# MAGAZINE

**IFFR** 

3-8 MAY 2025



# **NEW NAME**OF INNOVATION

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Hall **9.0** Stand **A80** 

We invite you to visit our stand at the IFFA 2025

Hall 9.0 stand A80

At the **675** sqm stand we are presenting the latest machines and technologies for food processing industry:

cutters including the **KN-750 HL cutter** - new design

grinders with the newest grinder **W-280 B TurboGrind** 

injectors including **MH-212 AW SAS** series
with automatic injection level
correction system

tumblers, **loading - unloading line** and **automatic brine dosing system** 

cleanetic washing systems
with **Modular Loading / Unloading Systems** 









# High-Speed Atmospheric Bowl Cutter KN-750 HL

## by NOMA Nowicki Machinery

The introduction of the **new model** of atmospheric bowl cutter with a 750-litre capacity marks the next stage in the development of the range of bowl cutters offered by NOMA Nowicki Machinery for the food processing industry.

The **KN-750 HL** has been engineered based on years of experience in adapting bowl cutters to meet the specific requirements of processing plants. Its robust and reliable design, high performance and operational versatility make it an ideal solution for industrial-scale cutting, emulsifying, and mixing of food products.

#### **Key Features of KN-750 HL**

- Compact and stable construction, occupying minimal floor space within a production facility.
- Extensive standard equipment, enabling the execution of complex production recipes.
- Comprehensive operator safety, ensuring full control over the technological process.
- Optional semi-automatic configuration, allowing for efficient operation by a single operator.



#### Advanced Technology for Enhanced Performance

The carefully selected AC motor, equipped with fully electronic control, enables optimisation and complete control of the bowl's operating cycle. In automatic mode, the operator can perform consistent cutting processes using the intuitive operator panel. In addition, three joysticks on the control panel allow for intuitive adjustment of operating parameters and precise control of the bowl covers, loading and unloading processes.

#### **Precision Product Cutting**

The bowl has been specifically designed to maintain an optimal distance between the knives and the bowl surface throughout the entire cutting trajectory. This ensures that the raw material is effectively cut in the air, significantly enhancing the quality of the final product.

Precisely calibrated rotational speeds, allowing for a linear knife speed of up to 168 m/s, enable adjustment of the cutting parameters to suit the specific requirements of the technological process.

#### **Versatility and Flexibility**

The KN-750 HL performs exceptionally well when processing both fresh and frozen meat. A specially selected knife set, combined with carefully synchronised knife and bowl speeds, also enables efficient cutting of full blocks of frozen meat. Furthermore, the intuitive touch panel allows operators to store up to 40 individual recipes, each comprising 20 programmable steps, thereby increasing the system's flexibility and adaptability to diverse production processes.

#### **Economic and Operational Benefits**

Thanks to the high operational efficiency of the KN-750 HL, substantial production throughput can be achieved. With a bowl fill level of 80-90% and batch processing times of approximately 12 minutes for emulsified products and 4-5 minutes for salami-type products, the system is capable of delivering an output of 3-4 tonnes per hour. Optional systems for direct dosing of water or oil into the product further accelerate the production process and eliminate the need for additional operator intervention.

#### **Superior Standards in Hygiene and Quality**

The KN-750 HL has been designed to meet the highest hygiene standards applicable in the food processing industry. The entire machine is constructed from stainless steel, and its ground surfaces – including all product - contact areas and structural components - ensure easy maintenance of strict sanitary regimes. Additionally, the cutter is equipped with an automated cleaning programme that optimises the cleaning of the bowl, covers, and discharge plate, enabling fast and effective sanitation of the equipment.

#### Safety and Ergonomics

The KN-750 HL fully complies with all occupational health and safety regulations while offering operators an ergonomic interface and comfortable working conditions. Optional systems for automatic loading and lid control are equipped with additional safety mechanisms to eliminate the risk of unauthorised operation. As a result, the machine ensures not only efficient performance but also maximum operator safety.

