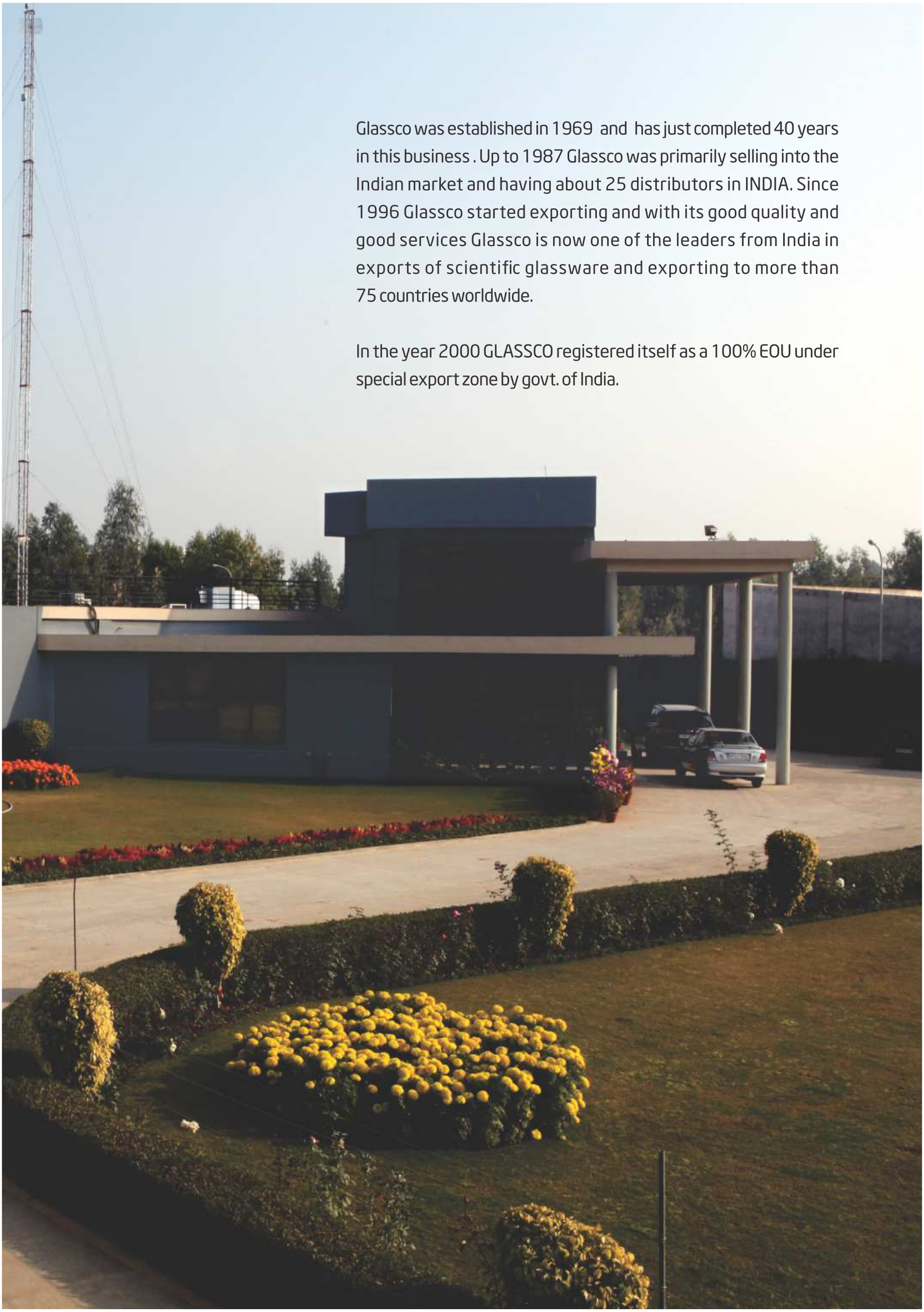
GLASSCO

Laboratory Glassware

Catalogue 2013-14


GLASSCO

Our New Plant



Glassco was established in 1969 and has just completed 40 years in this business . Up to 1987 Glassco was primarily selling into the Indian market and having about 25 distributors in INDIA. Since 1996 Glassco started exporting and with its good quality and good services Glassco is now one of the leaders from India in exports of scientific glassware and exporting to more than 75 countries worldwide.

In the year 2000 GLASSCO registered itself as a 100% EOU under special export zone by govt. of India.

Glassco Group

Glassco group comprises of 3 companies at three different manufacturing locations in India, covering more than 9000 sq. meters. area and employing more than 300 people and also having its Head Office in UNITED KINGDOM.

GLASSCO LABORATORY EQUIPMENTS (LAB GLASS EXPORT DIVISION)

This is by far the biggest in the group of all the 3 companies and is one of the first companies to be formed in the group. Having a history of more than 40 years in the field of manufacturing lab glass. Glassco is the biggest exporter of scientific glassware from India, shipping more than 350 containers of glassware every year mainly Jointed, Volumetric, Filtration and General Glassware.

Interchange Glassware

Volumetric Glassware

Filtration Glassware

General Glassware

GLASSCO LABORATORY INSTRUMENTS

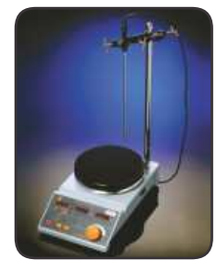
The company is primarily into selling of PLASTIC WARE, METAL WARE, RUBBER WARE and has now started up with HOT PLATE STIRRERS and LIQUID HANDLING products allied to the glassware field the idea of forming this company was to provide a one stop shop for customers to get all the three laboratory needs fulfilled by Glasssco. For more details of the products, please visit our website www.glasscolabs.in

Plastic Ware

Metal Ware

Rubber Ware

Misc.



Hot Plate

Micropipette

GLASSAPPS

The company looks after the needs of Indian customers and has a tie up with companies like THERMOFISHER (INDIA), MERCK(INDIA), LOBACHEMIE (INDIA).

Infrastructure

GLASSCO LABORATORY EQUIPMENTS PLANT

Glassco factory is spread over 15000 square meter area, out of which 9000 square meter area is covered for production and warehousing.

Glassco has 70 glassblowers working on semi automatic machine and 15 hand blowers making products of different shapes & capacities, glass tube cracking off machines, automatic beaker forming machine and test tube making machine. Glassco produces more than 300 different products in glass with different capacities.

Glass Blowing Area

Measuring Cylinder Machine

Test Tube Machine

Beaker Machine

Infrastructure

RAW MATERIAL

Glassco makes all its products from tubing of ASTM E- 438 TYPE I, CLASS A BORO 3.3 GLASS.

Glassco imports 300 MT of glass tubes per annum. Glassco normally keeps a stock for 3 months at any point of time which amounts to more than 60 tonnes of glass tubing.

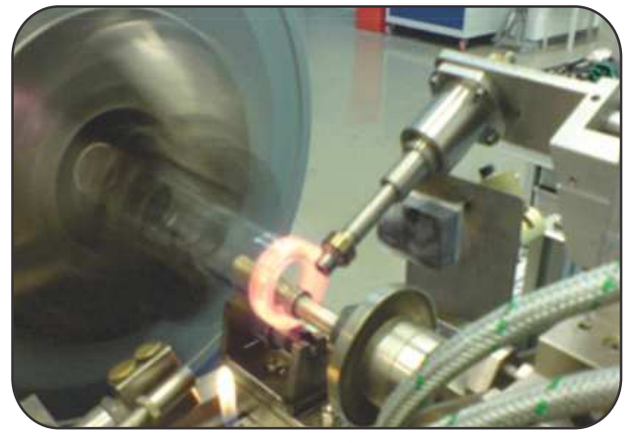
Raw Material

COMPUTERISED GLASS FORMING MACHINE

A computer controlled joint making machine installed at the plant gives added leverage to produce precise dimensions of sockets, cones, rims and flanges.

An automatic joint making machine ensures consistent quality of joints. All the products travel through conveyor ovens for annealing / de-stressing that runs round the clock.

Furnace



CNC Machine

Infrastructure

ULTRASONIC WASHING MACHINE

For the washing of glassware after grinding, Glassco uses state-of-the-art ultrasonic washing machine which is developed and designed in-house and can wash upto 5,000 pieces in 8 hours.

For running the complete manufacturing facility, a custom-made software is used.

Glassco intends to use RFID technology in coming future.

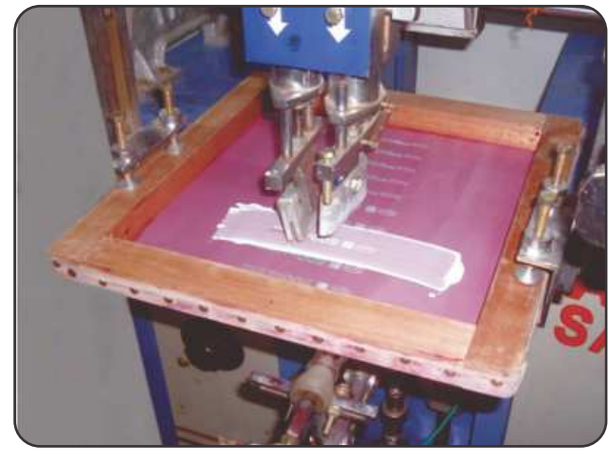
Grinding Machine

Hand Polishing being done

Washing Machine

PRINTING MACHINE

For the printing process Glassco employs an automatic Printing Machine. Due to this, it is possible to handle huge volumes of glassware for printing with consistent quality.



Infrastructure

CALIBRATION LABORATORY

Glassco has automatic facility for calibrating volumetric flasks and cylinders, Glassco uses machines imported from Germany. These machines help to get an accuracy of 0.003%, so every product that Glassco make is within A-Class tolerance. For the burettes and pipettes Glassco use an automatic QUALITY CONTROL CENTER FOR verification of the calibration results.

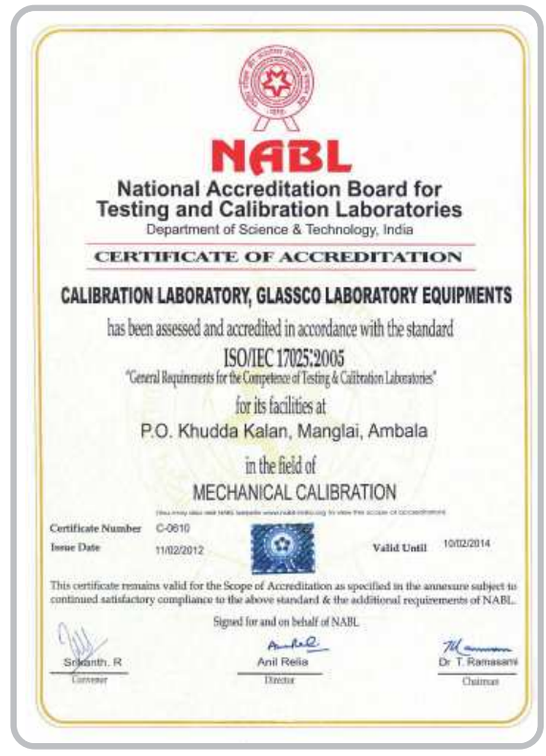
Glassco's Calibration Laboratory has undertaken accreditation for its system for calibration and testing as per ISO 17025:2005.

Glassco's Calibration Laboratory is NABL approved. NABL has a MRA under the Asia Pacific Laboratory Accreditation Cooperation (APLAC) and the International Laboratory Accreditation Cooperation (ILAC), which means the calibration provided to customers for volumetric ware is acceptable in calibration laboratories worldwide.

Results of calibration are guaranteed for precision as per the DIN, ISO, USP & ASTM standards.

The calibrations performed by Glassco calibration laboratory are essential done under ISO 17025:2005.

Please visit our website www.glasscolabs.com to see list of accreditation bodies.



NABL

National Accreditation Board for Testing and Calibration Laboratories

Department of Science & Technology, India

CERTIFICATE OF ACCREDITATION

CALIBRATION LABORATORY, GLASSCO LABORATORY EQUIPMENTS

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2005

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

P.O. Khudda Kalan, Manglai, Ambala

in the field of

MECHANICAL CALIBRATION

Certificate Number C-0610

Issue Date 11/02/2012

Valid Until 10/02/2014

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the additional requirements of NABL.

Signed for and on behalf of NABL

Srikanth. R, Convener

Anil Relia, Director

Dr. T. Ramasami, Chairman

Quality

QUALITY POLICY

Glassco shall endeavor to produce and supply laboratory products at attractive pricings that meet or exceed customer's expectations, with stress on timely deliveries.

This shall be achieved by obtaining customer feedbacks of our performance and making relevant changes in our management system for continual improvement.

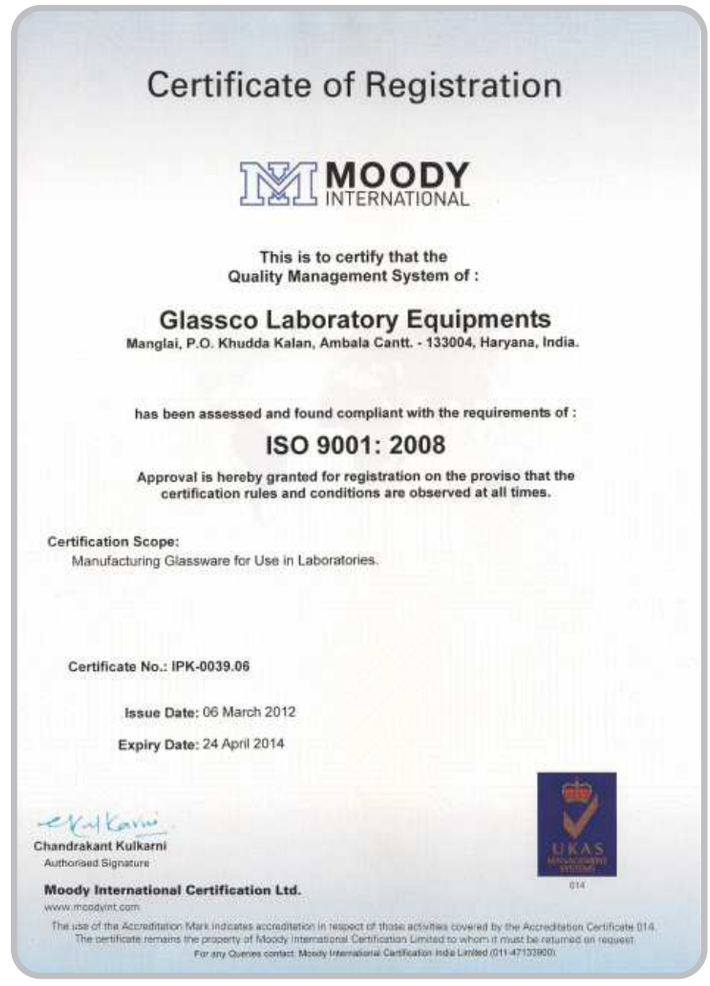
QUALITY MANAGEMENT SYSTEM

Glassco believes in delivering world class quality to all its clients globally and is recognized in International market for a quality brand.

The Quality Management system at Glassco is ISO 9001:2008 certified by Moody ICL; accredited to UKAS.

Glassco maintains Quality System manual for all its business processes and at all manufacturing and post – manufacturing levels, quality system is strictly adhered to.

People supervising work affecting quality at Glassco, are trained internal auditors and carry out internal audits in routine practice



Certificate of Registration

MOODY INTERNATIONAL

This is to certify that the
Quality Management System of :

Glassco Laboratory Equipments
Manglai, P.O. Khudda Kalan, Ambala Cantt. - 133004, Haryana, India.

has been assessed and found compliant with the requirements of :

ISO 9001: 2008

Approval is hereby granted for registration on the proviso that the certification rules and conditions are observed at all times.

Certification Scope:
Manufacturing Glassware for Use in Laboratories.

Certificate No.: IPK-0039.06

Issue Date: 06 March 2012

Expiry Date: 24 April 2014

Chandrakant Kulkarni
Authorised Signature

Moody International Certification Ltd.
www.moodyint.com

The use of the Accreditation Mark indicates accreditation in respect of those activities covered by the Accreditation Certificate 014.
The certificate remains the property of Moody International Certification Limited to whom it must be returned on request.
For any Queries contact: Moody International Certification India Limited (011-47133900)

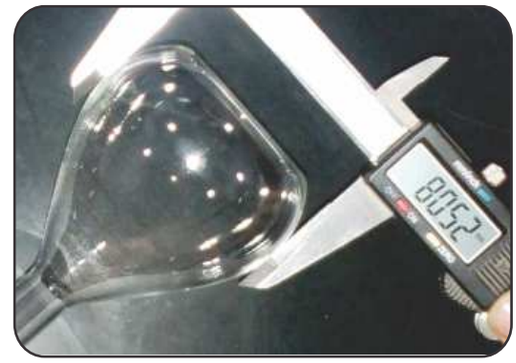
For GLASSCO, Quality Assurance has the foundation in Quality planning in all function

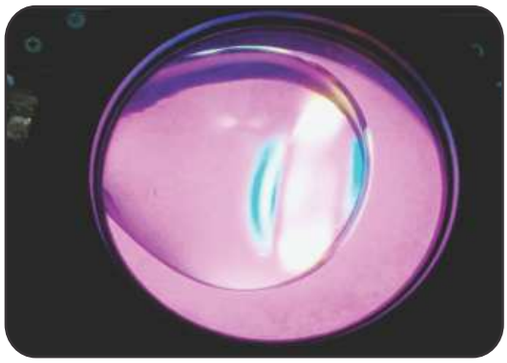
- Quality plan for communication with you
- Quality in translating your requirements to our objectives
- Quality of raw material, not excluding those of semi finished and in process
- Quality in plant setup, including, trained manpower, latest machinery & technology
- Quality in calibration of volumetric glassware

  Quality in services
- Analysis of data of all processes

Dimensional Checks

Glassco carries out dimensional check with gages and calipers for all the material produced in the company, while in process and also before further processing





Glass stress-free checks

Glassco has four on line annealing furnaces where all the products are annealed to remove manufacturing stress from glass to ensure that product has long use life. Glassco has four stress viewers installed at several locations for this purpose.

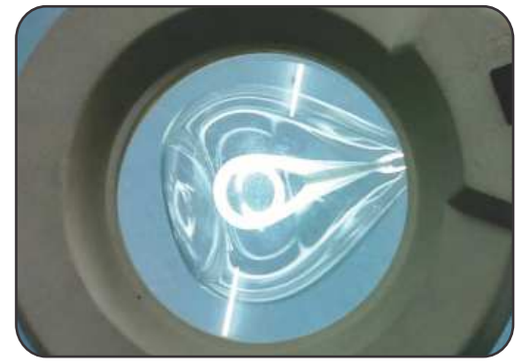
Wall strength, thickness checks

Glassco has two very sophisticated thickness testers for viewing the thickness of glass in the glassware manufactured by blowing. This helps to ensure that the thickness is always over the norms in the standards like ASTM/DIN/ISO. This ensures that product has long use life and is safe to use.

Quality

Optical Clarity Checks

Glassco verifies the optical clarity of all the products 100% of them twice...! Once when the product is first produced and secondly before the product is to be packed to ship.



Fit testing for joints

The taper of the male(cones) and female(sockets) are verified by gages and taper test tools before further processing, this ensures that the joints are secured of leaks.

Vacuum testing of mating joints

Mating joints are tested under a vacuum to verify that the taper are even and no leaks exist.

Print color adhesion test

All the prints on the glass are verified for colour adhesion by subjecting them to acid boiling, scratch and tape peel off test.

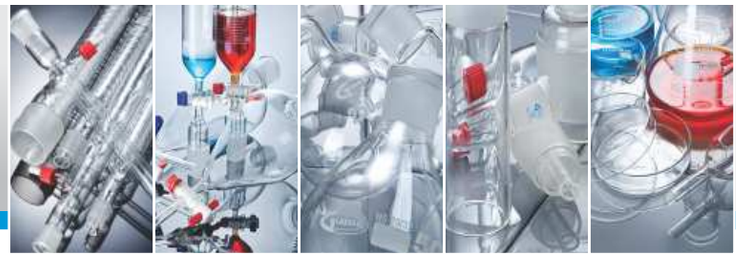
Sections

Interchangable Glassware

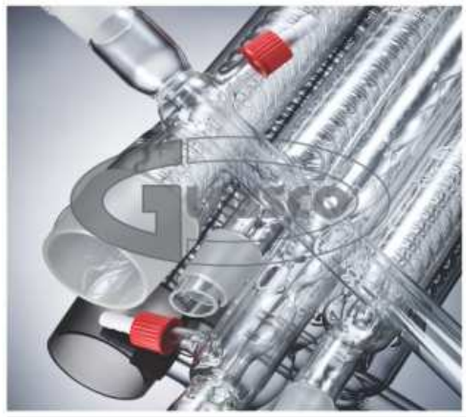
Tubes

Volumetric Glassware

Separating Funnels



Sections



Condensers/Assemblies

General Glassware

Filtration Glassware

Bottles & Stopcocks


Interchangeable
Glassware
GLASSCO
DIN
NS 24/29
GLASSCO
DIN
NS 19/26

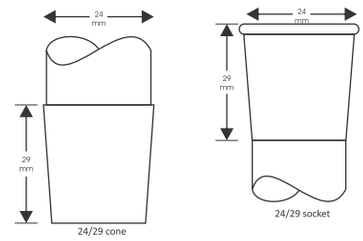
Standard Joints

All the Standard Joints are manufactured from ASTM E-438 Type 1 Class-A Boro3.3 tube. These joints come without any printing which helps in avoiding charred printing at higher temperature. All the joints are manufactured in accordance with ISO 383/DIN 12249 Standards.

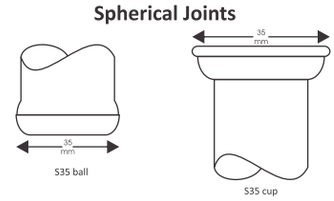
Conical Joints

Size	Actual Dia of Wide End (mm)	Actual Dia of Narrow End (mm)	Nominal Length of Engagement (mm)
10 / 19	10.0	8.1	19
12 / 21	12.5	10.4	21
14 / 23	14.5	12.2	23
19 / 26	18.8	16.2	26
24 / 29	24.0	21.1	29
29 / 32	29.2	26.0	32
34 / 35	34.5	31.0	35
40 / 38	40.0	36.2	38
45 / 40	45.0	41.0	40
50 / 42	50.0	45.8	42
55 / 44	55.0	50.6	44

Conical Joints



Spherical Joints



Sockets Single DIN 12249

Item Code	Socket Size	Approx. O.D. of tube mm	Total Length mm	Pcs/ Pack
001.202.02	10 / 19	13	120±10	10
001.202.03	12 / 21	16	120±10	10
001.202.04	14 / 23	18	120±10	10
001.202.05	19 / 26	22	125±10	10
001.202.06	24 / 29	28	135±10	10
001.202.07	29 / 32	32	135±10	10
001.202.08	34 / 35	38	150±15	10
001.202.09*	40 / 38	45	150±15	10
001.202.10	45 / 40	50	150±15	10
001.202.11*	50 / 42	55	150±15	10
001.202.12*	55 / 44	60	150±15	10

* Non DIN

Cones Single DIN 12249

Item Code	Cone Size	Approx. O.D. of tube mm	Total Length mm	Pcs/ Pack
002.202.02	10 / 19	8	120±10	10
002.202.03	12 / 21	9	120±10	10
002.202.04	14 / 23	13	120±10	10
002.202.05	19 / 26	16	120±10	10
002.202.06	24 / 29	22	150±15	10
002.202.07	29 / 32	26	150±15	10
002.202.08	34 / 35	30	150±15	10
002.202.09*	40 / 38	36	150±15	10
002.202.10	45 / 40	40	150±15	10
002.202.11*	50 / 42	45	150±15	10
002.202.12*	55 / 44	50	150±15	10

* Non DIN

Standard Joints

Cones with Tip Single DIN 12249

Item Code	Cone Size	Approx. O.D. of tube mm	Total Length mm	Pcs/ Pack
003.202.03	12 / 21	9	120±10	10
003.202.04	14 / 23	13	120±10	10
003.202.05	19 / 26	16	120±10	10
003.202.06	24 / 29	22	150±15	10
003.202.07	29 / 32	26	150±15	10
003.202.08	34 / 35	30	150±15	10
003.202.09*	40 / 38	36	150±15	10
003.202.10	45 / 40	40	150±15	10
003.202.11*	50 / 42	45	150±15	10
003.202.12*	55 / 44	50	150±15	10

* Non DIN

Sockets Full Length Single

As per **ASTM Standard E 676**

Item Code	Socket Size	Approx. O.D. of tube mm	Total Length mm	Pcs/ Pack
004.202.03	10 / 30	13	120±10	10
004.202.04	12 / 32	16	120±10	10
004.202.05	14 / 35	18	120±10	10
004.202.06	19 / 38	22	125±10	10
004.202.07	24 / 40	28	135±15	10
004.202.08	29 / 42	32	135±15	10
004.202.09	34 / 45	38	150±15	10
004.202.10	45 / 50	50	150±15	10

Cones Full Length Plain & Single

As per **ASTM Standard E 676**

Item Code	Cone Size	Approx. O.D. of tube mm	Total Length mm	Pcs/ Pack
005.202.03	10 / 30	8	120±10	10
005.202.04	12 / 32	10	120±10	10
005.202.05	14 / 35	13	120±10	10
005.202.06	19 / 38	16	120±10	10
005.202.07	24 / 40	22	150±15	10
005.202.08	29 / 42	26	150±15	10
005.202.09	34 / 45	30	150±15	10
005.202.10	45 / 50	40	150±15	10

Standard Joints

Item Code	Socket Size	Approx. O.D. of tube mm	Total Length mm	Pcs/ Pack
006.202.02*	10 / 19	14	135±2	10
006.202.03	14 / 23	18	135±2	10
006.202.04	19 / 26	22	140±2	10
006.202.05	24 / 29	28	170±5	10
006.202.06	29 / 32	32	170±5	10
006.202.07	34 / 35	38	180±5	10

* Non DIN

Sockets
Double
DIN 12249

Conical Joint Clips
KECKPOM

Item Code	N/S	Colour	Pcs/ Pack
007.204.03	14/23	Yellow	100
007.204.04	19/26	Blue	100
007.204.05	24/29	Green	100
007.204.06	29/32	Red	100

DIN 12264

Item Code	Cup Joint (male)	Code Approx. Bore	Manimum Shank Length mm	Pcs/ Pack
008.202.02	S13	5	100	10
008.202.03	S19	9	100	10
008.202.04	S29	15	100	10
008.202.05*	S35	19	100	10
008.202.06*	S41	27	100	10

* Non DIN

Spherical Joint
Ball

Standard Joints

Spherical Joint Cup

DIN 12264

Item Code	Cup Joint (Female)	Code Approx. Bore	Manimum Shank Length mm	Pcs/ Pack
009.202.02	S13	5	100	10
009.202.03	S19	9	100	10
009.202.04	S29	15	100	10
009.202.05*	S35	19	100	10
009.202.06*	S41	27	100	10

* Non DIN

Metal Joint Clips

Item Code	To fit flat spherical Joint size	To fit flat flange Joint size	Pcs/ Pack
010.202.01	S13	-	10
010.202.02	S19	-	10
010.202.03	S29	-	10
010.202.04	S35	-	10
010.202.05	S41	-	10

Notes

Stoppers

DIN 12252

Item Code	N/S	Shape	Pcs/ Pack
011.202.01	10 / 19	Hexagonal	100
011.202.02	12 / 21	-	100
011.202.02A	14 / 23	-	100
011.202.03	19 / 26	-	100
011.202.04	24 / 29	-	100
011.202.05	29 / 32	-	100
011.202.06	34 / 35	-	100

Hollow with Flat Bottom

Hollow with Tip

DIN 12252

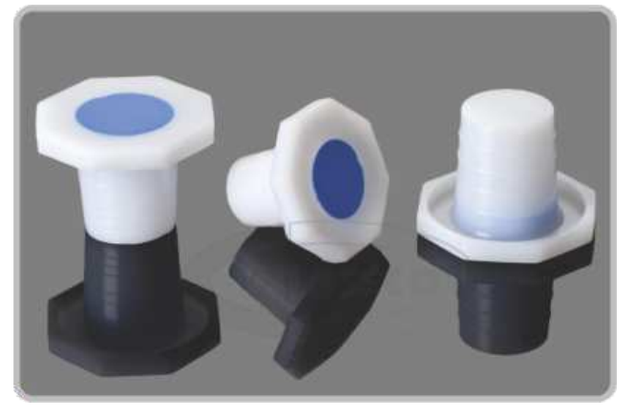
Item Code	N/S	Shape	Pcs/ Pack
011.205.01	10 / 19	Hexagonal	100
011.205.02	12 / 21	-	100
011.205.03	14 / 23	-	100
011.205.04	19 / 26	-	100
011.205.05	24 / 29	-	100
011.205.06	29 / 32	-	100
011.205.07	34 / 35	-	100

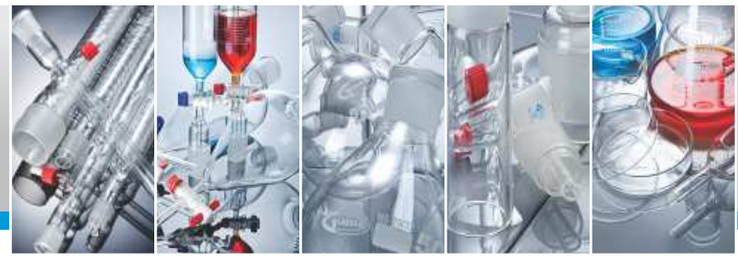
Plastic Stopper Hexagonal

White & Blue **DIN 12254**

Item Code	N/S	Pcs/ Pack
011.232.01	10 / 19	100
011.232.02	12 / 21	100
011.232.03	14 / 23	100
011.232.04	19 / 26	100
011.232.05	24 / 29	50
011.232.06	29 / 32	50
011.232.07*	34 / 35	50

* Non DIN





Stoppers & Adapters

Solid
Penny or Flat Head

Item Code	N/S	Pcs/ Pack
012.202.01	10/19	100
012.202.02	14/23	100
012.202.03	19/26	100
012.202.04	24/29	100
012.202.05*	29/32	100
012.202.06*	34/35	100

* Non DIN

Bushing
Adapters

Bushing Adapters with Drip Tip

Item Code	Socket Size	Cone Size	Pcs/ Pack
013.230.01	14 / 23	19 / 26	100
013.230.02	19 / 26	29 / 32	100

PS : Hollow Stoppers and Penny Head Stoppers can be provided in Amber color. Please ask for prices and catalogue no. separately.

