**FORMING** THE FUTURE

# MODULAR ELECTRONIC TRI-AXIS TRANSFER

SCHULER

Member of the ANDRITZ GROUP

# TRANSFER SYSTEMS BY SCHULER.
# FLEXIBLE AND ECONOMIC.

The new modular transfer generation is designed in three basic sizes, covering a wide range of applications. This is a high-performance supplement for presses used in sheet metal forming.


Reliable part transfer and high output performance with Schuler's transfer solutions.

Our Active Vibration Dampening (AVD) system guarantees reliable part transfer for all three transfer solutions – even at high speeds and under full load.

Schuler Pro Trans. With its three levels of automation, "L" (Light), "M" (Medium) and "H" (Heavy), the Schuler Pro Trans line covers light, medium and heavy part weights and stroke rates. The heavy version is double the capacity of the light, while the capacity of the medium version lies in between. All three transfers owe their significantly improved transfer rates to the new automation using direct-drive feeding with high-speed servo drives.

Throughout the range, the Schuler Pro Trans follows modular design principles: the three defined standard models "AT1", "AT2" and "AT3" can be easily adapted to changing requirements. Schuler offers a wide variety of options.

Schuler Power Trans. With the Schuler Power Trans and automation level "S" (Speed), Schuler offers a high-end transfer solution for high-performance presses. It can increase production rates to even higher levels, up to 30 percent more than can be achieved with the Pro Trans automation versions. This increased performance is achieved specifically by means of newly developed carbon-fiber rails with the functionality of aluminum profiles in combination with the ServoDirect drive. The rails are very light and rigid. They perform with extremely low vibration so they are ideal for use in high-speed production presses.

Schuler Intra Trans. The Schuler Intra Trans can be equipped with all automation levels, from "L" (Light) to "S" (Speed). It is suitable for use in conventional presses as well as high-speed presses. The transfer rails of the Intra Trans do not work through the press window – they are mounted between the press uprights. Parts are moved in the transport direction by movable carriages. These carriages sit on the transfer rails where servo drives are integrated into the rail. Each carriage of the Intra Trans can be moved individually enabling the central joining of parts or even different distances between stations.

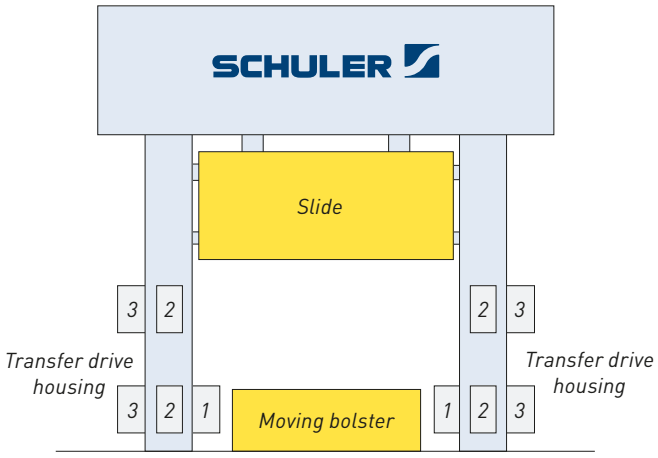
By using this compact transfer system, the same transfer press can produce larger parts. This solution also offers a genuine alternative to progressive die manufacturing. Conventional transfers require a larger press for the same maximum part size, the compact design of the Intra Trans means it needs only the same space as the progressive die. The transfer makes the most of its key advantage – reducing material consumption – as the parts are transported by the carriages and not by the coil material itself. In progressive die manufacturing, additional material is required which must later be separated from the finished stamping as scrap. The Intra Trans is ideal for retrofitting which reduces the per-unit costs of existing progressive die presses.

There are no restrictions to access the die or the die change process. The operation of the transfer systems of Schuler's Pro Trans and Power Trans lines is the same.

Compact and a genuine alternative to progressive die manufacturing: the Schuler Intra Trans.

