

VAKI for RAS Designers

Smart and automated fish handling systems designed to be gentle and efficient.



WHY CHOOSE VAKI

EXPERIENCE

Over 35 years of leadership in aquaculture industry with good references all over the world.

EFFICIENCY

The VAKI technology includes innovative products with a focus on fish counting and size estimation to help facilitate planning and real-time decision making for fish farmers. VAKI's innovative products, provide a high level of automation and contribute towards increased efficiency and improved welfare in both fish farming and wild fish research.

PARTNERSHIP

VAKI strives to provide a professional level of support and service through our global service network. VAKI offers training, service contracts and after-sales support to ensure that our customers use our equipment to maximize the efficiency and productivity in their operations.

FISH WELFARE

All VAKI equipment is developed to be gentle to fish. Fish health and welfare is an important and necessary part of our business. VAKI consistently work to ensure that fish farmers have the technology and solutions to contribute to the ongoing sustainability of fish farming, which ultimately advances animal welfare and well-being.

VAKI A GREAT PARTNER IN AQUACULTURE



FROM HATCHERY



TO HARVEST



VAKI®



LAND



SEA



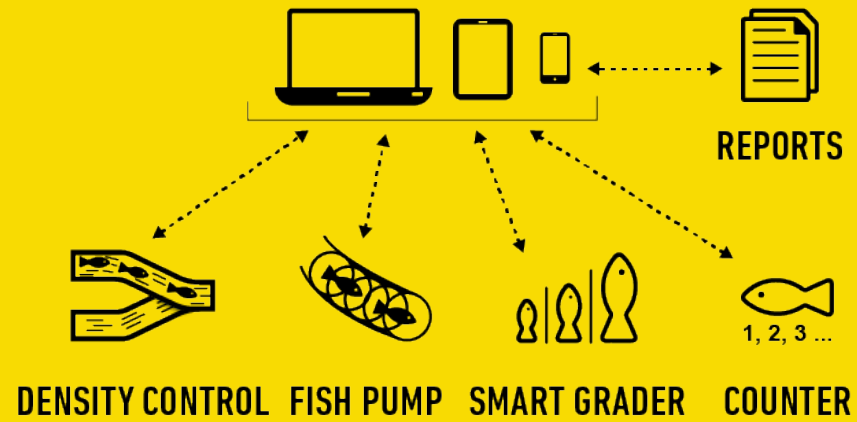
WELLBOAT



SYSTEM

VAKI SMARTFLOW

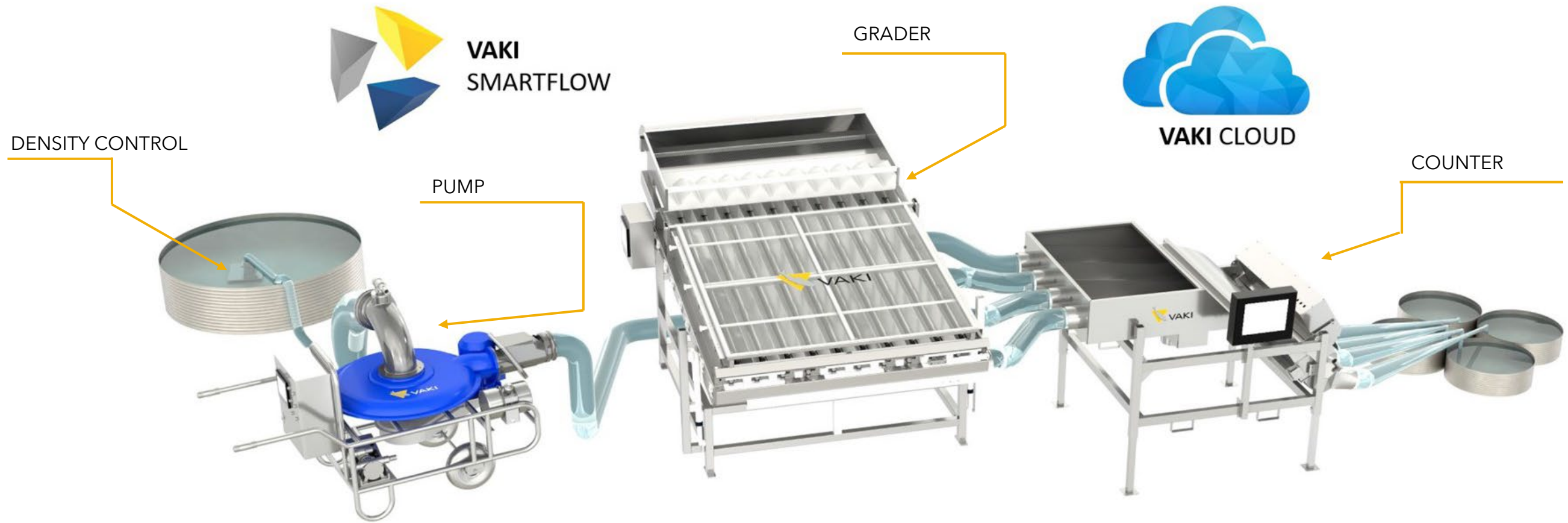
CONTROL – MONITOR – REPORT – REVIEW



The SmartFlow System connects all VAKI Smart fish handling equipment and allows the user to remotely monitor and control the operation of all the devices from one location. SmartFlow records and reports the performance and operation of all the devices for analysis, comparison and review. SmartFlow can be fully automated to achieve higher levels of efficiency and accuracy with minimal effort while maintaining maximum fish welfare.

▶ *Our Vision is to be the best choice in counting and size measurement of live fish*





SMART DENSITY CONTROL

Control and regulate fish density to enhance grading/counting accuracy and ensure best fish welfare. The process can be fully automated.



SMART FISH PUMP

Intelligent fish pump. Can connect directly to VAKI counters and density control to monitor the rate of fish flow in order to regulate and optimize the pumping speed and prevent overload of grader/counter.



