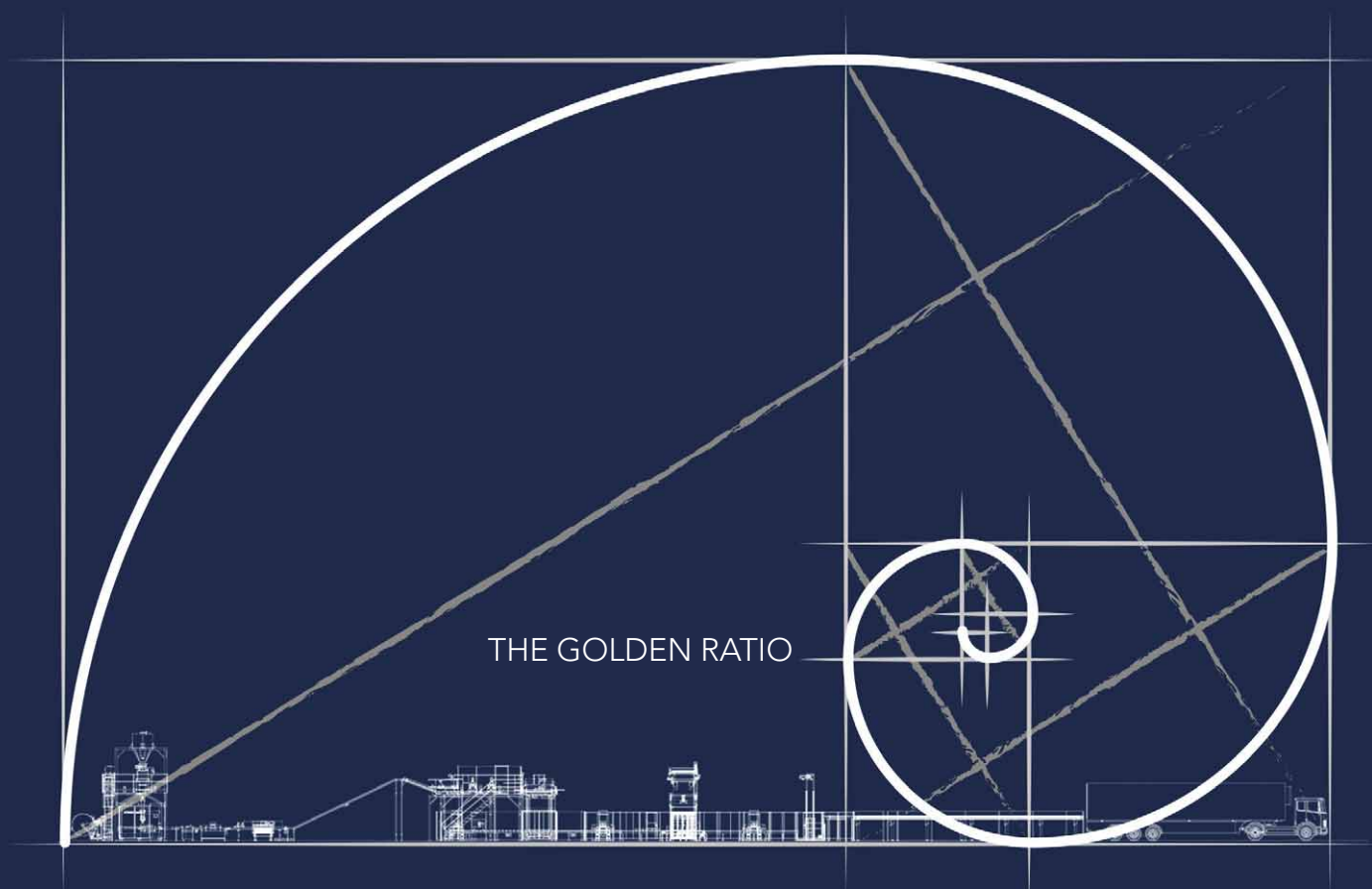


PERFECT PACKAGING TECHNOLOGY FOR FREE-FLOWING BULK PRODUCTS





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AVENTUS



WELCOME TO AVENTUS

Dear customers and partners.

