

MSAW



**MAHAVIR SCIENTIFIC
& ALLIED WORKS**

T E C H N I C A L I N F O

Everywhere at World all users of laboratory glassware know the reliable features of Borosilicate 3.3 glass due to it's outstanding properties like Alkali resistance, Heat resistant, High resistance to thermal shock, Extreme thermal resistance, & Mechanical strength.

At works of **MAHAVIR SCIENTIFIC AND ALLIED WORKS** best available raw material has been used for creating unmatched quality of all laboratory glassware productions. Raw material is directly procured from international prime sources under strict tolerance parameters.

The other characteristics of Borosilicate Glass 3.3 are as under:

- Composition : A borosilicate glass is used in Laboratories due to its excellent chemical, physical properties & having no elements of alkaline earth group and free from arsenic, antimony and heavy metals. Its typical chemical composition is as under
- Stability : Highly resistant to water and all acids with the exceptions of hydrofluoric acid and hot glacial phosphoric. However, being predominantly a silicate, the glass is attacked by caustic alkali to a measurable extent.
- Thermal Shock Resistant : The glass can withstand a high degree of thermal shock, due to low coefficient of thermal expansion $33 \times 10^{-7}/^{\circ}\text{C}$ between 0 - 300 °C.
- Thermal Conductivity : 0.0027 cal/cm³/°C/Sec.
- Physical Properties : The maximum permissible operating temperature for Borosilicate glass is 350 deg.C. Above a temperature of 565 deg. C. The glass begins to pass from the solid to the viscous state. It has a very low linear coefficient of expansion, hence its highly thermal shock resistant.

Care and Use -Ground-Glass Joints

Ground-glass joints and stopcocks should never be used when dry. Although ground glass surfaces seal well without the use of lubricants, it is advisable to lubricate them to prevent sticking and breakage. Ground surfaces must be cleaned prior to lubrication-dust, dirt and particulate matter may score the surface and cause leakage.

Different lubricants are used for these operating conditions

Silicone grease-for high temperature and high vacuum

Glycerin-for long term reflux or extraction

Hydrocarbon grease-for general laboratory use

Lubricating Ground-Glass Joints

- | Lubricate joints that must be airtight and when glassware contains strong alkaline solutions.
- | Lubricate only the upper part of the inner joint. A properly lubricated joint appears clear without striations.
- | Do not allow grease to come in contact with vapor or liquid and cause contamination.

Lubricating Stopcocks

Spread two circular bands of grease around the stopcock plug. Insert the plug into the barrel and twist several times until the assembly is completely transparent. Be careful not to use too much lubricant or the bore will become plugged.

Care and Use -Stopcocks with Plugs Made of Polytetrafluoroethylene (PTFE)

MSAW stopcock plugs of PTFE are made of most chemically inert material in laboratory use today. Only a few chemicals have any effect on PTFE and these only at elevated temperatures and pressures. The material is extremely tough, durable and heat resistant, with practically zero moisture absorption. It remains non-brittle even at sub-zero temperatures.

To obtain maximum performance from your stopcock plugs of PTFE observe the following hints:

- | To clean new plugs, carefully disassemble, lift plug free of glass barrel, and rinse all parts of plug and barrel in acetone. After drying, reassemble and the stopcock is ready for use. (Do not use abrasive materials to clean either plug or barrel at any time.)
- | The washer of PTFE must always be placed adjacent to the end of the glass barrel, to secure minimal friction when turning. When properly tightened, the plug will be slightly more resistant to turning than a lubricated glass plug.
- | Plugs of PTFE can be easily scored around the bore if rotated when solid particles are lodged between plug and barrel, or project beyond mating edges of glass parts. Once scored, the plug may leak.
- | Do not use a stopcock plug of PTFE on a vessel used for long time storage of liquids known to attack glass, since the surface of the barrel may become roughened and leakage may occur between the plug and barrel causing a potential safety hazard.
- | If plugs of PTFE are used with liquids corrosive to glass, such as alkalies, rinse the stopcock thoroughly with water after use. Do not allow the liquid to evaporate, The concentrated solution remaining will attack the glass surface: and the eventual solids may also mar the surface of PTFE if the plug is then rotated.
- | When not in use, store in a dust-free area with plug loosened within the glass barrel. Although tough and unbreakable, PTFE is softer than glass and has a tendency to conform to the glass surface, including eventual expansion into the hollow parts of the barrel.

Calibration of Volumetric Glassware

Volumetric glassware is either calibrated to deliver (EX) or to contain (IN).

- EX Calibrated to deliver. The delivered liquid corresponds with the volume indication. The liquid that remains on the wall or in the tip of the glassware is taken into consideration.
- EX+15s Calibrated to deliver under consideration of a waiting time of 15 seconds. To keep the waiting time is important to avoid mistakes in measurement. Example: pipettes and burettes.
- IN Calibrated to contain. The contained liquid corresponds with the volume indication. Example: flasks and cylinders.
- 20°C The calibration has been done at 20°C. Volumetric glassware is changing the volume about 0,1 % each degree Celsius.

Precision classes

- A Tolerance according to DIN, ISO and ASTM. Class A is the most precise class. Glassware of class A is suitable for official calibration, that means it can be tested by the German Weights and Measures Office. This is useful for the control of the measuring instruments according to DIN ISO 9001.
- AS As class A, but for pipettes and burettes fast delivery. The waiting time is much shorter than for class A. The additional 'S' means swift delivery.
- B The tolerances of class B are about twice of the class A and AS. Volumetric glassware of class B is for common works in the laboratory.

Meniscus

For precise reading it is not helpful that the liquid stands higher at the wall of a container and forms the surface as meniscus. We read the value at the lowest point of the liquid surface, that means the lowest point of the meniscus shall even touch the upper border of the measure mark (see figure 1).

For burettes with Schellbach stripes the reading has to be made at the level where the wedge-shaped two points are touching (see picture)

2) When reading the scales it is important that the eyes are at height of the fluid level. Otherwise it results in reading errors (parallax errors).

Fig. 1



Fig. 2



Graduation

Ring mark : One ring around the total tube perimeter, at flasks (with engraved ring mark) and bulb pipettes (fig. 1).

Short graduation : Readable from one side, simple graduation for class B, at graduated and mixing cylinders, pipettes and burettes of class B (fig. 2).

Main point ring marks: Ring marks of the main points build a nearly complete ring on the measuring pipe, at pipettes and burettes of class AS (fig. 3).

Fig. 1



Fig. 2



Fig. 3



TECHNICAL INFO



Don't apply on direct heat



Don't leave in detergent
solutions for prolonged
periods



Care and Use - Cleanliness of Apparatus

The usual criterion of cleanliness of glass apparatus is uniform wetting of the surface by distilled water. Certain contaminants, especially grease, adhering to the walls prevent them from being uniformly wetted and there is a tendency for water to collect into drops.

Imperfect wetting causes irregularities in capacity of volumetric glassware by distorting the meniscus and also by affecting the volume of the residue adhering to the walls after emptying instruments calibrated to deliver the indicated volume.

Even when the surface of the vessel is uniformly wetted, variations in the apparent capacity still may occur, due to contamination of the liquid surface by minute quantities of fatty or other organic substances which produce a change in surface tension affecting the shape of the meniscus. The cleaning, rinsing and drying, therefore, must be carried out in such a way as to prevent this from happening.

The choice of the procedure to be used in cleaning glassware depends on the nature of the contaminant. In many cases special reagents or methods must be used to remove a particular substance. Before listing the more important methods, it is desirable to make a few general statements.

Glass

Glasses used in chemical apparatus have excellent resistance to acids, except hydrofluoric. Strong alkaline solutions, such as hot caustic solutions, will attack any glass if contact is prolonged. This is true even though a particular glass may not exhibit any visible effect, due to the solubility of the reaction products. Dilute detergent solutions, up to about 2% strength, will have no serious effect on the glass, unless the glass is exposed for unnecessarily long periods or the detergent is allowed to dry on the glass.

Safety Precautions

With many pieces of glassware, it is necessary or desirable to fill by suction when cleaning. Do not suck up acid or other cleaners by mouth. In fact, do not pipette by mouth at all. Use hand held, manual or electronic pipetting aids.

Abrasives

Do not use abrasives on glassware, particularly volumetric ware. The surface will be marred in time and the resultant scratches may prevent proper drainage or act as resting places for adulterants which will be difficult to remove.

Water for Rinsing

When preparing a piece of glassware for calibration, rinsing with tap water should be followed by a thorough rinsing with distilled water. Sufficient material may be deposited on the surface by tap water to cause erratic results, particularly with small items , even though water wets the surface uniformly. Even in ordinary cleaning processes, the use of deionized water is recommended.

INDEX

A

ADAPTERS

Reduction	21
Expansion	21
Multiple with Parallel Necks	21
Multiple with Vertical Necks	22
Receiver Delivery	22
Receiver Straight	22
Receiver Vacuum Bend	23
Receiver Vacuum Straight	23
Receiver Plain Bend	23
Receiver Inclined 105°	23
Recovery Bend Sloping	24
Receiver Bend with Vent	24
Receiver Bend Vertical	24
Still Head Plain	24
Swan Neck	25
Claisen Head	25
Splash Head	25, 26
Steam Distillation	26
Drying Tube	26
Air Leak / Gas Inlet Tube	27
Socket to Cone with Tee Connection	28
Socket to Rubber Tubing	28, 29
Cone to Rubber Tubing	29
AMBER VOLUMETRIC FLASK	15, 16
AMBER REAGENT BOTTLE	57

B

BURETTES

Straight Bore Glass Stopcock	1, 2
Screw Type Rotaflow	3, 4
Straight Bore PTFE Key	5, 6
Automatic	6

BEAKER

Low Form	52
Tall Form	52

BUCHNER FUNNEL SINTERED

BOTTLES	61
---------	----

Weighing	56
Specific Gravity (Pycnometers)	56
Reagent N.M	56
Reagent AMBER	57
Reagent Screw Thread	57
Roller for Cell Culture	57
BOD	57
Dropping	58
Gas Washing	58

C

CONE

Single	17
With Tip Single	17

Plain Double	18
Cone Full Length	19

CONDENSER

Air	40
Liebig	40
Coil Graham	40
Allihn	41
Dimroth	41
Double Surface	41

D

Drying Tube	26
Dimroth Condenser	41
Dropping Funnels	49, 50, 51
Dish Crystallizing	55
Desiccator	55

E

Erlenmeyer Flasks	34, 35, 52, 53
-------------------	----------------

F

FLASKS

Round Bottom	30, 53
Flat Bottom	31, 53, 54
Round Bottom Two Neck	31
Three Neck	32
Pear Shape	33
Pear Shape Two Neck	33
Evaporating	33
Kjeldahl	34, 36
Conical Single Neck	34, 52, 53
Iodine	35
Conical Screw Cap	35
Buckner	36
Distillation with Side Tube	36
Volumetric	14, 15, 16
Sugar Analysis	16

FUNNELS

Separating	45, 46, 47, 48
Dropping	49, 50
Pressure Equalising	51
Filter with Stem	54
Powder	54

