Ampco Pumps GmbH

A Member of the KRONES Group

SANITARY PRODUCT OVERVIEW

Your reliable partner for pump solutions

www.ampcopumps.com

THE STORY OF AMPCO

AMPCO PUMPS GmbH

Ampco Pumps GmbH was founded in 2011 as a subsidiary of Ampco Pumps Company. The latter was established in 1948 in Milwaukee, USA, and is today a leading pump manufacturer in the USA, achieving top sales growth within this segment.

Right from the start, Ampco has provided industry with highly successful pump solutions. By gradually enlarging the portfolio with pumps for sanitary applications, AMPCO has grown to become one of today's leading US pump suppliers.

Our core competences cover centrifugal and positive displacement pumps for a wide range of sanitary applications, as well as non-sanitary, such as media supply, cooling water, light chemicals, sewage and many more. Ampco Pumps product portfolio continues to expand according to the needs of the customers.
Our smart and sophisticated production processes, highly motivated staff, combined with a large stock, enable us to supply best quality products quickly to anywhere in the world – and still offer competitive prices.

PUMP SERIES FOR SANITARY SOLUTIONS

Circumferential Piston Pump	**ZP1/ZP2/ZP3**
Rotary Lobe Pump	**AL Series**
Sanitary Centrifugal Pump	**EC+ Series**
Shear Pump (Blender)	**SBH/SBI/SHEAR-max**
Powder Mixer (Systems)	**SIMPLE-blend / POWDER-max**
In-tank Mixing	**JET-shear**

AMPCO PUMPS ARE CERTIFIED ACCORDING TO EHEDG, 3A, ATEX

CIRCUMFERENTIAL PISTON PUMPS
ZP SERIES

In 2010, Ampco introduced the ZP1 and ZP2 Series of positive displacement pumps. The ZP Series offers more standard features than its competitors, including a stainless-steel gear case.

ZP1 and ZP2 Series pumps are part- for-part, 100% interchangeable with competing pumps. The ZP1/ ZP2 Series set a new standard of value and quality within the market and Ampco raised the bar in 2012 with the introduction of the ZP3. The patented ZP3 PD Series has full CIP capability without modifications and without loss of pump efficiency. The front-loading seal design allows the seal to be easily changed and the rotor case design eliminates all dead zones.

In 2013, Ampco introduced the patented ZP1+ Series, which is designed so that O-Ring seals can be changed without having to disconnect the pump from the piping system. Both the ZP3 and ZP1+ set a new standard for sanitary processing. The entire ZP Series offers quality, value and proven performance. Certificates EHEDG and 3A.

"ZP1 and ZP2 are also dimensionally and hydraulically interchangeable with competing brands."

TECHNICAL DATA
Models: 16
- Max. Discharge Pressure: up to 350 m
- Max. Flow Rate: up to 103 m³/h
- Max. Viscosity: 2.000.000 mPas
- Temperature Range: -40°C to +150°C
- Hot clearances required for hightemp operation
- Inlet DN25 – DN150 / or rectangular inlet (up to 127 x 441 mm)

SEAL OPTIONS
- Single O-Ring Seal
- Double O-Ring Seal
- Single mechanical Seal
- Double mechanical Seal
- Several material combinations available

DRIVE
- Gear motor
- 50 Hz
- IEC Standard
- NEMA

THE ZP ADVANTAGES

- Stainless steel gear case
- Stainless steel bearing retainers
- 17-4 ph shafts
- Helical gears
- 4-way mounting
- 2-side threaded grease ports
- Anti-microbial lube
- 6 oil fill plugs with sight glass
- Gasketed stainless steel cleanout plugs
- Stainless Steel splash plate
- Drilled for flush

ZP1 SERIES

Basic Model of the ZP Family, price sensitive reliable PD pump with tight clearances and several O-Ring seal options.

ZP1+ SERIES (front loading seal)

Ampco Pumps continues to bring innovation to the sanitary pump market. We have enhanced the traditional design of the popular ZP1 pump and are pleased to introduce the ZP1+ (available in models 30 and larger). The patented design changes the position of the static and dynamic O-Rings. ZP1+ O-Rings can be changed without having to disconnect the pump from the piping system, providing easy maintenance and reduced downtime.

ZP2 SERIES

Optimized cleanability combined with mechanical seal options and sealed capping nut for rotor fixation. Existing ZP2 pumps (and our competitors' similar pumps) can be upgraded to the ZP3 design with new rotors, seals and re-machining the existing rotor case.

ZP1, ZP2, ZP3 AS PREMIUM ECONOMY

AMPCO remanufacturing department is specialized for renewal of ZP series pumps and competing brands. Customer's advantage is an up to 30% lower price for pumps with same performance and warranty as a new one.

