



COMUNE DI MONTERIGGIONI

Provincia di Siena

RELAZIONE DI CALCOLO DELLE STRUTTURE

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Progetto:

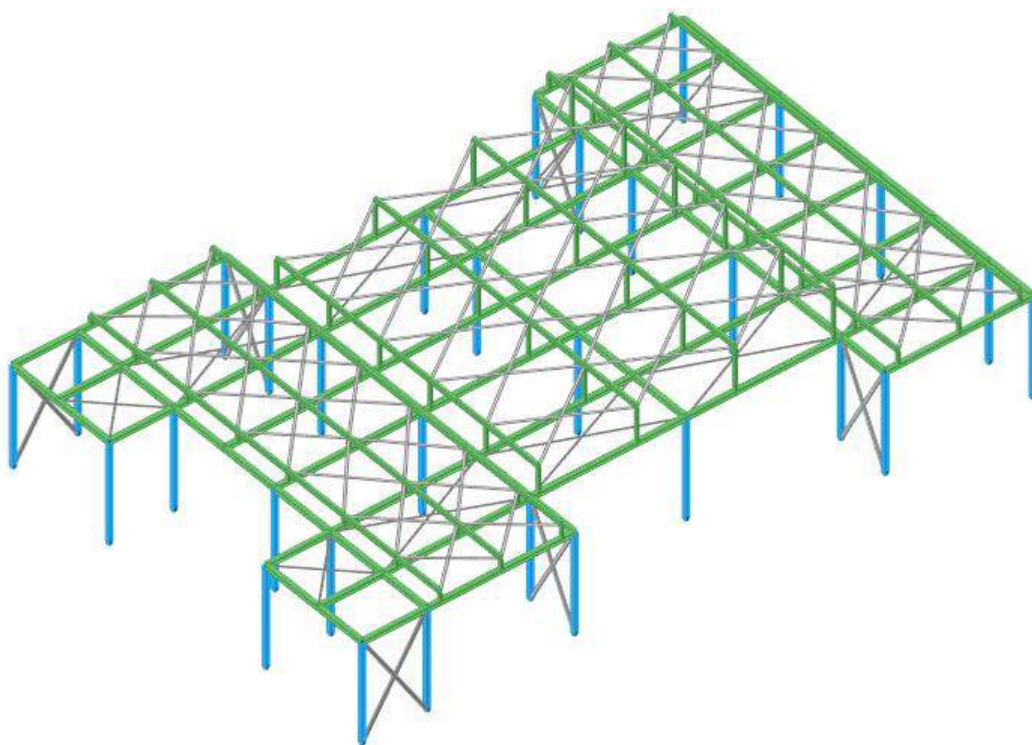
**REALIZZAZIONE DI UN NUOVO EDIFICIO
DESTINATO A MENSA CENTRALIZZATA A SERVIZIO
DELLE SCUOLE DI MONTERIGGIONI**

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Sommario

Introduzione.....	2
Sistemi di riferimento	3
Rotazioni e momenti	3
Normativa di riferimento	3
Unità di misura	4
Geometria.....	4
Elenco vincoli nodi	4
Elenco nodi	4
Elenco materiali	5
Elenco sezioni aste	6
Elenco vincoli aste	6
Elenco aste	7
Carichi.....	13
Condizioni di carico elementari	13
Elenco carichi aste Condizione di carico n. 1: Permanenti strutturali Elenco peso proprio aste	13
Elenco carichi aste Condizione di carico n. 1: Permanenti strutturali Carichi distribuiti	14
Elenco carichi aste Condizione di carico n. 2: Permanenti non strutturali Carichi distribuiti	14
Elenco carichi aste Condizione di carico n. 3: Carico neve Carichi distribuiti	16
Elenco carichi aste Condizione di carico n. 4: Vento dir. 1 Carichi distribuiti	16
Elenco carichi aste Condizione di carico n. 5: Vento dir.2 Carichi distribuiti	16
Risultati del calcolo.....	17
Parametri di calcolo	17
Figura numero 1: Spettro SLD	19
Figura numero 2: Spettro SLV	19
Spostamenti dei nodi allo stato limite ultimo	22
Reazioni vincolari	28
Sollecitazioni aste	29
Criteri di progetto utilizzati.....	58
Aste in acciaio	58
Verifiche aste in acciaio.....	60



Struttura 3d modellata

Introduzione

Sistemi di riferimento

Le coordinate, i carichi concentrati, i cedimenti, le reazioni vincolari e gli spostamenti dei NODI sono riferiti ad una terna destra cartesiana globale con l'asse Z verticale rivolto verso l'alto.

I carichi in coordinate locali e le sollecitazioni delle ASTE sono riferite ad una terna destra cartesiana locale così definita:

- origine nel nodo iniziale dell'asta;
- asse X coincidente con l'asse dell'asta e con verso dal nodo iniziale al nodo finale;
- immaginando la trave a sezione rettangolare l'asse Y è parallelo alla base e l'asse Z è parallelo all'altezza. La rotazione dell'asta comporta quindi una rotazione di tutta la terna locale.

Si può immaginare la terna locale di un'asta comunque disposta nello spazio come derivante da quella globale dopo una serie di trasformazioni:

- una rotazione intorno all'asse Z che porti l'asse X a coincidere con la proiezione dell'asse dell'asta sul piano orizzontale;
- una traslazione lungo il nuovo asse X così definito in modo da portare l'origine a coincidere con la proiezione del nodo iniziale dell'asta sul piano orizzontale;
- una traslazione lungo l'asse Z che porti l'origine a coincidere con il nodo iniziale dell'asta;
- una rotazione intorno all'asse Y così definito che porti l'asse X a coincidere con l'asse dell'asta;
- una rotazione intorno all'asse X così definito pari alla rotazione dell'asta.

In pratica le travi prive di rotazione avranno sempre l'asse Z rivolto verso l'alto e l'asse Y nel piano del solaio, mentre i pilastri privi di rotazione avranno l'asse Y parallelo all'asse Y globale e l'asse Z parallelo ma controverso all'asse X globale. Da notare quindi che per i pilastri la "base" è il lato parallelo a Y.

