

PACKAGING MATERIAL SOLUTIONS

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We look forward to hearing from you and meeting you in person.

Please find all addresses and contact information for local offices on our website: www.rieckermann.com



MAKING THE MOST OF YOUR INDUSTRIAL PRODUCTION & PROCESSES



Since 1892, Rieckermann has been your reliable partner for industrial production and processes. With a comprehensive range of high-quality services and technology, we provide solutions tailored to match your individual needs.

As a family-owned company, we personally accompany, guide, and support you on your path to drive your business to the next level. With over 130 years of experience and specific expertise in several industries and markets, we open new opportunities for you and your industrial production.

Our team of 750 employees is present in person in the Near and Middle East, Southeast Asia, and the Far East. To fulfil your expectations, we work close to the market and hand-in-hand with you on a local level.

We are Rieckermann, your first choice industrial solution provider.



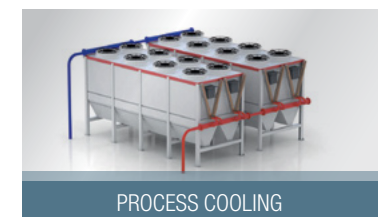
WORKING CLOSELY WITH YOU TO MAXIMIZE YOUR PROFIT FROM PACKAGING

Smart manufacturing is an essential part of the next industrial revolution. It goes beyond traditional automation towards a fully connected and flexible system. In the packaging industry, smart technology helps to increase productivity, enable self-optimization, and enhance safety and functionality in the manufacturing process. It also ensures strict regulatory requirements and high production standards are met.

Today, converting companies and producers are additionally challenged with the global crisis of packaging waste and its environmental implications. To address this, the demand for innovative, recyclable material compositions is increasing hugely.

To help you stay abreast of current industry practices, our team of experts in Packaging Material Solutions are here to accompany you at every stage of your project, from strategic planning and project management through equipment supply and installation to technical service. Working closely with our global sales and project managers, we understand the demands and trends of the industry in various markets.

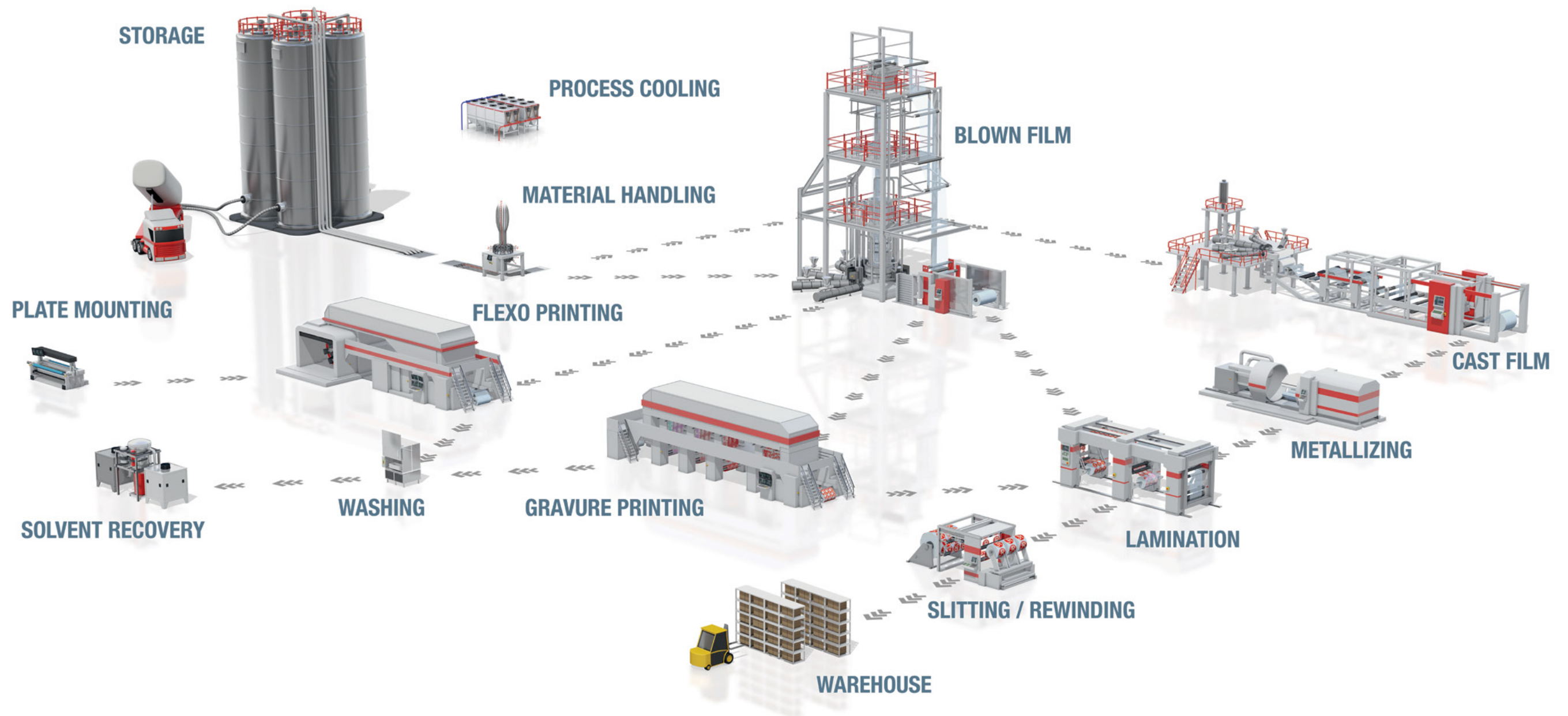
From the provision of stand-alone machines and components from globally-recognized, state-of-the-art machine manufacturers to complete processing lines, let us help you discover the endless possibilities for your industry.



