Effect of Frame Size

Charts for allowable working load of Alshor Plus towers are derived from the results of modelling structures with 1200mm frames between legs. Increasing the frame size has a beneficial effect on the allowable working load of the tower which increases with tower height.

Analysis has been carried out for towers with no head jacks and with 1m spacing between frames (1.5m spacing information is coming soon) to produce the graphs attached which provide an enhancement factor that can be applied to the allowable working load obtained from the graphs.

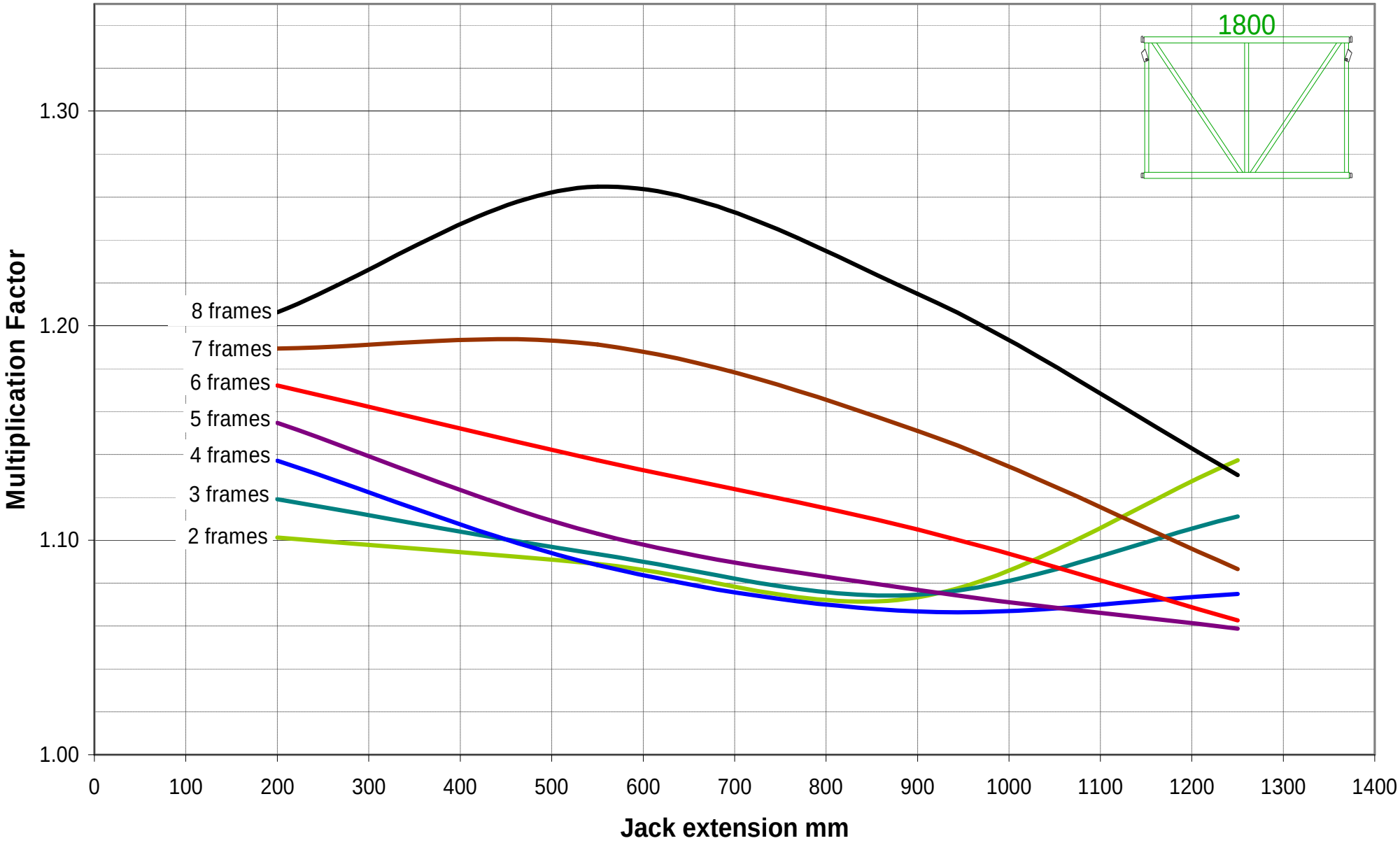
E.g. For an Alshor Plus tower having 8 frames in the height made with 2400mm frames spaced with maximum of 1m gaps between frames and a 900mm base jack extension:

Allowable Working Load obtained from Chart F21 is 78kN.

