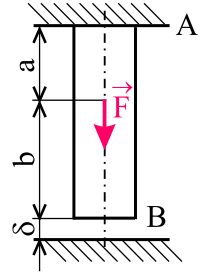


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**Problem 437**

The bar in the figure is welded to the base in the point A and the other end is in a small distance  $\delta$  from the base. It is loaded by the force  $\vec{F}$ . Evaluate the safety factor against the limit state of elasticity. The geometry, loads and material characteristics (yield stress  $\sigma_K$  and Young's modulus  $E$ ) are known. Gravitational forces and production inaccuracies can be neglected.



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[Solutions](#)

[bars loaded by simple tension](#)

[support conditions](#)