In the year 2040 it is estimated about 9 billion people will live in the world. Supplying them will be one of the great challenges of the future. The packaging and transport of goods is a key challenge. The demands on you as a producer are becoming increasingly complex as globalization requires worldwide processes. Digitization enables new efficiency, which has to go hand in hand with sustainability.

At AVENTUS we see ourselves as your technology partner for the perfect flow of your free-flowing products. The "golden ratio" stands as a symbol for our commitment to perfection and the harmonious design of the entire process chain. To meet these challenges both today and tomorrow, we have assigned ourselves the task of working with you to develop the optimum overall solution for your applications. Our expertise: the filling and palletizing of free-flowing bulk materials. Your advantage: a partner who knows and understands not only your product, but your markets as well. We are the partners who bring you the expertise of two renowned machine builders who have more than 250 years of combined experience between them.

With WINDMÖLLER & HÖLSCHER and HAVER & BOECKER as parent companies, we are able to draw on the vast wealth of experience which these two world market leaders have: long-term, extensive and well-established. To this tradition, we add our own strengths as an independent subsidiary: focus, flexibility and dynamism. Our strength is our ability to adapt the right machine technology to the flow behavior of your product as well as to the needs of your company and your customers.

Together we aim to turn the challenges of the future into your opportunities for your and our success. As the management of AVENTUS, we look forward to accompanying you in this endeavor.

