







# labware 2010 catalogue











Starting on its foundation in 1997, ISOLAB has always been a company that relies on its wide product portfolio of highest quality, puts great emphasis on customer satisfaction as well as service quality and sustains the strength of its past into the future.

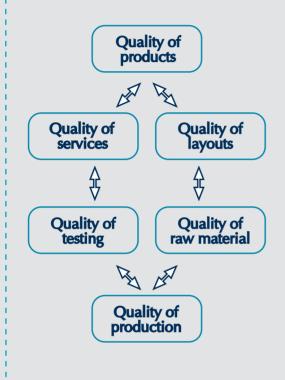
**ISOLAB** has dedicated itself to provide goods and solutions for the daily work in university and government institutions, medical and research labs as well as the industries.

In accordance with its strong infrastructure and a qualified human force of dedicated and competent professionals, ISOLAB possesses a huge scale of sales and marketing force in the sector as well as its wide distribution network.

By combining the premium quality with a flawless service and customer orientation, enriching these with a knowledgable staff and an experience of more than 12 years, also offering all of these at a reasonable price level, **ISOLAB** positions itself as one of the most reliable and leading companies in the world.



#### highlights quality concept



Solab quality concept is like a closed ring in which every step is linked to each other and the product quality depends on the quality of the production process.

As it is seen on the figure, **ISOLAB** quality assurance starts from the first production step and puts emphasis on all the related phases.

Quality policy of SOLAB is to manufacture and supply its products by applying a quality control system which is costantly improved with the most advanced technology and yields the most possible accurate results.



This DIN EN ISO 9001 document ensures that SolAB has established and applied a quality management system in accordance with the global, high performance necessities and consistently fulfills the highest international standards in production and quality control.

This certificate ensures that the goods produced by ISOLAB are designed and manufactured with the highest international quality standards.

### highlights worldwide distribution

Following its core principles such as innovative strength and ambition for entrepreneurial success, together with its dynamic infrastructure and distribution network, **ISOLAB** targets a continuous expansion in its abroad operations.

Not only by providing its customers with wide variety of laboratory glass and plastic ware produced in its world class facilities, **ISOLAB** also serves its clients by satisfying their demands with a large product range of different goods, thus expands its export operations into more than 65 countries throughout the world.

Solar constantly looks for contemporary products to be launched in foreign markets which are able to create a sharp differentiation. In accordance with that, Solar is keen to establish close bonds with its business partners in order to fulfill the expectations of mutual benefits.



Excellent Quality at reasonable prices

# <<ul> ✓glassware production >>

#### highlights

# blank production

SolAB is one of the leading producers in the world that manufactures blanks for the complete volumetric line.

Glass tubes are blown by highly skilled blowers to ensure the uniform wall thickness, the exact shape and dimensions according to the international standards.

All blanks are manufactured from the best quality of borosilicate glass tubings. Volumetric and physical controls are done during each step of the blank production.

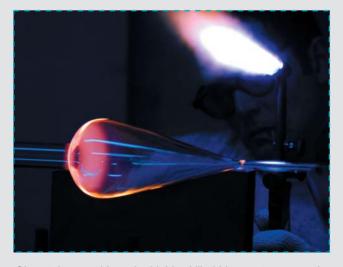
For example every single blank volumetric flask is controlled for its volume level so that the meniscus line matches the ideal height and position on the body.

After the quality control and rigorous examination of the blanks are done, they are sent to a tunnel furnace where the stress on the bodies is eliminated undercontrolled heating and cooling process.

This process ensures the optimum mechanical stability which is a must to obtain a constant volume stability in case of temperature fluctuations.

State-of-art automatic welding machines are used to connect the foot to the cylinder. All blank cylinders are produced by these computer controlled, fully automatic machines.





Glass tubes are blown by highly skilled blowers to ensure the uniform wall thickness, the exact shape and dimensions.



From 1 ml upto 10.000 ml all of the blanks are manufactured according to DIN and ISO standards.

# <glassware production>>

#### highlights

# ground joint production

All ground joints are manufactured with an accurate taper and smooth finish for leak-proof performance and interchangability.

Production of blank (ungrinded) ground joints are done by automatic machines which produce uniform products. The taper of the ground joints are tested with a precise taper angle test machine to ensure the production quality.

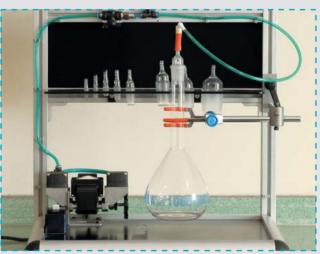
At the grinding process, only diamond tools are used to obtain the perfect grinding steps and results. The tightness of ground joints are also tested with vacuum test machine to make sure that any posible leakage is prevented.



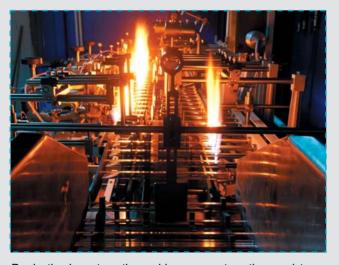
At grinding, only diamond tools are used to yield the perfect results.



Grinding process of ground joints by diamond reamers.



Testing with vacuum test machine to make sure that any posible leakage is prevented.



Production by automatic machines guarantees the consistency in high quality.



High capacity forming machines enable to produce durable quality with high quantities.

#### highlights

# calibrated tube production

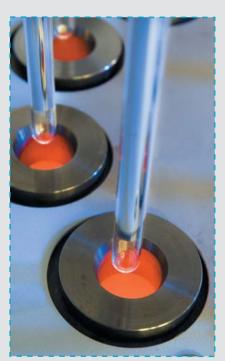
Since burettes are among the most sensitive and accurate volumetric products in whole range of volumetric glassware, they need a special care and attention while production.

Just to give an example, a 50 ml burette (class A acc. to DIN standards) has only  $\pm 0,05$  ml tolerance hence it has to be extremely accurate.

Right from the beginning of their production, **SolAs** burettes significantly differ from the other brands thanks to a special technique called **ABF** "Accurate Burette Forming" which is used to manufacture the tubings for burettes.

Except very few producers in the world, most of the suppliers use normal tubings to form their burettes but these types of tubings are considered to be more tolerant in terms of wall thickness and diameter. This fact has a significant effect on the inside diameter. Thus, any burette made out of normal tubings shows obvious inconsistencies of volume accuracy and precision on its graduated scale. This is exactly the reason of possible spots on the body to be out of tolerance limits.

ISOLAB burettes are formed by using ABF technology to maintain the inside diameters of the tubings uniform at every point along their graduations. All of the tubings are calibrated individually with the help of this method. Thus, all of the ISOLAB burettes assure you to get the perfect result with exact volume levels even at middle points.



With ABF technology, glass tubings are slowly heated up to the required temperature in order to allow the tubes to change their outer shapes exactly according to the shape of a specially made steel rod. Only this way, producers can yield burettes with accurately defined, uniform inner diameters.

According to DIN and ISO standards, five to seven points between the top and bottom lines should be carefully measured in order to issue a certificate for any burette type. Since Solab burettes are produced with ABF method, the users always get the correct result even while measuring all the lines in between.

Finally, all of the SOLAB burettes are classified as "AS" according to DIN standards, hence their delivery times between 35 and 45 seconds are also calibrated and very accurate.





<glassware production>>

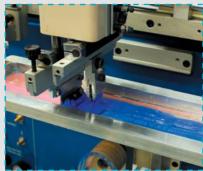
#### highlights

# printing process

ISOLAB uses the most advanced printing machines which ensures the highest quality of printing. Also the stretchable screen stencils are used in printing process at ISOLAB.

These stencils are easily stretched to match the calibration marks so that volume precision is maintained for all volume levels.

ISOLAB uses blue, white and amber stain enamels which are specially designed and manufactured for the application on laboratory glassware.



Only highly contrasted and fine printing allows precise reading, especially for scaled products such as measuring cylinders, pipettes and burettes.

#### SOLAB ETA' 20°C 2000 im 18080 3.3 (i):

According to the **DIN** standards, the following information has to be printed on the bodies of each volumetric glassware.

- Brand name
- Nominal capacity
- Class degree
- Calibration temperature
- Standards
- > Possible error limits
- Batch numbers and others

# highlights furnacing process

Furnacing process is the last step to obtain final products. All heating and annealing processes are carried out in specially designed and temperature controlled tunnel furnaces.

The control of the temperature inside the furnace ensures the long lasting printing quality.

In order to get the highest level of precision, carefully controlled gradual heating and cooling procedures are essential.



To optain the best posible results, the furnace has a precise temperature control all over the thermal heating zone.



Furnacing process is entirely controlled by the electronic panel which regulates temperature at all steps.

### highlights packing process

All glassware after production are washed inside the modern ultrasonic cleaning machines to make sure that all the remaining particles will be left over.

Qualified and experienced packing staff also acts as an additional quality control department.

High quality packing material prevents breakage until the final destinations of the products.



Modern ultrasonic cleaning machines are used to remove all the remaining particles



The final step of packing is also the final step for the quality control process.

### highlights plasticware production

ISOLAB is also a well known plastic labware manufacturer.

Latest technologies, approved production techniques and high capacity machinery park are held to serve the best sterile and non sterile products.

ISOLAB plastic production consists of experienced staff, high capacity injection moulding technology and premium grade raw material. Most of the ISOLAB plastic products are certified with CE -Invitro Diagnostic Directive, council directive 98/79/EC, concerning in vitro diagnostic instruments. Raw materials are carefully chosen according to their MFI (melt flow index) value, OIT (oxidative induction time) value, density and humidity. ISOLAB plastic production consists of two seperate production plants:

Sterile production area.
Non-sterile production area.



# highlights sterile production

ISOLAB sterile production plants are well equipped clean rooms with HEPA filters (high efficiency particulate arrest) and positive pressure areas which are supplied with air locked doors.

Clean rooms are validated according to international **DIN** and **ISO** standards.

In order to avoid any contamination through human contact, the entire process is automated.

Raw material is automatically fed from silos to moulding machines, through vacuum loaders.

The moulding machines are located in closed environment are connected to automatically loading machines.

The entire machinery is constantly monitored by advanced software.

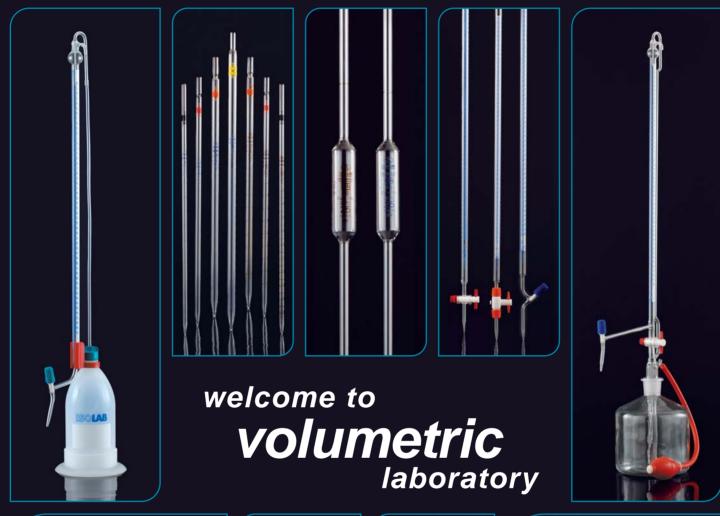
Clean room staff is equipped with appropriate, specially designed, protective clothes, masks, hair nets and gloves in order to diminish the contamination risks.





"Quality Control" & "Certification" The biotech industry needs certification for the plastics they use. The market trends indicate a need for DNase, RNase and pyrogen-free products. ISOLAB certified plastics are a result of an ongoing quality control process. The process begins with the inspection of raw materials to monitoring the final product and ends with testing each lot after production for contaminants.













#### – accuracy classification

All of the volumetric glassware are calibrated as to contain (In) or to deliver (Ex).

They are classified in two groups; Class "**B**" and Class "**A**" or "**AS**" The class of the volumetric glassware indicates the degree of accuracy, suitability for official certification as well as the delivery and waiting times.

All the SOLAB volumetric products have only the highest accuracy class; which are "**A**" or "**AS**".

This is the highest level of accuracy generally accepted for all volumetric glassware.

The values of error limits, accuracy and variations are within the acceptable limits of **DIN** and **ISO** standards.

Class **"A"** and class **"AS"** have exactly the same error and tolerance limits.

The difference is in their delivery and waiting times. The additional "S" means quick delivery (Swift delivery).

# - delivery waiting time -

The delivery time can be easily described as the time needed for the meniscus to pass from the upper mark to standstill which is mostly the tip of the pipette or burette. The waiting time starts after the delivery process ends up.

During this second process remaining liquid continues to flow down from the glass wall.

For accurate volume measurement with burettes and pipettes, users have to pay attention to the waiting time. Especially with pipettes they need to wipe off the pipette tip on the wall.

# reading the *meniscus*

**DIN**, **ISO** and other standards require the volume to be read at the lowest liquid level.

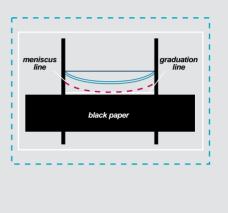
This lowest point of the meniscus has to touch the upper limit (edge) of the graduation mark.

A simple definition of "**meniscus**" would be as the curve on the surface of the liquid.

This curve is caused by the surface tension of the liquid.

On the volumetric glassware, the form of the meniscus is concave (curved downwards).

For the exact and most precise results, the eye of the observer must be exactly at the same level of the meniscus. To get a better, faster and more accurate reading and measurement, a black strip should be held at the back, just below the graduation mark and meniscus line.



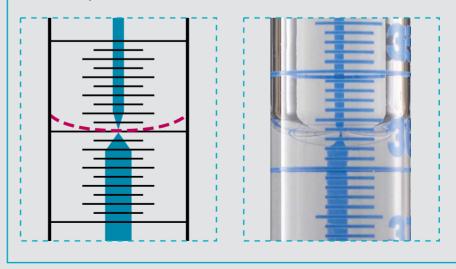
# -schellbach

stripe

The schellbach stripe is a narrow blue band which is at the center of the larger white band at the background.

For easier reading, the schellbach stripe is printed at the back of various volumetric products such as burettes. The light fraction creates two arrow head points which appear at the meniscus line.

Meniscus reading point is exactly where these two arrow heads meet each other.



# what is **conformity**

"Conformity" is the compliance of the product with the exact and legal standards defined by the German Federal Weights and Measures (Eichordnung) Regulations. The "conformity testing and certification" is described in detail on DIN 12600.

According to the German law of metrology, only certain qualified manufacturers as ISOLAB are allowed to certify the conformity by printing the conformity symbol "H" on the body of the volumetric glassware.

The logo of the manufacturer is indicated on top of the "**H**" mark. All of the volumetric glassware which are in compliance with "**Eichordnung**" and all relevant standards are marked with conformity sign "**H**".



#### batch **certificate**

"Batch certificate" shows the determined mean value of the controlled batch of products, the standard deviation as well as the volumetric tolerance.

After each batch production, the required quantity is tested and certified according to "**Eichornung**". The batch codes are printed around **Conformity "H" mark**.

The Batch Certificate contains the date of production and other parameters such as mean value, standard deviation and the permitted tolerance.

If the batch number is known, the individual results on the date of production can be easily accessed.



#### quality **certificate**

An **"individual quality certificate"** can also be issued for **SOLAB** volumetric glasswares.

This certificate is acceptable for all high quality laboratories in Europe and all over the world.

Each volumetric glassware is individually tested according to the German Federal Weights and Measures (Eichordnung) rules and regulations.

Every single volumetric product is subject to individual control and supplied with an individual serial number.

This certificate has corresponding number, date of issue and all the relevant test results.



#### - how to print batch certificate

Users can easily print the "batch certificate" online with the following steps:

- > Please enter our web site; (www.isolabgmbh.com)
- > Select "Product Portfolio" on the menu.
- On "Obtain Batch Certificates" section, please select the product code number.
- > Select the lot number of the glassware (written on the body).
- Certificate page will be opened automatically.
- > For print out select "Printer Version" on the left corner.



all calibration steps are carried out with fully automatic calibration machines which a r e only used by several well known manufacturers. Computer controled step motors and optical laser beams prevent any human fault.



calibration

process

These automatic machines ensure the highest level of presicion and accuracy at calibration process.



Filling the blank products with deionised water is done automatically by the calibration machines. During the entire process, the enviroment and water temperature are controlled and kept stable at 20°C.

If any temperature change is observed during process, the machines are immediately adjusted accordingly.



Meniscus is determined automatically at the exact lowest level with the help of a laser beam. Application of the calibration mark is done automatically at the same time by a diamond tool. Calibrated products are then controlled in terms of weight & volume for verification.



Cylinders, burettes and pipettes are marked with minimum 3 levels. The wet surface area factor is always taken into account throughout the calibration process. After calibration they are sorted out according to their scale lenghts with the determined factors received by the computer.



At Solas products are controlled after production according to **DIN** (Deutsches Institut für Normung) standards.

After calibration process, all of the volumetric glassware are checked for the quality to assure the accuracy of the calibration. By using deionized water, the gauge has to be filled exactly up to the mark, accurately hit the meniscus and put on a vessel to check the weight.

Depending on various factors like water, room temperature, humidity and air pressure, the exact volume of water can be calculated from its weight.

The deviation between filled in volume and well defined mark should be at least ten times more accurate than the allowed error references.

The manual process of the quality control is very complex and time consuming.

Until now, calibration control was done by an operator and thus involved a high risk of mistakes due to the manual process. Only a well experienced operator is able to make this control, even then the results might have a lack of reliability.

In order to avoid these risks, achieve perfect accuracy and to have the most reliable test results, only fully automatic **quality control robot (Q.C.R)** is used at **SOLAB** quality control laboratory. **Q.C.R.** works with a high resolution **CCD** camera system and image processing in order to find the meniscus and adjust the filled volume.

Filling the water, finding the meniscus and adjusting the volume runs automatically without any mistakes. The balance and thermometer are in-line connected to the system.

**Q.C.R.** has a closed loop deionized water system to ensure high precision among volumetric measuring instruments.



The operator simply mounts the volumetric glass into the unit of the Quality Control Robot and waits for the perfect outcome.



- Volumetric flasks are mainly used > Then adjust the temperature of the for the preparation of highly accurate standard solutions and
- > First put the exact and precise weight of the substance into the flask.
- > Then fill the volumetric flask with distilled water for about half of the volume and mix the content.
- > Fill more distilled water until it reaches a bit below of the calibration ring mark.

#### how to use volumetric flasks

- volumetric flask and the contents to 20°C.
- they are calibrated as "to contain". > Add some more water so that the meniscus will be exactly at the same level of the ring mark.
  - > Pay attention to read the meniscus at the eye level and also do not wet the neck wall above the ring mark level.

# how to use measuring cylinders



- the exact measurement of liquids and they are calibrated "to contain".
- > First fill the liquid so that meniscus level will reach the desired mark and pay attention to read the meniscus at the eye level.
- > Pay attention not to wet the wall of the cylinder above the mark.
- > Cylinders are mainly used for > Add the precise weight of the substance and dissolve the substance by shaking the measuring cylinder.



> Cylinders are mainly used for > Add the precise weight of the the exact measurement of liquids and they are calibrated "to contain". First fill the liquid so that meniscus level will reach the desired mark and pay attention to read the meniscus at the eye level. > Pay attention not to wet the wall of the cylinder above the mark.

#### how to use mixing cylinders

substance and dissolve the substance by shaking the mixing cylinder.

drops at the tip of the burette.

very slowly and start the titration. Also

pay attention not to touch the tip to the container wall you use.

titration and wait for 30 seconds as

the waiting time of Class "AS"

> Do not forget to wipe off the remaining

drops of the liquid at the burette tip

since this is also a part of the titrated

burettes.

volume.

#### how to use *burettes*

- > Fill the burette a bit higher than the > In this step you have to wipe off the zero mark.
- > To activate the stopcock, drain the > Then you have to open the stopcock solution but never below the level of zero mark.
- > Pay attention that there will not be any air bubbles left inside the burette. > When the color changes, stop the
- Fill more solution up to max 10 mm above the zero mark and pay attention not to wet the burette wall above the liquid level.
- > By reading the meniscus at the eye level, drain the solution to the exact zero level.
- how to use pipettes
- > Fill the liquid max 5 mm above the volume mark. Wipe off and dry the outer surface of the pipette. > When the level of the liquid reaches
- > Hold the pipette at the eye level and place the tip of the pipette to the wall of a vessel with a slight angle.
- Discharge the access volume until meniscus reaches the calibration mark of the pipette.
- > To empty the pipette, place the tip to the wall of the vessel with a slight angle.

- > Pay attention to clear the pipette completely.
- the tip of the pipette, you have to wait a little as the waiting time (if the pipette is Class "AS").
- > When the waiting time is over, wipe off the pipette tip by pulling it upwards along the wall of the vessel.
- If there is still any residual liquid left in the tip, never blow out since it has already been considered in the calibration process.



20

20

AS

50

0.050

ml

# how to use density bottles

- Carefully weigh the empty and well > Dry the body of the bottle and the dried density bottle.
- > Fill the bottle up to 2/3 of the neck level while avoiding bubbles.
- > Adjust the temperature of the > The liquid inside the bottle should bottle to 20 °C in a thermostatic bath.
- very carefully, the capillary tube of the stopper will discharge the liquid.
- stopper carefully by wiping with a tissue. Pay attention not to remove any liquid from the capillary tube.
- exactly be at the same level with the upper end of the capillary tube.
- > Insert the stopper of the bottle > Final step is weighing the filled density bottle and calculating the density from the weight and the volume of the liquid.



