



Withdrawal of Axially Loaded Connectors from Timber Elements - Theory and Validation

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Summary:

Connections consisting of axially loaded connectors embedded in timber elements can be a strong and competitive alternative to dowel-type connections. Such connections combine high capacity and stiffness. However, especially in the case of screwed-in threaded rods, the up-to-date theoretical models and available experimental results are limited. In this paper, a general theoretical model that predicts the withdrawal capacity and stiffness of connections with axially loaded connectors is presented. The model is validated with an experimental study of withdrawal of threaded rods from glulam elements.

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Resource Link

http://schr.ws/hosted_files/wcte2014/58/ABS046_Stamatopoulos_web.pdf