

Übg Festigkeit

1a)

$$\frac{\sigma_{Grenz} \cdot R_m}{\gamma_r} = \left[\sigma_{zul} \rightarrow \sigma_{ist} \right] = \frac{F}{A \cdot n \cdot s_0}$$

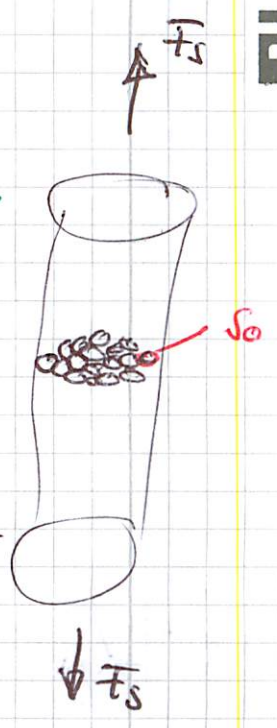
$$\frac{R_m}{\gamma_r} = \frac{F_s}{n \cdot s_0} \quad \left| \cdot n \cdot \gamma_r \right. \\ \left. \div R_m \right. = R_m$$

$$s_0 = \frac{\pi \cdot d^2}{4} = \frac{\pi \cdot (1,2 \text{ mm})^2}{4} = 1,13 \text{ mm}^2$$

$$n = \frac{F_s \cdot \gamma_r}{s_0 \cdot R_m} = \frac{110 \text{ kN} \cdot 4 \text{ mm}^2}{1,13 \text{ mm}^2 \cdot 1800 \text{ N/mm}^2}$$

$n = 216,3$

gewählt = mind. 217



2)