Notes

Adapters

Reduction Adapters

DIN 12257

Item Code	Sockets size	Cone size	Pcs/ Pack
013.202.01*	14 / 23	14 / 23	10
013.202.01A	14 / 23	19 / 26	10
013.202.02*	14 / 23	24 / 29	10
013.202.03	14 / 23	29 / 32	10
013.202.04	19 / 26	24 / 29	10
013.202.05	19 / 26	29 / 32	10
013.202.06	19 / 26	34 / 35	10
013.202.07	19 / 26	40 / 38	10
013.202.08	19 / 26	45 / 40	10
013.202.09	19 / 26	55 / 44	10
013.202.10*	24 / 29	29 / 32	10
013.202.11*	24 / 29	34 / 35	10
013.202.12*	24 / 29	40 / 38	10
013.202.13*	24 / 29	45 / 40	10
013.202.14*	24 / 29	50 / 42	10
013.202.15*	24 / 29	55 / 44	10
013.202.16	29 / 32	34 / 35	10
013.202.17	29 / 32	40 / 38	10
013.202.18	29 / 32	45 / 40	10
013.202.19*	34 / 35	40 / 38	10
013.202.20*	34 / 35	45 / 40	10
013.202.21*	34 / 35	50 / 42	10

* Non DIN

Expansion Adapters

DIN 12257

Item Code	Sockets size	Cone size	Pcs/ Pack
014.202.01	19 / 26	14 / 23	10
014.202.02*	24 / 29	14 / 23	10
014.202.03*	24 / 29	19 / 26	10
014.202.03A	29 / 32	14 / 23	10
014.202.04	29 / 32	19 / 26	10
014.202.05*	29 / 32	24 / 29	10
014.202.06*	34 / 35	19 / 26	10
014.202.07*	34 / 35	24 / 29	10
014.202.08*	34 / 35	29 / 32	10
014.202.09*	40 / 38	24 / 29	10
014.202.10*	45 / 40	29 / 32	10

* Non DIN

Adapters

Multiple Adapters

Multiple Adapters With two parallel necks, **DIN 12594**

Item Code	Socket Size	Cone Size	Pcs/ Pack
015.202.01	14 / 23	14 / 23	1
015.202.01A*	14 / 23	19 / 26	1
015.202.02	19 / 26	19 / 26	1
015.202.03 *	19 / 26	24 / 29	1
015.202.04 *	24 / 29	24 / 29	1
015.202.05 *	19 / 26	34 / 35	1
015.202.06	29 / 32	29 / 32	1

* Non DIN

Multiple Adapters

Multiple Adapters
with two necks, one vertical & one at 45°

Item Code	Socket Size	Cone Size	Pcs/ Pack
016.202.01	14 / 23	14 / 23	1
016.202.01A	14 / 23	19 / 26	1
016.202.01B	14 / 23	24 / 29	1
016.202.02	19 / 26	19 / 26	1
016.202.03	19 / 26	24 / 29	1
016.202.04	14 / 23	29 / 32	1
016.202.05	29 / 32	29 / 32	1

Multiple Adapters

Multiple Adapters
with three necks, two parallel & one at 45°

Item Code	Socket Size	Cone Size	Pcs/ Pack
017.202.01	19 / 26	19 / 26	1
017.202.01A	19 / 26	24 / 29	1
017.202.02	19 / 26	29 / 32	1
017.202.03	24 / 29	24 / 29	1
017.202.04	29 / 32	29 / 32	1

Adapters

Swan Neck Adapter with screw thread to accept thermometers, air leak tubes etc

Item Code	Socket Size	Cone Size	Pcs/ Pack
018.202.01	14 / 23	19 / 26	1
018.202.01A	19 / 26	19 / 26	1
018.202.02	19 / 26	24 / 29	1
018.202.03	24 / 29	24 / 29	1
018.202.04	29 / 32	29 / 32	1

Swan Neck Adapters

Short Stem

Item Code	Socket Size	Approx. length mm	Pcs/ Pack
019.202.01	14 / 23	65	1
019.202.02	19 / 26	65	1
019.202.03	24 / 29	65	1
019.202.04	29 / 32	65	1

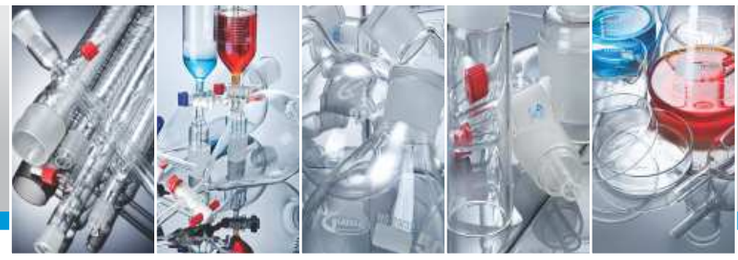
Long Stem

Item Code	Socket Size	Approx. length mm	Pcs/ Pack
019.202.05	14 / 23	190	1
019.202.06	19 / 26	200	1
019.202.07	24 / 29	200	1
019.202.08	29 / 32	200	1

Receiver Adapters

Receiver Adapters Straight

Item Code	Socket Size	Pcs/ Pack
020.202.01	14 / 23	1
020.202.02	19 / 26	1
020.202.03	24 / 29	1
020.202.04	29 / 32	1



Adapters

Receiver Adapters

Receiver Adapters Bend with Vent

Item Code	Socket Size	Cone Size	Pcs/ Pack
021.202.01	14 / 23	14 / 23	1
021.202.02	19 / 26	19 / 26	1
021.202.03	19 / 26	24 / 29	1
021.202.04	24 / 29	24 / 29	1
021.202.05	29 / 32	29 / 32	1

Straight with Vacuum
Connection & Screw Thread Adapter, **DIN 12594**

Item Code	Socket Size	Cone Size	Pcs/ Pack
022.202.01	14 / 23	14 / 23	1
022.202.02 *	14 / 23	19 / 26	1
022.202.02A	19 / 26	19 / 26	1
022.202.03 *	19 / 26	24 / 29	1
022.202.04 *	24 / 29	24 / 29	1
022.202.05 *	24 / 29	29 / 32	1
022.202.06	29 / 32	29 / 32	1

* Non DIN

Receiver Adapters

Receiver Adapters

Bend with Vacuum
Connection & Screw Thread Adapter, **DIN 12594**

Item Code	Socket Size	Cone Size	Pcs/ Pack
022.201.01	14 / 23	14 / 23	1
022.201.02*	14 / 23	19 / 26	1
022.201.03	19 / 26	19 / 26	1
022.201.04*	19 / 26	24 / 29	1
022.201.05*	24 / 29	24 / 29	1
022.201.06*	24 / 29	29 / 32	1
022.201.07	29 / 32	29 / 32	1

* Non DIN

Adapters

Receiver Adapter with **One Side Inclined** at an angle of 105°

Item Code	Socket Size	Cone Size	Pcs/ Pack
023.202.01	14 / 23	14 / 23	1
023.202.02	19 / 26	19 / 26	1
023.202.03	19 / 26	24 / 29	1
023.202.04	24 / 29	24 / 29	1
023.202.05	29 / 32	29 / 32	1

Receiver Adapters

Receiver Adapters

Receiver Adapter with **Multiple Connection** & Screw Thread

Item Code	Socket Size	Cone Size	Pcs/ Pack
024.202.01	14 / 23	14 / 23	1
024.202.02	14 / 23	19 / 26	1
024.202.03	19 / 26	19 / 26	1

Plain Bend

Item Code	Socket Size	Cone Size	Pcs/ Pack
025.202.00	14 / 23	14 / 23	1
025.202.00A	14 / 23	19 / 26	1
025.202.01	19 / 26	19 / 26	1
025.202.02	19 / 26	24 / 29	1
025.202.03	24 / 29	24 / 29	1
025.202.04	29 / 32	29 / 32	1

Receiver Adapters

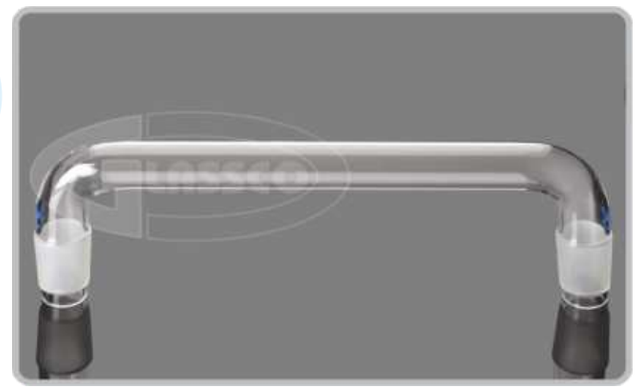
Adapters

Recovery Bend

Recovery Bend with **Sloping End**

Item Code	Cone Size to fit flask	Cone size to fit condenser	Pcs/ Pack
026.202.01	14 / 23	14 / 23	1
026.202.02	24 / 29	14 / 23	1
026.202.03	19 / 26	19 / 26	1
026.202.04	24 / 29	19 / 26	1
026.202.05	29 / 32	19 / 26	1
026.202.06	29 / 32	29 / 32	1
026.202.07	24 / 29	24 / 29	1
026.202.08	34 / 35	24 / 29	1
026.202.09	29 / 32	24 / 29	1
026.202.10	34 /35	34 / 35	1

Recovery Bend



Vertical

Item Code	Cone Size to fit flask	Cone size to fit condenser	Pcs/ Pack
027.202.01	14 / 23	14 / 23	1
027.202.02	19 / 26	19 / 26	1
027.202.03	24 / 29	19 / 26	1
027.202.04	24 / 29	24 / 29	1
027.202.05	29 / 32	29 / 32	1

Still Head Plain

with **Thermometer Socket**

Item Code	Socket Size	Cone size to fit flask	Cone size to fit condenser	Pcs/ Pack
028.202.01	14 / 23	14 / 23	14 / 23	1
028.202.02	14 / 23	19 / 26	19 / 26	1
028.202.03	14 / 23	24 /29	19 / 26	1
028.202.04	14 / 23	29 / 32	19 / 26	1
028.202.05	14 / 23	34 / 35	19 / 26	1
028.202.06	14 / 23	24 / 29	24 / 29	1
028.202.07	14 / 23	34 / 35	24 / 29	1
028.202.08	14 / 23	29 / 32	24 / 29	1
028.202.09	14 / 23	29 / 32	29 / 32	1
028.202.10	14 / 23	34 / 35	29 / 32	1

Adapters

Sloping with2 x B14 Socket

Item Code	Socket Size	Cone Size to fit flask	Cone size to fit condenser	Pcs/ Pack
029.202.01	14 / 23	14 / 23	14 / 23	1
029.202.02	14 / 23	19 / 26	19 / 26	1
029.202.03	14 / 23	24 /29	19 / 26	1
029.202.04	14 / 23	24 / 29	24 / 29	1
029.202.05	14 / 23	29 / 32	29 / 32	1
029.202.06	14 / 23	34 / 35	24 / 29	1

Claisen Heads

Splash Heads

Vertical

Item Code	Socket Size	Cone Size	Pcs/ Pack
030.202.01	14 / 23	14 / 23	1
030.202.02	19 / 26	24 / 29	1
030.202.03	29 / 32	29 / 32	1

Splash Heads

Vertical Pear Shape

Item Code	Cone Size to fit flask	Cone size to fit condenser	Pcs/ Pack
031.202.01	14 / 23	14 / 23	1
031.202.02	19 / 26	19 / 26	1
031.202.03	24 / 29	19 / 26	1
031.202.04	24 / 29	24 / 29	1
031.202.05	29 /32	29 / 32	1

Adapters

Splash Heads

Sloping Pear Shape

Item Code	Cone Size to fit flask	Cone size to fit condenser	Pcs/ Pack
032.202.01	14 / 23	14 / 23	1
032.202.02	19 / 26	19 / 26	1
032.202.03	24 / 29	19 / 26	1
032.202.04	24 / 29	24 / 29	1
032.202.05	29 /32	29 / 32	1

Steam Distillation Heads

Steam Distillation Heads with screw thread
Sloping

Item Code	Cone Size to fit flask	Cone size to fit condenser	Pcs/ Pack
033.202.01	24 / 29	19 / 26	1
033.202.02	34 / 35	19 / 26	1
033.202.03	34 / 35	24 / 29	1

Cone Adapter

Stopcock Cone with Glass stopcock, Right Angle

Item Code	Cone	Stop cock Bore	Pcs/ Pack
034.202.01	14 / 23	3	1
034.202.02	19 / 26	3	1
034.202.03	24 / 29	3	1
034.202.04	29 / 32	3	1

PS : The above Adapter can be supplied with PTFE key or PTFE Needle valve Stopcock also. Please ask for prices separately.

Adapters

Stopcock Socket with Glass stopcock, Straight

Item Code	Socket	Stop cock Bore	Pcs/ Pack
035.202.01	14 / 23	3	1
035.202.02	19 / 26	3	1
035.202.03	24 / 29	3	1
035.202.04	29 / 32	3	1

PS : The above Adapter can be supplied with PTFE key or PTFE Needle valve Stopcock also. Please ask for prices separately.

Socket Adapter

Cone Adapter

Adapter Cone to Rubber Tubing
Right angle connection with screw thread

Item Code	Cone	Pcs/ Pack
036.202.01	14 / 23	1
036.202.02	19 / 26	1
036.202.03	24 / 29	1
036.202.04	29 / 32	1

Cone Adapter

Adapter Cone with Stem to Rubber Tubing
Right angle connection

Item Code	Cone	Pcs/ Pack
037.202.01	14 / 23	1
037.202.02	19 / 26	1
037.202.03	24 / 29	1
037.202.04	29 / 32	1

Adapters

Socket Adapter

Adapter Sockets to Rubber Tubing
connection with Screw Thread

Item Code	Cone	Pcs/ Pack
038.202.01	14 / 23	1
038.202.02	19 / 26	1
038.202.03	24 / 29	1
038.202.04	29 / 32	1

Socket to Cone
with side arm & screw thread

Item Code	Socket	Cone	Pcs/ Pack
039.202.01	14 / 23	14 / 23	1
039.202.02	14 / 23	19 / 26	1
039.202.03	14 / 23	24 / 29	1
039.202.04	14 / 23	29 / 32	1
039.202.05	19 / 26	19 / 26	1
039.202.06	19 / 26	24 / 29	1
039.202.07	19 / 26	29 / 32	1
039.202.08	24 / 29	24 / 29	1
039.202.09	24 / 29	29 / 32	1
039.202.10	29 / 32	29 / 32	1

Socket Adapter

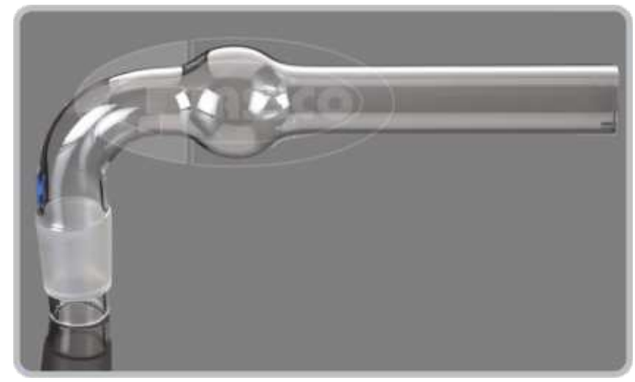
Notes

Adapters

Drying Tube

Drying Tube

Item Code	Cone	Pcs/ Pack
041.202.01	14 / 23	10
041.202.02	19 / 26	10
041.202.03	24 / 29	10
041.202.04	29 / 32	10



Thermometer Pocket

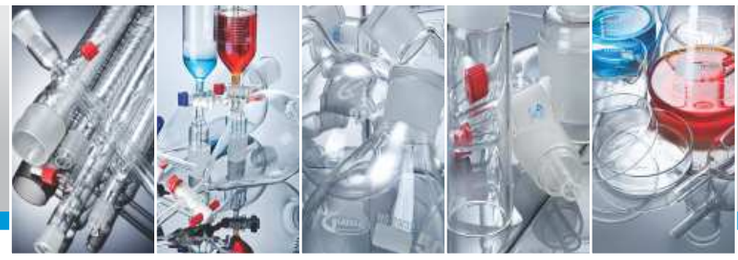
Thermometer Pocket

Item Code	Cone	Approx. Stem Length	Pcs/ Pack
042.202.01	14 / 23	45mm	10
042.202.02	19 / 26	45mm	10

Air Leak Gas Inlet Tube

Air Leak Tube/Gas Inlet Tube

Item Code	Cone	Pcs/ Pack
044.202.01	14 / 23	10
044.202.02	19 / 26	10
044.202.03	24 / 29	10
044.202.04	29 / 32	10



Adapters

Cone Adapter

Adapter Cone Screw Thread

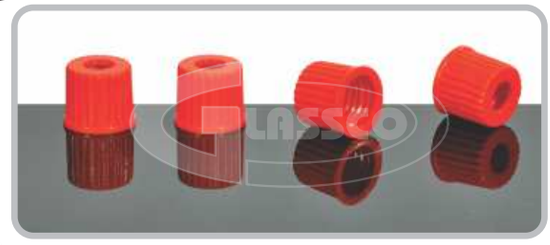
Item Code	Cone	Acceptable Dia Through Screw Thread mm	Pcs/ Pack
056.202.01	14 / 23	6mm	10
056.202.02	19 / 26	6mm	10
056.202.03	24 / 29	6mm	10
056.202.04	29 / 32	6mm	10

Screw Thread

Item Code	Thread GL	Pack
056.470.01	14	100

New

Screw Thread

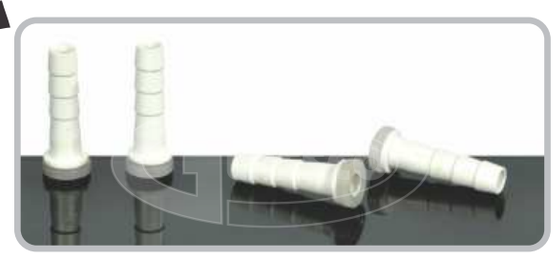


Plastic Hose Connection

Item Code	Thread GL	Type	Pack
056.474.01	14	Straight	100

New

Plastic Hose Connection



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Notes

Round Bottom Flask

These flasks are as per **DIN / ISO 4797** and **USP standard**

Item Code	Nominal capacity ml	Socket Size	Approx. overall height mm.	Dia mm	Pcs/ Pack
057.202.05	25	14 / 23	85	41	10
057.202.06 *	25	19 / 26	85	41	10
057.202.07 *	25	24 / 29	85	41	10
057.202.08	50	14 / 23	90	51	10
057.202.09	50	19 / 26	90	51	10
057.202.10	50	24 / 29	115	51	10
057.202.10A	50	29 / 32	115	51	10
057.202.11	100	14 / 23	105	64	10

* Non DIN

Item Code	Nominal capacity ml	Socket Size	Approx. overall height mm.	Dia mm	Pcs/ Pack
057.202.12	100	19 / 26	105	64	10
057.202.13	100	24 / 29	105	64	10
057.202.14	100	29 / 32	105	64	10
057.202.20	250	14 / 23	140	85	10
057.202.21	250	19 / 26	140	85	10
057.202.22	250	24 / 29	140	85	10
057.202.23	250	29 / 32	140	85	10
057.202.25	500	19 / 26	163	105	10
057.202.26	500	24 / 29	163	105	10
057.202.27	500	29 / 32	163	105	10
057.202.29	1000	19 / 26	200	131	10
057.202.30	1000	24 / 29	200	131	10
057.202.31	1000	29 / 32	200	131	10
057.202.32	1000	34 / 35	200	131	10
057.202.33	2000	24 / 29	240	166	6
057.202.34	2000	29 / 32	240	166	6
057.202.35	2000	34 / 35	240	166	6
0.57.202.36*	3000	29 / 32	260	185	1
0.57.202.37*	3000	45 / 40	260	185	1
0.57.202.40	5000	29 / 32	305	223	1
0.57.202.41	5000	45 / 40	305	223	1
0.57.202.44*	10000	29 / 32	380	279	1
0.57.202.45	10000	45 / 40	380	279	1

Round Bottom Flask with joint as per ASTME 1403 standards

0.57.202.55	25	14 /20	85	41	10
0.57.202.56	50	14 / 20	90	51	10
0.57.202.57	50	24 / 40	105	51	10
0.57.202.58	100	24 / 40	105	64	10
0.57.202.59	250	24 / 40	140	85	10
0.57.202.60	500	24 / 40	163	105	10
0.57.202.61	1000	24 / 40	200	131	10
0.57.202.62	2000	24 / 40	240	166	6

Flasks

Flat Bottom Flask

These flasks are as per **DIN / ISO 4797** and **USP standard**

Item Code	Socket Size	Nominal capacity ml	Approx. overall height mm.	Dia mm	Pcs/ Pack
058.202.01	19 / 26	50	85	51	10
058.202.02	24 / 29	50	85	51	10
058.202.02A	29 / 32	50	85	51	10
058.202.03	19 / 26	100	103	64	10
058.202.04	24 / 29	100	103	50	10
058.202.05	29 / 32	100	103	64	10
058.202.07*	19 / 26	150	115	74	10
058.202.08*	24 / 29	150	115	74	10
058.202.09*	29 / 32	150	115	74	10
058.202.11	19 / 26	250	130	85	10
058.202.12	24 / 29	250	130	85	10

* Non DIN

Item Code	Socket Size	Nominal capacity ml	Approx. overall height mm.	Dia mm	Pcs/ Pack
058.202.13	29 / 32	250	130	85	10
058.202.15	19 / 26	500	160	103	10
058.202.16	24 / 29	500	160	103	10
058.202.17	29 / 32	500	160	160	10
058.202.19	24 / 29	1000	187	131	10
058.202.20	29 / 32	1000	187	131	10
058.202.21	34 / 35	1000	187	131	10
058.202.22	24/29	2000	230	166	6
058.202.23	29 / 32	2000	230	166	6
058.202.24	34 / 35	2000	230	166	6

Flat Bottom Flask with joint as per ASTME 1403 Standards

058.202.55	14 / 20	50	85	51	10
058.202.56	24 / 40	50	103	51	10
058.202.57	14 / 20	100	103	64	10
058.202.58	24 / 40	100	103	64	10
058.202.59	24 / 40	250	130	85	10
058.202.60	24 / 40	500	160	105	10
058.202.61	24 / 40	1000	187	131	10
058.202.62	24 / 40	2000	230	166	6

Round Bottom Flask

Two Neck

All these flasks are as per **DIN 12394 & USP Standard**

Item Code	Nominal capacity ml	Socket Size	Side Sockets	Approx. overall height mm.	Pcs/ Pack
059.202.01	50	24 / 29	14 / 23	105	1
059.202.02	50	29 / 32	14 / 23	105	1
059.202.03	100	24 / 29	14 / 23	105	1
059.202.04	100	24 / 29	19 / 26	105	1
059.202.05	100	29 / 32	14 / 23	105	1
059.202.06	250	24 / 29	14 / 23	140	1
059.202.07	250	24 / 29	19 / 26	140	1
059.202.08	250	29 / 32	14 / 23	140	1
059.202.09	500	24 / 29	14 / 23	163	1
059.202.10	500	24 / 29	19 / 26	163	1
059.202.11	500	29 / 32	14 / 23	163	1
059.202.12	1000	24 / 29	14 / 23	200	1
059.202.13	1000	24 / 29	19 / 26	200	1
059.202.14	1000	29 / 32	14 / 23	200	1
059.202.15	2000	34 / 35	19 / 26	240	1

These flasks can also be provided in other joint sizes

Flasks

Three Angular Neck These flasks are as per **ISO 838 standard & USP**

Item Code	Nominal capacity ml	Centre socket	Side Sockets	Approx. overall height mm.	Pcs/ Pack
060.202.01	100	19 / 26	14 / 23	105	1
060.202.02	100	24 / 29	14 / 23	105	1
060.202.03	100	24 / 29	19 / 26	105	1
060.202.03A	100	29 / 32	14 / 23	105	1
060.202.04	250	19 / 26	19 / 26	140	1
060.202.05	250	24 / 29	14 / 23	140	1
060.202.06	250	24 / 29	19 / 26	140	1
060.202.07	250	29 / 32	14 / 23	140	1
060.202.08	250	29 / 32	19 / 26	140	1
060.202.08A	250	29 / 32	29 / 32	140	1
060.202.09	500	24 / 29	14 / 23	163	1
060.202.10	500	24 / 29	19 / 26	163	1
060.202.11	500	29 / 32	14 / 23	163	1
060.202.12	500	29 / 32	19 / 26	163	1
060.202.12A	500	29 / 32	29 / 32	163	1
060.202.13	1000	24 / 29	14 / 23	200	1
060.202.14	1000	24 / 29	19 / 26	200	1
060.202.15	1000	29 / 32	14 / 23	200	1
060.202.16	1000	29 / 32	19 / 26	200	1
060.202.17	1000	29 / 32	29 / 32	200	1
060.202.18	2000	24 / 29	19 / 26	240	1
060.202.19	2000	29 / 32	24 / 29	240	1
060.202.20	2000	29 / 32	29 / 32	240	1

Round Bottom Flasks

Round Bottom Flasks

These flasks can also be provided in other joint sizes

Three Parallel Neck These flasks are as per **DIN 12392 & USP Standard**

Item Code	Nominal capacity ml	Centre socket	Side Sockets	Approx. overall height mm.	Pcs/ Pack
061.202.01	250	24 / 29	19 / 26	140	1
061.202.02	250	29 / 32	14 / 23	140	1
061.202.02A	250	29 / 32	29 / 32	140	1
061.202.03	500	24 / 29	19 / 26	163	1
061.202.04	500	29 / 32	14 / 23	163	1
061.202.05	500	29 / 32	19 / 26	163	1
061.202.05A	500	29 / 32	29 / 32	163	1
061.202.06	1000	24 / 29	19 / 26	200	1
061.202.07	1000	29 / 32	14 / 23	200	1
061.202.08	1000	29 / 32	19 / 26	200	1
061.202.09	1000	29 / 32	24 / 29	200	1
061.202.10	1000	29 / 32	29 / 32	200	1
061.202.11	2000	24 / 29	19 / 26	240	1
061.202.12	2000	29 / 32	19 / 26	240	1
061.202.13	2000	29 / 32	29 / 32	240	1
061.202.14	2000	34 / 35	19 / 26	240	1
061.202.15	2000	34 / 35	24 / 29	240	1

