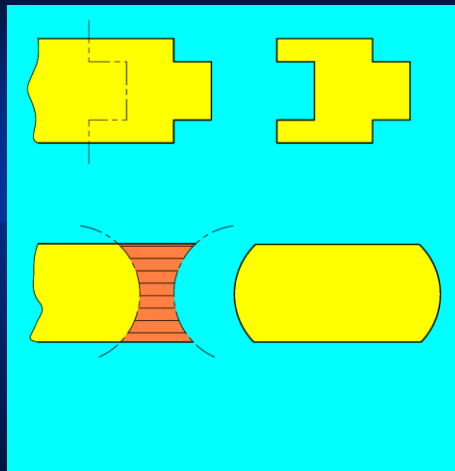


Tehnološki ispravno oblikovanje dijelova od lima

Prof. dr. sc. Milan Opalić

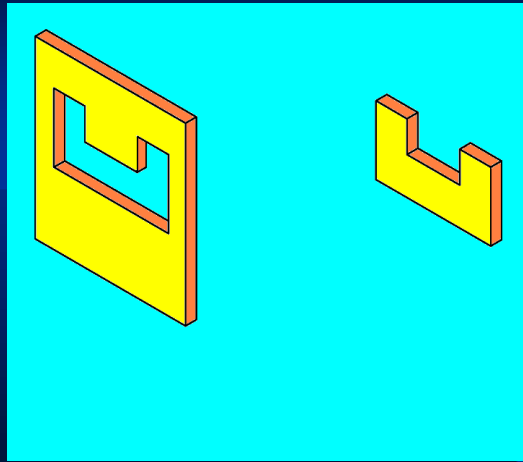
TEHNOLOGIČNO OBLIKOVANJE



Rezanje (odrezivanje)

Prof. dr. sc. Milan Opalić

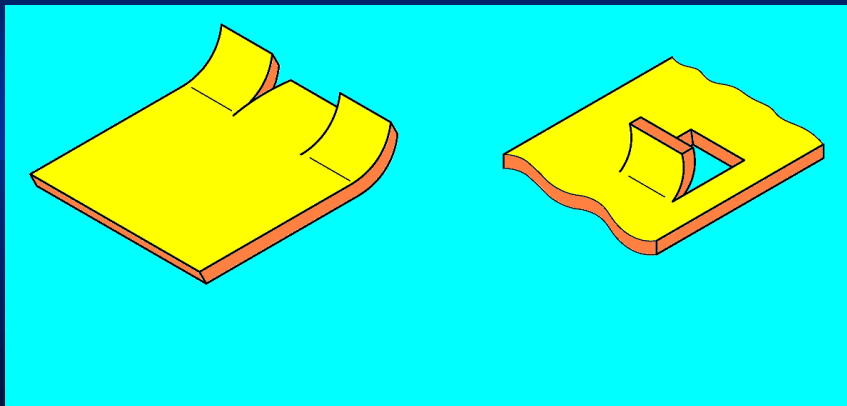
TEHNOLOGIČNO OBLIKOVANJE



Izrezivanje

Prof. dr. sc. Milan Opalić

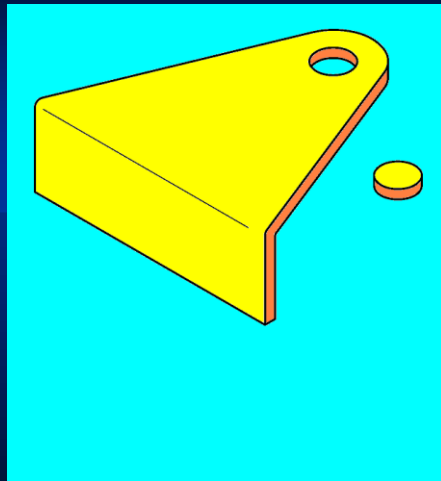
TEHNOLOGIČNO OBLIKOVANJE



Urezivanje

Prof. dr. sc. Milan Opalić

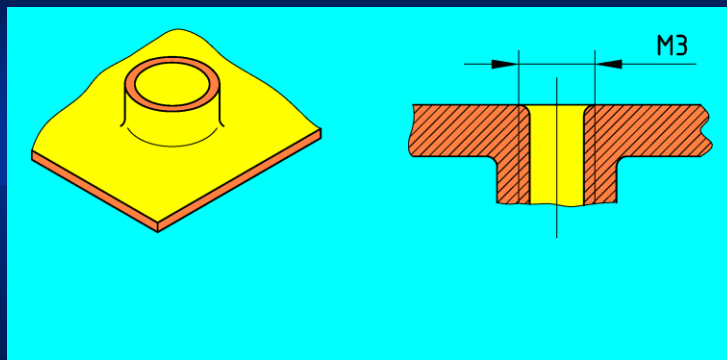
TEHNOLOGIČNO OBLIKOVANJE



Probiranje

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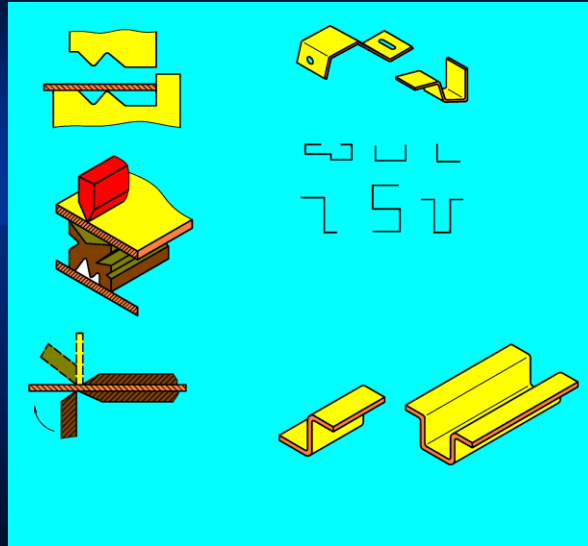
TEHNOLOGIČNO OBLIKOVANJE



Probiranje s izvlačenjem

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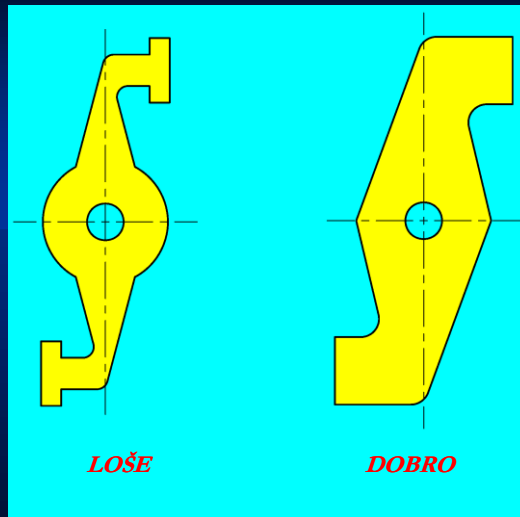
TEHNOLOGIČNO OBLIKOVANJE