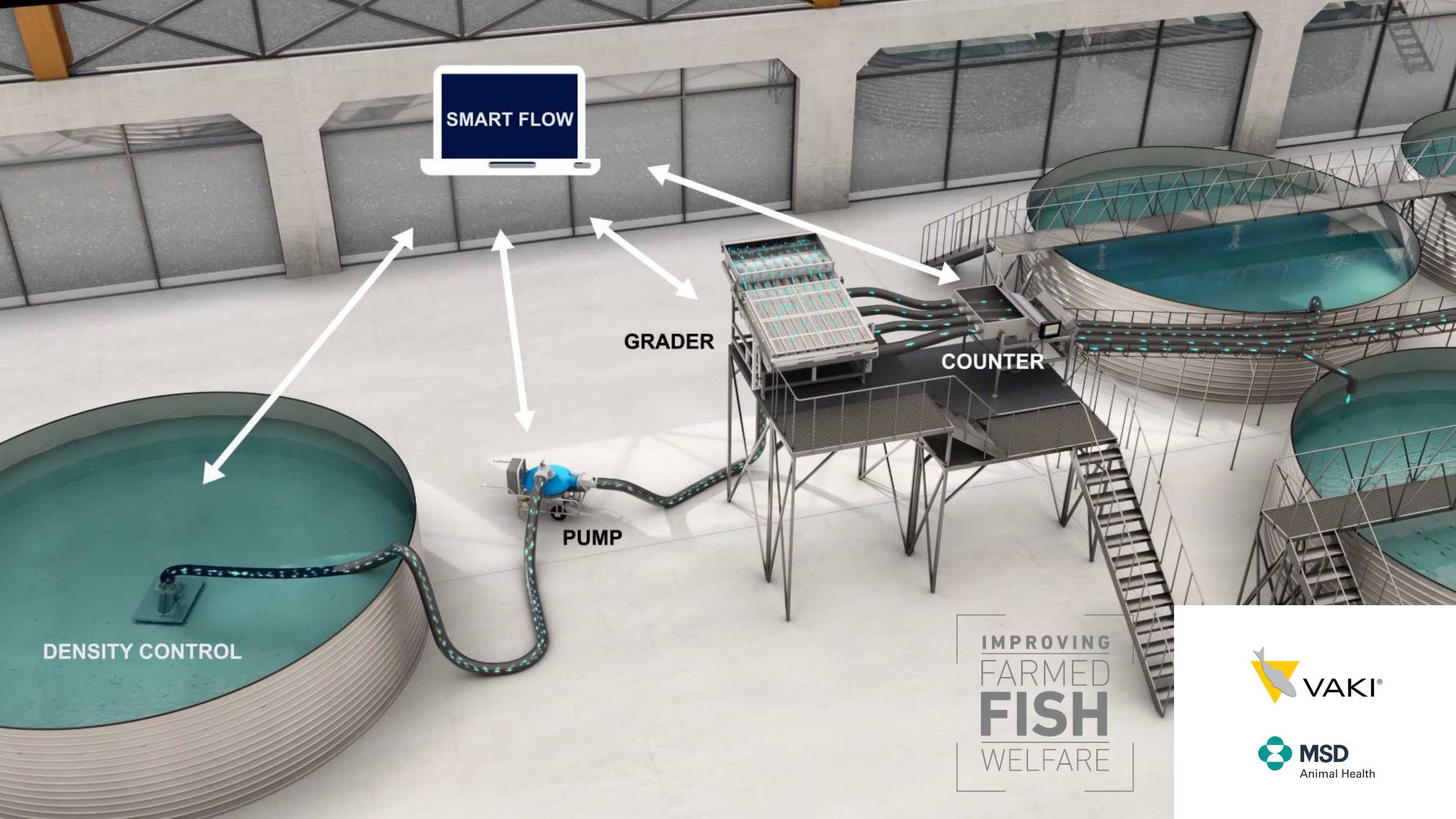
SMART FISH GRADER

The feedback loop between the counter and grader can relieve the user from having to monitor the grading process manually and can result in an optimal distribution achieved between each grading category.



SMART FISH COUNTER

The counter measures both size and number of fish in each category coming from the grader. The counter will estimate the relative size distribution in each grade and can be set to adjust the grader automatically.



SMART FLOW

GRADER

COUNTER

PUMP

DENSITY CONTROL

IMPROVING
FARMED
FISH
WELFARE



VAKI DENSITY CONTROL



Automates the regulation of fish density to enhance grading / counting accuracy and fish wellbeing.

The Density Control mechanism attaches to the end of the suction hose and sits on the bottom of the fish tank. During pumping the number of fish passing through the hose is measured by the Sensor to indicate the number of fish per volume of water.

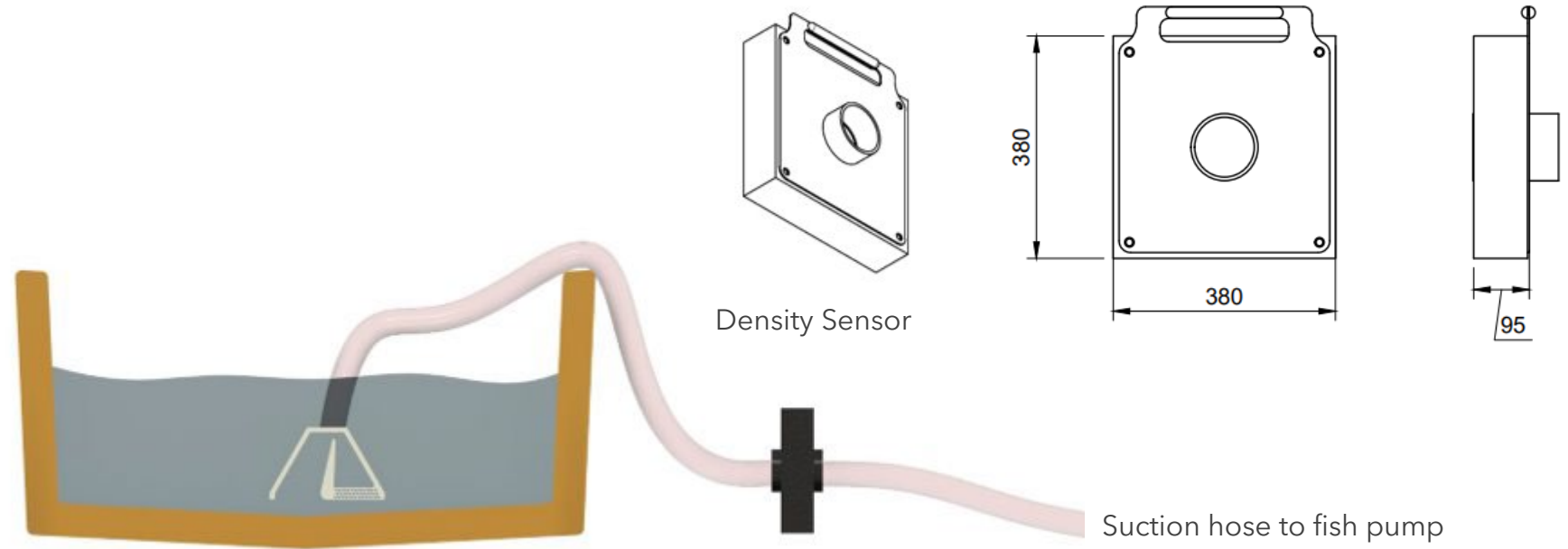
The Regulator can adjust the ratio of water entering from each side. As the Sensor measures the density over a pre set limit, a linear actuator adjusts the Regulator to reduce the flow of water bringing fish and increase the flow of water only.

This Regulator is effectively thinning out the flow of fish is volume of fish in the hose passes a certain density.

During periods of low density, the Regulator will increasingly open for the flow of fish without any loss of pump or system efficiency. VAKI Density Control can also be combined with the VAKI Automatic Tank Water Level system.

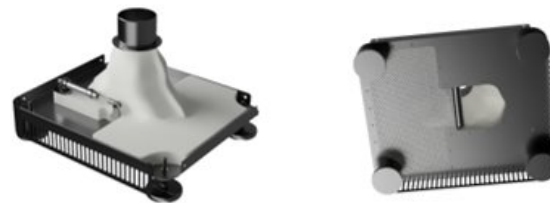
Vaki Density Sensor

Stainless steel and plastic construction
Tried and true sensor technology
Weighs less than 15 kg (33 pounds)
Available with 4" and 6" cam lock fittings as well as standard BSP threads



Density Sensor

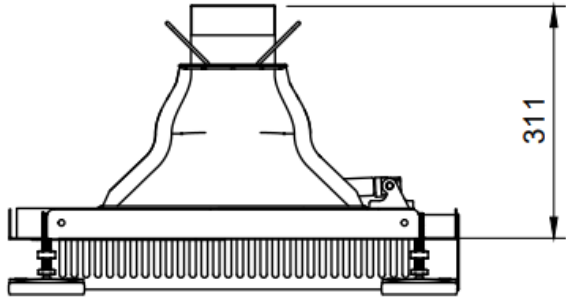
Suction hose to fish pump



Density Regulator

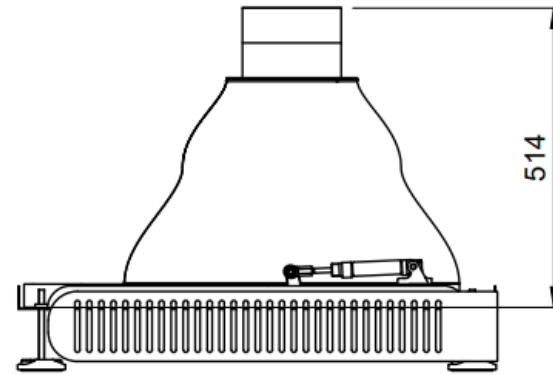
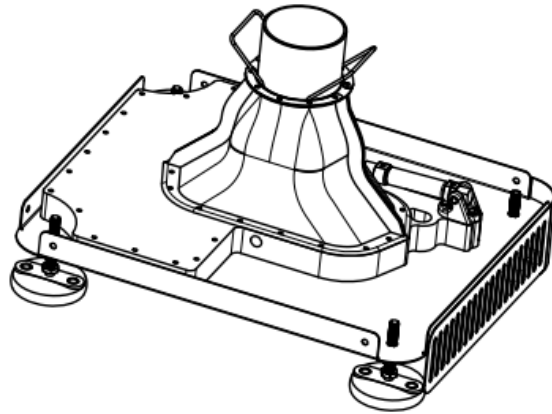
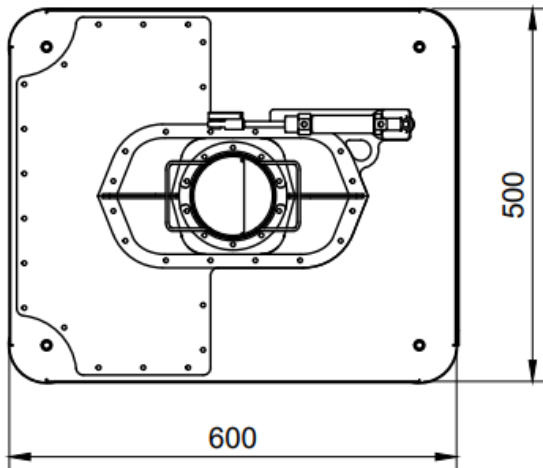


