



TOBACCO TECHNOLOGY
Trendsetter for innovative turnkey solutions.



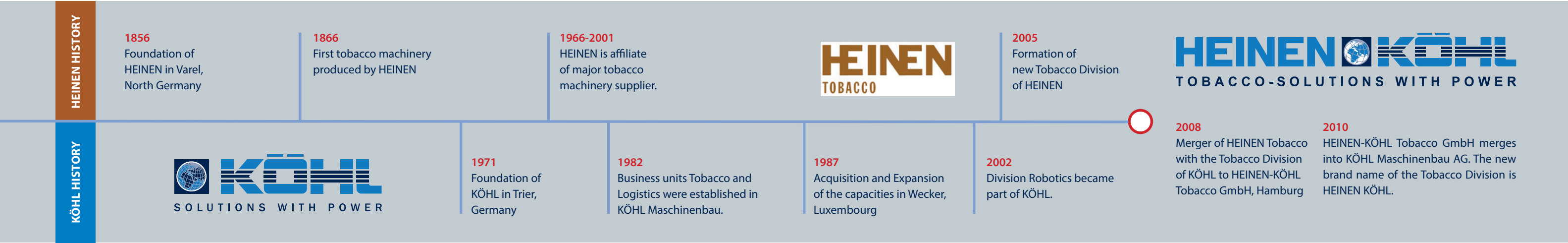
„Our mission is to develop innovative, tailor-made solutions **for and with** our customers“.

HEINEN KÖHL carries out the complete project engineering, design of the machinery, manufacturing and installation in accordance to customer's specifications and requirements.

HEINEN KÖHL offers:

- Wide range of Primary Equipment
- Wide range of Secondary Equipment
- Tobacco Logistic Systems including Bin Handling & Filling
- Innovative Tobacco Processing & Flavouring Solutions
- Printing, Labelling and Identifying for Track & Trace

TWO FOR MORE: HEINEN KÖHL HISTORY



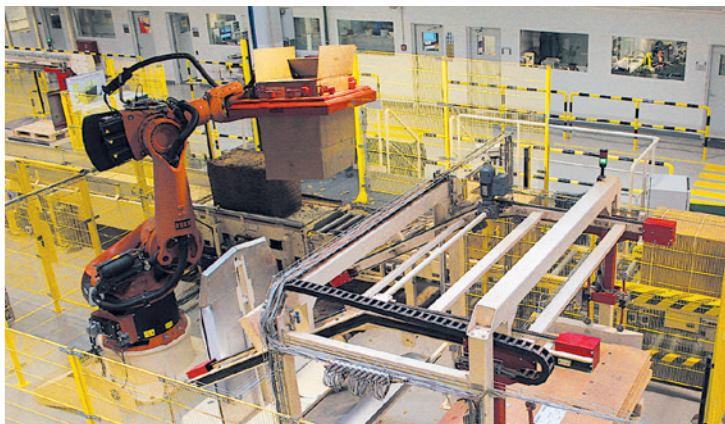
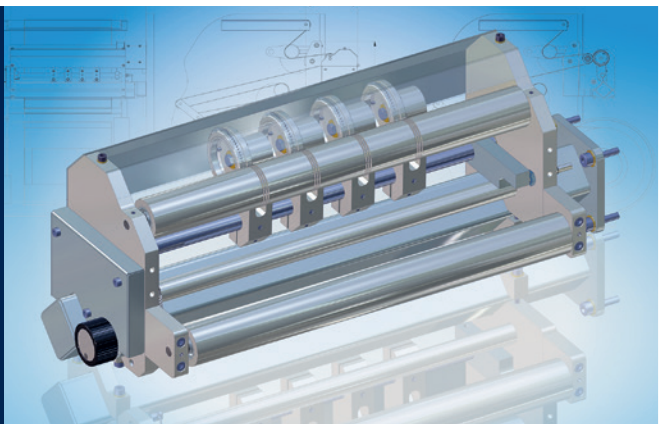
HEINEN KÖHL portfolio at a glance

We combine our core competencies into smart turnkey solutions.

