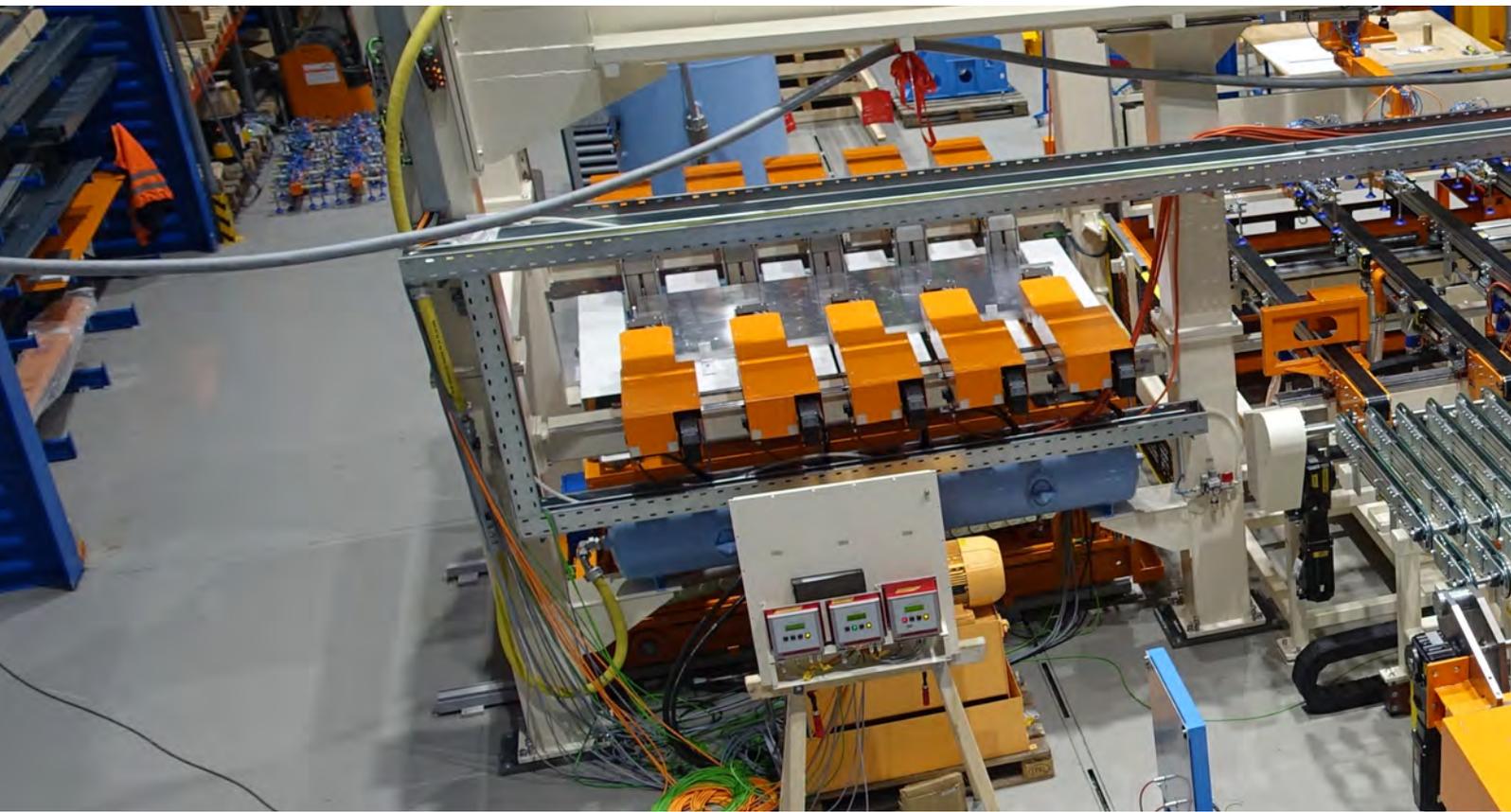




MACHINES | AUTOMATION

PRESS AUTOMATION



smt | Automation

smt | schleifstein designs, manufactures and supplies complete systems for the modern and economic automation of individual presses and tandem press lines.

With many years of experience in surface technology, the automation in press shops as well as our continuous development, we realize complex destacking systems, the interlinking of presses and the automation at the end of the press line, including state-of-the-art control technology.

As an independent automation expert we work together with all press manufacturers and different integrators.

