AMPCO APPLIED PRODUCTS

HIGH EFFICIENCY, HIGH PERFORMANCE, HIGHLY ENGINEERED

Mixing and Blending

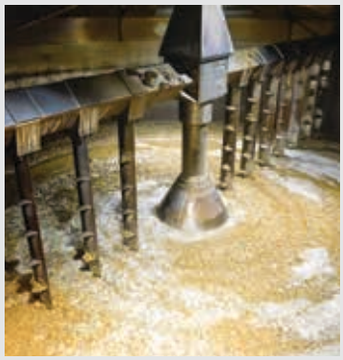
MIXING & BLENDING

Ampco Applied Products designs highly engineered mixing, blending and milling systems for precise performance. Traditional configurations and complex system designs all receive high level support from the AAP Engineering team.

Systems include POWDER-max, DRY-blend, SIMPLE-blend, SHEAR-blend, SHEAR-max, SBH/SBI Blenders, JET-shear and ROLEC DH Systems. Designed for maximum efficiency and customer specifications, Ampco takes pride in its line of commercial mixing and blending products. Ampco mixers and blenders are customizable for use on a wide range of batch sizes, varying media, ergonomics and end user requirements. AAP is driven to provide a tailored product solution that ultimately reduces processing time and results in a better end-product.

These highly engineered products with critical tolerances are machined, manufactured and assembled in Glendale, Wisconsin and can be fully customized for every need. Teeth thickness, number of teeth, radius and Cartesian coordinates can all be specified per customer.

TRIALS, RENTALS AND LEASING OPTIONS ARE AVAILABLE.



AAP customers say...

...reduced our processing time substantially while producing a more consistent finished product.

POWDER SYSTEMS

POWDER-max

LEASE TRIAL RENTAL

POWDER-max by Ampco Applied Products reduces processing time and provides optimal product consistency with no batch size limitations. An innovative design allows POWDER-max to quickly blend wet and dry ingredients in a single, fully portable unit. POWDER-max combines Ampco's SP Series liquid ring pump and High Shear Blender in-line to facilitate limitless production runs. The fully sanitary design is suitable for food, beverage, pharmaceutical and chemical applications.

Five standard models are available and POWDER-max can be customized for a multitude of processing requirements. Options include: hopper covers, hopper screens, pneumatic valves, explosion proof options, bulk bag connectors, table designs and ZP Series circumferential piston pumps for higher viscosities.

POWDER-max Standard Features

- Model SP liquid ring pump
- Ampco shear blender or mixer
- 304 stainless steel base material
- 316L wetted parts
- Dual motor starter – NEMA 4X
- Stainless steel casters
- Powder control valve
- Fluid control valve

Max Flow Rate: 350 GPM / 79.5 M^3/hr

Max Powder Induction Rate: 700 lbs/min / 318 kg/min

AAP customers say...

...we turned our product from something great into something spectacular with this machine.

...It's the best money we've ever spent!

SPECIFICATION
Ideal operating flow rate (low viscosity)
Powder feed rates (highly soluable)
Maximum viscosity
Dynamic shearing teeth

SHEAR-blend

SHEAR-blend portable tabletop hopper system is designed for ergonomic small batch blending where shear is required but a larger two pump system is unnecessary. The SHEAR-blend system combines powder induction and fluid pumping as an economical solution to moderate powder induction applications. The combination of shear teeth and pumping vanes on the Ampco SBI blender efficiently shear and pump the product. The SBI and elbow are fully CIP-able and come in multiple sizes based on application requirements. The unit comes complete with a stainless steel tabletop and removable 304SS hopper. Custom options are available, including VFD, cart options, lids, powder screens, 316SS hopper and more.

SHEAR-blend Features

- Combination integrated impeller and dynamic shear teeth
- Pump and blend in a single stage
- 304 stainless steel adapter
- Dynamically balanced impeller
- 316L wetted parts
- 316L stainless steel shaft

Max Flow Rate: 512 GPM / 116 M^3/hr

Max Powder Induction Rate: 700 lbs/min / 318 kg/min

	POWDER-MAX	SIMPLE-BLEND	DRY-BLEND	SHEAR-BLEND
	30 – 350 GPM 7 – 79 M^3/HR	30 – 350 GPM 7 – 79 M^3/HR	40 – 150 GPM 9 – 34 M^3/HR	50 – 510 GPM 11 – 116 M^3/HR
	UP TO 700#/MIN 318 KG/MIN	UP TO 700#/MIN 318 KG/MIN	UP TO 350#/MIN 159 KG/MIN	UP TO 700#/MIN 318 KG/MIN
	2500 CPS	2500 CPS	2500 CPS*	1000 CPS
	YES	NO	NO	YES

* May require a supply or take-away pump

POWDER SYSTEMS

SIMPLE-blend

LEASE TRIAL RENTAL

SIMPLE-blend from Ampco is a lower cost option with a simplified design. The system is designed to induce powders at a highly efficient rate with minimal shear. An Ampco SP Series pump powers this unit and the self-priming SP provides the suction for the induction process. A typical application for the SIMPLE-blend unit would require little to no shear and induce easily dissolved products.

