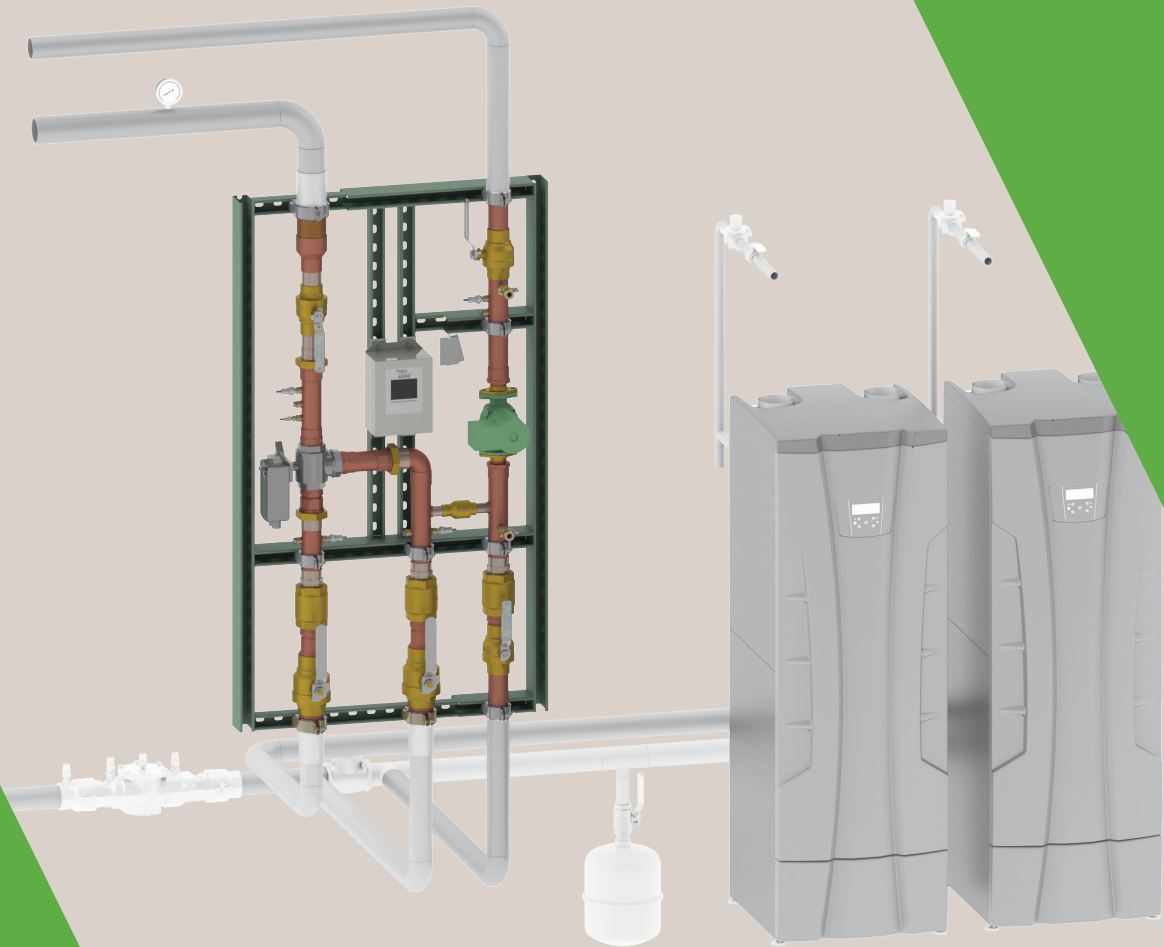


ADMS

AERCO Digital Mixing Station



AERCO Digital Mixing Station

The AERCO Digital Mixing Station (ADMS™) is a smart water tempering system that allows temperature controlled distribution of potable hot water throughout the domestic hot water loop. The lead-free* ADMS regulates distribution temperature within $\pm 2^{\circ}\text{F}$ in accordance to ASSE 1017 at all flow conditions (including low and zero demand periods) and its temperature setting is field configured without the use of special software and laptop.

