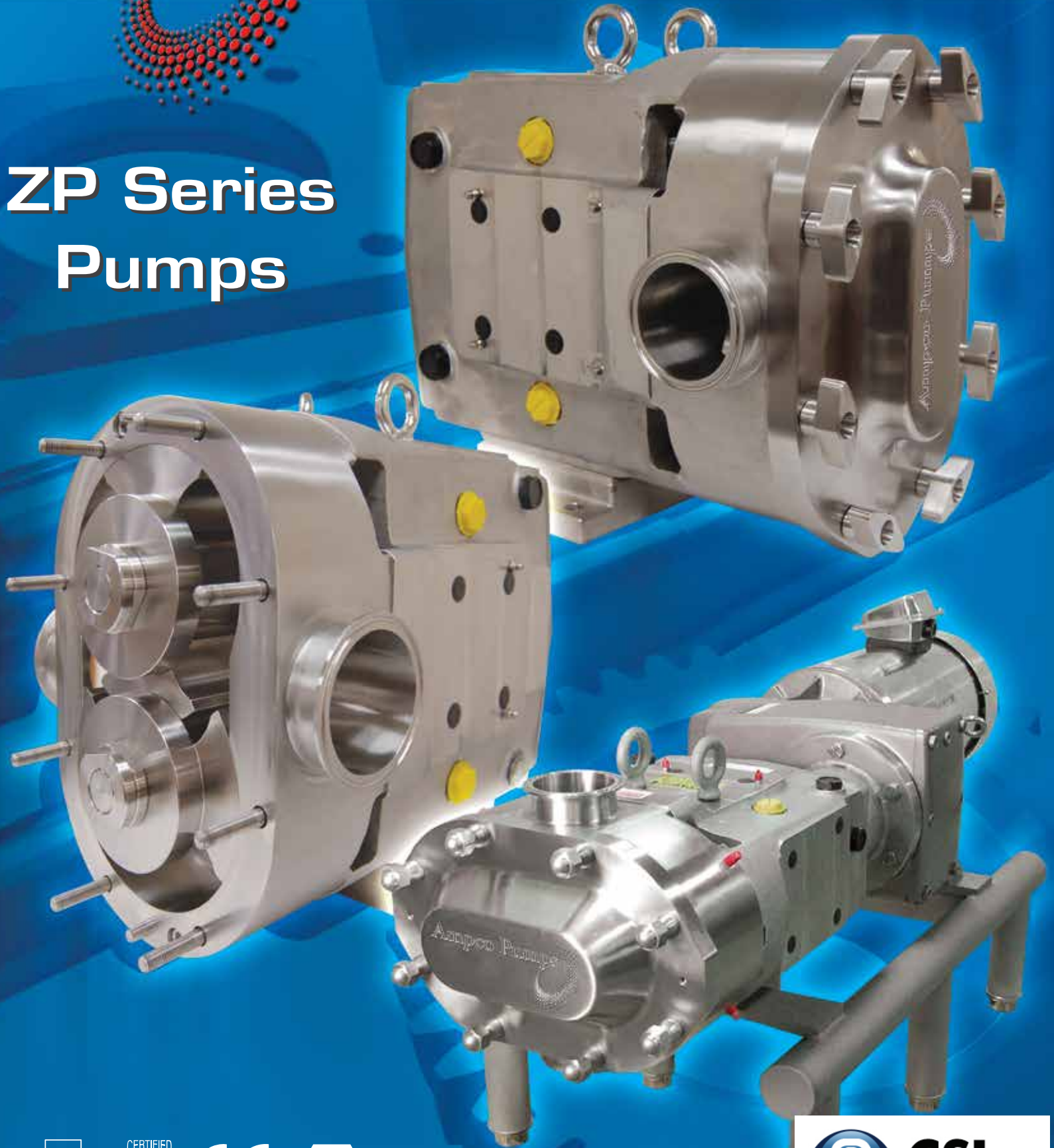


Ampco Pumps Company

# ZP Series Pumps



**CSI**  
csidesigns.com  
800.654.5635 | 417.831.1411


# ZP Series PUMPS

Ampco is setting a new standard for the sanitary pump market. The ZP pump series offers more standard features than the competition including a 304SS gear case. ZP1 and ZP2 parts are interchangeable with competitor pumps.


