



Aquarius® Series Ultra-Pure DI Water Heating Systems



HEATEFLEX

For Heating DI water with purity and temperature stability, Heateflex has the answer with Aquarius® I and Aquarius® II

Benefits:

- Ultra Pure Fluid Path
- Precise Temperature Controls
- Ease of Installation
- N₂ Not Required

The Aquarius® deionized (DI) water heating systems series have been setting industry standards for 20 years. It features the field proven Heateflex® coil and all PVDF/PFA wetted surfaces to ensure ultra-pure conditions throughout the heating process. With advanced temperature controls, the Aquarius® is the solution for today and tomorrow's process heating requirements.

Meeting Your Process Requirements

The Aquarius® heating system is engineered to deliver high flows of continuous, at temperature, hot DI water. With models from 30 kW to 200 kW available, Heateflex offers the flexibility to meet exact flow and temperature process requirements. The larger kW systems provide cost savings by reducing the need for multiple heaters.

Aquarius® Series Features:

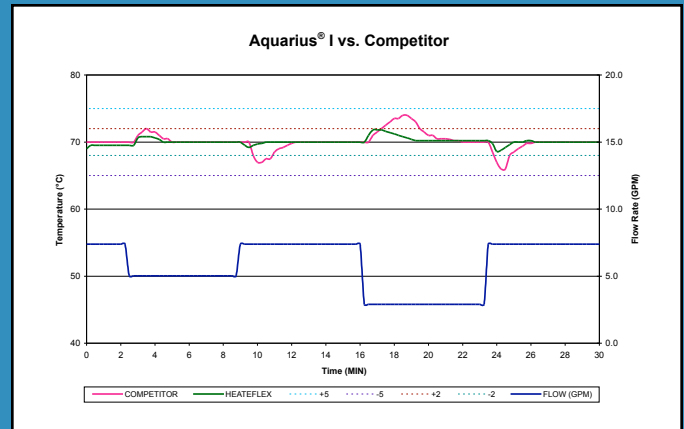
- Programmable Logic Controller (PLC) with Power-To-Flow Control® Plus for Constant, Accurate DI Water Temperatures
- Completely Self Contained and Factory Tested
- Service Made Easy with the Modular Heater Design



Aquarius® I with door open showing isolated electrical and plumbing compartments

Excellent Temperature Stability

Heateflex's patented Power-To-Flow Control® Plus is an innovative control system designed to provide accurate temperature output in single pass heating applications. Power-To-Flow Control® Plus eliminates undesirable overshoots or drops in temperature, which are commonly the result of inadequate PID controllers. Heateflex's sophisticated Aquarius temperature control system features multi-loop capability and functions by compensating for variations in the process flow rate. It does this by measuring the flow rate of fluid as it comes into the heater, measuring the temperature at various stages in the heating process, and adjusting the proportion of power applied to each heating zone based on these measurements. This advanced integrated control method reacts quickly and robustly to any variations in flow, allowing for a steady supply of DI water at a stable temperature.



Designed for Fast and Easy Installation

Being entirely self-contained, Aquarius® series heating systems save on installation. Just move the system into place, connect plumbing and electrical, and turn it on to start heating. It's just that simple. To ensure years of continued savings, each system is designed using a series of heating modules having the patented Heateflex® heating coil.

Safety Integrated

Heateflex is committed to safety in every design it offers. The Aquarius® is built to meet this commitment. Each model provides over a dozen safety features to satisfy the most stringent industry standards.

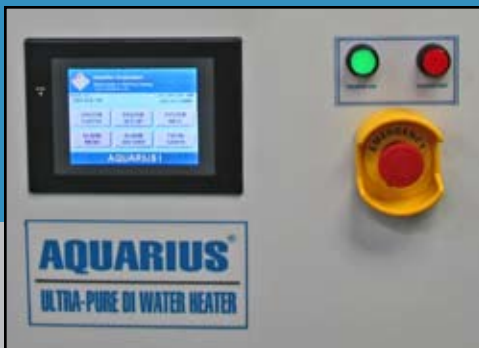
As an example of some of the safety integrations, the Aquarius® I series comes with a pressure regulator to protect against over pressurization of the unit. It has shorted SCR sensing for added heater protection. In addition, a door interlock ensures the door is closed before startup, and of course it is grounded to protect the process and equipment from short circuits.



