

CASE STUDY “FOOD&BEVERAGE”, PMA CABLE PROTECTION SOLUTIONS

## Seasoning salmon with PMA cable protection

### Hygienic conduits for the food processing industry



— Food processing machines are used, among other things, to apply seasoning to food products

The food and beverage industry has strict hygiene and cleanliness requirements. Nord Machinery is a young food processing machinery manufacturer based in northern Denmark, just north of the city of Aalborg. It is experienced in the processing machinery business, and aims to develop machines for food and seafood processing, fully integrating the “Industry 4.0” mindset both in its machines and in its internal production setup.

Having set out to find a traditional stainless steel cable gland, Nord Machinery instead got a complete hygienic solution for their machines. This has given the company both a clear competitive advantage and a solution that customers are very satisfied with.

#### Seasoning salmon and other types of fish

Nord Machinery produces machines for food processing applications such as seasoning and salting fish. Many of the machines currently in use in the industry are outmoded and need to be updated for compatibility with the way production lines are built today.

“One of the things our machines are used for is seasoning food products. Typically, they are used to season salmon and other types of fish, but they can also apply seasoning to chicken, meat and

Food industry machines have to satisfy stringent hygiene standards. Bagger-Nielsen, the food processing industry’s preferred supplier and product expert in Denmark, provided Nord Machinery of Vestbjerg, Denmark, with a significantly more affordable PMA cable protection solution that can be used to develop machines for food and seafood processing.

ready meals. The machine scans each product using a series of lasers, then dispenses the appropriate amount of seasoning for the product, depending on whether it is large or small. That way the product will taste the same, because the amount of seasoning is proportional to the total weight of the product,” says Nord Machinery director Ruben Uldal Hansen.

“Food industry machines have to satisfy stringent hygiene standards, and that’s something we are very aware of.”

“Since our machines carry out processes directly over and around unshielded food, it is both a key Nord Machinery requirement and a customer expectation that the machines should be extremely easy to clean and have antibacterial properties where possible.”

Director Ruben Uldal Hansen contacted Bagger-Nielsen, and Bagger-Nielsen’s product specialist Ole Bendix visited the company to talk to Ruben about the application and possible solutions. Bagger-Nielsen is the food processing industry’s preferred supplier and product expert in Denmark.



01

01 The NSD-M spice doser is an extremely versatile seasoning applicator that can be –and is – used for an extremely wide range of products, from fish and seafood to meat and poultry.

02 Applying precise amounts of seasoning to salmon and other types of fish with a JFBD conduit (blue conduit)

03 All small cables can be assembled in one bundle and one conduit and cable gland

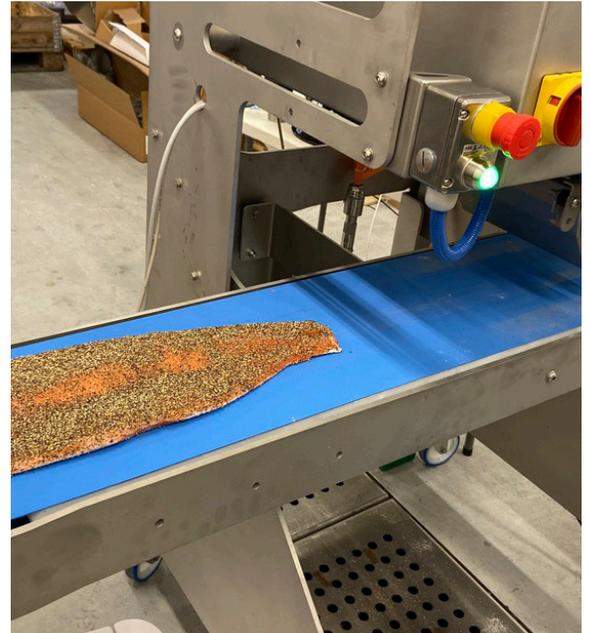
Since 1975, Bagger-Nielsen has ensured that customers work with the most robust and reliable products on the market. Bagger-Nielsen’s experienced specialists advise at every level, and over the years have helped many in the industry, from technical buyers to engineers. PMA has been a Bagger-Nielsen partner for protective conduits and fitting system for over 30 years. Many years in the industry have given Bagger-Nielsen sufficient experience to be one of the most capable advisors in the market.

