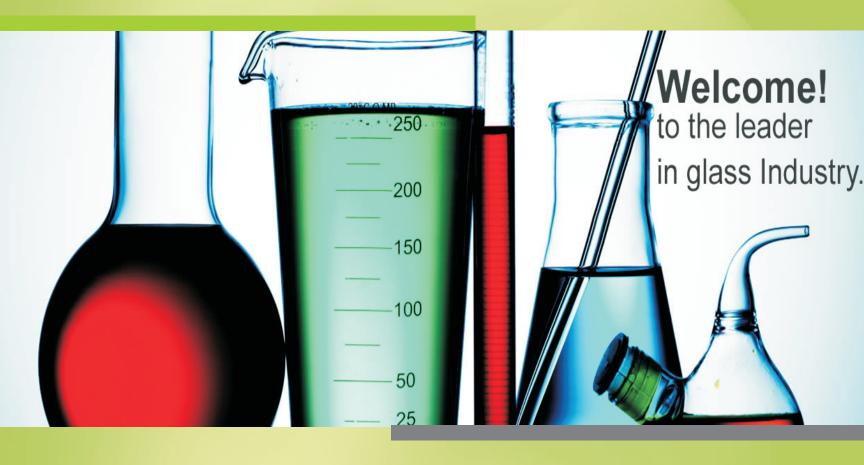


Garglab world of glassware solutions





"We would like to introduce ourselves as one of the reputed manufacturing, supplying, Designing, Erecting & Commissioning of Industrial & Scientific Glass Equipments to Chemical Process Plants and R & D Units & Systems, Laboratory Glassware and Systems, sight glasses and liquid level gauges for industrial applications, for more than a decade and half."

www.garglabsolutions.com





GARG LAB SOLUTION

A-2, Sainath Industrial Estate, Gr. Floor, Off Aarey Road, Goregaon (east), Mumbai -400063, Maharashtra - India.

Mobile : +91-9833774399 / 9820446931, Phone :+91-22-29277194,

fax :+91-22-29277194, Email: vishal@garglabsolutions.com

www.garglabsolutions.com



We would like to introduce ourselves as one of the reputed manufacturing, supplying, Designing, Erecting & Commissioning of Industrial & Scientific Glass Equipments to Chemical Process Plants and R & D Units & Systems, Laboratory Glassware and Systems, sight glasses and liquid level gauges for industrial applications, for more than a decade and half. We are a leading engineering group in the design, manufacturing, testing, supply, erection / execution and commissioning of Coded Chemical Process Equipments.

Incorporated in 1985, we also happen to be one of the most experts and specialised groups having proven our performance in several Public & Private Sectors in various categories of process industries. Our interaction with customers benefitted us to bring continuous change in our inhouse engineering infrastructure in order to provide state-of-art facilities and human resources.

We have in-house Design, Project / Product Development and Erection division which again functions under the team of experienced technocrats. Our product ranges are mainly used in Pharmaceuticals, Agro Chemicals, Essential Oils, Bulk Drugs, Fine Chemicals, Fragrance & Aromatics, Intermediate Drugs & Dyes, Explosions, Dairy, Petrochemicals, Petroleum, Refineries, National Research Laboratory, Food & Drugs Laboratory, and Defence & Armament.

QUALITY POLICY

We are committed to enhance customer's satisfaction continuously by manufacturing superior quality of scientific & Laboratory glassware and PTFE Labware Products as per standards and customer riquirements and timely shipping them at competitive prices meeting their total riquirements in local and export markets. We shall achieve this by -1. Implementing & Maintaining quality Management Systems Conforming to ISO 9001:2000 Standards. 2. Active participation of all employees in fulfilling the commitments. The quality policy will be periodically riviewed and modified as required.

Industrial Glassware



We are an affluent Manufacturer, Exporter and Supplier of Industrial Glassware in Mumbai, Maharashtra. Our glassware is manufactured using borosilicate glass ensuring the best quality. The Industrial Glassware that we offer is widely used in chemical, pharmaceutical, food and in many other industries. Our glassware can be installed in both horizontal and vertical pipelines ensuring maximum visibility of flow. Buyers can acquire Industrial Glassware fro us at reasonable price.

