



# HYGIENIC PRODUCT RANGE



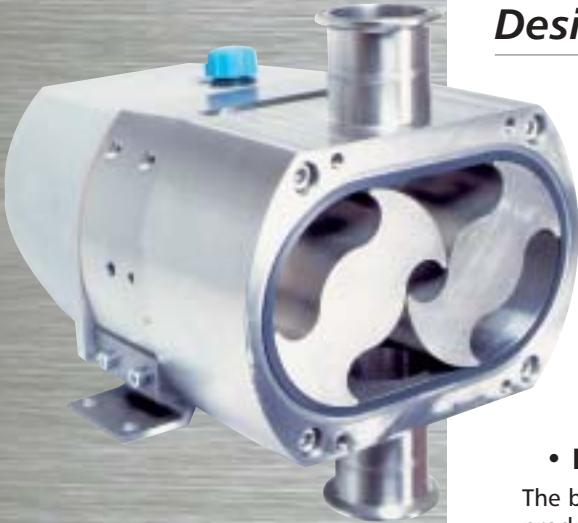
**ITT**

*Engineered for life*

# ROTARY LOBE PUMPS – ULTRA HYGIENIC

## Ultima/55 SERIES Ultra Hygienic Positive Displacement Pump

### Design Features



The ultimate hygienic rotary positive displacement pump designed without compromise to fulfil even the most critical customer demands in cleanability, steriliseability and bacterial tightness. This 316L Stainless Steel design uses bi-wing or 5-lobe rotor designs specifically utilised to achieve the very lowest shear rate and product degradation characteristics. The Ultima pump is an extension of Jabsco's world renowned 55 series pump which was the first pump of its kind and a virtual industry standard in the Bio-pharm arena.

- **Ultimate Hygienic Standards**

Tested and approved to the EHEDG (European Hygienic Equipment Design Group), CIP, SIP and Bacterial Tightness protocols. Full conformance to 3A Sanitary Standards 18-03 and 02-10 and utilising materials which meet the requirements of the FDA title 21, section 177.1550.

- **Cleaner by Design**

External rotor retention together with gasket type joints in place of O-rings reduce the number of potential product entrapment areas. In addition to this, the shaft seals are pulled forward fully in the product zone, all of which adds up to the ultimate in cleanability.....every time!

- **Low Product Shearing**

The bi-wing and 5 lobe rotor designs ensure high volumetric efficiency on low viscosity products resulting in low shear rates and low product damage.

- **Rugged Design**

This pump design utilises extremely large shaft diameters mounted in high specification taper roller bearings. These give maximum shaft stiffness to ensure no galling thus maintaining the pump's CIP and SIP capabilities.

### Options

- **Seals**

*Front loaded single mechanical face type seals* of hygienic design. Materials include carbon and silicon carbide.

*Low pressure flushed seals* utilise the same single mechanical seal with an additional housing. A low pressure flush liquid washes away crystallising products or liquids which 'skin over'.

*Double mechanical seals* utilising all the components from single seals. Used for hazardous, toxic, highly abrasive or sterile products.

- **Certification**

3.1B Material Certification package.

3A Variants with Nitrile or EPDM elastomers and port options - Tri-clamp, IDF, 3A, DIN11851

- **Connections**

US and European standards including Tri-Clamp. All pumps available with 2 different sizes.

- **Elastomers**

USP Class VI, EPDM, Viton and PTFE product contact joints all in compounds conforming to the FDA CFR title 21 section 177.1550.

- **Other options**

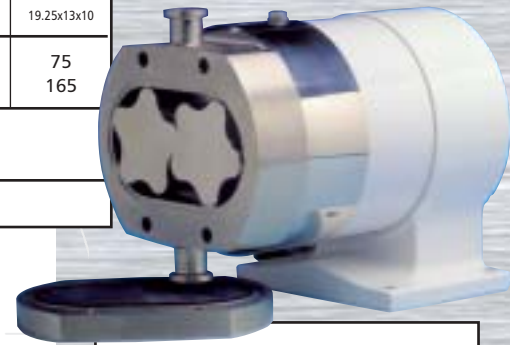
Aseptic barrier end cover joints to maintain sterility of product during long cycle times.

Electropolish or high polish internal surfaces to 0.5µm Ra (20 micro-inc Ra) for minimised cell damage and maximised cleanability.