Le sollecitazioni ed i carichi in coordinate locali negli ELEMENTI BIDIMENSIONALI e nei MURI sono riferiti ad una terna destra cartesiana locale così definita:

- origine nel primo nodo dell'elemento;
- asse X coincidente con la congiungente il primo ed il secondo nodo dell'elemento;
- asse Y definito come prodotto vettoriale fra il versore dell'asse X e il versore della congiungente il primo e il quarto nodo. Asse Z a formare con gli altri due una terna destrorsa.

Praticamente un elemento verticale con l'asse X locale coincidente con l'asse X globale ha anche gli altri assi locali coincidenti con quelli globali.

Rotazioni e momenti

Seguendo il principio adottato per tutti i carichi che sono positivi se CONTROVERSI agli assi, anche i momenti concentrati e le rotazioni impresse in coordinate globali risultano positivi se CONTROVERSI al segno positivo delle rotazioni. Il segno positivo dei momenti e delle rotazioni è quello orario per l'osservatore posto nell'origine: X ruota su Y, Y ruota su Z, Z ruota su X. In pratica è sufficiente adottare la regola della mano destra: col pollice rivolto nella direzione dell'asse, la rotazione che porta a chiudere il palmo della mano corrisponde al segno positivo.

Normativa di riferimento

La normativa di riferimento è la seguente:

- Legge n. 64 del 2/2/1974 - Provvedimenti per le costruzioni con particolari prescrizioni per le zone sismiche.
- D.M. del 24/1/1986 - Norme tecniche relative alle costruzioni sismiche.
- Legge n. 1086 del 5/11/1971 - Norme per la disciplina delle opere di conglomerato cementizio armato, normale e precompresso ed a struttura metallica.
- D.M. del 14/2/1992 - Norme tecniche per l'esecuzione delle opere in c.a. normale e precompresso e per le strutture metalliche.
- D.M. del 9/1/1996 - Norme tecniche per l'esecuzione delle opere in c.a. normale e precompresso e per le strutture metalliche.
- D.M. del 16/1/1996 - Norme tecniche per le costruzioni in zone sismiche.
- Circolare n. 21745 del 30/7/1981 - Legge n. 219 del 14/5/1981 - Art. 10 - Istruzioni relative al rafforzamento degli edifici in muratura danneggiati dal sisma.
- Regione Autonoma Friuli Venezia Giulia - Legge Regionale n. 30 del 20/6/1977 - Documentazione tecnica per la progettazione e direzione delle opere di riparazione degli edifici - Documento Tecnico n. 2 - Raccomandazioni per la riparazione strutturale degli edifici in muratura.
- D.M. del 20/11/1987 - Norme Tecniche per la progettazione, esecuzione e collaudo degli edifici in muratura e per il loro consolidamento.
- Norme Tecniche C.N.R. n. 10011-85 del 18/4/1985 - Costruzioni di acciaio - Istruzioni per il calcolo, l'esecuzione, il collaudo e la manutenzione.
- Norme Tecniche C.N.R. n. 10025-84 del 14/12/1984 - Istruzioni per il progetto, l'esecuzione ed il controllo delle strutture prefabbricate in conglomerato cementizio e per le strutture costruite con sistemi industrializzati di acciaio
- Istruzioni per il calcolo, l'esecuzione, il collaudo e la manutenzione.

Relazione di calcolo

- Circolare n. 65 del 10/4/1997 - Istruzioni per l'applicazione delle "Norme tecniche per le costruzioni in zone sismiche" di cui al D.M. del 16/1/1996.

- Eurocodice 5 - Progettazione delle strutture di legno.

- DIN 1052 - Metodi di verifica per il legno.

- D.M. del 14/1/2008 - Norme tecniche per le costruzioni. Le verifiche degli elementi di fondazione sono eseguite utilizzando l'Approccio 2.

- Circolare n. 617 del 2/2/2009 - Istruzioni per l'applicazione delle "Nuove norme tecniche per le costruzioni" di cui al D.M. del 14/1/2008.

- Documento Tecnico CNR-DT 200 R1/2012 - Istruzioni per la Progettazione, l'Esecuzione ed il Controllo di Interventi di Consolidamento Statico mediante l'utilizzo di Compositi Fibrorinforzati.

- Eurocodice 3 - Progettazione delle strutture in acciaio.

Unità di misura

Le unità di misura adottate sono le seguenti:

- lunghezze : m
- forze : daN
- masse : kg
- temperature : gradi centigradi
- angoli : gradi sessadecimali o radianti

Geometria

Elenco vincoli nodi

Simbologia

Vn = Numero del vincolo nodo
Comm. = Commento
Sx = Spostamento in dir. X (L=libero, B=bloccato, E=elastico)
Sy = Spostamento in dir. Y (L=libero, B=bloccato, E=elastico)
Sz = Spostamento in dir. Z (L=libero, B=bloccato, E=elastico)
Rx = Rotazione intorno all'asse X (L=libera, B=bloccata, E=elastica)
Ry = Rotazione intorno all'asse Y (L=libera, B=bloccata, E=elastica)
Rz = Rotazione intorno all'asse Z (L=libera, B=bloccata, E=elastica)
RL = Rotazione libera
Ly = Lunghezza (dir. Y locale)
Lz = Larghezza (dir. Z locale)
Kt = Coeff. di sottofondo su suolo elastico alla Winkler

Vn	Comm.	Sx	Sy	Sz	Rx	Ry	Rz	RL	Ly <m>	Lz <m>	Kt <daN/cm<
1	Libero	L	L	L	L	L	L				
2	Incastro	B	B	B	B	B	B				

Elenco nodi

Simbologia

Nodo = Numero del nodo
X = Coordinata X del nodo
Y = Coordinata Y del nodo
Z = Coordinata Z del nodo
Imp. = Numero dell'impalcato
Vn = Numero del vincolo nodo

