CADWORX® STRUCTURE

EFFICIENTLY CREATE FULLY INTELLIGENT, 3D STRUCTURAL DESIGNS

Capabilities:

- Intelligent 3D Steel and Concrete Design
- Member Modeling
- Plate Modeling
- Footing and Foundation Modeling
- Slab and Wall Modeling
- Stairs, Ladders, and Hand Rail Arrangements
- Decking and Grating Modeling
- Coping and Mitering
- International Steel Libraries
- Bills of Material
- 2D Output Linked to 3D Model
- Import/Export Integration for Structural Analysis/Detailing
- Weight and Center of Gravity
- Assembly Templates
- Flexible Selection Filters
- Clash Detection

CADWorx® Structure includes the critical tools you need for effective structural design. It is easy to learn and has reduced the man hours needed to create a structural design as compared to CADWorx Steel by more than 50 percent. Create revenue-earning deliverables more quickly and accurately.

Time-Saving 3D Modeling

Create fully intelligent, 3D structural models with the unparalleled flexibility and collaboration of a DWG-based system. Choose your shapes or assemblies from a diverse library and utilize grid systems to accurately build your structures.

Comprehensive Steel Shape Catalogs

International catalogs of steel shape libraries in both imperial and metric units are included with CADWorx Structure, providing the necessary steel shapes for accurately representing steel members in your 3D model. Historical and new country-specific steel manuals can be added quickly when your company enters new markets.

Easy-To-Place Assemblies

Some of the more detailed work in a structure includes adding secondary steel for access control, and CADWorx Structure provides commands for effortless modeling of these objects. Whether your project includes industry standards or your company has developed its own standard, CADWorx Structure allows the designer to replicate the necessary arrangement of these traffic items. Many customization options are built-in so that these assembly objects can reflect the scenarios encountered in industrial applications. Grating and decking can be rendered to show accurate portrayals of these objects in your 3D model.

Output and Reports

To simplify inspection requirements, PV Elite lists the most important equations, such as required thickness and maximum allowable working pressure (MAWP), and also groups results by type (e.g., internal pressure, external pressure, bending stress, nozzles, and flanges). It summarizes overall results where it identities the element or detail controlling the overall vessel MAWP.

Drawings

Designers and engineers can easily create 2D drawings of their 3D models with native dimensioning and annotations. Typical general arrangement drawings include single line-steel and 2D representations that support multiple views.

Reuse Your Structural Model

Why spend hours recreating your structural model in order to analyze your structure? Using an industry standard import/export format, the designer can export the structural model to a structural analysis package such as GT STRUDL®, saving many man-hours of rework. Similarly, a designer can export the model to send to a structural detailing contractor and continually update the contractor as changes occur. Any modifications by the engineer or detailer can then be re-imported into the CADWorx Structure model for clash detection.
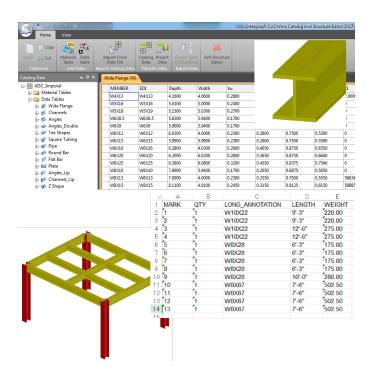
Bills of Material

Users can create accurate, user-configurable bills of material in the most popular database formats for all of their steel materials in the 3D model. These reports can be used to show total lengths and weights for each size, cut lengths, and selected object lengths and weights.

Technical Specifications

- AutoCAD®-compatible
- BrisCAD®-compatible
- Microsoft® Windows®-compatible

Application Areas

Process and Plant Design, Piping, Equipment, Steelwork, Petrochemical, Chemical, Power, Offshore, Food, Beverage, Brewing, Pharmaceutical, Semiconductor, Water Treatment, Building Services, and Shipbuilding.

ABOUT HEXAGON

Hexagon is a global leader in digital solutions that create Autonomous Connected Ecosystems (ACE). Our industry-specific solutions create smart digital realities that improve productivity and quality across manufacturing, infrastructure, safety and mobility applications.

Hexagon's PPM division empowers its clients to transform unstructured information into a smart digital asset to visualize, build and manage structures and facilities of all complexities, ensuring safe and efficient operation throughout the entire lifecycle.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 20,000 employees in 50 countries and net sales of approximately 3.8bn EUR. Learn more at hexagon.com and follow us @HexagonAB.

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