Savijanje limova

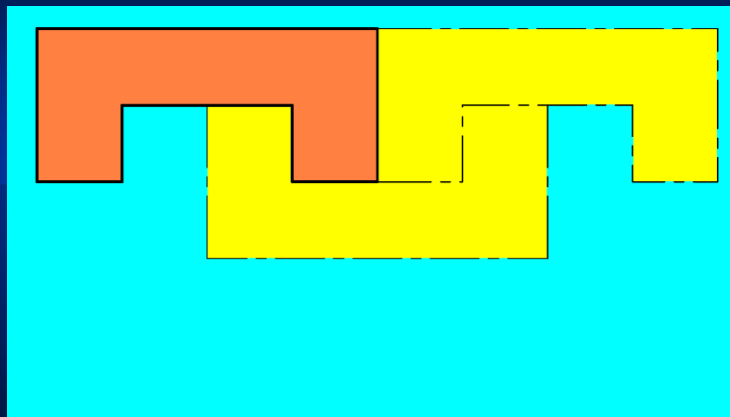
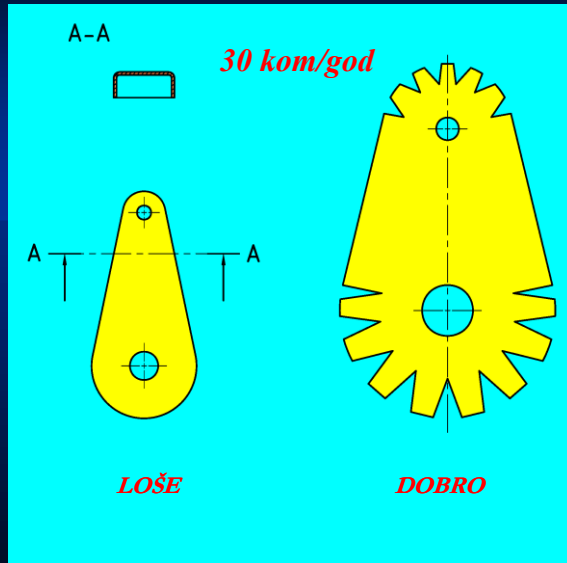
Prof. dr. sc. Milan Opalič

TEHNOLOGIČNO OBLIKOVANJE

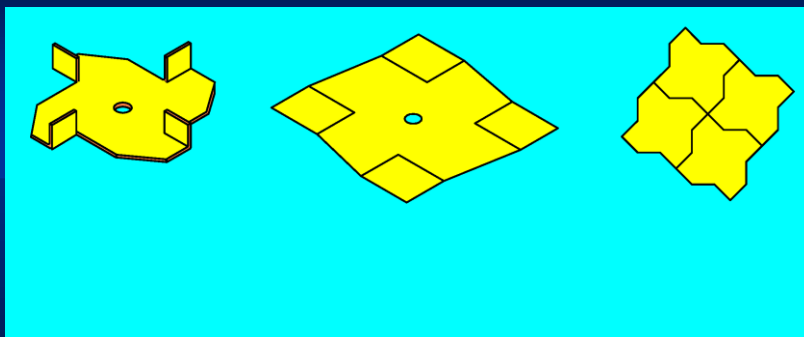
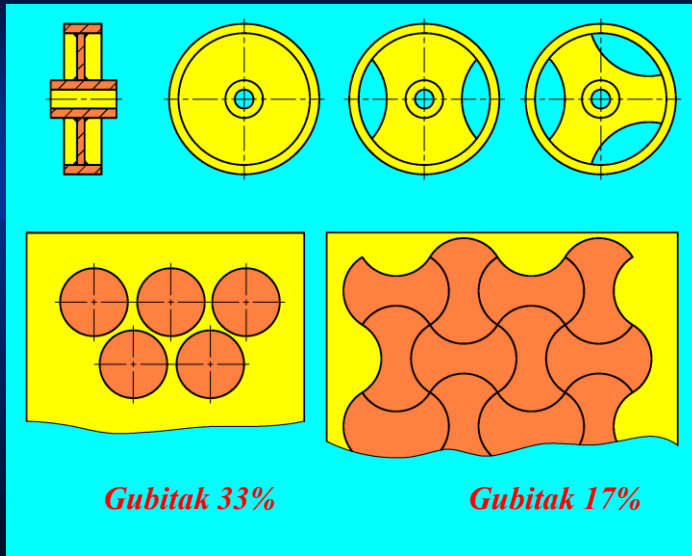


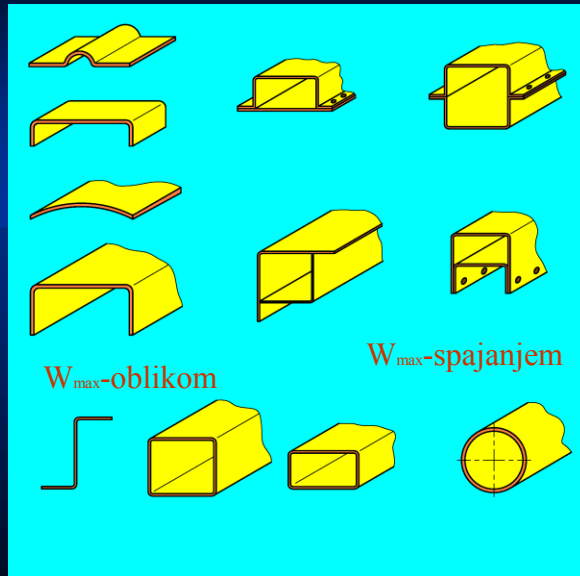
Prof. dr. sc. Milan Opalič

TEHNOLOGIČNO OBLIKOVANJE



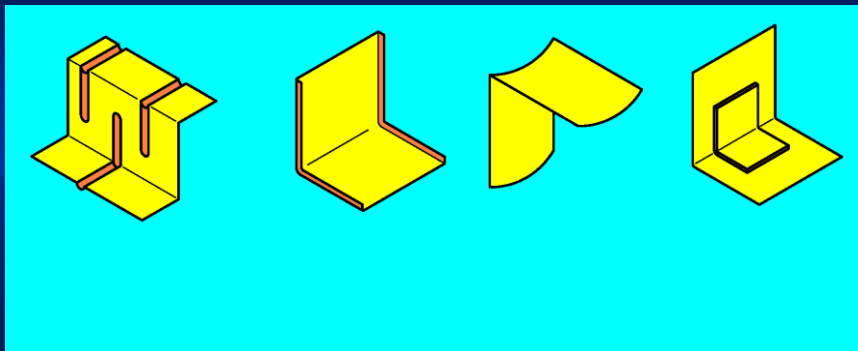
Moguć gubitak 0%!





