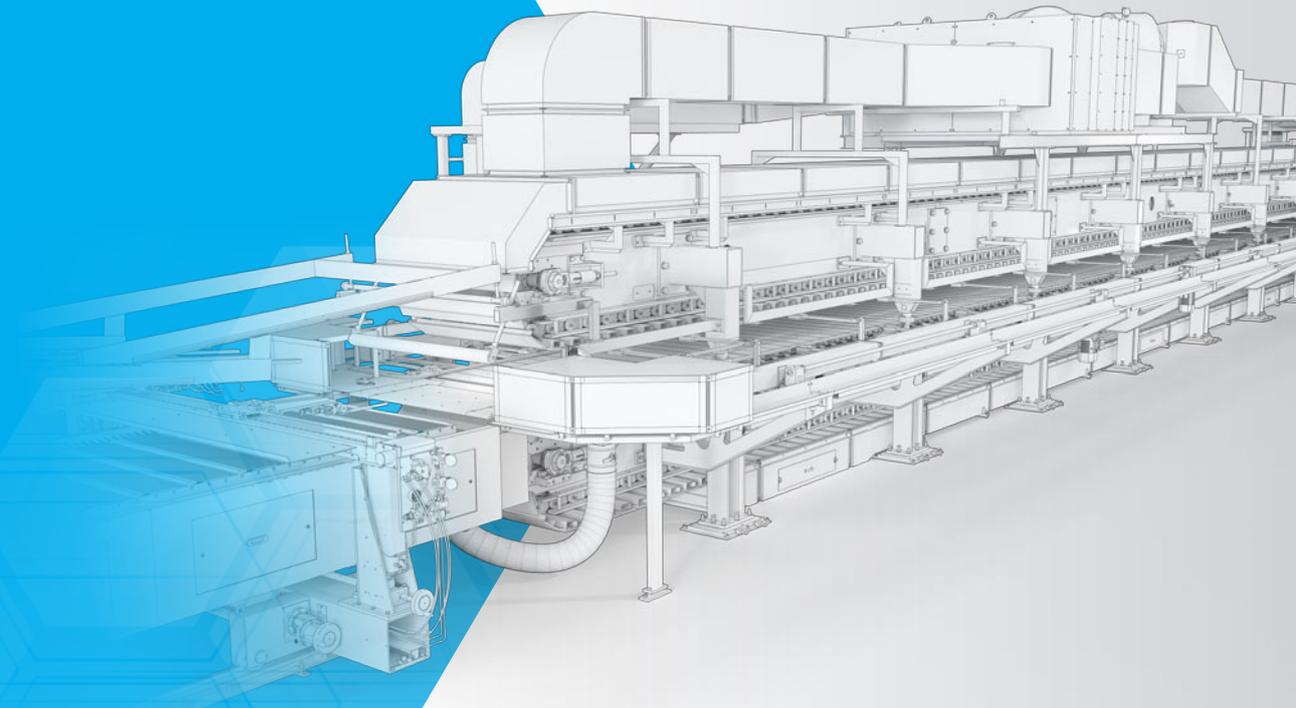


# PANELMASTER STEEL



- » Turnkey plant technology for the continuous production of sandwich panels with rigid facings and a core structure made of polyurethane or mineral wool

# FIT FOR TODAY'S CHALLENGES:



## SANDWICH PANELS FOR INDUSTRIAL AND RESIDENTIAL BUILDINGS

The challenges posed by climate change are visible around the world today. However, the responsibility to protect our future from the impacts of climate change cannot be left to future generations or large governments. Every individual has the power to create sustainable conditions (UN Charter 2030). In addition to rethinking the way energy is produced, global efforts are focused on using energy as efficiently as possible. The spotlight is on poorly insulated buildings, which are responsible for significant energy losses. The specific energy demand of residential and industrial buildings can be significantly reduced with modern insulation. It is not without reason that numerous governmental and non-governmental organizations are striving to establish sustainable measures in the construction and modernization of buildings. From an economic and environmental point of view, sandwich panel construction is much more than just an alternative to conventional building methods. The boom in the use of sandwich panels can be traced back to the energy crisis and the subsequent rapid increase in energy prices. Over the past five decades, the number of buildings constructed with sandwich panels has grown tremendously. Sandwich panels have long since become the standard choice for efficiently insulating building facades.

## WHAT ARE THE FEATURES OF SANDWICH PANELS?

Sandwich panels are special insulating boards composed of several sandwich-like layers. The structure usually consists of two facings, either rigid (steel plate) or flexible (aluminum foil or paper), and a core of polyurethane (PU/PIR) or mineral wool that acts as an insulating layer. Due to these composite layers, which are securely bonded together, the panels are also known as composite panels. Sandwich panels are comparatively lightweight yet have excellent mechanical properties, offering high rigidity and large support widths. This makes them easy to handle and assemble, and ensures low operating costs while maintaining high profitability. One of the most important features of the sandwich panel is its high level of thermal insulation, with a thermal conductivity of only 0.02 to 0.035 W/mk. In addition, the advanced components meet all major standards for residential and commercial use.

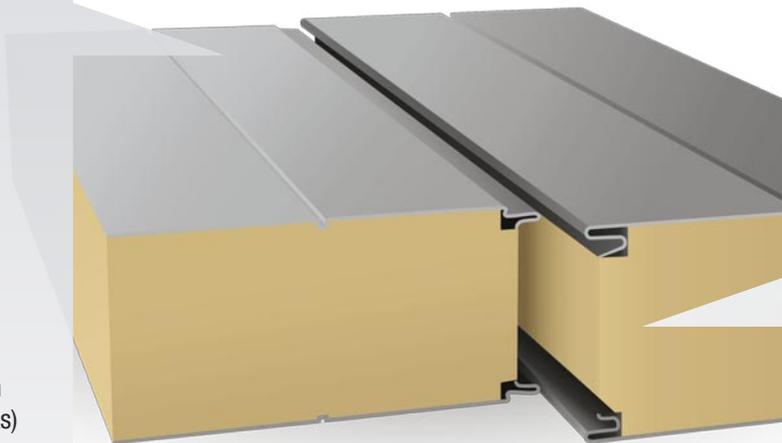
## MATERIAL THICKNESS WITH THE SAME THERMAL INSULATION VALUE

Material	Thickness
PU/PIR	100mm
XPS/EPS	150mm
Glass wool	160mm
Rock wool	165mm
Fiberboard	200mm

## SANDWICH PANEL COMPOSITION

### FACING

- Enhanced mechanical stability due to profiling (such as trapezoidal or wave profile)
- Ribs are used to increase mechanical stability (e.g. in roof panels)
- Coating ensures high resistance against environmental impacts (such as corrosion or scratch marks)
- Painting and sheet forming (such as lining, embosser) to achieve desired coloring and surface effects
- Use of all common steel plates for rigid facings
- Use of all common aluminium plates or kraft paper for flexible facings



### CORE STRUCTURE

- Provides a solid connection to the facings and largely defines the panel thickness
- Defines the compressive strength and shear stiffness of the panel
- Polyurethane (PUR / PIR) or mineral wool are used
- The use of additives extends the range of applications (for example for fire protection)

