

1. COLONNA-08

Resistenza della colonna (flessione deviata)

(EC2 EN1992-1-1:2004, UNI EN1990-1-1:2004,)

$b = 0.500 \text{ m}$, $h = 0.500 \text{ m}$

$A_s = 4\emptyset 20 + 8\emptyset 18$ (32.88 cm^2)

Classe del CA : C25/30-B450C (EC2 §

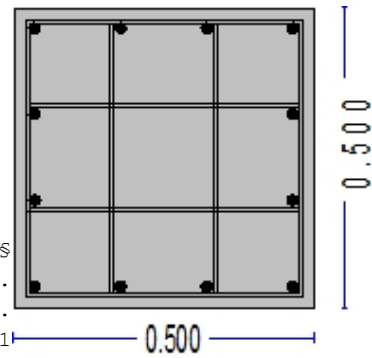
Classe di esposizione ambientale : XC1 (EC2 §4.4.

Copriferro : $C_{nom} = 20 \text{ mm}$ (EC2 §4.4.

$\gamma_c = 1.50$, $\gamma_s = 1.15$ (EC2 Tabella 2.1

$f_{cd} = \alpha_{cc} \cdot f_{ck} / \gamma_c = 0.85 \times 25 / 1.50 = 14.17 \text{ MPa}$ (EC2 §3.1.

$f_{yd} = f_{yk} / \gamma_s = 450 / 1.15 = 391 \text{ MPa}$ (EC2 §3.2.7)



Dimensioni e carichi

Colonna di sezione rettangolare $b = 0.500 \text{ m}$, $h = 0.500 \text{ m}$

Armatura $4\emptyset 20 + 8\emptyset 18$ (32.88 cm^2) $A_{stot}/A_c = 1.32\%$

Spessore efficace della sezione $d = h - d_1$, $d_1 = d_2 = C_{nom} + \emptyset_s + \emptyset / 2 = 20 + 8 + 20 / 2 = 38 \text{ mm}$, $d_x = 462 \text{ mm}$, $d_y = 462 \text{ mm}$

1.1. Portata della sezione della colonna (flessione deviata)

(EC2 EN1992-1-1:2004, §6.1)

Abaco di calcolo per la portata della
ottenuto da integrazione
numerica usando una
griglia di $10 \times 10 = 100$
suddivisioni della sezione

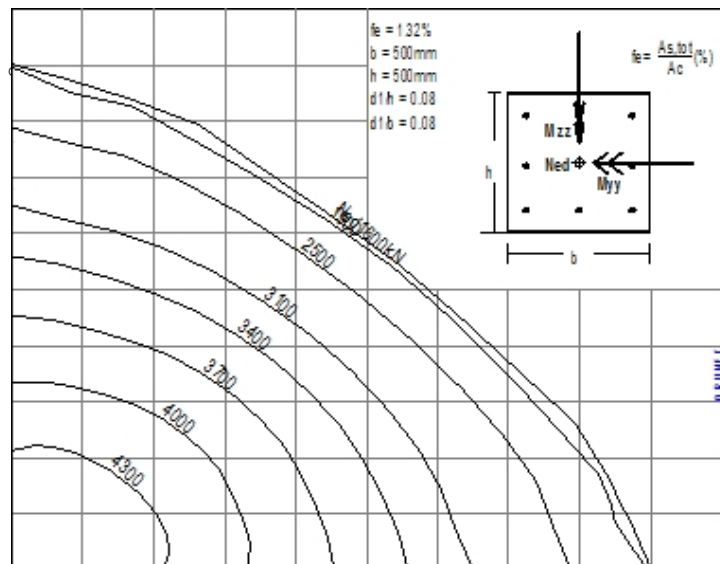
$b = 0.50 \text{ m}$, $h = 0.50 \text{ m}$

