

Analytical Grade Water Generator

Ecotech Eco-Aqua Model 10AGW

Background

Water contamination includes inorganic ions, particulates, micro-organisms, and dissolved gases. All these impurities known to impact the sensitivity of analysis performed in the laboratory. Presence of particulates also impacting detection limits and stability of displayed results of analysis. Gases, such as nitrogen, oxygen, and carbon dioxide can influence pH, EC & affect biochemical reactions.

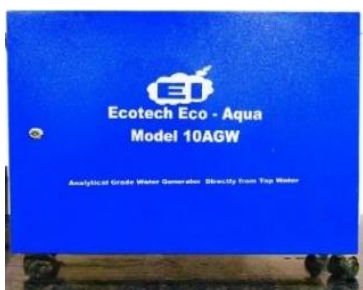
To produce analytical grade water all contaminants from water are removed at varying degrees using multiple technologies to produce it for desired application.

"Analytical-grade water has a defined quality that ensures reliable and repeatable results. It is used for sample dilution, stock preparation and for making buffer solutions, which require minimal interference at ionic levels. Reference solution and dilution of CRM need to be done using pure form of water as medium to get repeatable accurate results.



Water purity, is Globally defined from Ultrapure Type I water to semi pure Type IV water. Purity levels are determined by specific characteristics, which include conductivity (measured in micromhos/cm). Ecotech has adopted multiple technologies for removal of particulates/sediment, organics, dissolved solids, and ions by reverse osmosis membrane technology and Ion Exchange Respectively. UV radiation is also part of the treatment to kill bacteria and viruses which are getting removed in packed filters.

EC is basic indicator used to get idea of the water's ionic content and purity. Low conductivity means water is in pure and lack of interfering agents which normally interfere in analysis.



Type I (Ultrapure)— A conductivity of <0.1 micromhos/cm. Should be used for critical analysis applications such as HPLC (high performance liquid chromatography), gas chromatography, IVF, mass spectrometry, making reagents for molecular biology applications such as PCR , and preparation of solutions for electrophoresis.

Type II— A conductivity of <1 micromhos/cm. Used in general applications, to make buffers, pH solutions, microbiological culture preparation, for use in cell culture incubators, environment related analysis, feed water for key instruments and analysers can be used for

electrochemistry, sample dilution, and radioimmunoassay and air pollutants analysis.

Type III— A conductivity of <2.5 micromhos/cm used for glassware rinsing, non-critical laboratory applications, heating baths, and filling autoclaves.

Type IV— A conductivity of <5 micromhos/cm; used for only general water application.

Ecotech Eco-Aqua Analytical Grade Water Generator can be fitted on tap water having conductivity up to 2500 micromhos/cm to get output analytical grade water with conductivity less than 1.0 micromhos/cm equivalent to Type II grade water.

Eco Aqua Model 10AGW is an innovative effort of Ecotech R&D team who developed indigenous system with generation capacity of 6 LPH. Unit is based on latest technology for Ultrapure Water Generation with the minimum maintenance as a cost-effective solution for laboratories.

Performance evaluated by IIT Kanpur during yearlong uses in lab find unit performing within claim made satisfactorily. Chief Chemist PHED Karnal Haryana also evaluated unit at their lab found unit portable easy to use unit for generating analytical grade water in laboratory meeting standard requirements.

For pricing information and technical queries contact



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