

4 WELDED BEAM TO COLUMN MOMENT CONNECTION

4.1 Description of connection

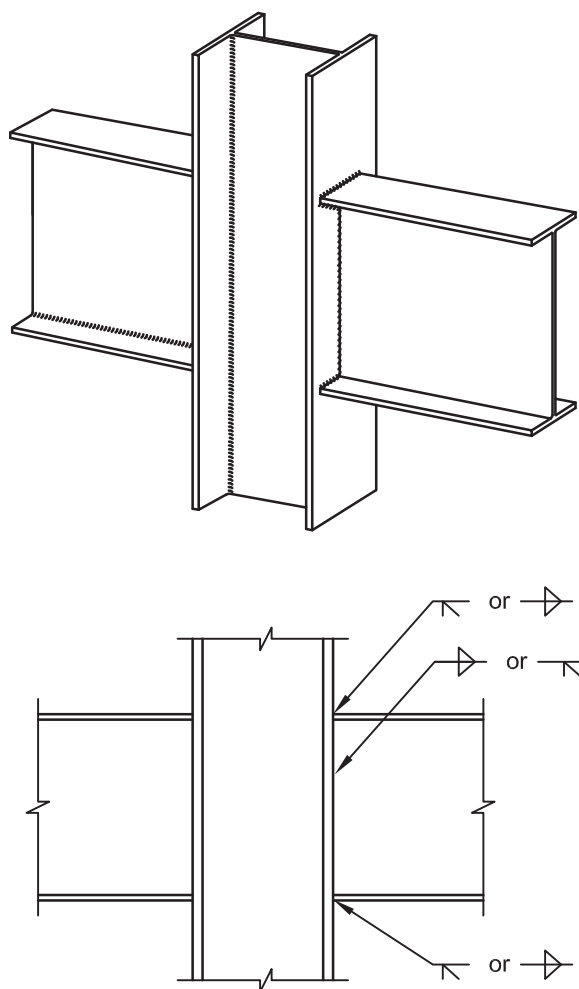


FIGURE 14 TYPICAL WELDED BEAM TO COLUMN MOMENT CONNECTION

Structurally, the simplest rigid beam-to-column moment connection is the welded moment connection, although it is a connection which does require precision in fabrication and fit-up. This connection must have the required strength as well as restricting rotation. In some cases, a high degree of ductility and resistance to local buckling are also necessary.

In this connection, both flanges and the web of the I-section beam are welded to the column using either:

- full penetration butt welds; or
- partial penetration butt welds; or
- double sided fillet welds.

The beam can be either field welded to the column (unusual) which requires an erection cleat or can be shop welded to the column with a bolted splice adjacent to the beam-to-column connection (Figure 15) so that the column comes to site with a short stub of beam attached prepared for a beam splice connection. The latter is the more common form of the connection in Australia at the present time.

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Volume 4: Rigid connections—Open sections

by

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