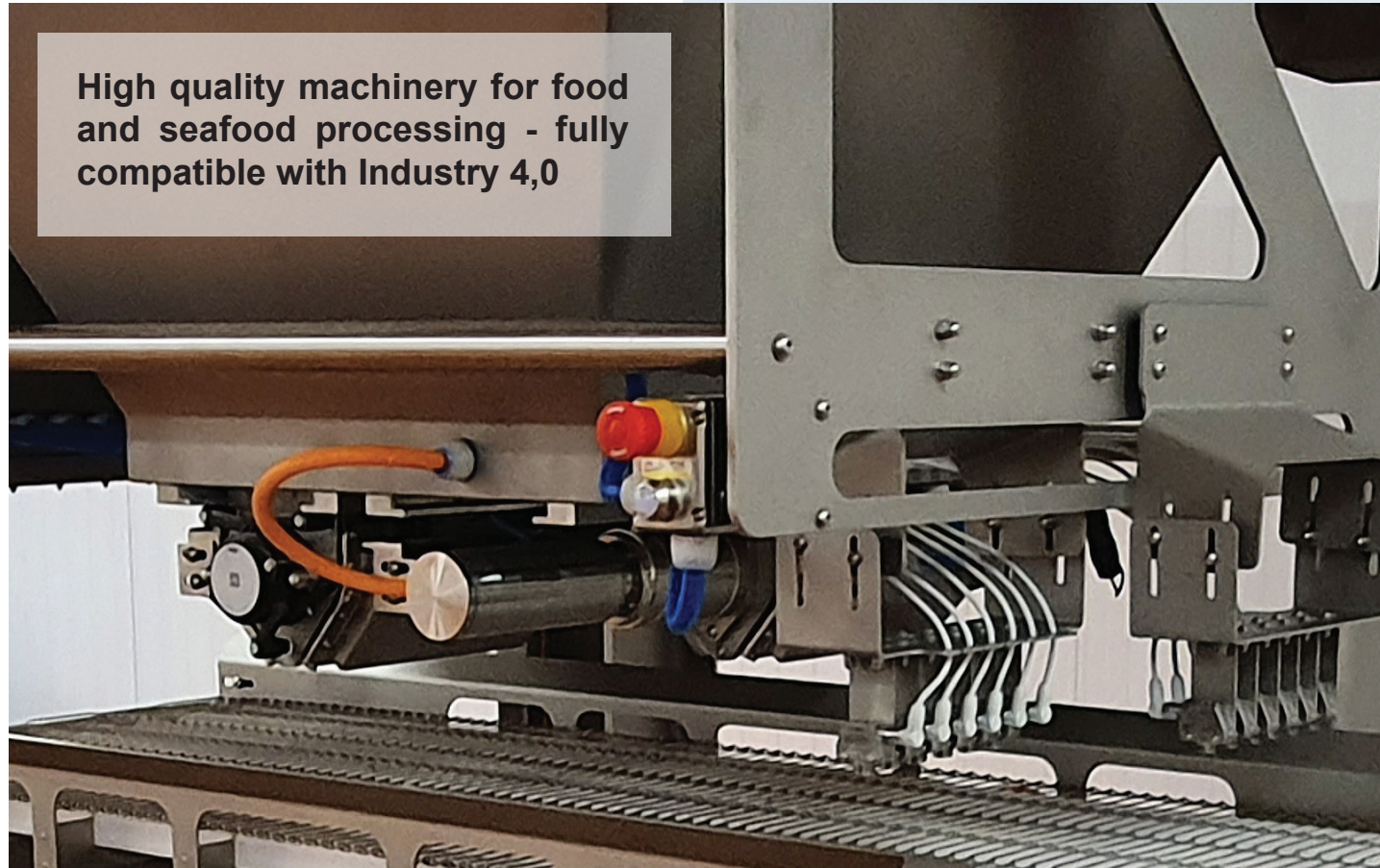




High quality machinery for food and seafood processing - fully compatible with Industry 4,0



## WHAT WE DO...

NORD-machinery is a young food processing machinery manufacturer located in the northern part of Denmark north of Aalborg.

NORD-machinery is the joined project of Mr. Kjell Thomsen and Mr. Ruben Hansen, both experienced people in the processing machinery business.

In 2018 Kjell and Ruben decided to join forces and start NORD-machinery with the aim to develop machines for food and seafood processing, fully integrating the "Industry 4,0" mindset in both the machines but also in the internal production setup.

NORD-machinery have a very strong strategy for the coming years starting with 2019 where a small series of new innovative machines will be launched. These machines will be the foundation of the core business but will also represent the achievability of the industry 4,0 universe.