FILTRATION SYSTEMS

Gas Washing Bottles	58
Gas Washing Head	58

G

Joint Clips for Spherical Joints	19
----------------------------------	----

INDEX

K	
Kjeldhal Flasks	34, 36
L	
Liebig Condensers	40
M	
Measuring Cylinders	9, 10, 11, 12, 13
N	
Nessler Cylinders	13
O	
ORGANIC CHEMISTRY SETS	
29 OU/ S	43
27 OU/ S	43
34 OU/ S	44
P	
PIPETTES	
Volumetric	7
Graduated / Measuring	8
PRESSURE EQUALISING FUNNELS	51
POWDER FUNNEL	54
PYCNOMETER GAY - LUSSAC	56
PTFE KEY STOPCOCKS	59, 60
GLASS KEY STOPCOCKS	59, 60
SINTERED GLASSWARE	61, 62
R	
Reduction Adapter	21
Receiver Adapter Straight	22
Receiver Adapter Bend	23
Receiver Inclined 105°	23
Recovery Bend	24
Receiver Bend Vertical	24
Roller Bottle	57
Rotaflow Stopcocks	59, 60

S	
SOCKET	
Single	17
Double	18
Full Length	18
Spherical Joint Cup	19
Spherical Joint Ball	19
STOPPERS	
Solid	20
Hollow	20
STILL HEAD	24
SWAN NECK ADAPTER	25
SPLASH HEAD	25, 26
STEAM DISTILLATION HEAD	26
SOXHLET EXTRACTION	42
STOP COCKS	
Rotaflow	59
PTFE Key	59, 60
Glass Key	59, 60
SINTERED GLASSWARE	61, 62
U	
U Tube with Two Sockets	27
Utility Sets	43, 44
T	
Thermometer Pocket	27
Thermometer / Stirrer Gland	27
TUBES	
Drying	26
Air Leak / Gas Inlet	27
'U' with Socket	27
Test Tube with Stopper	37
Test Tube Rim/ Rimless	37, 38
Culture Media	39
Centrifugal	39
W	
Weighing Bottles	56

BURETTES

MSAW

Burette with Straight Bore Glass key Stopcock, Class B

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
101.01.301	10	0.05	0.050
101.01.302	25	0.10	0.100
101.01.303	50	0.10	0.100
101.01.304	100	0.20	0.200

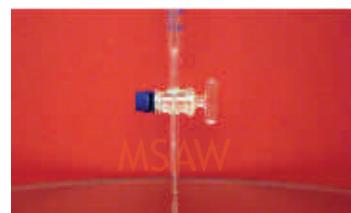


Burette with Straight Bore Glass key Stopcock, Class A

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
101.02.301	10	0.05	0.020
101.02.302	25	0.10	0.050
101.02.303	50	0.10	0.050
101.02.304	100	0.20	0.100

Burette with Straight Bore Glass key Stopcock, Class A

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
101.03.301	10	0.05	0.020
101.03.302	25	0.10	0.050
101.03.303	50	0.10	0.050
101.03.304	100	0.20	0.100



**Burette with Straight Bore Glass key Stopcock, Class A**

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
101.04.301	10	0.05	0.020
101.04.302	25	0.10	0.050
101.04.303	50	0.10	0.050
101.04.304	100	0.20	0.100

**Burette with Straight Bore Glass key Stopcock, Schell Bach Stripe, Class A**

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
101.06.301	10	0.05	0.020
101.06.302	25	0.10	0.050
101.06.303	50	0.10	0.050
101.06.304	100	0.20	0.100

**Burette with Straight Bore Glass key Stopcock, Schell Bach Stripe, Class A**

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
101.07.301	10	0.05	0.020
101.07.302	25	0.10	0.050
101.07.303	50	0.10	0.050
101.07.304	100	0.20	0.100

BURETTES

MSAW

Burette with Screw type PTFE Stopcock (Needle Valve) Class B

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
102.01.301	10	0.05	0.050
102.01.302	25	0.10	0.100
102.01.303	50	0.10	0.100
102.01.304	100	0.20	0.200



Burette with Screw type PTFE Stopcock (Needle Valve) Class A

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
102.02.301	10	0.05	0.020
102.02.302	25	0.10	0.050
102.02.303	50	0.10	0.050
102.02.304	100	0.20	0.100



Burette with Screw type PTFE Stopcock (Needle Valve) Class A

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
102.03.301	10	0.05	0.020
102.03.302	25	0.10	0.050
102.03.303	50	0.10	0.050
102.03.304	100	0.20	0.100

**Burette with Screw type PTFE Stopcock (Needle Valve) Class A**

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
102.04.301	10	0.05	0.020
102.04.302	25	0.10	0.050
102.04.303	50	0.10	0.050
102.04.304	100	0.20	0.100

Burette with Screw type PTFE Stopcock (Needle Valve) Class A

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
102.05.301	10	0.05	0.02
102.05.302	25	0.10	0.03
102.05.303	50	0.10	0.05

**Burette with Screw type PTFE Stopcock (Needle Valve) Schell Bach stripe. Class A**

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
102.06.301	10	0.05	0.020
102.06.302	25	0.10	0.050
102.06.303	50	0.10	0.050
102.06.304	100	0.20	0.100

Burette with Screw type PTFE Stopcock (Needle Valve) Schell Bach stripe. Class A

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
102.07.301	10	0.05	0.020
102.07.302	25	0.10	0.050
102.07.303	50	0.10	0.050
102.07.304	100	0.20	0.100

BURETTES

MSAW

Burette with Straight Bore PTFE Key Stopcock. Class A

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
103.01.301	10	0.05	0.020
103.01.302	25	0.10	0.050
103.01.303	50	0.10	0.050
103.01.304	100	0.20	0.100



Burette with Straight Bore PTFE Key Stopcock. Class A

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
103.02.301	10	0.05	0.020
103.02.302	25	0.10	0.050
103.02.303	50	0.10	0.050
103.02.304	100	0.20	0.100



Burette with Straight Bore PTFE Key Stopcock. Class A

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
103.03.301	10	0.05	0.020
103.03.302	25	0.10	0.050
103.03.303	50	0.10	0.050
103.03.304	100	0.20	0.100

Burette with Straight Bore PTFE Key Stopcock. Class A

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
103.04.301	10	0.05	0.02
103.04.302	25	0.10	0.03
103.04.303	50	0.10	0.05
103.04.304	100	0.20	0.10



Burette with Straight Bore PTFE Key Stopcock Schell Bach stripe. Class A

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
103.05.301	10	0.05	0.020
103.05.302	25	0.10	0.050
103.05.303	50	0.10	0.050
103.05.304	100	0.20	0.100

Burette with Straight Bore PTFE Key Stopcock Schell Bach stripe. Class A

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
103.06.301	10	0.05	0.020
103.06.302	25	0.10	0.050
103.06.303	50	0.10	0.050
103.06.304	100	0.20	0.100



Burette Automatic Zero mounted on Reservoir with Screw type PTFE Stopcock (Needle Valve) & Rubber bellow, Class A

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
104.01.301	10	0.05	0.020
104.01.302	25	0.10	0.050
104.01.303	50	0.10	0.050
104.01.304	100	0.20	0.100

Above can be supplied with PTFE key stopcock on request at same price.

PIPETTES

MSAW

Pipette Volumetric with one mark. Class B

Cat. No.	Cap. ml.	Tolerance (±ml.)	Colour Code
105.01.301	1	0.015	White
105.01.302	2	0.020	Blue
105.01.303	5	0.030	Red
105.01.304	10	0.040	Yellow
105.01.305	20	0.060	White
105.01.306	25	0.060	Orange
105.01.307	50	0.100	Red
105.01.308	100	0.016	Yellow



Pipette Volumetric with one mark. Class A

Cat. No.	Cap. ml.	Tolerance (±ml.)	Colour Code
105.02.301	1	0.006	White
105.02.302	2	0.010	Blue
105.02.303	5	0.015	Red
105.02.304	10	0.020	Yellow
105.02.305	20	0.030	White
105.02.306	25	0.030	Orange
105.02.307	50	0.050	Red
105.02.308	100	0.080	Yellow



Pipette Volumetric with one mark. Class A

Cat. No.	Cap. ml.	Tolerance (±ml.)	Colour Code
105.03.301	1	0.006	White
105.03.302	2	0.010	Blue
105.03.303	5	0.015	Red
105.03.304	10	0.020	Yellow
105.03.305	20	0.030	White
105.03.306	25	0.030	Orange
105.03.307	50	0.050	Red
105.03.308	100	0.080	Yellow



Pipette Volumetric with one mark, Class A

Cat. No.	Cap. ml.	Tolerance (±ml.)	Colour Code
105.04.301	1	0.006	White
105.04.302	2	0.010	Blue
105.04.303	5	0.015	Red
105.04.304	10	0.020	Yellow
105.04.305	20	0.030	White
105.04.306	25	0.030	Orange
105.04.307	50	0.050	Red
105.04.308	100	0.080	Yellow

**Pipette Graduated for partial outflow. Class B**

Cat. No.	Cap. ml.	Tolerance (\pm ml.)	Colour Code
106.01.301	1	0.01	Yellow
106.01.302	2	0.02	Blue
106.01.303	5	0.05	Red
106.01.304	10	0.10	Orange
106.01.305	25	0.20	White

Pipette Graduated for partial out flow Class A

Cat. No.	Cap. ml.	Tolerance (\pm ml.)	Colour Code
106.02.301	1	0.006	Yellow
106.02.302	2	0.010	Blue
106.02.303	5	0.030	Red
106.02.304	10	0.050	Orange
106.02.305	25	0.100	White

**Pipette Graduated for partial out flow Class A**

Cat. No.	Cap. ml.	Tolerance (\pm ml.)	Colour Code
106.03.301	1	0.006	Yellow
106.03.302	2	0.010	Blue
106.03.303	5	0.030	Red
106.03.304	10	0.050	Orange
106.03.305	25	0.100	White

Pipette Graduated for partial out flow Class A

Cat. No.	Cap. ml.	Tolerance (\pm ml.)	Colour Code
106.04.301	1	0.006	Yellow
106.04.302	2	0.010	Blue
106.04.303	5	0.030	Red
106.04.304	10	0.050	Orange
106.04.305	25	0.100	White

MEASURING CYLINDERS

MSAW

Measuring Cylinder with plastic base and protection collar Class B.