$d_1/h = 0.08$, $d_1/b = 0.08$

$F_e = 4\emptyset 20 + 8\emptyset 18$

$A_{stot} = (32.88 \text{ cm}^2)$

$A_{stot}/A_c = 1.32\%$



pendenza dell'asse neutro $\theta=0.00^\circ$				pendenza dell'asse neutro $\theta=7.50^\circ$			
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.47$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.47$)
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.44$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.45$)
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.37$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.40$)
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.18$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.24$)
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-2.85$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-2.99$)
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-2.42$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-2.64$)
N= 3711	Myy= 202	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-0.27$)	N= 4444	Myy= 75	Mzz= 13	($\epsilon c2/\epsilon s1=-3.50/-0.93$)
N= 3502	Myy= 237	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-0.10$)	N= 4348	Myy= 92	Mzz= 15	($\epsilon c2/\epsilon s1=-3.50/-0.80$)
N= 3319	Myy= 263	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/ 0.09$)	N= 4230	Myy= 112	Mzz= 17	($\epsilon c2/\epsilon s1=-3.50/-0.65$)
N= 3095	Myy= 293	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/ 0.30$)	N= 4082	Myy= 137	Mzz= 20	($\epsilon c2/\epsilon s1=-3.50/-0.48$)
N= 2898	Myy= 316	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/ 0.54$)	N= 3897	Myy= 168	Mzz= 23	($\epsilon c2/\epsilon s1=-3.50/-0.29$)
N= 2643	Myy= 342	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/ 0.81$)	N= 3660	Myy= 207	Mzz= 28	($\epsilon c2/\epsilon s1=-3.50/-0.08$)
N= 2417	Myy= 362	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/ 1.12$)	N= 3384	Myy= 247	Mzz= 30	($\epsilon c2/\epsilon s1=-3.50/ 0.17$)
N= 1872	Myy= 405	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/ 1.89$)	N= 2786	Myy= 319	Mzz= 35	($\epsilon c2/\epsilon s1=-3.50/ 0.78$)
N= 1445	Myy= 406	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/ 2.97$)	N= 2104	Myy= 375	Mzz= 39	($\epsilon c2/\epsilon s1=-3.50/ 1.63$)
N= 984	Myy= 391	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/ 4.59$)	N= 1407	Myy= 400	Mzz= 35	($\epsilon c2/\epsilon s1=-3.50/ 2.91$)
N= 590	Myy= 354	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/ 7.28$)	N= 788	Myy= 370	Mzz= 33	($\epsilon c2/\epsilon s1=-3.50/ 5.05$)
N= 296	Myy= 321	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/ 9.44$)	N= 475	Myy= 336	Mzz= 37	($\epsilon c2/\epsilon s1=-3.50/ 6.76$)
N= 81	Myy= 289	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/14.98$)	N= -50	Myy= 259	Mzz= 39	($\epsilon c2/\epsilon s1=-3.50/11.16$)
(Ned [kN], Med [kNm], $\epsilon c2$ $\epsilon s1$ [o/oo])							

