Simufact Forming Ring Rolling

Serves the simulation of ring rolling processes. The software covers classic processes such as ring expansion, axial rolling or wheel rolling, profiled rings or rings with a rectangular cross-section, for cold or hot rolling processes.

Use Simufact Forming Ring Rolling to define your rolling strategy and avoid rolling errors. Already at an early stage of process planning, the software supports you to achieve higher machine utilization or helps to optimize the individual process steps. Furthermore, Simufact Forming Ring Rolling enables you to avoid rolling defects in the workpiece and provides information on the component properties.

In order to provide you with a realistic representation of the ring rolling process, Simufact Forming is considering the typical boundary conditions of ring rolling: dragged rolls, centring rolls, all rolls can be controlled as a function of process results (e.g., ring growth), force and position control of the rolls, transversal ring displacement and open kinematics concept for individual customizing purpose.

Shorter development times with fewer trials
Unique process insight
Higher process stability and quality
Predictions of component properties
Simulate the entire process chain of manufacturing components with Simufact Forming: Beginning with the initial heating, upsetting of pre-shapes, piercing, ring rolling, machining of the final geometry and the heat treatment.

Utilize the advantages of Simufact Forming for your ring rolling processes:

- Optimization of preform geometry
- Determination of the necessary rolling strategy
- Analysis of force and energy requirements
- Adjustment of run-out
- Higher dimensional accuracy and reduction of allowances for machining
- Avoidance of rolling mistakes
- Maintaining the necessary temperature range
- Achieving a constant ring growth velocity
- Adjustment of the required microstructure

Simplified operating concept:

The software offers an easy, intuitive user interface. The construction of simulation models with their variety of parameters and the consideration of general conditions becomes simplified about the use of templates. Depending on the type of process the software loads typical basic settings (Application Function Sets). The Simufact operating concept shortens the learning curve with the software and convinces in day-to-day life with high ease of use.

Please find a detailed description of the product functions on our websites: simufact.com