

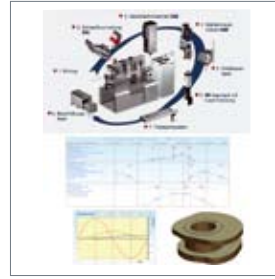
Analysis

- MADIS
- Forming Study



Kinematics

- Bihler normalized components selection system



- Feed
- Engineering Tools
- Cam-Timing Chart
- Cam
- Tractrix



Simulation

- Simulation Production Process

From the part...



... to the finished tooling.

THE NEXT GENERATION

Technology Software for 3D design

Developing high quality products fast and economically is an essential challenge in the globalized world economy. In order to maintain their competitiveness, companies have to continuously improve their core process – development of their products.

Bihler Software bNX offers leading technical functions facilitating complex tasks required in various areas for development, analysis, manufacture, marketing and maintenance. Development of successful products cannot be left to chance.

In the past it was very hard giving concrete information on the products' performance, quality and appearance during the development process. Almost always expensive prototypes had to be manufactured.

Thanks to the Technology Software bNX, processes can be analysed, configured, designed and simulated when developing and designing punching and forming tools. Due to the virtual product development, which allows for verification in the run-up phase, development risks as well as development times can be reduced considerably.

Achieve a more effective use of your CAD system in development and design of punching and forming tools!

Bihler Software bNX – Package Designer + PowerPack

The complete solution Bihler Software bNX is based on the 3D CAD/CAM/CAE solution NX® of Siemens PLM Software and comprises besides the fully integrated Technology Software PowerPack developed by Bihler also the basic NX software modules. This software bundle perfectly supports the customers when developing and designing Bihler tools and allows for an easy and save application of the Bihler technology.

Information about the Technology Software PowerPack

MADIS

Material Data Information System. Management of material characteristic values and properties.

FORMING STUDY

Parting from the 3D bending part, the Forming Study enables you to establish a bending concept. After defining factor K and Spring Back for the respective material, the blank and any bending position with or without charge can be generated.

BIHLER NORMALIZED COMPONENTS SELECTION SYSTEM

Graphic selection system for Bihler standard parts with product and application specific search. Possibility to display additional information such as technical documentation.

FEED

The material feed unit plays an important role when designing die and bending tool. Depending on requested feed length and angle, the programme calculates the optimum adjustment parameters.

ENGINEERING TOOLS

Calculation programs are designed to make the layout of Bihler process modules for tapping, bolting and feed units easier and more precise. Feasibility check and peak performance evaluation shall enable designers to detect any function problems in time, in order to reduce development times and costs. Optimization potentials can be verified in advance.

CAM-TIMING CHART

The Cam-Timing Chart offers the usual operating cycle of 360° to define interdependent tool movements. Defining the units is only possible within the admitted drive range. When defining and optimizing cam and NC controlled unit movements, the limit parameters that have to be taken

into consideration are indicated. The possibility to quickly modify individual movements enables you to easily adjust and optimize the entire operation sequence. Concerning the NC units, the NC profile data file is transmitted to the machine control.

CAM

The corresponding 3D Cam as well as the drawing derivation can automatically be generated for the cam-controlled movements defined in the cam-timing chart.

TRACTRIX

In order to optimize the forming processes, a tractrix contour is used instead of the bending radius. Tractrix application enables you to create the special contour easily and exactly.

SIMULATION PRODUCTION PROCESS

The movements of the units and their tools defined in the Cam-Timing Chart can be simulated in step-by-step or dynamic mode. This module is an ideal tool for checking and optimizing the entire operation sequence.

B-TOOLS

Project assembly: Automatic generation and linking of freely definable assemblies with the possibility of Seed-part connection and the use of assembly models.

Design frame: Easy adding and positioning of personal design frame.

Title box: comfortable entry mask for filling in the title box.

List of coordinates: For plates with multiple bores, whose coordinates, diameters and tolerances are to be displayed in a table added to the drawing.

NX is a registered trademark of the Siemens Product Lifecycle Management Software Inc. or their branches in the USA and in other countries.

(subject to change without notice 09/08)