

INNOVATIVE | DISRUPTIVE | CUSTOMIZED

TECHNOLOGIES WITH DANISH DESIGN & INDIAN ENGINEERING

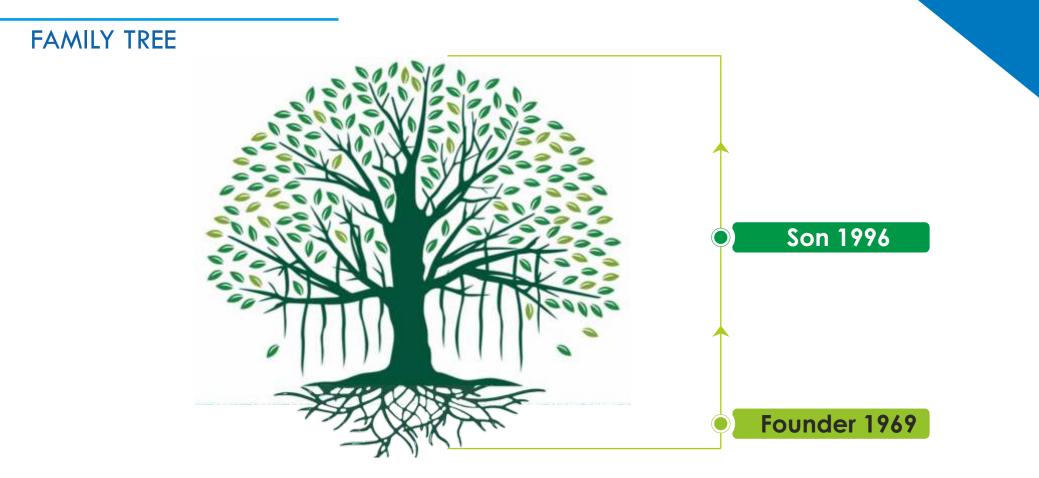
COMPANY PRESENTATION

Glassco Laboratory Equipments Pvt. LTD.



OUTLINE

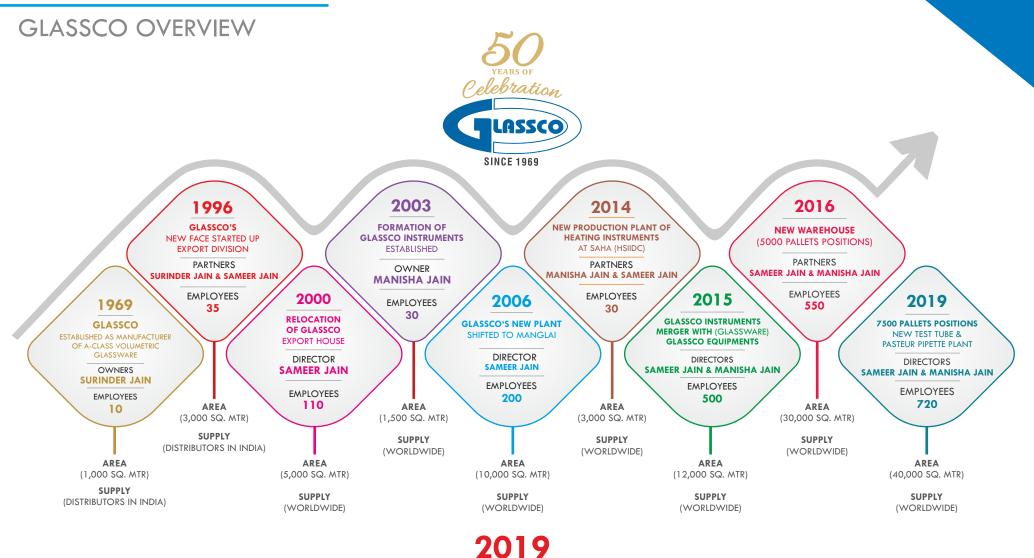
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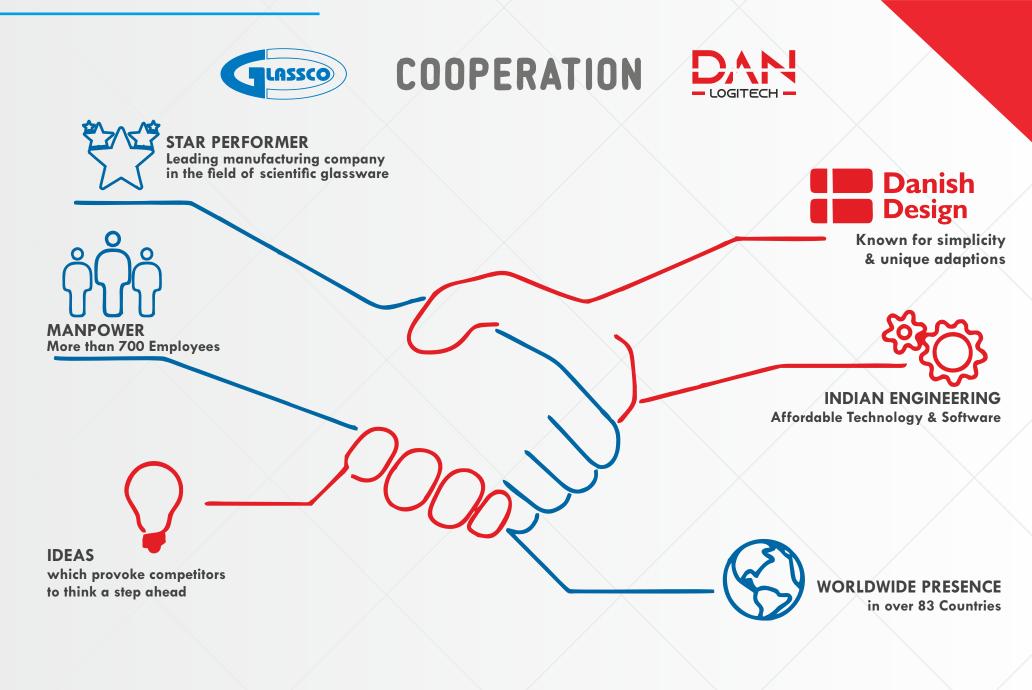
Glassco bears it's roots very deep like the Banyan tree.