VAKI 4" and 6" DENSITY CONTROL



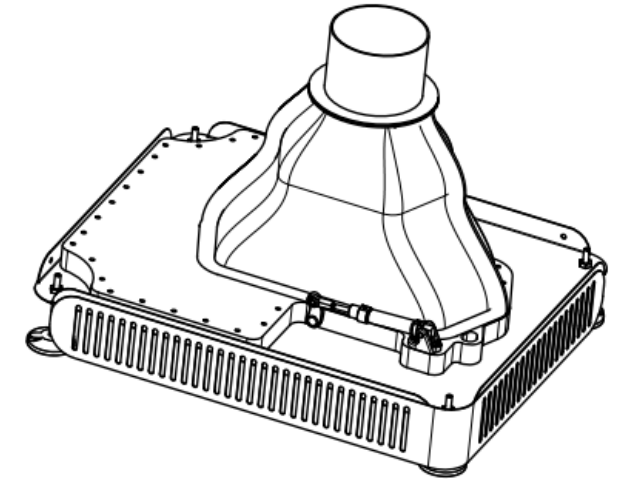
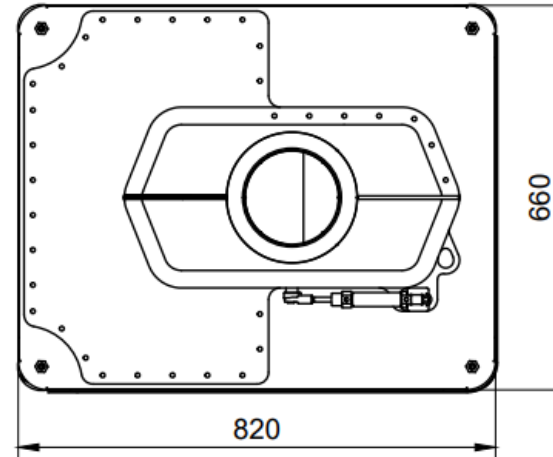
4" Density Control

Stainless steel and plastic construction
Weighs less than 10 kg (22 pounds)
Food safe hydraulic actuator
Each unit equipped with a water level sensor



6" Density Control

Stainless steel and plastic construction
Weighs less than 20 kg (44 pounds)
Food safe hydraulic actuator
Each unit equipped with a water level sensor



All measurements are in millimeters



VAKI 6" FISH PUMP



High capacity, efficient and gentle on fish.

VAKI Fish Pumps are precision manufactured from the highest-quality materials and are available in three sizes; 6", 8" and 10" and in 2 model types as a Basic or Smart Pump.



6" Fish Pump

Weight: 200 kg

Dimensions (LxWxH): 170 x 81 x 119cm

Inlet size: 150mm (6") reduce to 100mm (4") or 50mm (2")

Outlet size: 150mm (6") reduce to 100mm (4") or 50mm (2")

Min. Fish size: 0.2g

Max. Fish size: 400g

Max. Pump output: 2400 lpm/635 gpm

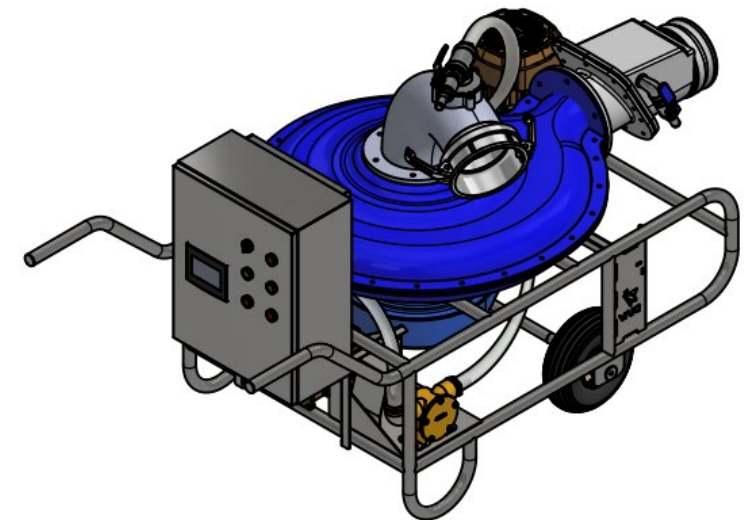
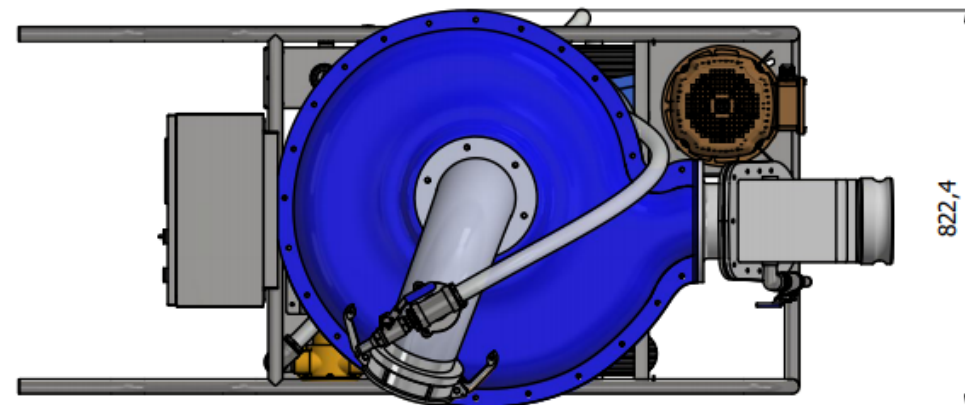
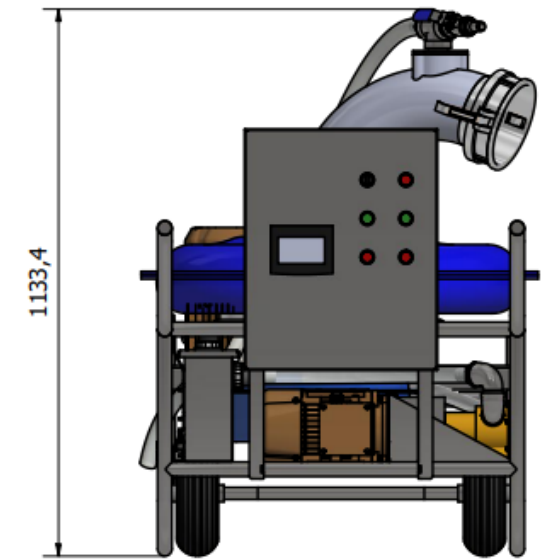
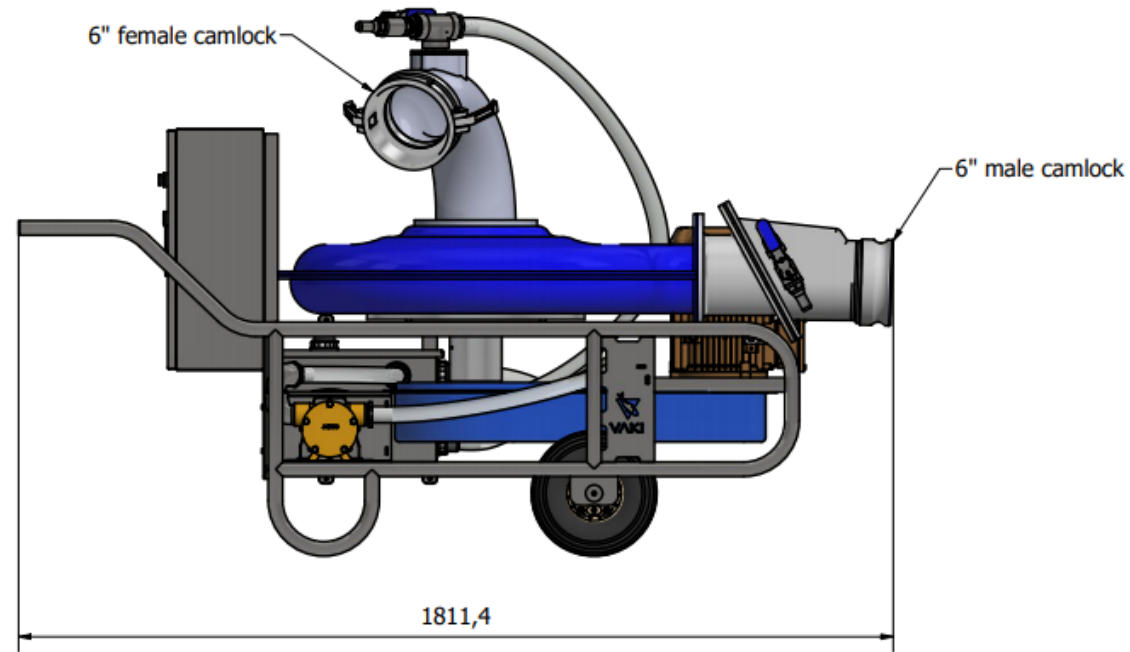
Pump Speed: 200-670 rpm

Max. Pump head (TDH): 9m

Max. Pump suction: 3m

Max. Horizontal transfer: 2.000m

Power options: 5hp, 50 or 60Hz, 3 Phase



VAKI 8" FISH PUMP



High capacity, efficient and gentle on fish.