Kai Lammers
Managing Director

Claus Ohlmeyer,
Sales Director

Marko Stoffer
Technical Director





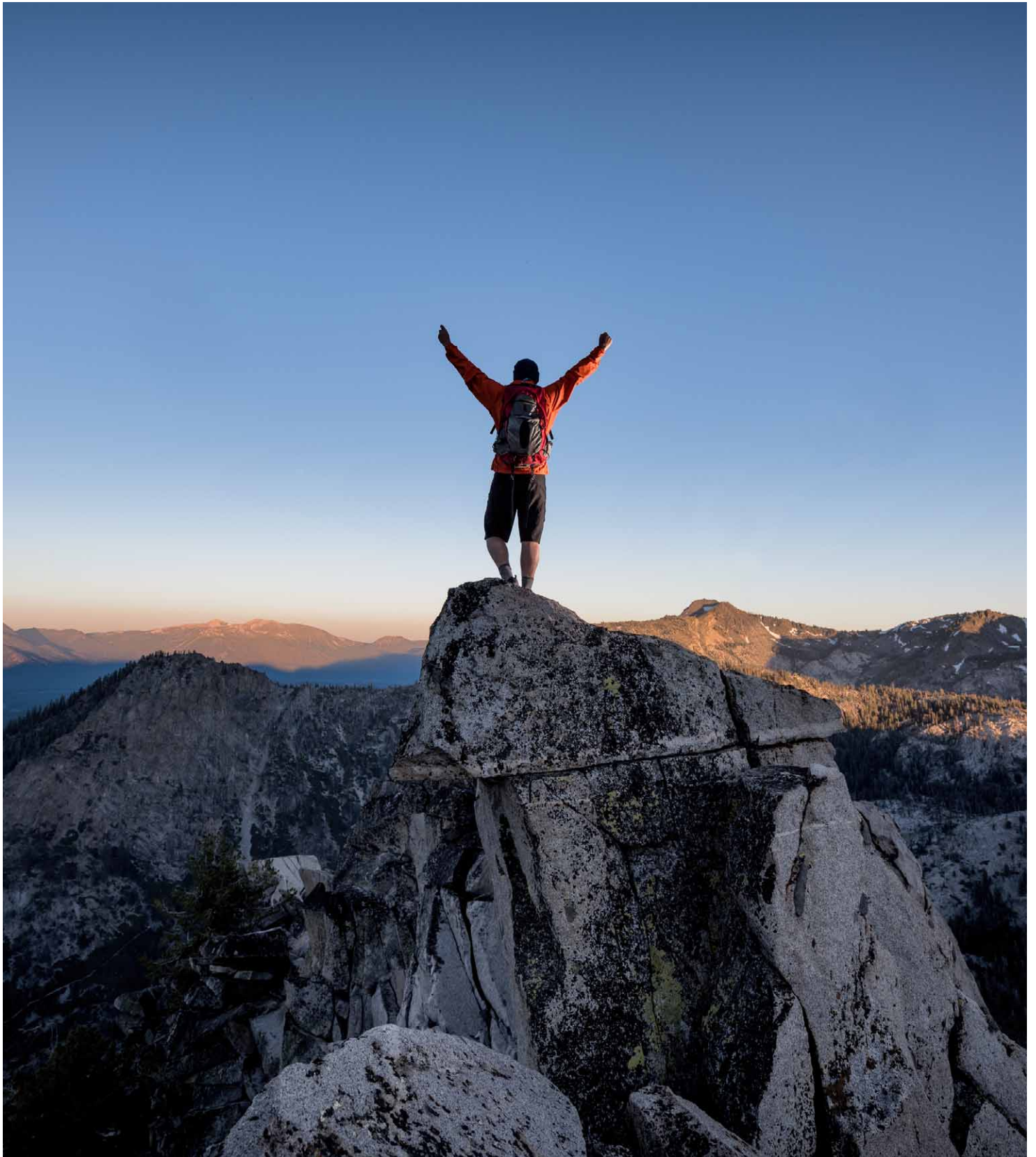
THE PARTNER FOR YOUR FUTURE

“In partnership with you, we will shape the digital future! As your reliable partner -- worldwide, networked, innovative and using the best technologies. We combine the strengths of two market leaders with the same focus, flexibility and dynamism of an innovative start-up. ”

Claus Ohlmeyer, Sales Director

You benefit from:

- One **contact** for your entire process chain.
- A **service network** that assures you short and rapid paths worldwide. No matter where you are, we are close by.
- An **innovation center** that focuses expertise on your filling and palletizing process.
- A **product range** that combines the best packing and logistical solutions from two worlds on your behalf.



INNOVATION: CHOOSE THE BEST OF TWO WORLDS



Our product range offers the perfect packing and logistics solutions for the flow of your processes.

FILLING TECHNOLOGY

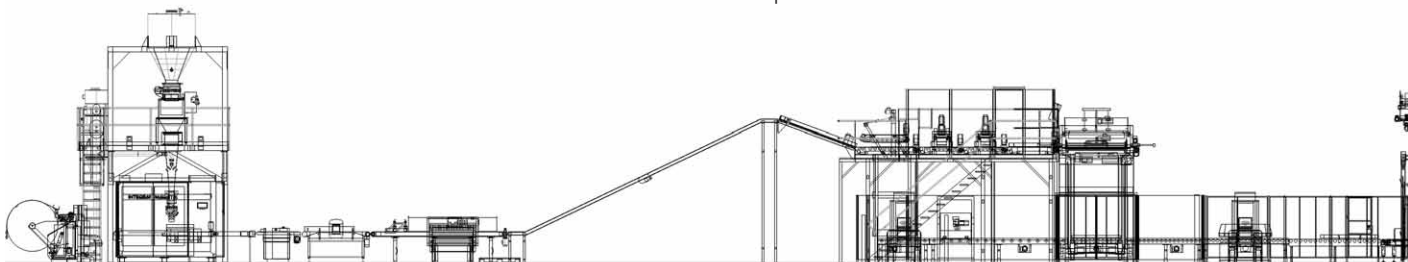
- TOPAS & INTEGRA® ISF – FFS packing machines
- INTEGRA® IOF – packing machines
for pre-made open bags
- INTEGRA® EGF – packing machines
for Big Bags and octabins

PALLETIZERS

- TERRAM –
floor level in-feed
palletizer
- PLATINUM and ARCUS –
high level in-feed
palletizer

