



[www.marutiscientific.com](http://www.marutiscientific.com)

**MARUTI SCIENTIFIC AND INDUSTRIAL LINING**

**Mfg. & Suppliers of:  
Scientific Glass Equipments, Industrial Instruments & MS-PTFE Lining Products.**

## ABOUT US

**Maruti Scientific And Industrial Lining** is a leading name as the Scientific Glass Manufacturers & Suppliers of high grade Pipeline Component, industrial Valve, Vessels & Stirrers and other Component. Our offered range includes valve, jacketed Vessel, Heat Exchanger, Column Component, Structure Parts, Industrial Instruments ( Level Indicator, Rotameter, Sight Glass), MS-PTFE, FEP Lined Equipments etc.

**Maruti Scientific And Industrial Lining** Products have established enviable reputation for its ability to Design, Manufacture & Distributor of high Quality products and under one roof and offering unmatched scientific glass performance and proven value.

We strive to serve customers with a dependable services and Quality Products at Very Competitive Price. Thanking our valuable customers who have supported us through the past and welcoming our new customers.

### Why Us Maruti Scientific And Industrial Lining products

Our diverse product lines include:

- \* Excellent range of products
- \* Excellent Quality Support
- \* Competitive Price
- \* Prompt Delivery



#### Quality Assurance:

Our quality assurance system is meant to increase customer confidence and a company's credibility, while also improving work processes and efficiency, and it enables a company to better compete with others.



#### Vision :

We make good quality of products, that's why we create space country around the world.



#### Mission :

Happy employee lead to happy customer, which lead to all growth.

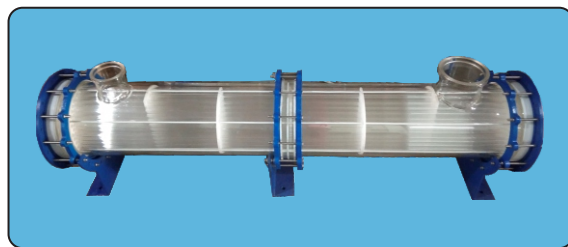


#### Goal :

We focused on our goal and work hard on it daily.

## HEAT EXCHANGERS

**Maruti Scientific And Industrial Lining** heat exchangers provide optimum solution for all requirements encountered because of the wide range of heat exchangers available. Heat exchangers are used for condensation of vapours or cooling of gas or cooling of liquids. Two basic types of glass heat exchangers are available, Coil type and Shell and tube type. Glass coil type heat exchangers are available as condensers, boilers and immersion heat exchangers with heat transfer areas up to 8m<sup>2</sup>. Shell & tube type heat exchangers are designed for use with tubes in widest possible range of corrosion resistance materials. Shell & tube type heat exchangers are available with glass or Mild Steel (MS) Shells in combination with glass tubes as standard. The advantage of using Shell & Tube type heat exchanger are larger heat transfer area in single unit, Low pressure drop & Easy to tube replacement.



## COLUMN COMPONENTS

In many operations like reaction, extraction & absorption, the transparency of glass is particular advantage. For such process a range of column components are available in Borosilicate 3.3 glass which offers many advantages like:

1. Inert to almost all chemicals hence no risk of contamination.
2. Transparency allows visual monitoring of the process flow patterns, colour changes etc.
3. Almost universal resistance to corrosion.
4. Smooth surface permits easy cleaning & prevents fouling.



## VALVES

A wide variety of valves are described in this section. All the valves are made of Borosilicate Glass body & PTFE plug so that process fluid just comes in contact with Glass & PTFE only. Borosilicate Glass body permits the visual checking of the operation.

All the valves are suitable for operation under full vacuum conditions & a maximum temperature of 200°C.

Borosilicate Valves are available from DN 15 to DN 50. Bigger size valves are available on request.

