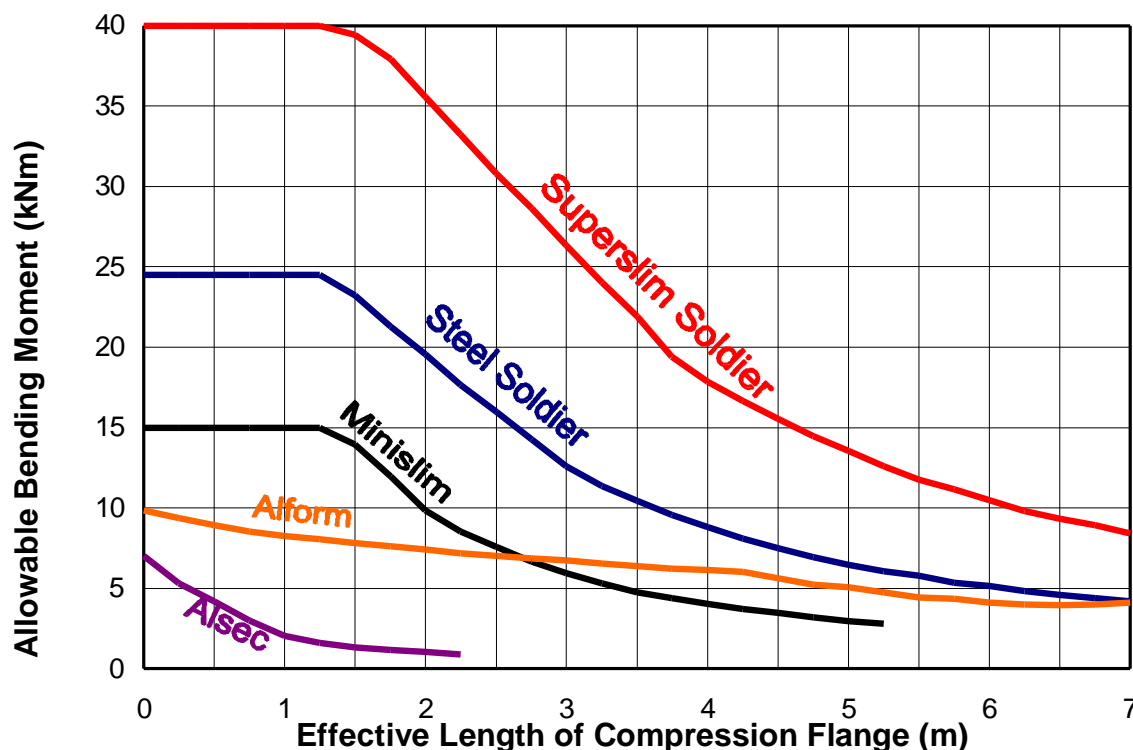


# Unrestrained Beams

## Beams with Compression Flanges Unrestrained

The failure mode for long spanning beams without compression flange restraint tends to be by rolling over and buckling sideways of the compression flanges, a phenomenon known as lateral torsional buckling. During the design of spanning members the permissible bending stresses are de-rated from the maximum for the material to guard against failure of this nature.

Some of the RMD Kwikform standard sections are susceptible to this kind of failure but fall outside standard design codes. For this reasons a mathematical study has been combined with some load testing to produce the graph below.



### Effective Length of Compression Flange

Use BS 5975 Annex L.3 to determine the effective length of the compression flanges.

### Megashor and Albeam

Some sections are so proportioned that lateral torsional buckling does not occur. For this reason Megashor and Albeam can be designed using their full moment capacity at all lengths.