



# Tekla software for steel industry



Tekla intelligent 3D modeling  
software for steel detailing,  
fabrication and erection



[Watch video](#)



# Design, detail, fabricate and erect all steel structures on time and on budget

Tekla software portfolio covers the entire steel workflow from engineering design, detailing and fabrication management all the way to site operations.

Working with Tekla software is the most productive way to manage your fabrication process, including design and detailing and realize the benefits of the model in fabrication and erection. This gives you total support for delivering your projects error free and on time.



## Key benefits

- ▶ Avoid detailing errors and minimize the need for rework in fabrication
- ▶ Manage changes in a 3D model and save time
- ▶ Avoid human errors: Drawings, reports, and CNC information are automatically generated from the model
- ▶ Optimize the fabrication process with intelligent interfaces
- ▶ Manage fabrication in real-time
- ▶ Use the 3D model to plan fabrication and erection
- ▶ Enhance communication and coordination with other departments and project parties using the 3D model



Design



Estimation



Project  
management



Detailing



Fabrication



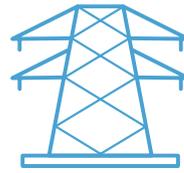
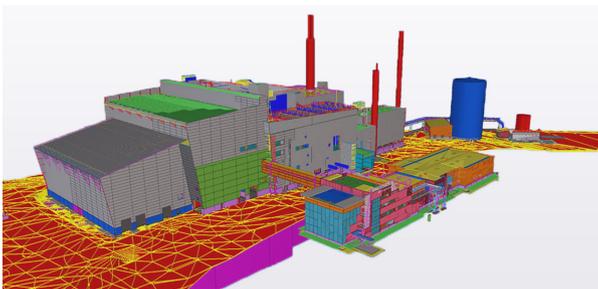
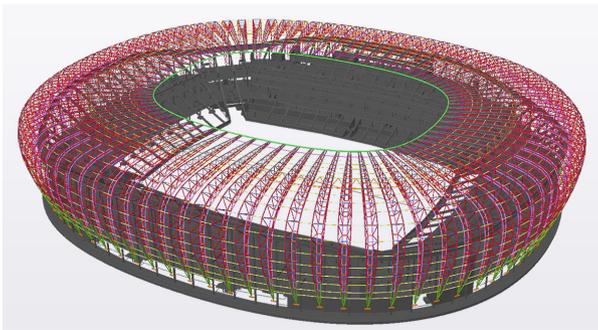
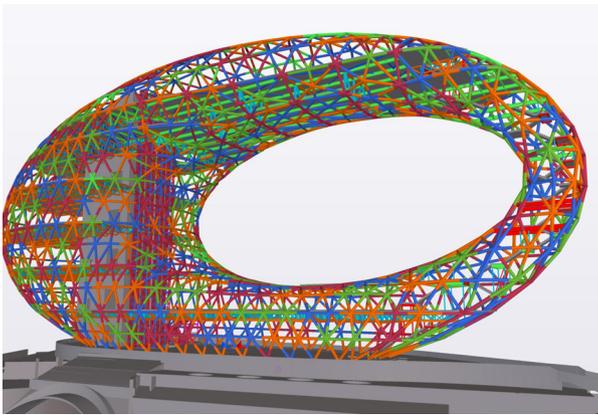
Shipping



Erection

# All project types and sizes

Tekla Structures is powerful and flexible software for structural steel detailers and fabricators. You can create a detailed, constructible 3D model of any steel structure from everyday industrial and commercial buildings to stadiums and high rise buildings. Working with Tekla is the most accurate, integrated way to manage detailing, production planning and erection.



## Transmission towers

Detailed transmission tower models include everything from foundation layout to tower components and connections.



## Offshore

Tekla handles even the largest offshore structures. Benefit from the accurate model throughout the structure lifecycle.



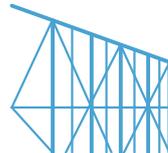
## Pre-engineered metal buildings

Save time in design with special PEB tools and achieve a smooth workflow.



