

WASTEWATER AND OTHER PROCESS PUMPS



Handling the pumping applications on the process plant does not end in the pre-process pumps. Pioneer have developed a range of end suction and self priming pumps ideal for uses in applications where higher temperature or solids handling applications demand tough solutions.

Pioneer Pumps PPE and PT pumps are some of the most rugged and as such reliable self priming pumps on the market, making them ideal for applications on the wastewater side of the potato and vegetable processing systems.

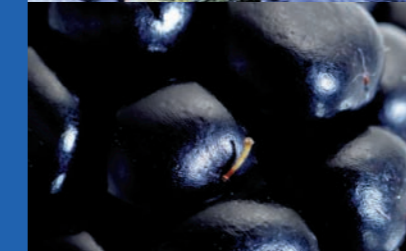
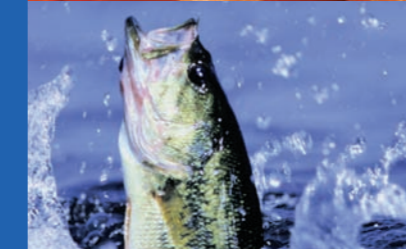
All the P series pumps offer the following features such as:

- Full Ductile Iron construction including impeller, seal housing and volutes
- Heavy duty corrosion and abrasion resistant 17-4PH stainless steel shaft.
- Si/Si mechanical seals
- 63-76mm solids handling impellers
- High efficiency self priming action
- Maximum flows of up to 700m³/hr and pressures of 5 bar

These pumps are ideal where higher temperatures and air entrainment is experienced enabling the pumps to offer the ability to self prime should they experience vapour bubbles or steam entrainment in the pumpage from the process in the line.

Ease of maintenance of these pumps makes the P series pumps attractive the food processors as the design enables the blockages to be cleared without the need for pipework to be removed, speeding up the process and reducing down time, something extremely important in any industry but especially so in the food processing market.

PIONEER PUMP



SPECIALIST PUMPS FOR THE FOOD PROCESSING INDUSTRY

Knowledge through experience

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BACKGROUND



Pioneer Pump has a long history in the food processing industry, in fact added together, the experience of its people is well over 100 years providing pumps and working with key OEMs and end users throughout the world.

Today some of the biggest names use Pioneer Pumps in key processes such as Hydrotransport, hot oil cooking and other processes such as blanching, refrigeration and wastewater.

With operations on the west coast of the United States and in the East Anglian region of the UK, it is by no mistake that the company has operations in the heart of some of the largest agricultural regions involved in the production of vegetable and potato products.

We welcome the opportunity to work with all organisations involved in processing vegetables where sensitive and delicate product processes require high quality equipment designed specifically for the applications in mind.

From its two factories, Pioneer Pump now develop solutions for the global food processing industry including organisations in the potato processing industry such as McCains, Lamb Weston, Heat & Control and Key Technology.

One of our major benefits is its belief in stocking pumps and parts in order to reduce downtime. Pioneer Pump factories carry extensive stocks which can be shipped at a moments notice to any plant in the world enabling it to respond to its customers needs in a short period of time.

Pioneer Pump in the UK manages all sales and aftersales support in the Europe, Africa and Middle East markets and is an ISO9000-2000 registered manufacturing company. It operates in the market directly with end users, OEMs and through a network of over thirty international distributors.



HYDROTRANSPORT FOOD PUMPS

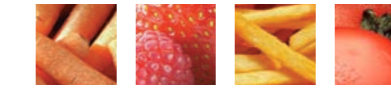
Through an extensive history in the food processing industry, Pioneer Pump has begun to develop its own range of hydrotransport food pumps and having one of the founding designers of offset volute design pumps in our team has enabled us to produce the first pump in record time.

The hydrotransport food pumps offered by Pioneer incorporate features such as offset volute designs and single-port impellers, recognised as key design features needed to minimise product damage by carrying the products in a cushion of water through the system.

As such the pumps have become quickly accepted not only for their ability to minimise damage in the transport of delicate products such as salads, fish and fruit but also in their ability to offer a true cost effective alternative to other manufacturers with similar products.

Currently available in 150mm size, the range will include 100mm, 200mm 250mm and finally 300mm size pumps capable of pumping up to 1000 tonnes of potatoes in any one hour.

All the pumps will be offered in both Ductile Iron and 316 Stainless Steel enabling the pumps to be used in pre and post cooking applications within the industry.



HOT OIL PUMPS & BLANCHING PUMPS

The North-West of the United States has a long history of equipment manufacturers involved with the global production of potato processing equipment and Pioneer Pumps is no different.

Using its expertise in designing high quality, high performance pumps, Pioneer Pump has developed a range of clear liquid pumps specifically designed for pumping high temperature liquids such as hot cooking oil at 170-220o or blanching water at 60o C.

All Pioneer clear liquid pumps designs incorporate features such as:

- Heavy duty bearing housing incorporating angular contact bearings, lip seals and heavy duty shafts
- Minimum 1144 Stressproof steel shafts and also 17-4PH stainless steel shafts for maximum reliability in application
- High efficiency fluid end designs incorporating low NPSHr impeller designs
- Use of high quality materials such as Ductile Iron and 316 Stainless steels
- High quality mechanical seals for longevity

Using its vast experience in hot oil pumps design, the engineering depart led by Chief Engineer, Bill Carnes PE, have designed a range of clear liquid pumps specifically designed to handle hot cooking oil in the food processing applications.

Unlike other manufacturers who initially designed irrigation pumps then modified their designs for hot oil, Pioneer Pump specifically worked on designs with the hot oil applications at the forefront of their plans.

As such designing the pumps to handle air entrainment from the water moisture contained in French fries and its impact on the successful use of hot oil pumps in fryers was very much in mind when we designed our equipment.

This means today, Pioneer Pump offer a range of Ductile Iron hot oil pumps with some of the lowest NPSHr figures available of any pump range in the business, specifically for reducing cavitation problems seen in applications where entrained moisture bubbles occur in processes such as hot oil pumping.

The Pioneer range of pumps with sizes from 37mm to 450mm are capable of flows up to 4000m³/hr, pressures of 16 bar and efficiencies of up to 88% are mostly built in GGG40 Ductile Iron or 316 Stainless Steel.

Every pump impeller can be trimmed enabling the pumps to be offered for 50Hz or 60Hz applications and thus used anywhere in the world.