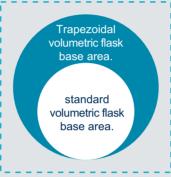


standard body blue scale	standard body amber scale	trapezoidal body blue scale	volume	tolerance	approximate height	neck inner diameter	neck size	quantity in box
		013.13.001	1 ml	± 0.025 ml	65 mm	7.50 mm	NS 07/16	2 pieces
		013.13.002	2 ml	± 0.025 ml	70 mm	7.50 mm	NS 07/16	2 pieces
		013.13.003	3 ml	± 0.025 ml	70 mm	7.50 mm	NS 07/16	2 pieces
		013.13.004	4 ml	± 0.025 ml	70 mm	7.50 mm	NS 07/16	2 pieces
		013.13.005	5 ml	± 0.025 ml	70 mm	7.50 mm	NS 07/16	2 pieces
013.01.005	013.03.005		5 ml	± 0.025 ml	70 mm	10.00 mm	NS 10/19	2 pieces
013.01.010	013.03.010	013.13.010	10 ml	± 0.025 ml	90 mm	10.00 mm	NS 10/19	2 pieces
013.01.020	013.03.020	013.13.020	20 ml	± 0.040 ml	110 mm	10.00 mm	NS 10/19	2 pieces
013.01.025	013.03.025	013.13.025	25 ml	± 0.040 ml	110 mm	10.00 mm	NS 10/19	2 pieces
013.01.026	013.03.026		25 ml	± 0.040 ml	110 mm	12.50 mm	NS 12/21	2 pieces
013.01.050	013.03.050	013.13.050	50 ml	± 0.060 ml	140 mm	12.50 mm	NS 12/21	2 pieces
013.01.051	013.03.051		50 ml	± 0.060 ml	140 mm	14.50 mm	NS 14/23	2 pieces
013.01.100	013.03.100		100 ml	± 0.100 ml	170 mm	12.50 mm	NS 12/21	2 pieces
013.01.101	013.03.101		100 ml	± 0.100 ml	170 mm	14.50 mm	NS 14/23	2 pieces
013.01.150	013.03.150		150 ml	± 0.150 ml	190 mm	14.50 mm	NS 14/23	2 pieces
013.01.200	013.03.200		200 ml	± 0.150 ml	210 mm	14.50 mm	NS 14/23	2 pieces
013.01.250	013.03.250		250 ml	± 0.150 ml	220 mm	14.50 mm	NS 14/23	2 pieces
013.01.300	013.03.300		300 ml	± 0.200 ml	230 mm	14.50 mm	NS 14/23	2 pieces
013.01.400	013.03.400		400 ml	± 0.200 ml	250 mm	18.80 mm	NS 19/26	2 pieces
013.01.500	013.03.500		500 ml	± 0.250 ml	260 mm	18.90 mm	NS 19/26	2 pieces
013.01.901	013.03.901		1000 ml	± 0.400 ml	300 mm	24.00 mm	NS 24/29	2 pieces
013.01.902	013.03.902		2000 ml	± 0.600 ml	370 mm	29.20 mm	NS 29/32	2 pieces
013.01.905	013.03.905		5000 ml	± 1.200 ml	475 mm	34.50 mm	NS 34/35	1 piece
013.01.910	013.03.910		10000 ml	± 2.000 ml	570 mm	45.00 mm	NS 45/40	1 piece





- They have exactly same specifications as clear volumetric flasks.
- > All the inscriptions are printed with white enamel.



Volumetric flasks of standard body shape with small capacity can tip over more easily due to their higher center of gravity. Trapezoidal volumetric flasks have a much larger base area which ensures higher stability. Compared to standard volumetric flasks of the same capacity, trapezoidal flasks have at least twice base area.



As an alternative for polyethylene stoppers which are supplied as a standard to volumetric flasks, a glass stopper can be selected from our catalogue page no 80.

standard body	trapezoidal body			approximate	neck inner		quantity
white scale	white scale	volume	tolerance	height	diameter	neck size	in box
	013.15.001	1 ml	± 0.025 ml	65 mm	7.50 mm	NS 07/16	2 pieces
	013.15.002	2 ml	± 0.025 ml	70 mm	7.50 mm	NS 07/16	2 pieces
	013.15.003	3 ml	± 0.025 ml	70 mm	7.50 mm	NS 07/16	2 pieces
	013.15.004	4 ml	± 0.025 ml	70 mm	7.50 mm	NS 07/16	2 pieces
	013.15.005	5 ml	± 0.025 ml	70 mm	7.50 mm	NS 07/16	2 pieces
014.01.005		5 ml	± 0.025 ml	70 mm	10.00 mm	NS 10/19	2 pieces
014.01.010	013.15.010	10 ml	± 0.025 ml	90 mm	10.00 mm	NS 10/19	2 pieces
014.01.020	013.15.020	20 ml	± 0.040 ml	110 mm	10.00 mm	NS 10/19	2 pieces
014.01.025	013.15.025	25 ml	± 0.040 ml	110 mm	10.00 mm	NS 10/19	2 pieces
014.01.026		25 ml	± 0.040 ml	110 mm	12.50 mm	NS 12/21	2 pieces
014.01.050	013.15.050	50 ml	± 0.060 ml	140 mm	12.50 mm	NS 12/21	2 pieces
014.01.051		50 ml	± 0.060 ml	140 mm	14.50 mm	NS 14/23	2 pieces
014.01.100		100 ml	± 0.100 ml	170 mm	12.50 mm	NS 12/21	2 pieces
014.01.101		100 ml	± 0.100 ml	170 mm	14.50 mm	NS 14/23	2 pieces
014.01.150		150 ml	± 0.150 ml	190 mm	14.50 mm	NS 14/23	2 pieces
014.01.200		200 ml	± 0.150 ml	210 mm	14.50 mm	NS 14/23	2 pieces
014.01.250		250 ml	± 0.150 ml	220 mm	14.50 mm	NS 14/23	2 pieces
014.01.300		300 ml	± 0.200 ml	230 mm	14.50 mm	NS 14/23	2 pieces
014.01.400		400 ml	± 0.200 ml	250 mm	18.80 mm	NS 19/26	2 pieces
014.01.500		500 ml	± 0.250 ml	260 mm	18.90 mm	NS 19/26	2 pieces
014.01.901		1000 ml	± 0.400 ml	300 mm	24.00 mm	NS 24/29	2 pieces



15

13

41

90

- high form measuring cylinders class "A"-
  - Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
  - They meet the highest quality standards according to DIN EN 4788 and DIN 12660.
  - Individually calibrated through automatic calibration process carried out by robots.
  - Permanent quality control through all steps eliminate possible deviations from nominal values.
  - Calibrated to contain (In) and all the tolerances are according to DIN/ISO Class "A" standards.
  - Conformity ("H") certified, with a batch number printed on the body.
  - > Batch certificate can be downloaded from our website.
  - > Hexagonal cylinder base provides excellent stability.
  - > Perfect spout design assures pouring without any drips.
  - Inscriptions and graduations are printed either with blue enamel or amber stain diffusion ink.

Thick and durable plastic base of the cylinder does not have the risk of breaking during application The plastic base fits the cylinder body perfectly well and can be easily dismantle.



glass base blue scale	glass base amber scale	P.P base white scale	volume	tolerance	subdivision	approximate height	quantity in box
015.01.005	015.03.005		5 ml	± 0.050 ml	± 0.100 ml	115 mm	2 pieces
015.01.010	015.03.010	015.05.010	10 ml	± 0.100 ml	± 0.200ml	135 mm	2 pieces
015.01.025	015.03.025	015.05.025	25 ml	± 0.250ml	± 0.500 ml	160 mm	2 pieces
015.01.050	015.03.050	015.05.050	50 ml	± 0.500 ml	± 1.000 ml	195 mm	2 pieces
015.01.100	015.03.100	015.05.100	100 ml	± 0.500 ml	± 1.000 ml	240 mm	2 pieces
015.01.250	015.03.250	015.05.250	250 ml	± 1.000 ml	± 2.000 ml	320 mm	2 pieces
015.01.500	015.03.500	015.05.500	500 ml	± 2.500 ml	± 5.000 ml	380 mm	2 pieces
015.01.901	015.03.901	015.05.901	1000 ml	± 5.000 ml	± 10.000 ml	465 mm	2 pieces
015.01.902	015.03.902		2000 ml	± 10.000 ml	± 20.000 ml	565 mm	1 piece

(NB)

SOLAB

29/32 ISOLAB

250:2ml

A'a

250

230

210

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170

150

130

110

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- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- They meet the highest quality standards according to DIN EN 4788 and DIN 12660.
- Individually calibrated through automatic calibration process carried out by robots.
- Permanent quality control through all steps eliminate possible deviations from nominal values.
- Calibrated to contain (In) and all the tolerances are according to DIN/ISO Class "A" standards.
- Conformity ("H") certified, with a batch number printed on the body.
- > Batch certificate can be downloaded from our website.
- Perfect neck grinding which prevents spillage during mixing process.
- Inscriptions and graduations are printed either with blue enamel or amber stain diffusion ink.
- > They are supplied with polyethylene stopper.

As an alternative for polyethylene stoppers which are supplied as a standard to mixing cylinders, a glass stopper can be selected from our catalogue page no 80.



glass base blue scale	glass base amber scale	P.P base white scale	volume	tolerance	subdivision	approximate height	neck size	quantity in box
016.01.010	016.03.010	015.06.010	10 ml	± 0.100 ml	0.200 ml	135 mm	NS 10/19	2 pieces
016.01.025	016.03.025	015.06.025	25 ml	± 0.250ml	0.500 ml	160 mm	NS 14/23	2 pieces
016.01.050	016.03.050	015.06.050	50 ml	± 0.500 ml	1.000 ml	195 mm	NS 19/26	2 pieces
016.01.100	016.03.100	015.06.100	100 ml	± 0.500 ml	1.000 ml	240 mm	NS 24/29	2 pieces
016.01.250	016.03.250	015.06.250	250 ml	± 1.000 ml	2.000 ml	320 mm	NS 29/32	2 pieces
016.01.500	016.03.500	015.06.500	500 ml	± 2.500 ml	5.000 ml	380 mm	NS 34/35	2 pieces
016.01.901	016.03.901	015.06.901	1000 ml	± 5.000 ml	10.000 ml	465 mm	NS 45/40	2 pieces

polypropylene volumetric flasks

Manufactured from ultra clear, virgin polypropylene and its thick walls eliminate distortion.

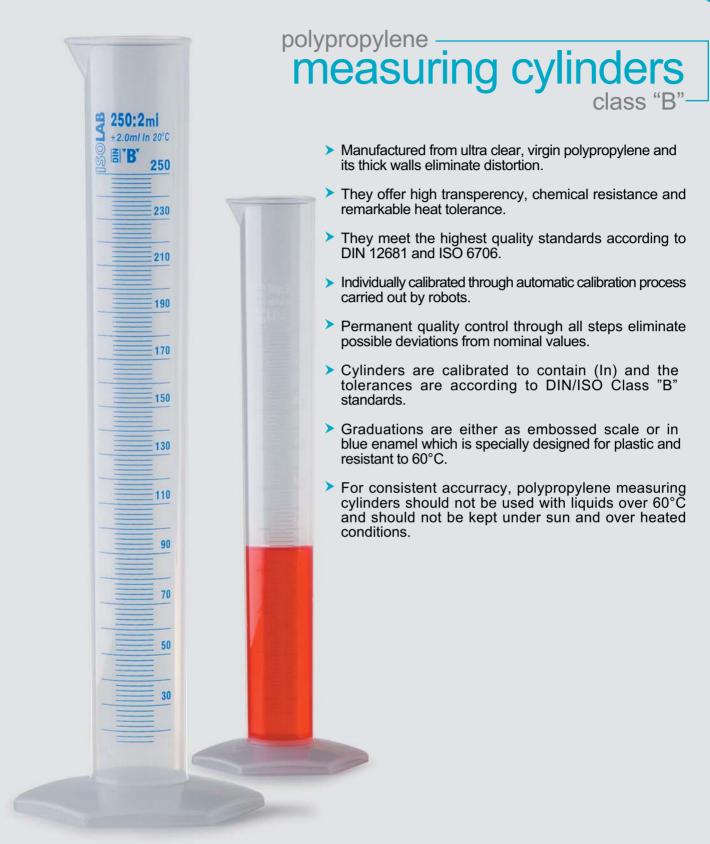
class "B"

- They offer high transperency, chemical resistance and remarkable heat tolerance.
- They meet the highest quality standards according to DIN EN 1042
- Individually calibrated through automatic calibration process carried out by robots.
- Permanent quality control through all steps eliminate possible deviations from nominal values
- Volumetric flasks are calibrated to contain (In) and the tolerances are according to DIN/ISO Class "B" standards.
- Flasks have inscriptions and meniscus ring mark in blue enamel which is specially designed for plastic and resistant to 60°C.
- For consistent accurracy, polypropylene volumetric flasks schould not be used with liquids over 60°C and should not be kept under sun or over heated conditions.

B'B' 20°c 250

blue insriptions	volume	tolerance	approximate height	neck inner diameter	neck size	quantity in pack
014.03.025	25 ml	± 0.080 ml	110 mm	10.00 mm	NS 10/19	1 piece
014.03.050	50 ml	± 0.120 ml	140 mm	12.50 mm	NS 12/21	1 piece
014.03.100	100 ml	± 0.200 ml	170 mm	12.50 mm	NS 12/21	1 piece
014.03.250	250 ml	± 0.300 ml	220 mm	14.50 mm	NS 14/23	1 piece
014.03.500	500 ml	± 0.500 ml	260 mm	18.80 mm	NS 19/26	1 piece
014.03.901	1000 ml	± 0.600 ml	300 mm	24.00 mm	NS 24/29	1 piece

20°c 250 m



embossed graduation	blue graduation	volume	tolerance	subdivision	approximate height	quantity in pack
016.05.010	016.06.010	10 ml	± 0.200 ml	0.200 ml	135 mm	1 piece
016.05.025	016.06.025	25 ml	± 0.500 ml	0.500 ml	160 mm	1 piece
016.05.050	016.06.050	50 ml	± 1.000 ml	1.000 ml	195 mm	1 piece
016.05.100	016.06.100	100 ml	± 1.000 ml	1.000 ml	240 mm	1 piece
016.05.250	016.06.250	250 ml	± 2.000 ml	2.000 ml	320 mm	1 piece
016.05.500	016.06.500	500 ml	± 5.000 ml	5.000 ml	380 mm	1 piece
016.05.901	016.06.901	1000 ml	± 10.000 ml	10.000 ml	465 mm	1 piece

clearstraight burettes class "AS" Manufactured from pre-vacuum calibrated borosilicate 3.3 glass tubes. They meet the highest quality standards according to 35 DIN EN ISO 385 and DIN 12700. 3 > Permanent quality control through all steps eliminate 31 possible deviations from nominal values 1 38 IA Calibrated to deliver (Ex) and the tolerances are according 39 50 to DIN/ISO Class "AS" standards. 41 0.1 41 AS Conformity ("H") certified, with a batch number printed on the body. 42 1 41 Batch certificate can be downloaded from our website. 4 50 > Supplied with grease free and self lubricating PTFE **4**5 0.1 DIN A S stopcocks. 4 201 41 Inscriptions and graduations are printed either with > blue enamel or amber stain diffusion ink. 4 1 Manufactured either with or without schellbach stripe. 5 PTFE stopcocks have identical keys so that there is no need for "matching the pairs" during cleaning. Since PTFE is almost self lubricating, keys do not require greasing at all. PTFE keys are interchangable and replacable.

with schellbach blue graduation	w/o schellbach blue graduation	with schellbach amber graduation	w/o schellbach amber graduation	volume	tolerance	subdivision	approximate height	quantity in box
017.01.010	017.02.010	017.09.010	017.10.010	10 ml	± 0.020 ml	0.02 ml	770 mm	1 piece
017.01.025	017.02.025	017.09.025	017.10.025	25 ml	± 0.030 ml	0.05 ml	770 mm	1 piece
017.01.050	017.02.050	017.09.050	017.10.050	50 ml	± 0.050 ml	0.10 ml	770 mm	1 piece

LA

50

0.1 DIN A S

124

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0.1 DIN AS x+30 20℃

30 31 32 33 34 35 36 37 38 39 40 41 clearstraight burettes class "AS" Manufactured from pre-vacuum calibrated borosilicate 3.3 glass tubes. They meet the highest quality standards according to DIN EN ISO 385 and DIN 12700. > Permanent quality control through all steps eliminate possible deviations from nominal values. 42 Calibrated to deliver (Ex) and the tolerances are according 4 to DIN/ISO Class "AS" standards. 4 Conformity ("H") certified, with a batch number printed on the body.

- > Batch certificate can be downloaded from the website.
- Supplied with grease free and self lubricating VALVE stopcocks.
- Inscriptions and graduations are printed either with blue enamel or amber stain diffusion ink.
- > Manufactured either with or without schellbach stripe.



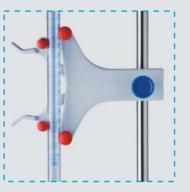
VALVE stopcocks have PTFE keys which do not require greasing at all.

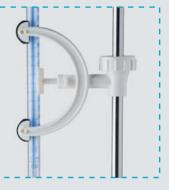
Due to the unique "needle" shape of the key, the burette valve can be closed with a gentle turn. This keys can provide the best drop control during titration process.

with schellbach blue graduation	w/o schellbach blue graduation	with schellbach amber graduation	w/o schellbach amber graduation	volume	tolerance	subdivision	approximate height	quantity in box
017.03.010	017.04.010	017.11.010	017.12.010	10 ml	± 0.020 ml	0.02 ml	770 mm	1 piece
017.03.025	017.04.025	017.11.025	017.12.025	25 ml	± 0.030 ml	0.05 ml	770 mm	1 piece
017.03.050	017.04.050	017.11.050	017.12.050	50 ml	± 0.050 ml	0.10 ml	770 mm	1 piece

amber straight burettes class "AS"-

- Manufactured from pre-vacuum calibrated borosilicate glass.
- They meet the highest quality standards according to DIN EN ISO 385 and DIN 12700.
- Permanent quality control through all steps eliminate possible deviations from nominal values.
- Calibrated to deliver (Ex) and the tolerances are according to DIN/ISO Class "AS" standards.
- Conformity ("H") certified, with a batch number printed on the body.
- > Batch certificate can be downloaded from our website.
- > Supplied with either PTFE or VALVE stopcocks.
- Inscriptions and graduations are printed with white enamel which is specially designed for glass use.
- > Amber burettes are manufactured without schellbach stripe.

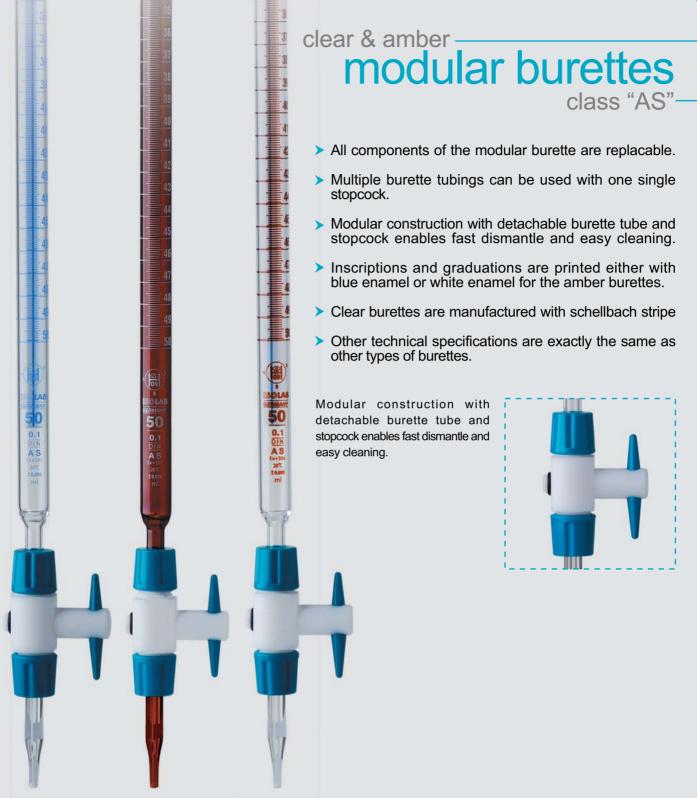




Metal burette clamps are made out of steel and can hold one burette at a time.

Graduations and meniscus line of the burette are clearly visible. They can be used on support rods of 8-14 mm diameter. Catalogue No: 018.05.001 Polypropylene burette clamp can hold one burette at a time. Graduations and meniscus line of the burette are clearly visible. They can be used on support rods of 10-12 mm diameter. Catalogue No: 018.06.001

with PTFE stopcock white graduations	with VALVE stopcock white graduations	volume	tolerance	subdivision	quantity in box
018.01.010	018.02.010	10 ml	± 0.020 ml	0.02 ml	1 piece
018.01.025	018.02.025	25 ml	± 0.030 ml	0.05 ml	1 piece
018.01.050	018.02.050	50 ml	± 0.050 ml	0.10 ml	1 piece



clear - schellbach blue graduations	clear - schellbach amber graduations	amber - w/o schellbach white graduations	volume	tolerance	subdivision	quantity in box
017.17.010	017.21.010	017.24.010	10 ml	± 0.020 ml	0.02 ml	1 piece
017.17.025	017.21.025	017.24.025	25 ml	± 0.030 ml	0.05 ml	1 piece
017.17.050	017.21.050	017.24.050	50 ml	± 0.050 ml	0.10 ml	1 piece

#### burette tubes for modular burettes

clear - schellbach blue graduations	clear - schellbach amber graduations	amber - w/o schellbach white graduations	volume	tolerance	subdivision	quantity in box
017.25.010	017.29.010	017.31.010	10 ml	± 0.020 ml	0.02 ml	1 piece
017.25.025	017.29.025	017.31.025	25 ml	± 0.030 ml	0.05 ml	1 piece
017.25.050	017.29.050	017.31.050	50 ml	± 0.050 ml	0.10 ml	1 piece

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clear automatic burettes class "AS"-

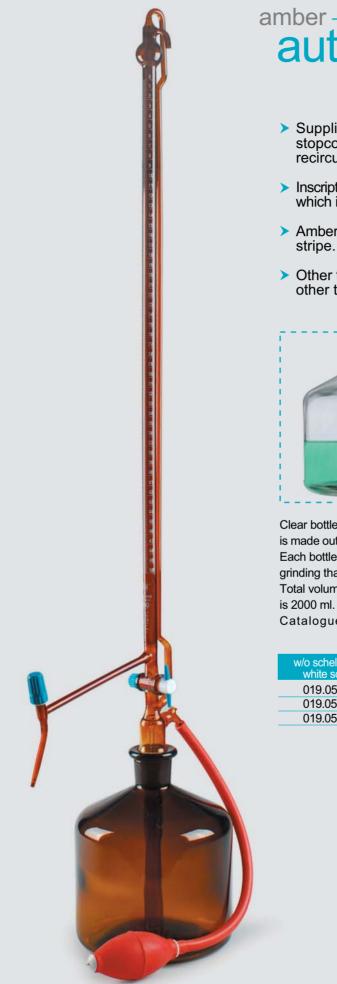
- Supplied with an automatic zeroing system, VALVE stopcock and also an intermediate PTFE stopcock to recirculate the residual liquid.
- Inscriptions and graduations are printed either with blue enamel or amber stain diffusion ink.
- > Clear burettes are manufactured with schellbach stripe.
- Other technical specifications are exactly the same as other types of burettes.



All automatic burettes have an intermediate PTFE stopcock which enables fast and accurate measurement.

Burette bellow for automatic burettes is made out of best quality natural rubber. Catalogue No: 020.08.001

with schellbach blue graduations	with schellbach amber graduations	volume	tolerance	subdivision
019.01.010	019.03.010	10 ml	± 0.020 ml	0.02 ml
019.01.025	019.03.025	25 ml	± 0.030 ml	0.05 ml
019.01.050	019.03.050	50 ml	± 0.050 ml	0.10 ml



amber automatic burettes class "AS"-

- Supplied with an automatic zeroing system, VALVE stopcock and also an intermediate PTFE stopcock to recirculate the residual liquid.
- Inscriptions and graduations are printed with white enamel which is specially designed for glass use.
- > Amber burettes are manufactured without schellbach stripe.
- Other technical specifications are exactly the same as other types of burettes.



