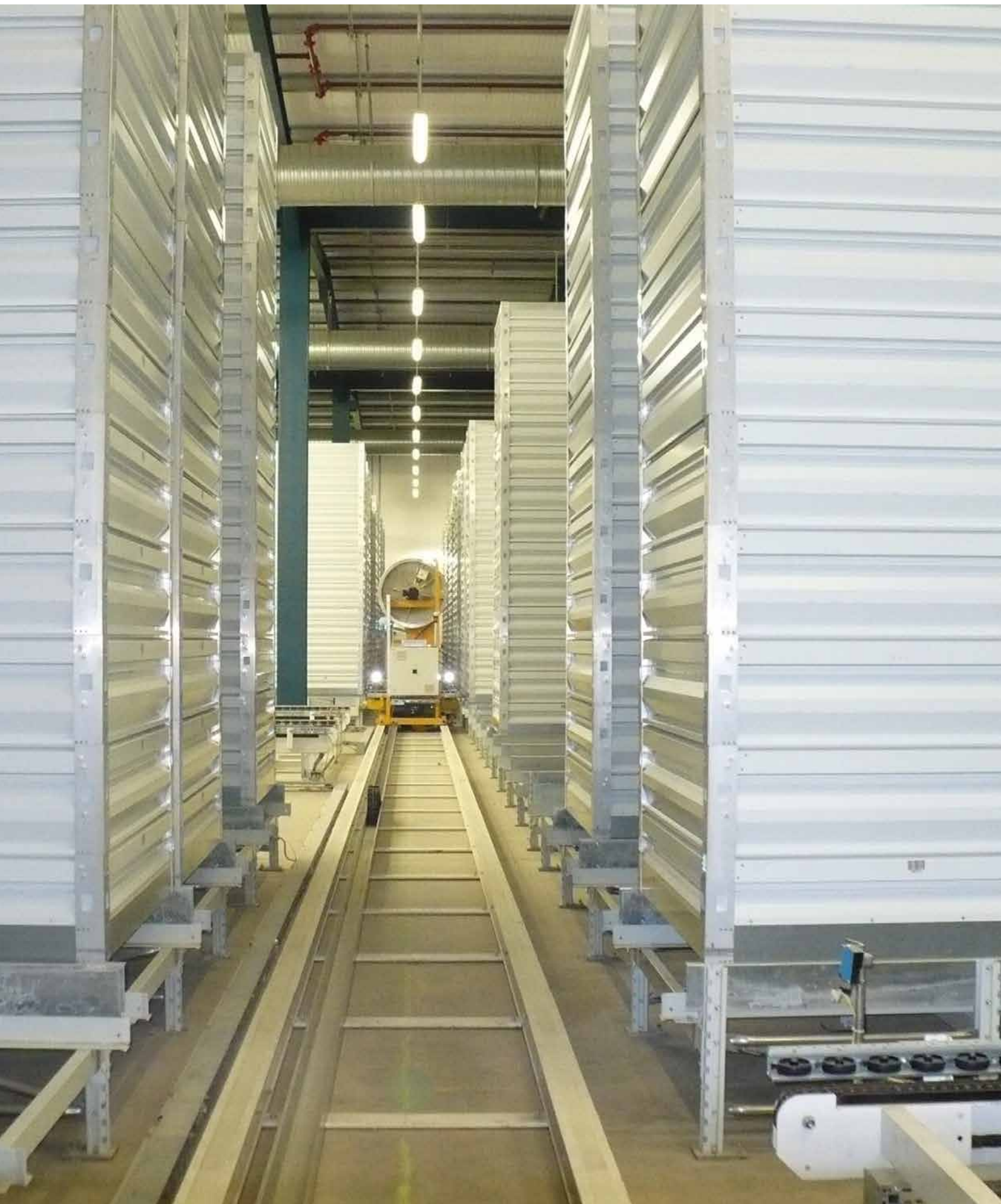




# AUTOMATION

AUTEFA Solutions leads the way





# **AUTEFA Solutions:** *our technologies for your success*

AUTEFA Solutions is a group of three machine manufacturers, active in the field of consumer goods industry and textile machinery.