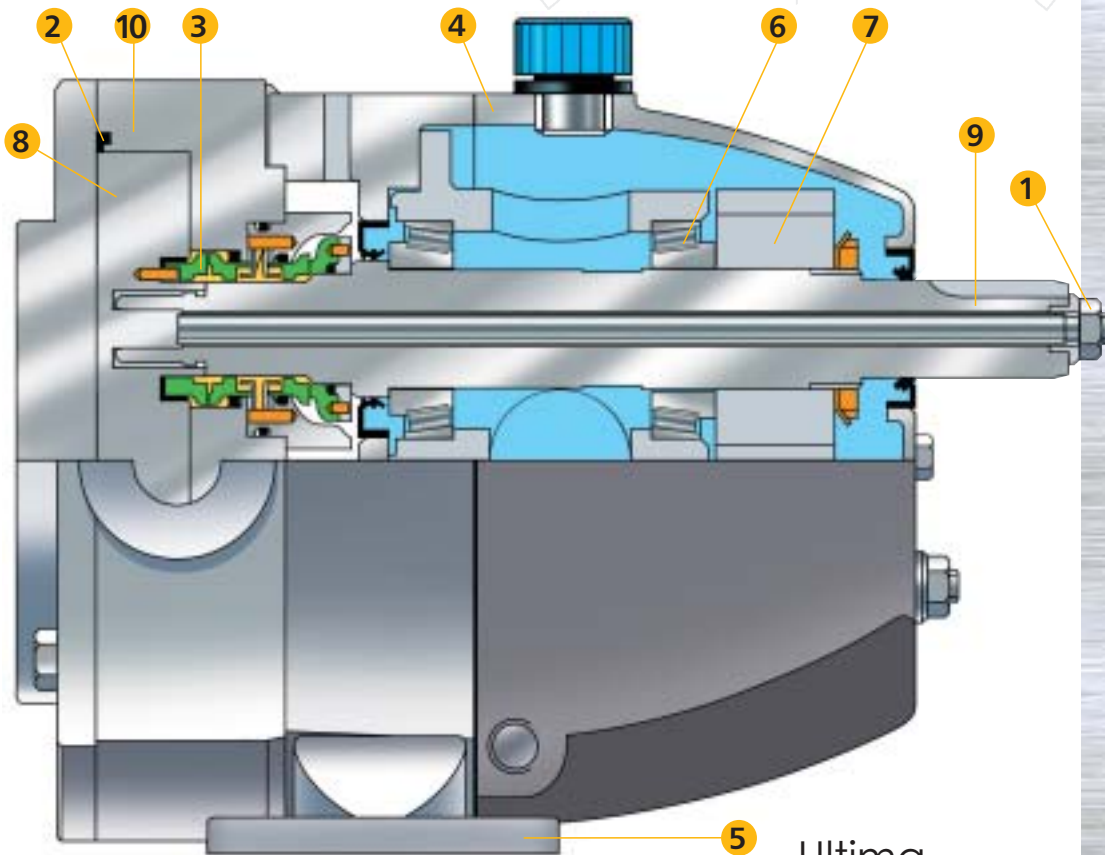
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	55 Series			Ultima					
Pump Model	55210	55320	55420	LU42	LU44	LU52	LU54	LU62	LU64
Port Size (mm) (inch)	12.5 ½	19 ¾	25 1	25 or 38 1 or 1½	38 or 50 1½ or 2	38 or 50 1½ or 2	50 or 76 2 or 3	63 or 76 2, 2½ or 3	76 or 100 3 or 4
Displacement (litre) (100 revs) (US gal)	1 0.26	2.9 0.77	6.7 1.77	12.3 3.25	20.4 5.39	26.5 7.00	45.5 12.02	64 16.90	95 25.10
Max Flow (litre) (per min) (US gal)	16 4.2	44 11.6	67 17.7	123 32.5	204 53.9	254 70.0	437 120.2	461 121.8	684 180.7
Max Pressure (bar) (psi)	14 203	20 290	20 290	15 217	8 116	15 217	8 116	15 217	8 116
Max Speed (RPM)	1500	1500	1000	1000	1000	1000	1000	720	720
Size LxBxH (mm) (inch)	191x114x135 7.5x4.5x5.25	264x145x168 10.5x5.75x6.5	302x168x191 11.75x6.5x7.5	285x223x182 10.75x8.75x7.75	301x223x182 11.75x8.75x7.75	386x249x208 15.25x9.75x8.25	414x259x213 16.25x10.25x8.25	463x328x249 18.25x13x9.75	492x328x254 19.25x13x10
Bareshaft Weight (kg) (lbs)	8 18	19 42	26 57	23 51	25 55	38 84	41 90	70 154	75 165
Temp (°C) (°F)	-30 to 140 -22 to 284								
Viscosity (cP)	1 to 1 million								



## Construction Details

### 55 Series



Ultima

- 1 **External rotor retainers** prevent build up of stagnant product, by removing the need for end cover recesses and O-ring crevices entirely.
- 2 **Gasket type joints** eliminate the uncertainty of O-rings in terms of cleanability.
- 3 **Front mounted shaft seals** allow for easy replacement and full accessibility of CIP liquids.
- 4 **Rugged, stainless steel bearing pedestal** and housing allow for maximum hygiene (epoxy coated cast iron with stainless steel option on 55 series).
- 5 **Removable feet** allow **quick change** for pump mounting in the ideal orientation.
- 6 **High specification taper roller bearings** give **over one million hours life** on a typical duty.
- 7 **Precision cut gears** yield high load capability and **ease of maintenance or replacement**.
- 8 **Fully interchangeable bi-wing rotors** can be fitted without the need to re-time thus **reducing downtime** and allows pump to cope with a higher level of abuse and larger solids.
- 9 **Heavy duty shafts** for maximum rigidity and minimum galling due to low deflections.
- 10 **Low carbon 316L pump head** with welded ports for reduced carbide precipitation, increased corrosion resistance and minimal carbon 'pull-out'.

# ROTARY LOBE PUMPS – SUPER HYGIENIC

## Hy~Line

## Super Hygienic Positive Displacement Pump

### Design Features

- **Most Stringent Hygienic Standards**

Flush rotor fixing screws are sealed to prevent product ingress. Contoured rotor case internals for full drainability during SIP and shaft seals set up front where the pumping action is! Fully conforming to 3A 02-10 Hygienic Standards and utilising materials which meet FDA requirements. Versions are available that have been tested and approved to the EHEDG (European Hygienic Equipment Design Group), CIP and SIP protocols and USDA, 3A certification.

- **Low Maintenance Costs**

Front loaded single shaft seals are fully accessible from the front of the pump without disturbing the process pipework. Simple bearing assemblies easily pre-set using automotive technology. Bi-wing rotors require no timing adjustments. Even the pump casing is removable, a feature not normally associated with other bi-wing rotor pumps.

- **High Volumetric Efficiency**

The bi-wing rotors incorporate the low viscosity efficiency associated with circumferential piston pumps with the viscous product handling capability of tri-, quad- and bi-lobe rotor pumps..... at an affordable price!

