

# Q-Pumps

The best pumping solution for your sanitary processes

## QTS Series



ZP1/ZP2/ZP3 Series



ZL Series



QC/QC+/IC+ Series



LC/LD/LF/LME Series



SP Series



Shear Blender



## Our Company

Since 1997 Q-Pumps Co. has been dedicated to the manufacturing of sanitary pumping equipment (centrifugal, positive displacement, self-priming and blenders) with the purpose of provide the best solutions for applications in food, dairy, beverages, pharmaceutical, cosmetic industries and many more. Attending applications in more than 40 countries with a perfect match between human and technology improvements to exceed the expectations of our customers requirements World Wide for their pumping needs.

All our products are certified and meet the highest quality and guarantee 100% sanitary handling of the fluids process. We are one of the world leaders in production of centrifugal and positive displacement pumps, assuring the best quality in our manufacturing and materials to deliver 100% guaranteed products.



TWIN SCREW



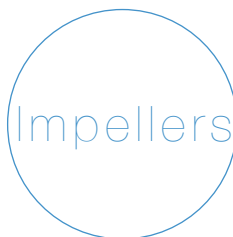
POWDER MIXERS



SELF-PRIMING



OPEN IMPELLER



HIGH EFFICIENCY



CIRCUMFERENTIAL PISTON



LOBE



The only pump manufacturer in Mexico, certified under 3-A



## Construction Materials

Pumps are made of stainless steel from the 300 series. The wet parts are made of SS T-316L and the rest non-direct contact of SS T-304, this guarantees high resistance and durability on every Q-Pumps product.

## Special Specifications

Q-Pumps can manufacture the equipment under any custom specification from fittings type to surface finish. The current fitting types available are Clamp, Bevel Seat, NPT, Flanged, SMS and DIN. Regarding the surface finish, the standard is polishing (32 Ra Max.) with the option to be improved with electro polishing (under 10 Ra for pharmaceutical applications) and Sandblast.

## Spare Parts

Q-Pumps offers spare parts and replacements for many Pump Series compatible with other brands existing in the market assuring interchangeability and great functionality.



# QTS Series

## Characteristics

- 100% Stainless Steel, wet parts made of SS 316L
- Very soft solids handled without damage
- 100% CIP running at high speeds
- Virtually pulse-free
- Speed up to 3,000 rpm (depending on the fluid viscosity)
- Ideal to be used as process pump as well as a CIP pump reducing costs in additional equipment and timing
- Even when running high pressures, there is no contact rotor/rotor/body
- Low NPSH requirement thanks to its high suction capacity
- Meets 3-A and EHEDG standards

