

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 Powder Induction & Dispersion System

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 400 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.

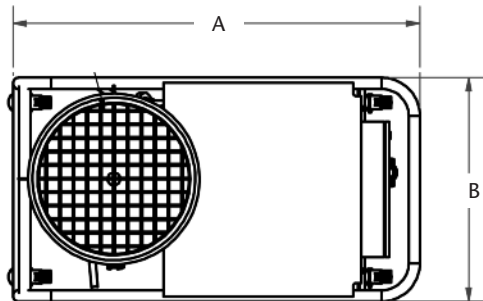
The table below illustrates typical powder feed rates of our Fastfeed.

Performance Table for Fastfeed

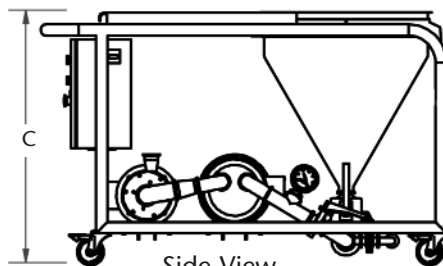
Examples of Typical Ingredient Type	Max. Powder Feed Rate # min		Typical Max. Concentration
	FF-425	FF-575	
Granulated (sugar/salt/phosphates)	175	375	70%
Dairy Powders (NFDM)	200	300	52%
Cocoa	90	135	35%
Soy	75	160	10%
Cook Starches	110	165	45%
Natural Gums (i.e. pectin)	30	60	6%
Carbomers	15	30	3.5%
Xanthan	15	30	3%

Model	Pump	Mixer	Hopper	Skid Fittings
FF-425	7.5 Hp @ 1800 rpm	5 Hp @ 3600 rpm	3.4 cubic ft	2"Ø TriClamp® inlet 2"Ø TriClamp® outlet
FF-575	15 Hp @ 1800 rpm	20 Hp @ 3600 rpm	3.4 cubic ft	2.5"Ø TriClamp® inlet 3"Ø TriClamp® outlet

TriClamp® is a registered trademark of Tri-Clover/Alfa Laval



Top View



Side View

Model	A	B	C
FF-425	60"	33"	37"
FF-575	71"	45"	38"

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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

See it in action at www.admix.com/fastfeed.htm

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