Sizes available : DN25 to DN450

Special Features :

- All Glass items shown are manufactured from borosilicate glass 3.3 are widely used as the basis for the construction of complete process systems all over the chemical, dyestuff, food pharmaceutical, and petrochemical industries. The abbreviation for the coefficient of linear expansion which is $(3.3 \pm 0.1) \times 10-6$ K-1. This is lower than any other industrial glass. Since this glass expands less, the tensile stresses in the glass wall during heating are less, which means that it is able to withstand a greater thermal shock and the maximum working pressure for a given operating temperature is greater.
- One reason for this widespread used is the special properties of borosilicate glass 3.3 (see below), complemented by the use of other highly corrosion resistant materials such as PTFE and ceramics

Laboratory Glassware



Our Laboratory Glassware is known for its dimensional accuracy and excellent quality. We are one of the leading Manufacturers, Exporter and Suppliers of glassware in Maharashtra, India. The glassware, we provide is manufactured using 3.3 grade borosilicate glass ensuring the best quality and durability. Our Laboratory Glassware is widely used in laboratories, R&D and chemical industries. We believe in delivering Laboratory Glassware within the promised time frame.

Technical Specifications :

- All Glass items shown are manufactured from borosilicate glass 3.3 are widely used as the basis for the construction of complete process systems all over the chemical, dyestuff, food pharmaceutical, and petrochemical industries. The abbreviation for the coefficient of linear expansion which is $(3.3 \pm 0.1) \times 10-6$ K-1. This is lower than any other industrial glass. Since this glass expands less, the tensile stresses in the glass wall during heating are less, which means that it is able to withstand a greater thermal shock and the maximum working pressure for a given operating temperature is greater.
- One reason for this widespread used is the special properties of borosilicate glass 3.3 (see below), complemented by the use of other highly corrosion resistant materials such as PTFE

complemented by the use of other highly corrosion resistant materials such as PTFE and ceramics

Coil Type Heat Exchanger



We are actively engaged in offering a wide assoretment of Coil Type Heat Exchanger in Maharashtra, India. Our Heat Exchanger is manufactured using the finest quality glass tubes. We make available Heat Exchanger with different technical specifications as per the requirement of buyers. Durability, flawless performance and longer functional life are some of the key features of our Heat Exchanger. Our Heat Exchanger is easy to use and require low maintenance.

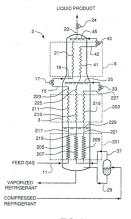


FIG. 2

Technical Specifications :

- All Glass items shown are manufactured from borosilicate glass 3.3 are widely used as the basis for the construction of complete process systems all over the chemical, dyestuff, food pharmaceutical, and petrochemical industries. The abbreviation for the coefficient of linear expansion which is $(3.3 \pm 0.1) \times 10-6$ K-1. This is lower than any other industrial glass. Since this glass expands less, the tensile stresses in the glass wall during heating are less, which means that it is able to withstand a greater thermal shock and the maximum working pressure for a given operating temperature is greater.
- One reason for this widespread used is the special properties of borosilicate glass 3.3 (see below), complemented by the use of other highly corrosion resistant materials such as PTFE and ceramics

Brief about product : Glass lined reactor is FDA approved equipment which can be installed in Flame Proof / Explosion Proof Areas of a chemical plant for large scale operations where operating parameters within the GLR are higher than glass assemblies because large volumes are handled. Here high pressure steam can be used as heating medium on glass lined reactors. Glass distillation assemblies of various types can be installed on these reactors as per the process requirements . The basic features of such assemblies remain the same but coil type heat exchangers can be replaced with higher capacity shell & tube heat exchangers

Distillation Unit

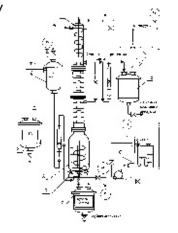


We have carved out a distinct position in manufacturing and supplying an enormous range of Distillation Unit in Mumbai, Maharashtra. Our unit is manufactured as per the international quality standards. Corrosion resistant, clear visibility and excellent quality are some of main attributes of our Distillation Unit. Our Distillation Unit has wide application in pharmaceutical, Paint and R&D industries. Buyers can acquire Distillation Unit from us at affordable price.

Capacity: 1 ltr to 200 ltr

Features :

- Excellent corrosion resistance to very large number of chemicals, unmatched by other material
- smooth pore free surface
- Clear visibility



Technical Specifications :

• All Glass items shown are manufactured from borosilicate glass 3.3 are widely used as the basis for the construction of complete process systems all over the chemical, dyestuff, food pharmaceutical, and petrochemical industries. The abbreviation for the coefficient of linear expansion which is $(3.3 \pm 0.1) \times$

10-6 K-1 . This is lower than any other industrial glass. Since this glass expands less, the tensile stresses in the glass wall during heating are less, which means that it is able to withstand a greater thermal shock and the maximum working pressure for a given operating temperature is greater.