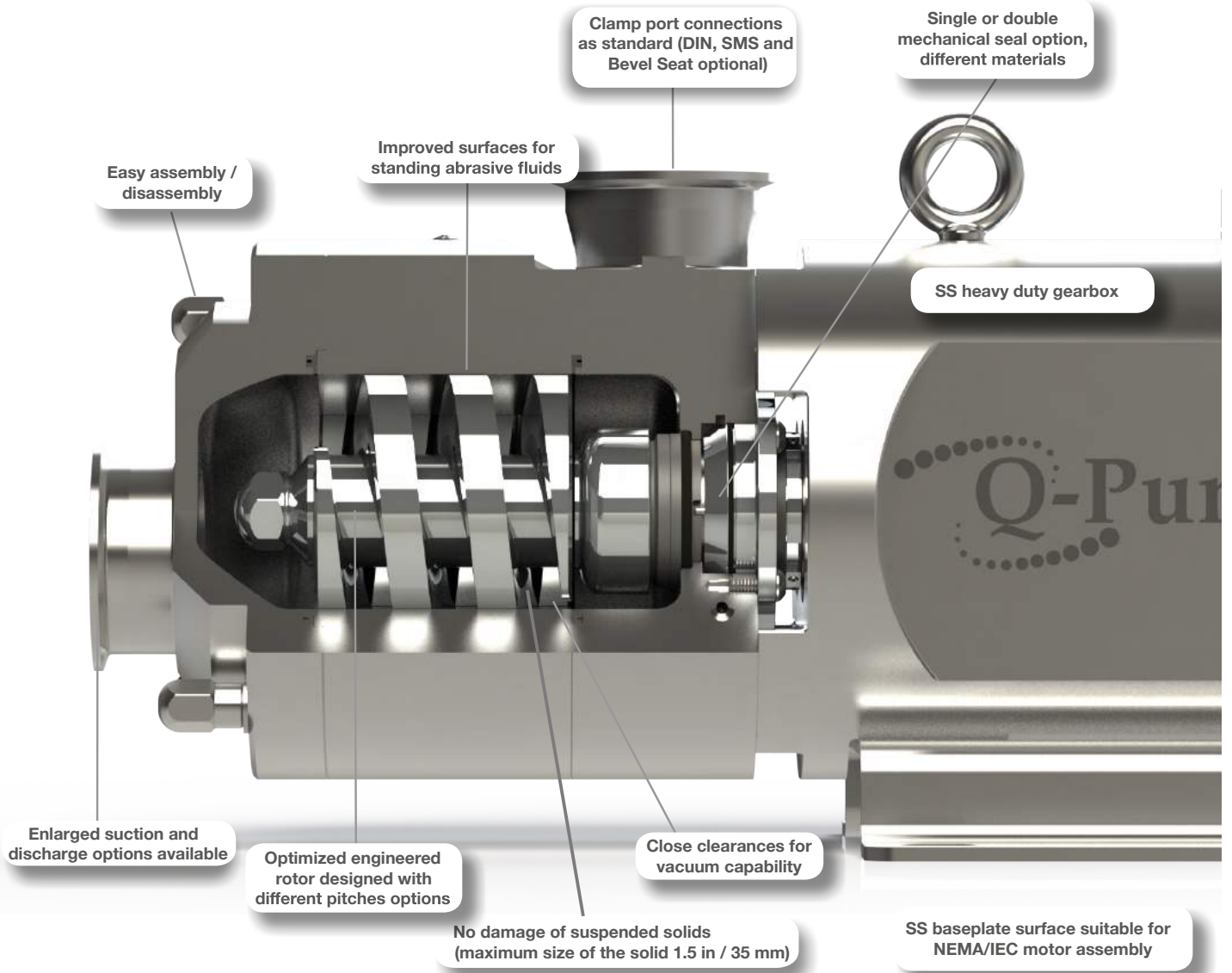
## Twin Screw

New QTS Series are twin screw pumps. 100% sanitary. It's the newest Q-Pump's creation innovating positive displacement solutions.

## QTS Mechanical Seal

- Single or double mechanical seal
- Easily converted from a single seal to a double seal
- All models come double seal ready
- Seals are capable of handling a vacuum of 28 in / 711 mm of Hg