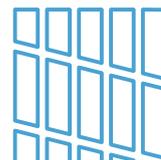
## Miscellaneous

Create as-built models of miscellaneous metal work such as stairs, ladders, handrails and sheet metal work.



## Light metal framing

Design and detail all elements and materials within one model, ensuring accuracy while keeping data up-to-date and easily accessible.



## Facades

Ensure error-free detailing of different types of projects in one model, including facade elements like glazing, gaskets, fixings and more.



## Bridges

Utilize an accurate, up-to-date 3D modeling environment for steel, concrete, wood and composite bridges.

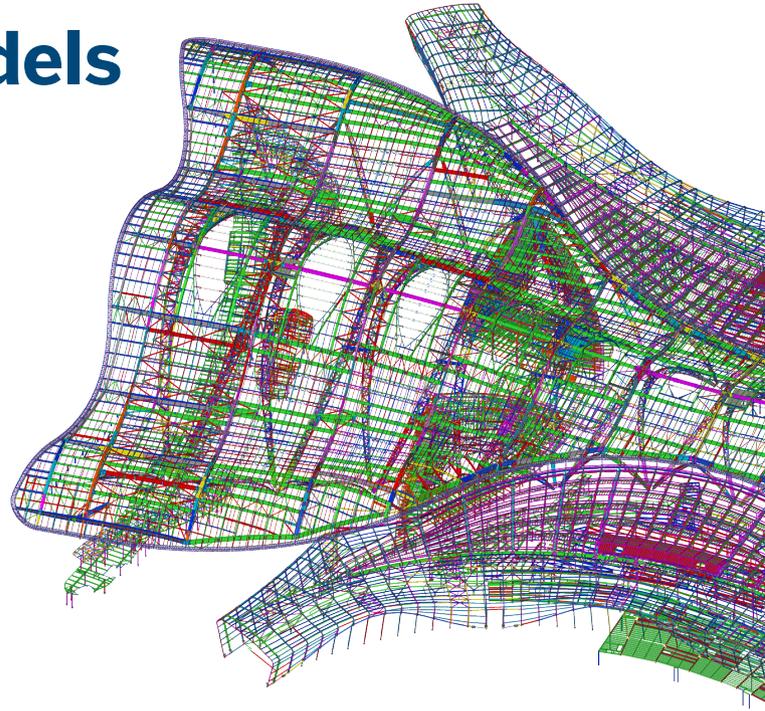


# Detailed as-built models

With Tekla Structures you can easily create all structures of any material with full details, and automatic clash checking ensures that costly conflicts are exposed already in the model.

Easy cross referencing with other models such as MEP or plant design ensure collision free interfaces.

Drawings are fully integrated with the model, providing powerful yet easy change management. Drawings, reports, and CNC data can be automatically created from your 3D model whenever required.



## Reliable software

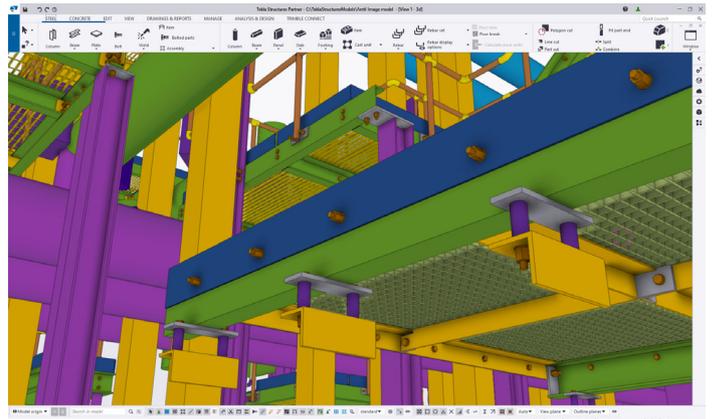
Tekla Structures can handle projects regardless of size or complexity; from simple stairs to the largest oil rigs and world class stadiums. This is possible because of the unique technology for managing the model and related data.