FLEXIBLE PACKAGING SOLUTIONS & PROCESSES TO INCREASE YOUR PROFITS

We understand that flexible packaging processes need to be clean and efficient, as well as meet the constant demand for uninterrupted production. Through the complexities of manufacturing, we can help you ensure your production line setup is optimized for efficiency.

Our smart process solutions merge extrusion, printing, and various converting steps and are tailor-made to your production requirements. We offer advanced technology, manage all interfaces, source local components, and include automated solutions for all your production stages.



FLEXIBLE PACKAGING SOLUTIONS FOR YOUR BUSINESS

The market for flexible packaging is rapidly growing as this type of packaging combines the capabilities of different polyolefins, paper, and aluminum foil to deliver a complete range of diverse properties using minimal materials.

Most of these materials are recyclable and offer many benefits, such as ease of use, resealability and printability, whilst providing protection to ensure a longer shelf life and food safety.

In addition to this, flexible packaging can be customized, for example eliminating the need for extra product labeling.

We identify the right process and technology setup to help you reduce material costs and consume less energy to manufacture and ship your products to market, thus achieving long-term sustainability.

With our complete process solutions, we can help you determine a profitable and efficient production process for your packaging requirements.

Material handling

- Storage, conveying & dosing
- Drying & dehumidification
- Dedusting
- Centralized solutions

Film extrusion

- Blown film
 - Cast film
 - Machine direction orientation (MDO)
 - Retrofits
- Typical applications:
- Barrier film
 - Bi-Oriented films
 - Diaper film
 - Protection film
 - Laminating film
 - Medical products
 - Sanitary products

Melt blown

- Typical applications:
- Face masks
 - Fuel filters
 - Blood filters
 - Medical gowns
 - HVAC filters

