Fastfeed™

Powder Induction and Dispersion System

The Admix Fastfeed delivers 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 that uses a specially designed powder suction pump and proven high shear mixing technology for rapid incorporation and wetting out of difficult powders.

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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 1 to over 180 kg/min of any powder, including hard to handle soy proteins, starches, phosphates, spices and powdered broth.

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

Powder feed rates are easily adjustable through regulating valves that can be automated to ensure 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 not hours as is the case with a conventional batch tank.

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

Performance Table for Fastfeed

Ingredient	Powder Feed Rate (kg/minute)		Typical Max. Concentration
	FF-425	FF-575	
Granulated (sugar/salt/phosphates)	80	170	70%
Dairy Powders (NFDM)	90	135	52%
Cocoa	40	60	35%
Soy	35	72,5	10%
Cook Starches	50	75	45%
Natural Gums (i.e. pectin)	13,5	27	6%
Carbomers	6,5	13,5	3,5%
Xanthan	6,5	13,5	3%

Model	Pump	Mixer	Hopper	Skid Fittings
FF-425	5,5 kW @ 1.800 rpm	5,5 kW @ 3.600 rpm	100 liters	50,8 mm TriClamp inlet 50,8 mm TriClamp outlet
FF-575	11,5 kW @ 1.800 rpm	15 kW @ 3.600 rpm	100 liters	63,5 mm TriClamp inlet 76,2 mm TriClamp outlet

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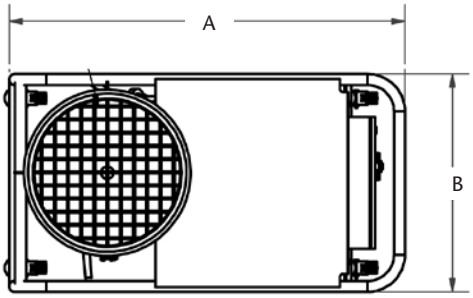
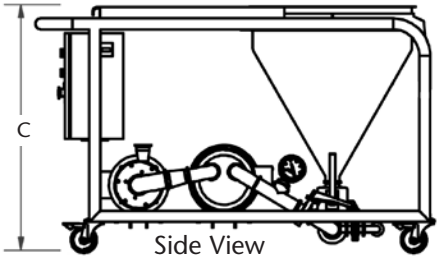


Top View



Side View

Model	A	B	C
FF-425	1.524	840	940
FF-575	1.805	1.145	965

Advanced Powder Induction and Dispersion

How it Works

The Fastfeed combines the suction capability of a "vacuum pump," with the wetting out and and shearing capabilities of a high speed, high shear, inline mixer. The system is ergonomic and easy-to-use, as powder is fed from bags at floor level into a waist-high hopper.

Powder bridging or ratholing 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 shearing and fluidization of the powder begins, and this slurry is quickly pumped through the DynaShear inline high shear mixer providing droplet and soft particle size reduction down to 4 – 5 microns upon exiting the unit.

Powder feed rate is controlled with factory settings, ensuring controlled but rapid dispersion 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 should be configured on a recirculation loop for multiple passes through the DynaShear. A single Fastfeed skid can also be used to feed multiple tanks.

Mechanical Features

- All contact surfaces are 316L with welds blended and polished
- NEMA 4X control panel
- Optional wand for liquid additions
- Optional double mechanical seal for abrasive applications

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

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HPS CONNECTING PROCESSES