## Work faster

Tekla offers an extensive range of standard and custom parts and connections – you do not have to model everything from scratch. As changes are managed within the model, all drawings, reports and other output are automatically updated accordingly. Tekla Model Sharing makes collaboration convenient regardless of the location of project parties.

## Estimation and bidding

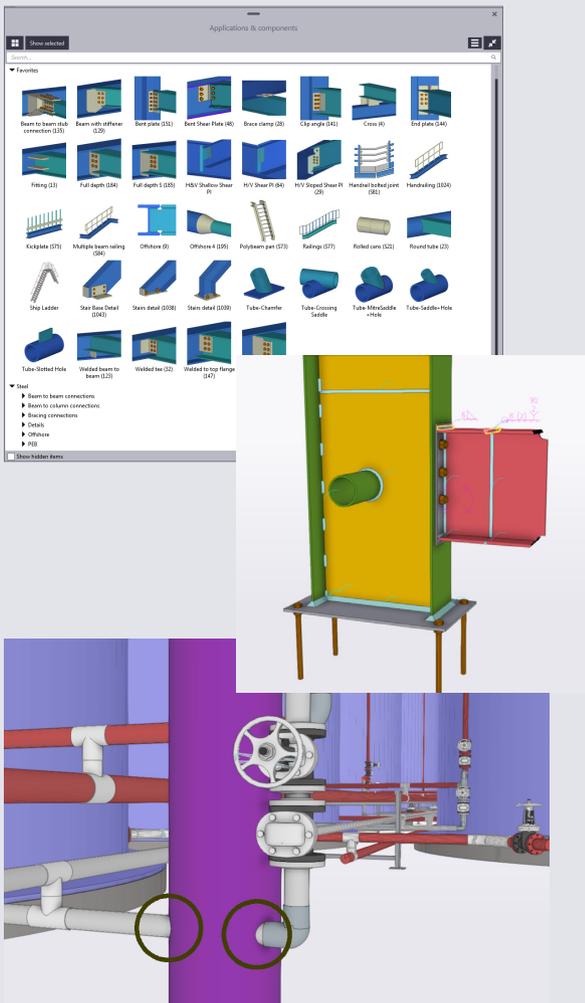
Using a preliminary model you can get a bill of materials to make cost estimations and find alternative solutions early in the process. This powerful model based estimation workflow offers 3D visualizations that help communication with everyone, and provides you a powerful sales tool for winning more projects.



**Tekla models contain everything needed for fabrication and construction, including welds.**

## With Tekla you can

- ▶ Build models with all structural elements and details including welds, bolts and all other structural items
- ▶ Expose conflicts before it is too late with automatic clash checking
- ▶ Manage changes and their implications
- ▶ Generate fabrication and erection drawings with details and 3D visualizations from the model
- ▶ Automatic marking of parts and assemblies
- ▶ Generate CNC data directly for fabricator's machinery
- ▶ Interface with plant design and analysis software



## Tekla Warehouse

Tekla Warehouse is a free online BIM storage for applications, custom components, parts, profiles, materials like steel and concrete grades, rebars, meshes, shapes and templates for Tekla Structures. Because the 3D model parts, provided by the manufacturers, include all the relevant, up-to-date information for construction, the service offers a convenient way to produce constructible high-quality models efficiently.



## Tekla Model Sharing

With Tekla Model Sharing, Tekla Structures project teams can work efficiently together regardless of their location or time zone, in parallel and at different times. The model data is stored safely and transferred encrypted. The service works for all sizes of projects, both online and offline.



## Learning & support

Getting started with Tekla software is easy. Thanks to extensive training opportunities, users can soon create high quality models. In addition to online support services, the local support works to solve any possible technical problem. With subscription, you always have access to the latest, most advanced software.



