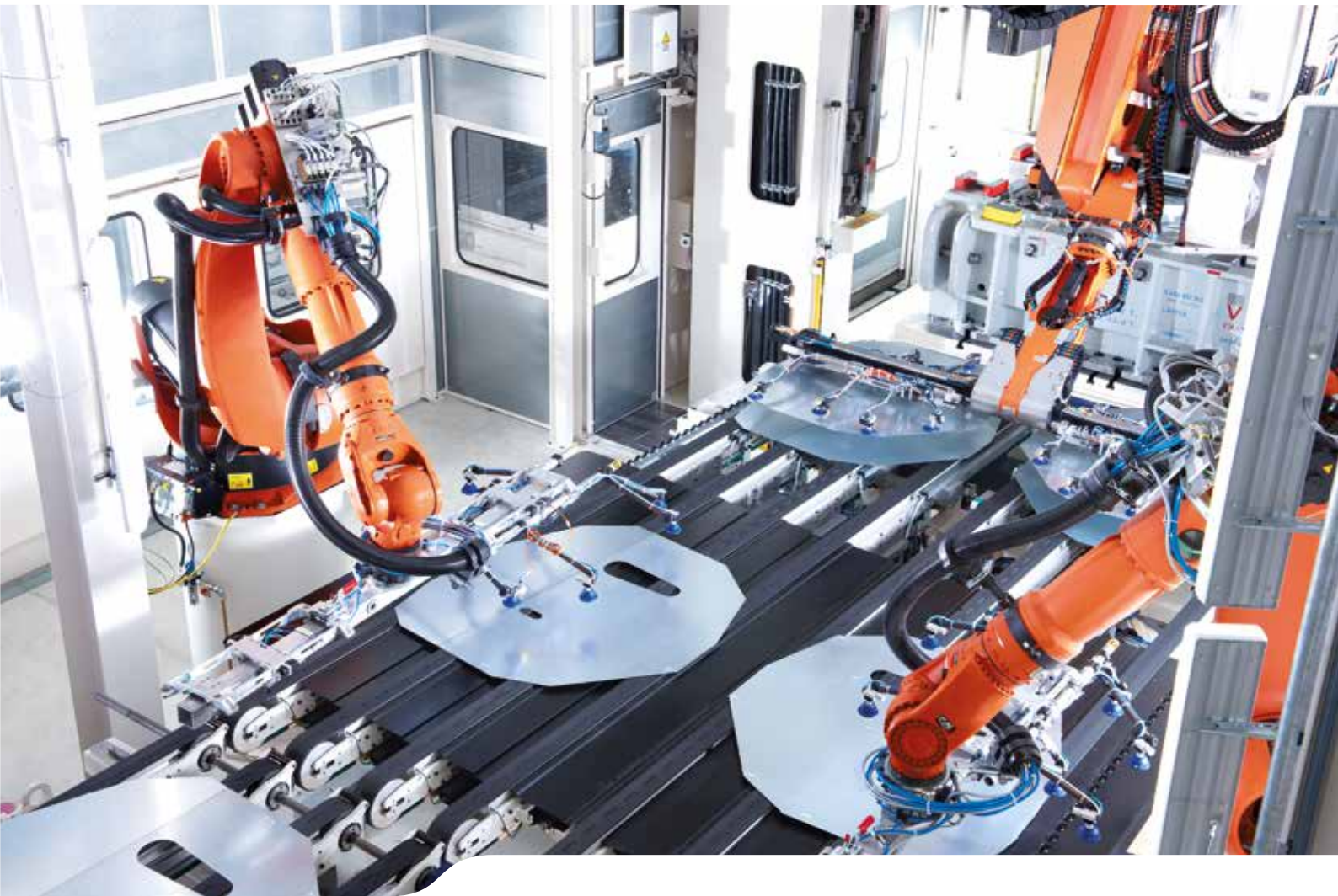


FORMING THE FUTURE



AUTOMATICALLY
MORE PRODUCTIVITY

FRONT-OF-LINE

DESTACKING

Schuler offers various flexible solutions for automated blank destacking by blankloader. Depending on blank size, weight, shape, kind of material and loading speed, the user of a press line can choose among the following standardized destacking/blankloading systems.