W_{max} -oblikom

W_{max} -spajanjem

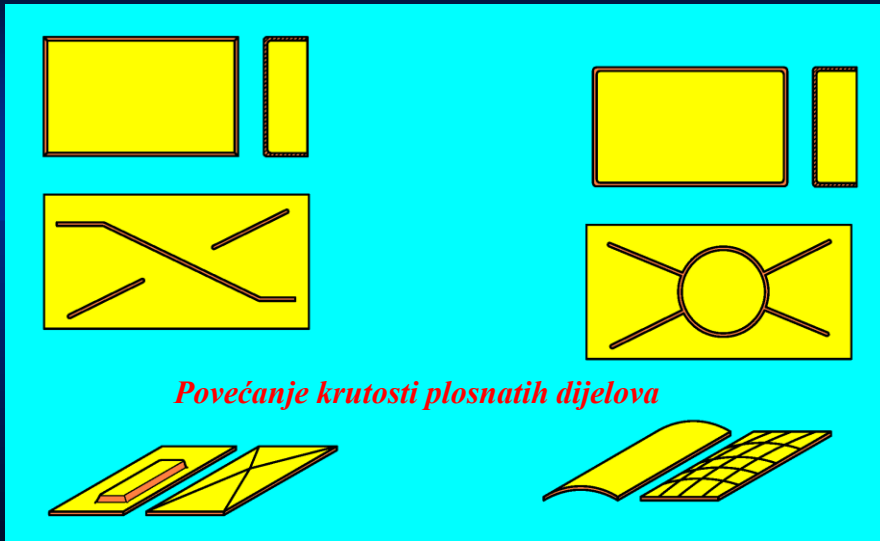


uŹljebljenje

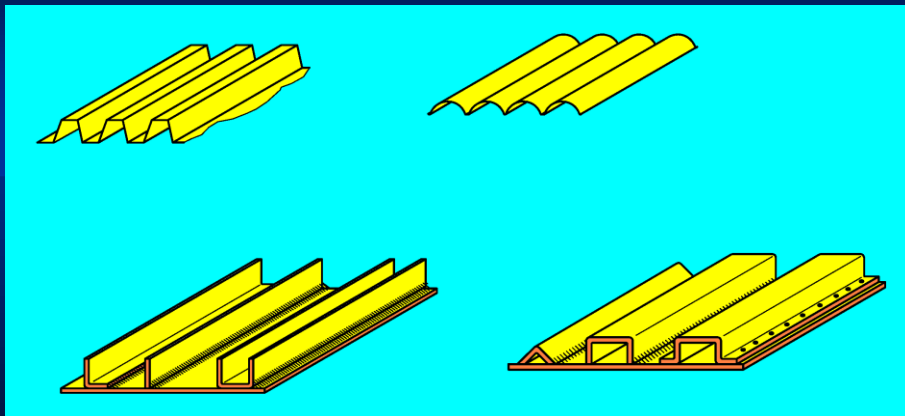
porubljivanje

izbočenje

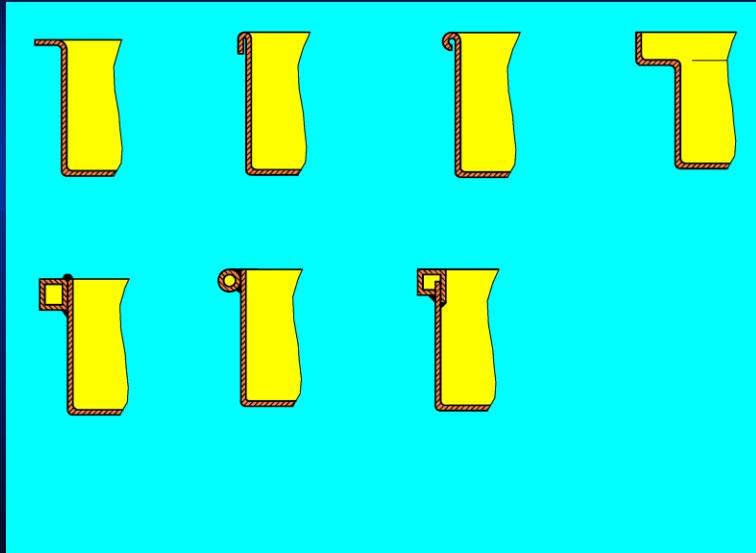
ispupčenje



Povećanje krutosti plosnatih dijelova

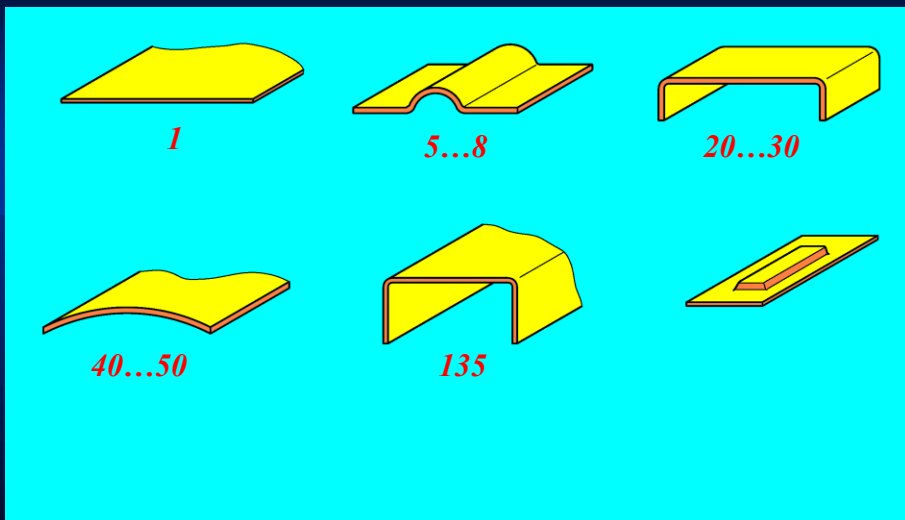


Povećanje krutosti plosnatih dijelova



Prof. dr. sc. Milan Opalič

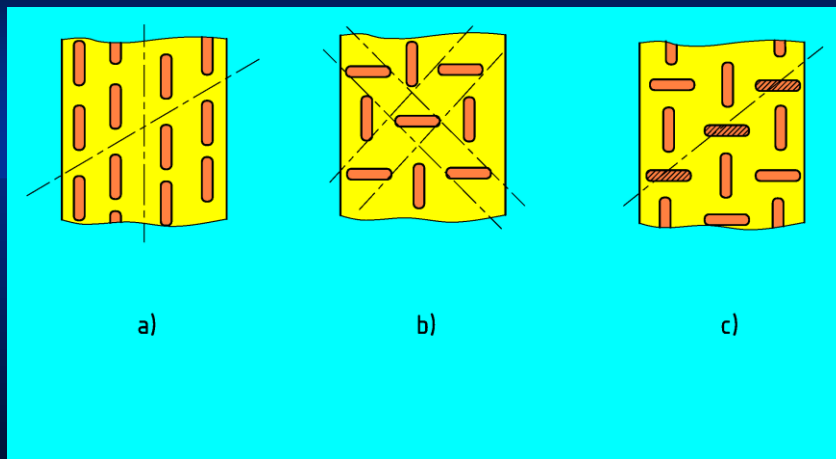
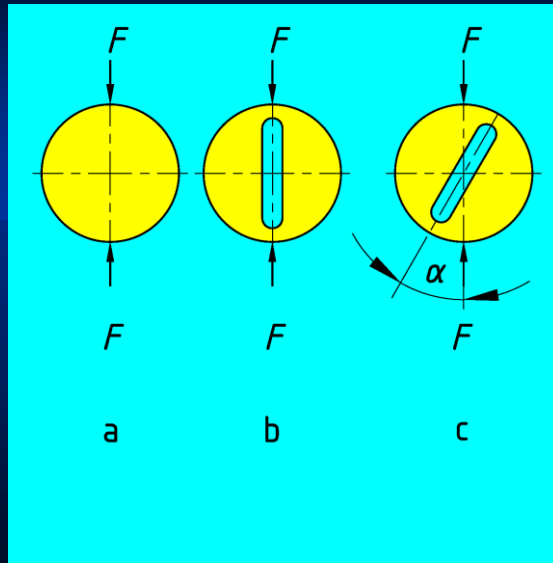
TEHNOLOGIČNO OBLIKOVANJE

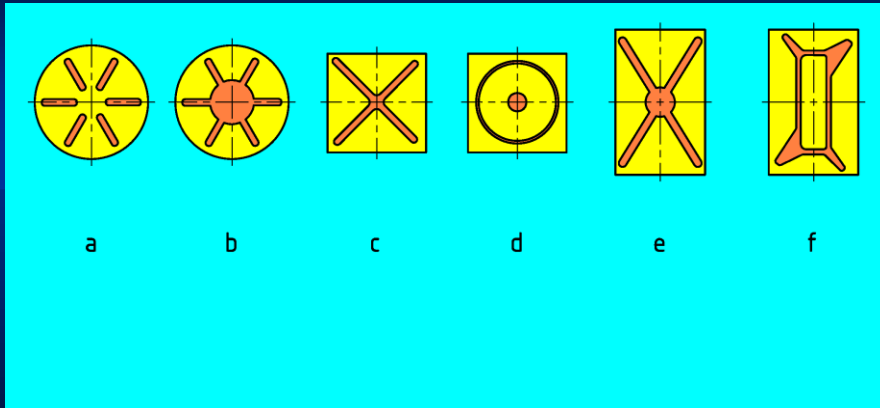


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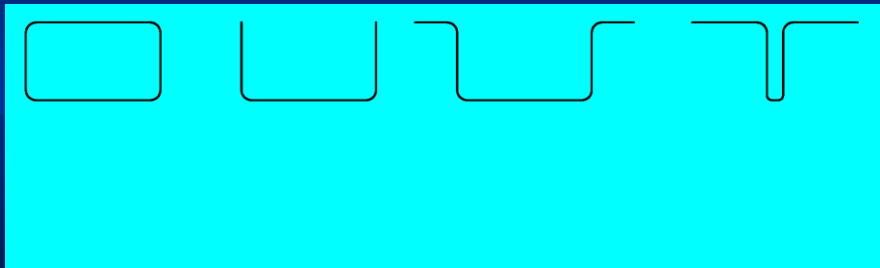
$$\sigma = M / W$$

