

FORMING THE FUTURE



## TRYOUT SYSTEMS FROM SCHULER

---

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



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

# 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.

# 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

**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
-

# 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



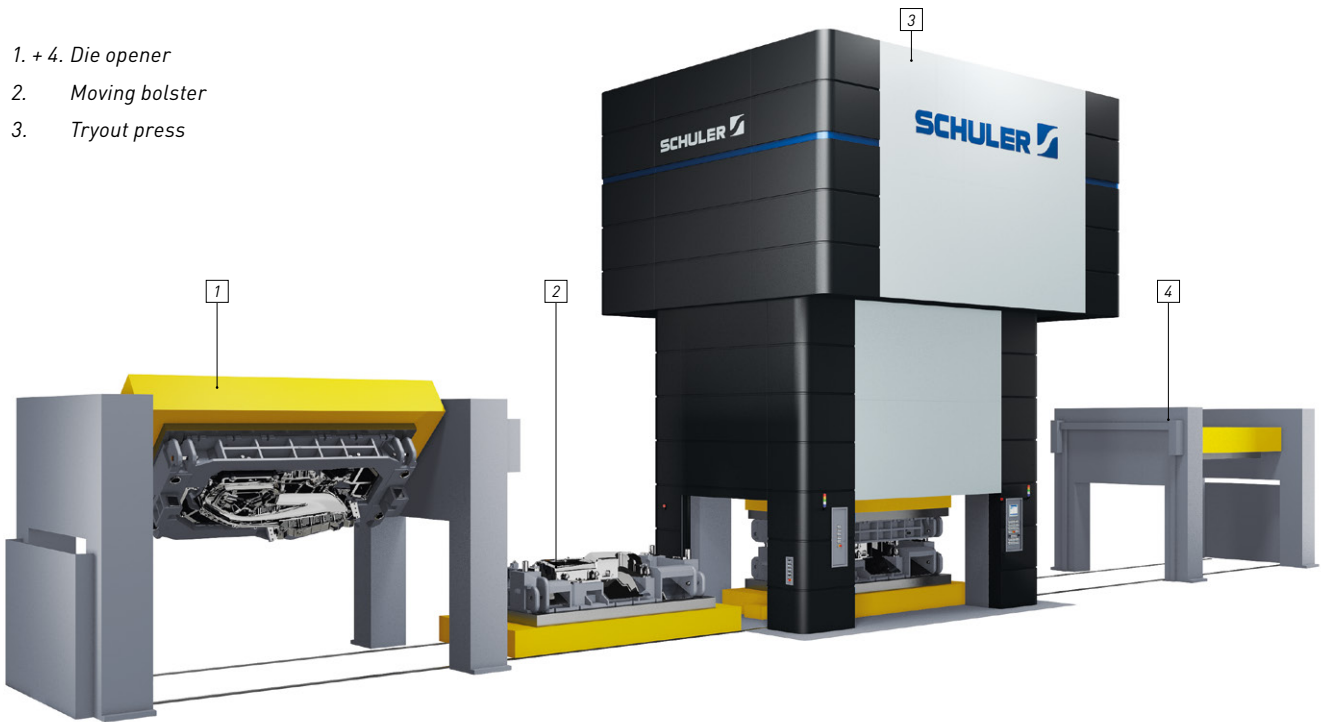
Optimization of parts transport reduces the tryout time on the production line.



## TRYOUT CENTER SCHEMATIC DESIGN

---

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



# DIGITAL SOLUTIONS. DIGITALIZATION IN THE PRESS SHOP.



Digitize your press shop with Metris Digital Solutions and boost your output.

## TAP INTO THE BENEFITS OF DIGITALIZATION.

Have you ever wondered how you can use digitalization to boost the productivity of your press shop? As a leading supplier in the field of metal forming, we want to help you increase your efficiency and boost the productivity of your presses.

With its Digital Solutions, Schuler offers you new opportunities to boost the productivity of your press shop:

- Set up dies easier than ever
- Monitor production systems
- Track parts from start to finish
- Protect dies, prevent damage
- Get immediate assistance from experts
- Put your system to the ultimate test.



<https://digitalsuite.schulergroup.com/en/>

Embark on the path to digitalization with Metris. Reliable, uncomplicated, and customized to your individual needs.

[digital@schulergroup.com](mailto:digital@schulergroup.com)

## THE SERVICE IN METAL FORMING TECHNOLOGY



Quick help with your system  
**24/7 Hotline & Remote Support**



Service centers worldwide  
**Field Service**



Quick and easy  
**Spare Parts Service**



For Schuler or third-party presses  
**Smart Modernization Solutions**



Remain flexible at all times in production  
**More than 400 Used Presses**



Increase efficiency with digital solutions  
**Digital Solutions**



Achieve your financial and ecological goals  
**Eco-Form Package & Energy Monitor**

Visit our website:  
[service.schulergroup.com](http://service.schulergroup.com)



**SERVICE  
MADE  
FOR YOU**



**WHEN BUSINESS AS USUAL  
BECOMES TOTAL SATISFACTION.**

**DISCOVER NOW HOW THE NEW SCHULER  
SERVICE CAN BENEFIT YOU.**

**Service – Made for you** stands for service that is precisely tailored to your needs. Regardless of what type of press or system you work with.  
**Fast. Competent. Reliable.**

## ABOUT THE SCHULER GROUP – [WWW.SCHULERGROUP.COM](http://WWW.SCHULERGROUP.COM)

Schuler offers customized cutting-edge technology in all areas of forming – from the networked press to press shop planning. In addition to presses, our products include automation, dies, process know-how and service for the entire metalworking industry. Within the Metris platform by ANDRITZ, Schuler brings together digital solutions for networking forming technology and develops them continuously to further improve line productivity and availability. For battery production in gigafactories, Schuler provides equipment and services in the process steps of cell assembly and formation. Our customers include automotive manufacturers and suppliers, as well as companies in the forging, household appliance and electrical industries. Presses from the Schuler Group mint coins for more than 180 countries. Founded in 1839 at our headquarters in Göppingen, Germany, Schuler has approx. 5,000 employees at production sites in Europe, China and the Americas, as well as service companies in more than 40 countries. The company is part of the international technology group ANDRITZ.

### Schuler Pressen GmbH

Schuler-Platz 1

73033 Göppingen

Germany

Phone Sales +49 7161 66-756

Phone Service +49 7161 66-660

Fax +49 7161 66-623

[info@schulergroup.com](mailto:info@schulergroup.com)

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



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

