FORMING THE FUTURE



TRYOUT SYSTEMS FROM SCHULER

SCHULER
Member of the ANDRITZ GROUP

TRYOUT PRESSES WITH SERVODIRECT TECHNOLOGY.
THE ULTIMATE IN FLEXIBILITY FOR DIE TRYOUT.



Tryout presses with ServoDirect Technology offer excellent flexibility for optimum die tryout.

The ultimate in flexibility. Complex forming processes and the need for maximum quality while maintaining optimum efficiency are the hallmarks of press plants in the automotive industry.

In order to shorten the die start-up times and thereby keep start-up costs down, it is important to optimally prepare these for series production.

Tryout presses with ServoDirect Technology from Schuler are tailor-made for these requirements and offer the ultimate in flexibility for die engineering and the press plant.

Servo tryout presses are designed as duplicates for the draw press of the associated mechanical production system. The bending and suspension behavior, which plays a decisive role when it comes to the quality of the die tryout, is identical to that of the production press. As this results in an optimal tryout result, the tryout time on the production plant can be kept to a minimum.

The servo drive enables the kinematics of a range of different press types to be optimally simulated. Force control makes die spotting work easier.

Tryout presses with ServoDirect Technology drastically reduce the home line tryouts for press dies on the production plant. This increases the utilization level of the production plant and raises productivity.

Thanks to their flexibility, tryout presses with ServoDirect Technology from Schuler are future-proof and represent a secure return on investment.

THE ADVANTAGES

- Simulation of production conditions for mechanical and servo presses
- Increases availability during production
- Lowers parts costs per stroke
- The die data can be transferred to the production plant
- Provision of all operating modes in the press plant
- Energy efficiency thanks to servo drive
- Maximum flexibility thanks to servo drive

HYDRAULIC TRYOUT PRESSES.
CUSTOMIZED TRYOUT.

Hydraulic tryout presses ensure short tryout phases under near-production conditions. They are suitable for use in die testing and tryout before production begins. System operators have the full press force at their disposal at all times and, when necessary, can carefully place the upper die onto the lower die. When it comes to type sizes, performance data and equipment details, die spotting and tryout presses are designed to meet the requirements of die testing and for prototyping.

'Speed' drive version. To achieve higher forming speeds in the tryout area, Schuler has developed their own drive for this area of application which meets growing requirements. In practice, for prototyping and tryout presses, this means that considerably higher forming speeds are achieved in an economical fashion, even without the multicurve drive. As a result, the demanding drawing process can be better adapted to the actual conditions of the mainly mechanically driven production plants.

Multicurve drive. To improve tryout results for dies on mechanical presses, various slide kinematics can be simulated using the multicurve drive. These simply need to be entered once and saved. Data can be easily imported. For precise simulation of the forming process on mechanical and servo-mechanical production plants, the hydraulic multicurve tryout press can reach operating speeds of up to 500 mm/sec. The hydraulic multi-point drawing cushions in the press bed also simulate the functions of the drawing cushions on modern production equipment and ensure near-production tryout conditions.



Hydraulic tryout presses enable quick tryout for draw dies.



Hydraulic tryout presses reduce costly downtimes.

Hydraulic multi-point bed cushions. In order to use tryout presses universally, a hydraulic press cushion is needed in the press bed. This is designed to optimally cover the wide range of cushion technologies used in today's production processes.

THE ADVANTAGES

- Flexibility in terms of die heights, draw depths and draw forces
- Full press force across the entire slide stroke
- Variable draw force and speed
- Infinitely variable slide adjustment enables optimum access to the die
- Press force can be limited for small dies
- Mechanical and servo mechanical movement sequences can be simulated by means of a multicurve drive
- Simulation of modern production presses with the aid of a multi-point drawing cushion
- Adjustable stroke limitation
- Careful raising and lowering of the slide via joystick

TRYOUT CENTERS.
THE ULTIMATE IN FLEXIBILITY FOR DIE TRYOUT.



Tryout centers make the die tryout process highly efficient.

Tryout centers offer the ultimate in flexibility when it comes to die engineering and press plants. Depending on requirements, they include various hydraulic or mechanical press types and die openers.

Separate die machining. Time-consuming manual die machining takes place outside the tryout presses. The individual components of the tryout center are connected to one another through moving bolsters on a rail system.

The die can be transported directly out of the tryout press on a moving bolster to a die opener positioned at the side. Since a crane is not required for transport, not only does this solution save time, it also increases occupational safety. The upper die can be machined in an ergonomic position in the die opener. Another set of dies can be tried out in the tryout press while re-machining is taking place in the die opener.

The advantages:

- Efficient die tryout for several dies at the same time
- Occupational safety
- Easy opening and turning of dies
- Ergonomic machining of the turned dies
- Greater utilization of the tryout presses

INDIVIDUAL OPTIONS.
DIE OPENERS FROM SCHULER.

Tryout systems from Schuler can be extended with various auxiliary equipment to provide optimum and ergonomic working conditions for die engineers.

Die openers – ergonomic die tryout.

For ergonomic machining of upper dies during the tryout phase, it is advisable to turn them into a favorable position. Die openers, which can be connected to the tryout presses via moving bolsters, are used for safe opening and turning. Die openers make it easy to handle dies, thereby helping to increase efficiency during die tryout.

The advantages:

- Easy opening and turning of dies
- Ergonomic machining of the turned dies
- Integration in tryout centers via rail systems and moving bolsters
- Safety, as crane work is not needed
- More efficient die tryout



Die openers for ergonomic machining of the upper die.

SIMULATORS.
PRECISE PREPARATION OF AUTOMATION EQUIPMENT.

Alongside tryout presses, simulation devices also help to prepare dies and automation equipment for series production at the interface between die engineering and the press plant during ongoing production. Parts transport is simulated and optimized with parts-based tooling, to reduce cost-intensive tryout phases on the production presses.

The advantages:

- Automation simulation takes place in parallel to ongoing production
- Construction and optimization of the part-based tooling
- Reduction in setup and tryout times
- Increase in machine run times
- Employees can be trained while production is taking place
- Verification of movements determined through digital simulation under real conditions
- Proof of safe parts transport



Optimization of parts transport reduces the tryout time on the production line.

TRYOUT CENTER SCHEMATIC DESIGN

1. + 4. Die opener
2. Moving bolster
3. Tryout press



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.

MORE INFORMATION

www.schulergroup.com/service_en

ABOUT THE SCHULER GROUP – WWW.SCHULERGROUP.COM

Schuler is the technological and global market leader in the field of forming technology. The company provides presses, automation solutions, dies, process expertise and service for the entire metalworking industry and for lightweight automobile construction. Its customers include automotive manufacturers and suppliers, as well as companies in the forging, household appliance, packaging, energy and electronics industries. Schuler is a leading supplier of minting presses and implements system solutions for a wide range of different high-tech sectors. The company has a presence in approximately 40 countries with roughly 6 600 employees. Schuler is majority-owned by the Austrian ANDRITZ Group.

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