PRIMARY



SECONDARY



LOGISTICS



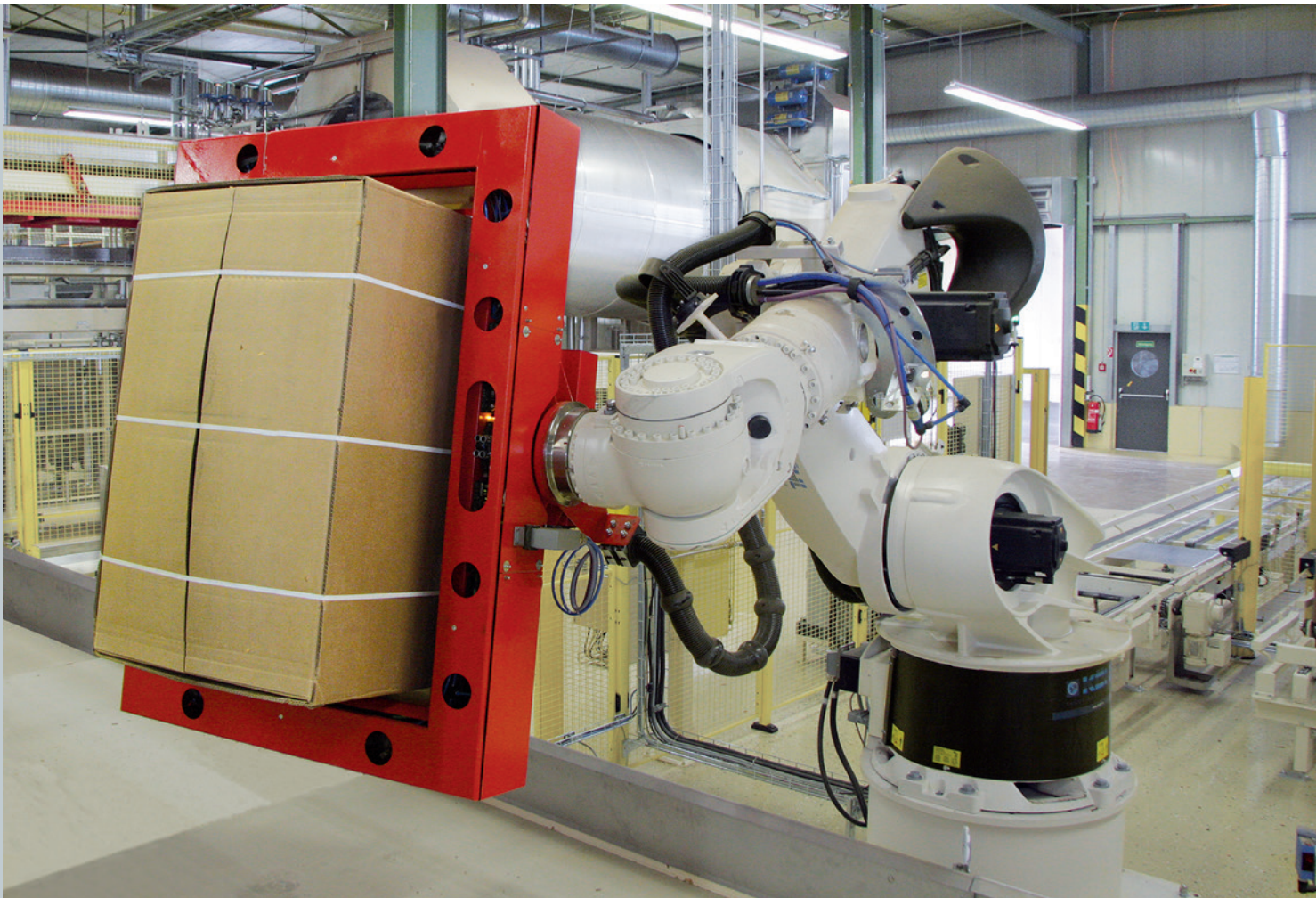
AUTOMATION



HEINEN KÖHL Primary Equipment

Effective, quality-oriented machinery and plants for tobacco processing.

