

SIEMENS

Ingenuity for life

Press Line Simulation

Faster setup of multi-stage transfer presses –
using simulation and the motion control system SIMOTION

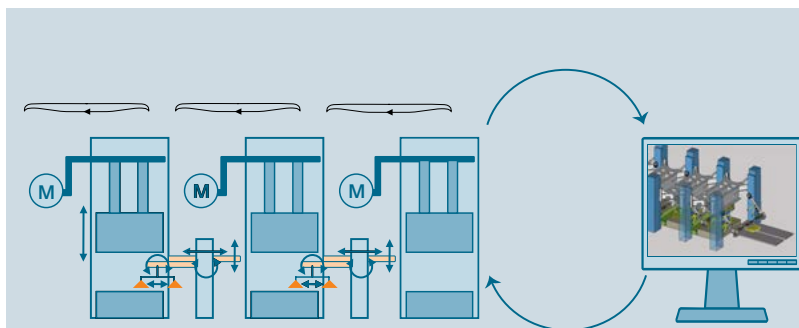
siemens.com/metalfforming

Press Line Simulation from Siemens is an innovative software for comprehensive programming, analysis and simulation of multi-stage transfer presses. Digitally simulating the entire component transport allows all the necessary operations to be prepared in advance, and virtually optimized at an early planning phase. As a consequence, the software provides valuable information for designers and planners, long before the components are actually produced.

Press Line Simulation supports various tasks in the press process – for instance, material flow planning, tooling design, die design and press setup. The interface to the press controller (SIMOTION®) allows an easy data transfer to the real application to be visualized.

The advantages at a glance:

- Virtual optimization and verification of all function components
- Possible errors are minimized as a result of the simulation
- The real press is set up faster
- Shorter ROI time as a result of significantly lower setup times and increased material throughput
- Increased productivity by varying programming parameters
- Fast commissioning



iPLS station – directly at the press line

Press Line Simulation being applied – an overview

- Simulation of a high precision model of the press
- Simulation of a complete press line
- Interactive setpoint/actual value comparison via the press controller
- Collision detection
- Open software architecture

Customized functionality – modular and precisely tailored to your requirements

An overview of the modules – to address your particular requirement, select the basis module and the modules that are relevant for you from the modular Press Line system

PLS Die Validation

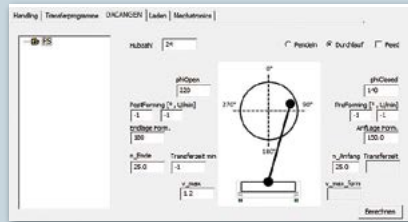
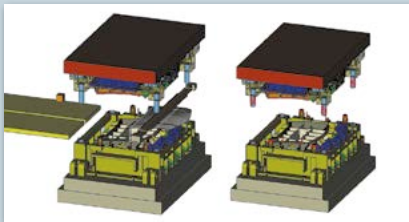
- Import dies
- Reassemble
- Define Kinematics
- Define cams
- Calculate collisions
- Import panels (parts)
- Import tooling
- Create collision reports
- Analysis functions
- Create PLS tooling libs from CAD sources
- Edit existing tooling libs

PLS Line Setup

- Import dies
- Kinematics settings
- Press synchronization
- Kinematics programming
- Signal handling
- Controller curves
- Import panels (parts)
- Import tooling
- Use tooling libs
- Calculate external collisions
- Analysis functions
- Edit existing tooling libs
- Create PLS tooling libs from CAD sources

PLS Modeler

- Create press models from scratch
- Edit existing press models
- Import press models defined with PLMaker
- Add/Change CAD geometry
- Change settings for adjustments and programming axes
- Create PLS tooling libs from CAD sources
- Edit existing tooling libs



With extended functionality more efficient:

In the current version PLS supports:

- the integration of external software modules (in the simplest case of an Excel spreadsheet) for calculating motion profiles for third-party handling systems and communication with RCS modules for certain robot controls
- the full integration of the SIMOTION curve generator for determining optimized motion profile for servo presses
- the direct communication with the real machine automation (SIMOTION) and the download of machine parameters that result from simulation

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