**QTS 100**  
Suction/Discharge Connections\*  
1.5", 2" / 35, 50 mm

**QTS 200**  
Suction/Discharge Connections\*  
2", 2.5", 3" / 50, 60, 75 mm

**QTS 300**  
Suction/Discharge Connections\*  
3", 4" / 75, 100 mm

**QTS 400**  
Suction/Discharge Connections\*  
4", 6" / 100, 150 mm

\*Check availability / Other options

Applications

Dairy Products



Sour Cream



Yogurt



Cheese



Butter

Drinks



Juice



Soda



Beer

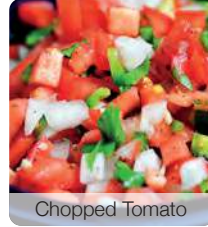


Fruit Pomace

Food Industry



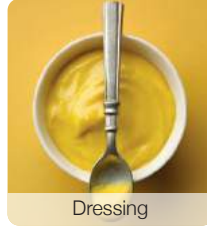
Corn Dough



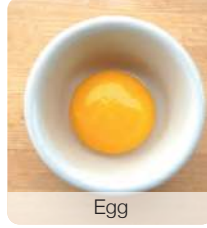
Chopped Tomato



Salsa



Dressing



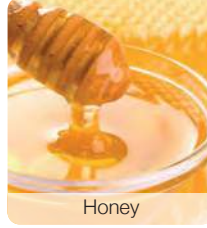
Egg



Pasta



Jello



Honey

Candy



Chocolate



Caramel



Ice Cream



Peanut Butter

Meat Industry



Chicken



Meat



Sausage

Pharmaceutical Industry



Gel



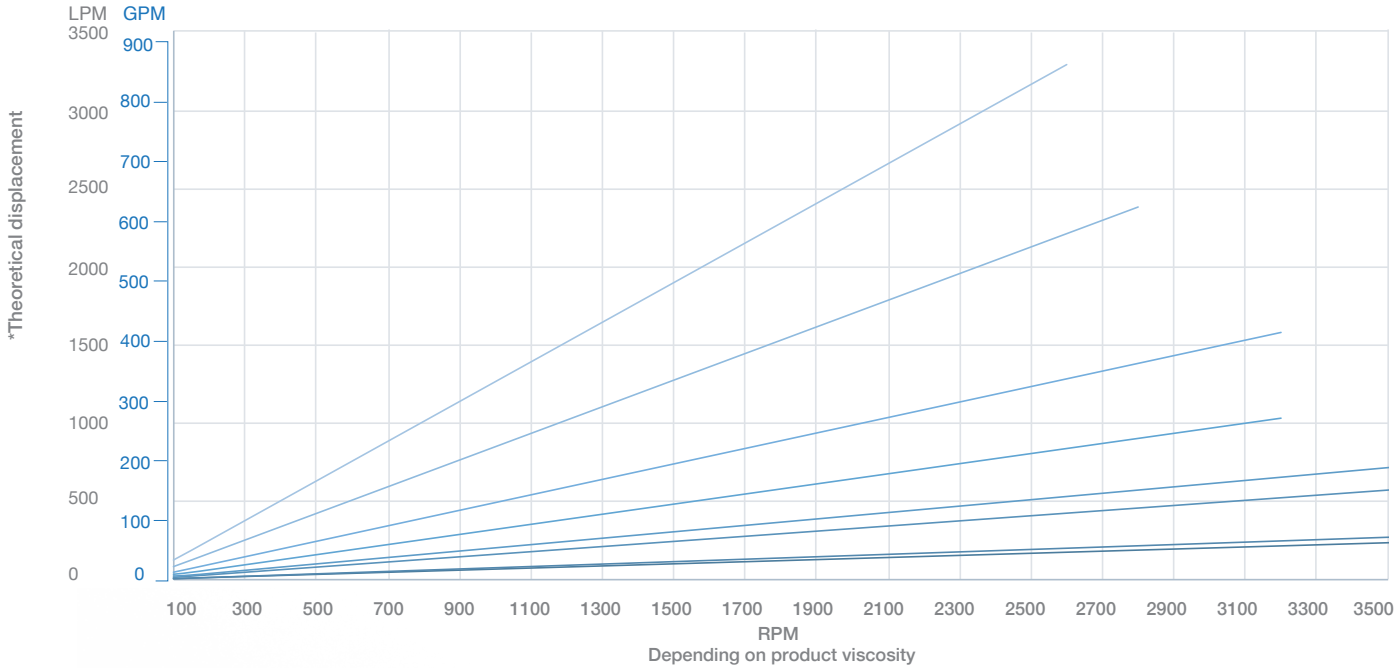
Soap



Tooth Paste

And Many More!...

# Displacement Curves



## DIFFERENT PITCHES TO HANDLE SOLIDS



### Reference Data

- Flow: 1230 GPM / 4656 LPM
- Head Pressure: 693 ft / 211 m / 300 PSI / 20 Bar
- Viscosity: 1 to 1,000,000 cP
- Max. Temperature: 248° F / 130° C



# Serie ZP1 / ZP2 / ZP3

## Positive Displacement Pumps

ZP Pumps Series are circumferential piston pumps, 100% compatible and interchangeable hydraulic and dimensionally with other brands in the market.

### Characteristics

- Rotors made of Nickel-based Alloy 88
- Oil seal retainer holders made of stainless steel T-304
- One piece high torque shafts made of S.S. alloy 17-4 ph H1150
- Helical gears
- Four mounting positions option available
- Greasers threaded on both sides of the gear box
- Mechanical seals with wave spring made of S.S. alloy 17-7 ph
- Threaded oil caps and sight glass
- Self-cleaning gaskets on oil caps and sigh glass



## ZP3 Series

The front loading seals of the ZP3 Series are located close to the fluid allowing the pump to be 100% CIP-able without disassembling the pumps eliminating dead zones along the shafts, rotors and casing reducing the shutdown time and easing maintenance procedures.

ZP3 Series is 100% drainable because of the casing design in a vertical position (inlet/outlet).

Any ZP2 and equivalent pumps can be upgraded to ZP3, and every ZP3 pump can even be remanufactured 3 times.

## Applications

ZP Series pumps are designed for sanitary pumping applications mainly high viscosity products (up to 1,000,000 cP) for food, dairy, beverages, pharmaceutical and many others industries. Because of their close inner clearances these pumps can handle fluids such as water (low viscosity) to toothpaste (very high viscosity).

To verify the compatibility and interchangeability with other brands please visit [www.qpumps.com](http://www.qpumps.com) for the cross reference.

## Models

Q-Pumps	Other Brands
ZP1	Universal 1/TRA 10
ZP2	Universal 2/TRA 20
ZP3	Don't have this technology



# Technical Information ZP1 Series

ZP1 Model	Maximum Nominal Capacity		Displacement		Maximum Differential Pressure		Standard Connection		Optional Connection		Maximum Speed RPM	Temperature Range	
	GPM	LPM	Galons / per rev.	Liters / per rev.	PSI	Bar	in.	mm	in.	mm		°F	°C
6	6.56	24.8	0.0082	0.031	200	13.8	1	25	1½"	38	800	-40° a 300°	-40° a 149°
15	9.94	37.6	0.0142	0.054	200	13.8	1½"	38	-	-	700		
18	17.4	65.9	0.029	0.110	200	13.8	1½"	38	2"	51	600		
30	36.0	136.3	0.060	0.227	200	13.8	1½"	38	2"	51	600		
40	45.6	172.6	0.076	0.288	150	10.3	2"	51	2½"	64	600		
60	91.8	347.5	0.153	0.579	200	13.8	2½"	64	3"	76	600		
130	152.4	576.8	0.254	0.961	200	13.8	3"	76	-	-	600		
220	313.2	1185.5	0.522	1.976	200	13.8	4"	102	-	-	600		
320	452.4	1712.3	0.754	2.854	200	13.8	6"	152	-	-	600		
323	369.6	1398.9	0.616	2.332	225	15.5	6"	152	-	-	600		

	Maximum Nominal Capacity		Displacement		Maximum Differential Pressure		Rectangular Inlet (W x L)		Outlet		Maximum Speed RPM	Temperature Range	
	GPM	LPM	Galons / per rev.	Liters / per rev.	PSI	Bar	in.	mm	in.	mm		°F	°C
34	24.0	90.8	0.060	0.227	200	13.8	1.75 x 6.75	44 x 171	2"	51	400	-40° a 300°	-40° a 149°
64	61.2	231.6	0.153	0.579	200	13.8	2.24 x 8.82	57 x 224	2½" (3")	64 (76)	400		
134	101.6	384.6	0.254	0.961	200	13.8	2.97 x 9.25	75 x 235	3"	76	400		
224	208.4	788.8	0.521	1.972	200	13.8	3.78 x 11	98 x 279	4"	102	400		

