



UNLIMITED CAD PERFORMANCE DEVELOPED BY ISD

Assembly based modelling

Simulation and Analyses

*Auto-generated
production drawings*

**MECHANICAL
ENGINEERING**

isdgroup.com



THE WORLD OF CAD AND PDM SOLUTIONS

More productivity for your machines!

HiCAD provides true 2-D/3-D associativity and cross-sectoral functionalities in one system

Machine engineering is a very wide field that often combines components from various industries. Whether tooling machines, agricultural machines, wind power plants, engines, household devices or complex production lines - mechanical engineering components can be found almost anywhere. The broad product variety and different requirements demand a maximum of flexibility not only from the product developers in an enterprise, but also from the CAD system they use. Because, one thing is certain: A system without sufficient industry-specific functionality would soon reach its limits here.

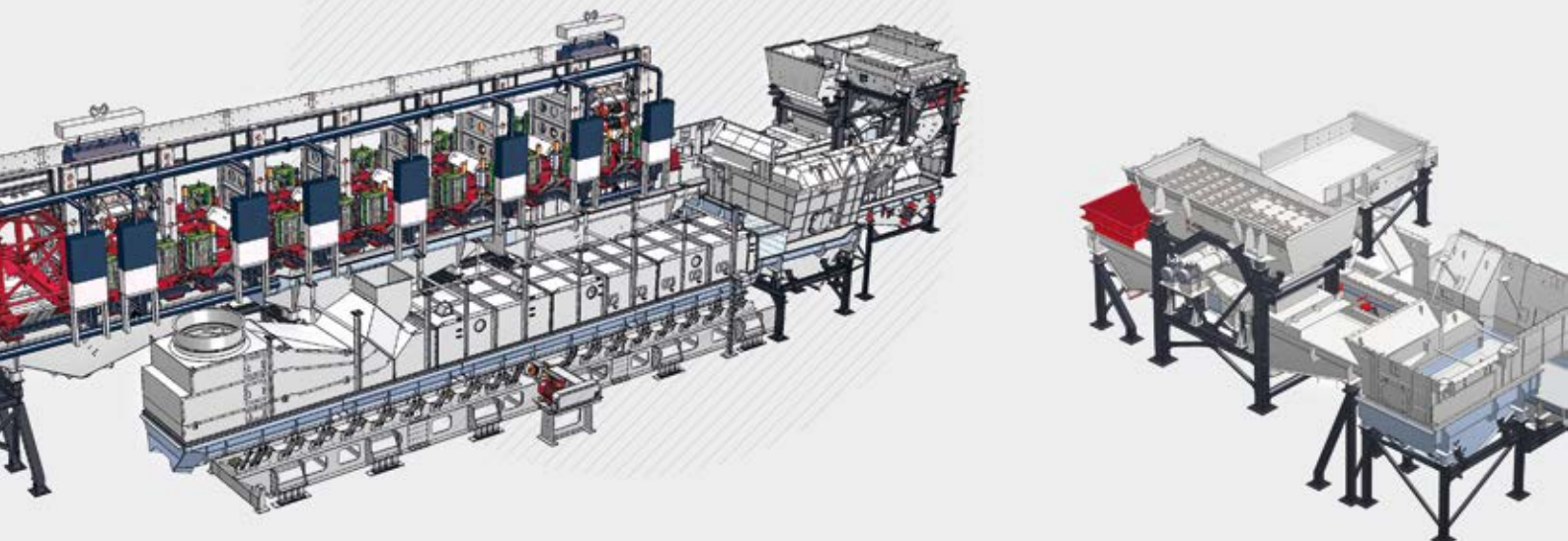
With HiCAD you can face such tasks with composure, as it sets benchmarks in the field of professional 2-D/ 3-D construction and enables an effortless designing across

different industries. You can create your designs with powerful, tried-and-tested 2-D and 3-D functions, process your models directly in the assembly (Assembly-Based Modelling), automate your designing processes with the help of modern variant technology and process even very large assemblies consisting of several tens of thousands of parts with ease. Our Hybrid Technology provides optimal support during cross-sectoral projects, for example with special functions for steel beam constructions, or production-oriented sheet metal processing functions. Substances like lubricants or compressed air can be managed effortlessly with the 3-D pipeline planning technology. This makes HiCAD the ideal solution for the construction of complex (special) machines.



» We have a decade-long, trustful cooperation with the ISD Group. For us, a high competence in the data transfer out of 2D systems and the consistency in 2D and 3D was important from the beginning. HiCAD meets these requirements with flying colors. «

Daniel Klaas, IT / CAD-Administrator Jöst GmbH + Co. KG





3-D model of a stump grinder
(Image: Jensen Service GmbH)

This is how it's done

HiCAD gives you access to extensive standard part and standard processing libraries as well as online catalogues.