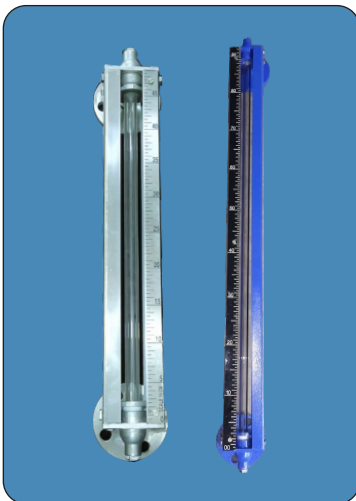


## TUBULAR SUPPORTING STRUCTURE



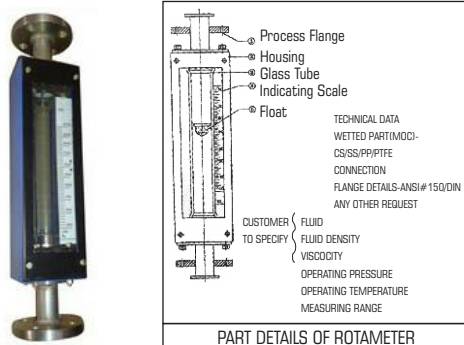
**Maruti Scientific And Industrial Lining** structure are designed to support plant and other equipments in borosilicate glass 3.3. These structures are available in the form of modular system that not only meet standard requirement but also facilitate solutions for problems of unique nature. These structures consist of steel tubings, which are connected using the appropriate fittings. As a result these structure can be assembled, dismantled, expanded or modified very easily & quickly. Standard support is made of G.I. tubes with C.I. fittings. For GMP application SS pipes with SS fittings are used.

## INDUSTRIAL INSTRUMENTS



### LEVEL INDICATOR (TUBULAR TYPE)

Level Indicator are flanged to the tank for indicating level of liquids and liquefied gases in open or closed tanks. These can be used in high temperature and pressure applications or if sight glasses and similar indicating glass parts cannot be used for safety reasons. This instrument is preferred because there is a safe pressure and gas tight separation between measuring and indicating parts. Thus the magnetic level indicator is suitable for a wide range of applications for the chemicals, Pharmaceutical, Petrochemical, Refineries, Oil and Fuel Tanks etc.



### ROTAMETER

A Rotameter is a device that measures the flow rate of liquid or gas in a closed tube.

A Rotameter consists of a Conical Tube, typically made of glass with a float actually a shaped weight, inside that is pushed up by the Drag Force of the flow and pulled down by gravity. The position of the float indicates the flow rate on a marked scale.

## SIGHT GLASS (FULL VIEW & DOUBLE WINDOW TYPE)

Sight Glass is a device used between any kind of non transparent pipelines to observe the flow of liquid. This can be used both in horizontal as well as vertical pipeline. Sight Glass is constructed in such a way that it gives a complete view from every angle. Maximum operating Temperature : 180' and hydraulic test pressure is 5kg/cm<sup>2</sup>. A sight glass consists of one glass pipe section, two metal frame, a pair of PTFE bushes or "O" ring and washers. Borosilicate pipe section is highly heat resistant has excellent chemical resistance and low thermal expansion.

Flange Drill : ASA 150# Standard Drilling.

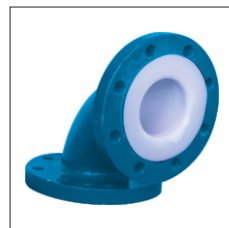


## INDUSTRIAL LINING PRODUCT

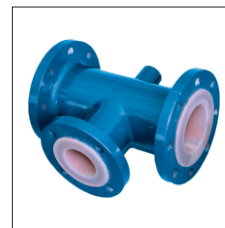
A fluoropolymer is an organic compound consisting of fluorine and carbon atoms but can also contain oxygen or hydrogen. The atoms are held together by bonds to form monomers such as tetrafluorethylene (TFE). When the monomer is polymerized they form into long chains to which TFE becomes polytetrafluoroethylene (PTFE). Fluoropolymers can be either fully fluorinated or partially fluorinated. Fully fluorinated simply means that fluorine atoms completely surround the carbon atoms while partially fluorinated means that fluorine atoms partially surround some of the carbon atoms. The strong chemical resistance of fluoropolymers is directly linked to the strong bond between the carbon and fluorine atom within the polymer. Therefore, fully fluorinated fluoropolymers are typically more resistant to more chemicals and have higher temperature resistance than partially fluorinated fluoropolymers.