pendenza dell'asse neutro $\theta=10.00^\circ$				pendenza dell'asse neutro $\theta=15.00^\circ$			
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.47$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.47$)
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.45$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.44$)
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.39$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.39$)
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.24$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.22$)
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-2.97$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-2.94$)
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-2.62$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-2.57$)
N= 4410	Myy= 80	Mzz= 17	($\epsilon c2/\epsilon s1=-3.50/-0.85$)	N= 4345	Myy= 90	Mzz= 28	($\epsilon c2/\epsilon s1=-3.50/-0.70$)
N= 4308	Myy= 98	Mzz= 20	($\epsilon c2/\epsilon s1=-3.50/-0.71$)	N= 4232	Myy= 109	Mzz= 32	($\epsilon c2/\epsilon s1=-3.50/-0.55$)
N= 4182	Myy= 119	Mzz= 23	($\epsilon c2/\epsilon s1=-3.50/-0.56$)	N= 4088	Myy= 132	Mzz= 38	($\epsilon c2/\epsilon s1=-3.50/-0.39$)
N= 4025	Myy= 146	Mzz= 27	($\epsilon c2/\epsilon s1=-3.50/-0.38$)	N= 3908	Myy= 160	Mzz= 46	($\epsilon c2/\epsilon s1=-3.50/-0.21$)
N= 3825	Myy= 178	Mzz= 33	($\epsilon c2/\epsilon s1=-3.50/-0.19$)	N= 3687	Myy= 194	Mzz= 54	($\epsilon c2/\epsilon s1=-3.50/ 0.00$)
N= 3577	Myy= 216	Mzz= 39	($\epsilon c2/\epsilon s1=-3.50/ 0.03$)	N= 3431	Myy= 230	Mzz= 61	($\epsilon c2/\epsilon s1=-3.50/ 0.23$)
N= 3297	Myy= 256	Mzz= 42	($\epsilon c2/\epsilon s1=-3.50/ 0.28$)	N= 3147	Myy= 267	Mzz= 64	($\epsilon c2/\epsilon s1=-3.50/ 0.50$)
N= 2695	Myy= 324	Mzz= 47	($\epsilon c2/\epsilon s1=-3.50/ 0.92$)	N= 2527	Myy= 330	Mzz= 71	($\epsilon c2/\epsilon s1=-3.50/ 1.17$)
N= 2000	Myy= 378	Mzz= 52	($\epsilon c2/\epsilon s1=-3.50/ 1.80$)	N= 1824	Myy= 377	Mzz= 77	($\epsilon c2/\epsilon s1=-3.50/ 2.10$)
N= 1316	Myy= 395	Mzz= 47	($\epsilon c2/\epsilon s1=-3.50/ 3.12$)	N= 1119	Myy= 377	Mzz= 75	($\epsilon c2/\epsilon s1=-3.50/ 3.50$)
N= 682	Myy= 355	Mzz= 46	($\epsilon c2/\epsilon s1=-3.50/ 5.33$)	N= 456	Myy= 320	Mzz= 76	($\epsilon c2/\epsilon s1=-3.50/ 5.84$)
N= 349	Myy= 316	Mzz= 52	($\epsilon c2/\epsilon s1=-3.50/ 7.10$)	N= 112	Myy= 273	Mzz= 80	($\epsilon c2/\epsilon s1=-3.50/ 7.70$)
(Ned [kN], Med [kNm], $\epsilon c2$ $\epsilon s1$ [o/oo])							

pendenza dell'asse neutro $\theta=22.50^\circ$				pendenza dell'asse neutro $\theta=30.00^\circ$			
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.47$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.47$)
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.44$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.44$)
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.38$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.38$)
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.20$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.19$)
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-2.90$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-2.88$)
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-2.50$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-2.46$)
N= 4255	Myy= 101	Mzz= 46	($\epsilon c2/\epsilon s1=-3.50/-0.51$)	N= 4182	Myy= 106	Mzz= 64	($\epsilon c2/\epsilon s1=-3.50/-0.38$)
N= 4121	Myy= 121	Mzz= 54	($\epsilon c2/\epsilon s1=-3.50/-0.35$)	N= 4040	Myy= 127	Mzz= 76	($\epsilon c2/\epsilon s1=-3.50/-0.21$)
N= 3957	Myy= 146	Mzz= 64	($\epsilon c2/\epsilon s1=-3.50/-0.18$)	N= 3863	Myy= 151	Mzz= 89	($\epsilon c2/\epsilon s1=-3.50/-0.03$)
N= 3757	Myy= 175	Mzz= 74	($\epsilon c2/\epsilon s1=-3.50/ 0.02$)	N= 3655	Myy= 179	Mzz= 102	($\epsilon c2/\epsilon s1=-3.50/ 0.18$)
N= 3525	Myy= 207	Mzz= 84	($\epsilon c2/\epsilon s1=-3.50/ 0.23$)	N= 3412	Myy= 207	Mzz= 115	($\epsilon c2/\epsilon s1=-3.50/ 0.40$)
N= 3261	Myy= 240	Mzz= 93	($\epsilon c2/\epsilon s1=-3.50/ 0.48$)	N= 3137	Myy= 236	Mzz= 127	($\epsilon c2/\epsilon s1=-3.50/ 0.67$)
N= 2971	Myy= 273	Mzz= 99	($\epsilon c2/\epsilon s1=-3.50/ 0.77$)	N= 2833	Myy= 263	Mzz= 137	($\epsilon c2/\epsilon s1=-3.50/ 0.96$)
N= 2313	Myy= 327	Mzz= 111	($\epsilon c2/\epsilon s1=-3.50/ 1.48$)	N= 2140	Myy= 310	Mzz= 154	($\epsilon c2/\epsilon s1=-3.50/ 1.71$)
N= 1578	Myy= 358	Mzz= 119	($\epsilon c2/\epsilon s1=-3.50/ 2.48$)	N= 1377	Myy= 325	Mzz= 163	($\epsilon c2/\epsilon s1=-3.50/ 2.75$)
N= 846	Myy= 339	Mzz= 116	($\epsilon c2/\epsilon s1=-3.50/ 3.97$)	N= 639	Myy= 294	Mzz= 157	($\epsilon c2/\epsilon s1=-3.50/ 4.31$)
N= 154	Myy= 264	Mzz= 115	($\epsilon c2/\epsilon s1=-3.50/ 6.46$)	N= -35	Myy= 220	Mzz= 137	($\epsilon c2/\epsilon s1=-3.50/ 6.91$)
(Ned [kN], Med [kNm], $\epsilon c2$ $\epsilon s1$ [o/oo])							