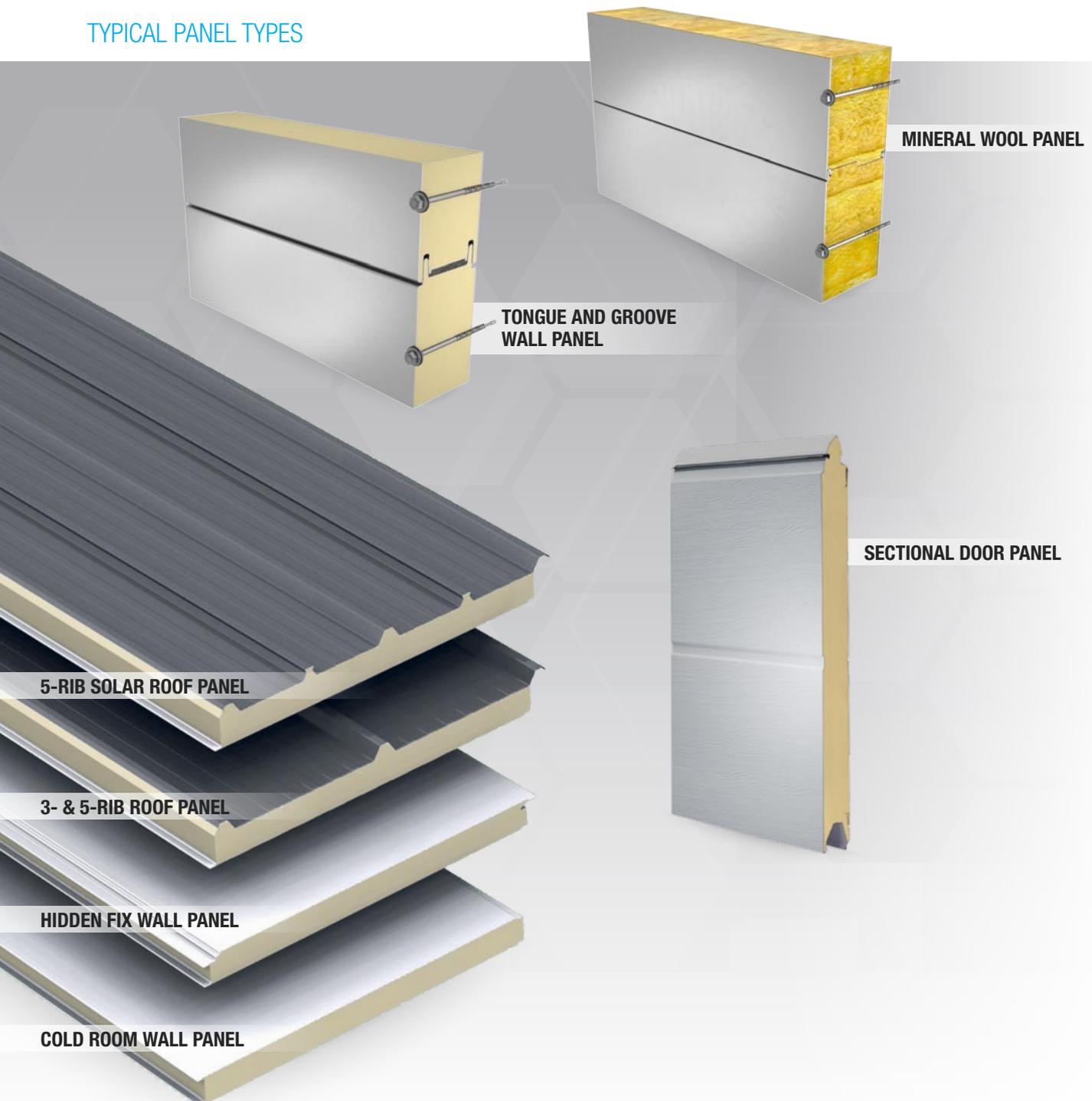
### DIMENSIONS AND SPECS

Panel thickness:	20 - 300 mm
Panel length:	2.000 - 18.000 mm
Panel width:	600 - 1.200 mm (standard is 1.000 mm)
Facing steel thickness:	0.4 - 0.8 mm
PIR-PUR foam density:	35 - 42 kg/m <sup>3</sup>

## WHERE ARE SANDWICH PANELS USED?

Sandwich panels with rigid facings are mainly used in the construction of halls, industrial buildings, cold and deep-freeze warehouses, as well as office and residential buildings. In addition to speeding up construction time and bringing significant cost savings, the use of sandwich panels has other advantages for architects: today, a whole new generation of sandwich panels meets not only structural and financial requirements, but also individual design needs. There are several types of rigid faced sandwich panels: Optionally, the multifunctional Hennecke-OMS system technology also enables product combinations of rigid and flexible facings. These panels are used, for example, in the agricultural sector.

## TYPICAL PANEL TYPES



# TURNKEY SOLUTIONS...

...WITH DECADES OF COMBINED EXPERTISE IN POLYURETHANE PROCESSING  
AND A GLOBAL NETWORK 100 PERCENT COMMITTED TO CUSTOMERS



The Hennecke GROUP is the umbrella brand for all company units and brings together the product portfolios of its trade brands as well as the network of production sites and subsidiaries around the world. Together with its international trading and service partners, the Hennecke GROUP supports users with a comprehensive sales and after-sales portfolio as well as competent consulting and engineering services in local languages. The advantages of this global organizational structure are particularly evident in the area of sandwich panel production lines. The new PANELMASTER STEEL generation is the impressive result of the combined know-how of the brands Hennecke-OMS and Hennecke Polyurethane Technology. This makes Hennecke GROUP a true one-stop solution for the production of steel sandwich panels and the only group of companies in this field to offer seamless, fully integrated production lines, harmonized software for smooth operation and comprehensive worldwide support.

## Leading global specialists in plant technology for the continuous and discontinuous production of sandwich panels and insulation boards

The portfolio of Hennecke-OMS includes continuous and discontinuous sandwich panel lines for insulation boards with flexible facings and a core structure made of polyurethane, polyisocyanurate or phenolic foam, and for panels with metal facings and a core structure made of polyurethane or mineral wool.

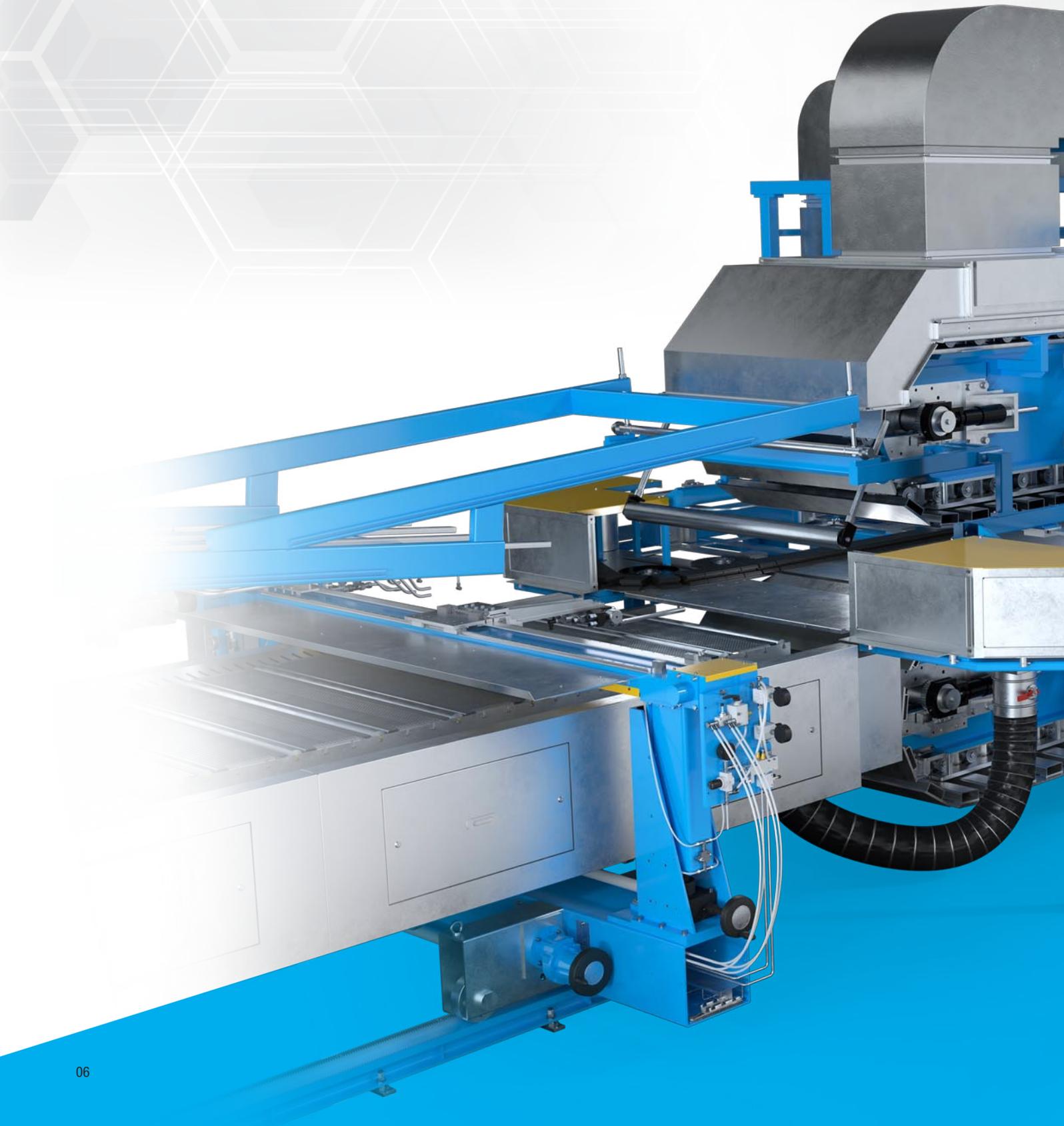
Hennecke-OMS is the only company in the world that can offer everything you need for sandwich panel production from a single source, including tank storage, double belt, dry part, high-quality roll forming machines and presses for surface and edge profiling as well as sophisticated high-pressure metering machines and mixheads. Hennecke-OMS provides a seamless, one-stop experience for your entire production system, relying on perfectly harmonized control systems and mechanical standards.

