



# FLEXIBLE IMPELLER PUMPS



**ITT**

*Engineered for life*

# HYGIENIC & INDUSTRIAL PUMPS



ITT Jabsco offers premium Flexible Impeller pumps for use in Hygienic and Industrial applications across the world.

Hygienic Flexible Impeller pumps are available in pedestal mounting or head kit only format.

## Typical Hygienic applications

- Pumping of food pastes, sauces, dough, and other high viscosity media. High viscosity products can be moved by these pumps over large distances with a significant starting head.
- Cosmetics, toothpastes, shampoos, soaps and pharmaceuticals are also pumped by FIP pumps. Minimal shear on the product is exerted, making it ideal for shear sensitive beauty products. If the product is thixotropic, the shear rate will not cause additional structure build up.
- The beverage industry also uses FIP pumps. The application areas are; wines, beers, soft drinks, fruit juices and syrups. The FIP pump is capable of passing whole fruit berries through the pump without causing damage. This is due to its unique mode of operation; the solid particle can enter the space between two impeller blades and be passed out the other side without having suffered any damaging effects.



### 28000 Stainless Steel Pumps (305 Series)

Flow rate of 1–520 l/min (8242 US gph)

Pressure up to 5 bar ( 75psi)

Viscosities up to 50,000cp

Will pass soft solids up to 18mm (0.7") dia

Will pass hard solids up to 14mm (0.55") dia

Fluid & CIP temperature 0–90°C (195°F)

Self priming up to a 4.5m (14.76ft) head

## Specialist Hygienic Pumps

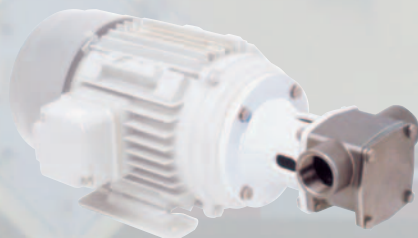
A range of highly specialised pumps are available to the dairy and hygienic markets. These pumps may be fitted to the rear of milk tankers and can be cleaned and flushed without being removed. Models exist which service both the European and North American markets. Adaptations to these pumps are available on request.

### Features

- Quick release mechanism for easy access to the impeller.
- By-pass option for efficient CIP (clean in place).
- Flow rates up to 580 l/min (9193 US gph).
- Bulkhead mount is available if required for use with hydraulic drives.

## Typical Industrial applications

- The 28000 and 305 series pumps are suitable for use in the Chemical industry, with alcohols, esters and other organic based solutions.\*
- Abrasive suspensions are also passed through these pumps, typical examples being sols, slurries and emulsions.
- Other pumping applications include inks, dyes, paints, viscous adhesives & plasticisers.
- These mid duty pumps are ideally suited to process transfer duties, filtrations, sampling, mixing and metering.



*Capable of pumping acids and alkalis*

\*Please check exact chemical compatibility with seals and impeller materials before use, or contact your local Jabsco distributor.



# BRONZE AND SMALL UTILITY PUMPS

## Bronze Pump Range

Flow rate of 1–520 l/min (8242 US gph)

Pressure up to 4 bar (60 psi)

Viscosities up to 10,000 cp

Will pass solids up to 18mm (0.7") dia

Fluid temperature range 0–90°C (0–194°F)

Self priming up to a 4.5m (14.76ft) head

Jabsco offer premium quality Bronze pumps, cast from high quality materials to give a superlative finish and build quality. The range is split into two groups; pumps used for engine cooling applications and "the rest". The rest constitutes applications that include; bilge pumping, deck washing, water tank filling (ship to ship), salt water pumping, abrasive media (including suspended sands) and marine toilet pump outs.

Non marine uses for these pumps may include chemical processing, recirculation of aqueous media including coolants and sump emptying.

Pumps are available to fit most marinised engines either direct from Jabsco or through a registered distributor.

## Range Features

- The units are inexpensive, versatile & adaptable for many applications.
- All units utilize marine quality bronze and Stainless Steel components where safe.
- Replaceable wear plates, end covers and cams.
- Bare shaft or pulley driven versions.
- Manual or electromagnetic clutch variants.
- Foot or flange mountings are available.
- Installation is easy, requiring little time or experience.

## Small DC pumps

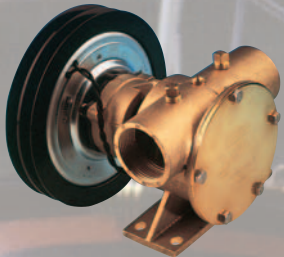
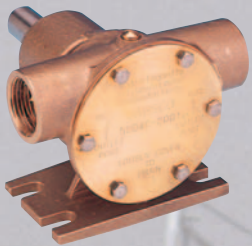
These pumps are made from high quality bronze castings and lend themselves to applications on vehicles.

## Range Features

- The low voltage of the DC motor makes it safe for use in wet conditions.
- The pump will run from a standard vehicle battery (12 or 24V).
- These pumps will self prime from a dry start up.
- A dedicated run dry option is available on some models.
- All pumps are fully tested and CE marked.