### TECHNICAL DATA:

Infeed: Left or right (per customer spec)  
Layouts: 1 lane, 2 lane or 4 lane (per customer spec)

Height: 2000mm  
Length: 1835mm  
Width: 1 lane 900mm  
2 lane 1325mm  
4 lane 2220mm

Weight: 1 lane 650kg (dry)  
2 lane 725kg (dry)  
4 lane 1450kg (dry)

Capacity:  
1 lane 180 liters of salt – approximately 220kg  
2 lane 240 liters of salt – approximately 290kg  
4 lane 460 liters of salt – approximately 560kg

20-25 filets per minute per lane (depending on product length)

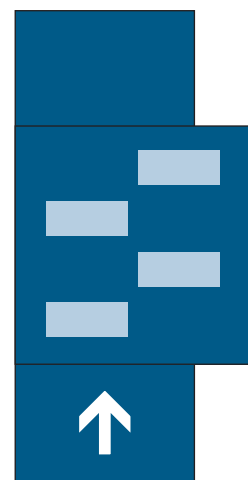


## NSD-1 DOSER SYSTEM

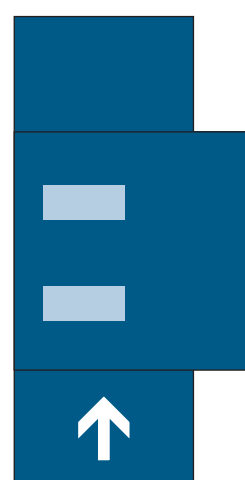




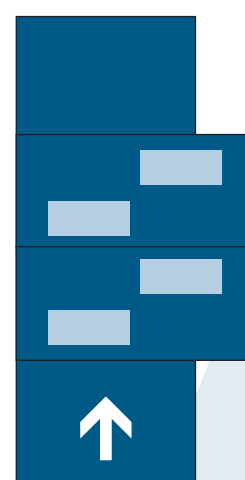
#### LAYOUT VARIATIONS 1- 4:



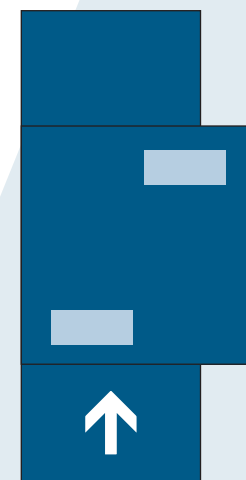
1.  
Double dual lane  
recognition



2.  
Single lane  
recognition



3.  
Double dual lane L/R  
Separated hopper



4.  
Dual lane  
L/R layout

NSD-1 use a state of the art laser optical system to measure the length and height of the fish and will dose accordingly. The thick parts will be more salted and thinner parts of the fish will be less salted.

It is also possible for the laser optics to recognize the belly side of the fish and this makes it possible to run a mix of fillets in a single lane. The product will be cured identically every time.

NSD-1 embrace the industry 4,0 mindset and from the 10" touch screen the operator has full control over recipes, speeds, temperature etc.

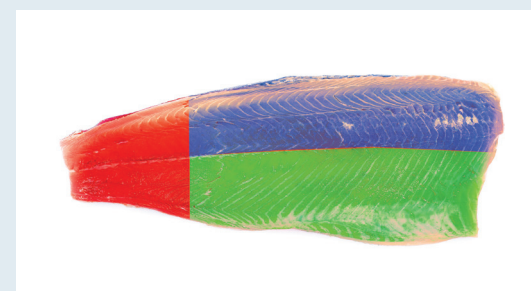


FIGURE 1.

Every fish side is measured and salted according to individual size and shape.

- ▶ Red: Less salt on flat parts like the tail piece.
- ▶ Blue: More salt on meaty parts like the back.
- ▶ Green: Less salt on the belly side.



#### MAIN FEATURES:

- ▶ Heated hopper and mechanics to ensure no condensation during production run and fast drying after cleaning and wash
- ▶ Fast and easy adaptability to you existing production line with live options to adjust speed, temperature, dosing amount (recipe's) etc.
- ▶ Special salmon processing option that ensures that the belly side is salted less than the more meaty back side.
- ▶ A big 10" HMI control touch screen for easy overview and controls of the machine with a built-in manual, and instructional videos for replacing spare parts.
- ▶ Automated service warning notifications.
- ▶ Special cleaning and night program for running certain features of the machine while cleaning or during night time inactivity.
- ▶ Open design for easy access cleaning.
- ▶ Produced of high quality A4 (AISI316) stainless steel to ensure maximum hygiene and corrosion resistance.
- ▶ Designed according to the following standards:
  - 2006/42/EC machinery directive.
  - EN ISO 12100:2011 safety of machinery.
  - 2014/35/EU low voltage directive.
  - 2023/2006/EC good manufacturing practice for materials and articles intended to come into contact with food.



#### NSD-1 DOSING SYSTEM

NSD-1 dosing system has been developed to salt fish, typically salmon sides, as a curing method before smoking.

NSD-1 is not a standard machine but a standard system fully customizable to the customers needs. All NSD-1 systems share the same functions and are fully automated. Apart from refilling the 240-liter hopper, the machine requires no special attention during the production run.

If the need arises the NSD-1 can also be used for spice dosing e.g. peppercorn, sugar, different spice mix etc. A unique feature allow the user to replace the profile rollers to other models and gain access to dosing out a wide variety of other products as well.