The company is an outcome of A man who had a vision in 1969 to be one of Pioneers in the manufacturing of Volumetric Glassware.

Being the Founder of the company his son followed the legacy and achieved greater heights and fame, not only in India but worldwide. Glassco has won many AWARDS since its inception and has been one of the best Glassware manufacturer & exporter of Scientific Glassware from India.







GLASSCO - A ONE STOP SHOP

Glassco is the biggest exporter of Scientific lab products, shipping more than 600 containers, supplying to more than 75 countries every year and deals in 3300 different products. We mainly manufacture Interchangeable, Volumetric, Filtration and General Lab-Glassware in **ASTM**, **DIN**, **ISO**, **USP** and **NABL standards** & Lab Instruments

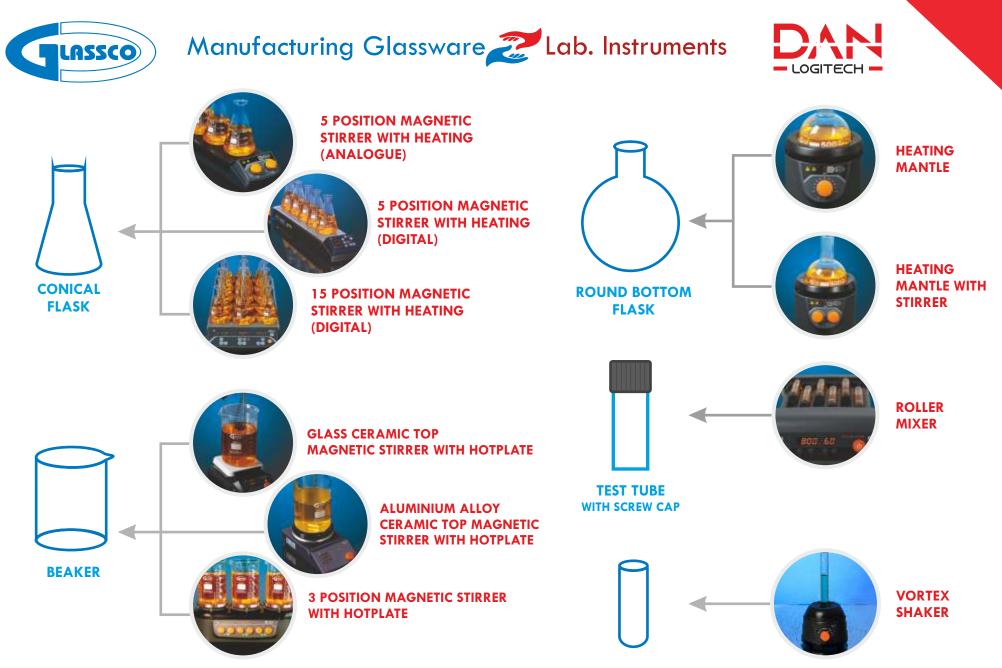
All Glassco heating Instruments like **Stirrers, Shakers, Hotplates, Incubators, Bench Top Instruments** and **Heating Mantles** complement Lab Glassware and are manufactured in-house and are also **UL, CSA & CE Certified.**