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
107.01.301	5	0.1	0.1
107.01.302	10	0.2	0.2
107.01.303	25	0.5	0.5
107.01.304	50	1.0	1.0
107.01.305	100	1.0	1.0
107.01.306	250	2.0	2.0



Measuring Cylinder with spout & Round Base. Class A

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
107.02.301	5	0.1	0.05
107.02.302	10	0.2	0.10
107.02.303	25	0.5	0.25
107.02.304	50	1.0	0.50
107.02.305	100	1.0	0.50
107.02.306	250	2.0	1.00
107.02.307	500	5.0	2.50
107.02.308	1000	10.0	5.00
107.02.309	2000	20.0	10.0

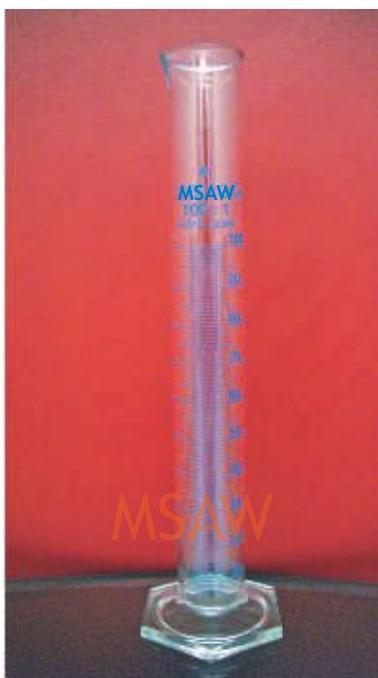


Measuring Cylinder with spout Round Base. Class A

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
107.03.301	10	0.2	0.10
107.03.302	25	0.5	0.25
107.03.303	50	1.0	0.50
107.03.304	100	1.0	0.50
107.03.305	250	2.0	1.00
107.03.306	500	5.0	2.50
107.03.307	1000	10.0	5.00
107.03.308	2000	20.0	10.00

**Measuring Cylinder with spout Round Base. Class A**

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
107.04.301	5	0.1	0.05
107.04.302	10	0.2	0.10
107.04.303	25	0.5	0.25
107.04.304	50	1.0	0.50
107.04.305	100	1.0	0.50
107.04.306	250	2.0	1.00
107.04.307	500	5.0	2.50
107.04.308	1000	10.0	5.00
107.04.309	2000	20.0	10.0

**Measuring Cylinder with spout & Hexagonal Base. Class A**

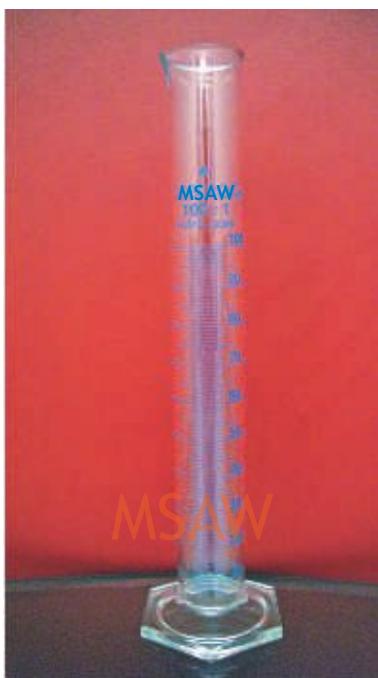
Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
107.05.301	5	0.1	0.05
107.05.302	10	0.2	0.10
107.05.303	25	0.5	0.25
107.05.304	50	1.0	0.50
107.05.305	100	1.0	0.50
107.05.306	250	2.0	1.00
107.05.307	500	5.0	2.50
107.05.308	1000	10.0	5.00
107.05.309	2000	20.0	10.0

Measuring Cylinder with spout Hexagonal Base. Class A

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
107.06.301	10	0.2	0.10
107.06.302	25	0.5	0.25
107.06.303	50	1.0	0.50
107.06.304	100	1.0	0.50
107.06.305	250	2.0	1.00
107.06.306	500	5.0	2.50
107.06.307	1000	10.0	5.00
107.06.308	2000	20.0	10.00

**Measuring Cylinder with spout Round Base. Class A**

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
107.04.301	5	0.1	0.05
107.04.302	10	0.2	0.10
107.04.303	25	0.5	0.25
107.04.304	50	1.0	0.50
107.04.305	100	1.0	0.50
107.04.306	250	2.0	1.00
107.04.307	500	5.0	2.50
107.04.308	1000	10.0	5.00
107.04.309	2000	20.0	10.0

**Measuring Cylinder with spout & Hexagonal Base. Class A**

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
107.05.301	5	0.1	0.05
107.05.302	10	0.2	0.10
107.05.303	25	0.5	0.25
107.05.304	50	1.0	0.50
107.05.305	100	1.0	0.50
107.05.306	250	2.0	1.00
107.05.307	500	5.0	2.50
107.05.308	1000	10.0	5.00
107.05.309	2000	20.0	10.0

Measuring Cylinder with spout Hexagonal Base. Class A

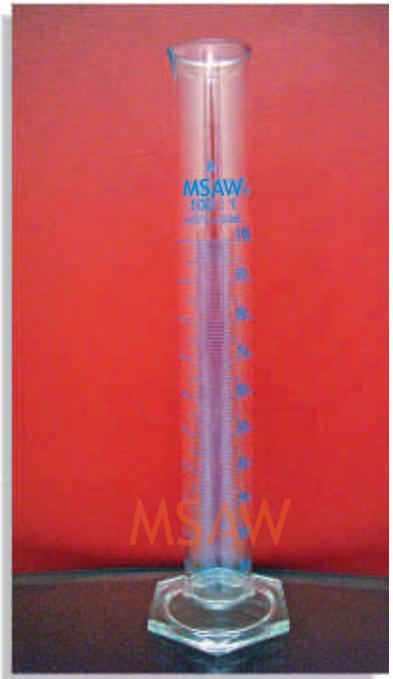
Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
107.06.301	10	0.2	0.10
107.06.302	25	0.5	0.25
107.06.303	50	1.0	0.50
107.06.304	100	1.0	0.50
107.06.305	250	2.0	1.00
107.06.306	500	5.0	2.50
107.06.307	1000	10.0	5.00
107.06.308	2000	20.0	10.00

MEASURING CYLINDERS

MSAW

Measuring Cylinder with spout Hexagonal Base. Class A

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
107.07.301	10	0.2	0.10
107.07.302	25	0.5	0.25
107.07.303	50	1.0	0.50
107.07.304	100	1.0	0.50
107.07.305	250	2.0	1.00
107.07.306	500	5.0	2.50
107.07.307	1000	10.0	5.00
107.07.308	2000	20.0	10.00



Measuring Cylinder with spout Hexagonal Base. Class A

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
107.08.301	10	0.2	0.10
107.08.302	25	0.5	0.25
107.08.303	50	1.0	0.50
107.08.304	100	1.0	0.50
107.08.305	250	2.0	1.00
107.08.306	500	5.0	2.50
107.08.307	1000	10.0	5.00
107.08.308	2000	20.0	10.00



Measuring Cylinder Round Base with Interchangeable Polythelene stopper, Class A

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
108.01.301	10	0.2	0.10
108.01.302	25	0.5	0.25
108.01.303	50	1.0	0.50
108.01.304	100	1.0	0.50
108.01.305	250	2.0	1.00
108.01.306	500	5.0	2.50
108.01.307	1000	10.0	5.00
108.01.308	2000	20.0	10.00



Measuring Cylinder Round Base with interchangeable Polythelene stopper, Class A

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
108.02.301	10	0.2	0.10
108.02.302	25	0.5	0.25
108.02.303	50	1.0	0.50
108.02.304	100	1.0	0.50
108.02.305	250	2.0	1.00
108.02.306	500	5.0	2.50
108.02.307	1000	10.0	5.00
108.02.308	2000	20.0	10.00

Measuring Cylinder Round Base with Interchangeable Polythelene stopper, Class A

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
108.03.301	10	0.2	0.10
108.03.302	25	0.5	0.25
108.03.303	50	1.0	0.50
108.03.304	100	1.0	0.50
108.03.305	250	2.0	1.00
108.03.306	500	5.0	2.50
108.03.307	1000	10.0	5.00
108.03.308	2000	20.0	10.00



Measuring Cylinder Hexagonal Base with Polythelene Stopper Class A

Cat No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
108.04.301	10	0.2	0.10
108.04.302	25	0.5	0.25
108.04.303	50	1.0	0.50
108.04.304	100	1.0	0.50
108.04.305	250	2.0	1.00
108.04.306	500	5.0	2.50
108.04.307	1000	10.0	5.00
108.04.308	2000	20.0	10.00

MEASURING CYLINDERS

MSAW

Measuring Cylinder Hexagonal Base with Polythelene Stopper -
Class A

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
108.05.301	10	0.2	0.10
108.05.302	25	0.5	0.25
108.05.303	50	1.0	0.50
108.05.304	100	1.0	0.50
108.05.305	250	2.0	1.00
108.05.306	500	5.0	2.50
108.05.307	1000	10.0	5.00
108.05.308	2000	20.0	10.00



Measuring Cylinder Hexagonal Base with Polythelene stopper -
Class A

Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
108.06.301	10	0.2	0.10
108.06.302	25	0.5	0.25
108.06.303	50	1.0	0.50
108.06.304	100	1.0	0.50
108.06.305	250	2.0	1.00
108.06.306	500	5.0	2.50
108.06.307	1000	10.0	5.00
108.06.308	2000	20.0	10.00

Nessler Cylinder for Colour Comparision Class A with two marks.

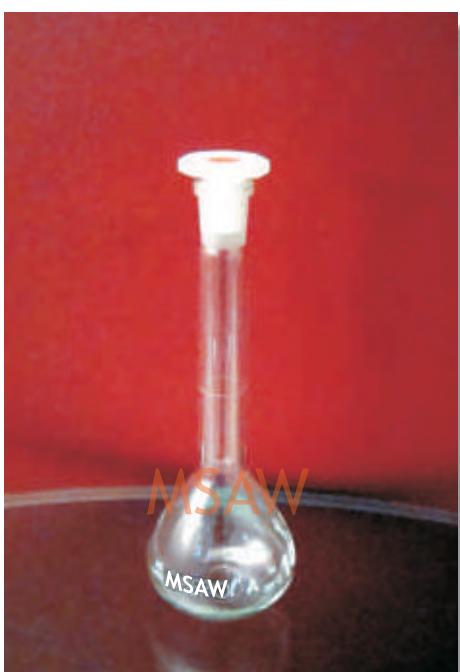
Cat. No.	Cap. ml.	Sub. Div. ml.	Tolerance (±ml.)
109.01.301	50	25 & 50	0.4
109.01.302	100	50 & 100	0.8





Volumetric Flask with one Graduation mark & Polythelene Stopper
Class B.