Destackers:

- With floor-mounted robots:
Production rates up to 11 strokes/minute
- With overhead robots:
Production rates up to 13 strokes/minute
- With feeder:
Production rates up to 16 strokes/minute
- With two overhead robots:
Production rates up to 23 strokes/minute



Destacking with robots.



Destacking with feeders.



Universal tooling.



Front-of-Line simulation.

CENTERING

Centering blanks before the first forming station is a basic prerequisite for excellent drawing results. A loading robot or crossbar automation then performs the part transfer onto the drawing die of Press 1.

Centering systems:

- Gravity-type centering station
- Optical centering station, basic
- Mechanical centering station
- Optical centering station, high speed



Destacker/blankloader with gravity-type centering station.



Destacker/blankloader with optical centering station.

PRESS-TO-PRESS AUTOMATION

FAST AND RELIABLE PART TRANSPORT

ROBOTS



Robot automation.



Press line with robot automation.

- Part transport with flexible orientation
- Part rotation
- Simple programming
- High availability
- Production rates up to 11 strokes/minute
- Easily programmed to change part position

CROSSBAR ROBOT



Eight-axis Crossbar Robot.



Loading without part rotation.

- Part transport with flexible orientation
- Press distances 4.5 to 10 m (15 to 33 ft.)
- No part rotation required
- Easy programming
- High uptime levels thanks to standard robots
- Production rates up to 15 strokes/minute
- Easily programmed to change part position

CROSSBAR FEEDER



Crossbar Feeder automation.



Press line with Crossbar Feeder.

- Seven degrees of motion freedom
- No intermediate station required
- Only one set of tooling for transfer between presses
- Production rates up to 23 strokes/minute
- Compact construction possible
- For servo press lines and mechanical highspeed press lines



Servo press line.



Mechanical highspeed press line.

END-OF-LINE

GENTLE FINISHED COMPONENT PROCESSING

After the final forming station, the main goal is fast and gentle End-of-Line part processing. Parts are taken from the exit conveyor and stacked – either manually or in the fully automated mode.

Automated finished part stacking systems are both fast and reliable, and they ensure the highest level of component quality. This process is achieved by robots or overhead feeders for reliable part handling and, if required, positioning of intermediate stations for gentle part stacking. A unique suction-cup technology further protects highly sensitive surfaces in the case of outer skin panels.

Gentle finished component processing:

- Exit conveyor in feed direction or at right angle to feed direction
- Exit conveyor with ergonomic part positioning
- Automatic stacking systems for up to 68 parts/minute



Conveyor for finished parts.



Conveyor with ergonomic part positioning.



Finished parts stacked by robots.



Stacking unit for finished parts.



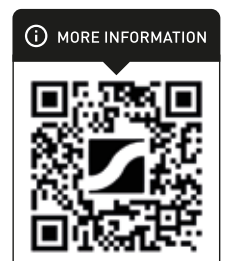
End-of-Line system.



Stacked body panels.

SCHULER SERVICE – STATE-OF-THE-ART SERVICE FOR MORE PERFORMANCE

Schuler Service offers a tailored portfolio of services covering the entire life cycle of your equipment. Over 900 service employees worldwide provide expert support 24/7 in close cooperation with you – our partners. Our main priority is always to ensure the maximum productivity and safety of your production equipment in order to secure your company's continued success.



[www.schulergroup.com/
service_en](http://www.schulergroup.com/service_en)

AUTOMATION IN THE STAMPING PLANT. FOR NEW LINES AND MODERNIZATION PROJECTS.

Schuler develops the most suitable automation concept for press lines, after careful consideration of the part families, throughput rates and space requirements.



Robot automation.