Along with glassware there are other lab products commonly used like Plastic, Rubber, Metal, Ceramic, liquid handling products added to our General Catalogue conforming to standards like **CE, FDA, PAKKS...** etc.















ERP System (SAP Business-1) :Highly sophisticated ERP based software which helps in running all operations of GLASSCO.

<mark></mark> .	Shipping	: 04 containers per day at single point of time.
	Total no. of Employees	: 720 nos.
OA	Skilled glass blowers	: 100 nos.
<u>i</u>	CNC Machine Operators	: 20 nos.
	Engineers	: 15 nos.

	Area	: 40000 Sq. mtr. in total.
會	Storage	: 7500 pallets
	Production Capacity (Pc	es Per Shift)
	Volumetric Glassware	: 10000
4	Interchangeable Glassware	: 6000
Ť	Filtration Glassware	: 2000
	General Glassware	: 12000
	Disposable Glassware	: 750000

FABRICATION

RAW MATERIAL TUBING

Glassco makes all its products from tubing of ASTM E- 438 TYPE I, CLASS A BORO 3.3 GLASS. Glassco imports 450 MT of glass tubes per annum. Glassco normally keeps a stock for 4 months at any point of time which amounts to more than 80 tonnes of glass tubing.



AUTOMATIC PRODUCTION LINE



AUTOMATIC CYLINDER FORMING MACHINE : 1200 pcs per shift



also does in - house innovations.

AUTOMATIC JOINT FORMING MACHINE : 2000 pcs per shift



Glassco keeps updating all machineries according to latest technology available and

AUTOMATIC FLASK FORMING MACHINE : 800 pcs per shift



TEST TUBE MACHINE : 500000 pcs per shift Pasteur Pipettes MACHINE : 150000 pcs per shift

Since 2006, there has been a continuous addition of new automatic machines which has made the product's quality even better and increased the productivity of GLASSCO.



CNC MACHINE : For special custom made products.

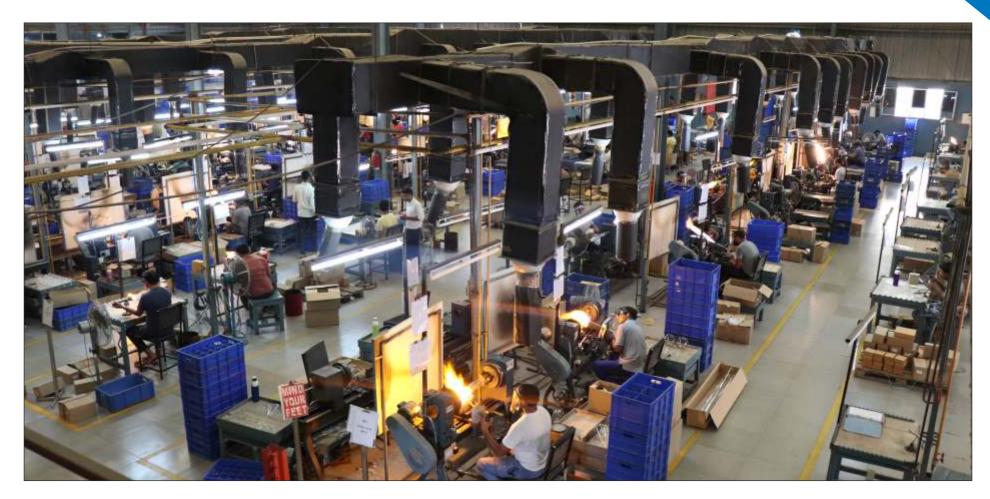


FURNACE : 30000 pcs per shift of different types of products



BEAKER MACHINE : 6000 pcs per shift

SEMI – AUTOMATIC PRODUCTION PLANT



Machines cannot replace the skilled glassblowers 100% and are the major strength of Glassco Company. Producing more than 10,000 pcs. per shift in different shapes & sizes.

