0 - 10.00 ppt)
TDSTEST11	8037 008	Waterproof TDSTestr11 dual range tester with ATC & temperature display (0 - 1000 ppm; 0 - 10.00 ppt)



Large custom dual-display LCD



User-replaceable sensor



Ribbed body for better grip



Push Button Calibration



Cup type sensor

pH/ORP | Pocket Testers

pH/ORP Pocket Testers Specifications		ECOPHTEST 1	ECOPHTEST 2	pHTestr 30	pHTestr 20	pHTestr 10	Elite pHSpear	ORPTestr 10
								
Measuring Parameter		pH	pH	pH/°C/°F	pH			ORP (mV)
Highlights		±0.1 pH Accuracy	±0.1 pH Accuracy	0.01, Temp. display	0.01 Resolution	0.1 Resolution	Open pore, spear tip	
pH/mV	Range	0.0 to 14.0 pH		-1.00 to 15.00 pH		-1.0 to 15.0 pH	-1.00 to 15.00 pH	-999 to +1000 mV
	Resolution	0.1 pH		0.01 pH		0.1 pH	0.01 pH	1 mV
	Accuracy	±0.1 pH		±0.01 pH		±0.1 pH	±0.01 pH	±2 mV
	Calibration Points	1 Points	3 Point	3 Auto				1 Manual
	Buffer Sets	USA		USA: 4.01/7.00/10.01 ; NIST: 4.01/6.86/9.18				
Temperature	Range	-		0 to 50.0 °C 32.0 to 122.0 °F	-		0 to 50.0 °C (MTC) 32.0 to 122.0 °F	-
	Resolution	-		0.1 °C/°F	-		0.1 °C/°F	-
	Accuracy	-		±0.5 °C/0.9 °F	-		-	-
	Calibration Points	-		±5 °C/9 °F from default value	-		-	-
Meter Functions	ATC	No	Yes	Yes		No (MTC)		No
	Sensor Type	Single-junction		Double-junction		Double-junction		
	Auto-Off	8.5 Mins after last key pressed						
	Operating Temperature	0 to 50 °C						
	LCD Display	Single display		Custom dual-display 2.7 cm (H) x 2.1 cm (W)				
	Power	4 x 1.5 V "A76" alkaline batteries						
Dimensions (LxWxH); Weight	Tester	16.3x4.5x3 cm/90g		16.5 x 3.8 cm ; 90 g		24x3.8cm;103g		16.5 x 3.8 cm ; 90 g
	Boxed	24.5x13.5x4.5 cm /137g		22 x 6 x 5 cm ; 170 g		25.5x13.5x7.5cm; 240g		22 x 6 x 5 cm ; 170 g

Instruments - RIVOTEK, NEUATION, EUTECH

Product Code	Cat No.	Description
PHTEST10	8020 001	Waterproof pHTestr 10 Tester with ATC; ±0.1 pH accuracy
PHTEST20	8020 002	Waterproof pHTestr 20 Tester with ATC; ±0.01 pH accuracy
PHTEST30	8020 003	Waterproof pHTestr 30 Tester with ATC and Temperature Readout; ±0.01 pH resolution
ELITE PHSPEAR	8021 005	Elite pHSpear Waterproof Tester with spear-tip electrode; ±0.02 pH accuracy with lanyard batteries.
ORPTEST10	8016 003	Waterproof ORPTestr 10 Large Dual Display Tester (-999 to +1000 mV)
ECOPHTEST1	8020 008	Waterproof EcoTestr pH 1 Tester without ATC, 1 point Calibration
ECOPHTEST2	8020 009	Waterproof pHTestr 2 Tester with ATC; 3 point Calibration
PHSENSOR03DJ	8022 001	Replacement Double Junction Sensor for pHTest10, 20, 30
01X001538	8021 007	Replacement Spear-tip Electrode for Elite pHSpear

Thermo Scientific Eutech Expert pH Testers

pH / Temperature

Simultaneously measure pH and temperature with the Thermo Scientific™ Eutech™ Expert pH testers, a pocket sized tester designed to provide accurate measurements on the go for a variety of applications

- Auto-buffer recognition and auto-calibration make on-site calibration quick and easy
- 3-point calibration allows the tester to accurately measure pH across the acid and alkali ranges
- ±0.1 % accuracy

Thermo Scientific Eutech Expert CTS Testers

Conductivity / TDS / Salinity / Temperature

The Thermo Scientific™ Eutech™ Expert CTS tester accurately measures conductivity, TDS, and salinity in one single instrument, making it an ideal solution for many applications.

Specifications :

Models		EXPERTPH	EXPERTCTS
Measuring Parameter		pH / °C / °F	Conductivity / TDS / Salinity / °C / °F
pH	Range	0.0 to 14.0 pH	-
	Resolution	0.1 pH	-
	Relative Accuracy	±0.1 pH	-
Conductivity	Range	-	0.00 to 20.00 mS/cm
	Resolution	-	10 µS/cm below 2.00 mS/cm, 0.10 mS/cm above 2.00 mS/cm
	Relative Accuracy	-	±2 % full scale ±1 LSD
	Automatic Calibration Values	-	84 µS/cm, 1413 µS/cm, 12.88 mS/cm
TDS	Range	-	0.00 to 20.00 ppt
	Resolution	-	10 ppm below 2.00 ppt, 0.10 ppt above 2.00 ppt
	Relative Accuracy	-	±2 % full scale ±1 LSD
	TDS Factor	-	0.40 to 1.00 (selectable)
Salinity	Range	-	0.0 to 10.0 ppt
	Resolution	-	0.10 ppt
	Relative Accuracy	-	±2 % of full scale ±1 LSD
No. of Cal Points		1 to 3 points	One calibration point per parameter
Temperature	Range	0 to 50.0 °C 32.0 to 122.0 °F	0 to 50.0 °C; 32.0 to 122.0 °F
	Resolution	0.1 °C / 0.1 °F	0.1 °C / 0.1 °F
	Relative Accuracy	±0.5 °C / ±0.9 °F +1 LSD	±0.5 °C / ±0.9 °F +1 LSD
	Automatic Temp. Compensation	Yes	Yes
General	Power	Includes (4) batteries (A76 or LR44 equivalent)	Includes (4) batteries (A76 or LR44 equivalent)
	Auto Off	8.5 mins after last key press	8.5 mins after last key press
	Operating Temp.	5 to 45 °C	5 to 45 °C
	Ingress Protection	IP67 rating; waterproof	IP67 rating; waterproof
	Dimensions(LxWxH)	17 x 4.5 x 3 cm	17 x 4.5 x 3 cm



- Large 4 digit double line display and wide viewing angle make it easy to read and record measurements
- Battery life, ready, and calibration indicators simplify measurement and pocket tester maintenance

Applications

- Hydroponics • Agriculture
- Aquaculture & Aquariums
- Pools & Spas • Education
- Cooling Towers • Water Treatment
- Environmental Monitoring
- Food & Beverage • Manufacturing
- Printing and more!



Product Code	Cat No	Description
EXPERTPH	8020 010	Waterproof Expert pH pocket tester with ATC and temp display, 3 point Calibration, ±0.1 pH accuracy
EXPERTCTS	8020 012	Waterproof Expert CTS Conductivity/ TDS/salinity pocket tester with ATC and temperature display (0.00-20.00mS/cm; 0.00 -20.00 ppt; 0.0 -10.0 ppt)

Multi-Parameter Pocket Testers

Multi-Parameter Pocket Testers Specifications		PCSTestr 35	PCTestr 35	PTTestr 35	
					pH / Conductivity / TDS / Salinity / °C / °F
Highlights		Waterproof, temp. display, 0.01 resolution, replaceable sensor		Waterproof, temp. display, 0.1 pH resolution, replaceable sensor	
pH	Range	0.00 to 14.00 pH		0.0 to 14.0 pH	
	Resolution	0.01 pH		0.1 pH	
	Accuracy	±0.01 pH		±0.1 pH	
	Cal. Points	Up to 5 (auto)			
	Auto-Buffer Recognition	Yes			
Conductivity	Range	0.0 to 199.9 µS/cm / 200 to 1999 µS/cm / 2.00 to 20.00 mS/cm	0 to 1999 µS/cm / 2.00 to 20.00 mS/cm	-	
	Resolution	0.1 µS/cm / 1 µS/cm / 0.01 mS/cm	1 µS/cm / 0.01 mS/cm	-	
	Accuracy	±1 % full scale		-	
	Cal. Points	3 auto, 3 manual	2 auto, 2 manual	-	
	Temperature Coefficient	0.0 to 10.0 % / °C			
	Normalisation Temperature	25.0 °C			
TDS	Auto-Ranging	Yes			
	Range	0.0 to 99.9 ppm / 100 to 999 ppm / 1.00 to 10.00 ppt	-	0 to 999 ppm / 1.00 to 10.00 ppt	
	Resolution	0.1 ppm / 1 ppm / 0.01 ppt	-	1 ppm / 0.01 ppt	
	Accuracy	±1 % full scale	-	±1 % full scale	
	Cal. Points	Up to 3 (manual)	-	Up to 2 (manual)	
Salinity	TDS Factor	0.40 to 1.00	-	0.40 to 1.00	
	Range	0.0 to 99.9 ppm / 100 to 999 ppm / 1.00 to 10.00 ppt / 0.0 to 1.00 %	-	-	
	Resolution	0.1 ppm / 1 ppm / 0.01 ppt / 0.01 %	-	-	
	Accuracy	±1 % full scale	-	-	
Temperature	Cal. Points	1 (manual above 1.00 ppt)			
	Range	0 to 50.0 °C / 32 to 122.0 °F			
	Resolution	0.1 °C / 0.1 °F			
Meter Features	Accuracy	0.5 °C / 0.9 °F			
	Temperature Compensation	ATC / MTC			
	Sensor Type	pH / Conductivity / TDS / Salinity / Temperature			
	Non-Volatile Memory	Yes			
	Auto-Off	8.5 mins after last key pressed (can be disabled)			
	LCD Display	Dual-display LCD (2.1 x 2.7 cm)			
	Power	4 x 1.5 V 'A76' micro alkaline batteries			
Dimensions (LxWxH); Weight	Battery Life	> 150 hrs			
	Tester	16.5 x 3.8 cm ; 90 g			
	Boxed	18.5 x 6.5 x 5 cm ; 200 g			

Instruments - RIVOTEK, NEUATION, EUTECH

Product Code	Cat No.	Description
PCTEST35	8049 001	Waterproof PCTestr 35 pH/Conductivity/Temp Tester with ATC; (±0.1 pH resolution; 0 - 2000 µS/cm; 0 - 20.00 mS/cm)
PTTEST35	8049 002	Waterproof PTTestr 35 pH/TDS/Temp Tester with ATC; (±0.1 pH resolution; 0 - 1000 ppm; 0 - 10.00 ppt)
PCSTEST35	8049 003	Waterproof PCSTestr 35 pH/Conductivity/TDS/Salinity/Temp Tester with ATC; (±0.01 pH resolution; 0 - 200.0 µS/cm; 0 - 2000 µS/cm; 0 - 20.00 mS/cm; 0 - 100.0 ppm; 0 - 1000 ppm; 0 - 10.00 ppt; 0 - 100.0 ppm; 0 - 1000 ppm; 0 - 10.00 ppt; 0 - 1.00%)
PCSENSOR	8049 004	Replacement pH/Conductivity/Temp Sensor for PCTestr 35, PTTestr 35, PCSTestr 35

Till Stock Lasts

Thermo Scientific Eutech TN-100 Turbidity Meter

Waterproof Hand Held Turbidity Meter

Features

- Lightweight, ergonomic, and waterproof to IP67 –and it floats!
- New design for fast response – full step change in as little as 6 seconds
- Auto range up to 2000 NTU Designed to perform over 1,200 tests with most AAA batteries with advanced power management design
- Meets ISO 7027 standards and offers consistent light source for outstanding accuracy

Technical Specifications

Turbidity Portable Meter	ECTN100IR
Range	0 to 2000 NTU
Automatic Range Selection	0.01 to 19.99 NTU; 20.0 to 99.9 NTU; 100 to 2000 NTU
Resolution	0.01 NTU (0 to 19.99 NTU); 0.1 NTU (20.0 to 99.9 NTU); 1 NTU (100 to 2000 NTU)
Accuracy	< 0.1 NTU for 0.02 NTU standard; $\pm 2\%$ of reading ± 1 digit for 0 to 500 NTU; $\pm 3\%$ of reading ± 1 digit for 501 to 2000 NTU
Repeatability	< $\pm 1\%$ of reading
Calibration	Up to 4 points
Calibration Standards	0.02 NTU, 20.0 NTU, 100 NTU, 800 NTU
Response Time	< 6 secs for full step change
Sample Volume	10 mL
Light Source	Infrared-emitting diode (850 nm wavelength)
Operating Temperature Range	0 to 50 °C
Sample Temperature Range	0 to 50 °C
Enclosure Type & Rating	ABS plastic & IP67 rated
Power	4 x 1.5 V 'AAA' alkaline batteries (> 1200 readings)
Certifications / Compliance	FCC part 15 class A, TUV 3 in 1, CE, RoHS
Dimensions (LxWxH)	Meter: 15.5 x 6.8 x 4.6 cm; Boxed: 35.5 x 16.5 x 10.5 cm
Weight	Meter: 200 g; Boxed: 1,160 g



Product Code	Cat No.	Description
ECTN100IR	8013 003	Waterproof TN-100 handheld turbidimeter with set of 4 calibration standards (800, 100, 20.0 & 0.02 NTU), set of 7 sample cuvettes (vials), lint-free cloth, silicone oil, batteries, and hard carrying case
TN100CALKIT	8013 006	Calibration kit set – standard solutions (0.02, 20.0, 100, 800 NTU) 60 mL each and (4) vials
ECTN100CUVKIT	8013 010	Pack of 3 sample cuvettes (vials)





Calibration Solutions *

Wide range of calibration solutions for pH, ORP, Conductivity, TDS and Salinity. Calibration solutions come in a convenient ready to use 480 ml leak-proof bottles. Calibration must be done on regular basis for maintaining accuracy of the instrument. It also helps negate the effect of electrode ageing and contamination. **Actual shelf life of the solutions will be lesser on account of shipment transit time and inventory time lag.**

pH Buffer Solutions (480 ml)

Cat No.	Product Code No.	Description	Shelf life from Date of Packing
8005 001	ECBU4BT	pH 4.01 buffer	36 months
8005 061	ECBU4BTC	pH 4.01 buffer (colored)	36 months
8005 002	ECBU7BT	pH 7.00 buffer	36 months
8005 062	ECBU7BTC	pH 7.00 buffer (colored)	36 months
8005 003	ECBU9BT	pH 9.00 buffer	36 months
8005 004	ECBU10BT	pH 10.01 buffer	36 months
8005 064	ECBU10BTC	pH 10.01 buffer (colored)	36 months
8005 005	ECBU12BT	pH 12.45 buffer	36 months
8005 006	ECBU1BT	pH 1.68 buffer	36 months
8005 007	ECBU686BT	pH 6.86 buffer	36 months
8005 008	ECBU918BT	pH 9.18 buffer	36 months
8005 009	ECRE005	pH Electrode Storage Solution	36 months

Conductivity Solutions (480 ml)

Cat No.	Product Code No.	Description	Shelf life from Date of Packing
8006 008	ECCON84BT	84 μ S KCL	12 months
8006 001	ECCON100BT	100 μ S KCL	12 months
8006 002	ECCON500BT	500 μ S KCL	36 months
8006 003	ECCON1413BT	1413 μ S KCL	36 months
8006 004	ECCON2764BT	2764 μ S KCL	36 months
8006 005	ECCON1288BT	12.88 mS KCL	36 months
8006 006	ECCON1118BT	111.8 mS KCL	36 months
8006 007	ECCON5000BT	5.0 mS KCL	36 months

TDS Solutions (480 ml)

Cat No.	Product Code No.	Description	Shelf life from Date of Packing
8007 004	EC44250BT	50 ppm	12 months
8007 001	EC442300BT	300 ppm	36 months
8007 002	EC4421000BT	1000 ppm	36 months
8007 003	EC4423000BT	3000 ppm	36 months

ORP Calibration Standards (480 ml)

Cat No.	Product Code No.	Description	Shelf life from Date of Packing
8047 001	ECORPPRE	Pretreatment (475 mV)	36 months
8047 002	ECORPQUIN	Quinhydrone 263 (263 mV, \pm 30 mV, 25 C)	36 months
8047 003	ECORPQUIN086	Quinhydrone 86 (86 mV)	36 months

Salinity Calibration Standards (480 ml)

Cat No.	Product Code No.	Description	Shelf life from Date of Packing
8048 001	ECNACL5PPT	5 ppt NaCl	36 months
8048 002	ECNACL25PPT	25 ppt NaCl	36 months
8048 003	ECNACL45PPT	45 ppt NaCl	36 months

Certificate of Registration

QUALITY MANAGEMENT SYSTEM - ISO 9001:2015

This is to certify that:

DWK Life Sciences GmbH
Otto-Schott-Str. 21
Wertheim
97877
Germany

Holds Certificate No:

FM 768358

and operates a Quality Management System which complies with the requirements of ISO 9001:2015 for the following scope:

Sales and production of borosilicate glass products 3.3 and other glass types for the segments laboratory, consumer and industry including sales of catalog items. Activities are related to the IAF sector 15.

For and on behalf of BSI:

David Fardel, Country Manager, Assurance - Continental Europe

Original Registration Date: 2006-06-12

Effective Date: 2024-06-12

Latest Revision Date: 2024-05-22

Expiry Date: 2027-06-11



Laboratory Glassware - DURAN



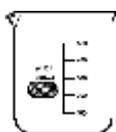
Products Shown are Illustrative only



Beakers

Beakers, Low Form,
with Graduation and Spout, DURAN

DIN 12331, ISO 3819, USP Standard

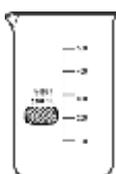


Cat No.	Capacity ml	O. D. mm	Height mm	Qty. Per Pack Pcs
21106 1406	25	34	50	10
21106 1706	50	42	60	10
21106 2402	100	50	70	10
21106 2908	150	60	80	10
21106 3604	250	70	95	10
21106 4103	400	80	110	10
21106 4806	500/600	90	125	10
21106 5408	1000	105	145	10
21106 6301	2000	132	185	10
21106 6807	3000	152	210	4
21106 7306	5000	170	270	1

*10000 ml Capacity is a non - DIN non - ISO size and will be supplied without graduation

Beakers, Tall Form,
with Graduation and Spout, DURAN

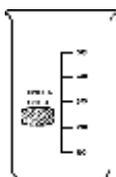
DIN 12331, ISO 3819, USP Standard



Cat No.	Capacity ml	O. D. mm	Height mm	Qty. Per Pack Pcs
21116 1704	50	38	70	10
21116 2409	100	48	80	10
21116 2906	150	54	95	10
21116 3602	250	60	120	10
21116 4101	400	70	130	10
21116 4804	500/600	80	150	10
21116 5406	1000	95	180	10
21116 6308	2000	120	240	10
21116 6805	3000	135	280	2

Beakers, Tall Form,
with Graduation without Spout, DURAN

USP Standard



Cat No.	Capacity ml	O. D. mm	Height mm	Qty. Per Pack Pcs
21117 1705	50	38	70	10
21117 2401	100	48	80	10
21117 2907	150	54	95	10
21117 3603	250	60	120	10
21117 4102	400	70	130	10
21117 4805	500/600	80	150	10
21117 5407	1000	95	180	10

Beakers, Philips with Spout, DURAN

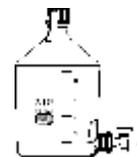


Cat No.	Capacity ml	Base Dia mm	Mouth Dia mm	Height mm	Qty. Per Pack Pcs
21141 2904	150	59	49	87	10
21141 3609	250	68	52	105	10
21141 4408	500	86	59	142	10

Bottles

Bottles, Aspirator, Graduated, with GL 45 Screwthread and Autoclavable Cap
Complete with NS Stopcock and Joint, Made from DURAN Laboratory Bottles

Cat No.	Capacity ml	Bottle O. D. mm	Total Height mm	Qty. Per Pack Pcs
24703 54	1000	101	230	1
24703 63	2000	136	267	1
24703 73	5000	183	340	1
24703 86	10000	230	415	1
24703 91	20000	295	510	1



Bottles Reagent, with I/C Joint and Glass Stopper, Made from DURAN

Cat No.	Capacity ml	Joint Size	Qty. Per Pack Pcs
211611 17	50	14/15	10
211612 24	100	19/26	10
211612 36	250	19/26	10
211613 44	500	24/29	10
211614 54	1000	29/32	10
211615 63	2000	34/35	10



Bottles Reagent, with I/C Joint and Glass Stopper,
AMBER (Amber processing done in India) Made from DURAN

Cat No.	Capacity ml	Joint Size	Qty. Per Pack Pcs
211661 17	50	14/15	10
211662 24	100	19/26	10
211662 36	250	19/26	10
211663 44	500	24/29	10
211664 54	1000	29/32	10
211665 63	2000	34/35	10



Bottles, Solution, CLEAR, Tooled Neck, DURAN DIN 12035, ISO 4796

Cat No.	Capacity ml	O. D. mm	Height mm	Qty. Per Pack Pcs
21161 1707	50	44	80	10
21161 2403	100	54	95	10
21161 3605	250	73	131	10
21161 4404	500	89	162	10
21161 5409	1000	111	200	10
21161 6302	2000	138	246	10
21161 7307	5000	186	318	1
21161 8603	10000	234	398	1
21161 9102	20000	300	492	1



Bottles

Bottles Solution, Tooled Neck,

AMBER (Amber processing done in India) Made from DURAN



Cat No.	Capacity ml	O. D. mm	Height mm	Qty. Per Pack Pcs
21166 17	50	44	80	10
21166 24	100	54	95	10
21166 36	250	73	131	10
21166 44	500	89	162	10
21166 54	1000	111	200	10
21166 63	2000	138	246	10

LABORATORY BOTTLES, DURAN

DURAN laboratory bottles are chemically resistant and stable. When fitted with a plastic pouring ring dripping can be totally eliminated. As there is only one size screw thread for all bottles from 100 ml onwards, the screw caps and pouring rings are fully interchangeable. The bottles, pouring rings and caps are autoclavable and sterilizable.

PROPERTIES :

Light protection

- Amber bottles upto 500 nm
- Plastic coated bottles upto 380 nm useable as safe storage for chemicals
- Safe closure ensures storage of products as
- Dairy products
- Serums are kept sterile
- High resistance to thermal shock

HANDLING :

Freezing substances

Recommendation : When freezing, always place the bottles at an angle (approx. 45°) and do not fill to more than 3/4 capacity (to increase surface area). Temperature limit -40°C as the plastic caps and pouring rings do not withstand lower temperatures.

Thawing frozen substances

The frozen material can be thawed by immersing the bottle in a liquid bath taking care that the temperature difference does not exceed 100°C. This will ensure that the frozen material is heated uniformly from all sides without damaging the bottle. It can, however, also be thawed slowly so that the surface melts first, allowing the material to expand.

Sterilization

Bottles can be steam sterilized after washing. Following are the recommendation and guidelines :

Steam sterilization refers to "the destruction or irreversible inactivation of all microorganisms capable of reproduction" (DIN 58900, pt1, 1986) by means of "saturated steam at a minimum of 120°C and 2 bar" (DIN 58946, pt1, 1987). The

minimum effective application time (destruction time + safety factor) is indicated in DIN 58946, pt2 as a duration of 20 minutes at a sterilization temperature of 121°C.

The following should be noted with respect to preparation for sterilization

- Soiled bottles must be cleaned first, otherwise microorganisms cannot be effectively destroyed and chemicals adhering to the surface can damage it as a result of high temperature involved.
- To avoid a build up of pressure the screw cap should be left loose on the bottle neck (one turn maximum). It should not be closed tight as the pressure then cannot be balanced and the consequent difference in pressure can result in the bottle bursting.
- Ensure that saturated steam is used and that it has unhindered access to all contaminated places. This is the only way to achieve effective team sterilization.

LABORATORY BOTTLES WITH PLASTIC COATING, DURAN

The resistant and transparent copolymer based plastic coating bonds firmly with the glass surface and performs the following functions:

- Protects the glass surface against mechanical damage (Scratch protection)
- Holds the fragments together in the event of the glass breaking (Splinter protection)
- Minimises liquid loss in the event of the glass breaking (Protection against contents escaping and spraying)
- Absorbs UV rays upto a light wavelength of 380 nm (Light protection)

Do not expose plastic coated bottles to open flames or direct heat, e.g. on a laboratory hot plate. The maximum operating temperature is 135°C. Bottle should not be exposed to this temperature for more than 30 minutes.

Plastic coated bottles are suitable for freezing (-30°C) and it can also be used in microwaves. However, the plastic coating does not increase the permissible pressure at which they can be used.



Bottles, Laboratory, with DIN thread, Graduated, CLEAR, ISO 4796-1, USP Standard with PP Screw Cap and PP Pouring Ring (Blue), Autoclavable upto 140°C, DURAN

Cat No.	Capacity ml	DIN Thread GL	O. D. mm	Height mm	Qty. Per Pack Pcs
21801 0851	10	25	36	50	10
21801 1453	25	25	36	74	10
21801 1753	50	32	46	91	10
21801 2458	100	45	56	105	10
21801 2955	150	45	62	115	10
21801 3651	250	45	70	143	10
21801 4459	500	45	86	181	10
21801 5155	750	45	95	208	10
21801 5455	1000	45	101	230	10
21801 6357	2000	45	136	265	10
21801 6957	3500	45	160	300	1
21801 7353	5000	45	182	335	1
21801 8658	10000	45	227	415	1
21801 8855	15000	45	268	450	1
21801 9157	20000	45	288	510	1
21801 9251	25000	45			1

*10 & 25 ml Bottles will be supplied without pouring ring because of the specially formed glass tip.

Bottles

Bottles, Laboratory, with DIN thread, Graduated, AMBER, (Amber processing done in India), with PP Screw Cap and PP Pouring Ring (Blue), Autoclavable upto 140°C, Made from DURAN (Retrace Code Based Batch Certificate shall be provided as per respective sizes of Clear Bottles having Cat Nos 21801.. Series) ISO 4796-1, USP Standard

Cat No.	Capacity ml	DIN Thread GL	O. D. mm	Height mm	Qty. Per Pack Pcs
21809 085	10	25	36	50	10
21809 145	25	25	36	74	10
21809 175	50	32	46	91	10
21809 245	100	45	56	105	10
21809 295	150	45	62	115	10
21809 365	250	45	70	143	10
21809 445	500	45	86	181	10
21809 515	750	45	95	208	10
21809 545	1000	45	101	230	10
21809 635	2000	45	136	265	10
21809 695	3500	45	160	300	1

*10 & 25 ml Bottles will be supplied without pouring ring because of the specially formed glass tip.



Bottles, Laboratory, with DIN thread, Graduated, CLEAR, Without PP Screw Cap and PP Pouring Ring (Blue), Autoclavable upto 140°C, DURAN (Certificate of conformity will be provided for Bottles Only). ISO 4796-1, USP Standard

Cat No.	Capacity ml	DIN Thread GL	O. D. mm	Height mm	Qty. Per Pack Pcs
21801 0802	10	25	36	50	10
21801 1404	25	25	36	70	10
21801 1704	50	32	46	87	10
21801 2409	100	45	56	100	10
21801 2906	150	45	62	110	10
21801 3602	250	45	70	138	10
21801 4401	500	45	86	176	10
21801 5106	750	45	95	203	10
21801 5406	1000	45	101	225	10
21801 6308	2000	45	136	260	10
21801 6908	3500	45	160	295	1
21801 7304	5000	45	182	330	1
21801 8609	10000	45	227	410	1
21801 8806	15000	45	268	445	1
21801 9108	20000	45	288	505	1





Company profile

In June 2017 the companies DURAN Group, Wheaton Industries and Kimble Chase merged to form a new global company – DWK Life Sciences.

DWK Life Sciences combines the expertise of the acclaimed product brands DURAN®, WHEATON® and KIMBLE®. As one of the world's leading manufacturers of premium lab glass, DWK Life Sciences offers its customers a complete range of high-quality laboratory glassware – from the classic disposables to reusable precision glassware. Additionally, DWK Life Sciences develops and produces a wide range of plastic labware and specialty products for life science applications as well as packaging and storage solutions for the pharmaceutical industry.

The DWK Life Sciences product portfolio comprises over 30,000 products manufactured at 11 sites in Europe, North America and Asia. Globally, more than 1,700 employees work on the development and production of innovative products and services to meet the high expectations of customers in laboratories around the world – inspired by the company slogan "Excellence in your hands".