Nodo	X <m>	Y <m>	Z <m>	Imp.	Vn	Nodo	X <m>	Y <m>	Z <m>	Imp.	Vn	Nodo	X <m>	Y <m>	Z <m>	Imp.	Vn
-224	23.35	15.00	4.24	0	1	-223	23.35	10.09	4.24	0	1	-222	25.70	17.10	4.15	0	1
-221	25.70	15.00	4.15	0	1	-220	25.70	12.50	4.15	0	1	-219	25.70	10.09	4.15	0	1
-218	25.70	7.67	4.15	0	1	-217	25.70	5.06	4.15	0	1	-216	25.70	2.50	4.15	0	1
-215	25.70	0.40	4.15	0	1	-214	3.30	0.40	4.15	0	1	-213	3.30	2.50	4.15	0	1
-212	3.30	5.00	4.15	0	1	-211	3.30	7.67	4.15	0	1	-210	3.30	10.09	4.15	0	1
-209	3.30	12.50	4.15	0	1	-208	3.30	15.00	4.15	0	1	-207	3.30	17.10	4.15	0	1
-206	23.35	17.10	4.24	0	1	-205	23.35	12.50	4.24	0	1	-204	23.35	7.67	4.24	0	1
-203	23.35	5.04	4.24	0	1	-202	23.35	2.50	4.24	0	1	-201	23.35	0.40	4.24	0	1
-200	5.65	0.40	4.24	0	1	-199	5.65	2.50	4.24	0	1	-198	5.65	5.00	4.24	0	1
-197	5.65	7.67	4.24	0	1	-196	5.65	10.09	4.24	0	1	-195	5.65	12.50	4.24	0	1
-194	5.65	15.00	4.24	0	1	-193	5.65	17.10	4.24	0	1	-192	21.00	17.10	4.32	0	1
-191	21.00	15.00	4.32	0	1	-190	21.00	12.50	4.32	0	1	-189	21.00	10.09	4.32	0	1
-188	21.00	7.67	4.32	0	1	-187	21.00	5.02	4.32	0	1	-186	21.00	2.50	4.32	0	1
-185	21.00	0.40	4.32	0	1	-184	8.00	0.40	4.32	0	1	-183	8.00	2.50	4.32	0	1
-182	8.00	5.00	4.32	0	1	-181	8.00	7.67	4.32	0	1	-180	8.00	10.09	4.32	0	1
-179	8.00	12.50	4.32	0	1	-178	8.00	15.00	4.32	0	1	-177	8.00	17.10	4.32	0	1
-176	21.00	17.10	3.80	1	1	-175	25.70	17.10	3.80	1	1	-174	25.70	15.00	3.80	1	1
-173	21.00	15.00	3.80	1	1	-172	21.00	12.50	3.80	1	1	-171	25.70	12.50	3.80	1	1