The building automation system (BAS)-ready ADMS can be configured with strainers, building recirculation pump and Flow/BTU monitor package to allow facilities managers to remotely monitor and control distribution water temperatures along with monitoring of flow and energy consumption. Unlike the traditional thermostatic mixing valves, it is capable of functioning under varying pressure differentials across the inlets. The ADMS when paired with an AERCO water heater provides a fully integrated and proven solution from a common manufacturer for safe and reliable hot water distribution.

Features

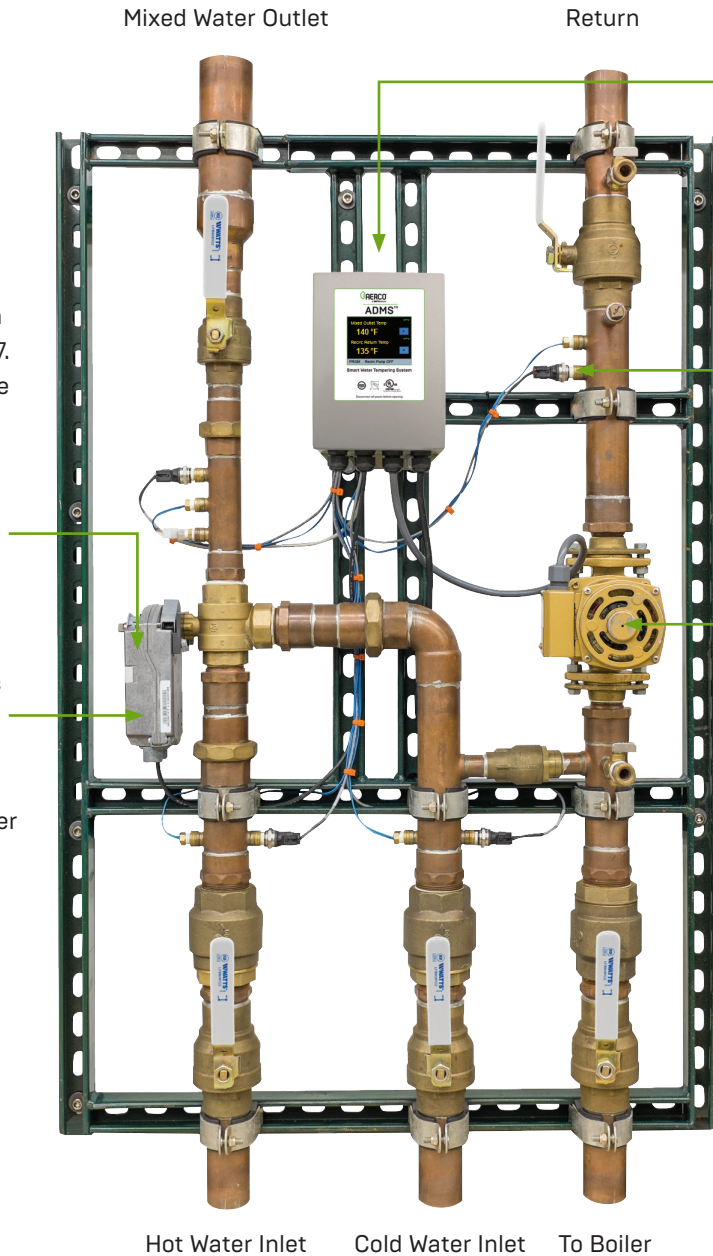
- Configurable on site without special software or laptop
- Tight temperature control of $\pm 2^{\circ}\text{F}$ in accordance with ASSE 1017 even during periods of low/zero demand
- 3.5" full-color, user-selectable touch screen display
- User programmable high-temperature sanitization mode
- Cold water failsafe with manual override feature to set mixed outlet temperature
- Settings can be adjusted/monitored at the controller or remotely via BACNET or Modbus interface
- Displays pressure, temperature and flow/BTU data
- Pass code protected for security
- User programmable high temperature alarm
- Optional recirculation pump with on-board pump control options
- Lead Free* listed to NSF 372
- Optional energy efficiency package monitors GPM and BTUs
- ASSE 1017 certified, cUPC listed, UL listed, BACnet Testing Laboratory (BTL) listed

*The wetted surface of this product contacted by consumable water contains less than one quarter of one percent (0.25%) of lead by weight.