pendenza dell'asse neutro $\theta=37.50^\circ$				pendenza dell'asse neutro $\theta=45.00^\circ$			
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.47$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.47$)
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.44$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.44$)
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.37$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.37$)
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.18$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.18$)
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-2.86$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-2.85$)
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-2.43$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-2.42$)
N= 4140	Myy= 105	Mzz= 80	($\epsilon c2/\epsilon s1=-3.50/-0.29$)	N= 4122	Myy= 95	Mzz= 95	($\epsilon c2/\epsilon s1=-3.50/-0.27$)
N= 3987	Myy= 124	Mzz= 96	($\epsilon c2/\epsilon s1=-3.50/-0.12$)	N= 3965	Myy= 113	Mzz= 113	($\epsilon c2/\epsilon s1=-3.50/-0.10$)
N= 3804	Myy= 146	Mzz= 113	($\epsilon c2/\epsilon s1=-3.50/ 0.06$)	N= 3780	Myy= 133	Mzz= 133	($\epsilon c2/\epsilon s1=-3.50/ 0.09$)
N= 3587	Myy= 170	Mzz= 130	($\epsilon c2/\epsilon s1=-3.50/ 0.27$)	N= 3565	Myy= 153	Mzz= 153	($\epsilon c2/\epsilon s1=-3.50/ 0.30$)
N= 3340	Myy= 195	Mzz= 146	($\epsilon c2/\epsilon s1=-3.50/ 0.51$)	N= 3318	Myy= 174	Mzz= 174	($\epsilon c2/\epsilon s1=-3.50/ 0.54$)
N= 3062	Myy= 219	Mzz= 161	($\epsilon c2/\epsilon s1=-3.50/ 0.78$)	N= 3031	Myy= 194	Mzz= 194	($\epsilon c2/\epsilon s1=-3.50/ 0.81$)
N= 2749	Myy= 242	Mzz= 175	($\epsilon c2/\epsilon s1=-3.50/ 1.08$)	N= 2713	Myy= 212	Mzz= 212	($\epsilon c2/\epsilon s1=-3.50/ 1.12$)
N= 2024	Myy= 279	Mzz= 198	($\epsilon c2/\epsilon s1=-3.50/ 1.84$)	N= 1978	Myy= 241	Mzz= 241	($\epsilon c2/\epsilon s1=-3.50/ 1.89$)
N= 1240	Myy= 288	Mzz= 207	($\epsilon c2/\epsilon s1=-3.50/ 2.91$)	N= 1180	Myy= 250	Mzz= 250	($\epsilon c2/\epsilon s1=-3.50/ 2.97$)
N= 499	Myy= 254	Mzz= 192	($\epsilon c2/\epsilon s1=-3.50/ 4.52$)	N= 440	Myy= 221	Mzz= 221	($\epsilon c2/\epsilon s1=-3.50/ 4.58$)
(Ned [kN], Med [kNm], $\epsilon c2$ $\epsilon s1$ [o/oo])							