In addition to conventional robotic and crossbar solutions, advanced crossbar automation technology offers new perspectives. For the modernization of existing press lines, we also offer production-tested system solutions for reliable, high-quality component manufacturing.

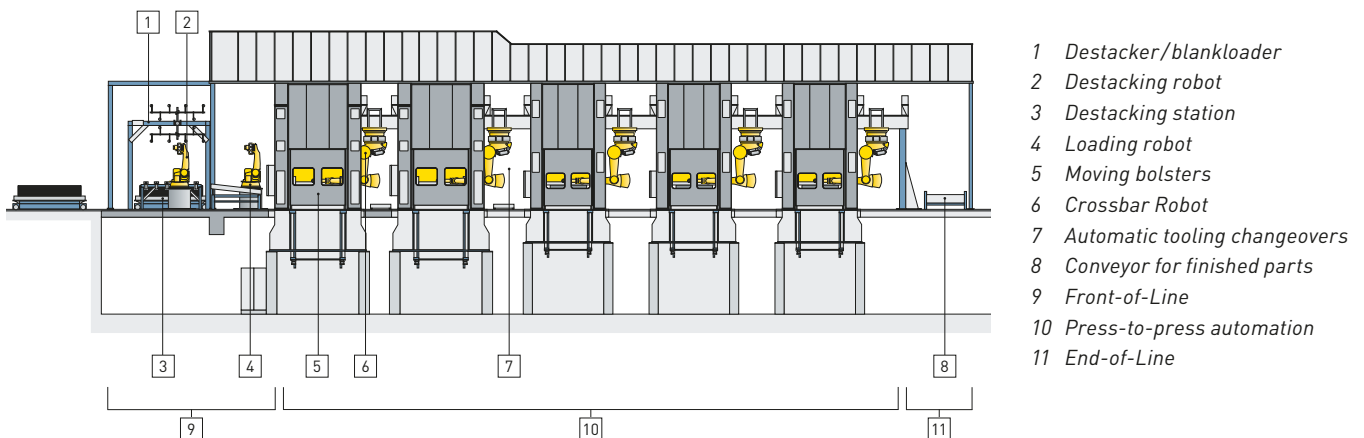
Automation for press lines:

- Destacker/blankloader
- Blank washer and reoiler
- Press-to-press automation with robot, Crossbar Robot or Crossbar Feeder
- End-of-Line systems

Other Schuler automation solutions:

- Blankloaders for transfer presses
- Automation solutions for hot forming
- Stack turnover devices
- Die change systems
- Automation for machine tools
- Automation for laser systems

PRESS LINE WITH FRONT-OF-LINE SYSTEM, CROSSBAR ROBOT AUTOMATION AND CONVEYOR FOR FINISHED PARTS



- 1 Destacker/blankloader
- 2 Destacking robot
- 3 Destacking station
- 4 Loading robot
- 5 Moving bolsters
- 6 Crossbar Robot
- 7 Automatic tooling changeovers
- 8 Conveyor for finished parts
- 9 Front-of-Line
- 10 Press-to-press automation
- 11 End-of-Line

ABOUT THE SCHULER GROUP – WWW.SCHULERGROUP.COM

Schuler offers customized first-rate technology in all areas of forming – from the networked press to press shop planning. In addition to press, our product includes automation and software solutions, dies, process know-how and service for the entire metalworking industry. Our customers include automotive manufacturers and suppliers, as well as companies in the forging, household appliance and electronics industries. Presses from the Schuler Group mint coins for more than 180 countries. When it comes to the digital transformation of the forming technology, we support our customers worldwide as a supplier of innovative system solutions. Founded in 1839 with headquarters in Göppingen, Germany, Schuler AG has about 6,600 employees at production sites in Europe, China and America, as well as service companies in more than 40 countries. The company is majority-owned by the Austrian ANDRITZ Group.

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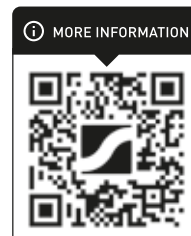
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