- **Rugged Design**

Hy~Line design utilises extremely large shaft diameters mounted in high specification taper roller bearings, fitted into an extremely rigid central pillar made from a high grade alloy. This is all enclosed in an oil filled housing made from the same alloy. These, together with wide tipped rotor wings, which adds another dimension to security, avoid premature pump failure due to overpressure or other abuse.

### Options

- **Seals**

*Front loaded single mechanical face type seals* of hygienic design. Materials include carbon, stainless steel and silicon carbide.

*Low pressure flushed seals* utilise the same single mechanical seal with an additional housing. A low pressure flush liquid washes away crystallising products or liquids which 'skin over'.

*Double mechanical seals* utilising all the components from single seals. Used for hazardous, toxic, highly abrasive or sterile products.

*Front loaded single O-Ring seals* - a low cost seal option used primarily for self lubricating products and products which contain little or no abrasives.

*Front loaded double O-Ring seals* - suitable for pressurised grease or flushing with a suitable liquid to enable low cost sealing of high sugar confectionery and bakery products.

*Multiple PTFE lip seal* - complete with controlled release food grade grease injection system, the ideal sealing system for chocolate and other products sensitive to water flush.

- **Certification**

3.1B Material Certification package.

3A Variants with Nitrile or EPDM elastomers and port options - Tri-clamp, IDF, 3A, DIN11851

- **Connections**

All US and European standards including DIN, SMS, RJT, IDF, Tri-Clamp & BSP. Most pumps available with 2 different sizes, all fully interchangeable. (Not on 3 & 7 size)

- **Elastomers**

Nitrile, Viton, EPDM and PTFE product contact joints available in compounds conforming to 3A Sanitary Standard 18-03 and FDA title 21 section 177.2600.

- **Other options**

Pump Head temperature control jackets.  
Integral pressure relief valve.  
Enlarged suction port for viscous products.  
All stainless steel bearing pedestal and cover.  
Low carbon 316L pump head.  
Tanker pump version for direct hydraulic drive.

Jabsco's latest rotary positive displacement pump incorporates the very latest in hygienic design concepts in order to fulfil the ever increasing customer demands for improved cleanability, hygiene and sterilisability.

This 316 Stainless Steel design uses a bi-wing rotor, which encompasses the very best features of tri-lobe rotor pumps and circumferential piston pumps.

The pump is built upon Jabsco's 40 year experience of producing and supplying their Flexible Impeller and 24 Series rotary lobe pumps to the world's most demanding markets.