In the Primary area HEINEN KÖHL develops and produces various equipment for tobacco processing, transportation and storage. Almost the complete range of Primary machinery beginning from bale unpacking, slicing and conditioning down to expanding and drying, flavouring and casing, sieving and separating can be provided. HEINEN KÖHL supplies various types of silos, bin filling stations including the case and bin handling systems.



For case unpacking concepts HEINEN KÖHL prefers industrial robots with multifunctional gripper systems. Their reduced space requirement, minimal maintenance costs and high reliability levels are clear arguments in favour of robotic technology of this kind.

Industrial robots are mainly used for automated case unpacking and End-of-Line palletizing projects. Transport systems for packages, bundles and cartons can be delivered.

- PRIMARY FEATURE FACTS
- Unpacking / Rejecting
 - DCC / C
 - String Remover
 - Twister (DCP)
 - Steaming Tunnel
 - Cooling (TCC)
 - Bin / Carton Filling
 - Pilot Plant Equipment
- Slicing / Dividing
 - Casing / Flavouring
 - Separating
 - Stem Line
 - Drying
 - Mini Silo, Feeding
 - Bin Handling



Bin Filling and Handling



DCP Dual Chamber Processing



Feeding Solution



TCC Tobacco Cooling Conveyor

HEINEN KÖHL Secondary Equipment

State-of-the-art technology - individually designed for highest process reliability.

In the Secondary area HEINEN KÖHL covers the entire range of required applications in secondary manufacturing, in the packaging process with End-of-Line Solutions and in the process for traceability of products.



End-of-Line Solution

We are in close dialogue with our customers!
This enables us to quickly identify technical potential in production and respond to it with innovative solutions. In this context our serial products are a prime example.

HEINEN KÖHL delivers the online **Flavour Application System FAS** for direct flavouring of tobacco, filter rods and paper. Furthermore we developed the **ReclaimAIR** - a solution for the gentle reclaiming of tobacco from waste cigarettes without degradation and contamination. According to TPD2 our **Laser Coding Extension**, an innovative and standardized Pack Track solution with 100% traceability has been developed.

In addition to these series machines, we always strive to develop innovative, tailor-made solutions for and with our customers.

SECONDARY FEATURE FACTS

- Filter Station
- Online Flavouring (FAS)
- Bundle Perforation Unit (BPU)
- Bundle Handling
- Track & Trace (LCE)
- ReclaimAIR
- End-of-Line



FAS Flavour Application System



LCE Laser Coding Extension



ReclaimAIR

FAS4 Evolution - the future of online flavouring

- ADVANTAGES
- State-of-the-art design & software
 - Most precision dosing system available
 - Further improved production reliability
 - New cleaning concept for rapid flavour change
 - Highest possible Overall Equipment Efficiency (OEE)

Track & Trace Solutions for packs with laser technology

- ADVANTAGES
- Standardized solution for all packer types
 - 100% tracability
 - Covers all different bundles sizes & orientations
 - Covers the high speed mode of 1100 packs/min.
 - More than 300 Track & Trace solutions installed