Relazione di calcolo

-170	25.70	10.09	3.80	1	1	-169	21.00	10.09	3.80	1	1	-168	21.00	7.67	3.80	1	1
-167	25.70	7.67	3.80	1	1	-166	25.70	5.06	3.80	1	1	-165	21.00	5.02	3.80	1	1
-164	21.00	2.50	3.80	1	1	-163	25.70	2.50	3.80	1	1	-162	25.70	0.40	3.80	1	1
-161	21.00	0.40	3.80	1	1	-160	3.30	0.40	3.80	1	1	-159	8.00	0.40	3.80	1	1
-158	8.00	2.50	3.80	1	1	-157	3.30	2.50	3.80	1	1	-156	3.30	5.00	3.80	1	1
-155	8.00	5.00	3.80	1	1	-154	3.30	7.67	3.80	1	1	-153	8.00	7.67	3.80	1	1
-152	8.00	10.09	3.80	1	1	-151	3.30	10.09	3.80	1	1	-150	3.30	12.50	3.80	1	1
-149	8.00	12.50	3.80	1	1	-148	8.00	15.00	3.80	1	1	-147	3.30	15.00	3.80	1	1
-146	3.30	17.10	3.80	1	1	-145	8.00	17.10	3.80	1	1	-144	23.35	2.50	3.80	1	1
-143	23.35	5.04	3.80	1	1	-142	23.35	7.67	3.80	1	1	-141	23.35	10.09	3.80	1	1
-140	23.35	12.50	3.80	1	1	-139	23.35	15.00	3.80	1	1	-138	5.65	15.00	3.80	1	1
-137	5.65	12.50	3.80	1	1	-136	5.65	10.09	3.80	1	1	-135	5.65	7.67	3.80	1	1
-134	5.65	5.00	3.80	1	1	-133	5.65	2.50	3.80	1	1	-132	8.80	3.75	4.80	1	1
-131	8.80	6.33	4.80	1	1	-130	8.80	8.88	4.80	1	1	-129	8.80	11.29	4.80	1	1
-128	8.80	13.75	4.80	1	1	-122	12.60	3.75	5.13	1	1	-121	12.60	6.33	5.13	1	1
-120	12.60	8.88	5.13	1	1	-119	12.60	11.29	5.13	1	1	-118	12.60	13.75	5.13	1	1
-113	14.50	3.75	5.30	1	1	-112	16.40	3.75	5.47	1	1	-111	16.40	6.33	5.47	1	1
-110	16.40	8.88	5.47	1	1	-109	16.40	11.29	5.47	1	1	-108	16.40	13.75	5.47	1	1
-102	20.20	3.75	5.80	1	1	-101	20.20	6.33	5.80	1	1	-100	20.20	8.88	5.80	1	1
-99	20.20	11.29	5.80	1	1	-98	20.20	13.75	5.80	1	1	-97	20.20	10.09	5.80	1	1
-95	16.40	2.50	5.47	1	1	-93	16.40	5.00	5.47	1	1	-91	16.40	7.67	5.47	1	1
-89	16.40	10.09	5.47	1	1	-88	16.40	12.50	5.47	1	1	-85	16.40	15.00	5.47	1	1
-84	12.60	15.00	5.13	1	1	-83	12.60	12.50	5.13	1	1	-82	12.60	10.09	5.13	1	1
-81	12.60	7.67	5.13	1	1	-80	12.60	5.00	5.13	1	1	-79	12.60	2.50	5.13	1	1
-72	12.60	2.50	3.80	1	1	-71	10.70	2.50	3.80	1	1	-70	12.60	5.00	3.80	1	1
-69	10.70	5.00	3.80	1	1	-68	12.60	7.67	3.80	1	1	-67	10.70	7.67	3.80	1	1
-66	12.60	10.09	3.80	1	1	-65	10.70	10.09	3.80	1	1	-64	10.70	12.50	3.80	1	1
-63	12.60	12.50	3.80	1	1	-62	12.60	15.00	3.80	1	1	-61	10.70	15.00	3.80	1	1
-60	18.30	15.00	3.80	1	1	-59	16.40	15.00	3.80	1	1	-58	16.40	12.50	3.80	1	1
-57	18.30	12.50	3.80	1	1	-56	18.30	10.09	3.80	1	1	-55	16.40	10.09	3.80	1	1
-54	18.30	7.67	3.80	1	1	-53	16.40	7.67	3.80	1	1	-52	18.30	5.00	3.80	1	1
-51	16.40	5.00	3.80	1	1	-50	18.30	2.50	3.80	1	1	-49	16.40	2.50	3.80	1	1
-47	8.80	2.50	4.80	1	1	-46	8.80	5.00	4.80	1	1	-45	8.80	7.67	4.80	1	1
-44	8.80	10.09	4.80	1	1	-43	8.80	12.50	4.80	1	1	-42	8.80	15.00	4.80	1	1
-41	20.20	2.50	5.80	1	1	-40	20.20	5.00	5.80	1	1	-39	20.20	7.67	5.80	1	1
-38	20.20	12.50	5.80	1	1	-37	20.20	15.00	5.80	1	1	-36	8.80	7.67	3.80	1	1
-35	8.80	5.00	3.80	1	1	-34	8.80	10.09	3.80	1	1	-33	8.80	12.50	3.80	1	1
-32	8.80	15.00	3.80	1	1	-31	20.20	15.00	3.80	1	1	-30	20.20	12.50	3.80	1	1
-29	20.20	10.09	3.80	1	1	-28	20.20	7.67	3.80	1	1	-27	20.20	5.00	3.80	1	1
-26	20.20	2.50	3.80	1	1	-25	8.80	2.50	3.80	1	1	-24	0.30	2.50	3.80	1	1
-23	2.80	2.50	3.80	1	1	-22	2.80	15.00	3.80	1	1	-21	0.30	15.00	3.80	1	1
-20	2.80	10.09	3.80	1	1	-19	26.20	5.08	3.80	1	1	-18	26.20	15.00	3.80	1	1
-17	26.20	10.09	3.80	1	1	-16	20.50	10.09	3.80	1	1	-15	14.50	10.09	3.80	1	1
-14	8.50	10.09	3.80	1	1	-13	23.35	17.10	3.80	1	1	-9	23.35	0.40	3.80	1	1
-8	5.65	0.40	3.80	1	1	-4	5.65	17.10	3.80	1	1	1	0.30	0.40	0.00	0	2
2	2.80	0.40	0.00	0	2	3	0.30	5.00	0.00	0	2	4	2.80	5.00	0.00	0	2
5	0.30	12.50	0.00	0	2	6	2.80	12.50	0.00	0	2	7	0.30	17.10	0.00	0	2
8	2.80	17.10	0.00	0	2	9	8.50	0.40	0.00	0	2	11	8.50	12.50	0.00	0	2
12	8.50	17.10	0.00	0	2	13	8.50	15.00	0.00	0	2	14	8.50	2.50	0.00	0	2
15	2.80	7.67	0.00	0	2	16	8.50	7.67	0.00	0	2	17	14.50	2.50	0.00	0	2
19	14.50	7.67	0.00	0	2	20	14.50	12.50	0.00	0	2	21	14.50	15.00	0.00	0	2
22	20.50	2.50	0.00	0	2	24	20.50	7.67	0.00	0	2	25	20.50	12.50	0.00	0	2
26	20.50	15.00	0.00	0	2	27	20.50	17.10	0.00	0	2	28	20.50	0.40	0.00	0	2
29	26.20	0.40	0.00	0	2	30	26.20	2.50	0.00	0	2	31	26.20	7.67	0.00	0	2
32	26.20	12.50	0.00	0	2	33	26.20	17.10	0.00	0	2	101	0.30	0.40	3.80	1	1
102	2.80	0.40	3.80	1	1	103	0.30	5.00	3.80	1	1	104	2.80	5.00	3.80	1	1
105	0.30	12.50	3.80	1	1	106	2.80	12.50	3.80	1	1	107	0.30	17.10	3.80	1	1
108	2.80	17.10	3.80	1	1	109	8.50	0.40	3.80	1	1	110	8.50	5.00	3.80	1	1
111	8.50	12.50	3.80	1	1	112	8.50	17.10	3.80	1	1	113	8.50	15.00	3.80	1	1
114	8.50	2.50	3.80	1	1	115	2.80	7.67	3.80	1	1	116	8.50	7.67	3.80	1	1
117	14.50	2.50	3.80	1	1	118	14.50	5.00	3.80	1	1	119	14.50	7.67	3.80	1	1
120	14.50	12.50	3.80	1	1	121	14.50	15.00	3.80	1	1	122	20.50	2.50	3.80	1	1
123	20.50	5.00	3.80	1	1	124	20.50	7.67	3.80	1	1	125	20.50	12.50	3.80	1	1
126	20.50	15.00	3.80	1	1	127	20.50	17.10	3.80	1	1	128	20.50	0.40	3.80	1	1
129	26.20	0.40	3.80	1	1	130	26.20	2.50	3.80	1	1	131	26.20	7.67	3.80	1	1
132	26.20	12.50	3.80	1	1	133	26.20	17.10	3.80	1	1						

Elenco materiali

Simbologia
Mat. = Numero del materiale
Comm. = Commento
P = Peso specifico
E = Modulo elastico
G = Modulo elastico tangenziale
v = Coeff. di Poisson
 α = Coeff. di dilatazione termica

Mat.	Comm.	P	E	G	v	α
------	-------	---	---	---	---	----------

		<daN/mc>	<daN/cm<	<daN/cm<		
2	Acciaio	7850	2100000.00	800000.00	0.3	1.000000E-05

Elenco sezioni aste

Simbologia

- Sez.

