CONSTEEL csJOINT

THE BEST SOLUTION FOR THE DESIGN OF BOLTED AND WELDED CONNECTIONS

In **ConSteel** csJoint connection design software, several steel connection types can be modeled, analyzed and checked. csJoint can be run independently or as an integrated add-on module in the **ConSteel** structural design program.The geometry of a structural joint can be defined alone or based on the global model by the automatic joint identification and geometry definition tool.

The connections can be evaluated based on the rules of Eurocode 3 (EN 1993-1-8). Several National Annexes are implemented and user annex can be also defined and saved.

MODELING

- Easy and fast definition of steel joints by the predefined typical connections
- Automatic geometry transfer from the ConSteel structural design program
- Automatic standard based geometry check , clash check and update in case of error
- User-defined load combinations
- Automatic load combinations import from the ConSteel structural design program

CONNECTIONS OF H OR I CROSS-SECTIONS

Beam-to-column joints

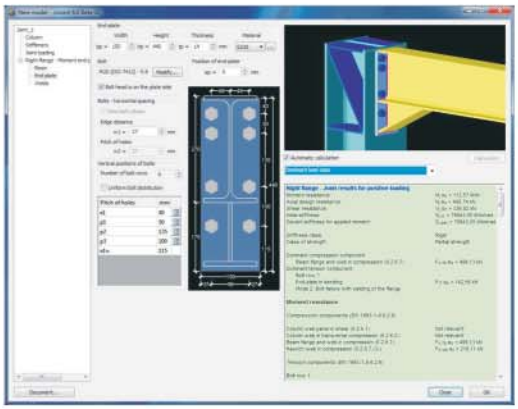
- Joint can be defined on the flange and web of the column, simultaneously on all four sides
- Welded moment connection on the flanges
- Bolted, end-plate moment connection on the flanges
- Simple shear connection on the flanges or on the web
- In case of end-plate moment connection, haunch can be defined on the top and bottom of the beam
- Several stiffener types: web and flange stiffeners, shear stiffeners
- Gusset plate connection with double plate flange splice of I sections or plate splice of hollow sections on the flanges or on the web can be defined

Beam splice joint

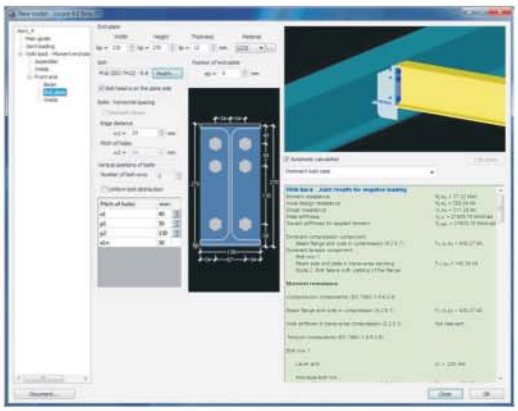
- Bolted, end-plate moment connection
- Simple shear connection
- In case of end-plate moment connection, haunch can be defined on the top and bottom of the beam

Beam-to-beam (web) joint

- Bolted, end-plate moment connection
- Simple shear connection
- Upper and lower notch can be defined at the end of the beam



Beam-to column joints



Beam-to-beam (web) joint

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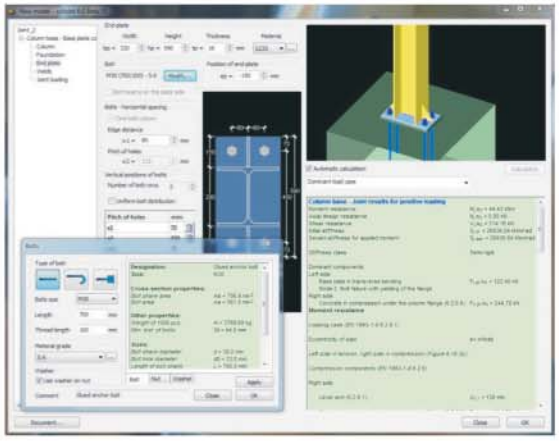
Column base joint

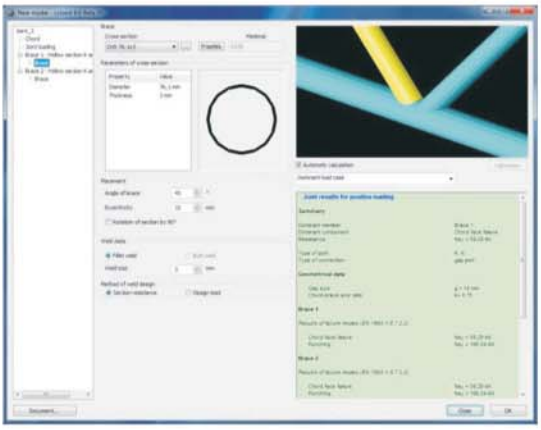
- Bolted, base-plate moment connection
- Rigid connection with ground beam
- In case of base-plate moment connection, haunch can be defined on the top and bottom of the column



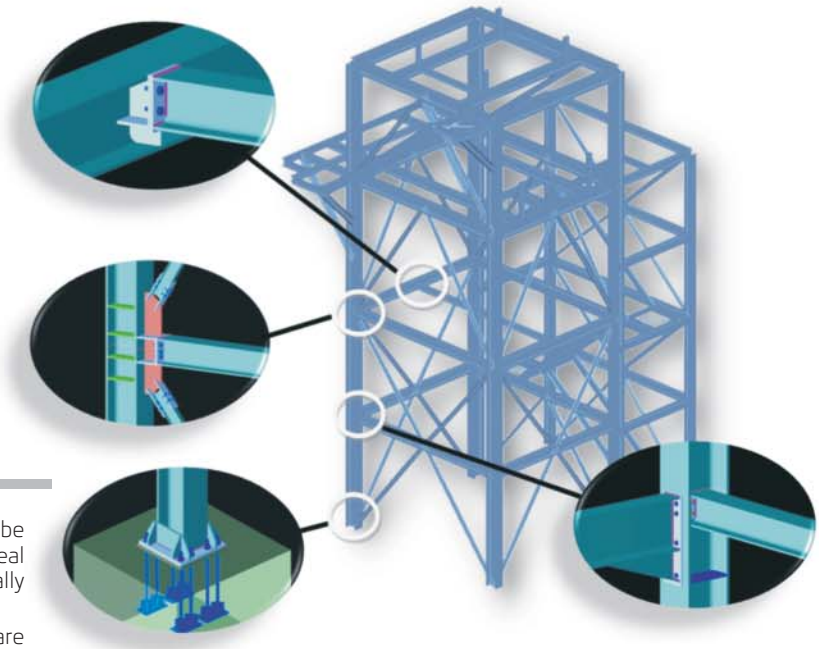
Base-plate moment connection

HOLLOW SECTION (TRUSS) JOINT

- Connections of type K, N, T and Y with I, H, circular or rectangular chords and circular or rectangular braces
- Tension chord splice connection
- The necessary eccentricity can be defined



Truss joint



- Automatic classification and stiffness determination, which can be directly used in ConSteel for the global analysis. Accordingly the real connection stiffness influences the global behavior resulting usually reduced bending moments and lighter members
- Design check is done for all load cases, and the dominant load cases are chosen automatically
- Automated creation of design report

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