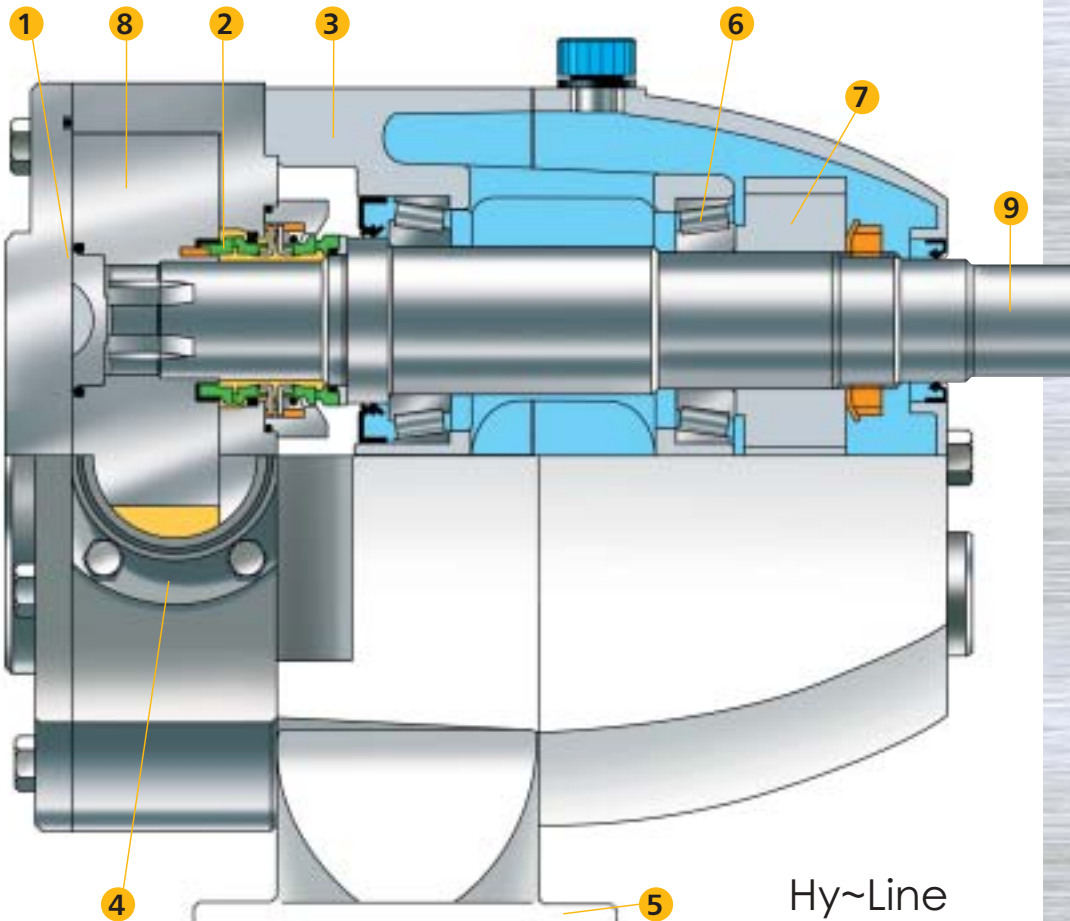
02-10



## Hy~Line

Pump Model	LH32	LH34	LH42	LH44	LH52	LH54	LH62	LH64	LH72	LH74	LH76
Port Size (mm) (inch)	19 or 25 ¾ or 1	25 or 38 1 or 1½	25 or 38 1 or 1½	38 or 50 1½ or 2	38 or 50 1½ or 2	50 or 76 2 or 3	63 or 76 2, 2½ or 3	76 or 100 3 or 4	76 or 100 3 or 4	100 or 152 4 or 6	127 or 152 5 or 6
Displacement (litre) (100 revs) (US gal)	3.5 0.92	7 1.85	12.3 3.25	20.4 5.39	26.5 7.00	45.5 12.02	64 16.90	95 25.10	123 32.50	205 54.15	301.5 79.65
Max Flow (litre) (per min) (US gal)	52 13.7	105 27.7	123 32.5	204 53.9	265 70.0	455 120.2	461 121.8	684 180.7	836 220.8	1230 324.9	1809 477.9
Max Pressure (bar) (psi)	15 217	8 116	15 217	8 116	15 217	8 116	15 217	8 116	15 217	8 116	5 72
Max Speed (RPM)	1500	1500	1000	1000	1000	1000	720	720	680	600	600
Size LxBxH (mm) (inch)	213x192x166 8.25x7.5x6.5	229x192x166 9x7.5x6.5	274x223x196 10.75x8.75x7.75	290x223x196 11.5x8.75x7.75	386x249x208 15.25x9.75x8.25	414x259x213 16.25x10.25x8.25	460x270x311 18.25x10.75x12.25	464x302x311 18.25x11.75x12.25	486x380x363 19.25x15x14.25	526x386x363 20.75x15.25x14.25	573x412x363 22.5x16.25x14.25
Bareshaft Weight (kg) (lbs)	8 18	10 22	18 40	20 44	32 70	35 77	61 134	65 143	125 275	145 319	165 363
Temp (°C) (°F)	-30 to 140 -22 to 284										
Viscosity (cP)	1 to 1 million										

## Construction Details



- 1 **Flush fitting, sealed rotor retaining screws** avoid build up of stagnant product as no end cover recesses are required and no product can get into the rotor drive.
- 2 Front mounted shaft seals for **easy replacement** and full accessibility of CIP liquids.
- 3 **Rugged, high grade alloy** bearing pedestal and housing for low weight and high strength, completely encased in epoxy coating.
- 4 Detachable ports for **maximum flexibility** in connection type and size. (Not on 3 & 7 size).
- 5 Removable feet allow **quick change** for pump mounting in the ideal orientation. (Not on 3 & 7 size).
- 6 High specification taper roller bearings give **over one million hours** life on a typical duty.
- 7 Precision cut spur gears for high load capability and **ease of maintenance**.
- 8 Fully interchangeable bi-wing rotors can be fitted without the need to re-time thus **reducing downtime** and allows pump to cope with a higher level of abuse.
- 9 **Heavy duty shafts** for high pressure capability.

Hy~Line

# ROTARY LOBE PUMPS – HYGIENIC

## 24 SERIES

### Hygienic Positive Displacement Pump

#### Design Features

- **Adaptability**

This is the key design concept. The pump utilises 'bolt on' features which allow quick and easy interchange of parts to enable exact specification of the pump to suit any application.....from stock!

- **Rugged Design**

The bearing frame design utilises large shaft diameters mounted in high specification taper roller bearings, fitted into rigid pillars which form an integral part of the high grade alloy housing. These ensure maximum shaft stiffness in order to avoid premature pump failure due to overpressure or other abuse.

- **Low Maintenance**

The shaft, bearing and gear assemblies are fully immersed in an oil bath to give maximum life even at extremes of operating conditions. The timing gears are easily accessible at the rear of the pump in the unlikely event that re-timing should become necessary. Rotors are all fully interchangeable avoiding the need to re-time which is a problem associated with so many other rotary lobe and circumferential piston pumps.

- **Improved Hygienic Technology**

Fully swept pump chamber together with sealed rotor spline, accessible seals, and approved sealing components ensure that the pump meets the stringent requirements of major international customers

#### Options

- **Seals**

*Single mechanical seals* are of hygienic design. Materials include carbon, stainless steel, tungsten carbide and silicon carbide.

*Low pressure flushed seals* utilise the same single mechanical seal with an additional housing. A low pressure flush liquid washes away crystallising products or liquids which 'skin over'.

*Double mechanical seals* utilise all the components from single seals. For hazardous, toxic, highly abrasive or sterile products.

*Gland packing* - a cost effective general purpose seal for non-hazardous liquids. Used on either a stainless steel or hard chrome plated anti-wear sleeve.

*O-Ring seals* - another low cost seal option used primarily for self lubricating products such as dairy products.

- **Certification**

3A Variants with Nitrile or EPDM elastomers and port options - Tri-clamp, IDF, 3A, DIN11851.

- **Rotors**

*Tri-lobe rotors* in stainless steel handle 90% of all applications. The traditional rotor shape gives an excellent combination of efficiency, solids handling, low and high viscous product capability.

*Bi-lobe rotor* in stainless steel for exceptional handling of delicate, soft solids such as fruit pieces and vegetables.

*Rubber covered tri-lobe* rotor to cope with small hard solids such as small bone fragments or ice crystals.

- **Connections**

All US and European standards including DIN, SMS, RJT, IDF, Tri-Clamp & BSP. Most pumps available with 2 different sizes, all fully interchangeable.

- **Elastomers**

Nitrile, Viton, EPDM, PTFE or Kalrez product contact joints are available.

- **Other options**

Pump head temperature control jackets.

Integral pressure relief valve.