# Technical Information ZP2 / ZP3 Series

Modelo ZP2 / ZP3	Maximum Nominal Capacity		Displacement		Maximum Differential Pressure		Standard Connection		Optional Connection		Maximum Speed RPM	Temperature Range	
	GPM	LPM	Galons / per rev.	Liters / per rev.	PSI	Bar	in.	mm	in.	mm		°F	°C
6	8.2	31.0	0.0082	0.031	300	20.7	1"	25	1½"	38	1000	-40° a 300°	-40° a 149°
15	11.36	43.0	0.0142	0.054	250	17.2	1½"	38	-	-	800		
18	20.3	76.8	0.029	0.110	200	13.8	1½"	38	2"	51	700		
30	36.0	136.3	0.060	0.227	250	17.2	1½"	38	2"	51	600		
40	45.6	172.6	0.076	0.288	150	10.3	2"	51	2½"	64	600		
45	58.8	222.6	0.098	0.371	450	31.0	2"	51	-	-	600		
60	91.8	347.5	0.153	0.579	300	20.7	2½"	64	3"	76	600		
130	152.4	576.8	0.254	0.961	200	13.8	3"	76	-	-	600		
180	228.0	863.0	0.380	1.438	450	31.0	3"	76	-	-	600		
210	301.2	1140.0	0.502	1.900	500	34.5	4"	102	-	-	600		
220	313.2	1185.5	0.522	1.976	300	20.7	4"	102	-	-	600		
320	452.4	1712.3	0.754	2.854	300	20.7	6"	152	-	-	600		

	Maximum Nominal Capacity		Displacement		Maximum Differential Pressure		Rectangular Inlet (W x L)		Outlet		Maximum Speed RPM	Temperature Range	
	GPM	LPM	Galons / per rev.	Liters / per rev.	PSI	Bar	in.	mm	in.	mm		°F	°C
34	24.0	90.8	0.060	0.227	250	17.2	1.81 x 6.84	44 x 174	2"	51	400	-40° a 300°	-40° a 149°
64	61.2	231.6	0.153	0.579	300	20.7	2.44 x 9.0	62 x 229	2½" (3")	64 (76)	400		
134	101.6	384.6	0.254	0.961	200	13.8	3.19 x 9.38	81 x 238	3"	76	400		
224	208.4	788.8	0.521	1.972	300	20.7	4.06 x 11.25	103 x 286	4"	102	400		



## Reference Data

Flow: 312 GPM / 1181 LPM

Head Pressure: 1155 ft / 352 m / 500 PSI / 34.5

Bar Viscosity: 1,000,000 cP

Max. Temperature: 300° F / 149° C



# ZL Series

## Rotary Lobe Pumps

ZL Series are designed for pumping high viscosity fluids in applications for the food and pharmaceutical industries and are certified under EHEDG and 3-A standards.

Can handle low viscosity fluids from 500 cP to 1,000,000 cP and develops suction up to 4 m and flows of 100 m<sup>3</sup>/hr with heads up to 250 m of water column.

- Front access provides quick, Less downtime

- It has 4 types of seal for each one Application, the standard material is Carbide Tungsten Vs. Tungsten Carbide.

- Can be supplied with thermal Front cover as in case.

- The geometrical design of the "Bi-wing" rotors offers A high performance, however, depending on The application can be used Single-wing rotors, Tri-lobe, Multilobe or Helicoidal.

- Connection options: Clamp (standard), SMS, Bevel Seat, DIN and Flange.

## Applications

Q-Pumps success with lobular pumps relies on excellent performance in a wide variety of sanitary applications as well as the certainty of working with 100% CIP systems with low cost equipment.

The ZL Series are positive displacement pumps with a wide range of performance, adapting the rotors to the specifications of the fluid and application.

### Applications

- Chocolate
- Honey
- Syrup
- Dairy Products
- Liquid soap and gel
- Purés
- Lard
- Sauces
- Fruit pulp
- Pharmaceutical and biological
- ... And many more



HELICAL ROTOR



TRI-LOBE ROTOR



BI-WING ROTOR



SINGLE WING ROTOR



Jacketed cover and casing available (optional)



Front cover pressure relieve valve available (optional)

ZL Series	Model	Displacement			Standard connection size		Maximum Differential Pressure		Maximum Speed
		Liters / per rev.	LPM	GPM	mm	in.	Bar	PSI	Rev / min
100	ZL110-005-20	0.050	50.0	13.2	25	1.0	20.7	300	1000
	ZL115-012-12	0.120	96.0	25.4	38	1.5	12.1	175	800
	ZL120-021-08	0.210	168.0	44.4	51	2.0	7.9	115	800
200	ZL220-040-12	0.410	287.0	75.8	51	2.0	12.1	175	700
	ZL225-062-08	0.620	434.0	114.7	64	2.5	7.9	115	700
300	ZL330-102-12	1.020	612.0	161.7	76	3.0	12.1	175	600
	ZL340-144-08	1.440	864.0	228.3	102	4.0	7.9	115	600
400	ZL440-227-12	2.270	1135.0	299.9	102	4.0	12.1	175	500
	ZL450-334-08	3.340	1670.0	441.2	152	6.0	7.9	115	500



## Reference Data

Flow: 441 GPM / 1670 LPM

Head Pressure: 693 ft / 211 m / 300 PSI / 20 Bar

Viscosity: 1,000,000 cP

Temperature Max.: 300° F / 149° C



# QC / QC+ / IC+ Series

## Centrifugal Pumps

QC Sanitary Centrifugal Pumps are very versatile, pumping mainly low viscosity products (up to 600 cP) such as: dairy products, juice, sodas, wine, beer, purified water, oil, alcohol, injectable and more. This is a medium pressure and high flow series.