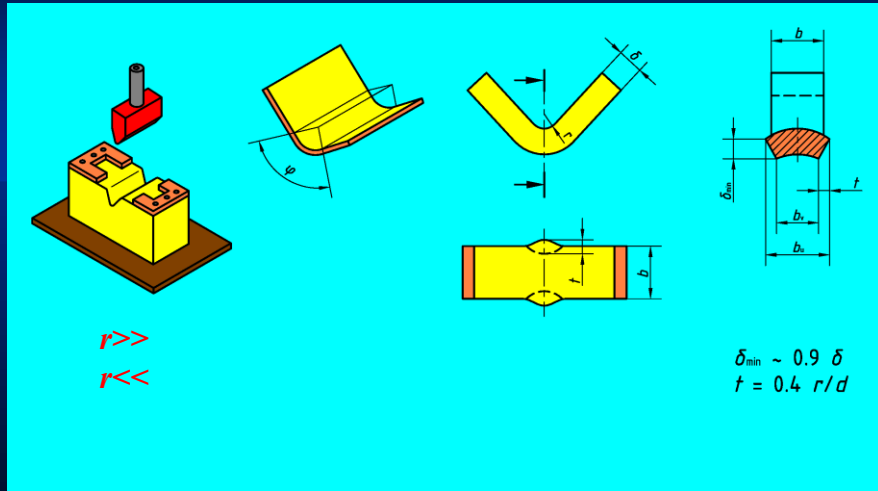
TEHNOLOGIČNO OBLIKOVANJE





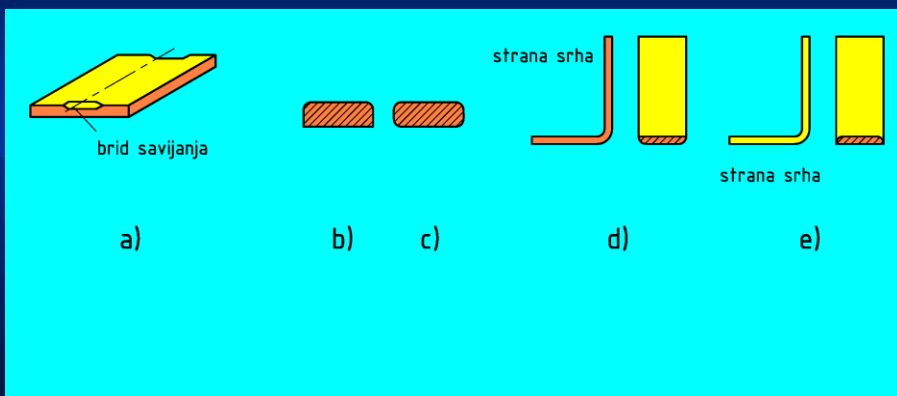
a,c,e, - nepovoljno





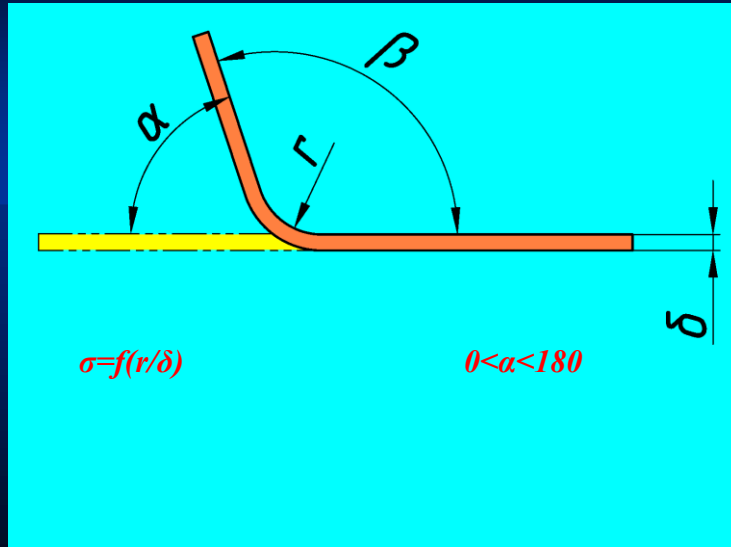
Prof. dr. sc. Milan Opalić

TEHNOLOGIČNO OBLIKOVANJE



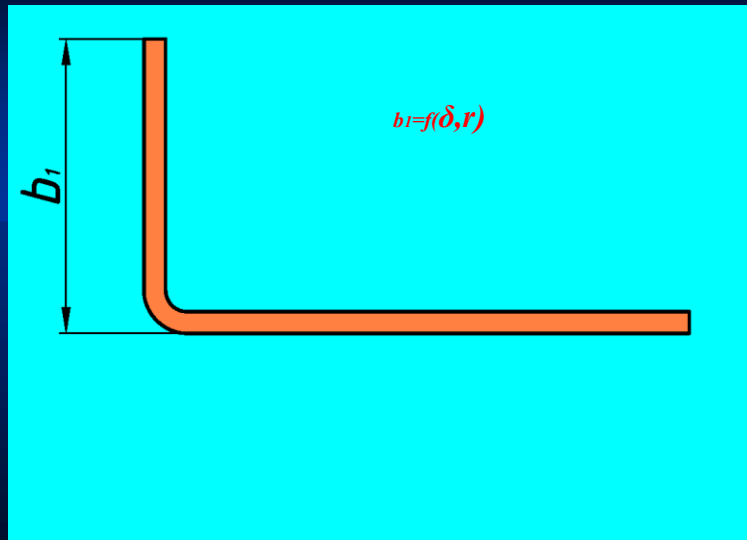
Prof. dr. sc. Milan Opalić

TEHNOLOGIČNO OBLIKOVANJE



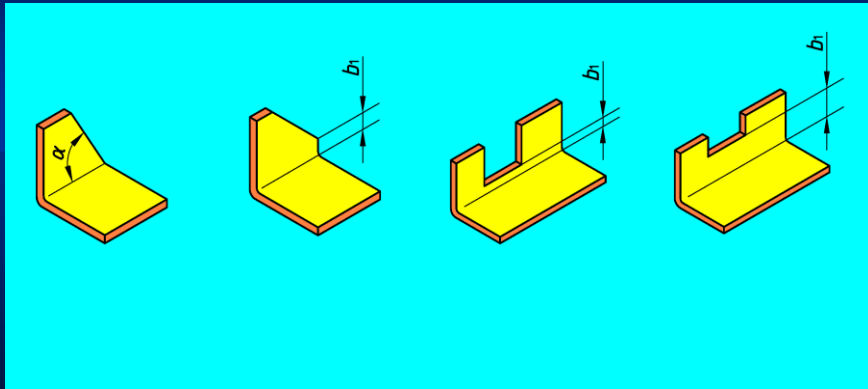