The name AUTEFA Solutions represents companies with a long tradition and history of years of successful participation in the market. These are the AUTEFA companies in Friedberg, the Austrian sister company Fehrer in Linz, and the Italian company F.O.R./OCTIR in Biella.

## **ALL THREE COMPANIES ARE UNITED UNDER ONE NAME:**

AUTEFA Solutions **Germany** GmbH

AUTEFA Solutions **Austria** GmbH

AUTEFA Solutions **Italy** SpA

With the company locations in Friedberg, Linz and Biella, AUTEFA Solutions is positioned at the heart of Europe. From these locations, machinery and systems are exported to customers around the world. The group also has subsidiaries in the USA and China.

## **PRODUCT SECTION – CONSUMER GOODS**

AUTEFA Solutions has been developing and delivering turn-key automation systems and customized machines for more than 60 years. The product section Consumer Goods is focused on automatic systems, that cover the entire material flow starting from production machines up to storage of goods in intermediate storage systems. The key sectors are innovative special custom-made installations. AUTEFA Solutions designs and starts up complete and complex systems.

AUTEFA plans and provides complete intralogistic solutions for the Plastic Container Industry, Food and Dairy Industry, Beverage Industry as well as for Non Food applications. In the international markets, AUTEFA has been most successful in placing numerous installations in the above mentioned markets. In addition, innovative special tailored installations have earned substantial recognition.

## **PRODUCT SECTION – TEXTILE MACHINERY**

AUTEFA Solutions delivers complete lines as well as individual machines for nonwoven manufacture. The product programme includes opening machines, carding machines, as well as random carding machines, needle punching machines and cross lappers.

## **PRODUCT SECTION – BALERS**

While complete AUTEFA Solutions systems are typically made up of components from all three locations, the efficient and sophisticated baling presses are in continuous operation all over the world.



**AUTEFA SOLUTIONS GERMANY GMBH**  
PAUL-LENZ-STR. 1  
86316 FRIEDBERG . GERMANY  
T: +49 821 2608 - 0  
F: +49 821 2608 - 299  
germany@autefa.com



**AUTEFA SOLUTIONS AUSTRIA GMBH**  
WEGSCHEIDER STR. 15  
4021 LINZ . AUSTRIA  
T: +43 732 3739 - 0  
F: +43 732 381674  
austria@autefa.com



**AUTEFA SOLUTIONS ITALY S.P.A.**  
STR. CAMPAGNE, 16  
1390 BIELLA . ITALY  
T: +39 015 8484111  
F: +39 015 8484133  
italy@autefa.com

**AUTEFA installations are renowned for their economy and safety as well as sturdy design, operator-friendly handling and excellent, proven and tested software concepts.**

**The main incentive of AUTEFA's engineers during development is to turn the customers' requirements into a successful investment.**

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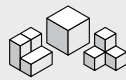
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# Market Requirements: Answers by AUTEFA Solutions

Automation of intraplant production processes requires exact coordination of different and complex mechanical, electrical and software-related components. As a system supplier, AUTEFA Solutions plans and realizes intralogistic solutions for the organization including implementation and optimization of intraplant material flow around your production.

The review informs about AUTEFA Solutions systems' most important basic functions which are basically combined into an intralogistic overall concept for specific needs by suitable software systems.



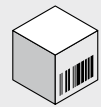
## COMMISSIONING.

Order related, sophisticated packing robots are able to commission partial quantities to a customer-specific shipping unit from all provided product groups.



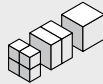
## STACKING.

In addition to classic stacking of products, AUTEFA Solutions offers intelligent solutions, e.g. the patented Nested Carton Stacker for stacking and turning of partially opened cartons with plastic bottles.



## IDENTIFICATION.

By application of state-of-the-art database technology as well as all commercially available marking and reading systems, the product will be safely identified and tracked during the entire process.



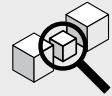
## SORTING.

Software systems allow selective approach of the gripper systems after analyzing the recognized process parameters. This enables a planned withdrawal of single selected products out of an unsorted quantity.



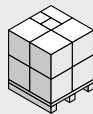
## BUFFERING.

Buffering between two production processes increases line efficiency. Production process decoupling enables a product changeover as well as different machine capacities and production times.