VAKI Fish Pumps are precision manufactured from the highest-quality materials and are available in three sizes; 6", 8" and 10" and in 2 model types as a Basic or Smart Pump.



8" Fish Pump

Weight: 730 kg

Dimensions (LxWxH): 203 x 132 x 152cm

Inlet size: 203mm (8") or 254mm (10")

Outlet size: 203mm (8") or 254mm (10")

Min. Fish size: 0.2g

Max. Fish size: 1.2kg

Max. Pump output: 7500 lpm/1902 gpm

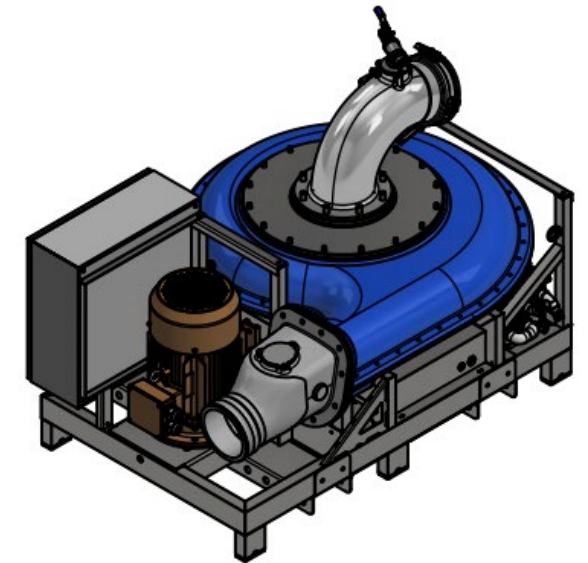
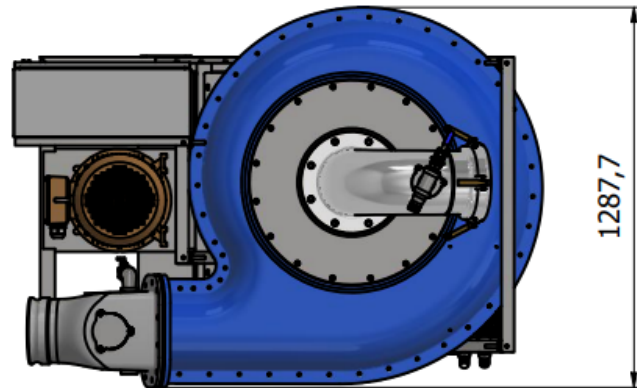
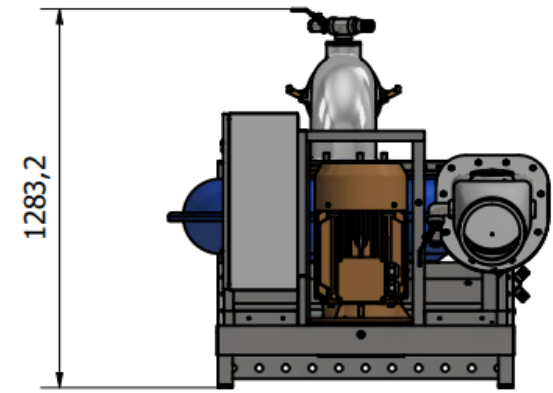
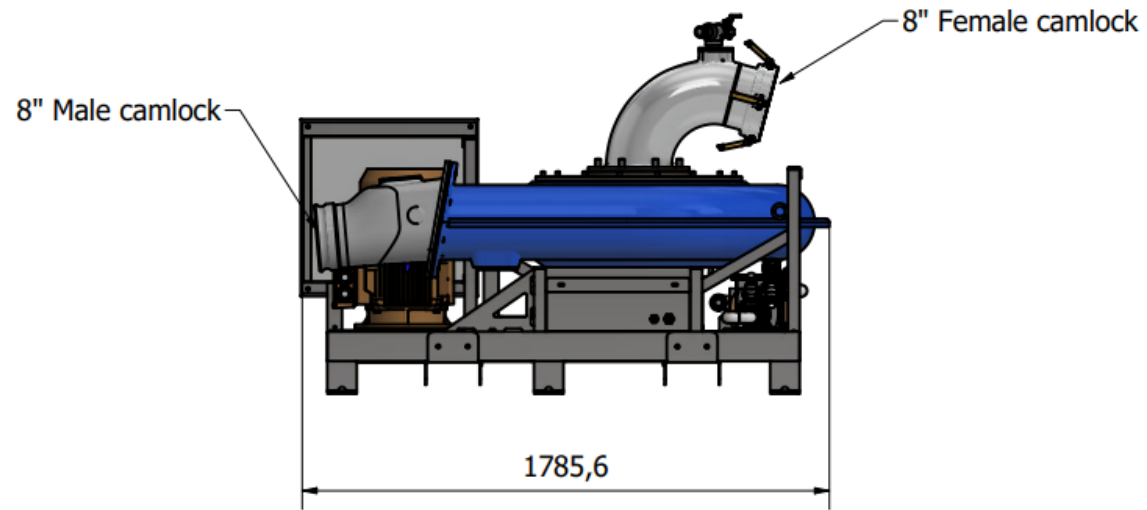
Pump Speed: 200-500 rpm

Max. Pump head (TDH): 9m

Max. Pump suction: 3m

Max. Horizontal transfer: 2.000m

Power options: 20hp, 50 or 60Hz, 3 Phase



VAKI 10" FISH PUMP



High capacity, efficient and gentle on fish.

VAKI Fish Pumps are precision manufactured from the highest-quality materials and are available in three sizes; 6", 8" and 10" and in 2 model types as a Basic or Smart Pump.



10" Fish Pump

Weight: 1000kg

Dimensions (LxWxH): 2020 x 1300 x 1500cm

Inlet size: 10"

Outlet size: 10"

Min. Fish size: 5g

Max. Fish size: 2.3kg

Max. Pump output: 14.000lpm/3.700gpm (at 14ft/3.4m head)

