

# Large scale Lab Water System

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# Selection Guide

## Type 1 Ultrapure (18.2 megohm)

| Up to 200 L/day  |  |   | Up to 15 L/day   | Up to 300 L/day  | Up to 200 L/day  | Up to 70 L/day   |
|--|--|---|--|--|--|--|
|   |   |    |   |                                 |   |   |
| <b>Barnstead GenPure xCAD Plus</b> <ul style="list-style-type: none"><li>• Remote dispenser provides full system control and outstanding flexibility</li><li>• TOC with UV intensity and feed water monitoring</li><li>• Volumetric dispensing</li><li>• Flexible mounting options</li><li>• Can add up to two more dispensers to system</li></ul> | <b>Barnstead GenPure Pro</b> <ul style="list-style-type: none"><li>• Flexible dispensing</li><li>• TOC with UV intensity and feed water monitoring</li><li>• Volumetric dispensing</li></ul> | <b>Barnstead GenPure</b> <ul style="list-style-type: none"><li>• Variable flow dispensing</li><li>• TOC with UV intensity and feed water monitoring</li><li>• Flexible mounting options</li></ul> | <b>Barnstead MicroPure</b> <ul style="list-style-type: none"><li>• Compact system</li><li>• Feed water monitoring</li><li>• Variable flow dispensing</li></ul> | <b>Barnstead E-Pure</b> <ul style="list-style-type: none"><li>• Simple design</li><li>• Easy maintenance</li></ul> | <b>Barnstead LabTower EDI</b> <ul style="list-style-type: none"><li>• Stand-alone system</li><li>• Utilizes EDI technology</li><li>• Integrated 100 L tank with recirculation to optimize purity</li><li>• Bottom-mounted rollers</li><li>• Produces both Type 1 and 2 water</li></ul> | <b>Barnstead Smart2Pure</b> <ul style="list-style-type: none"><li>• Compact system</li><li>• Optional remote dispenser</li><li>• Integrated 6 L tank for 3 and 6 L/hr models; 30 or 60 L tank options for 12 L/hr model</li><li>• Produces both Type 1 and 2 water</li></ul> |
| Pretreated To Type 1   |  |   |  | Tap To Type 1  |  |  |

# Applications

## Type 1 Applications

Cell and tissue culture

PCR, DNA sequencing

Electrophoresis,  
TOC Measurements, IC

HPLC, GC-MS, ICP-MS, AA



## Type 2 Applications

Rinsing lab glassware



Supplying general lab equipment



Preparing and diluting  
buffers, reagents, and media

# LabTower EDI



- Type I and II water in one system
  - Type I max flow 1.5L/min (200L/Day)
  - Type II 15 or 30L/hr
- Built-in 100L Reservoir and re-circulating pump
- UV 185/254 nm lamp
- Free-standing unit , with castors
- GLP-compliant
- Microprocessor controller – automatic monitor and store faults from the last 4 weeks