Start productively and without any loss of data.

HiCAD enables you to work with a maximum of flexibility right from the start: Create your product model in 3-D and, depending on your individual requirements, derive various sectional or details view from them. Whether you make changes in the model or in the views – full associativity will always be preserved. The entire model drawing, complete with dimensions, views and annotations, will be managed in one file. In addition, you have the option to freely choose between parametric and non-parametric modelling, which is a great advantage, especially in the field of mechanical engineering. For instance, you can use non-parametric modelling for the designing of customised machine parts. Or you can use parametric modelling for the creation of modular systems for company-specific, frequently used standard parts. Existing data can be re-used and processed further in HiCAD, with no loss of data due to conversion - for example, in

case of a changeover from another system, a changeover from 2-D to 3-D, or during cooperation with customers, partners or suppliers.

Avoid time-consuming, expensive rework.

Use HiCAD's simulation and analysis functions and the automatic collision check to examine the quality and functioning of your model. This enables you to detect and eliminate errors in the product model already during the design stage, thus avoiding time-consuming and often rather expensive rework right from the start. In addition, numerous viewing options help you assess your product models: You can view and process your models from any perspective, create detail views or sectional views.



HiCAD

HiCAD guarantees fluent design processes - even for very large assemblies consisting of tens of thousands of parts.

Persuade your customers by perfect product visualisation.

HiCAD allows you to perfectly visualise your 3-D models already in early stages of the design. You can use lighting options to illuminate your model, apply textures, or add background panoramas. Or you can simulate environments that are mirrored on the surfaces of your models. Even before the actual realisation of your product, you will be able to present photo-realistic images that provide your Sales and Marketing Department with convincing arguments in sales talks, on trade fairs or during presentations. Exploded layouts and motion simulations of your products can be presented in a lively manner in the form of videos. With HiCAD you will be able to convince your customers completely, rendering expensive prototypes superfluous.

Auto-generate all production documents.

All necessary production documents, such as detail drawings, production drawings, exploded views or bills of materials, can be derived from the 3-D model at the push of a button, and will automatically be updated in case of any changes to the model. This allows you to conveniently apply changes during later design stages and react flexibly and rapidly to unexpected customer wishes. Once created, the production documents can be forwarded to an ERP system or your production department or your partners. All common standard formats such as DXF, DWG or STEP, a wide range of direct interfaces to market-relevant systems, as well as universally compatible viewing formats ensure a smooth and error-free data exchange.



Car brush (Image: RVS - Werken b.v.)

At a glance!

Thanks to its modular structure, HiCAD can be conveniently adjusted to company-specific requirements. Our PDM software HELIOS allows a transparent management of all product-related data. This provides the basis for a secure Concurrent Engineering, which reduces design times and thus also the costs. For mechanical engineering tasks, HiCAD is available in three different configuration levels. If you are frequently dealing with cross-sectoral projects, you should also take a look at our solutions for sheet metal processing, plant construction, steel and metal engineering. Please feel free to contact us and request further information.



HiCAD Mechanical Engineering

Basic functions

For a rapid familiarisation, e.g. GUI with Ribbons, Help, Sketch Technology, Text Editor, Browser, etc.

Suite



Suite plus



Suite premium



2-D drawing functions

State-of-the-art drawing functions, 2-D HCM variant technology, all CAD features required for 2-D drawing



3-D modelling

Innovative 3-D functions and tools for photo-realistic product models



3-D fasteners

Mechanical Engineering standard parts for bolts and screws, pins, studs, washers, nuts



Sheet Metal basic

Basic functions for sheet metal processing, with automatic development and blank calculation



Sheet Metal professional

Production-oriented creation of complex sheet metal products, with special functions such as automatic development, user-specific blanks, bending simulation etc.



Beams & Profiles

Special functions and beam/profile libraries for the creation of steel beam constructions



Automatic Workshop drawing generation

Also for sheet metal parts, beams, profiles and plates





Much more than just CAD - all from one source!

The ISD Group, one of the worldwide leading providers of CAD and PDM/PLM solutions develops innovative software for entire process chains. Our software products HiCAD and HELiOS help our customers realise the most demanding design tasks throughout all fields of industry. Besides developing and selling our software products we offer a wide range of services and have experienced specialists for consulting, installation, training, maintenance, and a hotline in place. This enables us to provide you with a truly comprehensive service package from one source. Short ways of communication and customer proximity are a matter of course for us.

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