Manufactured from quartz, providing quick & continuous purified water with smaller foot print in laboratories

#### **Mono Quartz Distillation Units (Manual)**

These Innovative and compact vertical Distillation Units Made from Pure Silica - Quartz are ideal choice for getting single stage distilled water. It meets the standard of the analytical laboratory where purity of distilled water free from metallic ions and bacteria is important.



Made from high purity quartz

Compact design

Instant and easy to operate

Pyrogen free water

Efficient energy design for boiler

Safety cut off - accessory

#### Technical Data & Ordering Information

Model Name	3363042	3363033	3363038	3364042	3364033
Capacity Distilled Water Output	2.5 LPH	5 LPH	10LPH	2.5LPH	5LPH
Minimum cooling water requirement (Ltr/min)	1	2	2.5	1	2
Heater	Quartz	Quartz	Quartz	Quartz	Quartz
Boiler	Quartz	Quartz	Quartz	Quartz	Quartz
Condenser	Boro 3.3	Boro 3.3	Boro 3.3	Quartz	Quartz
Biological Activity	Pyrogen Free				
Conductivity S/cm*	<3 x 10 <sup>-6</sup>				
Power consumption (kw)	2.2 kW	4.4kW	8.8 kW	2.2 kW	4.4 kW
Voltage (V)	230V	230V	440V - 3Phase	230V	230V
Ordering code	BT533363042	BT533363033	Bt533363038	BT533364042	BT533364033
Accessory - DAPS Code	3366342	3366333	3366338	3366442	3366433

HSN Code: 841940901
\* Inlet water TDS < 100 ppm

DAPS - The Unit provides for Automatic working of distillation unit by switching off the heaters in case water level falls below the heating coil, thereby safeguarding the heaters. The unit resumes distillation when water level is restored by pushing reset button on front panel. The water level sensor probe works on 12 V and hence is very safe to handle. The unit also comes with Buzzer. DAPS is unique for each model.

#### Optional Accessories

Description	Ordering Code
Ceramic Quartz Boiler 2.5LPH	363012
Quartz Boiler 5LPH	363032
Quartz Boiler 10LPH	363\$02
Borosilicate Condenser 2.5LPH	362022
Borosilicate Condenser 5LPH	0363800
Borosilicate Condenser 10LPH	0363\$03
Quartz Condenser 2.5LPH	364023
Quartz Condenser 5LPH	364\$01

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. Conductivity specified applies for freshly prepared water in absence of Carbon Dioxide at 20° C.

All quartz innovative & compact design offers consistent purified water in two distillation stages

#### **All Quartz Double Distillation Unit**

Quartz distillation units are manufactured from 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.



Made from high purity quartz

Compact design

Instant and easy to operate

Pyrogen free water

Efficient energy design for boiler

Safety cut off - accessory

#### Technical Data & Ordering Information

Model Name	3365041	3365042	3365033
Capacity Distilled Water Output	1.5 LPH	2.5 LPH	5 LPH
Minimum cooling water requirement (Ltr/min)	1	2	2.5
Heater	Quartz	Quartz	Quartz
Boiler	Quartz	Quartz	Quartz
Condenser	Quartz	Quartz	Quartz
Biological Activity	Pyrogen Free	Pyrogen Free	Pyrogen Free
Conductivity \$/cm*	<1 x 10 <sup>-6</sup>	<1 x 10 <sup>-6</sup>	<1 x 10 <sup>-6</sup>
Power consumption (kw)	3 kW	4.4kW	8.8 kW
Voltage (V)	230V	230V	440V - 3Phase
Ordering Code	BT533365041	BT533365042	BT533365033
Accessory - DAPS	3366541	3366542	3366533

HSN Code: 84194090 \* Inlet water TDS < 100 ppm

DAPS - The Unit provides for Automatic working of distillation unit by switching off the heaters in case water level falls below the heating coil, thereby safeguarding the heaters. The unit resumes distillation when water level is restored by pushing reset button on front panel. The water level sensor probe works on 12 V and hence is very safe to handle. The unit also comes with Buzzer. DAPS is unique for each model.

