

## Powder Induction and Dispersion System

*Advanced Mixing Technologies*

**Admix introduces the latest technology in high performance ergonomic feeding and dispersion of dry ingredients into mix tanks.**

The Fastfeed is an integrated, skid mounted inline powder induction and dispersion system using a specially designed powder suction pump and proven high shear mixing technology for rapid incorporation and wetting out of difficult powders.



## The Fastfeed Model FF-425

The Fastfeed is unlike any other powder induction system, which typically relies on an eductor, venturi, or negative pressure generated by a high-speed mix head. The Fastfeed uses a high performance powder suction pump that vacuum conveys from 3 to over 200 lbs/minute of any powder or solid, including hard to handle gums, starches and carbomers.

The design of the Fastfeed allows for continuous powder suction even as the viscosity and solids level increase... insuring that the system will never plug or foul.

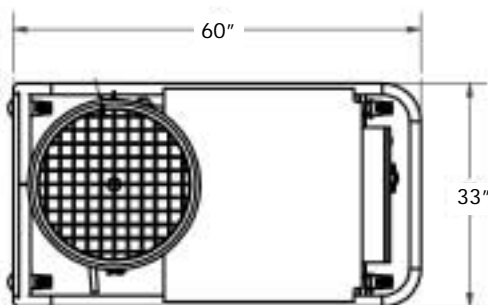
Powder feed rates are easily adjustable through regulating valves that can be automated to insure that the proper concentration of dry materials are added quickly and effectively. Complete 100% dispersion of powders is guaranteed as the powder slurry mixture is passed through the high speed, high shear DynaShear, where many applications are finished with one pass through the system. When full hydration of gums is required, the slurry can be recirculated through the Fastfeed creating a perfect blend of fully functional ingredients in minutes that could typically take hours in a conventional batch tank.

The table below illustrates typical powder feed rates of our Fastfeed Model FF-425.

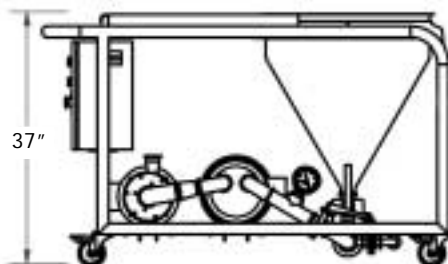
### Performance Table for Fastfeed Model FF-425

Examples of Typical Ingredient Type	Max. Powder Feed Rate	Typical Max. Concentration
Granulated (sugar/salt/phosphates)	215 #/min	70%
Dairy Powders (NFDM)	200 #/min	52%
Cocoa	90 #/min	35%
Soy, Carrageenan	75 #/min	10%
Cook Starches	110 #/min	45%
Natural Gums (i.e. pectin) & Stabilizers	30 #/min	6%
Carbomers, CMC	15 #/min	3.5%
Xanthan, Acacia, Guar Gums	15 #/min	3%

Model	Pump	Mixer	Hopper	Skid Fittings
FF-425	7.5 Hp @ 1800 rpm	5 Hp @ 3600 rpm	3.4 cubic ft	2" Ø sanitary inlet & outlet



Top Elevation



Side Elevation

## Advanced Powder Induction and Dispersion

### How and Why it Works

The Fastfeed combines the suction capability of a "vacuum pump", with the wetting out and shearing capabilities of a high speed emulsifier, all within a user friendly, ergonomic package. Powder is fed into the hopper from bags as shown on the cover, or can be directly conveyed from the source through a wand attachment, bag dump, or even a bulk delivery system.

Powder bridging or rat holing is eliminated by the combination of the suction pump creating a constant vacuum within the flow stream, aided by a mechanical vibrator for the more challenging ingredients.

Once powder is sucked in through the pump, instantaneous fluidization of the powder begins, and this slurry is quickly pumped through our DynaShear inline emulsifier, providing droplet and soft particle size reduction down to 4 to 5 microns upon exiting the unit.

Powder feed rate is controlled with regulating valves on the inlet, insuring that sticky gums, as well as free flowing granules, disperse quickly and at the proper concentrations to prevent product slugs or premature hydration.

While many ingredients can be 100% dispersed with one pass, the Fastfeed pump and skid can be configured on a recirculation loop for multiple passes, with the DynaShear on or off. A single Fastfeed skid can also be used to feed multiple tanks for holding and suspending product prior to filling or packaging.

### Features & Options

- All contact surfaces are 316L with welds blended & polished
- NEMA 4X control panel
- Optional side flush loop
- Optional double mechanical seal for abrasive applications