## IC+ Series

The IC+ Series are manufactured in stainless steel and have the same design as the QC Series. An internal seal (non-sanitary) and the Kit plus conform this series with the purpose of solving non-sanitary applications such as acid solutions and residual water.

## Characteristics

- Open impeller
- Volute casing with suction on the front center
- 3-A certified
- Conexiones: Clamp (estándar), Bevel Seat, DIN, SMS, NPT, Brida, Soldable.
- Stainless steel bracket assembly kit and legs
- NEMA (American) and IEC (European) standards available
- Work at high and low speed, 60 Hz and 50 Hz
- Stainless steel pump adapter
- Wet parts made of SS 316L

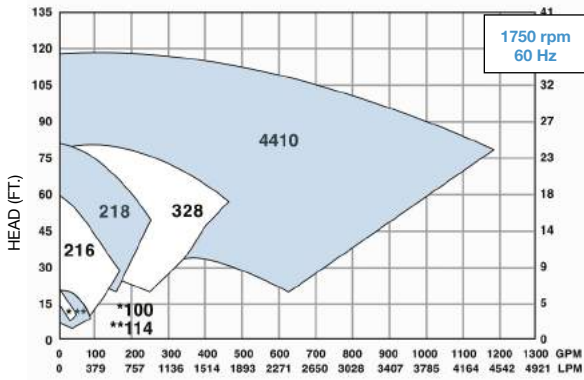
## Kit+ and QC+ Series

The QC+ Series was developed to ease and expedite the assembly of the QC Series with some advantages.

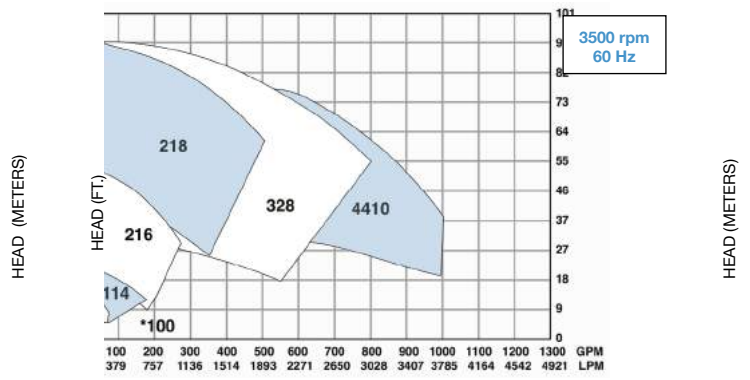
This Series have a better fixation onto the motor shaft using a shaft collar. The shaft plus is threaded and the assembly to the impeller is with a key and a nut using gaskets to keep meeting 3-A standards. Any QC Series Pumps can be turned into a QC+ Series Pump with a Kit+.



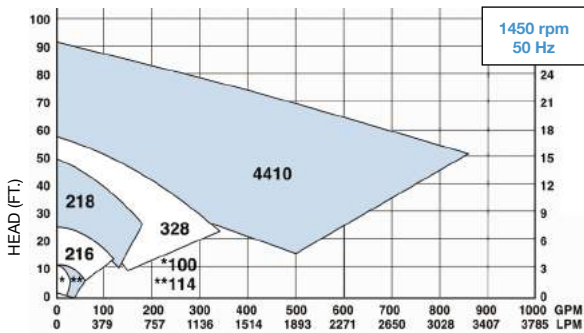
# Performance Curves



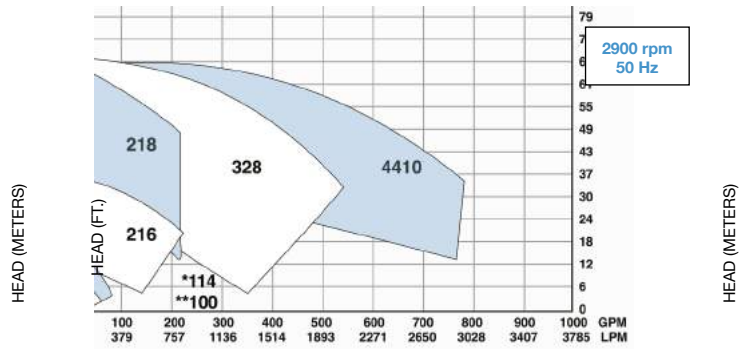
CAPACITY / FLOW



CAPACITY / FLOW



CAPACITY / FLOW



CAPACITY / FLOW



## Reference Data

Flow: 1,200 GPM / 4542 LPM

Head Pressure: 270 ft / 82 m / 117 PSI / 8 Bar

Viscosity: 600 cP

Temperature: 248°F / 120°C



# LC / LD / LF Series

## Centrifugal Pumps

• The LC/LD/LF Series are highly efficient pumps for product line pumping, supply through fillers, milk separators, filters, heat exchangers and a wide variety of equipment.