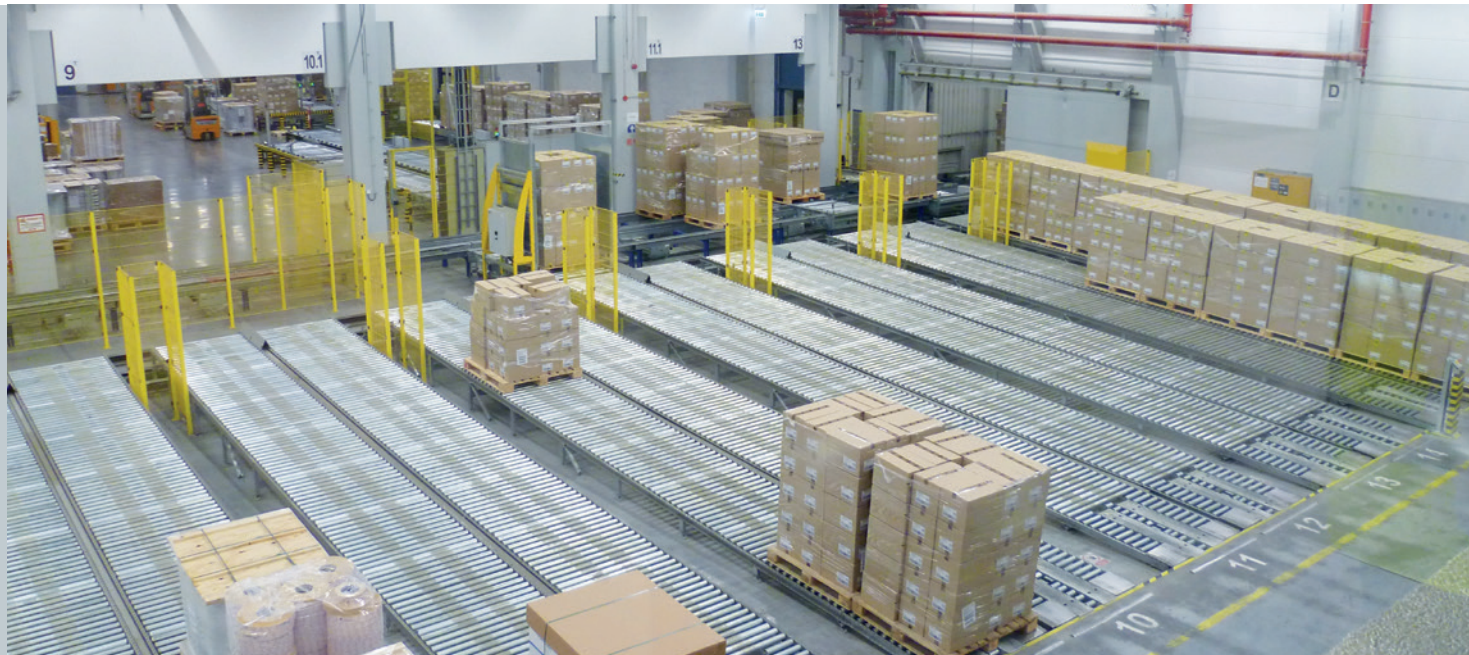
Gentle reclaiming process without degradation & contamination

- ADVANTAGES
- Offline Solution
 - No degradation of the tobacco quality
 - Reuse of tobacco
 - Free of contamination

Logistics Solutions

Just-in-time: From unpacking and conveying to storage and order picking.

The KÖHL Maschinenbau Intralogistics portfolio comprises a broad spectrum of products and services in the area of automated logistic processes in the tobacco industry. Increasing demands for ever more complex logistics systems require new, innovative solution approaches.



As a system supplier, KÖHL Maschinenbau is always considering the logistics process in its totality, which means that material and information flows are always planned, executed and controlled with optimized efficiency.

Economical aspects and efficiency of the individual processes are always the main focus. With their specialisation in the areas system technology, robotic systems, electric installation, mechanical and plant engineering, KÖHL Maschinenbau has grown to become a technology leader.

