

# Barnstead LabTower RO water purification system

The Barnstead LabTower RO Converts Tap Water into RO Water and stores it in an integrated 100 L reservoir.

## Advanced technology in a mobile design

- An ultra-modern controller provides easy-to-read system parameters
- Completely drainable integrated 100 L high-purity water reservoir has a low-noise pressure booster as a standard component
- Mounted on casters, the compact LabTower RO system is an ideal pure water supply for any laboratory. Ideally suited as a feed water source for dishwashers, autoclaves and general laboratory use



## Routine Laboratory Work

- Rinsing lab glassware
- Supplying autoclaves, water baths, incubators and glassware washers
- Preparing and diluting buffers and reagents
- General biotechnology

- A built-in pretreatment unit, consisting of a hardness stabilizer for protection of the reverse osmosis module from hardness formers
- An activated carbon/5  $\mu\text{m}$  combi-cartridge protects the system against free chlorine and particles, ensures the long service life of downstream purification stages

## Compact and mobile design

- Stand-alone design with integrated 100 L tank takes up ZERO bench space
- Casters allow for easy relocation

## Integrated 100 L reservoir

- 100 L RO water storage in a high-purity polyethylene PE opaque reservoir
- Adjustable reservoir volume can be programmed for times of low demand
- Dispense from the reservoir to supply autoclaves, glassware washers, incubators, etc

## Easy-to-operate clear display

- Resistivity/conductivity clearly displayed on large back-lit control panel that tilts for optimum viewing
- Status of current operating mode clearly indicating “production”, “stand-by”, or “rinsing” modes
- Reservoir fill-level shown as %
- System parameters are code-protected to prevent accidental changes to set points

## GLP-compliant documentation

- Developed to fulfill GLP requirements
- Recorded and traceable data can be obtained by print out via the RS-232 interface and accessory printer
- Highly qualified and precise measurement of the conductivity is ensured by the cell constant of  $0.16 \text{ cm}^{-1}$

Quick Look Comparison	LabTower RO 40
Pure water production at 15 °C , L/hr	40
Withdrawal performance from reservoir at 1.5 bar, L/hr	180
Retention quota for inorganics, %	>98
Bacteria content, %	>99
Retention quota for particles, %	>99

# RO water delivered from an integrated system

## Feed Water Requirements\*

Source	Potable tap water that has been softened or hardness stabilized
Silt density index (SDI)	<5. With higher values a pretreatment (model no. 09.4000) must be installed upstream of the system
Conductivity, $\mu\text{S}/\text{cm}$	<1500
Free chlorine, mg/L	<0.1
pH-Range	4-11
Temperature, $^{\circ}\text{C}$	2-35

\* Complete list of feed water specifications can be found in the operational manual.

## LabTower RO Product Specifications

Operating pressure	Electrical requirements	Power consumption	Feed water connector	Dimensions W x D x H	Temperature
29-87 psi (2-6 bar)	90-240 V, 50/60 Hz	0.25 kW	3/4" NPT	17.7 x 22.8 x 59 in (450 x 580 x 1500 mm)	2-35 $^{\circ}\text{C}$

System Options	LabTower RO 40
<b>LabTower RO Systems*</b> All systems include an RO membrane(s), integrated 100 L reservoir, and pressure regulator	50132391
<b>Required Accessories</b>	
<b>Pretreatment cartridges</b> Both are required for complete pretreatment solution	
5 $\mu\text{m}$ filter with activated carbon and a 10 inch filter housing	50134022
1 $\mu\text{m}$ filter with a 10 inch filter housing	09.4003
<b>Sterile vent filter for reservoir</b>	50135142
<b>Sterile overflow for reservoir</b>	50132714
<b>Optional Accessories</b>	
<b>Printer Utilizes</b> RS-232 interface for safe documentation of all measured values and faults with date and time in compliance with GLP guidelines	
120 V, 50/60 Hz	STARA-106
230 V, 50 Hz	09.2207
<b>Water watcher</b> Alerts the user to leaks. Available as 240 V only.	16.0129
<b>Hand Dispenser Kit</b> Hand dispenser with 3 meter cord that connects to tank. Ships with a 0.2 micron final filter.	50138221
<b>Replacement Consumables</b>	
<b>Reverse Osmosis membrane</b> LabTower TII 40 requires two membranes	22.0087 (must order 2)
<b>10" 5 <math>\mu\text{m}</math> filter with hardness stabilizer cartridge</b>	06.5204
<b>1 <math>\mu\text{m}</math> filter prefilter for 09.4003</b>	06.5101
<b>5 <math>\mu\text{m}</math> prefilter + activated carbon 10 inch cartridge</b>	06.5201

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