# Specification

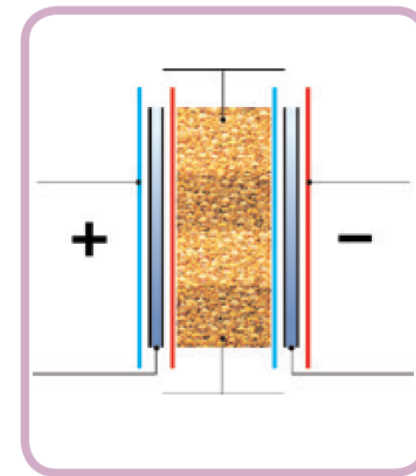
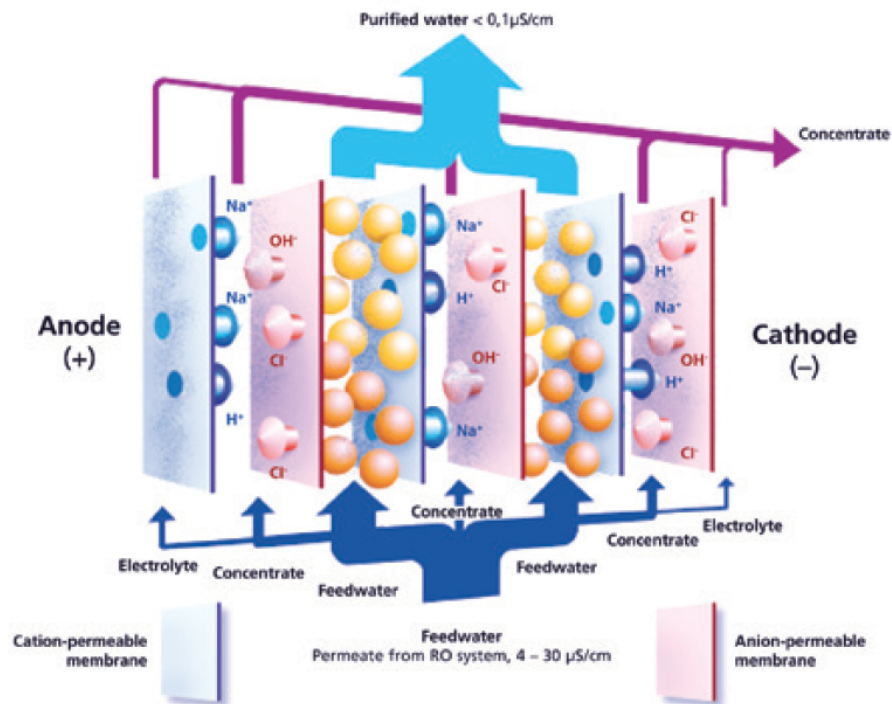
| LabTower EDI                        |             |
|-------------------------------------|-------------|
| Type 1 Water                        |             |
| Resistivity at 25°C, MΩ•cm          | 18.2        |
| Conductivity, μS/cm                 | 0.055       |
| TOC, ppb                            | 1 - 5       |
| Bacterial content, CFU/ml           | <1          |
| Particles, 0.22 μm/ml               | <1          |
| Flow Rate at dispenser, L/min       | 1.5         |
| Type 2 Water                        |             |
| Pure water production at 15°C, L/hr | 15 or 30    |
| Resistivity at 25°C, MΩ•cm          | 15-10       |
| Conductivity, μS/cm                 | 0.067 - 0.1 |

# Dimension & Feed water

| LabTower EDI                                      |                                     | Feed Water Requirements*                                |  |
|---|-------------------------------------|---|--|
| <b>Product Dimensions</b><br>H x W x D, mm (in.)  | 1500 x 450 x 580<br>(59 x 18 x 23)  | <b>Source</b>   | Potable tap water softened or hardness stabilized. |
| <b>Product Weight</b><br>kg (lbs.) w/o water      | 66 (146)                            | <b>Conductivity, <math>\mu\text{S}/\text{cm}</math></b> | < 1000   |
| <b>Shipping Dimensions</b><br>H x W x D, mm (in.) | 1210 x 1200 x 800<br>(48 X 47 X 32) | <b>Silt Density Index (SDI)</b>                         | < 3  |
| <b>Shipping Weight</b><br>kg (lbs.)               | 77 (170)                            | <b>pH Range</b>   | 4 - 11   |
|   |                                     | <b>Temperature, <math>^{\circ}\text{C}</math></b>       | 2 - 35   |
|   |                                     | <b>Pressure, psi (bar)</b>                              | 29 - 87 (2 - 6)                                    |

