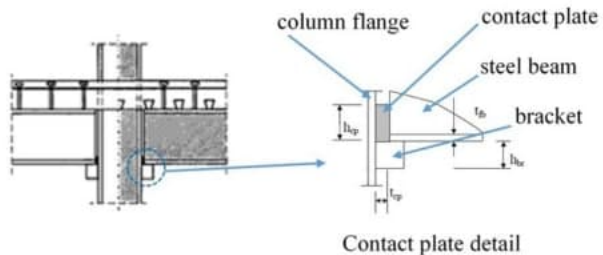


According to EN 1993-1-8 and EN 1994-1-4,

- Identify the critical components for characterizing the moment-rotation properties in the composite joint with contact plate connection shown in the figure. The column is assumed to be steel column.
- How would you classify the joint shown in the figure based on both strength and stiffness criteria.



Please upload the answer sheets.



Files



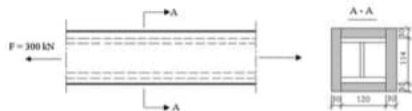
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Calculate the fire resistance time for the tension member (HE 120 A) fire protected with mineral wool as shown in the figure when the member is subjected to standard fire. The design load applied to the member in fire is assumed to be 300 kN. The material grade for steel is S235. The thermal conductivity for mineral wool is  $\lambda_p = 0.25 \text{ W/m}^\circ\text{C}$ .



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Maximum size for new files: 200MB



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Explain the essential issues in designing steel-concrete composite slab at different stages.

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## Question 4

Flag question

Marked out of 6.00

Not yet answered

## Quiz navigation

[Finish attempt ...](#)

According to EN 1994-1-1, determine the resistance of a concrete-filled circular composite column in compression. The dimension of the composite column is shown in the figure. The grade of concrete is C35/45 ( $f_{ck}=35\text{N/mm}^2$ ,  $E_{cm}=33500\text{N/mm}^2$ ) and the grade of steel is S355. Partial safety factors: structural steel 1.10 and concrete 1.5. The effect of long-term loading on the effective elastic flexural stiffness is not considered in this case.

