



SB200 200 Gallon Single Batch Series

The Rhythm Batch Series AFS utilizes a single working mixing tank to prepare, stabilize, and deliver recipes on demand. It can be configured to work with a large range of facility sizes, layouts, growing styles, and plant quantities, and it can direct feed plants, fill reservoirs, or flood tables. The full featured system includes redundant VFD controlled irrigation pumps, redundant pH, EC, & Temperature sensors, flow meter, pressure transducer, built-in solenoid valve delivery manifolds, electric mixing, safety sensors/switches, and more. The system can be ordered in 200G, 350G, and 500G mixing tank options and can be built on a skid, or custom designed to your space.



Machine Specifications

PLUMBING ▶

- ▶ Solenoid valve manifold for 12 rooms/zones (1-1.5")
- ▶ 1" PVC connection for fresh water input
- ▶ 1" PVC output for dump/waste
- ▶ Max feeding flow rate: 30 gpm
- ▶ Incoming fresh water flow rate: Variable 5-50gpm
- ▶ Operating pressure: Max 95 PSI

ELECTRICAL ▶

- ▶ Requires one dedicated 40amp 200-240VAC single phase circuit w/ neutral (both 120v and 240v are used in AFS control cabinet)
- ▶ Power should be brought to 60AMP local disconnect
- ▶ System Upgrade Modules (remote control cabinets) require 20AMP 110/120VAC dedicated circuit(s)
- ▶ Requires CAT5/6 cable connection to building internet for all remote and data connectivity

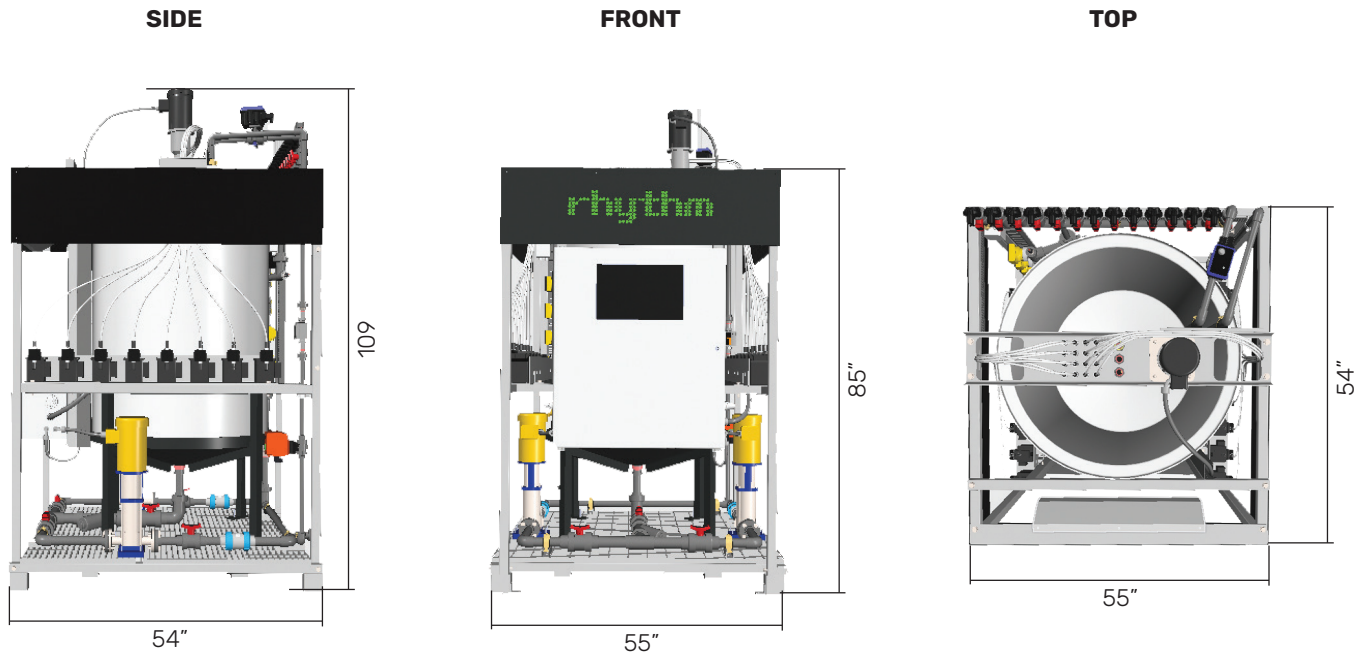
GENERAL ▶

- ▶ Powdercoated steel frame construction
- ▶ Flow meter, pressure transducer & incoming volumetric meter included
- ▶ Qty 1 cone bottom 200 gallon tank
- ▶ Qty 1 stainless steel electric mixer
- ▶ Up to 16 diaphragm metering pumps for nutrients
- ▶ Tank level (volume) sensor with high and low level shutoff switches
- ▶ Redundant GF Signet pH, EC & temperature sensors
- ▶ Redundant (2hp) VFD controlled irrigation pumps
- ▶ Schedule 80 PVC plumbing
- ▶ Dimensions: 55"W x 54"D x 109"H, weight: 2,200lbs
- ▶ 19" touchscreen PC interface
- ▶ UL and cUL listed industrial control panels
- ▶ Operational temperature: >32F / <100F

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Machine Dimensions & Clearances



NOTES

- ▶ The skid-built SB200 comes with a 13-output 1" solenoid valve manifold on the top rear of the unit. The valves are facing in an upward orientation and irrigation mainlines will connect at this location. Recommended spacing between the wall and rear of the machine is 24" for ease of access and serviceability.
- ▶ Code will require 38" of space in front of the machine to allow the control cabinet door to safely open.
- ▶ Skids are easily movable using a standard pallet jack or fork lift.



