



Aquatherm Heat Exchanger

Aquatherm can be used with any of the distillation units. The hot water coming out of the Condenser outlet is usually left to the Sink thereby wasting precious water. With the use of **AQUATHERM**, the hot water is cooled using the Cooling coils, Fan and pumped back to the Condenser inlet thereby saving water.

Advantages

Aquatherm can be table mounted and occupies less space. Power consumption is minimum.

15 litres of water is all it takes to run any Distillation Unit (Single or Double).



Vitsil Water Softener

The newly designed water softener works on Ion Exchange principle and is used along with Quartz or Glass distillers. The water softener prevents accumulation of sludge (i.e. deposits of Calcium and Magnesium salts) which renders hardness to water. The Tap water / Borewell water is fed at the inlet, and softened water is drawn at the outlet. The softened water is fed into the Boiler of the distillation unit. The unit can be recharged again with a saturated solution of Sodium Chloride. The unit delivers approximately 2000 ltrs. of soft water for one cycle of regeneration.

During regeneration 20 ltrs. of sodium chloride solution is passed through the water softener slowly for a period of 1 hr.

We undertake to manufacture any quartz glass apparatus to your design and specification

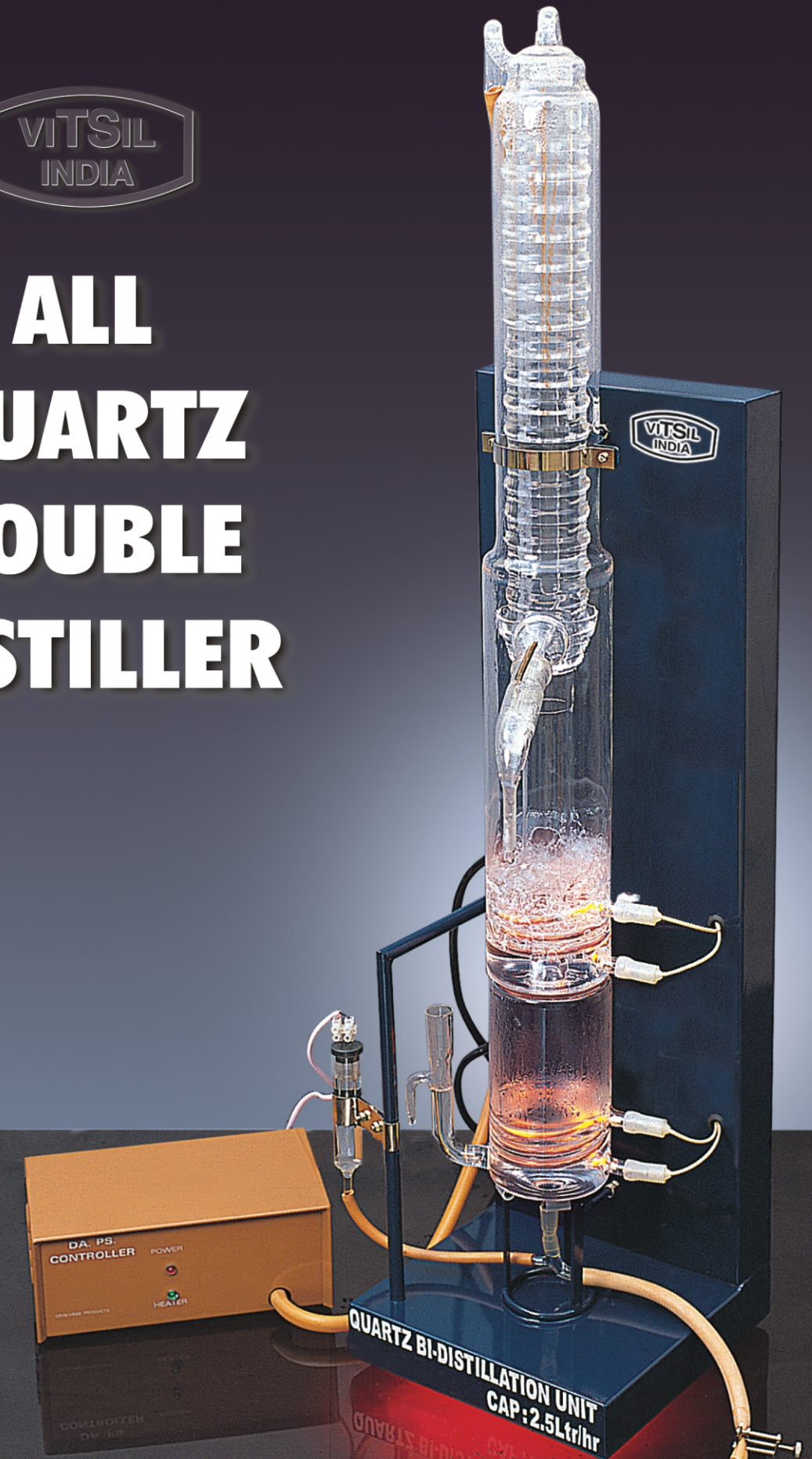
SRINIVASA PRODUCTS

Mfrs. Of 'VITSIL' QUARTZ MONO AND BI-DISTILLERS

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ALL QUARTZ DOUBLE DISTILLER



A supply of pyrogen free distilled water is basic requisite for many Research, Analytical & industrial Laboratories. Moreover, the materials of the Distillation apparatus and storage vessels, should be chosen so as to avoid diffusion of contamination into the Distillate.

Quartz Distillation Units are manufactured from Imported fused Quartz Tubes. The exceptionally high chemical purity and very low solubility of this material enables the production of very high performance system. The greatest possible attention has been taken for technical performance, simplicity of use and efficiency.