These Series can handle products with viscosities up to 1,200 cP at high temperatures up to 248° F (120° C) within power range up to 50 Hp.

The mechanical seal design uses silicon carbide vs. carbon as standard which is better than many others in the market because it's heat dissipation. It is a balanced internal seal that maintains a uniform pressure under the sealing faces avoiding potential contamination. Also this seal can handle water hammer and low cavitation.

The LC/LD/LF Series by Q-Pumps are built of casting stainless steel T-316L with very close gaps between the impeller and casing getting high efficiency performance and low NPSH requirement.

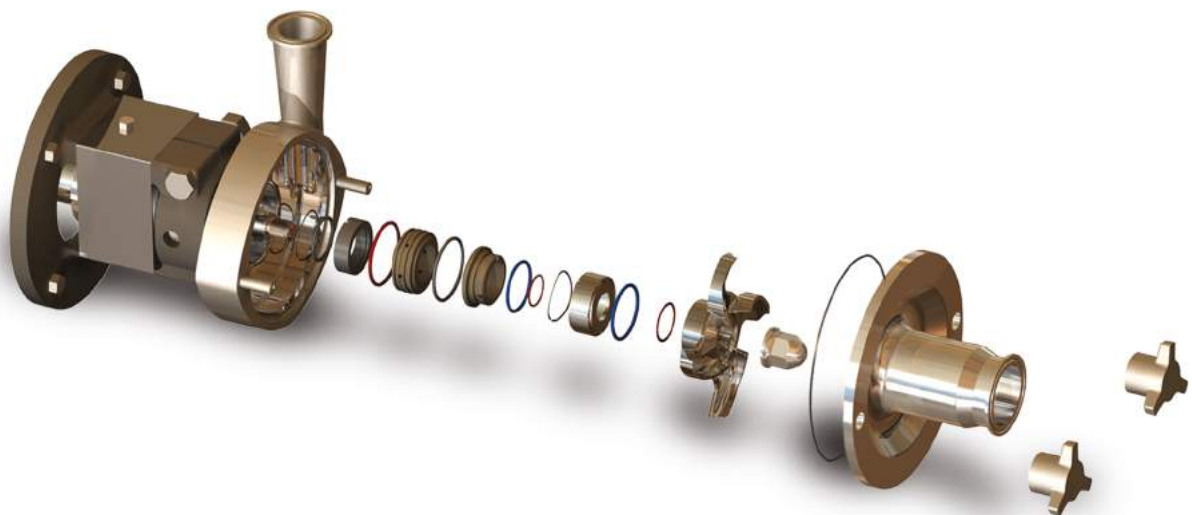
Thanks to its heavy-wall construction, tight manufacturing tolerances, balanced impellers and a self-aligning stub shaft, the vibration is minimized promoting a long seal life.

## New LF design

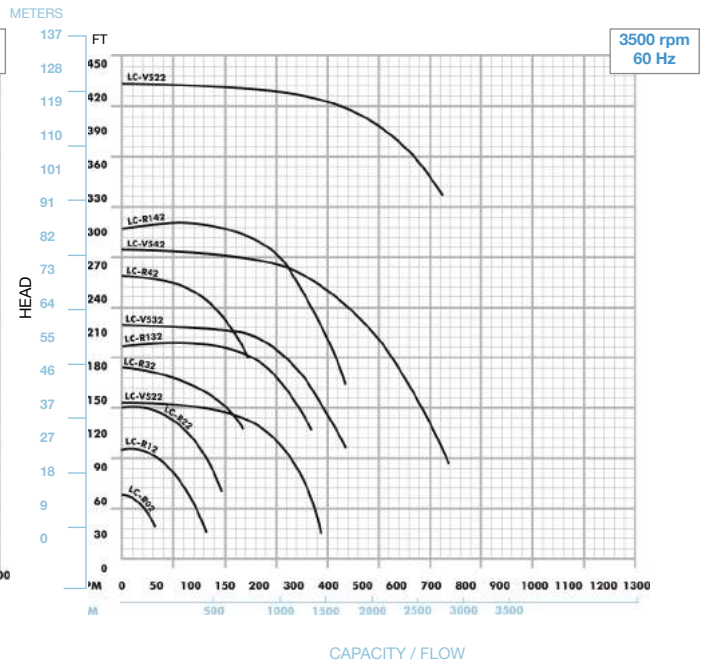
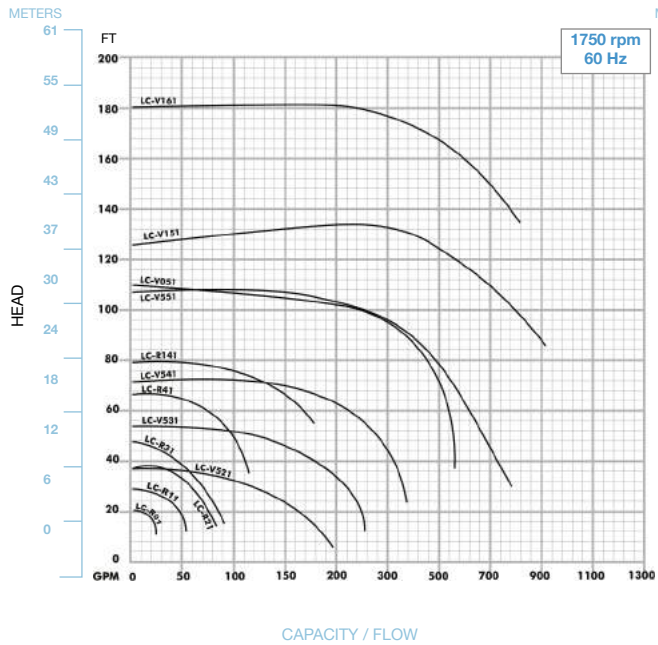
This mechanical seal (single and double available) is a front loading design that makes the assembly easy without the need to remove the casing from the pump adapter. For the LF seals there are just two sizes, the 757 and 758 for the whole Series and are easily convertible to a double seal without changing any other parts.