Leave ample space adjacent to both sides of the unit for nutrient containers. Nutrients may be placed along side the unit, back against the wall, or on a shelf (customer provided).

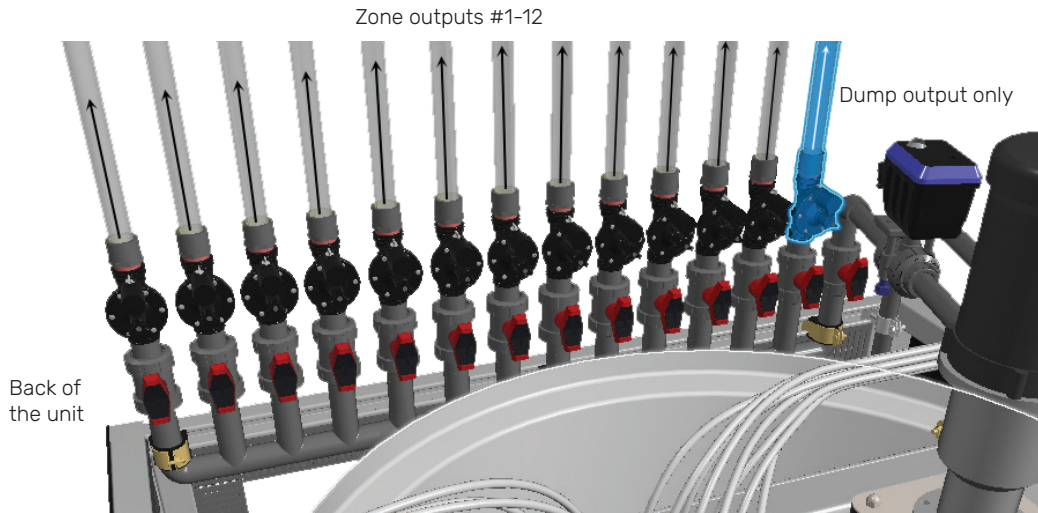
Rhythm includes 10ft of tubing per nutrient dosing pump. This tubing is used to pull from your nutrient container. Pumps are rated for 10ft of suction lift. Replacement or supplementary tubing can be purchased at any home improvement store, the sizing is 1/4" ID x 3/8" OD.

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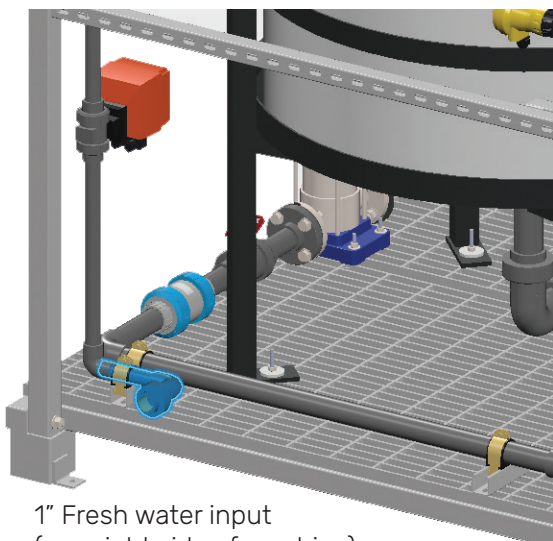
Plumbing Connections - Manifolds & Fresh Water Intake

Twelve (12) 1" fertigation outputs and one (1) dump/waste output (solenoids included) are provided for each SB200 skid unit. The solenoid valve delivery manifold is pre-assembled and fixed to the top rear of the skid. This manifold should be plumbed (by customer) to each grow room or irrigation zone as coordinated with your Rhythm PM. Follow all local code requirements when draining the system to waste.



NOT INCLUDED ▶

- ▶ Irrigation mainlines from the AFS to each room/zone
- ▶ All drip irrigation equipment, filters, and accessories
- ▶ Water treatment equipment (i.e. RO Systems)
- ▶ Fresh water storage reservoirs
- ▶ Fresh water pump (when applicable) to supply irrigation water to the AFS ***Can be purchased from Rhythm at request***



Fresh Water Input is located at the lower rear side of the machine. A pressurized supply of water should be provided to the machine (not to exceed 50GPM) via water pump i.e. Grundfos Model MQ, DAB E.Sybox, or equivalent (Rhythm can provide these at request). The pump is supplied by the customer and must shut itself off automatically when a set pressure is achieved.

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Electrical Connections

The Single Batch AFS requires a single, 40AMP, 120/240VAC dedicated circuit, with a neutral, and a 60 AMP local disconnect to be provided by your electrician. The AFS comes equipped with a 15ft power cord and is to be field wired by your electrician to the disconnect. Mount this disconnect within approximately 10ft of the AFS location.

****Please note, other power options may be available. Consult your Rhythm sales team for more information.**



The power whip will be provided to you at the back of the machine. Connect this to your local disconnect.



An example of a single batch machine connected to the local disconnect via power whip.

REMOTE CONTROL CABINETS ▶

Your project is likely to have remote control cabinets. These cabinets are used to manage devices like dosing pumps and/or remote solenoid valves for irrigation zones. Your electrician will need to mount and power these control cabinets using UL Type 4 connection points. All cabinets, sizing, and wiring/power requirements will be outlined via project coordination documents provided with your equipment purchase.

INTERNET CONNECTION ▶

The Rhythm System will require a hardwired internet connection to the HUB control cabinet. This HUB control cabinet can be project specific and will be detailed in your personalized Coordination Document set.

Note: Internet service is REQUIRED to be on during start-up and commissioning.