LOAD SECURING

- ARGON –
Hood stretchers





AUTOMATION

- Process control
- Warehouse management
- Batch management
- Smart factory

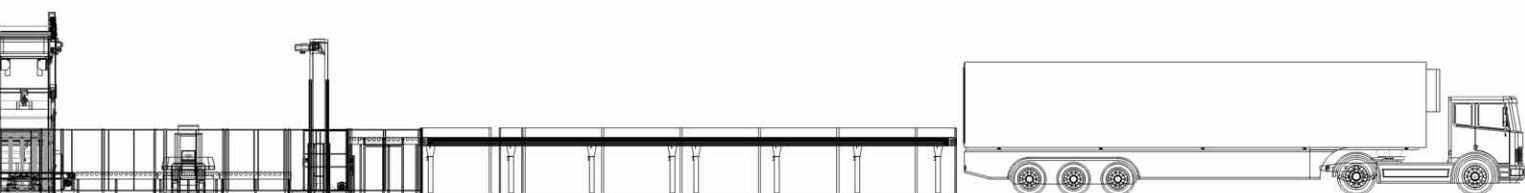
Focus Markets

CHEMICALS

- Petrochemicals
- S-PVC
- Fertilizers
- Salts
- ...

FOOD AND FEEDSTUFFS

- Sugar
- Rice
- Vitamins
- Pet foods
- Tea
- ...



TOPAS

by WINDMÖLLER & HÖLSCHER



Bulk Products:
with free-flowing behavior



Bag Specifications:
FFS PE-film,
Aluminium coated film,
MDO-film



Bag Weights:
(net weighing)
5 – 25 kg
10 – 50 kg



Performance*:
1,800 – 2,800 bags/hr

CLEAN

- Stationary and mobile use
- Protection against dust contamination
- Completely transparent machine housing for optimum visualization
- All components attached to machine ceiling to minimize wipe down areas

INTELLIGENT

- Integrated operating system for the entire line
- Highly intelligent for efficient personnel deployment and highest possible production time
- Operator support, e.g. with smart phone applications
- Optimized for more rapid product changeovers
- Automated performance optimization via intelligent self-adjusting process
- System Monitoring Packaging 4.0 enables a continuous online overview

PROFITABLE

- Profitable production at highest performance
- Especially robust with low maintenance
- Individual customization
- Design options for bag and bag films
- Modularly expandable performance with various modules

INTEGRA® ISF FFS EDITION

by HAVER & BOECKER



Bulk Products:
with free-flowing behavior



Bag Specifications:
FFS PE-film,
Woven PP,
Aluminium coated film,
MDO-film



Bag Weights:
(net or gross weighing)
5 – 25 kg
10 – 50 kg



Performance*:
200 – 2,000 bags/hr

CLEAN

- Stationary and mobile use
- Protection against dust contamination
- Completely transparent machine housing for optimum visualization
- All components attached to machine ceiling to minimize wipe down areas

INTELLIGENT

- Integrated operating system for the entire line
- Highly intelligent for efficient personnel deployment and highest possible production time
- Operator support, e.g. with smart phone applications
- Optimized for more rapid product changeovers
- Automated performance optimization via intelligent network amongst critical components
- QUATTRO System Monitoring enables a continuous online overview

PROFITABLE

- For profitable production at medium and high performance
- Especially robust with less maintenance
- Individual customization
- Design options for bag and bag films
- Modularly expandable performance with various modules
- Upgradable to eco-line with energy-efficient components using kinetic technology

AVENTUS

*depending on the product

INTEGRA® IOF

by HAVER & BOECKER



Bulk Products:
with free-flowing behavior



Bag Specifications:
Pre-fabricated bags
made of paper, PE or woven PP



Bag Weights:
(net weighing)
10 – 50 kg



Performance*:
up to 1,200 bags/hr

CLEAN

- Optimum visualization due to transparent machine housing
- Simple cleaning due to large access doors
- Optimum accessibility to all components