## CONTROLLING.

Process-integrated control and measuring systems constantly check the product, secondary packaging and load carrier's quality.



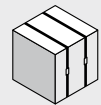
## PALLETIZING.

Multifunctional gripper heads enable gentle product handling of load carrier, product and intermediate layer with only one element.



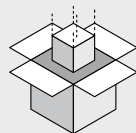
## STORING.

AUTEFA Solutions realizes transient warehouses, tray- and block storage, warehouses with satellite technology and high bay auto warehouses with proven and tested high capacity database technology.



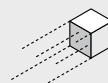
## SECURING.

Utilizing reliable systems, single products are not only protected against damage and contamination, but also the completed shipping units are secured for transport within and outside the plant.



## PACKING.

Automatically adjustable gripper heads with gripper elements specially adapted to the product based on our modular design concept, guarantee safe pick-up and gentle placing of the product into secondary packaging.



## TRANSPORT.

Transport plays a central role within the process chain. For this reason, AUTEFA Solutions offers systems for almost all conceivable intraplant transport requirements.



## ENGINEERING.

Customized engineering and project management services.

Resulting from many years of experience in automation of large installation projects all over the world, AUTEFA Solutions utilizes state-of-the-art proven and tested machine technology.

Due to its modular design, operator-friendly and field-tested software, the integration of any subsystem enables specific overall solutions. Sophisticated database concepts assure continuous product data tracking during the entire process as well as connection to the customers' EDP system.

#### **TRANSFER ROBOTS.**

- . area gantry palletizer, 3 & 4-axis
- . high performance palletizer, 2-axis
- . linear palletizer, 2-axis
- . bulk glass sweep-off depalletizer
- . packer, 2 & 3-axis
- . standard palletizer, 2-axis

#### **STORAGE TECHNOLOGY.**

- . portal frame / gentry crane
- . storage and retrieval units
- . satellite technology

#### **GRIPPER SYSTEMS.**

- . sheet metal plate gripper heads
- . single gripper heads
- . hook gripper heads
- . row gripper heads
- . multi gripper heads
- . forked gripper heads
- . suction gripper heads
- . vacuum gripper heads

#### **CARGO SECURING.**

- . wing pad applicator
- . strapper
- . wrapping machine



#### **STACKING UNITS.**

- . carton stacker
- . case stacker
- . empty pallet magazines
- . tray stacker
- . full pallet stacker

#### **INSPECTION SYSTEMS.**

- . visual shape inspection
- . pallet inspection
- . weigher
- . special systems

#### **TRANSPORT DEVICES.**

- . monorail systems
- . automated guided vehicle systems
- . package conveyor
- . pallet conveyor
- . vertical conveyor

#### **DATA SYSTEMS TECHNOLOGY.**

- . labelers
- . warehouse administration software
- . product tracking
- . database systems
- . packing optimization
- . process visualization

## **Reference clients**

ALPLA-Werke, APP, Arla Foods, Axel Springer Verlag, BASF, Bayer, Carlsberg, Castrol, Coca Cola, Coop, DuPont, E.C.H. Will, Eastman, Edeka, Ems-Chemie, Esso, Exxon Mobil Oil, Ferrero, Gallo, Graham Packaging, Heineken, Henkel, Hoechst, International Paper, Kraft Foods, Jacobs Suchard, Kuka, Lenzing, Lurgi, Grands Chais de France, Logoplaste, Mertes, Milch-Union Hocheifel, Mondi Business Paper, Nanja, Nestlé, Osrám, Pepsi Cola, Procter & Gamble, Reliance, Rhône-Poulenc, Robert Wiseman Dairies, Shell, Spar, Tetra Pak, Unilever, Volkswagen,

# *Patented Innovations:* *Plastic Container Industry*

For producers of all kind of plastic containers, AUTEFA Solutions offers revolutionary buffer solutions between blow moulding and filling.

Due to the modular design concept of the patented TRAY LOADER system, buffering times from a few minutes up to several days are possible with considerably reduced space requirements compared to common installations. By this innovative system, differences in production times, efficiencies and operational capacities can be equalized. Customers benefit from a high flexibility in the production process.