Find out more: www.DWK-LifeSciences.com

Introduction

Former company logos



New company name

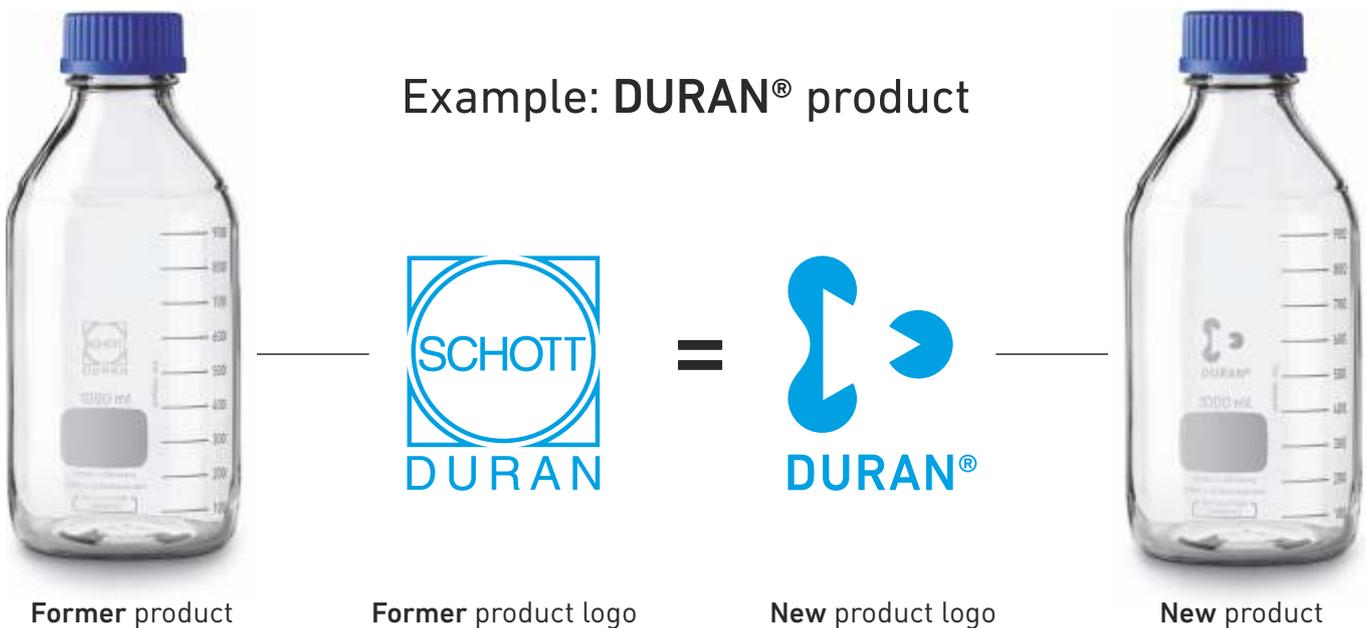
DWK Life Sciences

New company logo



Product Logo

In course of the merger, the current product logos on products and packaging will be replaced by newly designed product logos – **the product quality remains unchanged.**



Bottles

Bottles, Laboratory, with DIN thread, Graduated, AMBER, (Amber processing done in Germany), without PP Screw Cap and PP Pouring Ring Autoclavable upto 140°C, DURAN (Certificate of conformity will be provided for Bottles Only). ISO 4796-1, USP Standard

Cat No.	Capacity ml	DIN Thread GL	O. D. mm	Height mm	Qty. Per Pack Pcs
21806 0807	10	25	36	50	10
21806 1409	25	25	36	74	10
21806 1709	50	32	46	91	10
21806 2405	100	45	56	105	10
21806 2902	150	45	62	115	10
21806 3607	250	45	70	143	10
21806 4406	500	45	86	181	10
21806 5102	750	45	95	208	10
21806 5402	1000	45	101	230	10
21806 6304	2000	45	136	265	10
21806 6904	3500	45	160	300	1
21806 7309	5000	45	182	335	1
21806 8605	10000	45	227	415	1
21806 8802	15000	45	268	450	1
21806 9104	20000	45	288	510	1



Laboratory Glassware
DURAN

Bottles, Laboratory, with DIN thread, Graduated, AMBER, (Amber processing done in INDIA), without PP Screw Cap and PP Pouring Ring Autoclavable upto 140°C, Made from DURAN (Retrace Code Based Batch Certificate shall be provided as per respective sizes of Clear Bottles having Cat Nos 21801... Series) ISO 4796-1, USP Standard

Cat No.	Capacity ml	DIN Thread GL	O. D. mm	Height mm	Qty. Per Pack Pcs
21809 08	10	25	36	50	10
21809 14	25	25	36	74	10
21809 17	50	32	46	91	10
21809 24	100	45	56	105	10
21809 29	150	45	62	115	10
21809 36	250	45	70	143	10
21809 44	500	45	86	181	10
21809 51	750	45	95	208	10
21809 54	1000	45	101	230	10
21809 63	2000	45	136	265	10
21809 69	3500	45	160	300	1



Bottles, Laboratory, Wide Mouth with DIN thread, Graduated, CLEAR, with PP Screw Cap and PP Pouring Ring (Blue), Autoclavable upto 140°C, DURAN ISO 4796-1, USP Standard

Cat No.	Capacity ml	DIN Thread GL	O. D. mm	Height mm	Qty. Per Pack Pcs
21860 3656	250	80	95	105	10
11126 27	500	80	101	152	10
11127 13	1000	80	101	222	10
11127 15	2000	80	136	252	10
21860 6953	3500	80	160	275	1
11139 49	5000	80	182	314	1
11139 50	10000	80	227	389	1
11139 51	20000	80	288	484	1
12002 65	30000	80	340	548	1
12001 54	50000	80	400	590	1



Bottles



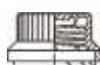
Bottles, Laboratory, Round, Wide Mouth, AMBER, (Amber processing done in India), with PP Screw Cap and PP Pouring Ring (Blue), ISO 4796-1, USP Standard
 Autoclavable upto 140°C, Made from DURAN (Retrace Code Based Batch Certificate shall be provided as per respective sizes of Clear Bottles)

Cat No.	Capacity ml	DIN Thread GL	O. D. mm	Height mm	Qty. Per Pack Pcs
11627 365	250	80	95	105	10
11627 275	500	80	101	148	10
11627 135	1000	80	101	218	10
11627 155	2000	80	136	248	10
11627 695	3500	80	160	275	1



Bottles, Laboratory, with DIN thread, Graduated, CLEAR, with Tamper Evident PP Screw Cap, ISO 4796-1, USP Standard
 Autoclavable upto 140°C, DURAN

Cat No.	Capacity ml	DIN Thread GL	O. D. mm	Height mm	Qty. Per Pack Pcs
21802 365	250	45	70	143	10
21802 445	500	45	86	181	10
21802 545	1000	45	101	230	10
21802 635	2000	45	136	267	10
21802 735	5000	45	183	340	1



Bottles, Laboratory, with DIN thread, Graduated, Plastic Coated, with PP Screw Cap and PP Pouring Ring (Blue), ISO 4796-1, USP Standard
 Autoclavable upto 140°C, **DURAN PROTECT**

Cat No.	Capacity ml	DIN Thread GL	O. D. mm	Height mm	Qty. Per Pack Pcs
10926 76*	25	25	36	70	10
21805 2453	100	45	56	105	10
21805 2959	150	45	62	115	10
21805 3655	250	45	70	143	10
21805 4454	500	45	86	181	10
21805 6952	3500	45	160	300	1

*25 ml Capacity Protect Bottles shall be supplied without Cap & Pouring Ring # Till Stock Lasts



Bottles, Laboratory, with DIN thread, Graduated, Coated, with eco friendly translucent polyamide PA12 coating, with push on protective cover W/O PP Screw Cap and PP Pouring Ring (Blue), ISO 4796-1, USP Standard
DURAN PROTECT +

Cat No.	Capacity ml	DIN Thread GL	O. D. mm	Height mm	Qty. Per Pack Pcs
21805 1481*	25	25	36	70	10
21805 1781	50	32	46	87	10
21805 2486	100	45	56	105	10
21805 3688	250	45	70	143	10
21805 4487	500	45	86	181	10
21805 5483	1000	45	101	230	10
21805 6385	2000	45	136	267	10
21805 6985	3500	45	160	300	1
21805 7381	5000	45	182	330	1

*25 ml Capacity Protect Bottles shall be supplied without Pouring Ring because of Specially Formed Glass Tip

Bottles

Bottles, Laboratory, with DIN thread, Graduated, Plastic Coated, USP Standard with eco friendly translucent polyamide PA12 coating, with push on protective cover W/O PP Screw Cap and PP Pouring Ring (Blue), **DURAN PROTECT +**

Cat No.	Capacity ml	DIN Thread GL	O. D. mm	Height mm	Qty. Per Pack Pcs
21865 3685	250	80	95	105	10
21865 4484	500	80	101	148	10
21865 5489	1000	80	101	218	10
21865 6382	2000	80	136	248	10
21865 6982	3500	80	160	271	1
21865 7387	5000	80	182	311	1



Bottles, Laboratory, with DIN thread, Graduated, Pressure Resistant, CLEAR, without Screw Cap and Pouring Ring, Autoclavable upto 140°C, DURAN PRESSURE PLUS ISO 1595, USP Standard

Pressure Plus Bottles are the ideal choice where applications involve safe working under pressure or vacuum, sampling under pressure, storage of gas generating media etc. Vacuum and / or pressure resistant from -1 to 1.5 bar due to modified geometry (based on ISO 4796-1). Pressure resistance conforms to EN 1595 (safety tested by TÜV). When under full pressure thermal shock resistance is 30K and maximum usage temperature is +140°C. Graduations are printed in blue for visual differentiation with standard laboratory bottles. Retrace code provided on individual bottles for online generation of batch certificates.

Cat No.	Capacity ml	DIN Thread GL	O. D. mm	Height mm	Qty. Per Pack Pcs
21810 2406	100	45	56	100	10
10922 34	250	45	70	138	10
10922 35	500	45	86	176	10
21810 5403	1000	45	101	225	10



Bottles, Laboratory, with DIN thread, Graduated, Pressure Resistant, AMBER, (Amber processing done in Germany), without Screw Cap and Pouring Ring, Autoclavable upto 140°C, DURAN PRESSURE PLUS ISO 1595, USP Standard

Cat No.	Capacity ml	DIN Thread GL	O. D. mm	Height mm	Qty. Per Pack Pcs
21816 2403	100	45	56	100	10
10943 67	250	45	70	138	10
10943 68	500	45	86	176	10
21816 5409	1000	45	101	225	10



Premium Bottles, Laboratory, with DIN thread, Graduated, with Screw Cap and Pouring Ring (PFA), Thermal Shock Resistant, Autoclavable upto +200°C, DURAN ISO 4796, USP Standard

Premium Bottles contribute to safety in the laboratory while simplifying handling. Important features are

- With enhanced temperature-resistant screw cap manufactured from PFA including a matching pouring ring — can be used from -196°C to +200°C. Raw material conforms to USP Class VI — also PTFE coated silicone seal.
- Dye-free cap and pouring ring to prevent marking or contamination of ovens, drying chambers and sterilization cabinets.
- Entire system comprising bottle, cap and pouring ring conforms to USP/FDA.
- Ideal for sterilization processes such as hot-air or dry sterilization and depyrogenation particularly in the pharmaceutical industry. • Retrace code. • Batch Certificates.

Cat No.	Capacity ml	DIN Thread GL	O. D. mm	Height mm	Qty. Per Pack Pcs
11270 75	100	45	56	100	10
11270 76	250	45	70	138	10
11270 77	500	45	86	176	10
11270 78	1000	45	101	225	10





Bottles



Bottles, Laboratory, Square, with DIN thread, Graduated, CLEAR, USP Standard
With Screw Cap and PP Pouring Ring (Blue), Autoclavable upto 140°C,
Suitable for Milk Dilution Application, DURAN

Cat No.	Capacity ml	DIN Thread GL	Width mm	Height mm	Qty. Per Pack Pcs
21820 2453	100	32	50	109	10
21820 3655	250	45	64	143	10
21820 4454	500	45	78	181	10
21820 5459	1000	45	94	222	10



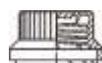
Bottles, Laboratory, Square, with DIN thread, Graduated, AMBER, USP Standard
(Amber processing done in India), with PP Screw Cap and PP Pouring Ring (Blue),
Autoclavable upto 140°C, Made from DURAN (Retrace Code Based Batch Certificate
shall be provided as per respective sizes of Clear Bottles)

Cat No.	Capacity ml	DIN Thread GL	Width mm	Height mm	Qty. Per Pack Pcs
21826 245	100	32	50	109	10
21826 365	250	45	64	143	10
21826 445	500	45	78	181	10
21826 545	1000	45	94	222	10



Bottles, Laboratory, Square with DIN thread, Graduated, CLEAR, ISO 4796-1, USP Standard
with Tamper Evident PP Screw Cap, Autoclavable upto 140°C, DURAN

Cat No.	Capacity ml	DIN Thread GL	Width mm	Height mm	Qty. Per Pack Pcs
21821 365	250	45	64	143	10
21821 445	500	45	78	181	10
21821 545	1000	45	94	222	10



Screw Caps



PP Screw Cap, without PP Pouring Ring for Laboratory Bottles, Autoclavable upto
140°C, Steam, DURAN

Cat No.	DIN Thread GL	O. D. mm	Height mm	Colour	Qty. Per Pack Pcs
29239 1307	25	33	19	Blue	10
29239 1907	32	40	24	Blue	10
29239 2809	45	54	25	Blue	10
29338 2802	45	54	25	Yellow	10
29338 2868	45	54	25	Green	10
29338 2884	45	54	25	Grey	10
11127 16	80*	87	40	Blue	10

*Quick release closure

Screw Caps

Quick release closure for DURAN GLS 80 laboratory bottle with PTFE coated seal, from PSU compound

The material used is a special compound based on a polyarylsulphone. Consequently the chemical, thermal and mechanical properties of the material are noticeably improved and matched to laboratory requirements. Thanks to the thread, the DURAN GLS 80 bottle can be opened and closed with only a three-quarter turn. The seal, which is coated on both sides with PTFE, ensures the bottle can be tightly closed.

A	Tmax
121°C	180°C

A matching PTFE pouring ring is available, permitting clean, drop-free use.

Cat No.	Thread GLS	Dia mm	Height mm	Qty. Per Pack Pcs
Caps				
11658 88	80	86	40	5
Pouring Ring				
11673 07	80		6.85	5



PP Pouring Ring for Laboratory Bottles, Autoclavable upto 140°C, Steam

Cat No.	DIN Thread GLS	Height mm	Colour	Qty. Per Pack Pcs
29242 1907	32	4	Blue	10
29242 2809	45	4	Blue	10
10899 11	45	4	Green	10
10899 14	45	4	Grey	10
10899 17	45	4	Yellow	10
11601 66	80	4	Blue	10



PBT Screw Cap (Red), with PTFE coated Silicone Liner, without ETFE Pouring Ring for Laboratory Bottles, Autoclavable upto 180°C, Hot-air, DURAN

Cat No.	DIN Thread GLS	O. D. mm	Height mm	Qty. Per Pack Pcs
29240 1305	25	33	23	10
29240 1905	32	40	26	10
29240 2807	45	54	28	10



ETFE Pouring Ring (Red) for Laboratory Bottles, Autoclavable upto 180°C, Hot-air

Cat No.	DIN Thread GL	Height mm	Qty. Per Pack Pcs
29244 1909	32	4	10
29244 2802	45	4	10



PP Tamper Evident Screw Cap (Blue), for Laboratory Bottles, with DIN Thread, Autoclavable upto 140°C, Steam, DURAN

These caps are used for safely storing the contents of the bottles. The caps are screwed tightly on to the bottles and after a soft "click" the plastic ring is fixed on the bottle neck. When the caps are opened for the first time, a perforation of the plastic ring is broken thus showing the bottle has been opened. After the perforation of the plastic ring is broken, the cap may of course still be used as an "ordinary" screw cap.

Cat No.	DIN Thread GLS	O. D. mm	Height mm	Qty. Per Pack Pcs
10175 26	45	54	26	10



Screw Caps



PP Membrane Cap - with PTFE permeable foil, DURAN

These caps can be used for all bottles with GL 45 thread and has a hole bored in the centre and a welded-in 0.2 μm PTFE foil. They are temperature resistant upto 140 °C and an extremely quick 2-way pressure compensation from 0.1 bar. These are especially suitable for filling, packing, transporting and storing gas - generating media, storing critical substances and in various biotechnological applications. To autoclave media in laboratory bottles, the membrane cap, unlike ordinary caps, is screwed **tightly** on to the bottles and there is no need for screwing and unscrewing the cap before or after the autoclaving process.

Cat No.	DIN Thread GLS	Qty. Per Pack Pcs
29118 1307	25	5
29118 1907	32	5
29118 2809	45	5
29118 9105	80	2



PBT Screw Cap, with Aperture (Red) for Laboratory Bottles, Autoclavable upto 200°C, Hot-air, DURAN

Cat No.	DIN Thread GL	Aperture Bore mm	Qty. Per Pack Pcs
29227 0808	32	20	10
29227 1007	45	34	10



DURAN PTFE COATED GL 45 SILICONE SEPTUM FOR PIERCING

High purity PTFE coated silicone septum for use with DURAN GL 45 open topped screw cap and all sizes of DURAN GL 45 laboratory bottles. Can be used for the addition, inoculation or sampling using a syringe and needle. Ideal for chemistry, life science and biopharma laboratories.

Applications:

- Liquid transfer from HPLC solvent bottles
- Aseptic reagent delivery or culture sampling using a syringe and needle
- Reservoir cap for supplying laboratory instruments

Features:

- Soft silicone rubber for easy needle penetration and resealability
- Manufactured from high purity, Platinum catalysed silicone rubber and high quality PTFE film, reducing the risk of solvent contamination

- The silicone is faced with highly resistant PTFE to protect the silicone from chemical attack by the solvents
- The septum is suitable for use with all GL 45 sizes of the DURAN GL 45 bottles from 100 to 20,000 ml
- A liquid tight seal is provided when used in combination with the red PBT GL 45 open topped screw cap
- Wide temperature usage range from -50 °C up to +180 °C
- Autoclavable at 121 °C for 15 minutes
- Dry heat sterilizable at up to 180 °C

Cat No.	Description	Qty. Per Pack Pcs
29248 3005	DURAN PTFE coated GL 45 Silicone Septum for piercing (Platinum catalysed VMQ)	10

Screw Caps

SILICONE SEAL PTFE coated VMQ, DURAN

Cat No.	For Screw Caps Red GL	Qty. Per Pack Pcs
29248 1304	25	10
29248 1904	32	10
29248 2806	45	10



DURAN GL 45 BROMOBUTYL RUBBER STOPPER

DURAN bromobutyl rubber closure provide a gas tight seal for all GL 45 laboratory bottles. Bromobutyl rubber is essentially impermeable to most gases, and provides a controlled environment inside the glass bottle for oxygen sensitive materials. Useful for maintaining anaerobic culture conditions. Butyl rubber allows for multiple punctures providing easy access to the contents with a syringe.

Applications:

- Culture of anaerobic microorganisms (pressure resistant bottles recommended)
- Storage of anaerobic culture media (amber glass bottles recommended)
- Aerobic methane oxidation (MOx) research
- Storage of oxygen sensitive materials
- Applications requiring gas purging or sample transfer via a syringe

Features:

- Stopper shape, and material properties optimised to fit DURAN GL 45 bottles with sizes from 100 to 20,000 ml.
- Low permeability to air, gases and moisture.
- Manufactured from a high purity bromobutyl rubber elastomer.
- Conforms to EP 3.2.9 Type I closure for chemical and penetration tests.

- Material is virtually free of organics that might leach into the incubation medium.
- Elastic material for effective sealing and reliable self-sealing after needle piercing.
- A Upper surface features seven numbered hemispherical impressions for needle-piercing. Autoclavable at 121°C for 15 minutes
- Wide usable temperature range: -50 to +121 °C.
- Suitable for autoclaving / steam sterilising at 121°C for 20 minutes.
- Use with the DURAN GL 45 open topped / aperture screw cap for extra security (Standard DURAN original GL 45 lab bottles are not pressure resistant. If build up in pressure is anticipated, it is recommended to use the stopper without the GL 45 red open top cap. The use of pressure resistant bottles such as DURAN pressure plus should be considered)



Cat No.	Description	Qty. Per Pack Pcs
29206 2803	DURAN Rubber Stopper for GL 45 Laboratory Bottles, straight plug, Grey Bromobutyl	10

Premium Cap for Laboratory Bottles, DURAN

USP Standard

Made of PFA with PTFE coated silicone seal and pouring ring of PFA Compound formulated without colour dye to avoid risk of leaching. Very high chemical resistance. High leak tightness through use of PTFE coated silicone seal.

Typical application : due to its properties, ideal for applications in the pharmaceutical industry, handling of aggressive media, demanding sterilization processes such as hot air or dry sterilization and depyrogenation.

Easy Sterilization : The 'Premium Cap' is characterised by its temperature resistance ranging from -196°C to +200°C. Due to high temperature range, this cap is suitable for many sterilization methods such as autoclaving or dry sterilization.

FDA Conformity : The 'Premium Cap' meets all requirements of both US Pharmacopoeia (USP Class VI) and European Pharmacopoeia (EP) and therefore also complies with FDA standards.

Cat No.	Description	DIN Thread GLS	Colour	d mm	h mm	Qty. Per Pack Pcs
11296 00	Cap	25	Colourless	32	22	5
10886 79	Cap	45	Colourless	51	26	5
10886 78	Pouring Ring	45	Colourless	-	4	5



YOUTILITY

TOUCH THE FUTURE



THE DURAN® LABORATORY BOTTLE SYSTEM

MORE THAN JUST A BETTER BOTTLE

IT'S A COMPLETE SYSTEM



Duran Group pioneered the screw threaded GL 45 DURAN® borosilicate glass laboratory bottle way back in 1972. Since its introduction over four decades ago, the DURAN®GL 45 laboratory bottle has become the bottle of choice for laboratories around the world.

In response to the demands on laboratory efficiency Duran Group initiated a project to develop a laboratory bottle system that was more suited to today's customer requirements. The result is DURAN **YOUTILITY** Bottle System, a new generation of glass laboratory bottles for use in a wide and diverse range of scientific research applications. The innovation does not stop at the improved ergonomic bottle shape, but extends to dedicated accessories that incorporate many new innovative features to improve handling, sample identification and ease of use.

Each **YOUTILITY** bottle has many features that significantly

improve the handling and utilization of bottles. The specially shaped gripping zones on both sides of the bottles permit easier and safer handling. With the new glass thread opening or closing of the **YOUTILITY** bottle is significantly faster. The slimmer **YOUTILITY** bottle shape allows a more optimal use of limited space in autoclaves and laboratory refrigerators. The bottles can be conveniently stacked horizontally on their sides. Newly designed ceramic print layout on the bottle clearly indicates the nominal volume. The entire **YOUTILITY** bottle has an integrated Retrace Code to allow product traceability via a downloadable certificate of performance.

The new **YOUTILITY** bottle system helps to make laboratory work easier, safer and more economical. Smaller **YOUTILITY** pack sizes are ideal for users with a lower usage requirement for bottles. All sizes of **YOUTILITY** bottles are available in packs of four complete bottles.

YOUTILITY bottles come with a **SCREW CAP** having optimized ergonomic shape with faster opening and closing thread

Other **VERY USEFUL ACCESSORIES** available for **YOUTILITY** bottles are

BOTTLE TAG – Great for colour tagging your own bottles in shared work areas

BOTTLE LABEL – Stays on when you need it to, peels off when you don't

DURAN **YOUTILITY** Screw Cap features a secure grip, fast opening and quick closing. It has comfortable grooves and ridges for a more efficient and easier tightening or removal, especially with smaller sized or gloved hands. The inverted cone form and reduced cap diameter offers significant advantages, making handling easier and safer. The shortened thread inside the cap permits faster opening and closing, but is fully compatible with standard DIN GL 45 bottles. The tried and tested cap plug sealing system ensures a liquid tight seal. Besides, it has a predefined labeling area.

The **YOUTILITY** screw cap features an integrated two or three character Retrace Code to provide product traceability via a downloadable certificate. The cap is manufactured from a food grade polypropylene that is fully autoclavable and totally reusable.

SHOW YOUR TRUE COLOURS

Colourful GL 45 Bottle Tags offer an elegant solution to the marking of laboratory bottles. The Bottle Tags can be easily and securely attached around the neck of the **YOUTILITY** Bottle, even with the Screw Cap in place. The Bottle Tags feature a graspable tab that makes them easy to remove with bare or gloved hands. The silicone Bottle Tags are chemically robust, heat resistant, fully autoclavable and totally reusable. Their potential uses in the laboratory are endless; in a shared lab, tag all your bottles with your favourite colour. Or colour tag all the bottles used for a particular application or in a certain experiment. No more mix-ups. The GL 45 Bottle Tags are available in eight playful colours.

COLOURS :
Red, Orange, Yellow, Green, Blue, Purple, Black and White
YOUTILITY BOTTLE LABELS

YOUTILITY LABELS were developed to address the need for a reliable, short term method of sample and bottle tracking and identification. The labels will stay on when you need them to do so, and are easy to remove when no longer required. This allows the bottles to be quickly and easily cleaned, ready for re-use.

The **YOUTILITY** label, is large rectangular label that fits all four sizes of bottle. The labeling of bottles helps to prevent sample mix-ups.

YOUTILITY label formats are manufactured from a tear resistant, matt white, polyester material coated with a high performance adhesive. The print receptive top surface will

accept a variety of inks, including copier, printer, ball point and technical markers. The labels are chemically resistant to typical laboratory chemicals such as disinfectants and many solvents. They have a wide -40 to + 150°C temperature performance range making them suitable for use in fridges, freezers, autoclaves, incubators and water baths without the risk of the labels drying out or falling off.

The **YOUTILITY** labels conveniently combine the flexibility of a blank written label with an autoclave/steam sterilization Class 1 process indicator (ANSI/AAMI/ISO 11140-1:2005). The labels are non-hazardous, and free of toxic heavy metals.

After use, the **YOUTILITY** labels may be easily and completely removed by peeling. The labels are supplied in a re-sealable, splash resistant box containing a roll of 100 label sets.

Bottles, YOUTILITY, Clear Glass, USP Standard with Screw Cap, Pouring Ring and Bottle Tag, Autoclavable upto 140°C, DURAN

Cat No.	Capacity ml	DIN Thread GL	O. D. mm	Height mm	Qty. Per Pack Pcs
21881 2854	125	45	55	124	4
21881 3653	250	45	66	158	4
21881 4452	500	45	78	193	4
21881 5457	1000	45	93	253	4

Utility Bottles, AMBER Colour Processing done either in Germany or in India - Prices Available On Request


Screw Cap & Pouring Ring, PP, Cyan, suitable for YOUTILITY Bottles, DURAN

Cat No.	Description	Food Grade	DIN Thread GLS	Qty. Per Pack Pcs
29229 2802	Cap	Food Grade	45	10
29241 2808	Pouring Ring	—	45	16


Tags in Silicone for YOUTILITY Bottles, DURAN

Cat No.	Colour	Qty. Per Pack Pcs
29243 2904	Multi colour	16
29243 2818	Red	20
29243 2826	Orange	20
29243 2834	Yellow	20
29243 2842	Green	20
29243 2859	Blue	20
29243 2867	Purple	20
29243 2875	Black	20
29243 2883	White	20


Self Adhesive Label (Bottles only), for YOUTILITY Bottles, DURAN

Cat No.	Qty. Per Pack Pcs
29401 0203	100





DURAN BAFFLED, WIDE MOUTH BOTTLE GLS 80

During mixing in standard GLS 80 laboratory bottles, the liquid moves in a swirling motion that approximates a solid-body rotation. The entire fluid, and any suspended particles, moves like a carousel. This is a very inefficient flow pattern, and very little mixing actually occurs. By adding three vertical baffles into the inner surface of the GLS 80 bottles, the swirling motion is disrupted, and a much more effective mixing occurs. The baffles improve the top-to-bottom circulation and produce a greater radial mixing. The baffles also offer other advantages such as suppressing the formation of a central vortex, and reducing dead-zones where mixing does not occur.

Applications

- Aerating
- Dissolving
- Emulsifying
- Homogenizing
- Mixing
- Suspending

Features

- The baffled GLS 80 bottles are fully compatible with both the DURAN GLS 80 magnetic stirrers, and other magnetic stir bars.
- The baffled GLS 80 bottles are fully autoclavable.
- The wide 65 mm inner diameter of the GLS 80 wide mouth provides easy access to the contents, or for cleaning.
- The baffles are moulded into the glass side wall of the bottles and form a continuous, smooth inner surface making clean up easy.
- Compatible with full range of wide mouth GLS 80 connection cap systems for liquid addition or removal when mixing with stir bars.
- The bottles feature an easy-to-read graduated volume scale.



Bottles Baffled Wide Mouth, GLS 80, supplied complete with Polypropylene Pouring Ring and GLS 80 Cap, DURAN

Cat No.	Capacity ml	Height mm	Dia mm	Qty. Per Pack Pcs
21286 3658	250	105	95	1
21286 4457	500	152	101	1
21286 5453	1000	222	101	1

Additional Attachments (Optional)



Cat No.	Description	Use	Qty. Per Pack Pcs
29118 9105	DURAN GLS 80 blue polypropylene vented cap*	For use with magnetic stir bars. PTFE membrane vent allows gas exchange with the atmosphere, but protects from external contamination.	2
21263 9107	DURAN Stirred reactor wide mouth cap for 250 ml bottle, GLS 80 supplied with impeller shaped magnetic stirrer, 4 connection ports (2x GL 18 and 2x GL 14)*	For use with 250 ml GLS 80 bottles. Allows the efficient mixing of the contents using a magnetic stirrer. Liquid may be added or removed via the optional tube connectors.	1
12003 79	DURAN Stirred reactor wide mouth cap for 500 or 1000 ml bottles, GLS 80 supplied with anchor shaped magnetic stirrer, 4 connection	For use with 500 or 1000 ml GLS 80 bottles. Allows the efficient mixing of the contents using magnetic stirrer. Liquid may be added or a removed via the optional tube connectors.	1

* Note: DURAN baffled wide mouth bottles GLS 80 must be ordered separately.

DURAN TILT

TURNING USABILITY INTO SECURITY

Biosafety cabinets and clean hoods are essential for working with cell cultures under sterile conditions. Unfortunately, they make the handling of media bottles difficult and time-consuming for researchers. The DURAN **TILT** bottle changes everything. The **TILT** bottle has two positions: upright for filter sterilization or storage, and tilted at 45° for pipetting. Take a look at cell culture media from a new angle and discover a bottle system that eases handling and turns usability into security.



- Borosilicate 3.3 glass for reusability and lower whole life costs
- Space saving shape for fridge storage and water baths
- Low bottle height for easy handling in safety cabinets
- GL 56 mouth and screw cap - bigger opening for easy pipetting and safer handling
- 45° **TILT** position for pipetting without holding the bottle
- Tilted volume indicators for convenience
- Vacuum resistant bottle for safe filter sterilisation

0°

FILTERING

In the upright position, the DURAN TILT bottle system is ideal for filter sterilising or clarifying cell culture media. Low bottle height is practical in the biosafety cabinet. DURAN GL 45 thread adaptor allows any 45 mm filter units to be used with DURAN TILT bottle.

45°

PIPETTING

In the 45° tilted position, the DURAN[®] TILT bottle makes pipetting of media easier under the hood. The innovative design enables both good aseptic and ergonomic practice.



