

## SHAFTS, COUPLINGS, MOUNTING OPTIONS, SEALS, AND BEARINGS

Sharpe Mixers goes to great lengths to provide the best equipment configurations by optimizing design and using specialized tooling to build the highest quality products.

### Shaft Options

- High quality stainless steel construction
- Hollow shafting for a stiffer and lighter shaft for reducing the load on the mixer drive and allows for longer shafts
- Solid shafting is used for smaller equipment and side entry mixers

### Shaft Couplings

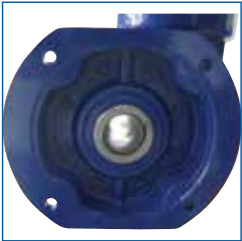
Sharpe offers many different coupling designs to fit specific applications that include split, flanged, threaded, sanitary, and in-tank.

- Sanitary threaded couplings are typically used in pharmaceutical, food applications, or on longer shafts when all welded impellers are required
- Shaft in-tank couplings are used to separate the shaft into more manageable lengths; long shafts or when space is limited
- Split couplings are used on gearboxes with solid output shafts and mixers with mechanical seals
- Flanged couplings are used on solid output shaft gearboxes and registered for exact alignment with mating shaft coupling



## Mounting Options

Sharpe Mixers provides various mounting options depending on the mixing equipment's specifications.



### Ring Base Mount

- Typically mounted on tank beams or supports
- Standard for E-Series mixers



### Plate Mount

- Typically mounted on tank beams for open tanks
- Standard for N-Series mixers
- Available in a 10° riser



### Flange Mount

- Typically used for closed tanks with a shaft seal
- Meets standard ANSI Flange dimensions



### Ferrule Mount

- Used for sanitary applications
- Typically used for closed tank with a shaft seal



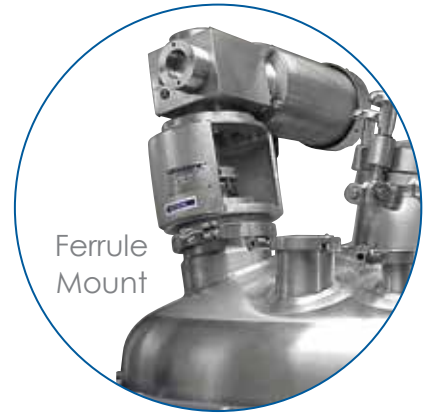
### Tote Bin Mount

- 3 hole tote bin mount
- Can be applied to any tote type



### Barrel Mount

- 2" NPT Bung adapter
- Securely attached to barrel to keep out contaminants



## Seal Options

Sharpe Mixers offer a variety of single and double seals ensuring no debris contaminates product and maintaining the pressure and liquid in the tank.



### Excluder Seals

- Simple cost effective design
- Keeps debris out of flat top tanks
- Vinton or rubber material



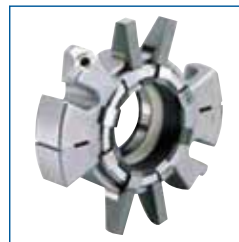
### Single Seals

- Designed for closed tanks with moderate pressure/temperatures
- Options for wet and dry operation



### Dust Cup

- Basic splash guard design to fit on top of tank nozzle
- UHMW plastic material and an O-ring



### Split Mechanical Seals

- Easy installation and servicing
- Compact design does not require coupling
- Lubrication reservoirs for lubricating and cooling mechanical seals



### Vapor Seals

- Flange mount vapor seal designed with two lip seals
- Buna or Vinton rubber material
- Light pressure 1-2 psi



### Double Seals

- Designed to be serviced without disturbing drive/shaft
- Double "UniMech" Seals for high temp/press applications
- Adjacent bearing minimizes shaft run out



### Low Pressure Gland Seals

- Designed for low pressure 15 psi
- 2-ring packed glands (stuffing boxes)



### Dry Running Mechanical Seals

- Sanitary debris well and CIP flush port design
- No external lubrication required
- Common use for food and pharmaceutical applications

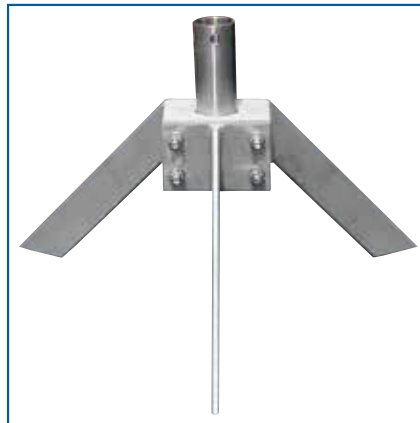
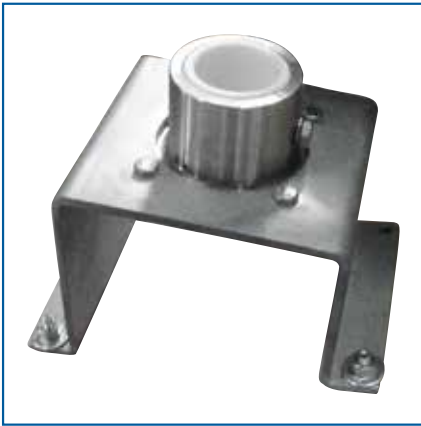


### High Pressure Gland Seals

- Designed for high pressure 150 psi
- 7-ring packed glands (stuffing boxes)
- Use for non-sanitary applications

## Steady Bearings

Sharpe uses steady bearings when extra tall tanks require extra support. Offering quality arrangements such as tripods, spiders, and sanitary bearings that are designed for long life and easy maintenance.



## TYPICAL MIXING

### Industries

- Food & Beverage
- Pharmaceutical & Biotech
- Cosmetic & Personal Care
- Pulp & Paper
- Petroleum
- Chemical
- Municipal
- Waste Treatment
- Mining



### Advantages of using Sharpe Mixers:

- Easy to clean designs
- Customization to process specifications
- Pilot plant testing
- Scale-up for full size production processing
- Cost effective solutions