OVERVIEW	ZP1	ZP1+	ZP2	ZP3
Single O-Ring Seal	×	×		
Double O-Ring Seal	×	×		
Single Mech. Seal	×		×	×
Double Mech. Seal	×		×	×
Front Loading Seal		×		×
Capped Nut			×	×
100% dead zone free				×

CIRCUMFERENTIAL PISTON PUMP

ZP3 SERIES

Ampco's ZP3 Series rotary piston pumps are the best value in the industry. Every new Ampco ZP pump includes a 304 (1.4301) stainless steel gear case, stainless bearing retainers, 17-4ph shafts, helical gears, 4-way mounting, threaded grease zerks, anti-microbial lube and gasketed clean-out plugs. Whether you simply want to replace your existing ZP1 / ZP2 style pump or prefer to upgrade to Ampco's new ZP3 design with improved CIP capability and ease of maintenance, Ampco's ZP3 Series is the smart choice.

THE ZP3 ADVANTAGES

- CIP capable
- Front-loading seals are located closer to the product flow, offering improved CIP performance with no disassembly required.
- Front-loading seals simplify maintenance and reduce service time
- EHEDG Certified and in conformance with 3A Sanitary Standards and the ATEX Directive
- Cover design maximizes exposure of the cover O-Ring to the CIP fluid
- Free drain design improves CIP capability while maintaining maximum pump efficiency
- CIP holes in rotor ensure turbulent flow to the cover hub
- Elimination of dead zones in shaft bore improves cleanability and increases seal life
- The ZP3 pump is mounted on a ZP2 gear case, including shafts to maximize parts interchangeability
- Existing ZP2 pumps (and our competitors' similar pumps) can be upgraded to the ZP3 design with new rotors, seals and re-machining the existing rotor case
- New pumps can be reconditioned

AMPCO POSITIVE DISPLACEMENT
PD PUMPS

APPLICATIONS

BAKERY
Dough, fats, fruit filling, icing, oil, yeast

BEVERAGES
Beer, fruit concentrate, fruit juices, mash, wine

CONFECTIONERY
Chocolate, cocoa butter, corn syrup, gelatin, sugar

CANNED FOODS
Tomatoes, baby food, jams, jellies, mayonnaise, potato salad, pudding, relish, stews

COSMETICS
Creams, emulsions, jellies, lotions, shampoo, toothpaste

DAIRY
Butter, cream, curds, ice cream, margarine, milk, soft cheese, yogurt

DRESSINGS
Mayonnaise, other sauces, ketchup

FLAVORINGS
Concentrates, syrups

MEATS
Broth, fats, gelatin, pet foods, sausage fillings

„AL Series is dimensionally and hydraulically interchangeable with competing brands.“

ROTARY LOBE PUMP
AL SERIES

The AL Series is well suited for a variety of applications including food, dairy, beverage and pharmaceutical. The performance of the AL Pumps Series, make them a versatile, yet economical solution for a variety of processing applications.

All Ampco AL Series pumps include a stainless-steel gear case as standard.

TECHNICAL DATA
Models: 10
- Self-priming capacity: 3.7 m
- Max. Discharge Pressure: 200 m
- Max. Flow Rate: up to 100 m^3/h
- Max. Viscosity: 1.000.000 mPas

SEAL OPTIONS
- Triple Lip Seal
- Single O-Ring Seal
- Double O-Ring Seal
- Single Mechanical Seal
- Double Mechanical Seal
- Several material combinations available

DRIVE
- Gear Motor
- 50 Hz
- IEC Standard
- NEMA Standard

CONNECTIONS
- DIN11851
- DIN11864-2
- Tri-Clamp
- SMS
- NPT
- Aseptic Ports in DIN/ASME
- Flanges DIN/ASME
- Customized connections

MATERIALS
- Stainless Steel 316L (1.4404) (wetted parts)
- Gear Case SS 304 (1.4301)

CERTIFICATES
- EHEDG, 3A, ATEX

OPTIONS
- Rotors in Bi-Wing, Tri-lobe, Single-Wing and Multilobe, Heating/Cooling Jacket, Hot Clearance, customized surface finish and many more

CENTRIFUGAL PUMPS

APPLICATIONS

FOOD AND BEVERAGE
Fruit juices, fruit concentrate, mash, high fructose corn syrup, liquor, wine, beer, wort, yeast, bottled water, carbonated beverages, marinade solutions, red water chillers

OILS
Sunflower oil, palm oil, rapeseed oil, crude oil

DAIRY
Cream, ice cream, buttermilk, milk, whey

BEAUTY AND PERSONAL CARE
Soaps, lotions, aerosols, cosmetics, shampoo, mouthwash

CONFECTIONERY
Candy, corn syrup, chocolate, sugar solutions

PHARMACEUTICALS & BIOTECH
Water for injection, injectables, intravenous fluids

CENTRIFUGAL PUMP
EC+ SERIES

Price sensitive, simple, easily maintainable solution for sanitary applications. Thousands of EC+ pumps are in operation all over the world. Wetted parts in 316L (1.4404) stainless steel construction and 304 (1.4301) Stainless Steel adapters are standard. Available in several versions e.g. with motor cover, mobile cart, etc.

