

“N” pump handles Atlantic salmon waste

Improving performance and eliminating downtime caused by pump clogging and break-down

The Canadian Atlantic Aquaculture Exposition, AquaFair, is one of North America’s leading aquaculture events held in June each year at St. Andrews, NB. ITT Flygt has been an exhibitor at AquaFair for the past few years. At the 2003 show, we were visited by the maintenance crew of Heritage Salmon, an international salmon grower and processor. They showed a keen interest in our products and invited us to visit their plant in Blacks Harbour, New Brunswick.



Atlantic salmon waste

Flygt Technical Sales Representative Abe Bitar visited the plant and he identified a problem area where a Flygt pump could be tested. The existing conventional belt-driven end suction centrifugal pump was clogging and repeatedly breaking belts which caused excessive downtime, decreased production and increased cost of goods. Mr. Bitar visited the production line, took pictures and reviewed the application and discussed the problems with Wayne Thompson, Plant Maintenance Supervisor, and Trevor Severin, Heritage Maintenance Manager.

The Challenge

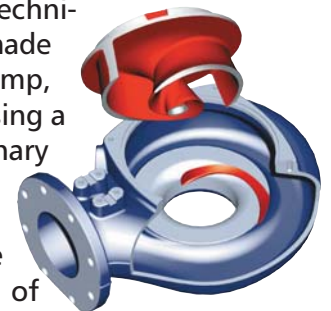
The pumping station was pumping salmon fish waste from the up-stream collecting tank to the down-stream screen. The existing pump was breaking belts almost every day and clogging the clearance between the impeller and the pump volute. The salmon skin and scales built up very quickly in the very small opening and reduced the clearance inside the hydraulic end.

Heritage Salmon challenged Flygt to come up with a pumping solution. We had to overcome the following problems encountered with the existing system:

- Existing Pump Always Clogging
- Continuous Breaking of Belt
- Production Interruption
- Excessive Downtime
- High Repair Cost
- High Maintenance Cost
- Poor Delivery and Lost Revenue

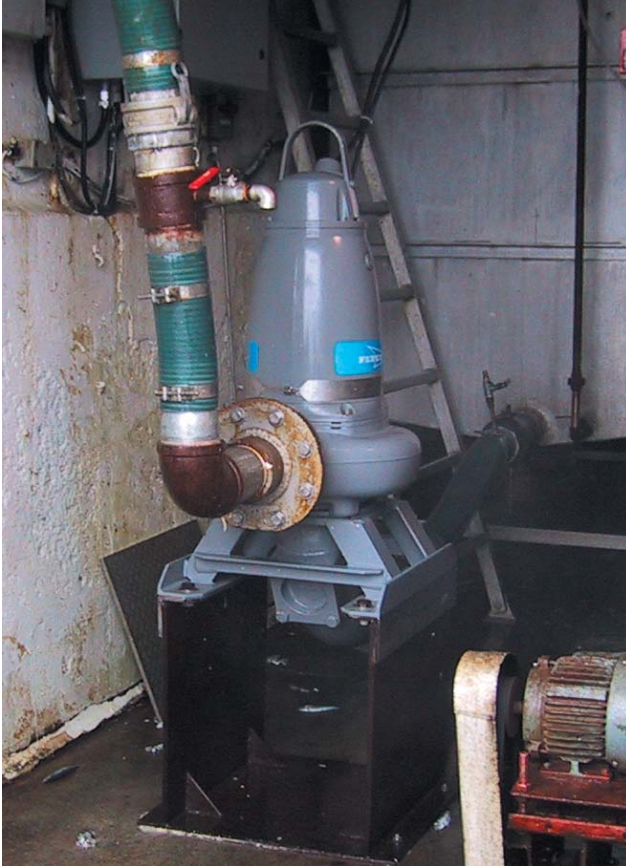
The Solution

With the help of the Flygt technical team, the selection was made for the model NT-3153 N pump, with impeller 456 HT and using a 15 HP motor. The revolutionary design of the self-cleaning N impeller with the special relief groove in the volute will greatly reduce the risk of clogging. The result is a sustained efficiency and a self cleaning flow path through the pump. This is the ideal pump for this application!



Testing of the pumping unit

The test unit was ordered and installed in July 2003. After only two months, Heritage Salmon was very pleased with performance of the pump. Wayne Thompson commented that "Flygt products are perfect for our operation". In fact, the pump never clogged during the test period and provided continuous operation with no down time. As a result, production improved and repair and maintenance costs were reduced considerably.



Pumping system using Flygt NT-3153



Ground floor waste sump using Flygt NS-3102

Result

We now have a very satisfied customer. Heritage Salmon purchased two additional pumps for their main Fish Waste Processing Plant. They are now committed to using the N impeller concept for their pumping needs. In addition, a new application was developed and an NS-3102 5 HP is now used with success in the ground floor waste sump of the processing plant.

For the disposal of slaughter waste at fish processing industry, consider the submersible concept and the innovative design of the clog free N impeller.

If liquid needs to be moved – Flygt is your partner.

For more information please contact:
Abe Bitar, Flygt, Moncton at (506) 857-2244
or visit www.flygt.ca/n



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