

CLEANING & WASHING

Quick

STUDY

Hydra-Cell
Seal-less Pumps

www.Hydra-Cell.com

Location:	New Zealand
Application:	Cleaning operations
Media:	• Seawater
Model No.:	D10XKSNHFCA
Flow Rate:	8 gpm (29 l/min)
Pressure:	870 psi (60 bar)
Hydra-Cell Advantages:	• Ability to handle seawater without special filtration • Reliability in a harsh environment • Space-saving compact design • High pumping efficiency allowing pump to be driven by small hydraulic motor



Cleaning with Seawater on Fishing Vessels

The wet environment and the abrasive and corrosive quality of the seawater were problems affecting the electrically driven plunger pumps used in on-board cleaning systems by fishing vessel operators in New Zealand. The fishing boats are out at sea on a six-week cycle, returning each time with a full load of frozen fillets, already packaged for the wholesalers. Since cleaning and packaging of the fish takes place at sea, the area for this operation must be constantly cleaned and crews cannot afford downtime.

The seawater used for cleaning contains enough abrasive materials to cause the plunger pumps originally in use to fail. Seawater is also corrosive and can damage mechanical seals. Despite efforts to filter and screen the inlet water, the working life of the pumps was short. The hazard and inconvenience of electric motors and connections to drive the plunger pump in the wet environment made things worse.

The Hydra-Cell D10 was the ideal solution for these difficulties. Its seal-less design means it can easily handle the seawater and the minor debris contained in it. The array of equipment on the boat already being driven by hydraulics (winches, hoists, conveyors etc.) ensured an abundance of hydraulic power. The Hydra-Cell pumps could be driven by hydraulic motor, eliminating concerns with on-board electrics in a clean and efficient way.

Characteristics of Fluid Pumped:

☒ Contains Abrasives ☒ Corrosive ☒ Solids in Suspension ☐ High-temp. (>158°F/70°C) ☐ Non-lubricating ☐ High-viscosity (>500 cPs)