

NFT VACCINATION MACHINES – EFFICIENT AND PRECISE VACCINATION, WITH COMPREHENSIVE QUALITY CONTROL





SUPPORTING THOSE WHO RAISE AND CARE FOR FISH

FACTS

- 8500 fish per hour
- Trout and salmon
 - 100 - 250 mm size
 - 20 - 150 grams
- Sea bass
 - 80-250 mm in size
 - 8-150 grams
- Sorts in 3 sizes



PHARMAQ Fishteq was established in 2006 and delivers technology for use in vaccinating and sorting of fish. We are proud to offer innovative solutions that deliver precise vaccinations.

We sell a reliable fish vaccination machine.

Jørn Ståle Pettersen
Production Manager



«We vaccinate batches of 500,000 fish or more, and are confident that the NFT Machine provides excellent levels of uptime and high quality vaccinations. PHARMAQ Fishteq is responsible for the ongoing development of the equipment, which is positive for incremental improvements.»

Atle Jøsang,
Grieg Seafood



«By removing manual vaccination, we have removed the human element, which means the injection of the vaccine and its position are of a higher quality.»

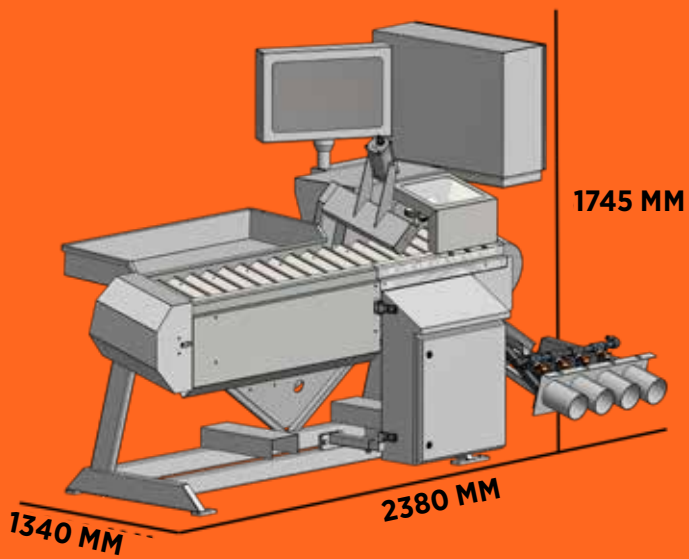
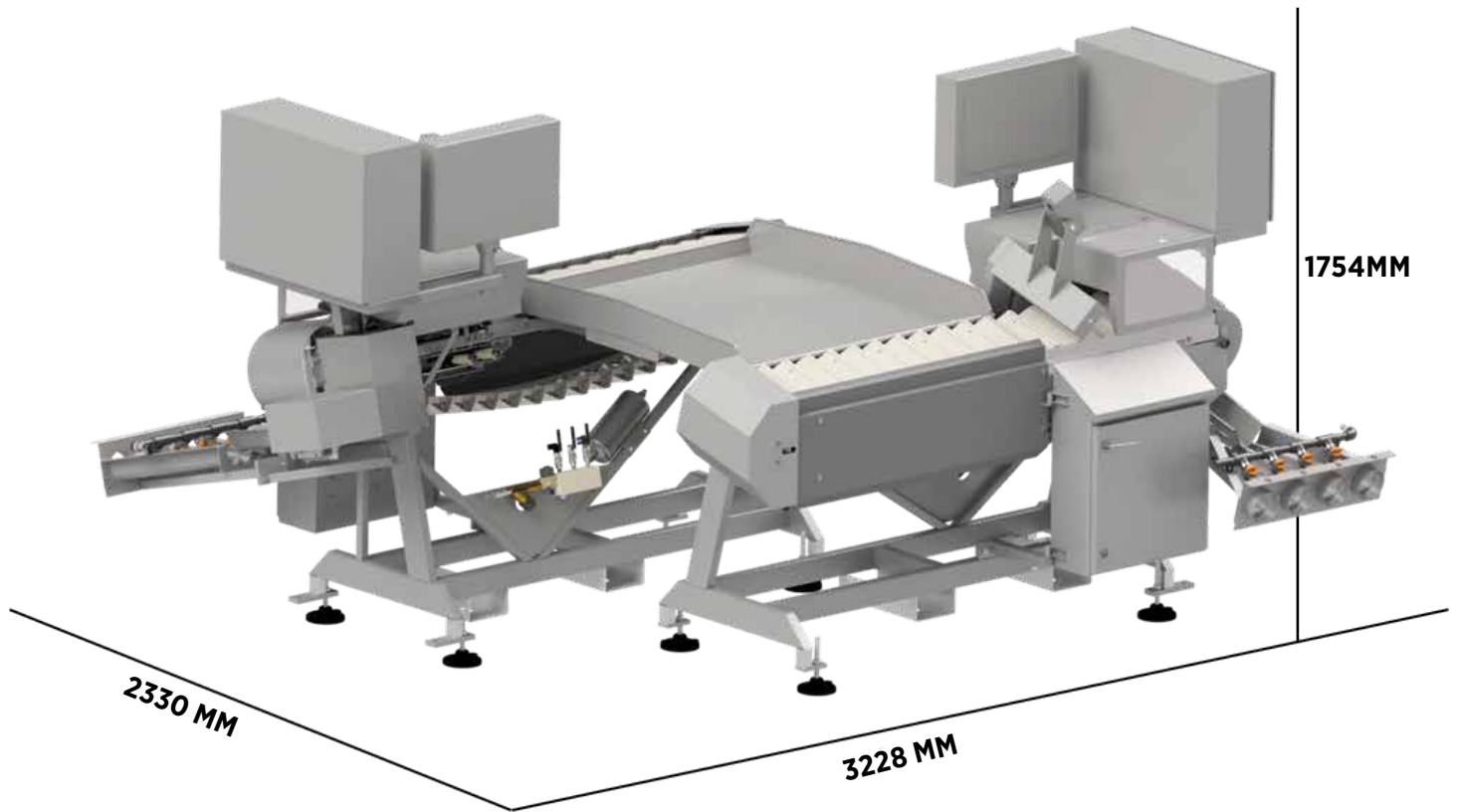
Reidar Våge,
MOWI