Description Of Apparatus

The unit consist of Primary Boiler with built-in heater.

The Primary Boiler has a 'O' ring groove at the top, on which a silicone 'O' ring sits. The Secondary Boiler with condenser is mounted on the Primary Boiler.

A Double wall condenser ensures separate condensation of vapor coming from the two Boilers using a single cooling circuit.

The whole unit is mounted on powder coated stand with Electrical Terminals for easy connection either to the mains or DAPS (Distillation Apparatus Power Supply) The bottom outlet is connected to a 'T' joint of which one limb is connected by a rubber tubing & pinch cock for cleaning sediments in Primary Boiler by acid wash and other limb to the water leveller of 'DAPS'.

Demountable Model

In view of calcium & Magnesium deposits occurring in Primary Boiler and the difficulty involved in cleaning these deposits, made us to think of designing the apparatus, so that the Primary Boiler could be easily dismantled for easy cleaning of Calcium & Magnesium deposits.

Spare Bottom Boilers are available normally from ready stocks.

Innovative Design

The Primary Boiler is being provided with a 'O' ring which acts as a cushion on which Secondary Boiler and condenser unit is mounted.

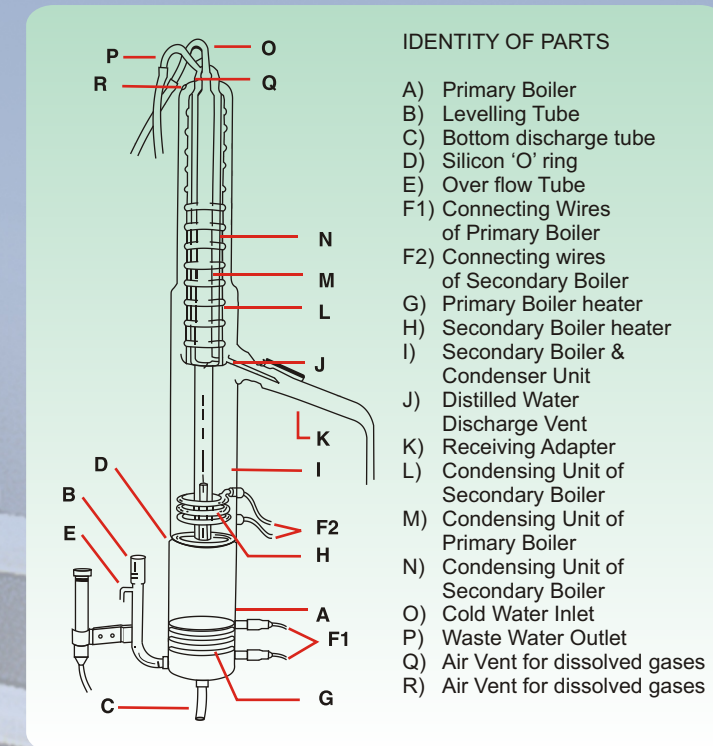
Demerits in Other Brands of Distillers

The Distillers available in the market provide either glass flange with clamps or glass ball and socket connection. Glass connections are liable for breakages. The Calcium & Magnesium deposit forms around the ball joint, thereby, freezing the unit. The steam leaking at ball joint is a very common feature in other brands.

Silicone Rubber Boot & fiber glass insulated electrical connections withstand higher temperature and long lasting compared to Rubber Boot & PVC insulated wire provided by other manufacturers.

New Condenser Unit

The condenser unit is modified to have both water inlet and water outlet at the top of



the unit. This design helps to repair the unit easily. An additional cooling column provides larger cooling surface area for Primary Boiler avoiding uncondensed steam escaping at the top.

Working Principle

Secondary Boiler (I) with 'O' ring is mounted on Primary Boiler (A). The steam from Primary Boiler will condense on inner surface of (M) and additional column (N) and falls into secondary boiler. The dissolved gases in water escapes through orifice 'Q' at the top of condenser. The steam from secondary boiler condenses on cooling surface (N), falls into the collecting cup and the double distilled water flows through the receiving adapter (K).

Specifications

MODEL No.	VQDD 1L	VQDD 1.5 L	VQDD 2.0 L	VQDD 2.5 L	VQDD 5L
Dist. Water Output cap. (Approx)	1 lt/hr.	1.5 lt/hr	2 lt/hr	2.5 lt/hr	5 lt/hr
Electrical requirements	230-250 volts single phase 2 kw	230-250 volts single phase 3 kw	230-250 volts single phase 3.5kw	230-250 volts single phase 4.4 kw	440 volts 3 phase 8.8 kw
Cooling water consumption	50 lt/hr.	60 lt/hr.	65 lt/hr.	100 lt/hr.	150 lt/hr.
Biological Activity	Pyrogen Free	Pyrogen Free	Pyrogen Free	Pyrogen Free	Pyrogen Free
pH	6.9 - 7	6.9 - 7	6.9 - 7	6.9 - 7	6.9 - 7
Conductivity S/cm	1×10^{-6}	1×10^{-6}	1×10^{-6}	1×10^{-6}	1×10^{-6}
Distillate Temp.	65-75°C	65-75°C	65-75°C	65-75°C	65-75°C

Note: Distilled water is free from metal ions and bacteria. Hence it is difficult to measure pH and conductivity values.

Accessories

Distillation Apparatus Power Supply (DAPS): The Unit provides for Automatic working of distillation unit by switching off the heaters in case water level falls below the heating coil, there by safeguarding the heaters. The unit resumes distillation when water level is restored. The Sensor probe works on 12V and hence is very safe. The unit also comes with Buzzer.

Dual Cut Off: Apart from the above features, the dual cut off switches off the heater even when there is no cooling water supply to the Condenser.