

Mepaco®

RELIABLE BY DESIGN



**AGITATOR
APPLICATIONS**

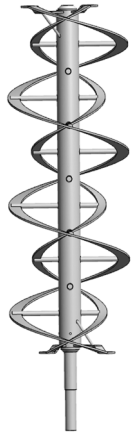
COMPARING AGITATOR SOLUTIONS

For Food Processing Applications

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COMPARING AGITATORS

Single Shaft with Dual Ribbons



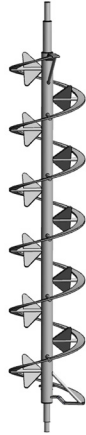
BEST PRACTICES

This agitator style offers good blending with self-leveling food products like soups, stews, pet food, spices and other dry ingredients. At slower speeds, it can provide good blending and ingredient suspension.

APPLICATIONS



Single Shaft with Ribbon/Paddles



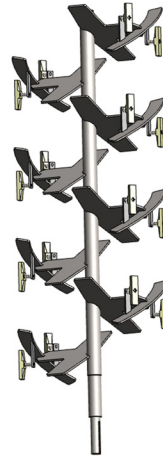
BEST PRACTICES

The paddle and outer ribbon configuration creates a more efficient method of conveyance during the mix cycle as well as the discharge cycle.

APPLICATIONS



Single Shaft with Dual Paddles



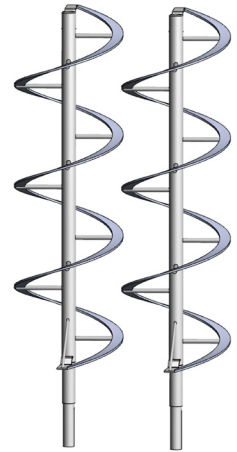
BEST PRACTICES

Best used in ThermaBlend® Cooker or Blender when a homogeneous blend is required

APPLICATIONS



Double Shafts with Ribbon



BEST PRACTICES

Best used when products can tolerate or require a higher level of shear, compared to single shaft dual ribbon agitators

APPLICATIONS



Several agitation solutions are available in the Mepaco® portfolio of processing equipment. In this guide, compare agitator options and learn best practices for various applications.

Single Shaft with Dual Ribbons

Design: Inner and outer ribbon on a single shaft

Applications: Used for self-leveling products such as soup, stews, slurries, spices and other dry ingredients.

Equipment: Mixer-Blenders, ThermaBlend® Cookers and Buffering Mixers

Best Practices: This agitator style offers homogeneous blending with self-leveling food products. At slower speeds, it can provide consistent blending and ingredient suspension.

Single Shaft with Ribbon/Paddles

Design: Inner paddles with an opposing pitch to the outer ribbon

Applications: Used for soups and sauces, and also used for products that are more viscous such as stew, chili, paté and other slightly stiffer products.

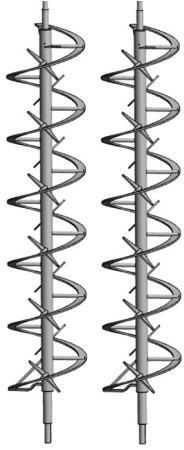


◀ A single shaft with dual ribbon agitator is shown inside an industrial cooker with electropolished finishes



◀ Single Agitator with Ribbon /Paddle Flights

Double Shafts with Ribbon/Paddles



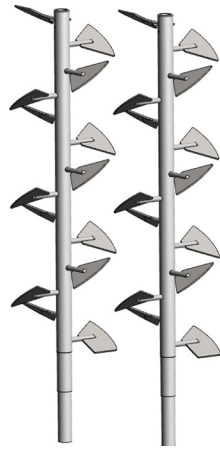
BEST PRACTICES

Best used for processed food products that have many particulates requiring a good homogeneous blend

APPLICATIONS



Double Shafts with Paddles



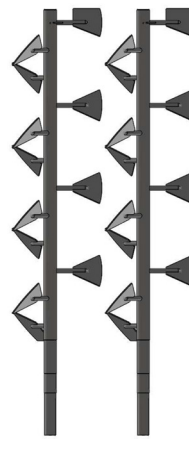
BEST PRACTICES

The dual shaft, paddle agitators create an accurate blend for protein products that require additional processing. Provides accurate blending, reduced batch cycle times and temperature rise.