The Ampco ZP3 is a true innovation and offers front loading seals for easy maintenance. The patent pending ZP3 offers a seal design that eliminates all dead zones and is fully CIP-able without modifications.

## Remanufacturing Program:

All ZP Series and competing models can be rebuilt with oversized rotors to extend the useful life of the pump. A completely remanufactured pump includes new shafts, gears, bearings, rotors and a one-year factory warranty.



**Available Options:**  
*Rectangular inlets,  
heating jackets,  
pressure relief valves  
and optional rotor designs*



*ZP1 and ZP2 pumps are dimensionally and hydraulically interchangeable with competing brands. Visit our website at [www.ampcopumps.com](http://www.ampcopumps.com) for a part number cross reference list.*

## PERFORMANCE

- Capacity Range: 0.1 to 310 gpm (0.02 to 70.4 m<sup>3</sup>/hr)

- Pressure Range:  
up to 500 psi/ 34 Bar

- Temperature Range: -40°F to +300°F (-40°C to +150°C)

Note: Hot clearances required for high temp operation

- Viscosity Range:  
28 to 910,000 SSU  
(1 to 200,000 cSt)

Note: Consult factory for application greater than 910,000 SSU/200,000 cSt

- Chocolate clearance rotors in stock

## ZP1/ZP2/ZP3 APPLICATIONS

### BAKERY

- dough • fats • fruit filling • icing • oils • yeast

### BEVERAGES

- beer • fruit concentrate • fruit juices • mash

### CANDY

- chocolate • cocoa butter • corn syrup • gelatin • sugars

### CANNED FOODS

- 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 • many other sauces

### FLAVORINGS

- concentrates • syrups

### INDUSTRIAL

- auto paint • inks • latex • polymers

### MEATS

- broth • fats • gelatin • pet foods • sausage fillings



## IN-HOUSE CAPABILITIES

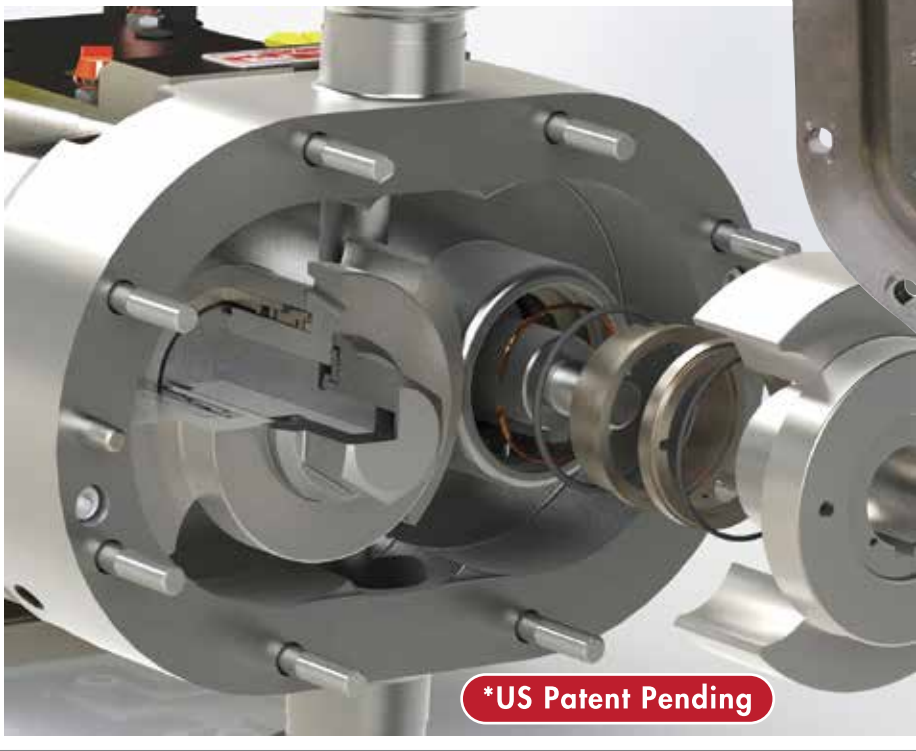


Ampco machines all cast parts in-house which allows us to control scheduling based on customer needs. Our state-of-the-art finishing department includes welding and polishing, so we maintain control throughout the manufacturing process.