INTELLIGENT

- Controlled full bag handling via intelligent belt system
- Large touch-screen for easy operation
- QUATTRO System Monitoring enables permanent online-control
- MEC® 4.0 control system is configurable individually

PROFITABLE

- Modular expandable for different performance with auxiliary components
- Ideal empty bag handling via magazine loading during operation
- Various bag closing / sealing systems
- Flexible layout for a broad arrangement of system groups

ELEMENTRA® EGF

by HAVER & BOECKER



Bulk Products:
with free-flowing behavior



Bag Specifications:
Big Bags in all sizes,
materials and designs



Bag Weights:
200 – 1,600 kg



Performance*:
max. 30 bags/hr

CLEAN

- Weighing to the exact weight and clean filling for reliable operation
- Completely enclosed material path through inflatable sleeve and counter-pressure ring
- Optional compaction unit with highest possible degree of compaction

INTELLIGENT

- Modular system concept with simple retrofitting of additional options without reworking
- Product-dependent selection of materials and surface coatings
- Various product- and variety-dependent setting options
- Simple adaptation to the customer's process through various conveyor systems
- Special versions: ATEX, food, salt, fertilizer, housing, mobile (stationary, semi-mobile or mobile), cleaning functions
- Drive fulfills explosion proof design requirements even including in food applications
- QUATTRO System Monitoring enables permanent online-control

PROFITABLE

- High availability of additional components thanks to the individually configurable modular system
- Durable and low-maintenance due to first-class quality
- User-friendly, safe and ergonomic design allows the system to be operated by just one person
- Use of a wide variety of containers such as big bags, octabins, containers, drums
- Modularly expandable with all auxiliary components to complete a system

AVENTUS

*depending on the product

PLATINUM

by WINDMÖLLER & HÖLSCHER



Bulk Products:
with free-flowing behavior



Bag Specifications:
block type full bags made of paper,
PE or PP



Bag Weights*:
10 – 50 kg



Performance*:
up to 2,800 bags/hr,
various layer patterns

CLEAN

- Clear machine arrangement
- Easy access to all machine components
- Large access platform

INTELLIGENT

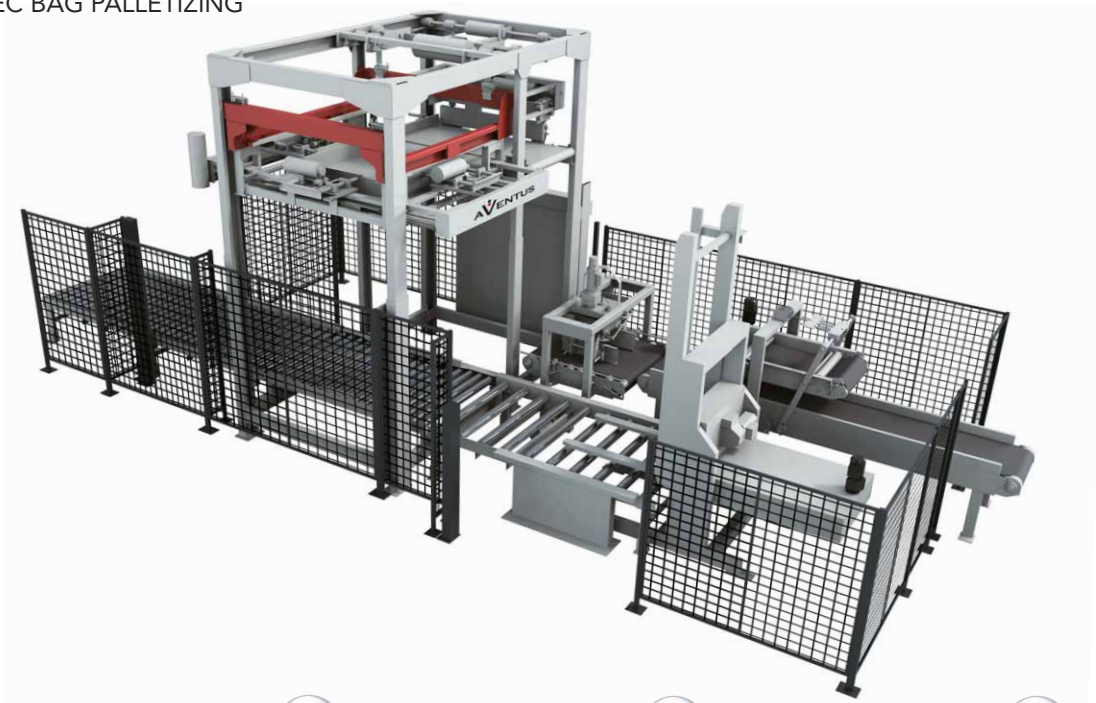
- Uniform operating concept for the bag discharge unit and palletizer
- Modular design belt conveyors
- Packaging 4.0 data integrated communication network

