



FloNergia Aquaculture Case Study

FloMov Delivering Better Oxygenation, Improved Recirculation and Lower Energy Costs

Global Fish Market

The increased global demand for fish based protein has stimulated the development of sustainable aquaculture systems. Many land based aquaculture systems have been installed around the world to meet the demand of on shore fish farming increase fish production. On shore facilities generally use Recirculating Aquaculture Systems (RAS) to grow fish in large tanks.

RAS Systems

RAS systems are designed using large circular tanks to provide a suitable habitat for enhanced fish growth. Among the many advantages of RAS systems is the relatively small foot print required to produce a large volume of fish. RAS systems also have reduced water requirements, allowing the water to be recirculated within the tank. However, this feature results in higher energy and maintenance costs as the water needs to be constantly circulated and aerated in order for the fish to survive and grow.

How FloNergia Pumps Provide a More Energy Efficient Solution to RAS Systems

Due to these high operating costs, a more sustainable approach is required to meet the global fish demand, while reducing energy cost and carbon footprint. The FloNergia FloMov™ pump can reduce energy usage by 50-70%. As a result the FloNergia FloMov™ pump has been deployed by global aquaculture companies over the past several years to improve pumping and aeration performance and oxygen levels at a much more energy efficient rate. The FloNergia FloMov™ pump is capable of maintaining the oxygen levels and provides reliable pumping and circulation in the fish tank. The use of the FloNergia FloMov™ pump has eliminated the need for separate aeration and pumping systems which has drastically reduced energy costs.

A Specific Application

An aquaculture company located central Canada developed an onshore fish farming operation using multiple RAS fish farm tanks. While the goal was to produce large amounts of fish, it important for the company to reduce operating costs and improve overall system performance. The company installed six 8-inch FloNergia FloMov™ pumps into the RAS system. The pumps were successfully installed and have shown exceptional performance while reducing energy, operating and maintenance costs.