Parts are inspected for quality and appearance before proceeding to the shelves in the warehouse. Ampco keeps a large inventory supply on the shelves to insure prompt deliveries. All pumps are tested prior to shipment.

# AMPCO'S *NEW* ZP3 SERIES

Save time, money, training resources and inventory expense by switching or upgrading to **Ampco's *NEW* ZP3** series.



- Front-loading seals are located closer to the product flow, offering improved CIP-ability with no disassembly required.
- Front-loading seals allow for ease of maintenance and reduced 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-ability 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, new seals and re-machining the existing rotor case.
- New pumps can be reconditioned 2 to 3 times.

For additional information on the ZP3 series and other Ampco Pumps products, please visit [www.ampcopumps.com](http://www.ampcopumps.com).

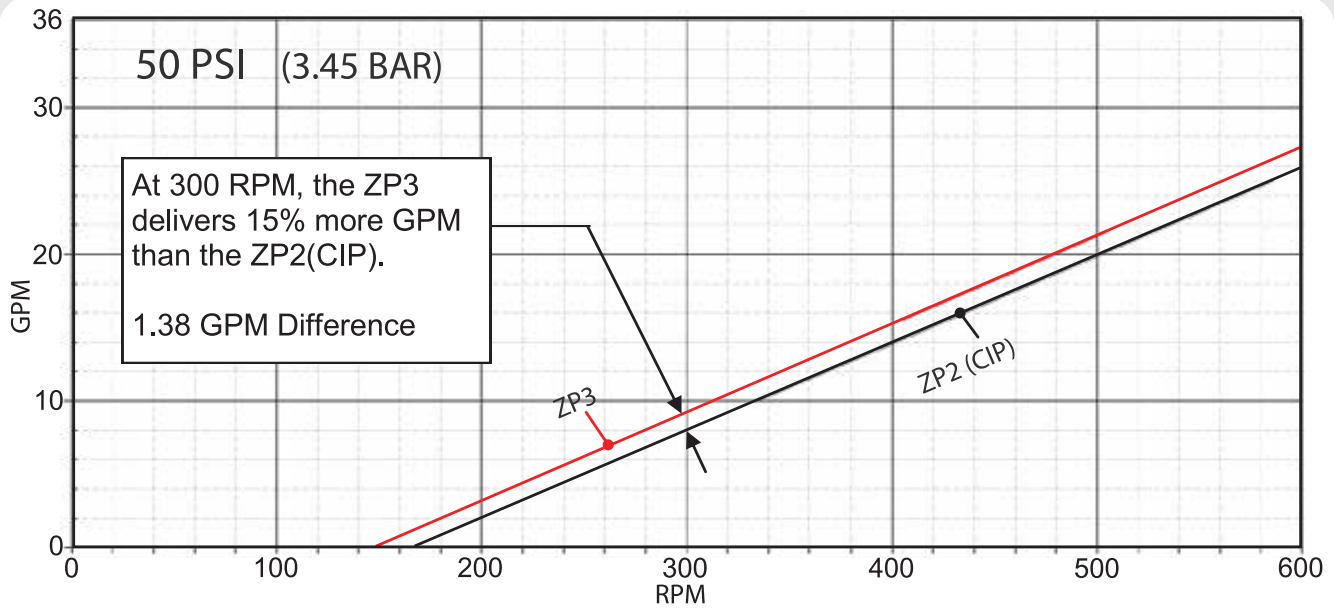


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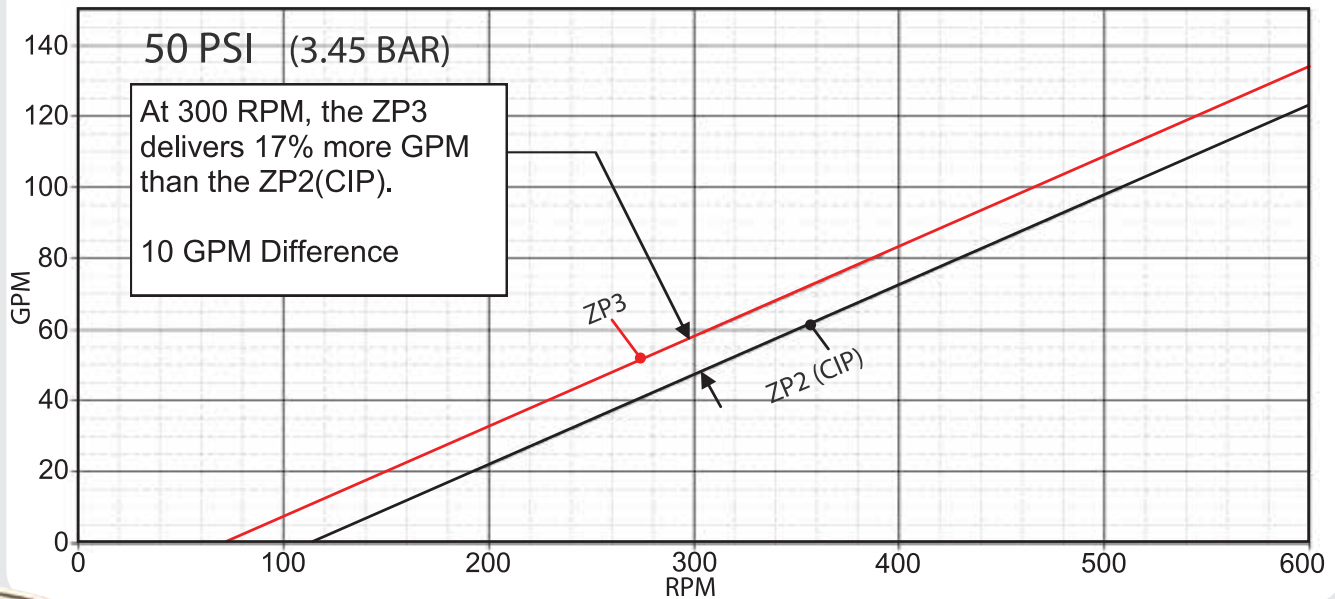
# The AMPCO Advantage

## SAMPLE ZP3 COMPARISION CURVES

Ampco ZP3-30



Ampco ZP3-130



## Ampco ZP Advantages

Only Ampco ZP pumps offer all of these upgrades at no additional charge

- Stainless Steel Gearcase
- 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
- Gasketed Clean-Out Plugs

All ZP pumps include a 304 stainless steel gear case, providing high-resistance to corrosion and compatibility with caustic agents

Tapered roller bearings maintain axial forces for equal support in both directions