Cat. No.	Cap. ml.	Tolerance (±ml.)	N/S
110.01.301	5	0.05	10/19
110.01.302	10	0.05	10/19
110.01.303	20	0.80	10/19
110.01.304	25	0.80	10/19
110.01.305	50	0.12	12/21
110.01.306	100	0.20	14/23
110.01.307	200	0.30	14/23
110.01.308	250	0.30	14/23
110.01.309	500	0.50	19/26
110.01.310	1000	0.80	24/29
110.01.311	2000	1.20	29/32



Volumetric Flask with one mark & Polythylene Stopper Class A IAW

Cat. No.	Cap. ml.	Tolerance (±ml.)	N/S
111.01.301	5	0.025	10/19
111.01.302	10	0.025	10/19
111.01.303	20	0.040	10/19
111.01.304	25	0.040	10/19
111.01.305	50	0.060	12/21
111.01.306	100	0.100	14/23
111.01.307	200	0.150	14/23
111.01.308	250	0.150	14/23
111.01.309	500	0.250	19/26
111.01.310	1000	0.400	24/29
111.01.311	2000	0.600	29/32

Volumetric Flask with one mark & Polythelene Stopper Class A

Cat. No.	Cap. ml.	Tolerance (±ml.)	N/S
112.01.301	5	0.025	10/19
112.01.302	10	0.025	10/19
112.01.303	20	0.040	10/19
112.01.304	25	0.040	10/19
112.01.305	50	0.060	12/21
112.01.306	100	0.100	14/23
112.01.307	200	0.150	14/23
112.01.308	250	0.150	14/23
112.01.309	500	0.250	19/26
112.01.310	1000	0.400	24/29
112.01.311	2000	0.600	29/32

VOLUMETRIC FLASK

MSAW

Volumetric Flask with one mark & Polythelene Stopper Class A

Cat. No.	Cap. ml.	Tolerance (±ml.)	N/S
113.01.301	5	0.025	10/19
113.01.302	10	0.025	10/19
113.01.303	20	0.040	10/19
113.01.304	25	0.040	10/19
113.01.305	50	0.060	12/21
113.01.306	100	0.100	14/23
113.01.307	200	0.150	14/23
113.01.308	250	0.150	14/23
113.01.309	500	0.250	19/26
113.01.310	1000	0.400	24/29
113.01.311	2000	0.600	29/32



Volumetric Flask Amber with one mark & Polythelene Stopper Class A

Cat. No.	Cap. ml.	Tolerance (±ml.)	N/S
114.01.301	5	0.025	10/19
114.01.302	10	0.025	10/19
114.01.303	20	0.040	10/19
114.01.304	25	0.040	10/19
114.01.305	50	0.060	12/21
114.01.306	100	0.100	14/23
114.01.307	200	0.150	14/23
114.01.308	250	0.150	14/23
114.01.309	500	0.250	19/26
114.01.310	1000	0.400	24/29
114.01.311	2000	0.600	29/32



Volumetric Flask Amber with one mark & Polythelene Stopper. Class A

Cat. No.	Cap. ml.	Tolerance (±ml.)	N/S
115.01.301	5	0.025	10/19
115.01.302	10	0.025	10/19
115.01.303	20	0.040	10/19
115.01.304	25	0.040	10/19
115.01.305	50	0.060	12/21
115.01.306	100	0.100	14/23
115.01.307	200	0.150	14/23
115.01.308	250	0.150	14/23
115.01.309	500	0.250	19/26
115.01.310	1000	0.400	24/29
115.01.311	2000	0.600	29/32



Volumetric Flask Amber with one Mark & Polythelene Stopper.
Class A

Cat. No.	Cap. ml.	Tolerance (±ml.)	N/S
116.01.301	5	0.025	10/19
116.01.302	10	0.025	10/19
116.01.303	20	0.040	10/19
116.01.304	25	0.040	10/19
116.01.305	50	0.060	12/21
116.01.306	100	0.100	14/23
116.01.307	200	0.150	14/23
116.01.308	250	0.150	14/23
116.01.309	500	0.250	19/26
116.01.310	1000	0.400	24/29
116.01.311	2000	0.600	29/32



Volumetric Flask with Rim with out Stopper Class A

Cat. No.	Cap. ml.	Tolerance (±ml.)	N/S
117.01.301	5	0.025	10/19
117.01.302	10	0.025	10/19
117.01.303	20	0.040	10/19
117.01.304	25	0.040	10/19
117.01.305	50	0.060	12/21
117.01.306	100	0.100	14/23
117.01.307	200	0.150	14/23
117.01.308	250	0.150	14/23
117.01.309	500	0.250	19/26
117.01.310	1000	0.400	24/29
117.01.311	2000	0.600	29/32



Volumetric Flask for sugar Analysis Class A
with beaded rim & two marks.

Cat. No.	Marks at ml.	Tolerance ±ml.
118.01.301	50 & 55	0.060
118.01.302	100 & 110	0.100
118.01.303	200 & 220	0.150

STANDARD JOINTS

MSAW

Sockets, Single

Cat. No.	Socket	Approx O.D. of tube mm.	Minimum Shank length mm.
201.01.301	7/16	10	100
201.01.302	10/19	13	100
201.01.303	12/21	16	100
201.01.304	14/23	18	100
201.01.305	19/26	22	100
201.01.306	24/29	28	100
201.01.307	29/32	32	100
201.01.308	34/35	38	100
201.01.309	40/38	45	100
201.01.310	45/40	50	100
201.01.311	50/42	55	100
201.01.312	55/44	60	100



Cone, Single

Cat. No.	Cone	Approx O.D. of tube mm.	Minimum Shank length mm.
202.01.301	7/16	6	90
202.01.302	10/19	8	90
202.01.303	12/21	10	90
202.01.304	14/23	12	90
202.01.305	19/26	16	90
202.01.306	24/29	22	90
202.01.307	29/32	26	90
202.01.308	34/35	32	90
202.01.309	40/38	36	90
202.01.310	45/40	40	90
202.01.311	50/42	45	90
202.01.312	55/44	50	90



Cone with tip Single

Cat. No.	Cone	Approx O.D. of tube mm.	Minimum Shank length mm.
203.01.301	7/16	6	90
203.01.302	10/19	8	90
203.01.303	12/21	10	90
203.01.304	14/23	12	90
203.01.305	19/26	16	90
203.01.306	24/29	22	90
203.01.307	29/32	26	90
203.01.308	34/35	32	90
203.01.309	40/38	36	90
203.01.310	45/40	40	90
203.01.311	50/42	45	90
203.01.312	55/44	50	90



**Socket Double**

Cat. No.	Socket	Approx O.D. of tube mm.	Minimum Shank length mm.
204.01.301	7/16	10	100
204.01.302	10/19	14	100
204.01.303	14/23	18	100
204.01.304	19/26	22	100
204.01.305	24/29	28	100
204.01.306	29/32	32	100
204.01.307	34/35	38	100

**Cone Double**

Cat. No.	Cone	Approx O.D. of tube mm.	Minimum Shank length mm.
205.01.301	10/19	8	50
205.01.302	14/23	11	80
205.01.303	19/26	16	80
205.01.304	24/29	22	95
205.01.305	29/32	26	100
205.01.306	34/35	30	150

Cone with Tip are available on request at extra price.

**Socket Full Length single**

Cat. No.	Cone	Approx O.D. of tube mm.	Minimum Shank length mm.
206.01.301	7/25	10	100
206.01.302	10/30	13	100
206.01.303	12/32	16	100
206.01.304	14/35	18	100
206.01.305	19/38	22	100
206.01.306	24/40	28	100
206.01.307	29/42	32	100
206.01.308	34/45	38	100
206.01.309	45/50	50	100

STANDARD JOINTS

MSAW

Cone Full Length single

Cat. No.	Cone	Approx O.D. of tube mm.	Minimum Shank length mm.
207.01.301	7/25	6	90
207.01.302	10/30	8	90
207.01.303	12/32	10	90
207.01.304	14/35	11	90
207.01.305	19/38	16	90
207.01.306	24/40	22	90
207.01.307	29/42	26	90
207.01.308	34/45	32	90
207.01.309	45/50	40	90



Spherical Joint Cup

Cat. No.	Cup Joint (Female)	Approx. Bore	Minimum Shank length mm.
208.01.301	S13	5	100
208.01.302	S19	9	100
208.01.303	S29	15	100
208.01.304	S35	19	100
208.01.305	S41	27	100



Spherical Joint Ball

Cat. No.	Cup Joint (Male)	Approx. Bore	Minimum Shank length mm.
209.01.301	S13	5	100
209.01.302	S19	9	100
209.01.303	S29	15	100
209.01.304	S35	19	100
209.01.305	S41	27	100



Joint Clips

Cat. No.	To fit spherical joint size
210.01.301	S13
210.01.302	S19
210.01.303	S29
210.01.304	S35
210.01.305	S41



**Stopper Solid**

Cat. No.	Cone
211.01.301	10/29
211.01.302	14/23
211.01.303	19/26
211.01.304	24/29
211.01.305	29/32
211.01.306	34/35

**Stopper Hollow , Hexagonal shape, Flat Bottom**

Cat. No.	Cone
212.01.301	10/19
212.01.302	12/21
212.01.303	14/23
212.01.304	19/26
212.01.305	24/29
212.01.306	29/32
212.01.307	34/35

**Stopper Hollow , Hexagonal shape with Tip.**

Cat. No.	Cone
213.01.301	10/19
213.01.302	12/21
213.01.303	14/23
213.01.304	19/26
213.01.305	24/29
213.01.306	29/32
213.01.307	34/35

ADAPTERS

MSAW

Reduction Adapter

Cat. No.	Socket Size	Cone Size
214.01.301	14/23	19/26
214.01.302	14/23	24/29
214.01.303	14/23	29/32
214.01.304	19/26	24/29
214.01.305	19/26	29/32
214.01.306	19/26	34/35
214.01.307	19/26	40/38
214.01.308	19/26	45/40
214.01.309	19/26	55/44
214.01.310	24/29	29/32
214.01.311	24/29	34/35
214.01.312	24/29	40/38
214.01.313	24/29	45/40
214.01.314	24/29	50/42
214.01.315	24/29	55/44
214.01.316	29/32	34/35
214.01.317	29/32	40/38
214.01.318	29/32	45/40
214.01.319	34/35	40/38
214.01.320	34/35	45/40
214.01.321	34/35	50/42



MSAW

Expansion Adapter

Cat. No.	Socket Size	Cone Size
215.01.301	19/26	14/23
215.01.302	24/29	14/23
215.01.303	24/29	19/26
215.01.304	29/32	19/26
215.01.305	29/32	24/29
215.01.306	34/35	19/26
215.01.307	34/35	24/29
215.01.308	34/35	29/32
215.01.309	40/38	24/29
215.01.210	45/40	29/32



MSAW
MSAW™

Multiple Adapter with Two Parallel Necks

Cat. No.	Socket Size	Cone Size
216.01.301	14/23	14/23
216.01.302	14/23	19/26
216.01.303	19/26	19/26
216.01.304	19/26	24/29
216.01.305	24/29	24/29
216.01.306	19/26	34/35
216.01.307	29/32	29/32



MSAW

**Multiple Adapter with Two Neck one Vertical & One at 45°**

Cat. No.	Socket Size	Cone Size
217.01.301	14/23	14/23
217.01.302	14/23	19/26
217.01.303	14/23	24/29
217.01.304	14/23	29/32
217.01.305	19/26	19/26
217.01.306	19/26	24/29
217.01.307	24/29	19/26
217.01.308	29/32	29/32

**Multiple Adapter Three Neck two parallel & One at 45°**

Cat. No.	Socket	Cone Size
218.01.301	19/26	19/26
218.01.302	19/26	24/29
218.01.303	19/26	29/32
218.01.304	24/29	24/29
218.01.305	24/29	29/32
218.01.306	24/29	34/35

**Receiver Short Stem**

Cat. No.	Socket Size	Approx. length mm
219.01.301	14/23	65
219.01.302	19/26	65
219.01.303	24/29	65
219.01.304	29/32	65

Long Stem

Cat. No.	Socket Size	Approx. length mm
220.01.301	14/23	190
220.01.302	19/26	200
220.01.303	24/29	200
220.01.304	29/32	200

**Receiver Adapter Straight**

Cat. No.	Socket Size
221.01.301	14/23
221.01.302	19/26
221.01.303	24/29
221.01.304	29/32

ADAPTERS

MSAW

Receiver Adapter Bend with Vacuum Connection

Cat. No.	Socket Size	Cone Size
222.01.301	14/23	14/23
222.01.302	14/23	19/26
222.01.303	19/26	19/26
222.01.304	19/26	24/29
222.01.305	24/29	24/29
222.01.306	24/29	29/32
222.01.307	29/32	29/32