Flasks

Pear Shape Flask

To be used for **Semi Micro Distillation**
Manufactured as per **DIN 12383 & USP standard**

Item Code	Nominal capacity ml	Socket	Approx. diametr mm.	Approx. overall height mm.	Pcs/ Pack
062.202.06 *	25	14 / 23	38	90	10
062.202.07	50	14 / 23	48	110	10
062.202.09	100	14 / 23	58	125	10

* Non DIN

Pear Shape Flask

with **Two Neck**,
side neck at an angle of 25°, **DIN 12383**

Item Code	Nominal capacity ml	Centre socket	Side Socket	Approx. overall height mm.	Pcs/ Pack
063.202.01	50	14 / 23	14 / 23	110	1
063.202.02	100	14 / 23	14 / 23	125	1

Evaporating Flask

To be used in **Rotary Evaporator**

Item Code	Nominal capacity ml	Socket Size	Approx. overall height mm.	Pcs/ Pack
069.202.01	50	29 / 32	94	10
069.202.03	100	29 / 32	110	10
069.202.05	250	29 / 32	140	10
069.202.07	500	29 / 32	170	10
069.202.09	1000	29 / 32	210	10
069.202.10	2000	29 / 32	250	6

Flasks

Jointly used for the
Determination of Nitrogen, DIN 12360

Item Code	Nominal capacity ml	Socket Size	Approx. overall height mm.	Pcs/ Pack
070.202.01	50	19 / 26	162	2
070.202.02	100	19 / 26	162	2
070.202.03	100	24 / 29	265	2
070.202.04*	300	24 / 29	295	2
070.202.05	500	24 / 29	305	2
070.202.06*	800	24 / 29	325	2

* Non DIN

Kjeldahl Flask with Joint

These Flasks are as per
ISO 4797 & USP standard

Conical Flask with Joint

Item Code	Nominal capacity ml	Socket Size	Approx. overall height mm.	Approx. overall diameter mm.	Pcs/ Pack
071.202.06	25	14 / 23	75	42	10
071 .202.07	25	19 / 26	75	42	10
071.202.08	50	14 / 23	85	51	10
071.202.09	50	19 / 26	85	51	10
071.202.10 *	50	24 / 29	85	64	10
071.202.10A	50	29 / 32	85	64	10
071.202.11	100	14 / 23	105	64	10
071.202.12	100	19 / 26	105	64	10
071.202.13	100	24 / 29	105	64	10
071.202.14	100	29 / 32	105	64	10
071.202.17A*	200	29 / 32	131	79	10
071.202.18	250	19 / 26	140	85	10
071.202.19	250	24 / 29	140	85	10
071.202.20	250	29 / 32	140	85	10
071.202.21A*	300	29 / 32	156	87	10
071.202.22	500	19 / 26	175	105	10
071.202.22A	500	24 / 29	175	105	10
071.202.23	500	29 / 32	175	105	10
071.202.25	1000	24 / 29	220	131	10
071.202.26	1000	29 / 32	220	131	10
071.202.27	1000	34 / 35	220	131	10
071.202.28	2000	29 / 32	280	166	6
071.202.29	2000	34 / 35	280	166	6
071.202.30	3000	45 / 40	310	187	1
071.202.31	5000	45 / 40	365	220	1

* Non DIN

Conical Flasks with Joint as per ASTM 1404 standards

071.202.50	50	19 / 38	51	105	10
071.202.51	125	24 / 40	66	133	10
071.202.52	250	24 / 40	84	155	10
071.202.53	500	24 / 40	105	191	10
071.202.54	1000	2 4/ 40	131	230	10
071.202.55	2000	24 / 40	166	288	6

Flasks

Iodine Flask

or **Determination of Iodine** with ground joint and stopper

Item Code	Nominal capacity ml	Joint Size	Min. Cup Capacity ml.	Pcs/ Pack
072.202.01	250	24 / 29	20	2
072.202.02	250	29 / 32	20	2
072.202.03	500	24 / 29	20	2
072.202.04	500	29 / 32	20	2

Distillation Flasks

As per **ASTM E 133** standard. Intended to use in ASTM D 86, D 233, D 801 & D 802

Item Code	Nominal capacity ml	Dia mm	Height mm	Side Dia mm	Arm Lenght	Pk/ Size
073.205.01	125	68	215	7	7	2

Distillation Flasks with 19/26 Joint

073.206.01	125	68	215	7	7	2

Buckner Filteration Bolt Neck Flask

As per ISO **6556 & USP Standard**

Item Code	Nominal capacity ml	Pcs/ Pack
074.202.01	100	2
074.202.02	250	2
074.202.03	500	2
074.202.04	1000	2
074.202.05	2000	1

Flasks

Conical Flask with screw cap

Item Code	Capacity	Thread GL	Dim mm	Pcs/ Pack
075.202.01	50	25	51	2
075.202.02	100	25	64	2
075.202.04	250	32	85	2
075.202.05	500	32	105	2
075.202.06	1000	32	131	2

Conical Flask

Conical Flask

Conical Flask with ground joint and hollow glass stopper

Item Code	Capacity	Dim mm	Pcs/ Pack
076.202.01	100	29 / 32	2
076.202.02	250	29 / 32	2
076.202.03	500	29 / 32	2
076.202.04	1000	29 / 32	2
076.202.05	2000	29 / 32	1

Kjeldahl Flask with Plain Neck

DIN 12360

Item Code	Capacity	Dia mm	Height mm	Pcs/ Pack
077.202.01	100	58	240	2
077.202.02*	300	81	300	2
077.202.03	500	101	325	2
077.202.04*	800	115	350	2

* Non DIN

Tubes

Culture Tubes, screw cap manufactured from ASTM - 438 TYPE 1 CLASS A BORO 3.3 GLASS

Used mainly for culture work comes with autoclavable screw cap with insert of PTFE lined rubber disc

These tubes come in two forms, one is round bottom and another is flat bottom

The enamel used for printing on this is white

Round Bottom Tube

Item Code	O.D.x Lenght (mm)	Bottom Type	Pcs/ Pack
082.204.01	12 x 100	Round	100
082.204.02	16 x 100	Round	100
082.204.03	16 x125	Round	100
082.204.04	16 x 160	Round	100
082.204.05	18 x 180	Round	100
082.204.06	20 x 100	Round	100
082.204.07	20 x 200	Round	100
082.204.08	22 x 200	Round	100
082.202.05	25 x 100	Round	100
082.202.07	25 x 200	Round	50

Tubes

Item Code	Capacity	O.D.x Lenght (mm)	Bottom Type	Pcs/ Pack
083.202.01	5	18 x 45	Flat	100
083.202.02	10	25 x 57	Flat	100
083.202.03	30	25 x 95	Flat	100
083.202.04	40	25 x 145	Flat	50

PS: Test Tubes in other sizes can be provided on request

Flat Bottom Tube

Centrifuge Tube

Conical Bottom Graduated

Item Code	Capacity (ml)	Height x O.D. (mm)	Pcs/ Pack
088.202.01	5	100 x 13	50
088.202.02	10	110 x 15	50
088.202.03	15	120 x17	50
088.202.04	25	125 x 22	50
088.202.05	50	125 x 28	50

Centrifuge Tube

Conical Bottom Plain

Item Code	Capacity (ml)	Height x O.D. (mm)	Pcs/ Pack
089.202.02	5	100 x 13	50
089.202.03	10	110 x 15	50
089.202.05	15	120 x17	50
089.202.06	25	125 x 22	50
089.202.07	50	125 x 28	50

Tubes

Centrifuge Tube

Round Bottom Graduated

Item Code	Capacity (ml)	Height x O.D. (mm)	Pcs/ Pack
094.202.01	12	16 x 110	100
094.202.02	30	24 x 110	100
094.202.03	40	28 x 110	100
094.202.04	50	30 x 110	100
094.202.05	100	45 x 110	100
094.202.07	200	55 x 116	100

Test Tube

with **joint & stopper Graduated**

Item Code	Size (mm)	Capacity (ml)	Stopper size	Pcs/ Pack
095.202.01	100 x 12	5	10 / 19	100
095.202.02	125 x 16	10	12 / 21	100
095.202.03	150 x 22	25	19 / 26	100
095.202.04	200 x 25	50	19 / 26	100

Test Tube

with **Interchangeable Stopper** Plain

Item Code	Height x O.D. (mm)	Stopper Size	Pcs/ Pack
096.202.01	100 x 12	10 / 19	100
096.202.02	125 x 15	12 / 21	100
096.202.03	150 x 18	14 / 23	100
096.202.04	150 x 25	19 / 26	100
096.202.05	200 x 25	19 / 26	100
096.202.06	200 x 32	24 / 29	100
096.202.07	200 x 38	24 / 29	100

Tubes

Manufactured from ASTM E 438 TYPE 1 CLASS A BORO 3.3 GLASS. These tubes come with fire polished rim top and uniform wall thickness for maximum heat transfer and chemical resistance **EN ISO-4142**

Item Code	Approx. O.Dx Height	Thickness	Pcs/ Pack
097.202.01	10 x 75	1.0	100
097.202.02	12 x 75	1.0	100
097.202.03	12 x 100	1.0	100
097.202.04	15 x 125	1.2	100
097.203.05	15 X 150	1.2	100
097.202.05	18 x 150	1.2	100
097.203.06	20 X 150	1.2	100
097.202.06	25 x 150	1.2	100
097.202.07	25 x 200	1.2	100

Test Tube

Test Tube Re-usable

Manufactured BORO 6.1 GLASS. These tubes come with fire polished rim top and uniform wall thickness for maximum heat transfer and chemical resistance, **EN ISO-4142**

Item Code	Approx. O.Dx Height	Thickness	Pcs/ Pack
099.202.01	10 x 75	1.0	100
099.203.02	12 x 75	1.0	100
099.202.02	12 x 100	1.0	100
099.202.03	15 x 125	1.0	100
099.202.04	15 X 150	1.0	100
099.202.05	18 x 150	1.0	100
099.203.06	20 X 150	1.0	100
099.202.06	25 x 150	1.0	100
099.203.07	25 x 200	1.0	100

Closure Caps

Made of **Polypropylene Autoclavable**

Item Code	Size for tube	Pcs/ Pack
100.202.01	12mm	100
100.202.02	15mm	100
100.202.03	18mm	100
100.202.04	20mm	100
100.202.05	25mm	100


Volumetric
Glassware

All volumetric glassware requires very high precision and accuracy which requires controlled conditions for calibrating volumetric glassware go through automatic calibration machines which is state of the art technology imported from germany. Glassco's Calibration Laboratory has undertaken accreditation for its system for calibration and testing as per ISO 17025:2005.

Glassco's Calibration Laboratory is NABL approved. NABL has a MRA under the Asia Pacific Laboratory Accreditation Cooperation (APLAC) and the International Laboratory Accreditation Cooperation (ILAC), which means the calibration provided to customers for volumetric ware is acceptable in calibration laboratories worldwide.

The calibrations performed by Glassco calibration laboratory are essential done under ISO 17025:2005

NABL Certificate

NABL

National Accreditation Board for Testing and Calibration Laboratories

Department of Science & Technology, India

CERTIFICATE OF ACCREDITATION

CALIBRATION LABORATORY, GLASSCO LABORATORY EQUIPMENTS

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2005

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

P.O. Khudda Kalan, Manglai, Ambala

in the field of

MECHANICAL CALIBRATION

(You may also visit NABL website www.nabl-india.org to view the scope of accreditation)

Certificate Number C-0610

Issue Date 11/02/2012

Valid Until 10/02/2014

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the additional requirements of NABL.

Signed for and on behalf of NABL

Srikanth. R — Convenor

Anil Relia — Director

Dr T. Ramasami — Chairman

Please see list of Accrediation Bodies Worldwide from Page 105-108

TYPES OF CALIBRATION & HOW TO USE

Burettes and pippets which is calibrated to deliver TD, EX which means the delivered quantity of the liquid corresponds to the capacity indicated on the instrument .

Burettes

These are calibrated "to deliver". Fill the burette a bit higher than the zero mark at the top. Check for trapped air bubbles, tap the burettes lightly to remove these; drain the solution once carefully to level of zero mark. Fill more solution up if the meniscus has gone below the zero mark. Drain the solution to the exact zero level. Wipe off the drops at the tip of the burette. Open the stopcock very slowly and start the titration. Do not touch the tip to the container wall you use. When the color begins to change, stop the titration and wait for 30 seconds as the waiting time of Class "AS"burettes. Check the meniscus for changes and add little volume to get complete titration.

Pipettes

These are calibrated "to deliver". Fill the liquid little above the volume mark. Wipe off the tip and wet area. Hold the pipette at the eye level and place the tip of the pipette to the wall of a vessel with a slight Angle between contact point. Discharge the excess volume until meniscus reaches the calibration mark of the pipette. To use the pipette volume, place the tip to the wall of the vessel with a slight angle. Pay attention to clear the pipette completely. When the level of the liquid reaches the tip of the pipette, you have to wait a little as the waiting time (if the pipette is Class "AS") for say 5 seconds. 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, leave it as it is.

Flasks and cylinders is calibrated to contain TC, IN which means the contained quantity of the liquid corresponds to the capacity indicated on the instrument .

Volumetric flasks

These are calibrated "to contain". These are very precisely calibrated. Fill the volumetric flask with distilled water with a funnel to ensure that water is discharged below the meniscus line.. Fill more distilled water until it reaches a bit below of the calibration ring mark. Add some more water in small volumes so that the meniscus will be exactly at the same level of the ring mark. To make accurate standard solution put precise weight of the substance into the flask. Shake the flask with stopper on.

Measuring Cylinders

These are calibrated "to contain" and graduated to show different levels. Cylinders are mainly used for the exact measurement of liquids. First fill the liquid carefully, so that meniscus level will reach the desired volume mark. Add the precise weight of the substance and dissolve the substance by shaking the measuring cylinder.

Results of calibration are guaranteed for precision as per the DIN, ISO, USP & ASTM standards.

GLASSCO VOLUMETRIC GLASSWARE WITH CERTIFICATE

All Glassco Volumetric Glassware now comes with new IG H sign. Glassco Glassware are conformity certified which confirms that all Class A Glassware are manufactured according to "EICH OR DNUNG " THE GERMAN FEDERAL WEIGHTS & MEASURES REGULATIONS. This sign of conformity is printed directly on the product according to DIN 12600

TYPES OF CERTIFICATES

BATCH CERTIFICATE : Volumetric flasks comes with a batch certificate in which mean value , standard deviation is incorporated along with batch number like 01.10 which signifies the month 01 and 10 is the year. This comes in a pack of 1 and comes along with the flask in the box you can also download it from www.glasscolabs.com

INDIVIDUAL CERTIFICATE: These flasks comes with a certificate on which individual serial number , mean value, standard deviation and measured uncertainty is given along with the batch number and serial number like 01.10 (Month and year of manufacturing) 505 (serial number). This comes in a pack of one and each flask is having a certificate with it in the box you can also download it from www.glasscolabs.com
Image of certificate will come here

USP INDIVIDUAL CERTIFICATE : GLASSCO has recently launched its USP grade (UNITED STATES PHARMACOPIA) standard flasks with also comes with a certificate on which individual serial number, mean value, standard deviation and measured uncertainty is given along with the batch number and serial number like 01 .10 (Month and year of manufacturing) 605 (serial number). This comes in a pack of one and comes along with the flask in the box you can also download it from www.glasscolabs.com

NABL Calibration Certificate: This certificate is issued by NABL calibration Laboratory at Glassco NABL by virtue of its collaboration with (APLAC) Asia Pacific Laboratory Accrediting Cooperation & (ILAC) International Laboratory Accrediton. NABL calibration Certificate is internationally recoganized. Both the instrument & Certificate shows the individual serial number & the Certificate no.

Glassco Laboratory Equipments

Manglai, P.O. Khudda Kalan, Ambala Cantt. 133 004 (INDIA)
Tel: 0091-171-6451250, 2891633 • Fax: 0091-171-2891632
E-mail: info@glasscolabs.com • Web: www.glasscolabs.com

CALIBRATION CERTIFICATE

(Glassco Calibration Laboratory)

CERTIFICATE NO.: GLASSCO/11/02-107/101 CRF DATE: 14/02/2011

CUSTOMER: SAMPLE CAL. REPORT NO.: 11/02-107

TEST METHOD: GRAVIMETRIC METHOD

ITEM CALIBRATED: VOLUMETRIC FLASK: 50 ml

CATALOGUE NO: 130.223.04

BATCH NO. & SERIAL NO. OF VOLUMETRIC FLASK: 11.10/101

ITEM CALIBRATED ON: 15/02/2011

CALIBRATION RESULT:

The product was found to contain the following volume at 20° C

VOLUME CONTAINED	:	50.024 ml
TOLERANCE	:	±0.060 ml
CORRECTION	:	-0.024 ml
STANDARD DEVIATION	:	0.001 ml

Expanded uncertainty (at 95%C.L.k=2) is ±0.001ml

The product has been calibrated with the following devices:
Standard weights: 50g
Using Balance Number: ABAL-03,420g /0.001g (SARTORIUS)
Thermometer No.: DM-05,-50°C TO 150°C

All the above devices have valid calibrations traceable to NPL India; traceable to international standards.

The above product has been examined for compliance to DIN12664/ISO1042 Class-A. It has been found to satisfy the specified requirements. The above item has been calibrated at 21.5° C at RH 58%.

The above calibration result is valid at the time of calibration under lab conditions.This report shall not be reproduced, except in full, unless with written permission from Glassco Laboratory Equipments.

CALIBRATED BY: Mr. YOGENDRA PANWAR

APPROVED AND ISSUED BY: MANAGER QA NAME: Mr. GAGAN BAGGA

DATE OF ISSUE: 15/02/2011

Page 1 of 1

Calibration Certificate

NABL
C - 0610
505
01.10

*For ordering all NABL certified glassware, please use middle number 405.

Burettes

Glassco burettes are manufactured from ASTM E-438 TYPE 1 CLASS A BORO 3.3 heat resistant glass which meet DIN ISO 385 and USP standards. Each and every piece is calibrated to deliver (TD, EX) +20° C.

All A CLASS burettes are manufactured from precision bore tubing for accuracy.

The burettes are calibrated on computer controlled machines to give the most accurate results and then are rechecked on the quality control centre.

The burettes made in A class come with conformity batch certificate and with individual work certificate.

All A Class burettes are printed in blue colour and have a waiting time of 30 seconds, the B CLASS burettes are printed in amber colour and have no waiting time.

The conformity Batch Certificates and individual work certificate are packed with each piece, however it can also be downloaded through our website www.glasscolabs.com

The burettes come with 4 different kind of stopcocks Glass Stopcock, PTFE Needle Valve Stopcock, PTFE Key Stopcock and Detachable Stopcock.

Burettes with glass stopcock in Schellbach stripe printed in blue colour in compliance with DIN **ISO 385 and USP standard**

Schellbach Class AS with Batch Certificate Cat No.	Schellbach Class A with Individual Work Certificate Cat No.	Cap. ml.	Division	Tolerance (±ml)	Pcs/ Pack
110.202.01A	110.223.01	10ML	0.05	0.03	1
110.202.02A	110.223.02	25ML	0.1	0.05	1
110.202.03A	110.223.03	50ML	0.1	0.05	1

Please download your Batch and Individual Certificate from

www.glasscolabs.com

Burettes

Burette with glass stopcock

Burettes with glass stopcock in clear glass printed in blue colour in compliance with **DIN ISO 385 and USP standard**

Class AS with Batch Certificate Cat No.	Class A with Individual Work Certificate Cat No.	Cap. ml.	Division	Tolerance (±ml)	Pcs/ Pack
111.202.01	111.223.01	10ML	0.05	0.03	1
111.202.02	111.223.02	25ML	0.1	0.05	1
111.202.03	111.223.03	50ML	0.1	0.05	1

Schellbach Burette with screw type needle valve

Burettes with PTFE needle valve stopcock in Schellbach stripe printed in blue colour in compliance with **DIN ISO 385 and USP standard**

Schellbach Class AS with Batch Certificate Cat No.	Schellbach Class A with Individual Work Certificate Cat No.	Cap. ml.	Division	Tolerance (±ml)	Pcs/ Pack
112.202.01A	112.223.01A	10ML	0.05	0.03	1
112.202.02A	112.223.02A	25ML	0.1	0.05	1
112.202.03A	112.223.03A	50ML	0.1	0.05	1

Burette with screw type needle valve

Burettes with PTFE needle valve stopcock clear class printed in blue colour in compliance with **DIN ISO 385 and USP standards**

Class AS with Batch Certificate Cat No.	Class A with Individual Work Certificate Cat No.	Cap. ml.	Division	Tolerance (±ml)	Pcs/ Pack
113.202.01	113.223.01	10ML	0.05	0.03	1
113.202.02	113.223.02	25ML	0.1	0.05	1
113.202.03	112.223.03	50ML	0.1	0.05	1

Burettes

Burettes with PTFE key stopcock in Schellbach stripe printed in blue colour to meet **DIN ISO 385 and USP standard**

Schellbach Class AS with Batch Certificate Cat No.	Schell bach Class A with Individual Work Certificate Cat No.	Cap. ml.	Division	Tolerance (±ml)	Pcs/ Pack
114.202.04A	114.223.04A	10ML	0.05	0.03	1
114.202.05A	114.223.05A	25ML	0.1	0.05	1
114.202.06A	114.223.06A	50ML	0.1	0.05	1

Schellbach Burette with PTFE key

Burette with PTFE key

Burettes with PTFE key stopcock clear class printed in blue colour in compliance with **DIN ISO 385 and USP standards**

Class AS with Batch Certificate Cat No.	Class A with Individual Work Certificate Cat No.	Cap. ml.	Division	Tolerance (±ml)	Pcs/ Pack
115 .202.01	115.223.01	10ML	0.05	0.03	1
115.202.02	115.223.02	25ML	0.1	0.05	1
115.202.03	115.223.03	50ML	0.1	0.05	1

Burettes with PTFE detachable stopcocks printed with blue colour in compliance with DIN **ISO 385 and USP standards**

Schellbach Class AS with Batch Certificate Cat No.	Schellbach Class A with Individual Work Certificate Cat No.	Cap. ml.	Division	Tolerance (±ml)	Pcs/ Pack
117.202.01A	117.223.01A	10ML	0.05	0.03	1
117.202.02A	117.223.02A	25ML	0.1	0.05	1
117.202.03A	117.223.03A	50ML	0.1	0.05	1

Schellbach Burette with Stopcocks

Burettes

Burette with Stopcocks

Burettes with PTFE detachable stopcock clear class printed in blue colour in compliance with DIN **ISO 385 and USP standards**

Class AS with Batch Certificate Cat No.	Class A with Individual Work Certificate Cat No.	Cap. ml.	Division	Tolerance (±ml)	Pcs/ Pack
117.202.01	117.223.01	10ML	0.05	0.03	1
117.202.02	117.223.02	25ML	0.1	0.05	1
117.202.03	117.223.03	50ML	0.1	0.05	1

Burette B Class with stopcock

Burettes Class B with Amber Graduation, DIN ISO 385

With glass stopcock Cat No.	With PTFE needle valve stopcock Cat No.	With PTFE KEY STOPCOCK Cat No.	With detachable PTFE KEY STOPCOCK Cat No.	Cap. ml.	Division	Tolerance (±ml)	Pcs/ Pack
110.224.01	112.224.01	114.224.01	117.224.01	10ML	0.05	0.05	1
110.224.02	112.224.02	114.224.02	117.224.02	25ML	0.10	0.10	1
110.224.03	112.224.03	114.224.03	117.224.03	50ML	0.10	0.10	1

(Economy model) With detachable PTFE KEY STOPCOCK Cat No.	New			
	Cap. ml.	Division	Tolerance (±ml)	Pcs/ Pack
109.224.03	50ML	0.10	0.10	1

Automatic Burettes

Glassco burettes are manufactured from ASTM E-438 TYPE 1 CLASS A BORO 3.3 heat resistant glass which meet DIN ISO 385 standards. Each and every piece is calibrated to deliver (TD, EX) +20°C. All A CLASS burettes are manufactured from precision bore tubing for accuracy .

These burettes come with PTFE Needle Valve Stopcock and Intermediate PTFE Key Stopcock. These all A class burettes come with Batch Certificate, and Accessories like Bottle and Rubber below. The printing of the burettes is done in blue colour for better visibility.

Schellbach Automatic Burette

Automatic Burette Schellbach in compliance with **DIN ISO 385 standard Class AS**, conformity certified.

SCHELL BACH WITH INTERMEDIATE STOPCOCK PTFE KEY AND NEEDLE VALVE STOPCOCK	SCHELLBACH WITHOUT INTERMEDIATE STOPCOCK Cat No.	Cap. ml.	Division	Tolerance (±ml)	BOTTLE CAPACITY IN ML	Pcs/ Pack
118.240.01	118.240.01A	10ML	0.05	0.03	500	1
118.240.02	118.240.02A	25ML	0.1	0.05	2000	1
118.240.03	118.240.03A	50ML	0.1	0.05	2000	1

Automatic Burettes

Automatic Burette in compliance with **DIN ISO 385 and USP standard Class AS**, conformity certified.

CLEAR WITH INTERMEDIATE STOPCOCKPTFE KEY AND NEEDLE VALVE STOPCOCK	CLEAR WITHOUT INTERMEDIATE PTFE KEY & PTFE NEEDLE VALVE STOPCOCK CAT NO.					
		Cap. ml.	Division	Tolerance (±ml)	BOTTLE CAPACITY IN ML	Pcs/ Pack
118.201.01	118.202.01	10ML	0.05	0.03	500	1
118.201.02	118.202.02	25ML	0.1	0.05	2000	1
118.201.03	118.202.03	50ML	0.1	0.05	2000	1

Automatic Burette

www.glasscolabs.com

Volumetric Pipettes

Glassco volumetric pipettes are manufactured in compliance with DIN ISO 648 standards. These pipettes are calibrated to deliver (TD,EX) + 20° C .

All volumetric pipettes are calibrated by automatic machine and then the final quality check is done on the quality control centre .The volumetric pipettes come in AS Class with conformity batch certificate and Class A in individual work certificate which is printed in amber colour which fuses into the glass .

Each pipette is accompanied with a batch or individual certificate in the pack you can also download the certificate www.glasscolabs.com

Volumetric pipette 1 mark Class B

Volumetric Pipettes Class B

Cat no.	Cap. ml.	COLOUR CODE	Tolerance (±ml)	Pcs/ Pack
122.222.01	1ML	BLUE	0.015	5
122.222.02	2ML	ORANGE	0.020	5
122.222.03	5ML	WHITE	0.030	5
122.222.04	10ML	RED	0.040	5
122.222.05	20ml	YELLOW	0.060	5
122.222.06	25ml	BLUE	0.060	5
122.222.07	50ml	RED	0.100	5
122.222.08	100ml	YELLOW	0.150	5

Volumetric Pipettes Class A

Volumetric Pipettes 1 mark class A in compliance with **DIN ISO 648 standard**

Cat No. PIPETTES WITH BATCH CERTIFICATE CLASS AS	Cat no. PIPETTES WITH INDIVIDUAL WORK CERTIFICATE CLASS A	Cap. ml.	COLOUR CODE	Tolerance (±ml)	Pcs/ Pack
123.202.01	123.223.01	1ml	BLUE	0.008	5
123.202.02	123.223.02	2ml	ORANGE	0.010	5
123.202.03	123.223.03	5ml	WHITE	0.015	5
123.202.04	123.223.04	10ml	RED	0.020	5
123.202.05	123.223.05	20ml	YELLOW	0.030	5
123.202.06	123.223.06	25ml	BLUE	0.030	5
123.202.07	123.223.07	50ml	RED	0.050	5
123.202.08	123.223.08	100ml	YELLOW	0.080	5

Pipettes

USP Pipettes NEW

All the volumetric glassware or measuring instruments to be used in laboratories which are under surveillance of US authorities such as Food and Drug Administration (FDA), have a mandatory requirement to use products which adhere to standards set by US PHARMACOPEIA. The USP standard has some deviation from DIN, ISO standards. The products that fall under this category are

- Measuring Pipettes
- Volumetric Pipettes
- Measuring Cylinder
- Volumetric Flasks

All the products mentioned above have tighter tolerances compared to ISO standards.