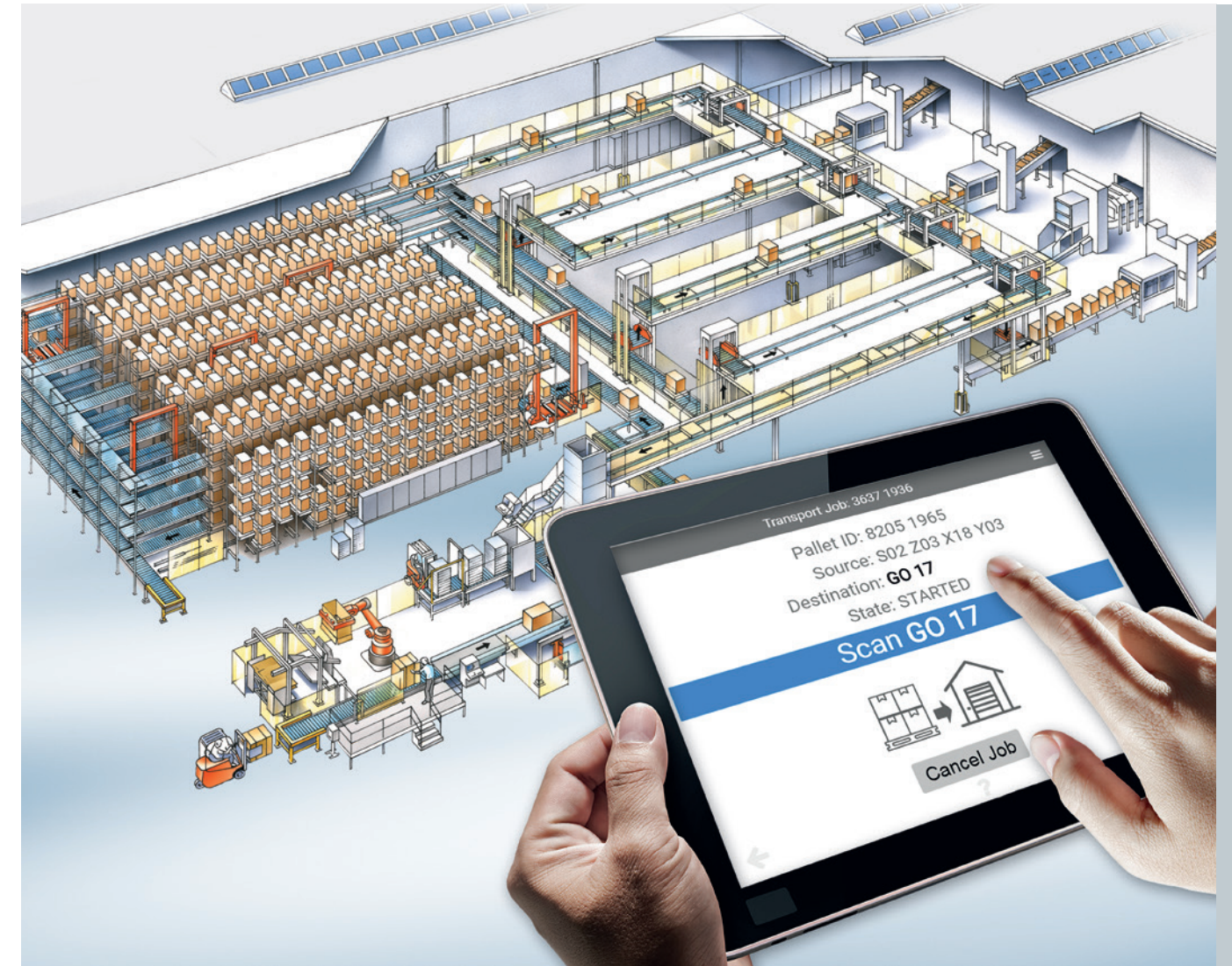
The KÖHL Maschinenbau portfolio contains everything, from robotics for packaging and palletizing solutions to associated internal transport for cases or pallets and automated warehousing systems.

An entire automation via PLC and material flow and warehouse management completes the product range for the tobacco industry.

Automation Solutions

Digital monitoring, analysis and optimization with efficient automation concepts.

The KÖHL Maschinenbau provides control and automation solutions for the complete product range of the tobacco and logistics divisions as well as for the direct demand of the customers. With a long experience in the tobacco industry, HEINEN KÖHL has elaborated many solutions for field automation, SCADA systems and Batch Management Systems.



Tobacco treatment in primary, control of special machines in secondary as well as finished good handling in the storage area, for all these fields HEINEN KÖHL has numerous references. HEINEN KÖHL engineers projects to the customers specifications and applies hardware of various pre-defined suppliers.

The innovative **KÖHL WMS** Warehouse Management System is based on up-to-date software technologies and supports all warehouse types, from simple forklift-oper-

ated bulk storage to fully automated high shelf storage systems. It consists of a material flow as well as a warehouse management component which can be applied separately or in combination.

A special benefit offers the **KÖHL WMS** App which gives the customers a quick overview of their storage, articles and system failures at any time.

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