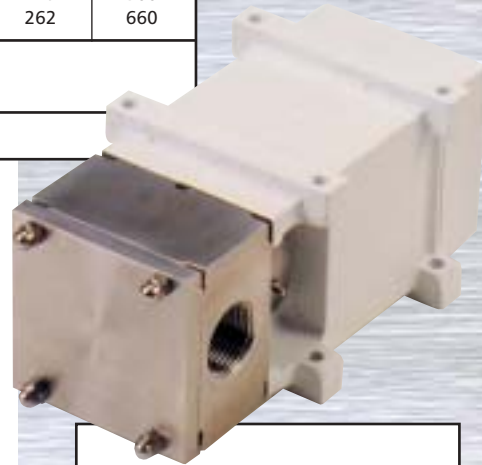
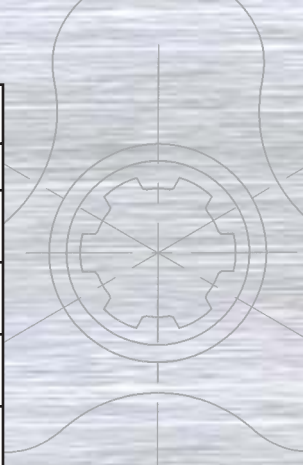
Enlarged suction ports for highly viscous product.

The 24 Series range of positive displacement rotary lobe pumps is a proven design spanning over 20 years. With thousands of pumps in use around the world users agree that it is one of the best designed hygienic pumps on the market today. The 316 Stainless Steel 24 Series pump range incorporates improved technology in hygienic pump design and manufacturing techniques, yet utilises the traditional tri-lobe rotor concept which is so well accepted by the world's leading suppliers of Food, Personal Care and Chemical products.



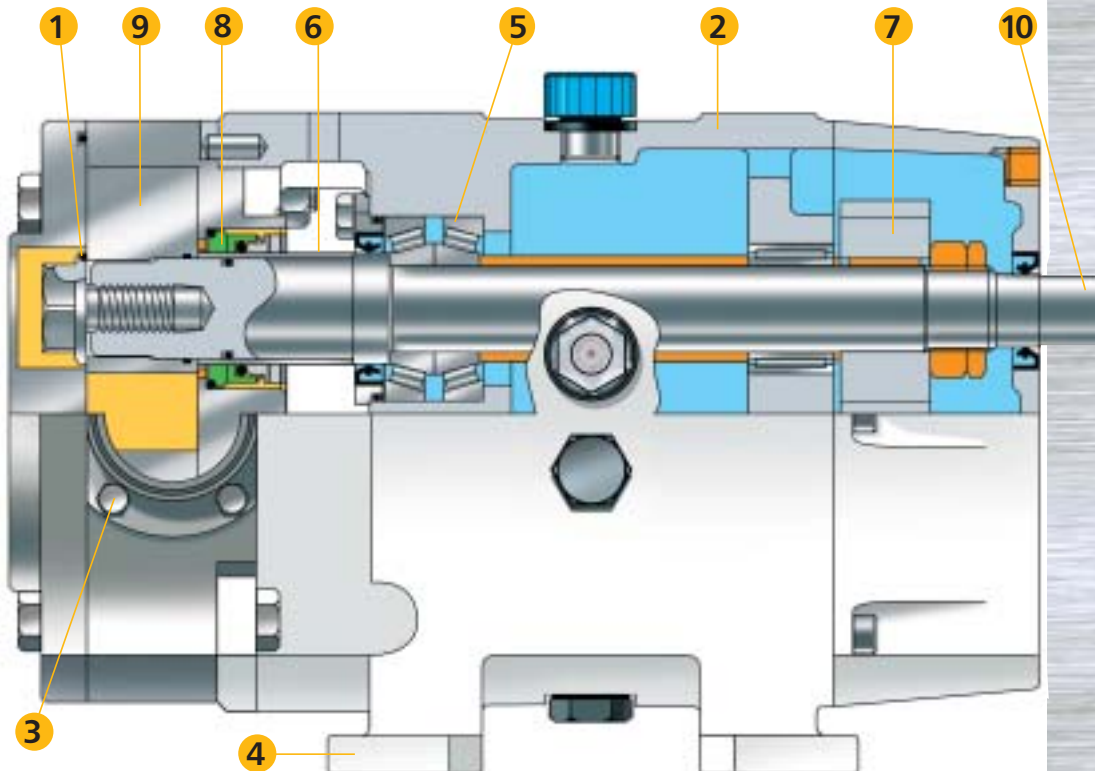
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	24 Series									
Pump Model	S2	A1	A2	B1	B2	C1	C2	D1	D2	E2
Port Size (mm) (inch)	25 1	25 or 38 1 or 1½	25 or 38 1½ or 2	38 or 50 1½ or 2	38 or 50 2 or 3	50 or 76 2 or 3	50 or 76 3 or 4	76 or 100 3 or 4	76 or 100 4	152 6
Displacement (litre) (100 revs) (US gal)	3.6 0.92	10.4 2.75	18.6 4.91	24.5 6.47	37.7 9.96	62.3 16.46	93.6 24.72	122 32.23	161 42.53	350 92.46
Max Flow (litre) (per min) (US gal)	36 9.2	100 27.5	177 49.1	237 64.7	362 99.6	448 118	655 173	793 209.5	1000 264.2	2100 554.8
Max Pressure (bar) (psi)	7 101	15 217	10 145	15 217	10 145	14 203	10 145	12 174	9 130	12 174
Max Speed (RPM)	1000	960	960	960	960	720	700	650	620	600
Size LxBxH (mm) (inch)	261x146x106 10.25x5.75x4.25	335x204x188 13.25x8x7.5	355x204x188 14x8x7.5	408x226x227 16x9x9	428x236x227 16.75x9.25x9	538x288x319 21.25x11.25x12.5	564x296x319 22.25x11.75x12.5	623x322x355 24.5x12.75x14	647x346x355 25.5x13.75x14	770x425x438 30.25x16.75x17.25
Bareshaft Weight (kg) (lbs)	10 22	14 31	18 40	29 64	33 73	70 154	75 165	112 246	119 262	300 660
Temp (°C) (°F)	-30 to +150 -22 to 302	-40 to +200 -40 to 392								
Viscosity (cP)	1 to 1 million									