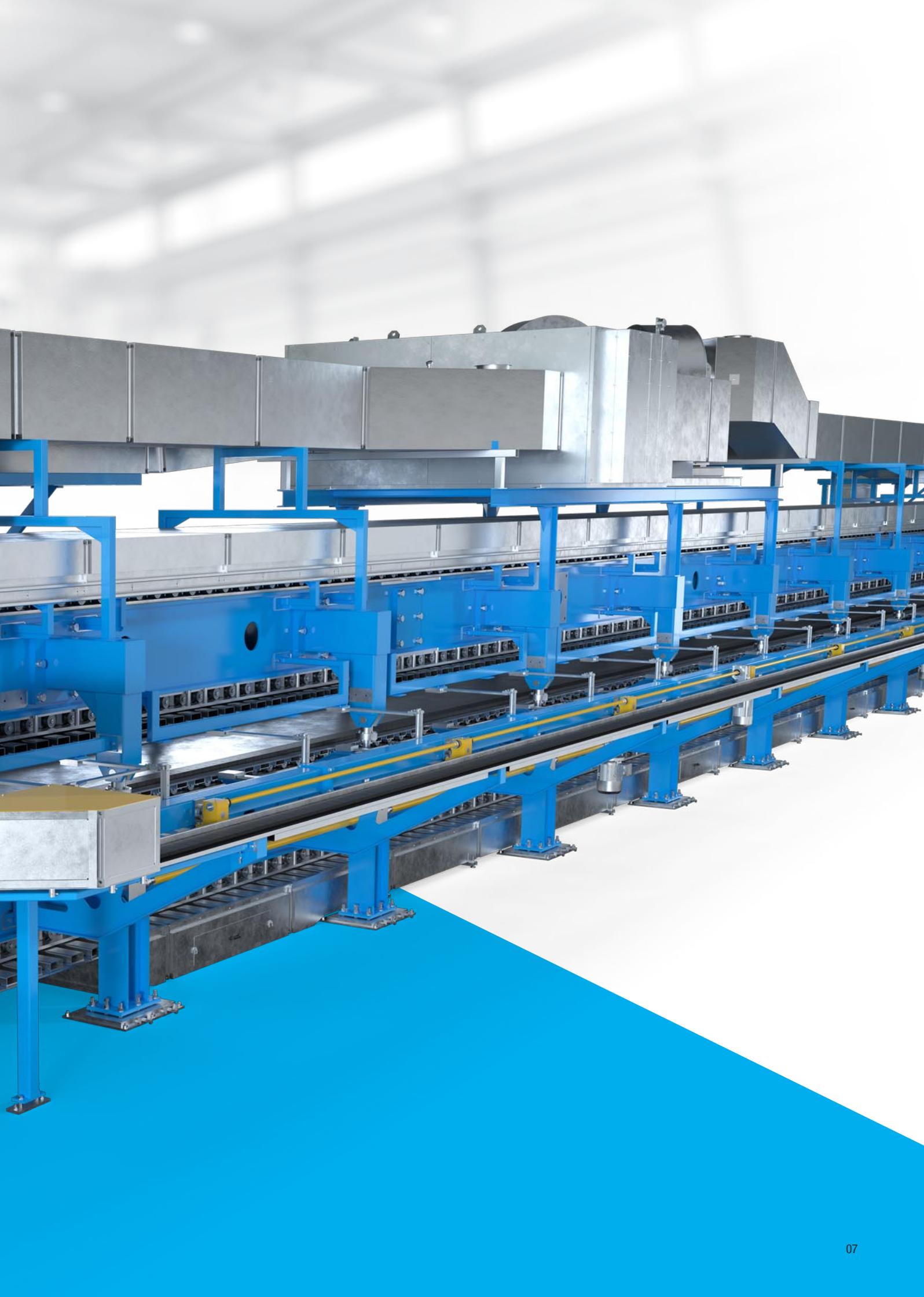


»» World leading specialists for the  
production of sandwich panels and  
insulation boards.

# DISCOVER OUR LATEST TURNKEY INNOVATION

The new generation of PANELMASTER STEEL plants from Hennecke-OMS is the ideal system solution for the continuous production of high-quality steel sandwich panels with different rigid facings, thicknesses and profiles. With a production capacity of up to 2.000.000 square meters per year, the advanced plant concept covers a wide range of applications. Users are impressed by the ease of operation and the helpful support systems.





# THE CONTINUOUS PRODUCTION LINE

- >> Seamless, fully integrated production solution from a single source
- >> Smooth operation due to harmonized software controls across the production line
- >> Comprehensive worldwide training and service support for the complete production line

## MINIMUM PRODUCTION HALL DIMENSIONS:

**140 m x 35 m x 8 m (L x W x H)**

## AVERAGE PRODUCTIVITY:

**1.300.000 - 2.000.000 m<sup>2</sup> / year**

## LINE SPEED:

**up to 15 m / min**

### MIWO UNIT

- Multi-blade saw for cutting strips to achieve the desired panel thickness
- Highly innovative cutting and placing system for roof panel trapezoids
- Adhesive application for different glue types

### PLANT CONTROL SYSTEM

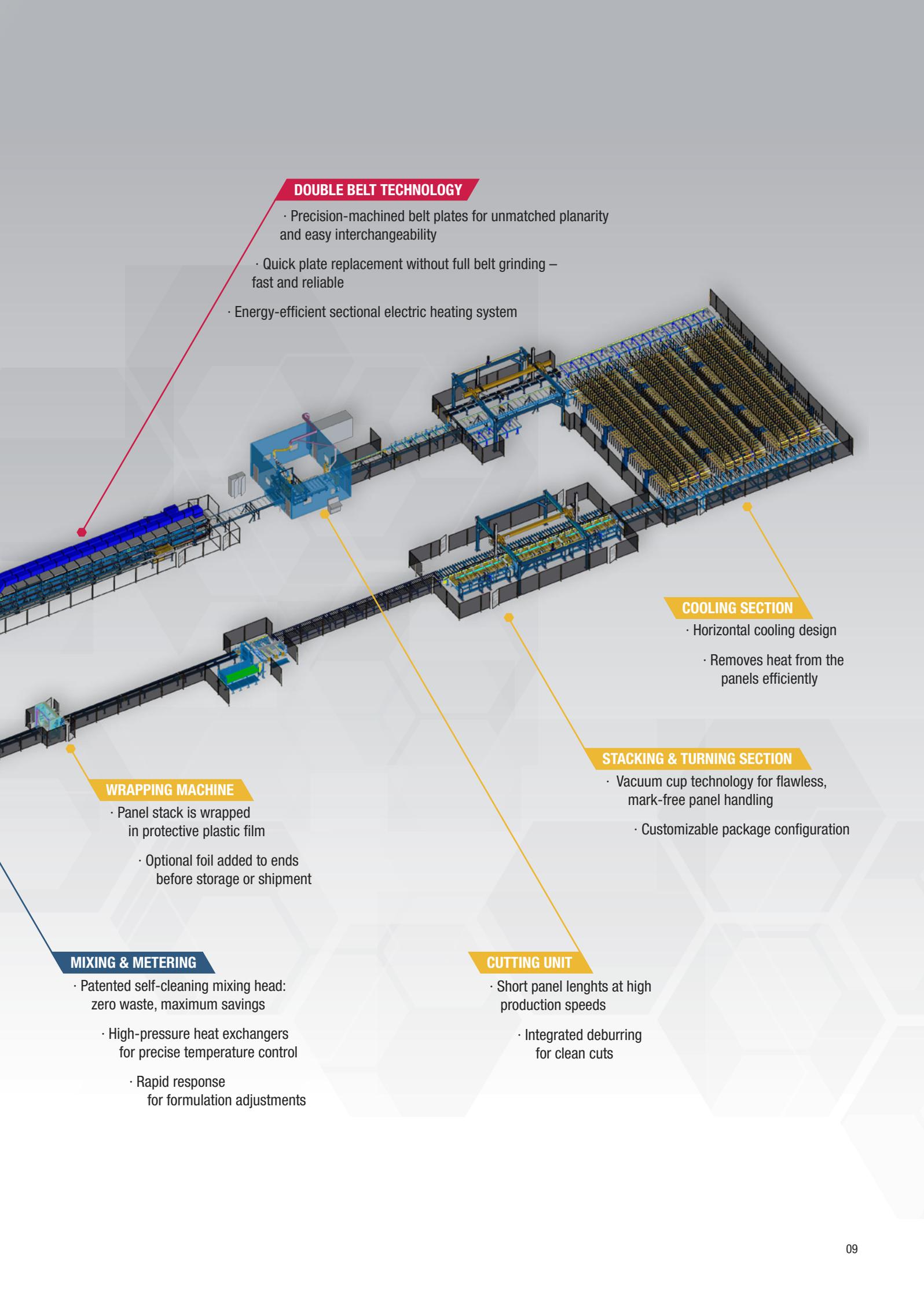
- Advanced panel management for custom package definitions
- Real-time data collection for in-depth production analysis