These units can be completely customized per application and process layout. Contact Ampco today to discuss your application with a member of the Ampco Applied Products team.

SIMPLE-blend Features

- SP liquid ring pump
- 304 stainless steel base material
- 316L wetted parts
- Motor starter – NEMA 4X / VFD upon request
- Stainless steel casters
- Powder control valve
- Fluid control valve

Max Flow Rate: 510 GPM / 116 M^3/hr

Max Powder Induction Rate: 700 lbs/min / 318 kg/min

DRY-blend

LEASE

The Ampco Applied Products DRY-blend system offers efficient and thorough blending of wet and dry ingredients. A proven tube within a tube design – powered by an Ampco AC+ centrifugal pump – eliminates foaming, lumping and fisheyes while delivering consistent blending with every batch.

All wetted components are 316L stainless steel. Easy-to-maintain and operate, the DRY-blend system is suitable for food, dairy, beverage, pharmaceutical, personal care, and chemical applications.

DRY-blend Features

- AC+ centrifugal pump
- 316L wetted parts
- Customizable options: carts, tables, belt drive with base controls
- Easily integrated into existing process systems

Max Liquid Flow Rate: 150 GPM / 34 M^3/hr

Max Powder Induction Rate: 350 lbs/min / 159 kg/min

AAP customers say...

...Simple and fast, just what we needed to expand juice production in our plant.

INLINE MIXERS & BLENDERS

SBH/SBI SERIES BLENDERS

Ampco Applied Products offers two moderate shear blender models: SBH/SBI. Applications range from pharmaceutical to food, industrial and chemical. Trials, rental and leasing options are available. For additional information contact the Ampco Applied Products team for full details.

SBH Features

- High shear blending
- 316L stainless steel heavy wall construction
- 304 stainless steel adapter
- Dynamically balanced impeller
- 316L stainless steel shaft

Max Flow Rate: 200 GPM / 45 M^3/hr
316L stainless steel shaft

LEASE TRIAL* RENTAL*

* Larger units only, consult factory

SBI Features

- Medium shear blending
- 316L stainless steel wetted construction
- Combination integrated impeller with dynamic shear teeth
- Pump and blend in a single stage
- 304 stainless steel adapter
- Dynamically balanced impeller
- 316L stainless steel shaft

Max Flow Rate: 510 GPM / 116 M^3/hr

Max Powder Induction Rate: 150 lbs/min / 68 kg/min

SHEAR-max HIGH SHEAR INLINE MIXER

Ampco's SHEAR-max delivers high shear inline mixing with a twist. This mixer provides particle size reduction, emulsification and dispersion with tight tolerances for high shear applications and extremely efficient flow. The curved rotor and various stator designs make it one of the most efficient and hygienic designs on the market. The SHEAR-max can disperse, dissolve, emulsify, de-agglomerate, homogenize or simply blend.

SHEAR-max Features

- Integrated impeller and dynamic shear teeth
- CIP-able
- 316L stainless steel construction
- 304 stainless steel adapter
- Dynamically balanced impeller
- Multiple stator designs
- Available in single or multi stage design

Max Flow Rate: 800 GPM / 182 M^3/hr

LEASE TRIAL RENTAL

JET-shear

Ampco's in-tank mixers are used to hydrate, dissolve, disperse and emulsify products consistently and efficiently covering a wide range of applications in the food, personal care, chemical, and pharmaceutical industries.

The JET-shear is used in open or closed tanks and totes, creating smooth consistent blends in tanks as large as 5000 gallons. The JET-shear is much more than an in-tank agitator, capable of creating emulsions under 10 microns.

Options include pneumatic lifts, multiple mounting options: flange, bridge mount, and tri-clamp. A variety of work head styles and shaft lengths are available.