Keeping in mind the overall health & productivity of our glass blowers, Glassco has installed individual cooling ducts for cool operations.



CALIBRATION

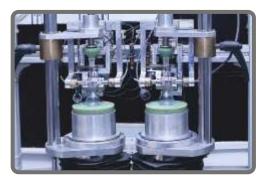
Glassco's German calibration machines enables 0.003% accuracy which provides an Aclass tolerance. Our automatic quality control center provides verification of Burettes, Pipettes & Flasks. All the Volumetric Glassware comes with Different kind of calibration Certificates.



QUALITY CONTROL CENTRE MACHINE



LARGE VOLUME CALIBRATION LAB MACHINE



SMALL VOLUMETRIC CALIBRATION LAB MACHINE



PIPETTE CALIBRATION MACHINE

VOLUMETRIC GLASSWARE

All volumetric glassware requires high precision and accuracy and to achieve that controlled conditions for calibrating volumetric glassware go through automatic calibration machines which is the german 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 incalibration laboratories worldwide. The calibrations performed by Glassco calibration laboratory are essential done under ISO 17025:2005.

NABL Certificate



National Accreditation Board for Testing and Calibration Laboratories (A Constituent Board of Quality Council of India)



CERTIFICATE OF ACCREDITATION

GLASSCO LABORATORY EQUIPMENTS PVT. LTD. 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 Cantt., Haryana

in the field of

CALIBRATION

Certificate Number CC-2521 Im New of C-06100 Issue Date 01/03/2018

Valid Until 29/02/2020

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL. (To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-tudia.org)

Signed for and on behalf of NABL





And Relia

Anil Reša Chief Executive Officer

CALIBRATION CERTIFICATES

ASTM

LASSCO		or 1401 ISSUE 01 REV 3 DT 01 APR 2019	ts Pvt. Lto
(Glas	RATION CE ssco Calibration 17025:2005 Certifie	• /	
CERTIFICATE NO	GLASSCO/19/06-15	58/2433	00
CRF	15812062019	CAL REPORT NO. 19/06-158	25
CUSTOMER	GLE-STOCK		00
TEST METHOD	GRAVIMETRIC ME	THOD	91
ITEM CALIBRATED	VOLUMETRIC FLA	SK: 50 ml	10000
CATALOGUE NUMBER	134.236.05		0
BATCH NO. & SERIAL NO.	05.19/2433		5
ITEM CALIBRATED ON	12/06/2019		62
The product was found to contain VOLUME CONTAINED TOLERANCE	the following volume a 50.004 ml ±0.050 ml	tt 20°C	25
CORRECTION	-0.004 ml		
Expanded uncertainty (at 95%) The product has been calibrtated			100
Standard weights	50 g		$ \geq$
Weighing Balance	ABAL-03,420g/0.00	1 g(SARTORIUS)	
Thermometer DM-15:-50°C to 300°C/0.1°C			6
The above product has been examittee specified requirements. The above	ned for compliance to AS ove item has been calibrat	India; traceable to international standards. TM E-288 Class-A, it has been found to satisfy ed at (25±3)°C at RH (60±25)%. under lab conditions. This report shall not be	
		under lab conditions. I his report shall not be I Glassco Laboratory Equipments Pvt. Ltd. Authorised Signatory	
DATE OF ISSUE:12/06/2019 This is an electronically generate	d certificate.	Manager Technical (Yogendra Panwar)	000
			25



QUALITY CERTIFICATES

ISO Batch Certificate

www.glasscolabs.com			GLASSCO 150 9001:2008
VOLUMETRIO I EAGR OL			
CATALOUGE NO	:	130.202.08	щ _к
NOMINAL VOLUME	:	500.00 ml	AT
TOLERANCE	:	±0.250 ml	<u>O</u>
COMPLIANCE	:	ISO1042:1998	H
BATCH NO	:	09.16	L is
MEAN VOLUME CONTAINED	:	500.02 ml	Ш s
STANDARD DEVIATION	:	0.04 ml	O
TESTING DEVICE NAME	:	METTLER	ST
BALANCE	:	ABAL-21,4200g/0.01g	Ëŝ
WEIGHTS	:	500g	- 5
THERMOMETER	:	DM-23;-50to300DEG C/0.1 DEG C	5
OPERATOR	:	HARPREET	T A T
DATE OF ISSUE	:	09.09.16	B/B

Certificate Of Conformity



CERTIFICATE OF CONFORMITY

Issuer's Name / Producer	:	GLASSCO LABORATORY EQUIPMENTS PVT. LTD.
Issuer's Address / Producer	:	Manglai, P.O. Khudda Kalan, Ambala Cantt - 133001 Haryana, India
Object of Declaration	:	Volumetric Flask,
Material Purpose of Use	:	Borosilicate Glass A type of laboratory flask, calibrated to contain a precise volume at a particular temperature. Volumetric flasks are used for precise dilutions and preparation of standard solutions.

