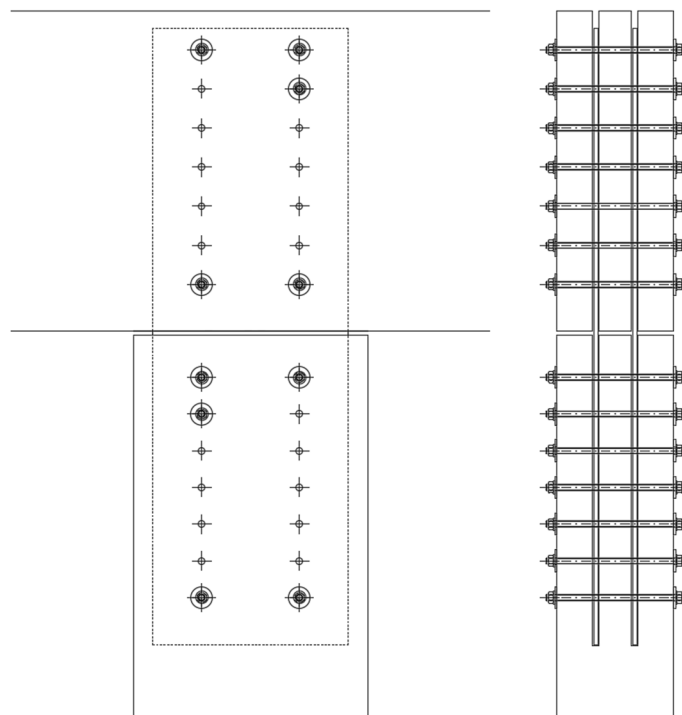


Moment-resisting timber connections: what should the contractor look out for?

A checklist for execution

A moment-resisting timber connection with dowel-type fasteners, for example a timber column that transfers a moment to a cantilevering beam via a steel plate and bolts, is not a standard connection. For this connection type there is no ready-made calculation method in Eurocode 5, and an incorrectly executed detail can lead to brittle failure. For the contractor this means above all: being alert to what the execution documents do and do not contain, before execution starts.



Five points to check

- Specialist engineer involved: is there a calculation note specifically tailored to this connection type, prepared by an engineer with experience in timber connections, and not merely a standard calculation?
- Test series: if the same connection detail is applied repeatedly, substantiation by testing in accordance with EN 1990 is advisable. Is it there, and can the results be found in the documents?
- Worked-out execution method: are the assembly sequence, the drilling tolerances and the placement of the steel plate concretely described, and not merely implicitly assumed?

- Complete specification: are material quality (timber, steel, bolts), bolt class, drill-hole tolerances and corrosion protection unambiguously specified?
- Detail drawings: is a complete execution drawing of the connection available, with all dimensions and tolerances, and not merely a schematic sketch?

If any of these elements is missing, request additional substantiation from the designer before execution starts. With this connection type that is not excessive caution: it is precisely the kind of connection where a lack of substantiation only comes to light at failure.

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Machine-translated from Dutch, reviewed and corrected by the author.