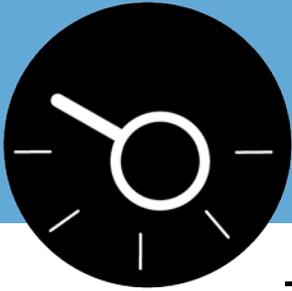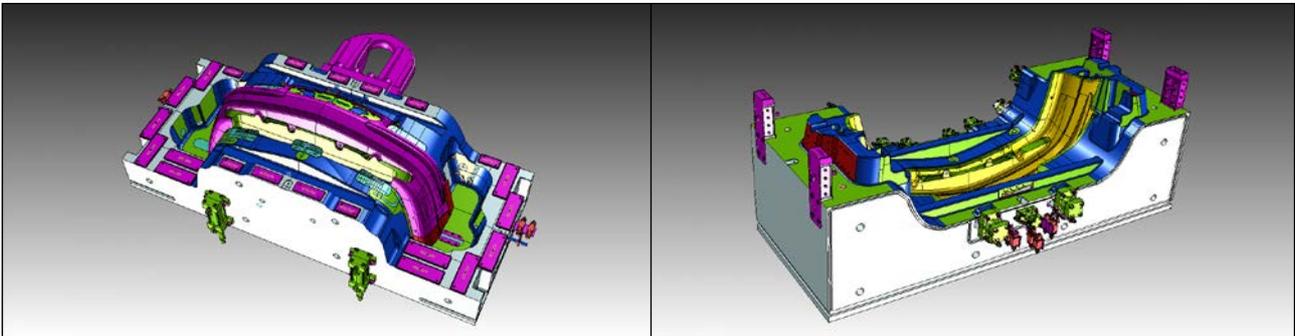# ThinkDesign

Tooling

## The ultimate hybrid CAD solution for the creation of molds and tools

ThinkDesign Tooling is DPT's comprehensive CAD solution designed for tool makers and engineers specializing in tool & die creation. Built on strong CAD foundations, ThinkDesign Tooling features DPT's innovative technologies such as GSM (Global Shape Modeling) and Zone Modeling that allow real-time modifications of complex models. ThinkDesign Tooling offers libraries of 3D components and the most popular commercial catalogs, and it can be completed by adding CAM software, a wide range of direct converters and the fully integrated PLM solution. The management of files in various CAD formats of varying quality levels is one of the most challenging tasks for mould makers. Therefore it is very important to have the right tools to easily modify the models in neutral formats (IGES, STEP, etc.) they receive from their customers. A key element of the mold design process is still made in a "mixed environment" that brings together the speed of 2D and the quality and accuracy of surface and solid modeling. For this reason, ThinkDesign Tooling offers a single 2D/3D integrated design environment that can be used by specialists according to their needs.

HYBRID MODELING

ThinkDesign Tooling is the only software on the market offering unsurpassed hybrid modeling capabilities that allow a perfect integration of tools for solids and surfaces. It is possible to use curves, surfaces and solids and to switch between both modeling techniques in very natural way.

GSM GLOBAL SHAPE MODELING

GSM (Global Shape Modeling) is the only creation and modification tool that allows users to make global, accurate and quick changes, at any stage of the design process. Global Shape Modeling, zone modeling, capping and zone draft are just a few of the powerful features that allow to modification and rebuilding of imperfect shapes (open solids) on imported, native or standard data.
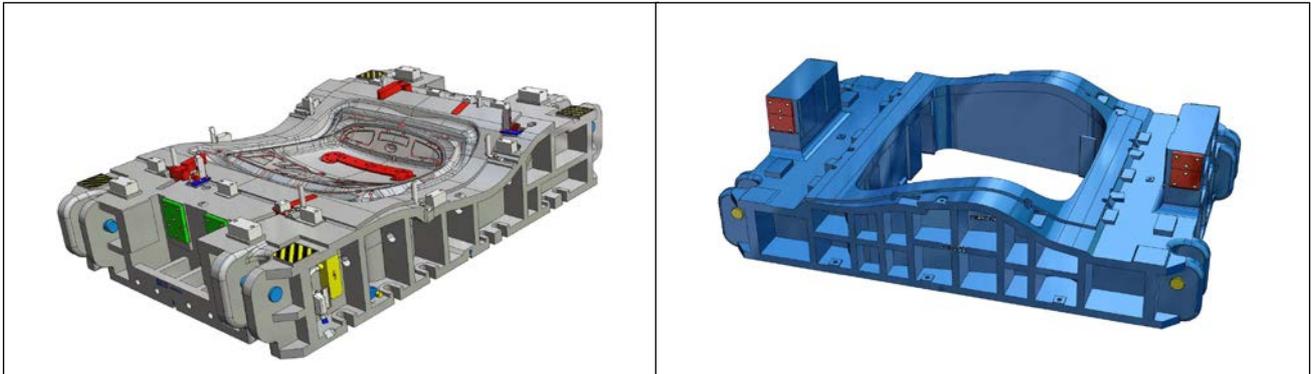
2D/3D/PLM TRASPARENCY