Model S2

## Construction Details



- 1 Sealed rotor splines ensure improved cleanability.
- 2 Rugged, high grade alloy bearing frame for low weight and high strength.
- 3 Detachable ports for maximum flexibility in connection type and size.
- 4 Removable feet allow quick change for pump mounting in the ideal orientation.
- 5 High specification tapered roller bearings give over one million hours life on a typical duty.
- 6 Shaft sleeves under seals ensure minimised maintenance costs.
- 7 Precision cut helical timing gears for reduced noise and ease of maintenance.
- 8 Wide variety of interchangeable seal types to suit many applications.
- 9 Fully interchangeable rotor options can be fitted without the need of re-timing thus reducing downtime.
- 10 Heavy duty shafts for high pressure capability and minimum deflection.

24 Series



# FLEXIBLE IMPELLER PUMPS – HYGIENIC

Jabsco Hygienic Flexible Impeller Pumps handle low and high-viscosity liquids, gels and pastes and can pass suspended soft and hard solids with minimal damage. The output flow is smooth, steady and totally pulsation-free and their gentle pumping action will not break down shear-sensitive or fragile liquids. Designed to be cleaned in place or easily strip-cleaned, Jabsco flexible impeller pumps frequently offer a more suitable and cost-effective alternative to many other pump types.

## FLEXIBLE IMPELLER Hygienic Positive Displacement Pump



### Options



### Pedestal Pumps

- Foot-mounted to couple to gearbox or belt-drive
- Hygienic rubber impeller
- Long-life mechanical shaft seal
- All 316 grade Stainless Steel parts with high surface finish
- Used in Food, Dairy, Beverage, Healthcare & Cosmetics sectors



### Motor Mount Pumps

- Used in Food, Dairy, Beverage, Healthcare & Cosmetics sectors
- Close-coupled to motor (unibloc); compact and economical
- Suitable for mounting onto standard IEC or NEMA motors
- Hygienic rubber impeller
- Long-life mechanical shaft seal
- All 316 grade Stainless Steel parts with high surface finish



### Milk Tanker Pumps

- Specialised pumps for Milk Tanker loading at dairy farms
- Bulkhead mounted for hydraulic drive
- Quick-release end-cover for winter drain-down and inspection
- By-pass option for effective CIP without the need to run the pump
- Hygienic rubber impeller





Flexible Impeller										
Pump Model (US)	282x0 (30550)		283x0 (30560)		284x0 (30570)		285x0 (30580)		286x0 (N/A)	
Size	40		80		200		370		500	
Mounting	Pedestal	Head Kit	Pedestal	Head Kit	Pedestal	Head Kit	Pedestal	Head Kit	Pedestal	Head Kit
Port Size (mm) (inch)	25 1	25 1	25 1	25 1	38 1½	38 1½	50 2	50 2	63 2½	63 2½
Max Flow (per min)* (litre) (US gal)	58 15.3	58 15.3	128 33.8	128 33.8	225 59.5	225 59.5	365 96	365 96	500 132	500 132
Max Pressure* (bar) (psi)	3 43	3 43	4.5 65	4.5 6.5	4.5 65	4.5 65	3 43	3 43	4 58	4 58
Max Speed (RPM)	2500	2500	2500	2500	1800	1800	1500	1500	1500	1500
Size LxBxH (inc ports) (mm) (inch)	169x115x147 6.5x4.5x5.75	115x115x115 4.5x4.5x4.5	214x130x160 8.5x5x6.25	136x130x130 5.25x5x5	260x162x180 10.25x6.25x7	167x162x162 6.5x6.25x6.25	331x186x218 13x7.25x8.5	193x186x186 7.5x7.25x8.5	475x192x224 18.75x7.5x8.75	230x192.5x192 9x7.5x7.5
Bareshaft Weight (kg) (lbs)	2.9 6.4	2.5 5.5	4.4 9.7	3.5 7.7	9.1 20	6.6 14.5	14.7 32	10 22	22 48.5	15 33
Temp Neoprene °C (°F)	65 (149)	65 (149)	65 (149)	65 (149)	65 (149)	65 (149)	65 (149)	65 (149)	65 (149)	65 (149)
Temp EPDM °C (°F)	120 (248)	120 (248)	120 (248)	120 (248)	120 (248)	120 (248)	120 (248)	120 (248)	120 (248)	120 (248)
Viscosity (cP)	1 to 50,000									