Printing

For details please refer to our printing solutions on Page 14

Finishing

- Bag making
- Metallization
- Lamination
- Laser perforation
- Slitter/rewinder

Quality control

- Film inspection for gels and transparency

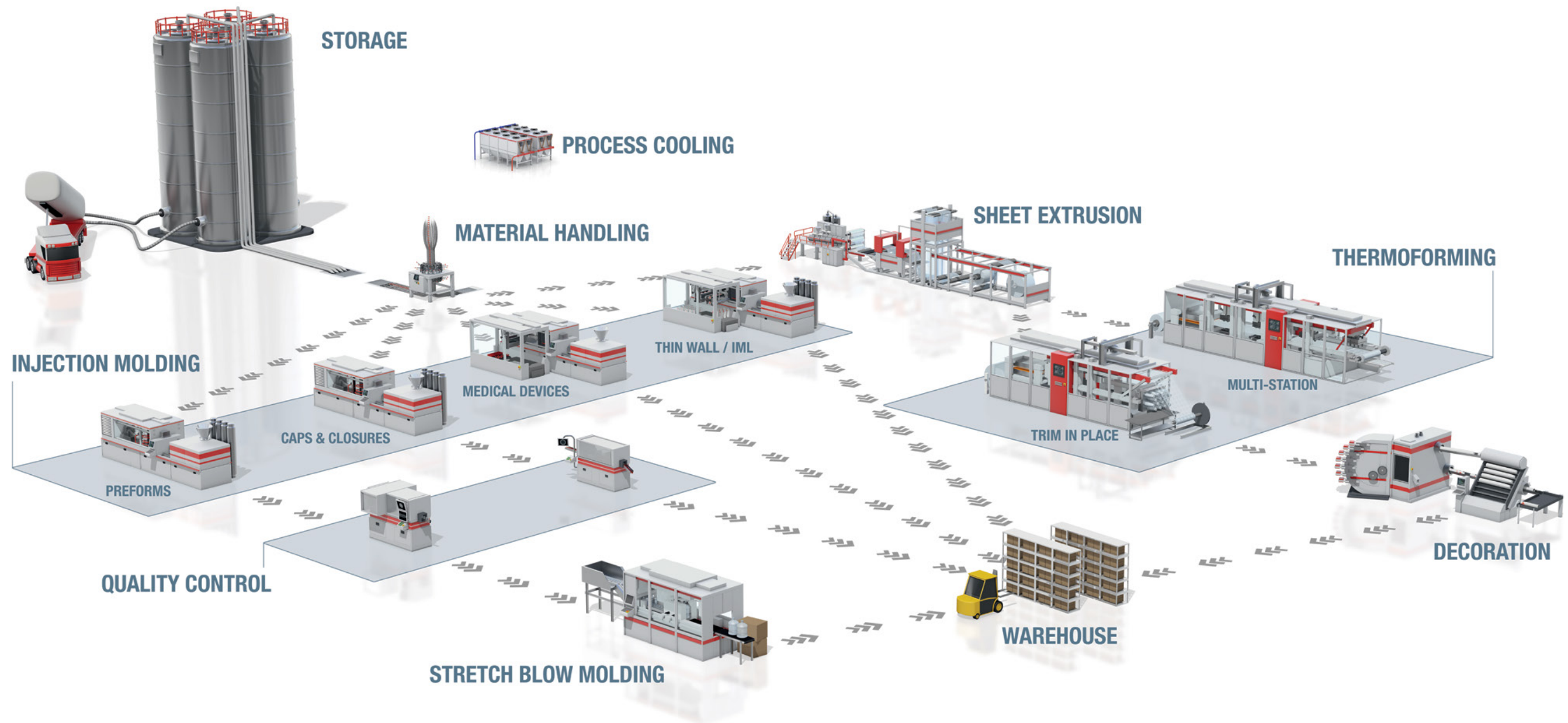
Auxiliary equipment

- Process cooling
- Granulators

Automation solutions

- Robotics
- Assembling
- Wrapping & boxing
- Warehouse systems
- Manufacturing execution systems (MES)





RIGID PACKAGING SOLUTIONS & PROCESSES TO INCREASE YOUR COMPETITIVENESS

With rising material and energy costs, it is increasingly challenging to be profitable whilst meeting the requirements of the top global players.

Automated or partly automated solutions are one way to respond to these requirements. Another is a combination of well-designed processes and advanced technology plus integrated visual inspection and quality control systems in your production plant.

Our team of experts offer support from the idea for a new product throughout the entire development

process to realization of the project. We can also help optimize your existing product or production lines by analyzing and improving your production processes with regards to quality, material saving, and energy consumption, as well as automation.

Using high quality machines, combined with our lean management process know-how, you can be assured of increasing your productivity and reducing production costs.