## Aplicaciones

- Beverages
- CIP supply
- Personal care products
- Alcohol
- Dairy products
- Oils and vinegars
- Pharmaceutical and biological
- Abrasive fluids
- ...And many more



# Performance Curves



LC, LD & LF Series are equivalent to other brands in the market.

## Models

Q-Pumps	Other Brands
LC	FPX
LD	FP
LF	FPR

## Equivalences

Q-Pumps	Other Brands	Q-Pumps	Other Brands
R01/R02	701/702	V521/V522	3521/3522
R11/R12	711/712	V531/V532	3531/3532
R21/R22	721/722	V541/V542	3541/3542
R31	731	V551/V552	3551/3552
R32	732		
R41/R42	741/742	X051	1051
R132	1732	X151	1151
R141/R142	1741/1742	X161	1161



## Reference Data

Flow: 700 GPM / 2650 LPM

Head Pressure: 430 ft / 131 m / 186 PSI / 12.6 Bar

Viscosity: 1200 cP

Temperature: 248° F / 120° C



# SP Series

## Self-priming Pumps

Q-Pumps offers this Serie with special casing and cover design and its turbine type impeller, creating a liquid ring allowing the pump to be self-primed, pumping certain quantity of air without cavitation.

It is made of stainless steel 316L and is 3-A certified.

The mechanical seal design uses wave springs for reversibility which is an advantage for applications of loading and unloading using the same equipment.

## Applications

SP Pumps can handle fluids with entrained air without cavitation thanks to tight manufacturing tolerances (no longer than 0.008"), the liquid ring created in the pump and the unique vane-shaped impeller enable SP pumps to handle shear sensitive products efficiently, running at low speed displacing air and then the liquid, priming the pump.

This series is ideal for CIP return applications and low viscosity fluids (maximum 3,000 cP) and also for applications with suction lift up to 20 ft.

### CIP applications

- Extreme CIP return from tanks and containers
- Complete evacuation of cleaning solutions/residual water during CIP cycles
- Reduces the amount of water and cleaning solutions needed for CIP

### Transfer of products with entrained air

- Ice cream mixture (with 17% air)
- Chocolate syrup (international mixture)
- Yeast injection

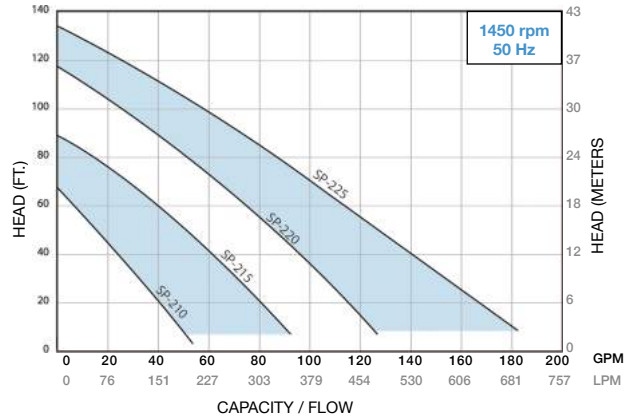
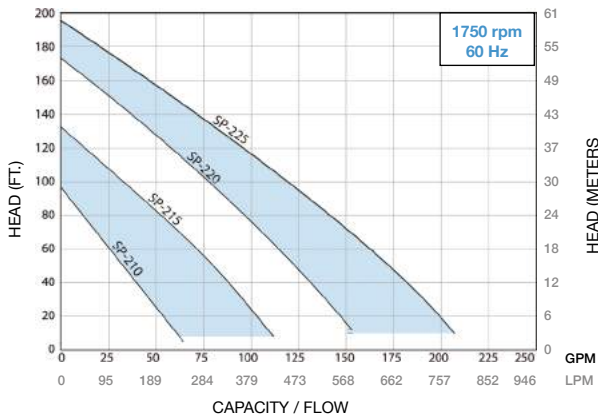
### Transfer of delicate fluids

- Efficient for emptying tanks and drums
- Yolk
- Milk products, yoghurt mixture
- Body lotions





# Performance Curves



The SP Series are 100% interchangeable dimensionally and hydraulically to other brands in the market.