\* Data Dependant on duty

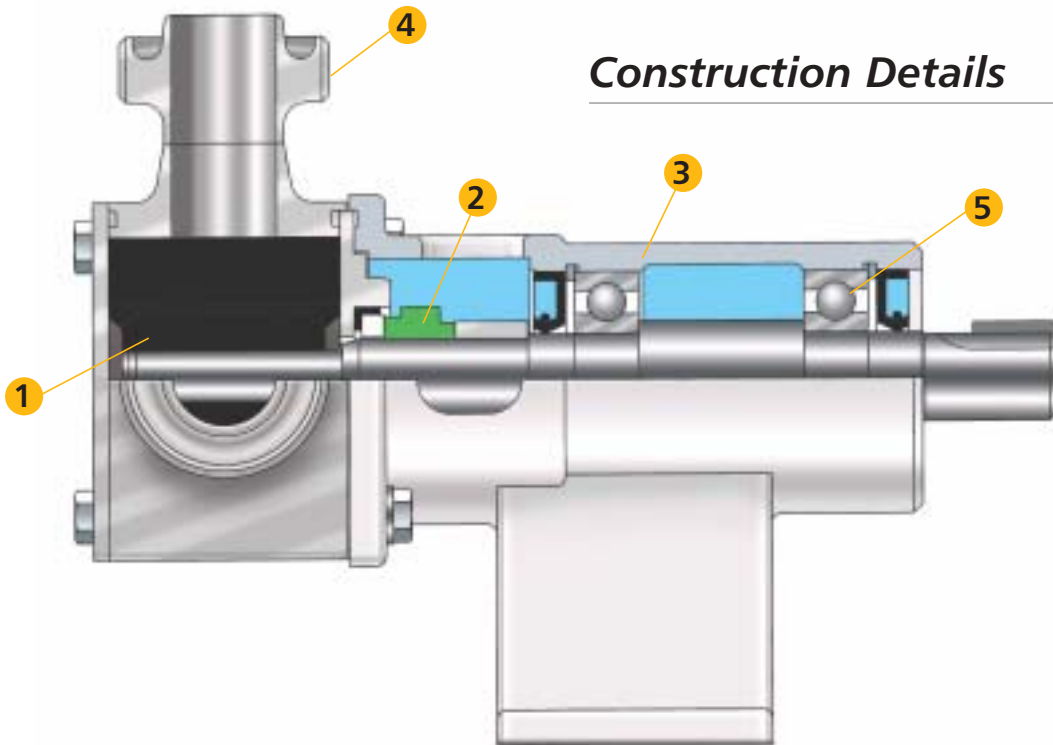
## Design Features

- Dry self priming
- All 316 Stainless Steel parts with high surface finish
- Hygienic rubber impeller leaves no taste or odour
- Elastomers Certified to US 3A Standard 18-03
- Pump certified to US 3A Standard 02-10
- Long-life mechanical shaft seal
- Easy strip-to-clean
- USDA Approved
- Variety of port and impeller material options
- Chemical-resistant 316 Stainless Steel parts
- Rugged heavy-duty construction
- Replaceable wearplates
- Passes even hard metal particles without stalling
- Long-life mechanical shaft seal
- Variety of shaft seal options
- 3A Variants - Must be specified with HYG Neoprene or EPDM.
- Port Options - Tri-Clamp, IDF, 3A, DIN 11851



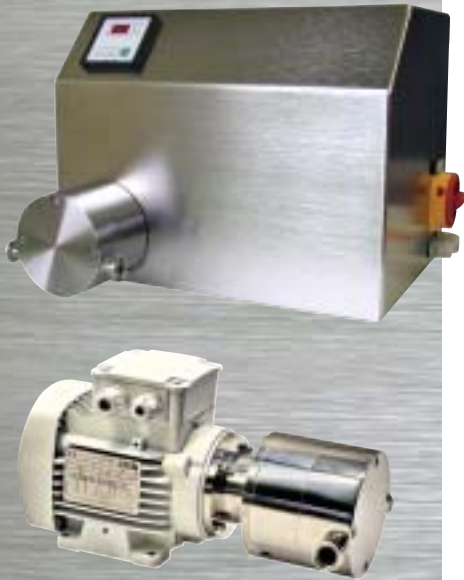
**Model 28320**

## Construction Details



- 1 Food grade rubber impeller available in Neoprene, EPDM and Nitrile options which fully conform to today's **stringent hygienic standards**.
- 2 Wide variety of long-life interchangeable seal types to suit many applications makes **service & maintenance easy**.
- 3 Choice of **head kit or pedestal bearing housing** satisfies the individual's requirement for unitisation. On larger models, **bulkhead mounted pumps** are available if the option of fitting to hydraulic drive is required.
- 4 Range of port options for **maximum flexibility**.
- 5 **Long life, high specification** bearings give over 1 million hours life on a typical duty.

# DIAPHRAGM PUMPS – SUPER HYGIENIC



## PUREFLO® 21 Super Hygienic Diaphragm Pump Design Features

- Bench top complete unit
- Fixed or variable speed AC unit
- Easy to clean, no shaft seals
- Can run dry, dry self priming
- Low noise, constant flow
- Compact and small
- Adjustable flow up to 1,380 l/h (365 US gal/h)
- Pressure up to 6.0 bar (87psi), in constant use 5.0 bar (72 psi) should not be exceeded
- Temperature up to 60° C (140° F) in constant use, CIP up to 90° C (194°F) and SIP 135° C (275° F) is possible
- Viscosity up to 250 Centipoise
- Unit supplied with 3.1B material certificates
- SIP Capabilities

## Pump Specifications

### Drive

- Motor: 24 V DC
- Motor protection: IP 54
- Variable speed: 0 - 3,000 rpm
- Torque: 0.42 Nm at 3,000 rpm
- Motor power: 132 Watt, 8.7 Amp

### Electrical Details

- Power supply: Intelligent controls enable operation at most single phase supplies, 115-240 V AC, 50 or 60 Hz
- Controls voltage: 24 V DC
- Programmable Controls: Touch Pad 1 - 100 % of speed

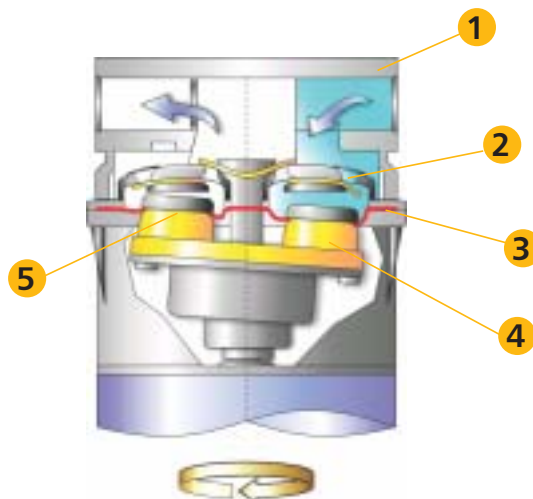
### Materials / Surfaces

- Parts in contact with fluid are manufactured from FDA conforming materials only.
- Surface finish Ra < 0.8 μ standard (32 micro inch), 0.5 μ (20 micro inch) and electro polish is available on request.

