

IntelliStation™

The Smart Mixing & Recirculation System



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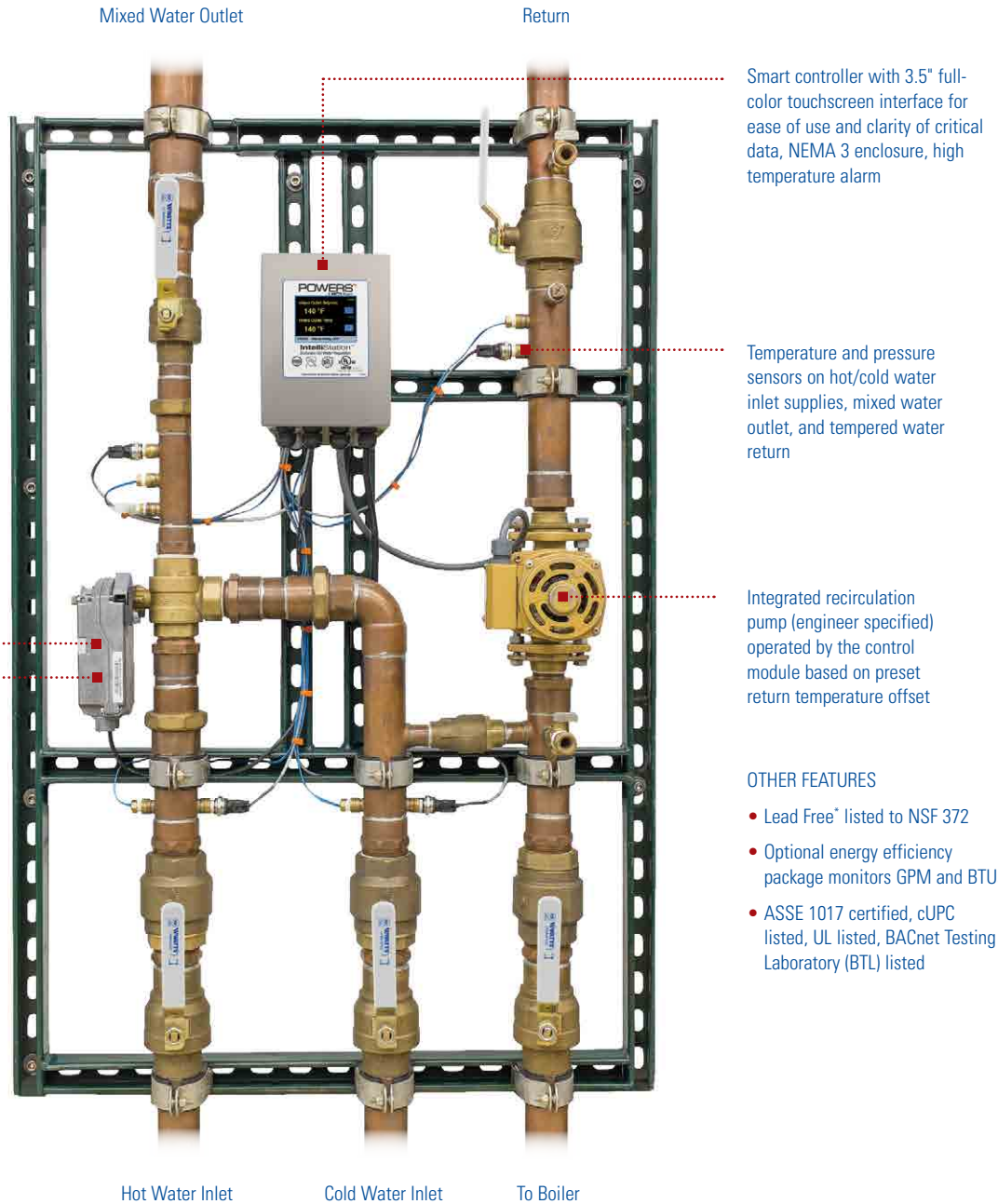


For Domestic Hot Water in Commercial
and Institutional Facilities



IntelliStation™: The Intelligent Way to control water temperature

The IntelliStation is the smart way to deliver mixed water throughout a hot water recirculation loop. The digital water mixing and recirculation solution can be integrated in a building automation system (BAS) to allow facilities managers to remotely monitor and control water temperatures.



