APPLICATION SUMMARY:

Trail mixes are snacks made from combining nuts, dried fruit, seeds, chocolate, pretzels, granola and other ingredients. Because the different components vary in shape, size and density, achieving a thorough blend is the main challenge in producing trail mixes.

Fast and gentle mixing in a well-designed Ribbon Blender is an ideal method for preparing a consistent trail mix blend while preventing damage to fragile ingredients.

Ross Ribbon Blenders

Ross Ribbon Blenders are dry mixing equipment widely used in the preparation of various kinds of trail mixes. Ingredients are loaded into the U-shaped trough and mixed by a horizontal solid-shaft agitator consisting of inner and outer helical ribbons. The position and precise pitch of each ribbon produce a well-balanced axial and radial flow pattern, promoting fast and thorough mixing despite differences in particle shape, size and density.

Maximum tip speeds are in the neighborhood of 300 ft/min but with variable speed control, the blending action can be fine-tuned according to the characteristics of a particular recipe. The advantage of electronic speed control is significant especially for plants that batch-blend not only trail mixes but a range of other food products as well. The multi-purpose Ross Ribbon Blender featuring a variable frequency drive can easily mix spices, powdered beverages, sweeteners, flavorings, baking pre-mixes and many other recipes.

In addition to speed control, a Ribbon Blender may also be equipped with an interchangeable paddle agitator to maximize the range of shear input. For instance, trail mixes containing very fragile ingredients benefit from the use of paddle-style blades. The ribbon agitator inherently generates pinch points near the vessel walls wherein relatively large and delicate particles may be compressed. Testing is recommended to confirm the optimal speed, cycle time and agitator design for a particular trail mix product.
Advantages of Ross Ribbon Blenders:

- Direct drive design is standard on all Ross Ribbon Blenders. Unlike belt-driven blenders which are noisy and prone to slippage, direct-driven Ribbon Blenders are more reliable and require less maintenance. The cost-effective and space-saving combination of a gearmotor (one-piece motor reducer) and a variable frequency inverter delivers electronic speed control, soft-start capability and overload protection.

- Certified by the Baking Industry Sanitation Standards Committee (BISSC).

- Interior stainless steel surfaces are polished and each weld is “radiused” for easy cleanability. In addition to tightly-controlled clearances between the agitator and trough, end wall scrapers can be supplied for highly sensitive applications to further prevent product from collecting in certain areas.

- Different duty models are available for accurate sizing according to average bulk density. Standard capacities range from ½ to 1,000 cu.ft.

- Ross Ribbon Blenders can be customized to incorporate pneumatically-operated covers and discharge valves, bag dump stations, custom ports, safety grating, lantern rings, spray bar assembly, load cells, PLC recipe systems and other accessories to help ensure streamlined ingredient transfers, efficient discharge and fast changeovers.

For more information on Ross Ribbon Blenders

Visit [www.ribbonblenders.com](http://www.ribbonblenders.com) or click here to download a brochure.