For our customers this means:

„The best solution for maximum productivity.“



smt | Services

- Consultancy and planning
- Machine layouts, simulations and calculations
- Engineering
- Feasibility studies
- Design, manufacturing and assembly in our plant
- Buy-off in our plant
- Integration and commissioning in customer's plant
- Production support
- Service and after-sales support

The use of our equipment ranges from retrofits at existing press lines to new installations:

- **smt** offers modernization of existing press lines with individual machines to complete fully automated solutions.
- The system concepts from **smt** convince by their high flexibility for the processing of a range of different blank geometries and materials as well as in the output (single and several blanks next and behind each other) with maximum line availability.



smt | Destacker Systems

The **smt** destacker systems are suitable for use at hydraulic and mechanical press lines, at transferpresses, as well as in front of high-speed servo press lines.

On request, we can supply the entire product range from a single source and completely manufactured by our own company. This means that all machine components including the surface treatment technology and control are optimally synchronized and all interfaces are tested in advance.

Product portfolio:

- Blank feed / blank and pallet carts
- Separation with fanner magnets or aluminum-separators
- Destacking feeder / destacking robot
- Conveyors for steel and aluminum
- Blank cleaning and re-oiling
- Centering stations; mechanical or optical
- Loading feeder / loading robot
- Tooling change systems
- Control and visualization
- Safety housing
- Assembly and commissioning
- Production support and optimization

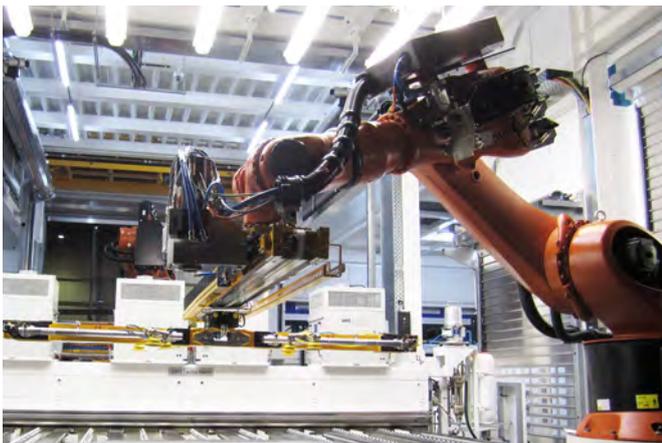


smt | Front of Line Automation

The automation equipment configuration from **smt** is planned and designed depending on specific customer requirements. Influencing factors for the automation solution systems are the available space conditions, the blank sizes and the expected output rates. This could be the classic T-form destacker as double equipment up to 20 blanks/minute or the destacking robot as single equipment up to 14 strokes/minute. The layout is possible in line design or also in L-shape design. The entire degree of automation can be realized from manual set-up processes to fully automated tooling change systems.

The blank centering prior to loading into the first pressing stage, is a task in today's variety and shape of parts that can be realized in different ways. **smt** uses the two main designs as mechanical centering with stoppers and side pins, or as an optical system with line- or matrix cameras for the position detection of the blanks in conjunction with a robot interface for the orientation of the blanks.

All systems are assembled and tested in our company, so that the integration at the customer's site is carried out smoothly.



smt | Interpress Automation

For the loading of presses, **smt** has its own scope of automation solutions. These solutions include, among others, a series with 6-axis transfer systems, 2-axis loading feeder and standardized robots, also in combination with the especially developed additional axis **TRA 35**.

This additional axis can be mounted on a variety of robots as a 7th axis. Due to the linear extension, it is not only possible to shorten the cycle time, but also the total stroke of the robot can be increased by approx. 3500 mm linear travel.

The fastest way between two points is a straight line. Due to the linear additional axis **TRA 35**, press center distances of 7000 mm or more can be bridged with only one robot. The part is not rotated, maintains its orientation throughout the entire line and can therefore be transported dynamically.

Additional axes at the tooling interface, e.g. a B-axis (rotate around the horizontal transverse axis) or further positioning movements are available as an option.



smt | End of Line Automation

As in the Front of Line area, **smt** manufactures and supplies a variety of conveyor designs for the finished part stacking area, the End of Line area. Belt conveyors can be designed either with flat belts or with a special surface finish. In addition, of course, the use of the corresponding automation components for the discharge of blanks of the last press and for the depositing directly onto the conveyor or onto an orientation shuttle. For quality control, illuminated test cells can be integrated.

smt | Press Hardening

In addition to the complete automation for cold forming press lines, **smt** also designs, manufactures and supplies hot forming equipment. These include highly dynamic press transfer systems with up to 12 servo axes. We offer a modular series with different load capacities (from 50 to 200 kg) and distances for a fast and efficient loading and unloading of hot forming presses. Our range of services also include the destacker with marking station, as well as a variety of destacking systems.

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