### COIL HANDLING & PREPARATION

- Hands-free coil management
- Reliable strip joining system
- Modular design, expandable at any time by taking into account installation space for potential expansions

### PROFILING

- Years of expertise ensure smooth, stress-free roll forming, supported by advanced software and FEA analysis
- High-precision tools and robust equipment deliver consistent, top-quality results
- Thorough in-house testing ensures flawless performance before delivery



### DOUBLE BELT TECHNOLOGY

- Precision-machined belt plates for unmatched planarity and easy interchangeability
- Quick plate replacement without full belt grinding – fast and reliable
- Energy-efficient sectional electric heating system

### COOLING SECTION

- Horizontal cooling design
- Removes heat from the panels efficiently

### STACKING & TURNING SECTION

- Vacuum cup technology for flawless, mark-free panel handling
- Customizable package configuration

### CUTTING UNIT

- Short panel lengths at high production speeds
- Integrated deburring for clean cuts

### WRAPPING MACHINE

- Panel stack is wrapped in protective plastic film
- Optional foil added to ends before storage or shipment

### MIXING & METERING

- Patented self-cleaning mixing head: zero waste, maximum savings
- High-pressure heat exchangers for precise temperature control
- Rapid response for formulation adjustments



## FACING INFEED

The strip feed-in includes coil handling systems such as coil loading cars and decoilers, edge controls, feed rollers and crop shears. With up to four unwinding reels and automatic connection between the strip ends, the various system concepts enable a coil and strip change for the upper and lower metal facings during production. This helps to prevent time-consuming and costly downtimes of the plant.

### Key features include:

- » Semi-automatic insertion of a new steel coil or metal sheet to the production line in compliance with operator safety regulations
- » Handling of steel coils, each with a weight of up to 15 tons
- » Safe automatic strip end connection for a coil and strip change to avoid plant downtime
- » Laminating devices for applying protective film to the visible surfaces of the panels



## PROFILING

The profiling section contains the equipment for handling the coil and processing the metal facings. This includes unwinding and feeding the steel coils into the plant, preparing the strips by trimming and connecting them, as well as the profiling of the lower and upper metal facings. The surface and edge profiling gives the sandwich composite elements a defined shape and joins them securely together. The profiling section usually consists of the following units:

### LINING

During the lining process the surfaces of the inner and outer facings are shaped. In this case, usually a trapezoidal or a pointed wave profile is rolled into the strip. Lines are formed to ensure stability as well as for design reasons.

#### Key features include:

- >> High repetitive accuracy due to sturdy equipment provides top process stability and quality
- >> Precise technology and adjustment options ensure high repeatability
- >> Possible adjustment during operation from manual to fully automatic or change to different linings without system downtime



## ADVANCED PROFILING MACHINES

The profiling machines used to form the edges and surfaces of the wall and roof panels rely on an electronically controlled motor and allow the manufacturer to synchronously feed in the metal facings. Software supported design, development of the digital forming bloom and effective roll construction all guarantee smooth and efficient forming of the facings. The special plant concepts allow good accessibility and short profile change times through the juxtapositioning of the profiling tools. Standardised quick-change systems facilitate the conversion from one type of profile to another and enable product changes (for example from wall to roof panels) within a short time without requiring costly adjustments of the rollers.

### Key features include:

- >> Gentle forming without tension
- >> Closed and maintenance-free profiling gears
- >> CNC machined tool roller sets made of hardened chrome steel
- >> Repeatable profile quality through calibration units for correcting profiles with different steel qualities and strip thicknesses



## ADDITIONAL EQUIPMENT

### **Corona pretreatment**

High voltage discharge device to improve adhesion between rigid foam and metal facing

### **Roof panel overlapping**

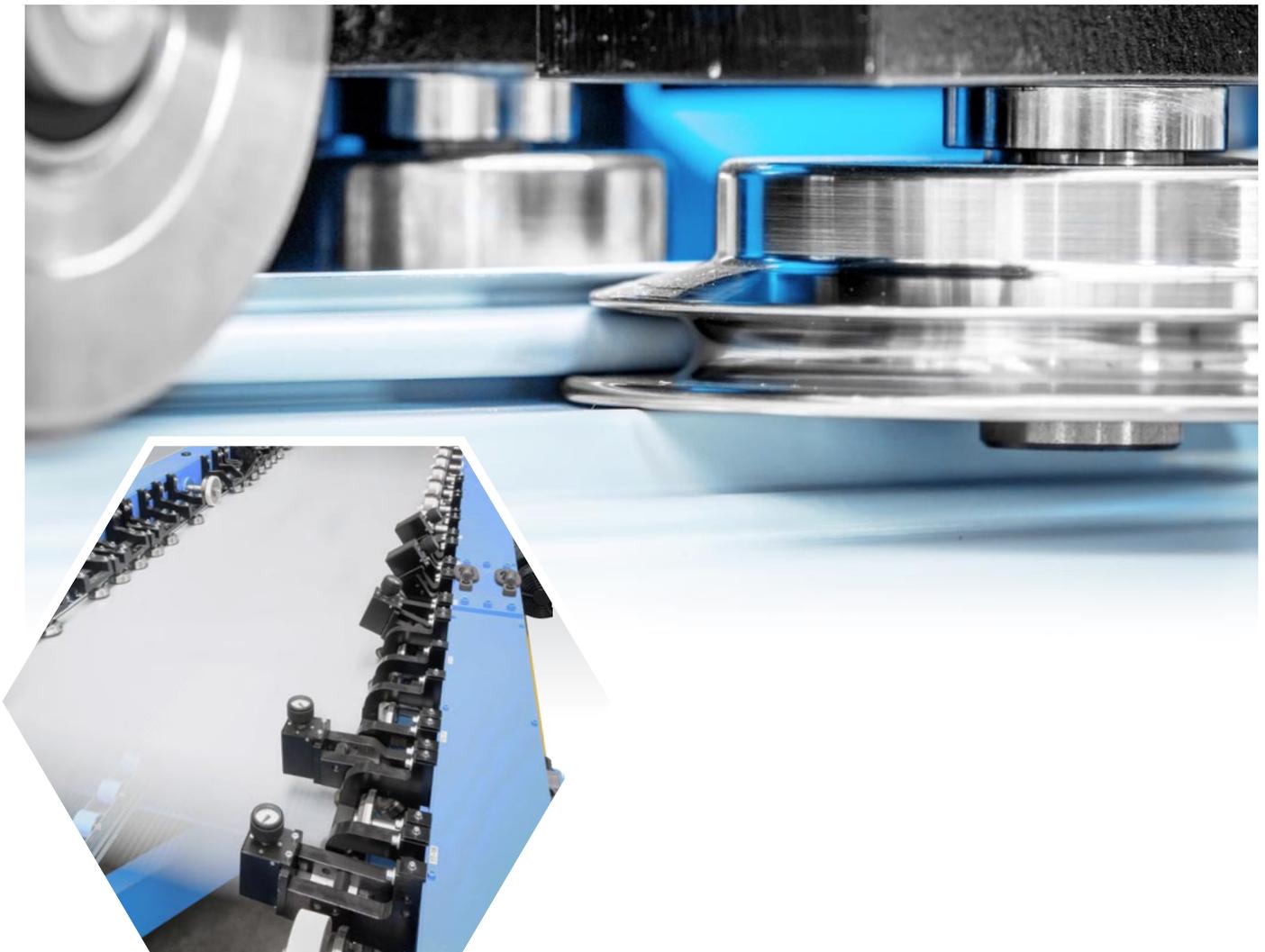
Automated application of adhesive tape to enable sawing of the corresponding roof plate length and prevent foam from sticking in the overlapping area of the panel

