

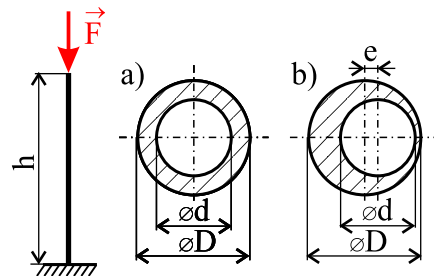
Problem 701

The steel tube with the straight centreline has outer and inner diameters $\varnothing D$ and $\varnothing d$, respectively. Determine the change in the critical force of buckling if either the outer and inner surfaces will be coaxial or the hole will be excentric according the figure.

In what plane comes the buckling into existence?

Input values:

$$\begin{aligned} h &= 0,8 \text{ m}, & e &= 5 \text{ mm}, \\ \varnothing D &= 60 \text{ mm}, & \varnothing d &= 40 \text{ mm}, \\ E &= 2 \cdot 10^5 \text{ MPa}, & \sigma_K &= 350 \text{ MPa} \end{aligned}$$



stability