Receiver Adapter Straight with Vacuum Connection

Cat. No.	Socket Size	Cone Size
223.01.301	14/23	14/23
223.01.302	14/23	19/26
223.01.303	19/26	19/26
223.01.304	19/26	24/29
223.01.305	24/29	24/29
223.01.306	24/29	29/32
223.01.307	29/32	29/32



Receiver Adapter Plain Bend

Cat. No.	Socket Size	Cone Size
224.01.301	14/23	14/23
224.01.302	14/23	19/26
224.01.303	19/26	19/26
224.01.304	19/26	24/29
224.01.305	24/29	24/29
224.01.306	24/29	29/32



Receiver Adapter Inclined at 105 angle upwards

Cat. No.	Socket Size	Cone Size
225.01.301	14/23	14/23
225.01.302	19/26	19/26
225.01.303	19/26	24/29
224.01.304	24/29	24/29
224.01.305	29/32	29/32



**Recovery Bend Sloping**

Cat. No.	Cone Size to fit flask	Cone Size to fit condenser
226.01.301	14/23	14/23
226.01.302	24/29	14/23
226.01.303	19/26	19/26
226.01.304	24/29	19/26
226.01.305	29/32	19/26
226.01.306	29/32	29/32
226.01.307	24/29	24/29
226.01.308	34/35	24/29
226.01.309	29/32	24/29
226.01.310	34/35	34/35

**Receiver Adapter Bend with Vent**

Cat. No.	Socket Size	Cone Size
227.01.301	14/23	14/23
227.01.302	19/26	19/26
227.01.303	19/26	24/29
227.01.304	24/29	24/29
227.01.305	29/32	29/32

**Receiver Bend Vertical**

Cat. No.	Cone Size to fit flask	Cone Size to fit condenser
228.01.301	14/23	14/23
228.01.302	19/26	19/26
228.01.303	24/29	19/26
228.01.304	24/29	24/29
228.01.305	29/32	29/32

**Still Head Plain with Thermometer socket**

Cat. No.	Cone size to fit flask	Cone Size to fit condenser
229.01.301	14/23	14/23
229.01.302	19/26	19/26
229.01.303	24/29	19/26
229.01.304	29/32	19/26
229.01.305	34/35	19/26
229.01.306	24/29	24/29
229.01.307	34/35	24/29
229.01.308	29/32	24/29
229.01.309	29/32	29/32
229.01.310	34/35	29/32

Claisen Head Sloping with 2 No. of Socket 14/23

Cat. No.	Socket Size	Cone Size to fit Flask	Cone Size to fit Condenser
230.01.301	14/23	14/23	14/23
230.01.302	14/23	19/26	19/26
230.01.303	14/23	24/29	24/29
230.01.304	14/23	24/29	24/29
230.01.305	14/23	29/32	29/32
230.01.306	14/23	34/35	24/29

**Swan Neck Adapter**

Cat. No.	Socket size	Cone Size
231.01.301	14/23	19/26
231.01.302	19/26	19/26
231.01.303	19/26	24/29
231.01.304	24/29	24/29
231.01.305	29/32	29/32

**Splash Head Vertical**

Cat. No.	Socket size	Cone Size
232.01.301	14/23	14/23
232.01.302	19/26	24/29
232.01.303	29/32	29/32

**Splash Head Pear Shape Sloping**

Cat. No.	Cone Size to fit flask	Cone Size to fit condenser
233.01.301	14/23	14/23
233.01.302	19/26	19/26
233.01.303	24/29	19/26
233.01.304	24/29	24/29
233.01.305	29/32	29/32





Splash Head Pear shape Vertical

Cat. No.	Cone Size to fit flask	Cone Size to fit condenser
234.01.301	14/23	14/23
234.01.302	19/26	19/26
234.01.303	24/29	19/26
234.01.304	24/29	24/29
234.01.305	29/32	29/32



Steam Distillation Head Sloping

Cat. No.	Cone Size to fit flask	Cone Size to fit condenser
235.01.301	24/29	19/26
235.01.302	34/35	19/26
235.01.303	34/35	24/29



Drying Tube

Cat. No.	Cone
236.01.301	14/23
236.01.302	19/26
236.01.303	24/29
236.01.304	29/32

ADAPTERS

MSAW

U Tube with two Sockets

Cat. No.	Socket
237.01.301	14/23
237.01.302	19/26



Thermometer Pocket

Cat. No.	Cone	Stem Length mm
238.01.301	14/23	45
238.01.302	19/26	45



Air Leak Tube/ Gas Inlet Tube

Cat. No.	Cone
239.01.301	14/23
239.01.302	19/26
239.01.303	24/29
239.01.304	29/32



Thermometer / Stirrer Gland

Cat. No.	Bore	Cone
240.01.301	6 mm	14/23
240.01.302	6 mm	19/26
240.01.303	6 mm	24/29
240.01.304	6 mm	29/32



**Adapter Socket to Cone with Tee Connection**

Cat. No.	Socket	Cone
241.01.301	14/23	14/23
241.01.302	14/23	19/26
241.01.303	14/23	24/29
241.01.304	14/23	29/32
241.01.305	19/26	19/26
241.01.306	19/26	24/29
241.01.307	19/26	29/32
241.01.308	24/29	24/29
241.01.309	24/29	29/32
241.01.310	29/32	29/32

**Adapter Socket to Rubber Tubing Straight Connection**

Cat. No.	Cone
242.01.301	14/23
242.01.302	19/26
242.01.303	24/29
242.01.304	29/32

**Adapter Cone to Rubber Tubing Right angle Connection**

Cat. No.	Cone
243.01.301	14/23
243.01.302	19/26
243.01.303	24/29
243.01.304	29/32

ADAPTERS

MSAW

Adaptor Cone with stem to Rubber Tubing, Right angle connection

Cat. No.	Cone
244.01.301	14/23
244.01.302	19/26
244.01.303	24/29
244.01.304	29/32



Adaptor Cone to Rubber Tubing, Right angle connection with Glass stopcock

Cat. No.	Cone
245.01.301	14/23
245.01.302	19/26
245.01.303	24/29
245.01.304	29/32



Above adapters with PTFE stopcock are available at extra price.

For straight type of connection please mention separately.

Adaptor Socket to Rubber Tubing, Straight with PTFE Key Stopcock

Cat. No.	Socket
246.01.301	14/23
246.01.302	19/26
246.01.303	24/29
246.01.304	29/32



Above adaptors are also available with Glass Stopcock.

**Flask Round Bottom Single Neck**

Cat. No.	Nominal capacity ml.	Socket size (NS)	Approx. over all height mm	Dia mm
247.01.301	5	14/23	65	27
247.01.302	10	14/23	65	33
247.01.303	25	14/23	85	41
247.01.304	25	19/26	85	41
247.01.305	25	24/29	85	41
247.01.306	50	14/23	105	51
247.01.307	50	19/26	105	51
247.01.308	50	24/29	105	51
247.01.309	50	29/32	105	51
247.01.310	100	14/23	115	64
247.01.311	100	19/26	115	64
247.01.312	100	24/29	115	64
247.01.313	100	29/32	115	64
247.01.314	150	19/26	120	74
247.01.315	150	24/29	120	74
247.01.316	150	29/32	120	74
247.01.317	250	19/26	145	85
247.01.318	250	24/29	145	85
247.01.319	250	29/32	145	85
247.01.320	250	34/35	145	85
247.01.321	500	19/26	175	105
247.01.322	500	24/29	175	105
247.01.323	500	29/32	175	105
247.01.324	500	34/35	175	105
247.01.325	1000	13/26	210	131
247.01.326	1000	24/29	210	131
247.01.327	1000	29/32	210	131
247.01.328	1000	34/35	210	131
247.01.329	2000	24/29	260	166
247.01.330	2000	29/32	260	166
247.01.331	2000	34/35	260	166

FLASKS

MSAW

Flask Flat Bottom Single Neck

Cat. No.	Nominal capacity ml	Socket size (N.S.)	Approx. over all height mm	Dia mm
248.01.301	50	19/26	90	51
248.01.302	50	24/29	90	51
248.01.303	50	29/32	90	51
248.01.304	100	19/26	110	64
248.01.305	100	24/29	110	64
248.01.306	100	29/32	110	64
248.01.307	150	19/26	115	74
248.01.308	150	24/29	115	74
248.01.309	150	29/32	115	74
248.01.310	250	19/26	140	85
248.01.311	250	24/29	140	85
248.01.312	250	29/32	140	85
248.01.313	250	34/35	140	85
248.01.314	500	19/26	170	105
248.01.315	500	24/29	170	105
248.01.316	500	29/32	170	105
248.01.317	500	34/35	170	105
248.01.318	1000	24/29	200	131
248.01.319	1000	29/32	200	131
248.01.320	1000	34/35	200	131
248.01.321	2000	24/29	250	166
248.01.322	2000	29/32	250	166
248.01.323	2000	34/35	250	166



Flask Round Bottom Two Neck, Angled

Cat. No.	Nominal capacity ml	Center Socket (N.S.)	Side Socket (N.S.)	Approx. over all height mm
249.01.301	50	24/29	14/23	115
249.01.302	50	29/32	14/23	115
249.01.303	100	24/29	14/23	115
249.01.304	100	24/29	19/26	115
249.01.305	100	29/32	14/23	115
249.01.306	250	24/29	14/23	145
249.01.307	250	24/29	19/26	145
249.01.308	250	29/32	19/26	145
249.01.309	500	24/29	14/23	175
249.01.310	500	24/29	19/26	175
249.01.311	500	29/32	19/26	175
249.01.312	1000	24/29	14/23	210
249.01.313	1000	24/29	19/26	210
249.01.314	1000	29/32	19/26	210
249.01.315	2000	34/35	19/26	223





Flask Round Bottom Three Neck Angled.

Cat. No.	Nominal capacity ml	Center Socket size	Side Socket size	Approx. over all height mm
250.01.301	100	19/26	14/23	115
250.01.302	100	24/29	14/23	115
250.01.303	100	24/29	19/26	115
250.01.304	100	29/32	19/26	115
250.01.305	250	19/26	19/26	145
250.01.306	250	24/29	14/23	145
250.01.307	250	24/29	19/26	145
250.01.308	250	29/32	19/26	145
250.01.309	250	29/32	24/29	145
250.01.310	250	29/32	29/32	145
250.01.311	500	24/29	14/23	175
250.01.312	500	24/29	19/26	175
250.01.313	500	29/32	14/23	175
250.01.314	500	29/32	19/26	175
250.01.315	500	29/32	24/29	175
250.01.316	1000	24/29	14/23	210
250.01.317	1000	24/29	19/26	210
250.01.318	1000	29/32	14/23	210
250.01.319	1000	29/32	19/26	210
250.01.320	1000	29/32	24/29	210
250.01.321	2000	24/29	19/26	260
250.01.322	2000	29/32	24/29	260
250.01.323	2000	29/32	29/32	290



Flask Round Bottom Three Neck Parallel.