DURAN
Bottle top
vacuum
filtration
unit



DURAN
GL 45
Thread
Adapter



DURAN
TILT
Protective
Light
Shield

DURAN TILT — MEDIA BOTTLE

Cat No.	Description	Glass Thread	Height (incl. cap) mm	Qty. Per Pack Pcs
21891 4459	DURAN TILT Bottle, clear glass Complete with white polypropylene screw cap 500 ml (supplied non-sterile)	GL 56	151	4

DURAN TILT — ACCESSORIES AND REPLACEMENT PARTS

Cat No.	Description	Material Colour	Qty. Per Pack Pcs
29243 5601	DURAN TILT Light Shield includes four GL 56 Bottle Tags (Orange, Yellow, Blue, Purple)	Silicone / White & mixed colours	4
29243 5626	DURAN GL 56 Bottle Tag Orange	Silicone / Orange	20
29243 5634	DURAN GL 56 Bottle Tag Yellow	Silicone / Yellow	20
29243 5659	DURAN GL 56 Bottle Tag Blue	Silicone / Blue	20
29243 5667	DURAN GL 56 Bottle Tag Purple	Silicone / Purple	20
29119 5601	DURAN GL 45 thread adaptor for bottle top vacuum filtration unit (GL 45 external, GL 56 internal)	PTFE / White	1
29229 5602	DURAN TILT GL 56 screw cap	Polypropylene / White	10

DURAN BOTTLE TOP VACUUM FILTRATION UNITS

Cat No.	Description	Membrane Pore Size µmPES	Filter Dia mm	Thread mm	Qty. Per Pack Pcs
29270 2818	DURAN 500 ml Funnel Only Gamma sterilized	0.10	90	45	12



DURAN® PURE

DEVELOPED FOR PHARMA

DURAN® PURE is a range of high-quality bottles and closures developed for the needs of the pharmaceutical industry. **DURAN® PURE** meets the requirements of the international pharmacopeias and is available with the certificates required by the regulatory authorities

FEATURES

- **EP/USP Type I borosilicate glass**
- **Size range 25 ml - 20 l**
- **Protective cover** prevents contamination
- **Single batch delivery** CoA available
- **100% traceability**
- **100% visual inspection**
- **Change control**
- **Drug Master File**

APPLICATION AREAS

- Manufacturing of pharmaceutical products
- Storage of bulk drug intermediates
- Transportation of APIs



DURAN PURE bottle with DIN thread GL 45 and dust cover
Cat. No. 81801 5403





DURAN® PURE Premium Screw Caps

DURAN® PURE Premium Screw Caps made from PFA (fluoropolymer) are chemically and thermally very resistant and compatible with autoclaving and other common sterilization methods. The products include silicone seals which are coated with highly inert PTFE.

FEATURES

- Caps made from PFA with PTFE coated silicone seal
- Produced and packaged in ISO Class 7 clean rooms
- Single batch delivery CoA available
- 100% traceability
- Change control
- Drug Master File



DURAN® PURE Premium Screw Cap GL 45
Cat. No. 89108 8679



DURAN® PURE Premium Lip Seal Cap GL 45
Cat. No. 89886 2802

Bottles, with DIN thread, Graduated, CLEAR, ISO 3585
with Dust Cover without Cap, USP / FDA conformity (DMF No. 28042), **DURAN PURE**

Cat No.	Capacity ml	DIN Thread GLS	O. D. mm	Height mm	Qty. Per Pack Pcs
81801 1401	25	25	36	74	10
81801 2406	100	45	56	105	10
81801 3608	250	45	70	143	10
81801 4407	500	45	86	181	10
81801 5403	1000	45	101	230	10
81801 6305	2000	45	136	267	10
81801 7301	5000	45	183	340	1
81801 8606	10000	45	230	415	1
81801 9105	20000	45	295	510	1

Bottles, with DIN thread, Graduated, AMBER, DIN ISO 3585
with Dust Cover without Cap, USP / FDA conformity (DMF No. 28042), **DURAN PURE**

Cat No.	Capacity ml	DIN Thread GLS	O. D. mm	Height mm	Qty. Per Pack Pcs
81806 1406	25	25	36	74	10
81806 2402	100	45	56	105	10
81806 3604	250	45	70	143	10
81806 4403	500	45	86	181	10
81806 5408	1000	45	101	230	10
81806 6301	2000	45	136	267	10
81806 7306	5000	45	183	340	1
81806 8602	10000	45	230	415	1
81806 9101	20000	45	295	510	1

DURAN PURE Bottles are also available in Wide Mouth GL 80 both in Plain and Amber. Please ask for details.



Duran Pure Premium Caps



Premium Caps Made of PFA, Temperature Resistant from -196 °C to +200 °C, without colourants, USP / FDA conformity (DMF No. 28044), DURAN PURE

Cat No.	Description	DMF No.	DIN Thread GL	Qty. Per Pack Pcs
89108 1306	Pure Premium Screw Cap	28044	25	5
89108 8679	Pure Premium Screw Cap	28044	45	5
89886 2802	Pure Premium Lip Seal Cap	031063	45	5

DURAN PURE bottles are also available in Wide Mouth GL 80 both in Plain & Amber. Please ask for details.

Container / Closure System



CONTAINER / CLOSURE SYSTEM FOR PHARMACEUTICAL INDUSTRY

Made of Borosilicate 3.3 Expansion USP Type 1 Glass, these vials are widely used world over for compatibility & stability studies in pharmaceutical industries.

Vials complete with PP Caps Blue, DURAN

Cat No.	Capacity ml	DIN Thread GLS	O. D. mm	Height mm	Qty. Per Pack Pcs
26990 04	5	18	22	40	100

NMR Tubes



NMR Tubes

NMR tubes are available according to requirement in three accuracy classes. The correct tube can be selected depending on magnetic field and spin. These tubes are noteworthy for their close tolerances and accuracy, especially to their straightness, wall thickness and distribution of wall thickness. Consequently quick and accurate test results are achievable.

Cat No.	Type	Height mm	O. D. mm	I. D. mm	Chamber mm	Frequency Mhz	Qty. Per Pack Pcs
23170 0006	Economic 5.1	178	4.94 ± 0.040	4.20 ± 0.040	0.070	100	100
23170 0117	Economic	178	4.97 ± 0.050	4.20 ± 0.050	0.070	300	50
23170 0211	Professional	178	4.97 ± 0.025	4.20 ± 0.025	0.030	400	50
23170 0314	Scientific	178	4.97 ± 0.0013	4.20 ± 0.025	0.013	500	5

EFFICIENT HPLC RESERVOIR BOTTLE, DURAN®

With conical base for efficient delivery of solvents

The DURAN® reservoir bottles have been specially designed for the storage and delivery of high-performance liquid chromatography (HPLC) mobile phases and solvents. Reservoirs have one central cavity for the inlet filter to allow the most efficient delivery of mobile phase to HPLC analyzers. A safer and more convenient alternative to flat bottomed glass media bottles, the conical bottom reservoirs allow a greater recovery of solvent, without having to tilt the reservoir and risk a solvent spill. The larger reservoirs allow longer, uninterrupted analyses. These are especially useful during a weekend or lengthy chromatographic analysis when there might be a risk of running out of solvents during unattended operation.

FEATURES & BENEFITS

- Manufactured from the material of choice for solvent bottles: borosilicate 3.3 glass. This material has an exceptional chemical durability offering a very low inorganic ion extractables profile, and the total absence of any organic extractables.
- DURAN® is a borosilicate glass type 3.3 as specified by the international standard ISO 3585, and is classified as a "Type I, Class A low-expansion borosilicate glass" as defined by ASTM-E438-1992
- DURAN® glass is classified by the USP / EP / JP pharmacopoeias as a "Type I neutral glass".
- Retrace Code, and certificate for manufacturing lot traceability.
- Available in five useful sizes **1 / 2 / 3.5 / 5 / 10 Liter**.
- On the three larger sizes, the central cavity can accommodate magnetic stir bars for improved mixing.
- Side vent / drain hole in the base for ultrasonic bath degassing, or water drainage after cleaning.
- GL 45 thread fits standard HPLC connection caps.
- Durable white enamel volume graduations.
- Autoclavable at +121°C or +134°C.

APPLICATIONS

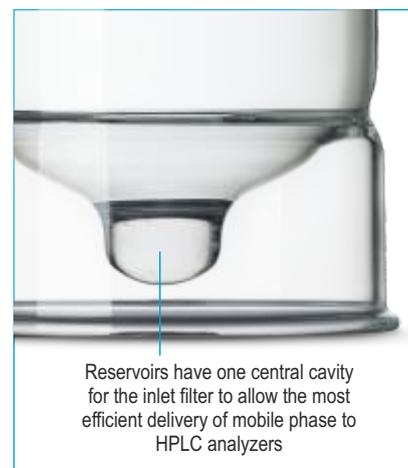
- Mobile phase reservoirs for HPLC
- Reagent supply to liquid handling systems

HPLC reservoir bottle, clear, conical base, GL 45, DURAN

Cat No.	Suitable for Capacity ml	Dia OD mm	Height mm	Qty Per Pack Pcs
21841 5407	1000	110	295	1
21841 6309	2000	145	309	1
21841 6909	3500	165	353	1
21841 7305	5000	190	386	1
21841 8601	10000	235	481	1

Accessories

29231 2801	DURAN® 3-port GL 45 HPLC delivery cap 1/4-28 thread For 3.2 mm OD tubing PTFE Complete with three 1/4-28 ETFE plugs and TFE/propylene o-ring	1
29231 0003	DURAN® ETFE blanking plug 1/4-28 thread For 3-port HPLC GL 45 delivery cap	1



Reservoirs have one central cavity for the inlet filter to allow the most efficient delivery of mobile phase to HPLC analyzers

DURAN CONNECTION SYSTEMS



Pressure Plus Bottle with
2 Port Connection



Pressure Plus Bottle with
3 Port Connection



Pressure Plus Bottle with
4 Port Connection



Screw Cap GL 80 PP Cap - 4 Port GL 18



Screw Cap GL 45 PP - 4 Port M8 and Components



Screw Cap GL 45 PP - 2 Port GL 14



Screw Cap GL 45 PP - 2/3 Port GL 14 and Components

CONNECTION SYSTEMS FOR DURAN LABORATORY BOTTLES

All systems facilitate the safe transfer of liquid media within an enclosed sterile system. Ideal for chemical and biotechnological laboratories.

The new connection system is based on screw caps with a GL 45 thread and two or three connection ports. Tube connections can be used to feed liquid media into or extract them from the bottle. A universal GL 14 tube adapter and various inserts permit the use of four different tube outer diameters. An additional membrane filter with 0.2 μm pore size permits sterile pressure equalization at one of the ports.

The flexible modular system means that you can put together the various components individually depending on requirements and application. The components are mutually compatible and are used together with the original DURAN GL 45 laboratory bottles. **To increase safety in the laboratory, it is advisable to use the pressure-resistant DURAN pressure plus laboratory bottle.**

Advantages

- The system is highly versatile in use, because the screw cap is based on the standardized GL 45 thread
- Four different tube outer diameters can be used – 1.6mm; 3.0mm; 3.2mm and 6mm.
- The components for the 2 and 3 port system are identical and interchangeable.
- Ports not in use can be sealed with a dummy cap.
- The caps and all individual components are made of PTFE and PP and can be completely autoclaved together with the bottle, so that they can be reused repeatedly. It is not necessary to take the system apart first.
- Working in the enclosed system retains toxic gases in the bottle. Similarly, the evaporation of expensive substances can also be reduced.

Examples of Applications

- Use in Titration systems
- Use in Biotechnological processes, e.g. for pumping additives (culture media etc.) from storage containers into reaction containers.
- Use in automated closed processes for transferring pure, sterile media
- Transfer of harmful, toxic substances in the enclosed system to reduce out-gassing.
- HPLC Laboratory Bottle with Connection System can be used for feeding solvents to HPLC machines, disposal of waste media and also for sterile transfer of culture media under pressure e.g. fermenter.

Connection Systems - DURAN HPLC Bottle GL 45, 4 ports, 1000 ml Complete (Incl. screw caps and seals)

Cat No.	Components	Qty. Per Pack Pcs
11298 20	HPLC Bottles Pressure plus, 1000ml <ul style="list-style-type: none"> • 1 x Screw Cap GL 45, 4 Ports • 4 x Silicone Sealing Rings 1.6mm • 4 x Silicone Sealing Rings 3.2mm • 4 x Silicone Seals • 4 x Screw Caps M8, for port 	2





Connection Systems

Connection Systems - DURAN HPLC Bottle GL 45, 4 ports, 500 ml Complete
(Incl. screw caps and seals)



Cat No.	Components	Qty. Per Pack Pcs
11298 21	HPLC Bottles Pressure plus, 500ml <ul style="list-style-type: none"> • 1 x Screw Cap GL 45, 4 Ports • 4 x Silicone Sealing Rings 1.6mm • 4 x Silicone Sealing Rings 3.2mm • 4 x Silicone Seals • 4 x Screw Caps M8, for port 	2

Spare Parts for 1129820/1129821 Screw Cap HPLC

Cat No.	Components	Qty. Per Pack Pcs
11298 12	GL 45, 4 ports complete comprising <ul style="list-style-type: none"> • 1 x Screw Cap GL 45, 4 ports • 4 x Silicone Sealing Rings 1.6mm I.D. • 4 x Silicone Sealing Rings 3.2mm I.D. • 4 x Silicone Seals • 4 x Screw Caps M8, for port 	2
11298 13	GL 45, 4 ports comprising <ul style="list-style-type: none"> • 4 x Silicone Sealing Rings 1.6mm • 4 x Silicone Sealing Rings 3.2mm • 4 x Silicone Seals • 4 x Screw Caps M8, for port 	1
11378 01	Pressure Equalization set for 4 port cap (0.2µm including membrane filter)	1
11298 19	Spare Membrane PTFE GL 14 For sterile pressure compensation, 0.2µm	1
21810 5403	Spare Bottle DURAN pressure plus GL 45, 1000ml	10
10922 35	Spare Bottle DURAN pressure plus GL 45, 500ml	10

Connection Systems - If you want to fit two bottles with a three port connection system and if you want to work with two different tube diameters (1.6mm & 3mm) and pressure equalization, you will need the following individual components.

Cat No.	Components	Qty To be Ordered	Qty. Per Pack Pcs
11297 51	Screw Cap GL 45 PP 3 Port GL14	1	2
11298 14	Screw Cap GL 14 for hose connection	2	2
11298 15	Insert for Screw Cap GL 14 1.6mm	2	1
11298 16	Insert for Screw Cap GL 14 3.0 mm	2	1
11377 99	Pressure equalization set (complete) (size GL 45)	2	1
11298 17	Insert for Screw Cap GL 14 3.2mm - optional	2	1
11298 18	Insert for Screw Cap GL 14 6.0mm - optional	2	1



Connection Systems

Other Connection System Options

Cat No.	Components	Qty. Per Pack Pcs
11297 50	Screw Cap GL 45 PP 2 Port GL 14	2
11562 92	Plastic Screw Cap Red, Closed, GL 14	2

Pouring Ring, Blue, GLS 80

Cat No.	Components	Qty. Per Pack Pcs
11601 66	GLS 80	10

Membrane Screw Cap, GLS 80, PP Blue

Cat No.	Components	Qty. Per Pack Pcs
29118 9105	GLS 80	2

If you want to fit two DURAN GLS 80 bottles with a 4 port system and want to work with two different tube diameters (3.2mm and 10mm) and pressure equalisation with the redundant fourth port fitted with a screw cap, then you will need the following individual components

Cat No.	Components	Thread	Qty to be Ordered Pcs	Qty. Per Pack Pcs
11601 67	Pressure Compensation set for 4 Port Screw Cap	GL 18	2	2
11601 69	Insert for Screw, 3.2mm	GL 18	2	1
11601 72	Insert for Screw Cap, 10.0mm	GL 18	2	1
11601 74	Screw Cap for Tube Connection, Blue	GL 18	2	2
29310 9103	Screw Cap GLS 80 PP 4 Port GL 18	GLS 80	1	2
11706 82	Screw Cap, Red	GL 18	1	2
(Optional)				
11601 70	Insert for Screw Cap, 6.0mm	GL 18	2	1
11601 71	Insert for Screw Cap, 8.0mm	GL 18	2	1
11601 73	Insert for Screw Cap, 12.0mm	GL 18	2	1

EXPANSION OF THE CONNECTION SYSTEMS FOR DURAN LABORATORY GLASS BOTTLES: GL 45 SCREW CAP WITH 2 HOSE CONNECTIONS



The new connection system with hose connections has been specially developed for the connection of soft elastic tubing, which, for example, is used in biotechnology when transferring media with the aid of peristaltic pumps.

The curved hose connections prevent kinking of the tubing. The grey PP core moves freely and allows the vessel to be changed without twisting of the firmly attached tubing.

Properties/application:

- Safe, sterile transfer of liquid media within a closed system.
- Highly versatile because the screw cap is based on the standard GL 45 thread.
- Ideal for use with elastic, soft tubing ID 6 - 9 mm (Viton[®], Tygon[®], silicone)
- 2 PP hose connections, curved hose connections on the top side, straight connections on the lower side.
- Optional filter top part for sterile pressure equalisation available.
- Temperature resistant up to +140°C
- Autoclavable/dishwasher proof

Cat No.	Components	Qty. Per Pack Pcs
29310 2807	GL 45 screw cap with 2 hose connections	2
11298 25	Filter top part for pressure equalization	2

DURAN® Super Duty Beakers and Erlenmeyer Flasks

Due to the increased quantity of glass, the mechanical sturdiness is significantly improved compared to standard DURAN® Beakers and Erlenmeyer flasks.

A further product advantage is the strengthened (cooled) rim, which also provides additional impact resistance and considerably reduces the risk of breakage.

This extension to DURAN® product range therefore offers the user optimum safety when working with the glassware that is subject to heavy mechanical loading, even when it is cleaned and used frequently. Super Duty vessels also work out cheaper in the long run - thanks to the increased impact resistance

Product Advantages

- Increased mechanical sturdiness due to increased uniform wall thickness
- Reinforced, sturdy rim

- Uniform wall thickness distribution
- Proven DURAN® properties
- Type 1 glass / neutral glass as per USP, EP and JP
- Autoclavable / sterilisable
- With Retrace Code (Batch Certificate via Internet)
- Easy-to-read scale
- Fired-on, extremely durable printing

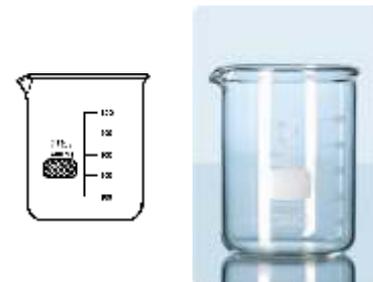
Application Note

To avoid thermal stressing of the glass, uniform and slow heating of super duty products is recommended. When working at very high temperatures, or if rapid temperature changes are expected, standard DURAN® beakers and Erlenmeyer flasks should be used, as these are characterized by excellent thermal shock resistance. However, the mechanical sturdiness of these DURAN® standard products is limited compared with the super duty range

Super Duty Beakers

Beaker, Super Duty, Low Form, with Spout, with Reinforced Rim, DURAN

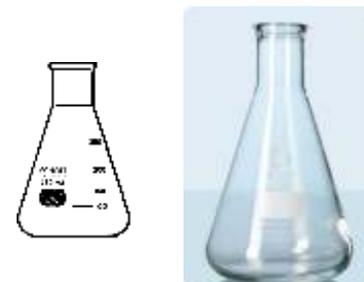
Cat No.	Capacity ml	O. D. mm	Height mm	Qty. Per Pack Pcs
21107 2909	150	60	80	10
21107 3605	250	70	95	10
21107 4104	400	80	110	10
21107 4807	600	90	125	10
21107 5409	1000	105	145	10
21107 6302	2000	132	185	10
21107 7307	5000	170	270	1



Super Duty Flasks

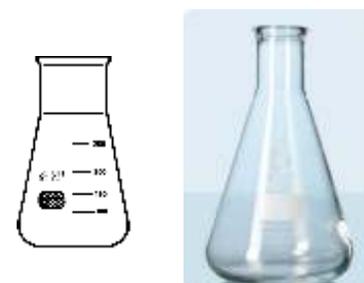
Erlenmeyer Flask, Super Duty, Narrow Neck, with Reinforced Rim, DURAN

Cat No.	Capacity ml	Base Dia mm	Mouth Dia mm	Height mm	Qty. Per Pack Pcs
21217 1408	25	42	22	75	10
21217 1708	50	51	22	90	10
21217 2404	100	64	22	105	10
21217 3606	250	85	34	145	10
21217 4405	500	105	34	180	10
21217 5401	1000	131	42	220	10
21217 6303	2000	166	50	280	10
21217 7308	5000	220	52	365	1



Erlenmeyer Flask, Super Duty, Wide Neck, with Reinforced Rim, DURAN

Cat No.	Capacity ml	Base Dia mm	Neck Dia mm	Height mm	Qty. Per Pack Pcs
21227 2402	100	64	34	105	10
21227 3604	250	85	50	140	10
21227 4403	500	105	50	175	10
21227 5408	1000	131	50	220	10



GL 45 Stirred Reactor

- Drive using standard magnetic stirrers
- Variable stirrer shaft, can be used for 500 ml and 1,000 ml DURAN® GL 45 laboratory bottles
- Can be used up to 500 rpm
- Compatible with the proven DURAN® connection systems; hoses with bores from 1.6 mm to 6.0 mm can be fitted
- Significantly improved through mixing compared to standard magnetic stirring bar
- Materials used PP / PTFE / PEEK / stainless steel
- Parts in contact with media conform fully to FDA requirements
- Supply includes bottle (optional)

A
121°C

Tmax
180°C

Application:

The above mentioned properties make the DURAN® stirred reactor ideal for the widest possible range of mixing processes in laboratories, e.g. mixing liquids or dissolving solids. The connections available permits to introduce other media into the bottle or remove media during mixing.

The whole assembly is autoclavable, so that it can be used in biological applications, for simple fermentation processes, for example. With the aid of components from the **DURAN® connection system** extra media bottles can be connected or sterile pressure compensation is possible



Cat No.	Description	Thread	Qty. Per Pack Pcs
12003 95	GL 45 stirred reactor, incl. 500 ml DURAN® GL 45 bottle, folding magnetic stirrer and GL 45 PP cap with 2 x GL 14 ports, 2 x GL 14 PBT caps red	45	1
12003 96	GL 45 stirred reactor, incl. 1000 ml DURAN® GL 45 bottle, folding magnetic stirrer and GL 45 PP cap with 2 x GL 14 ports, 2 x GL 14 PBT caps red	45	1
12003 91	Folding magnetic stirrer for GL 45 stirred reactor, incl. shaft	45	1
12003 90	Spare screw cap 2-ports for GL 45 stirred reactor (excl. stirrer) with GL 14 screw cap (PP, blue)	45	1



GL 80 Stirred Reactor

materials used: PP / PTFE / PEEK / stainless steel

The GLS 80 stirred reactor is suitable for a wide range of laboratory mixing processes. The connections provided permit addition or removal of media from the bottle during the mixing process. The whole assembly can be autoclaved and is therefore suitable for use in the biological sector. By using components from the GLS 80 connection system, an additional media bottle (OD hose: 1.6 - 12.0 mm) can be connected or a sterile pressure equalizer attached. Drive for the stirrer is provided by a standard commercial

A
121°C

Tmax
180°C

magnetic stirrer. The variable agitator shaft can be used in DURAN® GLS 80 laboratory glass bottles (1000 and 2000 ml) and provides notably improved mixing in comparison with standard magnetic stir bars.

The agitating element is exchangeable and used up to 500 rpm is possible. Typical applications: mixing of liquids, dissolving of solids, simple fermentation processes



Cat No.	Description	Thread	danchor stirrer mm	Qty. Per Pack Pcs
12003 79	stirred reactor cap, stirrer anchor type, magnetic, complete with shaft, connection and screw cap	80	62	1
12003 80	stirred reactor anchor type, magnetic, complete with GLS 80 bottle 1000 ml GL 14 screw cap (PP, blue), 2 x GL14 screw cap (PBT red), 2 x GL18 screw cap (PBT red)	80	62	1
12003 81	stirred reactor anchor type, magnetic, complete with GLS 80 bottle 2000 ml GL 14 screw cap (PP, blue), 2 x GL14 Screw cap (PBT red), 2 x GL18 screw cap (PBT red)	80	62	1



Accessories for GLS 80 stirred reactor

Cat No.	Description	dia anchor stirrer mm	dia impeller stirrer mm	Qty. Per Pack Pcs
12003 82	Stirrer impeller type, magnetic, for GLS 80 stirred reactor		62	1
12003 83	Stirrer anchor type, magnetic, for GLS 80 stirred reactor	62		1
12003 85	Spare screw cap for GLS 80 stirred reactor, PP blue/grey			1
12003 86	Spare shaft for GLS 80 stirred reactor, stainless steel, Incl. PEEK connection			1



DURAN® Production Bottles 10 and 20 litres

- Ideal for mixing and Stirring processes with large and heavy magnetic stir bars.
- Type 1 glass / neutral glass as per USP, EP and JP
- Marked increase in mechanical stability
- Uniform wall thickness
- Depyrogenisable
- Individual scaling and labelling possible
- Retrace Code
- Also available with scratch and breakage protection
- No BSE / TSE endangering substances contained
- With standard (GL 45) or wide neck (GLS 80) thread

Production Bottles

Production Bottle, Narrow Neck, GL 45, Clear, Increased Wall Thickness, without cap and ring, DURAN

Cat No.	Capacity ml	Qty. Per Pack Pcs
11602 00	10000	1
11601 00	20000	1



Laboratory Glassware
DURAN

Production Bottle, Wide Neck, GL 80, Clear, Increased Wall Thickness, without cap and ring, DURAN

Cat No.	Capacity ml	Qty. Per Pack Pcs
11602 20	10000	1
11601 20	20000	1

Screw Cap, GLS 80 PSU with PTFE Silicone Seal, DURAN

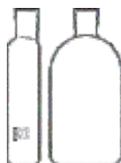
Cat No.	Description	Qty. Per Pack Pcs
11658 88	Screw Cap, GLS 80 PSU with PTFE Silicone Seal	1



PTFE Pouring Ring, GLS 80, DURAN

Cat No.	Description	Qty. Per Pack Pcs
11673 07	PTFE Pouring Ring, GLS 80	1

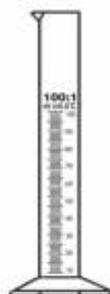
Bottles



Bottles, Culture, Roux-Type, Conical Neck, Eccentric, DURAN

Cat No.	Capacity ml	Breadth mm	Depth mm	Height mm	Qty. Per Pack Pcs
21571 5804	1200	132	56	275	10

Cylinders



Cylinders, Measuring, with Hexagonal Base and Main Point Ring Graduation, Blue Graduation, Conformity Certified, with Batch Certificate, Class 'A', DURAN

DIN EN ISO 4788

Cat No.	Capacity ml	Tolerance ± ml	Qty. Per Pack Pcs
21390 0804	10	0.10	2
21390 1406	25	0.25	2
21390 1706	50	0.50	2
21390 2402	100	0.50	2
21390 3604	250	1.00	2
21390 4403	500	2.50	2
21390 5408	1000	5.00	1
21390 6301	2000	10.00	1

Desiccators



Desiccators, with Plain Flanges, without Junction, with Knobbed Lid, DURAN

Cat No.	DN	Overall Height mm	Qty. Per Pack Pcs
24781 4603	100	187	1
24781 5702	150	252	1
24781 6107	200	309	1
24781 6604	250	357	1
24781 6904	300	433	1



Desiccators, Vacuum, with Flat Flanges and NOVUS NS Junction, Outlet in Lid, with Stopcock, DURAN

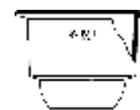
DIN 12491

Cat No.	DN	Overall Height mm	Qty. Per Pack Pcs
24782 4604	100	174	1
24782 5703	150	239	1
24782 6108	200	296	1
24782 6605	250	344	1
24782 6905	300	420	1

Desiccators

Base for Plain and Vacuum Desiccator, DURAN DIN 12491

Cat No.	DN	Overall Height mm	Qty. Per Pack Pcs
24770 4604	100	58	1
24770 5703	150	81	1
24770 6108	200	115	1
24770 6605	250	120	1
24770 6905	300	150	1



Lid for Plain Desiccator, DURAN

Cat No.	DN	Overall Height mm	Qty. Per Pack Pcs
24410 4607	100	75	1
24410 5706	150	98	1
24410 6102	200	107	1
24410 6608	250	122	1
24410 6908	300	150	1



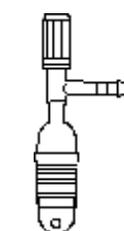
Lid for Vacuum Desiccator, DURAN

Cat No.	DN	Joint Size mm	Height mm	Qty. Per Pack Pcs
24420 4605	100	B 24	62	1
24420 5704	150	B 24	85	1
24420 6109	200	B 24	94	1
24420 6606	250	B 24	109	1
24420 6906	300	B 24	137	1



Stopcock with PTFE Spindle for Vacuum Desiccator

Cat No.	Joint Size	Length mm	Qty. Per Pack Pcs
24799 0401	B 24	124	1



Dishes

Dishes, Crystallizing, with Spout, DURAN DIN 12338

Cat No.	Capacity ml	O. D. x Height mm	Qty. Per Pack Pcs
21311 4402	300	95 x 55	10
21311 5407	900	140 x 75	10
21311 5904	2000	190 x 90	10



Dishes



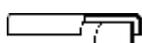
Dishes, Evaporating, with Spout, DURAN DIN 12336

Cat No.	Capacity ml	O. D. x Height mm	Qty. Per Pack Pcs
21301 4104	90	80 x 45	10
21301 4404	170	95 x 55	10
21301 5409	600	140 x 80	10



Dishes, Petri, Unlimited Autoclavable, Bottom Dish and Lid Inside and Outside absolutely Flat, Free of Bubbles and other Imperfections, STERIPLAN

Cat No.	O. D. x Height mm	Qty. Per Pack Pcs
23755 4008	60 x 15	10
23755 4205	80 x 15	10
23755 4805	100 x 20	10
23755 5201	150 x 25	10
23755 5904	200 x 30	10



Dishes, Petri - DUROPLAN

These Petri Dishes are made by using special manufacturing process. They are superior to other types because they allow even distribution of culture media and have a distortion free transparency. Also they are unlimited Autoclavable.