RIGID PACKAGING SOLUTIONS THAT MAKE THE DIFFERENCE

Material handling

- Storage, conveying & dosing
- Drying & dehumidification
- Dedusting
- Centralized solutions

Sheet extrusion

- Typical applications:
- Mono-/three-layer sheet
 - Barrier sheet
 - Alveolar sheet

Thermoforming

- Trim in place thermoforming
- Typical applications:
- Cups
 - Coffee capsules
- Multi-station thermoforming
- Typical applications:
- Bowls
 - Containers
 - Trays
 - Lids

Blow molding

- Extrusion blow molding
 - Stretch blow molding
- Typical applications:
- Jerry cans
 - Drums
 - IBC's
 - Bottles
 - Jars
 - Kegs

Injection molding

- In-mold labeling (IML)
 - Co-injection
- Typical applications:
- Preforms
 - Caps & closures
 - Coffee capsules
 - Medical devices
 - Thin wall products
 - Cutlery

Printing

For details please refer to our printing solutions on Page 14

Quality control

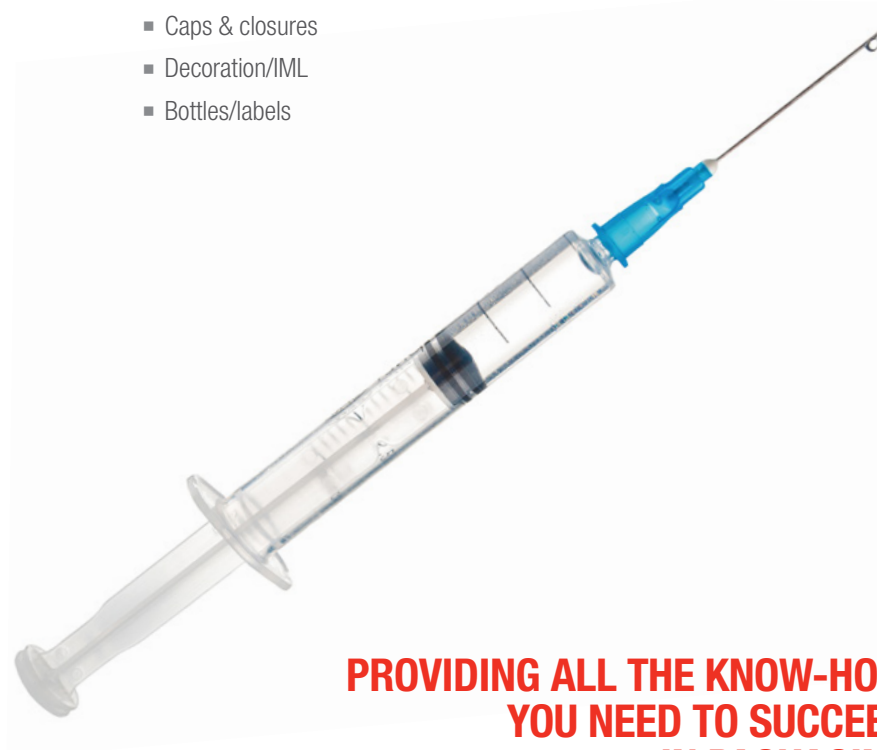
- Typical applications:
- PET preforms
 - Caps & closures
 - Decoration/IML
 - Bottles/labels

Auxiliary equipment

- Process cooling
- Granulators

Automation solutions

- Robotics
- Assembling
- Wrapping & boxing
- Warehouse systems
- Manufacturing execution systems (MES)



PROVIDING ALL THE KNOW-HOW YOU NEED TO SUCCEED IN PACKAGING



Our rigid packaging solutions account for every stage of the process, including injection molding, extrusion, thermoforming, and blow molding for the production of fast moving consumer goods, such as bottles and caps, cups, bowls, containers, trays and lids, as well as medical devices and personal care products. For beverages, such as water and carbonated soft drinks (CSD), rigid packaging applications continue to show a significant growth.

Packaging is as essential to any product as it is a marketing medium in itself, given its ability to influence purchasing decisions. Many end consumers prefer high-quality products and packaging. Products with good shelf impact will increase your turnover and profit margin.

Our packaging experts can help you optimize the quality and design of your final product, considering lightweighting and environmental impact. Furthermore, we have the latest insights into upcoming trends that offer new opportunities for your packaging design and properties, such as thin-wall products, in-mold labeling, and co-injection.



