

# Readco Kurimoto Continuous Mixer Application Benefits



**READCO  
KURIMOTO, LLC**

*Continuous Mixing. Continuous Expertise.*

## **ADHESIVES**

The Readco Continuous Processor has been proven effective in hot melt adhesive applications. Its unique ability to be reconfigured for many different types of product allow it to run many formulations in the same machine with simple machine parameter changes. Major customers include 3M, Lectec, and National Starch.

## **BATTERIES**

The Readco Continuous Processor, because of its superior homogenization, is ideal for battery and battery paste applications. It has been used for Lead Acid, Alkaline, Ni-Cad, and Nickel Hydroxide types. Major customers include, Duracell, Eveready, Delphi, and Douglas Battery. Click here for a Power Point Presentation.

## **BRAKE LININGS**

The Readco Continuous Processor has been able to produce brake linings that show much higher densities, better distribution of fibers, and significant improvements in yield ratios, as well as reduction in braking noise. This is part of Readco's composites capability where we can successfully mix resins and fibers without breaking the fibers in lengths up to one inch. Major customers include AlliedSignal.

## **CANDY**

The Readco Continuous Processor has been used for many years for the production of hard and soft candies, licorice, caramel, taffy, and toffee. The self cleaning feature of the Continuous Processor lends itself to food related applications. Shorter mixing cycles and precise temperature also add to the Continuous Processor's flexibility. Major customers include, M & M Mars, Hershey, Nestles, and Sunmark.

## **CATALYSTS**

Readco has many applications in manufacturing catalysts. The ability of the Continuous Processor allows it to accommodate many formulations, and accomplish significant reductions in process time, as well as improvement in product quality, and consistency. Customers include, UOP Process Division, United Catalyst, Engelhard, PQ Corp., and Criterion Catalyst.

## **CEMENT BOARD**

The Readco Continuous Processor has been successfully used in the production of cement board for water resistant applications. This consists of mixing cement powder with plasticizers, retardants, and water.

## **CHEESE**

The Readco Continuous Processor has been proven to be an alternative to conventional artificial cheese manufacturing processes. The significant advantages are major reductions in process time and reduction in the number of pieces of equipment required to effect results. Major customers include Beatrice Cheese. The Readco Continuous Processor can also produce real chesses such as mozzarella cheese by providing simultaneous shearing and heating to the ingredients as they pass thru the mixing barrel. Precise control can also be accomplishment by injection of live steam into the product.

## **CHEMICAL REACTIONS**

Chemical reactions in general can be accomplished in significantly reduced process time with superior control over consistency, quality, and yield. These chemical reactions include, but are not limited to, pigments, silicone, crystallization's, and encapsulations. The reduction in process time can be from a one or two hour existing cycle time to a matter of minutes in the Readco Continuous Processor. Major customers include, Bayer, DuPont, BF Goodrich.

## **CHEWING GUM & GUM BASE**

The Readco Continuous Processor has been used for chewing gum manufacture as well as gum base preparation. The Continuous Processor allows companies to reduce their process time and improve product quality and consistency. Major customers include, Wrigley and LA Dreyfus.

## **CHOCOLATE CONDITIONING & CONCHING**

The Readco Continuous Processor has been a mainstay for over 15 years in the manufacture of chocolate products. It is proven effective in all types including milk, dark, and semi-sweet. The Continuous Processor is able to produce an acceptable product in minutes what conventional processes take hours to accomplish.

Readco maintains a close relationship with the Center for Food Manufacturing at Penn State University where they have the ability to perform testing on a small Continuous Processor. Major customers include, M & M Mars, Hershey, and Nestles.

### **COMPOSITES/NANO COMPOSITES**

The Readco Continuous Processor has been successfully used in many Composite type applications involving the incorporation of resins, fibers and nano spheres. Readco also has partnerships with the University of Dayton and Cornerstone Research Group who can help you with your product development. See University of Dayton and Cornerstone Research Group.

### **CONVEYORS**

Readco has formed a partnership with Sandvik Process Systems, Inc. in Totowa, NJ to provide complete mixing and cooling/heating/crystallization conveyor belts to provide our customers with solutions to forming and packaging problems. Please contact: Kris Bergstron for complete information on this service.

### **CRYSTALLIZATION**

The Readco Continuous Processor has the ability to take various ingredients and through chemical or thermal reaction causing crystallization to occur.

### **DOUGHS**

The Readco Continuous Processor is being used in many industries for dough production. These include Pasta, cookie, cracker, pretzel, gluten, and pet foods.

### **ENCAPSULANTS**

The Readco Continuous Processor is capable of encapsulating granular size material including micro encapsulation. The Continuous Processor has the ability to encapsulate without destroying the cell structure, and effect that from large particles down to nano size ingredients. Major customers include, Hershey, M&M Mars, Nano Composites, and Hoescht Marion Rousel.