High-speed actuator provides temperature stabilization within +/- 2°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. IntelliStation 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

OTHER FEATURES

- 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

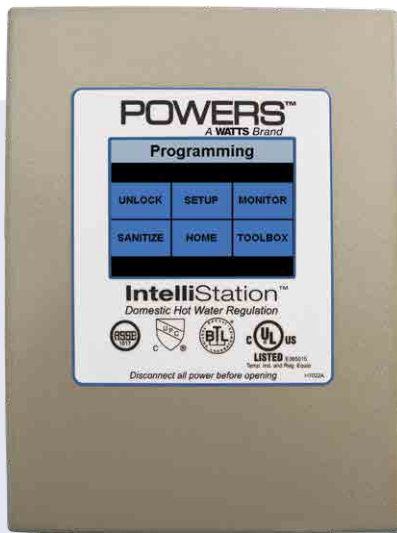
**The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.*

Why IntelliStation?

- Digital temperature regulation within +/-2°F to ASSE 1017, even during low and zero demand periods
- At the foundation of a safe and efficient tempered water recirculation loop
- Field configurable without the need for a laptop or special software

By intelligently controlling and monitoring the water recirculation loop, the IntelliStation:

- Promotes safety by helping to maintain the safe and appropriate water temperature you select for your facility
- Supports energy conservation through more efficient water temperature management—and in turn reduces energy costs
- 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



Smart Controller

The control ships with a 3.5-inch full-color LED touchscreen interface.

The IntelliStation allows you to select the desired hot water temperature and control and monitor your water distribution system. For even greater control, IntelliStation 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.¹

The IntelliStation is designed for use in commercial and institutional buildings such as:

- hospitals, nursing homes, and assisted living facilities
- college, university, and educational facilities
- multi-family residences
- office buildings
- correctional facilities and military buildings
- hotels and resorts



IntelliStation Configuration

The IntelliStation's touchscreen control operates a 3-way valve through a high-speed actuator to precisely maintain the selected outlet temperature. Temperature and pressure sensors are included at key points within the panel to enable an immediate response to changes in fixture demand and supply water conditions. A built-in pump (optional) provides recirculation of the tempered water loop. This reduces the wait time at point-of-use fixtures and conserves water.

A Sanitization Mode allows buildings with a thermal eradication protocol in place to control water-borne bacteria to deliver a higher water temperature for a pre-set duration to allow building maintenance staff sufficient time to open all of the fixtures.

IntelliStation can be connected to a building automation system (BAS) to provide read access to a range of temperature and pressure measurements and allow adjustment of the outlet temperature setting within a pre-programmed range. BACnet® IP, BACnet® MSTP and Modbus® protocols are all supported.



196 Home Screen Combinations

IntelliStation monitors and displays system critical data:

- Hot supply inlet temperature
- Hot supply inlet pressure
- Mixed outlet temperature
- Mixed outlet pressure
- Mixed outlet setpoint
- Return temperature and return pressure
- Mixed and return flow and energy consumption

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 a power failure, the valve goes to full cold.

The IntelliStation can be specified with a recirculation pump to maintain the recirculation loop temperature by turning the pump on when temperature drops below a pre-specified return limit and off when loop temperature is attained.

Causes of temperature change within a plumbing system

- Seasonal temperature changes in water supply
- Authorized or unauthorized adjustment of upstream master mixing valve
- System pressure fluctuations (changing demand)
- Boiler/hot water heater malfunction
- Improper valve selection (oversized) and/or hot water recirculation design



Why Water Mixing Is Critical

Water plays an essential role in all our lives, but unmonitored and untempered, water can pose serious risks.