Cat No.	Lid O. D. x Height mm	Base O. D. x Total Height mm	Qty. Per Pack Pcs
21755 4101	60 x 20	55 x 22	10
21755 4307	80 x 20	74 x 22	10
21755 4607	100 x 15	94 x 17	10
21755 5303	150 x 30	143 x 32	10

Flasks



Flasks, Erlenmeyer, Conical, Narrow Mouth, with Graduation, DURAN DIN 12380, ISO 1773

Cat No.	Capacity ml	Dia Base mm	Neck Dia mm	Height mm	Qty. Per Pack Pcs
21216 1407	25	42	22	75	10
21216 1707	50	51	22	90	10
21216 2403	100	64	22	105	10
21990 2702	150	74	28	118	10
21216 3605	250	85	34	145	10
21216 4404	500	105	34	180	10
21216 5409	1000	131	42	220	10
21216 6302	2000	166	50	280	10
21216 6808	3000	187	51	310	2
21216 7307	5000	220	51	365	1



Flasks, Erlenmeyer, Conical, with PP Screw Cap, Autoclavable up to 140°C, Made from DURAN

Cat No.	Capacity ml	Qty. Per Pack Pcs
21803 365	250	10
21803 445	500	10
21803 545	1000	10

Flasks

Flasks, Erlenmeyer, Conical with I/C Joint, Made from DURAN

Cat No.	Capacity ml	Joint Size	Qty. Per Pack Pcs
208010 14	25	B 14	10
208020 14	25	B 19	10
208030 14	25	B 24	10
208010 17	50	B 14	10
208020 17	50	B 19	10
208030 17	50	B 24	10
208010 24	100	B 14	10
208020 24	100	B 19	10
208030 24	100	B 24	10
208040 24	100	B 29	10
208020 36	250	B 19	10
208030 36	250	B 24	10
208040 36	250	B 29	10
208050 36	250	B 34	10
208020 44	500	B 19	4
208030 44	500	B 24	4
208040 44	500	B 29	4
208050 44	500	B 34	4
208030 54	1000	B 24	2
208040 54	1000	B 29	2
208050 54	1000	B 34	2
208030 63	2000	B 24	2
208040 63	2000	B 29	2
208050 63	2000	B 34	2

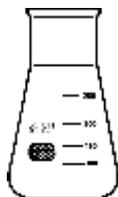


Flasks, Erlenmeyer, Conical with I/C Joint and Glass Stopper, Made from DURAN

Cat No.	Capacity ml	Joint Size	Qty. Per Pack Pcs
209010 14	25	B 14	10
209020 14	25	B 19	10
209030 14	25	B 24	10
209010 17	50	B 14	10
209020 17	50	B 19	10
209030 17	50	B 24	10
209020 24	100	B 19	10
209030 24	100	B 24	10
209030 36	250	B 24	10
209040 36	250	B 29	10
209030 44	500	B 24	4
209040 44	500	B 29	4
209030 54	1000	B 24	2
209040 54	1000	B 29	2
209030 63	2000	B 24	2
209040 63	2000	B 29	2
209050 63	2000	B 34	2



Flasks



Flasks, Erlenmeyer, Conical, Wide Mouth, with Graduation, DURAN DIN 12385

Cat No.	Capacity ml	Dia Base mm	Neck Dia mm	Height mm	Qty. Per Pack Pcs
21226 1405	25	43	31	70	10
21226 1705	50	51	34	85	10
21226 2401	100	64	34	105	10
21226 3603	250	85	50	140	10
21226 4402	500	105	50	175	10
21226 5407	1000	131	50	220	10
21226 6309	2000	153	72	276	10



Flasks, Flat Bottom, Narrow Neck, with Beaded Rim, DURAN DIN 12347, ISO 1773

Cat No.	Capacity ml	Max. Dia mm	Neck Dia mm	Height mm	Qty. Per Pack Pcs
21711 3606	250	85	35	140	10
21711 4405	500	105	34	171	10
21711 5401	1000	131	42	200	10
21711 6406	2000	166	42	250	10
21711 6809	3000	185	50	250	1
21711 7308	5000	223	50	290	1



Flasks, Pear Shape, Suitable for Rotary Evaporators with Ground Socket 29/32,

Cat No.	Capacity ml	Max. Dia mm	Height mm	Qty. Per Pack Pcs
24120 3703	250	81	140	10
24120 4605	500	101	170	10
24120 5601	1000	126	210	10



Flasks, Round Bottom, Narrow Neck, with Beaded Rim, DURAN DIN 12347, ISO 1773
Flasks with Capacity 10000 ml and over have a Reinforced Rim

Cat No.	Capacity ml	Max. Dia mm	Neck Dia mm	Height mm	Qty. Per Pack Pcs
21721 3604	250	85	34	144	10
21721 4403	500	105	34	175	10
21721 5408	1000	131	42	200	10
21721 6404	2000	166	42	260	10
21721 6807	3000	185	50	260	1
21721 7306	5000	223	50	305	1
21721 8602	10000	279	65	420	1
21721 9101	20000	345	76	515	1



Flasks, Filtering, Conical Shape, with Glass Hose Connection ISO 6556
suitable for Vacuum use, DURAN

Cat No.	Capacity ml	Dia Base mm	Neck Dia mm	Height mm	Qty. Per Pack Pcs
21201 2409	100	65	24	100	10
21201 3602	250	85	34	155	10
21201 4401	500	105	34	185	10
21201 5406	1000	135	45	230	10
21201 6308	2000	166	60	255	1

DURAN BAFFLED FLASKS

Why use baffled flasks?

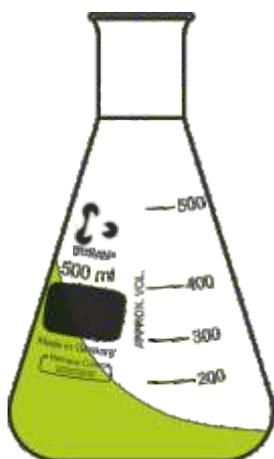
- Due to limited oxygen transfer, cell growth is restricted in standard Erlenmeyer flasks.
- Larger surface of the content results in a higher possible oxygen intake due to increased gas exchange area.
- Baffled flasks
 - interrupt the laminar flow to create a turbulent flow
 - increase the surface of the liquid and the gas exchange surface
 - produce a higher oxygen transfer compared to standard Erlenmeyer flasks

Benefits of DURAN baffled flasks

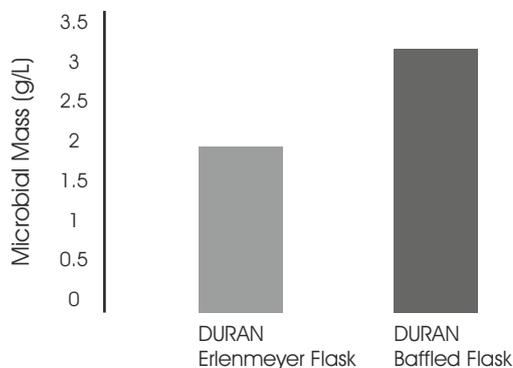
- completely automated machine manufacturing
 - reproducible geometry
 - comparable results
- complete with membrane screw cap (reproducible gas exchange)
- with retrace code (batch certificate via internet)



Comparison of the produced microbial mass
(Experiment with *E.Coli* bacteria)



DURAN Erlenmeyer Flask



DURAN Baffled Flask

When cultivating microorganisms Erlenmeyer flasks on an orbital shaker, the oxygen intake is frequently the limiting factor for cell growth. The DURAN Erlenmeyer flask with four baffles on the bottom interrupts the laminar flow to create a turbulent flow. The surface of the liquid and the gas exchange surface is increased, so that the oxygen intake can be increased.

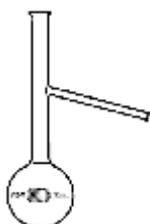
Cat No.	Description	Capacity ml	Qty. Per Pack Pcs
21283 3606	DURAN baffled flask, GL 45 with bottom baffles, without cap	250	4
21283 4405	DURAN baffled flask, GL 45 with bottom baffles, without cap	500	4
21283 5401	DURAN baffled flask, GL 45 with bottom baffles, without cap	1000	1
29118 2809	DURAN PP Membrane Cap with a PTFE permeable foil	GL 45	5
29242 2809	DURAN PP Pouring Ring, Blue	GL 45	10

Flasks



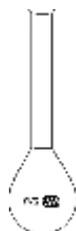
Flasks, Filtering, Bottle Shape, ISO 6556
with Glass Hose Connection suitable for Vacuum use, DURAN

Cat No.	Capacity ml	Dia Base mm	Neck Dia mm	Height mm	Qty. Per Pack Pcs
21191 6802	3000	170	60	295	1
21191 7301	5000	185	70	360	1
21191 8606	10000	240	70	420	1
21191 9105	20000	290	75	535	1



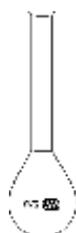
Flasks, Distilling with Side Arm, Made from Heat Resistant, Low Expansion Borosilicate Glass, Flasks of capacity 250 ml onwards made from DURAN

Cat No.	Capacity ml	Approximate O. D. x Height mm	Approximate Neck O. D. mm	Qty. Per Pack Pcs
22253 24	100	64 x 210	22	5
22253 25	125	68 x 214	19	5
22253 36	250	88 x 226	24	2
22253 44	500	110 x 250	28	2
22253 54	1000	130 x 305	30	1
22253 64	2000	170 x 318	40	1



Flasks, Kjeldahl, DURAN DIN 12360

Cat No.	Capacity ml	Max. Dia mm	Neck Dia mm	Height mm	Qty. Per Pack Pcs
21231 4404	500	101	34	300	10
21231 5109	750	115	34	340	10



Flasks, Kjeldahl, with I/C Joint, Made from DURAN

Cat No.	Capacity ml	Joint Size	Qty. Per Pack Pcs
217030 44	500	B 24	10
217030 51	750	B 24	10



Flasks, Volumetric, Class 'A', USP, with Ergonomic Polyethylene Stopper, **Blue** Graduation, USP Conformity, with USP **Individual Certificate**, DURAN DIN EN ISO 1042

Cat No.	Capacity ml	Tolerance ± ml	Joint Size	Qty. Per Pack Pcs
24671 1054	10	0.02	10/19	2
24671 1457	25	0.03	10/19	2
24671 2556	100	0.08	14/23	2

Flasks/Crucibles/Funnels

Flasks, Volumetric, Class 'A', with Ergonomic Stopper, DIN EN ISO 1042
Blue Graduation, with Individual Certificate, and Certificate of Conformity, DURAN

Cat No.	Capacity ml	Tolerance ± ml	Joint Size	Qty. Per Pack Pcs
24679 0957	5	0.040	10/19	2
24679 1053	10	0.040	10/19	2
24679 1259	20	0.040	10/19	2
24679 1456	25	0.040	10/19	2
24679 1756	50	0.060	12/21	2
24679 3251	200	0.150	14/23	2
24679 3654	250	0.150	14/23	2
24679 4453	500	0.250	19/26	2
24679 5458	1000	0.400	24/29	2
24679 6351	2000	0.600	29/32	2



Filter Crucibles with Sintered Disc, DURAN

Cat No.	Capacity ml	Porosity Grade	Qty. Per Pack Pcs
25851 1105	15	G 1	10
25851 1208	15	G 2	10
25851 1302	15	G 3	10
25851 1405	15	G 4	10
25851 2101	30	G 1	10
25851 2204	30	G 2	10
25851 2307	30	G 3	10
25851 2401	30	G 4	10
25851 3106	50	G 1	10
25851 3209	50	G 2	10
25851 3303	50	G 3	10
25851 3406	50	G 4	10



Funnels, Buchner Type, with Sintered Disc, DURAN

Cat No.	Capacity ml	Porosity Grade	Qty. Per Pack Pcs
25852 0101	50	G 1	1
25852 0204	50	G 2	1
25852 0307	50	G 3	1
25852 0401	50	G 4	1
25852 1106	75	G 1	1
25852 1209	75	G 2	1
25852 1303	75	G 3	1
25852 1406	75	G 4	1
25852 2102	125	G 1	1
25852 2205	125	G 2	1
25852 2308	125	G 3	1
25852 2402	125	G 4	1
25852 3107	500	G 1	1
25852 3201	500	G 2	1
25852 3304	500	G 3	1
25852 3407	500	G 4	1
25852 4103	1000	G 1	1
25852 4206	1000	G 2	1
25852 4309	1000	G 3	1
25852 4403	1000	G 4	1



SINTERED GLASSWARE, DURAN

Porosity Grades

Porosity Grade	New Identification Mark ISO 4793	Nominal Max. Pore Size μm	Fields of applications, examples
1	P 160	100 - 160	Coarse filtration. filtration of coarse precipitates, gas distribution in liquids. Liquid distribution, coarse gas filtration. Extraction apparatus for coarse grain materials. Loose filter layer substrates for gelatinous precipitates.
2	P 100	40 - 100	Preparative fine filtration. Preparative work with crystalline precipitates. Mercury filtration.
3	P 40	16 - 40	Analytical filtration. Analytical work with medium-line precipitates. Preparative work with fine precipitates. Filtration in cellulose chemistry, fine gas filtration. Extraction apparatus for fine-grained materials.
4	P 16	10 - 16	Analytical filtration. Analytical work with very fine precipitates (e. g. BaSO_4 , Cu_2O). Preparative work with precipitates of appropriate fineness. Non-return and stop valves for Mercury.

To determine possible application of glass filter discs and apparatus, it is necessary to know not only the porosity, but also the flow rates of liquids and gases. The data applies to filter discs of 30 mm diameter. the flow rates for other disc diameters can be calculated by multiplying the value of a 30 mm disc by the conversion factor as shown in the table below.

Filter disc diameter mm	10	20	30	40	60	90	120	150	175
Conversion factor	0.13	0.55	1.0	1.5	2.5	4.3	6.8	9.7	15.0

CARE AND CLEANING

Temperature Change, Drying and Sterilization :

Please take a note of the following tips. They ensure that no inner stress occurs between the vessel and the filter discs, which can lead to the filter breaking.

1. Avoid sudden changes in temperature and unequal heating. Sintered glass filter funnels, pipe line filter tubes and other sintered glass apparatus with disc diameters exceeding 20 mm, which are to be dried or sterilized, should be placed in cold ovens or sterilizers.
2. The speed of heating and cooling should not exceed $8^\circ\text{C}/\text{min}$.
3. Before filtering hot substances bring the filter unit slowly up to temperature in the hot cabinet.
4. Wet filter units should be heated slowly up to 80°C and dried for one hour before increasing the temperature.

Filtration apparatus should, whenever possible, stand on its rim (stem upwards) in the oven or sterilizer. A perforated support base is advantageous since it allows air convection between the inside of the vessel and the body of the oven. If angled position of the filtration apparatus is unavoidable (pipeline filter tubes), then any point of support which is near to the filter seal position should be protected against premature heating. This is done by using an underlay of heat-insulating material.

The apparatus should remain in the oven or sterilizer during cooling. Due to the thermal inertia of this type of oven, the cooling time is adequate.

Cleaning new Sintered Glassware :

Before using sintered glass filter apparatus for the first time, hot hydrochloric acid followed by several rinses of distilled water should be sucked through the filter disc under a good vacuum. This removes dust particles and powdered glass. It is important each successive water rinse be started only after the preceding one is completely flushed through. This so-called "tear through" method must only be used for cleaning filters. It should never be adopted for preparative or analytical filtration.

Mechanical Cleaning

Sintered glass filters should always be cleaned immediately after use.

If no precipitate has entered the pores, surface rinsing under the tap or with a wash bottle is often sufficient. The filter disc surface can be wiped clean with a small brush.

(Do not remove filter medium with sharp objects.)

Where some of the precipitate has entered the pores, backflushing is necessary. In the case of porosities 0 to 2 this can be done simply by using a water tap, connecting it with the rubber tubing to the stem of sintered piece and allowing water to run backwards through the filter disc. The water pressure must not exceed $1\text{kp}/\text{cm}^2$.

For porosities 3, 4 and 5 the precipitate is flushed or wiped off the disc, and the water is sucked through in the opposite direction to filtration.

Filters clogged by dirt and dust during gas filtration can be restored by treatment with a warm detergent solution followed by blowing through clean air from the clean side of the filter. Dirt particles are brought to the surface by the foam and removed by rinsing with water.

Chemical Cleaning

If, after mechanical cleaning, some of the pores remain clogged, or if it is desirable to make sure that no residue from the previous work remains before filtering a new substance, then thorough chemical cleaning is required. The choice of solvent obviously depends on the nature of the contamination.

For example :

Barium sulphate	- hot conc, sulphuric acid (100°C)
Silver chloride	- hot ammonia liquor
Red copper oxide	- hot hydrochloric acid & potassium chloride
Mercury residue	- hot, conc. nitric acid
Mercury sulphide	- hot aqua regia
Albumen	- hot ammonia liquor or hydrochloric acid
Grease, oil	- carbon tetrachloride
Other organic substances	- hot, conc. sulphuric acid with an addition of nitric acid, sodium nitrate or potassium dichromate
Animal charcoal	- careful heating with a mixture of 5 volumes of conc. sulphuric acid + 1 volume of conc. Nitric acid to about 200°C

Prolonged rinsing of water must obviously follow.

For biochemical work cleaning with dichromatic sulphuric acid should be avoided, since trivalent chromium compounds, present or newly formed by reduction, are absorbed on the surface of the filter disc. When they are released during subsequent use, biological substances can be seriously damaged. This danger is eliminated by using sulphuric acid with a nitrate or perchlorate addition. Only easily soluble reduction products are formed which can be completely removed by re-washing with water. Since hot, conc. phosphoric acid and hot alkaline solutions attack the glass surface, they are unsuitable as cleaning agents.

CERAN, Protective laboratory plates :

CERAN protection plates solve a problem in the laboratory which could not be avoided previously when using conventional asbestos mats. On heating, it does not release substances which are harmful to health. Apart from this main advantage of CERAN glass ceramic laboratory protective plate compared with asbestos, the use of which has been restricted or prohibited in the mean time in some countries, there are further convincing reasons for replacing the asbestos / wire mesh in all laboratories by CERAN protective plates.

Saving in energy and time

The good permeability of CERAN protective plates for infrared radiation results in heat energy transfer to the material to be heated with low losses. This saves 20% of time and energy. In addition, there is room for several items on the flat square area.

Chemically resistant

When working in the laboratory, boiling over and spilling of

aggressive is unavoidable. Even highly aggressive media can do no damage to the CERAN laboratory protective plate.

High temperature resistance

Application ranging from -200°C to +700°C.

A particular advantage of CERAN laboratory protective plate is their high continuous operation temperature.

Durability at

700°C - 6000 h

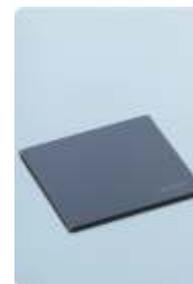
750°C - 750 h

800°C - 100 h

Even when the hot plate is quenched with cold water, there is no risk of fracture, since the resistance to temperature shock is greater than 650°C. In order to avoid overheating, care must be taken that the above mentioned limits are not exceeded when working with a bunsen burner. CERAN protective laboratory plate retains its shape and flatness and does not age.

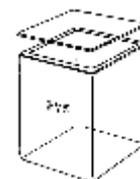
Laboratory Protection Plates, Made from Glass Ceramic, CERAN
Supply will not include Metal Stand

Cat No.	Plate Dimensions mm	Qty. Per Pack Pcs
23821 5309	135 x 135	1
23821 5703	155 x 155	1
23821 5806	175 x 175	1



Museum Jars with Ground-in Glass Plate, DURAN

Cat No.	H x l x B mm	Qty. Per Pack Pcs
21363 0504	100 x 060 x 050	10
21363 1106	120 x 100 x 050	1
21363 1303	130 x 130 x 050	1
21363 1903	150 x 150 x 050	1
21363 4703	210 x 210 x 100	1
21363 5802	250 x 250 x 140	1





Pipettes



Pipettes, Volumetric, Clear Glass, One Mark, Blue Inscription, DIN EN ISO 835
Class 'AS', Conformity Certified with Batch Certificate, DWK

Cat No.	Capacity ml	Tolerance ± ml	Total Length ± 10mm	Qty. Per Pack Pcs
23339 0105	1	0.008	325	12
23339 0208	2	0.010	350	12
23339 0302	3	0.010	350	6
23339 0405	4	0.015	410	6
23339 0508	5	0.015	410	6
23339 0602	6	0.015	410	6
23339 0705	7	0.015	410	6
23339 0808	8	0.020	450	6
23339 0902	9	0.020	450	6
23339 1007	10	0.020	450	6
23339 1504	15	0.030	520	6
23339 2003	20	0.030	520	6
23339 2509	25	0.030	530	6
23339 5009	50	0.050	550	6

Tubes



Culture Tubes, Round Bottom, with DIN Thread with Screw-Cap made of PP and Rubber Gasket, (Suitable for food use) Sterilizable at 1 bar 121°C, AR-GLAS

Cat No.	O. D. x Length ml	Din Thread GL	Wall Thickness mm	Qty. Per Pack Pcs
23175 1159	12 x 100	14	1	100
23175 1459	16 x 100	18	1	100
23175 2155	16 x 160	18	1	100
23175 2352	18 x 180	18	1	100

Supplies will be without any brand mark on the Culture Tubes.

Vessels



Vessels, Wide Mouth, Flat Flange, 100 mm I. D. & 150 mm O. D., Made from DURAN

Cat No.	Capacity ml	Porosity Grade	Qty. Per Pack Pcs
40009 01	1000	170	1
40009 02	2000	205	1
40009 05	5000	260	1
40009 10	10000	320	1
40009 20	20000	400	1

Flasks

Flasks, Flat Bottom, Centre Neck, with I/C Joint, Made from DURAN

Cat No.	Capacity ml	Joint Size	Qty. Per Pack Pcs
204010 36	250	B 14	4
204020 36	250	B 19	4
204030 36	250	B 24	4
204040 36	250	B 29	4
204050 36	250	B 34	4
204010 44	500	B 14	4
204020 44	500	B 19	4
204030 44	500	B 24	4
204040 44	500	B 29	4
204050 44	500	B 34	4
204020 54	1000	B 19	2
204030 54	1000	B 24	2
204040 54	1000	B 29	2
204050 54	1000	B 34	2
204070 54	1000	B 45	2
204090 54	1000	B 55	2
204030 64	2000	B 24	2
204040 64	2000	B 29	2
204050 64	2000	B 34	2
204070 64	2000	B 45	2
204030 68	3000	B 24	1
204040 68	3000	B 29	1
204050 68	3000	B 34	1
204070 68	3000	B 45	1
204090 68	3000	B 55	1
204030 73	5000	B 24	1
204040 73	5000	B 29	1
204050 73	5000	B 34	1
204070 73	5000	B 45	1
204090 73	5000	B 55	1



Flasks

Flasks, Flat Bottom, Centre Neck, with I/C Joint, DURAN



Cat No.	Capacity ml	Joint Size	Qty. Per Pack Pcs
206010 36	250	B 14	4
206020 36	250	B 19	4
206030 36	250	B 24	4
206040 36	250	B 29	4
206050 36	250	B 34	4
206010 44	500	B 14	4
206020 44	500	B 19	4
206030 44	500	B 24	4
206040 44	500	B 29	4
206050 44	500	B 34	4
206020 54	1000	B 19	2
206030 54	1000	B 24	2
206040 54	1000	B 29	2
206050 54	1000	B 34	2
206070 54	1000	B 45	2
206090 54	1000	B 55	2
206030 64	2000	B 24	2
206040 64	2000	B 29	2
206050 64	2000	B 34	2
206070 64	2000	B 45	2
206030 68	3000	B 24	1
206040 68	3000	B 29	1
206050 68	3000	B 34	1
206070 68	3000	B 45	1
206090 68	3000	B 55	1
206030 73	5000	B 24	1
206040 73	5000	B 29	1
206050 73	5000	B 34	1
206070 73	5000	B 45	1
206090 73	5000	B 55	1
206050 86	10000	B 34	1
206070 86	10000	B 45	1
206090 86	10000	B 55	1
206090 91	20000	B 55	1

Flasks

Flasks, Round Bottom, Two Necks, Centre Neck and One Angled Side Neck, each with I/C Joint, Made from DURAN

Cat No.	Capacity ml	Centre Joint Size	Side Joint Size	Qty. Per Pack Pcs
306031 36	250	B 24	B 14	4
306032 36	250	B 24	B 19	4
306031 44	500	B 24	B 14	4
306032 44	500	B 24	B 19	4
306031 54	1000	B 24	B 14	2
306032 54	1000	B 24	B 19	2
306031 64	2000	B 24	B 14	2
306032 64	2000	B 24	B 19	2
306052 64	2000	B 34	B 19	2
306032 68	3000	B 24	B 19	1
306052 68	3000	B 34	B 19	1
306053 68	3000	B 34	B 24	1
306052 73	5000	B 34	B 19	1
306053 73	5000	B 34	B 24	1
306063 73	5000	B 40	B 24	1
306052 86	10000	B 34	B 19	1
306053 86	10000	B 34	B 24	1
306073 86	10000	B 45	B 24	1
306074 86	10000	B 45	B 29	1
306075 86	10000	B 45	B 34	1
306095 86	10000	B 55	B 34	1
306097 86	10000	B 55	B 45	1
306095 91	20000	B 55	B 34	1
306097 91	20000	B 55	B 45	1



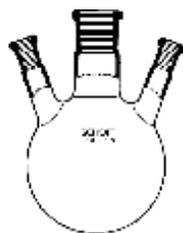
Flasks, Round Bottom, Two Necks, Centre Neck and One Parallel Side Neck, each with I/C Joint, Made from DURAN

Cat No.	Capacity ml	Centre Joint Size	Side Joint Size	Qty. Per Pack Pcs
406031 36	250	B 24	B 14	4
406032 36	250	B 24	B 19	4
406031 44	500	B 24	B 14	4
406032 44	500	B 24	B 19	4
406031 54	1000	B 24	B 14	2
406032 54	1000	B 24	B 19	2
406031 64	2000	B 24	B 14	2
406032 64	2000	B 24	B 19	2
406052 64	2000	B 34	B 19	2
406032 68	3000	B 24	B 19	1
406052 68	3000	B 34	B 19	1
406053 68	3000	B 34	B 24	1
406052 73	5000	B 34	B 19	1
406053 73	5000	B 34	B 24	1
406063 73	5000	B 40	B 24	1
406052 86	10000	B 34	B 19	1
406053 86	10000	B 34	B 24	1
406073 86	10000	B 45	B 24	1
406074 86	10000	B 45	B 29	1
406075 86	10000	B 45	B 34	1
406095 86	10000	B 55	B 34	1
406097 86	10000	B 55	B 45	1
406095 91	20000	B 55	B 34	1
406097 91	20000	B 55	B 45	1



Flasks

Flasks, Round Bottom, Three Necks, Centre Neck and Two Angled Side Necks, Each with I/C Joint, Made from DURAN

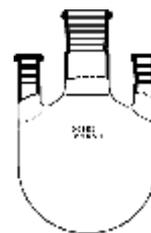


Cat No.	Capacity ml	Centre Joint Size	Side Joint Size	Qty. Per Pack Pcs
306121 36	250	B 19	B 14	4
306222 36	250	B 19	B 19	4
306131 36	250	B 24	B 14	4
306232 36	250	B 24	B 19	4
306141 36	250	B 29	B 14	4
306242 36	250	B 29	B 19	4
306121 44	500	B 19	B 14	4
306222 44	500	B 19	B 19	4
306131 44	500	B 24	B 14	4
306232 44	500	B 24	B 19	4
306141 44	500	B 29	B 14	4
306242 44	500	B 29	B 19	4
306131 54	1000	B 24	B 14	2
306232 54	1000	B 24	B 19	2
306333 54	1000	B 24	B 24	2
306242 54	1000	B 29	B 19	2
306252 54	1000	B 34	B 19	2
306353 54	1000	B 34	B 24	2
306131 64	2000	B 24	B 14	2
306232 64	2000	B 24	B 19	2
306242 64	2000	B 29	B 19	2
306252 64	2000	B 34	B 19	2
306353 64	2000	B 34	B 24	2
306363 64	2000	B 40	B 24	2
306232 68	3000	B 24	B 19	1
306252 68	3000	B 34	B 19	1
306353 68	3000	B 34	B 24	1
306363 68	3000	B 40	B 24	1
306252 73	5000	B 34	B 19	1
306555 73	5000	B 34	B 34	1
306363 73	5000	B 40	B 24	1
306383 73	5000	B 50	B 24	1
306252 86	10000	B 34	B 19	1
306353 86	10000	B 34	B 24	1
306373 86	10000	B 45	B 24	1
306474 86	10000	B 45	B 29	1
306575 86	10000	B 45	B 34	1
306595 86	10000	B 55	B 34	1
306797 86	10000	B 55	B 45	1
306595 91	20000	B 55	B 34	1
306797 91	20000	B 55	B 45	1

Flasks

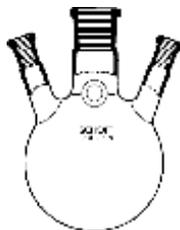
Flasks, Round Bottom, Three Necks, Centre Neck and Two Parallel Side Necks, each with I/C Joint, Made from DURAN

Cat No.	Capacity ml	Centre Joint Size	Side Joint Size	Qty. Per Pack Pcs
406121 36	250	B 19	B 14	4
406222 36	250	B 19	B 19	4
406131 36	250	B 24	B 14	4
406232 36	250	B 24	B 19	4
406141 36	250	B 29	B 14	4
406242 36	250	B 29	B 19	4
406121 44	500	B 19	B 14	4
406222 44	500	B 19	B 19	4
406131 44	500	B 24	B 14	4
406232 44	500	B 24	B 19	4
406141 44	500	B 29	B 14	4
406242 44	500	B 29	B 19	4
406131 54	1000	B 24	B 14	2
406232 54	1000	B 24	B 19	2
406333 54	1000	B 24	B 24	2
406141 54	1000	B 29	B 14	2
406242 54	1000	B 29	B 19	2
406252 54	1000	B 34	B 19	2
406353 54	1000	B 34	B 24	2
406272 54	1000	B 45	B 19	2
406373 54	1000	B 45	B 24	2
406131 64	2000	B 24	B 14	2
406232 64	2000	B 24	B 19	2
406333 64	2000	B 24	B 24	2
406141 64	2000	B 29	B 14	2
406242 64	2000	B 29	B 19	2
406252 64	2000	B 34	B 19	2
406353 64	2000	B 34	B 24	2
406363 64	2000	B 40	B 24	2
406272 64	2000	B 45	B 19	2
406373 64	2000	B 45	B 24	2
406232 68	3000	B 24	B 19	1
406252 68	3000	B 34	B 19	1
406353 68	3000	B 34	B 24	1
406363 68	3000	B 40	B 24	1
406272 68	3000	B 45	B 19	1
406373 68	3000	B 45	B 24	1
406252 73	5000	B 34	B 19	1
406353 73	5000	B 34	B 24	1
406555 73	5000	B 34	B 34	1
406363 73	5000	B 40	B 24	1
406272 73	5000	B 45	B 19	1
406373 73	5000	B 45	B 24	1
406383 73	5000	B 50	B 24	1
406252 86	10000	B 34	B 19	1
406353 86	10000	B 34	B 24	1
406373 86	10000	B 45	B 24	1
406474 86	10000	B 45	B 29	1
406575 86	10000	B 45	B 34	1
406595 86	10000	B 55	B 34	1
406797 86	10000	B 55	B 45	1
406595 91	20000	B 55	B 34	1
406797 91	20000	B 55	B 45	1



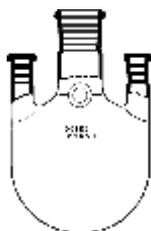
Flasks

Flasks, Round Bottom, Four Necks, Centre Neck and Three Angled Side Necks, each with I/C Joint, Made from DURAN



Cat No.	Capacity ml	Centre Joint Size	Side Joint Size	Qty. Per Pack Pcs
306000 44	500	All Sizes	All Sizes	4
306000 54	1000	All Sizes	All Sizes	2
306000 64	2000	All Sizes	All Sizes	2
306000 68	3000	All Sizes	All Sizes	1
306000 73	5000	All Sizes	All Sizes	1
306000 86	10000	All Sizes	All Sizes	1
306000 91	20000	All Sizes	All Sizes	1

Note : While placing Order, required Joint Sizes should be specified



Flasks, Round Bottom, Four Necks, Centre Neck and Three Parallel Side Necks, each with I/C Joint, Made from DURAN

Cat No.	Capacity ml	Centre Joint Size	Side Joint Size	Qty. Per Pack Pcs
406000 44	500	All Sizes	All Sizes	4
406000 54	1000	All Sizes	All Sizes	2
406000 64	2000	All Sizes	All Sizes	2
406000 68	3000	All Sizes	All Sizes	1
406000 73	5000	All Sizes	All Sizes	1
406000 86	10000	All Sizes	All Sizes	1
406000 91	20000	All Sizes	All Sizes	1

Note : While placing Order, required Joint Sizes should be specified

Volumetric Glassware
EM-TECHCOLOR

Volumetric Glassware - EM-TECHCOLOR



Products Shown are Illustrative only



Management Service

CERTIFICAT

CERTIFICADO

СЕРТИФИКАТ

認證證書

CERTIFICATE

ZERTIFIKAT

CERTIFICATE

Certificate Registration No.: 12 100 68292 TMS / Order No.: 707184374

The Certification Body
of TÜV SÜD Management Service GmbH

certifies that the organization

HIRSCHMANN®

Hirschmann Laborgeräte GmbH & Co. KG

Hauptstr. 7 - 15

74246 Eberstadt

Germany

for the scope

**Design, development, production and sale of
glass products, volumetric measuring devices, laboratory devices,
laboratory consumables and pumps as well as
products for microscopy and microtitration plates
and capillaries for application in in-vitro diagnostics**

has established and applies a Quality Management System.

