AGROWTEK
Technology to Help You Grow

BDX
BatchMATIC™ Fertigation System

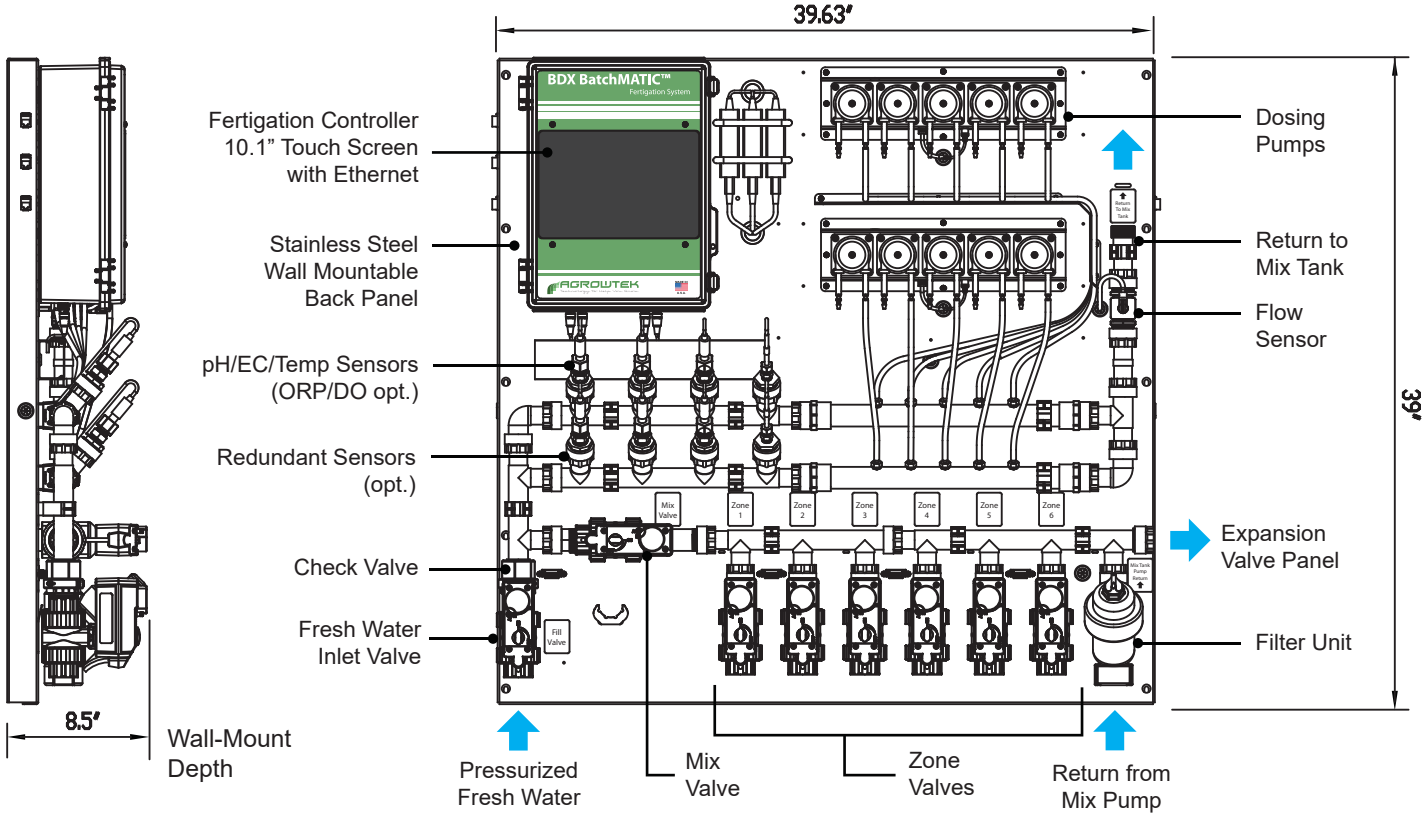
Multi-Zone Batch Fertigation System

The BDX BatchMATIC™ Fertigation System is a nutrient mixing and irrigation system for pre-mixing and dispensing to plants, hydroponic systems or holding tanks. Control up to 14 'zone' valves for sending batches to plants or tanks. Available with 5, 6, 10 or 12 persitaltic dosing pumps for mixing multi-part fertilizer solutions according to cutomer configured ratio and target based recipes. Available with redundant sensors for enhanced error detection and backup operation. Alarms and automatic shut down functions standard. Compact system is easy to use and maintain. Pre-fabricated assembly on stainless steel back panel mounts to walls or strut channel columns for simple installation.

System includes a recirculating/irrigation pump with outlet control relay and SXL liquid sensors for detecting high and low levels in the mixing tank. Precision sonic flow meter for batch measurement. Rugged BV100 series motorized ball valves for high reliability and low maintenance.