APPLICATIONS



Double Shafts with Overlapping Paddles



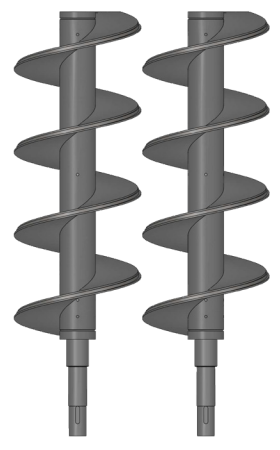
BEST PRACTICES

For quick mixing of proteins (with or without additives) that require accuracy or protein extraction with minimal standard deviation.

APPLICATIONS



Single or Double Thermal Screws



BEST PRACTICES

The Thermal Screw agitators offer gentle blending in applications when it's advantageous to have the additional heat transfer surface in contact with the product.

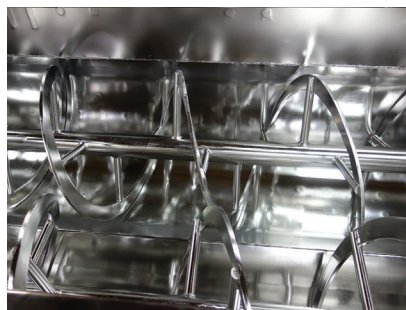
APPLICATIONS



Single shaft agitator with dual paddle flights showing scraper system



Double side-by-side ribbons with electropolished finish



Equipment: Mixer-Blenders, ThermaBlend® Cookers and Buffering Mixers

Best Practices: Compared to a single agitator with paddles only, the addition of the outer ribbon creates more efficient conveyance during the mix cycle and the discharge cycle.

Single Shaft with Dual Paddles

Design: Inner and outer opposing paddles on a single shaft.

Applications: Used for soups, sauces and similar products.

Equipment: Mixer-Blenders, ThermaBlend® Cookers and Buffering Mixers

Best Practices: The dual paddle flights create a more aggressive flow compared to a single ribbon agitator, keeping particulates suspended and the batch homogeneous.

Single or Double Shaft Thermal Screw

Design: Driven by chain and sprocket with a rotary union for steam or hot/cold water to be circulated through the shaft and cavity of the flights

Applications: Used for slurries and other products where heat transfer is required.

Equipment: Thermal Screw Cookers and Mixer-Cookers

Best Practices: Thermal Screw agitators offer gentle blending in applications where additional product contact heat transfer is required for the product.

Double Shafts with Ribbon

Design: One ribbon rotates in counterclockwise direction and the other ribbon in a clockwise direction.

Applications: Used for processed cheeses, dips, spreads, fruit fillings and similar types of blended food products

Equipment: Mixer-Blenders and ThermaBlend® Cookers

Best Practices: Ribbon agitators produce a low-shear homogeneous blend and is especially effective when unloading challenging products that are dense and viscous.

Double Shafts with Ribbon/Paddles

Design: Similar to the standard dual ribbon agitators with added paddles for inner mixing

Applications: Used for dips/spreads, sauces and pastes.

Equipment: Mixer-Blenders and ThermaBlend® Cookers

Best Practices: This double agitator system offers a dynamic flow of components with varying densities to help transfer and distribute the ingredients equally throughout the batch.



Single Agitator with Ribbon/Paddle Flights

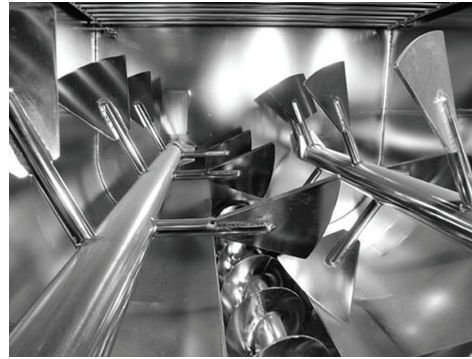
Double Shafts with Paddles

Design: Side by side agitators with paddles

Applications: Used for sausage, processed meats and other ground meats and poultry products.

Equipment: Mixer-Blenders

Best Practices: These double shaft, paddle agitators create an accurate blend for a variety of protein processing applications. This solution provides the next in progression after ribbon agitators for accurate blending with reduced batch cycle times and temperature rise.



Double Overlapping Paddle Agitators

Double Shafts with Overlapping Paddles

Design: Agitators are intermeshed and work in unison with a bottom discharge screw.

Applications: Ground or emulsified beef, pork, chicken and turkey products

Equipment: Mixer-Blender, Mixer-Grinder

Best Practices: For quick mixing of proteins (with or without additives) that require accuracy or protein extraction with minimal standard deviation.

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