Clear bottle for automatic burettes is made out of heat resistant glass. Each bottle has a NS 29/32 neck grinding that fits to burette. Total volume capacity of the bottle

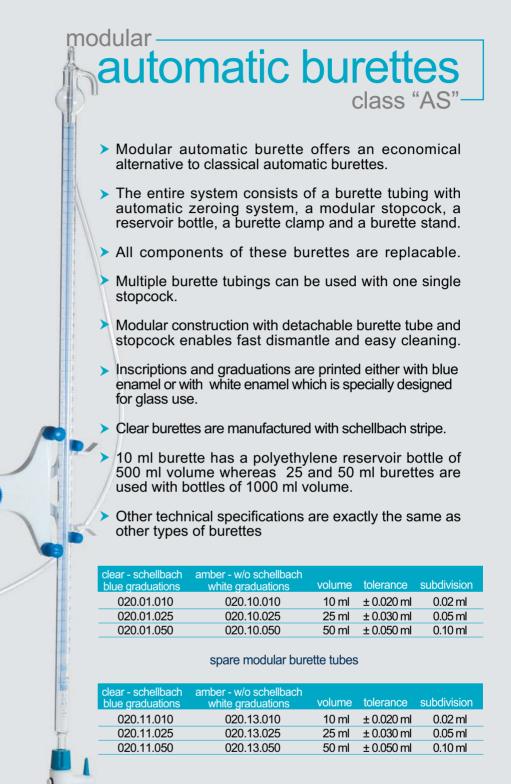
Catalogue No: 020.07.010



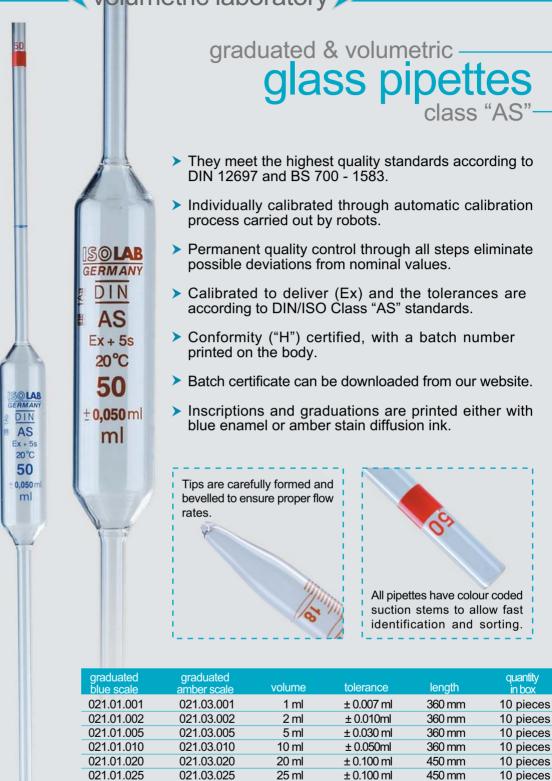
Amber bottle for automatic burettes is made out of heat resistant glass. Each bottle has a NS 29/32 neck grinding that fits to burette. Total volume capacity of the bottle is 2000 ml. Catalogue No: 020.07.025

w/o schellbach white scale	volume	tolerance	subdivision
019.05.010	10 ml	± 0.020 ml	0.02 ml
019.05.025	25 ml	± 0.030 ml	0.05 ml
019.05.050	50 ml	± 0.050 ml	0.10 ml

LAB







volumetric blue scale	volumetric amber scale	volume	tolerance	length	quantity in box
021.05.001	021.07.001	1 ml	± 0.007 ml	310 mm	1 piece
021.05.002	021.07.002	2 ml	± 0.010 ml	330 mm	1 piece
021.05.003	021.07.003	3 ml	± 0.010 ml	360 mm	1 piece
021.05.004	021.07.004	4 ml	± 0.015 ml	360 mm	1 piece
021.05.005	021.07.005	5 ml	± 0.015 ml	400 mm	1 piece
021.05.010	021.07.010	10 ml	± 0.020 ml	440 mm	1 piece
021.05.011	021.07.011	15 ml	± 0.020 ml	440 mm	1 piece
021.05.015	021.07.015	20 ml	± 0.030 ml	455 mm	1 piece
021.05.020	021.07.020	25 ml	± 0.030 ml	510 mm	1 piece
021.05.025	021.07.025	50 ml	± 0.030 ml	520 mm	1 piece
021.05.050	021.07.050	100 ml	± 0.050 ml	540 mm	1 piece

± 0.200 ml

720 mm

50 ml

quantity

in box

10 pieces

ERMAN 20

0.1 DIN AS 20°C 0,100 ml

10

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ALA

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0.1

DIN AS x+5

20°C

ml

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021.01.050

021.03.050



vertical pipette stand polypropylene

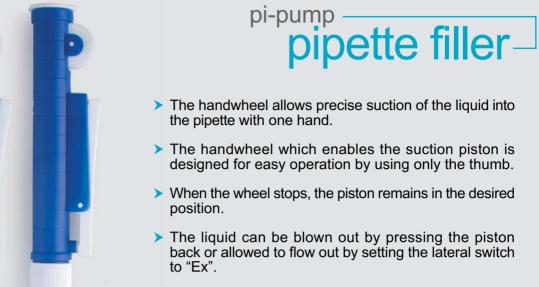
- Manufactured from moulded polypropylene and can hold up to 94 pipettes vertically.
- Can rotate 360° on a central vertical axis for easy selection of any particular pipette.
- > Upper disc keeps the pipettes in the correct position.
- The lower rotating disc has open bottoms which cradle the pipette tips and permit water drops to run off.
- The base plate has a raised edge which enables collection of dripping liquids.

catalogue number	dimensions	qty/pack
022.01.001	Ø23 cm x H 49 cm	1 piece

# horizontal pipette stand polypropylene-

- Manufactured from moulded polypropylene and can hold up to 12 pipettes without any pressure on fragile pipette tips.
- Ideal stand to store pipettes without any pressure on fragile pipette tips.
- Easy to clean and dismantle, especially suitable for space saving purpose.





A slight pressure applied to the discharge lever opens the valve and lets the liquid flow out easily.

catalogue number	for pipette volume	colour code	quantity in box
011.01.002	up to 2 ml	blue	1 piece
011.01.010	up to 10 ml	green	1 piece
011.01.025	up to 25 ml	red	1 piece



- Large capacity bulb which works perfectly with all pipette sizes from 1 ml up to 100 ml.
- First squeeze the silicone bulb and the thumb lever controls both the aspirate and dispense modes.
- Incorporates central button to blow out the residual liquid into the pipettes.

catalogue	capacity for	quantity
number	pipette size	in pack
011.02.003	1 - 100 ml	1 piece



- > Most common pipette aid for all types of pipettes.
- > Has ball valves which can be controlled by finger pressure.

catalogue number	for pipette volume	model name	quantity in box
011.02.001	up to 10 ml	standard	1 piece
011.02.002	up to 100 ml	universal	1 piece

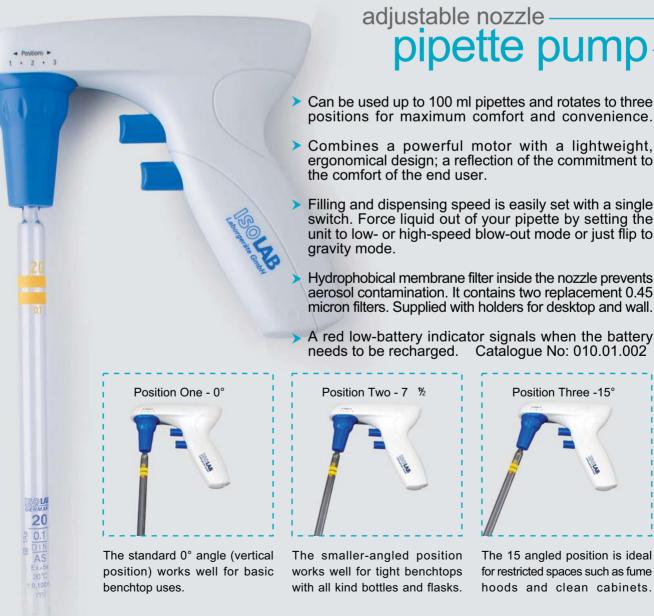




# fixed nozzlepipette pump

Ergonomical pipette pump which is designed for pipetting up to 100 ml pipettes with ease and comfort.

- Continuous adjustment of pumping speed can be easily set with a single switch during operation.
- For liquid aspiration, either "high" or "low" working speeds can be selected.
- Dispensing can be carried out simply by gravity or by the pump which quickly clean out the pipette.
- Totally protected against overfilling by PTFE filter and safety valve blocks which prevent any liquid from entering the unit.
- Low battery indicator signals when the battery needs to Catalogue No: 010.01.001 be recharged.



- Combines a powerful motor with a lightweight. ergonomical design; a reflection of the commitment to
- Filling and dispensing speed is easily set with a single switch. Force liquid out of your pipette by setting the unit to low- or high-speed blow-out mode or just flip to
- Hydrophobical membrane filter inside the nozzle prevents aerosol contamination. It contains two replacement 0.45 micron filters. Supplied with holders for desktop and wall.
- A red low-battery indicator signals when the battery needs to be recharged. Catalogue No: 010.01.002

The smaller-angled position works well for tight benchtops with all kind bottles and flasks.



The 15 angled position is ideal for restricted spaces such as fume hoods and clean cabinets.





- > Manufactured according to DIN 12797 standards.
- The upper and lower ends of the stopper is ground and polished.
- Nominal volume and inscriptions are printed with blue enamel.



- > Individually calibrated to contain (In) to 0,001 ml.
- > Net volume capacity is engraved on the body.
- Each bottle is calibrated together with its stopper.
- In order to differentiate easily, both the body and the stopper have the same code numbers printed on themselves.

glass density bottles calibrated with thermometer-

- > Individually calibrated to contain (In) to 0,001 ml.
- Complete with a thermometer of scale -10°C / + 40°C, with graduations of 0,5°C.
- > Net volume capacity is engraved on the body.
- Each body is calibrated together with its stopper and thermometer.

In order to differentiate easily, both the body and the stopper have the same code numbers printed on themselves.

density bottles uncalibrated	density bottles calibrated	density bottles calibrated + thermometer	volume	quantity in pack
023.01.005	023.02.005	023.03.005	5 ml	1 piece
023.01.010	023.02.010	023.03.010	10 ml	1 piece
023.01.025	023.02.025	023.03.025	25 ml	1 piece
023.01.050	023.02.050	023.03.050	50 ml	1 piece
023.01.100	023.02.100	023.03.100	100 ml	1 piece





































# digital burette

- Combines high precision with consistent delivery. Reliable measuring results with bubble-free dispensing.
- Visible glass barrel allows inspection of liquid before dispensing.
  - Body rotates freely 360° around the bottle for practical use.
- > All the wet parts are fully autoclavable at 121°C.
- The large LED display clearly shows the titration values and eliminates meniscus level errors. Continuous display of dispensed volume with zero reset feature for multiple titrations.
- Precision valve ensures easy priming and minimum waste with no leakage back into the reservoir.
- PTFE plunger and borosilicate barrel allow dispensing of aqueous and aggressive solutions.
- Unlike other models, the glass barrel can be disassembled from the pedestal for thorough cleaning.
- It has a lifetime battery for 60.000 titrations. Automatic low battery voltage is indicated on the LCD display.
- > Supplied with an individual calibration certificate
- The telescopic extractable intake tube can be adjusted easily and smoothly to the varying heights of the bottles.

catalogue number	volume	accuracy	precision	resolution
007.01.001	50 ml	± 0.2 %	± 0.1 %	0.01 ml

Fitted with an anti-drip safety valve which allows the fluid path to be turned off manually in order to prevent accidental delivery and protect against drop flow when the dispenser is not in use.





dispensers digital-

- A unique dispenser offering the very best results in terms of accuracy and repeatability which also ensures bubble-free dispensing.
- Each unit is manufactured in accordance with ISO9001:2000 quality system standards and is supplied with an individual calibration certificate.
- Chemically resistant liquid pathway allows a wide range of liquids to be safely dispensed.
- > All the wet parts are fully autoclavable at 121°C, 2 bar.
- Spring-loaded digital dispenser requires no priming, you just press to deliver and this dispenser refills itself.
- Fitted with an anti-drip safety valve, which allows the fluid path to be turned off manually to prevent accidental delivery and protect against drop flow when the dispenser is not in use.
- Unlike other bottle-top dispensers, the glass barrel can be disassembled from the pedestal for thorough cleaning.
- Auto-off function dispenser will switch to 'sleep' mode after 3 minutes of inactivity.
- Each dispenser comes with three adaptors to fit into most of the laboratory reagent bottles. Standard 30 mm neck fitting. Suplied with three adaptors: 38 mm, 40 mm and 45 mm.

catalogue number	volume	increment	accuracy ± % ± ml	cv ± % ± ml
007.03.001	0.0 - 30 ml	0.10 ml	0.3	0.1

Large digital volume display for easy and precise volume setting. Large LCD screen shows specific

volume to be dispensed. Simple user calibration via front panel buttons.

Dispense volume simply adjusted by the top knob.





dispensers isopenser

- Definitely the best choice to provide high precision with consistent delivery. Reliable measuring results with bubble-free dispensing.
- Individually calibrated in accordance with ISO 8655 standards and each unit is supplied with an individual calibration certificate.
- Highest degree of chemical resistance is provided due to the use of high quality materials in contact with dispensed liquids.
- Springless PTFE valve manifold ensures excellent chemical compatibility and leak proof valve functioning repoducibility.
- Specially designed PTFE piston with silicone O-ring ensures smooth, effortless piston movement.
- Dosing cylinder is protected against breaking by a polypropylene sleeve which prevents any glass splitting in case of any accidental breaking.
- The telescopic extractable intake tube can be adjusted easily and smoothly to the varying heights of the bottles.
- Nozzle cap reduces contact with air and prevents drying. No drips when the tip cover is attached.
- Each dispenser comes with five adaptors to fit in most of the laboratory reagent bottles.

	catalogue number	volume	increment	accuracy ± % ± ml	cv ± %
	008.02.002	0.3 - 2.5 ml	0.05 ml	0.6 0.015	0.2
-	008.02.005	0.5 - 5 ml	0.10 ml	0.6 0.030	0.2
	008.02.010	1.0 -10 ml	0.20 ml	0.6 0.060	0.2
	008.02.030	2.5 - 30 ml	0.50 ml	0.6 0.180	0.2
10	008.02.060	5.0 - 60 ml	1.00 ml	0.6 0.300	0.2
11	008.02.100	10.0 - 100 ml	2.00 ml	0.6 0.360	0.2

Quick volume settings with the practical sets screw. After loosening the locking screw, desired volume can be set, then locking screw is fixed.





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- Individually calibrated in accordance with ISO 8655 standards, each unit is supplied with an individual calibration certificate.
- Highest degree of chemical resistance is provided due to the use of high quality materials in contact with dispensed liquids such as PTFE and borosilicate glass.
- > All the wet parts are fully autoclavable at 121°C, 2 bar.
- Precision valve mechanism ensures easy priming and minimum waste without any leakage back into the reservoir
- A fine adjustment mechanism on cap allows for user calibration even greater reproducibility for repetitive dispensing.
- New spring-lock cursor design ensures fine adjustment for exact and reproducible dispensing.
- Easily removable PTFE piston for cleaning and smooth action.
- Fitted with an anti-drip safety valve which allows the fluid path to be turned off manually to prevent accidental delivery and protect against drop flow when the dispenser is not in use.
- Borosilicate glass barrel is protected with a transparent polypropylene sleeve.
- Each dispenser comes with three adaptors (38 mm, 40 mm and 45 mm) to fit in most of the laboratory reagent bottles. Standard 30 mm neck fitting.

catalogue number	volume	increment	accuracy ± % ± ml	cv ± %
008.04.002	0.05 - 2.5 ml	0.05 ml	0.3 0.008	0.1
008.04.005	0.10 - 5 ml	0.10 ml	0.3 0.015	0.1
008.04.010	0.20 -10 ml	0.20 ml	0.3 0.030	0.1
008.04.030	1.00 - 30 ml	1.00 ml	0.3 0.090	0.1
008.04.050	1.00 - 50 ml	1.00 ml	0.3 0.150	0.1

A new optional PTFE extendable delivery jet gives versatility to your dispensing.

The delivery jet stylus slots into the right-angled spout for 'hands-off use.









- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- They meet the highest quality standards according to DIN 12242.
- > They have excellent grinding to prevent airleaks.
- > The bottom part of the ground joints are fire polished.

sockets catalogue no	cones catalogue no	length	NS size	quantity in pack
063.01.010	063.02.010	120 mm	NS 10/19	1 piece
063.01.012	063.02.012	120 mm	NS 12/21	1 piece
063.01.014	063.02.014	120 mm	NS 14/23	1 piece
063.01.019	063.02.019	120 mm	NS 19/26	1 piece
063.01.024	063.02.024	120 mm	NS 24/29	1 piece
063.01.029	063.02.029	120 mm	NS 29/32	1 piece
063.01.034	063.02.034	120 mm	NS 34/35	1 piece
063.01.045	063.02.045	120 mm	NS 45/40	1 piece



 Manufactured from POM and have excellent chemical resistance as well as a very good mechanical strength.



They are perfect tools to join two ground joints.

catalogue number	colour	NS size	quantity in pack
063.04.010	green	NS 10/19	1 piece
063.04.012	purple	NS 12/21	1 piece
063.04.014	yellow	NS 14/23	1 piece
063.04.019	blue	NS 19/26	1 piece
063.04.024	green	NS 24/29	1 piece
063.04.029	red	NS 29/32	1 piece
063.04.034	orange	NS 34/35	1 piece
063.04.045	brown	NS 45/40	1 piece









- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- They meet the highest quality standards according to DIN 12257.
- Expansion adapters have socket sizes larger than their cone sizes.

sockets catalogue no	socket NS size	cone NS size	quantity in pack
064.01.001	NS 19/26	NS 14/23	1 piece
064.01.002	NS 24/29	NS 14/23	1 piece
064.01.003	NS 24/29	NS 19/26	1 piece
064.01.004	NS 29/32	NS 14/23	1 piece
064.01.005	NS 29/32	NS 19/26	1 piece
064.01.006	NS 29/32	NS 24/29	1 piece
064.01.007	NS 34/35	NS 19/26	1 piece
064.01.008	NS 34/35	NS 24/29	1 piece
064.01.009	NS 34/35	NS 29/32	1 piece
064.01.010	NS 45/40	NS 24/29	1 piece
064.01.011	NS 45/40	NS 29/32	1 piece

Other NS sizes for adapters can be supplied on request.



- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- They meet the highest quality standards according to DIN 12257.
- Reduction adapters have socket sizes larger than their cone sizes.

sockets catalogue no	socket NS size	cone NS size	quantity in pack
064.02.001	NS 14/23	NS 19/26	1 piece
064.02.002	NS 14/23	NS 24/29	1 piece
064.02.003	NS 14/23	NS 29/32	1 piece
064.02.004	NS 19/26	NS 24/29	1 piece
064.02.005	NS 19/26	NS 29/32	1 piece
064.02.006	NS 19/26	NS 34/35	1 piece
064.02.007	NS 19/26	NS 45/40	1 piece
064.02.008	NS 24/29	NS 29/32	1 piece
064.02.009	NS 24/29	NS 34/35	1 piece
064.02.010	NS 24/29	NS 45/40	1 piece
064.02.011	NS 29/32	NS 34/35	1 piece

Other NS sizes for adapters can be supplied on request.



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NS 29/32

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### connectors threaded tube-

 Manufactured from borosilicate glass 3.3 according to DIN 12257 standard.

catalogue number	form	neck thread	cone NS size	quantity in pack
065.01.001	straight	GL 14	NS 14/23	1 piece
065.01.002	straight	GL 14	NS 29/32	1 piece
065.01.003	straight	GL 18	NS 14/23	1 piece
065.01.004	straight	GL 18	NS 29/32	1 piece
065.01.005	straight	GL 25	NS 14/23	1 piece
065.01.006	straight	GL 25	NS 29/32	1 piece



- Manufactured from borosilicate glass 3.3, ideal to use for thermometers with joint glassware.
- Screw joint provides easy depth adjustment of thermometer.

catalogue number	form	neck thread	thermometer diameter	cone NS size	quantity in pack
065.02.001	straight	GL 14	6 - 8 mm	NS 14/23	1 piece
065.02.002	straight	GL 14	6 - 8 mm	NS 19/26	1 piece
065.02.003	straight	GL 14	6 - 8 mm	NS 29/32	1 piece



Manufactured from borosilicate glass 3.3 with two different forms such as straight or 90° angled.

- Supplied with PTFE stopcock which has of 2,5 diameter bore key.
- > Tubing adapter is suitable for up to 10 mm tubings.

catalogue number	form	stopcock	cone NS size	quantity in pack
065.03.001	straight	with	NS 14/23	1 piece
065.03.002	straight	without	NS 14/23	1 piece
065.03.003	bent	with	NS 14/23	1 piece
065.03.004	bent	without	NS 14/23	1 piece
065.03.005	straight	with	NS 29/32	1 piece
065.03.006	straight	without	NS 29/32	1 piece
065.03.007	bent	with	NS 29/32	1 piece
065.03.008	bent	without	NS 29/32	1 piece



- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- Suitable for feeding distillate from condensers into receiving flasks.
- > Socket inclined 105° with outlet tube of 12 mm diameter.

catalogue number	form	stem length	socket NS size	quantity in pack
065.04.001	bent	65 mm	NS 14/23	1 piece
065.04.002	bent	65 mm	NS 29/32	1 piece
065.04.003	bent	200 mm	NS 14/23	1 piece
065.04.004	bent	200 mm	NS 29/32	1 piece



- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- > Available as 105° angled body form.

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angled adapters	socket NS size	cone NS size	quantity in pack
065.07.001	NS 14/23	NS 14/23	1 piece
065.07.002	NS 29/32	NS 29/32	1 piece

Other NS sizes for adapters can be supplied on request.



- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- Suitable for the usage of assembling with vacuum connections.
- Available in two forms; straight or angled 105°.

straight adapters	angled adapters	socket NS size	cone NS size	quantity in pack
065.08.001	065.09.001	NS 14/23	NS 14/23	1 piece
065.08.002	065.09.002	NS 29/32	NS 29/32	1 piece

Other NS sizes for adapters can be supplied on request.



### splash head adapters

- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- Suitable to be used in distillation assemblies to prevent raw liquid step over from flask to condenser.
- Available in two forms; straight or upper cone angled 75°.

straight	angled	cone to fit	cone to fit	quantity
adapters	adapters	flasks	condenser	in pack
065.10.001	065.11.001	NS 14/23	NS 14/23	1 piece



- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- Available in two forms; paralel cones or side cone angled 45°.

straight adapters	angled adapters	socket NS size	cone NS size	quantity in pack
065.12.001	065.13.001	NS 14/23	NS 14/23	1 piece
065.12.002	065.13.002	NS 29/32	NS 29/32	1 piece



- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- Suitable to be used in distillation assemblies for connecting flasks to condenser.
- Upper socket designed to accept thermometer either by acrew thread adapter or by thermometer pocket.
- Claisen type is similar use with standard still head adapter but with extra socket to accept dropping funnels or stirrers etc.

standard	claiisen	socket	cone to fit	cone to fit	quantity
type	type	NS size	flasks	condenser	in pack
065.14.001	065.15.001	NS 14/23	NS 29/32	NS 29/32	1 piece

Other NS sizes for adapters can be supplied on request.