Made in USA

System Overview



Specifications

- Production Rate: 300-500 gal/hr typical
- 22gpm 30psi Recirculator/Irrigation Pump (10A/120V)
- 10.1" Intuitive Color Touch Screen Controller
- Ball Valves: 1 Water Fill, 1 Mix, 5/6 Zones (1 Drain)
- Add up to 8 more Zone Valves with Expansion Panel
- Maintain up to 14 stock tanks with DXI8 Trigger Modules
- Up to 12 Peristaltic Pumps for Dosing Chemicals
- 480mL/min Injection Pumps Standard
- Dual pH/EC/ORP sensor options
- Alarms: Sensor Difference, pH No-Change / Wrong Direction Component Failure, Low Water Flow, Tank Overfill / Empty, Batch Deviation, pH Re-Correct, Feed Timeout, and more.

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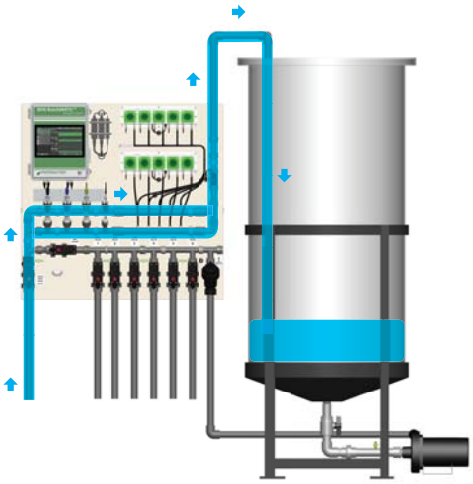
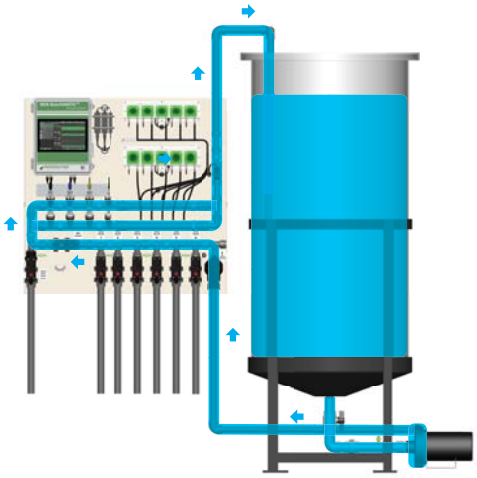
BDX fertigation systems automate filling of a mixing tank to a specific volume with water, followed by dosing cycles to achieve the desired ppm and pH levels according to the recipe. Once the mixing is complete, the solution is pumped through the respective valve to a room's hydroponic system, drippers or a holding tank. When the tank is empty and watering is complete, the next recipe can be mixed and irrigated according to the programmed schedule.

1. Fill



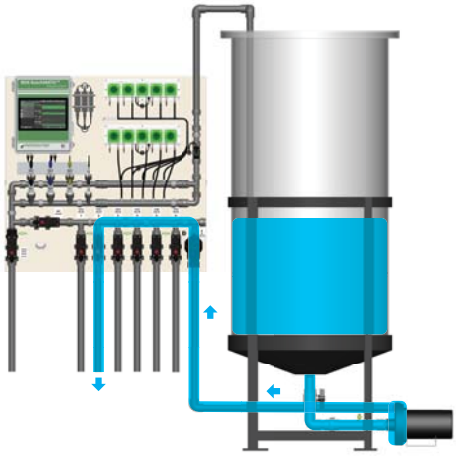
At the start of a scheduled fertigation cycle, the fill valve opens supplying fresh water to the mixing tank. Tank may be filled fully or partially according to the parameters. The high level sensor on the tank prevents over filling.

2. Mix



The fill valve closes and the mix valve opens. The main pump starts recirculating water through the manifolds and the chemicals are injected by the dosing pumps until the set points are reached and the batch is ready to feed.

3. Feed



The mix valve closes and the zone valve opens. The main pump starts feeding from the mix tank to the plants until the low level sensor detects that the tank is empty. The system moves on to the next batch in the schedule.

System Includes

- BDX Dosing Panel, Assembled (specify model)
- RX1i Pump Control Relay
- 22GPM 1/2HP 120V Cast Iron Circulator/Irrigation Pump
- SXL High & Low Mix Tank Sensors

Not Included (customer supplied)

- Mixing Tank
- Plumbing & Fittings for Water Pump & Valves
- Pressurized Fill Water Supply (Pressure Switch Pump)
- Wire, Screws & Miscellaneous Hardware

Optional Components

DXI8 Eight Input Trigger Module & Sensors

VXP8 Eight Valve Expansion Panel

VBT Vertical Batch Mixing Tank & Stand

Ordering Options

BDX10 - 500 +ORP - 2

- 1: Single Sensor Manifold
  2: Dual Sensor Manifolds
- None: pH, EC & Temperature
  +ORP: Add ORP
- Doser Pump Model
  500: 480mL/min per pump
- Doser Pumps
  5, 6, 10 or 12 pump parts