 One reason for this widespread used is the special properties of borosilicate glass 3.3 (see below), complemented by the use of other highly corrosion resistant materials such as PTFE and ceramics

Distillation Assembly on Glass Lined Reactor



Distillation Assembly on Glass Lined Reactor that we provide is manufactured using highgrade borosilicate glass in order to assure excellent quality. Our Distillation Assembly is easy to install and require low maintenance. We make available Distillation Assembly with different technical specifications to meet the diverse demands of buyers. Distillation Assembly on Glass Lined Reactor is widely used in chemical, paint and fertilizer industries.

Features :

- Distillation Top With Coil Heat Exchanger Vent Condenser and External Reflux with receiver for vessel
- Distillation top with shell and tube heat exchanger and exter and reflux separator with receiver for vessel
- Dean and Stark Type Distillation Top with Coil heat exchanger ,Product Cooler and internal reflux with receiver for vessels
- Distillation Top with Coil Heat Exchanger Product Cooler and Internal reflux with receivers for vessels

Technical Specification :

- All Glass items shown are manufactured from borosilicate glass 3.3 are widely used as the basis for the construction of complete process systems all over the chemical, dyestuff, food pharmaceutical, and petrochemical industries. The abbreviation for the coefficient of linear expansion which is $(3.3 \pm 0.1) \times 10-6$ K-1. This is lower than any other industrial glass. Since this glass expands less, the tensile stresses in the glass wall during heating are less, which means that it is able to withstand a greater thermal shock and the maximum working pressure for a given operating temperature is greater.
- One reason for this widespread used is the special properties of borosilicate glass 3.3 (see below), complemented by the use of other highly corrosion resistant materials such as PTFE and ceramics

Brief about product : Glass lined reactor is FDA approved equipment which can be installed in Flame Proof / Explosion Proof Areas of a chemical plant for large scale operations where operating parameters within the GLR are higher than glass assemblies because large volumes are handled. Here high pressure steam can be used as heating medium on glass lined reactors. Glass distillation assemblies of various types can be installed on these reactors as per the process requirements . The basic features of such assemblies remain the same but coil type heat exchangers can be replaced with higher capacity shell & tube heat exchangers

Bromine Recovery Plant



We are reckoned as reputed Manufacturer, Exporeter and Supplier of Bromine Recovery Plant in Mumbai, Maharashtra. Our Plant is known for its high effeciency and excellent performance. Our Recovery Plant is manufactured using premium grade glass that ensures the best quality. The Recovery Plant is available with varied technical specifications to meet the varied requirements of buyers. Our plant is corrosion and abrassion resistant.

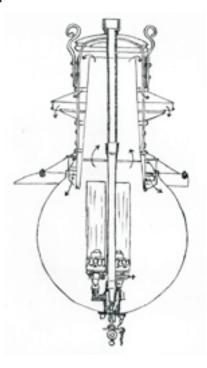
Features : Bromine Recovery Plant are available in 1 TPD / 2 TPD / 3 TPD etc. capacities.

Brief about product : Bromine are being a highly reactive material, finds wide applications in many chemical industries like : Organic Intermediates, Dyestuffs, Agrochemicals, Fire Retardents etc.

HI Gas Generator



We are one of the reliable Manufacturers, Exporter and Suppliers of HI Gas Generator in Mumbai, India. Our generator is manufactured using borosilicate glass in order to assure the best quality and high durability. We provide Gas Generator in different sizes and specifications to suit the varied requirement of buyers. Our HI Gas Generator is known for its efficiency and excellent performance. Buyers can acquire HI Gas Generator from us at the most affordable price.



Technical Specifications :

- HCL GAS GENERATOR (Azeotropic boiling route
- HCL GAS GENERATOR (Sulphuric Acid Route)
- HCL GAS GENERATOR (Adiabatic Type)
- HCL GAS ABSORBER (Falling Film Type)
- BROMINE RECOVERY PLANT

Brief about Product:

- All Glass items shown are manufactured from borosilicate glass 3.3 are widely used as the basis for the construction of complete process systems all over the chemical, dyestuff, food pharmaceutical, and petrochemical industries. The abbreviation for the coefficient of linear expansion which is $(3.3 \pm 0.1) \times 10-6$ K-1. This is lower than any other industrial glass. Since this glass expands less, the tensile stresses in the glass wall during heating are less, which means that it is able to withstand a greater thermal shock and the maximum working pressure for a given operating temperature is greater.
- One reason for this widespread used is the special properties of borosilicate glass 3.3 (see below), complemented by the use of other highly corrosion resistant materials such as PTFE and ceramics

Jacketed Vessels



Transparent insulation, easy to clean and requires low maintenance are some of the key features of our Jacketed Vessels. Our vessels are manufactures as per the international quality standards ensuring the best quality and longer life. The vessels that we provide are known for their excellent quality. It can withstand variant temperatures and pressures. We make Jacketed Vessels with different technical specifications to meet the diverse demands of buyers.

