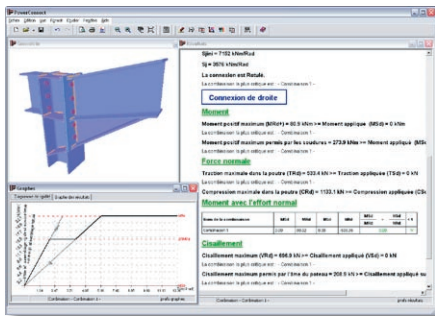


PowerConnect

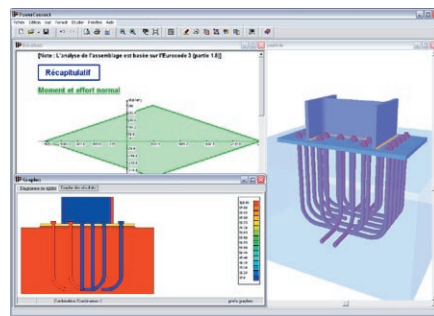
Limit state design of bolted and welded connections



Intuitive

Within PowerConnect's user-friendly environment you define single-sided or double-sided connections for a wide range of practical designs quickly and efficiently. Alternatively, connections can be imported directly from PowerFrame.

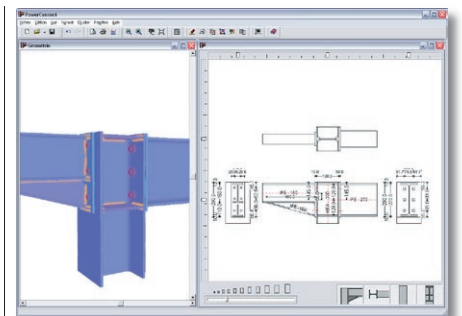
Design changes can then be defined easily, enabling structural engineers and steel contractors to test several designs in a short time frame and finally go for the most optimal solution.



Powerful

PowerConnect implements the most recent limit state design methods according to Eurocode 3.

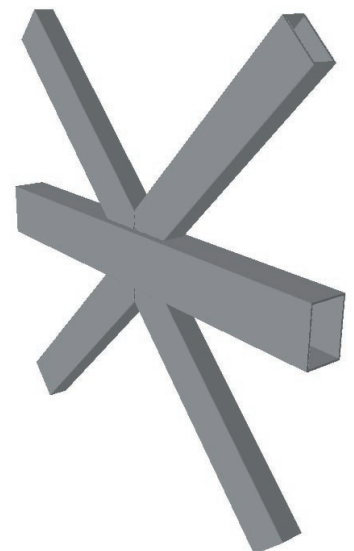
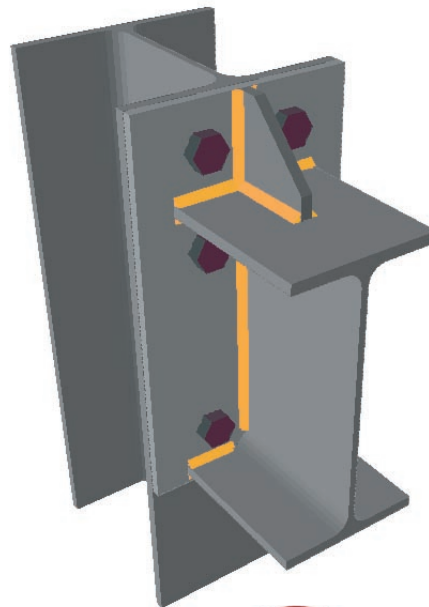
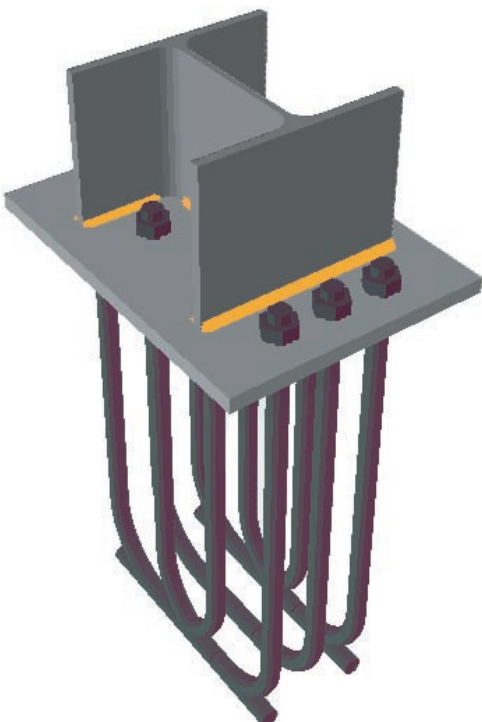
In spite of the complexity of those methods, PowerConnect's strong solver capabilities enable you to evaluate almost instantly the impact of design changes on the connection's design resistance and stiffness. You'll soon be developing better insights into the quantitative importance of the most relevant design parameters.