An audit was performed and has furnished proof
that the requirements according to

DIN EN ISO 9001:2015

are fulfilled.

The certificate is valid from **2024-10-01** until **2027-09-30**.

Fred Wenke
Head of Certification Body
Munich, 2024-10-02



Deutsche Akkreditierungsstelle GmbH

Entrusted according to Section 8 subsection 1 AkkStelleG in connection with Section 1 subsection 1 AkkStelleGBV

Signatory to the Multilateral Agreements of EA, ILAC and IAF for Mutual Recognition

Accreditation



The Deutsche Akkreditierungsstelle GmbH attests that the calibration laboratory

Hirschmann Laborgeräte GmbH & Co. KG
Hauptstraße 7 - 15, 74246 Eberstadt

is competent under the terms of DIN EN ISO/IEC 17025:2018 to carry out calibrations in the following fields:

Chemical analysis, reference materials
– **Volume of liquids**

The accreditation certificate shall only apply in connection with the notice of accreditation of 03.09.2020 with the accreditation number D-K-15201-01. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 5 pages.

Registration number of the certificate: **D-K -15201-01-00**

Braunschweig,
03.09.2020

Dr. Heike Manke
Head of Division

Translation issued:
03.09.2020


Head of Division

The certificate together with its annex reflects the status at the time of the date of issue. The current status of the scope of accreditation can be found in the database of accredited bodies of Deutsche Akkreditierungsstelle GmbH.
<https://www.dakks.de/en/content/accredited-bodies-dakks>

This document is a translation. The definitive version is the original German accreditation certificate.

See notes overleaf.

Recognition of DAkkS under Indian Regulation of NABL

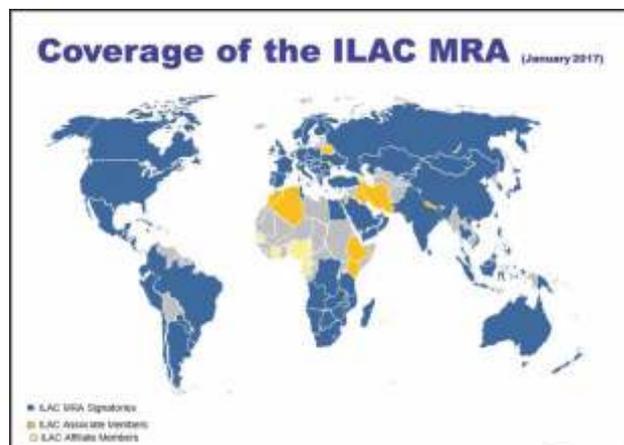
Hirschmann Laborgerate GmbH & Co.KG has been given Accreditation by DAkkS (Deutsche Akkreditierungsstelle GmbH) as competent to carry out calibrations. This accreditation implies that Hirschmann has the right to issue internationally recognized certificates for volumetric measuring instruments. Therefore, the tested quality of each product is not only documented but the certification represents the rigorous testing procedures as well as the excellence of the quality management systems. The DAkkS calibration certificate includes all measured values and measuring uncertainty of the tested device based on international norms. DAkkS is signatory to the Multilateral Agreements of EA, ILAC and IAF for Mutual Recognition.

DAkkS and NABL are connected and mutually recognized through the ILAC Organization. ILAC (International Laboratory Accreditation Cooperation) is the international organization for accreditation bodies operating in accordance with ISO/IEC 17011 and involved in the accreditation of Conformity Assessment Bodies including Calibration Laboratories (using ISO/IEC 17025), Testing Laboratories (using ISO/IEC 17025), Medical Testing Laboratories (using ISO 15189) and Inspection Bodies (using ISO/IEC 17020).

Accreditation allows you to make an informed decision when selecting an organization to carry out your testing, calibration, or inspection activities, as it demonstrates competence, impartiality and capability of that organization. As a result, accreditation helps to underpin the credibility, safety and performance of goods and services.

Accreditation bodies around the world, which have been evaluated by peers as competent, have signed an arrangement that enhances the acceptance of products and services across national borders. The purpose of this arrangement, the ILAC Mutual Recognition

Arrangement (MRA), (often referred to as ILAC Arrangement) is to create an international framework to support international trade through the removal of technical barriers.



In many economies there is an accreditation body recognized by government and industry (in India NABL) to carry out the assessment and verification against international standards of testing, calibration, inspection and certification activities in both the private and public sectors. ILAC is an organization that counts as its members laboratory accreditation bodies, regional organizations and stakeholders representing over 110 economies. The ILAC MRA allows making use of a global network of testing and calibration laboratories and inspection bodies that have been accredited to provide accurate and reliable results. The ILAC MRA acts as an internationally recognized 'stamp of approval' to demonstrate compliance against agreed standards and requirements. Accreditation and the ILAC MRA help regulators meet their own legislated responsibilities by providing a globally recognized system to accept accredited test and inspection reports.

Signatories to the ILAC Mutual Recognition Arrangement

No.	Accreditation Body	Economy	Scope	Original Signing Date
29	Comite Francais d' Accreditation (COFRAC)	France	38 Testing ISO/IEC 17025 & ISO 15189 Calibration ISO/IEC 17025 Inspection ISO/IEC 17020	02 Nov 2000 02 Nov 2000 24 Oct 2012
30	⁴⁴⁴ Deutsche Akkreditierungsstelle GmbH (DAkkS)	Germany	39 Testing ISO/IEC 17025 & ISO 15189 Calibration ISO/IEC 17025 Inspection ISO/IEC 17020	02 Nov 2000 02 Nov 2000 24 Oct 2012
31	¹⁰ Hellenic Accreditation System S.A. (ESYD)	Greece	40 Testing ISO/IEC 17025 & ISO 15189 Calibration ISO/IEC 17025	22 May 2004 22 May 2004
34	National Accreditation Board for Testing and Calibration Laboratories (NABL)	India	43 Testing ISO/IEC 17025 & ISO 15189 Calibration ISO/IEC 17025	02 Nov 2000 02 Nov 2000
35	National Accreditation Board for Certification Bodies (NABCB)	India	43 Inspection ISO/IEC 17020	16 Sept 2013
36	National Accreditation Body of Indonesia (KAN)	Indonesia	44 Testing ISO/IEC 17025 Testing ISO 15189 Calibration ISO/IEC 17025	20 June 2001 14 Mar 2013 30 Dec 2003

Burettes

Burettes, Schellbach, Main Point Ring Graduation, Straight Stopcock with Glasskey, Blue Graduation, DIN EN ISO 385
 Class 'AS', Conformity Certified, with Batch Certificate, Calibrated at 3 Graduation levels for accuracy and tolerance, EM-TECHCOLOR Brand

Cat No.	Capacity ml	Graduation Division ml	Tolerance ± ml	Qty. Per Pack Pcs
31401 60	10	0.02	0.02	2
31401 70	25	0.05	0.03	2
31401 75	50	0.10	0.05	2



Burettes, Schellbach, Main Point Ring Graduation, Straight Valve Stopcock with PTFE Spindle, Blue Graduation, DIN EN ISO 385
 Class 'AS', Conformity Certified, with Batch Certificate, Calibrated at 3 Graduation levels for accuracy and tolerance, EM-TECHCOLOR Brand

Cat No.	Capacity ml	Graduation Division ml	Tolerance ± ml	Qty. Per Pack Pcs
31402 60	10	0.02	0.02	2
31402 70	25	0.05	0.03	2
31402 75	50	0.10	0.05	2



Burettes, Automatic, Mounted on Reservoir, Schellbach, Main Point Ring Graduation, Straight Stopcock with Glasskey, Blue Graduation,
 Class 'AS', Conformity Certified, with Batch Certificate, Calibrated at 3 Graduation levels for accuracy and tolerance, EM-TECHCOLOR Brand
 Batch Certificate shall be for Burette only (Cat. No. 31401..)

Cat No.	Capacity ml	Qty. Per Pack Pcs
314001 60	10	1
314001 70	25	1
314001 75	50	1



Volumetric Glassware
EM-TECHCOLOR

* Reservoir Capacity : 500 ml for 10 ml and 2000 ml for 25 & 50 ml size

Burettes, Automatic, Mounted on Reservoir, Schellbach, Main Point Ring Graduation, Straight Valve Stopcock with PTFE Spindle, Blue Graduation, Class 'AS', Conformity Certified, with Batch Certificate, Calibrated at 3 Graduation levels for accuracy and tolerance, EM-TECHCOLOR Brand
 Batch Certificate shall be for Burette only (Cat. No. 31402..)

Cat No.	Capacity ml	Qty. Per Pack Pcs
314002 60	10	1
314002 70	25	1
314002 75	50	1

* Reservoir Capacity : 500 ml for 10 ml and 2000 ml for 25 & 50 ml size

Reservoir for Automatic Burette, Made from Duran

Cat No.	Capacity ml	Joint Size	Qty. Per Pack Pcs
2180 144	500	B 29	1
2180 163	2000	B 34	1
2180 173	5000	B 34	1

* Reservoir Capacity : 500 ml for 10 ml and 2000 ml for 25 & 50 ml size





Cylinders

Cylinders, Measuring, with Hexagonal Base and Short Line Graduation, Blue Graduation,
Class 'B', DURAN/EM-TECHCOLOR Brand

DIN EN ISO 4788



Cat No.	Capacity ml	Graduation Division ml	Tolerance ± ml	Qty. Per Pack Pcs
22301 60	10	0.2	0.150	2
22301 70	25	0.5	0.375	2
22301 75	50	1.0	0.750	2
22301 80	100	1.0	0.750	2
22301 86	250	2.0	1.500	2
22301 90	500	5.0	3.750	2
22301 93	1000	10.0	7.500	1
22301 94	2000	20.0	15.000	1

Cylinders, Measuring, with Hexagonal Base and Main Point Ring Graduation, Blue Graduation, Conformity Certified, with Batch Certificate, Calibrated at 3 Graduation levels for accuracy and tolerance, DURAN/EM-TECHCOLOR Brand

DIN EN ISO 4788



Cat No.	Capacity ml	Graduation Division ml	Tolerance ± ml	Qty. Per Pack Pcs
22401 60	10	0.2	0.100	2
22401 70	25	0.5	0.250	2
22401 75	50	1.0	0.500	2
22401 80	100	1.0	0.500	2
22401 86	250	2.0	1.000	2
22401 90	500	5.0	2.500	2
22401 93	1000	10.0	5.000	1
22401 94	2000	20.0	10.000	1

Cylinders, Measuring, with Hexagonal Base and Main Point Ring Schellbach, Blue Graduation, Conformity Certified, with Batch Certificate, Calibrated at 3 Graduation levels for accuracy and tolerance, DURAN/EM-TECHCOLOR Brand

DIN EN ISO 4788



Cat No.	Capacity ml	Graduation Division ml	Tolerance ± ml	Qty. Per Pack Pcs
22201 60	10	0.2	0.100	2
22201 70	25	0.5	0.250	2
22201 75	50	1.0	0.500	2
22201 80	100	1.0	0.500	2
22201 86	250	2.0	1.000	2
22201 90	500	5.0	2.500	2
22201 93	1000	10.0	5.000	1
22201 94	2000	20.0	10.000	1

Cylinders, Measuring, with I/C Joint & Glass Stopper, Class 'B', DURAN/EM-TECHCOLOR Brand

DIN EN ISO 4788



Cat No.	Capacity ml	Joint Size	Qty. Per Pack Pcs
223000 60	10	B 10	2
223010 70	25	B 14	2
223010 75	50	B 14	2
223020 80	100	B 19	2
223030 86	250	B 24	2
223050 90	500	B 34	2
223050 93	1000	B 34	1
223050 94	2000	B 34	1

Cylinders

Cylinders, Measuring, with I/C Joint & Glass Stopper,

DIN EN ISO 4788

Class 'A', with Batch Certificate, Calibrated at 3 Graduation levels for accuracy and tolerance, DURAN/EM-TECHCOLOR Brand, Batch certificate shall be for Measuring Cylinder Class 'A' only (Cat. No. 22401 ..)

Cat No.	Capacity ml	Joint Size	Qty. Per Pack Pcs
224000 60	10	B 10	2
224010 70	25	B 14	2
224010 75	50	B 14	2
224020 80	100	B 19	2
224030 86	250	B 24	2
224050 90	500	B 34	2
224050 93	1000	B 34	1
224050 94	2000	B 34	1



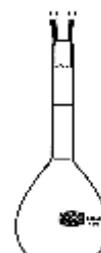
Flasks

Flasks, Volumetric, Class 'A', USP, with Polyethylene Stopper,

DIN EN ISO 1042

Blue Graduation, Conformity Certified, with Batch Certificate - DURAN/EM-TECHCOLOR Brand

Cat No.	Capacity ml	Tolerance ± ml	Joint Size	Qty. Per Pack Pcs
28201 5327	5	0.02	10/19	10
28201 6127	10	0.02	10/19	10
28201 6527	20	0.03	10/19	10
28201 7027	25	0.03	10/19	10
28201 7527	50	0.05	12/21	10
28201 8027	100	0.08	12/21	10
28201 8527	200	0.10	14/23	10
28201 8627	250	0.12	14/23	10
28201 8927	500	0.15	19/26	10
28201 9327	1000	0.30	24/29	1
28201 9427	2000	0.50	29/32	1



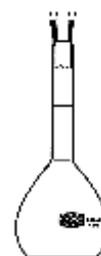
Volumetric Glassware
EM-TECHCOLOR

Flasks, Volumetric, Class 'A' with Polyethylene Stopper,

DIN EN ISO 1042

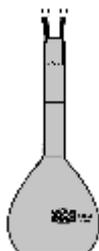
Blue Graduation, Conformity Certified, with Batch Certificate - DURAN/EM-TECHCOLOR Brand

Cat No.	Capacity ml	Tolerance ± ml	Joint Size	Qty. Per Pack Pcs
28201 53	5	0.040	10/19	10
28201 61	10	0.040	10/19	10
28201 65	20	0.040	10/19	10
28201 70	25	0.040	10/19	10
28201 75	50	0.060	12/21	10
28201 80	100	0.100	12/21	10
28201 85	200	0.150	14/23	10
28201 86	250	0.150	14/23	10
28201 90	500	0.250	19/26	10
28201 93	1000	0.400	24/29	1
28201 94	2000	0.600	29/32	1



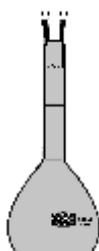


Flasks



Flasks, Volumetric, Class 'A' with Polyethylene AMBER, DIN EN ISO 1042
 Conformity Certified, with Batch Certificate - DURAN/EM-TECHCOLOR Brand

Cat No.	Capacity ml	Tolerance ± ml	Joint Size	Qty. Per Pack Pcs
26401 53	5	0.040	10/19	10
26401 61	10	0.040	10/19	10
26401 65	20	0.040	10/19	10
26401 70	25	0.040	10/19	10
26401 75	50	0.060	12/21	10
26401 80	100	0.100	12/21	10
26401 85	200	0.150	14/23	10
26401 86	250	0.150	14/23	10
26401 90	500	0.250	19/26	10
26401 93	1000	0.400	24/29	1



Flasks, Volumetric, Trapezoidal Shape, Class 'A', with Polyethylene Stopper, Blue Graduation, DIN EN ISO 1042
 Conformity Certified, with Batch Certificate - DURAN/EM-TECHCOLOR Brand

Cat No.	Capacity ml	Tolerance ± ml	Joint Size	Qty. Per Pack Pcs
29601 33	1	0.025	7/19	2
29601 40	2	0.025	7/16	2
29601 53	5	0.040	10/19	2
29601 61	10	0.040	10/19	2
29601 65	20	0.040	10/19	2
29601 70	25	0.040	10/19	2
29601 75	50	0.060	12/21	2

Stoppers



Poly Stoppers for Volumetric Flasks, Class 'A', EM-TECHCOLOR

Cat No.	Joint Size	Suitable for Flask capacity ml	Qty. Per Pack Pcs
89002 60	10 / 19	5 to 25	10
89002 65	12 / 21	50 to 100	10
89002 70	14 / 23	200 to 250	10
89002 75	19 / 26	500	10
89002 80	24 / 29	1000	10
89002 86	29 / 32	2000	10



EM - TECHCOLOR PIPETTES

Pipettes are used for accurate measurements and transfer of liquids. Volumetric pipettes will only deliver specific quantities. Graduated pipettes allow take - up of different liquid volumes and delivery of the same or different quantities. Graduated and volumetric pipettes are of EM - TECHCOLOR brand. They are calibrated to deliver ("Ex") at the reference temperature of 20°C. In the case of calibrated pipettes and Class 'AS' pipettes, the tolerances on volume content corresponds to the accuracy limits of ISO and DIN standards. The

accuracy limits for EM - TECHCOLOR Class 'B' type are about one and half times that of Class 'AS'. This means that they are better than required by ISO and DIN. By specifying a Class 'AS' within the frame work or their 15th modifications order, the Federal German weights and measures authorities have recognised that an overwhelming portion of volumetric measurements, particularly in clinical laboratories is carried out on water or on dilute aqueous solutions. Thus, apparatus with the same accuracy limits, but with run-out time considerably shorter than hitherto demanded, are now admitted for calibration.

Tolerances for Graduated measuring Pipettes calibrated to deliver

Capacity ml	Accuracy Limits Class 'AS' suitable for official calibration		Accuracy Limits Class 'B'	
	ISO 835 DIN 12697 ± ml		ISO 835 DIN 12695 ± ml	EM-TECHCOLOR ± ml
0.1 ¹	-		-	0.0015
0.2 ¹	-		-	0.0030
1	0.007		0.01	0.0100
2	0.010		0.02	0.0150
5	0.030		0.05	0.0450
10	0.050		0.10	0.0750
25	0.100		0.20	0.1500

¹ Non - DIN, Non - ISO size, Graduated Pipettes 0.1 and 0.2 ml are calibrated to contain ("In")

Tolerances for Volumetric Pipettes calibrated to deliver

Capacity ml	Accuracy Limits Class 'AS' suitable for official calibration		Accuracy Limits Class 'B'	
	DIN 12691 ± ml		ISO 648 DIN 12690 ± ml	EM-TECHCOLOR ± ml
5	0.015		0.03	0.0230
10	0.020		0.04	0.0300
20	0.030		0.06	0.0450
25	0.030		0.06	0.0450
50	0.050		0.10	0.0750

VOLUMETRIC GLASSWARE FROM HIRSCHMANN LABORGERATE

GRADUATED PIPETTE, CLASS 'B'
EM-TECHCOLOR



In any laboratory volume measurement is a continuous process. The products that aid such volume measurements, are Burettes, Graduated Pipettes, Volumetric Pipettes, Volumetric Flasks, and Measuring Cylinders. These aids are available in both class A and Class B and the selection of the class depends on the application and required accuracy.

All the volumetric products are either to contain or to deliver the liquids. To contain is signified by the mark shown on the ware "in" and to deliver is signified by the mark on the ware "Ex". Products such as Measuring Cylinders and Volumetric Flasks are meant for containing whereas products such as Pipettes and Burettes are meant for delivering.

The Capacity of the "in" products will always be equivalent to the capacity printed on the ware. However the "Ex" products will show the capacity printed as that which is equivalent to the volume delivered. The residue adhering to the wetted glass surface is already taken into account while calibrating.

The division of volumetric glassware into classes A, AS, and B indicates the suitability for certification, degrees of accuracy and DELIVERY and WAITING TIMES. DELIVERY TIME is the time required for the liquid meniscus to pass from the calibration mark to standstill at the tip or at the second calibration mark. WAITING TIME starts when the liquid meniscus in the tip or at the second calibration mark has come to a stop. During the waiting time,

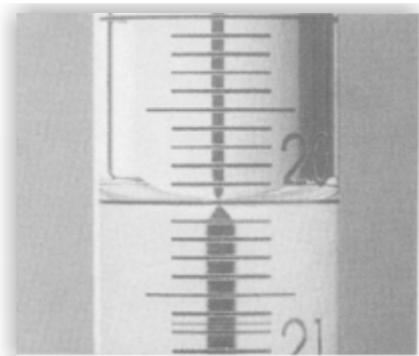
VOLUMETRIC PIPETTE, CLASS 'AS'
EM-TECHCOLOR



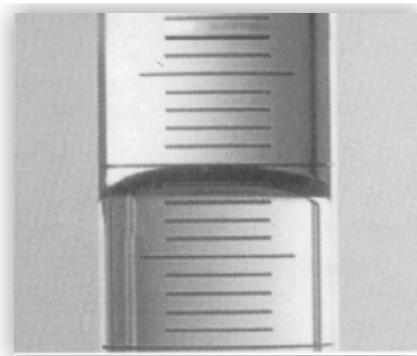
residual liquid flows downward from the glass wall. This causes a new rise of the meniscus. After the waiting time, the pipette tip is wiped on the wall of the vessel. A small amount of liquid remains in the narrow section of the tip. But as explained previously this has been taken into account during calibration. Products of Class A and Class AS are Conformity Certified wares. Those, which are supposed to contain ("in"), will have class A and those, which are supposed to deliver ("Ex"), will have Class AS. Class AS has all the features of Class A and in addition its delivery is swift (S stands for swift delivery). Class AS will have a delivery time of about 15 seconds and a waiting period of another 15 seconds. The tolerances for accuracy for Class B remain within twice the limits defined by DIN and ISO for Class A/AS.

The meniscus - How does it arise, how is it read ?

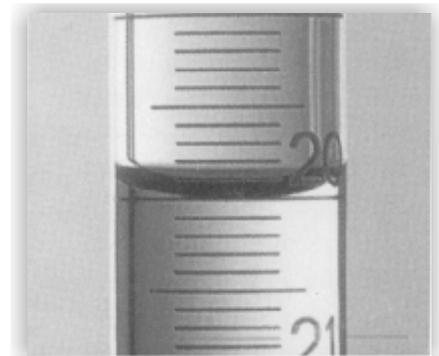
If the liquid molecules are attracted more strongly by the molecules of the glass wall (adhesion) than by their counterparts (cohesion), a concave meniscus is formed. The edge of the liquid level is drawn slightly upwards. If the diameter of a pipette is narrow enough (e. g. in a capillary), the adhesion force is sufficient to pull up not just the outer edge, but the entire liquid level. This is the whole "secret" of the capillary effect. If however, the cohesion force of a liquid is greater than the adhesion force of the glass wall, a convex meniscus is formed (e. g. Mercury)



The Schellbach stripe is a slender blue stripe in the middle of a white milkglass stripe printed at the back of the volumetric glassware. The light refraction on the surface of the liquid causes a narrowing (constriction) of the blue stripe between the top and bottom meniscus. According to DIN 12700, read-off is at the point of contact of the two tips



In the case of a convex meniscus, e. g. mercury, the German Industrial Standard DIN/ISO 384 and DIN 12700 requires the volume to be read at the highest point of the liquid's surface. The highest point of the meniscus must cover the lower edge of the graduation mark.



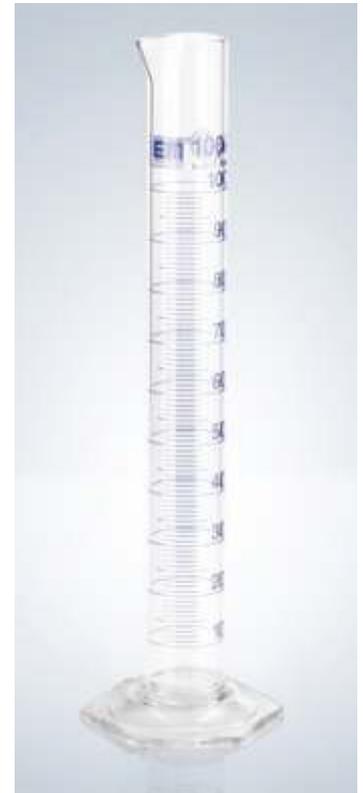
In the case of a concave meniscus, e. g. water, the German Industrial Standard DIN/ISO 384 and DIN 12700 requires the volume to be read at the lowest point of the liquid's surface. The lowest point of the meniscus must cover the upper edge of the graduation mark.

Volumetric glassware from Hirschmann Laborgeräte



Schellbach Burette, class 'AS'
EM-Techcolor

Download Batch Certificate
directly from website
www.hirschmannlab.com



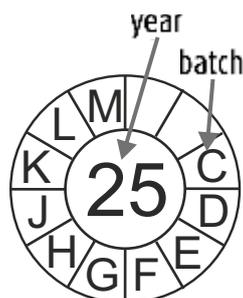
Measuring cylinder, class 'A'
EM-Techcolor



Volumetric flask, class 'A'
EM-Techcolor



Volumetric pipette, class 'AS'
EM-Techcolor



Schellbach graduated pipette,
EM-Techcolor



Pipettes



Pipettes, Graduated, Clear Glass, Short - Line,

DIN EN ISO 835

Graduated to Tip, Amber Stain Graduation, (Serological type),

Class 'B', EM-TECHCOLOR Brand

Cat No.	Capacity ml	Graduation Division ml	Tolerance ± ml	Total Length ±5mm	Qty. Per Pack Pcs
10001 33	1	0.01	0.010	360	12
10001 35	1	0.10	0.010	360	12
10001 41	2	0.02	0.015	360	12
10001 42	2	0.10	0.015	360	12
10001 53	5	0.05	0.045	360	12
10001 54	5	0.10	0.045	360	12
10001 60	10	0.10	0.075	360	12
10001 70	25	0.10	0.150	450	6



Precision Graduated Pipettes, Clear Glass, Short - Line,

DIN EN ISO 835

Graduated to Tip, Amber Stain Graduation, (Serological type),

Class 'B', EM-TECHCOLOR Brand

Cat No.	Capacity ml	Graduation Division ml	Tolerance ± ml	Total Length ±5mm	Qty. Per Pack Pcs
10001 29	0.5	0.010	0.0075	360	12



Pipettes, Graduated, Clear Glass, Main Point Ring Graduation,

DIN EN ISO 835

Graduated to Tip, Amber Stain Graduation, (Serological type), Class 'AS',

Conformity Certified, with Batch Certificate, Calibrated at 3 Graduation levels for accuracy and tolerance, EM-TECHCOLOR Brand

Cat No.	Capacity ml	Graduation Division ml	Tolerance ± ml	Total Length ±5mm	Qty. Per Pack Pcs
11001 33	1	0.01	0.007	360	12
11001 35	1	0.10	0.007	360	12
11001 41	2	0.02	0.010	360	12
11001 42	2	0.10	0.010	360	12
11001 53	5	0.05	0.030	360	12
11001 54	5	0.10	0.030	360	12
11001 60	10	0.10	0.050	360	12
11001 70	25	0.10	0.100	450	6



Pipettes, Graduated, Clear Glass, Main Point Ring Graduation,

DIN EN ISO 835

Graduated to Tip, Schellbach, (Serological type), Class 'AS',

Conformity Certified, with Batch Certificate, Calibrated at 3 Graduation levels for accuracy and tolerance, EM-TECHCOLOR Brand

Cat No.	Capacity ml	Graduation Division ml	Tolerance ± ml	Total Length ±5mm	Qty. Per Pack Pcs
11101 33	1	0.01	0.007	360	12
11101 41	2	0.02	0.010	360	12
11101 53	5	0.05	0.030	360	12
11101 54	5	0.10	0.030	360	12
11101 60	10	0.10	0.050	360	12
11101 70	25	0.10	0.100	450	6



Pipettes

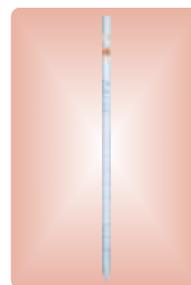
Pipettes, Graduated, Clear Glass, Short - Line, DIN EN ISO 835
Graduated, Capacity Mark above shoulder, Amber Stain Graduation, (Mohr type),
 Class 'B', EM-TECHCOLOR Brand

Cat No.	Capacity ml	Graduation Division ml	Tolerance ± ml	Total Length ±5mm	Qty. Per Pack Pcs
10002 33	1	0.01	0.010	360	12
10002 35	1	0.10	0.010	360	12
10002 41	2	0.02	0.015	360	12
10002 42	2	0.10	0.015	360	12
10002 53	5	0.05	0.045	360	12
10002 54	5	0.10	0.045	360	12
10002 60	10	0.10	0.075	360	12
10002 70	25	0.10	0.150	450	6



Pipettes, Graduated, Clear Glass, Main Point Ring Graduation, DIN EN ISO 835
Graduated to Tip, Capacity Mark above shoulder, Amber Stain Graduation,
 (Mohr type), Class 'AS', Conformity Certified, with Batch Certificate, Calibrated at 3
 Graduation levels for accuracy and tolerance, EM-TECHCOLOR Brand

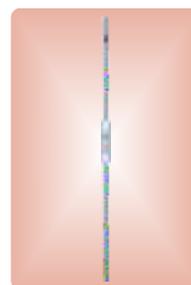
Cat No.	Capacity ml	Graduation Division ml	Tolerance ± ml	Total Length ±5mm	Qty. Per Pack Pcs
11002 33	1	0.01	0.007	360	12
11002 35	1	0.10	0.007	360	12
11002 41	2	0.02	0.010	360	12
11002 42	2	0.10	0.010	360	12
11002 53	5	0.05	0.030	360	12
11002 54	5	0.10	0.030	360	12
11002 60	10	0.10	0.050	360	12
11002 70	25	0.10	0.100	450	6



Volumetric Glassware
EM-TECHCOLOR

Pipettes, Volumetric, Clear Glass, One Mark, DIN EN ISO 648
 Amber Stain Graduation, Class 'AS', Conformity Certified with Batch Certificate,
 EM-TECHCOLOR Brand

Cat No.	Capacity ml	Tolerance ± ml	Total Length ± 10mm	Qty. Per Pack Pcs
13401 33	1	0.008	325	12
13401 40	2	0.010	350	12
13401 48	3	0.010	350	6
13401 50	4	0.015	410	6
13401 55	5	0.015	410	6
13401 56	6	0.015	410	6
13401 57	7	0.015	410	6
13401 58	8	0.020	450	6
13401 59	9	0.020	450	6
13401 60	10	0.020	450	6
13401 64	15	0.030	520	6
13401 65	20	0.030	520	6
13401 70	25	0.030	530	6
13401 75	50	0.050	550	6



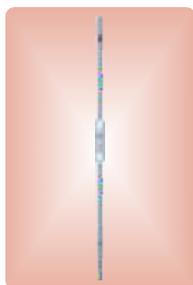


Pipettes

Pipettes, Graduated, Clear Glass, Two Marks,

DIN EN ISO 648

Amber Stain Graduation, Class 'AS', Conformity Certified, with Batch Certificate, EM-TECHCOLOR Brand



Cat No.	Capacity ml	Tolerance ± ml	Total Length ± 10mm	Qty. Per Pack Pcs
13402 33	1	0.008	325	12
13402 40	2	0.010	350	12
13402 48	3	0.010	350	6
13402 55	5	0.015	410	6
13402 60	10	0.020	450	6
13402 64	15	0.030	520	6
13402 65	20	0.030	520	6
13402 70	25	0.030	530	6
13402 75	50	0.050	550	6



Tubes, Centrifuge, Conical, Ungraduated

Cat No.	Capacity ml	Dia mm	Total Length ± 5mm	Qty. Per Pack Pcs
60001 01	15	17	112	100

Supplies will be without any brand mark on the Centrifuge Tubes.



