

Product Portfolio



SCOTT TURBON MIXING

Scott Turbon Mixer designs and manufactures high performance, high shear mixers, low shear mixers, and turnkey mixing systems for use in the food, beverage, pharmaceutical, cosmetic, and chemical process industries. Whether your challenge is formulation development, process scale-up, or full-scale manufacturing, Scott Turbon offers a full range of mixing technologies and solutions to meet these challenges.



The Scott Turbon Mixer Test Center is located in Adelanto, CA. Our test center is a temperature-controlled room with dust control and refrigerated sample storage. We offer batch heating and cooling capabilities, with benchtop to pilot testing up to 55-gallon batches. Customers are encouraged to attend and will receive confidential written reports that include videos of the testing.



TECHNOLOGY



A perfect mix starts with the perfect mixing head.

Our mixing heads are designed to simultaneously draw the ingredients from the top and bottom of the batch, rapidly dispersing and mixing them to uniformity throughout the tank. The unique design of the mix head develops high pumping rates not achieved with traditional batch style high shear mixers. Complimented with a range of application-specific shear elements, Scott Turbon mixers will easily handle your most demanding dispersing or emulsifying process, saving you time and ensuring consistent product quality.

Applications

- **Powder wetting and dispersion**
 - Gums and Rheology Modifiers such as Xanthan Gum, CMC, and Carbomer
 - Mineral Powders such as Titanium Dioxide, Calcium Carbonate, and Zinc Oxide
 - Flavoring, color, sweeteners
- **Emulsions**
 - Oil/water, immiscible phase mixing and homogenizing



Type "A"

Designed for the production of fine emulsions and the wetting and dispersion of powders in lower viscosity formulations. It features a cage-like shear element that helps disperse agglomerated particles and standardizes the consistency of the batch.



Type "B"

Designed for the wetting and dispersion of powders and production of emulsions in higher viscosity formulations. It features a large diameter, toothed disk, which enhances the flow characteristics of the batch.



Type "C"

Designed for applications where high flow and lower shear are required. It features a smooth disk which can easily blend shear-sensitive products.

BATCH MIXERS

APPLICATIONS:

- Powder wetting
- Dispersion
- Emulsification
- Homogenization



TOP MOUNT MIXERS

The Top Mount (TM) model mixer is for top mounting installations. Ideal for use in washdown environments, the TM model high shear mixer rapidly incorporates and disperses the most difficult-to-handle ingredients.



BOTTOM MOUNT MIXERS

Scott Turbon offers the compact design Bottom Mount (BM) model mixer for bottom mounting installations. Ideal for use in washdown environments, the BM model high shear mixer is used for high shear mixing duty in various applications, rapidly incorporating and dispersing the most difficult-to-handle ingredients.

MIXING MODULES

The Scott Turbon Mixing Module (MM) incorporates our high-performance mixers into an engineered package with an optimal geometric vessel, electrical controls, and optional discharge pumps and accessories. We also offer a dual motion module (DMM) that utilizes a Scott Turbon Hydraulic Ram mixer in conjunction with a sweep, surface scrape, or turbine agitator. A triple motion module (TMM) consists of a sweep or scrape surface agitator, a pitch blade turbine, and a high shear Scott Turbon mixer. We also offer vacuum mixing modules (VMM).



HYDRAULIC RAM

Scott Turbon Hydraulic Ram (HR) mixer is a flexible and high-capacity platform for the Scott Turbon mixing head technology. Designed and built for pilot to full-scale operation, the ability to position the mixing head at different heights enables the processing of various batch sizes and viscosities.



LAB MIXERS

Scott Turbon Laboratory high shear mixers are designed for use by product formulators in benchtop development applications, process scale-up in pilot plants, and small-scale production of small volume, high-value products. Our testing center is located in Adelanto, CA. We also offer trial units for on-site testing.

APPLICATIONS:

- Benchtop and pilot-scale
- Dispersion
- De-agglomeration
- Dissolution
- Suspension
- Reaction acceleration
- Particle size reduction
- Homogenization
- Emulsification

LOW SHEAR PORTABLE MIXERS

Scott Turbon STF series heavy-duty portable mixers are fully configurable for your small batch mixing needs. The direct-drive model is perfect for jobs requiring shear. The gear drive model is best for handling larger volumes and higher viscosity fluids.

APPLICATIONS:

- Blending
- Powder incorporation
- Dispersion
- Dissolution
- Solids suspension



HIGH SHEAR INLINE MIXERS

APPLICATIONS:

- Dispersion
- De-agglomeration
- Particle size reduction
- Emulsification
- Accelerate reactions

HIGH SHEAR PUMP/HIGH SHEAR MILL

High Shear series Pump (HSP) and Mill (HSM) mixers are versatile solutions that provide high shear mixing performance with existing or new tank installations. Installed in a recirculation loop with a process tank, in a process line between tanks, or a truly continuous process with no tanks, Scott Turbon inline mixers provide focused, single-pass, rapid high shear mixing.



APPLICATIONS:

- Incorporation
- Powder wetting
- Dispersion
- De-agglomeration
- Smoothing
- Texturizing
- Emulsification

CONTINUOUS DISPERSION MIXER

In the Scott Turbon Continuous Dispersion Mixer (CDM) mixing system, powder ingredients are added at a controlled rate from either a volumetric or loss-in-weight (LIW) feeder. Dry ingredients merge with a metered liquid feed stream in the Scott Turbon Unified Film Interface (UFI) and are immediately drawn into the high shear mixer. The unique design of the powder-liquid interface eliminates plugging and minimizes air entrainment into the process.