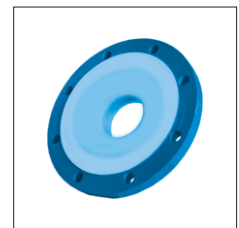
Spool Pipes



Bend 90°



Unequal Tee



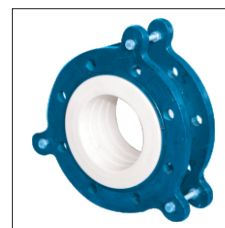
Reducing Flanges



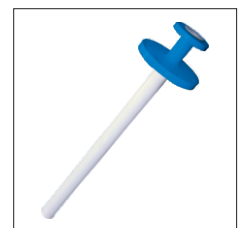
Equal Cross



Ball Valves



High Pressure Bellows

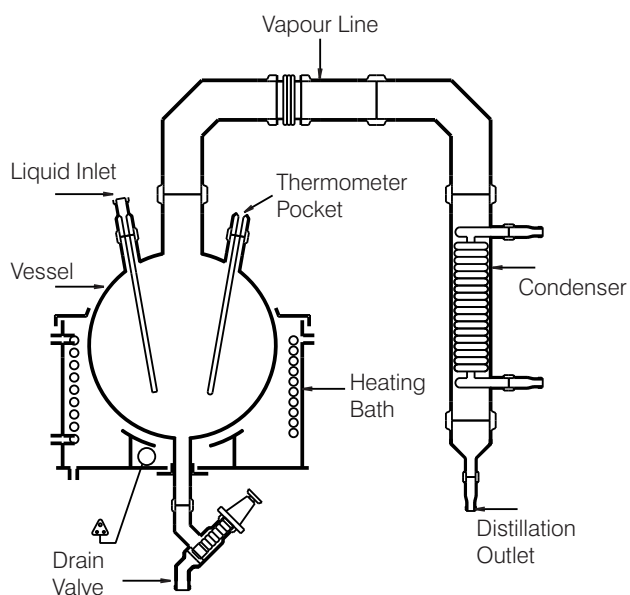


Dip Pipes