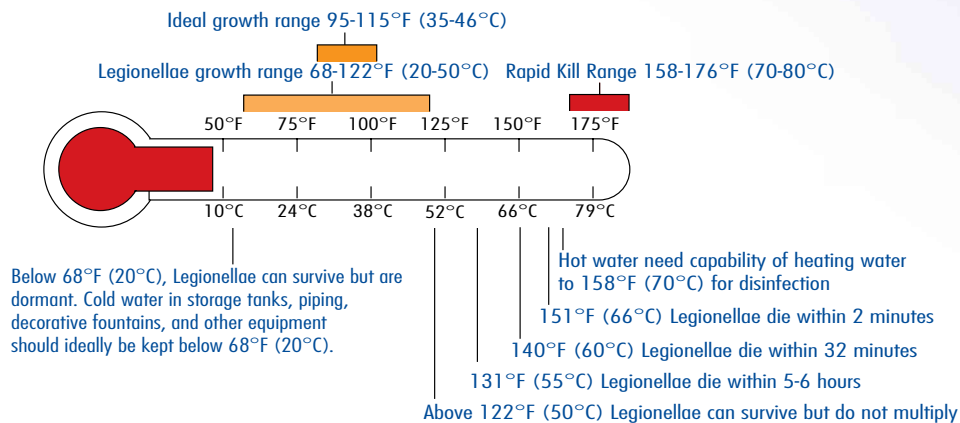
Legionella

According to the Centers for Disease Control, proper maintenance of water distribution systems is key to preventing illness from water-borne bacteria such as Legionella. Managers of commercial and institutional facilities know that selecting and controlling proper water temperature in their storage and delivery systems plays an important part in any maintenance program.²

Legionella Affects Thousands

The Centers for Disease Control estimates that 8,000 to 18,000 people are hospitalized with Legionnaires' disease in the U.S. each year.⁴

Legionella Growth Chart



Scalding

Uncontrolled and unmonitored water distribution systems can create high-temperature scalding hazards in bathtubs, sinks and showers. The IntelliStation makes it easy to select and set a safe water temperature for your facility's residents and visitors.³

Thermal Shock

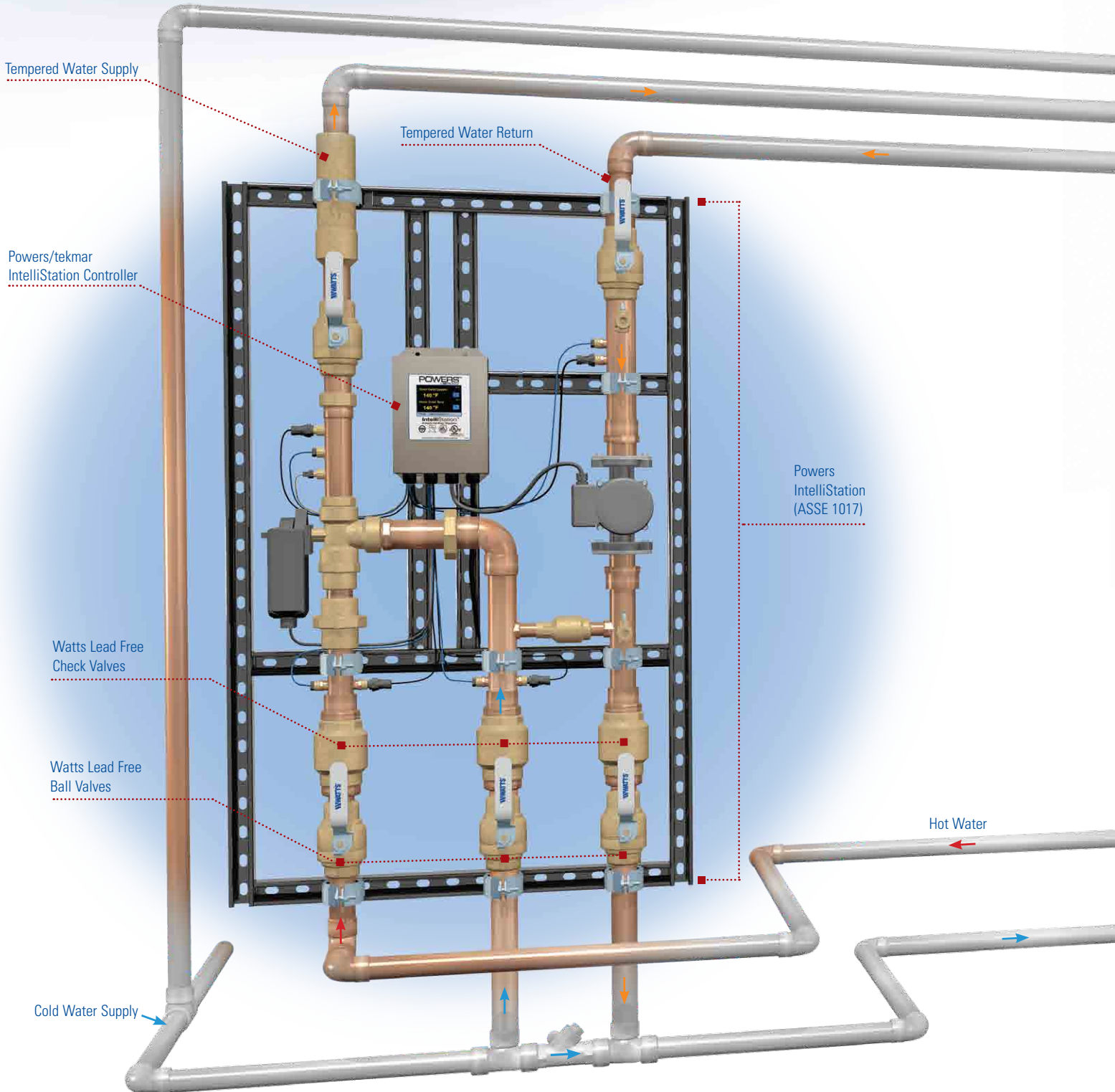
The thermal shock of a rapid and uncomfortable change in shower water temperature can cause a fall or serious injury. With the IntelliStation, stable mixed water is delivered to ASSE-listed thermostatic point-of-use devices to minimize this risk.



