



UNLIMITED CAD PERFORMANCE DEVELOPED BY ISD

*Free and
parametric modelling*

*Connection libraries with
Staircase and Railing Configurator*

*Auto-generated production
documents and BOMs*

STEEL ENGINEERING

isdgroup.com



THE WORLD OF CAD AND PDM SOLUTIONS

From single beams to complex constructions!

HiCAD – the comprehensive solution for construction and management tasks in civil engineering.

HiCAD enables you to realize simple or highly complex projects in the field of steel engineering or related industries such as glass, metal or facade engineering with the help of state-of-the-art design technologies. Industry-specific functions, practice-oriented working techniques and a high degree of automation reduce product development times and increase product quality. Examples of this include the expert system for beams, profiles, sheets and plates, the intelligent connections, the automatisms for production document generation, or the Staircase and Railing Configurator. Whether complex support structures or customized glazing constructions - with HiCAD you will always be on the safe side. And thanks to its modular structure, HiCAD also allows all-round users, e.g. metalworking shops, to perform all their tasks with one single system.

Maximum performance for civil engineering.

The BIM/PLM concept enables you to turn HiCAD into a unique comprehensive solution for designing and professional data and process management in civil engineering. All production drawings, mounting drawings and order documents will be automatically generated, updated and safely managed in efficient databases with the HELiOS product data management. With its extensive functions for data and process management, HELiOS controls all accesses to constantly updated project data, e.g. 3-D models, production drawings, mounting drawings, bills of materials, NC data or E-mails, throughout all departments of the company.



»HiCAD offers a convincing technical solution for 3-D steel engineering and a truly unique 2-D/3-D associativity. Its open architecture allows a perfect adjustment of the system to our specific requirements.«

Siegfried Eckert, General Manager of the
Ing.-Büro Karl-Heinz Goerke





The Garaventa AG is a specialist for cable cars and ropeways. The image above shows the construction of a support structure for the "Linthal 2015" project in Switzerland. (Image: Garaventa AG)

This is how it's done

With HiCAD you can get started straight away, using losslessly transmitted data from customers or architects as a basis.

Create and process steel engineering structures at high speed.

An integrated expert system providing several thousands of standard parts enables you to fit columns, girders, plates, fasteners and other elements rapidly and easily. You can create bent or curved steel beams, or define your own beam and profile groups. Furthermore, smart connections for a wide range of use cases are available to you. In contrast to common joints and connections, these cannot only be modified subsequently, but are automatically adjusted to changing fitting situations, e.g. after an exchanging or processing of connected beams. To add further elements to your steel engineering structure, you can use the Staircase and Railing Configurator, insert glass and wall elements, or other 3-D objects. The itemisation of parts and assemblies with identical

part search takes place automatically. In the process, HiCAD also generates the required part attributes, such as weight, cut angles or trimmed lengths.

Check and modify your model.

If required, you can process parts and assemblies subsequently at any time with one simple mouse-click. A large number of steel engineering-specific functions are available to you for this purpose, as well as the complete range of 3-D functions for a fast and flexible modelling. The integrated collision check enables you to detect and eliminate errors in your model already during early design stages. In this way, error rates are minimized while time-consuming and expensive rework is avoided right from the start.



State-of-the-art functionalities for the creation of production documents.

Create drawings and BOMs at the push of a button.

After finishing and itemizing your model you can use the efficient automatisms for the generation of production drawings, mounting drawings and order documents. Individually configured workshop and detail drawings can be generated at the push of a button, complete with smart, production-oriented dimensioning, user-defined annotations, sections, part environments, weld seams etc.

Bills of materials can be output in many different formats, for example directly in the drawing, as Excel tables or as DSTV-BOMs.



Forward your data to other departments.

You can forward the required data to other departments, e.g. to your purchasing or production department, or to your partners. All common standard formats, such as DXF, DWG or STEP, direct interfaces to market-relevant systems, the SDNF and IFC interface as well as current NC export formats such as DSTV-NC or TOPS-GEO ensure a smooth data exchange between CAD, statics and production systems.



Our tip: Use our Management + BIM module!

The need to meet tight deadlines and promptly react to customer wishes has made a safe and easy management of parts, models and drawings increasingly difficult – from the first concept to realisation.

Flexibility and planning safety are prerequisites for a timely and economical project handling. Here, our Management + BIM module in conjunction with HELIOS Engineer provides you with a tried and tested, practice oriented solution that guarantees a quick and easy entry into the world of BIM.

If you require further information, please do not hesitate to contact us!

HiCAD – At a glance!

Thanks to its modular structure, HiCAD can be individually extended and adjusted to your company-specific needs at any time. For steel engineering tasks, HiCAD is available to you in two configuration levels (see table below). Additional safety for project handling, whether in small companies or large, globally operating enterprises, provides our Management + BIM module in conjunction with HELiOS Engineer. If you are frequently dealing with cross-sectoral projects, you should also take a look at our solutions for glass, metal and facade engineering, plant construction, mechanical engineering and sheet metal processing. Please feel free to contact us and request further information.

Itemisation with identical part search	✓
Automatic drawing derivation	✓
Error-free data exchange	✓
Ideal for metal-working shops	✓
Expert system for beams and connections	✓

HiCAD – CAD suites for Steel Engineering

	Package (max. 750 parts)	Suite	Suite premium
Basic functions For a rapid familiarisation, e.g. GUI with Ribbons, Help, Sketch Technology, Text Editor, Browser etc.	✓	✓	✓
2-D drawing functions State-of-the-art 2-D drawing functions, all CAD features required for 2-D drawing	✓		✓
3-D modelling Innovative functions and tools for the creation of photo-realistic product models	✓	✓	✓
3-D fasteners Mechanical Engineering standard parts for bolts and screws, pins, studs, washers, nuts	✓	✓	✓
Steel Engineering Industry-specific functions and automatisms for complex steel engineering constructions, with market-leading functions for production document generation	✓	✓	✓
Stairs & Railings Straight and winding stairs with stair start definition options and free combination of tread supports, stringers and steps	✓	✓	✓
Sheet Metal basic Basic functions for sheet metal processing, with automatic development and blank calculation	✓	✓	✓
Drawing derivation, i.e. Itemization, automatic production/mounting drawing creation and BOM generation	✓	✓	✓
Report Manager Professional Bills of Materials on the basis of the CAD structure, extensive configuration options, company-specific adjustment, Exports in HTML, Excel, TXT format, comparison of individual rows, sorting according to various criteria, individual filter criteria for columns, calculation operations for columns, identical part search	✓	✓	✓
Simulations Motion simulations based on motors, physical simulations taking gravity into account, collision check, creation of videos	✓		✓
Plotmanager Printing/plotting of several or all drawings of a directory	✓		✓
Document and Drawing Management for Civil Engineering (BIM) For a safe project handling, with constantly updated design data, auto-generated drawings and bills of materials throughout the complete enterprise (* only in conjunction with HELiOS Engineer)	✓*	✓*	✓*



Much more than just CAD - all from one source!

The ISD Group, one of the leading providers of CAD, PDM and automation software, develops innovative solutions 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.

Further information:



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