= Numero della sezione
- Comm.

= Commento
- Tipo

= Tipologia

2C = Doppia C lato labbri

2Cdx = Doppia C lato costola

2I = Doppia I

2L = Doppia L lato labbri

2Ldx = Doppia L lato costole

C = Sezione a C

Cdx = C destra

Cir. = Circolare

Cir.c = Circolare cava

I = Sezione a I

L = Sezione a L

Ldx = L destra

Om. = Omega

Pg = Pi greco

Pr = Poligono regolare

Prc = Poligono regolare cavo

Pc = Per coordinate

Ia = Inerzie assegnate

R = Rettangolare

Rc = Rettangolare cava

T = Sezione a T

U = Sezione a U

Ur = U rovescia

V = Sezione a V

Vr = V rovescia

Z = Sezione a Z

Zdx = Z destra

Ts = T stondata

Ls = L stondata

Cs = C stondata

Is = I stondata

Dis. = Disegnata
- Mem.

= Membratura

G = Generica

T = Trave

P = Pilastro
- Ver.

= Verifica prevista

N = Nessuna

C = Cemento armato

A = Acciaio

L = Legno
- B

= Base
- H

= Altezza
- s

= Spessore ala
- a

= Spessore anima
- r

= Raggio raccordo anima-ala
- r1

= Raggio in testa ala
- A

= Ala
- Ma

= Numero del materiale
- C

= Numero del criterio di progetto
- Crit. C.I.

= Criterio di progetto collegamento iniziale
- Crit. C.F.

= Criterio di progetto collegamento finale

Sez.	Comm.	Tipo	Mem.	Ver.	B<cm>	H<cm>	s<cm>	a<cm>	r<cm>	s<cm>	r1<cm>	A<cm>	Ma	C	Crit. C.I.	Crit. C.F.
1	HEA160	Is	P	A	16.00	15.20	0.90	0.60	1.50		0.00		2	1	1	1
2	HEA160	Is	T	A	16.00	15.20	0.90	0.60	1.50		0.00		2	1	1	1
3	Scat 50x100x4	Rc	G	A	5.00	10.00				0.40			2	1	1	1
5	HEA160-IPE160	Is	T	A	16.00	15.20	0.90	0.60	1.50		0.00		2	1	1	1
6	tub 120x80x4	Rc	T	A	12.00	8.00				0.50			2	1	1	1
8	Controventi	R	G	A	4.00	0.80							2	1	1	1
9	Omega 120x90x30x3	Om.	T	A	9.00	12.00	0.30					3.00	2	1	1	1
10	cv pannelli sandwich	R	G	N	8.00	0.10							2			

Elenco vincoli aste

Simbologia

- Va

= Numero del vincolo asta
- Comm.

= Commento
- Tipo

= Tipologia

SVI = Definizione di vincolamenti interni

ELA = Vincolo su suolo elastico alla Winkler

Relazione di calcolo

BIE-RTC = Biella resistente a trazione e a compressione
 BIE-RC = Biella resistente solo a compressione
 BIE-RT = Biella resistente solo a trazione

Ni = Sforzo normale nodo iniziale (0=sbloccato, 1=bloccato)
 Tyi = Taglio in dir. Y locale nodo iniziale (0=sbloccato, 1=bloccato)
 Tzi = Taglio in dir. Z locale nodo iniziale (0=sbloccato, 1=bloccato)
 Mxi = Momento intorno all'asse X locale nodo iniziale (0=sbloccato, 1=bloccato)
 Myi = Momento intorno all'asse Y locale nodo iniziale (0=sbloccato, 1=bloccato)
 Mzi = Momento intorno all'asse Z locale nodo iniziale (0=sbloccato, 1=bloccato)
 Nf = Sforzo normale nodo finale (0=sbloccato, 1=bloccato)
 Tyf = Taglio in dir. Y locale nodo finale (0=sbloccato, 1=bloccato)
 Tzf = Taglio in dir. Z locale nodo finale (0=sbloccato, 1=bloccato)
 Mxf = Momento intorno all'asse X locale nodo finale (0=sbloccato, 1=bloccato)
 Myf = Momento intorno all'asse Y locale nodo finale (0=sbloccato, 1=bloccato)
 Mzf = Momento intorno all'asse Z locale nodo finale (0=sbloccato, 1=bloccato)
 Kt = Coeff. di sottofondo su suolo elastico alla Winkler

Va	Comm.	Tipo	Ni	Tyi	Tzi	Mxi	Myi	Mzi	Nf	Tyf	Tzf	Mxf	Myf	Mzf	Kt
															<daN/cmc>
1	Inc+Inc	SVI	1	1	1	1	1	1	1	1	1	1	1	1	
4	Cer+Cer	SVI	1	1	1	0	0	0	1	1	1	1	0	0	
5	Inc+CerY	SVI	1	1	1	1	1	1	1	1	1	1	0	1	
6	CerY+Inc	SVI	1	1	1	1	0	1	1	1	1	1	1	1	
7	CerY+CerY	SVI	1	1	1	1	0	1	1	1	1	1	0	1	

Elenco aste

Simbologia

Asta = Numero dell'asta
 N1 = Nodo iniziale
 N2 = Nodo finale
 Sez. = Numero della sezione
 Va = Numero del vincolo asta
 Par. = Numero dei parametri aggiuntivi
 Rot. = Rotazione
 FF = Filo fisso
 Dy1 = Scost. filo fisso Y1
 Dy2 = Scost. filo fisso Y2
 Dz1 = Scost. filo fisso Z1
 Dz2 = Scost. filo fisso Z2
 Kt = Coeff. di sottofondo su suolo elastico alla Winkler

