

The best pumping solution for your sanitary processes

# QTS Series

Twin screw pump



The Ultimate Solution in Positive Displacement













## Advantages

#### QTS Other pumps

#### Maintains the integrity of suspended solids

- The QTS pump can handle suspended solids without damage (maximum size of the solid 1.5 in / 38 mm)
- Constant flow, delicate handling of fluids
- Low and high speeds (up to 3,500 rpm)

- Can't keep suspended solids intact
- Rough handling of products
- High shear for centrifugal pumps
- Limited high speeds for lobular pumps (up to 600 rpm)

#### Capability and NPSH

- QTS pump is 100% CIP
- Completely drainable
- Ideal to be used as process pump as well as a CIP pump, reducing costs in additional equipment and timing.
- Low NPSH requirement thanks to its high suction capability
- Self-priming

- Most of positive displacement pumps available in the market are not 100% CIP
- It is not possible to clean the production line with the same pump
- Problems loading the pump (reduced suction capability)
- Higher NPSH requirement

#### Damage, wear and maintenance

- The QTS is ideal for handling abrasive products thanks to its improved surfaces
- Even when running at high pressures, there is no rotor/rotor/body contact.
- Wearing out due to abrasiveness of the product being pumped
- Chemical damage
- Overpressure damage
- Seals / stator damage by dry operation
- Long maintenance shutdowns

#### Operation

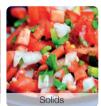
- The QTS is a silent pump
- Handles air up to 60%, which reduces cavitation
- Reduced product slip
- No dead zones
- High flows

- Excessive noise and vibration
- Cavitation when handling low viscosities at high speeds
- Product slip
- Dead zones
- Lower flows

## **Applications**















Pharmaceutical and cosmetic industries













### Features

- 100% stainless steel, wet parts made of SS 316L
- · Constant flow, virtually pulsation-free
- 100% CIP running at high speeds
- Even when running at high pressures, there is no rotor/rotor/body contact
- Speeds up to 3,500 rpm (depending on fluid's viscosity)
- Ideal to be used as a process pump as well as a CIP\* pump, reducing timing and costs in additional equipment
- Process optimization
- Metering
- · Low NPSH requirement thanks to its high suction capacity
- Pumps low and high-viscosity products (from 1 to 1,000,000 cP)
- Handles Products with up to 60% entrained air
- Ideal for handling abrasive products
- Completely drainable
- Bidirectional
- Self-priming
- Close clearances for vacuum capability
- Certified: EHEDG (no. UT 033018) and 3-A (no. 1805)
- Different material options such as Hastelloy C-276\*\*

# New O-Ring and lip seals

## QTS seals



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- Long-lasting
- · EHEDG certified
- Can pump from underpressurized tanks (vacuum of -12 psi / -0.83 bar)
- High-pressure handling
- · Runs at high speeds
- Ideal for abrasive products
- Single and double





O-Ring seal (double and single)

- Economical choice
- Easy replacement
- Low-cost maintenance
- Ideal for soft products such as glycerin, creams, greases, etc.
- EPDM and Viton



Lip seal

- Handles abrasive products
- Does not require lubrication



# Rectangular inlet

- Ideal for semi-solid products such as meats and doughs
- Handling of high viscosities (100,000 cP to 1,000,000 cP)
- · Ideal for products with a high content of entrained air or gas
- Perfect for vacuum applications with low and high viscosities.
- Ideal for applications with low NPSH available
- CIE



Q-Pumps is the only twin-screw pump manufacturer that offers several options for rectangular inlets, allowing the user to select the one that best suits his production processes.





