

BIOSCANNER PIPELINE COUNTER



THE BIOSCANNER PIPELINE COUNTER



Vaki Aquaculture Systems Ltd is a leading manufacturer of equipment for counting live fish and measuring average weight, size distribution and biomass in cages, tanks, raceways, etc.

As a result of continuous development and adaptation of our products to new users and new purposes, we now introduce a new counter for counting fish in pipelines.

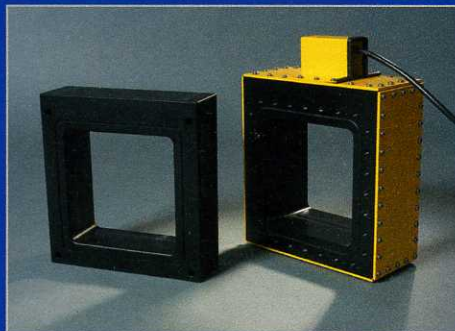
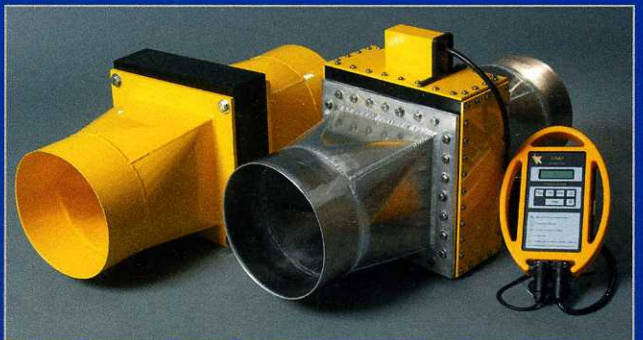
The counter is installed in a pipeline from a pump or grading machine. The fish are then pumped through the pipeline and counted using infra-red light beams, a technology that Vaki has been using for over ten years in its other products.

BIOSCANNER PIPELINE COUNTER

Counts while full of water

The counter can be placed in pipelines to or from pumps or from grading machines, and it counts the fish even though the scanner is full of water.

The Bioscanner Pipeline Counter is used with very good results in combination with siphon in many well-boats transporting fish to harvesting plants. The counter is also used to control automatically the fish pump and the supply of fish into bleeding tanks when harvesting.

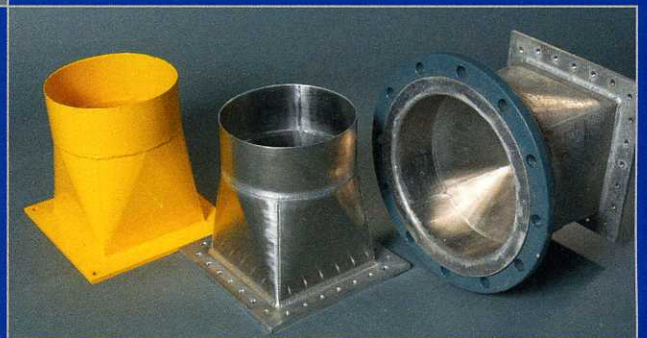


Two versions

The Bioscanner PLC is available in two different versions: a strong aluminium scanner for direct connection to pumps and a light version in plastic for counting fish in free flow when grading or moving. Both have the same advanced counting program, which is based on a well-tried technology that Vaki has been using since 1986.

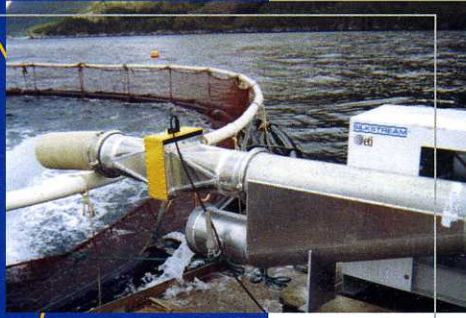
Different types of flanges

The scanner can be connected to all types of grading machines using flanges that are specially made to meet individual needs. Standard connectors for pipes in the 8"-14" range, and also all the most common types of attachments and flanges, are available. The flanges are made of brine-resistant aluminium or stainless steel.



