

OVERVIEW

Clean, wholesome produce is a key ingredient for healthy living. To ensure cleanliness, produce must be decontaminated prior to shipment, typically with an oxidant such as chlorine, chlorine dioxide, PAA or ozone. To guarantee the best results and deter litigation a system must not only control the oxidant, but it must also datalog the readings, alarm on out-of-range conditions and shut down the line when there is a significant problem. Many grocery stores are requiring this type of information from their suppliers.

The Intuition 9 controller was developed specifically for these types of applications, but with simplicity and reliability for people who are not well versed in automation. The simplicity of the interface allows rapid corrections to be performed without the use of programmers. Walchem has been producing systems since 2001 and now has more than 30,000 controllers in over 50 countries.

INTUITION 9 CONTROL SYSTEM

The Intuition 9 has features that are required for optimization of a produce disinfection

- Up to 8 Sensor Inputs for the control of pH and free chlorine, conductivity or salinity
- Ability to monitor- chemical tanks, pump function, flow, filter pressure, turbidity, as well as other devices with 4-20 milliamps or digital outputs
- Rapid data logging- for graphing to increase efficiencies and troubleshoot systems
- Rapid alarm notification through cell phone text messaging and e-mails
- Communication via LAN or cellular gateway



ADDITIONAL WALCHEM PRODUCTS FOR PRODUCE DISINFECTION

Intuition 6 Disinfection Controllers:

- Completely Programmable from Touch Screen
- On-Screen Graphing and Variable Data Logging
- Variable Sensor Input Configurations- Walchem or 4-20 mA sensors
- Remote Communications-via Ethernet
- 6 Relays- Powered, Pulse Proportional or Dry Contacts
- Optional Dual Analog Output Card



CHEMICAL PUMPS

Walchem chemical pumps have been engineered for accuracy and reliability, two necessary attributes for an advanced disinfection system. The pumps have a high degree of adjustability (360 spm, 1800:1 turndown ratio) for accurate chemical metering. They also have a two-year warranty and require minimal maintenance. The pumps can be connected to an Intuition controller via a feed verification device to ensure that operators know that the pumps are pumping chemical.