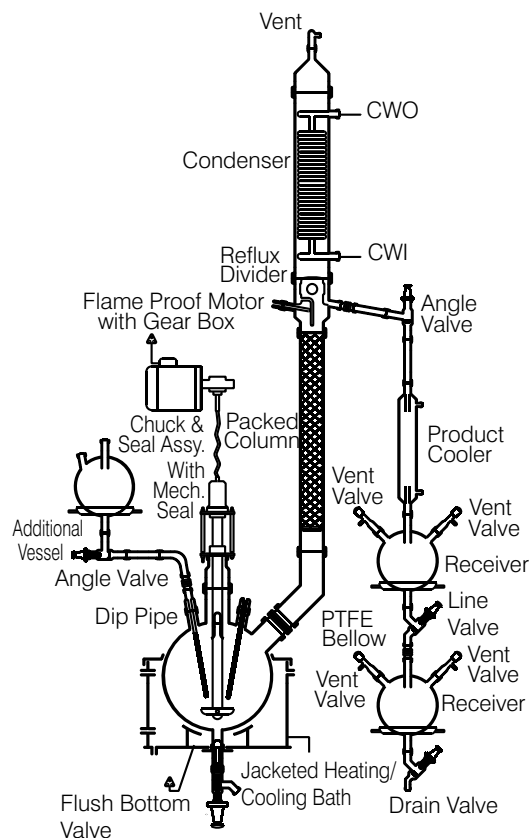


## STANDARD UNITS

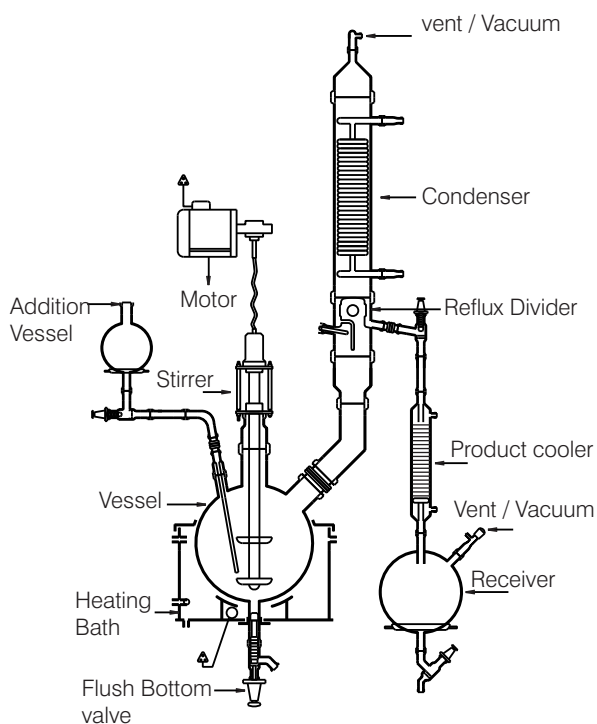
### SIMPLE DISTILLATION UNIT



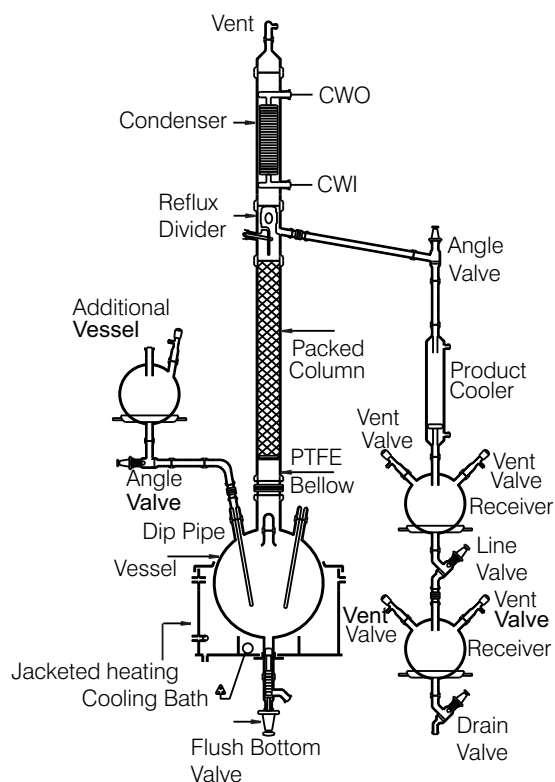
### FRACTIONAL REACTION CUM DISTILLATION UNIT



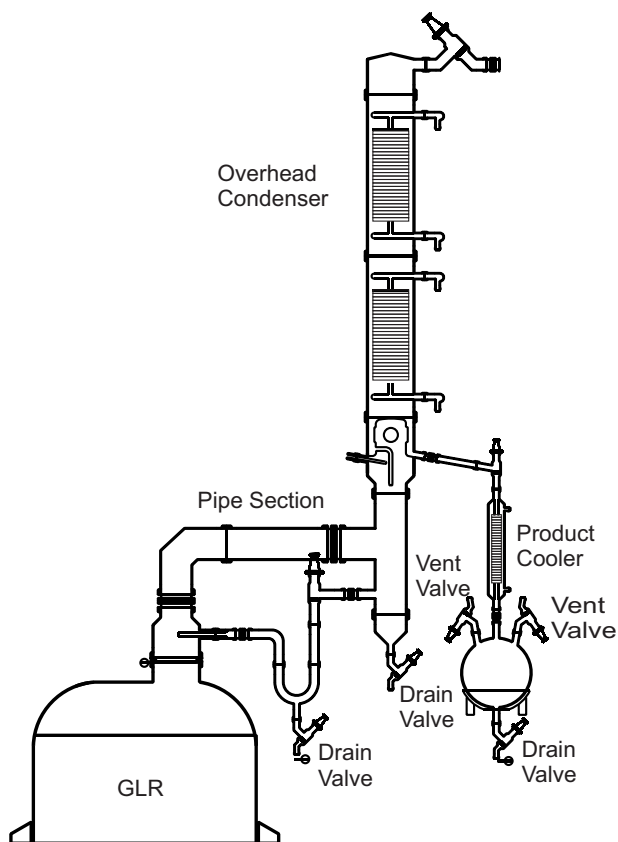
### REFLUX REACTING CUM DISTILLATION UNIT