VACU-BLEND SYSTEM

The Scott Turbon Vacu-Blend (VB) generates strong vacuum rates, pulling in powders and dispersing them lump-free into the liquid stream. Powders can be conveyed from various sources; ranging from small bags or drums, manual bag addition directly to the mixer hopper, or integrated with bulk bag unloading systems.

APPLICATIONS:

- Dispersion
- De-agglomeration
 - Dissolution
 - Hydration
 - Blending
 - Emulsification



MIXING SYSTEMS

MIXING SYSTEMS

Scott Turbon has developed several application-specific mixing systems in the food processing industry that address the most challenging material handling and mixing applications you will come across. Backed by our Application Engineers and Specialists, a Scott Turbon mixing system will provide the performance, efficiency, and safety you need and expect for your production.

APPLICATIONS:

- Salad dressings
- Sauces

SAUCES AND DRESSINGS SYSTEMS

The Sauces and Dressings Systems consist of the Hydraulic Ram high shear mixer and lift combined with processing vessels, an operator platform, and controls. The system provides a turnkey package. Each system is fully customizable for your application and location. A Scott Turbon Sauces and Dressings System will be the centerpiece of your sauce-making operation.



TOTE SLURRY SYSTEMS

Bulk material handling and raw ingredient handling carries safety risks and challenges. For large-scale production, a Scott Turbon Tote Slurry System has a fully automated lifting/dumping mechanism that lifts full totes in place and safely dumps the paste contents into a high-powered mixer for rapid processing.

APPLICATIONS:

- Tomato-based sauce production



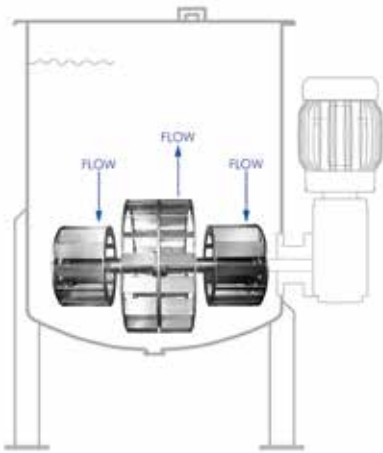
SPECIALTY MIXERS

APPLICATIONS:

- Pre-mixes
- Pre-emulsions

TURBO DIXIE MIXER

The Turbo Dixie Mixer can mix powdered ingredients and solids into highly viscous liquids, even those as thick as peanut butter. The rotor design provides moderate shearing action and generates a unique flow pattern that offers high pumping rates, which makes it ideal for the preparation of pre-mixes and pre-emulsions for mayonnaise and other dressings before further downstream processing. The Turbo Dixie mixer uses a single seal on one side compared to the standard two seals, one per side, which reduces the potential for leaks.



HYGIENIC DESIGNS

We manufacture durable stainless steel, high shear mixers for the Food, Beverage, Pharmaceutical, Cosmetic, Personal Care, and Chemical industries. Our mixers provide high-performance mixing solutions that meet strict hygienic requirements, including 3-A Sanitary Standard, for companies worldwide.

HELICAL CONICAL LOW SHEAR (HCL) MIXER

APPLICATIONS:

The Helical Conical Low Shear (HCL-1-30) mixer by Scott Turbon Mixer is designed for use with the Cryovac® 30-gallon pouch filling machine to keep product stirred and suspended during filling. The HCL-1-30 works exceptionally well with products that easily become unsuspended or separate. By keeping the product stirred and suspended, packages contain a uniform and repeatable product. The mixer fits in the Cryovac 30-gallon stainless steel hopper and features the following:

- Dressings
- Sauces
- Soups

- 316L stainless steel construction polished to a 32 Ra finish
- Dual helix design for providing up/downflows
- 8" inner helix diameter and 18" outer helix diameter
- 1 HP, stainless steel TENV motor
- Stainless steel, right angle, gearbox with an output speed of 58 RPM
- Stainless steel shaft with sanitary locking pin and bushing
- Variable frequency drive programmed with start/stop switch, ramp up/down speed, and clockwise rotation
- Hinged bridge mounting design welded onto an existing Cryovac® hopper (by others)
- Provided with a UHMW sanitary slinger designed for a 3" dam (by others)



While the customer must provide the Cryovac 30-gallon hopper, the Helical Conical Low Shear mixer can be purchased directly from Scott Turbon Mixer or through one of our rep partners or distributors. Scott Turbon Mixer can modify the hopper, or directions can be provided to the customer.

About Scott Turbon Mixer

Scott Turbon Mixer is a North American firm with over 40 years of experience designing and manufacturing high performance, high shear mixers and turnkey mixing systems for use in the food, beverage, pharmaceutical, cosmetic, and chemical process industries.

Whether your challenge is formulation development, process scale-up, or full-scale manufacturing, Scott Turbon offers a full range of mixing technologies and solutions to meet these challenges.

Scott Turbon Mixer is part of the Hayward Gordon Group.



 **Hayward Gordon** Pumps | Mixers | HydroMix

 **Sharpe Mixers** Top Entry | Side Entry | Portable Mixers

 **Scott Turbon Mixer** High Shear Batch Mixers | Inline Mixers | Mixing Systems

Scott Turbon Mixer — 800.285.8512 — www.scottmixer.com

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