# chromatography — Columns

- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- With 2,5 mm bore PTFE stopcock for fine control of fluent flow. Supplied with or without sintered glass support of porosity 0.

w/o support	with support	internal diameter	effective lenght	volume	socket NS size	
066.01.015	066.03.015	10 mm	200 mm	15 ml	NS 14/23	1 piece
066.01.025	066.03.025	10 mm	300 mm	25 ml	NS 14/23	1 piece
066.01.035	066.03.035	15 mm	200 mm	35 ml	NS 19/26	1 piece

Other sizes for columns can be supplied on request.

### gas wash bottles with sintered gas tube-

- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- With detachable plastic connectors for easy fitting of flexible tubing.
- Sintered dip tube dispenses gas into bubbles for greater efficiency.

bottle head catalogue no	bottle catalogue no	stem lenght	bottle volume	socket NS size	quantity in pack
067.06.125	067.07.125	130 mm	125 ml	NS 29/32	1 piece
067.06.250	067.07.250	165 mm	250 ml	NS 29/32	1 piece
067.06.500	067.07.500	215 mm	500 ml	NS 29/32	1 piece

Other sizes for gas bottles can be supplied on request.

## kipp dispensers

Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals for easy dispensing of liquids.

dispenser head and reservoir	dispenser head	dispenser volume	reservoir volume	quantity in pack
067.08.005	067.09.005	5 ml	500 ml	1 piece
067.08.010	067.09.010	10 ml	500 ml	1 piece
067.08.020	067.09.020	20 ml	500 ml	1 piece
067.08.025	067.09.025	25 ml	500 ml	1 piece
067.08.050	067.09.050	50 ml	500 ml	1 piece





- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- They meet the highest quality standards according to ISO 3819 and DIN 12331.
- > These beakers have thick walls and heavy bases.
- Reinforced rims and spout to prevent breaking during washing and transportation.
- Inscriptions are in white enamel which is specially designed for glass use.

glass beakers white scale	volume	approximate height	Diameter	quantity in box
025.01.025	25 ml	50 mm	34 mm	10 pieces
025.01.050	50 ml	60 mm	42 mm	10 pieces
025.01.100	100 ml	70 mm	50 mm	10 pieces
025.01.150	150 ml	80 mm	60 mm	10 pieces
025.01.250	250 ml	95 mm	70 mm	10 pieces
025.01.400	400 ml	110 mm	80 mm	10 pieces
025.01.600	600 ml	125 mm	90 mm	10 pieces
025.01.800	800 ml	135 mm	100 mm	10 pieces
025.01.901	1000 ml	145 mm	105 mm	10 pieces
025.01.902	2000 ml	185 mm	130 mm	6 pieces
025.01.905	5000 ml	270 mm	170 mm	1 piece
025.01.910	10000 ml	325 mm	228 mm	1 piece



- Manufactured from ultra clear virgin polypropylene which provides thick walls with superior chemical resistance.
- They meet the highest quality standards according to ISO 7056.
- Inscriptions are either blue enamel which is specially designed for plastic use or with embossed scale.

P.P beakers embossed	P.P beakers blue scale	volume	diameter	height	quantity in pack
026.01.025	026.03.025	25 ml	32 mm	47 mm	1 piece
026.01.050	026.03.050	50 ml	39 mm	60 mm	1 piece
026.01.100	026.03.100	100 ml	50 mm	70 mm	1 piece
026.01.250	026.03.250	250 ml	67 mm	93 mm	1 piece
026.01.500	026.03.500	500 ml	88 mm	119 mm	1 piece
026.01.901	026.03.901	1000 ml	109 mm	147 mm	1 piece
026.01.902	026.03.902	2000 ml	133 mm	184 mm	1 piece



1000

800

500

400 300 200

100

1000ml

(5)



### high form beakers with handle polypropylene-



- Manufactured from ultra clear virgin polypropylene which provides thick walls with superior chemical resistance.
- They have specially designed functional spouts in order to minimize posible spills.
- They meet the highest quality standards according to ISO 7056.
- Inscriptions are either blue enamel which is specially designed for plastic use or with embossed scale.

Uniquely shaped ergonomic handles are suitable for space saving and stacking



beakers w.handle embossed scale	beakers w.handle blue scale	volume	diameter	height	quantity in pack
026.02.250	026.04.250	250 ml	75 mm	115 mm	1 piece
026.02.500	026.04.500	500 ml	100 mm	137 mm	1 piece
026.02.901	026.04.901	1000 ml	125 mm	167 mm	1 piece
026.02.902	026.04.902	2000 ml	148 mm	217 mm	1 piece
026.02.903	026.04.903	3000 ml	170 mm	244 mm	1 piece





- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- They meet the highest quality standards according to ISO 1773 and DIN 12380.
- Reinforced rims and spout to prevent breaking during washing and transportation.
- Inscriptions are in white enamel which is specially designed for glass use.

g	lass erlenmeyers white scale	volume	approximate height	internal neck diameter	quantity in box
	027.01.050	50 ml	85 mm	55 mm	10 pieces
	027.01.100	100 ml	105 mm	65 mm	10 pieces
_	027.01.250	250 ml	145 mm	85 mm	10 pieces
	027.01.300	300 ml	160 mm	90 mm	10 pieces
	027.01.500	500 ml	190 mm	105 mm	10 pieces
1	027.01.901	1000 ml	215 mm	130 mm	10 pieces
3	027.01.902	2000 ml	285 mm	165 mm	6 pieces



1000

800

600

BORO 3.3



- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- Ideal for contamination free storage of culture specimen and media.
- Autoclavable flasks and PP screw caps are resistant up to 121°C.
- Inscriptions are in white enamel which is specially designed for glass use.

glass erlenmeyers with screw cap	volume	approximate height	neck size	quantity in pack
027.03.100	100 ml	110 mm	GL 32	1 piece
027.03.250	250 ml	145 mm	GL 32	1 piece
027.03.500	500 ml	180 mm	GL 32	1 piece
027.03.901	1000 ml	225 mm	GL 32	1 piece





- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- They meet the highest quality standards according to DIN 12387.
- NS necks are in compliance with DIN 12242 standards.
- Inscriptions are in white enamel which is specially designed for glass use.

glass erlenmeyers with NS neck	volume	approx. height	bottom diameter	neck NS size	quantity in box
028.01.050	50 ml	85 mm	51 mm	NS 14/23	1 piece
028.01.051	50 ml	85 mm	51 mm	NS 19/26	1 piece
028.01.052	50 ml	85 mm	51 mm	NS 24/29	1 piece
028.01.053	50 ml	85 mm	51 mm	NS 29/32	1 piece
028.01.100	100 ml	100 mm	64 mm	NS 14/23	1 piece
028.01.101	100 ml	100 mm	64 mm	NS 19/26	1 piece
028.01.102	100 ml	100 mm	64 mm	NS 24/29	1 piece
028.01.103	100 ml	100 mm	64 mm	NS 29/32	1 piece
028.01.250	250 ml	140 mm	85 mm	NS 19/26	1 piece
028.01.251	250 ml	140 mm	85 mm	NS 24/29	1 piece
028.01.252	250 ml	140 mm	85 mm	NS 29/32	1 piece
028.01.300	300 ml	156 mm	87 mm	NS 29/32	1 piece
028.01.500	500 ml	175 mm	105 mm	NS 19/26	1 piece
028.01.501	500 ml	175 mm	105 mm	NS 24/29	1 piece
028.01.502	500 ml	175 mm	105 mm	NS 29/32	1 piece
028.01.900	1000 ml	220 mm	131 mm	NS 24/29	1 piece
028.01.901	1000 ml	220 mm	131 mm	NS 29/32	1 piece
028.01.902	2000 ml	280 mm	166 mm	NS 29/32	1 piece





- > Manufactured from high grade polypropylene.
- These erlenmeyers are an excellent break-resistant alternative to glass.
- Screened on graduations of approximate volumes.
- Supplied with contamination free and leakproof polypropylene screw caps.

glass erlenmeyers with screw cap	volume	height	neck size	quantity in box
028.03.050	50 ml	92 mm	GL 40	1 piece
028.03.100	100 ml	113 mm	GL 40	1 piece
028.03.250	250 ml	146 mm	GL 52	1 piece
028.03.500	500 ml	182 mm	GL 52	1 piece
028.03.901	1000 ml	227 mm	GL 52	1 piece





- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- They meet the highest quality standards according to ISO 1773 and DIN 12348.
- NS necks are in compliance with DIN 12348 standards.
- Reinforced rims are used to prevent breaking during washing and transportation.

flat bottom	round bottom	volume	approx. height	approx. diameter	quantity in box
029.01.050	029.02.050	50 ml	90 mm	51 mm	10 pieces
029.01.100	029.02.100	100 ml	105 mm	64 mm	10 pieces
029.01.250	029.02.250	250 ml	138 mm	85 mm	10 pieces
029.01.500	029.02.500	500 ml	163 mm	105 mm	10 pieces
029.01.901	029.02.901	1000 ml	190 mm	131 mm	10 pieces
029.01.902	029.02.902	2000 ml	230 mm	166 mm	6 pieces
029.01.904	029.02.904	4000 ml	275 mm	207 mm	1 piece
029.01.906	029.02.906	6000 ml	315 mm	236 mm	1 piece
029.01.910	029.02.910	10000 ml	360 mm	279 mm	1 piece



- They meet the highest quality standards according to DIN 12394.
- All other technical and physical specifications are similar as flat and round bottom flasks.

flat bottom	round bottom	volume	approx. height	neck NS size	quantity in box
030.01.050	030.02.050	50 ml	100 mm	NS 14/23	1 piece
030.01.051	030.02.051	50 ml	100 mm	NS 19/26	1 piece
030.01.052	030.02.052	50 ml	100 mm	NS 24/29	1 piece
030.01.053	030.02.053	50 ml	100 mm	NS 29/32	1 piece
030.01.100	030.02.100	100 ml	110 mm	NS 14/23	1 piece
030.01.101	030.02.101	100 ml	110 mm	NS 19/26	1 piece
030.01.102	030.02.102	100 ml	110 mm	NS 24/29	1 piece
030.01.103	030.02.103	100 ml	110 mm	NS 29/32	1 piece
030.01.250	030.02.250	250 ml	140 mm	NS 19/26	1 piece
030.01.251	030.02.251	250 ml	140 mm	NS 24/29	1 piece
030.01.252	030.02.252	250 ml	140 mm	NS 29/32	1 piece
030.01.500	030.02.500	500 ml	170 mm	NS 24/29	1 piece
030.01.501	030.02.501	500 ml	170 mm	NS 29/32	1 piece
030.01.900	030.02.900	1000 ml	200 mm	NS 24/29	1 piece
030.01.901	030.02.901	1000 ml	200 mm	NS 29/32	1 piece
030.01.902	030.02.902	2000 ml	250 mm	NS 29/32	1 piece







- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- They have thick walls, heavy bases and reinforced rims which prevent breaking.
- They meet the highest quality standards according to DIN 12394.
- Side arms are either parallel or 45 degree angled with each other.
- NS necks are in compliance with DIN 12242 standards.

round bottom parallel side arm	round bottom angled side arm	volume	diameter	center NS size	side NS size	quantity in box
030.05.100	030.03.100	100 ml	64 mm	NS 29/32	NS 14/23	1 piece
030.05.250	030.03.250	250 ml	85 mm	NS 29/32	NS 14/23	1 piece
030.05.500	030.03.500	500 ml	105 mm	NS 29/32	NS 14/23	1 piece
030.05.901	030.03.901	1000 ml	131 mm	NS 29/32	NS 14/23	1 piece
030.06.250	030.04.250	250 ml	85 mm	NS 29/32	NS 29/32	1 piece
030.06.500	030.04.500	500 ml	105 mm	NS 29/32	NS 29/32	1 piece
030.06.901	030.04.901	1000 ml	131 mm	NS 29/32	NS 29/32	1 piece
030.06.902	030.04.902	2000 ml		NS 29/32	NS 29/32	1 piece

Other NS sizes for flasks can be supplied on request.



- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- Side arms are either parallel or 45 degree angled with each other.
- Other technical specifications are the same as 2 NS neck flasks.

round bottom parallel side arm	round bottom angled side arm	volume	diameter	center NS size	side (L) NS size	side (R) NS size	quantity in box
030.16.250	030.13.250	250 ml	85 mm	NS 29/32	NS 14/23	NS 14/23	1 piece
030.16.500	030.13.500	500 ml	105 mm	NS 29/32	NS 14/23	NS 14/23	1 piece
030.16.901	030.13.901	1000 ml	131 mm	NS 29/32	NS 14/23	NS 14/23	1 piece
030.17.250	030.14.250	250 ml	85 mm	NS 29/32	NS 19/26	NS 19/26	1 piece
030.17.500	030.14.500	500 ml	105 mm	NS 29/32	NS 19/26	NS 19/26	1 piece
030.17.901	030.14.901	1000 ml	131 mm	NS 29/32	NS 19/26	NS 19/26	1 piece
030.18.250	030.15.250	250 ml	85 mm	NS 29/32	NS 29/32	NS 29/32	1 piece
030.18.500	030.15.500	500 ml	105 mm	NS 29/32	NS 29/32	NS 29/32	1 piece
030.18.901	030.15.901	1000 ml	131 mm	NS 29/32	NS 29/32	NS 29/32	1 piece
030.18.902	030.15.902	2000 ml		NS 29/32	NS 29/32	NS 29/32	1 piece

Other NS sizes for flasks can be supplied on request.



- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- They meet the highest quality standards according to DIN 12383 standards.
- NS necks are in compliance with DIN 12242 standards.
- Reinforced rims are used to prevent breaking during washing and transportation.

catalogue number	volume	neck NS size	quantity in box
029.05.010	10 ml	NS 14/23	1 piece
029.05.025	25 ml	NS 14/23	1 piece
029.05.050	50 ml	NS 14/23	1 piece
029.05.100	100 ml	NS 14/23	1 piece

### evaporating & receiving flasks ground neck

Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.

They meet the highest quality standards according to DIN 12383 standards.

evaporating flasks	receiving flasks	volume	quantity in box
029.07.100	029.08.100	100 ml	1 piece
029.07.250	029.08.250	250 ml	1 piece
029.07.500	029.08.500	500 ml	1 piece
029.07.901	029.08.901	1000 ml	1 piece



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# for spherical joints—

- > Manufactured from best quality stainless steel.
- A perfect tool to hold the spherical joints firmly during laboratory applications.
- > Suitable for NS 29 joints. Catalogue No: 063.05.001

Other sizes of spherical joint clips can be supplied on request.





- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- They meet the highest quality standards according to ISO and DIN standards.
- NS necks are in compliance with DIN 12242 standards.
- Reinforced rims are used to prevent breaking during washing and transportation.

flat bottom	volume	neck NS size	quantity in box
029.06.100	100 ml	NS 19/26	1 piece
029.06.250	250 ml	NS 29/32	1 piece
029.06.500	500 ml	NS 29/32	1 piece
029.06.750	750 ml	NS 29/32	1 piece
029.06.901	1000 ml	NS 29/32	1 piece



Flask stands are made out of the best quality high density cork.

They are ideal to be used with round bottom flasks.

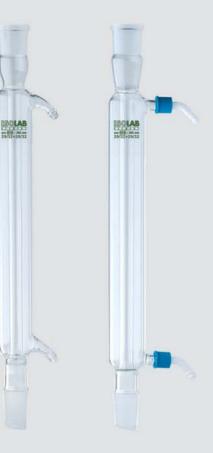
flask stands	for flasks volume	approx. diameter	quantity in box
029.04.100	100 ml	80 mm	1 piece
029.04.250	250 ml	100 mm	1 piece
029.04.500	500 ml	120 mm	1 piece
029.04.901	1000 ml	140 mm	1 piece

### flask tong stainless steel-

Flask tong with 300 mm length is made out of stainless steel.

> Insulated jaws are used to hold all types of flasks.

flask	for flasks	length	quantity
tong	volume		in box
029.03.001	up to 2000 ml	300 mm	1 piece

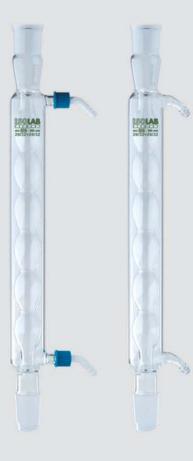


liebig condensers glass & P.P side arm-

- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- They meet the highest quality standards according to DIN 12576.
- Supplied with either glass side arm or polypropylene side arm.
- Polypropylene side arm has a screw thread connector for easy and safe fitting of the tubing.
- > The side arms accept tubings with 8/9 mm bore size.

with glass side arm	with P.P side arm	length	neck NS size	quantity in box
033.01.300	033.02.300	300 mm	NS 29/32	1 piece
033.01.400	033.02.400	400 mm	NS 29/32	1 piece

Other NS sizes for condensers can be supplied on request.



## allihn condensers glass & P.P side arm-

- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- They meet the highest quality standards according to DIN 12581.
- Supplied with either glass side arm or polypropylene side arm.
- Polypropylene side arm has a screw thread connector for easy and safe fitting of the tubing.
- > The side arms accept tubings with 8/9 mm bore size.

with glass side arm	with P.P side arm	length	neck NS size	quantity in box
033.03.300	033.04.300	300 mm	NS 29/32	1 piece
033.03.400	033.04.400	400 mm	NS 29/32	1 piece

Other NS sizes for condensers can be supplied on request.

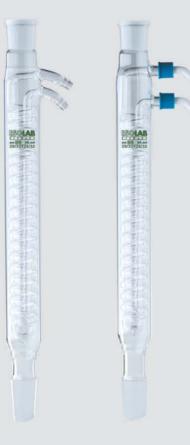


### coiled condensers glass & P.P side arm-

- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- They meet the highest quality standards according to DIN 12592.
- Supplied with either glass side arm or polypropylene side arm.
- Polypropylene side arm has a screw thread connector for easy and safe fitting of the tubing.
- > The side arms accept tubings with 8/9 mm bore size.

with glass side arm	with P.P side arm	length	neck NS size	quantity in box
034.01.300	034.02.300	300 mm	NS 29/32	1 piece
034.01.400	034.02.400	400 mm	NS 29/32	1 piece

Other NS sizes for condensers can be supplied on request.



### dimroth condensers glass & P.P side arm-

- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- They meet the highest quality standards according to DIN 12591.
- Supplied with either glass side arm or polypropylene side arm.
- Polypropylene side arm has a screw thread connector for easy and safe fitting of the tubing.
- > The side arms accept tubings with 8/9 mm bore size.

with glass side arm	with P.P side arm	length	neck NS size	quantity in box
034.03.300	034.04.300	300 mm	NS 29/32	1 piece
034.03.400	034.04.400	400 mm	NS 29/32	1 piece

Other NS sizes for condensers can be supplied on request.



allihn condensers

- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- They are carefully produced in order to meet the highest quality standards.
- Supplied with either glass side arm or polypropylene side arm.
- Polypropylene side arm has a screw thread connector for easy and safe fitting of the tubing.
- > The side arms accept tubings with 8/9 mm bore size.

with glass side arm	with P.P side arm	length	neck NS size	quantity in box
035.01.300	035.02.300	300 mm	NS 45/40	1 piece
035.01.400	035.02.400	400 mm	NS 45/40	1 piece

Other NS sizes for condensers can be supplied on request.

## dimroth condensers

- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- They are carefully produced in order to meet the highest quality standards.
- Supplied with either glass side arm or polypropylene side arm.
- Polypropylene side arm has a screw thread connector for easy and safe fitting of the tubing.
- > The side arms accept tubings with 8/9 mm bore size.

with glass side arm	with P.P side arm	length	neck NS size	quantity in box
035.03.300	035.04.300	300 mm	NS 45/40	1 piece
035.03.400	035.04.400	400 mm	NS 45/40	1 piece

Other NS sizes for condensers can be supplied on request.



soxhlet extractors with and W/O stopcock-

- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- They meet the highest quality standards according to DIN 12602.
- Either supplied with PTFE stopcock or without any stopcocks.
- > The side arms accept tubings with 8/9 mm bore size.

	hout bcock	with stopcock	volume	cone NS neck	socket NS neck	quantity in box
036.	01.100	036.02.100	100 ml	NS 29/32	NS 45/40	1 piece
036.	01.150	036.02.150	150 ml	NS 29/32	NS 45/40	1 piece
036.	01.250	036.02.250	250 ml	NS 29/32	NS 45/40	1 piece
036.	01.500	036.02.500	500 ml	NS 29/32	NS 45/40	1 piece

Other NS sizes for extractors can be supplied on request.

# cellulose thimbles

- > Manufactured from carrefully selected pure cellulose.
- Ideal for soxhlet or other extractions to obtain reproducible results without influencing the samples.
- They have perfectly controlled dimensional accuracy which provides excellent fit to the extractor.
- They are also suitable for extracting solid or liquid particles from the air or gasses.

catalogue number	for extractor volume	diameter	height	quantity in box
MN.645022	100 ml	33 mm	94 mm	25 pieces
MN.645027	150 ml	34 mm	120 mm	25 pieces
MN.645026	250 ml	40 mm	150 mm	25 pieces

Other NS sizes for thimbles can be supplied on request.





# separating funnels

- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- They meet the highest quality standards according to DIN 12452.
- Supplied with totally grease free and self lubricating PTFE stopcock.
- These separating funnels are either with or without graduations.
- > Graduations and inscriptions are printed in white enamel.
- > They are supplied with polyethylene stoppers.

ungraduated	graduated	volume	neck NS size	quantity in box
031.01.050	031.02.050	50 ml	NS 19/26	1 piece
031.01.100	031.02.100	100 ml	NS 19/26	1 piece
031.01.250	031.02.250	250 ml	NS 29/32	1 piece
031.01.500	031.02.500	500 ml	NS 29/32	1 piece
031.01.901	031.02.901	1000 ml	NS 29/32	1 piece
031.01.902	031.02.902	2000 ml	NS 29/32	1 piece

Funnels can be supplied with VALVE stopcock on request.

# separating funnels

- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- They meet the highest quality standards according to DIN 12451.
- Supplied with totally grease free and self lubricating PTFE stopcock.
- These separating funnels are either with or without graduations.
- > Graduations and inscriptions are printed in white enamel.
- > They are supplied with polyethylene stoppers.

ungraduated	graduated	volume	neck NS size	quantity in box
031.03.050	031.04.050	50 ml	NS 19/26	1 piece
031.03.100	031.04.100	100 ml	NS 19/26	1 piece
031.03.250	031.04.250	250 ml	NS 29/32	1 piece
031.03.500	031.04.500	500 ml	NS 29/32	1 piece
031.03.901	031.04.901	1000 ml	NS 29/32	1 piece
031.03.902	031.04.902	2000 ml	NS 29/32	1 piece

Funnels can be supplied with VALVE stopcock on request.