pendenza dell'asse neutro $\theta=52.50^\circ$				pendenza dell'asse neutro $\theta=60.00^\circ$			
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.47$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.47$)
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.44$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.44$)
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.37$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.38$)
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.18$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-3.19$)
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-2.86$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-2.88$)
N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-2.43$)	N= 4828	Myy= 0	Mzz= 0	($\epsilon c2/\epsilon s1=-3.50/-2.46$)
N= 4140	Myy= 80	Mzz= 105	($\epsilon c2/\epsilon s1=-3.50/-0.29$)	N= 4182	Myy= 64	Mzz= 106	($\epsilon c2/\epsilon s1=-3.50/-0.38$)
N= 3987	Myy= 96	Mzz= 124	($\epsilon c2/\epsilon s1=-3.50/-0.12$)	N= 4040	Myy= 76	Mzz= 127	($\epsilon c2/\epsilon s1=-3.50/-0.21$)
N= 3804	Myy= 113	Mzz= 146	($\epsilon c2/\epsilon s1=-3.50/ 0.06$)	N= 3863	Myy= 89	Mzz= 151	($\epsilon c2/\epsilon s1=-3.50/-0.03$)
N= 3587	Myy= 130	Mzz= 170	($\epsilon c2/\epsilon s1=-3.50/ 0.27$)	N= 3655	Myy= 102	Mzz= 179	($\epsilon c2/\epsilon s1=-3.50/ 0.18$)
N= 3340	Myy= 146	Mzz= 195	($\epsilon c2/\epsilon s1=-3.50/ 0.51$)	N= 3412	Myy= 115	Mzz= 207	($\epsilon c2/\epsilon s1=-3.50/ 0.40$)
N= 3062	Myy= 161	Mzz= 219	($\epsilon c2/\epsilon s1=-3.50/ 0.78$)	N= 3137	Myy= 127	Mzz= 236	($\epsilon c2/\epsilon s1=-3.50/ 0.67$)
N= 2749	Myy= 175	Mzz= 242	($\epsilon c2/\epsilon s1=-3.50/ 1.08$)	N= 2833	Myy= 137	Mzz= 263	($\epsilon c2/\epsilon s1=-3.50/ 0.96$)
N= 2024	Myy= 198	Mzz= 279	($\epsilon c2/\epsilon s1=-3.50/ 1.84$)	N= 2140	Myy= 154	Mzz= 310	($\epsilon c2/\epsilon s1=-3.50/ 1.71$)
N= 1240	Myy= 207	Mzz= 288	($\epsilon c2/\epsilon s1=-3.50/ 2.91$)	N= 1377	Myy= 163	Mzz= 325	($\epsilon c2/\epsilon s1=-3.50/ 2.75$)
N= 499	Myy= 192	Mzz= 254	($\epsilon c2/\epsilon s1=-3.50/ 4.52$)	N= 639	Myy= 157	Mzz= 294	($\epsilon c2/\epsilon s1=-3.50/ 4.31$)
(Ned [kN], Med [kNm], $\epsilon c2$ $\epsilon s1$ [o/oo])							

pendenza dell'asse neutro $\theta=67.50^\circ$

N= 4828 Myy= 0 Mzz= 0 ($\varepsilon c2/\varepsilon s1=-3.50/-3.47$)
 N= 4828 Myy= 0 Mzz= 0 ($\varepsilon c2/\varepsilon s1=-3.50/-3.44$)
 N= 4828 Myy= 0 Mzz= 0 ($\varepsilon c2/\varepsilon s1=-3.50/-3.38$)
 N= 4828 Myy= 0 Mzz= 0 ($\varepsilon c2/\varepsilon s1=-3.50/-3.20$)
 N= 4828 Myy= 0 Mzz= 0 ($\varepsilon c2/\varepsilon s1=-3.50/-2.90$)
 N= 4828 Myy= 0 Mzz= 0 ($\varepsilon c2/\varepsilon s1=-3.50/-2.50$)
 N= 4255 Myy= 46 Mzz= 101 ($\varepsilon c2/\varepsilon s1=-3.50/-0.51$)
 N= 4121 Myy= 54 Mzz= 121 ($\varepsilon c2/\varepsilon s1=-3.50/-0.35$)
 N= 3957 Myy= 64 Mzz= 146 ($\varepsilon c2/\varepsilon s1=-3.50/-0.18$)
 N= 3757 Myy= 74 Mzz= 175 ($\varepsilon c2/\varepsilon s1=-3.50/ 0.02$)
 N= 3525 Myy= 84 Mzz= 207 ($\varepsilon c2/\varepsilon s1=-3.50/ 0.23$)
 N= 3261 Myy= 93 Mzz= 240 ($\varepsilon c2/\varepsilon s1=-3.50/ 0.48$)
 N= 2971 Myy= 99 Mzz= 273 ($\varepsilon c2/\varepsilon s1=-3.50/ 0.77$)
 N= 2313 Myy= 111 Mzz= 327 ($\varepsilon c2/\varepsilon s1=-3.50/ 1.48$)
 N= 1578 Myy= 119 Mzz= 358 ($\varepsilon c2/\varepsilon s1=-3.50/ 2.48$)
 N= 846 Myy= 116 Mzz= 339 ($\varepsilon c2/\varepsilon s1=-3.50/ 3.97$)
 N= 154 Myy= 115 Mzz= 264 ($\varepsilon c2/\varepsilon s1=-3.50/ 6.46$)
 (Ned [kN], Med [kNm], $\varepsilon c2$ $\varepsilon s1$ [o/oo])