Cat. No.	Nominal capacity ml	Center Socket size	Side Socket size	Approx. over all height mm
251.01.101	250	24/29	14/23	145
251.01.102	250	24/29	19/26	145
251.01.103	250	29/32	14/23	145
251.01.104	500	24/29	14/23	175
251.01.105	500	24/29	19/26	175
251.01.106	500	29/32	14/23	175
251.01.107	500	29/32	19/26	175
251.01.108	500	29/32	24/29	175
251.01.109	1000	24/29	19/26	210
251.01.110	1000	29/32	14/23	210
251.01.111	1000	29/32	19/26	210
251.01.112	1000	29/32	24/29	210
251.01.113	2000	24/29	19/26	260
251.01.114	2000	29/32	19/26	260
251.01.115	2000	29/32	24/29	260
251.01.116	2000	34/35	19/26	260
251.01.117	2000	34/35	24/29	260

FLASKS

MSAW

Flask Pear Shape Single Neck

Cat. No.	Nominal capacity ml	Center Socket size	Approx. over all height mm
252.01.101	25	14/23	90
252.01.102	50	14/23	110
252.01.103	100	14/23	125



Flask Pear Shape, Two neck.

Cat. No.	Nominal capacity ml	Center Socket size	Side Socket size	Approx. over all height mm
253.01.101	50	14/23	14/23	110
253.01.102	100	14/23	14/23	125



Flask Evaporating

Cat. No.	Nominal capacity ml	Socket size	Approx. over all height mm
254.01.301	50	29/32	94
254.01.302	100	24/29	110
254.01.303	100	29/32	110
254.01.304	250	24/29	140
254.01.305	250	29/32	140
254.01.306	500	24/29	170
254.01.307	500	29/32	170
254.01.308	1000	24/29	210
254.01.309	1000	29/32	210
254.01.310	2000	29/32	250



**Flask Kjeldahl**

Cat. No.	Nominal capacity ml	Socket size	Approx. over all height mm
255.01.301	50	19/26	160
255.01.302	100	19/26	165
255.01.303	100	24/29	165
255.01.304	300	24/29	295
255.01.305	500	24/29	305
255.01.306	800	24/29	325

**Flask Erlenmeyer**

Cat. No.	Nominal capacity ml	Socket Size (N.S.)	Approx. Over all height mm	Approx. Diameter mm
256.01.301	25	14/23	75	42
256.01.302	25	19/26	75	42
256.01.303	50	14/23	85	51
256.01.304	50	19/26	85	51
256.01.305	50	24/29	85	51
256.01.306	50	29/32	85	51
256.01.307	100	14/23	105	64
256.01.308	100	19/26	105	64
256.01.309	100	24/29	105	64
256.01.310	100	29/32	105	64
256.01.311	150	19/26	118	74
256.01.312	150	24/29	118	74
256.01.313	150	29/32	118	74
256.01.314	250	19/26	140	85
256.01.315	250	24/29	140	85
256.01.316	250	29/32	140	85
256.01.317	250	34/35	140	85
256.01.318	300	29/32	156	87
256.01.319	500	19/26	175	105
256.01.320	500	24/29	175	105
256.01.321	500	29/32	175	105
256.01.322	500	34/35	175	105
256.01.323	1000	24/29	220	131
256.01.324	1000	29/32	220	131
256.01.325	1000	34/35	220	131
256.01.326	2000	29/32	280	166
256.01.327	2000	34/35	280	166

FLASKS

MSAW

Flask Erlenmeyer Stoppered.

Cat. No.	Capacity ml.	Socket Size (NS)
257.01.301	100	29/32
257.01.302	250	29/32
257.01.303	500	29/32
257.01.304	1000	29/32
257.01.305	2000	29/32



Flask Iodine

Cat. No.	Nominal capacity ml	Joint size	Min. Cup. Cap. ml
258.01.301	250	24/29	20
258.01.302	250	29/32	20
258.01.303	500	24/29	20
258.01.304	500	29/32	20



Flask Erlenmeyer with Screw Cap & PTFE liner

Cat. No.	Capacity	Dia mm
259.01.301	50	51
259.01.302	100	64
259.01.303	150	74
259.01.304	250	85
259.01.305	500	105
259.01.306	1000	131



**Flask Buckner Filtration Bolt Neck**

Cat. No.	Nominal Capacity ml.
260.01.301	100
260.01.302	250
260.01.303	500
260.01.304	1000
260.01.305	2000

**Flask Kjeldhal long Neck**

Cat. No.	Capacity	Height mm	Dia. mm
261.01.301	100	240	58
261.01.302	300	300	81
261.01.303	500	325	101
261.01.304	800	350	115

**Flask Distillation with side tube**

Cat. No.	Capacity	Height mm	Dia. mm
262.01.301	100	215	65
262.01.302	250	225	85
262.01.303	500	240	105

TUBES

MSAW

Test tube plain with interchangeable Stopper

Cat. No.	Dia x Length mm	Socket Size (NS)
263.01.301	12x100	10/19
263.01.302	15x125	12/21
263.01.303	18x150	14/23
263.01.304	25x150	19/26
263.01.305	25x200	19/26
263.01.306	32x200	24/29
263.01.307	38x200	24/29



Test Tube Graduated with interchangeable Stopper.

Cat. No.	Capacity ml.	Socket Size (NS)	Dia. x Length mm
264.01.301	5	10/19	12x100
264.01.302	10	12/21	16x125
264.01.303	25	19/26	22x150
264.01.304	50	19/26	25x200



Test Tube with Rim, Borosilicate 3.3 glass

Cat. No.	Capacity	OD x Length	Wall Thickness
265.01.301	3	10x75	1.0
265.01.302	5	12x75	1.0
265.01.303	8	12x100	1.0
265.01.304	10	15x125	1.2
265.01.305	25	18x150	1.2
265.01.306	50	25x150	1.2
265.01.307	75	25x200	1.2





Test Tube without Rim, Borosilicate 3.3 glass

Cat. No.	Capacity	OD x Length	Wall Thickness
266.01.301	3	10x75	1.0
266.01.302	5	12x75	1.0
266.01.303	8	12x100	1.0
266.01.304	10	15x125	1.2
266.01.305	25	18x150	1.2
266.01.306	50	25x150	1.2
266.01.307	75	25x200	1.2



Test Tube with Rim, Heat Resistant Neutral hard glass Autoclavable. Stands up to 350°C temp.

Cat. No.	Size Approx. (mm)	Wall Thickness
267.01.301	10x75	0.90
267.01.302	12x100	1.00
267.01.303	15x125	1.00
267.01.304	15x150	1.00
267.01.305	18x150	1.00
267.01.306	25x150	1.00



Test Tube with out Rim, Heat Resistant Neutral hard glass Autoclavable. Stands up to 350°C temp.

Cat. No.	Sixe Approx. (mm)	Wall Thickness
268.01.301	10x75	0.90
268.01.302	12x100	1.00
268.01.303	15x125	1.00
268.01.304	15x150	1.00
268.01.305	18x150	1.00
268.01.306	25x150	1.00

TUBES

MSAW

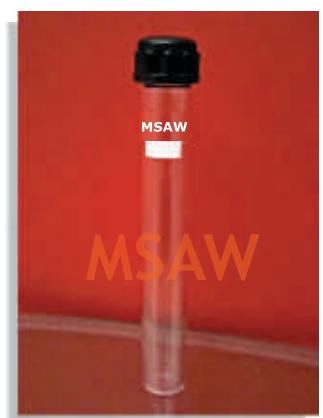
Tube Culture Media Round Bottom with Screw cap & PTFE liner.

Cat. No.	Capacity ml	OD x Length mm
269.01.301	5	15x75
269.01.302	10	15x125
269.01.303	15	15x150
269.01.304	25	18x150
269.01.305	30	25x100
269.01.306	45	25x150
269.01.307	60	25x200
269.01.308	100	32x200



Tubes Culture Media Flat Bottom with Screw cap & PTFE liner.

Cat. No.	Capacity ml	OD x Length mm
270.01.301	5	18x45
270.01.302	10	25x57
270.01.303	30	25x95
270.01.304	40	25x145



Centrifugal Tube Conical Bottom Plain

Cat. No.	Capacity ml	OD x Length mm
271.01.301	5	13x100
271.01.302	10	15x110
271.01.303	15	17x120
271.01.304	25	22x125
271.01.305	50	28x125



Centrifugal Tube Conical Bottom Graduated

Cat. No.	Capacity ml	ODxLength mm
272.01.301	5	13x100
272.01.302	10	15x110
272.01.303	15	17x120
272.01.304	25	22x125
272.01.305	50	28x125



**Air Condenser**

Cat. No.	Socket	Cone	Effective Length mm.
301.01.301	14/23	14/23	200
301.01.302	19/26	19/26	200
301.01.303	24/29	24/29	250
301.01.304	19/26	19/26	400
301.01.305	24/29	24/29	500
301.01.306	34/35	34/35	500
301.01.307	19/26	19/26	600
301.01.308	24/29	24/29	750
301.01.309	—	19/26	750
301.01.310	—	24/29	750
301.01.311	—	19/26	1000
301.01.312	—	24/29	1000

**Liebig Condenser**

Cat. No.	Socket	Cone	Effective Length mm.
302.01.301	14/23	14/23	160
302.01.302	19/26	19/26	160
302.01.303	19/26	19/26	250
302.01.304	24/29	24/29	250
302.01.305	19/26	19/26	300
302.01.306	24/29	24/29	300
302.01.307	29/32	29/32	300
302.01.308	24/29	24/29	400
302.01.309	29/32	29/32	400
302.01.310	24/29	24/29	600

**Coil Condenser Graham Distillate Type**

Cat No.	Socket	Cone	Effective Length mm.
303.01.301	14/23	14/23	160
303.01.302	19/26	19/26	160
303.01.303	24/29	24/29	160
303.01.304	19/26	19/26	250
303.01.305	24/29	24/29	250
303.01.306	29/32	29/32	250
303.01.307	24/29	24/29	300
303.01.308	29/32	29/32	300
303.01.309	29/32	29/32	400

CONDENSERS

Double Surface Davies

Cat. No.	Socket	Cone	Effective Length mm.
304.01.301	14/23	14/23	100
304.01.302	19/26	19/26	150
304.01.303	24/29	24/29	200
304.01.304	19/26	19/26	250
304.01.305	24/29	24/29	250
304.01.306	24/29	24/29	300
304.01.307	24/29	24/29	400
304.01.308	24/29	24/29	500
304.01.309	34/35	34/35	500
304.01.310	34/35	34/35	600



Allihn Bulb Condenser

Cat. No.	Socket	Cone	Effective Length mm.
305.01.301	14/23	14/23	160
305.01.302	19/26	19/26	160
305.01.303	14/23	14/23	250
305.01.304	19/26	19/26	250
305.01.305	24/29	24/29	250
305.01.306	24/29	24/29	300
305.01.307	29/32	29/32	300
305.01.308	24/29	24/29	400
305.01.309	29/32	29/32	400



Allihn Condenser for Soxhlet

Cat. No.	Extractor Capacity ml	Cone
306.01.301	100 & 250	45/40
306.01.302	500	60/46
306.01.303	1000	71/51



Dimroth Condenser for Soxhlet Extraction Apparatus.