# separating funnels

- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- They meet the highest quality standards according to DIN 12566.
- Supplied with totally grease free and self lubricating PTFE stopcock.
- These separating funnels are either with or without graduations.
- > Graduations and inscriptions are printed in white enamel.
- > They are supplied with polyethylene stoppers.

ungraduated	graduated	volume	neck NS size	quantity in box
031.05.050	031.06.050	50 ml	NS 19/26	1 piece
031.05.100	031.06.100	100 ml	NS 19/26	1 piece
031.05.250	031.06.250	250 ml	NS 29/32	1 piece
031.05.500	031.06.500	500 ml	NS 29/32	1 piece
031.05.901	031.06.901	1000 ml	NS 29/32	1 piece

Funnels can be supplied with VALVE stopcock on request.

## dropping funnels conical & cylindrical-

- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- They meet the highest quality standards according to DIN 12451 and DIN 12567.
- > All dropping funnels are supplied with PTFE stopcock.
- > Graduations and inscriptions are printed in white enamel.
- > They are supplied with polyethylene stoppers.

conical W/O relief tube	cylindrical W/O relief tube	cylindrical with relief tube	volume	neck NS size	quantity in box
032.01.050	032.02.050	032.03.050	50 ml	NS 19/26	1 piece
032.01.100	032.02.100	032.03.100	100 ml	NS 19/26	1 piece
032.01.250	032.02.250	032.03.250	250 ml	NS 29/32	1 piece
032.01.500	032.02.500	032.03.500	500 ml	NS 29/32	1 piece
032.01.901	032.02.901	032.03.901	1000 ml	NS 29/32	1 piece

Other NS sizes for funnels can be supplied on request. Funnels can be supplied with VALVE stopcock on request.



- Manufactured from borosilicate glass 3.3 with short stem and 60° cone angle.
- These funnels are in accordance with DIN 12445 and ISO 4798 standards.

glass funnels	funnel diameter	stem diamater	stem length	total length	quantity in box
041.01.040	40 mm	6 mm	40 mm	70 mm	1 piece
041.01.060	60 mm	8 mm	60 mm	106 mm	1 piece
041.01.080	80 mm	8 mm	80 mm	143 mm	1 piece
041.01.100	100 mm	10 mm	100 mm	178 mm	1 piece
041.01.120	120 mm	16 mm	120 mm	220 mm	1 piece
041.01.150	150 mm	16 mm	150 mm	267 mm	1 piece



- > Manufactured from clear, virgin polypropylene.
- Polypropylene funnels are autoclavable at 121°C and 1.1 bar for 30 minutes.
- > External ribs prevent airlock and back pressure.
- Ribbed funnels have internal helicoid ribs which prevent filter papers from sticking and increase the filtration speed.

Internal helicoid ribs of the funnels ensure rapid filtration process.



funnels w/o rib	funnels with rib	funnel diameter	stem diamater	stem length	quantity in box
041.02.040	041.05.040	40 mm	6 mm	40 mm	1 piece
041.02.060	041.05.060	60 mm	8 mm	60 mm	1 piece
041.02.080	041.05.080	80 mm	8 mm	80 mm	1 piece
041.02.100	041.05.100	100 mm	10 mm	100 mm	1 piece
041.02.120	041.05.120	120 mm	16 mm	120 mm	1 piece
041.02.150	041.05.150	150 mm	16 mm	150 mm	1 piece



- Manufactured from clear, virgin polypropylene for filling of drums, carboys etc.
- > Handles at the body of the funnel enables for easy filling.

large funnels	funnel diameter	stem diameter	funnel lenght	total height	quantity in box
041.02.200	200 mm	22 mm	90 mm	200 ml	1 piece
041.02.250	250 mm	30 mm	100 mm	260 ml	1 piece
041.02.300	300 mm	35 mm	170 mm	440 ml	1 piece







- Manufactured from clear, virgin polypropylene for filling of powders. Can also be used with liquids.
- Ribbed both inside and outside to avoid pressure locks allowing rapid filtration.

Large bore and parallel stem avoids bridging of powders during transfer.



catalogue number	funnel diameter	stem diameter	height	quantity in box
041.07.065	65 mm	15 mm	68 mm	1 piece
041.07.080	80 mm	21 mm	76 mm	1 piece
041.07.100	100 mm	22 mm	94 mm	1 piece
041.07.120	120 mm	26 mm	110 mm	1 piece
041.07.150	150 mm	28 mm	138 mm	1 piece
041.07.180	180 mm	43 mm	160 mm	1 piece



- > Manufactured from best quality stainless steel.
- Stem is vented to allow complied, undisturbed flow of liquids.
- The handle can also be used as a convenient hanging point when the funnel is not in use.

catalogue number	funnel diameter	stem diameter	height	quantity in box
041.06.080	80 mm	12 mm	115 mm	1 piece
041.06.100	100 mm	12 mm	125 mm	1 piece
041.06.120	120 mm	13 mm	145 mm	1 piece
041.06.150	150 mm	17 mm	190 mm	1 piece

#### laboratory funnel holder stainless steel

Manufactured from best quality stainless steel.

Suitable to hold all type of funnels with a diameter up to 150 mm. Can also hold seperating funnels due to the unique design of the holding circle.

> Steel holders are supplied with or without boss head.

st. steel holder W/O boss head	st. steel holder with boss head	holder diameter	quantity in box
042.03.040	042.04. <mark>0</mark> 40	40 mm	1 piece
042.03.060	042.04.060	60 mm	1 piece
042.03.080	042.04.080	80 mm	1 piece
042.03.100	042.04.100	100 mm	1 piece



laboratory funnel holder polypropylene

- > Manufactured from best quality polypropylene.
- Suitable to hold all types of laboratory funnels with diameter up to 150 mm.
- Two tapered wedges are provided to ensure firm grip on roads heaving diameter 10-13 mm. Catalogue No: 042.05.001

separating funnel holder polypropylene

- > Manufactured from best quality polypropylene.
- Suitable to hold all types of laboratory funnels and also separatory funnels with diameter up to 150 mm.
- Two tapered wedges are provided to ensure firm grip on roads heaving diameter 10-13 mm. Catalogue No: 042.06.001

# filter flasks

 Manufactured from borosilicate glass 3.3 with thick walls according to ISO 6556 and DIN 12476 standards.

Polypropylene side arm has a screw thread connector for easy and safe fitting of the tubing.

flask with glass side arm	flask with P.P side arm	volume	quantity in box
040.01.100	040.02.100	100 ml	1 piece
040.01.250	040.02.250	250 ml	1 piece
040.01.500	040.02.500	500 ml	1 piece
040.01.901	040.02.901	1000 ml	1 piece
040.01.902	040.02.902	2000 ml	1 piece

# filter flasks

- > Manufactured from clear, virgin polypropylene.
- Side arm of filter flask is suitable to work with 6-10 mm hose diameter.

flask polypropylene	volume	quantity in box
040.03.901	1500 ml	1 piece



- Its special design centers the funnel and flask providing support for funnels.
- A clean seal is created between the flask rim and the funnel.
- > Also provide all-round protection reducing impact damages.

catalogue number	diameter	height	suitable for flask volume	quantity in box
040.05.001	23 mm	10 mm	100 ml	1 piece
040.05.002	33 mm	15 mm	250 - 500 ml	1 piece
040.05.003	44 mm	25 mm	1000 ml	1 piece
040.05.004	58 mm	25 mm	2000 ml	1 piece





- Manufactured from glazed porcelain according to DIN 40685 standards.
- Support plate holds the filter paper, prevents blockage of the holes and allows maximum filtration speed.

porcelain funnels	inner diameter	for filter paper diameter	nominal volume	quantity in box
042.01.070	70 mm	70 - 90 mm	200 ml	1 piece
042.01.110	110 mm	110 - 125 mm	600 ml	1 piece

Other sizes for funnels can be supplied on request.



- Manufactured from clear, virgine polypropylene with the top part having a perforated filter plate.
- The top part can be snap fitted with the lower part forming a vacuum seal.

Upper and lower parts can be separated from each other for easy and efficient cleaning.



polypropylene funnels	nominal volume	for filter paper diameter	inner diameter	quantity in box
042.02.070	200 ml	70 - 90 mm	70 mm	1 piece
042.02.110	600 ml	110 - 125 mm	110 mm	1 piece



 Manufactured from stainless steel and a perfect tool ideal for handling papers. Catalogue No: 048.04.001



Gooch funnels with sintered glass disc—

- Comprehensive range of gooch (Büchner) funnels with integral sintered glass discs.
- Practical use since there is no requirement for any filter papers.
  - Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- Highly resistant to most of the corrosive reagents including acids.
- Reinforced rims are used to prevent breakage during washing and transportation.

catalogue number	nominal volume	porosity grade	type	disc diameter	quantity in box
043.01.001	50 ml	3	3 D	35 mm	1 piece
043.01.002	50 ml	4	3 D	35 mm	1 piece
043.01.003	80 ml	3	11 D	45 mm	1 piece
043.01.004	80 ml	4	11 D	45 mm	1 piece
043.01.005	125 ml	3	17 D	60 mm	1 piece
043.01.006	125 ml	4	17 D	60 mm	1 piece
043.01.007	500 ml	3	25 D	95 mm	1 piece
043.01.008	500 ml	4	25 D	95 mm	1 piece



- > Ideal for filtering and drying precipitates and others.
- Practical use since there is no requirement for any filter papers.
- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- Reinforced rims are used to prevent breakage during washing and transportation.

catalogue number	nominal volume	porosity grade	type	disc diameter	quantity in box
043.02.001	30 ml	1	1 D	30 mm	1 piece
043.02.002	30 ml	2	1 D	30 mm	1 piece
043.02.003	30 ml	3	1 D	30 mm	1 piece
043.02.004	30 ml	4	1 D	30 mm	1 piece
043.02.005	50 ml	1	2 D	40 mm	1 piece
043.02.006	50 ml	2	2 D	40 mm	1 piece
043.02.007	50 ml	3	2 D	40 mm	1 piece
043.02.008	50 ml	4	2 D	40 mm	1 piece



Filtrierpapiere - Filter Papers apiers Filtres - Papel de Filtro

MN 640 m Ø 110 mm

ACHEREY-NAGEL

# quantitative filter papers

- Perfect for quantitative routine analysis which requires high purity.
- They are acid-washed and have an extremely low ash content of < 0.01%.</p>
  - The total amount of alpha-cellulose is about 95%.

catalogue number	colour code	filtration speed	diameter	quantity in box
MN.203011	white	medium	110 mm	100 piece
MN.207011	blue	slow	110 mm	100 piece
MN.202011	black	fast	110 mm	100 piece
MN.203012	white	medium	125 mm	100 piece
MN.207012	blue	slow	125 mm	100 piece
MN.202012	black	fast	125 mm	100 piece

Other sizes for quantitative filter papers are on request.

# qualitative filter papers

- Perfect for qualitative routine analysis and for analitical gravimetric applications.
- Wet strengthened, particularly suited for applications where the residue is removed from the filter e.g. with a spatula.

catalogue number	grade	filtration speed	diameter	quantity in box
MN.431011	No:1	medium	110 mm	100 piece
MN.433011	No:2	slow	110 mm	100 piece
MN.434011	No:4	fast	110 mm	100 piece
MN.431012	No:1	medium	125 mm	100 piece
MN.433012	No:2	slow	125 mm	100 piece
MN.434012	No:4	fast	125 mm	100 piece

Other sizes for qualitative filter papers are on request.



 Widely used in general laboratory filtration and rough sample preparation.

catalogue number	paper dimensions	thickness	filtration speed	quantity in pack
MN.751	40 x 40 cm	0.27 mm	12 sn	250 piece
MN.751	58 x 58 cm	0.27 mm	12 sn	250 piece



Papions Filling Papel de

CHEREY-NAGEL



### vacuum manifolds stainless steel-

Manufactured from highest grade stainless steel to filtrate upto six samples at the same time.

This system is manufactured to be used with 47/50 mm diameter membranes. Supplied as a single unit without accesories.

Individual PTFE control valves enables filtration through different branches with a single vacuum pump.

catalogue number	manifold model	quantity in box
043.05.001	with 1 funnel holder	1 piece
043.05.003	with 3 funnel holder	1 piece
043.05.006	with 6 funnel holder	1 piece

## accesories for vacuum manifolds

- > Manifold funnels are manufactured either from highest grade stainless steel or from borosilicate glass 3.3.
- > Bottom part of the funnels has a membrane support.
- All funnels are delivered without the silicone stopper and a funnel clamp. These parts should be ordered seperately.
- Manifold filter flask is manufactured from thick and heavy walled borosilicate glass 3.3 according to ISO 6556 and DIN 12476 standards.
- Has a polypropylene side arm with a screw thread connector for easy and safe connection of the hoses.

catalogue number	product description	volume	quantity in box
043.06.001	manifold filter flask	2000 ml	1 piece
043.06.002	st. steel funnel set	300 ml	1 piece
043.06.003	glass funnel set	300 ml	1 piece
043.06.004	funnel clamp		1 piece
043.06.005	silicone stopper		1 piece





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- Operates as an air pressure and vacuum pump and ideal vacuum filtration, vacuum distilation, vacuum drying, gel drying, chromatograpy applications, etc.
- Features of continuous oil free pumping with low noise level, high efficiency and long lifetime.
- Filtering material in the air exchange bin of the body to guarantee clean air.

catalogue	pump (cm)	pumping	vacuum	presure	outlet /
number	dimensions	speed	level	level	inlet dia.
039.08.001	21x16x24	30 lt/min	200 mbar	30 Psi	

## vacuum filtration unit for membranes-

- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- Particularly suitable for analysis of microscopic residue, particle control, filtration of alkaline and agressive solutions and buffer solutions for HPLC.
- > Borosilicate 3.3 glass sintered disc to support membranes.
- Manufactured to be used with 47/50 mm diameter membranes.
- Autoclavable at 121°C and 1.1 bar for 30 minutes.
- Vacuum filtration unit consists of:
  - 300 ml capacity filter funnel
  - Support base with sintered disc
  - Vacuum connection and metal clip.
  - Vacuum flask of 1000 ml which is suitable to work under vacuum conditions.

filtration	vacuum	funnel	clip	support	quantity
unit	flask	material	material	material	in box
043.03.001	1000 ml	boro 3.3	aluminum	sintered	1 piece



- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- Autoclavable at 121°C and 1.1 bar for 30 minutes.
- The angled shoulder allows the liquid to flow without any restrictions.
- Cap has a GL 45 thread and pouring ring which prevents drop splash.
- Amber bottles prevents UV lights penetrate inside the bottle.
- Inscriptions are in white enamel which is specially designed for glass use.

clear bottles	amber bottles	volume	clear in box	amber in box
061.01.100	061.02.100	100 ml	10 pcs	1 piece
061.01.250	061.02.250	250 ml	10 pcs	1 piece
061.01.500	061.02.500	500 ml	10 pcs	1 piece
061.01.901	061.02.901	1000 ml	10 pcs	1 piece
061.01.902	061.02.902	2000 ml	6 pcs	1 piece



- Manufactured from high density polyethylene which can resist high pressures before rupture.
- The angled shoulder allows the liquid to flow without any restrictions.
- Cap has a GL 45 thread and pouring ring which prevents drop splash.
- Amber bottles are manufactured from a special resin which prevents UV lights penetrate inside the bottle.
- Inscriptions and graduations are in embossed form.

clear bottles	amber bottles	volume	clear in box	amber in box
061.05.100	061.06.100	100 ml	10 pcs	1 piece
061.05.250	061.06.250	250 ml	10 pcs	1 piece
061.05.500	061.06.500	500 ml	10 pcs	1 piece
061.05.901	061.06.901	1000 ml	10 pcs	1 piece
061.05.902	061.06.902	2000 ml	6 pcs	1 piece
	bottles           061.05.100           061.05.250           061.05.500           061.05.901	bottles         bottles           061.05.100         061.06.100           061.05.250         061.06.250           061.05.500         061.06.500           061.05.901         061.06.901	bottles         bottles         volume           061.05.100         061.06.100         100 ml           061.05.250         061.06.250         250 ml           061.05.500         061.06.500         500 ml           061.05.901         061.06.901         1000 ml	bottles         bottles         volume         in box           061.05.100         061.06.100         100 ml         10 pcs           061.05.250         061.06.250         250 ml         10 pcs           061.05.500         061.06.500         500 ml         10 pcs           061.05.901         061.06.901         1000 ml         10 pcs

80

200

150

100

250

BORO 3.3

≻





- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- Are ideal tools to be used with burettes, dispensers since the side arm gives an opportunity to fill the bottle without removing the burette or the cap.
- These bottles have GL45 thread screw cap and P.P pouring ring.
- Amber bottles prevents UV lights penetrate inside the bottle.
- Inscriptions are in white enamel which is specially designed for glass use.

clear glass bottles	amber glass bottles	volume	quantity in pack
007.02.001	007.02.002	1000 ml	1 piece
007.02.003	007.02.004	2000 ml	1 piece



- Manufactured from high density polyethylene which can resist high pressures before rupture.
- Are ideal tools to be used with burettes, dispensers since the side arm gives an opportunity to fill the bottle without removing the burette or the cap.
  - These bottles have GL45 thread screw cap and  $\mathsf{P}.\mathsf{P}$  pouring ring.

clear	amber	volume	quantity
bottles	bottles		in pack
007.02.005	007.02.006	1500 ml	1 piece



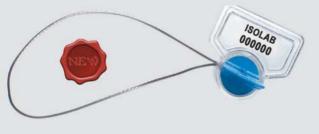
Manufactured from high density polyethylene which can resist high pressures before rupture.

- These space saving bottles are ideal for long term storage of products.
- Approximate graduations allow filling without the usage of cylinders.
- Amber bottles are manufactured from a special resin which prevents UV lights penetrate inside the bottle.
- Inscriptions and graduations are in embossed form.



The head space betwen cap and
insert plug can be used for private
and confidential notes.

clear bottles	amber bottles	volume	clear in box	amber in box
061.07.050	061.08.050	50 ml	10 pcs	1 piece
061.07.100	061.08.100	100 ml	10 pcs	1 piece
061.07.250	061.08.250	250 ml	10 pcs	1 piece
061.07.500	061.08.500	500 ml	10 pcs	1 piece
061.07.901	061.08.901	1000 ml	10 pcs	1 piece
061.07.902	061.08.902	2000 ml	6 pcs	1 piece



SECURITY SEAL

Security seal is used ensure the safety locking and preserveness of the product inside the bottles. 4 different attractive colors are used to identify among the seals which have unique identification numbers printed on the seal plate.





Insert the stainless steel seal wire through the holes of both the cap and bottle itself.

Then insert the wire into the hole of the seal as shown above.



Last step is to wind the seal key clockwise until the seal wire gets tight enough to provide optimum security lock.

Catalogue No: 061.09.001



# dropping bottles

- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- Amber bottles prevents UV lights penetrate inside the bottle.

clear	amber	volume	quantity
bottles	bottles		in pack
062.02.100	062.03.100	100 ml	1 piece

#### dropping bottles polyethylene-

- > Manufactured from low density polyethylene.
- They have a thin dropper tip that provide regular drops every time.
- Amber bottles prevents UV lights penetrate inside the bottle.

clear	amber	volume	quantity
bottles	bottles		in pack
062.04.100	062.04.101	100 ml	1 piece



wash bottles narrow & wide neck-

- > Manufactured from low density polyethylene.
- They are easy to press, semi-rigid, translucent and have excellent clarity.
- The stream of the liquid can be easily controlled by hand pressure.
- Dispensing tip provides extra fine stream. The tip can be folded back in order to increase the flow rate whenever needed.

wide neck	volume	quantity in pack
062.06.100	100 ml	1 piece
062.06.250	250 ml	1 piece
062.06.500	500 ml	1 piece
062.06.901	1000 ml	1 piece
	neck 062.06.100 062.06.250 062.06.500	neck         volume           062.06.100         100 ml           062.06.250         250 ml           062.06.500         500 ml



- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- They meet the highest quality standards according to DIN 12491.



- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- They meet the highest quality standards according to DIN 12491.



Excellent smooth grinded flanges prevent vacuum leaks and does not need any greasing.



Desiccator vacuum stopcock is specialy designed to use under vacuum up to  $10^{-4}$  Torr.



 Manufactured from glazed porcelain which can resist temperatures up to 1000°C.

desiccators non vacuum	desiccators vacuum	desiccators plate	holes number on plate	quantity in box
039.01.200	039.02.200	039.05.200	8	1 piece
039.01.250	039.02.250	039.05.250	10	1 piece
039.01.300	039.02.300	039.05.300	13	1 piece



UROLAB

porcelain mortars with pestle

- Manufactured from externally glazed porcelain with a spout according to DIN 12906 standard.
- Offer superior comfort when crushing and grinding samples due to the unglazed grinding surface of the pestle.
- Porcelain mortars are supplied complete with a porcelain pestle.
- Pestles are oversized for hand comfort while grinding.

catalogue number	diameter	volume	quantity in pack
038.02.075	75 mm	70 ml	1 piece
038.02.100	100 mm	170 ml	1 piece
038.02.125	125 mm	400 ml	1 piece
038.02.150	150 mm	750 ml	1 piece

Other sizes for mortars can be supplied on request.



Agate mortars are supplied complete with an agate pestle.

catalogue number	external diameter	internal diameter	volume	quantity in pack
038.07.050	50 mm	40 mm	10 ml	1 piece
038.07.075	75 mm	60 mm	25 ml	1 piece
038.07.100	100 mm	85 mm	50 ml	1 piece

Other sizes for mortars can be supplied on request.

## crystallisation dishes

- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- They meet the highest quality standards according to DIN 12338.
- These flat bottom dishes are used for growing crystals and any application requiring a dish in height between petri dishes and glass beakers.

catalogue number	external diameter	height	volume	quantity in pack
049.05.060	60 mm	35 mm	60 ml	1 piece
049.05.100	70 mm	40 mm	100 ml	1 piece
049.05.150	80 mm	45 mm	150 ml	1 piece
049.05.300	95 mm	55 mm	300 ml	1 piece
049.05.900	140 mm	75 mm	900 ml	1 piece

Other sizes for dishes can be supplied on request.



- Externally and internally manufactured from glazed porcelain except the spout.
- Manufactured according to DIN 12907 standard.
- Except the rim and top of the handle, inside and outside are glazed.
- Can withstand temperatures up to 1050°C without cracking, exploding or deforming.

catalogue number	external diameter	height	volume	quantity in pack
038.10.080	80 mm	45 mm	140 ml	1 piece
038.10.100	100 mm	65 mm	200 ml	1 piece

Other sizes for casseroles can be supplied on request.