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## **SAS** series injectors

## by NOMA Nowicki Machinery

#### SAS series injectors by NOMA Nowicki Machinery

are designed to execute complex injection processes for all types of meat, including:

- Red meat and red meat cuts, both bone-in and boneless;
- Poultry cuts, both bone-in and boneless;
- Culinary white and red meat;
- Fish and fish fillets.

The new SAS series of injectors feature a modern, ergonomic design that allows full accessibility to all machine components, facilitating cleaning, inspection, and routine maintenance. This is crucial for ensuring hygiene compliance and maintaining the highest operational standards.

Starting from the MH-212 SAS model, the next-generation quick-change injection head system has been introduced. This innovative mechanism allows rapid and effortless replacement of the entire head assembly, enhancing efficiency for cleaning and machine changeover.

The SAS series industrial injectors by NOMA are engineered with a specialised injection head and needle system, allowing precise brine injection across a full range of applications. These advanced engineering solutions ensure even brine distribution throughout the product, precise recipe adjustment for various raw materials, and flexibility in adapting to diverse production environments and processing conditions.

The integrated touchscreen control panel provides intuitive process management, enabling precise parameter adjustments that directly influence product quality. All configurations can be saved in the injection recipe catalogue, ensuring consistency and repeatability in production.

A multi-stage filtration system is incorporated to eliminate fine impurities from the brine circuit, ensuring consistent injection quality.







The **SAS system** (Servodrive Automatic System) has optimised the injection process, guaranteeing repeatability and efficiency. Key advantages include:

- High consistency in technological operations;
- Minimal injection deviation, maintaining precision within 0.5 to 2%;
- Reduced free brine loss, enhancing efficiency and product yield;
- High throughput, ensuring optimal productivity measured in kg/h;
- Controlled injection across layers of varying thicknesses, preventing excessive brine discharge;
  Programmable injection sequencing, allowing selection of specific
- raw material layers for targeted brine distribution;
   Synchronised conveyor and injection head movement, enabling
- Synchronised conveyor and injection head movement, enabling customised injection grid patterns.

This prevents needles from puncturing the same location twice, an issue common in multi-head injectors lacking the SAS system.





AMON S

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### NOMA Nowicki Machinery has introduced the new TurboGrind series of automatic angle grinders, featuring the W-200 B TG and W-280 B TG models.

These grinders are based on the highly successful W-200 B and W-280 B, but have been reinforced and equipped with more powerful drives, enhancing their efficiency in meat grinding across a wide temperature range.

### GRINDERS

These machines deliver high performance, with exceptional efficiency on frozen meat and up to four times greater throughput on fresh meat. Their versatility and advanced technological solutions make them ideal for modern meat processing plants looking to optimise their production processes.

Customisable with up to 40 individual grinding recipes.



W - 200 B TG

# **Automatic Angle Grinders**

W- 200 B TG and W- 280 B TG - TurboGrind Series

## Key Features of the TurboGrind Series

 $\bullet$  Capability to grind both frozen meat (up to -25°C) and fresh meat

High processing capacity

Advanced screw drive control system



W - 280 B TG

#### **Advanced Technology for Increased Efficiency**

The W-200 B TG and W-280 B TG grinders are technologically advanced machines designed to efficiently process deep- frozen meat blocks (down to -25°C) as well as fresh raw material. Their specialist construction enables the grinding of even the most challenging materials, including pork and beef skins as well as sinewy beef.

#### **Precision Control of the Grinding Process**

A key element of the system is the advanced algorithm governing the feeding and pressing worms. Both motors are controlled by frequency inverters, allowing for full speed regulation. The system automatically adjusts operational parameters based on the type and consistency of the raw material.

The torque maintenance system ensures continuous operation at maximum efficiency, while simultaneously preserving grinding quality.

#### **Economic and Operational Benefits**

The use of either the W-200 B TG or W-280 B TG grinder eliminates the need for additional pregrinding or defrosting equipment for meat blocks. This results in cost savings on equipment investment and energy consumption.