# Information for fabrication

Model-based workflows increase productivity through a higher level of automation of fabrication and also improved project management: The information-rich models provide a tool for controlling fabrication as they provide open, readable data for manufacturing and link to CNC and robotic welding machinery.

## Interface and integrate

Tekla Structures integrates with industry leading software and CNC equipment. This is possible with standards and proprietary formats including IFC, DXF, DWG and DGN. Because of Tekla's open system approach it's possible to interface with all the leading software for MIS and CNC equipment, as well as analysis & design and plant design, including STAAD, Robot, SAP2000, ETABS, Dlubal, PDMS, E3D, and Smart 3D.



**IFC is the open and neutral data format for open BIM.**

## Customize if you wish

Tekla Structures is ready to use but you can customize it if needed. Create your own special connections without any programming needed. Your plug-in applications integrate and communicate within the modeling environment using the Tekla Open API™ application programming interface.

## Plan your work

Staying in the schedule and delivering on time is easier with a tool that supports delivery and material use planning. Status information in the model allows realistic production planning.



## With Tekla you can

- ▶ Interface with the industry leading technologies like CNC, MIS and ERP
- ▶ Use the model to plan and follow up production status
- ▶ Stay on top of changes in estimating, scheduling, procurement and production management
- ▶ Share project information using Trimble's mobile solutions and streamline the process



## Tekla PowerFab

Learn also about Tekla PowerFab, the complete and connected steel fabrication management software suite.



[Watch video](#)



# Smoothen erection phase

Plan erection sequences, follow-up progress, and keep all parties of the supply chain well-informed using Tekla software.

The information rich 3D model enables better project understanding by making problem areas easier to identify and resolve. 3D visualizations make communication and coordination with the client, site crews and other trades straight forward.

Sharing visual status in the 3D model enables clear and effective coordination and tracking of project progress.

## The material you need, when you need

Plan truck loads and deliveries, optimize crane locations based on lifting capacity to ensure fast and safe project completion.

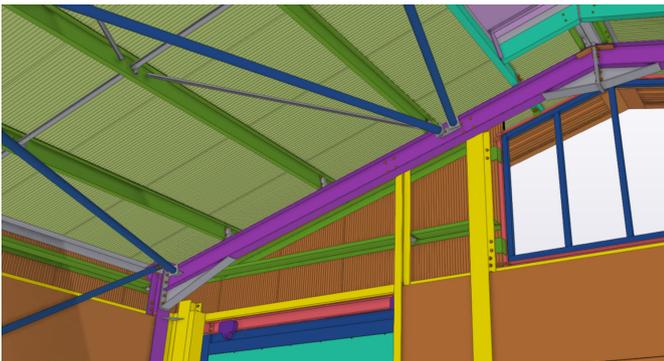
## Communicate upstream and downstream

Thanks to an open approach to BIM, Tekla software boosts model-based communication both upstream and downstream in the workflow. Fluent communication between architects, structural engineers, production and installation teams is possible with Trimble's mobile applications regardless of location. This modern way of working reduces errors and saves time.



## With Tekla you can

- ▶ Plan and manage transportation and logistics
- ▶ Plan and coordinate production schedules based on the site requirements
- ▶ Stay on top of changes and always work with the same information as others
- ▶ Utilize the model information on site
- ▶ Enhance communication with the site and production with Trimble's mobile solutions





Educate

Design

Detail

Fabricate

Construct

# Tekla software by Trimble

Transform the way you work with reliable, detailed, data-rich structural workflows for outstanding performance. Build your legacy with truly constructible BIM, and feel the power of Tekla at your fingertips.

## Why Tekla

Make the sky your limit and empower yourself to make real change with truly constructible BIM software. It drives more detail and data into structural BIM workflows for a deeper understanding of your designs at every phase. You have the expertise; we have reliable technology. Let's meet the changing demands of your industry, your customers, and the planet together. No matter your role or project size, Tekla can help you transform the construction industry, overcome challenges and achieve outstanding results.

[www.tekla.com](http://www.tekla.com)



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