

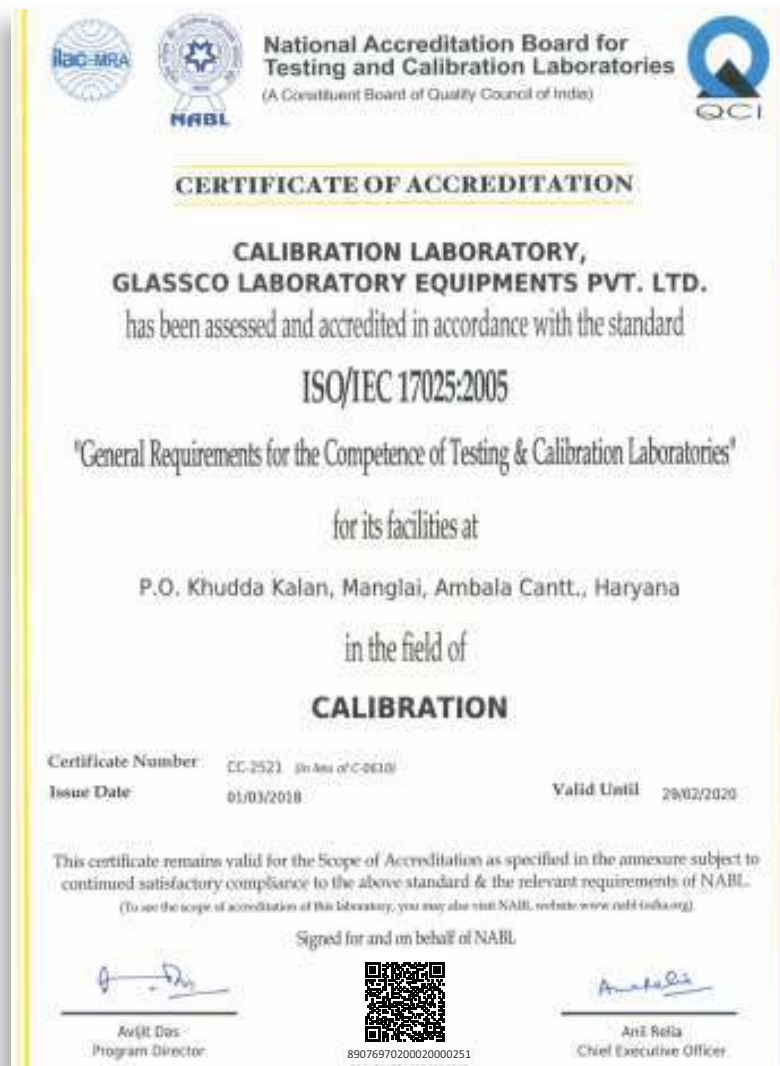
Volumetric Glassware

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



Volumetric Glassware

Types Of Calibration & How To Use

Burettes and pipettes which are 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 are 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 in 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. In ASTM standards cylinders are now calibrated "to deliver" (TD), also which has been recently introduced in cylinder section. Results of calibration are guaranteed for precision as per DIN, ISO, USP, & ASTM standards.

All Glassco Volumetric Glassware now comes with new DE-M sign followed by Particular Year. 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 Certificate

BATCH CERTIFICATE

Volumetric flasks comes with a batch certificate in which mean value, standard deviation is incorporated along with batch number like which signifies the month 01 and 10 is the years **01.10** this comes in a pack of 2 and comes along with the flask in the box you can also download it from www.glasscolabs.com and by scanning the QR Code from the label of the box or from the volumetric flask.

QR CODES !

Now On All
Glassco Ware Cartons &
QR-Coded Volumetric Flasks



Use your **Smartphone**
with recommended App
(Page XIV) to scan the
QR Code on the
box labels ...



User Manual



Certificate of Conformity



Certificate of Calibration

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) **01.10505** 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 and by scanning the QR Code from the label of the box or from the volumetric flask.

For Ordering QR Coded printed flask please look at volumetric flask section from page no. 153 to 167



USP Glassware

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
- Measuring Cylinder
- Volumetric Pipettes
- Volumetric Flasks

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

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 and by scanning the QR Code from the label of the box.

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 Accreditation. NABL Calibration Certificate is internationally recognized. Both the instrument & Certificate shows the individual serial number & the Certificate no.

NABL
CC-2521
505
01.10



* For ordering all NABL certified glassware, please use middle no. 405

Volumetric Glassware with Qr-code

Glassco has recently launched its QR coded volumetric flasks both in ASTM, ISO and ASTM standards. This is available in individual certified volumetric flasks and batch certified volumetric flasks . All the volumetric flasks are made from ASTM E 438 TYPE 1 CLASS A BORO 3.3 GLASS which is chemically inert and thermal shock resistant. All Volumetric wares are calibrated exceeding the demands of applicable standards. As all the manufacturers worldwide normally include the batch / individual certificate in the pack and many a times it is lost while using the glassware, the only option left to you is to either contact the manufacture or to make a grinding effort to go on the manufacturers website locate the applicable link and download the certificate . To make it most convenient for you, now with the GLASSCO QR coded volumetric flasks all you have to do is to scan the QR CODE from your mobiles with QR code scanner (NeoReader) and it will not only give you certificate of calibration (individual /batch) but will also give you information of certificate of compliance and the products user manual.

GLASSCO
 DECODED GLASSWARE

QR-CODED:
 SCAN YOUR
**CALIBRATED
 GLASS.**

USP | DIN | ASTM | ISO
www.glasscolabs.com

GET SCAN VOLUMETRIC FLASK
 Please download **Neo Reader Scanner** and scan your Volumetric Flask with your smart phone.

SET SELECT CERTIFICATE INDIVIDUAL/ BATCH CONFORMITY OR USER MANUAL
 Website will open with choice of batch or individual certificate and please type Serial No. from Flask.

GO PRINT OR SAVE YOUR CERTIFICATE
 Your certificate is now ready to be saved or printed at the time of your audit, before audit or after audit.

Available at
 your Fingertips !

Volumetric Glassware with Qr-code

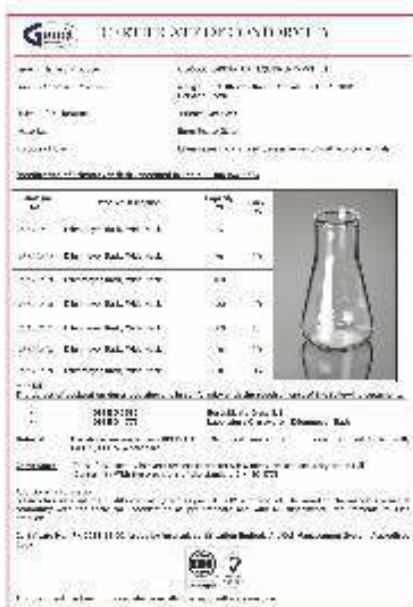


Use your
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to scan the QR Code
on the box labels ...

FROM HERE
YOU GET

Certificate of
conformity

User
manual



User Manual