



MARTEK® ULTRAPURE WATER DEGAS REBOILER SYSTEM

MARTEK INSTRUMENTS INC. MANUFACTURERS OF WATER QUALITY INSTRUMENTATION

... for removal of dissolved carbon dioxide and other contaminants in ultrapure water processes

- Quickly removes dissolved carbon dioxide and lighter amine contaminants
- Works with most cation conductivity analyzers to provide degassed cation conductivity measurements
- Extremely compact design makes it easy to install and operate
- Portable stand available

The Martek Degas Reboiler System is a compact device designed to remove dissolved carbon dioxide and lighter amine contaminants present in ultrapure water sample streams.

When used in conjunction with a cation conductivity measurement, the Martek Degas Reboiler System can provide continuous degassed cation conductivity measurements in conjunction with ASTM standards.

As a steam constituent, carbon dioxide can form carbonic acid and carbonate on dissolution in water. This can severely affect not only cycle corrosion, but mask early condensate pH and conductivity measurements in cycle regions where condensation sets in. The most important paths for CO₂ ingress are air and cooling water leakage, makeup water, ion exchange resins, and plant cycle additives. By precise heating of



the process solution to near-boiling after a cation column, carbon dioxide and other low molecular organics are volatilized and removed. Differential analysis between cation and degassed conductivity measurements can provide a more accurate cation conductivity value that can be directly correlated to CO₂ concentration and result in a more realistic assessment of the process chemistry.

The Martek Degas Reboiler System's contribution towards providing real-time data make it the ideal analytical tool for monitoring high purity processes in nuclear and high-performance fossil fuel power plants; HRSG (Heat Recovery Steam Generators), condensate polishing systems and demineralizers; semiconductor and pharmaceutical manufacturing plants; and other industrial applications.

MARTEK DEGAS REBOILER SPECIFICATIONS



A cooled cation conductivity sample stream is fed to the Martek Degas Reboiler System. The sample flow is controlled by a flow meter then sent to the reboiler where it is heated to near boiling to allow carbon dioxide and other gasses to be vented off through an expansion chamber. The hot sample stream can then be directed through a conductivity sensor that can measure the degassed conductivity. If the corresponding conductivity analyzers are capable, the differential analysis between the cation and degassed conductivity values can then be displayed along with a corresponding carbon dioxide concentration.

Power	120/240 VAC, 50/60 Hz, 14 amps
Weight	12 lbs (5.5 kg)
Dimensions	8.75 inches (22.2cm) x 18.125 inches (46.0cm) x 8 inches (20.3cm) WHD
Construction	Panel: Stainless Steel Boiler & Tubing: Type 316 Stainless Steel
Mounting	Panel (optional portable stand available)
Connections	Both inlet and outlet connections use 1/4" Swagelok fittings
Sample Lines	1/4" Type 316 Stainless Steel tubing
Sample Flow	100-200 cc/min
Environmental	NEMA 12 (IP 65), Operating temperature 10° C to 80° C

ORDERING INFORMATION

P/N
180-75 Martek Degas Reboiler System

NOTE:
All prices FOB Factory. Specifications and prices subject to change without prior notice.



MARTEK INSTRUMENTS, INC.

P.O. Box 14448 Raleigh, North Carolina 27620-4448 USA
Phone: (800) 628-8834 or (919) 790-2371 Fax: (919) 790-2375
www.martekinstruments.com Email: info@martekinstruments.com