The high processing capacity of these machines significantly increases the productivity of processing lines while simultaneously reducing maintenance costs.

Both models are compatible with vertical loading systems as well as belt conveyor feeding. The belt conveyor can be integrated with a metal detector, ensuring long - term reliable and trouble - free operation.

Additionally, standard 200L trolleys, optional 300L trolleys, Pallet Boxes, and belt conveyors transporting the processed product to the next stage can be used interchangeably, offering maximum flexibility in production workflows.

#### **Versatility and Flexibility**

The TurboGrind series grinders offer two pre - set operating programmes:

- 1. For frozen blocks and difficult raw materials
- 2. For fresh meat

Additionally, the intuitive touchscreen control panel allows operators to create and save up to 40 custom recipes, making the machine a highly adaptable tool for experienced food technologists.

#### **Hygiene and Build Quality**

The TurboGrind grinders are designed to meet the highest hygiene standards. They are constructed from AISI 304 stainless steel, with ground external surfaces and a polished interior loading hopper, facilitating easy cleaning and hygiene maintenance.

The worm exchange assistance system and automatic ejection of the pressing worm streamline the cleaning and maintenance process, ensuring efficient and hassle - free operation.

#### **Safety and Ergonomics**

The TurboGrind grinders are equipped with advanced safety systems, including a protective cover over the feed throat and a safety switch along the upper edge. Their ergonomic design and intuitive user interface ensure safe and convenient operation.

For over 50 years, NOMA Nowicki Machinery has been at the forefront of manufacturing high - quality meat and food processing equipment. The W-200 B TG and W-280 B TG automatic angle grinders are the latest additions to NOMA's product range.

We specialise in providing cutting - edge technological solutions that optimise production processes in meat processing plants. By combining decades of expertise with continuous innovation, NOMA offers a comprehensive range of equipment that meets the highest standards of quality, efficiency, and safety.

For more information about our company and full product range, visit: **www.noma.tech** 

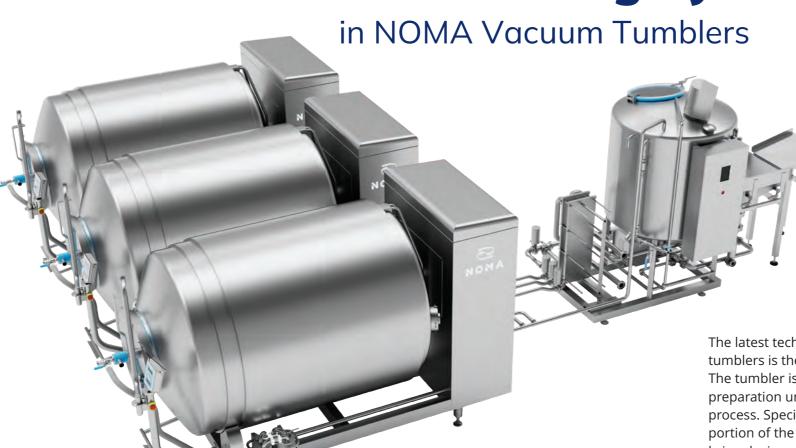
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### VACUUM TUMBLERS

The new design of NOMA vacuum tumblers integrates cutting-edge solutions that combine the traditional reliability of NOMA tumblers with enhanced functionality. Key improvements include increased loading capacity, reduced overall dimensions, enhanced hygiene maintenance, and a robust and durable construction. These features make NOMA tumblers the ideal choice for companies aiming to boost production efficiency while maintaining high standards of quality and hygiene.

# Application of the Automatic Brine Dosing System



The latest technological advancement in NOMA tumblers is the automatic brine dosing system. The tumbler is seamlessly integrated with a brine preparation unit, enabling a fully automated dosing process. Specialist software takes over a significant portion of the operator's workload, ensuring precise brine dosing according to the pre-programmed recipes. This results in higher efficiency and improved precision in production processes.

