



How to select the right style blender

Fluidizing Paddle Blender	Factors to Consider	Ribbon Blender
25-100% fill level for efficient blending.	Batch size flexibility	60-100% fill level for efficient blending.
Approx. 1-2 minutes for dry applications.	Mix time	Approx. 5-6 minutes for dry applications.
The FPB effectively blends a wide distribution of particle size, shape, and density without segregation.	Product characteristics (shape, size, density)	Extended blending times are required to blend ingredients with particle size, shape, and density. Segregation may occur.
The mechanical fluidization creates space between the particles to allow them to move past one another, which efficiently achieves homogeneity.	High angle of repose	Requires additional blending time to achieve homogeneity. Charge minor ingredients in the center of the blender to minimize cycle times.
Minimal. Reduced product degradation. If shear or friability is required, choppers can be used.	Shear/heat (friability)	Moderate.
The mechanical fluidization mix action brings material to the surface more frequently and provides a fast and uniform way to apply liquid to powder.	Liquid addition	Requires additional blending time to apply liquids to a powder without creating agglomerates. Shear can disperse agglomerates if created during the liquid addition.
≤0.5% standard deviation and ≤5% coefficient of variation with 0.25 lb sample.	Mix quality	5% standard deviation and 10% coefficient of variation is common with 0.5 lb sample.
Random location.	Filling/Loading	Recommended as close to center as possible.

Eirich Machines, Inc.

4033 Ryan Road, Gurnee, IL 60031
 eirich@eirichusa.com
 www.eirichusa.com

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Recommended. Pieces of solid fat or lard to remain in chunks. Minimal shear.

Recommended. Breadcrumbs, flour, salt, and other minor ingredients means various particle size, shape, and density. High angle of repose. Minimal shear.

Recommended. Maintains integrity of the bean. Minimal shear and less attrition.

Recommended with choppers if the blender is used for various products.

Recommended. Many ingredients of various particle size and density. Minimal shear.

Recommended. High variation in particle size, shape, and density. Friable products like parsley and coarse salt. Minimal shear and heat.

Recommended. Must keep nuts, dried fruit, and chocolate pieces intact. Minimal shear and breakage. Smaller batches better.

Application Examples

Biscuit mix

Breading mix

Coffee beans
(green or roasted)

Flavored drink mix

Pancake mix

Protein drink mix

Seasoning/spice blend

Trail mix

Ribbon Blender

Recommended. Shear helps disperse the powders and get a very homogeneous blend of sugar, flavor, and colorant. Shear needed.

Recommended. Very even dispersion of the fat and a smooth blend. Shear needed.

Recommended only if a thick liquid is plated onto the product (e.g., oil resin onto salt). Shear is important to get thick liquid dispersed.