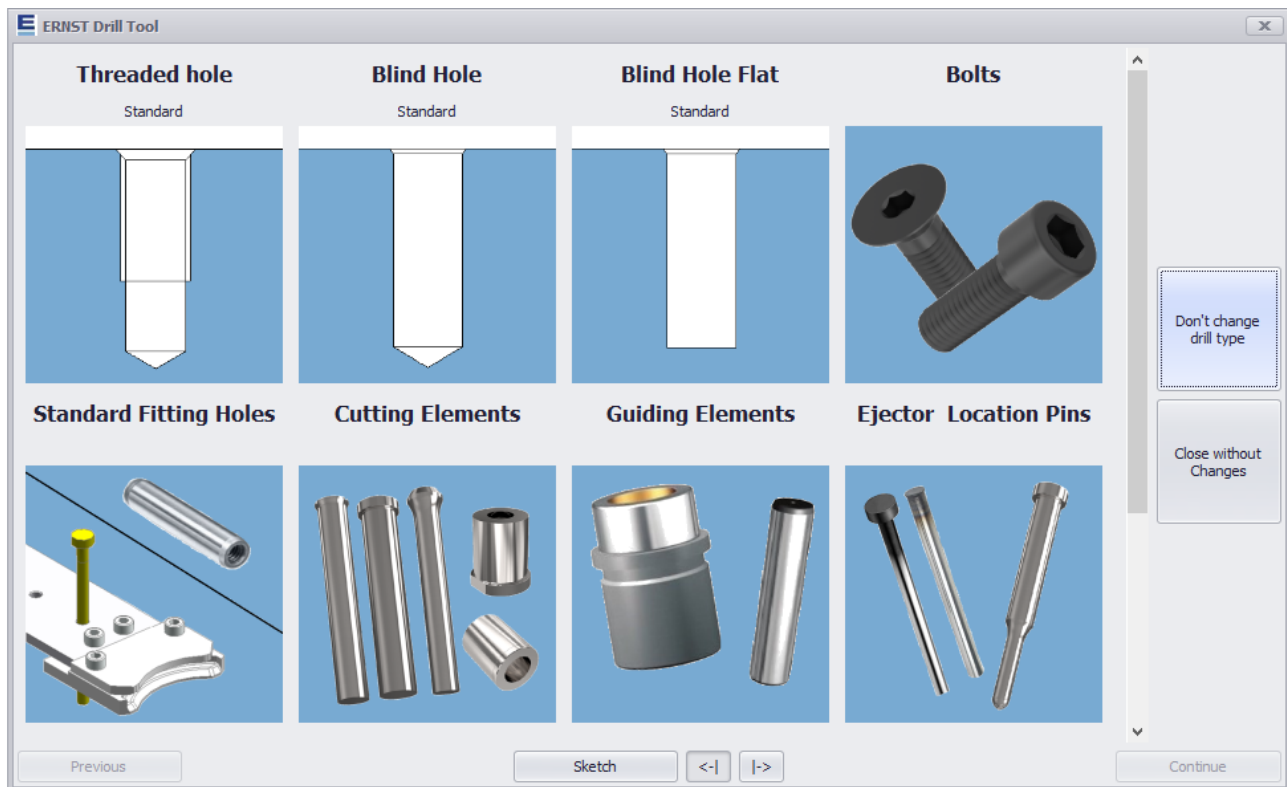


User Report ERNST Umformtechnik

REITEC implements SolidEdge add-in for the creation of boreholes



THE INITIAL SITUATION

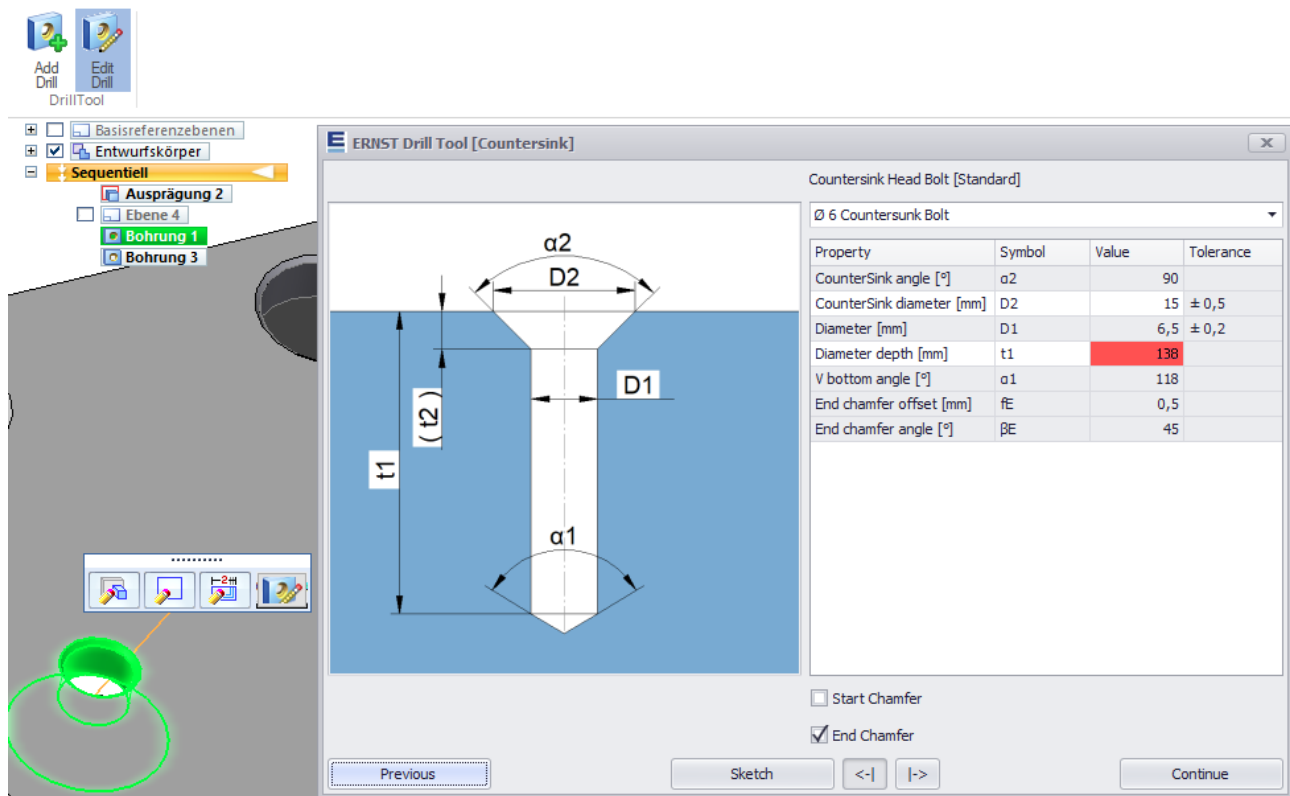
The design department of the German company ERNST Umformtechnik GmbH, situated in the town of Oberkirch, creates CAD models and drawings of forming tools for sheet metal processing. Tools are designed using the SolidEdge CAD system, and component tolerancing is carried out during the creation of the 2-D drawing. The 3-D models are read into a CAM system for programme creation.

THE TASKS

So far, it was not possible to transfer manufacturing tolerances to the CAM system. The customer wished that the designer should be able to define the manufacturing tolerances already in the CAD system and transfer them directly to the CAM system. Furthermore, the designers were dissatisfied with the operating concept of the command for creating a borehole in SolidEdge, especially where the standardisation of recurring holes was concerned.

THE SOLUTION

A customer-specific add-in for the CAD system SolidEdge was created, which can do both, simplify the selection of the required bore and provide control of all drilling parameters with the help of templates. Manufacturing tolerances are assigned to the drilling parameters, which can be adjusted by the designer within a certain range. The manufacturing tolerances are automatically transferred to the dimensioning elements in the drawing environment and evaluated by the CAM system.



HIGHLIGHTS OF THE ADD-IN FOR SOLIDEDGE

- The customer can fully manage the bore types, drilling parameters, and tolerance classes
- The functions can be called up directly from the SolidEdge interface
- User-friendly dialogues with large buttons simplify the selection