pendenza dell'asse neutro $\theta=75.00^\circ$

N= 4828 Myy= 0 Mzz= 0 ($\varepsilon c2/\varepsilon s1=-3.50/-3.47$)
 N= 4828 Myy= 0 Mzz= 0 ($\varepsilon c2/\varepsilon s1=-3.50/-3.44$)
 N= 4828 Myy= 0 Mzz= 0 ($\varepsilon c2/\varepsilon s1=-3.50/-3.39$)
 N= 4828 Myy= 0 Mzz= 0 ($\varepsilon c2/\varepsilon s1=-3.50/-3.22$)
 N= 4828 Myy= 0 Mzz= 0 ($\varepsilon c2/\varepsilon s1=-3.50/-2.94$)
 N= 4828 Myy= 0 Mzz= 0 ($\varepsilon c2/\varepsilon s1=-3.50/-2.57$)
 N= 4345 Myy= 28 Mzz= 90 ($\varepsilon c2/\varepsilon s1=-3.50/-0.70$)
 N= 4232 Myy= 32 Mzz= 109 ($\varepsilon c2/\varepsilon s1=-3.50/-0.55$)
 N= 4088 Myy= 38 Mzz= 132 ($\varepsilon c2/\varepsilon s1=-3.50/-0.39$)
 N= 3908 Myy= 46 Mzz= 160 ($\varepsilon c2/\varepsilon s1=-3.50/-0.21$)
 N= 3687 Myy= 54 Mzz= 194 ($\varepsilon c2/\varepsilon s1=-3.50/ 0.00$)
 N= 3431 Myy= 61 Mzz= 230 ($\varepsilon c2/\varepsilon s1=-3.50/ 0.23$)
 N= 3147 Myy= 64 Mzz= 267 ($\varepsilon c2/\varepsilon s1=-3.50/ 0.50$)
 N= 2527 Myy= 71 Mzz= 330 ($\varepsilon c2/\varepsilon s1=-3.50/ 1.17$)
 N= 1824 Myy= 77 Mzz= 377 ($\varepsilon c2/\varepsilon s1=-3.50/ 2.10$)
 N= 1119 Myy= 75 Mzz= 377 ($\varepsilon c2/\varepsilon s1=-3.50/ 3.50$)
 N= 456 Myy= 76 Mzz= 320 ($\varepsilon c2/\varepsilon s1=-3.50/ 5.84$)