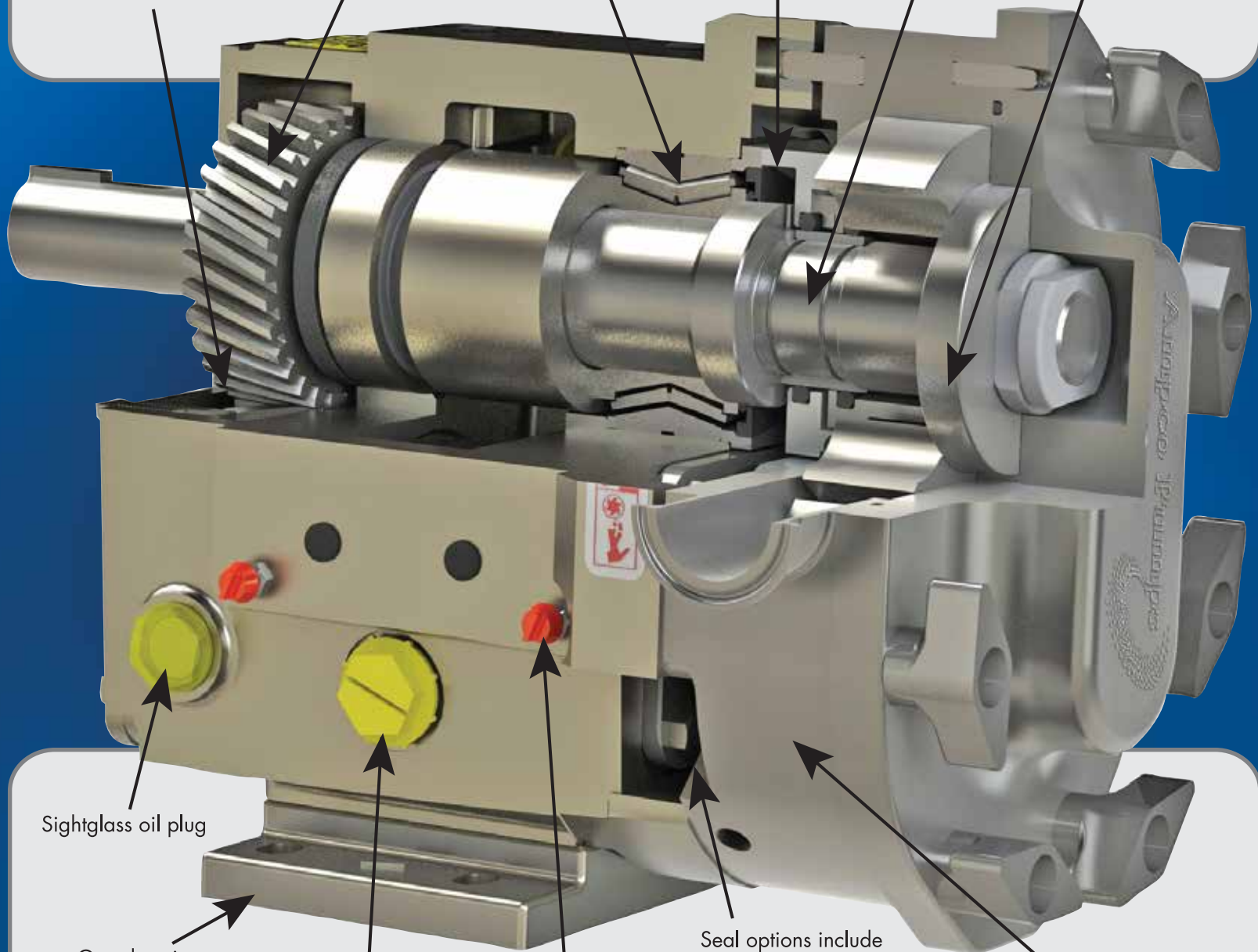
Solid 17-4ph stainless steel shafts on models 30 and larger, provide twice the tensile strength of 316L

Separate oil chamber for gears using anti-microbial lube

Helical timing gears for increased load carrying capacity and reduced noise

Stainless steel bearing retainer prevents corrosion and enhances bearing protection

Alloy 88 rotors provide non-galling characteristics to maintain tight tolerances. Optional clearances available



Sightglass oil plug

Gear housing designed to mount pump in four positions:

- Side mount left hand
- Side mount right hand
- Lower drive
- Upper drive

Sealed cleanout plugs protect and extend bearing life

Threaded grease fitting for easy replacement

Seal options include single and double mechanical seals, o-ring seals and lip seals

