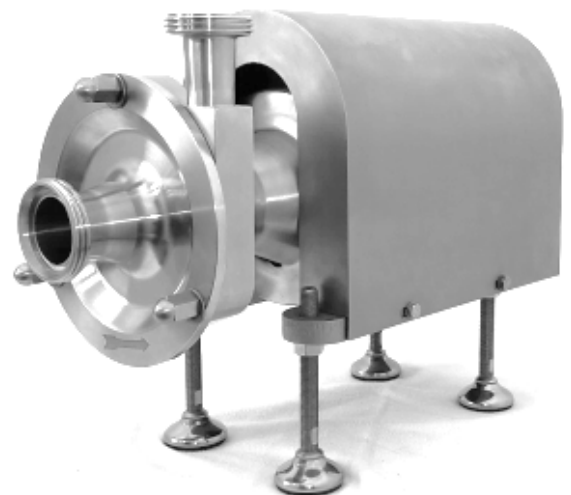
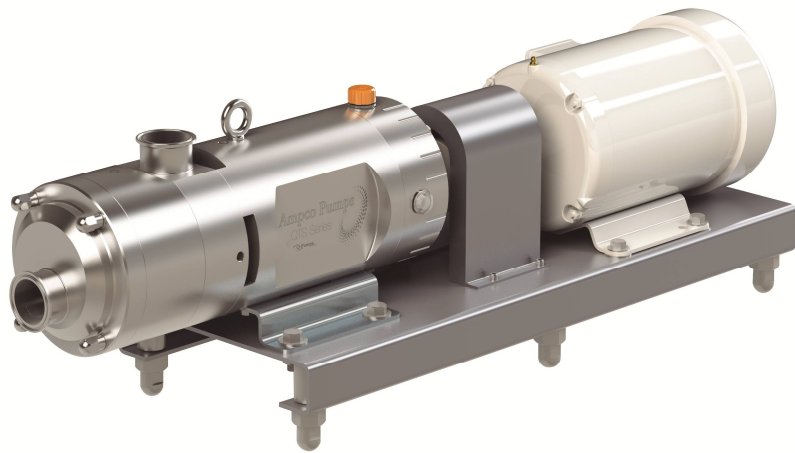


AMPCO PUMPS

YOUR RELIABLE PARTNER FOR PUMP
SOLUTIONS

SANITARY PROGRAM





The story of **Ampco Pumps**

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. And the product portfolio continues to expand - 2015 marks the introduction of the new **QTS twin screw pump**.

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

TWIN SCREW PUMPS

CIRCUMFERENTIAL PD PUMPS

LOBE PD PUMPS

SANITARY CENTRIFUGAL PUMP

SANITARY CENTRIFUGAL PUMP

SHEAR PUMP (BLENDER)

POWDER MIXER (-SYSTEMS)

QTS- SERIES
 ZP1/ZP2/ZP3-
 SERIES
 AL SERIES
 LME SERIES
 AC+ SERIES
 SB/SBH/SBI
 PI/PM

AMPCO PUMPS are certified according to EHEDG, 3A, ATEX

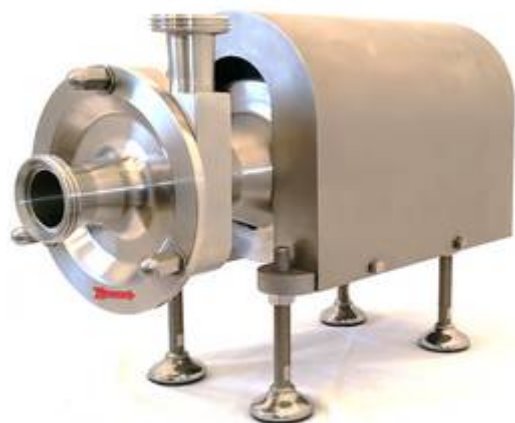


APPLICATIONS OF AMPCOPUMPS PORTFOLIO

We have a solution for almost every application!

BEVERAGES: energy drinks, tea, fruit Juice, vegetable juice, coffee blends / **FOOD:** salad dressing, salsa, hot sauce, mayonnaise, pizza sauce, ketchup and mustard / **DAIRY:** yogurt, sour cream, Ice cream mix, flavored milk, eggnog, pudding / **PERSONAL CARE:** toothpaste, lotion, cream, shampoo and conditioner, body wash / **THICKENERS:** gum, pectin, starch, gelatin / **INGREDIENTS AND 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, WFI.

HIGH EFFICIENCY CENTRIFUGAL PUMP **LME SERIES**



The LME high efficiency pump has a “front loading” seal design for simple maintenance and is easily convertible to a double seal. The Series offers 100% interchangeability with the competing brand.