Tempered Water Delivery Redefined

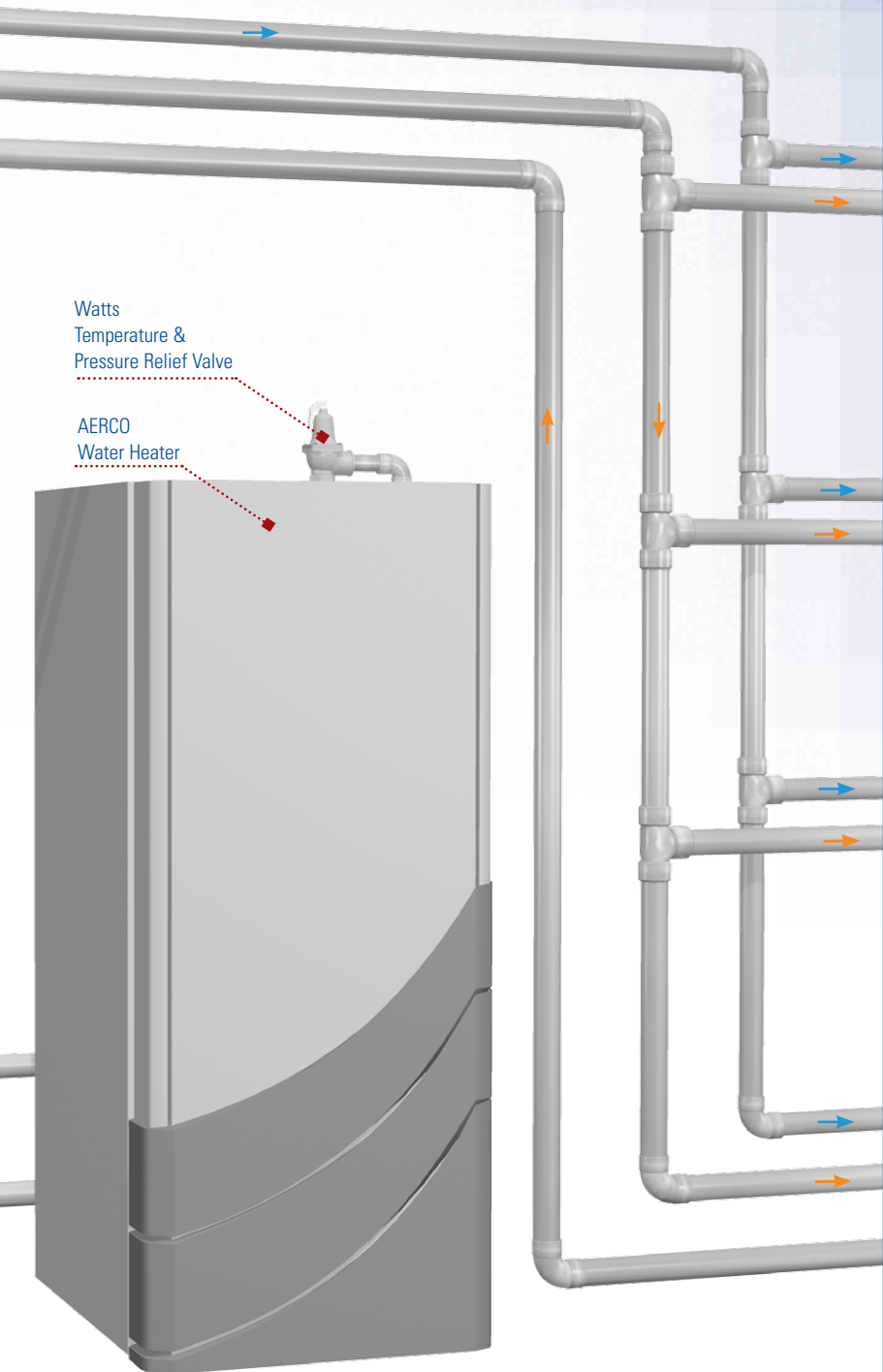


The IntelliStation provides safer, more efficient hot water delivery from the point-of-source to the point-of-use. The integrated IntelliStation system provides compliance with all relevant ASSE standards.



Combine the IntelliStation with these other quality mixing products from Powers to ensure fixture temperatures are comfortable and safe.

Point-of-use applications



Watts
Temperature &
Pressure Relief Valve

AERCO
Water Heater



Individual Bath/Whirlpool (ASSE 1070)



LFLM495



Individual Showers (ASSE 1016)



E420 • E700



Lavatory Sinks (ASSE 1070)



TempTAP™



Safety Shower • Eye Wash (ASSE 1071)



LFe480



ES/ETV Series

Ordering Information

Standard Capacity

Valve	Inlets (in)	Outlet (in)	Order Code
LFIS150	2" (50mm)	2 1/2" (63mm)	LFIS150
LFIS200	2 1/2" (63mm)	3" (75mm)	LFIS200

Return Pipe Size

1"	C
2"	F

Flow/BTU Package

None	O
Flow/BTU Package	F

Strainers +

None	O
On inlets	S

Pump

Less Pump	LP
Pump Assigned by Factory	--

Must Provide Following Pump Information to Factory to Select the Pump:

Pump Manufacturer _____
 Their Part/Model # _____
 System Head Loss _____
 Required Flow to Maintain Recirculating Temperature _____

+ Strainers ship loose and must be installed by a plumber at the job site

High Capacity

Valve	Inlets (in)	Outlet (in)	Order Code
LFIS150/LFIS150	4" (100mm)	4" (100mm)	LFIS150DV
LFIS200/LFIS200	6" (150mm)	6" (150mm)	LFIS200DV
LFIS200/LFIS200/LFIS200	6" (150mm)	6" (150mm)	LFIS200TV

Return Pipe Size

3"	-	-	H
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Flow/BTU Package

None	-	-	O
Flow/BTU Package	-	-	F

Strainers

None	-	-	O
On inlets	-	-	S

Pump

