

APPLICATION SUMMARY:

Pet foods are specifically formulated to provide a particular breed or animal the balanced levels of protein, fat, fiber, carbohydrates, vitamins and minerals it needs.

One critical step in pet food production is the preparation of intermediates wherein powders, ground solids and other dry ingredients are blended together, sometimes along with minor liquid components. Thorough mixing in a well-designed Ribbon Blender ensures that essential nutrients are uniformly distributed in the end product and consistent from batch to batch.

RECOMMENDED BLENDING EQUIPMENT FOR Pet Food



Ross Ribbon Blenders

Ross Ribbon Blenders equipped with double helical ribbons are widely used for preparing intermediates of pet food formulations such as those available in the form of flakes, extruded kibbles, soft pellets and biscuits. Pre-weighed dry raw materials are loaded into a horizontal U-shaped trough and the ribbon agitator is slowly ramped up to the maximum or other desired speed that suits the product's flow characteristics. A full load usually corresponds to a fill level around the tip of the outer ribbon to allow enough headroom for the materials to be vigorously blended. Wet ingredients including liquid flavors, oils and vitamins may be added to the blend through atomizing spray nozzles. This step is performed as the solids are being agitated to promote uniform coating and prevent the formation of undesired lumps.

The position and precise pitch of each ribbon are designed to produce a well-balanced axial and radial flow pattern: the outer ribbon moves materials in toward the center, and the inner ribbon moves them out toward the walls. At the same time, the difference in the ribbons' speeds causes product to move along the blender's horizontal axis in two opposite directions. This combination of mixing mechanisms produces a homogenous batch within a short time – in many cases, 15 minutes or less.

In addition to Ribbon Blenders, Ross also manufactures a wide range of High Speed Dispersers, High Shear Mixers and Multi-Shaft Mixers commonly used for batching liquid intermediates that go into wet pet foods. Sample applications include sauces, jellies, gravies, purees and flavorings.

Just a few applications of Ross Ribbon Blenders:

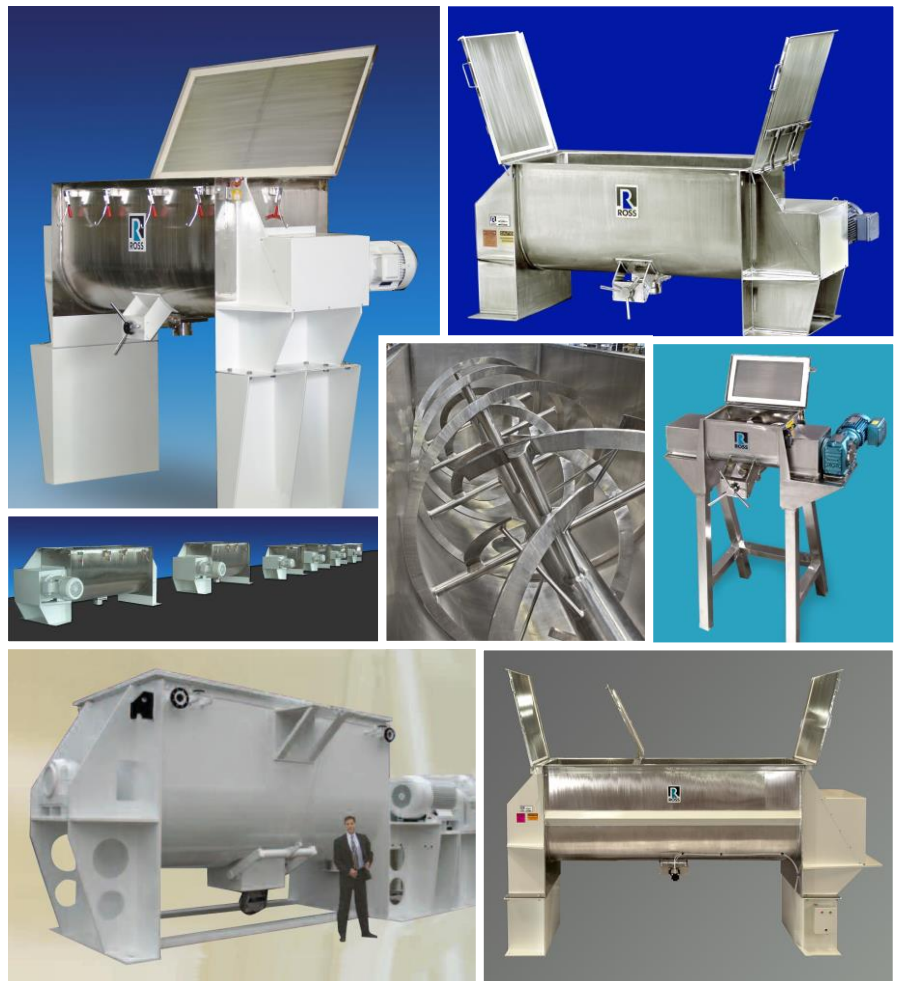
- Advanced Ceramics
- Baking Pre-mixes
- Chemicals
- Coffee Beans
- Cosmetic Powders
- Dental Powders
- Detergents
- Drink Mixes
- Flavorings
- Glass
- Metal Powders
- Pesticides
- Pharmaceuticals
- Polymers
- Refractory Powders
- Soups
- Spices
- Sugars and Sweeteners
- Trail Mix Snacks
- Vitamin Supplements

**For more information
on Ross Ribbon Blenders**

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

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.
- Different duty models are available for accurate sizing according to bulk density. Standard capacities range from ½ to 1,000 cu.ft.
- Ross Ribbon Blenders are fabricated to close tolerances for accurate mixing. Clearances between the agitator and the trough surfaces typically fall between 1/8" and 3/16". This enhances mixing performance by preventing materials from stagnating in any part of the blender.
- Stainless steel surfaces are polished to 60-grit finish and each weld is "radiused" for easy cleanability. Optional higher grit finishes also supplied.
- Popular customizations include pneumatically-operated covers and discharge valves, bag dump stations, custom ports, liquid spray bar, load cells, high speed choppers, heating/cooling jacket, vacuum construction, operator stations and PLC recipe controls.



Charles Ross & Son Company

710 Old Willets Path, Hauppauge, NY 11788 • Phone: 631-234-0500 • Fax: 631-234-0691 • E-mail: mail@mixers.com • Website: www.mixers.com