

END PLATE

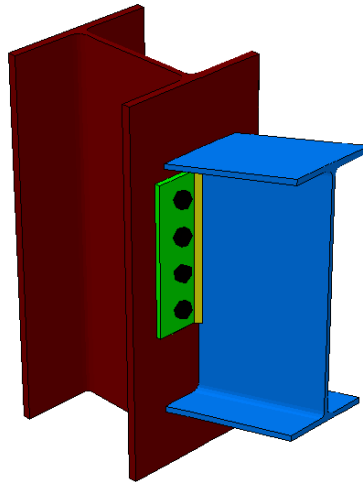
END PLATE SHEAR CONNECTIONS
DESIGN | DETAILING | S19

Summary

End Plate designs the connection between a beam and a column subject to shear and axial forces without bending. The module uses an endplate welded to the beam's web to transfer forces between beam and column.

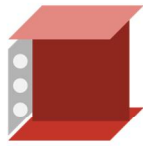
What makes this module special?

- Automatic bolt sizing and spacing
- Automatic plate sizing
- Design a connection about the column's strong and weak axes
- View connection from several angles
- Detailed calculations



Detailed Description

End Plate can analyse connections that transmit end shear and axial force. The designed connections are considered simple connections that have negligible resistance to rotation and is thus incapable of transmitting significant moments at ultimate limit state.



END PLATE

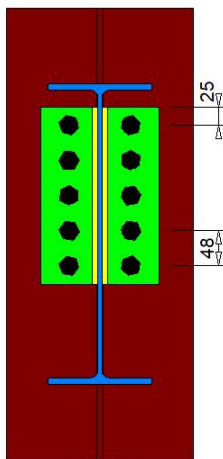
END PLATE SHEAR CONNECTIONS
DESIGN | DETAILING | S19

The modules make the following assumptions:

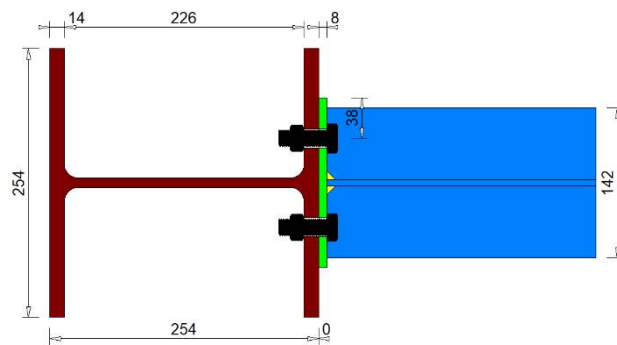
- The centre line of the beam and column are in the same plane.
- The connection transmits end shear only.
- Bolts have normal clearance holes.
- All bolts have threads in their shear planes.

The module supports I or H-sections and the column can be orientated about its strong and weak design axes. The layout of the bolts on the connecting member is defined by entering their number and spacing. The module provides automatic bolt sizing and spacing options to quickly get a workable bolt layout. To verify that you have defined the connection geometry as you intended, the module lets you view it from several angles either using dimensioned elevations or the 3D view.

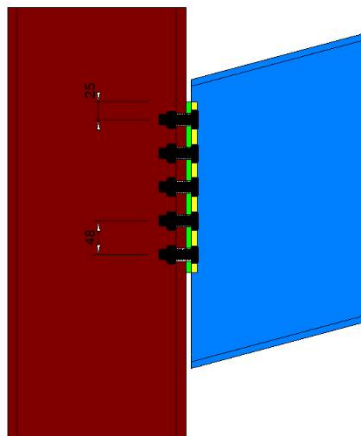
Beam Section

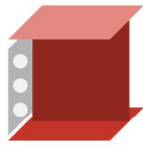


Plan Section



Elevation





END PLATE

END PLATE SHEAR CONNECTIONS
DESIGN | DETAILING | **S19**

After the analysis you can view the design output on a Calcsheet with the complete design calculations.

Supported Codes

Design Codes

- AISC - 1999 LRFD
- AS 4100: 1998
- AS 4100: 2020
- BS5950 – 1990
- BS5950 – 2000
- CAN/CSA – S16.1-94
- Eurocode 3 – 2005
- NZS 3404 - 1997
- SABS 0162 -1984
- SABS 0162 – 1993
- SANS 10162 – 2005
- SANS 10162-1:2011