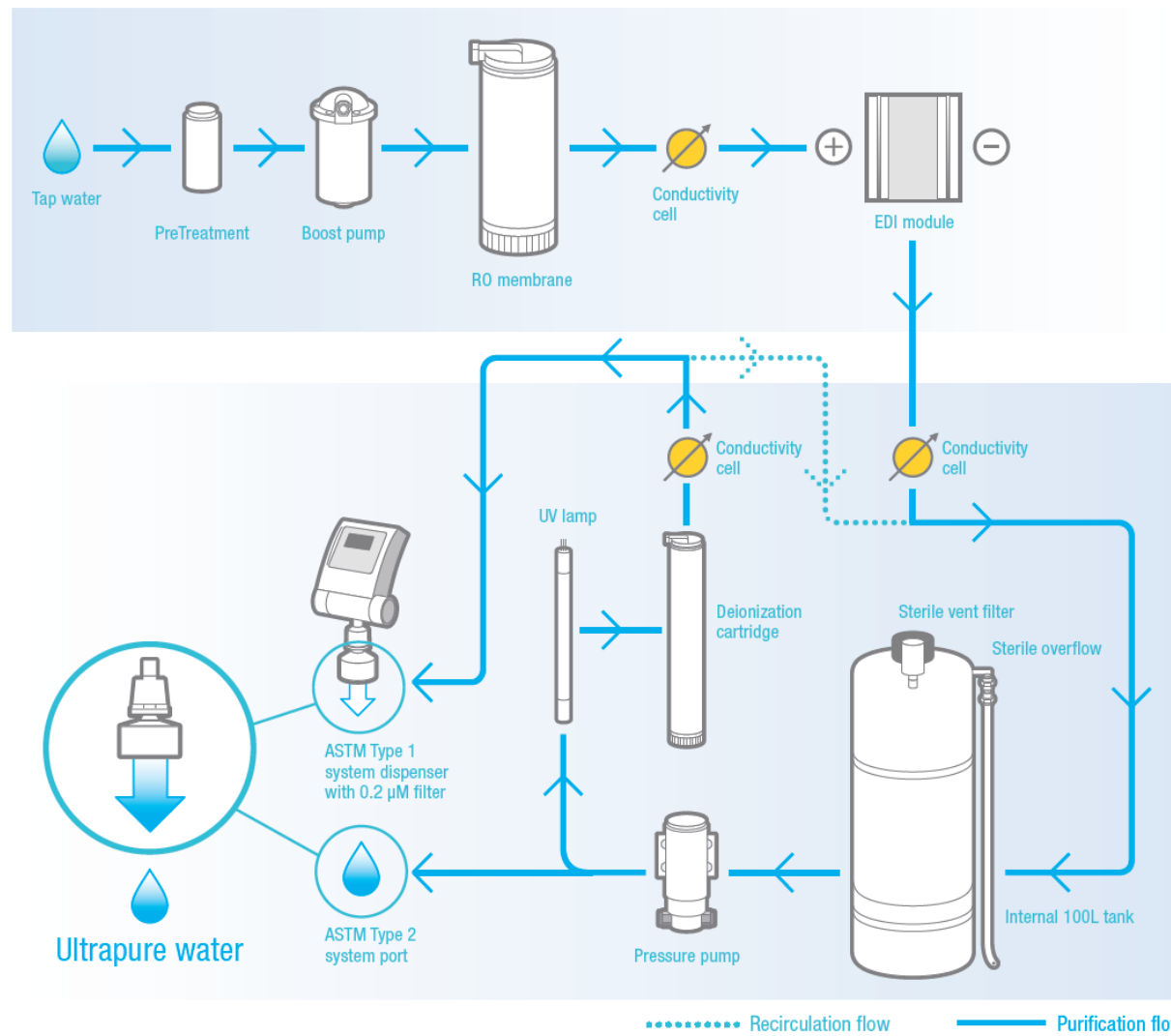
# EDI Technology

## EDI Technology



Electrodeionization, EDI, unites two proven technologies for producing **ultrapure water**: Electrodialysis and ion exchange. In contrast to conventional ion exchange in which resins must be either chemically regenerated or the cartridge discarded, EDI utilizes an electric current for continual resin regeneration.

# Flow Diagram





# Pretreatment system



Q & A