JET-shear Features

- Motor speed – 1200/3600 RPM
- Work head – 316 stainless steel
- Shaft – 316 stainless steel
- Bearing housing – 304 stainless steel
- Shaft lengths – vary based on customer requirements
- Tank sizes up to 5000 gal/ 22730 L for self-mixing

AAP customers say...

...Skid use is straightforward and safe, with a significant reduction in total time required for T90 pellet dosing.

ROLEC DH INDUCTION SYSTEMS

PROVIDES SAFE, EFFICIENT HOP INDUCTION

Model DH90

Model DH250

Model DH45

The ROLEC DH units utilize an Ampco SBI blending pump to safely induce dry hop pellets, fruit, spices, coffee, cocoa nibs and more directly into the stream of beer while recirculating the fermenter.

All three systems use carbon dioxide (CO_2) to purge oxygen from the hop chamber. Pellets can be induced into fermenting, finished, or crashed beer. The induced media is chopped to maximize the surface area, flavor and aroma.

ROLEC DH features:

- 3 Models DH45/DH90/DH250
- A pressurized tank with glass-top manway on the DH90 and DH250 allows for balancing fermenter pressures and visual monitoring.
- The DH45 is a lower cost non-pressurized system designed for smaller craft breweries
- Gauges and sight glasses aid the user in monitoring induction and pressures
- Minimal dissolved oxygen (D.O. pick-up) less than 5 PPB
- All components are sanitary and CIP-able (no additional CIP pump is required)
- The fully portable DH can be used on many fermenters and fits well in cramped cellars
- Recirculation can be done as long as desired (Ampco recommends 3-4 fermenter turnovers)
- Improved aroma and flavor profile, faster tank turn-overs and safe, ground level induction

LEASE TRIAL RENTAL

APPLICATIONS

BEVERAGES

Energy drinks, beer, tea, fruit juice, flavoring, vegetable juice, coffee blends

DAIRY

Yogurt, milk powder, sour cream, ice cream, flavored milk, eggnog

FOOD

Salad dressing, salsa, hot sauce, mayonnaise, pizza sauce, ketchup

PERSONAL CARE

Toothpaste, lotion, cream, shampoo, sunscreen, conditioner, body wash, makeup

PHARMACEUTICAL

Cough syrup, ointment, injectables, topical iodine, cellulose

THICKENERS

Gum, pectin, starch, gelatin

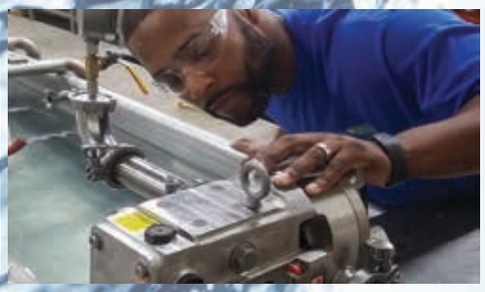
INGREDIENTS AND ADDITIVES

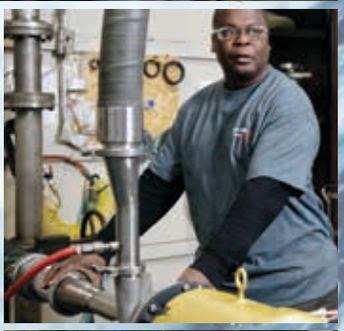
Aspartame, non-fat dry milk, salt, citric acid, sugar, egg, powder, protein, xanthan gum

CHEMICAL

Coatings, fertilizers, paints, herbicides, ink and dye compounds

MANUFACTURED, TESTED AND ASSEMBLED IN GLENDALE, WI USA



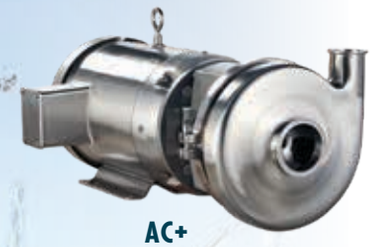


ADDITIONAL PRODUCTS

MANUFACTURING THE MOST COMPLETE LINE OF SANITARY PUMPS, MIXERS AND BLENDERS IN THE WORLD

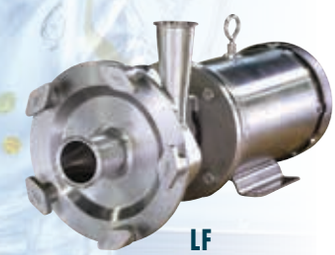
ZP3

ZP1+



AC+

CB+



LF

SP

AL

SLH 4G/4U

AMPCO
APPLIED PRODUCTS

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