Asta	N1	N2	Sez.	Va	Par.	Rot. <grad>	FF	Dy1 <cm>	Dy2 <cm>	Dz1 <cm>	Dz2 <cm>	Kt <daN/cmc>
0	2	101	3	4		0.00	55	0.00	0.00	0.00	0.00	
0	1	102	3	4		0.00	55	0.00	0.00	0.00	0.00	
0	103	-23	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	-24	104	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	-213	-200	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-214	-199	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-212	-199	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-213	-198	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-23	110	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	9	114	3	4		0.00	55	0.00	0.00	0.00	0.00	
0	14	109	3	4		0.00	55	0.00	0.00	0.00	0.00	
0	-200	-183	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-199	-184	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	104	114	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	-199	-182	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-198	-183	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-197	-212	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-211	-198	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-197	-182	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-198	-181	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-210	-197	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-211	-196	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	114	118	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	110	117	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	-46	-79	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-47	-80	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	105	-22	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	-21	106	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	-196	-181	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-197	-180	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-209	-196	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-210	-195	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-79	-113	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-45	-80	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-46	-81	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-80	-113	10	7		0.00	55	0.00	0.00	0.00	0.00	

Relazione di calcolo

0	-196	-179	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-195	-180	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-209	-194	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-208	-195	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-113	-95	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	8	107	3	4		0.00	55	0.00	0.00	0.00	0.00	
0	7	108	3	4		0.00	55	0.00	0.00	0.00	0.00	
0	-22	111	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	106	113	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	-44	-81	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-45	-82	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-113	-93	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-207	-194	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-208	-193	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-194	-179	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-81	-93	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-80	-91	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	117	-27	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	118	122	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	122	28	3	4		0.00	55	0.00	0.00	0.00	0.00	
0	-44	-83	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-43	-82	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	12	113	3	4		0.00	55	0.00	0.00	0.00	0.00	
0	-195	-178	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	128	22	3	4		0.00	55	0.00	0.00	0.00	0.00	
0	-93	-41	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-95	-40	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-82	-91	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	13	112	3	4		0.00	55	0.00	0.00	0.00	0.00	
0	-194	-177	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-193	-178	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-81	-89	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-201	-186	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-185	-202	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-93	-39	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-91	-40	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	111	121	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	113	120	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	-43	-84	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-42	-83	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-83	-89	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-82	-88	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-187	-202	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-186	-203	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-216	-201	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-202	-215	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	130	-27	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	122	-19	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	-91	-97	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-89	-39	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-83	-85	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-84	-88	