## ADVANTAGES OF THE SCHULER TRI-AXIS TRANSFER

- Retrofits not limited to specific press types
- Easily adjustable to varying application cases
- Simple and cost-efficient performance enhancement
- High output performance
- High rigidity throughout the entire system
- Low vibration tendency
- Short tooling changeover times
- Generous space allowances for adding components for material feeding and unloading
- Material-independent residual strip processing




*Mounting options for the transfer drive housings of the Schuler transfer system on the press uprights.*

**Modular design.** All models of the Pro Trans, Power Trans and Intra Trans lines include transfer drive housings which can be mounted inside the press (1), between the press uprights (2), or externally on the press uprights (3). In addition, the drive housings can be installed above the feed level (suspended) or below the feed level/passline (floor-mounted). This ensures a high degree of flexibility in design configurations in the planning stage for new presses and in retrofit applications for existing presses.

MODEL OVERVIEW

| Size | AT1 | AT2 | AT3 |
|---|---|---|---|
| **Support width [mm]** | 3,000 | 6,000 | 10,000 |
| **Press window/Drive housing width [mm]** | up to 1,600 | up to 2,500 | up to 5,500 |

AUTOMATION OVERVIEW

| | TRANSFER RAIL PROFILE | APPLICATIONS |
|---|---|---|
| Schuler Pro Trans | | |
| **“L” (Light)** | Aluminum | Slow-running press lines and retrofit to existing presses |
| **“M” (Medium)** | Aluminum | Presses with conventional or servo drives and retrofit to existing presses |
| **“H” (Heavy)** | Steel/aluminum | High-speed presses for higher stroke rates and/or heavier weights with conventional or servo drives |
| Schuler Power Trans | | |
| **“S” (Speed)** | Carbon | High-speed presses (e.g. servo presses) |
| Schuler Intra Trans | | |
| **“L” (Light)** | Aluminum | Slow-running press lines and retrofit to existing presses |
| **“M” (Medium)** | Steel/aluminum | Presses with conventional or servo drives and retrofit to existing presses |
| **“H” (Heavy)** | Steel/aluminum | High-speed presses for higher stroke rates and/or heavier weights with conventional or servo drives |
| **“S” (Speed)** | Carbon | High-speed presses (e.g. servo presses) |

# SCHULER TRANSFER SYSTEMS.
# THE HIGHLIGHTS.

**Direct drive.** The use of direct drives improves accessibility into the press, making the system more maintenance-friendly. Direct drives help customers achieve greater feed increments – up to 3,200 mm (125 in.). They also minimize installation interference with other components such as the feeder, shuttles and conveyors and ensure optimal integration with coil feeding lines and/or destackers/blankloaders.

**Linear drive.** The linear drive is only used for the Intra Trans and is integrated into the transfer rails. It enables the compact design and high degree of movement flexibility for this transfer solution.


Wide range of applications. The available capacities are designed for use on presses with bed sizes of up to 8,100 × 3,100 mm (319 × 122 in.). The applications range from smaller parts such as seat rails and axle brackets up to doors and hoods. The very rigid yet lowmass and low-inertia design of the new tri-axis transfer permits extremely high stroke rates and short changeover times, especially in the manufacture of smaller parts.

Peripheral line components. As a systems supplier we are also your best contact and partner in matters of upstream and downstream line components, such as coil feeding lines, blankloaders and blank stackers. Our automation solutions are perfectly integrated with each other and ensure trouble-free production at optimized per-unit costs.

## ACTIVE VIBRATION DAMPENING "AVD"

Full loading and high levels of automation can lead to high vibration amplitudes in the transfer rails. To ensure smooth, reliable transfer of parts it is often necessary to either reduce the motor capacities – which slows the production rate – or to enlarge the transfer rail profile. Active Vibration Dampening reduces these vibration amplitudes to ensure maximum speed and throughput rates of the line. This allows the use of smaller transfer profiles for the same performance.

Transfer retrofit. Schuler tri-axis transfers are well suited for all types of lines by any press supplier. The installation of a new transfer is an effective and cost-efficient way to modernize existing lines – doing away with often expensive and time-consuming maintenance for older mechanical transfers. Reliability, precision and throughput capacity are significantly improved. Schuler tri-axis transfers have short delivery times and can be easily integrated into your presses.

## 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 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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