Volumetric Pipettes

Volumetric Pipettes 1 mark in compliance with **USP standard**

Cat No. PIPETTES WITH BATCH CERTIFICATE CLASS AS	Cat no. PIPETTES WITH INDIVIDUAL WORK CERTIFICATE CLASS A	Cap. ml.	COLOUR CODE	Tolerance (±ml)	Pcs/ Pack
123.461.01	123.220.01	1ml	BLUE	0.006	5
123.461.02	123.220.02	2ml	ORANGE	0.006	5
123.461.03	123.220.03	5ml	WHITE	0.010	5
123.461.04	123.220.04	10ml	RED	0.020	5
123.461.05	123.220.05	20ml	YELLOW	0.030	5
123.461.06	123.220.06	25ml	BLUE	0.030	5
123.461.07	123.220.07	50ml	RED	0.050	5
123.461.08	123.220.08	100ml	YELLOW	0.080	5

New

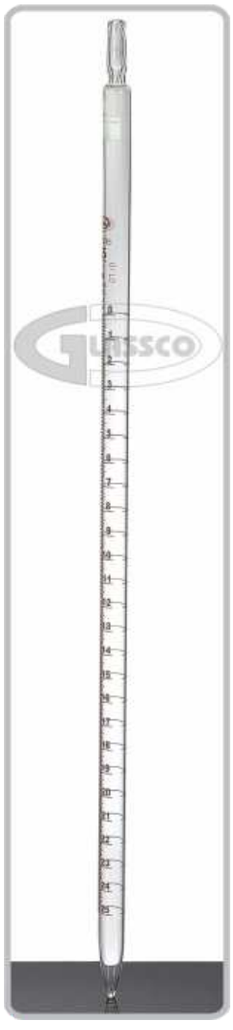
New

Graduated Pipettes

Graduated Pipettes Type 3 (Serological) in compliance with **USP Standard**

Pipettes With Batch Certificate CLASS AS Cat No.	Pipettes With Individual Work Certificate CLASS A Cat No.	Cap. ml.	COLOUR CODE	Tolerance (±ml)	Pcs/ Pack
125.461.00	125.220.00	0.1 ml	WHITE	0.010	5
125.461.00A	125.220.00A	0.2 ml	BLACK	0.010	5
125.461.01	125.220.01	1ml	YELLOW	0.010	5
125.461.02	125.220.02	2ml	BLACK	0.010	5
125.461.03	125.220.03	5ml	RED	0.020	5
125.461.04	125.220.04	10ml	ORANGE	0.030	5
125.461.06	125.220.06	25ml	WHITE	0.050	5

Graduated Pipettes



Glassco Graduated Pipettes now comes in Type 1 (Mohr) and Type 3 (Serological). All are manufactured to meet ISO 835 Standards. These pipettes are calibrated to deliver (TD, EX) + 20° C. All graduated pipettes are calibrated by automatic machine and then the final quality check is done on the quality control centre. The graduated pipettes come in AS class with conformity batch certificate and individual work certificate which is printed in amber colour which fuses into the glass. Each pipette is accompanied with a batch or individual certificate in the pack. You can also download the certificate at www.glasscolabs.com. All A Class pipettes have a waiting time of 5 seconds.

Graduated Pipettes

Graduated Pipettes Type 1 (Mohr)

Pipettes With Batch Certificate CLASS AS Cat No.	Pipettes With Individual Work Certificate CLASS A Cat No.	Cap. ml.	Colour Code	Tolerance (±ml)	Pcs/ Pack
125.453.00	125.416.00	0.1 ml	WHITE	0.006	5
125.453.00A	125.416.00A	0.2 ml	BLACK	0.006	5
125.453.00B	125.416.00B	1ml	YELLOW	0.007	5
125.453.01A	125.416.01A	2ml	BLACK	0.010	5
125.453.02A	125.416.02A	5ml	RED	0.030	5
125.453.04	125.416.04	10ml	ORANGE	0.050	5
125.453.06	125.416.06B	25ml	WHITE	0.100	5

New

Graduated Pipettes

Graduated Pipettes Type 3 (Serological)
in compliance with **DIN ISO 835, EN ISO 835 Standard**

Pipettes With Batch Certificate CLASS AS Cat No.	Pipettes With Individual Work Certificate CLASS A Cat No.	Cap. ml.	COLOUR CODE	Tolerance (±ml)	Pcs/ Pack
125.202.00	125.223.00	0.1 ml	WHITE	0.006	5
125.202.00A	125.223.00A	0.2 ml	BLACK	0.006	5
125.202.01	125.223.01	1ml	YELLOW	0.007	5
125.202.02	125.223.02	2ml	BLACK	0.010	5
125.202.03	125.223.03	5ml	RED	0.030	5
125.202.04	125.223.04	10ml	ORANGE	0.050	5
125.202.06	125.223.06	25ml	WHITE	0.100	5

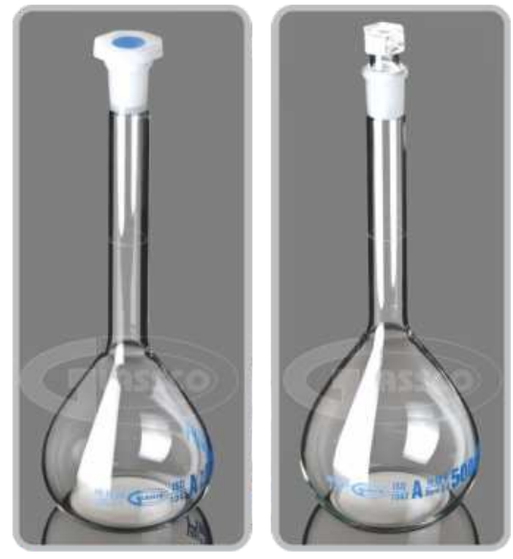
Volumetric Flasks

Volumetric Flasks CLASS A are made from ASTM E 438 TYPE 1 CLASS A heat resistant BORO 3.3 Glass that meet ISO 1042 standard. The calibration is done on automatic computer controlled machine and are calibrated to contain (TC, In) according to the ISO tolerance standards. These are supplied with PP stoppers or glass stoppers in both amber and clear glass. All A Class flasks are printed in Blue colour & B Class in White colour, Amber Glass is marked in white colour the meniscus mark is diamond grinded for longer persistence and better accuracy. All Class A Volumetric Flask comes with Conformity Batch Certificate or Individual Work Certificate.

Volumetric Flasks Class A in compliance with **DIN ISO 1042 Standards** with conformity batch certified

BATCH CERTIFICATE WITH PP STOPPER	BATCH CERTIFICATE WITH GLASS STOPPER	Cap. ml.	N/S	Tolerance (±ml)	PCS/ PACK
130.202.01	130.234.01	5ML	10/19	0.040	2
130.202.02	130.234.02	10ML	10/19	0.040	2
130.202.02A	130.234.03	20ML	10/19	0.040	2
130.202.03	130.234.04	25ML	10/19	0.040	2
130.202.04	130.234.05	50ML	12/21	0.060	2
130.202.04B	130.234.06	50ML	14/23	0.100	2
130.202.05B	130.234.07	100ML	12/21	0.100	2
130.202.05	130.234.08	100ML	14/23	0.100	2
130.202.06	130.234.09	200ML	14/23	0.150	2
130.202.07	130.234.10	250ML	14/23	0.150	2
130.202.08	130.234.11	500ML	19/26	0.250	2
130.202.09	130.234.12	1000ML	24/29	0.400	2
130.202.10	130.234.13	2000ML	29/32	0.600	1
130.202.11	130.234.14	5000ML	34/35	1.200	1

Volumetric Flasks



Amber Volumetric Flasks

Amber Volumetric Flasks Class A in compliance with **DIN ISO 1042 Standards** with conformity batch certified

AMBER GLASS BATCH CERTIFICATE WITH PP STOPPER	AMBER GLASS BATCH CERTIFICATE WITH GLASS STOPPER	Cap. ml.	N/S	Tolerance (±ml)	PCS/ PACK
130.202.01A	130.234.01A	5ML	10/19	0.040	2
130.202.02AB	130.234.02A	10ML	10/19	0.040	2
130.202.03A	130.234.03A	20ML	10/19	0.040	2
130.202.04A	130.234.04A	25ML	10/19	0.040	2
130.202.05A	130.234.05A	50ML	12/21	0.060	2
130.202.05AB	130.234.06A	50ML	14/23	0.100	2
130.202.06AB	130.234.07A	100ML	12/21	0.100	2
130.202.06A	130.234.08A	100ML	14/23	0.100	2
130.202.07A	130.234.09A	200ML	14/23	0.150	2
130.202.08A	130.234.10A	250ML	14/23	0.150	2
130.202.09A	130.234.11A	500ML	19/26	0.250	2
130.202.10A	130.234.12A	1000ML	24/29	0.400	2
130.202.11A	130.234.13A	2000ML	29/32	0.600	1

Volumetric Flasks

Volumetric Flask Class A in compliance with **DIN ISO 1042 Standards** with Individual Work Certificate and Serial Number.

INDVIDUAL WORK CERTIFICATE WITH PP STOPPER	INDVIDUAL WORK CERTIFICATE WITH GLASS STOPPER	Cap. ml.	N/S	Tolerance (±ml)	PCS/ PACK
130.223.01	130.236.01	5ML	10/19	0.040	1
130.223.02	130.236.02	10ML	10/19	0.040	1
130.223.02A	130.236.03	20ML	10/19	0.040	1
130.223.03	130.236.04	25ML	10/19	0.040	1
130.223.04	130.236.05	50ML	12/21	0.060	1
130.223.04B	130.236.06	50ML	14/23	0.100	1
130.223.05B	130.236.07	100ML	12/21	0.100	1
130.223.05	130.236.08	100ML	14/23	0.100	1
130.223.06	130.236.09	200ML	14/23	0.150	1
130.223.07	130.236.10	250ML	14/23	0.150	1
130.223.08	130.236.11	500ML	19/26	0.250	1
130.223.09	130.236.12	1000ML	24/29	0.400	1
130.223.10	130.236.13	2000ML	29/32	0.600	1
130.223.11	130.236.14	5000ML	34/35	1.200	1

Batch Code

Individual Serialized No.

For more information see Page : 33

Amber Volumetric Flask Class A in compliance with **DIN ISO 1042 Standards** with Individual Work Certificate and Serial Number.

AMBER GLASS WITH INDIVIDUAL WORK CERTIFICATE WITH PP STOPPER	AMBER GLASS WITH INDIVIDUAL WORK CERTIFICATE WITH GLASS STOPPER	Cap. ml.	N/S	Tolerance (±ml)	PCS/ PACK
130.223.01A	130.236.01A	5ML	10/19	0.040	1
130.223.02AB	130.236.02A	10ML	10/19	0.040	1
130.223.03A	130.236.03A	20ML	10/19	0.040	1
130.223.04A	130.236.04A	25ML	10/19	0.040	1
130.223.05A	130.236.05A	50ML	12/21	0.060	1
130.223.05AB	130.236.06A	50ML	14/23	0.100	1
130.223.06AB	130.236.07A	100ML	12/21	0.100	1
130.223.06A	130.236.08A	100ML	14/23	0.100	1
130.223.07A	130.236.09A	200ML	14/23	0.150	1
130.223.08A	130.236.10A	250ML	14/23	0.150	1
130.223.09A	130.236.11A	500ML	19/26	0.250	1
130.223.10A	130.236.12A	1000ML	24/29	0.400	1
130.223.11A	130.236.13A	2000ML	29/32	0.600	1

Volumetric Flasks

Volumetric Flask PP Stopper Class A in compliance with USP (United States Pharmacopia) Standard with Individual work Certificate and Serial Number.

Volumetric Flasks

WITH PP STOPPER CLEAR GLASS	WITH PP STOPPER AMBER GLASS	Cap. ml.	N/S	Tolerance (±ml)	PCS/ PACK
130.220.01	130.220.01A	5ML	10/19	0.020	1
130.220.02	130.220.02AB	10ML	10/19	0.020	1
130.220.02A	130.220.03A	20ML	10/19	0.030	1
130.220.03	130.220.04A	25ML	10/19	0.030	1
130.220.04	130.220.05A	50ML	12/21	0.050	1
130.220.04B	130.220.05AB	50ML	14/23	0.050	1
130.220.05B	130.220.06AB	100ML	12/21	0.080	1
130.220.05	130.220.06A	100ML	14/23	0.080	1
130.220.06	130.220.07A	200ML	14/23	0.100	1
130.220.07	130.220.08A	250ML	14/23	0.120	1
130.220.08	130.220.09A	500ML	19/26	0.150	1
130.220.09	130.220.10A	1000ML	24/29	0.300	1
130.220.10	130.220.11A	2000ML	29/32	0.500	1

Volumetric Flasks

Volumetric Flask, PP Stopper Class A
In Compliance with USP Standard with Conformity Batch Certificate

WITH PP STOPPER CLEAR GLASS	WITH PP STOPPER AMBER GLASS	Cap. ml.	N/S	Tolerance (±ml)	PCS/ PACK
130.461.01	130.462.01	5ML	10/19	0.020	2
130.461.02	130.462.02	10ML	10/19	0.020	2
130.461.03	130.462.03	20ML	10/19	0.030	2
130.461.04	130.462.04	25ML	10/19	0.030	2
130.461.05	130.462.05	50ML	12/21	0.050	2
130.461.06	130.462.06	50ML	14/23	0.050	2
130.461.07	130.462.07	100ML	12/21	0.080	2
130.461.08	130.462.08	100ML	14/23	0.080	2
130.461.09	130.462.09	200ML	14/23	0.100	2
130.461.10	130.462.10	250ML	14/23	0.120	2
130.461.11	130.462.11	500ML	19/26	0.150	2
130.461.12	130.462.12	1000ML	24/29	0.300	2
130.461.13	130.462.13	2000ML	29/32	0.500	1

Volumetric Flasks (Heavy Wall)

Volumetric Flasks

Volumetric Flask, PP Stopper Class A wide mouth heavy wall Unserialized in Compliance with ASTM E 288 Standard.

WITH PP STOPPER CLEAR GLASS	WITH PP STOPPER AMBER GLASS	Cap. ml.	Stopper Number	Tolerance (±ml)	PCS/ PACK
131.232.01	131.232.01A	5ML	13	0.020	2
131.232.02	131.232.02A	10ML	13	0.020	2
131.232.03	131.232.03A	20ML	13	0.030	2
131.232.04	131.232.04A	25ML	13	0.030	2
131.232.05	131.232.05A	50ML	13	0.050	2
131.232.06	131.232.06A	100ML	16	0.080	2
131.232.07	131.232.07A	200ML	19	0.100	2
131.232.08	131.232.08A	250ML	19	0.120	2
131.232.09	131.232.09A	500ML	19	0.200	2
131.232.10	131.232.10A	1000ML	22	0.300	2
131.232.11	131.232.11A	2000ML	27	0.500	1

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Unserialized Serialized

For more information see Page : 33

Volumetric Flasks

Volumetric Flask, PP Stopper Class A wide mouth heavy wall Serialized with Individual Work Certificate in Compliance ASTM E 288 Standard

WITH PP STOPPER CLEAR GLASS	WITH PP STOPPER AMBER GLASS	Cap. ml.	Stopper Number	Tolerance (±ml)	PCS/ PACK
131.276.01	131.276.01A	5ML	13	0.020	1
131.276.02	131.276.02A	10ML	13	0.020	1
131.276.03	131.276.03A	20ML	13	0.030	1
131.276.04	131.276.04A	25ML	13	0.030	1
131.276.05	131.276.05A	50ML	13	0.050	1
131.276.06	131.276.06A	100ML	16	0.080	1
131.276.07	131.276.07A	200ML	19	0.100	1
131.276.08	131.276.08A	250ML	19	0.120	1
131.276.09	131.276.09A	500ML	19	0.200	1
131.276.10	131.276.10A	1000ML	22	0.300	1
131.276.11	131.276.11A	2000ML	27	0.500	1

Volumetric Flasks (Heavy Wall)

Volumetric Flask, Glass Stopper Class A
wide mouth heavy wall Unserialized in Compliance with ASTM E 288 Standard.

Volumetric Flasks

New

WITH GLASS STOPPER CLEAR GLASS	WITH GLASS STOPPER AMBER GLASS	Cap. ml.	Stopper Number	Tolerance (±ml)	PCS/ PACK
131.234.01	131.234.01A	5ML	13	0.020	2
131.234.02	131.234.02A	10ML	13	0.020	2
131.234.03	131.234.03A	20ML	13	0.030	2
131.234.04	131.234.04A	25ML	13	0.030	2
131.234.05	131.234.05A	50ML	13	0.050	2
131.234.06	131.234.06A	100ML	16	0.080	2
131.234.07	131.234.07A	200ML	19	0.100	2
131.234.08	131.234.08A	250ML	19	0.120	2
131.234.09	131.234.09A	500ML	19	0.200	2
131.234.10	131.234.10A	1000ML	22	0.300	2
131.234.11	131.234.11A	2000ML	27	0.500	1

Volumetric Flasks

New

Volumetric Flask, Glass Stopper Class A wide mouth heavy wall Serialized with Individual Work Certificate in Compliance ASTM E 288 Standard

WITH GLASS STOPPER CLEAR GLASS	WITH GLASS STOPPER AMBER GLASS	Cap. ml.	Stopper Number	Tolerance (±ml)	PCS/ PACK
131.236.01	131.236.01A	5ML	13	0.020	1
131.236.02	131.236.02A	10ML	13	0.020	1
131.236.03	131.236.03A	20ML	13	0.030	1
131.236.04	131.236.04A	25ML	13	0.030	1
131.236.05	131.236.05A	50ML	13	0.050	1
131.236.06	131.236.06A	100ML	16	0.080	1
131.236.07	131.236.07A	200ML	19	0.100	1
131.236.08	131.236.08A	250ML	19	0.120	1
131.236.09	131.236.09A	500ML	19	0.200	1
131.236.10	131.236.10A	1000ML	22	0.300	1
131.236.11	131.236.11A	2000ML	27	0.500	1

012.269.02	STOPPER NUMBER 13
012.269.02A	STOPPER NUMBER 16
012.269.03	STOPPER NUMBER 19
012.269.04	STOPPER NUMBER 22
012.269.05	STOPPER NUMBER 27

Penny Head Stoppers For ASTM Flasks

Volumetric Flasks

Volumetric Flasks

New

Volumetric Flask, PP Stopper Class A Narrow Mouth
Unserialized in Compliance with ASTM E 288 Standard

WITH PP STOPPER CLEAR GLASS	WITH PP STOPPER AMBER GLASS	Cap. ml.	Stopper Number	Tolerance (±ml)	PCS/ PACK
134.232.01	134.232.01A	5ML	9	0.020	2
134.232.02	134.232.02A	10ML	9	0.020	2
134.232.03	134.232.03A	20ML	9	0.030	2
134.232.04	134.232.04A	25ML	9	0.030	2
134.232.05	134.232.05A	50ML	9	0.050	2
134.232.06	134.232.06A	100ML	13	0.080	2
134.232.07	134.232.07A	200ML	16	0.100	2
134.232.08	134.232.08A	250ML	16	0.120	2

Volumetric Flasks

New

Volumetric Flask, PP Stopper Class A Narrow Mouth
Serialized in Compliance with ASTM E 288 Standard

WITH PP STOPPER CLEAR GLASS	WITH PP STOPPER AMBER GLASS	Cap. ml.	Stopper Number	Tolerance (±ml)	PCS/ PACK
134.276.01	134.276.01A	5ML	9	0.020	2
134.276.02	134.276.02A	10ML	9	0.020	2
134.276.03	134.276.03A	20ML	9	0.030	2
134.276.04	134.276.04A	25ML	9	0.030	2
134.276.05	134.276.05A	50ML	9	0.050	2
134.276.06	134.276.06A	100ML	13	0.080	2
134.276.07	134.276.07A	200ML	16	0.100	2
134.276.08	134.276.08A	250ML	16	0.120	2

Volumetric Flasks

Volumetric Flasks

Volumetric Flask, Glass Stopper Class A Narrow Mouth
Unserialized in Compliance with ASTM E 288 Standard

WITH GLASS STOPPER CLEAR GLASS	WITH GLASS STOPPER AMBER GLASS	Cap. ml.	Stopper Number	Tolerance (±ml)	PCS/ PACK
134.234.01	134.234.01A	5ML	9	0.020	2
134.234.02	134.234.02A	10ML	9	0.020	2
134.234.03	134.234.03A	20ML	9	0.030	2
134.234.04	134.234.04A	25ML	9	0.030	2
134.234.05	134.234.05A	50ML	9	0.050	2
134.234.06	134.234.06A	100ML	13	0.080	2
134.234.07	134.234.07A	200ML	16	0.100	2
134.234.08	134.234.08A	250ML	16	0.120	2

New

Volumetric Flasks

New

Volumetric Flask, Glass Stopper Class A
Narrow Mouth Serialized in Compliance
with ASTM E 288 Standard

WITH GLASS STOPPER CLEAR GLASS	WITH GLASS STOPPER AMBER GLASS	Cap. ml.	Stopper Number	Tolerance (±ml)	PCS/ PACK
134.236.01	134.236.01A	5ML	9	0.020	2
134.236.02	134.236.02A	10ML	9	0.020	2
134.236.03	134.236.03A	20ML	9	0.030	2
134.236.04	134.236.04A	25ML	9	0.030	2
134.236.05	134.236.05A	50ML	9	0.050	2
134.236.06	134.236.06A	100ML	13	0.080	2
134.236.07	134.236.07A	200ML	16	0.100	2
134.236.08	134.236.08A	250ML	16	0.120	2

Volumetric Flasks

Volumetric Flasks

New

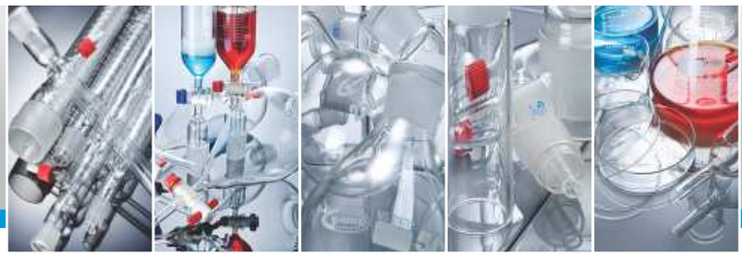
Volumetric Flask Class A, Unserialized (LOT Certified) with Snap Cap, Designed as per **ASTM-E 288** standard

Cat No.	Cap. ml.	Plastic Cap No.	Tolerance (±ml)	PCS/ PACK
132.402.05	50ML	3	0.050	2
132.402.06	100ML	4	0.080	2
132.402.07	200ML	5	0.100	2
132.402.08	250ML	5	0.120	2
132.402.09	500ML	5	0.200	2
132.402.10	1000ML	6	0.300	2
132.402.11	2000ML	8	0.500	1

Volumetric Flasks

Volumetric Flask Class B, with snap cap, designed as per **ASTM-E 288** standard

Cat No.	Cap. ml.	Plastic Cap No.	Tolerance (±ml)	PCS/ PACK
132.422.05	50ML	3	0.100	2
132.422.06	100ML	4	0.160	2
132.422.07	200ML	5	0.200	2
132.422.08	250ML	5	0.240	2
132.422.09	500ML	5	0.400	2
132.422.10	1000ML	6	0.600	2
132.422.11	2000ML	8	1.000	1



Volumetric Flasks

Volumetric Flasks

New

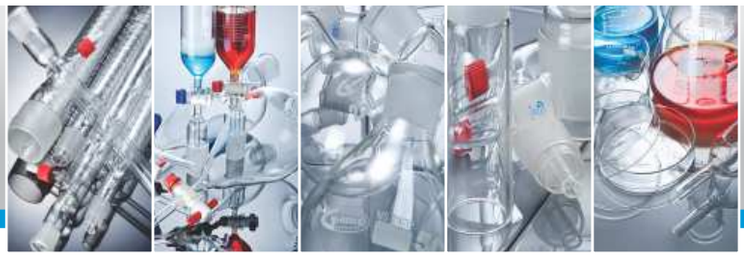
Volumetric Flasks, Clear Glass, Class B, DIN ISO-1042

Cat. No. WITH PP STOPPER	Cat. No. WITH Glass STOPPER	Cap. ml.	N/S	Tolerance (±ml)	PCS/ PACK
129.222.01	128.234.01	5ML	10/19	0.080	2
129.222.02	128.234.02	10ML	10/19	0.080	2
129.222.02A	128.234.02A	20ML	10/19	0.080	2
129.222.03	128.234.03	25ML	10/19	0.080	2
129.222.04	128.234.04	50ML	12/21	0.120	2
129.222.04A	128.234.04A	50ML	14/23	0.200	2
129.222.11	128.234.11	100ML	12/21	0.200	2
129.222.05	128.234.05	100ML	14/23	0.200	2
129.222.06	128.234.06	200ML	14/23	0.300	2
129.222.07	128.234.07	250ML	14/23	0.300	2
129.222.08	128.234.08	500ML	19/26	0.500	2
129.222.09	128.234.09	1000ML	24/29	0.800	2
129.222.10	128.234.10	2000ML	29/32	1.200	1

New

Volumetric Flasks, Amber Glass, Class B, DIN ISO-1042

Cat. No. WITH PP STOPPER	Cat. No. WITH GLASS STOPPER	Cap. ml.	N/S	Tolerance (±ml)	PCS/ PACK
130.222.01A	130.422.01A	5ML	10/19	0.040	1
130.222.02AB	130.422.02A	10ML	10/19	0.040	1
130.222.03A	130.422.03A	20ML	10/19	0.040	1
130.222.04A	130.422.04A	25ML	10/19	0.040	1
130.222.05A	130.422.05A	50ML	12/21	0.060	1
130.222.05AB	130.422.06A	50ML	14/23	0.100	1
130.222.06AB	130.422.07A	100ML	12/21	0.100	1
130.222.06A	130.422.08A	100ML	14/23	0.100	1
130.222.07A	130.422.09A	200ML	14/23	0.150	1
130.222.08A	130.422.10A	250ML	14/23	0.150	1
130.222.09A	130.422.11A	500ML	19/26	0.250	1
130.222.10A	130.422.12A	1000ML	24/29	0.400	1
130.222.11A	130.422.13A	2000ML	29/32	0.600	1



Measuring Cylinders

GLASSCO measuring cylinders are made from ASTM E – 438 TYPE 1 CLASS A BORO 3.3 glass that meet ISO 4788 standard. The calibration is done on automatic computer controlled machine and are calibrated to contain (TC, In) according to the ISO tolerance standards. All these cylinders of CLASS A are printed in blue colour and class B in white colour. These cylinders comes with detachable plastic base.

Measuring Cylinders

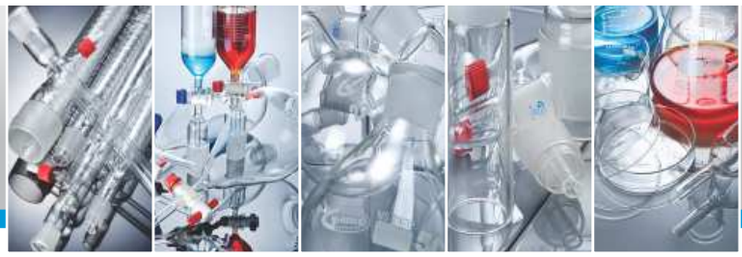
Measuring Cylinder as per **DIN EN ISO 4788** with detachable PP base, with protection collar Class B printed in blue colour.