MATERIAL HANDLING FOR STABLE PROCESSES



Production processes are becoming progressively more challenging. Besides core processes, the handling, conveying, mixing, and dosing of raw materials need to be optimized and adapted to an increasingly complex manufacturing environment.

Storage

- Silos (in- & outdoor)
- Big bag emptying stations
- 25 kg emptying stations

Conveying

- Centralized conveying systems
- Centralized vacuum generator & filter
- Material distributor (manual & automated)

The optimized control of material distribution in existing and new factories can reduce failures and operating costs drastically. With smart concepts and perfectly dimensioned components, we provide individual solutions that address these issues and further stabilize the overall process.

Drying

- Stationary dryer
- Mobile dryer

Feeding & dosing

- Volumetric dosing units
- Gravimetric dosing units
- Centralized gravimetric pre-mixing units

Dust removal

- Virgin & regrind-deduster

PROCESS COOLING FOR SMOOTH PRODUCTION



Stable production processes are key for you to stay ahead of the competition and continue being successful. With the perfect chiller solution, you can achieve maximum efficiency for your machines. Additionally, you will benefit from reduced operating costs by saving energy and water, and also support your continuous high production quality level.

Process cooling equipment

- Adiabatic cooling systems
- Closed-loop systems
- Single & double zone temperature control units
- Pressurized water temperature control units (up to 180°C)

A significant part of the energy and water savings is achieved through the optimal choice of chillers and setup of the cooling system with its parameters, saving up to 95% water and up to 60% energy compared to conventional evaporative cooling tower systems.

- Portable chillers
- Air cooled chillers
- Water cooled chillers
- Modular chillers
- Pumping stations

**QUALITY STARTS
BEFORE EXTRUSION**

**STABLE PROCESSES
FOR MAXIMUM EFFICIENCY**

SMART PRINTING SOLUTIONS FOR AN OPTIMIZED WORKFLOW

The world of printing is changing – and it is changing fast. Following the growing demand for small and personalized print jobs, digital printing has seen huge growth figures in labels, packaging, and commercial printing.

Furthermore, transparency of prices on the internet results in strong competition between print suppliers. The intense pressure on margins will continue, which will also affect conventional print processes such as offset, gravure and flexo printing. The main focus will be printing speed and faster change overs with reduced waste.

With our long-time experience in the graphic industry and expertise across the entire printing process – from prepress to postpress, we can help you get the most out of your print shop. Together with you, we select the latest innovations or plan your brand-new production line for labels, packaging or conventional print products to help you stay ahead of competition.

Our certified customer service provides the installation of production machines and offers ongoing technical support to ensure your equipment runs smoothly for years to come.



Digital (electro ink/ink jet)

- Sheet
- Web
- Typical applications:
 - Labels
 - Cardboard boxes
 - Flyers
 - Brochures
 - Posters
 - Hang tags

Offset

- Sheet
- Web
- Typical applications:
 - Cardboard boxes
 - Flyers
 - Brochures
 - Posters
 - Metal sheets for cans & crown corks

Prepress

- Computer-to-plate
- Plate developer
- Plate bending/punching devices

Flexo

- Narrow-, mid- & wide-web
- Flexo plates (CTP & water washable)
- Plate making equipment
- Plate mounters
- Finishing modules, e.g. foiling, embossing, cutting & laminating
- Following process equipment, e.g. lamination machines, roll slitters, etc.

Typical applications:

- All kind of labels
- Flexible plastic packaging, e.g. retail bags
- Flexible cardboard packaging
- Corrugated cardboard packaging

Rotogravure

- Rotogravure printing machines
- Cylinder & parts washer
- Cylinder handling systems
- Following process equipment, e.g. lamination machines, roll slitters, etc.

Typical applications:

- Flexible packaging
- Tipping paper
- Transfer paper
- Wood grain
- Gift wrap
- Security products

Postpress

- Cutting
- Collating
- Coating
- Embossing
- Foiling
- Folder gluing
- Folding
- Gluing
- Hot stamping
- Kiss cutting
- Optical inspection
- Punching
- Stitching

Software

- Business management
- Color workflow
- Machine operations
- Makeready optimization
- Order management
- Packaging workflow
- Production monitoring
- Web to print

Auxiliary equipment

- Process cooling
- Ink mixing & dispensing systems
- Cleaning/washing devices
- Film cleaning
- Solvent washing & recovery systems
- Solvent recycling systems from exhaust air
- Etc.