Tubes, Centrifuge, Conical, Graduated with White Graduation

Cat No.	Capacity ml	Division ml	Total Length ± 5mm	Qty. Per Pack Pcs
60201 01	15	0.1	112	100

Steristoppers



Steristoppers®



HEINZ HERENZ

Steristoppers
Microscope Slides

Microscope Slides



Microscope Slides



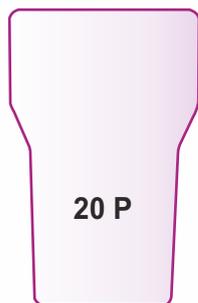
For test tube O.D. 15 mm
I.D. 12.50 to 13.50 mm
Cat. No. 2011307

13 H



For test tube O.D. 18 mm
I. D. 14.00 to 16.00 mm
Cat. No. 2011450

14,5



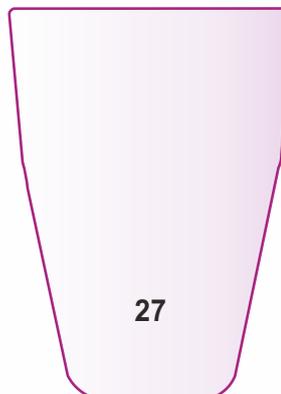
For test tube O.D. 25 mm
I.D. 19.00 to 22.50 mm
Cat. No. 2012001

20 P



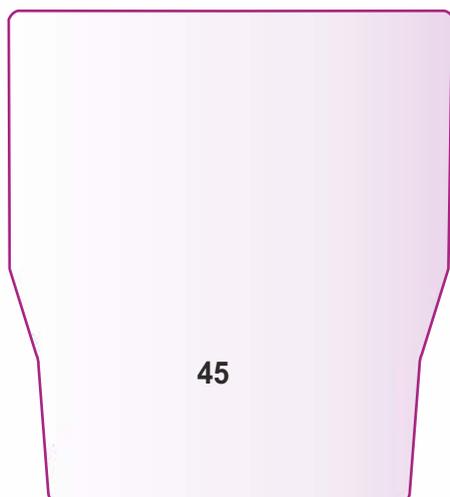
For test tube O.D. 32 mm
I. D. 25.50 to 29.00 mm
Cat. No. 2012723

MA 2/3



For test tube O.D. 38 mm
for conical flask 250 & 500 ml
I.D. 27.00 to 32.50 mm
Cat. No. 2012700

27



For conical flask 2, 3 & 5 Ltr.
for solution bottle 10 & 20 Ltr.
I.D. 47.00 to 48.00 mm
Cat. No. 2014501

45



For conical flask 1000ml
I.D. 35.50 to 39.50 mm
Cat. No. 2013600

36



Steristoppers

STERISTOPPERS are manufactured by M/s. Heinz Herenz, Hamburg, Germany who have 45 years of experience and operate in more than 60 countries across the world. Their speciality is in laboratory consumables and hospital supplies. They are reputed for their own innovative designs and developmental activity having a number of patents and copy-rights in their own name.

STERISTOPPERS are generally used as sealing for Microbiological and Tissue culture samples in test tubes, conical flasks and solution bottles. They replace traditional aluminum foils or cotton plugs which normally take considerable time to prepare. Besides, such sealings may not be foolproof from the point of view of contamination. Therefore,

STERISTOPPERS answer all the problems associated with traditional sealings.

Some of the unique features of STERISTOPPERS are :

- Easy and immediate fixing.
- Active breathing for micro-organisms and bacteria as they are air permeable.
- No contamination from outside.
- A special manufacturing process makes them sterilizable up to 200° C.

- Reusable after sterilization.
- Tight fitting to ensure airtight and dust free working.
- Time and money saving.
- Also used for covering sharp pointed needles and instruments, specially for sterile sealing in pouches.

In addition to the sizes mentioned in this pricelist, there are many other sizes of STERISTOPPERS available which are suitable for different applications involving various kinds of glassware and for other laboratory usage.

In order to select the correct size of STERISTOPPERS the internal diameter of the glassware would be relevant.

Therefore, for sizes other than those mentioned in this pricelist, we request you to inform us the internal diameter of the neck of the glassware in which the STERISTOPPERS are required to be fitted so that a proper selection of the size can be made by us before making our offer.

Sterilizable & Reusable Stoppers Made of Cellulose.

Items are generally used as sealing for Microbiological & tissue culture samples in the test tubes, conical flasks and solution bottles

Cat No.	Size	Suitable for	Qty. Per Pack Pcs
20113 07	13 H	Test Tube O. D. 15 mm	100
20114 50	14.5	Test Tube O. D. 18 mm	100
20120 01	20P	Test Tube O. D. 25 mm	100
20127 23	MA 2/3	Test Tube O. D. 32 mm	50
20127 00	27	Test Tube O. D. 38 mm Conical Flask 250 ml Conical Flask 500 ml	50
20136 00	36	Conical Flask 1000 ml	50
20145 01	45P	Conical Flask 2, 3, & 5 Ltr. Solution Bottle 10 & 20 Ltr.	30



Microscope Slides

Microscope Slides are essential part of the system for illuminating specimens for examination under a Microscope. Together with the microscope it facilitates illumination of the specimen for observation.

The RIVIERA Microscope Slides are made from high quality transparent and colourless glass sheets having excellent optical transmission characteristics and parallelism between the surfaces.

The Microscope Slides are manufactured on special purpose, precision, high speed glass cutting machines which ensure excellent dimensional control and edges are free from any defects. The cut edges are then ground to a uniform consistency to make the slides absolutely safe in handling. Besides ground edges, double frosted slides are also available for identification of specimens and records.

Microscope Slides, with Ground Edges, RIVIERA

Cat No.	Size L x W +1.0/-0 mm	Thickness +0.2/-0 mm	Slides Packet Pcs	Qty. Per Case Packets
72900 135	75 x 25	1.00	50	10

Microscope Slides, with Ground Edges, Frosted, RIVIERA

Cat No.	Size L x W +1.0/-0 mm	Thickness +0.2/-0 mm	Slides Packet Pcs	Qty. Per Case Packets
72910 135	75 x 25	1.00	50	10



Liquid Handling System



Products Shown are Illustrative only



Micropipettes (RIVIERA)

Micropipettes, Fixed Volume, Single Channel, with Individual Work Certificate, RIVIERA. Recalibration required after each Autoclaving. Colour coded for easy identification. Calibration conforming to DIN 12650 & EN-ISO 8655 standards ensuring high accuracy & precision. Calibration report with every pipette.



Cat No.	Volume μl	Qty. Per Pack Pcs
77201 01	5	1
77201 02	10	1
77201 03	20	1
77201 04	25	1
77201 05	50	1
77201 06	100	1
77201 07	200	1
77201 08	250	1
77201 09	500	1
77201 10	1000	1
77201 11	2000	1
77201 12	5000	1
77201 13	10000*	1

*Tip Ejection not available with 10 ml Micropipette

Micropipettes, Variable Volume, Single Channel, with Individual Work Certificate, RIVIERA. Recalibration required after each Autoclaving. Colour coded for easy identification. Calibration conforming to DIN 12650 & EN-ISO 8655 standards ensuring high accuracy & precision. Calibration report with every pipette.

Cat No.	Volume μl	Volume Division μl	Qty. Per Pack Pcs
77301 01	0.5 - 10	0.1	1
77301 02	5 - 50	0.5	1
77301 03	50 - 200	1.0	1
77301 04	200 - 1000	5.0	1
77301 05	10 - 100	0.5	1
77301 06	100 - 1000	5.0	1
77301 07	2 - 20	0.1	1
77301 08	20 - 200	1.0	1
77301 09	1000 - 5000	50.0	1
77301 10	1000 - 10000	100.0	1



Plastic Stand for Micro Pipettors

Cat No.	To Hold No. of Micro Pipettor	Qty. Per Pack Pcs
77500 001	4	1
77500 002	6	1



Micropipettes (RIVIERA+)

MICROPIPETTES, Fixed Volume, Single Channel, Fully Autoclavable, with Individual Work Certificate, RIVIERA+. Does not require recalibration after Autoclaving. Fully Autoclavable since material of construction of body is high grade engineering plastics. Colour coded for easy identification. Calibration conforming to DIN 12650 & EN-ISO 8655 standards ensuring high accuracy & precision. Calibration report with every pipette.

Cat No.	Volume μl	Qty. Per Pack Pcs
77200 01	5	1
77200 02	10	1
77200 03	20	1
77200 04	25	1
77200 05	50	1
77200 06	100	1
77200 07	200	1
77200 08	250	1
77200 09	500	1
77200 10	1000	1
77200 11	2000	1
77200 12	5000	1
77200 13	10000*	1

*Tip Ejection not available with 10 ml Micropipette

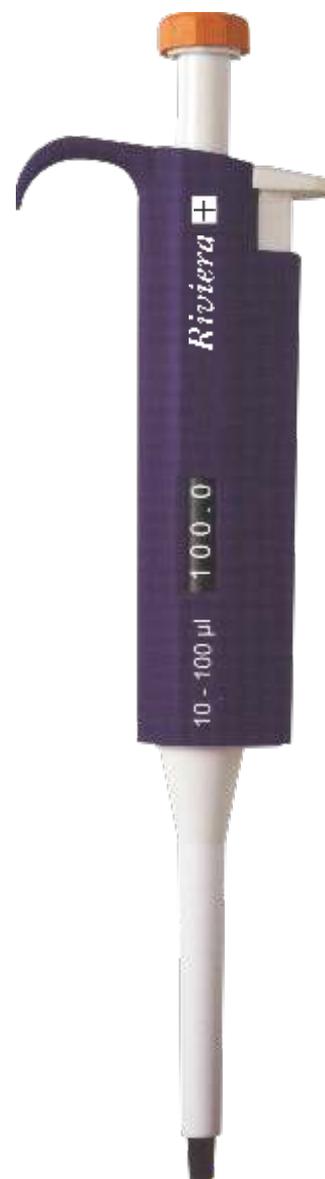
MICROPIPETTES, Variable Volume, Single Channel, Fully Autoclavable, with Individual Work Certificate, RIVIERA+. Does not require recalibration after Autoclaving. Fully Autoclavable since material of construction of body is high grade engineering plastics. Colour coded for easy identification. Calibration conforming to DIN 12650 & EN-ISO 8655 standards ensuring high accuracy & precision. Calibration report with every pipette.

Cat No.	Volume μl	Volume Division μl	Qty. Per Pack Pcs
77300 01	0.5 - 10	0.1	1
77300 02	5 - 50	0.5	1
77300 03	50 - 200	1.0	1
77300 04	200 - 1000	5.0	1
77300 05	10 - 100	0.5	1
77300 06	100 - 1000	5.0	1
77300 07	2 - 20	0.1	1
77300 08	20 - 200	1.0	1
77300 09	1000 - 5000	50.0	1
77300 10	1000 - 10000*	100.0	1

*Tip Ejection not available with 10 ml Micropipette

Plastic Micro-Pipette Tips, Universal Type

Cat No.	Capacity Range μl	Compatible with Micro-Pipette	Qty. Per Pack Pcs
77400 001	0.5 - 20	77301 01, 77301 07, 77300 01, 77300 07	1000
77400 002	0.5 - 200	77200 01, 77200 02, 77200 03, 77200 04, 77200 05, 77200 06, 77200 07, 77201 01, 77201 02, 77201 03, 77201 04, 77201 05, 77201 06, 77201 07, 77300 02, 77300 03, 77300 05, 77300 08, 77301 02, 77301 03, 77301 05, 77301 08	1000
77400 003	100 - 1000	77200 08, 77200 09, 77200 10, 77300 04, 77300 06, 77201 08, 77201 09, 77201 10, 77301 04, 77301 06	1000
77400 004	1000 - 5000	77200 11, 77200 12, 77300 09, 77201 11, 77201 12, 77301 09	100
77400 005	1000 - 10000	77201 13, 77301 10, 77200 13, 77300 10	100



Pipette Controller - RIVIERA



Main Features

- ✓ Easy to use Operating Knobs
- ✓ Powerful Pump
- ✓ Double Safety Valve and Hydrophobic Filters
 - Just 4 seconds to fill a 25ml Pipette
 - No fluid penetration ensured by Double Safety Valve and Hydrophobic Filters
 - Fast and Slow Speed modes
 - Excellent Control of Speed through finger pressure control
 - Low Battery Indicator
 - Power through Cadmium free Batteries - Environment friendly – 2 x 1.2V/1000mAh NiMH batteries. Can be used continuously for 8 hrs. Battery Charging 2-3 hrs.
 - Range of Pipette volume from 0.1 ml to 200ml

Accessories available with the Controller

- ✓ Battery Charger
- ✓ Hydrophobic PTFE membrane filter 0.45 μm 1pc
- ✓ Hydrophobic PTFE membrane filter 0.20 μm 1pc
- ✓ Wall mounting stand with screw

Pipette Controller, RIVIERA

Cat No.	Equipment Type	Operating Principle	Operating Range ml	Accessories Supplied	Qty. Per Pack Pcs
77510 000	Pipette Controller	Electrical	0.1 - 200	As above	1

Bottle Top Dispenser - RIVIERA



Without Recirculation



With Recirculation

Features :

- Ergonomic Design enables low pressure dispensing for even larger volumes
- Dual graduation marks enable precise volume setting & visibility from both sides
- Unique piston mechanism allows cleaning & servicing of piston cylinder without disturbing calibration
- Volume lock ensures any accidental discharge
- Spring-less valve design offers high-chemical resistance and long-life with minimal maintenance
- Telescopic filling tube suitable for different sizes of Bottles
- Discharge tube with 360° rotation makes it convenient to dispense in multiple vessels
- The device comes with 4 additional adapters for most common bottle sizes (28mm, 38mm, 40mm, 45mm)
- The device can be easily calibrated with a single tool
- Calibrated as per ISO 8655 standard. Provided with individual calibration certificate
- Fully Autoclavable @ 121°C

Bottle Top Dispenser, Variable Volume, without Recirculation, RIVIERA

Cat No.	Recirculation	Volume Range ml	Volume Division ml	Accuracy %	Repeat-ability %	Qty. Per Pack Pcs
78600 0025	No	0.25 - 2.5	0.05	0.6	0.2	1
78600 0050	No	0.5 - 5	0.10	0.5	0.2	1
78600 0100	No	1- 10	0.20	0.5	0.2	1
78600 0250	No	2.5 - 25	0.50	0.5	0.2	1
78600 0300	No	2.5 - 30	0.50	0.5	0.2	1
78600 0500	No	5 - 50	1.00	0.5	0.2	1
78600 0600	No	5 - 60	1.00	0.5	0.2	1
78600 1000	No	10 - 100	1.00	0.5	0.2	1

Bottle Top Dispenser, Variable Volume, with Recirculation, RIVIERA

Cat No.	Recirculation	Volume Range ml	Volume Division ml	Accuracy %	Repeat-ability %	Qty. Per Pack Pcs
78700 0025	Yes	0.25 - 2.5	0.05	0.6	0.2	1
78700 0050	Yes	0.5 - 5	0.10	0.5	0.2	1
78700 0100	Yes	1- 10	0.20	0.5	0.2	1
78700 0250	Yes	2.5 - 25	0.50	0.5	0.2	1
78700 0300	Yes	2.5 - 30	0.50	0.5	0.2	1
78700 0500	Yes	5 - 50	1.00	0.5	0.2	1
78700 0600	Yes	5 - 60	1.00	0.5	0.2	1
78700 1000	Yes	10 - 100	1.00	0.5	0.2	1

solarus[®]
advanced
energy concept,
precision results

HIRSCHMANN[®]

solarus[®] sets standards as the world's first digital burette with an integrated solar cell. The power supply for the electronics and display is derived exclusively from an integrated solar cell. Batteries can be completely dispensed with.

Use of solarus[®] ensures that the term "sustainable" is related directly to work in the laboratory. The unique solar-powered digital burette is powered exclusively using photovoltaic. Power is supplied to the solarus[®] electronics via the solar cell at the rear. Charging and changing of batteries, excessive stand-by costs or returning the unit for replacement of lithium cells are therefore a thing of the past.

solarus[®] exploits instead the advantages of solar technology: comfortable, simple, environmentally friendly, inexhaustible and free. Use of superior-quality solar cells ensures a reliable power supply at all times, even where lighting conditions are restricted in the laboratory.

perfect ergonomics

For efficient, non-fatiguing work

maintenance-friendly

Easily replaceable valves

clear

Large, clearly legible display

inspected

Individual quality certificate,
conformity certificate

accurate

Manufacturer's calibration
is permanently stored



solarus®

HiClass in digital titration

solarus® sets standards as the world's first digital burette with an integrated solar cell. The power supply for the electronics and display is derived exclusively from an integrated solar cell. Batteries can be completely dispensed with.

Easily replaceable valves, individual calibration with "Quick-Cal" and permanent storage of the manufacturer's calibration mean that solarus® can be adapted rapidly and flexibly. The vivid digital display prevents meniscus reading errors and is always clearly legible, regardless of the viewing angle. The handwheels with a soft touch surface are ergonomically optimised for particularly precise control.

solarus® is available in a 10ml, 20ml and 50ml version. Thanks to its innovative technology, the solarus® 10ml enables titration of the smallest volumes with an indicating range of 10 µl to 99.99 ml in 10µl graduations. The ejection unit with a fine tip is supplied as a standard component.

Solar technology

solarus® exploits the advantages of solartechnology: comfortable, simple, environmentally friendly, inexhaustible and free. Use of superior-quality solar cells ensures a reliable power supply at all times, even where lighting conditions are restricted in the laboratory.



The Hirschmann recirculation system

User, environmentally and budget friendly. The comfortable Hirschmann recirculation system facilitates rapid aeration without loss of reagent.



All-round rotation

solarus® can be freely screwed as desired onto the bottle. The advantage: the labels or labelled side of the bottle faces the user at all times. This means that you can keep an eye on everything.



Sensitive and precise

Handwheels with a soft touch surface for a firm hold enable sensitive titration via the precision and smooth-running gear mechanism.



Always in sight

Clear, self-explanatory and user-friendly: the display is clearly legible at all times, regardless of the viewing angle, display 0.01 ml - 99.99 ml.

Performance data

Titration graduations	10 µl
Titration range	0.01 ml - 99.99 ml
Pistons	Teflon compound ECTFE, PTFE
Cylinders	Extremely inert and wear-free design made of calibrated DURAN® glass
Valves	Extremely inert and wear-free design, ball and seat made of borosilicate glass, valve springs made of Hastelloy. The valves can be easily removed and replaced using the fitting wrench (included in scope of delivery)
Plastic parts	All parts which come into contact with the medium are made of highly resistant fluoroplastics Valve block and valve housing made of ECTFE, FEP suction and ejection hose
Sterilisability	Media-conveying components (including ejection unit) are suitable for steam sterilisation at 121°C
Breakage resistance	Completely enclosed protective plastic jacket with clear inspection window protects against breakage
Test protocol	Each instrument is individually tested, certified and bears a unique instrument number

Cat No.

939 20 10

939 20 20

939 20 50

Article designation

solarus® 10 ml, R = 0.3%, CV = 0.1%

solarus® 20 ml, R = 0.2%, CV = 0.1%

solarus® 50 ml, R = 0.2%, CV = 0.1%

Accessories

958 40 05

931 30 27

956 40 10

958 60 60

RS232 connection cable

Ejection unit, flexible, spiral shaped

liqui-soft® Software for data transfer

Brown light protection window



Burette

Burette, Digital, Solar Powered, Conformity certified, with Individual Work Certificate, High Precision Digital Titrator for exact and error - free Titration, SOLARUS, make HIRSCHMANN.

The unit will be supplied complete with mounted discharge unit and A45 female thread. 3 different adapters (A 32, A 30 & A 40), suction tube, return tube and wrench

Cat No.	Capacity ml	Accuracy $R \leq \pm$ %	Reproducibility $CV \leq$ %	Qty. Per Pack Pcs
93920 10	10	0.3	0.1	1
93920 20	20	0.2	0.1	1
93920 50	50	0.2	0.1	1

Labopette

LABOPETTE, Fixed Volume, Conformity Certified with Individual Work Certificate, HIRSCHMANN



Cat No.	Volume μ l	Accuracy $R \pm$ %	Reproducibility CV %	Qty. Per Pack Pcs
94755 01	5	2.5	1.5	1
94755 02	10	1.2	0.8	1
94755 03	20	1.0	0.5	1
94755 04	25	1.0	0.5	1
94755 05	50	1.0	0.4	1
94755 06	100	0.8	0.3	1
94755 07	200	0.8	0.3	1
94755 08	250	0.8	0.3	1
94755 09	500	0.8	0.3	1
94755 10	1000	0.8	0.3	1
94755 11	2000	0.8	0.3	1
94755 12	5000	0.8	0.3	1
94755 13	10 ml	0.6	0.3	1

LABOPETTE, Variable Volume, Conformity Certified with Individual Work Certificate, HIRSCHMANN

Cat No.	Volume μ l	Volume Division μ l	Accuracy $R \leq \pm$ %	Reproducibility $CV \leq$ %	Qty. Per Pack Pcs
94754 00	0.1 - 3	0.002	4.0	2.0	1
94754 01	0.5 - 10	0.01	1.2	0.8	1
94754 06	2 - 20	0.02	1.0	0.5	1
94754 07	10 - 100	0.1	0.8	0.3	1
94754 08	20 - 200	0.2	0.8	0.3	1
94754 09	100 - 1000	1.0	0.8	0.3	1
94754 05	500 - 5000	10.0	0.8	0.3	1
94754 04	1 - 10 ml	20.0	0.6	0.3	1

LABOPETTE, Variable Volume, Multi Channel, Conformity Certified with Individual Work Certificate, HIRSCHMANN



Cat No.	No. of Channels	Volume μ l	Volume Division μ l	Accuracy $R \leq \pm$ %	Reproducibility $CV \leq$ Pcs	Qty. Per Pack
94756 01	8	0.5 - 10	0.01	2.4	1.6	1
94756 02	8	10 - 100	0.1	1.6	0.6	1
94756 04	8	30 - 300	0.2	1.6	0.6	1
94757 01	12	0.5 - 10	0.01	2.4	1.6	1
94757 02	12	10 - 100	0.1	1.6	0.6	1
94757 04	12	30 - 300	0.2	1.6	0.6	1

Pipettus

PIPETUS - Pipetting Device for All Conventional Glass Pipettes, HIRSCHMANN

Cat No.	Equipment Type	Operating Principle	Operating Range ml	Accessories Supplied	Qty. Per Pack Pcs
99020 00	Junior	Manual	0.5 - 10		1
99030 00	Standard	Electrical	0.1 - 100	Elect. Pump	1
99072 00	Akku	Electrical	0.1 - 100	Bat. Charger	1



Bottle Top Liquid Dispenser

Bottle Top Liquid Dispenser, with Ceramic Piston, Fixed Volume, Autoclavable at 121°C, 2 Bar, Conformity Certified, with Individual Number & Work Certificate, CERAMUS - CLASSIC FIX, make HIRSCHMANN.

Equipment shall be supplied complete with Thread A 32 mm, 3 thread adapters (A 28, S 40 & A 45), 1 screw coupled suction tube and 1 discharge tube unit complete

Cat No.	Volume ml	Qty. Per Pack Pcs
93111 00	1	1
93211 00	2	1
93311 00	5	1
93411 00	10	1
93511 00	25	1
93611 00	50	1



Bottle Top Liquid Dispenser, with Ceramic Piston, Variable Volume, Autoclavable at 121°C, 2 Bar, Conformity Certified, with Individual Number & Work Certificate, CERAMUS - CLASSIC, make HIRSCHMANN.

Equipment shall be supplied complete with Thread A 32 mm, 3 thread adapters (A 28, S 40 & A 45), 1 screw coupled suction tube and 1 discharge tube unit complete

Cat No.	Volume ml	Qty. Per Pack Pcs
93100 00	0.2 - 1	1
93200 00	0.4 - 2	1
93300 00	1.0 - 5	1
93400 00	2.0 - 10	1
93500 00	5.0 - 30	1
93600 00	10.0 - 60	1

Bottle Top Liquid Dispenser, Variable Volume, with Ceramic Piston & Reagent recirculation system, Autoclavable at 121°C, 2 Bar, Conformity Certified, with Individual Number & Work Certificate, CERAMUS®, make HIRSCHMANN

Equipment shall be supplied suitable for A 45 mm Thread, 3 thread adapters (A 32, S 40 & A 38), 1 screw coupled suction tube, recirculation tube, spanner and 1 discharge tube unit complete.

Cat No.	Volume ml	Volume Division ml	Accuracy R%	Reproducibility CV%	Qty. Per Pack Pcs
93120 00	0.2 - 1	0.05	0.6	0.2	1
93220 00	0.4 - 2	0.05	0.5	0.1	1
93320 00	1 - 5	0.10	0.5	0.1	1
93420 00	2 - 10	0.25	0.5	0.1	1
93520 00	5 - 30	0.50	0.5	0.1	1
93620 00	10 - 60	1.00	0.5	0.1	1



Liquid Handling System

HIRSCHMANN®



ceramus®
ceramus® classic

dispensing as perfect
as it could be

Balances - ACZET, KERN



Products Shown are Illustrative only



Certificate of Registration

This is to certify that

Aczet Pvt. Ltd.

Office: Unit No. E - 2, Plot No. - 15, WICEL Estate, Opp. Serpentine Gate No. 1, Andheri (E), Mumbai - 400093, Maharashtra, India

Factories: # 78 Swagat Bldg, Nagar Plaza Infill Complex, Bhosdapada, Sattivali Rd, Vasai East - 401208, Maharashtra, India.

Survey No.70, Hissa No. 4,VIII Bapuna, Naigama, Tal: Vasoi, Dist:palghar, Maharashtra - 401208, India

No. 211, Adore Aspire Bldg, Nr. BRTS, Gulbai Tekra, Panjaraopole, Ahmedabad - 380015, Gujarat, India

Has been assessed and certified by Optimum Certifications Inc.

As meeting the requirements of:

ISO 9001:2015

Quality Management System

For the following scope of activities:

"Design Manufacturing, Supply & After Sale Service of Electronics Balance, Scales & Weigh Bridges, All Types Weighing Scales, Laboratory & Medical Instruments, Calibration Of Mass & Volume, Lab Instruments, Growth Monitoring Devices, Stadiometer, Infantometer, Xrf, Laser Marking Machine, Laser Welding Machine, Milk Analyser."

Date of Certification: 13th Jan, 2023
1st Surveillance Due: 12th Jan, 2024

2nd Surveillance Due: 12th Jan, 2025
Certificate Expiry Date: 12th Jan, 2026
(Subject to the company maintaining its system to the required standard)

Certificate Number : Q/130123960

Validity of this certificate can be verified at www.ocicert.com



Director

Optimum Certifications Inc.

Validity of this Certificate is successful Annual Surveillance audits to be done. This certificate is the property of Optimum Certifications Inc. and shall be returned immediately upon request. Optimum Certifications Inc. is Accredited by UKAS (www.ukas.org.uk) Suite 15, Regent Court, 70 West Regent Street, Glasgow, Scotland, G2 2QZ



CERTIFICATE



This is to certify that



Kern & Sohn GmbH

Ziegelei 1
72336 Balingen
Germany

has implemented and maintains a **Quality Management System**.

Scope:
Development, manufacture and sale of measuring devices and components, in particular scales (also medical scales) and weights.

Through an audit, documented in a report, it was verified that the management system fulfills the requirements of the following standard:

ISO 9001 : 2015

Certificate registration no. 223690 QM15
Certificate unique ID 170772061
Effective date 2021-04-30
Expiry date 2024-04-29
Frankfurt am Main 2021-04-14



DQS Medizinprodukte GmbH

Sigrid Uhlmann
Managing Director

August-Schanz-Straße 21, 60433 Frankfurt am Main,
Tel. +49 (0) 69 95427-300, medical.devices@dqs-med.de



Semi Micro Balance CY-C Series



Brilliant readability
High contrast Graphical Display with backlit.

- Application**
- Food
 - Pharmaceuticals
 - Institute
 - Laboratory

Perfect self Auto Calibration
When the ambient temperature changes by a specific value or once a defined time interval has elapsed, it performs internal calibration.

Incomparably fast
An outstanding feature is speed and stable readouts with five decimal places in just five seconds.

Separate Measurement system
Balance have possibility of disconnecting the display unit from weighing chamber, which considerably reduces vibrations transferred to weighing chamber and in turns yield stable result.

Incomparably stable accuracy

Repeatability of the weights measured is an additional strength, Rugged and high height MONOTECH sensor allows balance to give exceptionally stable result.