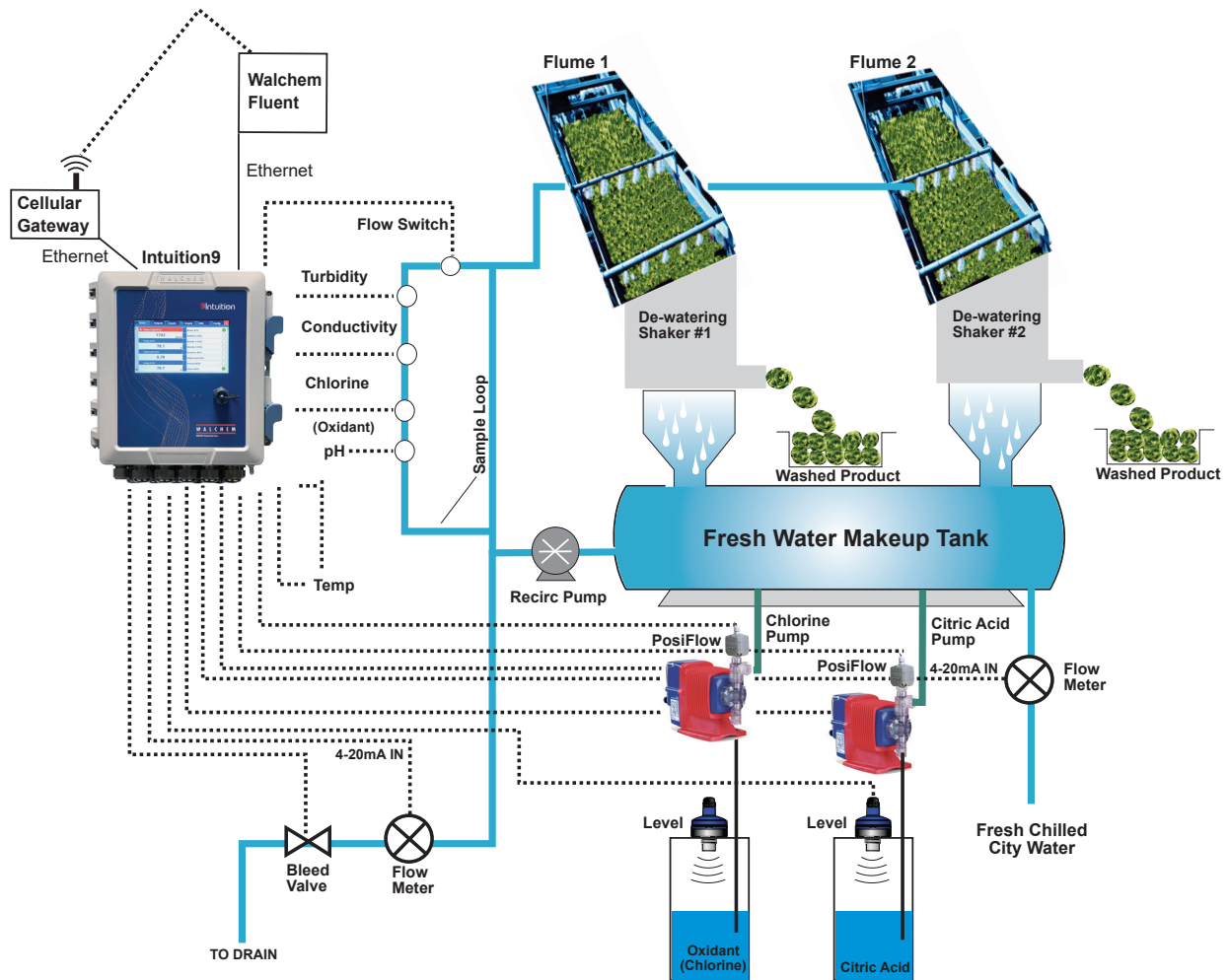


Walchem has been involved in the control of water quality in various types of water systems for over 35 years. Control products have been developed for very simple to complex water management systems. All Walchem products are designed to work together and with most other manufacturers' control products. Walchem manufactures the chemical metering pumps, mag drive pumps and controllers for all of these systems.

SENSOR SPECIFICATIONS

Sensor	Range	Temperature	Pressure	Process Connection	Materials
Electrodeless Conductivity	500 to 12,000 $\mu\text{S}/\text{cm}$ 3,000 to 40,000 $\mu\text{S}/\text{cm}$ 10,000 to 150,000 $\mu\text{S}/\text{cm}$ 50,000 to 500,000 $\mu\text{S}/\text{cm}$ 200,000 to 2,000,000 $\mu\text{S}/\text{cm}$	CPVC: 32 to 158°F PEEK: 32 to 190°F	0 to 140 psi	1" NPTM submersion 2" NPTM in-line adapter	CPVC, FKM in-line o-ring PEEK, 316SS in-line adapter
pH	-2 to 16 pH	50 to 158°F	0 to 100 psi	1" NPTM submersion $\frac{3}{4}$ " NPTF in-line tee	CPVC, Glass, FKM o-rings, HDPE, Titanium rod, glass filled PP tee
ORP	-1500 to 1500 mV	32 to 158°F	0 to 100 psi	1" NPTM submersion $\frac{3}{4}$ " NPTF in-line tee	CPVC, Glass, FKM o-rings, HDPE, Titanium rod, glass filled PP tee
Contacting Conductivity (Graphite)	10 to 10,000 $\mu\text{S}/\text{cm}$	32 to 158°F	0 to 140 psi	$\frac{3}{4}$ " NPTF tee	Graphite, glass-filled PP, FKM o-ring
Free Chlorine/Bromine Extended pH Range	0 to 8 mg/l 0 to 7.5 mg/l	41 to 113°F	0 to 14.7 psi	$\frac{1}{4}$ " NPTF Inlet $\frac{3}{4}$ " NPTF Outlet	PVC, Polycarbonate, silicone rubber, SS
Chlorine Dioxide	0 to 10 mg/l	41 to 122°F	0 to 14.7 psi	$\frac{1}{4}$ " NPTF Inlet, $\frac{3}{4}$ " NPTF	PVC, Polycarbonate, silicone rubber
Ozone	0 to 2000 mg/l	41 to 122°F	0 to 14.7 psi	$\frac{1}{4}$ " NPTF Inlet, $\frac{3}{4}$ " NPTF	PVC, Polycarbonate, silicone rubber, SS
Peracetic Acid	0 to 2000 mg/l	41 to 113°F	0 to 14.7 psi	$\frac{1}{4}$ " NPTF Inlet, $\frac{3}{4}$ " NPTF	PVC, Polycarbonate, silicone rubber, SS

(Other sensor ranges available)



WALCHEM

IWAKI America Inc.