Features :

- Vacuum Jacket ensures
 - Transparent insulation
 - Minimum heat loss
 - Process visibility
 - Minimize frost formation for cryogenics operation
- Vacuum Jacket & main vessels are detachable ensures
 - Ease of cleaning
 - No breakages due to thermal expansion
 - Partial Replacement of any part can be possible reduce the maintenance cost

Technical specification : Glass Jacket can be used for a maximum operating pressure of 0.5 bar and a maximum o operating temperature of 130 C in jacket. The temperature difference between jacket & vessel 0 should not be exceed than 1200 C.

Brief about product : For special applications, cylindrical vessels can be supplied with a jacket for heating or cooling. Jacket is sealed to the vessel with Viton 'O' ring and other sealing compositions. The seal prevents high stresses between vessel and jacket by allowing the movement flexibility between two due to thermal expansion

Gas Absorption System



We are actively engaged in offering defectfree range of Gas Absorption System in Mumbai, Maharashtra. Our system is manufactured by experienced professionals who use the latest technology and highgrade raw materials in order to ensure excellent quality. It is widely used in various industries such as chemical, paint, fertilizer and many more. Our Gas Absorption System is available at market-leading price. We deliver Gas Absorption System within the stipulated time frame.

Features : We are also known in the industry for our expertise in delivering a defect-free range of Gas Absorption Systems. These machines consists of an isothermal falling film type

absorber and adiabatic tail-gas tower with a recirculation pump. The Gas Absorption Systems offered by us are quality tested on various parameters and are in compliance with prevailing industry standards.

Brief about product :

- A mobile gas absorber is a spray & packed scrubber mounted on trailer to allow it to move between jobsites. In general they are supplied complete with a fan, pumps, piping, instruments and controls- everything except for reagent storage and blowdown storage.
- Mobile gas absorbers are commonly used for acid gas removal from hazardous waste incinerators at Super Fund cleanup sites- but can be useful at any site where temporary acid gas removal is required.
- Because the different nature of the particulate and gases within each industry application, special design features have to be incorporated into each product for it to operate successfully without undue maintenance. Some of these special design features include: materials of construction, proper lining requirements, proper location and introduction of scrubbing media, liquid to gas ratios, variability of pressure/flow adjustment and efficient use of energy. These are just a few of the variables that require special designs from one industrial application to another
- Venturi scrubber is a device which helps in mixing of liquid and gas to achieve the purpose of scrubbing and absorption.
- So2 / HBR / Nox which cannot be released into atmosphere. There are three types of Absorption Systems and all the three types are supplied by us.
- The Falling Film Absorbers are typical Heat Exchangers with weir tube arrangement at the top which is always vertically mounted.

Pilot Plant



Our Pilot Plant is manufactured using 3.3 borosilicate glass in order to assure the finest quality. Condensation, fractionation and stirring are some of the functional features of our Pilot Plant. The plant that we offer is highly durable in nature due to its strong and sturdy construction. Our plant is corrosion resistant and can withstand adverse climatic conditions. WE make available Pilot Plant with different technical specifications to be used in various industries such as chemical, R&D and many more.

Raw Material Used :

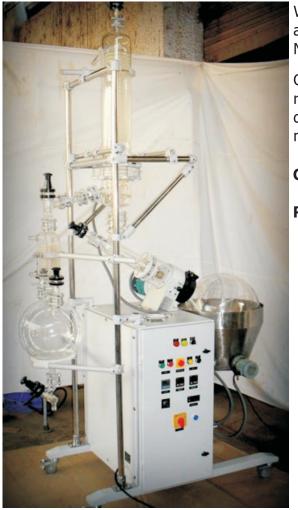
- Excellent corrosion resistance to very large number of chemicals, unmatched by other material
- Smooth pore free surface
- Clear visibility

Features :

- Solvent Recovery Plant
- Bench Scale Reaction Units
- Glass Pilot Plant Assembly
- Multipurpose Reaction Systems
- Jacketed Reaction Units

Brief about product : We offer our customers with an intriguing range of Industrial Pilot Plant that are made with quality materials of construction and conform to international quality standards. These plants have been standardized with all the basic and essential functional features such as heating, stirring, condensation, fractionation and cooling. They have several multipurpose uses and have high durability. Solvent Recovery Plant, Bench Scale Reaction Units, Glass Pilot Plant Assembly, Multipurpose Reaction Systems, Jacketed Reaction Units

Rotary Film Evaporator



We are a prominent Manufacturer, Exporter and Supplier of Rotary Film Evaporator in Mumbai, India.