Your advantage:

- The high efficiency design and performance offer gentle product handling capability up to a viscosity of 1200cps.
- Heavy wall construction, tight manufacturing tolerances, dynamically balanced impellers and a self-aligning shaft.
- The standard adapters are made of stainless steel 304.
- IEC motors are the standard.

TECHNICAL DATA

Sizes R10 –V550

Flow max. 200 m³/h (880 gpm)

Discharge max. 110 m (160 psi)

DETAILS

- single mechanical seal front loading
- option double mechanical seal

MATERIALS

- Body 316L stainless steel
- Adapter 304 stainless steel

INSTALLATION

- Horizontal
- Close coupled

DRIVE

- 50Hz or 60Hz
- 1500-3000 1/min
- 1750-3500 1/min
- IEC Motor

CONNECTIONS

- DIN11851
- several aseptic standard options

OPTIONS

Heating jacket, trolley shrouds, leg assembly drain, special polish requirements or flushing options for the mechanical seal

CENTRIFUGAL PUMP **AC+ SERIES**

Price sensitive, simple, easily maintainable solution for sanitary applications. Thousands of AC pumps are in operation all over the world. Body made of 1.4404 (316L). Available in several versions e.g. with motor cover, movable version....

TECHNICAL DATA

Sizes 114 - 4410

Flow max. 270 m³/h (1200 gpm)

Pressure max. 90m (130 psi)



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

Sizes SP-210, SP-215, SP-220, SP-225

Flow max. 45 m³/h (200gpm)

Pressure max. 50 m (73psi)

Viscosity max. 1200cps



AMPCO SYSTEM **POWDER MIXER**

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



MIXER & BLENDER AMPCO SYSTEM

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

- **AC+ Dry Blender**
- **SBI System**
- **PI Powder inducer**
- **Shear Blender Series SB/SBH/SBI**

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



PD LOBE PUMP AL SERIES



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

The AL Series is well suited for a variety of applications including food, dairy, beverage and pharmaceutical. AL pump viscosity ranges from 1 to 1,000,000 centipoise. Self-priming capabilities up to 3.5m (12 feet) and flow rates up to 50m³/h (230 GPM) make the AL a versatile, yet economical pump for a variety of processing applications.

"AL SERIES is dimensionally and hydraulically interchangeable with competing brands."

TECHNICAL DATA

Sizes

Self-priming cap. 3.5m (12ft)

Flow max. 52 m³/h (230 gpm)

Discharge max. 110 m (160 psi)

SEAL OPTIONS

- Triple Lip Seal
- O-ring Seal
- Double O-Ring
- Single Mechanical
- Double Mechanical Seal

With different material options

MATERIALS

- Stainless Steel 316 (Casing and Rotor)
- Gear Case SS304

CERTIFICATES

EHDG, 3A

DRIVE

- Gear Motor
- 50 or 60Hz
- IEC Standard
- NEMA Standard

CONNECTIONS

- Aseptic Ports in DIN/ASME
- Flanges DIN/ASME

OPTION

Single Wing, Bi-Wing, Tri-lobe Rotor Options, Heating/Cooling Jacket, Hot Clearance and many more

PD 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 patent-pending ZP3 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 patent-pending 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

Sizes 12 sizes from ZP06 – ZP320

Inlet DN25 – DN150 / or rectangular inlet (up to 98mm x 279mm)

Flow max. 100m³/h (450gpm)

Diff. pressure up to 34.5bar (500psi)

Temperature -40°C- 150°C (-40°F- 400°F)

Viscosity up to 1,000,000 CPS

SEAL OPTIONS

- O-ring Seal
- Double O-Ring
- Single Mechanical
- Double Mechanical Seal

With different material options

DRIVE

- Gear Motor
- 50 or 60Hz
- IEC Standard
- NEMA Standard

PD CIRCUMFERENTIAL PISTON PUMPS **ZP**



THE ZP ADVANTAGES

- ✓ *Stainless steel gear case*
- ✓ *Stainless steel retainers*
- ✓ *17-4ph shafts*
- ✓ *Helical gears*
- ✓ *4-way mounting*
- ✓ *2-side threaded grease zerks*
- ✓ *Anti-microbial lube*
- ✓ *6 oil fill plugs with sight glass*
- ✓ *Casketed stainless steel*
- ✓ *Cleanout plugs and splash plate*



ZP1 SERIES

Basic Model of the ZP Family, price sensitive reliable PD pump with tight clearance and several o-ring seal options.

ZP1 PLUS 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 patent pending 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.