Model	CY 205C	CY 285C	CY 255C	CY 105C
Capacity	200 gm	80 / 220 gm	100 / 220 gm	100 gm
Readability	0.01 mg	0.01 / 0.1mg	0.01 / 0.1mg	0.01 mg
Repeatability (sd)	0.03 mg	0.02 / 0.1mg	0.03 / 0.1mg	0.02 mg
Linearity (+/-)	0.07 mg	0.04 / 0.2mg	0.05 / 0.2mg	0.04 mg
Min. Weight as per USP	20 mg	20 mg	20 mg	20 mg
Pan Size (mm / inch)	80 Ø / 3.15" Ø			
Response Time	5 - 8 Sec.			
Display	Alpha numeric LCD Backlite Dispaly with A.E.P.			
Calibration	Perfect Auto Internal Time & Temp Controlled Smart Calibration			
Units of measure	g, mg, ct, GN, mo, oz, dwt etc.			
Tare Range	Full Capacity			
Operating Temp.	18° to 30°C			
Protection	User Administration & Password Protection			
Sensitivity Drift.	± 2ppm (2 x 10 ⁻⁶ / °C)			
Interface	RS 232 or USB			
Application Modes	PCS, % Weighing, Animal / Dynamic Weighing, Check Weighing Automatic Density, Determination, Formulation etc.			
Power Supply	A/C Adaptor 230V or 115V / +/-20% 50-60Hz			
Compliance	ISO, GLP / GMP USP Compliance			
Weighing Chamber (mm)	165 x 185 x 220			
Net Wt. / Gross Wt.	10.20kg / 14.70kg			
Housing Dim. (WxDxH) (mm)	212 x 340 x 340			
Cat No.	1072 0205	1072 0285	1072 0255	1072 0105

Specification are subject to change without prior notice. Images shown are for illustrations purpose only.

Analytical Balance CY-C Series



PRINT FORMATS

22-Mar-17	11:13AM
Aczet	
Model	CY 224C
Ser. no.	9021107
Ver. no.	r0.1.04
ID	1234567
Calibration:	Internal
W-ID	.....
Temperature	29.378°C
Set	+ 200.0000g
Diff.	-0.0031g
Internal Cal Done	
Diff.	0.0000g
22-Mar-17	11:13AM
Name :	.....



Application :

- Weighing
- Net / Total
- Check Weighing
- Weight accumulation
- Piece counting
- Animal Weighing
- Dynamic Weighing
- Density determination
- Below balance weighing

Perfect Self Auto Calibration (PSAC)

When the ambient temperature changes by a specific value or once a defined time interval has elapsed, it performs Internal Calibration.

Brilliant readability

High-contrast, backlit display is exceptionally easy to read under any room lighting conditions.

GLP

Built-in clock make all your documents ISO / GLP / USP compliance.

IDNR

Facility to input IDNR number for individual readings.

RS 232C / USB

A bidirectional RS 232C data interface or USB makes communication with PC / Printer easier.

Statistical Calculation Function

The balance display and / or output statistical calculation data as No. (number of data), SUM (total), MAX (maximum), MIN (minimum), R [range (maximum - minimum)], AVE (average), SD (standard deviation) and CV (coefficient of variation).



Model	CY 304C	CY 224C	CY 124C	CY 64C
Capacity	300 gm	220 gm	120 gm	60 gm
Readability	0.1 mg	0.1 mg	0.1 mg	0.1 mg
Repeatability (sd)	0.2 mg	0.1 mg	0.1 mg	0.1 mg
Linearity (+/-)	0.3 mg	0.2 mg	0.2 mg	0.2 mg
Pan Size (mm / inch)	90Ø / 3.5"Ø			
Response Time	2 - 3 Sec.			
Display	Alpha Numeric Backlite LCD Display			
Calibration	Motorised Internal Calibration			
Units of measure	gm, mg, ct, GN, mo, oz, dwt, mom, Bat, MS			
Tare Range	Full			
Operating Temp.	15°C to 35°C			
Sensitivity Drift.	± 2ppm (2 x 10 ⁻⁶ / °C)			
Protection	User Administration & Password Protection			
Application Modes	PCS, % Weighing, Animal / Dynamic Weighing Check Weighing, Automatic Density, Determination, Formulation Automatic Statistic Calculator etc.			
Power Supply	A/C Adaptor 230V or 115V / +/-20% 50-60Hz			
Compliance	ISO, GLP / GMP USP Compliance			
Housing Dim. (WxDxH) mm	212 x 341 x 345			
Weight Approx	9.3 kg / 20 lb			
Cat No.	1060 0304	1060 0224	1060 0124	1060 0064

Specification are subject to change without prior notice. Images shown are for illustrations purpose only.

Analytical Balance CY Series



PRINT FORMATS

22-Mar-17	11:13AM
Aczet	
Model	CY 224
Ser. no.	9021151
Ver. no.	r0.1.04
ID	1234567
Calibration:	External
W-ID	.....
Temperature	29.378°C
Set	+ 200.0000g
Diff.	-0.0031g
External Cal Done	
Diff.	0.0000g
22-Mar-17	11:13AM
Name :	.....

Application :

- Weighing
- Net / Total
- Check Weighing
- Weight accumulation
- Piece counting
- Animal Weighing
- Dynamic Weighing
- Density determination
- Below balance weighing



Overload Protection

Capacity tracker built into display for easily monitoring possible overloads.

Brilliant readability

High-contrast, backlit display is exceptionally easy to read under any room lighting conditions.

GLP

Built-in clock make all your documents ISO / GLP / USP compliance.

IDNR

Facility to input IDNR number for individual readings.

RS 232C / USB

A bidirectional RS 232C data interface or USB makes communication with PC / Printer easier.

Statistical Calculation Function

The balance display and / or output statistical calculation data as No. (number of data), SUM (total), MAX (maximum), MIN (minimum), R [range (maximum - minimum)], AVE (average), SD (standard deviation) and CV (coefficient of variation).



Model	CY 304	CY 224	CY 124	CY 64
Capacity	300 gm	220 gm	120 gm	60 gm
Readability	0.1 mg	0.1 mg	0.1 mg	0.1 mg
Repeatability (sd)	0.2 mg	0.1 mg	0.1 mg	0.1 mg
Linearity (+/-)	0.3 mg	0.2 mg	0.2 mg	0.2 mg
Pan Size (mm / inch)	90Ø / 3.5"Ø			
Response Time	2 - 3 Sec.			
Display	Alpha Numeric LCD Display			
Calibration	Automatic External Calibration			
Units of measure	gm, mg, ct, GN, mo, oz, dwt, mom, Bat, MS			
Tare Range	Full			
Operating Temp.	15° to 35°C			
Sensitivity Drift.	± 2ppm (2 x 10 ⁻⁶ / °C)			
Protection	User Administration & Password Protection			
Application Modes	PCS, % Weighing, Animal / Dynamic Weighing Check Weighing, Automatic Density, Determination, Formulation Automatic Statistic Calculator etc.			
Power Supply	A/C Adaptor 230V or 115V / +/-20% 50-60Hz			
Compliance	ISO, GLP / GMP USP Compliance			
Housing Dim. (WxDxH) mm	212 x 341 x 345			
Weight Approx	9.3 kg / 20 lb			
Cat No.	1061 0304	1061 0224	1061 0124	1061 0064

Specification are subject to change without prior notice. Images shown are for illustrations purpose only.

Precision Balance CY Series



PRINT FORMATS

```

22-Mar-2017    11:22AM
      Aczet

Model          CY 324
Ser. no.       9021124
Ver. no.       r0.0.04
ID             1234567

LID           7654321
nRef          50pcs
Nref          40.000 g
+             50 pcs
+             199.097 g
+             999.085 ct
+             50 pcs

22-Mar-2017    11:23AM
Name:
.....
    
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22-Mar-2017    11:13AM
      Aczet

Model          CY 324
Ser. no.       9021124
Ver. no.       r0.1.04
ID             1234567

Calibration:   External

W-ID           .....
Temperature    29.378°C
Set            + 200.000g
Diff.         -0.031g

External Cal Done
Diff.         0.000g

22-Mar-2017    11:13AM
Name:
.....
    
```



Pan Size
128 x 128 mm

Pan Size
Dia. 110 mm

Application :

- Weighing
- Net / Total
- Check Weighing
- Percentage Weighing
- Weight accumulation
- Piece counting
- Animal Weighing
- Dynamic Weighing
- Density determination
- Below balance weighing

Analytical Wind Shield

Precision balance with analytical wind shield is an addition for accurate, reliable and

IDNR

Facility to input IDNR number for individual readings.

Brilliant readability

Bright backlit display with 15mm digits.

GLP

Built-in clock make all your documents ISO / GLP / USP compliance.

RS 232C / USB

A bidirectional RS 232C data interface or USB makes communication with PC / Printer easier.

Overload Protection

Capacity tracker built into display for easily monitoring possible overloads.

Statistical Calculation Function

The balance display and / or output statistical calculation data as No. (number of data), SUM (total), MAX (maximum), MIN (minimum), R [range (maximum - minimum)], AVE (average), SD (standard deviation) and CV (coefficient of variation).



Model	CY 123	CY 223	CY 323	CY 423	CY 513	CY 723	CY 1003	CY 2003
Capacity	120 gm	220 gm	320 gm	420 gm	510 gm	720 gm	1000 gm	2000 gm
Readability	0.001 gm	0.001 gm	0.001 gm	0.001 gm	0.001 gm	0.001 gm	0.001 gm	0.001 gm
Repeatability (sd)	0.001 gm	0.001 gm	0.001 gm	0.001 gm	0.001 gm	0.001 gm	0.002 gm	0.003 gm
Linearity (+/-)	0.002 gm	0.002 gm	0.002 gm	0.002 gm	0.002 gm	0.002 gm	0.005 gm	0.005 gm
Pan Size (mm / inch)	Dia. 110 mm					128 x 128 / 5" x 5"		
Response Time	2 - 3 Sec.							
Display	Alpha Numeric LCD Backlite Display with A.E.P.							
Calibration	Automatic External Calibration							
Units of measure	gm, mg, ct, GN, mo, oz, dwt, mom, Bat, MS							
Tare Range	Full							
Operating Temp.	10° to 40°C							
Sensitivity Drift.	± 2ppm (2 x 10 ⁻⁶ / °C)							
Protection	User Administration & Password Protection							
Application Modes	PCS, % Weighing, Animal / Dynamic Weighing Check Weighing, Automatic Density, Determination, Formulation Automatic Statistic Calculator etc.							
Power Supply	A/C Adaptor 230V or 115V / +/-20% 50-60Hz							
Compliance	ISO, GLP / GMP USP Compliance							
Housing Dim. (WxDxH) mm	212 x 342.5 x 341					212 x 342.5 x 271		
Weight Approx.	7.5 kg							
Cat No.	1062 0123	1062 0223	1062 0323	1062 0423	1062 0513	1062 0723	1062 1003	1062 2003

Specification are subject to change without prior notice. Images shown are for illustrations purpose only.

Precision Balance CY-C Series



PRINT FORMATS

```

22-Mar-2017 11:22AM
Aczet

Model CY 324C
Ser. no. 9021124
Ver. no. r0.0.04
ID 1234567

LID 7654321
nRef 50pcs
Nref 40.000 g
+ 50 pcs
+ 199.097 g
+ 999.085 ct
+ 50 pcs

22-Mar-2017 11:23AM
Name:
.....
    
```

```

22-Mar-2017 11:13AM
Aczet

Model CY 324C
Ser. no. 9021124
Ver. no. r0.1.04
ID 1234567

Calibration: Internal

W-ID .....
Temperature 29.378°C
Set + 200.000g
Diff. -0.031g

Internal Cal Done
Diff. 0.000g

22-Mar-2017 11:13AM
Name:
.....
    
```



Pan Size
128 x 128 mm

Pan Size
Dia. 110 mm

Application :

- Weighing
- Net / Total
- Check Weighing
- Percentage Weighing
- Weight accumulation
- Piece counting
- Animal Weighing
- Dynamic Weighing
- Density determination
- Below balance weighing

Analytical Draft Shield

Precision balance with analytical draft shield is an addition for accurate, reliable and stable.

Perfect Self Auto Calibration (In balance with suffix "C")

When the ambient temperature changes by a specific value or once a defined time interval has elapsed, it performs External Calibration.

IDNR

Facility to input IDNR number for individual readings.

Brilliant readability

Bright backlit display with 15mm digits.

GLP

Built-in clock make all your documents ISO / GLP / USP compliance.

RS 232C / USB

A bidirectional RS 232C data interface or USB makes communication with PC / Printer easier.

Overload Protection

Capacity tracker built into display for easily monitoring possible overloads.

Statistical Calculation Function

The balance display and / or output statistical calculation data as No. (number of data), SUM (total), MAX (maximum), MIN (minimum), R [range (maximum - minimum)], AVE (average), SD (standard deviation) and CV (coefficient of variation).



Model	CY 123C	CY 223C	CY 323C	CY 423C	CY 513C	CY 723C	CY 1003C	CY 2003C
Capacity	120 gm	220 gm	320 gm	420 gm	510 gm	720 gm	1000 gm	2000 gm
Readability	0.001 gm	0.001 gm	0.001 gm	0.001 gm	0.001 gm	0.001 gm	0.001 gm	0.001 gm
Repeatability (sd)	0.001 gm	0.001 gm	0.001 gm	0.001 gm	0.001 gm	0.001 gm	0.002 gm	0.003 gm
Linearity (+/-)	0.002 gm	0.002 gm	0.002 gm	0.002 gm	0.002 gm	0.002 gm	0.005 gm	0.005 gm
Pan Size (mm / inch)	Dia. 110 mm					128 x 128 / 5" x 5"		
Response Time	2 - 3 Sec.							
Display	Alpha Numeric LCD Backlite Display with A.E.P.							
Calibration	Motorised Internal Calibration							
Units of measure	gm, mg, ct, GN, mo, oz, dwt, mom, Bat, MS							
Tare Range	Full							
Operating Temp.	10° to 40°C							
Sensitivity Drift.	± 2ppm (2 x 10 ⁻⁶ / °C)							
Protection	User Administration & Password Protection							
Application Modes	PCS, % Weighing, Animal / Dynamic Weighing Check Weighing, Automatic Density, Determination, Formulation Automatic Statistic Calculator etc.							
Power Supply	A/C Adaptor 230V or 115V / +/-20% 50-60Hz							
Compliance	ISO, GLP / GMP USP Compliance							
Housing Dim. (WxDxH) mm	212 x 342.5 x 341					212 x 342.5 x 271		
Weight Approx	7.5 kg							
Cat No.	1065 0123	1065 0223	1065 0323	1065 0423	1065 0513	1065 0723	1065 1003	1065 2003

Specification are subject to change without prior notice. Images shown are for illustrations purpose only.

Top Loading Precision Balance CY Series



PRINT FORMATS

```

24-Mar-2017
11:22AM
Aczet

Model      CY3102
Ser. no.   9021161
Ver. no.   r0.0.04
ID         1234567

LID        7654321
nRef       50pcs
Nref       40.00 g
+          50 pcs
+          1999.97 g
+          9999.85 ct
+          50 pcs
24-Mar-17  11:23AM
Name:
.....
    
```

```

22-Mar-17  11:13AM
Aczet

Model      CY 3102
Ser. no.   9021161
Ver. no.   r0.1.04
ID         1234567

Calibration: External

W-ID       .....
Temperature 29.378°C
Set        + 2000.00g
Diff.      -0.31g

External Cal Done
Diff.      0.00g

22-Mar-17  11:13AM
Name :
.....
    
```



CY 612 only

Application :

- Weighing
- Net / Total
- Check Weighing
- Percentage Weighing
- Weight accumulation
- Piece counting
- Animal Weighing
- Dynamic Weighing
- Density determination
- Below balance weighing

Display

Bright Backlit LCD display with 15mm height.

Fast results

Latest powerful microprocessor, shortens response time just 3sec.

GLP

Built-in clock make all your documents ISO / GLP / USP compliance.

IDNR

Facility to input IDNR number for individual readings.

Winning technology

monotech technology, which ensures long-term high accuracy.

Statistical Calculation Function

The balance display and / or output statistical calculation data as No. (number of data), SUM (total), MAX (maximum), MIN (minimum), R [range (maximum - minimum)], AVE (average), SD (standard deviation) and CV (coefficient of variation).



Model	CY 612	CY 1202	CY 2202	CY 3102	CY 4102	CY 2202DR
Capacity	600 gm	1200 gm	2200 gm	3100 gm	4100 gm	200 / 2100 gm
Readability	0.01 gm	0.01 gm	0.01 gm	0.01 gm	0.01 gm	0.001 / 0.01 gm
Repeatability (sd)	0.01 gm	0.01 gm	0.01 gm	0.01 gm	0.01 gm	0.002 / 0.02 gm
Linearity (+/-)	0.02 gm	0.02 gm	0.02 gm	0.02 gm	0.02 gm	0.003 / 0.03 gm
Pan Size (mm / inch)	Ø 110	198 x 205 / 7.8" x 8.0"				128x128 / 5.1"x5.1"
Response Time	2 - 3 Sec.					
Display	Alpha Numeric LCD Display					
Calibration	Automatic External Calibration					
Units of measure	gm, mg, ct, GN, mo, oz, dwt, mom, Bat, MS					
Tare Range	Full Capacity					
Operating Temp.	15° to 35°C					
Sensitivity Drift.	± 2ppm (2 x 10 ⁻⁶ / °C)					
Application Modes	PCS, % Weighing, Animal / Dynamic Weighing Check Weighing, Automatic Density, Determination, Formulation Automatic Statistic Calculator etc.					
Power Supply	A/C Adaptor 230V or 115V / +/-20% 50-60Hz					
Compliance	ISO, GLP / GMP USP Compliance					
Housing Dim. (WxDxH) mm	212 x 342.5 x 89.5					212 x 342.5 x 271
Weight Approx	5.5 kg					
Cat No.	1063 0612	1063 1202	1063 2202	1063 3102	1063 4102	1063 2212

Specification are subject to change without prior notice. Images shown are for illustrations purpose only.

Top Loading Precision Balance CY-C Series



PRINT FORMATS

24-Mar-2017	11:22AM
Aczet	
Model	CY 3102C
Ser. no.	9021161
Ver. no.	r0.0.04
ID	1234567
LID	7654321
nRef	50pcs
Nref	40.00 g
+	50 pcs
+	1999.97 g
+	9999.85 ct
+	50 pcs
24-Mar-17	11:23AM
Name:	.....

22-Mar-17	11:13AM
Aczet	
Model	CY 3102C
Ser. no.	9021161
Ver. no.	r0.1.04
ID	1234567
Calibration:	Internal
W-ID	.....
Temperature	29.378°C
Set	+ 2000.00g
Diff.	-0.31g
Internal Cal Done	
Diff.	0.00g
22-Mar-17	11:13AM
Name :	.....



CY 612C only

Application :

- Weighing
- Net / Total
- Check Weighing
- Percentage Weighing
- Weight accumulation
- Piece counting
- Animal Weighing
- Dynamic Weighing
- Density determination
- Below balance weighing

Display

Bright Backlit LCD display with 15mm height.

Perfect Self Auto Calibration (In balance with suffix "C")

When the ambient temperature changes by a specific value or once a defined time interval has elapsed, it performs External Calibration.

Brilliant readability

Bright backlit display with 15mm digits.

GLP

Built-in clock make all your documents ISO / GLP / USP compliance.

IDNR

Facility to input IDNR number for individual readings.

RS 232C / USB

A bidirectional RS 232C data interface or USB makes communication with PC / Printer easier.

Statistical Calculation Function

The balance display and / or output statistical calculation data as No. (number of data), SUM (total), MAX (maximum), MIN (minimum), R [range (maximum - minimum)], AVE (average), SD (standard deviation) and CV (coefficient of variation).



Model	CY 612C	CY 1202C	CY 2202C	CY 3102C	CY 4102C
Capacity	600 gm	1200 gm	2200 gm	3100 gm	4100 gm
Readability	0.01 gm	0.01 gm	0.01 gm	0.01 gm	0.01 gm
Repeatability (sd)	0.01 gm	0.01 gm	0.01 gm	0.01 gm	0.01 gm
Linearity (+/-)	0.02 gm	0.02 gm	0.02 gm	0.02 gm	0.02 gm
Pan Size (mm / inch)	Ø 110	198 x 205 / 7.8" x 8.0"			
Response Time	2 - 3 Sec.				
Display	Alpha Numeric LCD Display				
Calibration	Motorised Internal Calibration				
Units of measure	gm, mg, ct, GN, mo, oz, dwt, mom, Bat, MS				
Tare Range	Full				
Operating Temp.	15° to 35°C				
Sensitivity Drift.	± 2ppm (2 x 10 ⁻⁶ / °C)				
Application Modes	PCS, % Weighing, Animal / Dynamic Weighing Check Weighing, Automatic Density, Determination, Formulation Automatic Statistic Calculator etc.				
Power Supply	A/C Adaptor 230V or 115V / +/-20% 50-60Hz				
Compliance	ISO, GLP / GMP USP Compliance				
Housing Dim. (WxDxH) mm	212 x 342.5 x 89.5				
Weight Approx	5.5 kg				
Cat No.	1064 0612	1064 1202	1064 2202	1064 3102	1064 4102

Specification are subject to change without prior notice. Images shown are for illustrations purpose only.

Precision Balance CG Series



- Auto calibration with external weight.
- Easy to read LCD Display.
- Multifunction weighing units.
- Auto zero tracking, low battery for continues use.
- Overload protection design.
- S.S. Weighing Pan level indicator Quick weighing accurate result.

Model	CG 203L	CG 303L
Capacity	200 gm	300 gm
Readability	0.001 gm	0.001 gm
Repeatability (+/-)	0.001 gm	0.001 gm
Linearity (+/-)	0.002 gm	0.002 gm
Pan Size (mm/inc)	90 Ø	90 Ø
Cat No.	1067 0203	1067 0303

Standard Features

- Compact and space saving.
- Large Stainless steel plate.
- Accurate to within \pm division at full load.
- Overload Protection.
- Dart Shield for more accurate reading.
- Standard RS 232 Interface for data output.
- LED 7 Digit Display for easy viewing.
- Standard dual side or External Display.
- Auto-Zero Tracking, Automatic External Calibration
- 8 Different weighing units such as g, ct, Tola etc.
- Piece Counting & Percentage Weighing Function
- With leveling bubble and adjustable feet for the stability of scale.
- Inbuilt rechargeable battery for continues use.
- AC or DC Power supply : Output AC/DC Adapter.



Model	CG 302	CG 602	CG 1202
Capacity	300 gm	600 gm	1200 gm
Readability	0.01 gm	0.01 gm	0.01 gm
Repeatability (sd)	\pm 0.03 gm	\pm 0.03 gm	\pm 0.03 gm
Linearity (+/-)	0.01 gm	0.01 gm	0.01 gm
Pan Size (mm)	118 Ø		
Cat No.	1066 0302	1066 0602	1066 1202

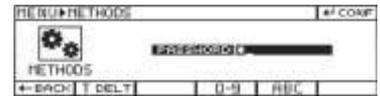
Specification are subject to change without prior notice.
Images shown are for illustrations purpose only.

Moisture Analyzer MB Series



Memory of each moisture Determination

This being the most versatile feature of Aczel MB Series, it stores last 1000 determination, so you can months, this make it Unique and DEPENDABLE, no other instrument can offer this.

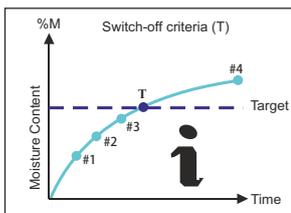


Password protection

Password protection prevents the unauthorized access to the stored data & alternations of the parameters thus ensuring its security.

Data Storage

This unique feature offers the flexibility to choose the data storage mode as per user application.



Reliability

Reliable result depend on correct methodology. Select the in intelligent function, key in the reference value and maximum time. The MB swiftly calculates appropriate switch-off criteria automatically to match the reference value to the last decimal place. You can save this parameter as method. Intelligent efficiently develops your method and save your time in any area where different products are analyzed for their moisture content. You could never match your reference value with such accuracy.



Brilliant Monotech sensor with analytical precision

The outstanding measurement performance of MB series is based on ACZET brilliant analytical weighing Technology MONOTECH. The fourth decimal place is not displayed but is measured and used in calculation of highly precise results, gives highest measurement security.

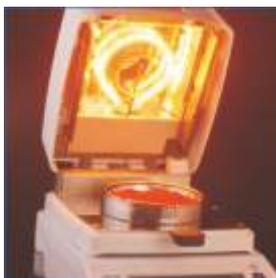
with new Aczel Moisture Analyzer you can achieve higher productivity without compromising on quality in your daily business challenges, since it is DIVERSE and can be programmed according to the individual needs of the person. No matter if user is from quality assurance, manufacturing or R&D.

Connectivity

Do you have to write down the measurement of several dozen samples each day Not any more thanks to the standard USB, RS 232 and ETHERNET interface, you can now conveniently transfer your data to your PC and continue working on it there, or print it out directly on ACZET print.

Method Wise

Storage allows the user to store 25 moisture determination results in each method, user can store such 40 methods. method wise storage is suitable for application in r&D or Quality Assurance where there are more number of different product (Sample) to be analyzed.



Ultra Fast uniform heating

Uniquely designed circular halogen lamp and reflectors ensures utmost rapid heating, shorten the measurement time well engineered heating chamber ensure uniform heating to achieve exact result with exceptional reproducibility.



Graph

Tanks to graphical display, user can view auto updating graph of the drying process with the change in the moisture level.



METHODWISE		BABY FOOD	
STATISTICS	LAST RESULT	5.90	%M
	LAST TIME	20.6	MIN
	NO. OF ANALYZE	1	NO
	REMARK	1	ENTER
	STD. DEV.	0.02	%M
← BACK		↑ UP	↓ DOWN

Statistics

This can display and print statistics for the last 9999 measurements based on each Method or Batch making this ideal intelligent instrument for R&D and Production both.

Features like weight in assist and standby temperature helps user to improve reproducibility by taking same amount sample weight and similar climatic state for each moisture determination.

Temperature calibration Report	

ACZET	
Model no.	MB 200
Serial no.	M2120057
Ver. no.	1.1.3.25
User ID	MAUSAM
Temp can count	13
Temp cal date	31/12/2011
Temp cal time	01:59PM

Temperature1	100°C:102°C
Temperature2	200°C:200°C
Temp Calibration done	

26/04/2014	06:20PM
Name :	.....
.....

ABC PHARMA CO. LAB UNIT 3	

26/04/2014	05:30PM
ACZET	
Model no.	MB 200
Serial no.	M2120057
Ver. no.	1.1.3.25
User ID	MAUSAM

Method 19:	NACL
PRODUCTION LINE	
AFTER FILTERATION	
Start of analysis:	
Automatic	No
Stability	YES
Delay	YES
Heating	STANDARD
Temp	110°C
Sw-off	MANUAL
Stanby	OFF
Comile	OFF
Init. wt.	+3.918g

00:00:30hrs +	4.23 %M
00:01:00hrs +	3.08 %M
00:01:30hrs +	3.08 %M
00:02:00hrs +	3.46 %M
00:02:30hrs +	3.46 %M

Fn1. wt.	+4.794 g
00:00:16hrs +	0.13 %M

Last wt. cal	26/04/2012
Last temp cal	31/12/2011
Name :	
.....	
26/04/2014	05:32PM

Batch wise

storage allows user to create 100 batches & store maximum 1000 data with no restriction on the data storage per batch. Batch wise storage is suitable for application in production where there are more numbers of samples to be analyzed for the same product.

Multiple units of measurement results %M, %D, %R (ratio), Gm/Lt, %M Atro, %D Atro, make it most convenient for each user.

Various heating profile like standard, Gentle, Rapid, Step & High temperature heating make's it possible to analyze any product sample.

Various switch off criteria from Auto, Manual, Timed, User Defined G/T, User Defined %U/T, Intelligent makes it possible to achieve utmost accurate result.

ISO/GLP compliance printout

It helps identify how, when & who performed the moisture determination. Highly flexible user configurable print format with 4 user ID makes it customized yet traceable document in compliance to SOP's and GLP regulation making MB Series most acceptable in each industry. Every successful calibration is been tracked and record with incremental numbers also last successful calibration report stored in memory makes it even more flexible and convenient.

Model	MB 54	MB 40	MB 50	MB 120	MB 200
Max. Capacity	50 gm	40 gm	50 gm	120 gm	200 gm
Precision of readout mass	0.1 mg	1 mg	1 mg	1 mg	1 mg
Precision of readout of moisture	0.0001%	0.001%	0.001%	0.001%	0.001%
Repeatability (Sample 2g) (sd)	0.05%	0.1%	0.1%	0.1 %	0.1 %
Repeatability (Sample 10g) (sd)	0.02%	0.03%	0.03%	0.03%	0.03%
Display information	0.002%	0.002%	0.03%	0.03%	0.03%
Units of Measurements	%M, %D, %R (ratio), Gm/Lt, %M Atro, %D Atro				
Statistics	Method wise for each individual 40 methods or Batch wise for each individual 100 batches for last 999 results				
Technology	Infra Red Halogen				
Temperature Range	Max. to 175°C (Optional to 250°C) - P.O.R.				
Temperature Increment	Interval 1°C				
Heating Profile	Standard, Gentle, Rapid, Steps, High Temperature				
Switch off Criteria	Auto, Manual, User Def Weight / Time, User Def % unit / Time, Intelligent				
Auto Method Development	Intelligent				
Method Memory	40				
Batch Memory	100				
Method designation	Alpha Numeric				
Serial Number	Yes				
Compile	Yes (Method Linking)				
Temperature of work	15°C to 40°C				
Display	Graphical LCD Display with LED back				
Data Interface	RS 232C Bidirectional, USB, Ethernet, Ps2				
Print	GLP / GMP Compliant, User Configurable				
Password	Method, Setting, Print Format, Data Delet, Calibration, Drying				
Power Supply	230V / 50Hz or 115V / 60Hz				
Power Consumption (Watt)	Max 415				
Housing Dimension (WxDxH) mm	211 x 342 x 178				
Net Wt. / Grpss Wt.	7 Kg / 8 kg				
Packing Dimension (mm) (L x W x H)	400 x 340 x 300 / 15.8" x 13.4" x 11.9"				
Cat No.	1042 0054	1042 0040	1042 0050	1042 0120	1042 0200

Specification are subject to change without prior notice.
Images shown are for illustrations purpose only.

High Precision Balance CY Series



PRINT FORMATS

24-Mar-2017	11:22AM
Aczet	
Model	CY 3101
Ser. no.	9021102
Ver. no.	r0.0.04
ID	1234567
LID	7654321
nRef	50pcs
Nref	40.00 g
+	50 pcs
+	1999.97 g
+	9999.85 ct
+	50 pcs
24-Mar-17	11:23AM
Name:	.....

