



CUSTOMIZED EQUIPMENT

Sharpe Mixers specializes in solving unique mixing applications. Whether mixing food and beverages, pharmaceuticals, nuclear waste, or molten lead; Sharpe provides custom mixing solutions and equipment that pertain to specific mixing processes.

Sharpe can analyze the product and perform pilot scale testing to determine the optimum solution for a successful mixing system.

Chemical

Sharpe's equipment is designed for a wide variety of agitation solutions across global chemical processing industries. Sharpe provides mixing solutions for chemical reactions, heat and mass transfer, polymerization, suspensions, and liquid-gas blending.

Food & Beverage/Pharmaceutical

Sharpe also designs equipment to meet FDA, USDA, and 3-A sanitary standards for mixing applications requiring easy-to-clean components.

Mining & Minerals/Pulp & Paper

Sharpe designs equipment to process precious metals, high value minerals and coal at installations worldwide. Sharpe Mixer remains a preferred choice of the pulp and paper industry with its proprietary VQP and flux analyses being utilized to create durable and efficient mixers.

Water & Wastewater Treatment

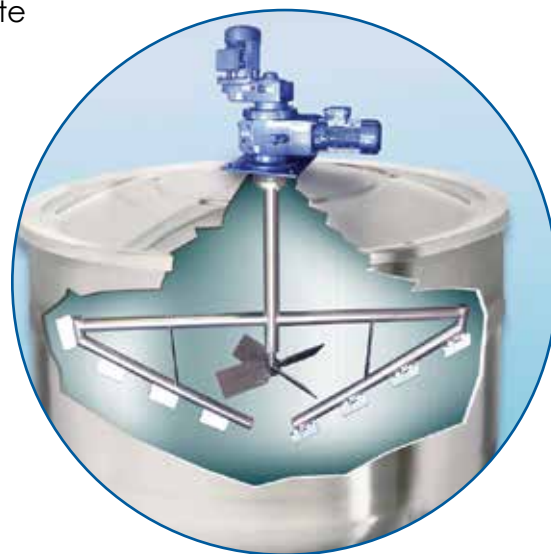
Sharpe combines advanced impeller technology and drives to provide cost effective solutions for the many applications used throughout the waste and water treatment facilities.

Power & Utilities

Sharpe's mixing equipment is designed for the many demanding applications used in the power industries. Top and side entry mixers successfully process flue gas de-sulphurization, boiler feed water, coal dust control, sludge blending, and neutralization.

Optimizing Mixing Processes for Customer Satisfaction:

- Design and engineering
- Special testing
- Documentation
- Packaging
- Scheduling
- Field Services
- Process Analysis
- Energy Savings



Mixing applications typically fall into one of the following categories:

Liquid/Liquid

This is the most common mixing process that can range from maintaining uniformity to vigorous mixing. Mixers are also used to improve heat transfer and maintain fluid motion common in the dairy industry.

Liquid/Solid

Applications include dissolvers, crystallizers, mineral extractions, and sand washing. Food processing may also require solid/liquid mixing to maintain uniformity of products such as salsa and salad dressings.

Gas/Liquid

Mixing or gas dispersion is used to maximize mass transfer, such as dispersion of air or oxygen into fluid and desorption in stripping or degassing processes.

Gas/Liquid/Solid

Mixing processes that require gas to liquid mass transfer where maintaining solid suspension is needed in the reaction. An example of this flue gas de-sulphurization for coal fired power plants.

Contact a Sharpe Mixers' local representative to review your process and determine the most cost effective solution.



TYPICAL MIXING

Applications

- Dispersion
- De-agglomeration
- Dissolution
- Suspension
- Reaction acceleration
- Particle size reduction
- Homogenization
- Emulsification
- Heat transfer
- Mass transfer
- Polymerization
- Crystallization
- Hydrogenation
- Purification
- Media prep and buffers
- Chemical reactors

Custom Mixer Benefits:

- High output
- Better distribution of ingredients
- High production flexibility
- High degree of process reliability and repeatability