SOLAB

LAB



porcelain evaporating dishes flat bottom



BALAR

BALAR

UNGLAB

- Manufactured with flat bottom according to DIN 12907.
- Externally and internally manufactured from glazed porcelain except the spout.
- > A perfect product for heating and evaporating liquids.
- Not recommended to use with direct flame in order to prevent unexpected breakage.

catalogue number	external diameter	height	volume	quantity in pack
038.11.060	60 mm	13 mm	30 ml	1 piece
038.11.080	80 mm	16 mm	75 ml	1 piece
038.11.100	100 mm	20 mm	100 ml	1 piece

Other sizes for dishes can be supplied on request.

porcelain —

### evaporating dishes round bottom

- Manufactured with round bottom according to DIN 12907.
- Other technical specifications are similar as flat bottom evaporating dishes.

catalogue number	external diameter	height	volume	quantity in pack
038.12.060	60 mm	25 mm	40 ml	1 piece
038.12.080	80 mm	32 mm	120 ml	1 piece
038.12.100	100 mm	40 mm	175 ml	1 piece
038.12.125	125 mm	50 mm	450 ml	1 piece
038.12.150	150 mm	65 mm	800 ml	1 piece

Other sizes for dishes can be supplied on request.



- Manufactured from stainless steel and the length is > 300 mm.
- Curved teeth of the dish tong enables easy handling Catalogue No: 038.05.001 of all dishes.

porcelain **Crucibles** low & medium & high form—

- Manufactured from glazed porcelain both inside and outside according to DIN 12904 standard.
- > Crucibles can resist temperatures up to 1150°C.
- Supplied without cover. Lids should be ordered separately.

catalogue	external			quantity
number	diameter	height	volume	in pack
038.13.H30	30 mm	38 mm	15 ml	1 piece
038.13.M35	35 mm	28 mm	13 ml	1 piece
038.13.H35	35 mm	44 mm	24 ml	1 piece
038.13.L40	40 mm	25 mm	15 ml	1 piece
038.13.M40	40 mm	32 mm	20 ml	1 piece
038.13.H40	40 mm	50 mm	40 ml	1 piece
038.13.L45	45 mm	28 mm	25 ml	1 piece
038.13.M45	45 mm	36 mm	38 ml	1 piece
038.13.H45	45 mm	56 mm	50 ml	1 piece
038.13.L50	50 mm	32 mm	29 ml	1 piece
038.13.M50	50 mm	40 mm	49 ml	1 piece
038.13.H50	50 mm	65 mm	85 ml	1 piece
038.13.L60	60 mm	38 mm	50 ml	1 piece
038.13.M60	60 mm	50 mm	90 ml	1 piece
038.13.M70	70 mm	60 mm	150 ml	1 piece



> Manufactured from glazed porcelain both sides.

catalogue number	internal diameter	quantity in pack
038.15.030	30 mm	1 piece
038.15.035	35 mm	1 piece
038.15.040	40 mm	1 piece
038.15.045	45 mm	1 piece
038.15.050	50 mm	1 piece
038.15.060	60 mm	1 piece



- Manufactured from stainless steel and the length is 300 mm.
- Curved teeth of the crucible tong enables easy handling of all size crucible. Catalogue No: 038.06.300





TOLAB

### bunsen burners

- Bunsen burner for standart flame is suitable for all gas types.
- Flame can be adjusted by the ring at the lower part of the product.
- Produces a single open gas flame, which is used for heating, sterilization, and combustion.

catalogue number	quantity in pack
050.01.001	1 piece
050.01.002	1 piece

## tripod stand

- > Manufactured from chrome plated steel as fixed height.
- Tripods are meant to be used in conjunction with wire gauze, triangles or a sand bath.

catalogue	top	total	quantity
number	diameter	height	in pack
050.04.001	150 mm	200 mm	1 piece

### wire gauzes

 Manufactured from galvanised iron wire with circular ceramic centre.

catalogue	gauze	ceramic center	quantity
number	dimensions	diameter	in pack
050.06.001	160x160 mm	150 mm	1 piece

## triangles

> Manufactured from ceramic cylinders around iron wire.

catalogue number	ceramic cylinder dimension	quantity in pack
050.07.050	50 mm	1 piece
050.07.060	60 mm	1 piece

## macro spoon \_\_\_\_\_\_ spatulas

- Manufactured from excellent grade polished stainless steel such as one end flat spatula and the other end as macro spoon.
- Most commonly used spatula for general laboratory applications.

#### round grooved spatulas

- Manufactured from excellent grade polished stainless steel such as one end flat spatula and the other end as round grooved.
- Specially efficient and practical to handle powders due to the round grooved end.



spatulas

- Manufactured from excellent grade polished stainless steel such as one end flat spatula and the other end as ellipsoidal grooved.
- Specially efficient and practical to hold products from the edges of flasks due to the ellipsoidal grooved end.



micro spoon-

Specially efficient and practical to handle small particles due to the size of micro spoon end.

	total length	quantity in pack
.08.150 047.06.150	150 mm	1 piece
.08.180 047.06.180	180 mm	1 piece
.08.210	210 mm	1 piece
	oatulas spatulas 7.08.150 047.06.150	atulasspatulaslength7.08.150047.06.150150 mm7.08.180047.06.180180 mm

Other sizes for spatulas can be supplied on request.

chattaway spatulas

Manufactured from polished stainless steel such as one end flat and the other end as bent flat.

Specially efficient and practical to hold products from flat and sticky surfaces due to the bent flat end.



81

- Manufactured from excellent grade polished stainless steel such as one end wooden handle and the other end as flat knife.
- Specially efficient and practical to general use due to the flexible flat knife end.

chattaway spatulas	total length	flat knife spatulas	spatula length	quantity in pack
047.09.150	150 mm	047.10.100	100 mm	1 piece
047.09.180	180 mm	047.10.130	130 mm	1 piece
047.09.210	210 mm	047.10.150	150 mm	1 piece



 Manufactured from polished stainless steel without any edges and crevices for pharmaceutical use.



Manufactured from polyproylene without any edges and crevices with flat base enabling to stand horizontally. They are also suitable to be used as weighing scoops

st. steel scoops	scoop diameter		polypopylene scoops		scoop length	quantity in pack
037.08.050	50 mm	100 mm	037.17.025	25 ml	135 mm	1 piece
037.08.075	75 mm	145 mm	037.17.050	50 ml	160 mm	1 piece
037.08.100	100 mm	190 mm	037.17.100	100 ml	200 mm	1 piece
037.08.120	120 mm	280 mm	037.17.250	250 ml	260 mm	1 piece
			037.17.500	500 ml	315 mm	1 piece
			037.17.901	1000 ml	385 mm	1 piece



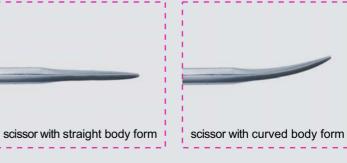
- Manufactured from excellent grade polished stainless steel with straight form and close shanks.
- > Available as 3 types:
- sharp / sharp pointsblunt / blunt points
- sharp / blunt points

scissor with sharp / sharp • blunt / blunt • sharp / blunt points

number	point type	length	in pack
048.05.001	sharp - sharp	130 mm	1 piece
048.05.002	sharp - sharp	160 mm	1 piece
048.05.003	blunt - blunt	130 mm	1 piece
048.05.004	blunt - blunt	160 mm	1 piece
048.05.005	blunt - sharp	130 mm	1 piece
048.05.006	blunt - sharp	160 mm	1 piece
	048.05.001 048.05.002 048.05.003 048.05.004 048.05.005	number         point type           048.05.001         sharp - sharp           048.05.002         sharp - sharp           048.05.003         blunt - blunt           048.05.004         blunt - blunt           048.05.005         blunt - sharp	numberpoint typelength048.05.001sharp - sharp130 mm048.05.002sharp - sharp160 mm048.05.003blunt - blunt130 mm048.05.004blunt - blunt160 mm048.05.005blunt - sharp130 mm



- Manufactured from excellent grade polished stainless steel with fine sharps points and close shanks.
- > Available as 2 types:
- straight body form
  curved body form

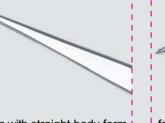


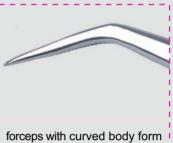
catalogue number	scissor body form	total length	quantity in pack
048.06.001	straight	130 mm	1 piece
048.06.002	curved	130 mm	1 piece





- Manufactured from excellent grade polished stainless steel with fine sharp points and sprung flutes.
- > Available as 2 types:
- straight body formcurved body form





forceps with straight body form

catalogue number	forceps body form	forceps length	quantity in pack
048.07.001	sharp - straight	115 mm	1 piece
048.07.002	sharp - straight	130 mm	1 piece
048.07.003	sharp - straight	150 mm	1 piece
048.07.004	sharp - curved	115 mm	1 piece
048.07.005	sharp - curved	130 mm	1 piece



- Manufactured from excellent grade polished stainless steel with blunt points and 1x2 teeth.
- Available as 1 type:
- straight body form

catalogue number	forceps body form	forceps length	quantity in pack
048.01.115	blunt - straight	115 mm	1 piece
048.01.130	blunt - straight	130 mm	1 piece
048.01.160	blunt - straight	160 mm	1 piece
048.01.200	blunt - straight	200 mm	1 piece



- Manufactured from chrome plated cast steel with two prongs which are PVC coated for holding the objects gently.
- Two seperately adjustable clamps enables perfect control of holding pressure and precise positioning of the objects.
- Clamps can be opened and closed smoothly with a grip width of 0-50 mm.
- > Available as 2 types:
  - with solid stem of 12 mm rod diameter with the holding angle and distance from the support rod can be adjusted by a separate bosshead.
  - with swivel mechanism which enables the object freely swivel 360° and lockable at any angle. Complete with a integral bosshead usable for rods maximum diameter of 21 mm.

solid stem	swivel	jaw	quantity
clamp	clamp	opening	in pack
045.01.001	045.04.001	0 - 50 mm	1 piece



- Manufactured from chrome plated cast steel with two prongs which are PVC coated for gentle hold of the objects.
- Two seperately adjustable clamps enables perfect control of holding pressure and precise positioning of the objects.
- Clamps can be opened and closed smoothly with a grip width of 0-70 mm.
- Available as 2 types:
  - with solid stem of 12 mm rod diameter which the holding angle and distance from the support rod can be adjusted by a separate bosshead.
  - with swivel mechanism which enables the object freely swivel 360° and lockable at any desired angle. Complete with an integral bosshead usable for rods max. diameter of 21 mm.

solid stem	swivel	jaw	quantity
clamp	clamp	opening	in pack
045.03.001	045.06.001	0 - 70 mm	1 piece



bossheads standard use-

- Manufactured from chrome plated cast alloy with smoothly opening distance of 0 - 15 mm.
- > Available as 2 types:
  - with fix stem that holds the objects on fixed position.
  - with swivel mechanism which enables the object freely swivel 360° and lockable at any desired angle.

swivel	solid stem	suitable	quantity
bosshead	bosshead	for rods	in pack
046.01.002	046.01.001	0 - 16 mm	1 piece

### bossheads heavy duty-

Manufactured from chrome plated cast steel with smoothly opening distance of 0 - 16 mm.

Due to the sturdy construction specially suitable to hold heavy objects with fix stem that holds the objects on fixed position.

heavy duty	suitable	quantity
bossheads	for rods	in pack
046.05.001	0 - 16 mm	1 piece



Manufactured from chrome plated cast steel and suitable for frame works and fixing perpendiculars.

Can be moved vertically and horizontally along the rods.

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frame work	suitable	quantity
bosshead	for rods	in pack
046.07.001	12 mm	1 piece

# laboratory stands

- Highly stable laboratory stand due to the steel tripod base which is stove enamel coated.
- > Rubber support feet prevents the stand from sliding.
- Laboratory stands are supplied without support rod. Please select the suitable rod from "support rods".

triangular stand	foot length	base thickness	rod height	rod diameter	quantity in pack
049.03.001	115 mm	8 mm	600 mm	12 mm	1 piece
049.03.002	150 mm	8 mm	600 mm	12 mm	1 piece

# laboratory stands

- Highly stable laboratory stand due to the steel tripod base which is stove enamel coated.
- > Rubber support feet prevents the stand from sliding.
- Laboratory stands are supplied without support rod. Please select the suitable rod from "support rods".

rectangular stand	base width	base length	rod height	rod diameter	quantity in pack
049.01.130	130 mm	210 mm	600 mm	12 mm	1 piece
049.01.150	150 mm	300 mm	600 mm	12 mm	1 piece
049.01.200	200 mm	315 mm	600 mm	12 mm	1 piece

support rods

Manufactured either from galvanised steel or from stainless steel 18/10 grade.

Rod has the external diameter of 12 mm and supplied with M10 thread or without thread.

galvanised rods	st. steel rods	rod type	rod length	rod diameter	quantity in pack
049.06.004	049.07.004	with M10 thread	600 mm	12 mm	1 piece
049.06.005	049.07.005	with M10 thread	750 mm	12 mm	1 piece
049.06.006	049.07.006	with M10 thread	1000 mm	12 mm	1 piece



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- Manufactured from moulded polypropylene which is resistant to acids and most of corrosive chemicals.
- Offers multiple alternatives for the position of the support rod through 2 holes one in the middle of the base and other at rear ends of the base.
- White base colour enables perfect observation of titration colour changes.
- Complete with screw-in support rod of 600 mm with M10 thread.

polypropylene	base	base	rod	rod	quantity
stand	width	length	height	diameter	in pack
049.04.001	175 mm	300 mm	600 mm	12 mm	1 piece

## laboratory jacks

- Positioners are manufactured of rugged, chemicalresistant anodized aluminium with stainless steel operating screw.
- The scissors action movement is activated by a large control knob and can be easily set the exact height needed with the turn of the knob.
- Precision engineered positioner enables smooth, continuous operation throughout its range and has an excellent side-to-side rigidity and support.
- Ball bearings made of PTFE for silent and smoothly movement.

powder coated jacks	plate width	plate length	max. height	quantity in pack
050.05.001	200 mm	200 mm	300 mm	1 piece
050.05.002	150 mm	150 mm	280 mm	1 piece

Other sizes for lab. jacks can be supplied on request.





- Rubber stoppers are manufactured from natural elastic rubber.
- Silicone stoppers are produced biologically inert silicone.
- The temperature stability for rubber stoppers is between -25°C to + 70°C.
- The temperature stability for silicone stoppers is between -60°C to + 170°C.

rubber stoppers	silicone stoppers	bottom diameter	top diameter	height	quantity in pack
051.01.001	051.02.001	5 mm	10 mm	25 mm	1 piece
051.01.002	051.02.002	8 mm	13 mm	25 mm	1 piece
051.01.003	051.02.003	11 mm	16 mm	25 mm	1 piece
051.01.004	051.02.004	14 mm	20 mm	30 mm	1 piece
051.01.005	051.02.005	18 mm	24 mm	30 mm	1 piece
051.01.006	051.02.006	21 mm	28 mm	35 mm	1 piece
051.01.007	051.02.007	26 mm	34 mm	40 mm	1 piece
051.01.008	051.02.008	32 mm	42 mm	45 mm	1 piece
051.01.009	051.02.009	40 mm	51 mm	50 mm	1 piece
051.01.010	051.02.010	48 mm	60 mm	55 mm	1 piece
051.01.011	051.02.011	55 mm	68 mm	60 mm	1 piece

#### hexagonal stoppers hallow glass-

- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- They meet the highest quality standards according to DIN 12252.
- Lower closed end of stopper features a "drip-tip" to ensure adhered liquid is returned to the flask.
- Hexagonal flat head prevents the stopper from rolling and allows stopper to be stood on end preventing contamination of the ground surface.

clear stoppers	amber stoppers	NS size	height	quantity in pack
051.03.001	051.04.001	NS 10/19		1 piece
051.03.002	051.04.002	NS 12/21		1 piece
051.03.003	051.04.003	NS 14/23		1 piece
051.03.004	051.04.004	NS 19/26		1 piece
051.03.005	051.04.005	NS 24/29		1 piece
051.03.006	051.04.006	NS 29/32		1 piece
051.03.007	051.04.007	NS 34/35		1 piece





- Rubber stoppers are manufactured from natural elastic rubber.
- Silicone stoppers are produced biologically inert silicone.
- The temperature stability for rubber stoppers is between -25°C to + 70°C.
- The temperature stability for silicone stoppers is between -60°C to + 170°C.

rubber tubings	silicone tubings	inner diameter	outer diameter	thickness	quantity in pack
052.01.001	052.02.001	6 mm	12 mm	3 mm	1 meter
052.01.002	052.02.002	8 mm	14 mm	3 mm	1 meter
052.01.003		6 mm	15 mm	5 mm	1 meter
052.01.004		8 mm	17 mm	5 mm	1 meter



- Manufactured from heat and chemical resistant PVDF and stainless steel.
- > This clamp can be opened and closed in any position.
- The system enables a fine, stepless controlled adjustment of the flow in a hose with the help of micro setting screw.
- The completely adjustable pressure plate squeezes the hose against the stable hook.
- The hose is compressed over a wide area in order to prevent it from any damages. The tubing clamp can be mounted even after the hose is connected to the system.

catalogue number	max. hose diameter	quantity in pack
052.03.015	up to 15 mm	1 piece
052.03.020	up to 20 mm	1 piece







### watch glasses

- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- They meet the highest quality standards according to DIN 12341.
- They are ideal to weigh different substances and chemicals.

They have fire polished edges to reduce chipping and are stress reduced in order to prevent breakage risks.



catalogue number	diameter	quantity in box
037.01.050	50 mm	10 pieces
037.01.060	60 mm	10 pieces
037.01.070	70 mm	10 pieces
037.01.080	80 mm	10 pieces
037.01.100	100 mm	10 pieces
037.01.125	125 mm	10 pieces
037.01.150	150 mm	10 pieces
037.01.200	200 mm	10 pieces

## weighing bottles

- Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- > The light weight construction enables practical use.
- They have interchangable lids which fit the bodies perfectly.
- > The white labelling area is suitable for writing notes.

catalogue number	diameter	height	quantity in pack
037.02.305	30 mm	50 mm	1 piece
037.02.353	35 mm	30 mm	1 piece
037.02.357	35 mm	70 mm	1 piece
037.02.503	50 mm	30 mm	1 piece
037.02.508	50 mm	80 mm	1 piece
037.02.603	60 mm	30 mm	1 piece
037.02.803	80 mm	30 mm	1 piece



## weighing boats

- > Manufactured from special grade antistatic polypropylene.
- Antistatic body eliminates sample residue and provide an easy system for weighing products.
- Manufactured as nonsterilised and sterilised.



The flexible body provides smooth surfaces to accomplish accurate pour-outs with minimal sample loss.

boats non sterile	boats sterile	volume	colour	nonsterile in pack	sterile in pack
037.05.030	037.15.030	30 ml	white	100 pieces	10 pieces
037.05.100	037.15.100	100 ml	white	100 pieces	10 pieces
037.06.030	037.16.030	30 ml	black	100 pieces	10 pieces
037.06.100	037.16.100	100 ml	black	100 pieces	10 pieces

### weighing scoops stainless steel-

Manufactured from polished stainless steel.

st. steel scoops	volume	length	quantity in pack
037.04.001	3 ml	85 mm	1 piece
037.04.002	6 ml	105 mm	1 piece
037.04.003	10 ml	125 mm	1 piece

# weighing scoops

Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.

glass scoops	volume	quantity in pack
037.07.001	3 ml	1 piece
037.07.002	6 ml	1 piece
037.07.003	10 ml	1 piece





sealing film parafilm

- > Most common sealing film used in the laboratories.
- Conforms to FDA provisions when used below 55°C and GMP. Can be easily used at temperatures between -45°C to + 50°C.
- Vapour pressure of some volatile substances may cause the product to lift off the surface it clings.
- Resistant to salt solutions, inorganic acid and alkaline solutions up to 48 hours.



Can cling on any surface, even the most irregular surface, elongates and widens up to 200%.

Prevents leakage and split of liquid in a container in case of an accidental fall.

parafilm catalogue no	width	length	quantity in pack	quantity in box
058.01.001	50 mm	75 meter	1 piece	12 pieces
058.01.002	100 mm	38 meter	1 piece	12 pieces



- Parafilm Dispenser is a convenient tool for easy dispensing, cutting and clean storage of Parafilm.
- Suitable for 50 mm and 100 mm wide rolls, supplied with spare cutting blade. Catalogue No: 058.02.001



Parafilm roll is easily placed in the container.



The amount needed is taken out of the reservoir by turning the wheels at both sides.



Parafilm is cut with one movement of the blade.



Remaining roll in the reservoir is protected from dust.



300

200

100

BORO 3.3

400

# magnetic stirring bars

- High magnetic strength and long life due to magnetic cores.
- Fully encapsulated with a specially high grade pure PTFE with very thick coating.
- Magnetic bars can stand up to maximum operation temperature 270°C.

magnetic bar catalogue no	length	diameter	quantity in pack
057.01.010	10 mm	6 mm	1 piece
057.01.015	15 mm	6 mm	1 piece
057.01.020	20 mm	6 mm	1 piece
057.01.025	25 mm	6 mm	1 piece
057.01.030	30 mm	6 mm	1 piece
057.01.035	35 mm	6 mm	1 piece
057.01.040	40 mm	8 mm	1 piece
057.01.045	45 mm	8 mm	1 piece
057.01.050	50 mm	8 mm	1 piece
057.01.060	60 mm	9 mm	1 piece
057.01.070	70 mm	9 mm	1 piece
057.01.080	80 mm	9 mm	1 piece



- Magnetic bar retriever is an essential tool to pick up the magnetic bars.
- It has a powerful magnet sealed in one end and a long stem of total 300 mm length.

magnetic bar catalogue no	length	diameter	quantity in pack
057.02.001	300 mm	8 mm	1 piece

### stirring rods glass & P.P-

 Glass stirring rods are manufactured from borosilicate 3.3 glass rods. P.P rods are manufactured with one end flattened like a spatula for effective stirring.

glass stirring rod	polypropylene stirring rod	length	diameter	quantity in pack
057.03.250	057.04.250	250 mm	6 mm	1 piece

Other sizes for glass rods can be supplied on request.