Quality control

- Testing equipment
- Densitometer
- Spectrophotometer
- Print inspection

Consumables

- Inks for offset & flexo
- Flexo plates
- Anilox rollers
- Coatings
- Print shop chemicals
- Spray powder
- Blankets
- Sleeves
- Underpacking sheets
- Tapes
- Foils
- Etc.

CAN MAKING FOR CUSTOMIZED METAL PACKAGING



Well-chosen components are key to an efficient can production process. Keeping also your periphery equipment in mind, we can help optimize your individual production process. These are the main factors to ensure your profitability.

Coil & sheet processing

Metal sheet decorating

- Printing
- Coating
- Drying

Slitting

Welding

Seaming

Scoring

Body maker

- Flanging
- Beading
- Necking

Quality Control

- Leak testing
- Optical inspection
- Testing equipment

Our concepts consider the usage of thinner material, thus saving raw material costs and increasing your production output. To help you meet market demands and offer a diversified product range our machines include high flexibility with a huge variety of diameter and height.

Conveying/palletizing

End manufacturing

- Ends
- Peel of ends
- Easy open ends

Caps & closures manufacturing

Typical applications:

- Food cans
- General cans
- Drums/pails
- Aerosol cans
- Crown corks
- Wine capsules
- Lug caps

Composite can manufacturing

BENEFIT FROM EFFICIENT INDUSTRY SOLUTIONS



PLASTIC RECYCLING

- Washing lines
- Bottle-to-bottle with FDA approval
- Bottle-to-fiber
- In-house recycling solutions
- Shredders & granulators
- Sorters
- Extruders
- Repelletizers
- Solid-state polycondensation (SSP)
- Blending, storage & packing
- Applications such as filaments, fibers, flakes & granules



BUILDING

Extrusion lines

Typical applications:

- Geomembrane film
- Pipes
- Panels
- Profiles
- PVC pellets
- Roofing
- Wood-plastic composite (WPC) products

Auxiliary equipment

- Storage & conveying
- Mixing & dosing
- Downstream equipment
- Inspection



AUTOMOTIVE

Press blow molding

Typical applications:

- CVJ boots
- Jounce bumper
- Shock absorber
- Steering bellows

Visual inspection

Typical applications:

- O-Rings
- Gaskets

Silicone & rubber extrusion

Typical applications:

- Brake hoses
- Fuel hoses
- Multilayer & reinforced hoses
- Profiles
- Turbocharger hoses
- Rubber bands

OUR SERVICES FOR YOUR SUCCESS

As an industrial solution provider, our aim is to provide you with the most advanced technology and best service in the market. We also advise you on and inspire you for new innovative ways to get the most out of your production and ideas.

Strategic consulting

Monitoring market and production trends on a local or regional scale is our daily business. We use this knowledge to provide strategic consulting when implementing new products or solutions for our customers.

Our team of experts will advise you on suitable strategic solutions to fulfill your business needs based on a feasibility study of your operations.

Procurement

We source and supply single machines, process lines, and integrated systems tailored to meet your individual requirements.

Whilst finding the best solutions we control and optimize your project costs, and our stringent supplier qualification assessment ensures there is no compromise on the quality of your equipment.

Project management

We manage your project efficiently, offering you a one-stop, turnkey service. Functioning as the interface between customer and manufacturer, we select one or more highly qualified suppliers to provide you with the desired equipment and services.

We guide and support you across your entire project, starting from planning and preparation tasks through coordination of all the parties involved to the final installation at your site.

Technical services

After your machine or production line has been commissioned, we continue to support you with after sales technical services. This includes equipment as well as all related technical work packages for chilling, pressured air, exhaust, water, and electricity.

150 trained and certified local service engineers focus on your production excellence, providing long-term service, and certified original spare parts.

Close partnerships with our technology suppliers ensure that our team and your operators are always up to date to keep your machines up and running.

Benefit from our technical services

- Installation & start up
- Local content management
- Training & local language support
- After sales service & maintenance
- Spare parts



750 EMPLOYEES
150 SERVICE ENGINEERS
26 OFFICES
18 COUNTRIES

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