Prof. dr. sc. Milan Opalić

TEHNOLOGIČNO OBLIKOVANJE



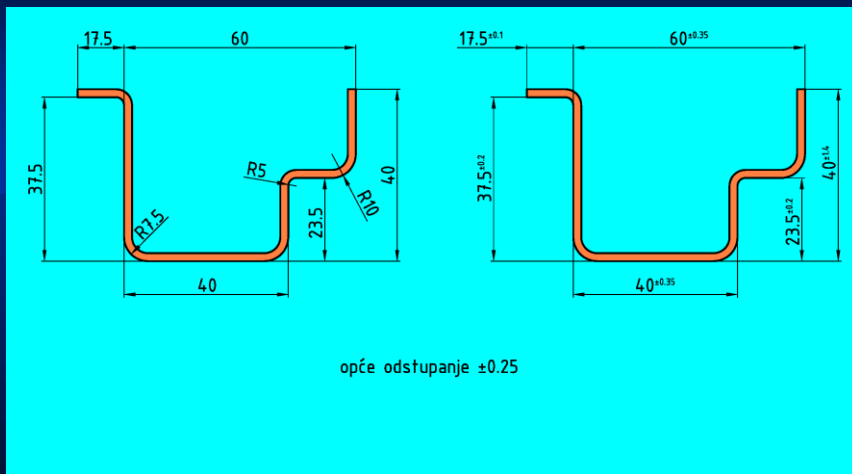
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TEHNOLOGIČNO OBLIKOVANJE



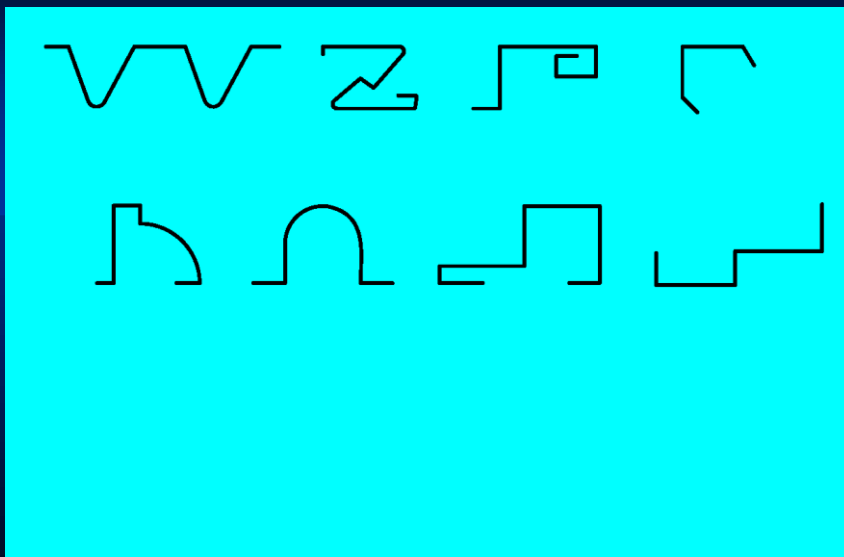
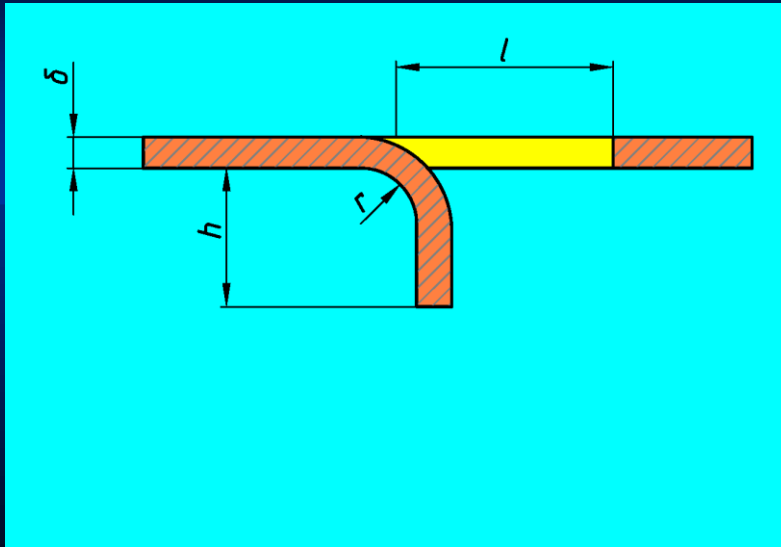
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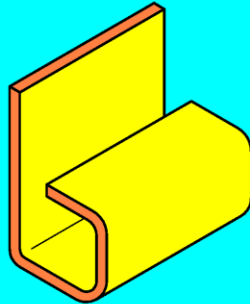
TEHNOLOGIČNO OBLIKOVANJE