The Aquarius® II adds a ground fault circuit interrupter (GFCI) and pressure relief valves to the standard safeties of the Aquarius® I. The GFCI gives added protection to personnel working around the unit, and the two pressure relief valves add even more layers of protection against over pressurization.

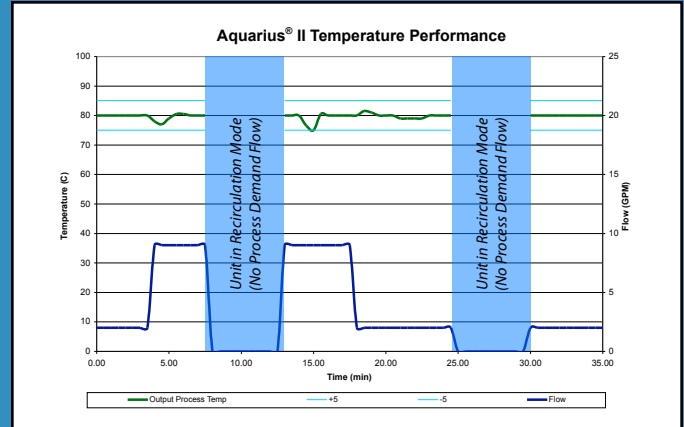
Aquarius® II for Emerging Processes

The Aquarius® II heating system delivers hot DI water with precise temperature control through a wide range of flows and on-demand temperature stability. Designed for process recipes with very tight temperature tolerances at highly varying flows of DI Water, this unit leads the way to next generation heating. It is the perfect unit for the emerging technologies in single wafer processing.



PLC Temperature Controller with Touch Screen

Unsurpassed Temperature Control!



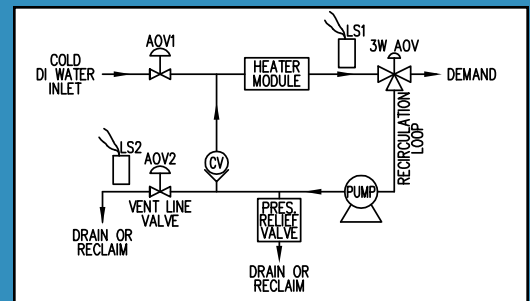
Instantaneous Hot DI

The Aquarius® II features built-in recirculation to provide hot DI at temperature, on-demand. This patented design reduces heat up time by implementing controlled heating when the unit goes into stand-by mode. Once demand is needed, the system returns to single pass mode with DI water already at temperature, saving process time and DI water usage.