# **Key benefits** of the automatic brine dosing system in NOMA tumblers:

#### **Optimised dosing process:**

The system automatically calculates the required brine quantity based on a programmed recipe, eliminating manual errors and saving time.

#### High dosing precision:

The brine volume is calculated according to the weight of the batch, ensuring accurate dosing. The operator is no longer required to manually calculate brine amounts, significantly reducing the risk of errors at this stage of the production process.

#### **Enhanced Safety:**

The dosing process is fully monitored by the tumbler's control system, ensuring that the total weight of the batch and brine never exceeds the maximum permissible limit.

This prevents technological errors and maintains process integrity.

#### **Automated process control**:

Once dosing begins, the system tracks the progress in real time and displays process status on the screen. The operator can monitor the operation continuously without requiring constant manual supervision.

#### Interruption and resumption functionality:

If an issue arises during dosing (e.g., the mixer is not ready), the system automatically pauses the process. Dosing can be resumed after the issue is resolved, preventing machine damage and product waste.

#### Recipe compliance and process repeatability:

The entire dosing cycle is executed according to a pre-set recipe, ensuring consistency with production requirements and technological repeatability of the final product.

#### **Automatic diagnostics system:**

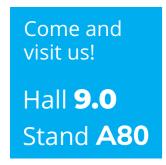
The machine is equipped with a self-diagnostic function, alerting the operator to potential issues. This enables rapid fault detection and helps eliminate human errors during operation.

The system also allows operators to switch to manual brine dosing mode at any stage of the process. This manual mode is particularly useful in situations requiring precise operator intervention or quick adjustments to process parameters.









# **Defrosting System**

### in NOMA Vacuum Tumblers

The modern defrosting method offered by NOMA Nowicki Machinery involves the use of vacuum tumblers equipped with an advanced defrosting system. This solution eliminates all the issues and risks associated with traditional defrosting methods.



The NOMA defrosting system eliminates weight loss and significantly reduces process time compared to traditional defrosting methods.

The NOMA system can be adapted to all types of raw materials, including poultry cuts, even for highly delicate products such as poultry tenderloins, pork and beef, as well as seafood and fish.

The selection of the appropriate machine size and process parameters ensures optimal conditions for every raw material type and quantity.

NOMA offers various raw material loading systems, including fully automated loading solutions that minimise human contact with the product, ensuring even higher microbiological safety.

