BOROSIL® Scientific

PROUDLY MADE IN India

LABQUEST BY BOROSIL®

ALL QUARTZ CABINET **DOUBLE DISTILLATION** UNIT

Purity, Precision and Performance Redefined

SMART • RUGGED • PRACTICAL

Water

Impurities & Source

Scientific community globally rely on pure water for a myriad of purposes within laboratories. Utilizing the appropriate level of water purity is a fundamental strategy to attain more consistent and accurate results in laboratory work. By ensuring a reliable source of pure water within the laboratory, scientists can enhance the reproducibility of experiments, minimize the risk of contamination, and optimize the overall efficiency of their research processes. The adoption of in-house purification systems aligns with sustainable practices, reflecting a commitment to environmental responsibility within the scientific community.

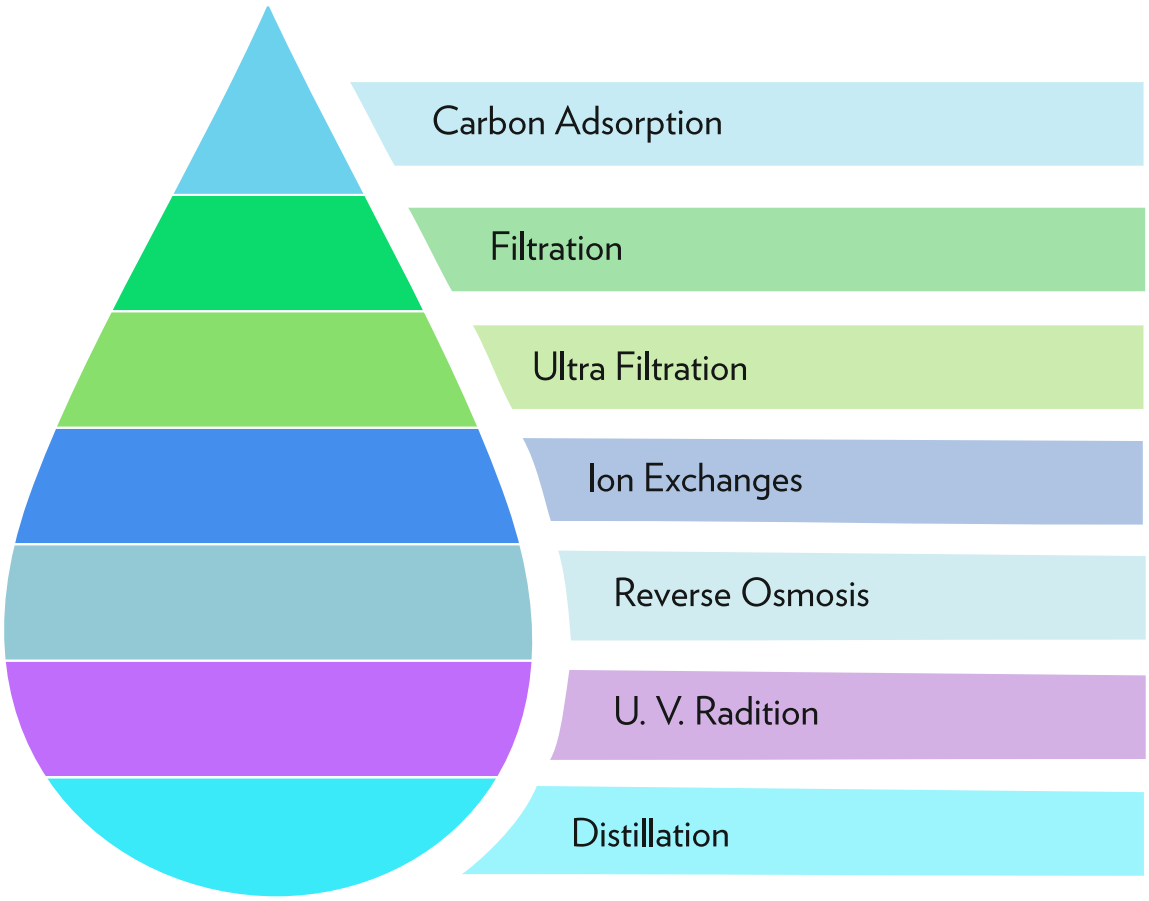
Water is often referred to as the "Universal solvent" due to its excellent solvent properties and contains common impurities

- Dissolved Minerals like calcium, magnesium, sodium and potassium
- Suspended Solid particles, such as sand, silt, and clay
- Micro organisms: Bacteria, viruses, algae, and other pyrogens
- various chemicals, including pesticides, fertilizers, heavy metals, and organic pollutants
- Natural organic matter, such as decaying plant and animal material
- Dissolved Gases viz. Oxygen, Nitrogen and carbon dioxide,

It is important to note that water source exhibits significant variations from one geographical location to another, and these fluctuations can extend to changes from season to season and environmental conditions.

