

Case Study:

Frozen Food Manufacturer



ENQUIRY

Castle Pumps received an enquiry for a new Debem Boxer 50 AODD pump from one of the largest frozen food manufacturer brands in the UK, who were looking to replace their existing pump. Their existing chemical transfer pump, which was being used for transferring the various alkaline-based detergents for cleaning down their processing plant and equipment, was still in working order but had been installed for several years.

As the pump was so vital in ensuring the food processing plant's strictest hygiene standards are met, their process engineer who contacted us wanted to replace the pump before it reached the end of its lifespan to prevent any unexpected downtime further down the line. Since the previous pump was installed a while ago, we understand the engineers worry about unexpected downtime and repairs. As our technical sales team recommend, pump replacement is a sensible solution for increasing efficiency and maintain the production process uninterrupted.

KEY CHALLENGES

1. Accurate dosing at low flow rates
2. Compatible with the treatment chemicals
3. Automation of operation required



CASTLE PUMPS LTD

EQUIPMENT SUPPLIED

Debem Boxer 50 AODD Pump

Model	IB50-P-HTTPT
Max Flow	50lpm
Max Pressure	8 bar
Fluid	Chemicals – Enduro super VE3, Divosan, Suredis VT1, Prime CIP VC93, Fatsolve
Body	Polypropylene
Diaphragm	Hytel & PTFE
Balls	PTFE
Ball Seats	Polypropylene
Outlet	G 3/8" f

SOLUTION

We had specified the original pump they had installed, and as the process remained the same, there were no tweaks required to the specification, enabling us to quote a like for like. Due to air supply being already available on-side and reliability being key, we choose Debem Boxer 50 air operated diaphragm pump, which is ideal for continually running industrial applications involving chemicals. To ensure the pumps can handle the hazardous application, we carefully selected Hytel & PTFE diaphragm, polypropylene seats, PTFE balls and o ring that are compatible with the cleaning chemical.

This AODD pump by Debem also provides the customer with several benefits. Firstly, the absence of seals in the air operated diaphragm pump reduces leaking, which is perfect for hazardous fluid such as alkaline-based detergents. Secondly, Debem pumping solutions have fewer wearing parts than other AODDs (30 vs a typical 72), which saves the cost of pump maintenance and buying lots of spares. Finally, this chemical pump can run 50 million cycles before needing replacement, allowing our client to get lots of use of their pump before key maintenance is required.

As the customer was happy with our technical expertise, support and short lead time, they placed an order for more of the same pump to operate in multiple locations around the factory.