Cat. No.	Extractor Capacity ml	Cone mm
307.01.301	100 & 250	45/40
307.01.302	500	60/46
307.01.303	1000	71/51



**Soxhlet Extraction Apparatus with Allihn Condenser**

Cat. No.	Extractor capacity ml.	Extractor Socket (N.S.)	Extractor Cone	Flask capacity ml.
308.01.101	100	45/40	29/32	250
308.01.102	150	45/40	29/32	250
308.01.103	250	45/40	29/32	500
308.01.104	500	60/46	29/32	1000
308.01.105	1000	71/51	29/32	2000

**Soxhlet Extraction Apparatus with Dimroth Condenser**

Cat. No.	Extractor capacity ml.	Extractor Socket (N.S.)	Extractor Cone	Flask capacity ml.
309.01.101	100	45/40	29/32	250
309.01.102	150	45/40	29/32	250
309.01.103	250	45/40	29/32	500
309.01.104	500	60/46	29/32	1000
309.01.105	1000	71/51	29/32	2000

**Extractor Spare for Soxhlet Apparatus**

Cat. No.	Capacity ml.	Socket	Cone
310.01.301	100	45/40	29/32
310.01.302	150	45/40	29/32
310.01.303	250	45/40	29/32
310.01.304	500	60/46	29/32
310.01.305	1000	71/51	29/32

29 OU/S Organic Chemistry set

An ideal introduction set for students to the principal techniques of preparative organic chemistry. Simplicity of the set surprisingly allow preparation of different 30 gm scale Batches.

Cat. No.	Description	
311.01.301	Complete Set Comprising 5 items of Glassware	
Item No.	Components	29 OU/S
1.	Pear Shaped Flask 50 ml.	1
2.	Still Head	1
3.	Liebig Condenser	1
4.	Screw Cap Adapter	1
5.	Receiver Adapter	1

**27 OU/S Organic Chemistry set**

This is a very popular set in schools, colleges and universities. This set is versatile designed to cover the essential needs for the teaching of organic chemistry & also suitable for preparation up to 30 gm scale.

Cat. no.	Description	
312.01.301	Complete Set Comprising 9 items of Glassware	
Item No.	Components	27 OU/S
1.	Pear Shape Flask 50 ml	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 Rotaflow Valve	1
8.	Stopper	1
9.	Thermometer	1





34 OU/S Organic Chemistry set

A space saving highly useful set for preparing up to 150 gm scale.
Wide range of preparations can be carried out by students as well as
at Industrial research laboratories.

Cat. no.	Description		
313.01.301	Complete Set Comprising 16 items		
Item No.	Components	Socket size (N.S.)	Cone size (N.S.)
1.	Flask R.B. 50 ml	24/29	-
2.	Flask R.B. 250 ml	24/29	-
3.	Flask Erlenmeyer 250 ml	24/29	-
4.	Still Head	14/23	19/26
5.	Multiple Adapter	19/26	24/29
6.	Reducing Adapter	19/26	24/29
7.	Dropping Funnel 100 ml	19/26	19/26
8.	Flask R.B. 100 ml	24/29	-
9.	Liebig Condenser	19/26	19/26
10.	Air leak / Steam inlet tube	-	19/26
11.	Receiver adapter	19/26	-
12.	Receiver	19/26	24/29
13.	Stopper	-	19/26
14.	Stopper	-	19/26
15.	Stopper	-	24/29
16.	Thermometer Pocket	-	14/23

SEPARATING FUNNELS

MSAW

Graduated Funnels are also available on request. While placing an order, please add **G** with Cat. No.

Separating Funnel with Glass Stopcock & Polythelene Stopper,
Squibb Shape.

Cat. No.	Capacity ml	Socket N.S.
401.01.301	50	19/26
401.01.302	100	19/26
401.01.303	250	19/26
401.01.304	500	29/32
401.01.305	1000	29/32
401.01.306	2000	29/32



Separating Funnel with PTFE Needle valve & Polythelene Stopper
Squibb Shape.

Cat. No.	Capacity ml	Socket N.S.
402.01.301	50	19/26
402.01.302	100	19/26
402.01.303	250	19/26
402.01.304	500	29/32
402.01.305	1000	29/32
402.01.306	2000	29/32



Separating Funnel with PTFE Key Stopcock & Polythelene Stopper
Squibb Shape.

Cat. No.	Capacity ml	Socket N.S.
403.01.301	50	19/26
403.01.302	100	19/26
403.01.303	250	19/26
403.01.304	500	29/32
403.01.305	1000	29/32
403.01.306	2000	29/32





Separating Funnel with Glass Stopcock & Polythelene Stopper,
Pear Shape.

Cat. No.	Capacity ml	Socket N.S.
404.01.301	50	19/26
404.01.302	100	19/26
404.01.303	250	19/26
404.01.304	500	29/32
404.01.305	1000	29/32
404.01.306	2000	29/32



Separating Funnel with PTFE Needle Valve Stopcock & Polythelene
Stopper, Pear Shape.

Cat. No.	Capacity ml	Socket N.S.
405.01.301	50	19/26
405.01.302	100	19/26
405.01.303	250	19/26
405.01.304	500	29/32
405.01.305	1000	29/32
405.01.306	2000	29/32



Separating Funnel with PTFE Key Stopcock & Polythelene Stopper,
Pear Shape.

Cat. No.	Capacity ml	Socket N.S.
406.01.301	50	19/26
406.01.302	100	19/26
406.01.303	250	19/26
406.01.304	500	29/32
406.01.305	1000	29/32
406.01.306	2000	29/32

SEPARATING FUNNELS



Separating Funnel, Pear shape Glass Stopcock & Cone.

Cat. No.	Capacity ml.	Socket (N.S.)	Cone Size
407.01.301	50	14/23	14/23
407.01.302	50	19/26	19/26
407.01.303	100	14/23	14/23
407.01.304	100	19/26	19/26
407.01.305	250	14/23	14/23
407.01.306	250	19/26	19/26
407.01.307	500	19/26	19/26
407.01.308	500	24/29	24/29
407.01.309	1000	19/26	19/26
407.01.310	1000	24/29	24/29



Separating Funnel, Pear shape with PTFE Needle Valve Stopcock & Cone.

Cat. No.	Capacity ml.	Socket (N.S.)	Cone Size
408.01.301	50	14/23	14/23
408.01.302	50	19/26	19/26
408.01.303	100	14/23	14/23
408.01.304	100	19/26	19/26
408.01.305	250	14/23	14/23
408.01.306	250	19/26	19/26
408.01.307	500	19/26	19/26
408.01.308	500	24/29	24/29
408.01.309	1000	19/26	19/26
408.01.310	1000	24/29	24/29



Separating Funnel, Pear shape with PTFE key Stopcock & Cone.

Cat. No.	Capacity ml.	Socket (N.S.)	Cone Size
409.01.301	50	14/23	14/23
409.01.302	50	19/26	19/26
409.01.303	100	14/23	14/23
409.01.304	100	19/26	19/26
409.01.305	250	14/23	14/23
409.01.306	250	19/26	19/26
409.01.307	500	19/26	19/26
409.01.308	500	24/29	24/29
409.01.309	1000	19/26	19/26
409.01.310	1000	24/29	24/29





Separating Funnel, Gilson with Glass stopcock.

Cat. No.	Capacity ml	Socket N.S.
410.01.301	50	19/26
410.01.302	100	19/26
410.01.303	250	29/32
410.01.304	500	29/32
410.01.305	1000	29/32
410.01.306	2000	29/32



Separating Funnel, Gilson with PTFE key stopcock.

Cat. No.	Capacity ml	Socket N.S.
411.01.301	50	19/26
411.01.302	100	19/26
411.01.303	250	29/32
411.01.304	500	29/32
411.01.305	1000	29/32
411.01.306	2000	29/32

DROPPING FUNNELS

MSAW

Graduated Funnels are also available on request. While placing an order, please add **G** with Cat. No.

Dropping Funnel Cylindrical with Glass stopcock & Polythelene Stopper.

Cat. No.	Capacity ml	Socket N.S.
412.01.301	50	19/26
412.01.302	100	19/26
412.01.303	250	29/32
412.01.304	500	29/32
412.01.305	1000	29/32



Dropping Funnel Cylindrical with PTFE Needle Valve stopcock.

Cat. No.	Capacity ml	Socket N.S.
413.01.301	50	19/26
413.01.302	100	19/26
413.01.303	250	29/32
413.01.304	500	29/32
413.01.305	1000	29/32



Dropping Funnel Cylindrical with PTFE Key stopcock & Polythelene Stopper.

Cat. No.	Capacity ml	Socket N.S.
414.01.301	50	19/26
414.01.302	100	19/26
414.01.303	250	29/32
414.01.304	500	29/32
414.01.305	1000	29/32





Dropping Funnel Cylindrical with Glass Stopcock & Cone.

Cat. No.	Capacity ml.	Socket (N.S.)	Cone Size
415.01.301	50	14/23	14/23
415.01.302	100	14/23	14/23
415.01.303	100	19/26	19/26
415.01.304	250	19/26	19/26
415.01.305	500	19/26	19/26
415.01.306	1000	19/26	19/26



Dropping Funnel Cylindrical with PTFE Needle Valve Stopcock & Cone.

Cat. No.	Capacity ml.	Socket (N.S.)	Cone Size
416.01.301	50	14/23	14/23
416.01.302	100	14/23	14/23
416.01.303	100	19/26	19/26
416.01.304	250	19/26	19/26
416.01.305	500	19/26	19/26
416.01.306	1000	19/26	19/26



Dropping Funnel Cylindrical with PTFE Key Stopcock & Cone.

Cat. No.	Capacity ml.	Socket (N.S.)	Cone Size
417.01.301	50	14/23	14/23
417.01.302	100	14/23	14/23
417.01.303	100	19/26	19/26
417.01.304	250	19/26	19/26
417.01.305	500	19/26	19/26
417.01.306	1000	19/26	19/26

DROPPING FUNNELS

MSAW

Pressure Equalising Funnel, Cylindrical with Glass Stopcock & Cone.

Cat. No.	Capacity ml.	Socket (N.S.)	Cone Size
418.01.301	50	14/23	14/23
418.01.302	100	19/26	19/26
418.01.303	250	19/26	19/26
418.01.304	250	24/29	24/29
418.01.305	500	19/26	19/26
418.01.306	500	24/29	24/29



Pressure Equalising Funnel, Cylindrical with PTFE Key Stopcock & cone.

Cat. No.	Capacity ml.	Socket (N.S.)	Cone Size
419.01.301	50	14/23	14/23
419.01.302	100	19/26	19/26
419.01.303	250	19/26	19/26
419.01.304	250	24/29	24/29
419.01.305	500	19/26	19/26
419.01.306	500	24/29	24/29



Pressure Equalising Funnel, Pear Shape with Glass Stopcock & cone.

Cat. No.	Capacity ml.	Socket (N.S.)	Cone Size
420.01.301	50	14/23	14/23
420.01.302	100	19/26	19/26
420.01.303	250	19/26	19/26
420.01.304	250	24/29	24/29
420.01.305	500	19/26	19/26
420.01.306	500	24/29	24/29



Pressure Equalising Funnel, Pear Shape with PTFE Key Stopcock & cone.