Water

Purification Methods and Distillation



Of all above Distillation is probably the oldest method of water purification, Involving heating water to create steam, which is then condensed and collected back into liquid form, leaving impurities behind in boiling vessel.

Distillation remains most environmentally sustainable and economical while effectively removing wide range of impurities, including minerals, heavy metals, and volatile organic compounds, Pathogen Elimination by killing bacteria,viruses, and other microorganisms, thus producing high-purity water with low conductivity, making it suitable for various applications, including laboratory work, medical uses, and in industries requiring ultrapure water.

Standard for reagent grade water highlights the superior water quality of water achieved through Quartz or Vitreous Silica stills over water obtained using metal stills. Combining different methods like Distillation, Deionization, Reverse osmosis is often done to achieve comprehensive purification to achieve the specific water quality requirements and the intended use of the water.

All Quartz Water Distillation Units from Borosil facilitate automatic on-demand operation, promotes safe working environment by effectively purifying water through the distillation process.

The Borosil Scientific Quartz Cabinet Double Distillation Unit (QCD) is crafted from Pure Quartz, boasting a remarkable 99.95% SiO2 purity. Quartz, with impurities at a PPM level, is exceptionally well-suited for water distillation, ensuring the highest level of purity.

Auto Dispense

Accurate Volume

Serial Dispensing

Quartz Cabinet Distillation
(QCD250)

All Quartz Construction
99.95% SiO^2

Cabinet Assembly
Promotes Space-Efficient and Safe Usage

Water Reservoir
Distilled water is stored eliminating contamination

On Demand Output
Produces desired amount of water and auto shut down

Point of Use Dispensing
Distilled water in small quantities dispensed at your fingertips, for daily lab applications

Safe Cut-offs/ Dry Run Cut-Off
Safety of user and instrument, along with longevity of the instrument

Optical Level Sensor
Monitors Reservoir filling and auto on/off of unit.

Quartz Cabinet Double

Distillation Unit

Technical Information

Model	Quartz Cabinet Distillation (QCD)
Capacity Distilled Water Output	2.5 LPH Lit / Hour
Minimum cooling water requirement (Ltr/min)	2 Lit / Min
Heater	Quartz
Boiler	Quartz
Condenser	Quartz
Biological Activity	Pyrogen Free
*Conductivity S/cm	<1 x 10-6
Power consumption (kw)	4.4 kW
Voltage (V)	230V
Dry Run Protection	Yes
On Demand Output	Yes
Storage Mode	Yes
Auto Filling Reservoir	Yes
From Storage Dispense rate (ml/min)	900 ml
HSN Code	84194090
Product Code	**BLFRQCD25000000000**

*1 Inlet water TDS < 100 ppm
Note: Because of difficulties associated with measurement of the pH value of high purity water and the doubtful significance values obtained, limits for the pH value of grade 1 & grade 2 water have not been specified.

Pure water is an excellent solvent and will dissolve carbon dioxide from the atmosphere to form a very dilute solution of carbonic acid with a pH below 7. Pure water typically exhibits a conductivity of 1-2 µS/cm and a pH of 5, primarily due to the slight absorption of CO2 (0.5 ppm) from the surrounding environment.

Laboratory Applications of

Distilled Water

Agriculture Research & Testing

Laboratory Research involvingchemical analysis & biological research

Water Testing

Quality Testings involving chemical analysis & biological research

Environment Testing

Prepare standards, calibrate instruments, buffer preparations

Microbiology

Media Preparations, Buffers, Reagent Dilutions, dilute stains and fixatives, Buffered Peptone Water Preparation

Dairy Industry

Media Preparations, Buffers, Reagent Dilutions, Bacterial Plate counting, Somatic Cell Counting, Residue tests for possible contaminations.

Cosmetics

Emulsion Formulation, Hydration toskin care,

BOROSIL®
Scientific

Borosil Scientific Limited

(Formerly known as Klass Pack Limited)
CIN : U74999MH1991PLC061851

Registered & Corporate Oce

1101, Crescenzo, G-Block, Opp. MCA Club, Bandra Kurla Complex,
Bandra (E), Mumbai - 400 051, India.
T +91 22 6740 6300
F +91 22 6740 6514
E bsl@borosil.com
W www.borosilscientific.com

MUMBAI
B-306, Kanakia Zillion,
L.B.S. Marg, Kurla (West),
Mumbai - 400 070

mumbaisales@borosil.com
+91 22 6740 6400
+91 22 6740 6444

DELHI
1213 Vijaya Building 17
Barakhamba Road
New Delhi - 110001

delhi@borosil.com
+91 11 4150 5893

CHENNAI
No 7, 3rd Floor,
Golden Perch,
No. 3 Wheat Crofts Road,
Nungambakkam,
Chennai - 600 034

chennai@borosil.com
+91 44 2822 6012 / 13
+91 44 2822 6014

KOLKATA
E-2/3 Gillander House,
2nd Floor, FL- E- 2/3,
8 Netaji Subhas Road,
Kolkata- 700001

calcutta@borosil.com
+91 33 2229 9166