AERCO Digital Mixing Station

High-speed actuator provides temperature stabilization within $\pm 2^{\circ}\text{F}$ in accordance with ASSE 1017. Actuator is located outside of mixing valve where it is not affected by potential water leakage from valve. Shuts down hot water in the event of power failure or cold water failure

Internal capacitor initiates valve position to full cold upon power loss. ADMS is not reliant on batteries for valve activation upon power loss



Smart controller with 3.5" full-color touchscreen interface for ease of use and clarity of critical data, NEMA 3 enclosure, high temperature alarm

Temperature and pressure sensors on hot/cold water inlet supplies, mixed water outlet, and tempered water return

Integrated recirculation pump (engineer specified) operated by the control module based on preset return temperature offset

Advanced Control Provides Safety and Peace of Mind

Benefits

- Creates the foundation of a safe and efficient tempered water recirculation loop
- Field configurable without the need for a laptop or special software
- Promotes safety by helping to maintain the safe and appropriate water temperature you select for your facility
- Integrates with building automation systems to support integrated building management
- Supports consistent delivery of hot water on demand wherever and whenever it is needed, in accordance with building codes
- Supports energy conservation through more efficient water temperature management—and in turn reduces energy costs for greater ROI

Smart Controller

The control ships with a 3.5-inch full-color LED touchscreen interface. The ADMS allows you to select the desired hot water temperature and control and monitor your water distribution system. For even greater control, ADMS should be installed as part of an ASSE-compliant water distribution system, including point-of-use mixing valves at each fixture in the plumbing system.

All data is viewable via the digital display and remotely via BAS communications. In addition, the control contains 'Alert' contact relays to aid in remote notifications. In case of power failure, the valve goes to full cold.

Designed for Use in Commercial Buildings:

Healthcare:

- Hospitals, nursing homes, and assisted living facilities

Education:

- College, university, and educational facilities
- Multi-family residences
- Office buildings

Government and Military:

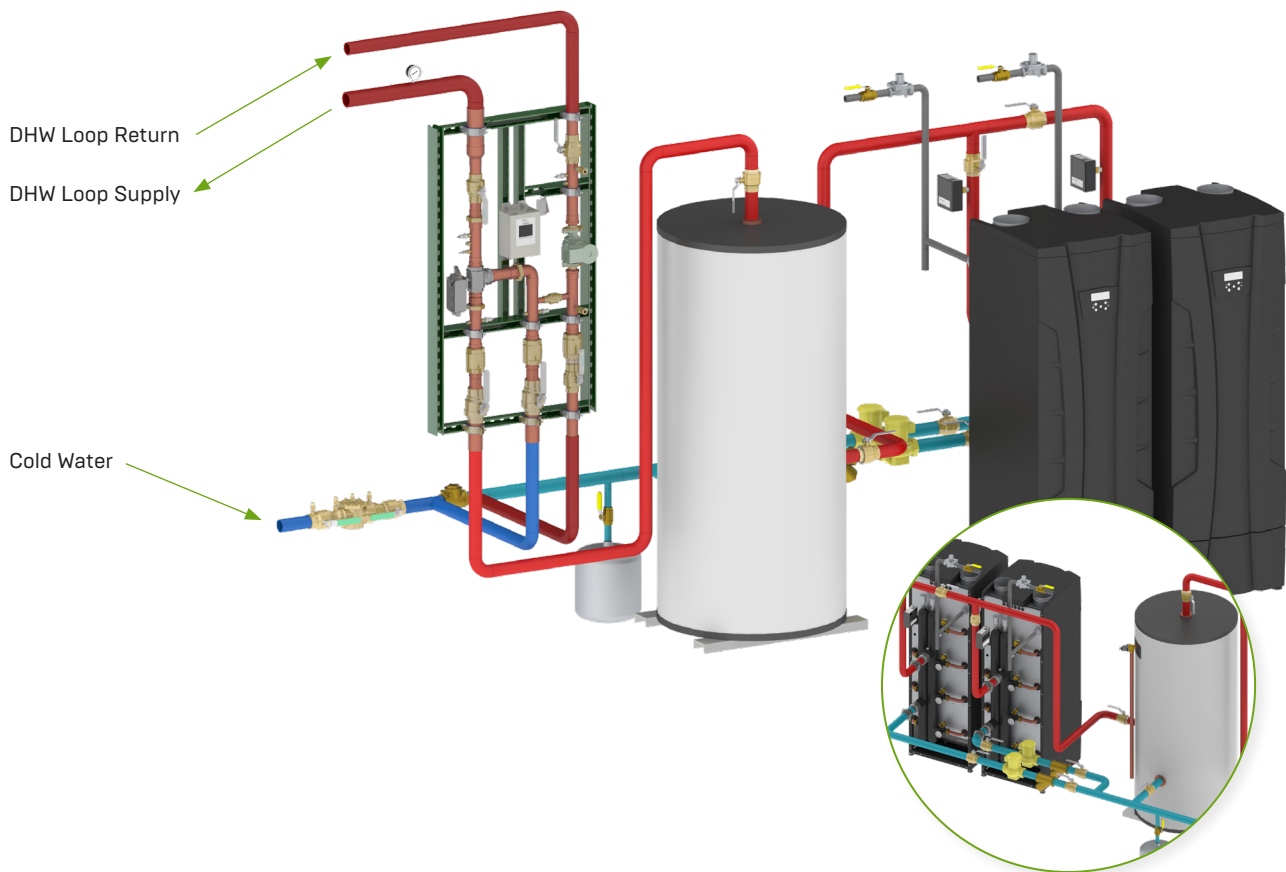
- Correctional facilities and military buildings
- Hotels and resorts



