

Powder Dissolving System

Can blending dry ingredients be safe, clean and accurate? Yes! The Powder Dissolving System from DSI offers efficient performance and delivers a quality product every time.

The PDSII is the basis for a clean, efficient, cost-effective dry powder mixing operation. The conventional method of manually lifting bags or drums of various powder ingredients to feed a mix tank is not desirable, accurate or safe. Safety concerns and air quality contamination can all but be eliminated by integration of the PDSII system.

Features

- Thorough, homogenous mixing of product
- Eliminates aeration, foaming and dusting
- Unparalleled efficiency
- Dramatic reduction of labor costs and mixing time
- Guaranteed repeatable yield accuracy
- Accommodates multiple powder streams
- Sealed system design reduces spill and airborne contaminants



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DSI Process Systems has the solution for powder dissolving and handling in a complete system. Bulk bag frames, manual and automated dump hoppers and associated batch recipe controls are custom-manufactured and integrated into your facility.



Overview

The PDSII mixer is used in conjunction with a manual dump station and/or automatic bulk bag stations. Automated dump stations, using load cells or loss weight controls, are designed to accurately and repeatedly deliver the exact amount of required powders to the mixer. Any number of dump stations can be combined to feed one or several mixers. Applications requiring both automated and manual dump stations are easily configured.

Powder ingredients are transferred from the dump station directly to the mixer by means of vacuum. Because the PDSII is a sealed system and a vacuum is maintained in the mixer, entrained air is removed while dry ingredients are added to your product. All ingredients and associated liquids are introduced to the mixer under vacuum and below liquid level directly at the mixing head resulting in a thorough, consistent slurry, dispersion or emulsion.

Specifications

- Systems ranging from 40 gallons to more than 225 gallons can be manufactured according to your application
- Designed to mix agents such as starches, soy proteins, salts, sugars, citric acids, pectins and other difficult gums
- Can ingest and dissolve powders at a rate up to 500 pounds per minute
- Top mounted mixer eliminates seal and maintenance problems with bottom entry mixers
- Dump stations can be configured to accept any size bag from 50 pound paper bags to 2000 pound super sacks

Process/CIP Design
Automation/Electrical Design
Fabricated Modules/Components
Installation
Project Management
Commissioning/Training
System Integration
Design/Build Projects



We serve the following industries:
Carbonated and Non-Carbonated Beverages,
Juice, Water, Food, Dairy, Pet Food, Personal
Care Products, Pharmaceutical, Household
Goods and Specialty Chemical.