### **Single sheet**

Individual roof panels are cut, slid on top of each other and masked to ensure that the overlapping area of the roof panel remains free of PU / PIR foam

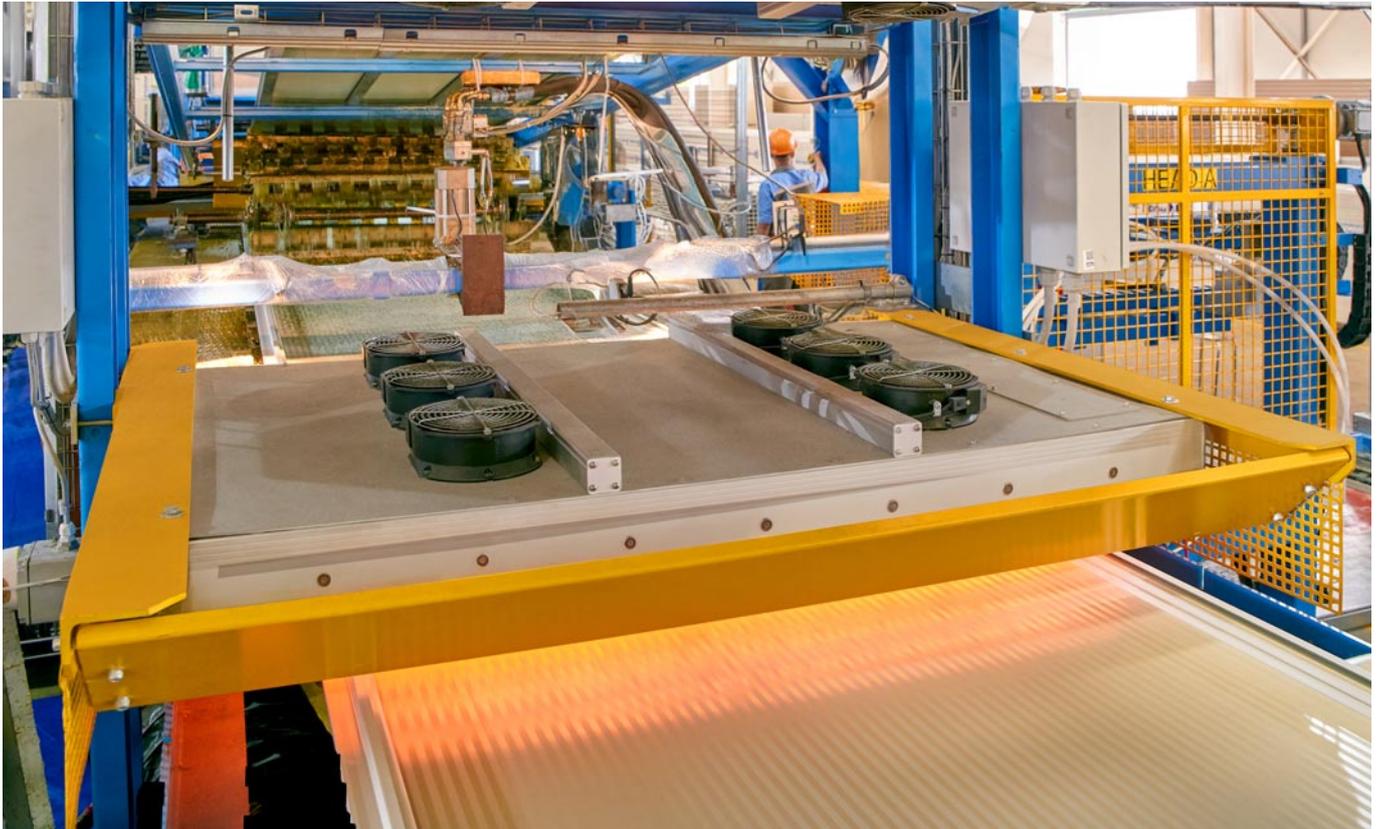
### **Special machines for the production of sectional door elements**

Embossor units and cassette presses (stationary or mobile) for imprinting special surface structures or shapes into the metallic facings



# CENTER SECTION

The center section for continuous metal facings is the heart of each PANELMASTER STEEL production line. It represents the accumulated know-how of our company in the processing of polyurethane under high pressure and usually consists of the following units:



## PRE-HEATING AND PRIMER UNIT

Pre-heating is essential to improve the adhesion of foam with metal facings, while the use of an adhesion promoter is primarily recommended for PIR panel production. The pre-heater is positioned just after the profiling section and before the laydown table and heats both the top and bottom metal facings independently. The temperature is automatically controlled by infrared heaters, which allow for rapid adjustments. The primer machine applies a two-component adhesion promoter to the metal surfaces. Precise and uniform metering, along with reliable temperature control, ensures optimum adhesion between the foam and the metal facings.

### Key features include:

- » Efficient infrared heating for quick adjustment to steel thickness and production speed
- » Primer machine offered in several configurations to meet all production requirements



## METERING UNITS

Hennecke-OMS offers a comprehensive range of equipment for metering, storing, transporting and monitoring polyurethane raw materials and additives. Our first-class high-pressure metering machines ensure homogeneous mixing of the reactive components polyol and isocyanate as well as various additives such as catalysts, blowing agents, curing agents or flame retardants. These units must maintain consistent production parameters - in particular pressure, temperature and flow rate of the main components - within very tight tolerances to ensure consistent production quality. The metering machine design is characterized by a well thought-out arrangement of the individual units and high-quality components. This ensures a uniform cell structure and efficient raw material utilization, resulting in significant raw material savings.

### Key features include:

- >> High-pressure mixing technology for homogeneous and highly efficient blending of selected components
- >> Closed-loop frequency-controlled drives for automatic output adjustment
- >> User-friendly formulation management
- >> Easy on-the-fly formulation changes
- >> Comprehensive process data acquisition including sensors for pressure, temperature and flow rate measurement
- >> Motorized or manual edge filters for low maintenance and safe operation
- >> Magnetically coupled polyol and isocyanate pumps

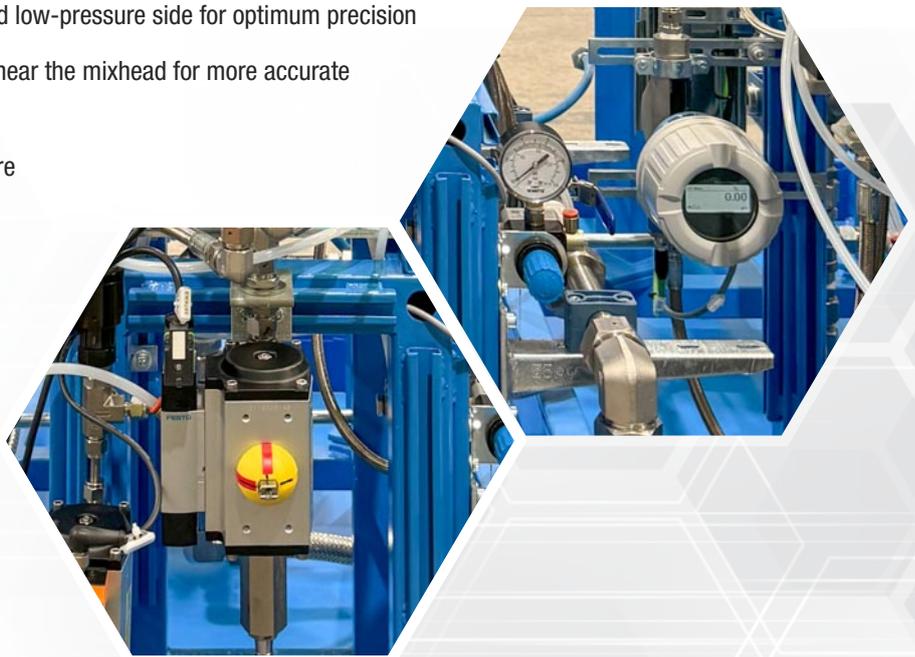


## TEMPERATURE AND MASS FLOW CONTROL UNITS

Tempering devices ensure precise conditioning of key components. Heat exchangers, temperature control units, chillers and a closed cooling system provide perfectly controlled reaction of the chemicals and maintain optimal and stable temperatures for processing the reactive mixture. This is critical for consistent production parameters. In addition, Coriolis-type mass flow meters monitor the flow of each chemical component and the reactive mixture. Combined with our advanced closed-loop control, this ensures highly stable output rates every time.