Advanced System Design

AM Water Heaters with ADMS Tempering System, Duplex Stainless Steel Storage Tank and Installation Kits

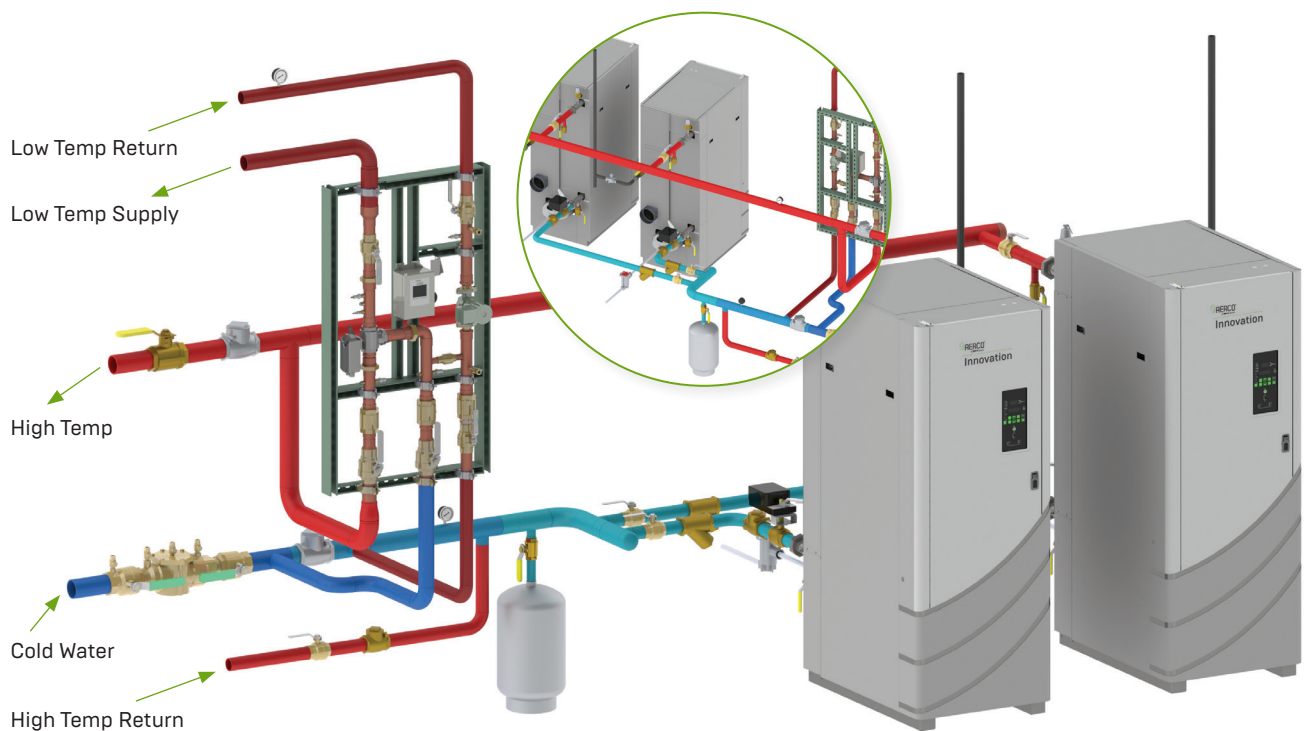
- Ideal for systems with large instantaneous loads and small sustained loads: Restaurants, Laundries, Process applications, Outpatient care facilities, Multi-family residences
- Supply safe and comfortable hot water throughout the building
- Commission a new system in minutes with advanced ADMS software
- Utilize the unique built-in redundancy of the AM Series to provide unparalleled reliability
- Minimize cycling while maintaining safe tank temperatures with high turndown system
- Provide extraordinary service life with long-lasting stainless steel tanks (available from AERCO) and stainless steel heat exchangers
- Monitor key system metrics from a central location with BAS interoperability
- One stop-buying experience by leveraging proven and complete system solution from AERCO