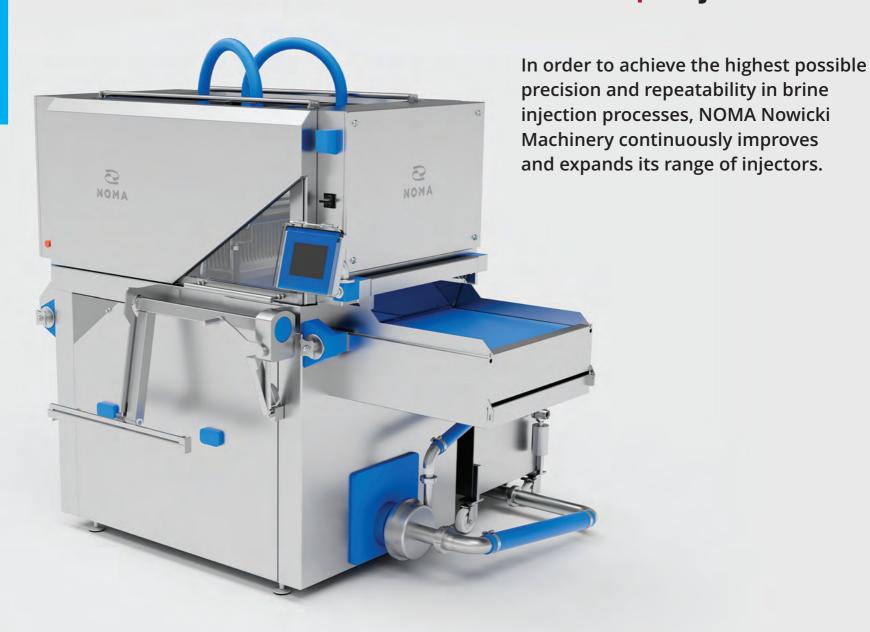


Meat defrosted in NOMA vacuum tumblers under optimal conditions does not exhibit significant histological degradation. As a result, its cross-section and tissue structure remain almost identical to that of fresh meat before freezing. This makes defrosted meat highly versatile, allowing it to be used in the same way as fresh meat.



INJECTORS

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We are pleased to present the MH-AW SAS series of intelligent injectors equipped with an advanced automatic injection level correction system.

# **MH-AW SAS Injector Series**

## with Automatic Injection Level Correction System

#### The MH-AW SAS (Servo Automatic System)

injectors are designed for advanced brine injection processes across a wide spectrum of raw materials:

- The machines are equipped with two independent conveyors: a feeding conveyor and a working conveyor.
- The machine operates in two modes:
- The first is the standard injector mode, where precision and repeatability largely depend on the injection programme configured by the operator The second is the **automatic high-precision mode**, in which the machine continuously monitors the product weight and, if necessary, adjusts the injection parameters in real time to closely match the programmed injection level.
- In the automatic mode, the operator only selects the type of raw material being injected red meat, white meat, or fish and enters the required injection level and acceptable deviation (e.g. ±2%) via the control panel.
- The machine features an innovative high-accuracy correction system based on advanced algorithms. This system enables the machine to achieve the target final injection level without the need to stop the machine or weigh individual product batches on external scales.



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# **CLEANETIC Washing Systems**

## - A Modern Approach to Cost Optimisation

The rapid development of the food industry and the rising cost of utilities are prompting companies to seek effective ways to optimise production processes. Challenges such as inconsistent cleaning results, high water and chemical usage, limited process control, and labour shortages require innovative and efficient solutions. CLEANETIC, an experienced manufacturer of industrial washing systems, delivers technologies that reduce operating costs and maximise the efficiency of cleaning processes in industrial environments. CLEANETIC offers automated washing lines for containers, pallets, and other equipment used in food processing facilities.

The CLEANETIC washing systems offer an effective strategy for improving profitability, with the potential to reduce operational costs by up to 80% compared to traditional cleaning methods. By implementing innovative, automated solutions, businesses can focus on core operations while eliminating the risks associated with ineffective cleaning processes.

Through investment in modern technologies, CLEANETIC supports companies in achieving higher production efficiency, while ensuring full control over hygiene standards and cost-effective operations.

With a modular design and advanced technical features, these systems provide:

- Full automation Units are equipped with automatic loading and unloading systems, significantly reducing operator involvement.
- **Container buffering** Systems can include buffer modules for both dirty and clean containers, optimising workflow and increasing efficiency.
- **Label removal** Optional label removal modules enhance cleaning performance and improve overall hygiene standards.
- Utility consumption monitoring Smart sensors deliver accurate data on water, chemical, and energy consumption, supporting decision -making and resource management.

To meet the needs of clients struggling with cleaning transport pallets, CLEANETIC has developed automated washing lines for H1 and H2 pallets. One of the key challenges was automating the pallet loading and unloading process. Utilising the latest advances in robotics, CLEANETIC has designed a system in which robots replace manual operators, performing precise stacking and removal of pallets. This significantly reduces human labour, further lowering operational costs.



Industrial Washing Systems

CLEANETIC's design engineers place strong emphasis on safety and ergonomics.

All systems are developed with:

- User safety Systems are fitted with advanced safety features that eliminate the risk of accidents.
- **Ergonomic efficiency** Intuitive control systems and automated processes reduce physical strain on operators and minimise the likelihood of user error.
- **Ease of maintenance** Equipment is designed for quick and easy cleaning and servicing, helping to reduce both downtime and operating costs.





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