Different applications

For use when splitting cages or transferring fish



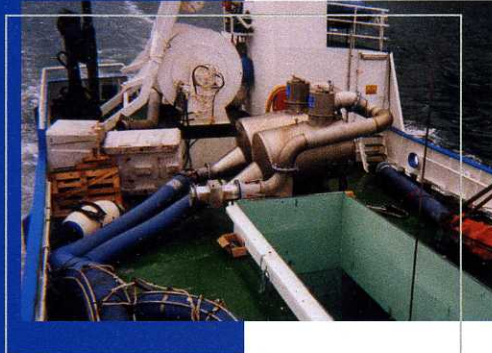
The Bioscanner PLC can be used in conjunction with different types of pumps, including ejector pumps, vacuum pumps and others. The scanner is mounted either directly on the pump or on the exit pipe, and all the fish pumped through the pipe are counted. The special feature of this counter is that it counts fish accurately even when the pipe is full of water; this is something that was not possible before. A report on the count can be displayed in the control unit, together with information on the time taken, total number, average number per minute and the highest and lowest count rates.

For use with grading machines



The Bioscanner PLC is widely used when fish are graded. The scanner is mounted either on the grader or at the end of the pipes leading from the grader to each pen. Counting results are displayed on the control unit, and up to four scanners can be connected and running simultaneously. The control unit can be set to ring a loud alarm bell when it has counted a particular number of fish. Flanges to fit various graders can be made to measure, so that the counter can be used in a wide variety of situations.

For use when harvesting

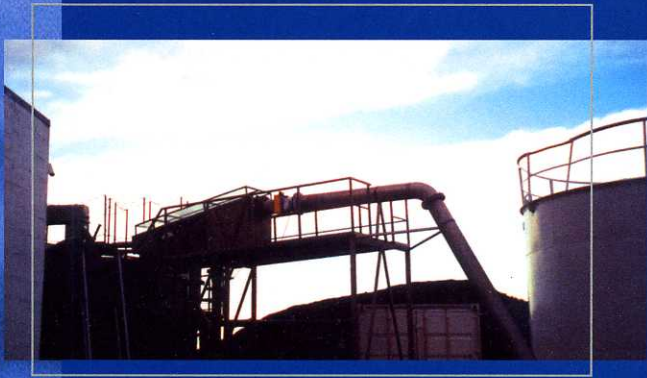


The Bioscanner PLC is an extremely valuable aid when it comes to pumping fish on board a well-boat for harvesting. Without some means of counting it can be difficult to estimate the number on board the boat, but it is important to deliver neither too many nor too few to the harvesting plant. Where a vacuum pump is used, scanners are positioned in the pipe at the entrance to the tanks and count all the fish that are pumped through it. The counter is available in many sizes and with standard spigots for most pumping systems.

For use in combination with siphon



Many well-boats are now equipped with siphon systems that work on the same principle as when petrol is siphoned from a can using a tube. Water is pumped from the hold, and the difference in head between the water-level inside and outside the hold causes the fish to be siphoned on board without passing through a pump of any type. Using the Bioscanner PLC, with a scanner positioned in the siphon pipe, is a particularly good way of monitoring the numbers of fish transferred in this way, and each scanner can count up to 40 tons of fish per hour.



Harvest line control

The Bioscanner PLC is used in many places to control fish pumps in harvest lines. The fish are pumped through the counter on the way to a cooling tank and by means of connecting the counter directly to the pump the counting process can be used to control the flow of fish into the system. This way it is certain that the correct amount of fish will be directed to each chamber in the cooling tank before bleeding so that they will be utilised to the full. In addition, the fish do not suffer stress by being deprived of oxygen with consequent loss of product quality.

Flatfish counter

The Bioscanner Flatfish counter is designed for counting flatfish such as halibut and turbot. It is available in two different sizes; for small/medium-sized fish and for big fish. The scanners can be mounted directly on all grading machines.



Advantages

- Accurate counting even when the counter is full of water
- The scanner can be mounted directly on the pump or grader
- Up to four scanners can be connected to the control unit
- Counting reports from the control unit
- Can be used to control the pump and the flow of fish entering a harvesting line

Specifications

- Accuracy: Over 98%
- Fish size: Between 100 g and 10 kg
- Capacity: Up to 40 tons per hour
- Adaptors: For 8" - 14" pipes
- Power supply: 12 V - 220 V
- Four data input lines
- Optional alarm and special display

Applications

The counter can be used when fish is pumped:

- ▶ to or from well-boats
- ▶ between cages
- ▶ to harvesting lines
- ▶ to or from transport trucks
- ▶ for grading
- ▶ for overall information during the growing season