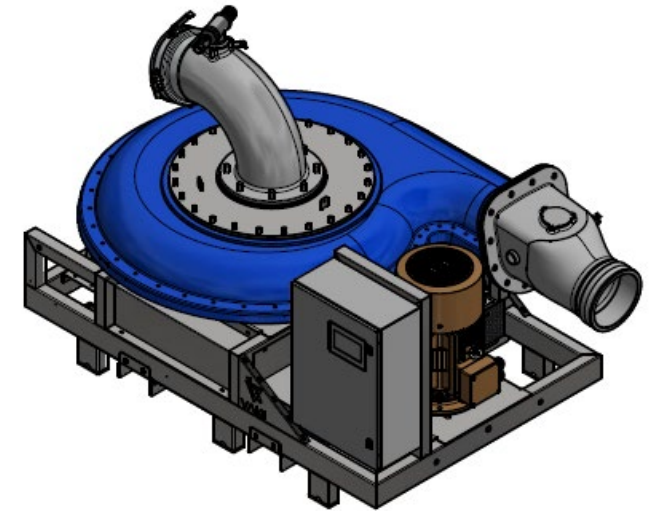
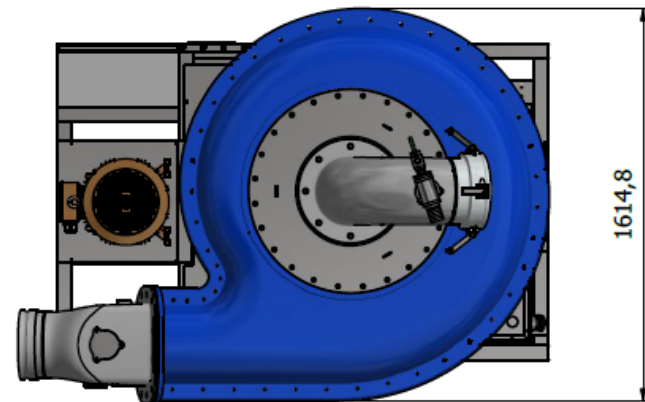
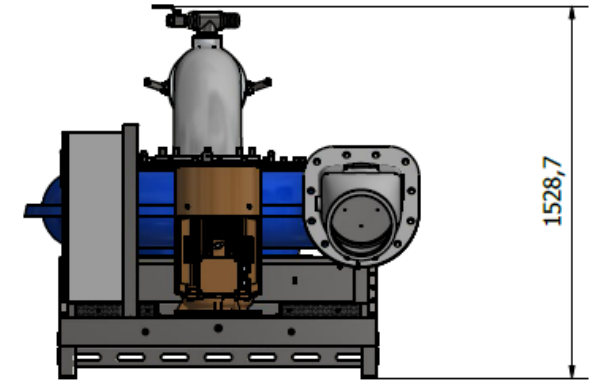
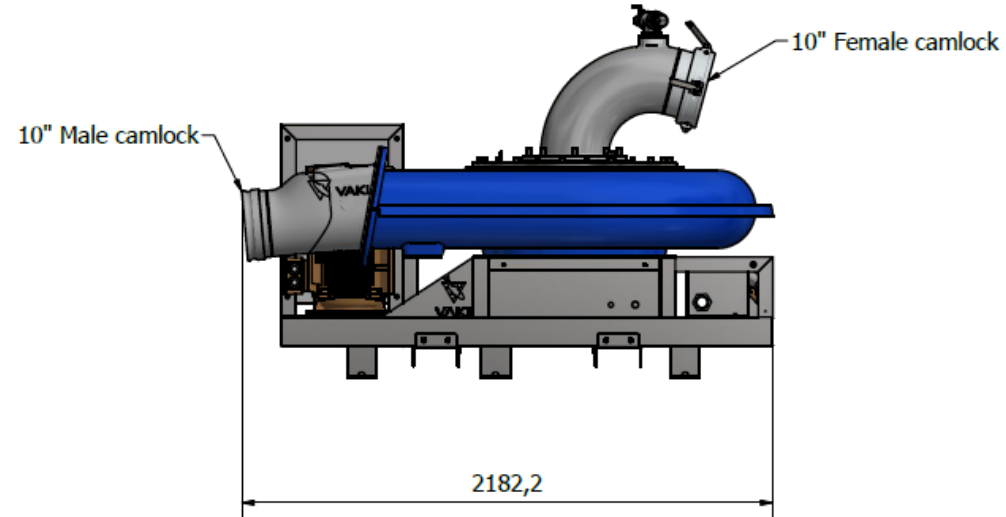
Pump Speed: 200-350 rpm

Max. Pump head (TDH): 9m

Max. Pump suction: 3m

Max. Horizontal transfer: 2.000m

Power options: 30hp 50 or 60 Hz 3 phase

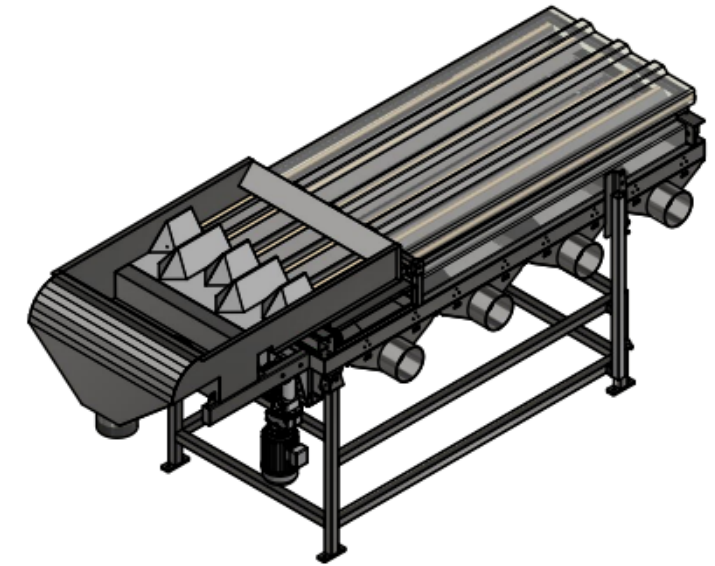
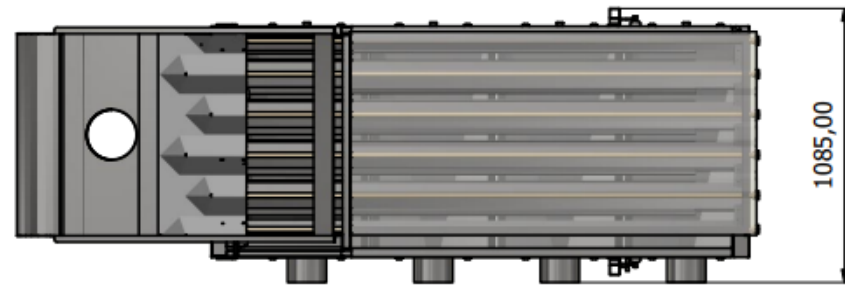
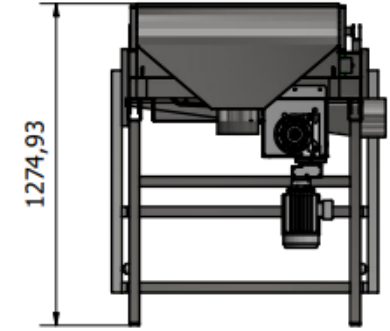
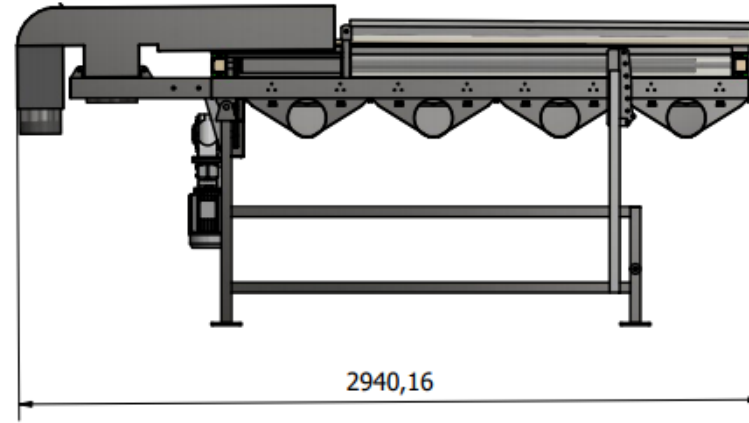


General dimensions of the VAKI 10" pump.
Weight approx. 750kg.

VAKI SMART GRADER 1



- 5 grading tracks.
- Grades fish 5-55mm thick.
- Live fish grading with 60mm diameter rollers.
- Recommended size range: 5-500gr (salmon).
- Manual grader tilt.
- Capacity: 1000-4000 kg/h (salmon).
- Dimensions: 3000 x 1200 x 1300mm (LxBxW).
- Outlets: D=152mm.