PROFITABLE

- Three performance levels and a large range of models
- Short jobsite installation times
- Exceptional robust execution
- Double parallel bag turning clamp system for smooth movements

TERRAM

by NEWTEC BAG PALLETIZING



Bulk Products:
with free-flowing behavior,
bulk powder



Bag Specifications:
block type full bags made of paper,
PE or PP



Bag Weights*:
5 – 50 kg



Performance*:
max. 1,000 bags/hr,
various layer patterns

CLEAN

- Careful handling of the bags
- Easy access and cleaning due to floor level in-feed

INTELLIGENT

- Access to all parameters and diagnostics via large touch screens
- Modular construction
- Reduced noise level
- Can be expanded by QUATTRO System Monitoring for permanent online control

PROFITABLE

- High palletizing quality
- Easy service on floor level
- Space-saving due to no inclined conveyor and no service gangway need
- Smooth operation and low weight movement due to only bag lifting
- Ecological due to low power needs
- Optional gripper bag handling tool for open type bags (overlapping)

ARCUS

by NEWTEC BAG PALLETIZING



Bulk Products:
with free-flowing behaviour,
bulk powder



Bag Specifications:
block type full bags made of paper,
PE or PP



Bag Weights*:
10 – 50 kg



Performance*:
up to 2,200 bags/hr,
various layer patterns

CLEAN

- Careful handling of the bags by unique layer forming table
- Easy and free accessibility to all components

INTELLIGENT

- Access to all parameters and diagnostics via large touch screens
- Modular construction
- Reduced noise-level
- Can be expanded by QUATTRO System Monitoring for permanent online control

PROFITABLE

- High palletizing quality with unique second stripper plate
- Optimized accessibility for service
- Space-saving and compact layout
- Optional gripper bag handling tool for open type bags (overlapping)

ARGON

by WINDMÖLLER & HÖLSCHER



Product Infeed:
Loaded pallets,
various dimensions



Film Specifications:
20 – 180 μ stretch film



Pallet Type:
max. 2,000 kg
max. 2,400 mm height
400 x 400 mm to
1500 x 1500 mm (l/w)



Performance*:
max. 180 cycles per hr,

CLEAN

- High quality hood placing
- Easy access to all components

INTELLIGENT

- Moveable head for easy maintenance from ground
- Main components with quick lock
- Full integration into the line automation
- Packaging 4.0 data integrated communication network

PROFITABLE

- Low friction design gathering fingers
- High performance and hooding quality
- Regular horizontal and vertical stretching preventing thin spots
- Minimum film consumption at maximum load security