Complete

PowerConnect provides you with a complete solution for welded and bolted connection design – standard. PowerConnect offers connection and loads modeling capabilities, static analysis, limit state design verification and reporting capabilities.

All of this at a fixed price.



BuildSoft

PowerConnect

Features

Easy and fast definition of connections from an extensive library of typical connection designs.
Graphical user interaction for definition of design modifications.

Import of steel member connections from PowerFrame. User-definable threshold on connection loads for automatic identification of most critical loads combinations from global frame design.

Unlimited number of loads combinations.

Connections between H- or I- cross-sections:

Extensive range of connection types: beam-column, beam-column-beam, beam-beam, column base, beam-beam with bolted plate on flanges and/or web.

Choice between wide range of stiffeners: end plate, end plate stiffener, web stiffener, backing plate, web plate, haunch, base plate with cramps, end plate stiffener, bolted plate on beam flange, bolted plate on beam web, connection angle, fin plate, transverse plate.

Standard preferences for connections and stiffeners easily defined by user.

Optimisation of bolt positions according to Eurocode 3.

Calculation of connection design resistance (bending, shear and compression/tension). Limit state design verification of connections with respect to design values of internal forces.

Fast identification of undersized and oversized components through colour-coding on connection geometry of each component's level of exhaustion.

Evaluation of effective design stiffness and export to PowerFrame for limit state design of structural steel frames.

Hollow-section lattice girder connections:

Analysis of tubular connections of type T, Y, DY, X, K, N, KT & DK (circular & rectangular cross-section).

Analysis of axial force resistance tubular members, and of in-plane and out-of-plane bending moment resistance.

Creation of plan views including annotation. Export capability to DXF, allowing for further elaboration in CAD environment.

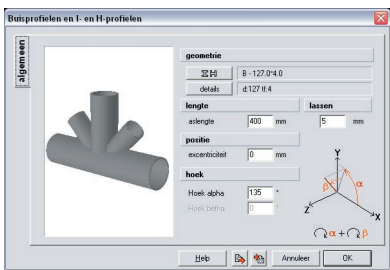
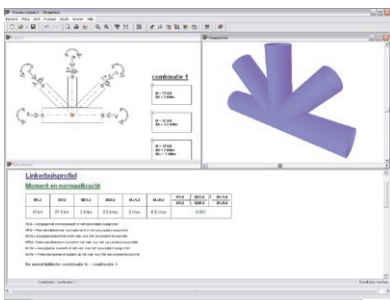
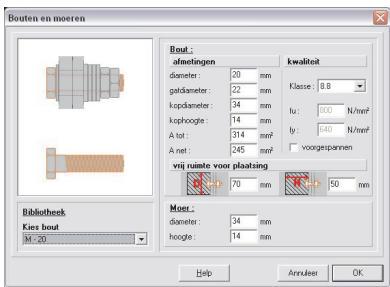
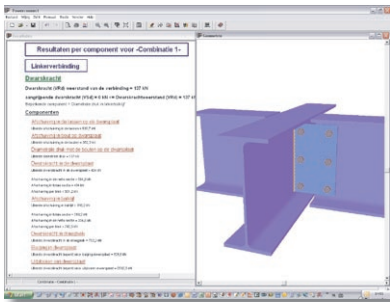
Automated creation of design analysis report with preview capability. Report can be saved as RTF file.

Benefits

PowerConnect empowers structural engineers and steel contractors to design the most optimal bolted and welded connections in the shortest possible time frame.

PowerConnect enables to optimise the dimensions of each individual component, delivering more light-weight connections. Introducing effective connection stiffness into a global steel frame model not only allows for a connection design that requires less manual labour on-site, it also has a positive impact on the distribution of the internal forces in the frame structure, allowing for a more light-weight construction.

PowerConnect makes the complex European standards easily accessible for steel contractors and structural engineers.



For more information on PowerConnect, please contact:

PowerConnect is a product of BuildSoft NV



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