





Integrated into processes

Performance counts in the heart of the automotive industry. Automotive manufacturers develop and produce their products at the highest level – and rely on smart logistics. Their factors for success include innovative technology and efficient processes. Demag combines both. We combine our expertise in crane manufacturing with a detailed knowledge of automotive processes. In close co-operation with our customers, we develop smart, high-performance solutions that keep an entire industry on the move. Find out what makes our bespoke process cranes the backbone of demanding production processes. Perfectly integrated into your processes, hey ensure a high level of efficiency, availability, precision, safety and reliability - made by Demag.

Precisely turning through 180 degrees

Process cranes for maintenance and repairs

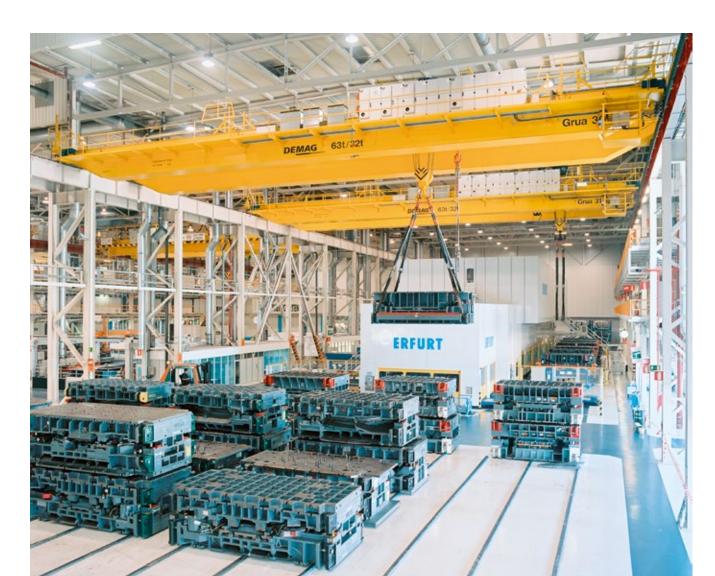
Precisely transporting and positioning loads are key tasks when tools weighing many tons have to be maintained and repaired in a press shop. Demag process cranes are ideally suited to meet these demands.

Equipped with two winch units, the cranes can lift and turn the press tools with maximum precision. Depending on the application, a crab fitted with two winch units or two open winch crabs can be employed.

Sensors continuously monitor the maximum possible inclined pull throughout the turning operation. The can automatically switch off the motions if there is any risk of overload. Safety, reliability and precision go hand in hand.

DEMAG TURNING CRANES: YOUR BENEFITSE

- Precise turning of tools by up to 180 degrees
- Inclined pull possible by up to 12 degrees
- Maximum safety thanks to active monitoring of inclined pull on both winch units
- Design optimised to meet specific application needs







Just in time: safe, reliable and efficient

Rapid tool changes, minimum setting-up times

Millions of car body parts moved every day: speed and maximum efficiency are key factors in production. Standstill is lost time. For that reason, tools need to be changed exactly in line with production requirements: interruptions tend to increase if they need to be changed more frequently.

The wide variety of models offered by the automotive industry has also resulted in a marked increase in the number of stamped and formed parts. Process cranes built by Demag are optimised for fast tool changes: they transport the necessary press tools to their destinations quickly and precisely. Just in time.

To meet these requirements, we equip our crane systems with tool grippers that are tailored to the needs of the given application. Smart sensors and programmed positioning ensure that tools can be picked up and deposited on the press line or in a store – without the need for additional personnel.

Active load-sway reduction ensures smooth and reliable transport. With these features, our cranes help to significantly cut set-up times and, therefore, downtimes and costs.



DEMAG TOOL GRIPPERS: YOUR BENEFITS AT A GLANCE

- Rapid tool changes as well as safe and reliable transport between the press and the storage area
- High efficiency thanks to programmed positioning
- Optimum utilisation of floor space thanks to minimum distances between stored items and tools stored on several levels
- Optimised deployment of employees, since loads do not have to be attached by hand
- Enhanced safety and reliability for crane operators and workers in the building

Positioning accuracy to the millimetre

Tool-handling crane with a mechanical gripper

Positioning accuracy down to the millimetre, in any environment: we configure tool-handling cranes with mechanical grippers to meet our customers' specific needs. Every solution benefits from our renowned high product standards.

Tool grippers are connected to a specially designed crab via four permanently reeved rope sheaves. A standardised 4 x 2/1 rope reeving arrangement limits any rope wear to a minimum.

If required, the tool gripper can be disconnected from the spreader to allow the crane to be used for various duties when the press is assembled, for example. For this type of work, the permanently reeved spreader can be fitted with a central load hook. Depending on the layout of the store, the press tools can also be deposited in a different direction to their position on the press beds. To achieve this, we additionally equip our tool grippers with a slewing mechanism.

Our press-line cranes have efficient positioning systems with redundant laser or barcode position measuring systems to pick up and deposit loads precisely. The integration of a master/slave control system in the crane end carriages compensates any permissible crane skewing.

Active load-sway damping control enables press tools to be safely picked up in semi- or fully automatic mode and swiftly brought to their destinations with positioning accuracy down to the millimetre. Any unwanted rotation of the load handling attachment is prevented by active control of the rotation angle. This allows any angle difference to be limited to +/- 0.2 of a degree.

Potential obstacles, such as presses, office or workshop areas, can be configured as by-pass zones with safety Performance Level d.

DEMAG CRANES WITH MECHANICAL TOOL GRIPPERS YOUR BENEFITS

- Particularly sustainable due to minimum rope wear
- Highly versatile thanks to application-specific spreaders, configurations and components
- Maximum precision by means of efficient positioning systems and master/slave controls
- High level of safety and reliability thanks to active load-sway damping control





Exactly to schedule

Smart controls for high-performance logistics

Process cranes can play a key role in smart logistics systems: the modular Demag Warehouse Management System (WMS) integrates specific storage strategies into local processes. Fully automated configurations, if required.

It can support inventory control, monitor system statuses, manage travel operations and optimise process cycle times. Already during a press cycle, the WMS schedules the next sets of tools needed during the process, initiates tool preparation and makes the tools available at the optimum position at exactly the right time. To do this, the web-based WMS communicates with the press as well as with many components throughout the installation, manages all tool-specific data and provides information on the operating and system status in real time.

How can we help to make you processes more reliable and efficient? Please do not hesitate to contact us. We will be pleased to help you.

DEMAG WAREHOUSE MANAGEMENT SYSTEM

- YOUR BENEFITS
- Smart software for efficient logistics
- Storage solutions to meet specific needs
- Automatic control of travel missions
- Optimised travel paths for staging tools and components
- Operating and installation status information provided in real time





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