AVENTUS

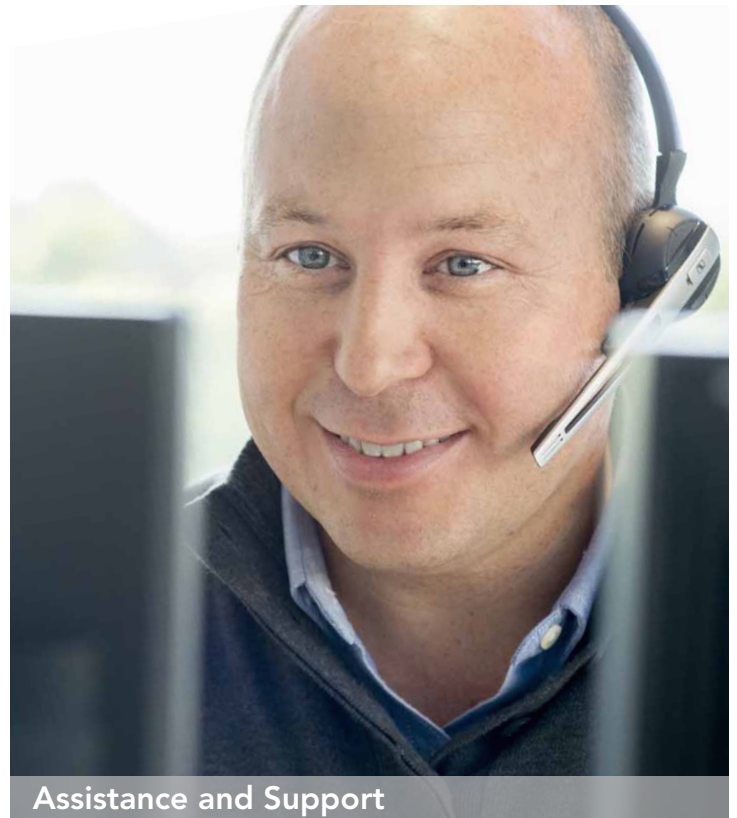
*depending on the product

SERVICE WORLDWIDE

„Tomorrow’s service will no longer focus on the machine alone, but instead pursue the interest of its owner, operator and maintenance team. It will be proactive, diligent and adaptable to any circumstance. It will offer complete transparency at all times and at any location in regards to the processes’ condition, its performance and optimization potential.“