LØDINGEN FISK

««PHARMAQ Fishteq provides a machine that delivers correctly positioned vaccines in an efficient manner. We have had a good experience both in terms of their follow up and using the machine, which means we can be confident about our vaccination work.»

Gunnar Ellingsen,
Lødingen Fisk AS



FACTS

- We recommend single or double setup
- For a capacity from 8.500 to 17.000 fish per hour

KEY FEATURES



THE FEATURES OF THE NFT HAS BEEN DEVELOPED ON THE BASIS OF THE NEEDS OF ITS USERS. THE SYSTEM DELIVERS EFFICIENT, PRECISE VACCINATIONS AND OFFERS COMPREHENSIVE QUALITY CONTROL.

OUR NFT MODELS:

NFT 20 - Single injection of a single vaccine from 2 stations in belly

NFT 25 - Single injection of 2 or 3 differnt vaccines (oil and water based) from 2 stations in the belly

NFT 30 - Single injection of 1 or 2 differnt vaccines (oil and water based) from 2 stations in the belly and single intramuscular injection with 1 vaccine from 2 stations

SORTING

The length of every fish is measured with an accuracy of 1 mm. The machine is built to vaccinate salmon, sea bass and trout. The machine can be adjusted to vaccinate a wide range of different fish species. Following vaccination, the fish can be sorted into three different lanes. The parameters for sorting can be set easily by the operator via the touch screen.

USE EXISTING INFRASTRUCTURE

With the NFT, you can use your existing solutions for pumping, anaesthesia and internal distribution. We can also assist you in designing a complete anaesthesia and vaccination system if you wish. The output module is designed for a standard 110 mm tube and can be deployed using either natural fall distribution or further pumping.

MODULE BASED

NFT machines can be connected in series to increase capacity. Only a few minor adjustments to the feeding table are necessary to use 2 machines simultaneously.



MOBILE AND EASY TO SET UP

The NFT can easily be transported for temporary use both indoors and on mobile platforms.

The machine features a lifting point for forklifts, is equipped with wheels and fits in a 1,75 metre tall van. Rigging and assembly is straightforward, requiring only the machine to be connected to water, compressed air, electricity and internet. The compressed air must be dry and clean.



PRECISE VACCINATION

The NFT is equipped with machine vision. Every fish is photographed and the machine adjusts the injection site with a precision of 0,3 millimetre for precise position and depth of the vaccine dose.

All data is logged by the system (vaccine use, number of fish and size sorting). All logged data can be sent from the machine as an email.



SIMPLE TO OPERATE – ONE OPERATOR

With the NFT, one experienced operator can operate the machine alone.

The machine is suitable for vaccine doses from 0.025 to 0.1 ml. The machine uses standard 0.7x15 mm cannulas. These can easily be changed by the operator and are activated via the touch screen.

NORWEGIAN PRODUCTION QUALITY

The NFT is the result of development and experience over the course of 20 years in the industry. The machine is manufactured from acid proof steel, it is built to provide excellent levels of uptime and a long lifespan - with few wearing parts. It is designed in Helgeland an area that is home to a great deal of activity and expertise related to fish and aquaculture.

The machine is assembled at our head office. The machines are CE marked and currently used by a number of well known, major fish farmers including MOWI, Grieg Seafood and SalmoNor.

TECHNICAL DATA

- HIGH CAPACITY
- PRECISE
- RELIABLE



TECHNICAL DATA



CAPACITY

8500 fish per hour



SIZE OF FISH:

100 – 250mm
(20 – 150grams)



DRY WEIGHT:

300 KG

CONSTRUCTION



Mechanical and water
based cleaning of
cannulas between
each vaccination



Manufactured with
acid proof steel



National instruments
Machine Vision
Styresystem



Adjustable
vaccine pressure



Vaccine pressure
control and alarm
for errors



Measurement of correct
position and
location of fish



Computer controlled
injection point
and depth



Notification if cannula
needs to be changed



Dose Accuracy: +/- 2%



Logging of all data

COMPUTER SYSTEM



WATER CONNECTION:

Minimum 3 bar
1/2 hose nipple



AIR CONNECTION:

Single Set up: Minimum 318l/min
6-10 bar
Double Set up: Minimum 600l/min
6-10 bar



POWER CONNECTION::

Requires 230 v 1 ph 16 A
50HZ

CONNECTIONS



110 mm outlet



Sorts into three
different sizes



Festo air units

WE MAKE AQUACULTURE PROGRESS



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