ThinkDesign Tooling offers a single design environment with 2D/3D/PLM (Product Lifecycle Management) transparency, eliminating the need of expensive 2D/3D interfaces. ThinkDesign Tooling's best-in-class 2D and 3D environments ensure extremely high interoperability levels. In addition, ThinkDesign Tooling perfectly integrates with the PLM application suite. The PLM enables users to generate BOMs or perform data searches and it is a critical tool for review management activities and mold and equipment maintenance cycles.
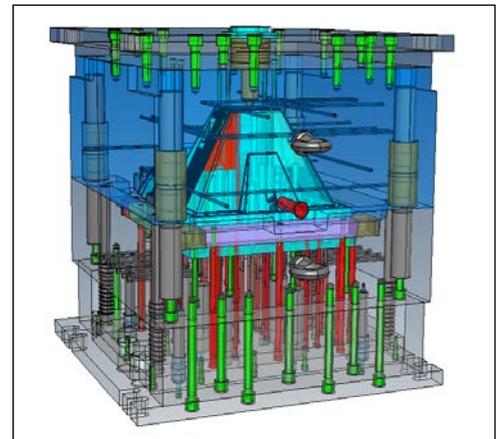

INTERACTIVE SOLID MODELING

The modern Interactive Solid Modeling feature allows modification of solid geometries, both native and imported, and helps users overcome the parametric logic made of profiles and constraints and the object creation sequence, to get the expected modification result directly. Thanks to its solid modeling and surfacing functionalities, ThinkDesign Tooling ensures innovative part modeling functionalities in a flexible and easy-to-use design environment.

# SMART OBJECTS AND ADAPTIVE MEASURES

Smart Objects enable users to capture, reuse and share a part or the whole project, ensuring greater compliance to enterprise standards, fewer errors and faster design cycles. They also enable the creation of customized smart object libraries.
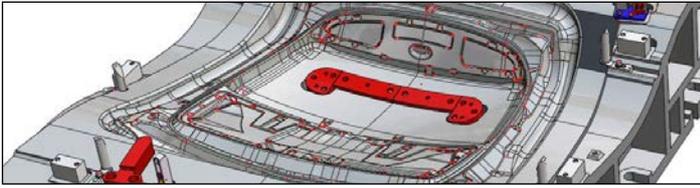
Adaptive measures make the approach to component design in the context of the tool & die assembly more direct and intuitive. When inserting or editing features, values can be read from the surrounding geometric shapes with a simple mouse click, preserving their associativity. As a consequence, the top-down design of parts and assemblies becomes faster and less prone to errors compared to manual methods. It is also possible to quickly create a 3D model from 2D drawings in DWG/DXF formats.

GLOBAL SWEEP
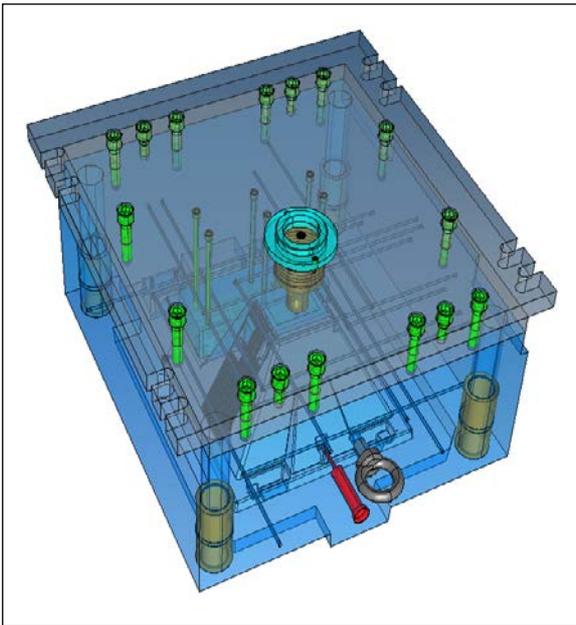
This particular curve sweeping method, along a 2D or 3D path, which may contain sharp corners, is also associative. Users can test different shapes by changing reference curves and boundaries. For example, to prepare an object for mold making, it allows creation of parting surfaces. When modifying the model, the parting curve will change and its surfaces will be automatically updated.

2D AND 3D TRANSLATORS

ThinkDesign Tooling provides 2D translators for DWG, DXF, IGES formats and GBG Draftmaker, besides 3D translators for the formats IGES, STEP, STL, VDA, VRML, WaveFront, IV, the neutral format of ThinkDesign and ASCII.
The converter TDXchange Reader, which you can purchase separately, offers a further extended set of possibilities, it enables the import into ThinkDesign of the latest and most popular proprietary 3D formats such as Catia v5, ProE, Parasolid and others. The bi-directional converter for Catia v4 is also available (2D included).*

* Check details and availability for the various platforms.
For the system requirements, please read this document.