

VIKTORIA BERGES

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MATERIALS AND INTRODUCTION
TO PROCESSING

ACMA 4000

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$$c) \quad \sigma = \frac{Pd}{ht} \quad t = \frac{2Pd}{\sigma_{yield}}$$

$$\sigma = \frac{200 \cdot 10^6}{h \cdot 0,1}$$

Aluminum:

$$t = \frac{2 \cdot 200 \cdot 10^6 \cdot 100}{241 \cdot 10^6} = 16,6 \text{ mm}$$

$$\sigma = \frac{200 \cdot 10^6 \cdot 100}{h \cdot 16,6} = 301,2 \cdot 10^6 \text{ MPa}$$

steel. $t = \frac{2 \cdot 200 \cdot 10^6 \cdot 100}{210 \cdot 10^6} = 19,4 \text{ mm}$

$$\sigma = \frac{200 \cdot 10^6 \cdot 100}{h \cdot 19,4} = 257,7 \cdot 10^6 \text{ MPa}$$