QTS-3R4-HM

QTS-3R4-HM4





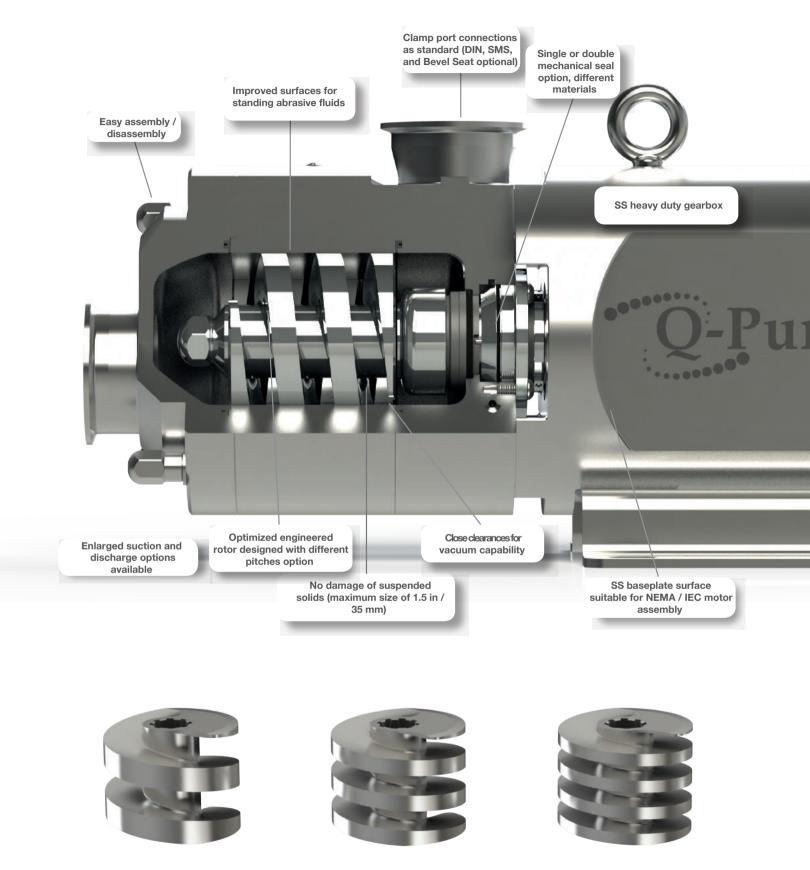


QTS-3R4-VM1

QTS-3R4-VM2

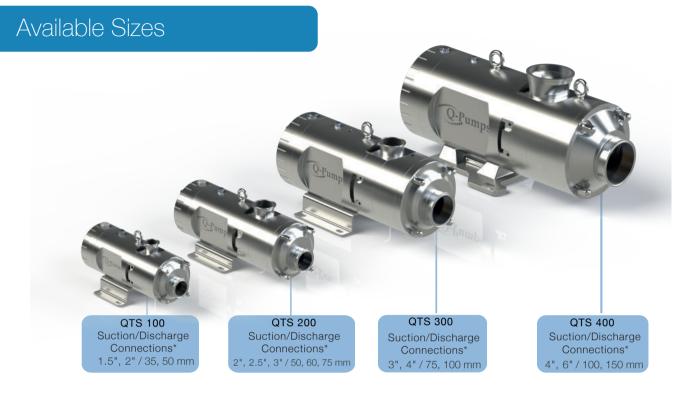
QTS-3R4-VM3





Different pitches to handle solids





#### \*Check availability / Other options

	Maximum Capacities				Maximum Differential				
Model	gpm		lpm		Particle Size	Pressure		Viscosity	Temperature
	Application	CIP	Application	CIP	in mm	psi	bar		
QTS 100	35	70	132	265	0.50 12.7	200	13	up to 1,000,000 cP	up to 248 °F (120 °C)
QTS 200	93	185	352	700	0.70 17.8	<sub>9</sub> 250	17		
QTS 300	223	405	844	1533	1.00 25.4	9 300	20.5		
QTS 400	570	850	2158	3218	1.50 38.1	350	24		

## Displacement Curves

## Reference data

Flow:

850 gpm / 3,218 lpm

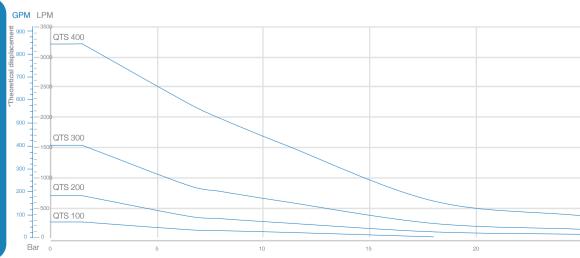
Pressure:

20 bar / 211m / 300 psi / 693 ft

Viscosity:

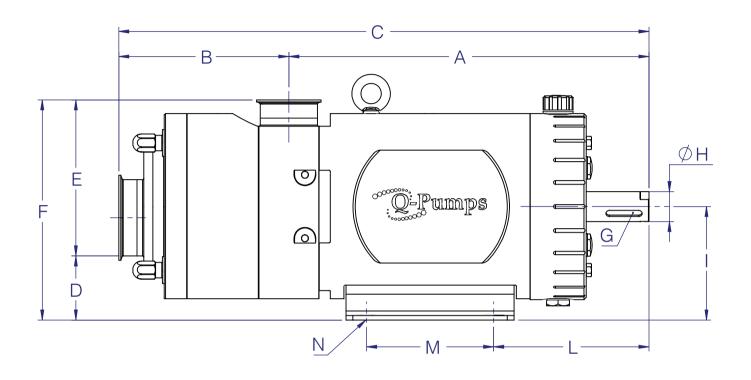
1 - 1,000,000 cP

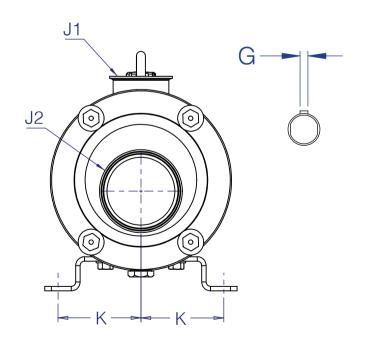
Max. temperature: 120°C / 248°F





# Pump Dimensions







Scan or click on our QR code for downloading our sizing information.





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