Kai Lammers, Managing Director



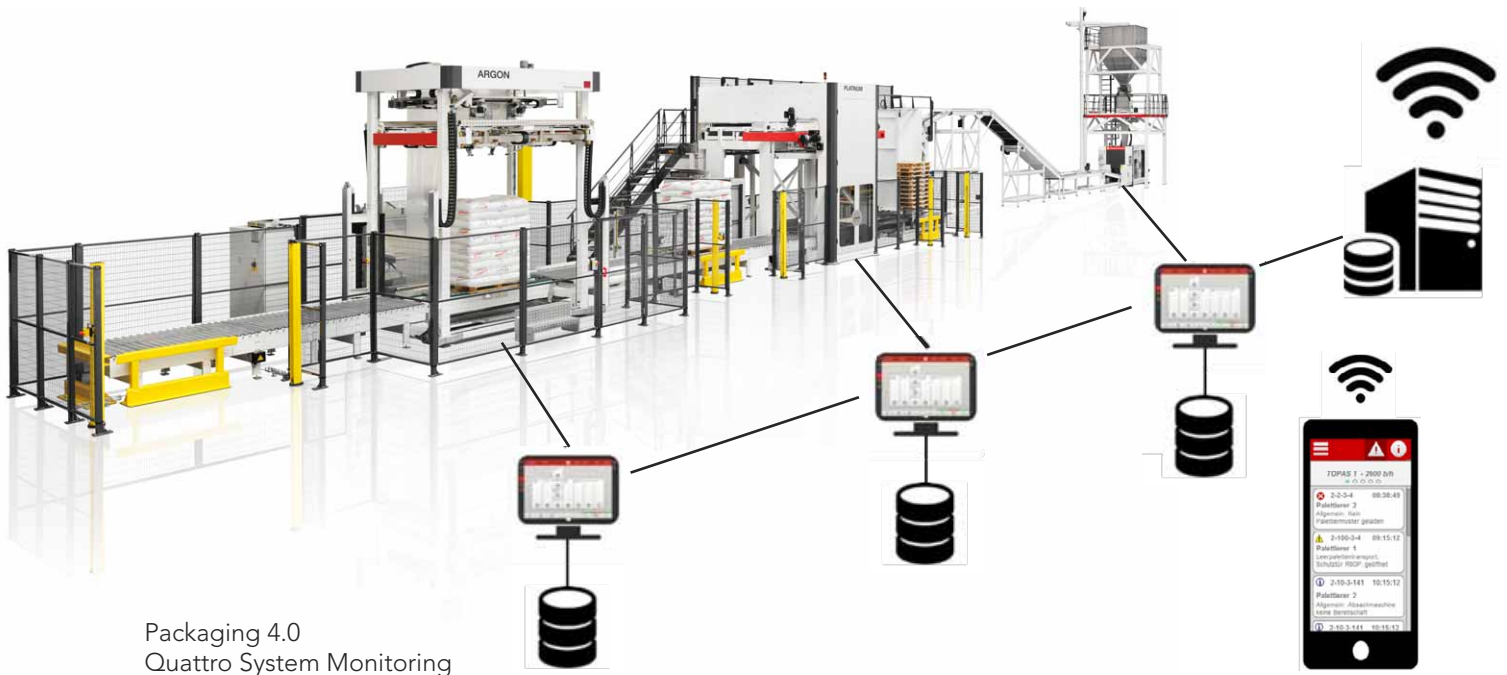




MORE INTELLIGENCE AND MORE EFFICIENCY

“Build me a machine that makes it easy for us to operate. It has to be simple. It has to talk to us. It has to let us know what we should do.” – YOU

Before developing more intelligence for our systems, we spoke with many of you. Your message was clear: you wanted a packing system that made it easy for you and your team to operate. You told us your team’s experience was becoming an increasingly important issue. With less time for training and greatly increased job rotation rate and added process complexity, you require a packaging system that can be operated intuitively. It should be easy to understand and to learn. Most importantly, it has to communicate with you. Our machines fulfill the goals you’ve given us. Using LED mood lighting, the machine communicates with you. A blue light indicates it is running smoothly, a red light tells you there’s a problem, and a white light assists you in maintenance mode. The large touchscreen panel offers you all features at a click of a button. Not only can you detect faults in the system, but you can also watch videos to help with repair work. The system can be set to different user interfaces such as operator, maintenance or service technician. The system monitoring technology allows you to document and to adapt the operational settings according to your team’s desires. It also enables you to remotely monitor the machine’s conditions.



WINDMÖLLER & HÖLSCHER



*"Avena means oats, Ventus means wind.
The new name symbolizes our unification
of the best of both companies."*

Dr. Jürgen Vutz, CEO Windmüller & Hölscher

Windmüller & Hölscher, a family owned company, is world leader for machinery and systems for the manufacturing and converting of flexible packaging. The product portfolio includes high-performance machines for film extrusion, printing and converting. As a global company W&H offers its clients everything from a single source: from expert consultation and engineering to the delivery of high quality machines and complete packaging production lines.

HAVER & BOECKER



“In order to optimally meet the needs of our customers today and tomorrow, we need a strong and focused team. This is exactly what AVENTUS stands for.”

Florian Festge, Managing Partner HAVER & BOECKER

HAVER & BOECKER is a family-run company with headquarters in Oelde, Westphalia, Germany. Under the umbrella of HAVER & BOECKER OHG, one finds the Wire Weaving and Machinery Divisions. The Wire Weaving Division produces woven wire mesh and processes it into engineered, woven wire products.

The Machinery Division, with its technology brand names HAVER & BOECKER, W.S. TYLER, IBAU HAMBURG, SOMMER, BEHN + BATES, Feige Filling, NEWTEC BAG PALLETIZING and HAVER AUTOMATION, specialises in processing, transporting, stocking, mixing, filling, packing, palletizing and loading loose, bulk materials. The product range includes individual machines and complete systems for packing and loading systems for handling loose materials, liquid and pasty products, food, feedstuffs and ship loading and unloading systems. HAVER Automation serves to link the single process steps for forming a transparent and efficient process.

AVENTUS

The HAVER & BOECKER and WINDMÖLLER & HÖLSCHER Company

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