#### Optional Accessories

Description	Ordering Code
Quartz Boiler 1.5LPH	362013
Quartz Boiler 2.5LPH	362014
Quartz Boiler 5LPH	0362\$04
Quartz Secondary Boiler - Condenser 1.5LPH	362015
Quartz Secondary Boiler - Condenser 2.5LPH	362016
Quartz Secondary Boiler - Condenser 5LPH	0363\$05
Receiving Adapter with Spring	362063
Silicon "O" Ring	362052

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. Conductivity specified applies for freshly prepared water in absence of Carbon Dioxide at 20° C.







**BE VOCAL ABOUT LOCAL** 

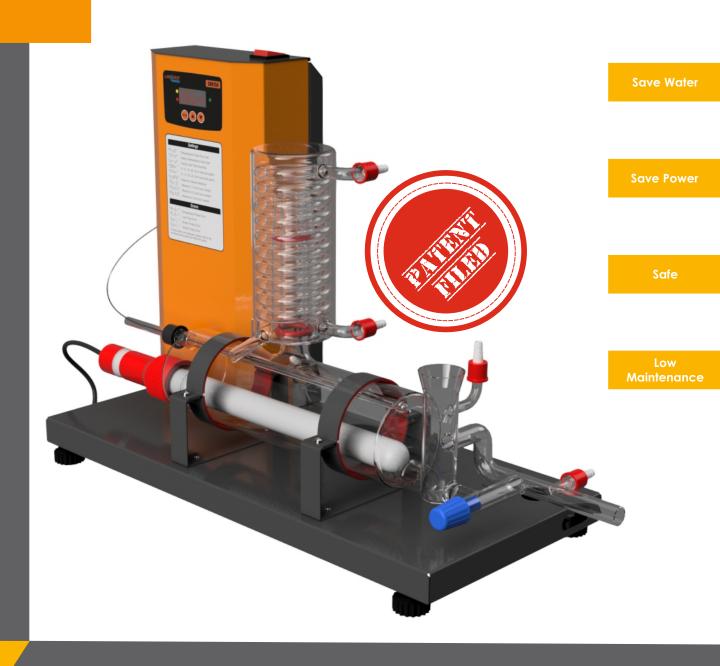
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## **ON - DEMAND**

**PRACTICAL** 

## **AUTOMATIC WATER DISTILLATION UNITS**



Distillation is still considered to be the most reliable method for producing purified water in a laboratory. Distillation is inexpensive and does NOT require expensive consumables like resin, cartridge or RO based units.



- The ON DEMAND Distillation units from Borosil enables the user to preset the quantity of distilled water required. The unit produces the set volume and shuts off automatically. This saves the chemist time, while reducing the power and water consumption.
- The Built in **CLEANING GUIDE** helps the user clean any sediment deposition in simple steps.
- The AUTO CUT OFF system, alerts the user of any malfunction like disruption in feed water supply or probe errors or heater failure and safely shuts off.
- All Joints are **THREADED** for leak free operation.
- **COUNT DOWN TIMER** for estimated time to collect desired volume and digital alerts.

#### **Purified Water Specs - Typical**

Feature/ Model		SDU	
Conductivity (S/ cm)	< 3 x 10 <sup>-6</sup>	< 3 x 10 <sup>-6</sup>	< 3 x 10 <sup>-6</sup>
Biological Activity	Pyrogen Free	Pyrogen Free	Pyrogen Free

#### **Technical Specs**

Feature/ Model		SDU	
Dist. water output cap (Approx) (Ltr/hr)	1.5 LPH	2.5 LPH	4 LPH
Minimum cooling water requirement (Ltr/min)	1	1.5	2
Power consumption (kw)	1.5	2.2	3.5
Distillation Temp (°C)	65 - 75°C	65 - 75°C	65 - 75°C
Voltage (V)	230 - 250V	230 - 250V	230 - 250V
Heater	Quartz	Quartz	Quartz
Boiler	Borosilicate	Borosilicate	Borosilicate
Condenser	Borosilicate	Borosilicate	Borosilicate
Dimensions in mm (W x D x H)	640 x 255 x 440	650 x 255 x 460	650 x 255 x 440
HSN Code	84194090	84194090	84194090
Ordering Information	BLFRSDU15000000000	BLFRSDU25000000000	BLFRSDU40000000000

<sup>\*</sup> 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.