## Impeller Options

Impeller material	Typical Application
Neoprene	General water based products
Neoprene HT	High temperatures, not oil based products
Nitrile	Oil and water based products
EPDM	High Temperatures but not oils – usually of food grade
Viton	Oils and water based products
Food grade impellers available on request	



# UTILITY AND NON METALLIC PUMPS

## Dry run utility pumps

Flow rate 1– 80l/min (1268 US gph)

Pressure up to 2.5 bar (37.5psi)

Viscosity up to 600cp

Will pass solids up to 4mm (0.157") dia

Fluid temperature range 0–90°C (0–194°F)

Self priming up to a 3.0m (9.84ft) head

Will dry run for up to 30mins

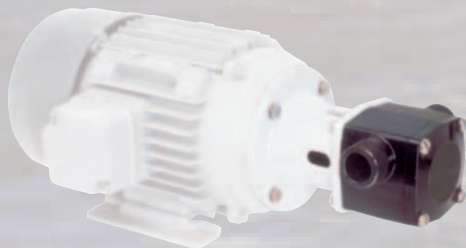
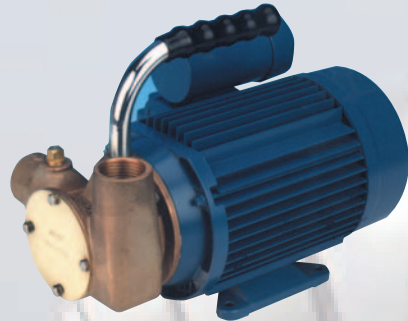
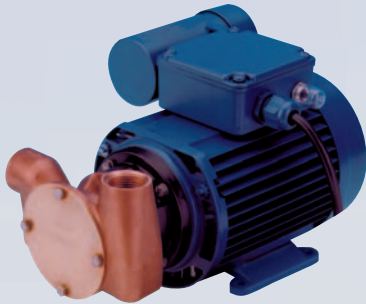
## Utility Pumps

These pumps are versatile, multi-purpose units that fill in where more specialised and expensive units are not practical for the job in hand.

Jabasco's utility pumps are bronze, so retain that high quality found in the marine range. They are widely found in use at metalworking factories, agricultural facilities, waste water treatment works and building facility management companies. These units are portable and can be used anywhere across site from washdown to pump out applications.

### Features:

- Handles medium viscosity media.
- Self priming, from dry start up.
- Will pass small solid particulates without affecting performance.
- Will "run dry" up to 30mins.
- Servicing is simple, no prior training required.



## Non Metallic Pumps

The range encompasses both Epoxy and Phenolic resin pumps.

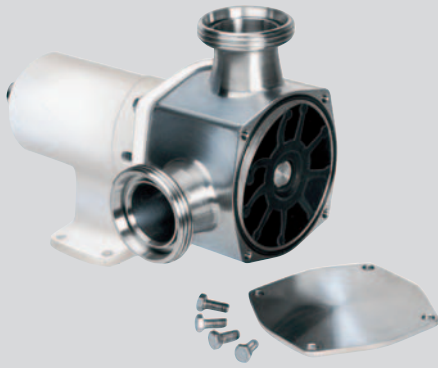
- These pumps can be found in use pumping acids and alkalis.
- The corrosive nature of the electro plating process makes these pumps ideally suited to stand the harsh environments they may be exposed to. Typical chemicals used may include sulphuric acid, hydrogen peroxide and aqua regia.
- They are also popular in the photographic industry as they are ideally suited at pumping photographic development chemicals.

### Range Features

- A high resistance thermosetting plastic pump body.
- There are no metallic parts in contact with the pump media (040 & 080 sizes).
- The impellers are made from a chemically resistant rubber, although other materials are available on request.
- Servicing and clean out is a simple operation.

# **FLEXIBLE IMPELLER PUMPS**

## **Quality, Affordability, Reliability**

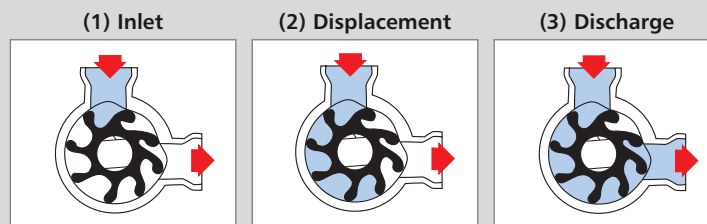


### ***Principles of Flexible Impeller Pumps***

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#### **Features and Benefits**

- Self priming.
- No need for a Pressure Relief Valve.
- Gentle pumping action gives excellent suspended solids handling capability.
- Pump can be mounted above or below the liquid source.
- Flow rate is exponentially linear to impeller speed.
- Capable of pumping across a wide range of viscosities.
- Can pump very abrasive media.
- Can pump foams, emulsions and gas enriched aqueous materials.
- Operates at high and low motor speeds.
- Will not airlock; continues to operate even when air passes through the system.
- Pumping is bi-directional due to the symmetry of the pump configuration.
- FIP pumps will pump out until the last drop of media has gone.
- FIP pumps have a low lifetime cost; few parts need to be replaced over its lifetime.
- Compact design still delivers high flow rates.



#### **How the FIP works**

1. Flexible impeller blades create a partial vacuum for near instant dry self-priming.
2. As the impeller rotates, each successive blade draws in liquid and carries it from intake to outlet port.
3. As the flexible impeller blades contact the offset cam they bend with a gentle squeezing action that provides a continuous, pulsation free flow.







At Jabsco we don't just offer Flexible Impeller pumps. We also manufacture Sliding Vane pumps, Rotary Lobe pumps and Diaphragm pumps to service the marine, beverage, construction, food, pharmaceutical and biotech markets.

For further information about our other products and brands please visit...

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**ITALY**



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