

Acid Injection Module

The Argus Acid Injection Module is designed for in-line injection of acid concentrates used for pH correction of horticultural water supplies and nutrient solutions.



Applications



pH adjustment of water supplies is commonly required in greenhouses and other horticultural applications to correct alkalinity problems with the source water and to adjust the pH of the irrigation water to an optimum range for nutrient availability. The injector is suitable for use in greenhouse vegetables, flower crops, and outdoor nurseries. It can be used for in-line injection and for filling and maintaining the pH of water storage tanks.

The Acid Injection Module is most commonly used with Argus Multi-Feed systems where both units use the same mixing pump for venturi injection (see the diagram on the opposite page).

Alternatives

The Acid injection module is primarily intended for use with a Multi-Feed system, although stand-alone applications are possible. For stand-alone pH correction applications where a recirculating mixing pump is not used, direct injection pumps can be used to inject pH correcting materials based on ratio-metric injection, flow rate measurement, or feedback correction from a downstream pH sensor.

Features

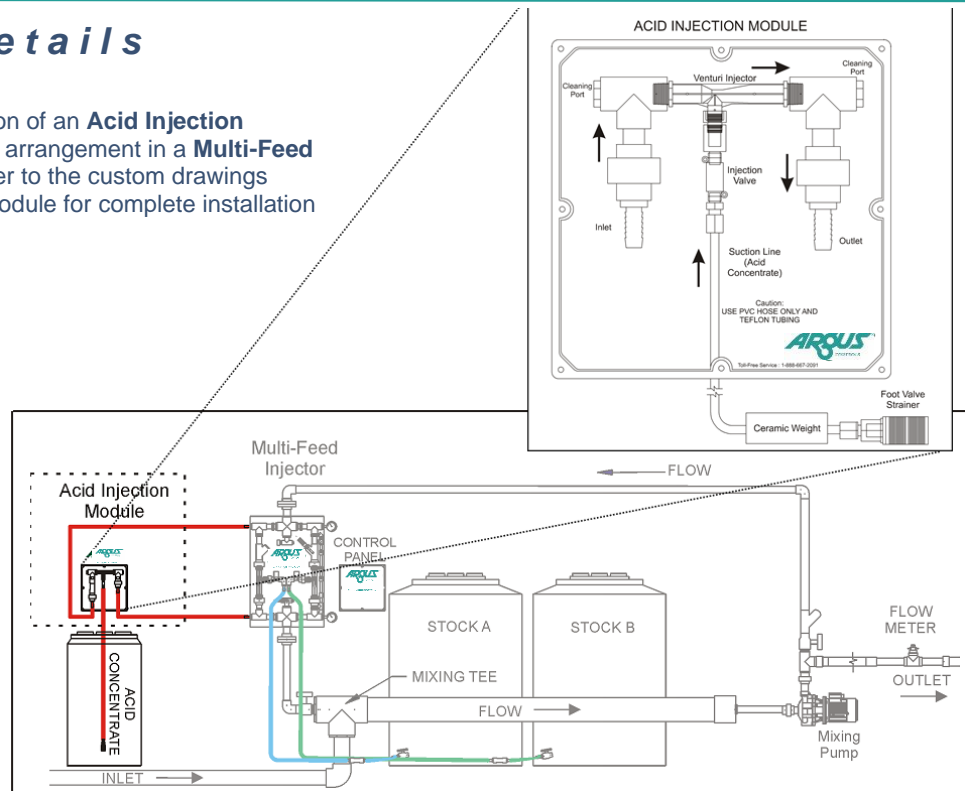
- **Multi-Feed System** – Operates seamlessly with Argus Multi-Feed systems.
- **Sturdy Construction** – Constructed of highly acid resistant materials.
- **Prevents Concentrate Siphoning** – Above-tank mounting helps prevent concentrate siphoning.
- **Venturi Proportioning Control** – Uses Venturi proportioning control.
- **Triple Backflow Prevention** - To prevent triple backflow there is a check valve in the Venturi, a metering valve on the concentrate line, and a foot valve in the acid tank.
- **Multi-Feed Shared Qualities** – Shares the same temperature, pH, and flow sensors as the Multi-Feed system.
- **Fully Automatic Tracking** - Fully automatic operation and performance tracking through the Argus system software.
- **Adjustable Setpoints** - pH setpoints are adjustable in the control software. Setpoints can be varied to suit the crop requirements.
- **Adjustable Models** - Models can be sized for design flow rates ranging from a few gallons to thousands of gallons per minute.

Specifications

Panel Dimensions	12 1/2"H x 12 1/2"W x 6"D (PVC)
Injector	1x Mazzie Injector Model 484 - Kynar
Acid Valve	1x Burkert Model 127 24 VAC - 50/60 Hz, 1/8" mm orifice
Maximum Injection Rate	0.5 LPM
Connection to A/B Injection Unit	10' of 1/2" ID tubing
Maximum Acid Concentrations at Injector Inlet	Nitric Acid: 40% Sulfuric Acid: 70% Phosphoric Acid: 85%
Wetted Materials exposed to low acid concentrations	PVC, Stainless Steel-304
Wetted Materials exposed to high acid concentrations	PVDF (Kynar), FFKM (SIMRIZ), AFLAS, Teflon, Hasteloy-C22

Wiring Details

Schematic illustration of an **Acid Injection Module** and typical arrangement in a **Multi-Feed** system. Always refer to the custom drawings supplied with the module for complete installation and piping details.



Additional Information

For more information, please contact Argus.