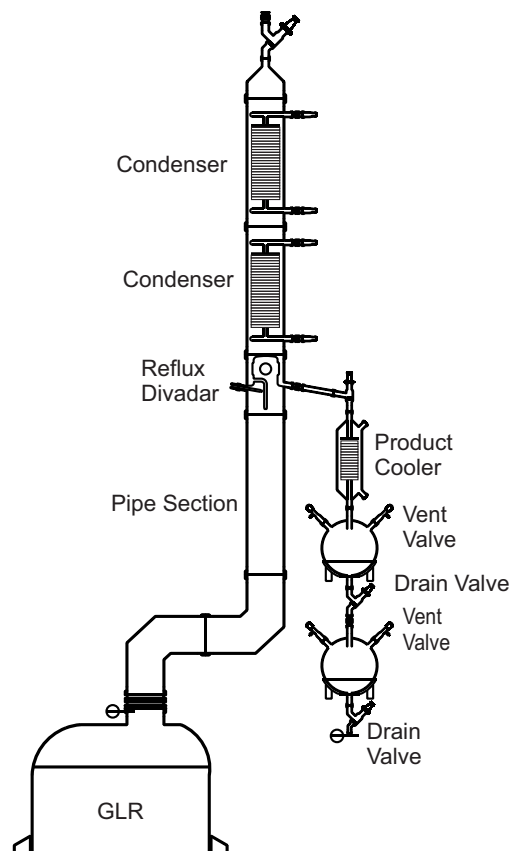
### FRACTIONAL DISTILLATION UNIT



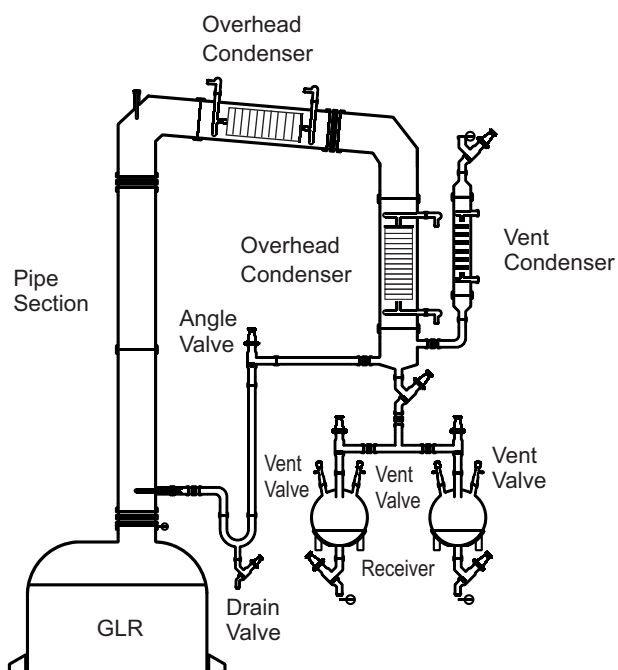
## GLASS OVERHEAD ASSEMBLY FOR GLR



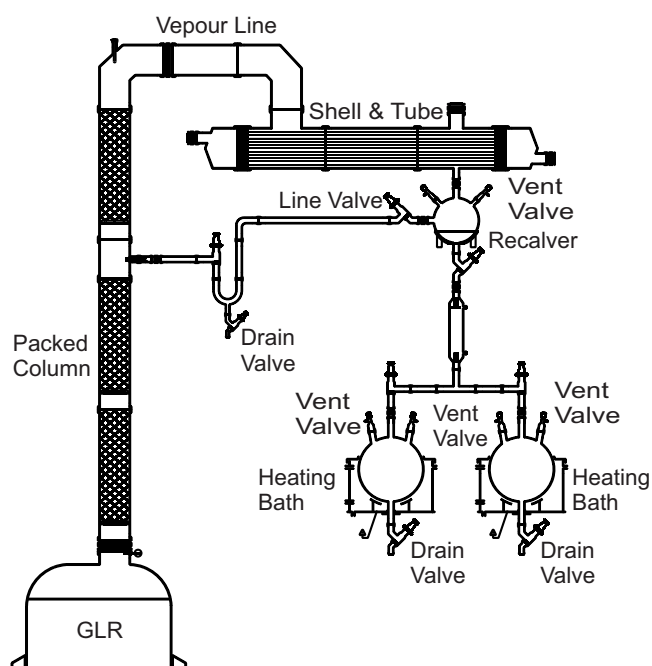
Dean and stark type distillation top with coil heat exchanger, Product cooler and internal reflux with receiver for vessels.



Distillation top with coil heat exchanger, product cooler and internal reflux with receivers for vessels.



Distillation top with coil heat exchanger vent condenser and external reflux with receiver for vessels.



Distillation top with shell and tube heat exchanger and external reflux separator with receiver for vessels.

## ANTI CORROSION SYSTEMS



### MARUTI SCIENTIFIC AND INDUSTRIAL LINING

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