### Key features include:

- >> Highly responsive temperature control with wide control range
- >> Temperature control on both the high and low-pressure side for optimum precision
- >> High-pressure heat exchangers located near the mixhead for more accurate chemical temperature control
- >> Double-walled day tanks to further ensure production reliability
- >> Mass flow meters for accurate flow control

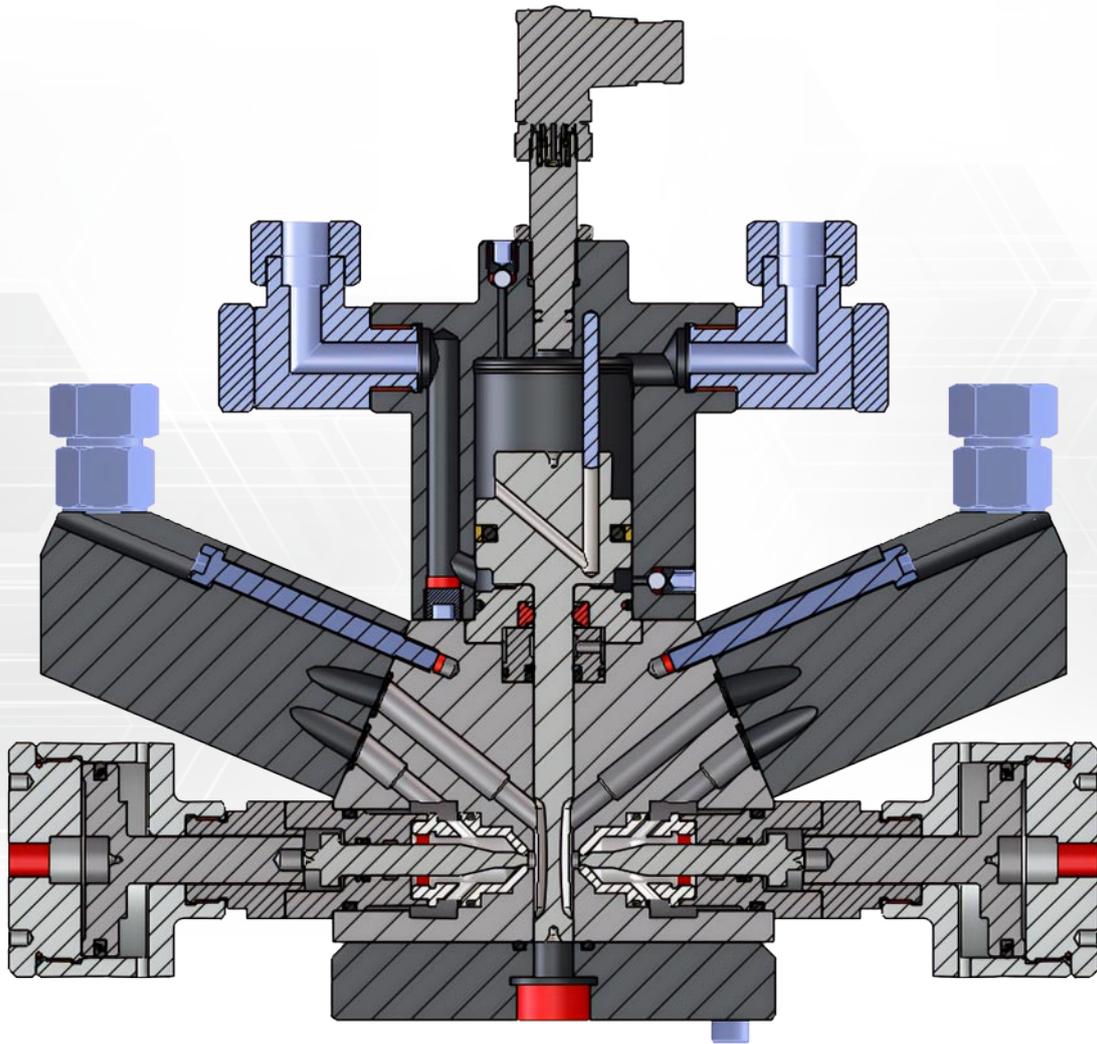


## STATIC MIXERS AND GAS LOADING SYSTEM

In order to improve both mixing capability and reaction behavior, various additives are precisely metered into the main polyol component stream. HENNECKE-OMS offers reliable equipment for conditioning, blending and mixing raw materials into the polyol stream, including static mixers and integrated gas loading units. These gas loading units help to achieve a uniform cell structure and density distribution within the polyol.

### Key features include:

- >> High-pressure mixing for effective and rapid adaptation to formulation changes
- >> Injection blocks mounted on the foaming portal for fast response to formulation adjustments
- >> Optimal mixing performance regardless of output quantity
- >> Gas loading (nucleation) into the polyol component results in a uniform and finer cell structure (using either dry air or nitrogen)



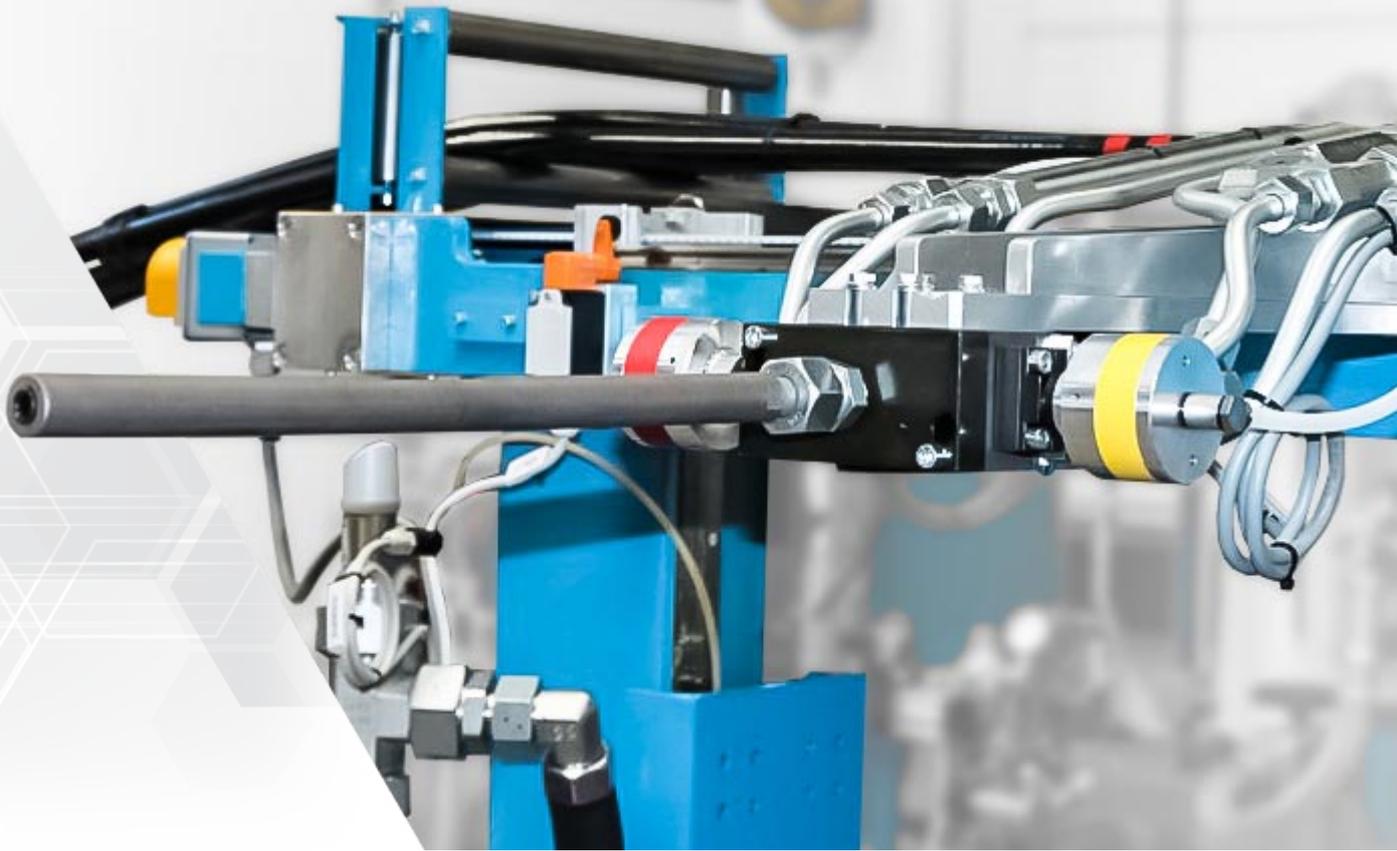
## MIXHEAD

The mixhead is the heart of every sandwich panel production line, as it determines the quality of the foam. Our self-cleaning, high-pressure mixheads operate using the impingement injection principle. High-efficiency injection nozzles with reduced pressure loss inject the reactive components into the mixing chamber, where they are thoroughly mixed, enhancing the raw material yield. Special pneumatic injectors ensure optimal mixing results and minimize the temperature rise of the reactive mixture.

