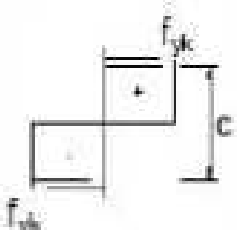
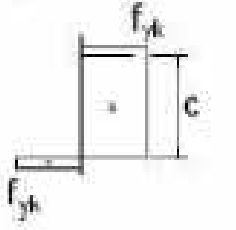
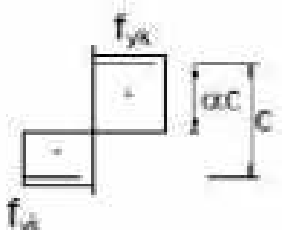
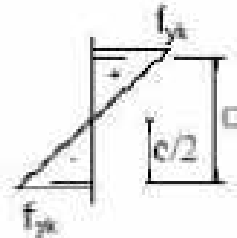
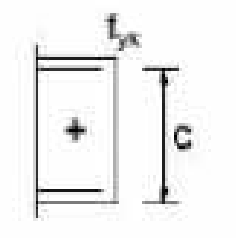
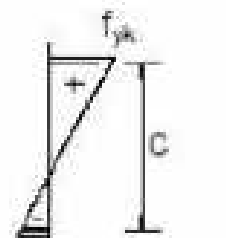
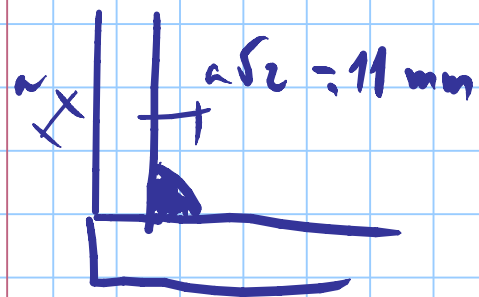
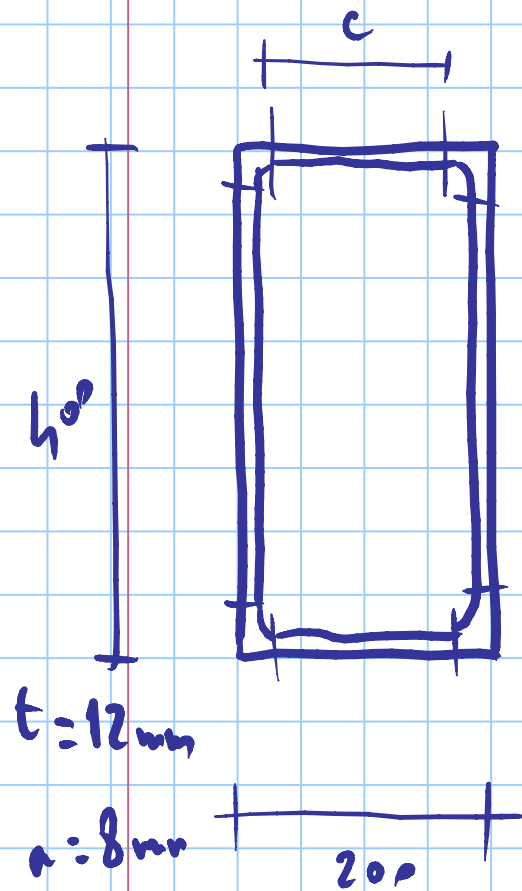
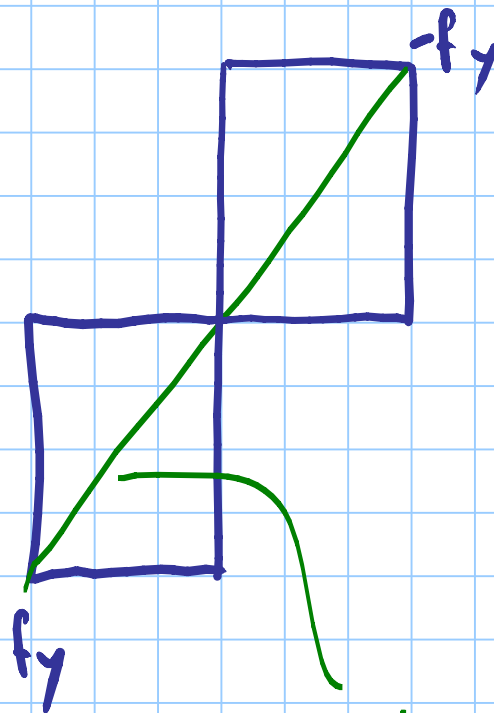