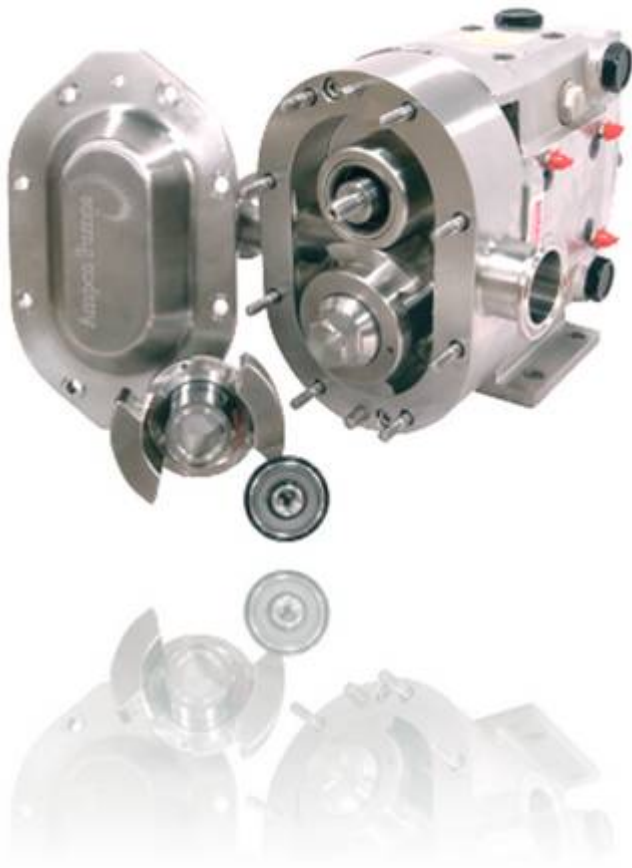
ZP1, ZP2, ZP2 as PREMIUM ECONOMY

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



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

PD CIRCUMFERENTIAL PISTON PUMP ZP3



Ampco's ZP3 Series rotary piston pumps are the best value in the industry. Every new Ampco ZP pump includes a 304 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. ZP3 Series pumps are EHEDG certified and in conformance with 3A sanitary standards and the ATEX directive. 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.

ADVANTAGES ZP3

- 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.



PD TWIN SCREW PUMP QTS



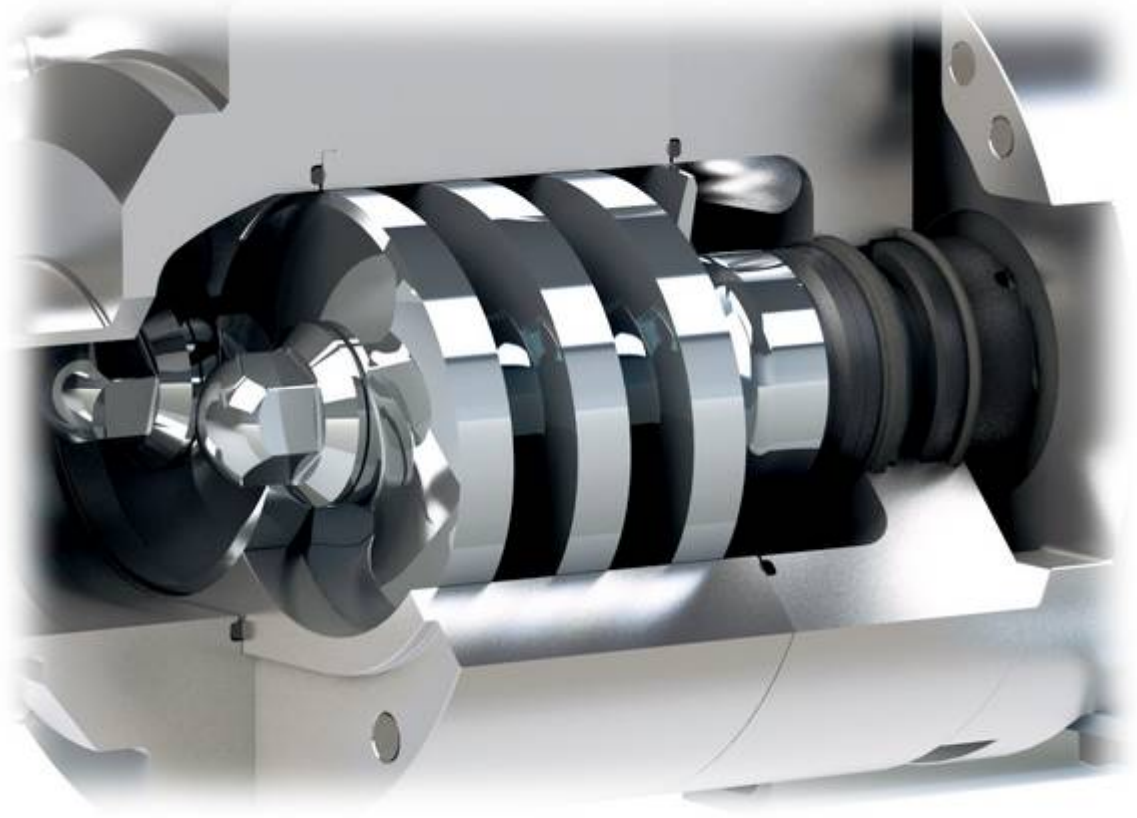
Ampco's QTS Series Twin Screw pumps are the best value in the industry. Every QTS pump includes a 304 stainless steel gear case. QTS Series pumps are about to get EHEDG certified and are in conformance with 3A sanitary standards.