#### A significantly more affordable solution

“Ole Bendix from Bagger-Nielsen visited us and we explained what we wanted. He soon had our interest when he showed us another solution that was significantly more affordable than the solution we first had in mind,” says Ruben Uldal Hansen. “Ole’s understanding of our business led us to design a solution using cable glands and protective



03



02

conduits from PMA. He gave us some samples of the products that we could subsequently test and relate to”.

The JFBD conduit from PMA proposed by Bagger-Nielsen provides a truly flexible and cost-effective solution for the food and beverage industry and is backed by the unrivalled sector experience of ABB. Ecolab certification is testimony to the JFBD’s high resistance to cleaning agents. The JFBD is suitable for dynamic or static processing cable protection systems in the food and beverage industry.

#### Overextruded PMA nylon conduit

After that, the decision-making process was simple, and Nord Machinery adopted PMA’s JFBD easy-to-clean overextruded conduit and Blueglobe Clean Plus cable glands, not only installing them in the machine cabinets, but also using them extensively elsewhere on its products, for example in the emergency stop systems. Using the PMA conduit meant we were able to assemble all the small cables in one bundle and one conduit and only use one cable gland. That reduced cable gland use and helped us ensure that the solution was cleanable and hygienic,” says Ruben Uldal Hansen.

#### ‘New opportunities for food processing machinery.’

“The new JFBD conduit, the first to incorporate an overextruded non-porous smooth jacket, delivers further enhanced cleanability combined with unrivalled resistance to aggressive chemicals to Ecolab standards. It opens up completely new options for food industry companies like Nord Machinery to design food processing machinery,” says Martin Gueller Sales Director at PMA.



— The IP69-rated PMA cable protection range for the food and beverage industry offers a choice of two high-specification fittings. The JKNH nylon fitting is made from FDA-compliant material and offers both excellent chemical resistance and tool-free quick installation. The JENQ single-piece fitting is made from 316L stainless steel and is ideal for applications that have to meet stringent hygiene standards.

### ABB and Bagger-Nielsen

A longstanding, successful partnership in cable protection links ABB PMA Cable Protection with Bagger-Nielsen in Denmark. Bagger-Nielsen is a modern and innovative company that focuses on importing and selling high-quality products that are hand-picked from a variety of manufacturers around the world. PMA has been a reliable Bagger-Nielsen partner for protective conduits and fitting systems for over 30 years.

Many years in the industry have given Bagger-Nielsen sufficient experience to be one of the most capable advisors in the market. At the same time, Bagger-Nielsen values good old-fashioned cleanliness, something that is reflected both in their professional customer service and in the quality of their deliveries.

### — Contact:

**ABB AG**  
**PMA-Kabelschutz**  
 Aathalstrasse 90  
 8610 Uster, Switzerland  
 Phone: +41 / 58 585 00 11  
 pma-info@ch.abb.com  
[www.pma.ch](http://www.pma.ch)

**Bagger-Nielsen**  
**Bagger-Nielsen ApS**  
 Svalehøjvej 10  
 DK-3650 Ölstykke  
 Tel: +45 / 7020 7633  
 Fax: +45 / 7020 7603  
 info@bagger-nielsen.dk  
[www.bagger-nielsen.dk](http://www.bagger-nielsen.dk)

— ABB Switzerland Ltd.  
 PMA Cable Protection  
 Aathalstrasse 90, 8610 Uster  
 Switzerland

**new.abb.com**

— We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders and/or contracts, the agreed particulars shall prevail. ABB does not accept any responsibility whatsoever for potential errors or possible lack of information in this document. We re-

serve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents – in whole or in parts – is forbidden without prior written consent of ABB.  
 © Copyright 2019 ABB.  
 All Rights Reserved.