Parti						
Classe	Parte soggetta a flessione		Parte soggetta a compressione		Parte soggetta a flessione e a compressione	
Distribuzione delle tensioni nelle parti (compressione positiva)						
1	$e/t \leq 12c$		$e/t \leq 33c$		quando $\alpha > 0,5: e/t \leq \frac{196c}{13\alpha - 1}$ quando $\alpha \leq 0,5: e/t \leq \frac{196}{\alpha}$	
2	$e/t \leq 83c$		$e/t \leq 38c$		quando $\alpha > 0,5: e/t \leq \frac{456c}{13\alpha - 1}$ quando $\alpha \leq 0,5: e/t \leq \frac{415c}{\alpha}$	
Distribuzione delle tensioni nelle parti (compressione positiva)						
3	$e/t \leq 111c$		$e/t \leq 42c$		quando $\psi > -1: e/t \leq \frac{43c}{0,67 + 0,33\psi}$ quando $\psi \leq -1: e/t \leq 62c(1 - \psi)\sqrt{-\psi}$	
$e = \sqrt{235/f_{yk}}$	f_{yk}		f_{yk}		355	420
	e	1,00	0,92		0,81	0,75
						0,71

*) $\psi \leq -1$ si applica se la tensione di compressione $\sigma \leq f_{yk}$ e la deformazione a trazione $\epsilon_y > f_{yk}/E$



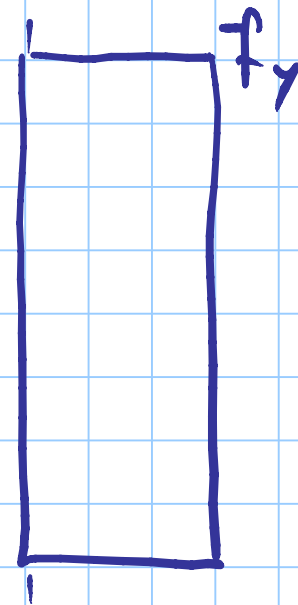
FLESSIONE



piena plastica.

prima plasticazione.

COMPRESSIONE



ala sup $c = 200 - 2(12 + 11) = 154 \text{ mm}$

$$\frac{c}{t} = \frac{154}{12} = 12.8 < 30.4$$

S275 $\epsilon = 0.92$

↓↓
1^a class

1^a — 33 $\epsilon = 30.4$

2^a — 38 $\epsilon = 35.0$

3^a — 42 $\epsilon = 38.6$

4^a — 42 $\epsilon = 38.6$

S275

anima

$$c = 400 - 2(12 + 11) = 354 \text{ mm}$$

$$\frac{c}{t} = \frac{354}{12} = 29.5 < 66.2$$



1^a class

1^a — 72 ε 66.2
2^a — 83 ε
3^a — 126 ε
4^a

anima x 2-6 compression

$$\frac{c}{t} : 29.5 < 30.4$$



1^a choix

1^a — 33 € = 30.4

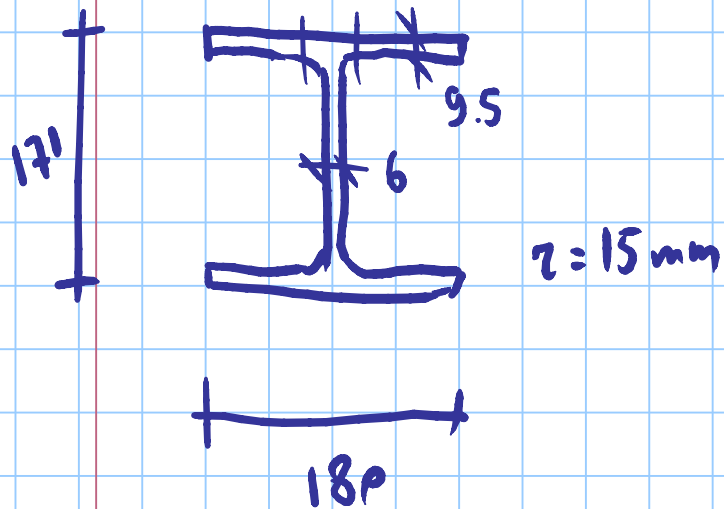
2^a — 38 € = 35.0

3^a — 42 € = 38.6

4^a — 42 € = 38.6

5275

profil HE 180 A



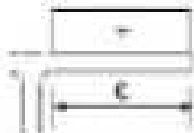
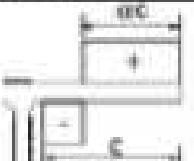
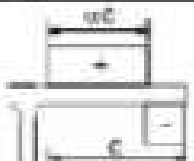


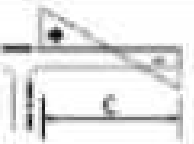
also

$$c = \frac{180 - 6 - 2 \times 15}{2} = 72$$

$$\frac{c}{t} = \frac{72}{9.5} = 7.58$$

S 275 1st d
S 355 2nd d

1 ^o	— 9 ε	8.28	7.29
2 ^o	— 10 ε	9.20	8.10
3 ^o	— 14 ε	12.88	11.34
4 ^o		S 275	S 355