22-Mar-17	11:13AM
Aczet	
Model	CY 3101
Ser. no.	9021102
Ver. no.	r0.1.04
ID	1234567
Calibration:	External
W-ID	.....
Temperature	29.378°C
Set	+ 2000.0g
Diff.	-0.3g
External Cal Done	
Diff.	0.0g
22-Mar-17	11:13AM
Name :	.....



Application :

- Weighing
- Net / Total
- Check Weighing
- Percentage Weighing
- Weight accumulation
- Piece counting
- Animal Weighing
- Dynamic Weighing
- Density determination
- Below balance weighing

Display

Bright Backlit LCD display with 15mm height.

Fast results

Latest powerful microprocessor, shortens response time just 3sec.

GLP

Built-in clock make all your documents ISO / GLP / USP compliance.

IDNR

Facility to input IDNR number for individual readings.

Winning technology

monotech technology, which ensures long-term high accuracy.

Statistical Calculation Function

The balance display and / or output statistical calculation data as No. (number of data), SUM (total), MAX (maximum), MIN (minimum), R [range (maximum - minimum)], AVE (average), SD (standard deviation) and CV (coefficient of variation).

Model	CY 3101	CY 4101	CY 6101	CY 8101	CY 10001
Capacity	3100 gm	4100 gm	6100 gm	8100 gm	10000 gm
Readability	0.1 gm	0.1 gm	0.1 gm	0.1 gm	0.1 gm
Repeatability (sd)	0.1 gm	0.1 gm	0.1 gm	0.1 gm	0.1 gm
Linearity (+/-)	0.2 gm	0.2 gm	0.2 gm	0.2 gm	0.2 gm
Pan Size (mm / inch)	198 x 205 / 7.8" x 8.0"				
Response Time	2 - 3 Sec.				
Display	Alpha Numeric LCD Display				
Calibration	Automatic External Calibration				
Units of measure	gm, mg, ct, GN, mo, oz, dwt, mom, Bat, MS				
Tare Range	Full				
Operating Temp.	15° to 35°C				
Sensitivity Drift.	± 2ppm (2 x 10 ⁻⁶ / °C)				
Application Modes	PCS, % Weighing, Animal / Dynamic Weighing Check Weighing, Automatic Density, Determination, Formulation Automatic Statistic Calculator etc.				
Power Supply	A/C Adaptor 230V or 115V / +/-20% 50-60Hz				
Compliance	ISO, GLP / GMP USP Compliance				
Housing Dim. (WxDxH) mm	212 x 342.5 x 89.5				
Weight Approx	5.5 kg				
Cat No.	1068 3101	1068 4101	1068 6101	1068 8101	1068 1000

Specification are subject to change without prior notice. Images shown are for illustrations purpose only.

High Precision Balance CY-C Series



PRINT FORMATS

24-Mar-2017	11:22AM
Aczet	
Model	CY 3101
Ser. no.	9021102
Ver. no.	r0.0.04
ID	1234567
LID	7654321
nRef	50pcs
Nref	40.00 g
+	50 pcs
+	1999.97 g
+	9999.85 ct
+	50 pcs
24-Mar-17	11:23AM
Name:	.....

22-Mar-17	11:13AM
Aczet	
Model	CY 3101
Ser. no.	9021102
Ver. no.	r0.1.04
ID	1234567
Calibration:	Internal
W-ID	.....
Temperature	29.378°C
Set	+ 2000.0g
Diff.	-0.3g
Internal Cal Done	
Diff.	0.0g
22-Mar-17	11:13AM
Name :	.....



Application :

- Weighing
- Net / Total
- Check Weighing
- Percentage Weighing
- Weight accumulation
- Piece counting
- Animal Weighing
- Dynamic Weighing
- Density determination
- Below balance weighing

Display

Bright Backlit LCD display with 15mm height.

Perfect Self Auto Calibration (In balance with suffix "C")

When the ambient temperature changes by a specific value or once a defined time interval has elapsed, it performs External Calibration.

Fast results

Latest powerful microprocessor, shortens response time just 3sec.

GLP

Built-in clock make all your documents ISO / GLP / USP compliance.

IDNR

Facility to input IDNR number for individual readings.

Winning technology

monotech technology, which ensures long-term high accuracy.

Statistical Calculation Function

The balance display and / or output statistical calculation data as No. (number of data), SUM (total), MAX (maximum), MIN (minimum), R [range (maximum - minimum)], AVE (average), SD (standard deviation) and CV (coefficient of variation).



Model	CY 3101C	CY 4101C	CY 6101C	CY 8101C	CY 10001C
Capacity	3100 gm	4100 gm	6100 gm	8100 gm	10000 gm
Readability	0.1 gm	0.1 gm	0.1 gm	0.1 gm	0.1 gm
Repeatability (sd)	0.1 gm	0.1 gm	0.1 gm	0.1 gm	0.1 gm
Linearity (+/-)	0.2 gm	0.2 gm	0.2 gm	0.2 gm	0.2 gm
Pan Size (mm / inch)	198 x 205 / 7.8" x 8.0"				
Response Time	2 - 3 Sec.				
Display	Alpha Numeric LCD Display				
Calibration	Motorised Internal Calibration				
Units of measure	gm, mg, ct, GN, mo, oz, dwt, mom, Bat, MS				
Tare Range	Full				
Operating Temp.	15° to 35°C				
Sensitivity Drift.	± 2ppm (2 x 10 ⁻⁶ / °C)				
Application Modes	PCS, % Weighing, Animal / Dynamic Weighing Check Weighing, Automatic Density, Determination, Formulation Automatic Statistic Calculator etc.				
Power Supply	A/C Adaptor 230V or 115V / +/-20% 50-60Hz				
Compliance	ISO, GLP / GMP USP Compliance				
Housing Dim. (WxDxH) mm	212 x 342.5 x 89.5				
Weight Approx	5.5 kg				
Cat No.	1069 3101	1069 4101	1069 6101	1069 8101	1069 1000

Specification are subject to change without prior notice. Images shown are for illustrations purpose only.

Industrial Precision Balance CY-HC / CY-H Series



Perfect Self Auto Calibration (In balance with suffix "C")

When the ambient temperature changes by a specific value or once a defined time interval has elapsed, it performs External Calibration.

GLP

Built in clock make all your documents ISO / GLP compliance.

USB

Optional USB interface instead of RS 232C interface can be ordered.

Brilliant readability

Bright Backlit display with its 15-mm digits are plain to see, under any lighting conditions.

Bidirectional RS-232C data interface is another standard feature.

Winning technology

Monotech technology, which ensures long-term high accuracy.

Fast results

Latest powerful microprocessor technology, shortening response time for faster results, typical response time is just 3 seconds.

Optional

External Battery Backup.

Statistical Calculation Function

The balance display and / or output statistical calculation data as No. (number of data), SUM (total), MAX (maximum), MIN (minimum), R [range (maximum - minimum)], AVE (average), SD (standard deviation) and CV (coefficient of variation).

Application

- Below balance weighing
- Piece counting
- Percent Weighing
- Check Weighing
- Density Calculation



Model	CY 15001HC	CY 25001HC	CY 35001HC	CY 15001H	CY 25001H	CY 35001H
Capacity	15 kg	25 kg	35 kg	15 kg	25 kg	35 kg
Readability	0.1 gm	0.1 gm	0.1 gm	0.1 gm	0.1 gm	0.1 gm
Repeatability (sd)	0.1 gm	0.1 gm	0.1 gm	0.1 gm	0.1 gm	0.1 gm
Linearity (+/-)	0.2 gm	0.2 gm	0.2 gm	0.2 gm	0.2 gm	0.2 gm
Pan Size (mm / inch)	400 x 300 / 15.7" x 11.8"					
Response Time	2 - 3 Sec.					
Display	Alpha Numerical LCD Backlite Display with A.E.P.					
Calibration	Motorised Internal Calibration			Automatic External Calibration		
Units of measure	gm, mg, ct, GN, mo, oz, dwt, mom, Bat, MS					
Tare Range	Full					
Operating Temp.	15°C to 35°C					
Sensitivity Drift.	± 2ppm (2 x 10 ⁻⁶ / °C)					
Protection	User Administration & Password Protection.					
Application Modes	PCS, % Weighing, Animal / Dynamic Weighing Check Weighing, Automatic Density, Determination, Formulation Automatic Statistic Calculator etc.					
Power Supply	A/C Adaptor 230V or 115V / +/-20% 50-60Hz					
Compliance	ISO, GLP / GMP USP Compliance					
Housing Dim. (WxDxH)	517 x 302 x 130					
Weight Approx	15 kg					
Cat No.	1070 1500	1070 2500	1070 3500	1071 1500	1071 2500	1071 3500

Specification are subject to change without prior notice. Images shown are for illustrations purpose only.

Optional Accessories



Features of Data Printer :

- ACZET's STATISTICAL PRINTER is ideal for routine laboratory application.
- GLP / GMP conform documentation of your results.
- Dot Matrix Printer, provides easily readable records on normal paper.
- Complete documentation of all data including calibration, weighing results, correct date and time information even after power failure.
- Date, Time, Statistic and Totalization functions
- Width : 57.5 ± 0.5mm Core Diameter : 8mm Min.
- Baud Rate : 1200, 2400, 4800, 9600, 19200

Cat No.	Model
1046 0000	CPR 02



Density Kit Set :

Cat No.	Model
1047 0000	CDK 01



Temperature Sensor :

Cat No.	Model	Range °C
1048 0000	CTK - X01	30-200



Aluminum Dish

Cat No.	Model	Dia mm	Qty per Pack
1049 0000	CMD 40	90	40



Battery Back-up unit

Cat No.	Model
1050 0000	LBA - X01

IQ, OQ, PQ documents

Price on Request

Standard Test Weights



Single Weights, E2 Class of Accuracy

Cat No.	Description
1052 0018	500 g with NABL Calibration Certificate
1052 0019	1 kg with NABL Calibration Certificate
1052 0020	2 kg with NABL Calibration Certificate
1052 0021	5 kg with NABL Calibration Certificate

Weight Box, E2 Class Accuracy

Cat No.	Description	Qty
1056 0001	Standard Calibration weight Set in box, E2 Class Accuracy, 1 mg to 200 g with NABL Calibration Certificate	1
1056 1001	Standard Calibration weight Set in box, E2 Class Accuracy, 1 mg to 500 mg with NABL Calibration Certificate	1



Single Weights, F1 Class of Accuracy

Cat No.	Description
1053 0018	500 g with NABL Calibration Certificate
1053 0019	1 kg with NABL Calibration Certificate
1053 0020	2 kg with NABL Calibration Certificate
1053 0021	5 kg with NABL Calibration Certificate

Weight Box, F1 Class Accuracy

Cat No.	Description	Qty
1058 0001	Standard Calibration weight Set in box, F1 Class Accuracy, 1 mg to 200 g with NABL Calibration Certificate	1
1058 1001	Standard Calibration weight Set in box, F1 Class Accuracy, 1 mg to 500 mg with NABL Calibration Certificate	1

Pictograms

	Internal adjusting (CAL): quick setting of the balance's accuracy with internal adjusting weight (Motor-driven).
	Adjusting program (CAL): for quick setting of the balance's accuracy. External adjusting weight required.
	Piece counting: reference quantities selectable. Display can be switched from piece to weight.
	Data interface: RS 232 C, bidirectional, for connection of printer or PC.
	GLP/ISO record keeping of weighing data with date, time and ident. - No. Only with printers from KERN.
	Net-total weighing: weight of tare-cup and weight of components memorized in two separate stores.
	Percentage determination: Displays the deviation from the reference weight (100%) in % instead of grammes.
	Unit: Weighing units can be switched to e.g. non-metric units at the touch of a key. See balance model
	Weighing with tolerance range: Upper and lower limiting can be programmed individually, e.g. dosing /sorting.
	Spray and dust protection: Protection class is indicated in the symbol.
	Underfloor weighing: Load support with hook on the underside of the balance.
	Accu-supply: Rechargeable set.
	Mains adapter: 230 V / 50 Hz. Standard type D, if requested also available in standard GB, AUS or USA.
	Mains Part: Mains part integrated in the balance. 230 V/50 Hz in Germany. Upon request also in standard GB, AUS or USA
	Tare: Put back displayed value to "0" during weighing process, e.g. to add or remove weighing material from a container.
	Animal weighing programme : Strong vibrations are filtered out.

Kern Electronic Balances

Kern is world renowned German manufacturer of balances and scales with 160 years of manufacturing experience and is specialized in accurate weighing, accredited to the latest standard DIN ISO 9001:2000. The KERN brand stands for precision and reliability.

The product range is very wide and competitive and includes balances from the small pocket balance to the heavy load industrial balance. There is a large selection of analytical, laboratory, pocket, industrial, hanging and counting balances as well as moisture analyzers. Availability of entry level balances of world standard & quality for school & colleges at affordable price is an important factor to note.

Kern uses appropriate technology for its product range. For example the high end precision analytical and moisture balances use Mono-Block technology / Magnetic force compensation technique, type EW/EG, 470/474 and EC incorporate tuning force measuring system known for reliability and stability needed in some application areas and many other inexpensive but sturdy models use load cell principle.

Another strength of KERN is the production of precision test weights in all fault tolerance categories (E1, E2, F1, F2, M1, M2, M3)- important tools for checking of your measuring instruments within the scope of quality assurance provision in accordance with ISO standards. These weights and balances can be supplied with DAkkS (German) calibration certificate or calibration certificate from Indian accredited laboratory. Details in this regard will be furnished on request.

The products are brought to you by Riviera Glass Pvt Ltd as exclusive distributor in India with assured service support.



only
ABJ/
ACJ



only
ABS/
ACS



KERN ABS-N/ABJ-NM/ACS/ACJ-M Analytical Balance

The bestseller in analytical balances, now with high-quality single-cell weighing system and EC type approval [M]

Technical data

- Large LCD display, digit height 14 mm
- Dimensions of weighing plate \varnothing 91 mm
- Overall dimensions WxDxH 210x340x325 mm
- weighing space WxDxH 174x162x227 mm
- Permissible ambient temperature 10°C / 30°C
- Net weight approx. 6 kg

Single-cell advanced technology:

- **Fully automatic manufactured weighing cell from one piece of material**
- **Stable temperature behaviour**
- **Short stabilisation time:** Steady weight values within approx. 3 sec under laboratory conditions
- **Shock proof construction**
- **High corner load performance**

Cat No.	Model KERN (with external calibration)	Read out 'd' mg	Weighing range g	Reproducibility mg	Linearity mg
10011 1204*	ABS 120-4N	0.1	120	0.2	± 0.3
10011 2204*	ABS 220-4N	0.1	220	0.2	± 0.3
1030 0100	ACS 100-4	0.1	120	0.2	± 0.3
1030 0200	ACS 200-4	0.1	220	0.2	± 0.3
	(with internal Calibration)				
10261 1204*	ABJ 120-4NM	0.1	120	0.2	± 0.3
10261 2204*	ABJ 220-4NM	0.1	220	0.2	± 0.3
1031 0100	ACJ 100-4M	0.1	120	0.2	± 0.3
1031 0200	ACJ 200-4M	0.1	220	0.2	± 0.3

*Till Stock Lasts



only with
statistics
printer



KERN ABT Analytical Balance

The premium model with single-cell weighing system

Technical data

- Large LCD display, digit height 14 mm
- Dimensions of weighing plate \varnothing 80 mm
- Overall dimensions WxDxH 217x356x338 mm
- weighing space WxDxH 168x172x223 mm
- Permissible ambient temperature 10°C / 30°C
- Net weight approx. 7 kg

Single-cell advanced technology:

- **Fully automatic manufactured weighing cell from one piece of material**
- **Stable temperature behaviour**
- **Short stabilisation time:** Steady weight values within approx. 3 sec under laboratory conditions
- **Shock proof construction**
- **High corner load performance**

Cat No.	Model KERN (with internal calibration)	Read out 'd' mg	Weighing range g	Reproducibility mg	Linearity mg
1032 0120	ABT 120-4NM	0.1	120	0.1	± 0.2
1032 0220	ABT 220-4NM	0.1	220	0.1	± 0.2

Cat No.	Model KERN (with internal Calibration Dual Range)	Read out 'd' mg	Weighing range g	Reproducibility mg	Linearity mg
1033 0120	ABT 120-5DNM	0.01 / 0.1	42 / 120	0.02 / 0.1	$\pm 0.05 / 0.2$
1033 0220	ABT 220-5DNM	0.01 / 0.1	82 / 220	0.02 / 0.1	$\pm 0.1 / 0.2$



optional statistics printer



optional



KERN EWJ Precision Balance

High-quality precision balance with automatic internal adjustment and EC type approval [M]

Technical data

- Large LCD display, digit height 16.5 mm
- Dimensions of weighing plate \varnothing 80 mm
- Overall dimensions WxDxH 220x350x90 mm
- Inclusive draft shield 220x315x180 mm, without top cover
- Permissible ambient temperature 5°C / 40°C
- **Optional** - Rechargeable battery pack internal, operating time up to 15 h without backlight, charging time approx. 4 h, KERN KFB-A06

Cat No.	Model KERN (with internal calibration)	Read out 'd' g	Weighing range g	Reproducibility g	Linearity. g
1034 0300	EWJ 300-3	0.001	300	0.001	0.005
1034 0600	EWJ 600-2M	0.01	600	0.01	0.03

Density Determination Set

- Density set for precise and convenient density determination of liquids and solids $\leq/\geq 1$.
- Suitable for all KERN analytical balances.
- Scope of delivery: Beaker, thermometer, sample holder, adapter, equalizing weights, volume plummet (stainless steel, 20 g), universal submersible basket for solid bodies which float and sink.
- The wire of the submersible basket has a diameter of 0.5 mm and therefore complies with the requirements of DIN EN ISO 1183-1 (Test methods for the determination of density of non-foamed plastics)



Cat No.	Model	Description
1000 0521	YDB-03	Density Determination Set suitable for all KERN Analytical Balances



KERN PCB Compact Laboratory Balance

- Backlit LCD display, digit height 15 mm
- External Calibration
- Option for battery operation available with 9 V block battery (Not included)



Cat No.	Model KERN	Read out 'd' g	Weighing range g	Reproducibility g	Linearity g	Weighing Plate mm
1024 3003	PCB 300-3	0.001	360	0.001	±0.005	Ø 82
1024 3002	PCB 300-2	0.01	300	0.01	±0.02	Ø 105
1024 1000	PCB 1000-2	0.01	1200	0.01	±0.03	130 x 130
1024 6000	PCB 6000-1	0.1	6000	0.1	±0.3	150 x 170
1024 1001	PCB 10000-1	0.1	10000	0.1	±0.3	150 x 170



KERN 572 Precision Balance

- Optional Extra :
- Statistics printer
 - Standard printer
 - DAkks certificate
 - Rechargeable Battery Pack



572-30,
572-31 & 572-32
with optional
Glass Draft Shield

Ring Shaped draft shield
(standard) only with
572-30, 572-31 & 572-32

Cat No.	Model KERN	Read out 'd' g	Weighing range g	Reproducibility g	Linearity g	Weighing Plate mm	
1023 0241	572-30	0.001	240	0.001	± 0.003	Ø 105	
1023 0301	572-31	0.001	300	0.002	± 0.003	Ø 105	
1023 0421	572-32	0.001	420	0.002	± 0.005	Ø 105	
1023 1610	572-33	0.01	1600	0.01	± 0.03	Ø 150	
1023 2410	572-35	0.01	2400	0.01	± 0.03	Ø 150	
1023 3010	572-37	0.01	3000	0.02	± 0.05	Ø 150	
1023 1210	572-45	0.10	12000	0.05	± 0.15	160 x 200	
1023 0024	572-57	0.10	24000	0.10	± 0.30	160 x 200	
1023 0501	572-A05	Glass draft shield for Models 572 with d=0.001 g					



only EG-N



only EW-N



only with statistics printer



only with statistics printer



KERN EW • EG • (N) Precision Balance

Optional Extra :

- Statistics printer
- Standard printer
- DAkkS certificate
- Rechargeable battery pack

Weighing plate sizes :

Models with d = 0.001 g: Ø 118 mm

Cat No.	Model KERN (with external calibration)	Read out 'd' g	Weighing range g	Reproducibility g	Linearity g
1003 0220	EW 220-3 NM	0.001	220	0.001	±0.002
1003 0221	EG 220-3 NM	0.001	220	0.001	±0.002

Note : Draft Shield shown in the picture does not have sliding doors. It is provided with an opening at the top for using a pipette only with **Model EW 220-3 NM & EG 220-3 NM. INTERNAL ADJUSTMENT CONTROL CAL** via rotary control on the side (**Model EG-N**)
Additional models are available up to max. weighing range 12000g. Offer on request



KERN 440 Economical Top Loading Precision Balance



Weighing plate sizes :

Models with d = 0.001 g: Ø 81 mm
with draft shield Ø 90 mm, Ht. 40 mm
Models with d = 0.01 g: Ø 105 mm
Models with d = 0.1 g (except 440-49N): 130 x 130 mm
Model 440-49N with d = 0.1 g: 150 x 170 mm
Models with d = 0.2 g & 1.0 g: 150 x 170 mm

Optional Extra :

- Statistics printer
- Standard printer
- DAkkS certificate
- Rechargeable battery pack

Cat No.	Model KERN	Read out 'd' g	Weighing range g	Linearity g
1005 0060	440-21 A	0.001	60	±0.003
1005 0200	440-33 N	0.01	200	±0.02
1005 0400	440-35 N	0.01	400	±0.03
1005 0401	440-43 N	0.1	400	±0.2
1005 1000	440-45 N	0.1	1000	±0.2
1005 2000	440-47 N	0.1	2000	±0.2
1005 4001	440-49 N	0.1	4000	±0.3
1005 4000	440-51 N	1.0	4000	±2
1005 6000	440-53 N	1.0	6000	±2

Note : Battery operation possible. Mono-block battery (9 V). Auto -Off function after 3 minutes without change of load to preserve the battery. Balances with internal rechargeable battery pack can be supplied only with specific order. Incorporation is possible at the time of manufacturing only.



Option



KERN EMB

Entry Level Balances
for School & Colleges

MODEL EMB

- Batteries included
- Mains Adapter optional at extra cost
- Weighing plate size Ø 105 mm (EMB 200-2, EMB 600-2) & Ø 150 mm (other models)
- Auto Off function after 3 minutes without change of load
- Mains Adapter (Optional)

Cat No.	Model KERN	Read out 'd' g	Weighing range g	Reproducibility g	Linearity g
1007 0200	EMB 200-2	0.01	200	-	-
1007 0600	EMB 600-2	0.01	600	-	-
1007 0500	EMB 500-1	0.1	500	-	-
1007 1200	EMB 1200-1	0.1	1200	-	-
1007 2200	EMB 2200-0	1	2200	-	-
1007 5200	EMB 5.2K1	1	5200	-	-
1007 5201	EMB 5.2K5	5	5200	-	-
1000 0531	Mains adapter (YKA-03)				



KERN CM

Pocket Balance

Features :

- Lift up lid as protection against pressure and dust
- Integrated pocket calculator
- Batteries (2 x 1.5 V AAA)
Auto Off function after 4 minutes without change of load

Cat No.	Model KERN	Read out 'd' g	Weighing range g
1015 0060	CM 60-2N	0.01	60
1015 0150	CM 150-1N	0.1	150
1015 0320	CM 320-1N	0.1	320
1015 1000	CM 1K1 N	1.0	1000

Till Stock Lasts



Option



Option



KERN ECB • EOB Platform scales



MODEL ECB

- Ideally suited for mobile use
- Battery operation (6 x 1.5V AA)
- Mains Adapter (Optional)
- Rechargeable battery pack optional, at extra cost
- Weighing plate size 318 x 258 mm

MODEL EOB

- Wall mounting for the display device
- Battery operation (6 x 1.5V AA) possible
- Further weighing unit : lb
- Weighing plate size 310 x 300 mm
- Ideally suited for dispatch department



Cat No.	Model KERN	Read out 'd' g	Weighing range kg	Reproducibility g	Linearity. g
1008 2011	ECB 20K 2N	10	20	10	±40
1008 5021	ECB 50K 2N	20	50	20	±80
1009 3510	EOB 35K 10	10	35	10	±20
1009 6020	EOB 60K 20	20	60	20	±40



KERN FCB/FCD Bench Scale



Features

- **Second display** on the rear of the balance (only FCB)
- **PRE-TARE function** for manual subtraction of a known container weight, useful for checking fill-levels
- **UNITS:** Further weighing units see the internet

Technical data

- Backlit LCD display, digit height 25 mm
- Dimensions of weighing plate (stainless steel)
W x D 300 x 230 mm (FCD)
W x D 252 x 228 mm (FCB)

Cat No.	Model KERN	Read out 'd' g	Weighing range kg	Reproducibility g	Linearity g	Min. Pc. count wt. g/pc
1010 0103	FCD 3 K-3	0.1	3	0.1	±0.3	1.0
1010 0106	FCD 6 K-3	0.2	6	0.2	±0.6	2.0
1010 0112	FCB 12 K 1	1.0	12	1.0	±3.0	2.0



KERN CH • HCB Hanging Scale



KERN CH

Features :

- Data hold function
- Stainless steel hook
- Tape measure extractable (100 cm)
- Block batteries (9 V)
Auto off after 3 minutes without change of load



KERN HCB

Features :

- Data hold function
- Stainless steel hook
- Stainless steel snap link
- Batteries (3 x 1.5 V AA)
Auto off after 3 minutes without change of load



Cat No.	Model KERN	Read out 'd' g	Weighing range kg
1017 0015	CH 15K 20	20	15
1017 0050	CH 50K 50	50	50
1017 0051	CH 50K 100	100	50
1018 0200	HCB 200K 500	500	200



Ø 80



Ø 120

KERN PFB

Precision balance

Low-cost model based on a concept of easy use

Features

- **Concept of easy use:** All primary functions have their own key on the keypad.
- **Compact size,** practical for small spaces.
- **Capacity display:** A bar lights up to show how much of the weighing range is still available.
- **Level indicator and foot screws** to level the balance precisely, fitted as standard, to give the most accurate weighing results.
- **Draft shield** standard (for models with weighing plate sizes A and B).
Weighing space WxDxH 158x143x64 mm, without top cover

Technical data

- Backlit LCD display, digit height 15 mm
- Dimensions of weighing plate (stainless steel)
Ø 80 mm
Ø 120 mm

Cat No.	Model KERN	Read out 'd' g	Weighing range g	Reproducibility g	Linearity g	Weighing Plate mm
1029 0120	PFB 120-3	0.001	120	0.001	± 0.003	Ø 80
1029 0200	PFB 200-3	0.001	200	0.001	± 0.003	Ø 80
1029 0300	PFB 300-3	0.001	300	0.001	± 0.003	Ø 80
1029 1200	PFB 1200-2	0.01	1200	0.01	± 0.03	Ø 120





Test weights :

Single as well as set of test weights are available in stainless steel or nickel plated brass. They can be supplied with German DAKS certificate or locally with ERTL traceability, at extra cost.

Single weight Stainless Steel Class, E2

Cat No.	Description
1000 0535	1 g in box
1000 0536	2 g in box
1000 0537	5 g in box
1000 0538	10 g in box
1000 0539	20 g in box
1000 0540	50 g in box
1000 0541	100 g in box
1000 0542	200 g in box
1000 0543	500 g in box
1000 0544	1 kg in box
1000 0545	2 kg in box
1000 0546	5 kg in box
1000 0547	10 kg in box
1000 0548	20 kg in box
1000 0549	50 kg in box

Single weight Stainless Steel, Class F1

Cat No.	Description
1000 0551	1 g in box
1000 0552	2 g in box
1000 0553	5 g in box
1000 0554	10 g in box
1000 0555	20 g in box
1000 0556	50 g in box
1000 0557	100 g in box
1000 0558	200 g in box
1000 0559	500 g in box
1000 0560	1 kg in box
1000 0561	2 kg in box
1000 0562	5 kg in box
1000 0563	10 kg in box
1000 0564	20 kg in box
1000 0565	50 kg in box

Weight Set, Stainless Steel, in plastic carrying case, Class E2

Cat No.	Description
1000 0571	Range 1 mg - 200 g

Weight Set, Stainless Steel, in plastic carrying case, Class F1

Cat No.	Description
1000 0581	Range 1 mg - 200 g

Note : Weight boxes and weights in other ranges and class E1, E2, F1, F2, M1, M2 & M3 are also available. Details / Price on Request



TERMS & CONDITIONS

The following terms and conditions of sale and payment shall apply to all goods supplied by us unless specifically accepted by us in writing. Acceptance of goods supplied constitutes acceptance of these terms :

- Prices are in Indian Rupees and are maximum recommended prices. The Authorised Dealers are at liberty to charge lower than that stipulated here. These prices are exclusive of any delivery charges, octroi and other non-statutory levies.
- Prices are **exclusive of GST which shall be extra as applicable on the date of Invoice.**
- Prices are subject to change without notice. Prices applicable on the date of supply shall be valid.
- Unless agreed otherwise, invoices are to be paid immediately without deduction of any discount.
- The price contains the standard quantities per pack for each item. It is desirable that orders are placed in multiples thereof.
- Every effort shall be made to maintain quoted delivery dates. However, due to the risks and nature of working with the glass, these dates are not in any way binding. Our contractual obligation to our customers is subject to correct and prompt deliveries from our suppliers.
- No goods should be returned to us without our prior approval.
- All information contained in this pricelist-cum-catalogue cannot be reproduced without our written consent.
- Generally, our policy is to service our customers through our nationwide **Authorised Dealers** only.
- All legal relationship formed as a result of sales would be in accordance with the Indian Laws and **Mumbai** shall be the place of jurisdiction for all parties and for all matters. If **RIVIERA** appears as a plaintiff, it will also be entitled to start legal proceedings at any such city / town where the customers are located.

Additional Terms applicable to supply of Instruments only

- Warranty** : The instruments supplied shall carry warranty of one year from the date of invoice to the original purchaser against faulty workmanship and defect. Any part going defective will be replaced/ repaired free of cost. Vacuumatic items like fuses, lamps, bulbs, heaters, etc. are not covered under warranty. Again damage resulting due to accident/misuse is not covered under warranty. Warranty conditions for different instruments may vary.
- Installation** : All the instruments covered in this price list can be installed by the user with the help of instruction manual supplied with the equipment. In case Company's technical representative has to undertake the installation, charges will be extra and shall be quoted on case-to-case basis.
- Delivery** : Will be effected Ex-Mumbai within 4-6 weeks from the date of receipt of the order complete in all respect. Exact delivery period will be intimated in the order acknowledgment. For specially manufactured items, delivery period will be more than 6 weeks.
- General** : Statutory levies if become applicable in future will be charged extra.



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