Cat No.	Cap. ml.	SUB DIVISION	Tolerance (±ml)	PCS/ PACK
137.202.02	10ML	0.2	0.200	10
137.202.03	25ML	0.5	0.500	10
137.202.04	50ML	1.0	1.000	10
137.202.05	100ML	1.0	1.000	10
137.202.06	250ML	2.0	2.000	10

Measuring Cylinder

Measuring Cylinder with round base Class A with conformity batch certificate or individual work certificate (Economy Model)

Cat No. with conformity batch certificate	Cat no. With individual work certificate	Economy				
		Cap. ml.	SUB DIVISION	Tolerance (±ml)	Lot PCS/ PACK	Individual PCS/ PACK
139.202.01	139.223.01	5ML	0.1	0.05	2	1
139.202.02	139.223.02	10ML	0.2	0.10	2	1
139.202.03	139.223.03	25ML	0.5	0.25	2	1
139.202.04	139.223.04	50ML	1.0	0.50	2	1
139.202.05	139.223.05	100ML	1.0	0.50	2	1
139.202.06	139.223.06	250ML	2.0	1.00	2	1
139.202.07	139.223.07	500ML	5.0	2.50	2	1
139.202.08	139.223.08	1000ML	10.0	5.00	1	1
139.202.09	139.223.09	2000ML	20.0	10.00	1	1



Measuring Cylinders

Measuring Cylinder with hexagonal base class A with conformity batch certificate or individual work certificate as per **DIN EN ISO 4788** & **USP Standards**

Cat No. with conformity batch certificate	Cat no. With individual work certificate	Cap. ml.	SUB DIVISION	Tolerance (±ml)	Lot PCS/ PACK	Individual PCS/ PACK
139.202.01A	139.223.01A	10ML	0.2	0.10	2	1
139.202.02A	139.223.02A	25ML	0.5	0.25	2	1
139.202.03A	139.223.03A	50ML	1.0	0.50	2	1
139.202.04A	139.223.04A	100ML	1.0	0.50	2	1
139.202.05A	139.223.05A	250ML	2.0	1.00	2	1
139.202.06A	139.223.06A	500ML	5.0	2.50	2	1
139.202.07A	139.223.07A	1000ML	10.0	5.00	1	1
139.202.08A	139.223.08A	2000ML	20.0	10.00	1	1

Measuring Cylinders USP Grade

New

Cat No. with conformity batch certificate	Cat no. With individual work certificate	New USP Cylinders				
		Cap. ml.	SUB DIVISION	Tolerance (±ml)	Lot PCS/ PACK	Individual PCS/ PACK
139.292.01A	139.221.01A	10ML	0.2	0.10	2	1
139.292.02A	139.221.02A	25ML	0.5	0.15	2	1
139.292.03A	139.221.03A	50ML	1.0	0.25	2	1
139.292.04A	139.221.04A	100ML	1.0	0.50	2	1
139.292.05A	139.221.05A	250ML	2.0	1.00	2	1
139.292.06A	139.221.06A	500ML	5.0	1.50	2	1
139.292.07A	139.221.07A	1000ML	10.0	3.00	1	1
139.292.08A	139.221.08A	2000ML	20.0	6.00	1	1

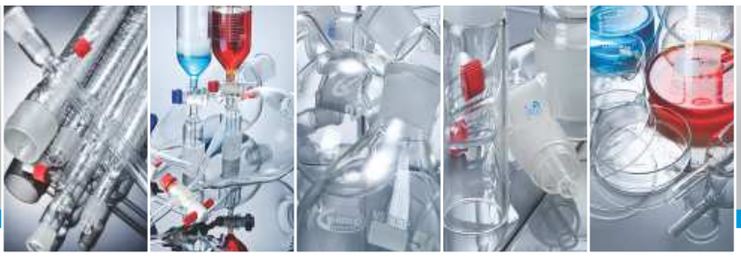
Measuring Cylinder

Measuring Cylinder

TD Cylinders

Measuring Cylinder Class A Hexagonal Base according to USP and ASTM E1272 Standard with graduation To deliver (TD). It comes in Unserialized and Serialized (with Individual Work Certificate). The tolerance of these cylinders are tighter than DIN ISO cylinders.

Unserialized	Serialized with Individual Certificate	Cap. ml.	SUB DIVISION	Tolerance (±ml)	Unserialized PCS/ PACK	Serialized PCS/ PACK
139.463.01	139.220.01A	10ML	0.2	0.10	2	1
139.463.02	139.220.02A	25ML	0.5	0.17	2	1
139.463.03	139.220.03A	50ML	1.0	0.25	2	1
139.463.04	139.220.04A	100ML	1.0	0.50	2	1
139.463.05	139.220.05A	250ML	2.0	1.00	2	1
139.463.06	139.220.06A	500ML	5.0	2.00	2	1
139.463.07	139.220.07A	1000ML	10.0	3.00	1	1
139.463.08	139.220.08A	2000ML	20.0	6.00	1	1

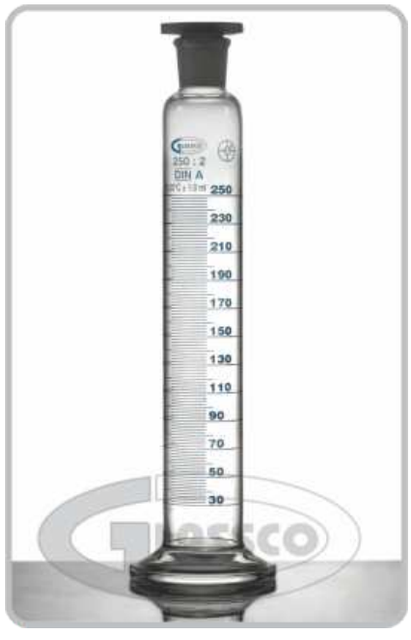


Measuring Cylinders

Mixing Cylinder Class A with PP stopper as per **DIN EN ISO 4788** standards in round base and hexagonal base with batch conformity certificate.

Mixing Cylinder

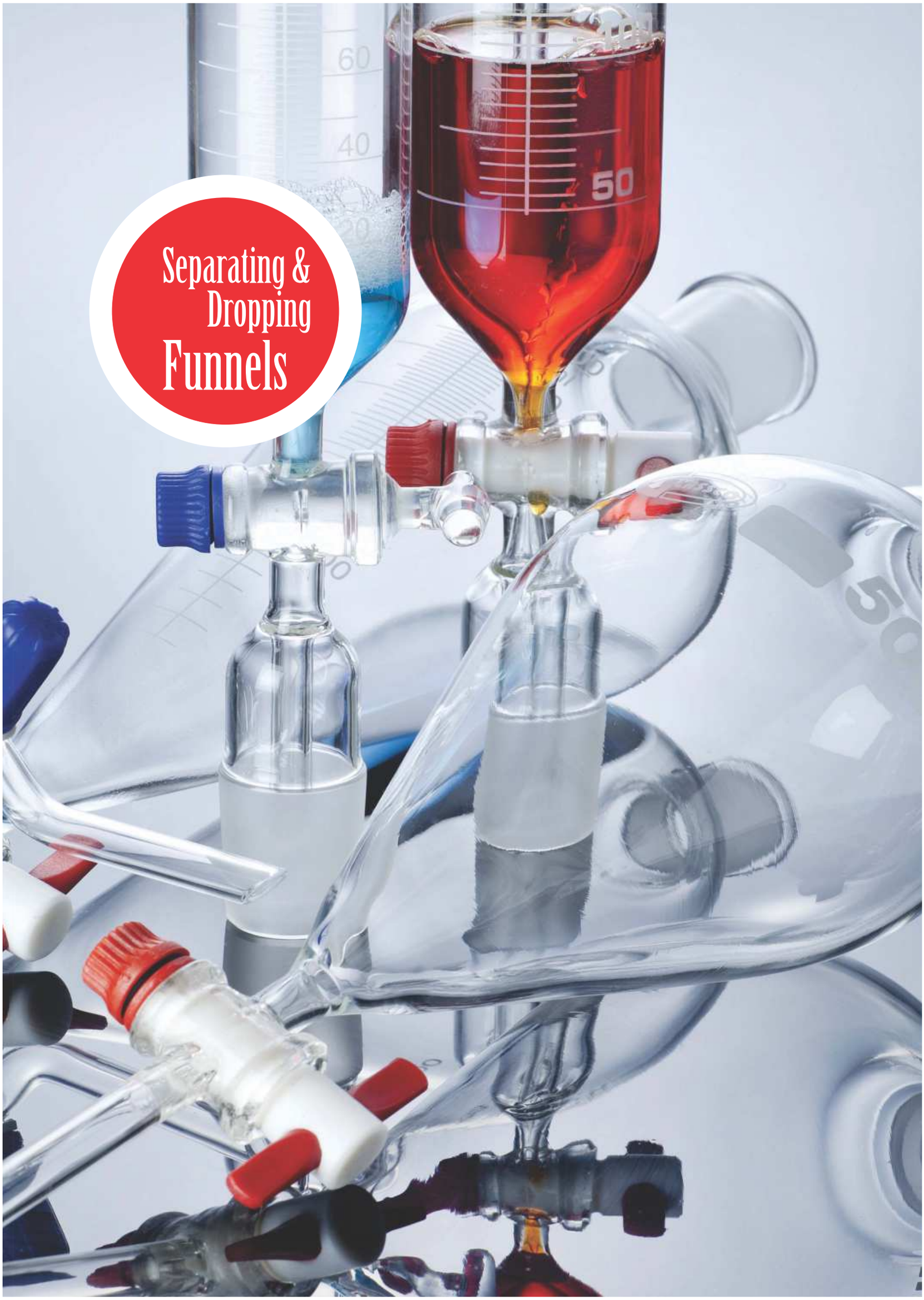
Cat No. with Round Base	Cat no. with hexagonal base	Cap. ml.	SUB DIVISION	Tolerance (±ml)	PCS/ PACK
141.202.02	142.202.01A	10ML	0.2	0.10	2
141.202.03	142.202.02A	25ML	0.5	0.25	2
141.202.04	142.202.03A	50ML	1.0	0.50	2
141.202.05	142.202.04A	100ML	1.0	0.50	2
141.202.06	142.202.05A	250ML	2.0	1.00	2
141.202.07	142.202.06A	500ML	5.0	2.50	2
141.202.08	142.202.07A	1000ML	10.0	5.00	1
141.202.09	142.202.08A	2000ML	20.0	10.00	1



Nessler Cylinder

Nessler Cylinder, for colour comparison CLASS A graduated

Cat No.	Cap. ml.	Sub Divi ml.	Tolerance (±ml)	PCS/ PACK
143.202.01	50ML	25 & 50	0.4	10
143.202.02	100ML	50 & 100	0.8	10

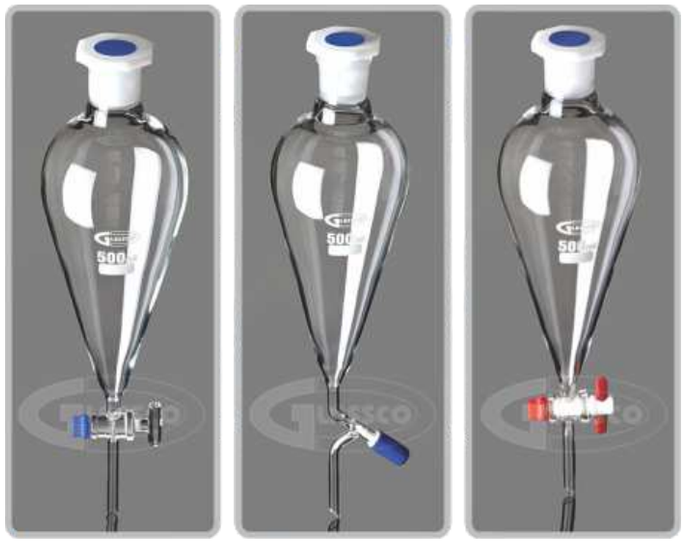

Separating &
Dropping
Funnels

Squibb Separating Funnels

Separating and dropping funnels are produced from **ASTM E -438** TYPE-1 CLASS A BORO 3.3 heat resistant glass. All these flasks are manufactures as per DIN ISO 4800 standard.

The printing is done in white colour.

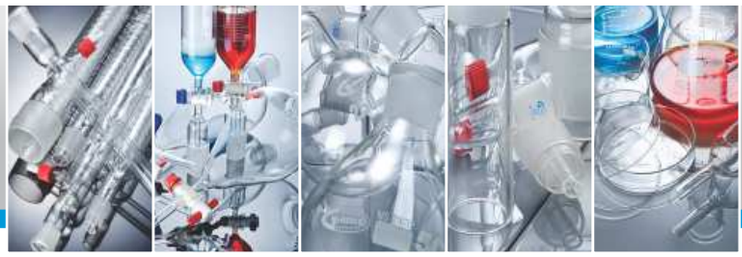
Squibb Shape



Separating Funnel Squibb Shape, with PP Stopper as per **ISO 4800 Standards.**

CAT. NO.PLAIN	CAT NO.WITH GRADUATION	CAPACITY	N/S	BORE	STOP COCK TYPE	PCS/ PACK
147.202.02	147.209.02	50ML	19/26	2.5	SOLID GLASS	1
147.202.03	147.209.03	100ML	19/26	2.5	SOLID GLASS	1
147.202.04	147.209.04	250ML	29/32	4	SOLID GLASS	1
147.202.05	147.209.05	500ML	29/32	4	SOLID GLASS	1
147.202.06	147.209.06	1000ML	29/32	6	SOLID GLASS	1
147.202.07	147.209.07	2000ML	29/32	6	SOLID GLASS	1
148.202.02	148.209.02	50ML	19/26	2.5	NEEDLE VALVE	1
148.202.03	148.209.03	100ML	19/26	2.5	NEEDLE VALVE	1
148.202.04	148.209.04	250ML	29/32	4	NEEDLE VALVE	1
148.202.05	148.209.05	500ML	29/32	4	NEEDLE VALVE	1
148.202.06	148.209.06	1000ML	29/32	6	NEEDLE VALVE	1
148.202.07	148.209.07	2000ML	29/32	6	NEEDLE VALVE	1
149.202.02	149.209.02	50ML	19/26	2.5	PTFE	1
149.202.03	149.209.03	100ML	19/26	2.5	PTFE	1
149.202.04	149.209.04	250ML	29/32	4	PTFE	1
149.202.05	149.209.05	500ML	29/32	4	PTFE	1
149.202.06	149.209.06	1000ML	29/32	6	PTFE	1
149.202.07	149.209.07	2000ML	29/32	6	PTFE	1

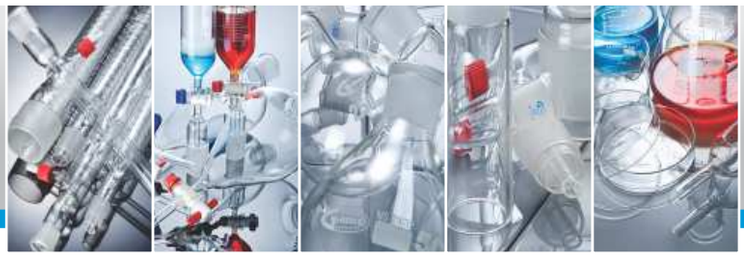
Graduated



Pear Separating Funnels

Separating Funnel Pear (ISO Shape), with PP Stopper
as per **ISO 4800 Standards.**

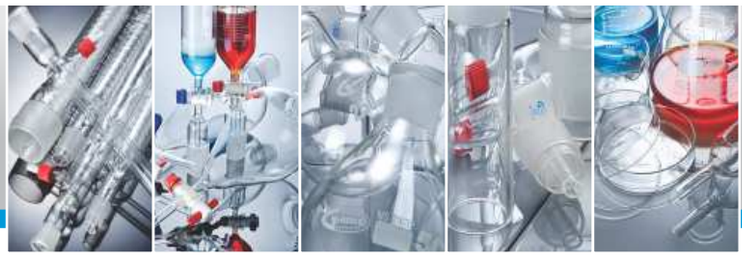
CAT. NO. PLAIN	CAPACITY	N/S	BORE	STOP COCK TYPE	PCS/ PACK
150.202.02	50ML	19/26	2.5	SOLID GLASS	1
150.202.03	100ML	19/26	2.5	SOLID GLASS	1
150.202.04	250ML	29/32	4	SOLID GLASS	1
150.202.05	500ML	29/32	4	SOLID GLASS	1
150.202.06	1000ML	29/32	6	SOLID GLASS	1
150.202.07	2000ML	29/32	6	SOLID GLASS	1
151.202.02	50ML	19/26	2.5	NEEDLE VALVE	1
151.202.03	100ML	19/26	2.5	NEEDLE VALVE	1
151.202.04	250ML	29/32	4	NEEDLE VALVE	1
151.202.05	500ML	29/32	4	NEEDLE VALVE	1
151.202.06	1000ML	29/32	6	NEEDLE VALVE	1
151.202.07	2000ML	29/32	6	NEEDLE VALVE	1
152.202.02	50ML	19/26	2.5	PTFE	1
152.202.03	100ML	19/26	2.5	PTFE	1
152.202.04	250ML	29/32	4	PTFE	1
152.202.05	500ML	29/32	4	PTFE	1
152.202.06	1000ML	29/32	6	PTFE	1
152.202.07	2000ML	29/32	6	PTFE	1



Graduated Dropping Funnels

Dropping Funnel Cylindrical, with PP Stopper as per **ISO 4800 Standards**

CAT. NO.	CAPACITY	N/S	BORE	STOP COCK TYPE	PCS/ PACK
154.203.02	50ML	14/23	2.5	SOLID GLASS	1
154.204.02	50ML	29 /32	2.5	SOLID GLASS	1
154.203.03	100ML	14/23	2.5	SOLID GLASS	1
154.204.03	100ML	29/32	2.5	SOLID GLASS	1
154.202.04	250ML	29/32	4	SOLID GLASS	1
154.202.05	500ML	29/32	4	SOLID GLASS	1
154.202.06	1000ML	29/32	6	SOLID GLASS	1
156.203.02	50ML	14/23	2.5	NEEDLE VALVE	1
156.204.02	50ML	29 /32	2.5	NEEDLE VALVE	1
156.203.03	100ML	14/23	2.5	NEEDLE VALVE	1
156.204.03	100ML	29/32	2.5	NEEDLE VALVE	1
156.202.04	250ML	29/32	4	NEEDLE VALVE	1
156.202.05	500ML	29/32	4	NEEDLE VALVE	1
156.202.06	1000ML	29/32	6	NEEDLE VALVE	1
158.203.02	50ML	14/23	2.5	PTFE	1
158.204.02	50ML	29 /32	2.5	PTFE	1
158.203.03	100ML	14/23	2.5	PTFE	1
158.204.03	100ML	29/32	2.5	PTFE	1
158.202.04	250ML	29/32	4	PTFE	1
158.202.05	500ML	29/32	4	PTFE	1
158.202.06	1000ML	29/32	6	PTFE	1



Gilson Funnels

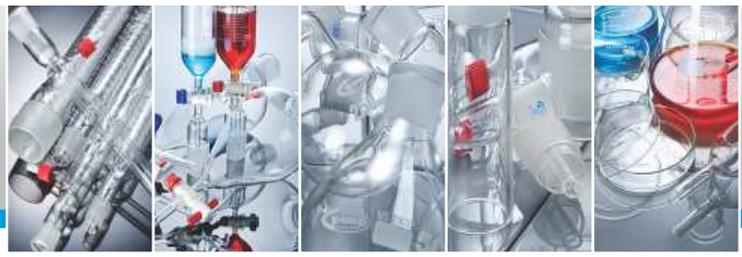
Separating Funnel Gilson, with PP Stopper

CAT NO.	CAPACITY				
		N/S	BORE SIZE	STOP COCK TYPE	PCS/ PACK
159.202.01	50ML	19/26	2.5	SOLID GLASS	1
159.202.02	100ML	19/26	2.5	SOLID GLASS	1
159.202.03	250ML	29/32	4	SOLID GLASS	1
159.202.04	500ML	29/32	4	SOLID GLASS	1
159.202.05	1000ML	29/32	6	SOLID GLASS	1
159.202.06	2000ML	29/32	6	SOLID GLASS	1
160.202.01	50ML	19/26	2.5	PTFE	1
160.202.02	100ML	19/26	2.5	PTFE	1
160.202.03	250ML	29/32	4	PTFE	1
160.202.04	500ML	29/32	4	PTFE	1
160.202.05	1000ML	29/32	6	PTFE	1
160.202.06	2000ML	29/32	6	PTFE	1

Separating Funnels

Separating Funnel Pear shape, with PP Stopper
with socket & cone

CAT NO.	CAPACITY	Socket & Cone N/S	BORE SIZE	STOP COCK TYPE	PCS/ PACK
162.202.03	50ML	19/26	2.5	SOLID GLASS	1
162.202.05	100ML	19/26	2.5	SOLID GLASS	1
162.204.06	250ML	29/32	4	SOLID GLASS	1
162.204.08	500ML	29/32	4	SOLID GLASS	1
162.204.11	1000ML	29/32	6	SOLID GLASS	1
163.202.03	50ML	19/26	2.5	NEEDLE VALVE	1
163.202.05	100ML	19/26	2.5	NEEDLE VALVE	1
163.204.06	250ML	29/32	4	NEEDLE VALVE	1
163.204.08	500ML	29/32	4	NEEDLE VALVE	1
163.204.11	1000ML	29/32	6	NEEDLE VALVE	1
164.202.03	50ML	19/26	2.5	PTFE	1
164.202.05	100ML	19/26	2.5	PTFE	1
164.204.06	250ML	29/32	4	PTFE	1
164.204.08	500ML	29/32	4	PTFE	1
164.204.11	1000ML	29/32	6	PTFE	1

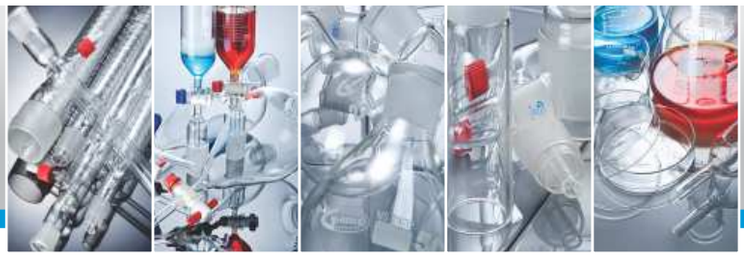


Pear Separating Funnels

Separating Funnel Pear Shape with stem inside cone

CAT NO.	CAPACITY	Socket & Cone N/S	BORE SIZE	STOP COCK TYPE	PCS/ PACK
162.210.03	50ML	19/26	2.5	SOLID GLASS	1
162.210.05	100ML	19/26	2.5	SOLID GLASS	1
162.210.06	250ML	29/32	4	SOLID GLASS	1
162.210.08	500ML	29/32	4	SOLID GLASS	1
162.210.10	1000ML	29/32	6	SOLID GLASS	1
164.210.03	50ML	19/26	2.5	PTFE	1
164.210.05	100ML	19/26	2.5	PTFE	1
164.210.06	250ML	29/32	4	PTFE	1
164.210.08	500ML	29/32	4	PTFE	1
164.210.10	1000ML	29/32	6	PTFE	1

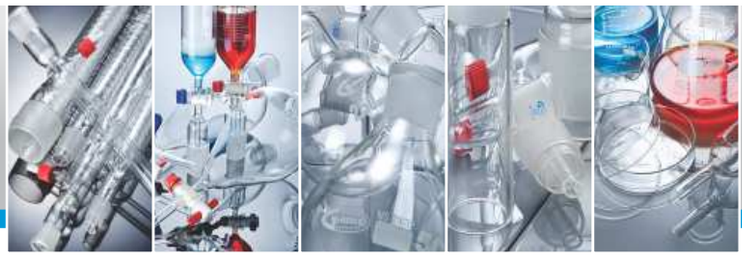
Separating Funnel Pear Shape



Dropping Funnels

Separating Funnel, Cylindrical, with PP Stopper,
with Socket and Cone. **DIN 4800**

CAT NO.	CAPACITY	Socket & Cone N/S	BORE SIZE	STOP COCK TYPE	PCS/ PACK
165.202.02	50ML	14/23	2.5	SOLID GLASS	1
165.202.02A	50ML	29/32	2.5	SOLID GLASS	1
165.202.03	100ML	14/23	2.5	SOLID GLASS	1
165.202.03A	100ML	29/32	2.5	SOLID GLASS	1
165.202.05A	250ML	29/32	4	SOLID GLASS	1
165.202.06A	500ML	29/32	4	SOLID GLASS	1
165.202.07A	1000ML	29/32	6	SOLID GLASS	1
166.202.02	50ML	14/23	2.5	NEEDLE VALVE	1
166.202.02A	50ML	29/32	2.5	NEEDLE VALVE	1
166.202.03	100ML	14/23	2.5	NEEDLE VALVE	1
166.202.03A	100ML	29/32	2.5	NEEDLE VALVE	1
166.202.05A	250ML	29/32	4	NEEDLE VALVE	1
166.202.06A	500ML	29/32	4	NEEDLE VALVE	1
166.202.07A	1000ML	29/32	6	NEEDLE VALVE	1
167.202.02	50ML	14/23	2.5	PTFE	1
167.202.02A	50ML	29/32	2.5	PTFE	1
167.202.03	100ML	14/23	2.5	PTFE	1
167.202.03A	100ML	29/32	2.5	PTFE	1
167.202.05A	250ML	29/32	4	PTFE	1
167.202.06A	500ML	29/32	4	PTFE	1
167.202.07A	1000ML	29/32	6	PTFE	1

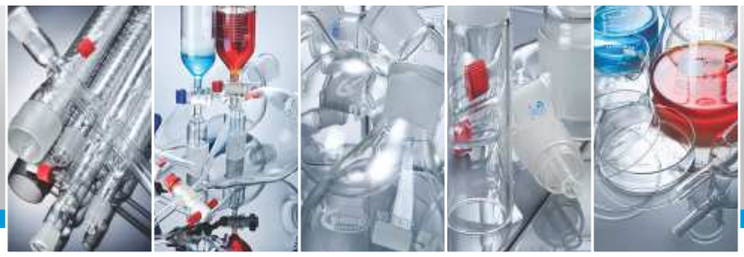


Dropping Funnels

Dropping Funnel, Cylindrical with stem inside cone. **DIN 4800**

CAT NO.	CAPACITY	Socket & Cone N/S	BORE SIZE	STOP COCK TYPE	PCS/ PACK
165.210.02	50ML	14/23	2.5	SOLID GLASS	1
165.210.02A	50ML	29/32	2.5	SOLID GLASS	1
165.210.03	100ML	14/23	2.5	SOLID GLASS	1
165.210.03A	100ML	29/32	2.5	SOLID GLASS	1
165.210.05	250ML	29/32	4	SOLID GLASS	1
165.210.06	500ML	29/32	4	SOLID GLASS	1
165.210.07	1000ML	29/32	6	SOLID GLASS	1
167.210.02	50ML	14/23	2.5	PTFE	1
167.210.02A	50ML	29/32	2.5	PTFE	1
167.210.03	100ML	14/23	2.5	PTFE	1
167.210.03A	100ML	29/32	2.5	PTFE	1
167.210.05	250ML	29/32	4	PTFE	1
167.210.06	500ML	29/32	4	PTFE	1
167.210.07	1000ML	29/32	6	PTFE	1

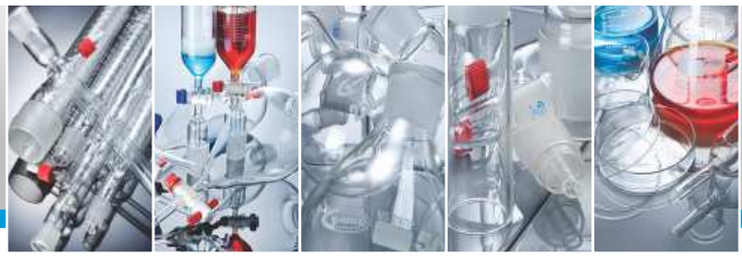
Dropping Funnel Cylindrical



Pressure Equalizing Funnels

CAT NO.	CAPACITY	SOCKET AND CONE N/S	BORE SIZE	STOP COCK TYPE	PCS/ PACK
168.202.01	50ML	14/23	2.5	SOLID GLASS	1
168.202.01A	50ML	29/32	2.5	SOLID GLASS	1
168.202.02A	100ML	14/23	2.5	SOLID GLASS	1
168.202.03A	100ML	29/32	2.5	SOLID GLASS	1
168.202.04A	250ML	29/32	4	SOLID GLASS	1
168.202.05A	500ML	29/32	4	SOLID GLASS	1
169.202.01	50ML	14/23	2.5	PTEF	1
169.202.01A	50ML	29/32	2.5	PTEF	1
169.202.02A	100ML	14/23	2.5	PTEF	1
169.202.03A	100ML	29/32	2.5	PTEF	1
169.202.04A	250ML	29/32	4	PTEF	1
169.202.05A	500ML	29/32	4	PTEF	1

