CASTLE PUMPS LTD

Fishery - Case Study

Case Study Information

Customer	Fishery
Location	UK
Enquiry Received	20th January
Order Placed	17th March
Order Dispatched	12th May

Equipment Supplied:

2 x VRX 200/30 - Vertical immersion centrifugal pumps with vortex impellers

Type	200/30
	Vertical immersion pump for sea water and fish offal
	900RPM, 17Kw 440V / 3Ph / 60Hz
Impeller	Vortex, Bronze
Casing	Bronze
Flow rate	206 m^3/hr at 6m head
Suction discharge Ø	200 / 200
Column size	700mm

Enquiry:

- ✓ A fishery contacted us requiring 2 x pumps for the pumping of sea water out of a tank containing fish offal and waste. The solution therefore needed to be able to handle a degree of solid content.

Solution:

- ✓ We selected 2 of our VRX 200/30 vertical immersion centrifugal pumps with vortex impellers in full bronze for compatibility with sea water.
- ✓ Thanks to the vortex impellers, VRX pumps are able to handle liquids with solids almost as large as the size of the discharge diameter, making it suitable for the fish waste content in the sea water.
- ✓ The column design of this model separates the pump from the motor, which means that only the pump is submerged in the fluid and the motor is outside the fluid, and therefore only an IP55 rated motor is required.
- ✓ The pumps are fitted with 6 pole motors running at 900RPM, the slower motor speed reduces the wear on the pump and therefore increases its lifespan.

CASTLE PUMPS LTD

Aquaculture - Case Study

Case Study Information

Customer	Aquaculture
Location	UK
Enquiry Received	8th November
Order Placed	9th March
Order Dispatched	20th April

Equipment Supplied:

2 x AN-EP65-125 - Long coupled self priming centrifugal pump for sea water

Type	Long coupled self priming centrifugal pump for sea water 900RPM, 17Kw 440V / 3Ph / 60Hz C/w control panel for controlling operation
Impeller	Bronze
Casing	Bronze
Flow rate	120 m^3/hr at 20m head

Enquiry:

- ✓ Castle Pumps received an enquiry from a customer in the Aquaculture industry looking to farm fish on land. They required a pump for seawater transfer to obtain seawater from the sea to fill tanks, and then circulate this sea water within the tanks every 24 hours to keep it fresh and not stagnant for the fish to breed well.

Solution:

- ✓ We selected an AN centrifugal pump in bronze to ensure compatibility with sea water. As this application relied on the pumps to operate every 24 hours, the AN pump is perfect as having a twin bearing heavy duty design ensures the pumps have long service intervals of 4000 hours, ensuring little or no downtime.
- ✓ As the pumps would be mounted some distance from the sea, a self priming centrifugal pump with tank was selected to enable the pump to prime 135m. The pump was fitted with pressure gauges to enable the customer to easily determine if the pump was running on curve, and pressure switch to enable automatic priming if the suction pressure should drop.
- ✓ A bespoke control panel was supplied with running, tripped and warning lights, as well as amp draw, voltmeter, anti-condensation heater and hour counters to enable the customer to determine the intervals at which the pump would circulate the water within the tank.
- ✓ The pumps were manufactured, assembled and tested in 6 weeks.