AUTEFA Solutions offers patented solutions for gripping and palletizing bottles and plastic containers. Without any pressure empty bottles are palletized to a complete layer on a tray. The bottles are held safely from all sides during this process.



Empty PET bottles are palletized with AUTEFA Solutions row gripper system.



Without pressure, bottles are combined to a complete layer on a tray. The bottles are held safely from all sides during this process.



Universal gripper head for a gentle handling of plastic containers. Palletizing & Depalletizing of complete layer with AUTEFA Solutions Vacugrip.



Empty plastic bottles are taken from the conveying line sort by sort with a 2 axes tray loader and placed on a provided tray then placed back on the selected line.



Fully automatic palletizing system for plastic containers. Handling of empty pallets, interlayer and top frames.







# *Product Tracking & Throughput:* *Food and Dairy Industry*

AUTEFA Solutions develops intralogistic solutions for complex requirements in the field of “food & dairy”.

The key elements of these interconnected installation concepts are multi-line and high performance palletizers for centralized and decentralized palletizing tasks (shrink packs, cartons, trays, plastic containers, bags, cans, barrels etc.)

Utilizing multifunctional, fully automatically adjustable forked gripper heads a large number of client-specific layer patterns can be realized.

Material flow is visualized by proven software during the entire process. Machine function and process data are clearly displayed at any time.



Fully automatic sorting installation for beverage cartons for arrangements of 2x6, 2x8 and 3x9 by means of exchangeable gripper heads.



CP-Palletizing system with 3 or 4 axes for cartons, trays and shrink packs. Palletizing of complete layers or row by row.



Intermediate Bottle Storage System – IBSS for buffering of empty plastic milk bottles. Balancing the difference between blow molder and filler to increase the capacity of the filler.



Bulk glass take-off depalletizer, grips layer by layer by means of vacuum plate. Interlayer and empty pallet handling are integrated.

# *Flexibility & Competence:* *Beverage Industry*

AUTEFA Solutions provides the complete dry section for filling plants from raw material supply to fully automatic high bay storage systems with integrated transfer of goods to the dispatch area. According to the requirements, high-performance machines with several axes are used for packing, palletizing or stacking. Fully automatically adjustable gripper heads and infeeds streamline the process, amongst others by considerably reduced changeover times.

Shock free infeed devices protect sensitive and high quality products. Due to field-proven software and database concepts with interfaces to the customer's host, tracking of the data flow is realized during the entire process.



Palletizing and depalletizing system for crates with integrated glass bottle handling system.



2-axis high performance palletizer for palletizing of beverage cartons. Each palletizer has two high-speed infeeds. Formation of layers is effected in an almost touch-free way.



Palletizing of bottles in plastic display trays. The bottles are gripped by means of single grippers or row grippers.



Set packer for packing bottles into cartons. The multi gripper head which can be adjusted on 4 axes automatically, combined with centering frame adjustable on 3 axes avoids cost-intensive changing of format sets.



Multi gripper heads with automatic adjustment, diameters from 56 to 110 mm. Packing of round, oval and square bottles.





# *Intelligent Solutions for Various Products:* *Non Food Industry*

AUTEFA Solutions provides sophisticated installation concepts and technically proven stand-alone machines as well as solutions for all relevant logistic tasks in the nonfood sector.

AUTEFA Solutions delivers complete intralogistic systems starting from product collection from production machines to commissioning in the dispatch area.



Palletizing system for handling of full pallets and heavy products.



Intermediate Storage System. Trays are stacked in a storage system with satellite technology. All trays are barcoded. Storing is managed according to the "first in / first out" principle.



Due to innovative monorail carrier systems, over-head transport of products without interfering with transport corridors, is possible.



Multi tray storage for storing individual units and individual lots intermediately. Due to free access on each single product, direct commissioning for dispatch is provided.



Tailored gripper heads for individual solutions will be designed and included in AUTEFA Solutions systems to meet exact customer requirements.



AUTEFA SOLUTIONS GERMANY GMBH  
Paul-Lenz-Str. 1 • 86316 Friedberg • Germany  
T: +49 821 2608 0 • F: +49 821 2608 299  
[www.autefa.com](http://www.autefa.com) • [germany@autefa.com](mailto:germany@autefa.com)