Advanced System Design

Innovation Water Heater with ADMS Tempering System

- Ideal for large systems with multiple temperature demands: Full service hotels, Resorts, Dormitories with campus dining, Military bases, Hospitals, Correctional facilities
- Maximize energy savings with the most advanced DHW heating system available that matches input to demand
- Replace two separate heating systems with a single smart system, complete with advanced controls and centralized monitoring
- Reduce major equipment requirements while still providing multi-unit redundancy
- Eliminate storage and energy used to keep a tank at temperature
- Add additional Legionella protection by removing stagnant water
- Combine the tight temperature abilities and predictive controls of the Innovation and ADMS
- Provide lightning-fast responsiveness to adapt to any system demands
- Save space by replacing a large plant with the small footprint of an instantaneous heating system
- Expand to support any size load
- One stop-buying experience by leveraging proven and complete system solution from AERCO



Technical Data

Technical Specification

Maximum Operating Pressure	200psi (1379kPa)
Maximum Hot Water Temperature	200°F (93°C)
Minimum Hot Water Supply Temperature ²	2°F (1°C) above set point
Hot Water Inlet Temperature Range	120-180°F (49-82°C)
Cold Water Inlet Range	39-80°F (4-27°C)
Minimum Flow ³	0.5gpm (1.89lpm)
Temperature Adjustment Range ⁴	80-180°F (27-82°C)
Listing /Compliance	ASSE 10175 , cUPC ⁵ , NSF ^{1,5} , CSA 24/UL873
Pump relay	16A @ 250 VAC
Alert relay	5A @ 250 VAC, 5A @ 30 VDC

Capacity

Flow Capacity at 50/50 Mixed Ratio					
		Pressure Drop Across Valve			
Model	Min. System Draw	C _v	5 psi (34 kPa)	10 psi (69 kPa)	15 psi (103 kPa)
1.5" Single Valve	0.5 gpm (0.9 lpm)	26.88	60 gpm (228 lpm)	85 gpm (322 lpm)	104 gpm (394 lpm)
2.0" Single Valve	0.5 gpm (0.9 lpm)	42.70	95 gpm (361 lpm)	135 gpm (511 lpm)	165 gpm (626 lpm)
1.5" Dual Valve	0.5 gpm (0.9 lpm)	53.76	120 gpm (455 lpm)	170 gpm (644 lpm)	208 gpm (788 lpm)
2.0" Dual Valve	0.5 gpm (0.9 lpm)	85.40	191 gpm (723 lpm)	270 gpm (1022 lpm)	331 gpm (1252 lpm)
2.0" Triple Valve	0.5 gpm (0.9 lpm)	128.10	286 gpm (1084 lpm)	405 gpm (1533 lpm)	496 gpm (1878 lpm)

Notes

¹ The wetted surface of this product contacted by consumable water contains less than one quarter of one percent (0.25%) of lead by weight.

² With equal pressure

³ Minimum flow when ADMS is installed at or near hot water source recirculating tempered water with a properly sized continuously operating recirculating pump.

⁴ Low limit cannot be less than the cold water temperature. For best operation, hot water should be at least 2°F above desired set point.

⁵ Listed without pump



Heating and Hot Water Solutions

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