Specification of flasks specified in Table-1, EN ISO 1042 : 1999

Catalogue No.	Product Description	N/S	Capacity mL.	Pack Qty	7
130.202.01	Volumetric Flask, Batch Certified With PP Stopper	10/19	5	2	10
130.202.02	Volumetric Flask, Batch Certified With PP Stopper	10/19	10	2	
130.202.02A	Volumetric Flask, Batch Certified With PP Stopper	10/19	20	2	
130.202.03	Volumetric Flask, Batch Certified With PP Stopper	10/19	25	2	6
130.202.04	Volumetric Flask, Batch Certified With PP Stopper	12/21	50	2	11
130.202.04B	Volumetric Flask, Batch Certified With PP Stopper	14/23	50	2	1
130.202.05B	Volumetric Flask, Batch Certified With PP Stopper	12/21	100	2	
130.202.05	Volumetric Flask, Batch Certified With PP Stopper	14/23	100	2	A DECK
130.202.06	Volumetric Flask, Batch Certified With PP Stopper	14/23	200	2	\sim
130.202.07	Volumetric Flask, Batch Certified With PP Stopper	14/23	250	2	
130.202.08	Volumetric Flask, Batch Certified With PP Stopper	19/26	500	2	1
130.202.09	Volumetric Flask, Batch Certified With PP Stopper	24/29	1000	2	1
130.202.10	Volumetric Flask, Batch Certified With PP Stopper	29/32	2000	1	1
130.202.11	Volumetric Flask, Batch Certified With PP Stopper	34/35	5000	1	

The object of declaration described above is in conformity with the requirements of the following documents:

DIN ISO 3585	Borosilicate Glass 3.3	

- EN ISO 1042 Laboratory Glassware Volumetric Flasks
- The above are made from DIN ISO 3585:1998, heat resistant Boro 3.3 Glass that meet ASTM E-438, Material: TYPE-1, CLASS- A Standard.

<u>Compliance</u>: These Flasks comply in every respect characteristics, measures and accuracy are in full conformity With the provisions of the standard EN ISO 1042:1999.

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Additional Information: Glassco has installed the quality control system as per ISO 9001:2008 and products delivered to the market are in full conformity with the technical Specification as per standard and with all fundamental requirements to such products.

Certificate No. IPK 0039.69-01 issued by intertek certification limited, A UKAS Management System Accredited Body



This document has been produced electronically & is valid without signature

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 & ISO 18001: 2007 certified by INTERTEK; 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.



Glassco applies innovative packaging which ensures minimal breakages while shipping goods worldwide. Our labels has QR code for online Certification, Conformity & Manuals.





SHOCK ABSORBER



BAR CODE WITH QR CODED LABEL

Store/Storage

Glassco's store area consists of 3600 sq. meter area and has about 7500 pallets position.

READY STOCK WORTH **3 MILLION \$** INVENTORY



FINISHED GOODS AREA

QUALITY CHECK PARAMETERS



Dimensional Checks

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

GLASS STRESS-FREE CHECKS



Glassco has five conveyer furnaces (Lehrs) where all the products are annealed to remove manufacturing stress from glass to ensure that product has long Life and high strength. Glassco has four stress viewers installed at several locations for this purpose.

FIT TESTING FOR JOINTS



The taper of the male(cones) and female (sockets) are verified by gauges 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 color adhesion by subjecting them to acid boiling, scratch and tape peel off test.