### **FIBERS**

The manufacture of fibers and resins, be they fiberglass or composite fibers has been accomplished in many applications. Significant advantages include enhanced homogenization, mixing fibers up to one inch without breaking the fibers, and actual defibulation of those fibers upon mixing, again without breaking. Major customers include, AlliedSignal, Werzalite, Molded

Fiberglass, and Bondo Marhyde.

### **HERBICIDES**

The Readco Continuous Processor has been successfully used for the production of herbicides including Ammoniated Glyphosates.

### **MAGNETIC COATINGS**

The Readco Continuous Processor has been used successfully for the manufacturing of magnetic coatings and other applications where preheating and fluxing is needed of various powders along with varying degrees of resin or liquid. Major customers include Xerox, Carbon Products, and Kodak.

### **MEATS**

The Readco Continuous Processor is being used in many meat and meat related industries. These include hot dogs, sausage, bologna, pulled, and soy substitutes.

### **MILK POWDER**

The Readco Continuous Processor has been used for many years as a device to free up the fat that is trapped in milk powder. This allows this fat to be used in the chocolate conching process thus reducing the amount of cocoa butter that would need to be added later. This equates to a huge cost saving. Readco maintains a close relationship with the Center for Food Manufacturing at Penn State University where they have the ability to perform testing on a small Continuous Processor. Major customers include, M & M Mars, and Hershey.

### **MOLDING COMPOUNDS**

Readco has been a leader in BMC and SMC where the Continuous Processor has the ability of combing resin, and fibers, as well as the manufacture of many different resins. Major customers include, AlliedSignal, and US Gypsum.

### **NUTRITIONAL BARS**

The Readco Continuous Processor has been successfully utilized for the production of nutritional bars containing chocolate, caramel, nuts, fruit, puffed cereals, and vitamins without breakage.

### **PEANUT BUTTER**

The Readco Continuous Processor has been used for many years in the manufacture of peanut butter, both from a raw material state such as in the case of feeding

ground peanuts and sugar, to the addition of paste to manufacture flavored or low fat products. Major customers include, Hershey, ConAgra Foods, Hunt Wesson, and Tara Foods.

### **PET FOODS**

The Readco Continuous Processor has been a staple in the dog food industry for twenty years. It is effective in high volume production and provides superior product quality and consistency. The unit is used for both meat emulsion and dough type applications. Major customers include, Nabisco, and Kal Kan.

### **PHARMACEUTICALS**

The superior mixing and homogenization ability of the Readco Continuous Processor has allowed it to be successful in the pharmaceutical area. Pill formulations, ointments, creams and gels have been significantly enhanced by it's use. Major customers include, Wyeth Ayerst, Lectec, and Hoescht Marion Rousell.

### **PIGMENTS**

The Readco Continuous Processor has been manufacturing basic pigment for many years. It has the ability of dramatic reduction in process time, as well as control of environmental and quality features. This has been successfully applied in automotive pigments, as well as commercial grade product. Major customers include Bayer.

### **POWDER INJECTION MOLDING**

The Readco Continuous Processor provides general improvement to any powder injection molding application due to the superior homogenization of it's mixing. Research at Penn State University's Center for Inovative Sintered Products Laboratory confirm the capabilities of this process. By the installation of inserts in the barrel wall, Readco is able to overcome any significant wear problems with this type of product, and impart superior quality results to any powder injection molding product. Major customers include, Boston Scientific, Howmet, General Motors, Crucible, and Carbone.

### **SEALANTS**

The Readco Continuous Processor had been used successfully for sealants, sound deadening materials, and adhesives for many years. The ability to combine various chemicals and base materials along with it's ability to mix and homogenize provides superior

productivity and quality performance. Major customers include National Starch, EAR division of Cabot, and Dow Chemical.

### **SEASONINGS**

The production of seasonings that require mixing of multitudes of dry ingredients with some liquids has been accomplished on the Readco Continuous Processor for many years. The output has been shown to exhibit superior mixing and homogenization characteristics, as well as excellent control over the process. Major customers include, McCormick.

### **SILICONE**

The Readco Continuous Processor has been able to manufacture silicone for many years. This is an excellent way of showing the versatility of the machine where we have successfully mixed raw silicone, paste, and fumed silica in varying amounts. The Continuous Processor also provides for significant reductions in throughput time as well as reduction in foot print size. Major customers include, General Electric and Dow Corning.

### **TONERS**

The Readco Continuous Processor has been used for many years to manufacture toners. The applications have experienced significant reductions in environmental concerns, as well as improved quality and consistency, through intimate dispersion in the fluxed state. Major customers include, 3M, Toshiba, Raven Industries, and Ricoh.

**For more information contact Readco Kurimoto at 717-848-2801.**