Less Pump	LP
Pump Assigned by Factory	--

Must Provide Following Pump Information to Factory to Select the Pump:

Pump Manufacturer _____
 Their Part/Model # _____
 System Head Loss _____
 Required Flow to Maintain Recirculating Temperature _____



*Less Pump

¹ Installation and adjustment of the IntelliStation are the responsibility of the owner and installer and must be done by qualified personnel in accordance with the manufacturer's instructions, and in compliance with all governmental requirements, building and construction codes and standards. The owner and user of the IntelliStation is responsible for selecting and installing the product in an appropriate water distribution system, proper sizing, maintaining proper water quality/condition, and deciding what temperature is safe and appropriate for the water distribution users and facility.

² The IntelliStation provides user-directed control and monitoring of water distribution systems. It is the user's responsibility to select and maintain water temperatures that are safe and appropriate for the water system users and facility. The IntelliStation's Sanitization mode is intended for use as part of a user-directed, controlled and supervised protocol that has been safely and properly designed. Always read and follow the *User Guide & Instruction Manual* and all product warnings and labels, and comply with all governmental and safety requirements.

³ It is recommended to install IntelliStation as part of an ASSE 1017-compliant water distribution system, including point-of-use mixings valves that are listed to ASSE 1016, ASSE 1069, ASSE 1070 or ASSE 1071.

⁴ <http://www.cdc.gov/legionella/fastfacts.html>

POWERS™

A WATTS Brand