Pressure Equalizing Funnel Cylindrical



Pressure Equalizing Funnels

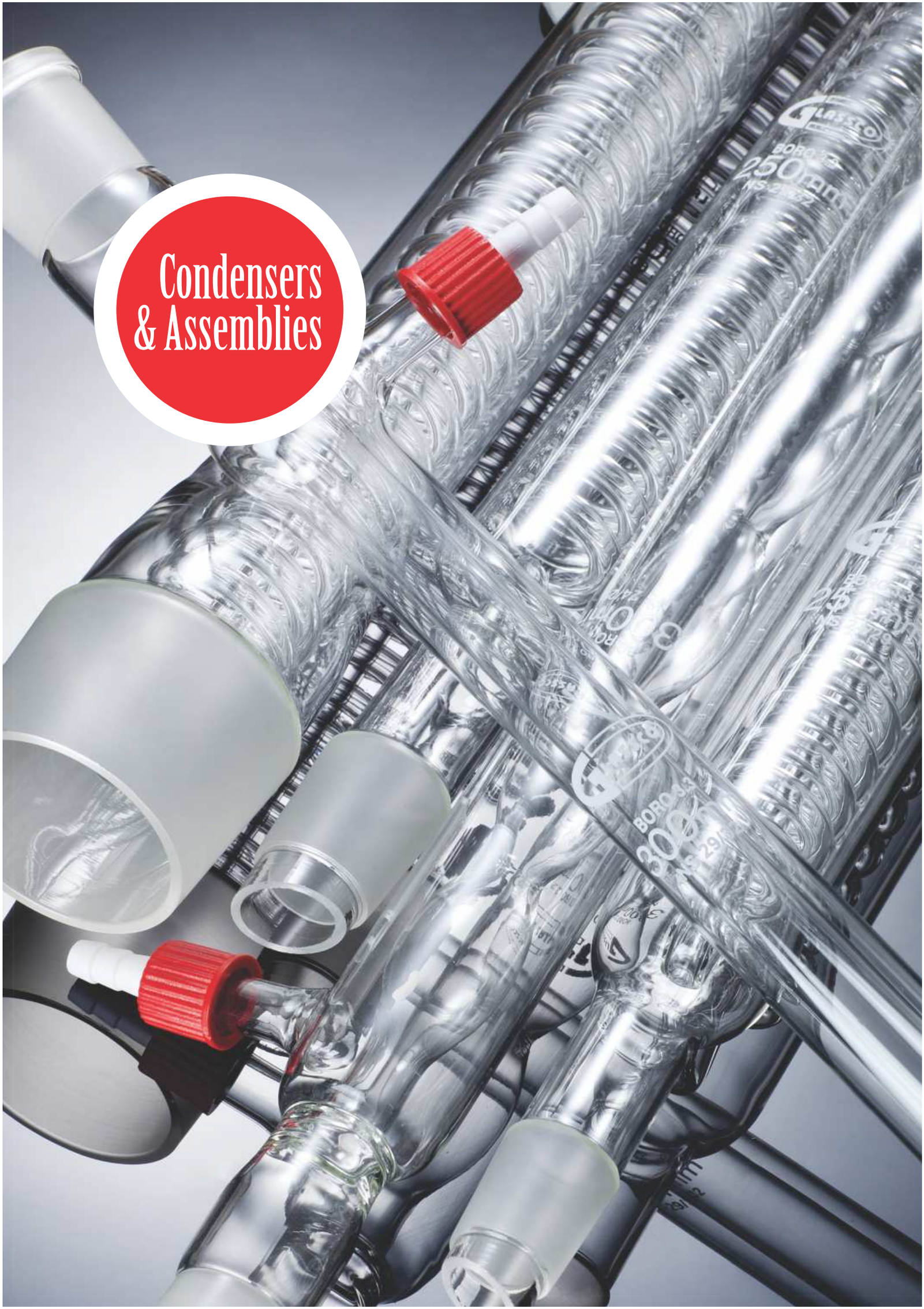
Pressure Equalizing Funnels, Pear Shape

CAT NO.	CAPACITY	SOCKET AND CONE N/S	BORE SIZE	STOP COCK TYPE	PCS/ PACK
170.202.01	50ML	14/23	2.5	SOLID GLASS	1
170.202.02A	100ML	14/23	2.5	SOLID GLASS	1
170.202.04A	250ML	29/32	4	SOLID GLASS	1
170.202.05A	500ML	29/32	4	SOLID GLASS	1
171.202.01	50ML	14/23	2.5	PTFE	1
171.202.02A	100ML	14/23	2.5	PTFE	1
171.202.04A	250ML	29/32	4	PTFE	1
171.202.05A	500ML	29/32	4	PTFE	1

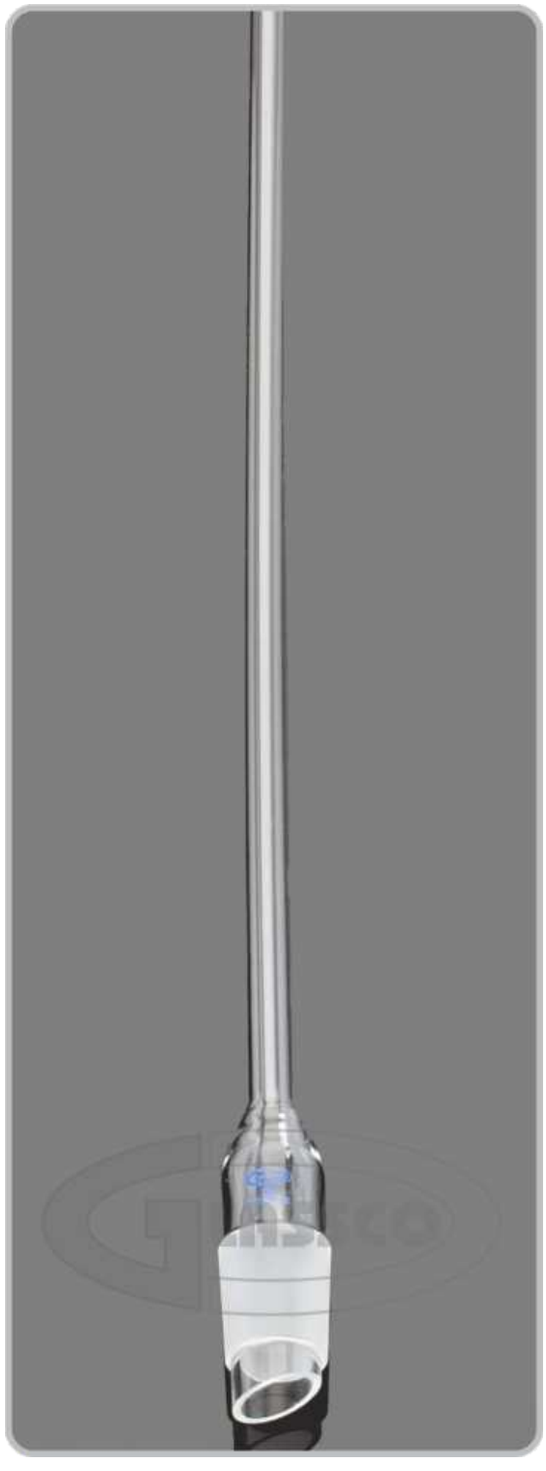
Pressure Equalizing Funnel

Notes

Condensers & Assemblies



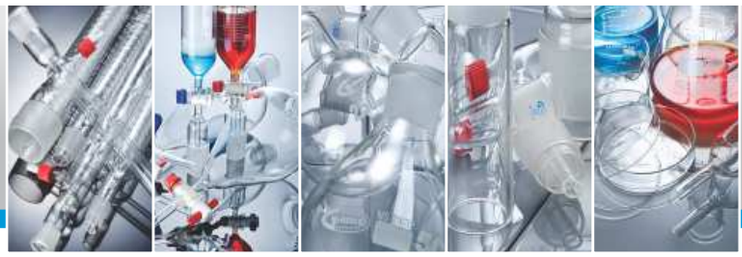
Air Condensers



Air Condensers, Manufactured from **ASTM E 438** type **1 Class A boro 3.3 Glass**. These are used for the condensation of material with boiling point above 150c.

Air condenser

CAT NO.	Socket			
		Cone	Effective Length (mm.)	Pcs/ Pack
181.202.01	14/23	14/23	200	1
181.202.02	19/26	19/26	200	1
181.202.03	24/29	24/29	250	1
181.202.04	19/26	19/26	400	1
181.202.05	24/29	24/29	500	1
181.202.06	34/35	34/35	500	1
181.202.07	19/26	19/26	600	1
181.202.08	24/29	24/29	750	1
181.202.09	-	19/26	750	1
181.202.10	-	24/29	750	1
181.202.11	-	19/26	1000	1
181.202.12	-	24/29	1000	1



Liebig Condenser

Manufactured from ASTM E428 type **1 Class A Boro 3.3 Glass.** These condenser comes with Glass & Plastic screw thread connector & is highly efficient with large cooling surface, **DIN 12576**

CAT NO .	SOCKET	EFFECTIVE LENGTH (mm)	CONE	CONNECTOR	Pcs/ Pack
182.181.01	14/23	160	14/23	SCREW THREAD	1
182.181.01A	19/26	160	19/26	SCREW THREAD	1
182.181.02	19/26	250	19/26	SCREW THREAD	1
182.181.03	24/29	250	24/29	SCREW THREAD	1
182.181.3A	29/32	250	29/32	SCREW THREAD	1
182.181.04*	19/26	300	19/26	SCREW THREAD	1
182.181.05*	24/29	300	24/29	SCREW THREAD	1
182.181.06*	29/32	300	29/32	SCREW THREAD	1
182.181.10	24/29	400	24/29	SCREW THREAD	1
182.181.11	29/32	400	29/32	SCREW THREAD	1
182.202.01	14/23	160	14/23	GLASS	1
182.202.01A	19/26	160	19/26	GLASS	1
182.202.02	19/26	250	19/26	GLASS	1
182.202.03	24/29		29	GLASS	1
182.202.03A	29/32	25	32	GLASS	1
182.202.04*	19/26		26	GLASS	1
182.202.05*	24/29	30		GLASS	1
182.202.06*	29/32	30	2 32	GLASS	1
182.202.10	24/29		29	GLASS	1
182.202.11	29/32	400	29/32	GLASS	1

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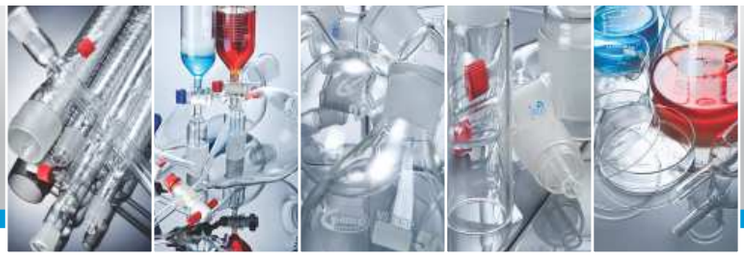
* Non DIN

Liebig Condensers

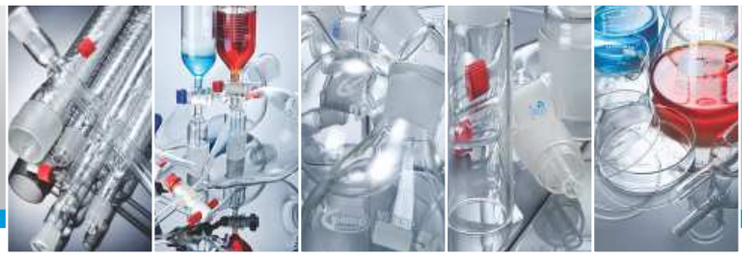


Coil Condenser

Manufactured from ASTM E 438 type 1 Class A boro 3.3 Glass. These condenser comes with glass connectors and with plastic screw thread connector and is highly efficient with a large cooling surface.

CAT NO .	SOCKET	EFFECTIVE LENGTH (mm)	CONE	CONNECTOR	Pcs/ Pack
183.181.01	14/23	160	14/23	SCREW THREAD	1
183.181.01A	19/26	160	19/26	SCREW THREAD	1
183.181.02A	14/23	250	14/23	SCREW THREAD	1
183.181.03	19/26	250	19/26	SCREW THREAD	1
183.181.04	24/29	250	24/29	SCREW THREAD	1
183.181.04A	29/32	250	29/32	SCREW THREAD	1
183.181.05	24/29	300	24/29	SCREW THREAD	1
183.181.06	29/32	300	29/32	SCREW THREAD	1
183.181.07	29/32	400	29/32	SCREW THREAD	1
183.202.01	14/23	160	14/23	GLASS	1
183.202.01A	19/26	160	19/26	GLASS	1
183.202.02A	14/23	250	14/23	GLASS	1
183.202.03	19/26	2	6	GLASS	1
183.202.04	24/29	3	24/29	GLASS	1
183.202.04A	29/32	2	29	GLASS	1
183.202.05	24/29	30	24	GLASS	1
183.202.06	29/32	3	2	GLASS	1
183.202.07	29/32	400	29/32	GLASS	1

Coil Condensers



Allihin Condenser

Manufactured from ASTM E 438 type 1 Class A boro 3.3 Glass in compliance with DIN 12581.
These condensers are ideal for reflux and comes with glass and plastic screw thread connector.

CAT NO .	SOCKET	EFFECTIVE LENGTH (mm)	CONE	CONNECTOR	Pcs/ Pack
190.181.05	14/23	160	14/23	SCREW THREAD	1
190.181.06	19/26	160	19/26	SCREW THREAD	1
190.181.07	14/23	250	14/23	SCREW THREAD	1
190.181.08	19/26	250	19/26	SCREW THREAD	1
190.181.09	24/29	250	24/29	SCREW THREAD	1
190.181.09A	29/32	250	29/32	SCREW THREAD	1
190.181.10*	24/29	300	24/29	SCREW THREAD	1
190.181.11*	29/32	300	29/32	SCREW THREAD	1
190.181.12*	24/29	400	24/29	SCREW THREAD	1
190.181.13*	29/32	400	29/32	SCREW THREAD	1
190.202.05	14/23	160	14/23	GLASS	1
190.202.06	19/26	160	19/26	GLASS	1
190.202.07	14/23	2	1	GLASS	1
190.202.08	19/26	2	19/26	GLASS	1
190.202.09	24/29	2	24	GLASS	1
190.202.09A	29/32	25	29/	GLASS	1
190.202.10*	24/29	3	2	GLASS	1
190.202.11*	29/32	300	29/32	GLASS	1
190.202.12*	24/29	400	24/29	GLASS	1
190.202.13*	29/32	400	29/32	GLASS	1

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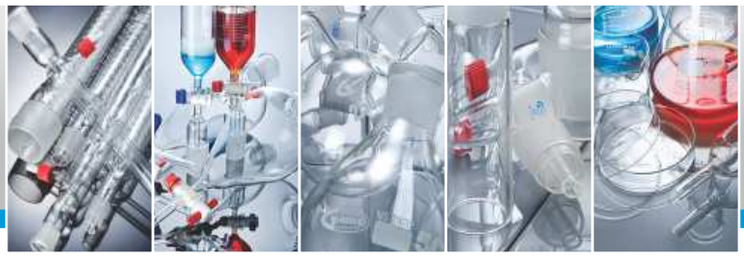
* Non DIN

Allihin Condensers



Dimroth Condenser

Manufactured from ASTM E 438 type 1 Class A boro 3.3 Glass in compliance with DIN 12591.
The condenser comes with glass and plastic screw thread connector

CAT NO .	SOCKET	APPROX EFFECTIVE LENGTH (mm)	CONE	CONNECTOR	Pcs/ Pack
190.181.01A	14/23	160	14/23	SCREW THREAD	1
190.181.02A	19/26	160	19/26	SCREW THREAD	1
190.181.03A	19/26	250	19/26	SCREW THREAD	1
190.181.04A	24/29	250	24/29	SCREW THREAD	1
190.181.05A	29/32	250	29/32	SCREW THREAD	1
190.181.06A*	24/29	300	24/29	SCREW THREAD	1
190.181.07A*	29/32	300	29/32	SCREW THREAD	1
190.181.08A	29/32	400	29/32	SCREW THREAD	1
190.204.01	14/23	160	14/23	GLASS	1
190.204.02	19/26	160	19/26	GLASS	1
190.204.03	19/26	250	19/26	GLASS	1
190.204.04	24/29	250	24/29	GLASS	1
190.204.05	29/32	250	29/32	GLASS	1
190.204.06*	24/29			GLASS	1
190.204.07*	29/32	30	2	GLASS	1
190.204.08	29/32		/32	GLASS	1

* Non DIN

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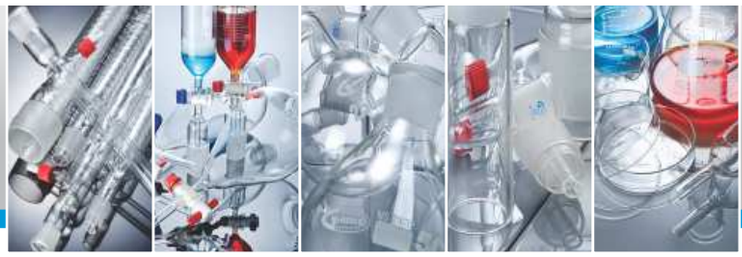
Dimroth Condensers

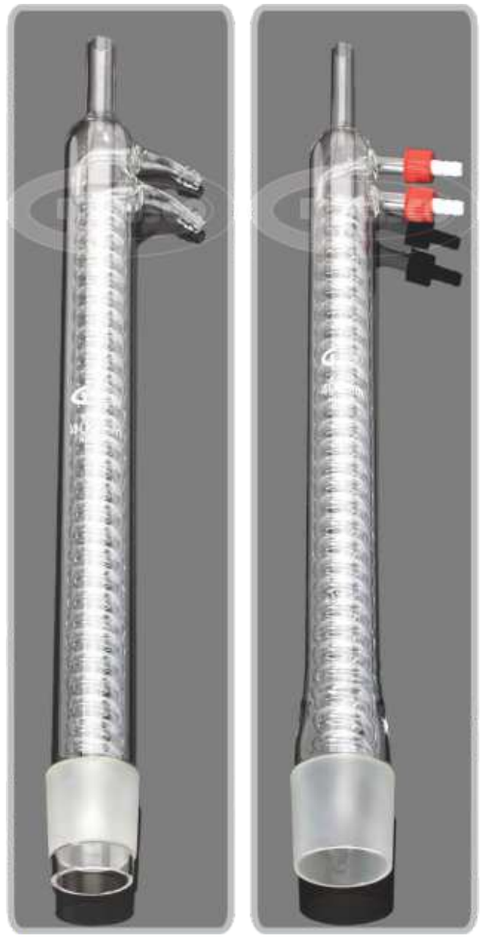


Condensers for Soxhlet Apparatus

Allihin condenser

Manufactured from ASTM E 438 type 1 Class a boro 3.3 Glass.
This condenser come with glass and plastic screw thread connector.

CAT NO .	CONE	EFFECTIVE LENGTH (mm)	EXTRACTOR ML	CONNECTOR	Pcs/ Pack
191.181.01	45/40	300	100	SCREW THREAD	1
191.181.01A	45/40	400	250	SCREW THREAD	1
191.181.02	60/46	400	500	SCREW THREAD	1
191.181.03	71/55	400	1000	SCREW THREAD	1
191.202.01	45/40	300	100	Glass	1
191.202.01A	45/40	400	250	Glass	1
191.202.02	60/46	400	500	Glass	1
191.202.03	71/55	400	1000	Glass	1



Dimroth Condensers

Manufactured from ASTM E 438 type 1 Class a boro 3.3 Glass. This condenser come with glass and plastic screw thread connector.

CAT NO .	CONE	EFFECTIVE LENGTH (mm)	EXTRACTOR ML	CONNECTOR	Pcs/ Pack
192.181.01	45/40	300	100	SCREW THREAD	1
192.181.01A	45/40	400	250	SCREW THREAD	1
192.181.02	60/46	400	500	SCREW THREAD	1
192.181.03	71/55	400	1000	SCREW THREAD	1
192.202.01	45/40	300	100	Glass	1
192.202.01A	45/40	400	250	Glass	1
192.202.02	60/46	400	500	Glass	1
192.202.03	71/55	400	1000	Glass	1

Extraction Apparatus

Consists of Flask, Extractor and condenser.

Cat No .	Extractor cap.(ml)	Extractor Scoket	Extractor Cone	Flask Cap	condenser Type	Connector	Pcs/ Pack
210.202.04	100	45/40	29/32	250	ALLIHIN	SCREW THREAD	1
210.202.06	250	45/40	29/32	500	ALLIHIN	SCREW THREAD	1
210.202.08	500	60/46	29/32	1000	ALLIHIN	SCREW THREAD	1
210.202.09	1000	71/55	29/32	2000	ALLIHIN	SCREW THREAD	1
210.202.12	100	45/40	29/32	250	DIMROTH	SCREW THREAD	1
210.202.13	150	45/40	29/32	250	DIMROTH	SCREW THREAD	1
210.202.14	250	45/40	29/32	500	DIMROTH	SCREW THREAD	1
210.202.15	500	60/46	29/32	1000	DIMROTH	SCREW THREAD	1
210.202.16	1000	71/55	29/32	2000	DIMROTH	SCREW THREAD	1

Soxhlet Extraction Apparatus

DIN 12602

Soxhlet Extractor

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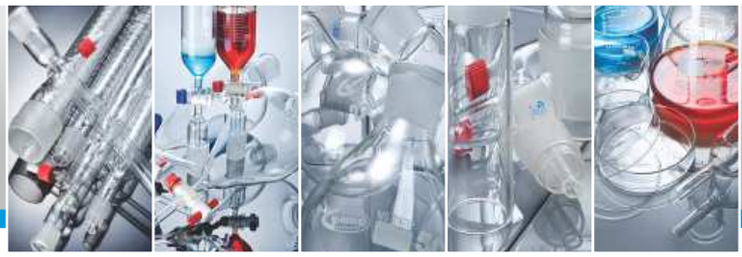
Cat. No.	Capacity (ml)	Socket	Cone	Pcs/ Pack
211.202.04	100	45/40	29/32	1
211.202.06	250	45/40	29/32	1
211.202.08	500	60/46	29/32	1
211.202.09	1000	71/55	29/32	1



Utility Sets

This set is ideal for introducing student to the principal techniques of perparative organic chemistry. Although the set is very simple a surprising number of preparations on the 30 g scale can be carried out.

Cat. No.	Description
202.202.01	Complete set comprising
	5 items of Glassware.

Item No.	Componets	29 BU/M
1	Pear shaped flask 50ml	1
2	Still head	1
3	Liebig condenser	1
4	Screw cap adapter	1
5	Receiver adapter	1

29 GU Organic Chemistry Set

A highly popular set in schools, collages and universities. It has been purposely designed to cover the essential requirements for the teaching of organic chemistry and is suitable for preparations up to 30g. This is a set which is difficult to beat for versatility.

Cat. No.	Description
203.202.01	Complete set comprising
	9 items of Glassware.

Item No.	Componets	27 BU/M
1	Pear shaped flask 50ml	1
2	Still head	1
3	Liebig condenser	1
4	Screw cap adapter	1
5	Receiver adapter	1
6	Air leak/steam inlet tube	1
7	Dropping funnel, 50 ml with GP Rotaflo tap	1
8	Stopper	1
9	Thermometer	1

27 GU Organic Chemistry Set

Utility Sets

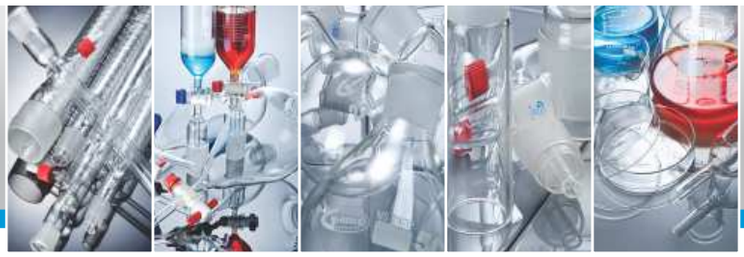
For student use in preparation organic chemistry up to the 1501 g scale, this includes all the necessary equipment to allow a wide range of preparation to be carried out. IT is also invaluable for industrial laboratories where the among of preparative work is not great and may occur at infrequent intervals. for such applications, this set has the advantage of covering an extensive field of work and occupying little space when not in use.

Cat. No.	Description
207.202.01	Complete set comprising
	16 items of Glassware.

Item No.	Componets	Socket size	Cone size
1	Still head	14/23	19/26
2	Receiver	19/26	24/29
3	Air leak/steam inlet tube	-	19/26
4	Liebig condenser	19/26	19/26
5	Dropping funnel, 100 ml	19/26	19/26
6	Reducing adapter	19/26	24/29
7	Multiple adapter	19/26	24/29
8	Flask, R.B., 50 ml	24/29	-
9	Flask, Erlenmeyer, 250 ml	24/29	-
10	Flask, R.B., 250 ml	24/29	-
11	Stopper	-	19/26
12	Stopper	-	19/26
13	Thermometer Pocket	-	14/23
14	Receiver adapter	19/26	-
15	Flask, R.B., 100mk	24/29	-
16	Stopper	-	24/29

34 GU Organic Chemistry Set


General
Glassware



Beakers

Manufactured from ASTME 438 TYPE 1 GLASS A BORO 3.3 GLASS. These beakers comply to ISO 3819, DIN 12331 ASTM E - 960 and USP standards. These beakers come with white graduation and marking area for use with an ordinary pencil. The beakers has a uniform wall thickness which make it ideal for heating application.

These beakers can be provided in White & Blue color printing. For ordering just use the same catalogue number and just mention the colour you need.

Beaker, Low form with graduation and spout
DIN 12331, ISO 3819

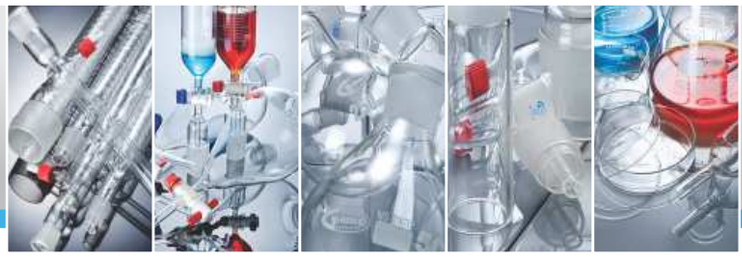
Cat No.	Capacity ml	D. (mm)	H. (mm)	Pcs/ Pack
229.202.02	10	26	35	10
229.202.03	25	34	50	10
229.202.04	50	42	60	10
229.202.05	100	50	70	10
229.202.06	150	60	80	10
229.202.07	250	70	95	10
229.202.08	400	80	110	10
229.202.09	600	90	125	8
229.202.10	1000	105	145	6
229.202.11	2000	132	185	4
229.202.13	3000	152	210	1

Beaker Low

Beaker Tall

Beaker, Tall form with graduation and spout
DIN 12331, ISO 3819

Cat No.	Capacity ml	D. (mm)	H. (mm)	Pcs/ Pack
230.202.02	50	38	70	10
230.202.03	100	48	80	10
230.202.04	150	54	95	10
230.202.05	250	60	120	10
230.202.06	400	70	130	10
230.202.07	600	80	150	8



Erlenmaryer Flasks

ERLENMAYER FLASK
Manufactured from ASTM E 438 TYPE A BORO 3.3 GLASS.

These flasks comply to DIN ISO 1773 and USP standards. All these flasks come with rim and are manufactured from thick glass.

These flasks come with white graduation and marking area for use with ordinary pencil. These flasks can be provided in White & Blue color printing.

For ordering just the same catalogue number and just mention the colour you need.

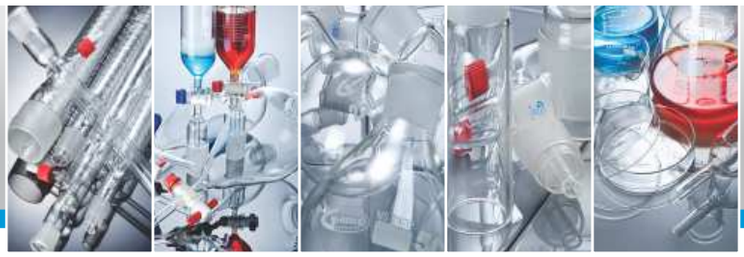
Erlenmeyer Flasks, Narrow Neck with graduation
DIN ISO 1773

Cat No.	Capacity ml	D. (mm)	D1. (mm)	H. (mm)	Pcs/ Pack
231.202.01	25	42	22	75	10
231.202.02	50	51	22	90	10
231.202.03	100	64	22	105	10
231.202.04	250	85	34	145	10
231.202.05	500	105	34	180	10
231.202.06	1000	131	34	220	10
231.202.07	2000	166	50	280	6
231.202.08	3000	187	52	310	1
231.202.09	5000	220	52	365	1

Erlenmeyer Flasks, Wide Neck with graduation
DIN 12385, EN ISO 24450.

Cat No.	Capacity ml	D. (mm)	D1. (mm)	H. (mm)	Pcs/ Pack
232.202.01*	25	42	31	70	10
232.202.02	50	51	34	85	10
232.202.03	100	64	34	105	10
232.202.05	250	85	50	140	10
232.202.07	500	105	50	175	10
232.202.08	1000	131	50	220	10
232.202.09	2000	153	72	276	6

* Non DIN



Round Bottom Flasks

Round Bottom and Flat Bottom Flasks

Manufactured from ASTM E 438 TYPE 1 CLASS A BORD 3.3 These flasks comply to DIN ISO 1773 and USP standards. All these flasks come with rim and are manufactured from thick glass.
These flasks come with white printing and marking area for use with ordinary pencil.