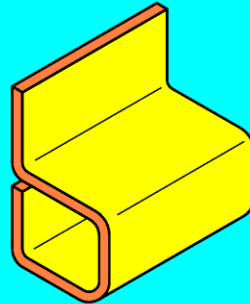
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TEHNOLOGIČNO OBLIKOVANJE

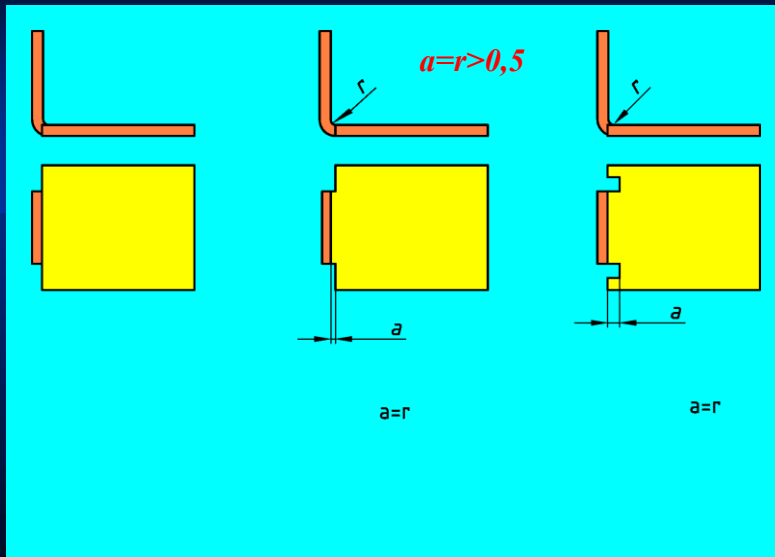




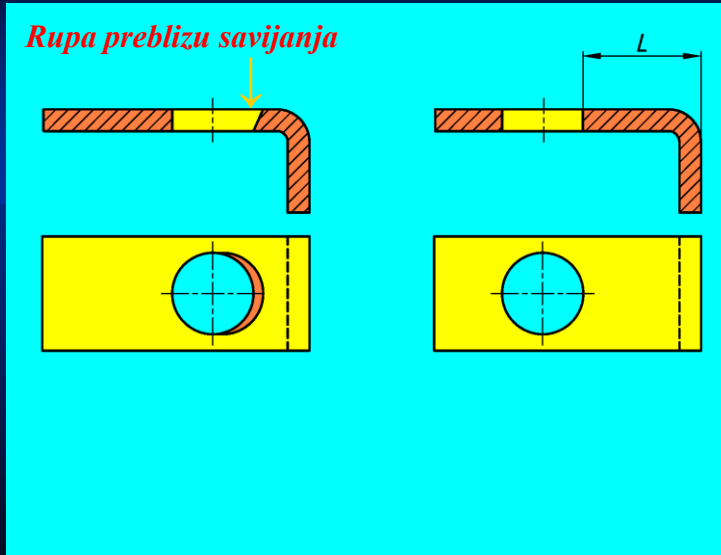
Ne da se izraditi na stroju za savijanje