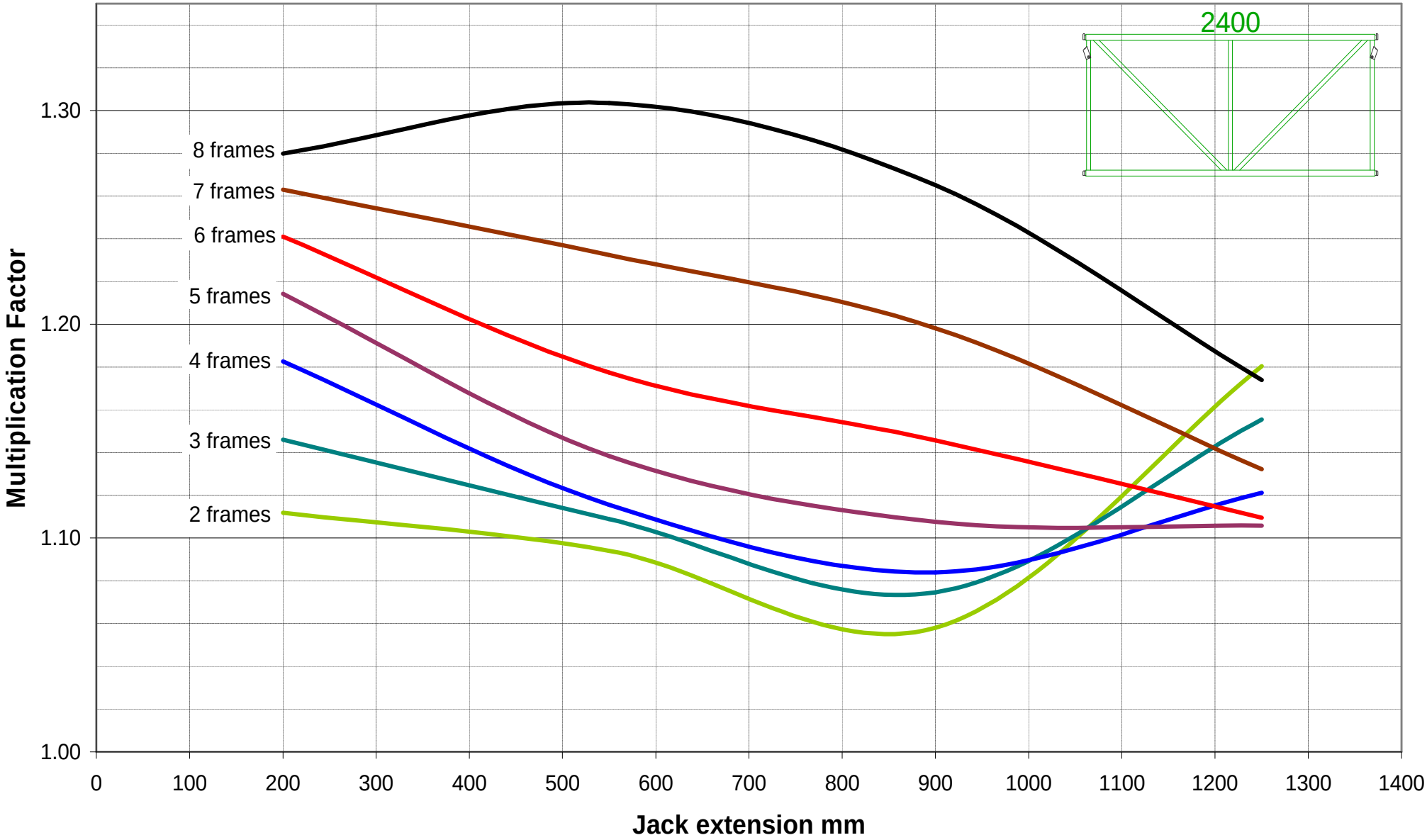
Using the chart for 2400mm frame, an enhancement factor of 1.265 can be applied giving an actual allowable working load for this tower of 98kN per leg.

Graphs remain valid for designs to US or Australian Codes of Practice. Please note that these graphs do not apply if head jacks are present.

Multiplication Factor for Alshor Plus Charts using 1800mm Frames and Base Jacks Bottom Only
1m Spacing Between Frames



Multiplication Factor for Alshor Plus Charts using 2400mm Frames and Base Jacks Bottom Only
1m Spacing Between Frames



Multiplication Factor for Alshor Plus Charts using 3000mm Frames and Base Jacks Bottom Only
1m Spacing Between Frames