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-203	-216	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-217	-202	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-187	-204	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-188	-203	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-89	-38	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-88	-97	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-218	-203	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-204	-217	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-188	-223	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-189	-204	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	121	125	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	120	126	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	127	26	3	4		0.00	55	0.00	0.00	0.00	0.00	
0	-85	-38	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-219	-204	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-223	-218	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-189	-205	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-220	-223	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	27	126	3	4		0.00	55	0.00	0.00	0.00	0.00	
0	-88	-37	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-223	-190	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-205	-219	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-190	-224	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-205	-191	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	125	-18	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	126	132	8	7		0.00	55	0.00	0.00	0.00	0.00	
0	-191	-206	10	7		0.00	55	0.00	0.00	0.00	0.00	

Relazione di calcolo

0	-224	-192	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-221	-205	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-224	-220	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-206	-221	10	7		0.00	55	0.00	0.00	0.00	0.00	
0	-224	-222	10	7		0.00	55	0.00	0.00	0.00	0.00	
1	1	101	1	1		0.00	55	0.00	0.00	0.00	0.00	
2	2	102	1	1		0.00	55	0.00	0.00	0.00	0.00	
3	3	103	1	1		0.00	55	0.00	0.00	0.00	0.00	
4	4	104	1	1		0.00	55	0.00	0.00	0.00	0.00	
5	5	105	1	1		0.00	55	0.00	0.00	0.00	0.00	
6	6	106	1	1		0.00	55	0.00	0.00	0.00	0.00	
7	7	107	1	1		0.00	55	0.00	0.00	0.00	0.00	
8	8	108	1	1		0.00	55	0.00	0.00	0.00	0.00	
9	9	109	1	1		0.00	55	0.00	0.00	0.00	0.00	
11	11	111	1	1		0.00	55	0.00	0.00	0.00	0.00	
12	12	112	1	1		0.00	55	0.00	0.00	0.00	0.00	
13	13	113	1	1		0.00	55	0.00	0.00	0.00	0.00	
14	14	114	1	1		0.00	55	0.00	0.00	0.00	0.00	
15	15	115	1	1		0.00	55	0.00	0.00	0.00	0.00	
16	16	116	1	1		0.00	55	0.00	0.00	0.00	0.00	
17	17	117	1	1		0.00	55	0.00	0.00	0.00	0.00	
19	19	119	1	1		0.00	55	0.00	0.00	0.00	0.00	
20	20	120	1	1		0.00	55	0.00	0.00	0.00	0.00	
21	21	121	1	1		0.00	55	0.00	0.00	0.00	0.00	
22	22	122	1	1		0.00	55	0.00	0.00	0.00	0.00	
24	24	124	1	1		0.00	55	0.00	0.00	0.00	0.00	
25	25	125	1	1		0.00	55	0.00	0.00	0.00	0.00	
26	26	126	1	1		0.00	55	0.00	0.00	0.00	0.00	
27	27	127	1	1		0.00	55	0.00	0.00	0.00	0.00	
28	28	128	1	1		0.00	55	0.00	0.00	0.00	0.00	
29	29	129	1	1		0.00	55	0.00	0.00	0.00	0.00	
30	30	130	1	1		0.00	55	0.00	0.00	0.00	0.00	
31	31	131	1	1		0.00	55	0.00	0.00	0.00	0.00	
32	32	132	1	1		0.00	55	0.00	0.00	0.00	0.00	
33	33	133	1	1		0.00	55	0.00	0.00	0.00	0.00	
72	-139	-224	6	1		0.00	55	0.00	0.00	0.00	0.00	
73	-141	-223	6	1		0.00	55	0.00	0.00	0.00	0.00	
74	-175	-222	6	1		0.00	55	0.00	0.00	0.00	0.00	
75	-174	-221	6	1		0.00	55	0.00	0.00	0.00	0.00	
76	-171	-220	6	1		0.00	55	0.00	0.00	0.00	0.00	
77	-170	-219	6	1		0.00	55	0.00	0.00	0.00	0.00	
78	-167	-218	6	1		0.00	55	0.00	0.00	0.00	0.00	
79	-166	-217	6	1		0.00	55	0.00	0.00	0.00	0.00	
80	-163	-216	6	1		0.00	55	0.00	0.00	0.00	0.00	
81	-162	-215	6	1		0.00	55	0.00	0.00	0.00	0.00	
82	-160	-214	6	1		0.00	55	0.00	0.00	0.00	0.00	
83	-157	-213	6	1		0.00	55	0.00	0.00	0.00	0.00	
84	-156	-212	6	1		0.00	55	0.00	0.00	0.00	0.00	
85	-154	-211	6	1		0.00	55	0.00	0.00	0.00	0.00	
86	-151	-210	6	1		0.00	55	0.00	0.00	0.00	0.00	
87	-150	-209	6	1		0.00	55	0.00	0.00	0.00	0.00	
88	-147	-208	6	1		0.00	55	0.00	0.00	0.00	0.00	
89	-146	-207	6	1		0.00	55	0.00	0.00	0.00	0.00	
90	-13	-206	6	1		0.00	55	0.00	0.00	0.00	0.00	
91	-140	-205	6	1		0.00	55	0.00	0.00	0.00	0.00	
92	-142	-204	6	1		0.00	55	0.00	0.00	0.00	0.00	
93	-143	-203	6	1		0.00	55	0.00	0.00	0.00	0.00	
94	-144	-202	6	1		0.00	55	0.00	0.00	0.00	0.00	
95	-9	-201	6	1		0.00	55	0.00	0.00	0.00	0.00	
96	-8	-200	6	1		0.00	55	0.00	0.00	0.00	0.00	
97	-133	-199	6	1		0.00	55	0.00	0.00	0.00	0.00	
98	-134	-198	6	1		0.00	55	0.00	0.00	0.00	0.00	
99	-135	-197	6	1		0.00	55	0.00	0.00	0.00	0.00	
100	-136	-196	6	1		0.00	55	0.00	0.00	0.00	0.00	
101	-137	-195	6	1		0.00	55	0.00	0.00	0.00	0.00	
102	-138	-194	6	1		0.00	55	0.00	0.00	0.00	0.00	
103	-4	-193	6	1		0.00	55	0.00	0.00	0.00	0.00	
104	-176	-192	6	1		0.00	55	0.00	0.00	0.00	0.00	
105	-173	-191	6	1		0.00	55	0.00	0.00	0.00	0.00	
106	-172	-190	6	1		0.00	55	0.00	0.00	0.00	0.00	
107	-169	-189	6	1		0.00	55	0.00	0.00	0.00	0.00	
108	-168	-188	6	1		0.00	55	0.00	0.00	0.00	0.00	
109	-165	-187	6	1		0.00	55	0.00	0.00	0.00	0.00	
110	-164	-186	6	1		0.00	55	0.00	0.00	0.00	0.00	
111	-161	-185	6	1		0.00	55	0.00	0.00	0.00	0.00	
112	-159	-184	6	1		0.00	55	0.00	0.00	0.00	0.00	
113	-158	-183	6	1		0.00	55	0.00	0.00	0.00	0.00	
114	-155	-182	6	1		0.00	55	0.00	0.00	0.00	0.00	
115	-153	-181	6	1		0.00	55	0.00	0.00	0.00	0.00	