Thanks to the pneumatic control of our injectors, the foaming pressure remains constant even if the output rate changes. The specific processing pressure can be set and reproduced at any time via the machine control system. Additionally, the operator can easily adjust the specific mixing pressure during production using the machine control system.

Our uniquely designed system with recirculation of main components stands out in the market, enabling a faster production startup with virtually zero waste. This design allows rapid adaptation to any changes in processing conditions, such as formulation, temperature, and component pressure.

After production, the mixhead is cleaned automatically without the use of any solvents. A hydraulic control piston efficiently removes any reactive material from the mixing chamber.



**Key features include:**

- >> Consistent mixing across a wide range of production thicknesses and speeds
- >> Self-cleaning piston eliminates the need to manage exhaust liquids
- >> Recirculation of main components for quicker startup and minimal waste/scrap

## FOAMING PORTAL AND LAYDOWN TABLE

The foaming portal is engineered to evenly distribute a homogeneous mixture of reactive materials at the line speeds required to meet production targets. Its integrated control system offers a wide range of options for precise laydown of the PU/PIR reactive mixture, including adjustments for mixhead pressure, laydown height, and laydown position.

The mixhead can be either fixed or oscillating, depending on the rake type selected by the customer. For oscillating configurations, the second-generation high-speed toothed belt drive allows precise adaption to production speed. The integrated control system also provides options for adjusting laydown height, oscillation width, oscillation speed and acceleration.

### Key features include:

- » Double mixhead system for non-stop production
- » Exhaust system integrated into the laydown table for a clean and streamlined workspace

For non-stop operation, the foaming portal can be equipped with two mixheads, allowing on-the-fly changes without compromising quality or causing downtimes.

The laydown table supports the lower metal sheet during foam application. To comply with the safety requirements when working with pentane, the foaming area is provided with suction channels connected to a high-performance exhaust system, primarily installed around the laydown table. This ensures that neither pentane nor other hazardous reaction gases escape into the working area.





## DOUBLE BELT LAMINATOR

The laminator is crucial for ensuring the quality and surface finish of sandwich panels. It features a gear-driven, double belt conveyor that accurately maintains the required panel dimensions as it transports the metal sheets and foam core through the curing process. An integrated heating system circulates hot air through separate upper and lower conveyor circuits, maintaining the correct temperature for optimal foam reaction, regardless of panel thickness and production speed.

**The world-renowned Hennecke-OMS double belt laminator boasts several additional features:**

- >> In-house slat production ensures the highest accuracy and surface quality
- >> Unique mechanical design allows 100% slat interchangeability without grinding the entire double belt surface
- >> Quick and easy adjustment of panel thickness with lateral trapezoidal spindle drives
- >> Side sealing system with synchronously moving side sealing chains guides the panels and absorbs lateral foam pressure
- >> Width adjustment via three-phase gear motors and worm gears installed on each side
- >> Precise guiding track system
- >> Foam pressure monitoring by load sensing pins and overpressure protection system
- >> Polygon effect at the return points of the supporting steel plates reduced by special pinion design
- >> All-electric, gas-electric, steam or hot oil heating system available



## TANK FARM

The reactive components and blowing agents are safely stored in tank farms and IBC stations designed and installed in accordance with applicable directives.

Our tank farms include bulk unloading stations for liquid materials delivered by tanker, truck or rail, as well as bulk and intermediate storage tanks, transfer pumps, valves, instrumentation and piping. In addition, each tank farm is equipped with an advanced automation system with high quality control components.

The storage facilities and stations include an electronic control system for operation, visualization and monitoring, as well as an interface to the production line. This allows operators to continuously monitor all relevant process parameters.

## MINERAL WOOL (MIWO) INFEED / SUPPLY OF MINERAL WOOL PLATES

For users seeking particularly flexible production, we offer an optional comprehensive solution for producing panels with mineral wool core. This includes picking the slabs from the pallet, cutting them into strips, turning them 90 degrees and inserting them into the panel production. For roof panel production, a fully automated system is available for cutting trapezes and placing them into the ribs.

A gluing machine with separate controls for the top and bottom facing, capable of working with a wide range of glue types, completes the equipment. All these machines are perfectly integrated and synchronized with the entire production line.



### Key features include:

- >> Gripping device for handling and processing the slabs
- >> Multi-blade saw for cutting strips from the plates to achieve the desired panel thickness
- >> Cutting and placing system for trapezes in roof panel production
- >> Milling device for precise geometry adjustment of the strips
- >> Adhesive application using various technologies suitable for different glue types

# OUTFEED SECTION

The outfeed section begins by cutting the panels to the desired length and smoothly handling them to prepare the panel packages for shipping. The PANELMASTER STEEL outfeed section typically includes the following units:



## BAND SAW

A special band saw with longitudinal and transverse travelling gears is used to cut the continuous panel sections to pre-programmed lengths with minimal vibration. Electronic measuring ensures precise and smooth cuts, providing high length and angular accuracy. For roof panels, transversal joint overlap cuts are performed by an integrated circular saw.

A saw blade reverser allows for a high cutting frequency and short panel lengths. Dedicated software manages the cutting length, including producing variable-length samples for quality control.

### Key features include:

- >> Adjustable cutting speed via a three-phase servo motor
- >> Ability to cut from both sides for short panel lengths at high production speeds
- >> Electronic control with diagnostics and programming (cutting data lists, panel tracking)
- >> Deburring unit included for cleaner cuts
- >> Optional water jet unit for cutting foam from roof panel ribs



## COOLING UNIT

The cooling unit efficiently removes heat from the panels as the exothermic chemical reaction raises the foam temperature. This is a critical step prior to initiating the stacking protocol.

The panels are automatically placed inside the pockets and gradually transported to the stacking unit. The forks are equipped with various protections to ensure gentle handling of the panels. Multiple panels can be placed in parallel within one pocket to optimize the cooling cycle.

### Key features include:

- >> Outer cover to protect the panel surface
- >> Horizontal cooling design



## MILLING UNIT

When producing high-thickness cold storage panels, foam milling may be necessary to enhance the lock tightness.

### Key features include:

- >> Frequency-controlled milling device
- >> Manually adjustable stops for precise positioning
- >> Replaceable milling disc sets for various panel thicknesses
- >> Light barriers for increased operational safety



## STACKING AND TURNING UNIT

This unit automatically stacks multiple panels, which can be stacked as is or rotated to save space (e.g. for roof panels). The package arrangement can be customized by selecting the number of panels to be stacked. Both stacking and turning are performed using vacuum suction cups to protect surfaces and ensure smooth panel handling.

### Key features include:

- >> Customizable package configuration
- >> Vacuum suction cups in both stacker and turner for a smooth handling

## EPS PROTECTION INFEED UNIT

The EPS protection infeed unit automatically places EPS blocks and/or plates under the final package. This facilitates stack handling for transport and protects the panel surface. In addition to the standard models, options with higher storage capacity are available to minimize the need for assistance.



## WRAPPING MACHINE

The wrapping machine automatically encases the panel stack in protective plastic film. For added protection, an additional foil can be applied on the head and tail of the package. Once this step is completed, the final package is ready for warehouse storage or shipment.

# PLANT CONTROL SYSTEM

The PANELMASTER STEEL automation system uses only high quality control components specifically designed for high performance sandwich panel production. The use of advanced, computerized electronic systems ensures maximum operational reliability and facilitates fast, largely automated product changes. The intuitive visualization supports the operator in managing these tasks.



