



## **Dynamixer and Dynamixer Processor high speed mixing and blending tanks**

The DCI **Dynamixer** is designed to mix dry solids, semi-solids or liquids into a slurry or liquid product. This high speed mixer/blender may also be used to blend, disperse, reconstitute, dissolve, re-hydrate, pre-break or rerun soluble solids, soluble pastes and liquids quickly, efficiently and completely. Insoluble products are dispersed into liquids to make suspensions and slurries with greater stability and homogeneity. Models are available in a variety of shapes, sizes and motor horsepower to fit a broad range of applications.

- **Right angle gear box drive assembly** is flange mounted directly to the bottom of the tank.
  - Allows use of standard frame motors which are more economical than vertical shaft 'pancake' type motors.
  - Ensures quiet running and low vibration.
  - Reduces drive component wear and alignment problems.
  - Locates motor away from the tank bottom for ease of inspection and cleaning.
- **Square tank design** does not require baffles.
- **Two piece and self lubricating mechanical seal assembly** is easily removed for inspection or service.
- **Sanitary construction** meets 3A sanitary standards for mixers.
- **Tubular stainless steel frame** provides excellent strength and stability for the entire unit.

Ingredients are mixed with the base product through a liquid vortex created by the high speed impeller located in the bottom cone of the tank. The high velocity ingredient mixture impacts the tank sidewalls and impeller housing for a quick incorporation and hydration of ingredients with continuous recirculation.

DCI's **Dynamixer Processor** combines all the features of Dynamixer high speed mixer with the benefits of a cone bottom processing tank. It can perform three separate process functions all in the same tank. Mixing dry or semi-solids into a liquid, chopping and chipping solids, and heating and/or cooling the mixed batch.

- **Bottom-entry high speed impeller** quickly mixes and incorporates with a minimum product level.
- **Serrated or double cup chopping blades** break up and reduce solids.
- **Top entry side and bottom scraper blade agitator** scrapes sidewall and cone heat transfer surface.
- **Heat exchange surface and insulation** are available for cooking and cooling products.
- **Adjustable and removable baffle** controls product rotation for better mixing and heat exchange.
- **Quick change two piece mechanical seal** and easily demountable impeller design allows a trouble-free maintenance.
- **Meets 3A** sanitary standards.

Ingredients are mixed or chopped with the base product through a liquid vortex created by the high speed impeller or chopping blade located in the bottom cone of the tank. The high velocity mixture impacts the tank sidewalls and impeller housing for a quick incorporation and hydration of ingredients with continuous recirculation. The bottom and side scraper blade may operate together with the high speed agitator to achieve more mixing. Heat exchange may heat or cool the complete mixture.



# DCI Dynamixer



Internal view



Right angle drive



# DCI Dynamixer Processor



Internal view

All DCI **Dynamixers** have a wide range of applications in the food, dairy, health care, baking, beverage, confectionery, biopharmaceutical, biochemical, pharmaceutical, nutraceutical, cosmetic and chemical/industrial industries. Products typically processed include:

- Baby food
- Cream cheese
- Chocolate syrup
- Coffee whiteners
- Icings
- Jellies
- Preserves
- Marmalades
- Pie fillings
- Reconstituted or powdered milk & mixes
- Salad dressings
- Sauces
- Gravies
- Yeast and nutrient slurries
- Ice cream rerun
- Starch slurry

Other typical applications:

- Frozen products
- Gums and stabilizers
- Bakery product hydration (cripples)
- Pigment dispersion in cosmetics and paints
- Vitamin and mineral fortification for drink mixes and sauces
- Dispersion and conversion of plasticized fats and oils into a loose emulsion when mixed with warm water or liquids
- Soy milks and isolates
- Tricalcium phosphates
- Water, pectin and CMC
- Starch replacers
- Egg products
- Gelatin

Optional features:

- Vacuum or pressure operation of Dynamixer Processor
- Sparging
- Square manways
- Additional inlets, powder sleeves, thermowells, etc.
- Manway safety grid with automatic cut off switch
- Manway dump chute and safety grid combination
- Special motor features:
  - Frequency drives (variable speed inverters)
  - Soft starting
  - Two speed electric
- Type 316L, 304L and Monel® product contact surfaces
- 2B or glass bead surface finishes
- Heat exchange surface
- Casters and push handle (on small models only)
- CIP sprayball-removable
- Flange feet
- Chopper blades
- Double cup impeller blade
- Load cell construction
- High viscosity cup impeller
- Water flush seal assembly



Stainless Steel Processing &  
Storage Equipment

DCI, Inc. - Corporate Offices  
600 North 54 Avenue (56303)  
P.O. Box 1227 (56302-1227)  
St Cloud, MN  
800-276-7599  
320-252-8200  
Fax: 320-252-0866  
E-mail: [sales@dciiinc.com](mailto:sales@dciiinc.com)  
<http://www.dciinc.com>