Flask Round Bottom narrow neck, with beaded rim
DIN 12347, ISO 1773

Flask Round Bottom Narrow Neck

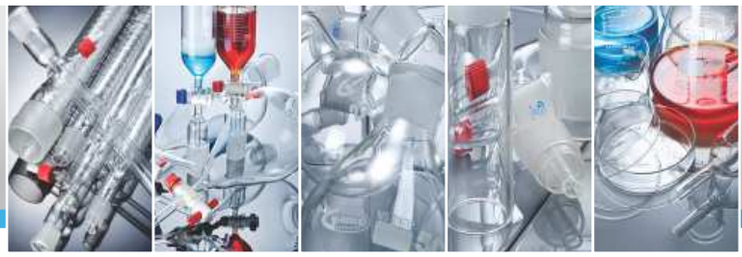
Cat No.	Capacity ml	D. (mm)	D1. (mm)	H. (mm)	Pcs/ Pack
233.202.01	50	51	26	95	10
233.202.02	100	64	26	110	10
233.202.03	250	85	34	144	10
233.202.04	500	105	34	168	10
233.202.05	1000	131	42	200	10
233.202.06	2000	166	42	240	6
233.202.07 *	3000	195	50	305	1
233.202.08 *	5000	233	55	345	1
233.202.09	10000	279	65	380	1

* Non DIN

Flask Round Bottom Wide Neck

Flask Round Bottom wide neck, with beaded rim
DIN 12347, ISO 1773

Cat No.	Capacity ml	D. (mm)	D1. (mm)	H. (mm)	Pcs/ Pack
234.202.01	50	51	34	95	10
234.202.02	100	64	35	110	10
234.202.03	250	85	51	145	10
234.202.04	500	105	50	168	10
234.202.05	1000	131	50	200	10
234.202.07	2000	166	76	240	6



Flat Bottom Flasks

Narrow Neck Flat Bottom Flask

Flask Flat Bottom, narrow neck, with beaded rim
DIN ISO 1773

Cat No.	Capacity ml	D. (mm)	D1. (mm)	H. (mm)	Pcs/ Pack
235.202.01	50	51	22	90	10
235.202.02	100	64	22	105	10
235.202.03	250	85	35	140	10
235.202.04	500	105	34	163	10
235.202.05	1000	131	42	190	10
235.202.06	2000	166	42	230	6
235.202.07*	3000	195	50	300	1
235.202.08	5000	233	50	320	1
235.202.09	10000	280	65	360	1

* Non DIN

Wide Neck Flat Bottom

Flask Flat Bottom, wide neck, with beaded rim
EN ISO 24450

Cat No.	Capacity ml	D. (mm)	D1. (mm)	H. (mm)	Pcs/ Pack
236.202.01	50	51	35	90	10
236.202.02	100	64	34	105	10
236.202.03	250	85	50	140	10
236.202.04	500	103	50	163	10
236.202.05	1000	131	50	190	10
236.202.06	2000	166	50	230	6

General Labware

Weighing Scoops

Weighing Scoops, with open tubular arm, suitable for use when small quantity of dyes or powders are to be weighed

Cat No.	Capacity	Pack Size
245.202.01	3ml	10
245.202.02	6ml	10
245.202.03	10ml	10

Dishes

Manufactured from ASTM E 438 TYPE 1 CIASS A BORO 3.3 GLASS. These dishes to DIN and USP standards. The dishes are printed in white colour and have marking area to use with ordinary pencil.

Dishes Crystallizing without Spout

Dishes, Crystallizing, without Spout

Cat No.	Diameter (mm)	Pack Size
246.202.01	40 x 25	10
246.202.02	50 x 30	10
246.202.03	60 x 35	10
246.202.04	70 x 40	10
246.202.05	80 x 45	10
246.202.06	95 x 55	10

General Labware

Dishes Crystallizing with Spout

Dishes, Crystallizing, with Spout, DIN 12337

Cat No.	O.D. x Height (mm)	Pack Size
246.202.01S	40 x 25	10
246.202.02S	50 x 30	10
246.202.03S	60 x 35	10
246.202.04S	70 x 40	10
246.202.05S	80 x 45	10
246.202.06S	95 x 55	10

Dessicator with Lid Plain

Dessicator with Lid, Plain, Die pressed, Neutral Glass with Porcelain perforated plate.

Cat No.	I.D.(mm)	Pack Size
249.202.01	150	1
249.202.02	210	1
249.202.03	250	1
249.202.04	300	1

Dessicator with Lid Plain

Dessicator With Lid,
Vacuum, Die Pressed, Neutral Glass with Porcelain Perforated Plate and Glass Sleeve

Cat No.	I.D.(mm)	Pack Size
250.202.01	150	1
250.202.02	210	1
250.202.03	250	1
250.202.04	300	1

Notes


Filtration
Glassware

POROSITY GRADES AND THEIR GENERAL USE

Porosity Grade	Pore Size (Microns)	General use
1	90-150	Filtration of coarse materials/percipitates, ges Dispersion, ges washing, extractor bed, support for other filter materials.
2.	40-90	Filtration of medium precipitates gas disperation, gas washing.
3.	15-40	Filtration of fine grain precipitates. Anayical work With medium precipitates mercury filtration.
4.	5-15	Analytical work with fine and very fine precipitates. Non return mercy valves.
5.	1-2	Bacteriological filtration.

Chemical Durability

Glassco Sintered ware is produced from the same high quality material from which all Glassco Brand borosilicate laboratory glassco are manufactured and thus, have excellent resistance to chemical attack.

Operating Pressure

The sintered discs and the glassco are incorporation them are mainly designed for the application of vacuum of for passage of gases at a relatively low pressure. In all cases the differential pressure must not exceed 100 KM/m^2(15psi).

Thermal Limitations

The resistance to thermal shock of sintered ware is comparatively less than of standard Glassco glassware. Therefore, articles of sintered ware should not be subjected to excessive temperature charges nor to direct flames.

Glassco Sintered crucibles are particularly suited for drying to constant weight. Dry sintered crucibles at room temperature can be placed directly into a drying oven at 150°C, although customary practice is to dry at 110° C. Sintered ware may safely be heated in furnace to 500°C without ill effect, provided that the cycle of heating and cooling is gradual strains caused by excessive temperature of apparatus.

Sintered ware of porosity grades 4 and 5 when cold and damp should never be subjected to a sudden temperature change since the evolution to steam my set up sufficient pressure within th filter, to crack it.

Filtration apparatus should be kept on its rim (stem upwards) in oven or sterilizer, A perforated support base is advantageous for air convection in case pipeline filters. Care should be taken by use of heat insulating material such as asbestos to avoid premature near filter seal. Apparatus should remain in the oven of sterilizer during cooling to avoid too fast cooling rate.

Cleaning of Sintered Ware

New sintered filters should be washed carefully with hot hydrochloric acid and then rinsed with distilled water before they are used. This treatment will ensure that all loose particles are removed from the filter.

It is recommended that all sintered filters are thoroughly cleaned "immediately" after use. This is the most favorable time for ease of cleaning and will ensure less risk of contamination in subsequent use

Many precipitates can be removed from the filter by backflishing with water. However, great care must be taken with large diameters and fine filter, as positive pressures on the reverse side may break the filter.

Under no circumstances, should sintered apparatus be subjected to mains water pressure when back flushing as in most instances will a vacuum pump is also effective.

Filters clogged by dust and dirt dust and gas filtration can be restored by treatment with a warm detergent solution followed by blowing clean air from the clean side of the filter. Dirt particles are brought to the surface by the foam and removed by rinsing with water.

Some precipitates may clog filter which may be removed by chemical cleaning as given below.

Filtration Glassware

Funnels

Manufactured from **ASTM E 438 TYPE 1 CLASS A BORO 3.3 GLASS.** These funnels comply to ISO, DIN AND USP standards.

Item Code	Diameter (mm)	Pcs/ Pack
238.202.01 *	25	10
238.202.02	35	10
238.202.03 *	38	10
238.202.04 *	40	10
238.202.05 *	50	10
238.202.06	55	10
238.202.07 *	65	10
238.202.08 *	70	10
238.202.09	75	10
238.202.10 *	80	10
238.202.11	100	10
238.202.12	125	10
238.202.13	150	10

* Non DIN

Funnel Powder

Funnel Powder

Item Code	N/S Size	Approx Funnel Diameter	Pack Size
238.202.01P	14/23	45 mm	10
238.202.02P	14/23	70 mm	10
238.202.03P	29/32	70 mm	10
238.202.04P	29/32	80 mm	10
238.202.05P	14/23	100 mm	10
238.202.06P	29/32	100 mm	10

Filtration Glassware

Filter crucible with sintered disc manufacturer from **ASTM E 438 TYPE 1 CLASS A BORO 3.3 GLASS.**

Filter Crucible

Cat No.	Porosity	Capacity (ML)	Pcs/ Pack
255.G00.01	0	15	10
255.G01.01	1	15	10
255.G02.01	2	15	10
255.G03.01	3	15	10
255.G04.01	4	15	10
255.G00.02	0	30	10
255.G01.02	1	30	10
255.G02.02	2	30	10
255.G03.02	3	30	10
255.G04.02	4	30	10
255.G00.03	0	50	10
255.G01.03	1	50	10
255.G02.03	2	50	10
255.G03.03	3	50	10
255.G04.03	4	50	10

Buchner Funnels

Buchner funnels with sintered disc manufacturer from **ASTM 438 TYPE 1 CLASS A BORO 3.3 GLASS.**

Cat No.	Porosity	Capacity (ML)	Pcs/ Pack
256.G00.01	0	35	2
256.G01.01	1	35	2
256.G02.01	2	35	2
256.G03.01	3	35	2
256.G04.01	4	35	2
256.G00.02	0	80	2
256.G01.02	1	80	2
256.G02.02	2	80	2
256.G03.02	3	80	2
256.G04.02	4	80	2
256.G00.03	0	200	2
256.G01.03	1	200	2
256.G02.03	2	200	2
256.G03.03	3	200	2
256.G04.03	4	200	2
256.G00.04	0	500	2
256.G01.04	1	500	2
256.G02.04	2	500	2
256.G03.04	3	500	2
256.G04.04	4	500	2
256.G00.05	0	1000	2
256.G01.05	1	1000	2
256.G02.05	2	1000	2
256.G03.05	3	1000	2
256.G04.05	4	1000	2

Filtration Glassware

All-Glass Filter Holder

For 47 mm Disc Filters

Applications :

This is used in vacuum filter aqueous, organic or corrosive liquids for particulate contamination analysis. Also recommended for HPLC solvent filtration.

Specifications:

Materials

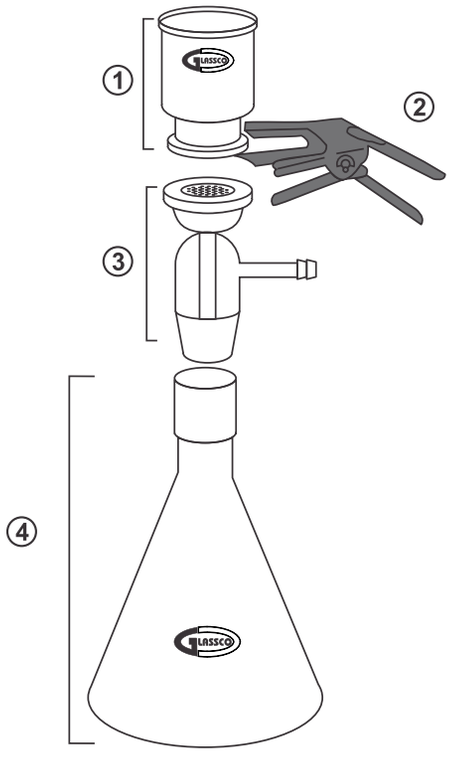
258.202.01	Borosilicate glass funnel, base and tubulated cap; anodized aluminum spring clamp; fritted glass filter support
Filter Diameter, mm	47
Filtration Area, cm^2	9.6
Funnel Capacity, ml	Funnel: 300 ml; flask: 1 l
Outlet Fitting	6 mm (1/4 in.) O.D. tubulated cap sidearm to vacuum

Ordering Information:

Catalogue No.	Description
258.202.01	All-Glass Filter Holder Assembly with funnel, fritted base, cap, clamp, 47 mm

Replacement Parts

Catalogue No.	Description
258.245.01	Glass funnel, 300 ml, borosilcate
258.245.02	Spring clamp, 47 mm, aluminum
258.245.03	Glass Base & Cap, 47 mm
258.245.04	Ground Joint Flask, 1000ml



Replacement Parts:

1 Funnel 300 ml
2 Clamp 47 mm
3 Vacuum Base 47 mm with Sintered Disc
4 Ground Joint Flask 1000 ml

Filtration Glassware

Glass Microanalysis Filter Holders

For 25 mm Disc Filters

Applications:

This is used to filter under vacuum/small volumes for particulate or biological contamination analysis. Filter is available in fritted glass or stainless steel. Thick prefilters or laminated filters will not seal in this holder. You may use Durapore (PVDF) membrane or unlaminated PTFE for solvent applications with this apparatus.

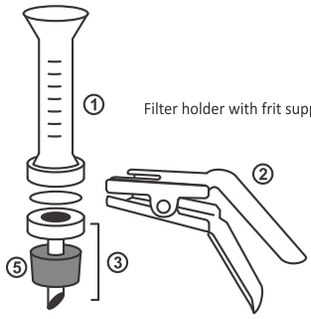
Specifications:

Materials

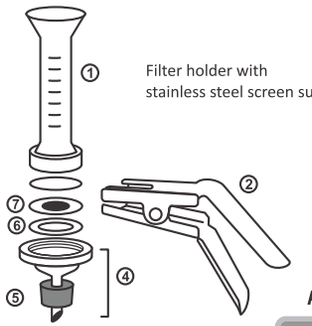
259.202.01	Borosilicate glass funnel and base; fritted glass filter support; anodized aluminum spring clamp; silicone stopper
259.202.03	Borosilicate glass funnel and base; removable stainless steel screen filter support; anodized aluminum spring clamp; silicone stopper
Filter Diameter, mm	25
Filtration Area, cm^2	2.5
Funnel Capacity, ml	15
Outlet Fitting	No. 5 perforated silicone stopper mounts in standard 125 ml filtering flask
Dimensions	
Height, cm	15.2
Diameter, cm	2.5

Ordering Information:

Catalogue No.	Description
259.202.01	Microanalysis Filter Holder, 25 mm, fritted glass support
Replacement Parts	
259.245.01	Funnel,15 ml, borosilicate glass
259.245.02	Fritted Glass Base with stopper, 25 mm
259.245.03	Spring Clamp, 25 mm, aluminum
259.245.06	No. 5 perforated stopper, silicone
Catalogue No.	**Description**
259.202.03	Microanalysis Filter Holder, 25 mm, stainless steel support
Replacement Parts	
259.245.01	Funnel,15 ml, borosilicate glass
259.245.03	Spring Clamp, 25 mm, aluminum
259.245.05	Base stopper & stainless steel screen
259.245.06	No. 5 perforated stopper, silicone
259.245.07	Gaskets, Teflon
259.245.08	Support Screen, 25 mm, stainless steel
Accessories	
259.245.04	Vacuum filtering flask, 125 ml



Filter holder with frit support.



Filter holder with stainless steel screen support

Replacement Parts:

1. Glass Funnel 15 ml
2. Clamp 25 mm
3. Fritted Glass Base 25 mm
4. Base 25 mm
5. Stopper No. 5
6. Teflon Gasket
7. Screen 25 mm

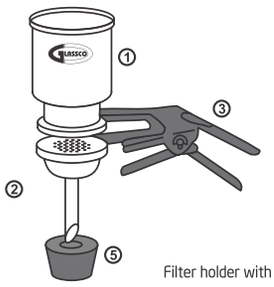
Accessories

Filter Flask 125 ml

Filtration Glassware

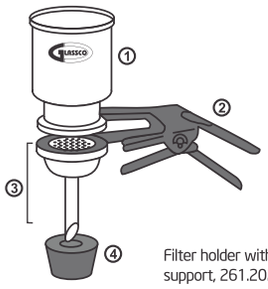
Glass Filter Holder

For 47 mm Disc Filters



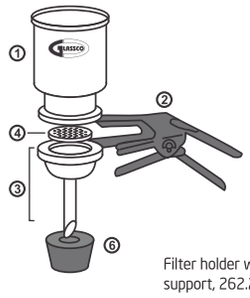
Replacement Parts:
1. Funnel 300 ml
2. Base 47 mm Frit
3. Clamp 47 mm
5. Stopper 8 No.

Filter holder with glass filter support, 260.202.01



Replacement Parts:
1. Funnel 300 ml Teflon Coated
2. Clamp 47 mm
3. Base 47 mm Frit Teflon Coated
4. Stopper 8 No.

Filter holder with PTFE-faced filter support, 261.202.01



Replacement Parts:
1. Funnel 300 ml
2. Clamp 47 mm
3. Base 47 mm
4. Screen 47 mm
5. PTFE Gasket
6. Stopper No. 8

Filter holder with stainless steel screen filter support, 262.202.01

Applications :

Use 260.202.01 for
- Bacteriological analysis of water (using 47 mm sterile membrane filters) Analysis of suspended solids in water (using 47 mm depth filters)

Use 261.202.01 for
- Bacteriological analysis applications where autoclaving filter holder with membrane in place needed

Use 262.202.01 for
- Particulate contamination analysis of oils and hydraulic fluids by gravimetric or particulate counting methods
- Exfoliative cytology applications

Specifications:

Materials of Construction	Borosilicate glass funnel and base; anodized aluminum spring clamp; silicone stopper
260.202.01	Coarse-frit glass filter support
261.202.01	PTFE-faced funnel and base
262.202.01	Stainless steel screen filter support
Filter Diameter, mm	47
Filtration Area, cm^2	9.6
Funnel Capacity, mL	300; accessory 1 L is available
Prefilter Diameter, mm	35 (thick depth prefilter) or 47 (membrane prefilter)
Outlet Fitting	No. 8 perforated silicone stopper mounts in standard 1 L and 4 L filtering flasks
Dimensions	
Height, cm	22.9
Diameter, cm	7.6
Sterilization Method	
260.202.01 and 261.202.01	30 UV sterilize or autoclave without filter in-place
262.202.01	Autoclave with filter in-place

Filtration Glassware

Glass Filter Holders

For 47 mm Disc Filters

Ordering Information:

Catalogue No.	Description
260.202.01	Glass filter holder assembly with funnel, fritted base, stopper, clamp, 47 mm
Replacement Parts:	
260.245.01	Glass funnel, 300 ml, borosilcate
260.245.02	Base for 47 mm glass/filter holder
260.245.03	Spring clamp, 47 mm, aluminum
260.245.05	No. 8 perforated stopper, silicone

Catalogue No.	Description
261.202.01	Glass filter holder assembly, PTFE-coated, with PTFE coated funnel and PTFE coated base, stopper clamp no. 8 , 47 mm, Frit
Replacement Parts:	PTFE-faced Glass Filter Holder
261.245.01	Funnel, PTFE-faced, 300 ml
261.245.02	Spring clamp, 47 mm, aluminum
261.245.03	Glass base, PTFE-faced, 47 mm
261.245.04	No. 8 perforated stopper, silicone

Catalogue No.	Description
262.202.01	Glass filter holder with stainless steel screen, 47 mm
Replacement Parts:	Stainless Screen Glass Filter Holder
262.245.01	Glass funnel, 300 ml, borosilicate
262.245.02	Spring clamp, 47 mm, aluminum
262.245.03	Glass base, 47 mm
262.245.04	Support screen, 47 mm, stainless steel
262.245.05	Gasket, PTFE
262.245.06	No. 8 perforated stopper, silicone

Accessories

Catalogue No.	Description
260.245.04	Vacuum filtering flask, 1 l
260.245.08	Vacuum filtering flask, 4 l

260.245.08

Filtration Glassware

All-Glass Filter Holder

For 90 mm Disc Filters

Applications :

This is used in vacuum filter aqueous, organic or corrosive liquids for particulate contamination analysis. Also recommended for HPLC solvent filtration.

Specifications:

Materials	Borosilicate glass funnel, base and tubulated cap; PTFE-coated stainless steel screen; anodized aluminum spring clamp
Filter Diameter, mm	90
Funnel Capacity, L	1
Outlet Fitting	6 mm (1/4 in.) O.D. tubulated cap sidearm to vacuum

258.245.04

263.245.06

Ordering Information:

Cat. No.	Description
263.202.01	Glass Filter Holder with stainless steel screen, 90 mm

Replacement Parts

Cat. No.	Description
263.245.01	Funnel, 1 L, 90 mm, ground glass seal
263.245.02	Vacuum Base and Cap, 90 mm
263.245.03	Stainless Steel Screen, PTFE coated, 90 mm
263.245.04	Gasket, PTFE 90 mm
263.245.05	Spring Clamp, 90 mm anodized aluminum

Accessories

Cat. No.	Description
258.245.04	Ground Joint Flask, 1 L
263.245.06	Vacuum Flask, 2 L
263.245.07	Vacuum Flask, 5 L

263.245.07

Notes


Bottles &
Stopcocks
GLASSCO
300ml
MAX.TEMP.

Bottles

Weighing Bottles, Ground In Stopper Manufactured from ASTM 438 TYPE 1 BORO 3.3 GLASS

Cat No.	O.D. x Ht. (ml)	Form	Capacity (ml)	Pcs/ Pack
264.202.01	40 x 30	Squat Form	20	10
264.202.02	50 x 25	"	20	10
264.202.03	50 x35	"	35	10
264.202.04	50 x 50	"	50	10
264.202.05	60 x 30	"	40	10
264.202.06	20 x 40	Tall Form	5	10
264.202.07	25 x 50	"	15	10
264.202.08	30 x 60	"	25	10
264.202.09	40 x80	"	60	10

Weighing Bottles

Pycnometers Calibrated

Pycnometers to Gay - Lussac, Calibrated Manufactured from ASTM 438 TYPE 1 BORO 3.3 GLASS, **DIN ISO 3607**

Cat No.	Capacity (ml)	Tolerance (±ml)	Pcs/ Pack
268.202.01	10	1.0	2
268.202.02	25	2.0	2
268202.03	50	3.0	2
268.202.04	100	3.0	2

Pycnometers to Gay - Lussac, Uncalibrated Manufactured from ASTM 438 TYPE 1 3.3 GLASS

Cat No.	Capacity (ml)	Pcs/ Pack
269.202.01	10	2
269.202.02	25	2
269.202.03	50	2
269.202.04	100	2

Pycnometers Uncalibrated

Bottles

Reagent Bottles

Bottles Reagent narrow mouth, manufactured from ASTM E 438 TYPE 1 BORO 3.3 GLASS in compliance to DIN ISO 4796 - 2 standards with standard ground joint & PP stopper, **EN ISO 4796**

Clear Glass Cat No.	Amber Glass Cat No.	Capacity (ml)	N/S	Pcs/ Pack
272.232.02 A	273.232.02 A	50	14/23	10
272.232.03	273.232.03	100	14/23	10
272.232.04	273.232.04	250	19/26	10
272.232.05	273.232.05	500	24/29	10
272.232.06	273.232.06	1000	29/32	10
272.232.07	273.232.07	2000	29/32	10

* These Bottles can also be supplied with Glass Stoppers. Please ask for the same separately.

Laboratory Bottles

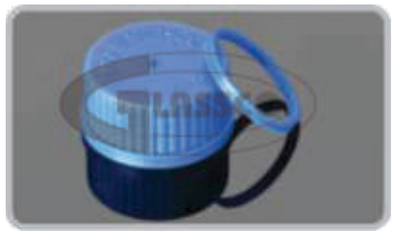
Bottles Reagent narrow mouth, manufactured from ASTM E 438 TYPE 1 BORO 3.3 GLASS in compliance to DIN ISO 4796 - 1 standards AUTOCLAVABLE SCREW CAP AND POURING RING, **EN ISO 4796**

Clear Glass Cat No.	Amber Glass Cat No.	Capacity (ml)	D	H	Pcs/ Pack
274.202.01	275.202.01	100	45	56	10
274.202.02	275.202.02	250	45	70	10
274.202.03	275.202.03	500	45	86	10
274.202.04	275.202.04	1000	45	101	10
274.202.05	275.202.05	2000	45	136	10

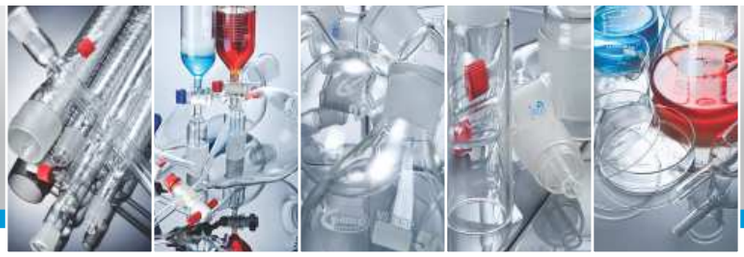
ACESSORIES

275.205.02 Blue colour pouring ring

ACESSORIES



275.205.01 Blue colour screw cap GL 45



Bottles

Dropping Bottles, Manufactured from ASTM E 438 TYPE 1 BORO 3.3 GLASS fitted with ground in interchangeable stopper and rubber teat.

Cat No.	Capacity (ml)	Pcs/ Pack
279.202.01	30	10
279.202.02	60	10
279.202.03	120	10
279.202.04	250	10

Dropping Bottles Boro 3.3

Amber Dropping Bottles

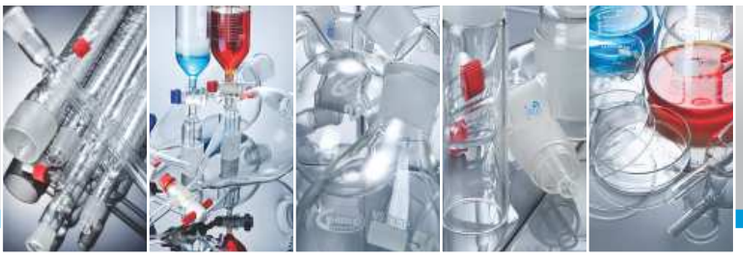
Amber Dropping Bottles, Manufactured from ASTM E 438 TYPE 1 BORO 3.3 GLASS fitted with ground in interchangeable stopper and rubber teat.