Benefits QTS

- Fully CIP capable
- 100% stainless steel, wetted parts made of 316L stainless steel
- Consistent, virtually pulsation-free operation allows for gentle handling of product, maintains visual integrity and meters output precisely
- Empties difficult lines and tanks due to low NPSH requirements and strong suction capabilities.
- Handles solids delicately with lowest possible damage to the product
- Able to pump product with up to 60% entrained air, eliminating air locking.
- Reduces product loss with bidirectional flow for product recovery
- Ideal for handling abrasive products
- Self-priming
- Completely drainable
- Multiple seal options available



PD TWIN SCREW PUMP QTS



TECHNICAL DATA

Sizes 5 sizes from QTS 100 to 500
Flow max. 279m³/h (1230gpm)
Diff. pressure up to 20bar (300psi)
Speed from 10 to 3000rpm
Viscosity up to 1,000,000 CPS
Multiple Pitch options

SEAL OPTIONS

- Single Mechanical
- Double Mechanical Seal

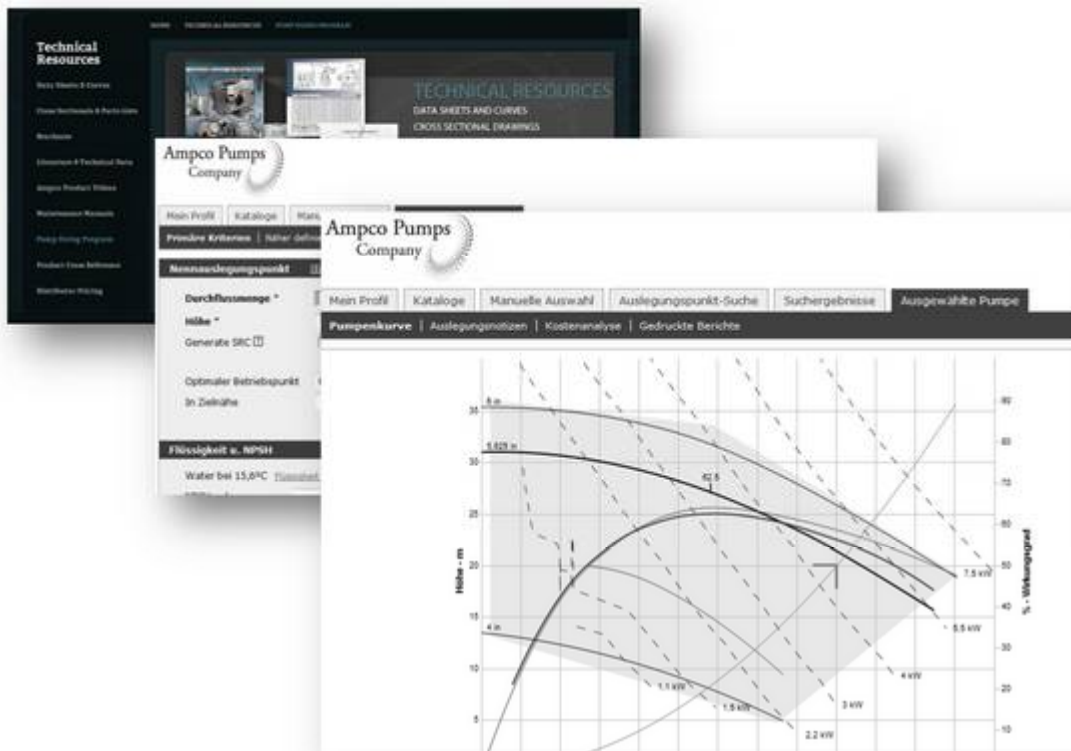
With different material options

DRIVE

- Motors
- 50 or 60Hz
- IEC Standard
- NEMA Standard

PUMP SIZING TOOL AMPCO PUMPS

- ✓ Pre select your centrifugal pump
- ✓ Easy to handle
- ✓ Free of charge
- ✓ Web: „ampco.epump-flo.com/“
- ✓ Sheets of complete Ampco program



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