Classe	esterne soggette a compressione		Piattabande esterne soggette a flessione e a compressione			
			Con estremità in compressione		Con estremità in trazione	
Distribuzione delle tensioni nelle parti (compressione positiva)						
1	$c/t \leq 9\epsilon$		$c/t \leq \frac{9\epsilon}{\alpha}$		$c/t \leq \frac{9\epsilon}{\alpha\sqrt{\alpha}}$	
2	$c/t \leq 10\epsilon$		$c/t \leq \frac{10\epsilon}{\alpha}$		$c/t \leq \frac{10\epsilon}{\alpha\sqrt{\alpha}}$	
Distribuzione delle tensioni nelle parti (compressione positiva)						
3	$c/t \leq 14\epsilon$		$c/t \leq 21\epsilon\sqrt{k_s}$ Per k_s vedere EN 1993-1-5			
$\epsilon = \sqrt{235/E_{yk}}$	L_{yk}	235	275	355	420	460
	ϵ	1,00	0,92	0,81	0,75	0,71

anima

$$c = 171 - 2 \times 9.5 - 2 \times 15 = 122$$

$$\frac{c}{t} = \frac{122}{6} = 20.33$$

FLESSIONE

1^a dunn

1^a

— 72 ε

66.2

58.3

2^a

— 83 ε

3^a

— 126 ε

4^a

5275

5355

COMPRESSIONE

1^a dunn

1^a

— 33 ε = 30.4 26.7

2^a

— 38 ε = 35.0

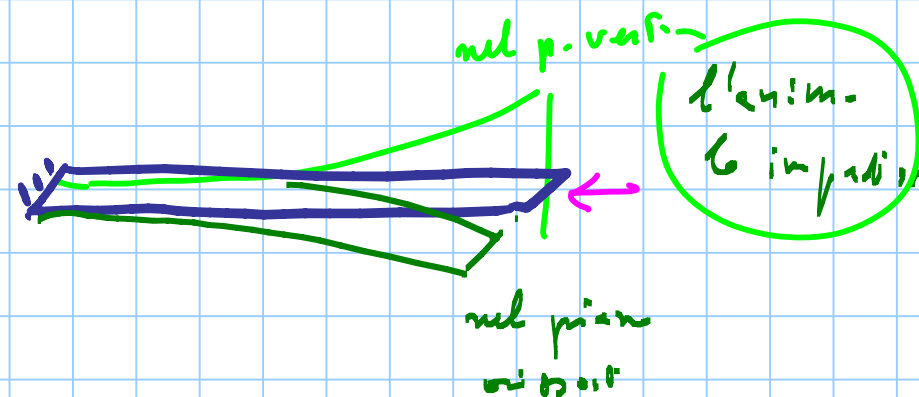
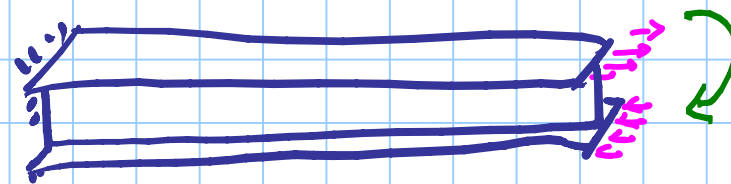
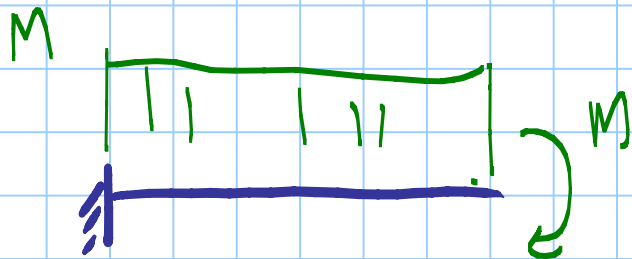
3^a

— 42 ε = 38.6

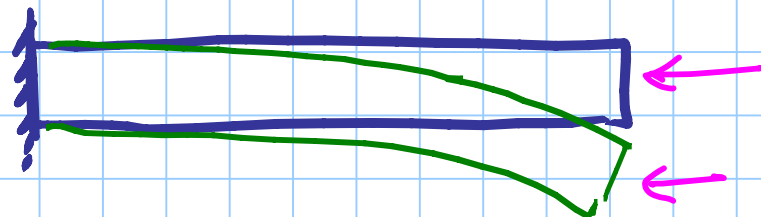
4^a

5275

5355



DALL'ALTRA



INSTABILITA'

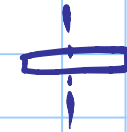
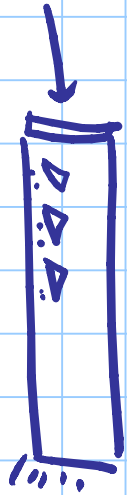
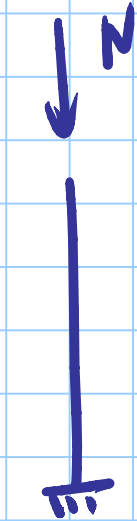
FLESSO-TORSIONALE

LATERAL-TORSIONAL

BUCKLING



l'ala compressa subisce l'LT.
la sezione si Torce



$$N_{cr} = \frac{\pi^2 E I_{min}}{l_0^2}$$

$$l_0 = 2l$$

$$N_{cr} = \frac{\pi^2 E I_{min}}{l_0^2}$$