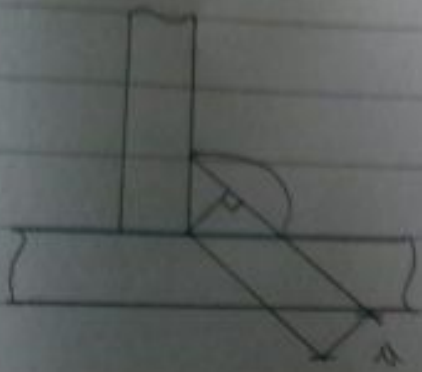
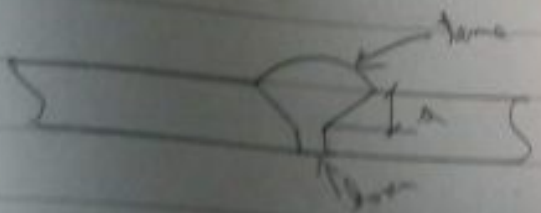


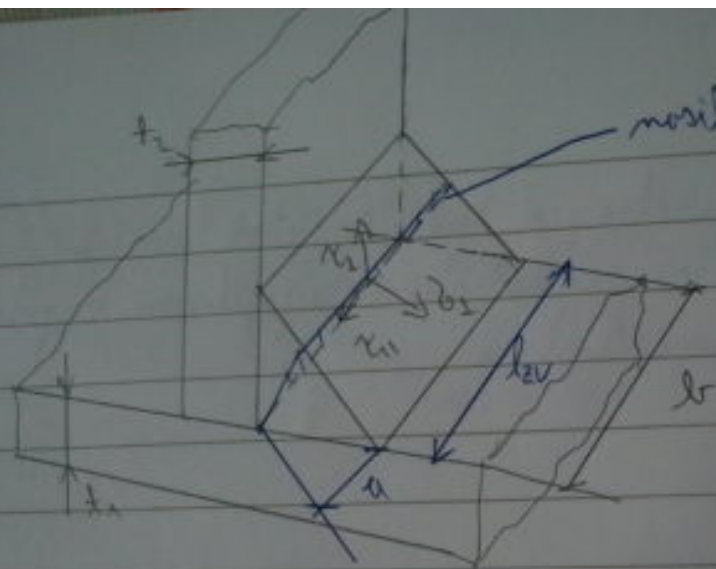
11.12

VAJE

zgodnji zvarski

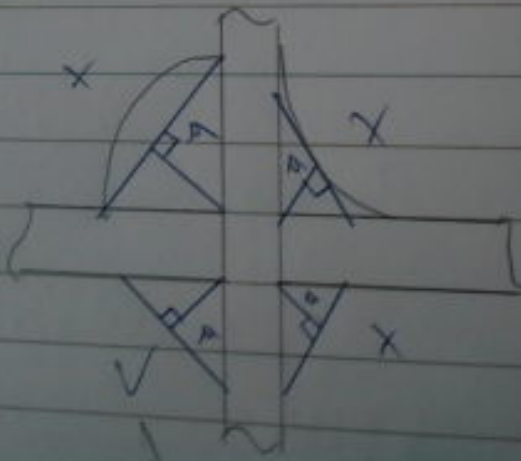


Debelina zvara je nikoli zmanj
največjemu vidnemu triletku

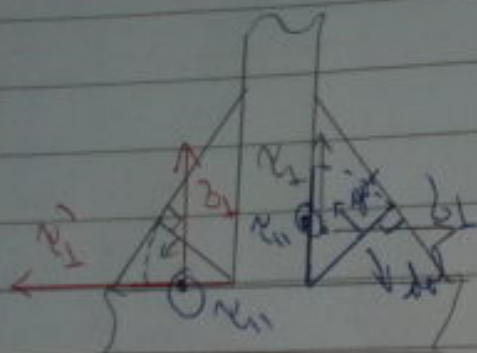


nosilni presek zvara

Δ Rev. na nrijep



zavrti posredu materijala



Brenim kotnih zvarov namenjamo tako, da nosilni preizkus povzročimo raztezanje ali razpad.