Cat. No.	Capacity ml.	Socket (N.S.)	Cone
421.01.301	50	14/23	14/23
421.01.302	100	19/26	19/26
421.01.303	250	19/26	19/26
421.01.304	250	24/29	24/29
421.01.305	500	19/26	19/26
421.01.306	500	24/29	24/29



**Beaker low form, Graduated with Spout**

Cat. No.	Capacity ml.	Dia mm.	Height mm.
501.01.301	5	22	30
501.01.302	10	26	35
501.01.303	25	34	50
501.01.304	50	42	60
501.01.305	100	50	70
501.01.306	150	60	80
501.01.307	250	70	95
501.01.308	400	80	110
501.01.309	600	90	125
501.01.310	1000	105	145

**Beaker Tall form, Graduated with Spout**

Cat. No.	Capacity ml.	Dia mm.	Height mm.
502.01.301	50	38	70
502.01.302	100	48	80
502.01.303	250	60	120
502.01.304	600	80	150
502.01.305	1000	90	190

**Flask Erlenmeyer Narrow neck, Graduated**

Cat. No.	Capacity ml.	Base Dia mm.	Neck Dia mm.	Height mm.
503.01.301	25	42	22	75
503.01.302	50	51	22	90
503.01.303	100	64	22	105
503.01.304	250	85	34	145
503.01.305	500	105	34	180
503.01.306	1000	131	42	220
503.01.307	2000	166	50	280

GENERAL GLASSWARE

MSAW

Flask Erlenmeyer Wide neck, Graduated

Cat. No.	Capacity ml.	Base Dia. mm.	Neck Dia. mm.	Height mm.
504.01.301	25	42	31	70
504.01.302	50	51	34	85
504.01.303	100	64	34	105
504.01.304	250	85	50	140
504.01.305	500	105	50	175
504.01.306	1000	131	50	220
504.01.307	2000	153	72	276



Flask Round Bottom Narrow neck. Beaded rim

Cat. No.	Capacity ml.	Base Dia. mm.	Neck Dia. mm.	Height mm.
505.01.301	50	51	26	95
505.01.302	100	64	26	110
505.01.303	250	85	34	144
505.01.304	500	105	34	168
505.01.305	1000	131	42	200
505.01.306	2000	166	42	260



Flask Round Bottom Wide neck. Beaded

Cat. No.	Capacity ml.	Base Dia. mm.	Neck Dia. mm.	Height mm.
506.01.301	50	51	34	105
506.01.302	100	64	35	110
506.01.303	250	85	51	145
506.01.304	500	105	50	168
506.01.305	1000	131	50	210
506.01.306	2000	166	76	260



Flask Flat Bottom Narrow neck. Beaded rim

Cat. No.	Capacity ml.	Base Dia. mm.	Neck Dia. mm.	Height mm.
507.01.301	50	51	26	90
507.01.302	100	64	26	105
507.01.303	250	85	34	138
507.01.304	500	105	34	163
507.01.305	1000	131	42	190
507.01.306	2000	166	42	230





Flask Flat Bottom Wide neck. Beaded rim

Cat. No.	Capacity ml.	Base Dia. mm.	Neck Dia. mm.	Height mm.
508.01.301	50	51	34	100
508.01.302	100	64	34	110
508.01.303	250	85	50	140
508.01.304	500	105	50	170
508.01.305	1000	131	50	200
508.01.306	2000	166	76	230



Funnel Filtering, Angle 60°with Short Stem

Cat. No.	Dia (mm)
509.01.301	25
509.01.302	35
509.01.303	40
509.01.304	50
509.01.305	55
509.01.306	65
509.01.307	70
509.01.308	75
509.01.309	80
509.01.310	100
509.01.311	125
509.01.312	150



Funnel Powder with Cone

Cat. No.	Dia (mm)	Cone Size (N.S.)
510.01.301	45	14/23
510.01.302	70	14/23
510.01.303	70	29/32
510.01.304	80	29/32
510.01.305	100	14/23
510.01.306	100	29/32

GENERAL GLASSWARE

MSAW

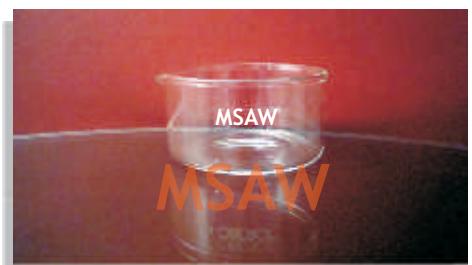
Dish, Crystallizing without Spout

Cat. No.	OD x Height (mm)
511.01.301	40x25
511.01.302	50x30
511.01.303	60x35
511.01.304	70x40
511.01.305	80x45
511.01.306	95x55



Dish, Crystallizing with Spout

Cat. No.	OD x Height (mm)
512.01.301	40x25
512.01.302	50x30
512.01.303	60x35
512.01.304	70x40
512.01.305	80x45
512.01.306	95x55



Desiccator with Lid, Plain with Porcelain perforated plate, Neutral Glass

Cat. No.	I.D. (mm)
513.01.301	150
513.01.302	210
513.01.303	250
513.01.304	300



Desiccator with Lid, Vacuum with Porcelain perforated plate, Neutral Glass

Cat. No.	I.D. (mm)
514.01.301	150
514.01.302	210
514.01.303	250
514.01.304	300



**Weighing Bottles with interchangeable Stopper**

Cat. No.	Type	Capacity (ml)	OD x Height (mm)
515.01.301	Tall form	5	20x40
515.01.302	"	15	25x50
515.01.303	"	25	30x60
515.01.304	"	60	40x80
515.01.305	Squat form	20	40x30
515.01.306	"	20	50x25
515.01.307	"	35	50x35
515.01.308	"	50	50x50
515.01.309	"	40	60x30

**Pycnometer to Gay- Lussac, Calibrated**

Cat. No.	Capacity (ml)	Tolerance (±ml)
516.01.301	10	1.0
516.01.302	25	2.0
516.01.303	50	3.0
516.01.304	100	3.0

**Reagent Bottle, Narrow Mouth with Hollow Stopper**

Cat. No.	Capacity (ml)	Neck Size (N.S.)
518.01.301	25	12/21
518.01.302	50	14/15
518.01.303	100	14/15
518.01.304	250	19/26
518.01.305	500	24/29
518.01.306	1000	29/32
518.01.307	2000	29/32

BOTTLES

MSAW

Reagent Bottle AMBER, Narrow Mouth with Hollow Stopper

Cat. No.	Capacity ml.	Neck Size (N.S.)
519.01.301	25	12/21
519.01.302	50	14/15
519.01.303	100	14/15
519.01.304	250	19/26
519.01.305	500	24/29
519.01.306	1000	29/32
519.01.307	2000	29/32



Reagent Bottle, Screw Cap, Narrow Mouth

Cat. No.	Capacity ml.	Thread G.L.
520.01.301	30	32
520.01.302	60	32
520.01.303	100	45
520.01.304	250	45
520.01.305	500	45
520.01.306	1000	45



Roller Bottle for Cell Culture

Cat. No.	OD x Height mm.	Thread G.L.
521.01.301	110x280	45
521.01.302	110x450	45



BOD Bottle with Stopper

Cat. No.	Capacity (ml)
522.01.301	60
522.01.302	300



**Dropping Bottle Ground with Interchangeable dropper**

Cat. No.	Capacity (ml)
523.01.301	30
523.01.302	60
523.01.303	125
523.01.304	250

**Gas Washing Bottle**

Cat. No.	Capacity (ml)
524.01.301	125
524.01.302	250
524.01.303	500

**Head for Gas Washing Bottle**

Cat. No.	Bottle Capacity (ml)
525.01.301	125
525.01.302	250
525.01.303	500

**Sintered Head for Gas Washing Bottle**

Cat. No.	Bottle Capacity (ml)
526.01.301	125
526.01.302	250
526.01.303	500

STOPCOCKS

MSAW

Rotaflow Stopcock, Straight

Cat. No.	Bore (mm)
527.01.301	3
527.01.302	6



PTFE key Stopcock, Straight

Cat. No.	N.S.	Bore (mm)
528.01.301	12.5	2.5
528.01.302	14.5	2.5
528.01.303	14.5	4.0
528.01.304	18.8	6.0



Glass Key Stopcock, Straight

Cat. No.	N.S.	Bore (mm)
529.01.301	12.5	2.5
529.01.302	14.5	2.5
529.01.303	14.5	4.0
529.01.304	18.8	6.0



Rotaflow Stopcock for Burette

Cat. No.	Bore (mm)
530.01.301	3



STOPCOCKS

MSAW

Rotaflow Stopcock, Straight

Cat. No.	Bore (mm)
527.01.301	3
527.01.302	6



PTFE key Stopcock, Straight

Cat. No.	N.S.	Bore (mm)
528.01.301	12.5	2.5
528.01.302	14.5	2.5
528.01.303	14.5	4.0
528.01.304	18.8	6.0



Glass Key Stopcock, Straight

Cat. No.	N.S.	Bore (mm)
529.01.301	12.5	2.5
529.01.302	14.5	2.5
529.01.303	14.5	4.0
529.01.304	18.8	6.0



Rotaflow Stopcock for Burette

Cat. No.	Bore (mm)
530.01.301	3



**PTFE Key Stopcock for Burette**

Cat. No.	Barrel Size	Bore (mm)
531.01.301	12.5	2.5

**Glass Key Stopcock for Burette**

Cat. No.	N.S. Size	Bore (mm)
532.01.301	12.5	2.5

**Rotaflow Stopcock 90°**

Cat. No.	Bore (mm)
533.01.301	3
533.01.302	6

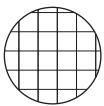
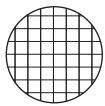
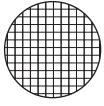
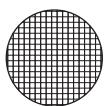
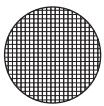
**Rotaflow Stopcock for Automatic Burette**

Cat. No.	Bore (mm)
534.01.301	3

SINTERED WARE

MSAW

Porosity Grade - Technical Information

Porosity	Nominal Pore Size	Application	
G- 0	160- 250 µm	Filteration of coarse deposit, Gas distribution.	
G- 1	90- 150 µm	Filteration, Coarse Precipitate, Gas distribution in liquids.	
G- 2	40- 90 µm	Fine Filteration, Washing of Gases, Mercury Filteration etc.	
G- 3	15-40 µm	Analytical filtration, Refined Gas Filteration, Collection of fine precipitates etc.	
G- 4	5-15 µm	Analytical precision filtration & operations with very fine deposits.	

Crucible Gooch with Sintered Disc porosity G-0 to G-4

Cat. No.	Capacity (ml)
541.01.301	15
541.01.302	30
541.01.303	50



Buchner Funnel Plain stem with Sintered Disc porosity G-0 to G-4

Cat. No.	Capacity (ml)	Disc Dia. (mm)
542.01.301	35	30
542.01.302	80	40
542.01.303	200	65
542.01.304	500	90
542.01.305	1000	120



Buchner Funnel cone at Stem with Sintered Disc porosity Grade G-0 to G-4

Cat. No.	Capacity (ml)	Disc Dia. (mm)	Cone Size
543.01.301	35	30	14/23 or 19/26
543.01.302	80	40	14/23 or 19/26
543.01.303	200	65	19/26 or 24/29
543.01.304	500	90	19/26 or 24/29 or 29/32
543.01.305	1000	120	19/26 or 24/29 or 29/32





Funnel Filtration System for Membrane 47 mm Dia.

Cat. No.	Parts
544.01.301	Funnel Filtration System



Funnel Filtration Holder for Membrane 47 mm Dia.

Cat. No.	Parts
545.01.301	Funnel 300 ml.
545.01.302	Sintered Base with Rubber Stopper
545.01.303	Clamp
545.01.304	Filter Flask 1000 ml.