## Equivalences

### Models

Q-Pumps	Other Brands
SP	FZX

Q-Pumps	Other Brands	HP	kW	Inlet / Outlet
SP 210	FZX 2100	3	2.2	2.0 x 2.0
		5	3.7	
SP 215	FZX 2150	7.5	5.5	2.0 x 2.0
		10	7.5	
SP 220	FZX 2200	10	7.5	2.0 x 2.0
		15	11	
SP 225	FZX 2250	15	11	2.5 x 2.5
		20	15	



### Reference Data

Flow: 200 GPM / 757 LPM

Head Pressure: 190 ft / 58 m / 82 PSI / 5.6 Bar Viscosity: 3,000 cP

Temperature: 248° F / 120° C



# Shear Blender

## Powder Mixers

Q-Pumps offers consistent blending equipment for mixing powders with liquids delivering an excellent performance due to its innovative design and pumping capabilities.

Thanks to the multi-blade impeller design for high shear the JSB Series is supremely efficient and rapid operation in mixing powder with liquids.

The suction inducer helps to reduce the NPSH requirement generating a suction vortex.

For any quick, effective and consistent mixing application in which any type of powder is added to a liquid mixture.

- Easy installation and operation
- Compact size with high performance and low energy input reducing processing time
- With ranges of operation up to 350 GPM and pressure of 6 bar maximum.
- Fully CIP-ability reducing downtime
- Front loading seal design ease maintenance
- EHEDG and 3-A certified

## Aplicaciones

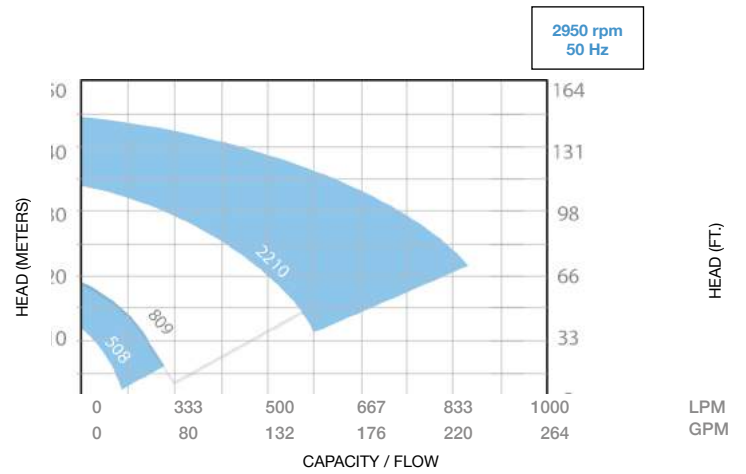
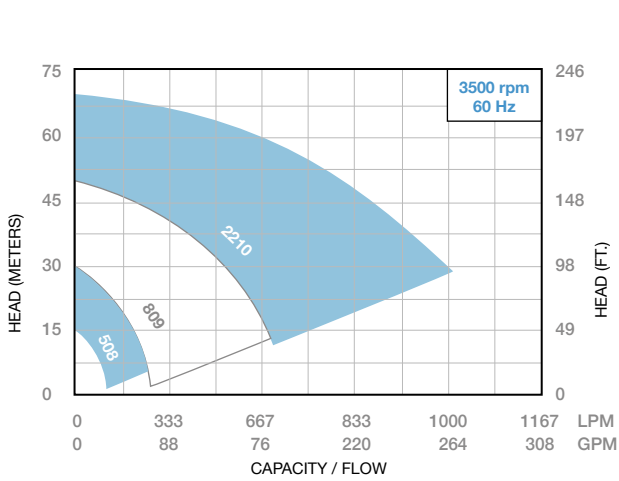
Shear Blenders are especially designed for homogenizing, blending, emulsifying, dispersing, dissolving and texturizing in a reduced processing time.

- Hydration of dried milk
- Syrup preparation
- Sugar dissolution
- Beverages and pulps preparation
- Sauces blending
- Toppings mix
- Sugar blending
- Salad dressing blending
- ... And many more.

Virtually any application in which it is required to add quickly, efficiently and reliably any type of powder to a liquid mixture.



# Performance Curves



Model	Power	Water	Powder	Viscosity	Pressure
JSB508	5.5kW	~ 5000L	~ 500kgs	~ 100cP	less 1 bar
	7.5kW	~ 5000L	~ 500kgs	over 500-1000cP	
JSB809	15kW	5000L-10000L	1000kgs	~ 100cP	
	18.5kW	5000L-10000L	1000kgs	over 500-1000cP	
JSB2210	25kW	15000L	2000kgs	~ 100cP	

\* 1 hr. Batch @3,600 rpm (60Hz)



## Reference Data

Flow: 264 GPM / 1000 LPM Head Pressure: 213 ft / 65 m / 92 PSI / 6 Bar  
 Viscosity: 3,000 cP Temperature: 14° to 302° F / -10° a 150° C / 14° a 302° F