$$r_1 = r_1' = V_1$$

$$b_1 \neq b_1' = r_1$$

$$r_{11} = r_{11}' = V_{11}$$

Geometrijske karakteristike zvara

- dolžina zvar. : l_{zv}
- debelina zvar. : a

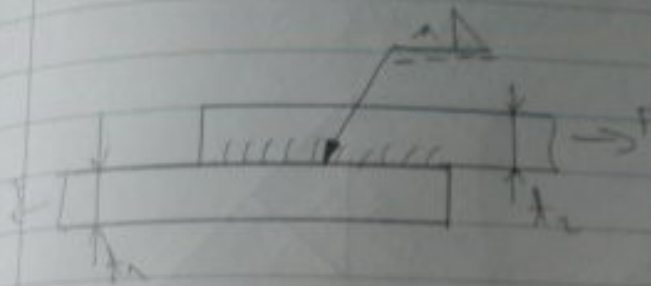
nosilna doživina $z_v = l_j \rightarrow$ ρ ploščino
 $l_j = l_{zv}$
 $l_j = l_{zv} - 2a$

$$a_{\min} \leq a \leq a_{\max}$$

$$a_{\min} = f(t_{\max} = \max\{t_1, t_2, \dots\})$$

$$a_{\max} = f(t_{\min} = \min\{-11-\})$$

1.) Δ -Antrieb



$$\begin{aligned} d_1 &= 10 \text{ mm} \\ d_2 &= 30 \text{ mm} \\ \underline{\quad} \\ n &= 3 \end{aligned}$$

$$s_{\min} \leq s \leq s_{\max}$$

$$\left. \begin{aligned} \bullet s_{\min} &= f(s_{\max} = d_2 = 30 \text{ mm}) = 6 \text{ mm} \\ \bullet s_{\max} &= f(s_{\min} = 10 = d_1) = 9,5 \text{ mm} \end{aligned} \right\} \Rightarrow \boxed{s = 9 \text{ mm}}$$

$$\begin{aligned} 2.) d_1 &= 6 \text{ mm} \\ d_2 &= 80 \text{ mm} \\ \underline{\quad} \\ n &= 2 \end{aligned}$$

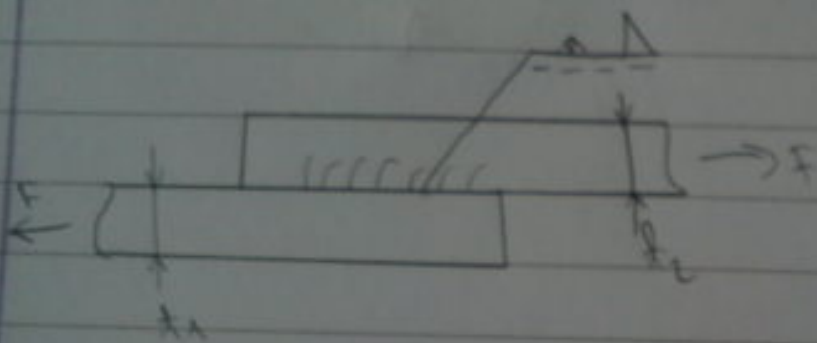
$$\begin{aligned} s_{\min} &= f(s_{\max} = d_2 = 80) = 10 \text{ mm} \\ s_{\max} &= f(s_{\min} = d_1 = 6) = 6 \text{ mm} \end{aligned}$$