Da se izraditi na stroju za savijanje

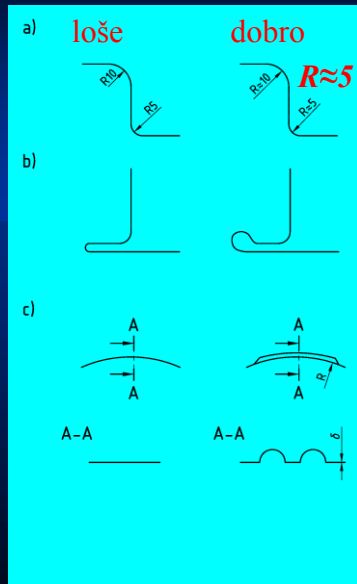


Rupa preblizu savijanja



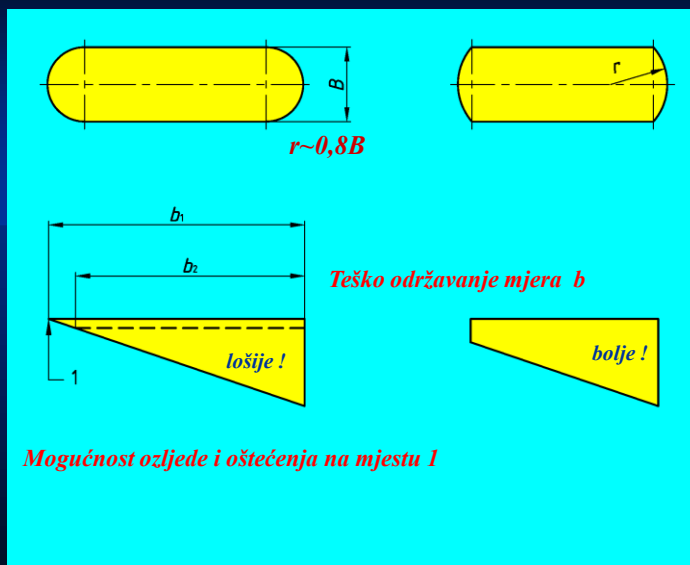
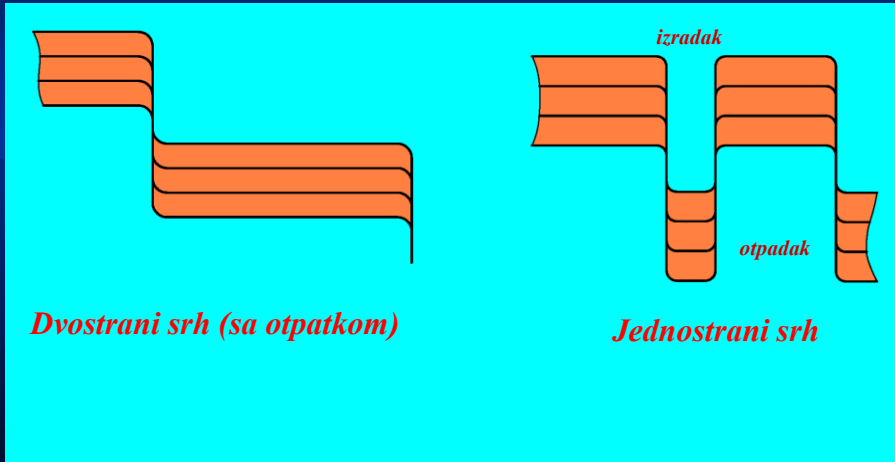
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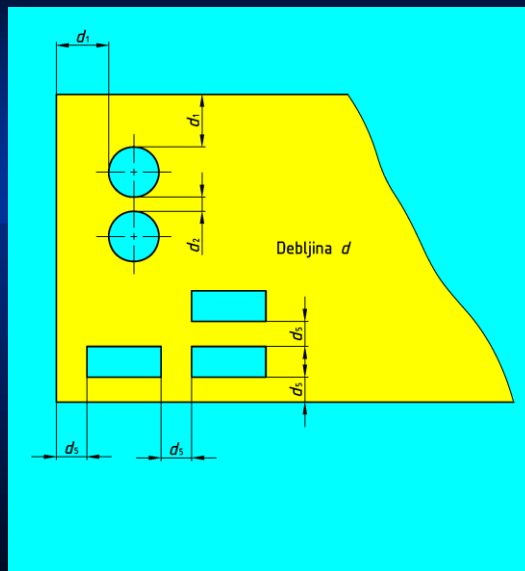
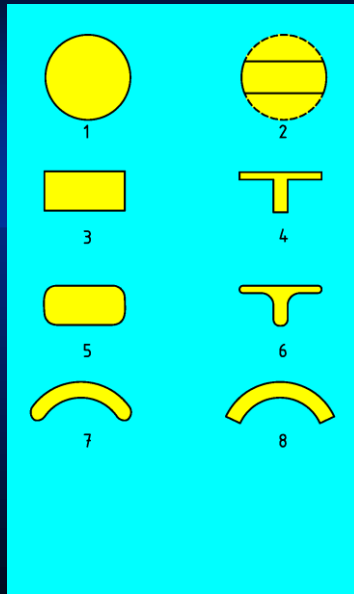
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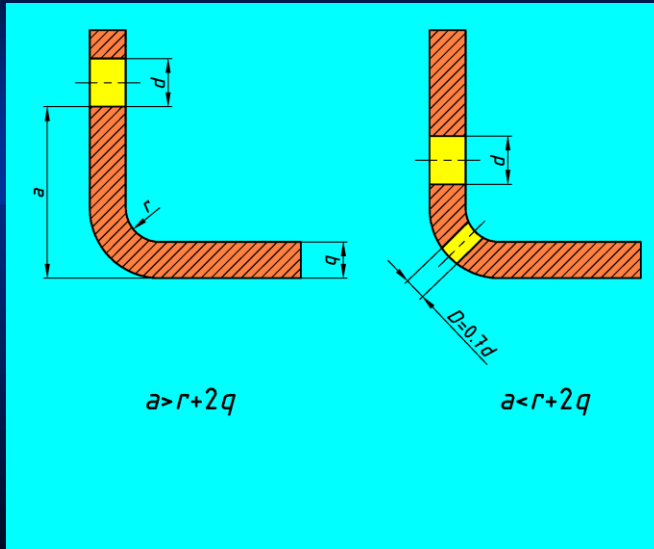


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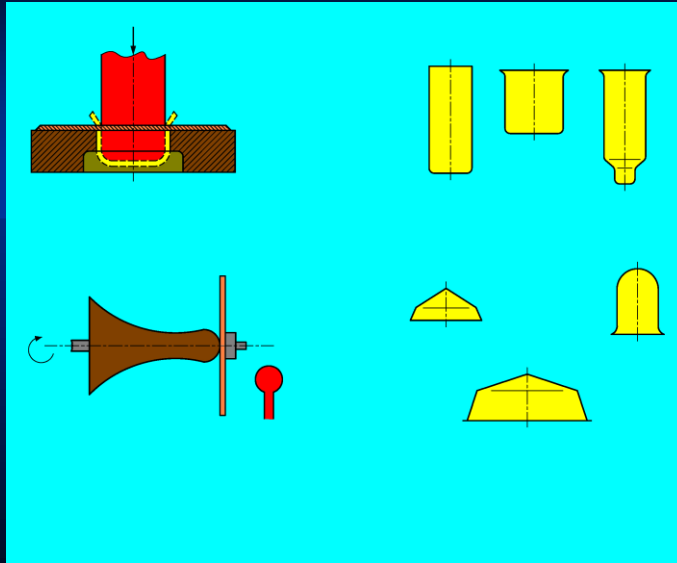
TEHNOLOGIČNO OBLIKOVANJE





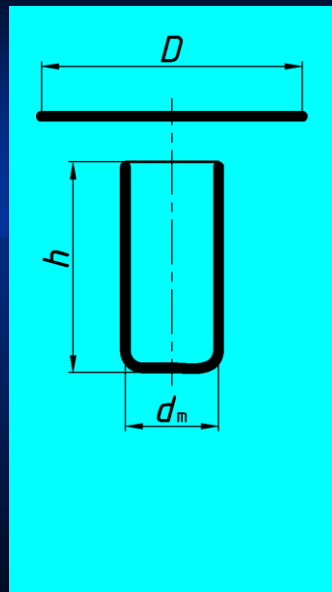


DUBOKO IZVLAČENJE I TLAČENJE



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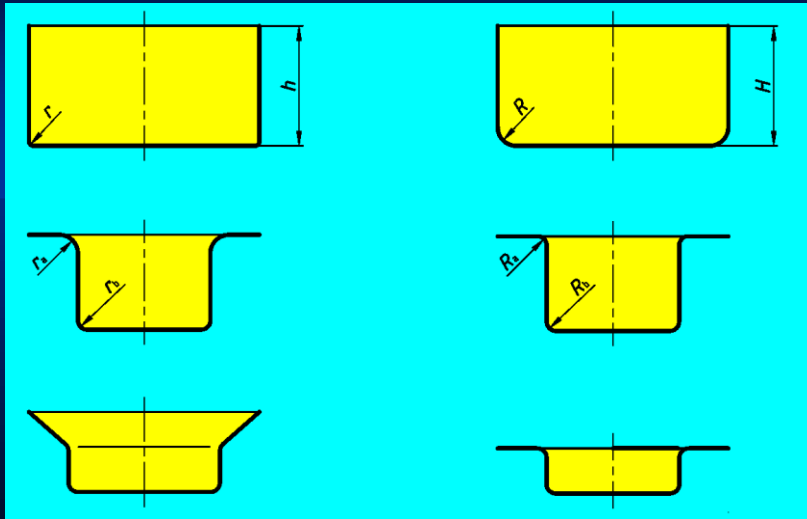
$$d_m/D = m$$