## PLANT CONTROL

The PANELMASTER STEEL machine control is structured into decentralized units and a central plant control system. Each machine group features its own electrical control system, including machine-specific controls and HMIs with touchscreen operator panels which are all communicating via Ethernet standard. These decentralized units allow operators to directly adjust and control individual machine parameters on-site. All of these control systems are connected to a central plant control system, which is used to configure production programs and initiate production changes.

### Key features include:

- >> Proven control components from Siemens or Allen-Bradley
- >> Extensive possibilities for remote maintenance

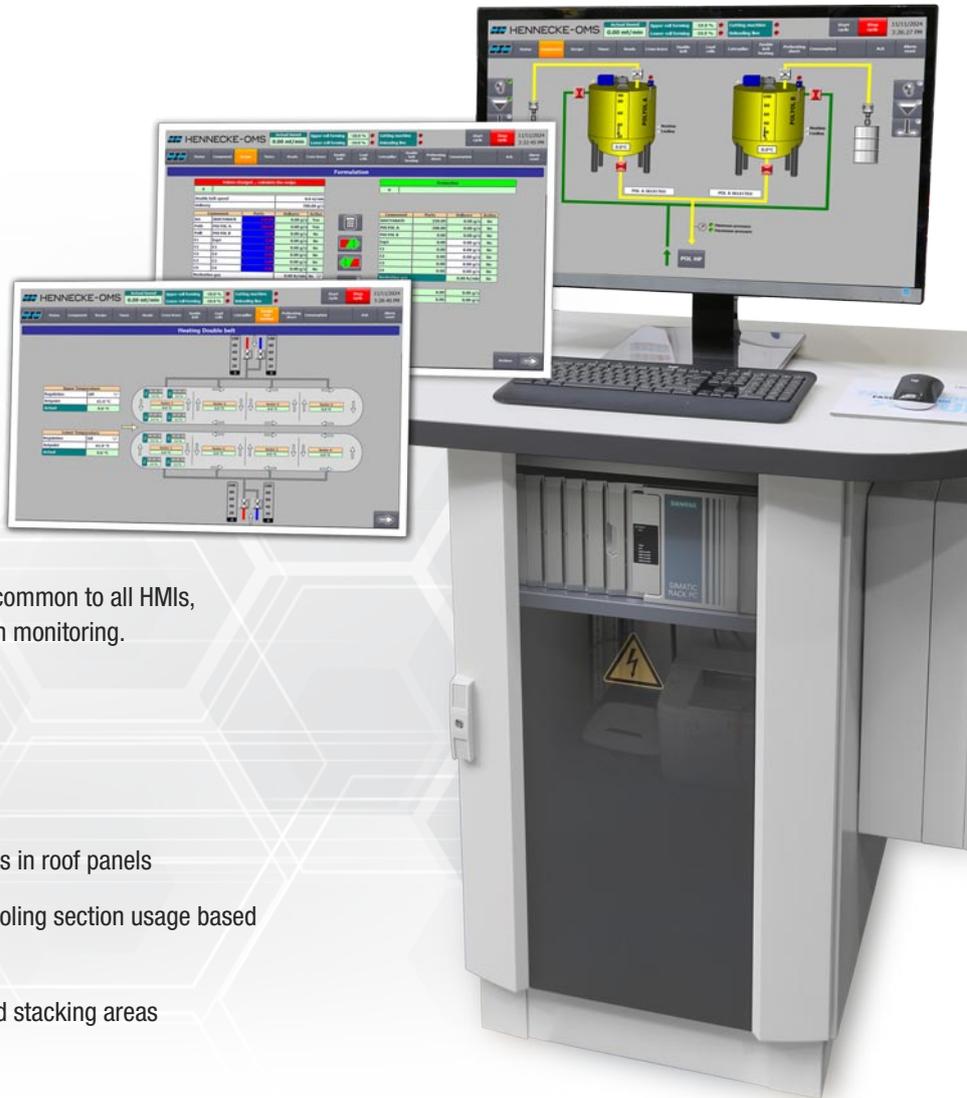
## PANEL MANAGEMENT SYSTEM

The Panel Management System is the control system for the production line and manages the production flow. It ensures proper operation and synchronization between the various processing stations of the production line. For example, a dedicated PLC controls the entire stacking system and communicates directly with the saw to manage the stack composition according to the work program.

The user-friendly visualization with clear menus is common to all HMIs, allowing easy and intuitive operation and production monitoring.

### Key features include:

- >> Order management
- >> Input of cutting data for the band saw
- >> Synchronization of cutting data for overlap cuts in roof panels
- >> Calculation of cutting sequence to optimize cooling section usage based on required stacking pattern
- >> Tracking of individual panels in the cooling and stacking areas



## PROCESS DATA ACQUISITION AND ANALYSIS

Any manufacturer committed to achieving the highest quality products understands the importance of collecting data from the production line. Hennecke-OMS offers systems for continuous data acquisition from the machines to support process analysis.

The visualization and analysis of recorded process data facilitates the selection and evaluation of key operating parameters for quality

### Key features include:

- >> Real-time visualization of trends related to operating parameters such as temperature, pressure, and output of various chemical streams
- >> Automated calculation and formulation management
- >> Monitoring of raw material consumption with the ability to set minimum and maximum output alarm thresholds during production
- >> Wide range of configurable settings
- >> Extensive reporting to ensure consistent production parameters
- >> Detailed summary of all relevant production parameters provided at the end of production

control and process optimization. Data evaluation can be performed offline on standard computers, and regularly archived data can be accessed at any time, allowing processing to be independent of the plant computer.



## COMPREHENSIVE SUPPORT FROM A SINGLE SOURCE

As a system supplier, we support you in all phases of your business model based on the production of sandwich panels. Of course, this goes beyond the production technology. In addition to the plant components, we offer you a comprehensive service package covering all aspects of installation and commissioning, process planning and documentation:

- >> Monitoring and adjustment of production parameters by experienced specialists
- >> Optimal customer support during the start-up phase (e.g. chemist support)
- >> Operating, maintenance and safety instructions
- >> Optimization of all processes to ensure highly efficient production
- >> Exact project schedule for strict adherence to deadlines and planning security with the customer regarding return on investment
- >> Comprehensive documentation of all components, including plant layout, foundation drawing, operating points and complete wiring diagrams
- >> Certification of the complete line according to applicable legislation (if 100% supplied by Hennecke-OMS)

Thanks to our global positioning, we have a comprehensive sales and service network at our disposal. Our experienced service specialists offer you a wide range of support and qualified training - around the clock, around the world, around your production needs:

- >> Short-term availability of spare parts and tailor-made maintenance contracts as well as fast and exact identification of required components through ID number
- >> First-level support from experienced specialists
- >> Innovative and effective retrofit solutions for a lengthy and profitable operation of your plant
- >> Practical training of the machine operators at the Hennecke-OMS headquarters and on-site training at the customer's own plant during operation
- >> Digital infrastructure for qualified and comprehensive support services via remote access



# PROGRESS THROUGH EXPERIENCE

## WHY CHOOSE HENNECKE-OMS?



### **In-house engineering:**

Our systems, including tank storage, roll-forming, wet part, double belt, and dry part, are designed and built in-house to ensure superior quality and reliability.



### **Unmatched expertise:**

With more than 150 sandwich panel lines installed worldwide, Hennecke-OMS leads the industry in innovation and reliability. Our extensive experience and knowledge enables us to deliver world-class solutions. Choose Hennecke-OMS for cutting-edge technology and proven performance that ensures your success.



### **Focus on long-term value:**

We build high-quality systems technology that lasts, focusing on strong Total Cost of Ownership (TCO) measures to deliver lasting value to our customers.



### **Complete turnkey solutions:**

As an integral part of the Hennecke GROUP, Hennecke-OMS is the only company in the world that can offer everything you need for sandwich panel production from a single source. From chemical storage to shipping docks, we provide a seamless, one-stop experience for your entire production system, relying on perfectly harmonized control systems and mechanical standards.



### **Global support:**

With service centers and partners in more than 30 countries, our 360°SERVICE concept ensures you get parts, training and worldwide support when and where you need it. Additionally, our plants feature an extensive remote control concept to assist you via a secure connection.

### **Connect with us anytime:**

For more information or to schedule a visit to our Lamination Center of Excellence near Milan, Italy, contact us at [info@hennecke-oms.com](mailto:info@hennecke-oms.com). Our sales and technical teams are ready to assist you.



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