### Parts in Contact with Fluid

- Head: Stainless Steel 316L
- Diaphragm: Santoprene
- Valves / O-Ring: EPDM / Buna
- Valve chamber & pistons: Polypropylene
- Ports: Tri-Clamp 3/4"

## Technical and Construction Details



- 1 Low carbon 316L pump head for reduced carbide precipitation, increased corrosion resistance and minimal carbon pullout.
- 2 Chemical resistant Polypropylene valve chamber and piston guarantees long-life of the system.
- 3 Hygienic Santoprene® diaphragm conforms to FDA requirements.
- 4 Non-contact cam assembly ensures super hygienic standards are maintained.
- 5 Valves in EPDM for optimum chemical resistance capability.

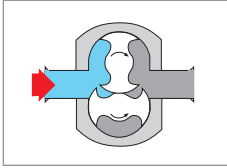
Pump Model	Pureflo 21
Port Size (mm) (inch)	19 Tri-Clamp 3/4"
Max Flow (per min) (litre) (US gal)	23 6
Max Pressure (bar) (psi)	6 87
Max Speed (RPM)	3000
Size LxBxH (mm) (inch)	380x385x300 15x15x11.75
Weight (kg) (lbs)	19.5 43
Max Operating Temperature (°C) (°F)	+60 (CIP 90) +140 (CIP 194)
Viscosity (cP)	250

# PRINCIPLES OF OPERATION

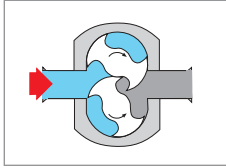
## Rotary Lobe Pumps

### Bi-wing Rotor

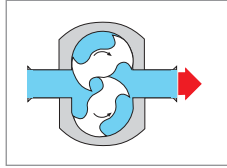
(1) Inlet



(2) Displacement



(3) Discharge



Every Jabsco Lobe Pump is a true positive displacement rotary lobe pump. During operation, fluid is smoothly drawn into the pump.

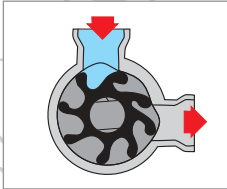
Fluid is carried around the outside of the rotors to be positively discharged at a steady flow rate by two centre-rotating rotors.

This action, combined with the absence of rubbing contact between the rotors or casing, is capable of handling fluid reliably, cleanly and without degradation.

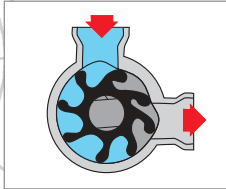


## Flexible Impeller Pumps

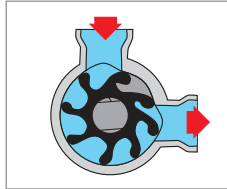
(1) Inlet



(2) Displacement



(3) Discharge



On start-up, air in the inlet pipe is displaced and liquid is drawn into pump.

The liquid is then carried through to be discharged at a steady flow rate.

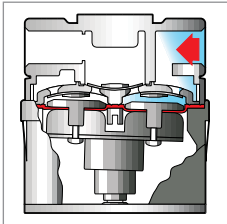
This action combines gentle pumping with true dry priming capability.



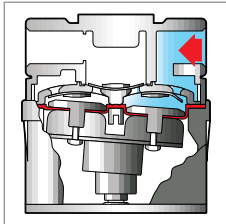
## Diaphragm Pumps

### Motor Driven

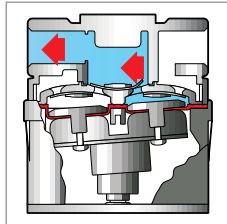
(1) Inlet



(2) Displacement



(3) Discharge



Self-priming design allows pumps to create suction to draw fluid into pump without manual priming.

Fluid enters inlet port and is drawn through inlet check valve when piston moves away from the check valve.

As piston moves toward the check valve assembly, the fluid is forced through the outlet check valve and out of the pump.







## APPLICATIONS

### Pharmaceutical Industry

Nutraceutical  
Cell slurries  
Buffer solutions  
Bio-products

### Personal Care Industry

Cosmetics  
Creams  
Lotions  
Dietary products

### Food Process Industry

Bakery  
Beverage  
Brewery  
Dairy  
Meat  
Canning  
Confectionery

### Chemical Industry

Household products  
Strong acids  
Emulsions  
Polymers  
Paper coating  
Water treatment

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**Jabsco**, Bingley Road, Hoddesdon, Hertfordshire EN11 0BU  
Tel: +44 (0) 1992 450 145 Fax: +44 (0) 1992 467 132

**UK**

**Jabsco**, 1 Kondelin Road, Cape Ann Industrial Park, Gloucester, MA 01930  
Tel: +1 978 281 0440 Fax: +1 978 283 2619

**USA**

**Jabsco GmbH**, Oststraße 28, 22844 Norderstedt  
Tel: +49 (0) 40 53 53 73 0 Fax: +49 (0) 40 53 53 73 11

**GERMANY**