$$m = 0,85-0,95$$

$$m = 0,5-0,6$$

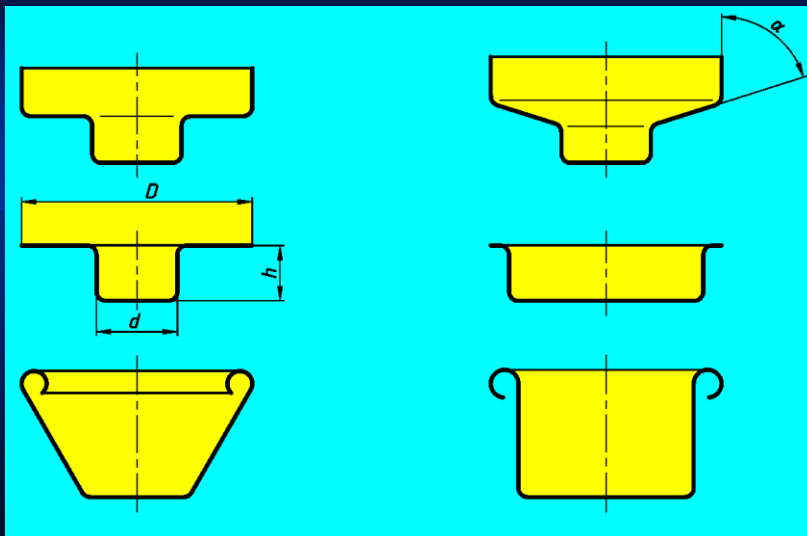
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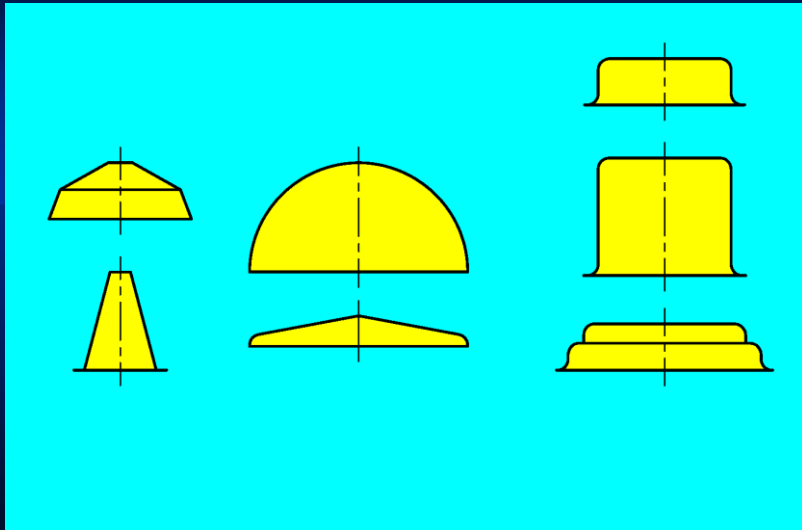
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TEHNOLOGIČNO OBLIKOVANJE



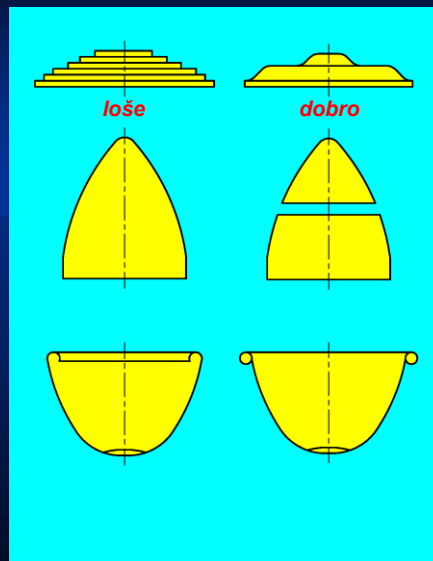
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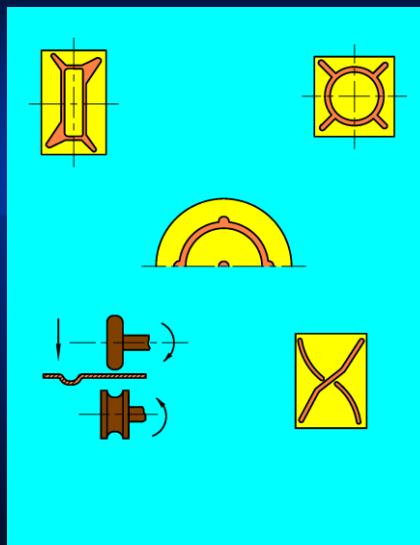
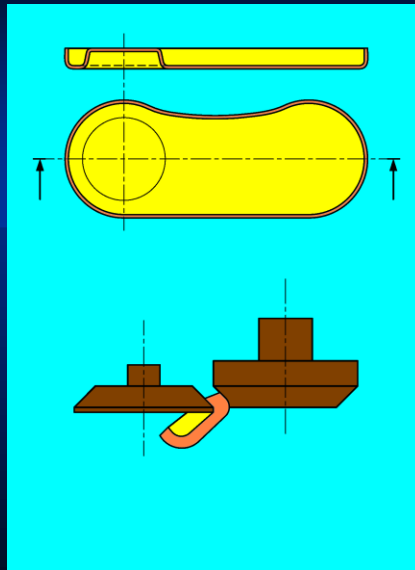


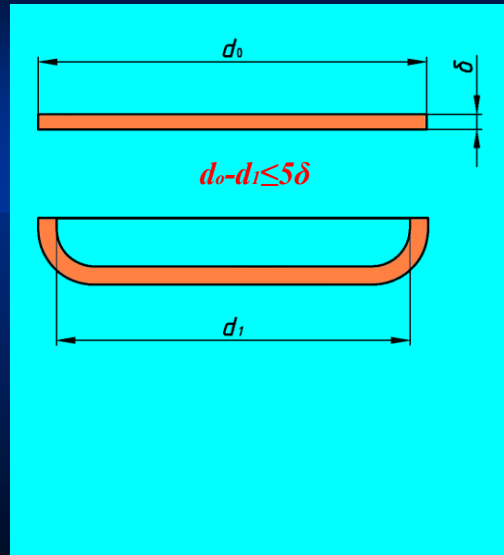
Dvije sekcije!

Obrubi prema van!

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TEHNOLOGIČNO OBLIKOVANJE

1 2 3 4

δ	a	b	h
0,5	2,5	2..3	1..1,5
1	3	4..6	2..3
2	4	8..12	4..6

a

b

h

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