Our evaporator is automatic and corrosion resistant. We make available evaporator in different sizes and technical specifications to meet the diverse demands of buyers.

Capacity: 2 ltr - 100 ltr

Raw Material Used :

- An electrically heated SS heating bath with facility for raising and lowering the height.
- Rotating flask of corrosion resistant borosilicate glass which is connected to drive by a coupling.

The drive is a hollow glass shaft which also acts a vapor off-take pipe.The drive shafts sealed on condenser/receiver with Teflon seal. Power is transmitted to the shaft by a motor driven gear with provision for varying speed.

Condenser/receiver arrangements are of standard design depending on the

Special Features :

- Universal corrosion resistance
- Auto controlled, digital display of rotational speed and bath temperature
- Digital display of process time
- Automatic bath lifting
- Automatic bath lowering in case of power failure Withstands full vacuum
- RS-232 Interface (Optional)
- Ideally suited for heat sensitive material

Brief about product : Rotary Film Evaporator is essentially a thin film evaporator. The rotating flask continuously covers a large surface area with a thin film which is ideal for rapid heat transfer. Fortuitously, the thin film also ensures uniform heat distribution without local heating. The facility to work the unit under full vacuum further facilitates evaporation at as low temperature as possible. That is to say, both boiling point and residence time are significantly reduced. These features combined, renders rotary film evaporator to be ideally suited for evaporation of heat sensitive material. It is equally successful for evaporation of suspension in crystallization processes, drying of powder/granules etc.

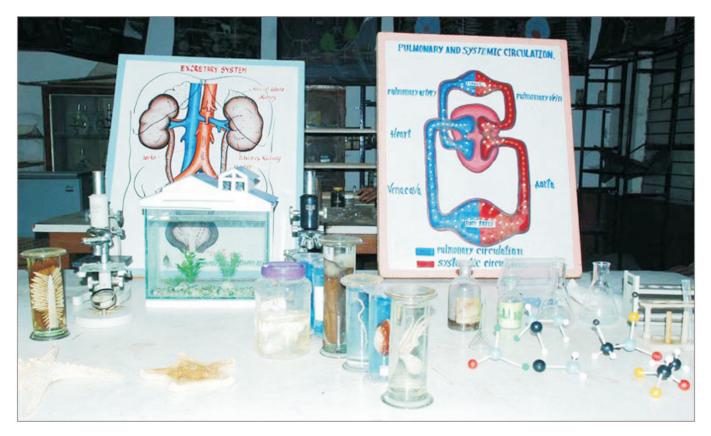
Sight Flow Indicator



We are successfully ranked amongst the topmost Manufacturers, Exporters and Suppliers of Sight Flow Indicator in Maharashtra, India. The Flow Indicator that we offer is widely used to determine the flow of fluid in tank. Flawless performance, excellent quality and high accuracy are some of the salient features of our Sight Flow Indicator. We can provide Flow Indicator in different quantities to meet the diverse demands of buyers.

Features : We provide wide variety of sight glasses that are used to determine the level of liquid in a tank. Sight glasses are plastic or glass tubes connected to the bottom of the tank at one end and at the top of the tank at the other. Our range of sight glasses includes level sight glass, flow sight glass, tank sight glass, offers the safe way of flow indication, clarity and exact level of extremely corrosive and ultra-pure liquids like sulphuric acid, hydrochloric acid and de-mineralized water

Educational Equipment



Educational Equipment that we offer is one of the highly demanded products of our company. Our equipment is quality approved and durable in nature. We provide all kinds of educational equipment. We make available equipment in different sizes and technical specifications to meet the varied requirements of buyers. We can provide equipment in mall as well as bulk quantities. Our Educational Equipment is available at the best price in the market.

FLUOROPOLYMER TEFLONS



At Garg Lab Solution the skills and expertise of handling corrosion acquired through decades since 1963 combined with the quest to provide a single window solutions to the problems of fighting corrosion while handling highly corrosive materials, encountered by our esteemed customers. We have brought in a \new product line known as Fluoropolymer and Polyethylene Lined Carbon Steel Pipelines, Pipe Fittings, Dip Pipes, Sparse, Ball Valves, High Pressure Bellows and Gaskets etc. We design and manufacture these products for all industrial applications since the fluoropolymers and the polyethlenes have excellent resistance to chemical attacks even at elevated temperature and pressure having no impact on its zero permeability and atmospheric stress craking rate.