pendenza dell'asse neutro $\theta=82.50^\circ$

N= 4828 Myy= 0 Mzz= 0 ($\varepsilon c2/\varepsilon s1=-3.50/-3.47$)
 N= 4828 Myy= 0 Mzz= 0 ($\varepsilon c2/\varepsilon s1=-3.50/-3.45$)
 N= 4828 Myy= 0 Mzz= 0 ($\varepsilon c2/\varepsilon s1=-3.50/-3.40$)
 N= 4828 Myy= 0 Mzz= 0 ($\varepsilon c2/\varepsilon s1=-3.50/-3.24$)
 N= 4828 Myy= 0 Mzz= 0 ($\varepsilon c2/\varepsilon s1=-3.50/-2.99$)
 N= 4828 Myy= 0 Mzz= 0 ($\varepsilon c2/\varepsilon s1=-3.50/-2.64$)
 N= 4444 Myy= 13 Mzz= 75 ($\varepsilon c2/\varepsilon s1=-3.50/-0.93$)
 N= 4348 Myy= 15 Mzz= 92 ($\varepsilon c2/\varepsilon s1=-3.50/-0.80$)
 N= 4230 Myy= 17 Mzz= 112 ($\varepsilon c2/\varepsilon s1=-3.50/-0.65$)
 N= 4082 Myy= 20 Mzz= 137 ($\varepsilon c2/\varepsilon s1=-3.50/-0.48$)
 N= 3897 Myy= 23 Mzz= 168 ($\varepsilon c2/\varepsilon s1=-3.50/-0.29$)
 N= 3660 Myy= 28 Mzz= 207 ($\varepsilon c2/\varepsilon s1=-3.50/-0.08$)
 N= 3384 Myy= 30 Mzz= 247 ($\varepsilon c2/\varepsilon s1=-3.50/ 0.17$)
 N= 2786 Myy= 35 Mzz= 319 ($\varepsilon c2/\varepsilon s1=-3.50/ 0.78$)
 N= 2104 Myy= 39 Mzz= 375 ($\varepsilon c2/\varepsilon s1=-3.50/ 1.63$)
 N= 1407 Myy= 35 Mzz= 400 ($\varepsilon c2/\varepsilon s1=-3.50/ 2.91$)
 N= 788 Myy= 33 Mzz= 370 ($\varepsilon c2/\varepsilon s1=-3.50/ 5.05$)
 N= 475 Myy= 37 Mzz= 336 ($\varepsilon c2/\varepsilon s1=-3.50/ 6.76$)
 (Ned [kN], Med [kNm], $\varepsilon c2$ $\varepsilon s1$ [o/oo])

pendenza dell'asse neutro $\theta=90.00^\circ$

N= 4828 Myy= 0 Mzz= 0 ($\varepsilon c2/\varepsilon s1=-3.50/-3.47$)
 N= 4828 Myy= 0 Mzz= 0 ($\varepsilon c2/\varepsilon s1=-3.50/-3.44$)
 N= 4828 Myy= 0 Mzz= 0 ($\varepsilon c2/\varepsilon s1=-3.50/-3.37$)
 N= 4828 Myy= 0 Mzz= 0 ($\varepsilon c2/\varepsilon s1=-3.50/-3.18$)
 N= 4828 Myy= 0 Mzz= 0 ($\varepsilon c2/\varepsilon s1=-3.50/-2.85$)
 N= 4828 Myy= 0 Mzz= 0 ($\varepsilon c2/\varepsilon s1=-3.50/-2.42$)
 N= 3711 Myy= 0 Mzz= 202 ($\varepsilon c2/\varepsilon s1=-3.50/-0.27$)
 N= 3502 Myy= 0 Mzz= 237 ($\varepsilon c2/\varepsilon s1=-3.50/-0.10$)
 N= 3319 Myy= 0 Mzz= 263 ($\varepsilon c2/\varepsilon s1=-3.50/ 0.09$)
 N= 3095 Myy= 0 Mzz= 293 ($\varepsilon c2/\varepsilon s1=-3.50/ 0.30$)
 N= 2898 Myy= 0 Mzz= 316 ($\varepsilon c2/\varepsilon s1=-3.50/ 0.54$)
 N= 2643 Myy= 0 Mzz= 342 ($\varepsilon c2/\varepsilon s1=-3.50/ 0.81$)
 N= 2417 Myy= 0 Mzz= 362 ($\varepsilon c2/\varepsilon s1=-3.50/ 1.12$)
 N= 1872 Myy= 0 Mzz= 405 ($\varepsilon c2/\varepsilon s1=-3.50/ 1.89$)
 N= 1445 Myy= 0 Mzz= 406 ($\varepsilon c2/\varepsilon s1=-3.50/ 2.97$)
 N= 984 Myy= 0 Mzz= 391 ($\varepsilon c2/\varepsilon s1=-3.50/ 4.59$)
 N= 590 Myy= 0 Mzz= 354 ($\varepsilon c2/\varepsilon s1=-3.50/ 7.28$)
 N= 296 Myy= 0 Mzz= 321 ($\varepsilon c2/\varepsilon s1=-3.50/ 9.44$)