- > Winding Stopwatch is a sturdy, chrome plated 2-scale stopwatch.
- Case diameter is 50 mm and has a weight of 110 grams.
- Consists of stainless steel, single metalic balance, nickel based alloy hairspring, and 13 jewels fixed in the structure.
- > Working temperature is between -10°C to + 40°C.
- Operation duration is 30 minutes and resolution is 0.2 seconds. Catalogue No: 055.01.001



USOLAB

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- Digital Stopwatch is a light-weighed stopwatch which has water resistant plastic body.
- > Offers many functions:
  - date, time and calendar
  - stopwatch operations
  - alarm functions
- Run time is 23 hour / 59 minutes / 59 seconds.
- Operation range is 59 min / 59 sec. with a resolution of 1/100 seconds. Catalogue No: 055.02.001



- > Designed for professional use at laboratories.
- Range is 0-60 minutes with a resolution of 1 minute.
- Dimensions of the timer are 60 x 60 x 34 mm.
- A clear bell ring signals at the end of the preset time. Can be reset any time. Catalogue No: 056.01.001





- > Designed for professional use at laboratories.
- Possible to use both on the desk and also on the wall. Can be reset any time.
- Range is 0-60 minutes with a resolution of 1 minute.
- Dimensions of the timer are 93 x 75 x 68 mm.
- A clear bell ring signals at the end of the preset time. Can be reset any time. Catalogue No: 055.03.001





- Offers count down and count up functions for a short period of time.
- Comes with a stand for desktop, a magnetic fixture for metal surfaces and a clip for hanging.
- > A clear alarm ring signals at the end of the preset time.
- LCD display dimensions are 36 x16 mm with 1 line and 4 digits. Catalogue No: 056.02.001





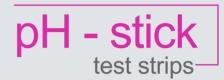
- Offers count down and count up functions for long period of time.
- Comes with a stand for desktop, a magnetic for metal surfaces and a clip for hanging.
- Has a display range up to 19 hours, 59 minutes.
- > A clear alarm ring signals at the end of the preset time.
- LCD display dimensions are 32x12 mm with 1 line and 4 digits.
   Catalogue No: 056.03.001

### lithmus papers

- Simple and completely impregnated indicator papers. They only indicate if the pH of a solution is above or below the point of colour change.
- The blue lithmus paper has pH range of 8.0 5.0 and the colour changes from blue to red. The red lithmus paper has pH range of 5.0 - 8.0 and the colour changes from red to blue.

lithmus paper	lithmus paper	strip	strip	quantity in
blue	red	width	length	booklet
MN.91126	MN.91128	7 mm	70 mm	200 pieces





- High quality, color-fixed pH test strips with a long handle which prevents fingers from getting into contact with sample.
- Color fixed reactive pads prevent bleeding, the pH indicator is chemically bound to the cellulose fiber.
- This effectively enables measurements even in weakly buffered or strong alkaline solutions.
- It has a brilliant color chart which has 4 different color blocks for each pH value which enable highly precise pH determination and make the application rapid and reliable.

catalogue	pH - range	strip	strip	quantity
number		width	length	in box
MN.92110	0 - 14 pH	6 mm	85 mm	100 pieces





- Very special pH test strip which unifies the pH indicator and the reference colors on one strip. pH values can be determined without a separate color chart.
- Any sample color has the same effect on both the reference colors and reactive pad.
- An invisible hydrophobic barrier just above the top color field prevents capillary action of the test solution beyond.

catalogue	pH - range	strip	strip	quantity
number		width	length	in box
MN.90415	3.8 - 5.5 pH	6 mm	85 mm	200 pieces





- Semi quantitative test strip with many advantages. The test can be carried out in seconds.
- Meets the most important requirements expected from a modern quick test.
- It is a ready-to-use kit. It is calibrated and contains all necessary equipment and reagents.
- The user will surely receive accurate readings since the graduations are 0 -1-3 -10 30 and 100.
- The color charts are adjusted and checked using certified standard solutions which are directly tracable to primary NIST standards.
- In order to get the maximum use from the product, close the tube immediately after removing the strip.

catalogue	strip	strip	quantity
number	width	length	in box
MN.91312	6 mm	95 mm	100 pieces



- Best strip for the determination of water hardness.
- Clear color changes from green to red ensures an accurate reading.
- Due to the clear design of the green/red indication, a color chart is not necessary.
- The hardness of the water depends on its calcium and magnesium content. The total assay of these salts determines the hardness of the water.
  - Below 50 ppm : very soft water
  - 50 120 ppm : soft water
  - 120 240 ppm : medium hard water
  - 240 360 ppm : hard water
  - Above 360 ppm : very hard water

Instructions for use are printed on the seal.

catalogue	strip	strip	quantity
number	width	length	in box
MN.91201	6 mm	95 mm	100 pieces

Other test strips from M.Nagel can be supplied on request.



## laboratory brushes

- Excellent tools for washing and cleaning the laboratory bottles, flasks.
- The brush materials are made of highest quality natural fibre/perlon.
- Handles of the brushes are manufactured either from twisted steel wire or plastic coated twisted wire.
- a) Brushes for cleaning burettes and tubings up to inner diameter of 18 mm.
- b-c) Brushes for cleaning medium and large size laboratory bottles, flasks etc..
- d) Brushes for cleaning small size laboratory bottles flasks etc.. This model is especially useful due to its spherical brush top.
- e) Brushes for cleaning standard test tubes between 12-25 mm. This model is especially useful due to its spherical brush top made out of cotton gauze head.
- f) Brushes for cleaning test tubes or containers with narrow and thin diameters.

catalogue number	brush code	product name & description	stem length	brush diameter	brush length	quantity in pack
071.02.001	а	Burette and tubings cleaning brush	650 mm	20 mm	120 mm	1 piece
071.02.002	b	Large size bottle cleaning brush	300 mm	70 mm	150 mm	1 piece
071.02.003	С	Medium size bottle cleaning brush	200 mm	50 mm	120 mm	1 piece
071.02.004	d	Small size bottle cleaning brush	120 mm	40 mm	100 mm	1 piece
071.02.005	е	Common test tubes cleaning brush	120 mm	25 mm	110 mm	1 piece
071.02.006	f	Narrow test tubes cleaning brush	120 mm	12 mm	80 mm	1 piece

#### laboratory brushes swivel head-

- Brushes with "swivel head" have a swiveling pivot head.
- This unique option enables excellent cleaning of bottles, flasks and all types of glassware with curves and corners.
- This is also an excellent tool for pre-cleaning glassware before placing it in a laboratory glass washer.
- The swivel head fits through a NS 29/32 standard neck or any neck with a diameter of 24 mm or more.
- Brushes have polished wooden handles with 330 mm lengths.

catalogue	swivel	handle	quantity
number	head size	length	in pack
071.03.001	mm	330 mm	1 piece



draining rack with collection tray-

- A professional draining rack with interchangable pegs made out of polypropylene.
- These push in pegs are easily removable for cleaning or to hold different shape of glassware.

Pegs are available as 2 types:

- Large size pegs are in triangular shape which can hold flasks wider than 15 mm diameter.
- Small size pegs are in round shape which can hold flasks wider than 6 mm diameter.

The peg sockets have closed ends which eliminate leakage.

The drip channel collects waste water which drains through existing drain tubes.

 Comes complete with mounting kit, draining hose and fixing template.





Each tray supplied with 16 pieces large size and 16 pieces small size pegs.

Unique design of draining channel of the pegs offers fast collection of water. Large size pegs are in triangular shape which can hold flasks wider than 15 mm diameter. Small size pegs are in round shape which can hold flasks wider than 6 mm diameter.

catalogue	rack	rack	peg	quantity
number	width	height	quantity	in pack
071.01.002	500 mm	610 mm	72	1 piece

### thermometers enclosed scale-

- Enclosed Scale Thermometers are double walled thermometers with mercury column.
  - Enclosed white scale enables accurate reading of temperature.

catalogue number	operation range °C	subdivion	quantity in pack
059.01.001	-10/+ 50	1°C	1 piece
059.01.002	-10/+110	1°C	1 piece
059.01.003	-10/+150	1°C	1 piece
059.01.004	-10/+200	1°C	1 piece
059.01.005	-10/+250	1°C	1 piece
059.01.006	-10/+300	2°C	1 piece
059.01.007	-10/+360	2°C	1 piece
059.01.008	-10/+420	2°C	1 piece
30			

#### thermometers solid stem-

- Solid Stem Glass Thermometers are calibrated for partial immersion depth of 76 mm.
- Thermometer has red alcohol column and the body is reflecting white colour which provides easier readings.

catalogue number	operation range °C	subdivion	quantity in pack
0059.02.001	-20/+ 50	0.5 °C	10 pieces
059.02.002	-20/+110	0.5 °C	10 pieces
059.02.003	-10/+150	1 °C	10 pieces
059.02.004	-10/+200	1 °C	10 pieces

### thermometer clamp with bosshead-

- Thermometer Clamp & Holder with boss head has an opening of 0-30 mm.
- Steel spring arm holds the thermometer firmly and keeps the thermometer at the center.
- With swivel mechanism which enables the object to swivel 360° and is lockable at any desired angle.



°F

120

100

80

60

40

32

20

0

thermometers maximum & minimum

- Thermometers with a push button for automatic resetting.
- Has a weather resistant polypropylene housing with inclined shelter.
- The temperature measuring range is between -30°C to +50°C, with subdivisions of 1°C.
- Thermometer filling is mercury in round capillary. Catalogue No: 059.03.001

#### thermometers indoor & outdoor

- Indoor / Outdoor Thermometer can measure both in degree centigrade (°C) and degree fahrenheit (°F).
- Operational temperature range in degree centigrade is between -40°C to +50°C, with subdivisions of 1°C.
- Operational temperature range in degree fahrenheit is between -40 °F to +120 °F, with subdivisions of 2°F.
- Housing made out of polypropylene with 70 mm width and 400 mm length. Catalogue No: 059.04.001



- Ideal for single temperature measurements in liquids. powders and food products.
- LCD display size is 18x8 mm, probe length is 127 mm.
- Operational temperature range in degree centigrade is between -50°C to +300°C, with subdivisions of 0.1°C.
- Operational temperature range in degree fahrenheit is between -58 °F to +572 °F, with subdivisions of 0.2°F. Catalogue No: 060.01.001



#### thermometers electronical-

- With the help of two probes, these thermometers enable indoor/outdoor temperature measurement both in degree centigrade (°C) and degree fahrenheit (°F).
- Operational temperature range in degree centigrade is between -20°C to +50°C, with subdivisions of 0.1°C.
- Operational temperature range in degree fahrenheit is between - °F to + °F, with subdivisions of 0.2°F.
- > With memory function for min/max temperature.
- Thermometer also include functional date and time display.
- LCD display size is 51x41 mm and housing dimensions are 135x75x19 mm.

catalogue	operation	subdivion	subdivion	quantity
number	range °C	°C	°F	in pack
060.02.001	-20/+50	0.1°C	0.2°F	1 piece

#### thermohygrometer electronical-

- Ideal for desktops or hanging for temperature measurement both in degree centigrade (°C) and degree fahrenheit (°F).
- Operational temperature range in degree centigrade is between -50°C to +70°C, with subdivisions of 0.1°C.
- Operational temperature range in degree fahrenheit is between - °F to + °F, with subdivisions of 0.2°F.
- The moisture measuring range is between 10% 99% with subdivisions of 1% moisture.
- > Has max/min value monitoring with the alarm function.
- > Also include date and time display with 12/24 hour format.
- 2 line LCD display size is 40x30 mm and housing dimensions are 109x70x19 mm.

catalogue	operation	subdiv.	subdiv.	moisture	moisture
number	range °C	°C	°F	range	subdiv.
060.03.001	-50/+70	0.1°C	0.2°F	10%-99%	1%









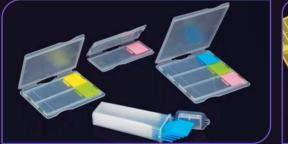
































#### clinical laboratory

single channel micropipettes variable volume-

- High quality micro pipettes at affordable prices cover the complete pipetting range.
- It is constructed of high quality plastic and combined with stainless steel piston, thus the item is robust yet lightweight.
- Individually calibrated according to ISO 8655 standards and the quality certificate for accuracy and precision is provided with each pipette.
- Completely autoclavable at 121°C and 1.1 bar for 30 minutes for sensitive laboratory applications.
- The ergonomical, rounded hand grip and finger handle ensure comfortability and stability as well as a correct pipetting angle.
- The unique design allows quick and easy volume setting with only one hand.
- Built-in streamlined tip elector enables easy tip ejection and allows access to narrow neck volumetric flasks and to the bottom of the tubes.
- Click stop digital system for volume setting. The volume display is clearly visible at all times during operation.

non autoclavable pipettes	autoclavable pipettes	volume range	test volume	Inacc. %	Impr. %
001.01.002	001.02.002	0.2 - 2.0 µl	0.2 µl	12.0 %	6.0 %
			1 µl	2.5 %	1.5 %
			2 µl	1.5 %	0.7 %
001.01.010	001.02.010	0.5 - 10 µl	0.5 µl	5.0 %	2.8 %
			5 µl	1.5 %	0.8 %
			10 µl	1.0 %	0.4 %
001.01.020	001.02.020	2 - 20 µl	2 µl	5.0 %	1.5 %
			10 µl	1.0 %	0.6 %
			20 µl	1.0 %	0.3 %
001.01.050	001.02.050	5 - 50 µl	5 µl	2.5 %	1.5 %
			25 µl	0.7 %	0.3 %
			50 µl	0.7 %	0.3 %
001.01.100	001.02.100	10 - 100 µl	10 µl	2.5 %	0.7 %
			50 µl	0.8 %	0.3 %
			100 µl	0.8 %	0.2 %
001.01.200	001.02.200	20 - 200 µl	20 µl	2.5 %	0.7 %
			100 µl	1.0 %	0.3 %
			200 µl	0.6 %	0.2 %
001.01.901	001.02.901	100 - 1000 µl	100 µl	1.6 %	0.3 %
			500 µl	0.6 %	0.2 %
			1000 µl	0.5 %	0.2 %
001.01.905	001.02.905	1000 - 5000 µl	1000 µl	1.5 %	0.3 %
			2500 µl	0.6 %	0.2 %
			5000 µl	0.6 %	0.2 %
001.01.910	001.02.910	1000 - 10000 µl	1000 µl	1.5 %	0.3 %
			5000 µl	0.6 %	0.2 %
			10000 µl	0.6 %	0.2 %

20 - 200 HI

#### < clinical laboratory</pre>



- Thin wall and small surface area at the tip minimize the possible tip retaining samples droplets.
- Flashfree and uniform delivery orifice for consistent accuracy and reproducible sample delivery.
- > Provided with calibration lines at specific volumes.
- Dust, particle & metal free for dust, particles and metals such as cadmium.

#### Pipette Tips "Non-Sterilized"

order no	capacity	colour	qty/pack
005.01.001	10 µl	clear	1000 pcs
005.01.002	200 µl	yellow	1000 pcs
005.01.003	1000 µl	blue	500 pcs
005.01.004	5 ml	clear	250 pcs
005.01.005	10 ml	clear	100 pcs

#### **Pipette Tips "Sterilized"**

order no	capacity	colour	qty/pack
005.02.001	10 µl	clear	5 pcs
005.02.002	200 µl	yellow	5 pcs
005.02.003	1000 µl	blue	5 pcs
005.02.004	5 ml	clear	5 pcs
005.02.005	10 ml	clear	5 pcs

#### **Racked Tips "Non-Sterilized"**

order no	capacity	colour	qty/pack
005.05.001	10 µl	clear	96 pcs
005.05.002	200 µl	yellow	96 pcs
005.05.003	1000 µl	blue	96 pcs

#### **Racked Tips "Sterilized"**

order no	capacity	colour	qty/pack
005.06.001	10 µl	clear	96 pcs
005.06.002	200 µl	yellow	96 pcs
005.06.003	1000 µl	blue	96 pcs
005.06.002	200 µl	yellow	96 pcs

#### < clinical laboratory )

#### 1 station micropipette stand W/O storage-

- > Manufactured from robust, high density ABS plastic.
- It has a modern and ergonomic design that enables extremely easy handling and storing of micropipettes.
- Each stand can hold one of any single channel micropippettes. Catalogue No: 006.01.001

Due to unique construction the stands can be connected to each other in order to form a stand chain.



#### 6 station micropipette stand W/O storage

- > Manufactured from robust, high density acrylic.
- It has a modern and ergonomic design that enables extremely easy handling and storing of micropipettes.
- Each stand can hold up to six of any single channel micropippettes. Catalogue No: 006.11.002



- > Has thicker walls, crush-resistant "turrets" at the corners,
- Improved pour spouts and 5 ml, 10 ml and 25 ml graduation marks.
- Special design tabs to prevent stacked reservoirs from sticking together.
- Reservoir bottom tapers down into a narrow trough, to help the user to get fast liquid drop.

catalogue number	volume	specification	quantity in pack
006.03.001	55 ml	non sterilised	50 pieces
006.03.002	55 ml	sterilised	10 pieces

#### ( clinical laboratory )

#### 4 station micropipette stand with storage-

- Constructed of white acrylic with a clear acrylic front panel which keeps contents in view.
- Helps to store pipettors and also offers a space to dispense pipet tips and small items organized and within reach.
   Catalogue No: 006.05.001

Sliding cover with generous openings make filling and dispensing easy.

This storage cabin is also ideal for dust-free storage of various types of products.



#### 6 station micropipette stand with storage-

- > Manufactured from robust, high density acrylic.
- It has a bottom section with a closure lid for storage of different types of micropipette tips.
- It has a modern and ergonomic design that enables extremely easy handling and storing of six micropipettes and pipette tips. Catalogue No: 006.02.001

reservoir double side-

- Reservoir has a standard 50 ml basin on one side and 12 individual 5 ml basins on the other side.
- Wells are angled both downward and outward, guiding multichannel pipettor tips toward a centered position, which help to avoid contamination and waste.
- Imprinted indices identify samples and loose-fitting lids prevent evaporation and contamination.

catalogue number	volume	specification	quantity in pack
006.07.001	50 ml	non sterilised	10 pieces
006.07.002	50 ml	sterilised	1 piece





### staining jar Hellendahl-

- > Suitable for holding 76x26 mm slides vertically.
- This staining jar has 9 grooves which can accomodate 18 slides one after the other.
- > They are supplied with a glass lid to cover the jar.

staining jar	no of	slide	quantity
hellendahl	grooves	capacity	in pack
073.01.001	9	18	4 pieces

## staining jar

- > Suitable for holding 76x26 mm slides horizontally.
- This staining jar has 10 grooves which can accomodate 20 slides one after the other.
- > They are supplied with a glass lid to cover the jar.

staining jar	no of	slide	quantity
schifferdecker	grooves	capacity	in pack
073.03.001	10	20	4 pieces

# staining jar

- Staining jar "with stainless steel staining rack" is manufactured from thick moulded glass.
- > Staining rack is manufactured from stainless steel.
- This stainless steel rack has 20 grooves which can accomodate 20 single slides.
- > They are supplied with a glass lid to cover the jar.

staining jar macro	staining rack macro	slide capacity	quantity in pack
073.05.001	073.06.001	20	1 pieces
1. J.			

### embedding casettes without lid-

- Disposable plastic tissue cassettes are suitable for holding and identifying tissue samples in processing, embedding and sectioning procedures.
- > These cassettes fit securely in microtome chuck adapters.
- They are moulded from a high density polymer which is totally resistant to the chemical action of histological solvents.
- The slanted writing surface accepts markings easily, permitting sample identification.
- Casette lid is manufactured from high grade stainless steel with perforated surface for optimal liquid diffusion.

casette without lid	colour	quantity in pack	quantity in box
074.01.001	white	500 pieces	5000 pieces
074.01.002	yellow	500 pieces	5000 pieces
074.01.003	green	500 pieces	5000 pieces
074.01.004	pink	500 pieces	5000 pieces
074.01.005	blue	500 pieces	5000 pieces
074.02.001	stainless st	eel casette lid.	1 piece

### embedding casettes with lid-

- Moulded from a special high density polymer, these cassettes keep specimen safely submerged in liquid and are totally resistant to the chemical action of histological solvents.
- The efficient flow-through slots maximize fluid exchange and ensure proper drainage.
  - The snap-latch and hinge-lock design of the cassette prevents early separation of base and the lid, thus allows for one-hand operation.
- Lids can be opened and closed as often as necessary and always relock securely without any risk of specimen loss.
- Large labelling areas are located on two sides of the cassettes. Anterior writing area with 35 angle.

casette hystology	casette biopsy	colour	quantity in pack	quantity in box
074.03.001	074.04.001	white	500 pieces	5000 pieces
074.03.002	074.04.002	yellow	500 pieces	5000 pieces
074.03.003	074.04.003	green	500 pieces	5000 pieces
074.03.004	074.04.004	pink	500 pieces	5000 pieces
074.03.005	074.04.005	blue	500 pieces	5000 pieces
074.03.005	074.04.005	blue	500 pieces	5000 pieces

#### Biopsy casettes

Square openings allows maximum fluid exchange without having the use of biopsy pads.

LO GND.

urine **Container** with screw cap-

Manufactured from absolutely clear high grade polypropylene.

With an approximate volume of 100 ml and the approximate volumetric graduations are moulded on the body.

The screw cap perfectly fits over the body and avoids any leakage.

Non sterile urine containers are packed with caps unattached.



Sterile urine containers are originally manufactured under germ-free aseptic (sterile) conditions of class 10.000 sterile area with extreme sterility control.



#### specimen **Container** with press - on cap-

Manufactured from absolutely clear high grade polypropylene.

With a volume of 40 ml and the approximate volumetric graduations are moulded on the body.

The press-on cap perfectly fits over the body and avoids any leakage.

Non sterile specimen containers are packed with caps unattached.



Sterile specimen containers are originally manufactured under germ-free aseptic (sterile) conditions of class 10.000 sterile area with extreme sterility control.



N.NO. GKPP59003

d. Date.

feaces container with spoon cap

Manufactured from absolutely clear high grade polypropylene.

With an approximate volume of 15 ml and the approximate volumetric graduations are moulded on the body.

The spoon cap perfectly fits over the body and avoids any leakage.

Non sterile feaces containers are packed with caps unattached.

Sterile feaces containers are originally manufactured under germ-free aseptic (sterile) conditions of class 10.000 sterile area with extreme sterility control.

catalogue number	specification	quantity in box
087.03.001	non-sterilized	1000 pcs
087.03.002	sterilized	500 pcs



# zip-lock sample bags with writing strips-

Manufactured from absolutely clear high grade polyethylene which are highly resistant to shocks and tearing.

They are a specially designed for storage and transport of solid samples both at laboratories and industries.



3 separate white strips for writing in order to have better sample identification.

catalogue number	width	length	quantity in pack
039.08.100	70 mm	100 mm	100 pcs
039.08.150	100 mm	150 mm	100 pcs
039.08.220	150 mm	220 mm	100 pcs
039.08.300	200 mm	300 mm	100 pcs





- Manufactured by fully automated systems according to ISO 12772 and BS4316-68.
- Tube length is 75 mm (+/- 1 mm) and the wall thickness is 0,2 mm.
- Heparinized tubes are heparinised with sodium heparinate over internal surface.



Non-Heparinized tubes have blue color code at the end of the micro haematocrit tube.

Heparinised tubes have red color code at the end of the micro haematocrit tube.

tubes heparinized	tubes non-heparinized	colour code	tube length	quantity in vial	quantity in box
088.02.001		red	75 mm	100 pieces	10 vials
	088.02.002	blue	75 mm	100 pieces	10 vials

### micro haematocrit \_\_\_\_\_

- Micro haematocrit tube wax is a non drying, sealing compound placed on a plastic tray.
- Can be used for fast and safe sealing of the ends of microhaematocrit tubes.
- > Can be safely stored up to 3 years at room temperature.

Up to 48 tubes (24 on each side) can be stored vertically in numbered positions along the sides of the wax tray.

catalogue	quantity
number	in pack
088.03.001	10 pieces



### st. steel blood lancets

Manufactured from medical grade stainless steel.

Blutlanzetten rile Blood Lancets > The gamma-sterilized lancets are individually packed.

Lancets are very incisive and have very sharp edges which penetrates into the skin very easily.





### automatic blood lancets

- These lancets are user safe since the needle is fully shielded before and after use.
- They have a pre-loaded, button operated design.
- These lancets are for single-use only, sterilised by gamma irradiation.
- Patient comfort due to high quality, ultra sharp tri-bevel needle, high speed penetration of 1.8 mm penetration depth.

catalogue	colour	quantity	quantity
number	code	in pack	in box
088.02.003	70 mm	200 pieces	50 pack



Twist off the protective cap/safety cover



Select finger tip insertion site slightly off centre and hold the lancet firmly against site



Press the release button to activate the device.



