Die Forming and Trimming Tools

FASTTRIMSTEEL is a completely integrated CATIA V5 solution to automate the design of trimming and forming tools as being used in the sheet metal and plastics die forming industry. The solution creates the stock material (or casting) and the NC programming surfaces as separate elements to fully support the engineering and manufacturing process. It furthermore will take into account the typical design specifications as known in the tool engineering industry. FASTTRIMSTEEL was developed in close cooperation with iCapp.
Benefits

- FASTTRIMSTEEL automates the process for creating complex shapes where standard CATIA V5 functionality is limited or requires multiple manual interactions.
- Complete parameterization of the trim and forming steel: all entries can be modified at any time.
- Explicit user interface; easy of use.
- Time savings for engineering the trimming and forming tools and enabling concurrent engineering through fast response to product changes.
- The native CATIA V5 data enables full integration in the overall process of process planning and tool engineering.

Product features

- FASTTRIMSTEEL generates the base geometry of the trimming or forming tool (cast body or stock material), the NC programming surfaces of the knife head as well as the remaining shape of the tool (mounting foot).
- Trimming contours are defined, including the parameters for tool operation direction and trimming side; i.e. scrap side.
- Trimming contours can be open or closed and may be tangent discontinuous.
- Default trim steel sections are embedded. These sections can be edited at any time.
- Based upon editable 2D sections, a customer specific library of trim and form shapes can be created.
- Oversize dimensions can be set to define the base material.
- Trimming process parameters can be set. Typical parameters are cutting intrusion and shear.
- Collision checks will ensure the trimming tool does not interfere with the sheet material at unwanted areas.
- The computed trim steel can be segmented in smaller (physical) parts. Each segment will inherit the initial parameters that individually can be modified per segment.
- To prevent interference between a trim steel and a scrap cutter, a relief can be designed automatically.
- A simulation function will visualize the intrusion of the trim steel into the metal sheet.
- The design of the mounting foot, mounting side, of the tool is either parameter based or sketch based. The parameter based foot uses predefined shapes.
- All created data and features are native CATIA V5.

Contact

CENIT AG
Industriestraße 52-54
70565 Stuttgart
Germany
Tel.: +49 711 7825-30
Fax.: +49 711 7825-4000
E-Mail: info@cenit.de
www.cenit.com