- Illustrations show bore shapes and dimension positions
- The data related to a bore is stored directly in the Solid-Edge file for the bore feature
- Bore features created by the add-in and bore features created with SolidEdge can be edited with the dialogues and functions of the add-in
- The parameters contain value ranges and plausibility checks
- The functions of the dialogues and plausibility checks can be tested with a test routine independently of the CAD system
- The user can automatically add the tolerances to the drawing dimensions in the drawing environment

In cooperation with the customer, REITEC achieved an excellent result by applying the agile development method, which REITEC has been practicing for over 20 years. For example, the improved interface and the validation of the input are functions that were only developed after the first cycle and implemented by REITEC as part of the project. "REITEC was not only responsible for the programming, but also took care of our requirements and developed ideas and possibilities for implementation together with us," says Kevin Winkler, the responsible project manager at ERNST Umformtechnik.

ABOUT ERNST UMFORMTECHNIK GMBH

ERNST Umformtechnik is a development service provider and series manufacturer in metal forming technology with a focus on stamping and deep-drawing, transfer and progressive manufacturing as well as component production. For more than 40 years, ERNST has gained a reputation for first-class quality and reliability, sophisticated technologies and processes. Worldwide, the ERNST Group has approximately 750 employees (as of January 2020) at four locations in Germany, France, the USA, and China.

Further information at www.ernst.de



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