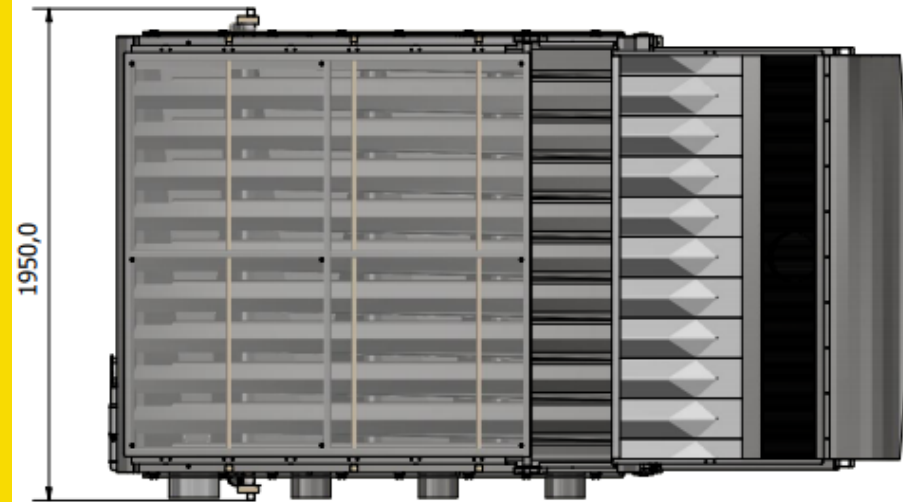
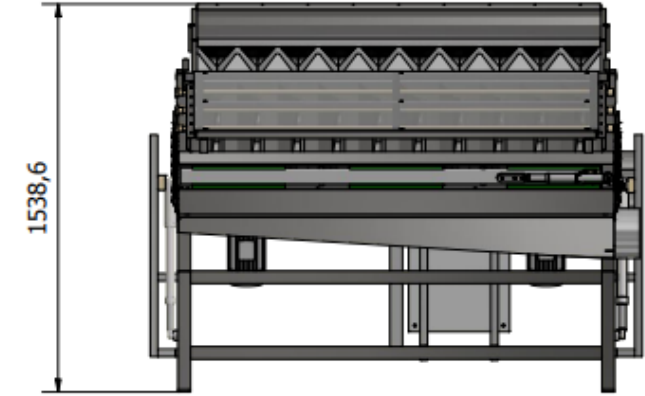
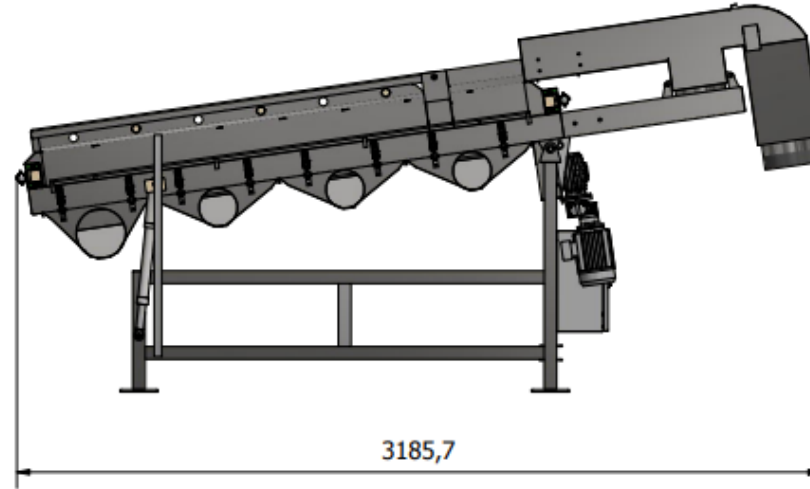
G0321 - 5 Track SmartGrader
Weight approx. 400kg



VAKI SMART GRADER 2



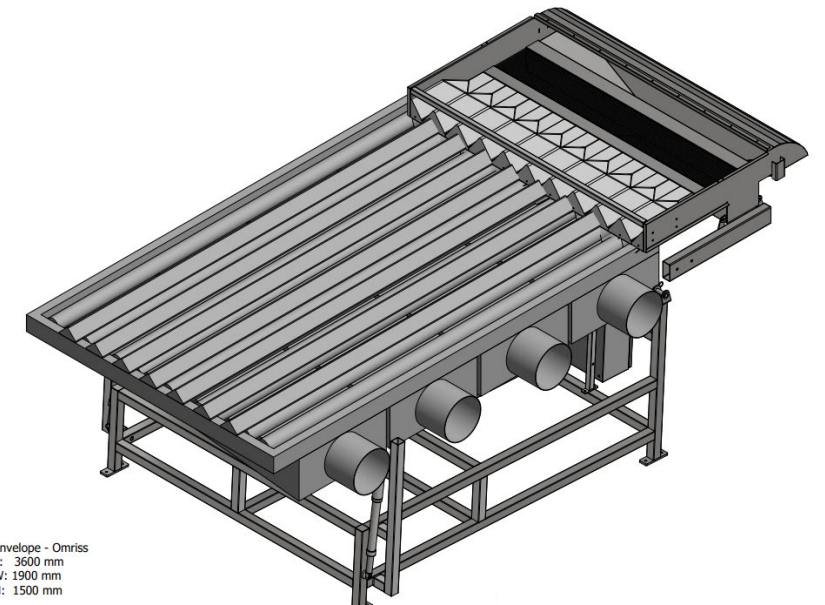
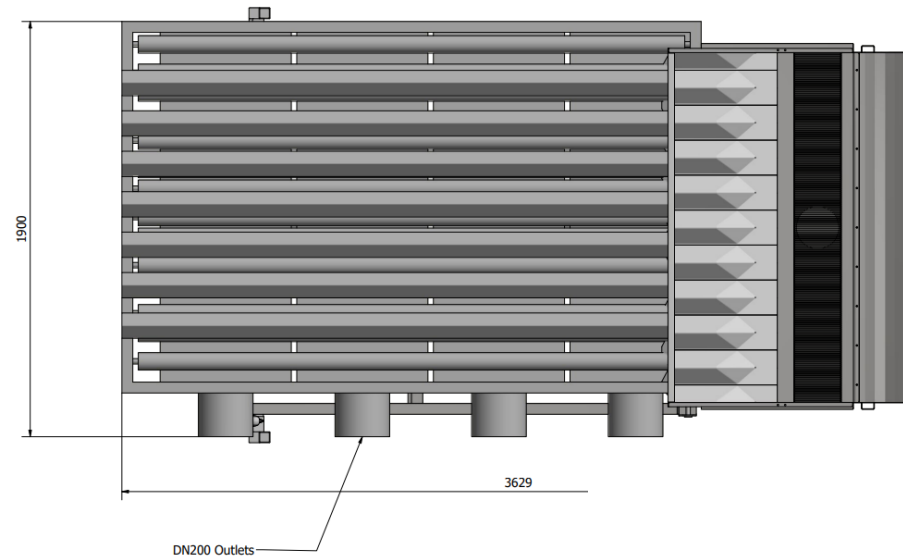
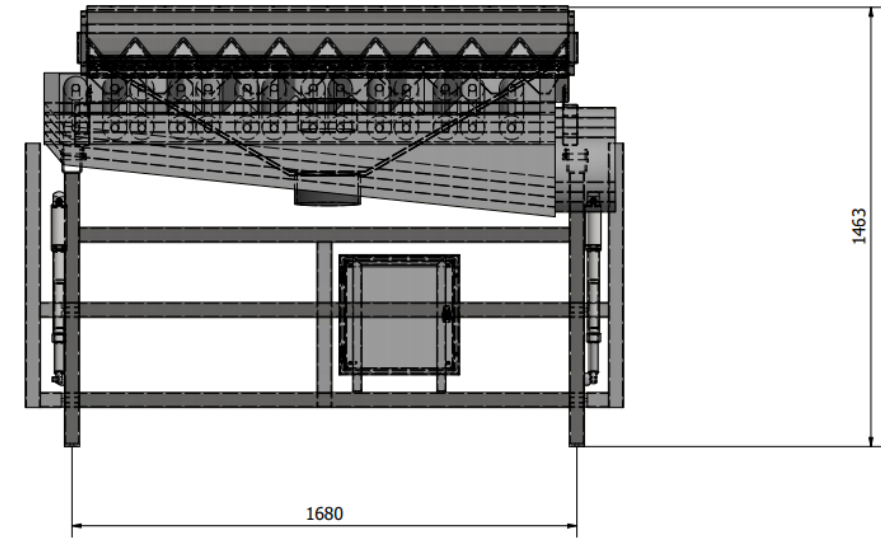
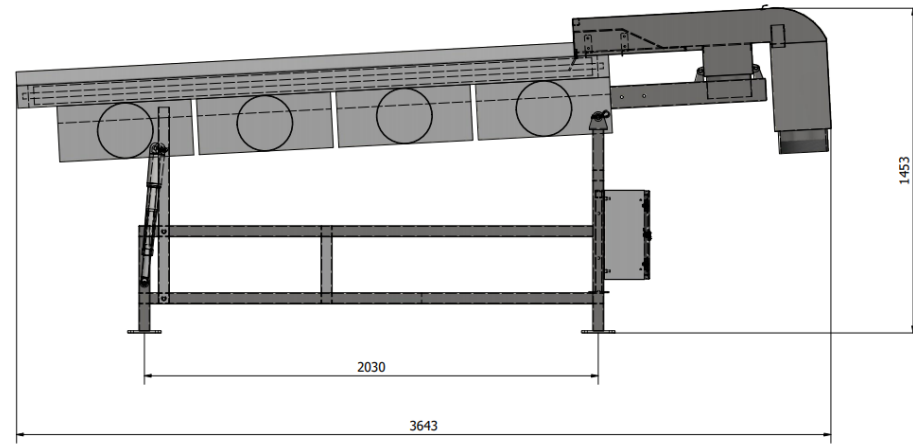
- 10 grading tracks.
- Grades fish 5-55mm thick.
- Live fish grading with 60mm diameter rollers.
- Recommended size range: 5-500gr (salmon).
- Electronic grader tilt.
- Capacity: 2000-8000 kg/h (salmon).
- Dimensions: 3100mm x 1800mm x 1700mm (LxBxW).
- Outlets: D=152mm.