Pump housing and cover are constructed of 316L stainless steel

All stainless steel hardware prevents corrosion and stripped bolts

# AMPCO ZP PUMP TECHNICAL DATA

ZP1 Pump Performance	ZP1 Model	Nominal Capacity		Displacement		Max. Differential Pressure		Standard Connection Size		Optional Connection Size		Max. Speed Rev / min	Temperature Range	
		GPM	M <sup>3</sup> /hr	Gallons / rev	Liters / rev	PSI	Bar	in.	mm	in.	mm		°F	°C
	6	7	1.6	.0082	.031	200	13.8	1"	25	1½"	38	800	-40° to 300°	-40° to 149°
	15	10	2.3	.0142	.054	200	13.8	1½"	38	-	-	700		
	18	17	3.9	.029	.110	200	13.8	1½"	38	2"	51	600		
	30	36	8.2	.060	.227	200	13.8	1½"	38	2"	51	600		
	40	46	10.4	.076	.288	150	10.3	2"	51	2½"	64	600		
	60	92	20.9	.153	.579	200	13.8	2½"	64	3"	76	600		
	130	152	34.5	.254	.961	200	13.8	3"	76	-	-	600		
	220	313	71.1	.522	1.976	200	13.8	4"	102	-	-	600		
320	452	103	.754	2.854	200	13.8	6"	152	-	-	600			
323	370	84	.616	2.332	225	15.5	6"	152	-	-	600			

ZP1 Model	Nominal Capacity		Displacement		Max. Differential Pressure		Rec. Inlet (W x L)		Outlet		Max. Speed Rev/min	Temperature Range	
	GPM	M <sup>3</sup> /hr	Gallons rev	Liters / rev	PSI	Bar	inches	mm	in.	mm		°F	°C
34	24	5.5	.060	.227	200	13.8	1.75 x 6.75	44 x 171	2"	51	400	-40° to 300°	-40° to 149°
64	61	13.9	.153	.579	200	13.8	2.24 x 8.82	57 x 224	2½" (3")	64 (76)	400		
134	102	23.2	.254	.961	200	13.8	2.97 x 9.25	75 x 235	3"	76	400		
224	208	47.2	.521	1.972	200	13.8	3.87 x 11	98 x 279	4"	102	400		

ZP2/ZP3 Pump Performance	ZP2/ZP3 Model	Nominal Capacity		Displacement		Max. Differential Pressure		Standard Connection Size		Optional Connection Size		Max. Speed Rev / min	Temperature Range	
		GPM	M <sup>3</sup> /hr	Gallons / rev	Liters / rev	PSI	Bar	in.	mm	in.	mm		°F	°C
	6	8	1.8	.0082	.031	300	20.7	1"	25	1½"	38	1000	-40° to 300°	-40° to 149°
	15	11	2.5	.0142	.054	250	17.2	1½"	38	-	-	800		
	18	20	4.5	.029	.110	200	13.8	1½"	38	2"	51	700		
	30	36	8.2	.060	.227	250	17.2	1½"	38	2"	51	600		
	40	46	10.4	.076	.288	150	10.3	2"	51	2½"	64	600		
	45	59	13.4	.098	.371	450	31.0	2"	51	-	-	600		
	60	92	20.9	.153	.579	300	20.7	2½"	64	3"	76	600		
	130	152	34.5	.254	.961	200	13.8	3"	76	-	-	600		
180	228	51.8	.380	1.438	450	31.0	3"	76	-	-	600			
220	313	71.1	.522	1.976	300	20.7	4"	102	-	-	600			
210	301	68.4	.502	1.900	500	34.5	4"	102	-	-	600			
320	452	103	.754	2.854	300	20.7	6"	152	-	-	600			

ZP2 Model	Nominal Capacity		Displacement		Max. Differential Pressure		Rec. Inlet (W x L)		Outlet		Max. Speed Rev/min	Temperature Range	
	GPM	M <sup>3</sup> /hr	rev	Liters / rev	PSI	Bar	inches	mm	in.	mm		°F	°C
34	24	5.5	.060	.227	250	17.2	1.81 x 6.84	46 x 174	2"	51	400	-40° to 300°	-40° to 149°
64	61	13.9	.153	.579	300	20.7	2.44 x 9.0	62 x 229	2½" (3")	64 (76)	400		
134	102	23.2	.254	.961	200	13.8	3.19 x 9.38	81 x 238	3"	76	400		
224	208	47.2	.521	1.972	300	20.7	4.06 x 11.25	103 x 286	4"	102	400		







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