



Chem-Pro[®] Diaphragm Metering Pumps Used to Dose Fertilizer In Agricultural Application

Submitted by:

Blue-White[®] Industries
5300 Business Drive
Huntington Beach, CA 92649 USA

Phone: 714-893-8529

Fax: 714-894-9492

Email: sales@blue-white.com
www.blue-white.com

Blue-White's[®] Pro-Series[®] line of Chem-Pro[®] C2 and C3 diaphragm metering pumps ensure precision chemical feed (dosing). In addition, C2 and C3 offer excellent chemical resistance and years of dependable service.

C2 and C3 metering pumps are well-suited to a diverse range of treatment applications, including drinking water and wastewater, groundwater remediation, agricultural for nutrient and fertilizer injection, as well as the sterilization of equipment. Industrial applications include processing, plating, mining, pulp and paper, printing, and textiles.

An example of how Chem-Pro[®] C2 has been successfully utilized to inject fertilizer in a farming application is explained in the following case study.

A 22-acre farm was being used as a teaching tool for

agricultural practices. Crops grown on this 22-acre site included, bush and cluster tomatoes, sweet corn, summer squash, cucumbers, eggplant, bell peppers, chili peppers, basil, and several varieties of pumpkins.

The problem the farm experienced was that the nitrate portion of the fertilizer was highly susceptible to leaching.



Initially, this problem was addressed with the practice of dosing high levels of nitrogen prior to the planting of the crops, the intent being it would last throughout the growing season.

In searching for a better and more efficient method of delivering the fertilizer, farm management decided to take advantage of their sub-surface drip irrigation system to dose the fertilizer directly into the crops water supply.

The pumps chosen to meet the precise dosing requirements are Blue-White's Chem-Pro C2 metering injector pumps. Because the C2 was light and transportable, it was easy to move between several fields of crops and still maintained a specific level of accuracy. The crop yields were improved and the farm was able to use 25% less granulated and 25% less liquid fertilizer than in the past.

Other considerations when choosing Chem-Pro's included the pumps thoughtfully engineered pump head design. It features double ball inlet and outlet valves which resist clogging and vapor lock, as well as facilitating priming.

A substantial control pad at the front of the pump is easy to use and highly intuitive, while a protective, removable polycarbonate cover shields the LCD control pad from UV and the elements.



Chem-Pro's® rugged design contributes to its ability to withstand high pressure applications, up to 175 PSI / 12 bar, while maintaining precision chemical dosing.

C2 and C3 pumps are fitted with Blue-White's exclusive PVDF DiaFlex® Diaphragms. Blue-White manufactures DiaFlex® in our plant to ensure the highest standards of quality are maintained.

Unlike traditional multiple layer diaphragms, single layer DiaFlex® diaphragms experience zero breakdown or delamination. The PVDF pump head and diaphragm, along with FKM or EP o-ring seals, are the only wetted materials in the Chem-Pro® pump head. This reduces issues of chemical compatibility. The exclusive DiaFlex® Diaphragm is

currently available in four sizes to accommodate varying flow rates.

The large single-piece Junction Box provides easy access to the terminal block connectors.

Additional Chem-Pro® features and benefits include: A remote Start/ Stop function; feed rate resolution to 0.1% and a rugged Variable Speed Drive. Feed capabilities range from a minimum of 0.8 ML/Min to a Maximum

of 2500 ML/Min (15 GPH to 40 GPH U.S.).

Units are NSF, ETL, CE listed. NEMA 4X / IP66 rate.

Blue-White is ISO 9001:2015 Certified.