$$s_{\min} \leq s \leq s_{\max}$$

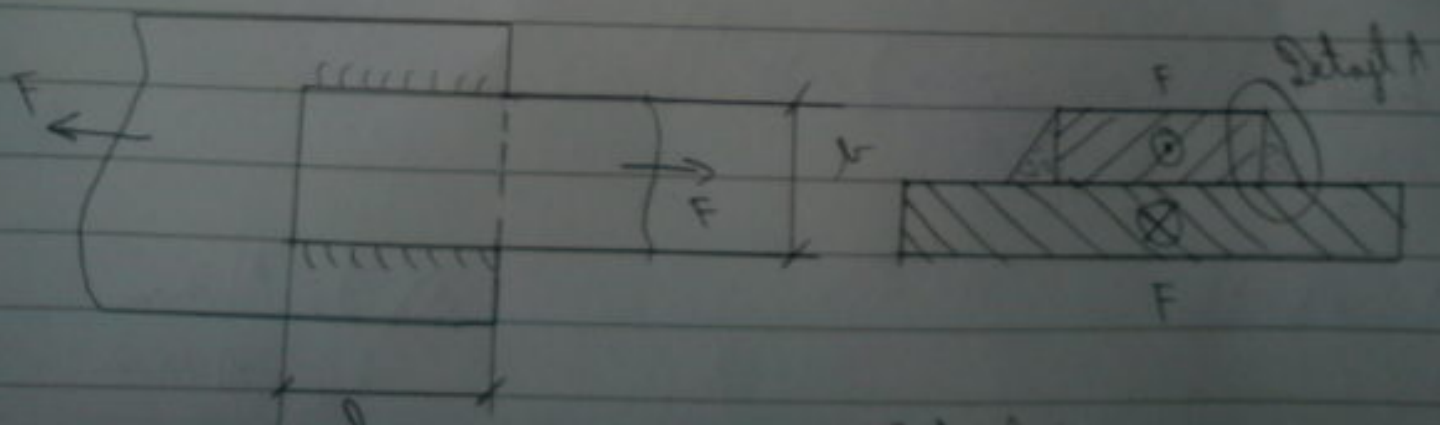
$$10 \not\leq s \leq 6$$

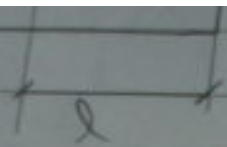
\Rightarrow nicht realisierbar

2.) Določite delovno kotnjo razara in prebivalnostne ravnosti.



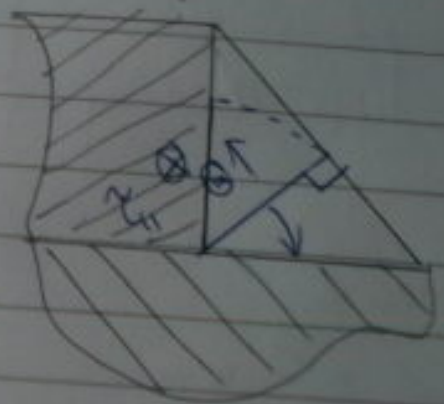
Preseka A-A:





F

Detail A



Indikator da polovina sila
pada nu es sevar drugo polovina
pa no drug sevar

① Dajmo da napetost na sevaru:

$$\sigma_{II} = \frac{F/2}{A_{2V}}$$

* iz yonstva p.p.:

$$A_{2V} = a \cdot l$$

$$b = 100$$

$$l = 100$$

$$f_1 = 20$$

$$f_2 = 10$$

$$\Sigma 275$$

1. der. primer

Debelina σ

$$a_{\min} < a \leq a_{\max}$$

$$a_{\min} = f(f_{\max} = f_1 = 20) = 5 \text{ mm}$$

$$a_{\max} = f(f_{\min} = f_2 = 10) = 9,5 \text{ mm}$$

ZBEREM
 $A = 9 \text{ mm}$

$$A_{zV} = a \cdot l_j = 9 \cdot 100 = \underline{\underline{900 \text{ mm}^2}}$$

$$\sigma_{II} = \frac{F/2}{A_{zV}} = \frac{60 \cdot 10^3 \text{ N}}{900 \text{ mm}^2} = \underline{\underline{33,3 \text{ MPa}}}$$

2. Trimerisialis nepelod

$$\begin{aligned} \sigma_{tr,2v} &= \sqrt{\cancel{\sigma_1^2} + \sigma_2^2 - \cancel{\sigma_3^2} + 3(\cancel{\sigma_1^2} + \sigma_2^2)} = \\ &= \sqrt{3} \sigma_{II} = \sqrt{3} \cdot 33,7 = \underline{\underline{57,7 \text{ MPa}}} \end{aligned}$$

• Dop. nap.

$$\sigma_{dop,2v} = 0,9 \cdot \frac{F_{max}}{S} = 0,9 \cdot \frac{499}{15} = 29,94 \text{ MPa} \quad \text{Sobrem } t = 10 \text{ mm}$$

$$\sigma_{dop,2v} = 29,94 \text{ MPa} \quad * \sigma_{lim} = f(\sigma_{235}, t_{lim}) =$$

no upitan

Material	Granica tekovina t _{lim}
S235	360 - 510
S275	430 - 580
S355	510 - 680

④ Kontrolle

$$\zeta_{P, ZV} \leq \zeta_{DOP, ZV}$$

$$57,7 \leq 143,3 \quad \checkmark$$