Gently massage the finger to obtain the required volume of blood.

microscope -



- Manufactured from high optical grade, hydrolytic class no: 1, colorless borosilicate glass with an excellent chemical resistance.
- Thickness of glass used is no 1 (0,13 to 0,17 mm) with the refractive index of n=1,52.
- Available as 2 types:

 economical quality superior quality

economic quality	superior quality	dimensions	quantity in pack	quantity in box
075.00.001	075.01.001	18 x18 mm	100 pieces	10 pack
075.00.002	075.01.002	20 x 20 mm	100 pieces	10 pack
075.00.003	075.01.003	22 x 22 mm	100 pieces	10 pack
075.00.004	075.01.004	24 x 24 mm	100 pieces	10 pack
075.00.005	075.01.005	24 x 32 mm	100 pieces	10 pack
075.00.006	075.01.006	24 x 50 mm	100 pieces	10 pack
075.00.007	075.01.007	24 x 60 mm	100 pieces	10 pack
			· · · · · · · · · · · · · · · · · · ·	



- Microscope Slides are manufactured from high optical grade soda lime glass with hydrolytic class 3.
- Their fully automatic production ensures clean, dust and grease free slides.
- > They have extremely flat surface with 1 mm thickness and 26 mm x 76 mm size.
- > Available as 2 types:
- economical quality superior quality

Superior quality colour coded slides has ground edges, with 45° edge angle, with 5 different colours for easy identification.

economic quality	superior quality	specification	edge angle	colour code	quantity in pack	quantity in box
075.05.001		Cut edges, Plain	90° Degree		50 pieces	50 pack
075.05.002		Cut edges, Frosted one end one side	90° Degree		50 pieces	50 pack
075.05.003		Ground edges, Plain	90° Degree		50 pieces	50 pack
075.05.004		Ground edges, Frosted one end two side	90° Degree		50 pieces	50 pack
	075.02.005	Ground edges, Colour Frosted	45° Degree	white	50 pieces	50 pack
	075.02.006	Ground edges, Colour Frosted	45° Degree	yellow	50 pieces	50 pack
	075.02.007	Ground edges, Colour Frosted	45° Degree	green	50 pieces	50 pack
	075.02.008	Ground edges, Colour Frosted	45° Degree	pink	50 pieces	50 pack
	075.02.009	Ground edges, Colour Frosted	45° Degree	blue	50 pieces	50 pack

ISOLAN

ISOL

\$(0) Laborgeräte GmbH

Laborgeräte GmbH

ECKGLASER

24 x 24 #1

Lamelles Couvre-objets

Made in Germany - C € certified (IVD) 1000 Deckgläser / 24 × 2



### counting chambers



Thoma

Imm

0.0025 mm²

- Manufactured from special optical glass according to DIN 12847 standard.
- With the help of these chambers, it is possible to count leucocytes, erythrocytes, bacteria, thrombocytes, fungus, spore etc. with simple methods under microscope.
- They are supplied in a polystrene box together with two haemacytometer cover glasses.

catalogue number	specification	quantity in box
075.03.001	Neubauer Improved	1 piece
075.03.002	Thoma	1 piece
075.03.003	Nageotte	1 piece

### cover glasses for counting chambers-

 Manufactured from very flat, borosilicate glass with plain ground and polished surfaces. Catalogue No: 075.04.001

### slide dispenser

- > Slide dispenser can dispense 50 slides at once.
- By turning the knob, one slide is dispensed for every turn. Catalogue No: 076.04.001



 Manufactured from stainless steel for handling cover glasses perfectly.

Available as 2 types:

curved body formstraight body form

catalogue number	forceps body form	length	quantity in box
048.03.001	curved	105 mm	1 piece
048.03.002	straight	105 mm	1 piece

### slide wallet

Manufactured from sturdy thick cartoon for holding up to 20 standard microscope slides of 75 x 25 mm.

Made of two parts: a base holding the slides horizontally offering numbered spaces for easy identification and two covers which protect the slides.

Removal of slides is done easily by pressing on one end, which will automatically lift the other end.

An index for identification of slides is printed on each cover.

catalogue no	Dimensions	Colours	Qty/Pack	Qty/Case
076.01.001	205x340x10 mm	white	1 piece	10 pcs

The optional wallet drawer offers a practical storage of up to 5 slide wallet. Catalogue No: 076.01.004

### slide magazine

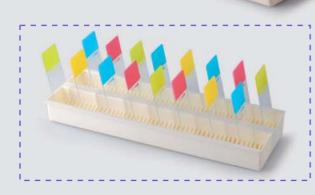
- Most convenient, organized and versatile way of storing microscope slides.
- Can hold up to 200 slides and is stackable for space efficient storage.
- It includes a slide box and a removable tray. A tinted hinged cover makes the contents of the box easy to see at a glance.
- All slides are stored in an upright position for easier insertion and removal. Simply tilt them forward and backward with one finger in order to pick up the slide you need.

For space saving purposes, you can double the amount of slides simply by storing two slides per slot.

For maximum storage space, simply remove the tray and line up 400 slides in 3 rows for long term storage.

catalogue no	dimensions	colour	qty/pack
076.03.001	82x245x86 mm	white	1 piece

The slide magazine has a removable tray inside the storage box, having a hundred individual numbered slots.



### < clinical laboratory</pre>

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### slide boxes

- > Manufactured from high density polystrene.
- They are perfect for storage or transportation of 25, 50 or 100 pieces of standard size slides.
- Moulded, rigid boxes securely hold slides in grooved slots.
- These boxes have a safe closing and easy opening lids.
- Hinged lids are held securely closed by latch lock. The stacking feet maximize stability.
  - They include numbered sheets with a labelling space at the bottom of the case.
- Both the lining and the slots are numbered to correspond to the slide inventory sheet on the inside cover of the box.

catalogue number	slide capacity	quantity in box
076.02.000	25 slides	1 piece
076.02.001	50 slides	1 piece
076.02.002	100 slides	1 piece

### slide mailers

- Manufactured from high density polypropylene for shipping, storing or staining slides.
- Flat mailers can holds one, two or three standard (75 x 25 mm and 3 x I") slides securely with large, easy-to-secure snaps.
- Rectangular box type mailer is able to hold five standard slides.
- Its inside wall features slotted channels to keep slides separated and to make removal easier.

catalogue number	slide capacity	quantity in pack	quantity in box
076.05.001	1 slide	1 piece	100 pieces
076.05.002	2 slides	1 piece	100 pieces
076.05.003	3 slides	1 piece	100 pieces
076.05.004	5 slides	1 piece	100 pieces

## test tubes

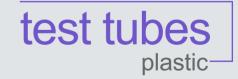
- Test Tubes are made out of either neutral glass or heat resistant borosilicate 3.3 glass.
- Especially boro 3.3 tubes show excellent stability under temperature changes.

tube dimensions	neutral glass tubes	wall thickness	boro 3.3 tubes	wall thickness	quantity in pack
10x75 mm	077.01.001	0,8/0,9 mm	077.02.001	0,9/1,0 mm	100 pieces
12x100 mm	077.01.002	0,8/0,9 mm	077.02.002	0,9/1,0 mm	100 pieces
13x100 mm	077.01.003	0,8/0,9 mm	077.02.003	0,9/1,0 mm	100 pieces
16x100 mm	077.01.004	0,9/1,0 mm	077.02.004	1,0/1,1 mm	100 pieces
16x160 mm	077.01.005	0,9/1,0 mm	077.02.005	1,0/1,1 mm	100 pieces
18x180 mm	077.01.006	0,9/1,0 mm	077.02.006	1,0/1,1 mm	100 pieces
4 x 40 mm	077.01.000	0,8/0,9 mm			

## test tubes

- > Manufactured from thick walled neutral tubings.
- > They are especially useful in culture studies.
- They have flat screw caps with hermetic closure which provide absolute leak proof.

tubes screw cap	tube dimensions	wall thickness	quantity in pack
077.03.001	16x100 mm	1,0 / 1,1 mm	100 pieces
077.03.002	16x160 mm	1,0 / 1,1 mm	100 pieces



 Disposable tubes, manufactured from either polystyrene or crystal clear polypropylene for single use.

> Available as 2 types:

round bottomconical bottom

tube dimensions	catalogue number	tube material	bottom type	quantity in pack
12x75 mm	077.04.001	polystrene	round	1000 pieces
12x75 mm	077.04.002	polypropylene	round	1000 pieces
16x100 mm	077.04.003	polystrene	round	500 pieces
16x100 mm	077.04.004	polypropylene	round	500 pieces
16x100 mm	077.04.005	polystrene	conical	500 pieces
16x100 mm	077.04.006	polypropylene	conical	500 pieces

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screw cap -

## centrifuge tubes

- Made out of FDA approved ultra clear, high grade polypropylene.
- Autoclavable at 121°C for 20 minutes with the caps not totally closed.
- Sterilised tubes are manufactured under germ-free aseptic (sterile) conditions of class 10.000 sterile area with extreme sterility control.
- Their conical bottoms make them suitable for centrifugation tests in immunology, microbiology etc.
- They have flat caps with hermetic closure which are absolutely leak proof.
- The caps have large ridges for increased grip when wearing gloves. A <sup>3</sup>/<sub>4</sub> turn of the cap will be sufficient to close the tube tightly. Suitable for one handed operation.
- > Graduated in 0,5 ml increments for volume verifications.
- Both types has a large labelling area. Can resist centrifugation up to 6.000 RPM.

catalogue number	volume	tube dimensions	graduation type	skirt	sterilization	packing specifications	quantity in pack	quantity in box
078.02.001	15 ml	17 x 120 mm	embossed	non	non	pack in bag	50 pieces	500 pieces
078.02.007	15 ml	17 x 120 mm	embossed	non	non	pack on strofoam rack	120 pieces	480 pieces
078.02.002	15 ml	17 x 120 mm	embossed	non	yes	single flow pack	1 piece	50 pieces
078.02.003	50 ml	30 x 120 mm	embossed	non	non	pack in bag	50 pieces	500 pieces
078.02.008	50 ml	30 x 120 mm	embossed	non	non	pack on strofoam rack	50 pieces	200 pieces
078.02.004	50 ml	30 x 120 mm	embossed	non	yes	single flow pack	1 piece	50 pieces
078.02.005	50 ml	30 x 120 mm	embossed	yes	non	pack in bag	50 pieces	500 pieces
078.02.009	50 ml	30 x 120 mm	embossed	yes	non	pack on strofoam rack	50 pieces	200 pieces
078.02.006	50 ml	30 x 120 mm	embossed	yes	yes	single flow pack	1 piece	50 pieces



- Manufactured from neutral tubes with a wall thickness between 1,0 - 1,1 mm.
- Nominal capacity is approximately 15ml and can stand up to 3.500 RCF.
- > These graduated tubes have white inscriptions on them.

catalogue number	tube dimensions	wall thickness	specification	quantity in pack
078.01.001	16/17x100 mm	1,0 / 1,1 mm	non-graduated	100 pieces
078.01.002	16 /17x160 mm	1,0 / 1,1 mm	graduated	100 pieces



## tube racks

- > Manufactured from high density polypropylene.
- Due to their weights, they do not float in the water baths, not even in agitated water.
- These racks are supplied dismantled and can be easily assambled.
- A moulded-in alpha-numeric grid reference on the top tier of the rack allows easy sample identification.

catalogue number	tube diameter	tube quantity	rows	rack dimensions	quantity in pack
079.01.001	13 mm	90 pcs	6 x 15	110 x 250 x 70 mm	1 piece
079.01.002	16 mm	60 pcs	5 x 12	110 x 250 x 70 mm	1 piece
079.01.003	20 mm	40 pcs	4 x 10	110 x 250 x 70 mm	1 piece
079.01.004	25 mm	24 pcs	3x8	110 x 250 x 70 mm	1 piece
079.01.005	30 mm	21 pcs	3x7	110 x 250 x 70 mm	1 piece



### tube racks stainless steel-

> Manufactured from highest grade stainless steel.

catalogue number	tube diameter	tube quantity	rows	rack dimensions	quantity in pack
079.02.001	13 mm				1 piece
079.02.002	16 mm				1 piece
079.02.003	18 mm				1 piece



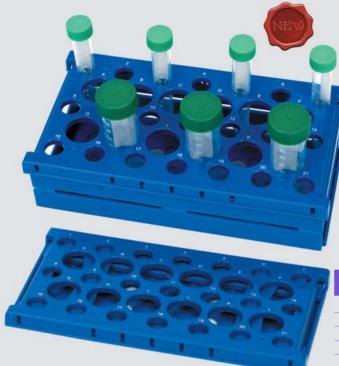
catalogue number	for tubes diameter	quantity in pack	quantity in box
080.03.001	12 / 13 mm	500 pieces	5000 pieces
080.03.002	15 / 16 mm	500 pieces	5000 pieces



- Very effective due to their "flange" shape and grooved body.
- Available with different colors (red, green, yellow, blue and also as neutral) and packed as assorted.

Very effective due to their "flange" shape and grooved body. Due to large size flanges, they prevent leakage excellently.

#### Clinical laboratory





- > Manufactured from high density polypropylene.
- Space saving when not in use. Simple and easy action to open and close. Stackable when empty.
- Moulded-in alpha numeric grid reference on the top tier of the rack allows easy sample identification.
- Due to their weights, they do not float in the water baths.

catalogue number	tube diameter	tube quantity	rack dimensions	quantity in pack
079.03.001	12 -13 mm	50 pcs	137x 225 x 72 mm	1 piece
079.03.002	15 - 16 mm	50 pcs	137x 225 x 72 mm	1 piece
079.03.003	17 - 18 mm	50 pcs	137x 225 x 72 mm	1 piece
079.03.004	18 - 20 mm	45 pcs	137x 225 x 72 mm	1 piece
079.03.005	28 - 30 mm	26 pcs	137x 225 x 72 mm	1 piece
079.03.006	15-16 mm & 28 - 30 mm	21&12 pcs	137x 225 x 72 mm	1 piece

#### Opening the rack



Places fingers in the bottom and top holes and pull rack apart.



Pull side handles out and click into open position.



Places rack on a flat surface and push side handles in to rack.

#### Closing the rack



Apply pressure on 4 corners and click into closed position.



Manufactured from hardened wood with steel spring.

Has a total length of 180 mm and can hold tubes up to 25 mm. Catalogue No: 080.04.001



- > Manufactured from stainless steel with a grip.
- Has a total length of 150 mm and can hold tubes up to 30 mm. Catalogue No: 080.04.002





Solab sterilised tubes are certified as "DNase, RNase and pyrogenfree products.

are a result of an on going continuous quality control process.

#### micro centrifuge tubes standard-

- Made out of FDA approved ultra clear, high grade polypropylene.
- For maximum sample recovery, the tube interior is highly polished.
- Autoclavable at 121°C for 20 minutes and can be used between -90°C and 121°C.
- Sterilised tubes are manufactured under germ-free aseptic (sterile) conditions of class 10.000 sterile area with extreme sterility control.
- Their conical bottoms make them suitable for centrifugation tests in immunology , microbiology etc.
- They have flat caps specially designed to reduce popping which are absolutely leak proof.
- Caps are easy to handle and can be opened/closed easily with one hand.
- All tubes have graduation marks and large marking area.
- > Tubes can resist centrifugation up to 20.000 RPM.

non sterilized	sterilized certified	volume	skirt	quantity in pack	quantity in box
078.03.001	078.03.021	0.5 ml	non	500 pieces	5000 pieces
078.03.002	078.03.022	1.5 ml	non	500 pieces	5000 pieces
078.03.003	078.03.023	2.0 ml	non	500 pieces	5000 pieces
078.03.004	078.03.024	2.0 ml	yes	500 pieces	5000 pieces



micro centrifuge tubes with safety lock lid-

- Similar technical specifications as standard micro tubes but with a safety lock lid.
- Unique safety lock lid enables sample outstanding stability during centrifugation and perfect sealling.
- Prevents accidental lid opening during incubation process and ensures evaporation protection.

non	sterilized			quantity	quantity
sterilized	certified	volume	skirt	in pack	in box
078.05.002	078.05.022	1.5 ml	non	500 pieces	5000 pieces



Solab tubes with unique safety lock lid enables sample outstanding stability during centrifugation and perfect sealling. Prevents accidental tube lid opening during

lid opening during incubation process and ensures evaporation protection.





- Manufactured from polypropylene for holding up to 100 pieces of 1.5 and 2.0 ml tubes and vials.
- > Transparent cover allows to see the content of the box.
- Moulded grid lines on the lid, imprinted coordinates on the bottom of the base, and imprinted and raised coordinates on each well.
- > Dimensions 141x151x57 mm. Catalogue No: 080.01.002



### tube racks

- Made out of moulded polypropylene which is autoclavable at 121°C.
- Designed to store up to 96 microtubes on each side. One side can hold 96 tubes of 1.5/2.0 ml microtubes and the reverse side can hold 96 tubes of 0.5 ml microtubes with a row design of 8 x12.
- Clear polypropylene lid protects the tubes from external environment.
- > Each tube row is alphanumerically matrixed.
- The tube rack has also frosted writing patches on all sides for labelling.
- > Dimensions 246x121x50 mm. Catalogue No: 080.01.001

### tube racks 3 tiers-

- Made out of moulded polypropylene and can be connected to each other to form series.
- This rack is designed to store three different size microcentrifuge tubes at same time.
- First level has 24 wells to hold 0.2 ml tubes or strips of 8 or 12 tubes. Second level has 14 wells to hold 0.5 ml tubes. Top level has 12 wells to hold 1.5/2.0 ml tubes.
- Each tube row is alphanumerically matrixed and is easy to read.
- Dimensions 164x123x62 mm. Catalogue No: 080.01.003

Isola

# petri dishes

- Manufactured from heat resistant glass by using counter sinking process.
- The dish and the lid are free of bubbles and the edges are fire polished.

catalogue number	diameter	height	quantity in pack
081.01.060	60 mm	15 mm	144 pieces
081.01.080	80 mm	15 mm	144 pieces
081.01.100	100 mm	20 mm	72 pieces
081.01.120	120 mm	20 mm	72 pieces
081.01.150	150 mm	25 mm	72 pieces

## petri dishes

Made out of optically clear and non-toxic polystyrene for multipurpose use in microbiology and bacteriology.

Originally manufactured under germ-free aseptic (sterile) conditions of class 10.000 sterile area with extreme sterility control.

They have vented lids for effectivity and they are suitable for automatic filling machines.

e Gri	catalogue number	diameter	height	section	quantity in pack
	081.02.061	60 mm	15 mm	1 section	500 pieces
	081.02.091	90 mm	17 mm	1 section	500 pieces
e Gmb	081.02.092	90 mm	17 mm	2 section	500 pieces
-	081.02.093	90 mm	17 mm	3 section	500 pieces
	081.02.094	90 mm	17 mm	4 section	500 pieces
e Gmbi	081.02.121	120 mm	17 mm	1 section	500 pieces



- Similar specifications as above described petri dishes but with a moulded grid at the bottom which enables the identification of the detected contamination per cm<sup>2</sup> and it facilitates the counting of the colonies. Diameter is 60 mm.
- The shape of the lid ensures a perfectly stable stacking during transportation. Catalogue No: 081.04.060

### spreaders polystyrene-

Originally manufactured under germ-free aseptic (sterile) conditions of class 10.000 sterile area with extreme sterility control.

- They have uniquely shaped spreading bars of edgeless design which prevent any cutting or gouging of agar during inoculation of plates.
- The unique delta-shaped head distributes pressure evenly for smooth spreading.
- Handle flexes slightly under pressure and is rippled for easy manipulation.

catalogue	packing	quantity	quantity
number	specification	in pack	in box
082.03.001	sterile - single pack	1 piece	100 pack



### petri dishes stand

 Petri Dish Stand is very useful during inoculation, incubation and storage.

Visibility from all sides enables the culture to be observed during incubation.

catalogue number	for petri dishes	dish capacity	quantity in pack
081.03.060	60 mm diameter	56 pieces	1 piece
081.03.090	90 mm diameter	60 pieces	1 piece





Ultra smooth loops made out of flexible polystrene offer problem free planting and streaking of cultures.

Originally manufactured under germ-free aseptic (sterile) conditions of class 10.000 sterile area with extreme sterility control.

Free of lubricants, oils and electrostatic charges, enabling consistent wetting and flawless liquid transfer.

Loops do not cut or gouge the agar surface during streaking.

Ergonomical design of the loop handle improves grip due to the large handle and assists orientation.

When viewed in cross section, the shafts of the loops have hexagonal shapes which create handles with six flat surfaces.

This design facilitates maximum grip and easy orientation of the loop head.

The needle end for colony counting is also a suitable tool for picking off individually isolated colonies.

They are also suitable for making stab inoculations into agar slants or tubes of solid culture medium.

number	specification	in pack	in box
082.01.001 one	end needle / one end 1 µl	10 pieces	1000 pieces
082.01.002 one e	end needle / one end 10 µl	10 pieces	1000 pieces
082.01.003 one	end 1 ul/one end 10 µl	10 pieces	1000 pieces

stainless steel-

inoculation loops

- Inoculation Loops are made out of steel wire with perfect flexibility and are stable up to 1200°C.
- These stainless steel ensures that the loops are durable and rapid cooling.
- Loop Handles have nickel plated brass stem. The shafts of the loop handle are insulated with PVC layer.

catalogue number	product description	length	quantity in pack
082.02.001	loop - circular end	50 mm	10 pieces
082.02.002	loop - blade end	50 mm	10 pieces
082.02.003	loop handle	200 mm	1 piece

# disposable pasteur pipettes

> Manufactured from low density polyethylene.

polvethylene

- They have reproducible drop sizes which are not different from each other.
- They have moulded divisions on the stem such as 0,5 up to 3,0 ml and 0,25 up to 1,0 ml
- Sterilized pasteur pipettes are gamma sterilized and packed as 1 piece in a flow pack.
- They can be sealed and frozen at very low temperatures such as in liquid nitrogen.

catalogue number	product description	length	volume	quantity in pack
084.02.001	non-sterilized	150 mm	3 ml	500 pieces
084.02.002	sterilized	150 mm	3 ml	1 piece
084.02.003	non-sterilized	150 mm	1 ml	500 pieces
084.02.004	sterilized	150 mm	1 ml	1 piece



- Manufactured from clear neutral glass, hydrolic class 3 according to ISO 7712 standards with uniform shapes thanks to the automated production.
- They have a long drown capillary tip and the suction head is suitable for placing a cotton plug.
- Thick walls provide extra strength which avoids loss due to breakage.

catalogue number	length	quantity in pack	quantity in box
084.01.001	145 mm	250 pieces	4 packs
084.01.002	225 mm	250 pieces	4 packs

pipette bulbs for pasteur pipettes-

Perfect tool for pipetting glass pasteur pipettes by avoiding suction of the liquid. Packed as 100 pieces / pack. Catalogue No: 084.03.001

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