COMPLIABILITY OF **LIMS/ELN/QMS/SDMS** WITH GLASSCO SMART FLASK

WITH 3D SCANNERS

In your secure environment use a 3D scanner, connect

- To Glassco webpage for certifications
- To your LIMS for regular use scans

HOW TO USE

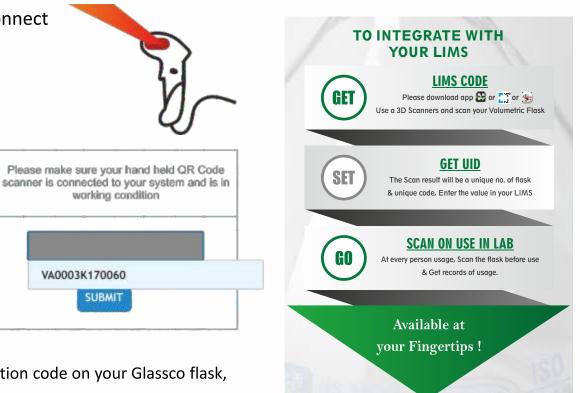
For certifications:

On your PC connect 3D scanner

- Go to Glassco webpage scroll down to calibration,
- Scan with a connected scanner and download certifications

For adding product in your LIMS software:

- Open your add page in LIMS software.
- Scan with a connected scanner the unique identification code on your Glassco flask, which then can be added to your work flow.





WITH SMARTPHONES

In your laboratory/office with internet on mobile, connect

• With Glassco App for certifications

USE WITH SMARTPHONES

For certifications:

- Download and install Glassco App from Play store
- Scroll to "Scan QR Code"
- Scan your flask and download certifications.

Note: Laboratory information management System (LIMS) is provided by various companies, to use these flasks with them, check the data format accepted by your LIMS software.



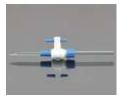
GLASSWARE INNOVATION :



BUSHING ADAPTER

Bushing adapters made of BORO 3.3 glass can be used to adapt smaller Cone Sizes to Larger Sockets.

MULTIPLE SOC KET SIZES | COST SAVING | TIME SAVING



DETACHABLE STOPCOCK

Detatchable stopcocks can be used on burettes with following benefits. CHANGE BURETTE SIZE | EASY CLEANING | TIP REPLACEMENT | COST SAVING



SECURE CLAMP FOR AUTOBURETTE BOTTLES

Secure clamp for auto burette bottles can be used on any new bottle

NO BREAKAGE | USER SAFE



CYLINDERS WITH PROTECTION COLLARS

Measuring cylinders with protection collars.

BREAK PROOF | USER - SAFE



QR-CODED GLASSWARE

QR printed glassware now can be used with any mobile phone/3D scanners & helps to retrieve data immediately.

PAPER LESS | ENVIRONMENT FRIENDLY | COST SAVING





LAB. INSTRUMENTS INNOVATION

Glassco team is very proud to present to you it's innovations all done in- house!! We have 2 areas of Innovations Glassware & Instruments.

Instruments



CERAMIC GLASS PLATE

Ceramic glass coating on SS to resist temp. upto 400°C. NO NEED FOR A CERAMIC PLATE | NO BREAKAGE | COST SAVING



INBUILT TEMP. Inbuilt temp. reading & control of medium in beaker NO EXTERNAL PROBES REQUIRED | COST SAVING



SELECTION BUTTON C°/ F° Inbuilt selection for C°/ F° along with a display, user - friendly NO NEED FOR CALCULATIONS | TIME SAVING



JOG DIAL KNOB Jog dial – single operation knob for setting menu. HOME BUTTON KNOB | NO CONFUSION | EASY OPERATION





BACKWARD SPILLAGE

500.DNAG designed to protect the user from accidents. If medium/acid overheats : backward spillage provides extra security to the user USER - SAFE | COST SAVING



HMS SPILL COLLECTION

Our heating mantles have an inbuilt glass collection vessel, so that your expensive medium is not wasted.

If breakage of flask : Internal vessel collection and outlet saves your expensive medium (\$\$..)

TIME SAVING | COST SAVING

OUR VISION

Glassco's Mission:

Glassco wants to be recognized as one of the most innovative company in the field of **Laboratory Glassware & Instruments** which is known for excellent **quality & innovative designs that becomes an industry standard**.

We will constantly adapt & develop new technologies which would set us apart from our competitors.

Glassco's Vision:

To become the first choice for it's customers & users. Sell products with excellent Quality, Value & Convenience. We are constantly exploring the new opportunities by adding new products to our portfolio with a vision to become **A One Stop Shop** for our customers.



WHY BUY GLASSCO?



TOP CUSTOMERS





















ESTEEMED CUSTOMERS (Since 2005)







The world leader in serving science













AWARDS, RECOGNITION & ACHIEVEMENTS