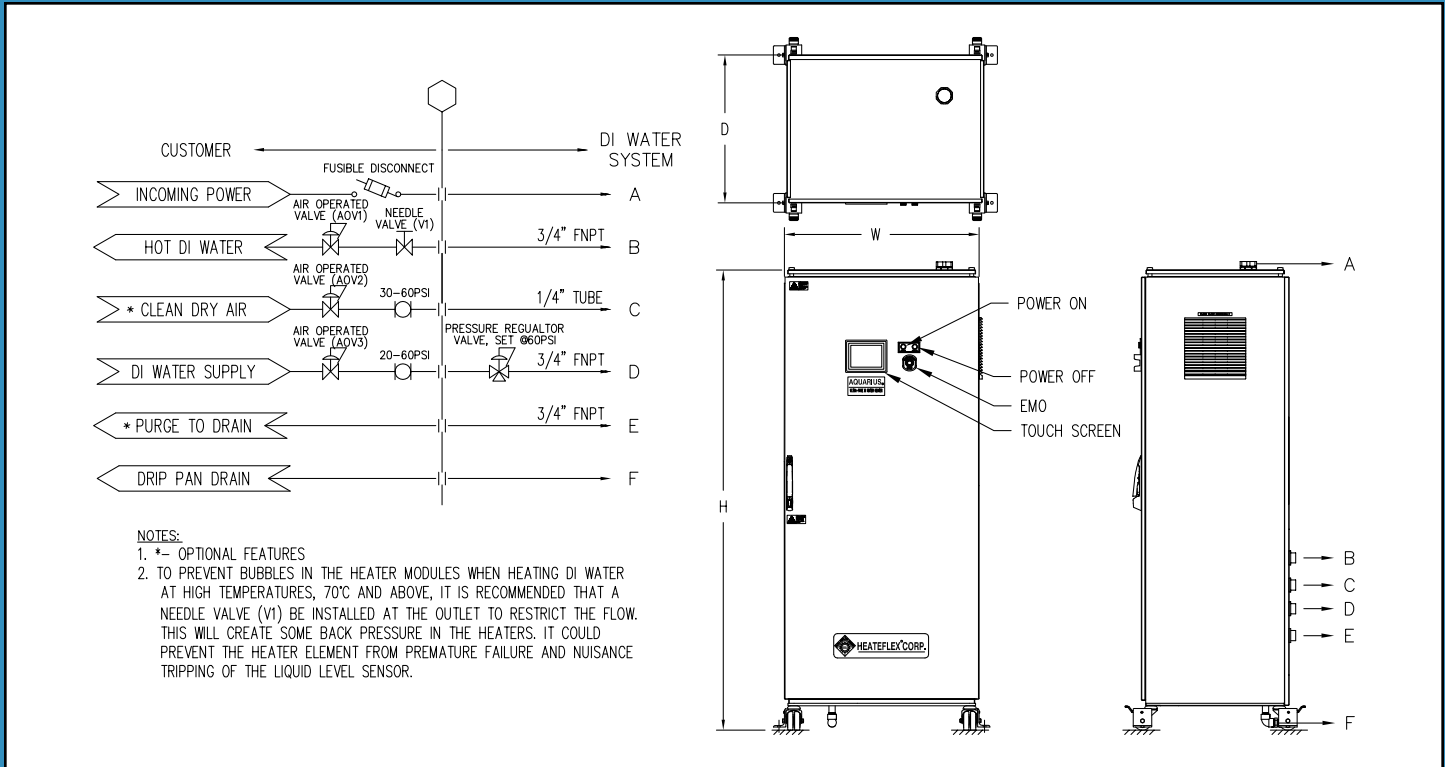
Reduced Water Usage

The ability of the Aquarius® II to provide an instant supply of heated DI water negates the requirement for a trickle flow. Trickle flows of DI water are commonly used by DI water heaters in order to maintain pre-demand water temperature. A slow stream of costly DI water is heated and sent to drain, wasting water and energy. The Aquarius® II eliminates this expenditure, thereby reducing the overall cost of operation for water heaters.

Aquarius® II with Internal Recirculation System



Aquarius® Series Ultra-Pure DI Water Heating Systems Specifications



Aquarius® I	Aquarius® II	kW	Dimensions
GDI930-2	JDI930-1	30	76" x 24" x 24"
GDI960-2	JDI960-1	60	76" x 24" x 24"
GDI990-2	JDI990-1	90	76" x 32" x 24"
GDI9120-2	JDI9120-1	120	76" x 32" x 24"
GDI9140-2	JDI9140-1	140	76" x 32" x 24"
GDI9160-2	JDI9160-1	160	76" x 32" x 24"
GDI9200-2	JDI9200-1	200	76" x 39" x 24"

Aquarius I & II Facility Data:

- Power: 480 VAC, 3-Phase (Other voltages available)
- Water: Input / Output 3/4" FNPT (Other In/Out available)
- Drain: 3/4" Compression Tube
- Pressure Regulator: 60 psi (at Input)
- Incoming Power Conduit:
 - 30 – 60 kW = 1"
 - 90 – 120 kW = 2"
 - 140 – 200 kW = 3"
- Optional Communications Ethernet or Controller Link (Other Communications Available)

Call today for prices and lead times, or visit us online at www.heateflex.com

Heateflex® Heater Patent No.: 4756781, 4875957, 2685505 (Japan)
 Power-To-Flow® Patent No. 4835365
 Power-To-Flow® Plus Patent Pending
 Heateflex is a Registered Trademark of Heateflex Corporation.
 Power-To-Flow, Power-To-Flow Control, and Power-To-Flow Plus are Registered Trademarks of Heateflex Corporation.

All data is subject to change without notice.
 Copyright ©2011 Heateflex Corporation



405 E. Santa Clara St., Arcadia, CA 91006
 Tel: (626) 599-8566 Fax: (626) 599-9567
info@heateflex.com www.heateflex.com