VAKI SMART GRADER 3



- 7 grading tracks.
- Live fish grading with 80mm diameter rollers.
- Recommended size range: up to 2Kg (salmon).
- Electronic grader tilt.



Envelope - Omris
L: 3600 mm
W: 1900 mm
H: 1500 mm



VAKI EXEL COUNTER single channel

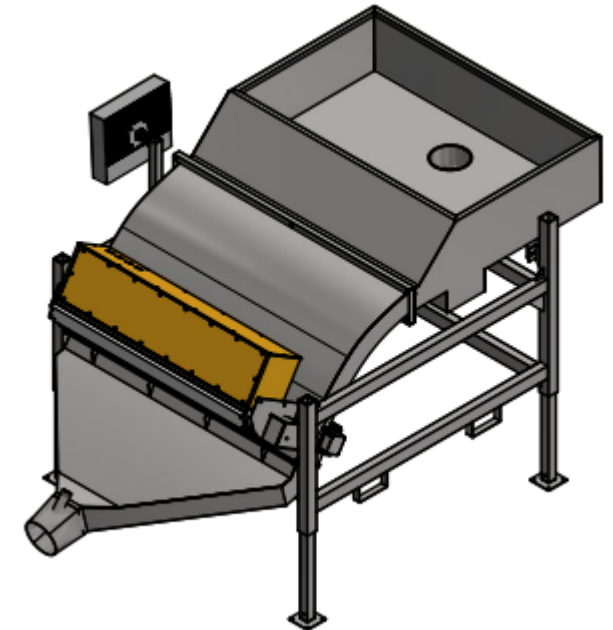
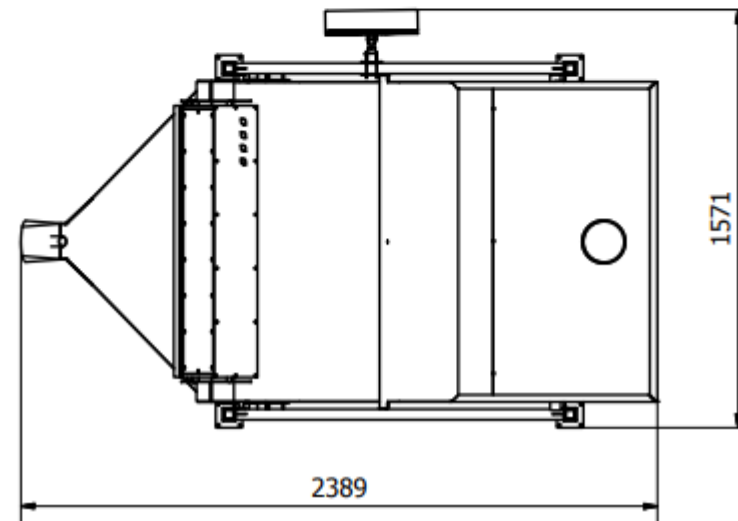
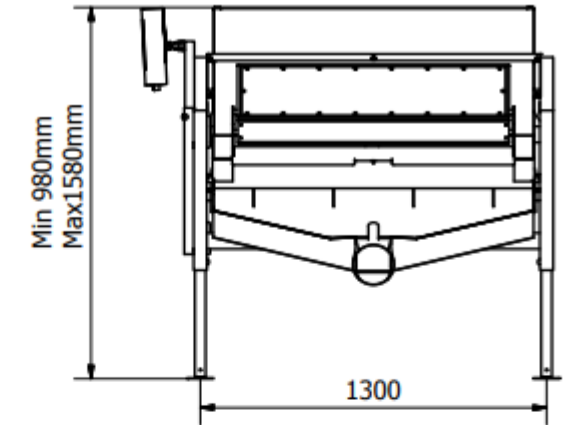
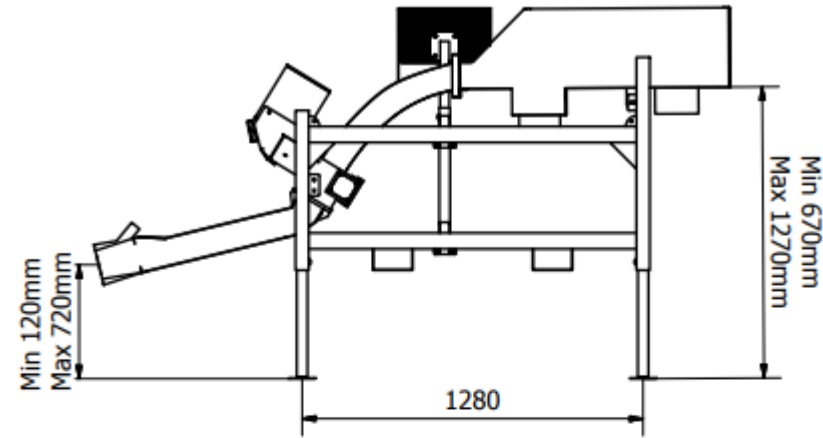


1, 2, 3 ...

FAST AND ACCURATE

The VAKI Exel Counter is the largest counter in the Macro Range. It has a 120cm wide counting area and 25% higher capacity than the standard Macro. Wireless Internet logging system and a faster camera connection. The Exel Counter can be delivered both as single or 4 channel.

This range of counters is based on a scanning camera and computer vision. The fish are carried gently in water through the scanning area where the outlines are recorded. Custom software is used to analyse and count each image. Even at maximum capacity the counter is extremely accurate – over 99%.



Exel Counter can be delivered both as single or 4 channel.

VAKI EXEL COUNTER 4 channel

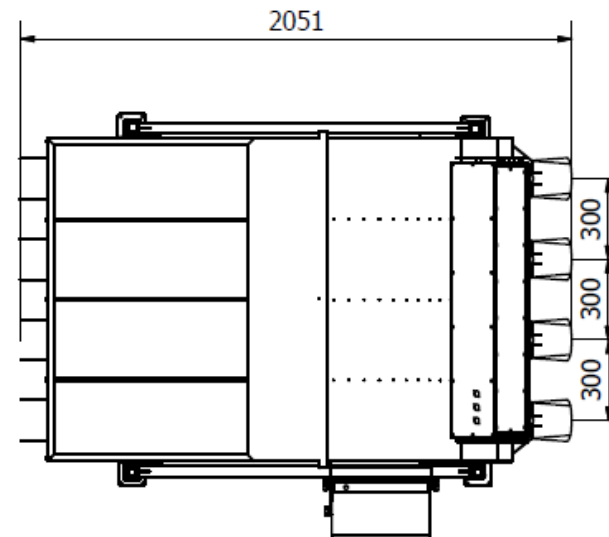
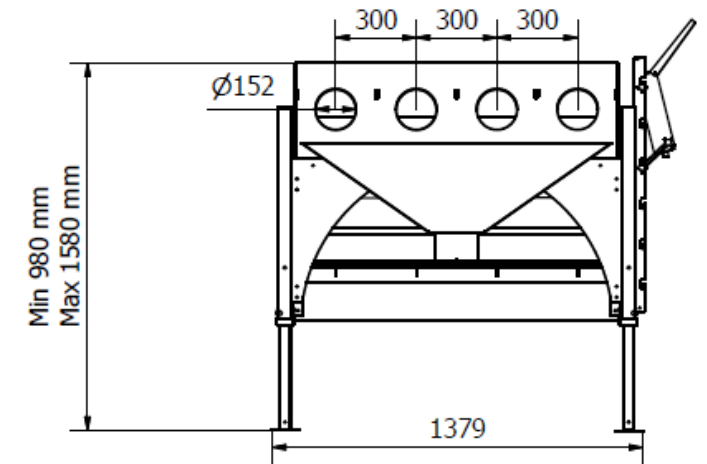
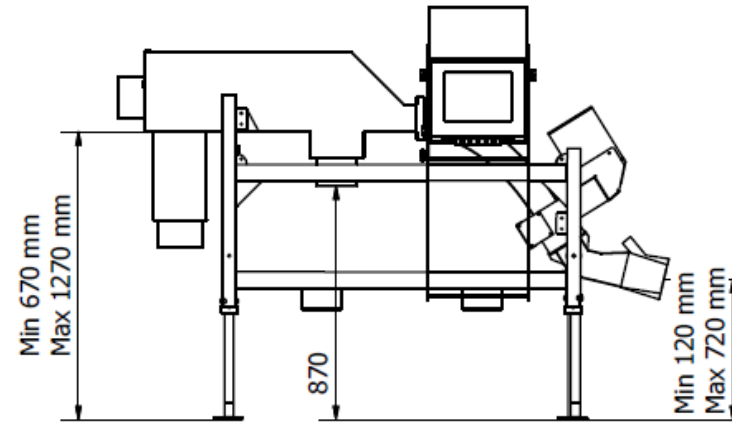


1, 2, 3 ...