TECHNICAL DATA
Models: 10
- Max. Discharge Pressure: 60 m
- Max. Flow Rate: up to 270 m^3/h
- Max. Viscosity: 1.200 cP
- Seal specifications: 2 seal options

SELF PRIMING PUMP
SP SERIES

The self-priming capability of Ampco's SP liquid ring pumps makes them ideally suited for CIP return applications and for handling products with entrained air. Tight manufacturing tolerances and the unique vane-shaped impeller enable SP pumps to handle shear sensitive products efficiently.

TECHNICAL DATA
Models: 5
- Max. Discharge Pressure: 100 m
- Max. Flow Rate: up to 143 m^3/h
- Max. Viscosity: 1.200 cP
- Seal specifications: 2 seal options

AMPCO
APPLIED PRODUCTS

APPLICATIONS

BEVERAGES
Energy drinks, tea, fruit juice, vegetable juice, coffee blends

DAIRY
Yogurt, sour cream, ice cream mix, flavored milk, eggnog, pudding

FOOD
Salad dressing, salsa, hot sauce, mayonnaise, pizza sauce, ketchup and mustard

PERSONAL CARE
Toothpaste, lotion, cream, shampoo and conditioner, body wash

THICKENERS
Gum, pectin, starch, gelatin

INGREDIENTS & ADDITIVES
Aspartame, non-fat dry milk, salt, citric acid, sugar, egg powder, whey protein concentrate, calcium carbonate, honey, powder flavoring

BIO-PHARMACEUTICAL
Cough syrup, ointment, lotion, vitamin drink, contact solution, coatings, fertilizers, paints, herbicides, ink and dye compounds

POWDER SYSTEMS

POWDER-max

Blend wet and dry ingredients together quickly and precisely with the Ampco POWDER-max. The POWDER-max will save time and money by providing optimal mixing consistency and reduced processing time. The POWDER-max is set in-line so there is no limit to the batch size. Ampco can customize a POWDER-max designed to specific applications, further maximizing efficiency and providing a superior end product.

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 hopper in 304 (1.4301). Custom options are available, including VFD, cart options, lids, powder screens, 316L (1.4404) hopper option and more.providing a superior end product.

INLINE MIXERS & BLENDERS

There are several system options for almost every mixing/ homogenization application:

- Dry-blend
- Shear-blend
- Inline Mixers & Blenders Series SBH/SBI/SHEAR-max

We provide you with specialist solutions tailored to your individual process data and application. A questionnaire for system inquiry is available on Ampco Pumps website.

DRY-blend

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 EC+ centrifugal pump – eliminates foaming, lumping and fisheyes while delivering consistent blending with every batch.

SHEAR-max

Ampco's SHEAR-max delivers high shear inline mixing with a twist. The 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.

SBI / SBH

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.

JET-shear

The JET-shear is used in open or closed tanks and totes. Create smooth consistent blends in tanks as large as 4.000 liter. The JET-shear is much more than an in-tank agitator, capable of creating emulsions under 10 microns.

ZP4 COMPACT PUMP

The durable and efficient circumferential piston pump design is industry proven and now available in the ZP4 for compact application needs. The ZP4 delivers the accuracy that you expect from a positive displacement pump. It's product zone components are constructed of non-wear materials unique for pumps of this size and application range. The ZP4 separates itself from other sanitary pump options in this category because of its ZERO rotor-to-rotor contact design that reduce any possibility of product zone contamination from pump wear.

FEATURES

- Couples directly to a Servomotor
- ZERO rotor to rotor contact
- NO wear parts in the product zone
- Self-priming
- Perfect for handling sensitive liquids with particulate
- Front-loading seal design for ease of maintenance and clean-up
- Non-galling Alloy 88 rotors
- 316L stainless steel body
- 304 stainless steel gear case

PERFORMANCE OVERVIEW

Models: 1

- Max Discharge Pressure: 20 BAR
- Max Viscosity: 200.000 mPas
- Displacement: 0,0062 l/Rev
- Seal Specifications: 5 seal options

1. *Single Mechanical*
2. *Double Mechanical*
3. *Single O-ring*
4. *Double O-ring*
5. *Lip Seal*

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