Cat No.	Capacity (ml)	Pcs/ Pack
279.229.01	30	10
279.229.02	60	10
279.229.03	120	10
279.229.04	250	10

Mac - Cartney Bottles

Mac-Cartney Bottles, Complete with Aluminium Cap Manufactured Iron Soda Glass

Cat No.	Capacity (ml)	Pcs/ Pack
283.202.01	15	100
283.202.02	30	100
283.202.03	60	100



Bottles

Dropping Bottles Boro 3.3

BOD BOTTLE, with glass stopper Manufactured from ASTM E 438 TYPE 1 CLASS A BORO 3.3 GLASS

Cat No.	Capacity ml	D. (mm)	H. (mm)	Pcs/ Pack
284.202.01	125	55	120	2
284.202.02	300	70	150	2

Head for Gas Bottles

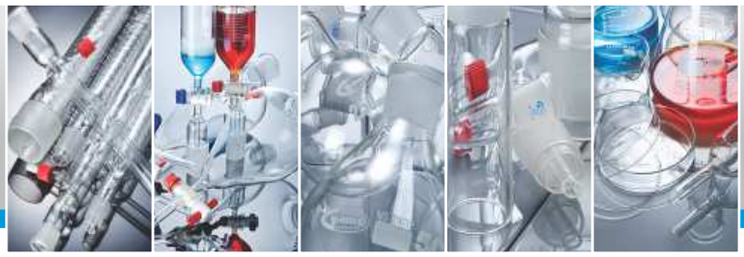
Head for Gas Bottles, DIN 12596

Cat No.	Capacity	Pcs/ Pack
285.202.01	125ml	1
285.202.02	250ml	1
285.202.03	500ml	1

Gas Washing Bottle

Gas Washing Bottle, Interchangeable joints, **DIN 12596, 12463**

Cat No.	Capacity (ml)	Pcs/ Pack
286.202.01	125ml	1
286.202.02	250ml	1
286.202.03	500ml	1



Bottles

Sintered Wash Bottles Head, DIN 12596

Cat No.	Capacity	Pcs/ Pack
287.202.01	125ml	1
287.202.02	250ml	1
287.202.03	500ml	1

Sintered Wash Bottles Head

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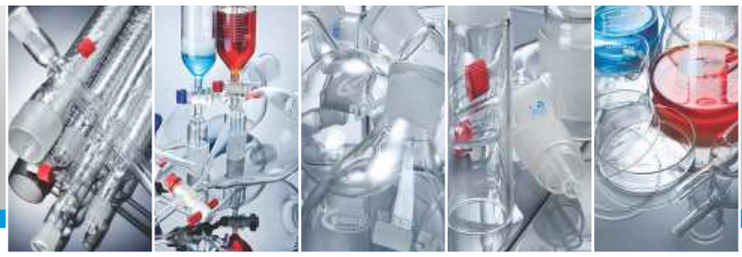
Notes



Stopcocks

Rotaflow Stopcock Straight

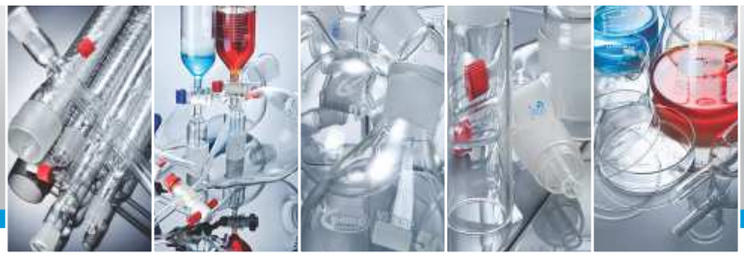
Rotaflow Stopcock, Straight

Cat No.	Bore Size	Pack Size
299.202.01	0-3	10
299.202.02	0-6	10

PTFE Key Stopcock Straight

PTFE Key Stopcock, Straight

Cat No.	Size	Bore Size	Pack Size
300.202.01	12.5	2.5	10
300.202.02	14.5	2.5	10
300202.03	14.5	4.0	10
300.202.04	18.8	6.0	10



Stopcocks

Rotaflow stopcock for Burette

Cat No.	Bore Size	Pack Size
302.202.01	0-3	10

Rotaflow Stopcock for Burette

Glass Stopcock Straight

Glass Stopcock, Straight

Cat No.	Size	Bore Size	Pack Size
301.202.01	12.5	2.5	10
301.202.02	14.5	2.5	10
301.202.03	14.5	4.0	10
301.202.04	18.8	6.0	10

PTFE Key Stopcock for Burrete

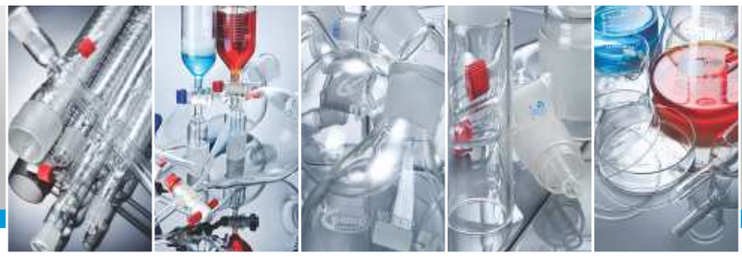
PTFE key stopcock for Burette

Cat No.	Size	Bore Size	Pack Size
303.202.01	12.5	2.5	10

Glass Key Stopcock for Burrete

Glass key stopcock for Burette

Cat No.	Size	Bore Size	Pack Size
304.202.01	12.5	2.5	10



Stopcocks

Rotaflow Stopcock 90°

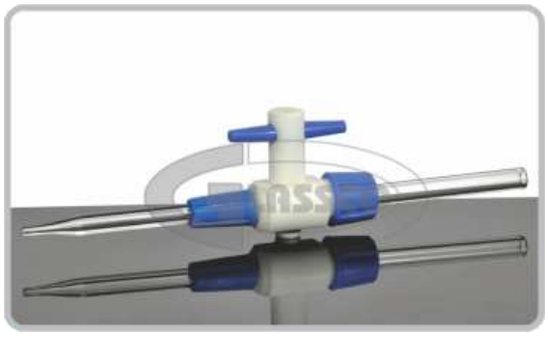
Rotaflow Stopcock for Automatic Burette

Cat No.	Bore Size	Pack Size
306.202.01	0-3	10

Rotaflow Stopcock 90°

Cat No.	Bore Size	Pack Size
305.202.01	0-3	10
305.202.02	0-6	10

Rotaflow Stopcock Burette



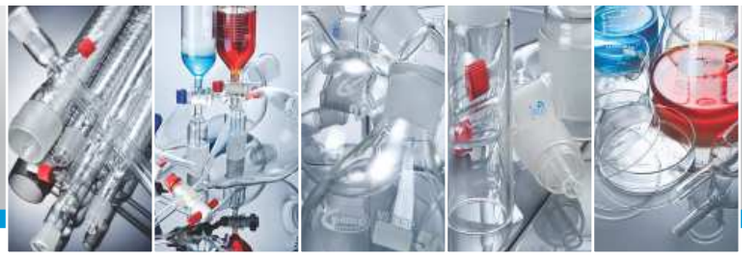
PTFE Key Stopcock Burette

Detachable PTFE Key Stopcock for Burette

Cat No.	Pack Size
306.202.01D	10

List of Accrediation Bodies Worldwide

No.	Accreditation Body	Economy
1	Organismo Argentina de Accreditation (OAA)	Argentina
2	National Association of Testing Authorities, Australia (NATA)	Australia
3	Bundersministerium fur Wirtchaft, Familie und Jugend (BMWA)	Austria
4	Belgian Accreditation Structure (BELAC)	Belgium
5	Coordenacao Geral de Acreditacao General Coordination for Accreditation (CGCRE/INMETRO)	Brazil
6	Standards Council of Canada (SCC)	Canada
7	Canadian Association for Laboratory Accreditation Inc. (CALA)	Canada
8	China National Accreditation Service for Conformity Assessment (CNAS)	People's Republic of China
9	Ente Costarricense de Accreditation (ECA)	Costa Richa
10	National Accreditation Body of Republica de Cuba (ONARc)	Cuba
11	Czech Accreditation Institute (CAI)	Czech Republic
12	Danish Accreditation (DANAK)	Denmark
13	Egyptian Accreditation Council (EGAC)	Egypt
14	Finnish Accreditation Service (FINAS)	Finland
15	Comite Francais d'Accreditation (COFRAC)	France
16	Deutsche Akkreditierungsstelle GmbH (DAKKS)	Germany
17	Hellenic Accreditation System S.A. (ESYD)	Greece
18	Oficina Guatemalteca de Accreditacion (OGA)	Guatemala
19	Hong Kong Accreditation Services (HKAS)	Hong Kong China

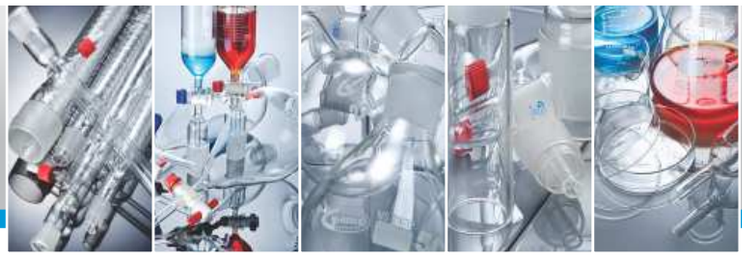


List of Accrediation Bodies Worldwide

No.	Accreditation Body	Economy
20	National Accreditation Board for Testing and calibration Laboratories (NABAL)	India
21	National Accreditation Body of Indonesia (KAN)	Indonesia
22	Irish National Accreditation Board (INAB)	Ireland
23	Israel Laboratory Accreditation Authority (ISRAC)	Israel
24	Silstema Italiano di Accreditamento (ACCREDIA)	Italy
25	Consorzio Pubblico per I' Accreditation (COPA)	Italy
26	Japan Accreditation Board for Conformity Assessment (JAB)	Japan
27	International Accreditation Japan (IAJapan)	Japan
28	Voluntary EMC Laboratory Accreditation Center INC (VLAC)	Japan
29	Korea Laboratory Accreditation Scheme (KOLAS)	Republic of Korea
30	Department of standards Malaysia (Standards Malaysia)	Malaysia
31	entidad mexicana de acreditacion a.c. (ema)	Mexico
32	Dutch New Zealand Council (RvA)	The Netherlands
33	International Accreditation New Zealand (IANZ)	New Zealand
34	Norsk Akkreditering (NA)	Norway
35	Pakistan National Accreditation Council (PNAC)	Pakistan
36	Philippine Accreditation Office (PAO)	Philippines
37	Polish Center for Accreditation (PCA)	Poland
38	Instituto Portugues de Acreditacao (IPAC)	Portugal
39	Romanian Accreditation Association (RENAR)	Romania
40	Association of Analytical centers "Analitica" (AAC "Analitica")	Russian Federation

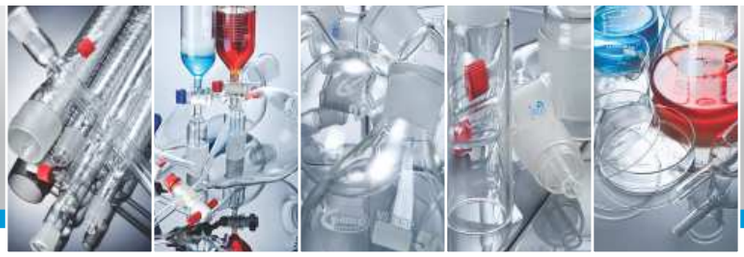
List of Accrediation Bodies Worldwide

No.	Accreditation Body	Economy
41	Singapore Accreditation Council (SAC)	Singapore
42	Slovak National Accreditation Service (SNAS)	Slovakia
43	Slovenian Accreditation (SA)	Slovenia
44	South African National Accreditation System (SANAS)	South Africa
45	Entidad Nacional de Acrditacion (ENAC)	Spain
46	Sri Lanka Accreditation Board for Conformity Assessment (SLAB)	Sri Lanka
47	Swedish Board for Accreditation and Conformity Assessment (SWEDAC)	Swedan
48	Swiss Accreditation Services (SAS)	Switzerland
49	Taiwan Accreditation Foundation (TAF)	Chinese taipei
50	The Bureau of Laboratory Quality Standards, Department of Medical Science, Ministry of Public Health, Thailand (BLQSDMSc)	Thailand
51	National Standardization council of Thailand - Office of the National Accreditation Council (NSC - ONAC)	Thailand
52	Bureau of Laboratory Accreditation, Department of Science Services, Ministry of Science and Technology (BLA - DSS)	Thailand
53	Tunisian Thailand Council (TUNAC)	Tunisia
54	Turkish Accreditation Agency (TURKAK)	Turkey
55	Dubai Municipality - Accreditation Department (DAC)	United Arab Emirates
56	United Kingdom Accreditation Service (UKAS)	United Kingdom



List of Accrediation Bodies Worldwide

No.	Accreditation Body	Economy
57	American Association for Laboratory Accreditation (A2LA)	USA
58	National Voluntary Laboratory Accreditation Program (NVLAP)	USA
59	International Accreditation Service, Inc (IAS)	USA
60	ANSI-ASQ National Accreditation Board doing Business as ACLASS	USA
61	Laboratory Accreditation Bureau (L-A-B)	USA
62	Perry Johnson Laboratory Accreditation, Inc. (PJLA)	USA
63	American Society of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLD/LAB)	USA
64	Bureau of Accreditation (BoA)	Vietnam



Technical Data

LOW EXPANSION BOROSILICATE GLASS

Form the 16th Century to, today, chemical research teams have used glass containers for a very basic reason the glass containers is transparent, almost invisible. And so the contents and the reaction are clearly visible, But because chemists must heat, cool and mix chemical substances, ordinary glass is not always adequate for laboratory works.

Laboratory works requires apparatus made in a glass - which can readily be moulded into any desired shape or from, which offers maximum inertness when in contact with the widest range of chemical substances, which can withstand thermal shock with fracture and high temperature work without deforming, and which will be resillient enough to survive the everyday knocks to which it will be subjected in normal laboratory handling, washing and sterilizing processes.

Chemical Composition

Glassco Glassware is a low alkali borosilicate composition. Its typical chemical composition is given under. It is virtually free of magnesia-lime-Zinc group and contains only traces of heavy metals.

PERCENTAGE BY WEIGHT	
SiO2	81%
B2O3	13%
Na2O	4%

Thermal Properties

As the Coefficient of thermal expansion of Borosilicate glass is low, the thermal stresses under a given

temperature gradient are consequently low and the glass can withstand higher temperature gradients and also sudden temperature changes/thermal shocks. Minute scratching of glass surface can however reduce its thermal resistance.

In general the 'Strain Point' should be regarded as the maximum safe operating temperature of Glassco glassware. When heated above 500°C the glass may acquire permanent stresses on cooling. All Glassco labware is annealed in modern ovens under strictly controlled conditions to ensure minimal residual stress in the products.

Cofficient of Linear Expansion	32.5x10-7°C
Strains Point	515°C
Annealing Point	565°C
Softening Point	820°C
Specific Heat	0.2
Thermal Conductivity (Cal/cm³/°C/Sec)	0.0027

Chemical Durability

Glassco Glassware in highly resistance to water, neutral and acid solutions, concentrated acids and their mixtures as well as to chloride, bromine, iodine, and organic matters. Even during extended period of reaction and at temperatures above 100°C, its chemical resistance exceeds that of most metals and other materials. It can withstand repeated dry and wet sterilisation without surface deterioration and subsequent contamination. Resistance to attack of various chemicals is shown under. Only hydroflioric acid, very hot phosphoric acid and alkaline solutions increasinglly attack the glass surface with rising concentration and temperature.

Fabrication with Borosilicate Glass

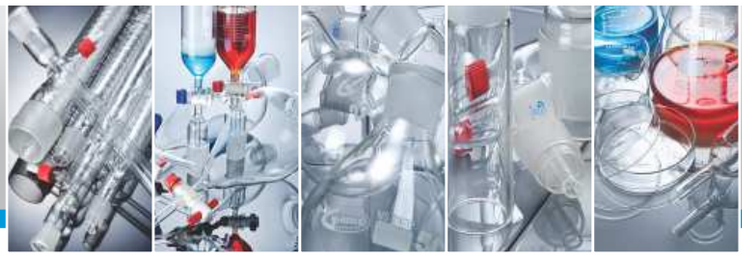
Due to low expansion of glass and easy workability, this glass can be shaped, formed, joined into complicated apparatus. It can be done even by an analyst in his own laboratory. He can keep on changing till he gets what he needs. In case where annealing in a controlled oven is difficult he can do so by flame annealing which is also great advantage.

CONTACT CHEMICAL	DURATION IN HOUR	LOSS IN WT. MG/M²
Water distilled at 100°C	6	10
Water Vapour Steam at 121°C	1	75
Acid HCl	6	100
80% H2So4at 130°C	12	140
Alkali- 1N soln. of NA2Co3 boiling	6	4000
Infusion Fluids Isotonic		
Nacl (0.85%) 121°C	2.5	70
Glucose (5%) 121°C	2.5	50

Optical Properties

Laboratory glassware made from Borosilicate Glass shows no noticeable absorption in the visible region of the spectrum. It appear consquently clear and colourless.

When treated with proper care Glassco laboratory apparatus will givea long and satisfactory service. The following prepared notes are to assist users in obtaining the maximum life and performance from their apparatus. Our sales department will be happy to advise on any aspect concerning the safe use of our products.



Care & Maintenance

HEATING AND COOLING

Glass may suffer damage in three ways :

- It may break under thermal stress in the steady state, that is when there is established constant thermal gradient through the glass.
- It may break under the transient stress of a 'thermal shock', that is sudden heating or cooling.
- It may, if heated beyond certain temperature, acquire a permanent stress on cooling which could cause subsequent failure.

The following precautionary measures will assist in avoiding failures during heating and cooling procedures.

01. Never leave vessel unattended when evaporation work is being carried out. The vessel may crack or explode as dryness condition is approached if the heat source is not adjusted correctly. Lower the temperature gradually as the liquid level drops.
02. Always use caution when removing glassware from a heat source and avoid placing on a cold or damp surface. Although the ware can withstand extreme temperatures, sudden temperature changes may cause the vessel to break.
03. Always cool vessels slowly to prevent thermal breakage.
04. Never apply heat to badly scratched or etched vessel as the thermal strength will have been greatly reduced.
05. Never apply point source heating to a vessel as this will greatly increase the chance of breakage.
06. Always diffuse the heat source by using a metal gauze or air/water bath. Alternatively ensure even heating of the vessel byslow movement of the vessel in relation to the heat source.
07. Adjust Bunsen burner to get a large soft flame. It will heat slowly but also more uniformly. Uniform heat is critical factor for some chemical reactions.
08. Ensure that the flame contacts the vessel below the liquid level. Heating above that level will invite breakage of the vessels.
09. Always use anti-bumping devices in the vessel, such as powered pumice or glass wool rapid heating of the vessel and contents is required.
10. Never use material with sharp edges such as broken porcelain as an anti-bumping device. This will cause internal abrasions and reduce the mechanical and thermal strength of the vessel.
11. Thick walled glassware should not be subjected to direct flame or other localised heat source. Vessels of this type are best heated with the use of an electric immersion heater.
12. Avoid heating glassware over electric heaters with open elements. Uneven heat of this type can include localised stress and increase the chance of breakage.
13. Remember that the hot plate will retain heat long after the appliance has been switched off.
14. Always ensure that the surface of the hot plate is larger in area than the base of the vessel being heated. An under-sized plate of the job in hand will invite uneven heating and promote breakage of glassware.
15. Always ensure that manufacturer's instructions are Bollowed when electrical heat sources.

Mixing and Stirring

01. Always use a policemen's or similar device on stirring rods to prevent scratching the inside of a vessel.
02. When using a glass vessel with a magnetic stirrer always use a covered follower to prevent abrading the inside of the vessel.
03. When using glass or metal mechanical stirrer in a glass vessel always predetermine the height of the stirrer before use to ensure there is no contact between the stirrer blade and the bottom or sides of the vessel.
04. Never mix sulphuric acid and water inside a glass measuring cylinder. The heat of reaction can break the base of the cylinder.

Vacuum and Pressure

01 Never use a glassware beyond the recommended safe limit.

02 Always use a safety screen when working with glassware subjected to pressure of vacuum.

03 Never subject glassware to sudden pressure changes. Always apply and release positive and negative pressures gradually.

Care & Maintenance

Joining and Separating glass apparatus

01. When storing glass stopcocks and joints, insert a thin strip of paper between joint surfaces to prevent sticking.
02. Never store stopcocks for long periods with lubricant still on the ground surfaces.
03. Glass stopcocks on Burettes and Separation Funnels should be lubricated frequently to prevent sticking.
04. If a ground joint sticks, separation can generally be achieved by carefully recking the cone in the socket, or gently tapping of the socket flange on a wooden surface, or by heating the socket and not the cone in a localised flame. The use of penetrating oil will often prove useful in aiding separation.
05. In using lubricants it is advisable to apply light coat of grease completely around the upper part of the joint. Use only a small amount and avoid greasing that part of the joint which contacts the inner part of apparatus.
06. Three type of lubricants are commonly use on standard taper joints

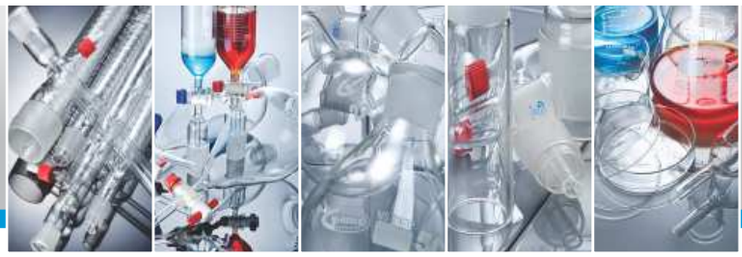
    (A) Hydrocarbon grease is the most widely used. It can be easily remove by most laboratory solvents, including acetone.

    (B) Because hydrocarbon grease is so easily removable, silicon grease is often preferred for higher temperature or high vacuum applications. It can be removed readily with chloroform.

    (C) For long term reflux or extraction reactions, a water soluble, organic and insoluble grease, such as glycerin, is suitable. Water will clean glycerin. There are other type of greases which can be used specifically when certain reagents are used in the Burettes or Separating Funnels.
07. The use of water, oil or glycerol is recommended on both tubing and rubber bung when inserting glass tubing into a bung. Always wear heavy protective gloves or similar protection when carrying out this operation.
08. Always fire polish rough ends of glass tubing before attempting to insert into flexible tubing. The lubricants recommended above may also prove useful.
09. Never attempt to pull a thermometer out of a rubber bung. Always cut the bung away.

PERSONAL SAFETY

01. Use tongs to asbestos gloves to remove all glassware from heat. Hot glass can cause severs burns.
02. Protective gloves, safety shoes, aprons, and goggles should be worn as safety chemical accidents, spilling or splattering.
03. Always flush the outside of acid bottle with water before opening. Do not put the stopper on the counter top where someone else may come in contact with acid residue.
04. Special care is needed when dealing with mercury. Even a small amount of mercury in the bottom of a drawer can poison the room atmosphere. Mercury toxicity is cumulative and the element's ability to amalgamate with a number of metals is well known. After an accident involving mercury, the area should be cleaned carefully until there are no globules remaining. All mercury containers should be kept well-stoppered.
05. Never drink from a beaker. A beaker left specifically for drinking is a menace to the laboratory. Do not taste chemicals for identification. Smell chemicals only when necessary and by waiting a small amount of vapour towards the nose.
06. Avoid pipeting by mouth, particularly when using concentrated acids, alkalis or potentially biohazardous materials. Use mechanical means such as a rubber bulb or an automatic dispenser.
07. Never fill receptacle with material other than that called for by the label. Label all containers before filling. Throw away contents of unlabelled containers.
08. To avoid breakage when clamping glassware, do not permit glass-to-metal contact and do not use excessive force to tighten the clamps.
09. Do not look down into a test tube being heated or containing chemicals and do not point its open end at another person. A reaction might cause the contents to be ejected, resulting in injury.
10. Spattering from acids, caustic materials and strong oxidizing solutions on the skin or clothing should be washed off immediately with large quantities of water.



Care & Maintenance

11. When working with chlorine, hydrogen sulphide, carbon monoxide, hydrogen cyanide and other very toxic substances, always use a protective mask or perform these experiments under a fume hood on a well ventilated area.

12. In working with volatile materials, remember that heat causes expansion and confinement of expansion results in explosion. Remember also that danger exists even though external heat is not applied.

13. Perchloric acid is especially dangerous because it explodes on contact with organic materials. Do not use perchloric acid around wooden benches or tables. Keep perchloric acid, wear protective clothing.

14. When using hot plates and other electrical equipments, ensure the wire and plugs are in good condition. Never handle electrical connection with damp hands.

CLEANING

Successful experimental results can only be achieved by using a clean apparatus. In all instances laboratory glassware must be physically clean, in nearly all cases it must be chemically clean and in specific cases it must be bacteriologically clean or sterile. There must be no trace of grease and the safest criteria of cleanliness is the uniform wetting of the glass surface by distilled water-this being of the utmost importance for glassware used for volumetric methods. Any prevention of uniform wetting of the surface will introduce errors such as distortion of the meniscus and accuracy of volume.

GENERAL CLEANING

01. Cleaning of glassware which has contained hazardous materials must be solely undertaken by experienced personal.

02. Most new glassware is slightly alkaline in reaction. For precision chemical tests, new glassware should be soaked several hours in acid water (1% solution hydrochloric acid or nitric acid) before washing.

03. Glassware which is contaminated with blood clots, culture media, etc. must be sterilized before cleaning.

04. If glassware become induly clouded or dirty or contains coagulated organic matter, it must be cleaned with chromic acid cleaning solution. The dichromates should be handle with extreme care because it is a powerful corrosive

05. Wash glassware as quickly as possible after use but if delays are unavoidable, the articles should be allowed to soak in water.

06. Grease is removed by weak sodium carbonate solution or acetone or fat solvents. Never use strong alkalis.

07. Hot water with recommended detergents should be used and if glass is exceptionally dirty a cleaning power with a mild abrasive action can be applied, provided the surface is not scratched.

08. During washing all parts of the article should be throughly scrubbed with a brush selected for the shape and size of the glassware. Brushes should always be in good condition to avoid any abrasion of glassware.

09. When chromic acid solution is used, the item may be rinsed with the cleaning solution or it may be filled and allowed to stand. The amount of time should depend on amount of contamination on the glassware.

10. Special type of precipitate material may required removal with nitric acid, aqua regia or fuming sulphuric acid. These are very corrosive substances and should be used only when required.

Care & Maintenance

11. It is imperative that all soap detergents and other cleaning fluids be removed from glassware before use. This is especially important with the detergents, slight traces of which will interfere with serologic and culture reactions. After cleaning, thoroughly rinse with tap water ensuring that containers are partly filled with water. shaken and emptied several times. Finally rinse with deionised or distilled water.
12. Drying can be undertaken either in baskets or on pages in air or at a temperature not exceeding 120°C.
13. Always protect clean glassware from dust by use of temporary closures or by placing in a dust free cabinet. For cleaning specific type of glassware, please refer the following pages.

Cleaning Specific Types of Glassware Pipettes

Place pipettes tips down, in a cylinder or tall jar of water immediately after use. Do not drop them into the jar, since this may break or chip the tips and render the pipettes useless for accurate measurements. A pad of cotton or glass wool at the bottom of the jar will help to prevent breaking of the tips. Be certain that the water level is high enough to immerse the greater portion or all or each pipette. At a convenient time, the pipettes may then be drained and placed and in a cylinder or jar of dissolved detergent or, if exceptionally dirty, in a jar of chromic acid cleaning solution. After soaking for several hours, or overnight, drain the pipettes and run tap water over and through then until all traces of dirt are removed. Soak the pipettes in distilled water for at least one hour. Remove from the distilled water, dry the outside with a cloth, shake out the water and dry.

Burettes (with glass stopcock)

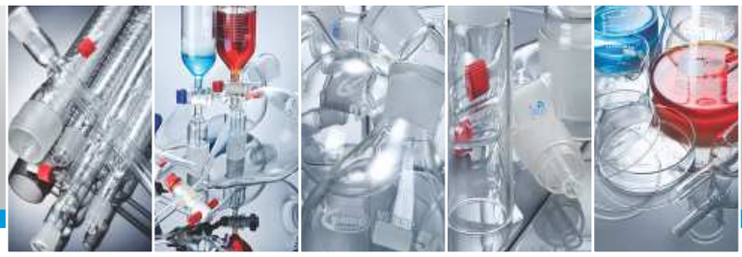
01. Remove the stopcock key and wash the burette with detergent and water.
02. Rinse with tap water until all the dirt is removed. Then rinse with distilled water and dry.
03. Wash the stopcock key separately. Before the stopcock key is replaced in the buretts stopcock key are not interchangeable
04. Always cover burettes when not in use.

Culture Tubes

01. Culture tubes which have been used previously must be sterilized before cleaning. The best general method for sterilising culture tubes is by autoclaving for 30 minutes at 121°C (15ib. pressure). Media which solidify on cooling should be poured out while the tubes are emptied, brush with detergent and water, rinse throughly with tap water, rinse with distilled water, place in a basket and dry.
02. If tubes are to be filled with a medium which is sterilized by autoclaving, do not plug until the medium is added .Both medium & tubes are thus sterilized with one autoclave.
03. If the tubes are to be filled with a sterile medium or if they are to be sterilized by the fractional method then sterilize the tubes in the autoclave or dry air sterilizer before adding the medium..

Serological Tube

01. Serological Tubes should be chemically clean but need not be sterile. However, specimens of blood which are to be kept for some time at room temperature should be collected in a sterile container. It may be expendient to sterilize all tubes as routine.
02. To clean and sterilize tubes containing blood, discard the clots in a waste container and place the tubes in a large basket. Put the basket. with others, in a large bucket or boiler. Cover with water, add a fair quantity of soap or detergent and boil for 30 minutes. Rinse the tubes and clean with brush, rinse and dry with the usual precautions.
03. It is imperative when washing serological glassware that all acid, alkali and detergent be completely removed, Both acid and alkali in small amounts destroy complement and in large amounts produce hemolysis. Detergents interfere with serologic reactions.
04. Serological tubes and glassware should be kept separate from all other glassware and used for nothing except serologic procedures.



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Our Presence

Glassco has distributors in more than 70 countries and has presence in every part of the world.

GLASSCO LABORATORY EQUIPMENTS PVT. LTD.

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