FAST AND ACCURATE

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Exel Counter can be delivered both as single or 4 channel.

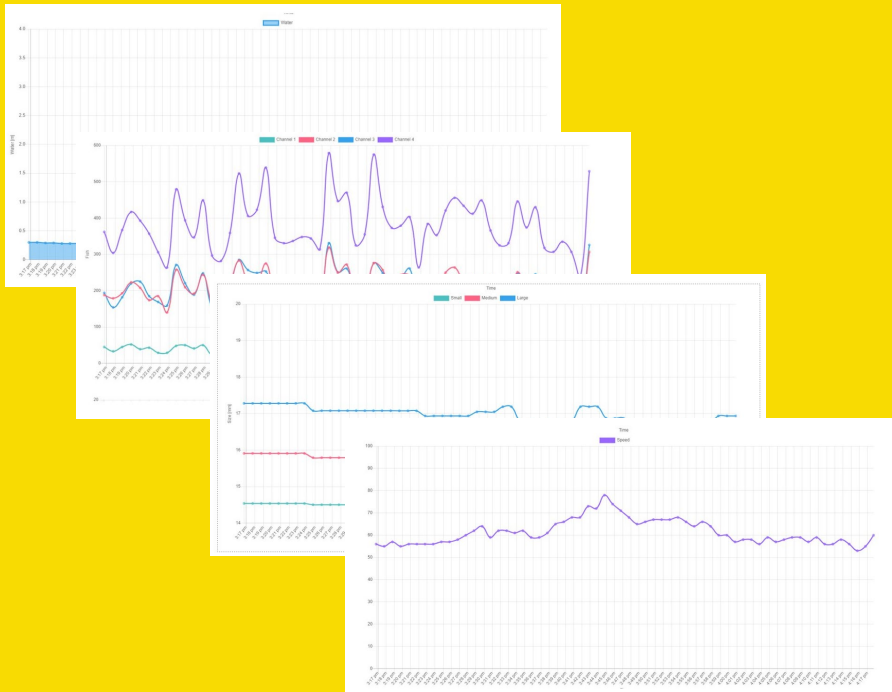


VAKI WEB SERVICES

Dashboard overview of complete SmartFlow System in real time.

REPORTS

- Tank water level
- Live count data
- Live grading data
- Live pump speed



SmartFlow Web APP

SmartFlow
Automatic Grading : ON
Runtime : 00h:30m

Setpoint percentage

XL	40.0 %
Large	22.0 %
Medium	17.9 %
Small	20.0 %

Last update
2021/02/09 16:53:48

[CLOSE CONNECTION](#)

[GO TO VAKI CLOUD](#)

Density Control 6 - 1000

30%

Water input

Sensor	Target
60 %	75 %

AUTO : OFF

Tank	Target
0.55 m	0.4 m

PUMP : OFF
AUTO : OFF

Smart Pump 8 - 7266

40%

Speed

Main : ON
Priming : OFF

SmartFlow Grader - Test
Small

< 12.4 mm

Medium

< 13.6 mm

Large

< 14.7 mm

XL

> 14.7 mm

Speed

12

Grader : ON

Albertos

XL	10 g - 52.9 %
37180	
Large	10 g - 18.6 %
13065	
Medium	10 g - 13.3 %
9327	
Small	10 g - 15.3 %
10774	
Total	
70346	
Counter : ON	

NUPAR

ID	FCE2TZ
Devices	4
Version	2.3.06
Status	OFF

Last online
2021/02/09 17:01:30

Notify me if status change.

[Connect to](#) [Delete](#)

YALELO UGANDA

ID	K85M5A
Devices	2
Version	2.3.02
Status	OFF

Last online
2020/12/24 11:07:09

Notify me if status change.

[Connect to](#) [Delete](#)

SSNZ

ID	26MJUV
Devices	2
Version	2.3.03
Status	OFF

Last online
2021/01/12 10:59:48

Notify me if status change.

[Connect to](#) [Delete](#)

Alberts PC

ID	A2T5ZC
Devices	7
Version	2.1.1
Status	ON

Last online
2021/02/09 16:57:38

Notify me if status change.

[Connect to](#) [Delete](#)

UK4

ID	4W02KP
Devices	1
Version	2.3.06
Status	OFF





Last online
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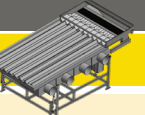
Notify me if status change.

[Connect to](#) [Delete](#)

Comparison Table

Fish Pumps
Smart Graders


 VAKI®	6" pump 	8" pump 	10" pump 
Weight:	200kg	730kg	1000kg
Dimensions: (LxWxH)	170 x 81 x 119cm	203 x 132 x 152cm	2020 x 1300 x 1500cm
Inlet size:	150mm (6") reduce to 100mm (4") or 50mm (2")	203mm (8") or 254mm (10")	10"
Outlet size:	150mm (6") reduce to 100mm (4") or 50mm (2")	203mm (8") or 254mm (10")	10"
Min. Fish size:	0.2g	0.2g	5g
Max. Fish size:	400g	1.2kg	2.3kg
Max. Pump output:	2400 lpm/635 gpm	7500 lpm/1902 gpm	14.000lpm/3.700gpm (at 14ft/3.4m head)
Pump speed:	200-670 rpm	200-500 rpm	200-350 rpm
Max. Pump head:	9m	9m	9m
Max. Pump suction:	3m	3m	3m
Max. Horizontal transfer:	2.000m	2.000m	2.000m
Power options:	5hp, 50 or 60Hz, 3 Phase	20hp, 50 or 60Hz, 3 Phase	30hp 50 or 60 Hz 3 phase

 VAKI®	Grader 1 	Grader 2 	Grader 3 
Nr. of rollers:	5 grading tracks	10 grading tracks	7 grading tracks
Fish size:	5-55mm thick	5-55mm thick	
Roller's diameter:	60mm diameter rollers.	60mm diameter rollers.	80mm diameter rollers.
Recommended size range:	5-500gr	5-500gr	up to 2kg
Tilting:	Manual grader tilt	Electronic grader tilt	Electronic grader tilt
Capacity:	1000-4000 kg/h	2000-8000 kg/h	
Dimensions: (LxBxW)	3000 x 1200 x 1300mm	3100mm x 1800mm x 1700mm	
Outlets:	D=152mm	D=152mm	

Comparison Table

Fish Counters



 VAKI	Exel	Macro	Micro	Nano	Pico
Accuracy:	99%	99%	99%	99%	99%
Fish size:	Up to 800g	0.1g-400g	0.1g-200g	0.05-30g	2.5" 0.0003-3g 4" 0.0003-10g 6" 0.01-30g
Capacity: Fish per hour (fph)	1.200.000 1g (fph) 240.000 50g (fph)	1.000.000 1g (fph) 200.000 50g (fph)	500.000 1g (fph)	200.000 1g (fph)	2.5" 100.000 (fph) @ 1g 4" 160.000 (fph) @ 1g 6" 240.000 (fph) @ 1g
Weight:	360kg	300kg	150kg	92 kg	2.5" 45kg 4" 50kg 6" 85kg
Dimensions: (L x W x H)	1.92x1.43x1.23m	2.5x1.3x1.1m	1.5x0.7x1.5m	1.2x0.8x0.9m	0.70x0.50x1.30m
Counting width:	1200mm	1000mm	500mm	400mm	2.5" N/A 4" 250x41mm 6" 375x61mm
Power supply:	110/220V	110/220V	110/220V	110/220V	110/220V
AP/Remote monitor:	Yes	Yes	Yes	Yes	Yes
Size estimate:	Yes	Yes	Yes	Yes	Yes
Technical support:	Yes	Yes	Yes	Yes	Yes
Training:	Yes	Yes	Yes	Yes	Yes
Custom design available:	Yes	Yes	Yes	Yes	Yes



FROM HATCHERY

VAKI A GREAT PARTNER IN AQUACULTURE



LAND



SEA



TO HARVEST



WELLBOAT



SYSTEM

CONTINUES EXCELLENCE

VAKI is committed to continuous innovation and development. Originating from personal service and in collaboration with our customers and partners, we will continue expanding our products to offer more features and benefits for the future.

VAKI will continue to act as a leader in this growing industry as a trusted partner, manufacturer and adviser to our customers. VAKI looks forward to the challenges that lie ahead.

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