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

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**BOROSIL**<sup>®</sup> TECHNOLOGIES







**BE VOCAL ABOUT LOCAL** 

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## **ON - DEMAND**

**PRACTICAL** 

## **AUTOMATIC WATER DISTILLATION UNITS**



Save Water

Save Power

Safe

Low Maintenance

Distillation is still considered to be the most reliable method for producing purified water in a laboratory. Distillation is inexpensive and does NOT require expensive consumables like resin, cartridge or RO based units.



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- All Joints are **THREADED** for leak free operation.
- **COUNT DOWN TIMER** for estimated time to collect desired volume and digital alerts.

#### **Purified Water Specs - Typical**

Feature/ Model		DDU	
Conductivity (\$/ cm)	< 1 x 10 <sup>-6</sup>	< 1 x 10 <sup>-6</sup>	< 1 x 10 <sup>-6</sup>
Biological Activity	Pyrogen Free	Pyrogen Free	Pyrogen Free

#### **Technical Specs**

Feature/ Model		DDU	
Dist. water output cap (Approx) (Ltr/hr)	1.5 LPH	2.5 LPH	4 LPH
Minimum cooling water requirement (Ltr/min)	1	1.5	2
Power consumption (kw)	3	5.5	7
Distillation Temp (°C)	65 - 75°C	65 - 75°C	65 - 75°C
Voltage (V)	230 - 250V	230 - 250V	230 - 250V
Heater	Quartz	Quartz	Quartz
Boiler	Borosilicate	Borosilicate	Borosilicate
Condenser	Borosilicate	Borosilicate	Borosilicate
Dimensions in mm (W x D x H)	640 x 630 x 440	650 x 630 x 520	650 x 630 x 440
HSN Code	84194090	84194090	84194090
Ordering Information	BLFRDDU15000000000	BLFRDDU25000000000	BLFRDDU40000000000

<sup>\*</sup> 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.

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TECHNOLOGIES





# ON DEMAND Quartz Water Distillation Units





#### ON DEMAND WATER DISTILLATION UNITS

for labs











- Save Water Power & Water
- Safety
- On Demand Distillation get the exact volume of distilled water without intervention or monitoring.
- Cleaning guide for efficient operation.
- Lower power and water consumption.
- Digital output display.

#### **Purified Water Specs - Typical**

Feature/ Model	QUARTZ DDU
Conductivity (S/ cm)	< 1 x 10 <sup>-6</sup>
Biological Activity	Pyrogen Free

#### **Technical Specs**

Feature/ Model	QUARTZ DDU
Dist. water output cap (Approx) (Ltr/hr)	2.5 LPH
Minimum cooling water requirement (Ltr/min)	1.5
Power consumption (kw)	5.5
Distillation Temp (°C)	65 - 75°C
Voltage (V)	230 - 250V
Heater	Quartz
Boiler	Quartz
Condenser	Quartz
Dimensions in mm (W x D x H)	650 x 630 x 520
HSN Code	84194090
Ordering Information	BLFRQDD25000000000

<sup>\*</sup> 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.

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 : borosil@borosil.com W : www.borosil.com

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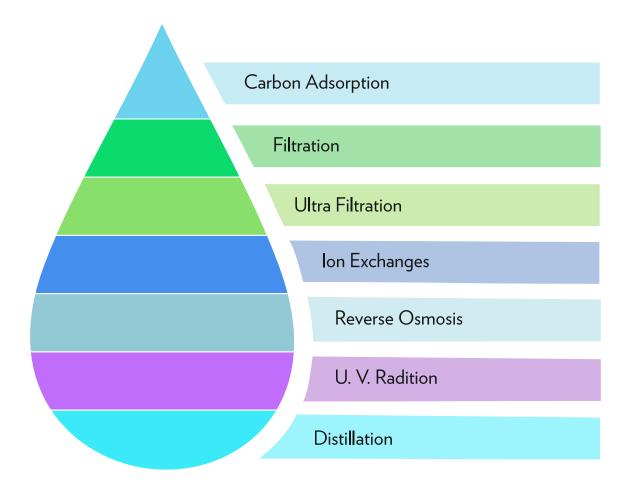


Purity, Precision and Performance Redefined



## 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



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



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

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.



<sup>\*1</sup> Inlet water TDS < 100 ppm

<sup>#</sup> 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.

## 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
or possible contaminations

#### Cosmetics



Emulsion Formulation, Hydration toskin care,



### **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