Relazione di calcolo

116	-152	-180	6	1		0.00	55	0.00	0.00	0.00	0.00	
117	-149	-179	6	1		0.00	55	0.00	0.00	0.00	0.00	
118	-148	-178	6	1		0.00	55	0.00	0.00	0.00	0.00	
119	-145	-177	6	1		0.00	55	0.00	0.00	0.00	0.00	
199	-29	-97	6	1		0.00	55	0.00	0.00	0.00	0.00	
201	-49	-95	6	1		0.00	55	0.00	0.00	0.00	0.00	
203	-93	-51	6	1		0.00	55	0.00	0.00	0.00	0.00	
205	-91	-53	6	1		0.00	55	0.00	0.00	0.00	0.00	
207	-89	-55	6	1		0.00	55	0.00	0.00	0.00	0.00	
208	-88	-58	6	1		0.00	55	0.00	0.00	0.00	0.00	
211	-85	-59	6	1		0.00	55	0.00	0.00	0.00	0.00	
212	-62	-84	6	1		0.00	55	0.00	0.00	0.00	0.00	
213	-63	-83	6	1		0.00	55	0.00	0.00	0.00	0.00	
214	-66	-82	6	1		0.00	55	0.00	0.00	0.00	0.00	
215	-68	-81	6	1		0.00	55	0.00	0.00	0.00	0.00	
216	-70	-80	6	1		0.00	55	0.00	0.00	0.00	0.00	
217	-72	-79	6	1		0.00	55	0.00	0.00	0.00	0.00	
249	-25	-47	6	1		0.00	55	0.00	0.00	0.00	0.00	
250	-35	-46	6	1		0.00	55	0.00	0.00	0.00	0.00	
251	-45	-36	6	1		0.00	55	0.00	0.00	0.00	0.00	
252	-44	-34	6	1		0.00	55	0.00	0.00	0.00	0.00	
253	-43	-33	6	1		0.00	55	0.00	0.00	0.00	0.00	
254	-42	-32	6	1		0.00	55	0.00	0.00	0.00	0.00	
255	-26	-41	6	1		0.00	55	0.00	0.00	0.00	0.00	
256	-27	-40	6	1		0.00	55	0.00	0.00	0.00	0.00	
257	-28	-39	6	1		0.00	55	0.00	0.00	0.00	0.00	
258	-38	-30	6	1		0.00	55	0.00	0.00	0.00	0.00	
259	-37	-31	6	1		0.00	55	0.00	0.00	0.00	0.00	
1002	-24	-23	5	7		0.00	55	0.00	0.00	0.00	0.00	
1002	-23	-157	5	6		0.00	55	0.00	0.00	0.00	0.00	
1002	-157	-133	5	1		0.00	55	0.00	0.00	0.00	0.00	
1002	-133	-158	5	1		0.00	55	0.00	0.00	0.00	0.00	
1002	-158	114	5	5		0.00	55	0.00	0.00	0.00	0.00	
1002	114	-25	2	6		0.00	55	0.00	0.00	0.00	0.00	
1002	-25	-71	2	1		0.00	55	0.00	0.00	0.00	0.00	
1002	-71	-72	2	1		0.00	55	0.00	0.00	0.00	0.00	
1002	-72	117	2	5		0.00	55	0.00	0.00	0.00	0.00	
1002	117	-49	2	6		0.00	55	0.00	0.00	0.00	0.00	
1002	-49	-50	2	1		0.00	55	0.00	0.00	0.00	0.00	
1002	-50	-26	2	1		0.00	55	0.00	0.00	0.00	0.00	
1002	-26	122	2	5		0.00	55	0.00	0.00	0.00	0.00	
1002	122	-164	5	6		0.00	55	0.00	0.00	0.00	0.00	
1002	-164	-144	5	1		0.00	55	0.00	0.00	0.00	0.00	
1002	-144	-163	5	1		0.00	55	0.00	0.00	0.00	0.00	
1002	-163	130	5	5		0.00	55	0.00	0.00	0.00	0.00	
1003	115	-154	5	6		0.00	55	0.00	0.00	0.00	0.00	
1003	-154	-135	5	1		0.00	55	0.00	0.00	0.00	0.00	
1003	-135	-153	5	1		0.00	55	0.00	0.00	0.00	0.00	
1003	-153	116	5	5		0.00	55	0.00	0.00	0.00	0.00	
1003	116	-36	5	6		0.00	55	0.00	0.00	0.00	0.00	
1003	-36	-67	5	1		0.00	55	0.00	0.00	0.00	0.00	
1003	-67	-68	5	1		0.00	55	0.00	0.00	0.00	0.00	
1003	-68	119	5	5		0.00	55	0.00	0.00	0.00	0.00	
1003	119	-53	5	6		0.00	55	0.00	0.00	0.00	0.00	
1003	-53	-54	5	1		0.00	55	0.00	0.00	0.00	0.00	
1003	-54	-28	5	1		0.00	55	0.00	0.00	0.00	0.00	
1003	-28	124	5	5		0.00	55	0.00	0.00	0.00	0.00	
1003	124	-168	5	6		0.00	55	0.00	0.00	0.00	0.00	
1003	-168	-142	5	1		0.00	55	0.00	0.00	0.00	0.00	
1003	-142	-167	5	1		0.00	55	0.00	0.00	0.00	0.00	
1003	-167	131	5	5		0.00	55	0.00	0.00	0.00	0.00	
1004	-20	-151	5	6		0.00	55	0.00	0.00	0.00	0.00	
1004	-151	-136	5	1		0.00	55	0.00	0.00	0.00	0.00	
1004	-136	-152	5	1		0.00	55	0.00	0.00	0.00	0.00	
1004	-152	-14	5	5		0.00	55	0.00	0.00	0.00	0.00	
1004	-14	-34	5	6		0.00	55	0.00	0.00	0.00	0.00	
1004	-34	-65	5	1		0.00	55	0.00	0.00	0.00	0.00	
1004	-65	-66	5	1		0.00	55	0.00	0.00	0.00	0.00	
1004	-66	-15	5	5		0.00	55	0.00	0.00	0.00	0.00	
1004	-15	-55	5	6		0.00	55	0.00	0.00	0.00	0.00	
1004	-55	-56	5	1		0.00	55	0.00	0.00	0.00	0.00	
1004	-56	-29	5	1		0.00	55	0.00	0.00	0.00	0.00	
1004	-29	-16	5	5		0.00	55	0.00	0.00	0.00	0.00	
1004	-16	-169	5	6		0.00	55	0.00	0.00	0.00	0.00	
1004	-169	-141	5	1		0.00	55	0.00	0.00	0.00	0.00	
1004	-141	-170	5	1		0.00	55	0.00	0.00	0.00	0.00	
1004	-170	-17	5	5		0.00	55	0.00	0.00	0.00	0.00	
1005	105	106	2	7		0.00	55	0.00	0.00	0.00	0.00	
1005	106	-150	5	6		0.00	55	0.00	0.00	0.00	0.00	

Relazione di calcolo

1005	-150	-137	5	1		0.00	55	0.00	0.00	0.00	0.00	
1005	-137	-149	5	1		0.00	55	0.00	0.00	0.00	0.00	
1005	-149	111	5	5		0.00	55	0.00	0.00	0.00	0.00	
1005	-33	111	5	6		0.00	55	0.00	0.00	0.00	0.00	
1005	-64	-33	5	1		0.00	55	0.00	0.00	0.00	0.00	
1005	-63	-64	5	1		0.00	55	0.00	0.00	0.00	0.00	
1005	120	-63	5	6		0.00	55	0.00	0.00	0.00	0.00	
1005	-58	120	5	5		0.00	55	0.00	0.00	0.00	0.00	
1005	-57	-58	5	1		0.00	55	0.00	0.00	0.00	0.00	
1005	-30	-57	5	1		0.00	55	0.00	0.00	0.00	0.00	
1005	125	-30	5	6		0.00	55	0.00	0.00	0.00	0.00	
1005	125	-172	5	6		0.00	55	0.00	0.00	0.00	0.00	
1005	-172	-140	5	1		0.00	55	0.00	0.00	0.00	0.00	
1005	-140	-171	5	1		0.00	55	0.00	0.00	0.00	0.00	
1005	-171	132	5	5		0.00	55	0.00	0.00	0.00	0.00	
1006	-21	-22	5	7		0.00	55	0.00	0.00	0.00	0.00	
1006	-22	-147	5	6		0.00	55	0.00	0.00	0.00	0.00	
1006	-147	-138	5	1		0.00	55	0.00	0.00	0.00	0.00	
1006	-138	-148	5	1		0.00	55	0.00	0.00	0.00	0.00	
1006	-148	113	5	5		0.00	55	0.00	0.00	0.00	0.00	
1006	113	-32	2	6		0.00	55	0.00	0.00	0.00	0.00	
1006	-32	-61	2	1		0.00	55	0.00	0.00	0.00	0.00	
1006	-61	-62	2	1		0.00	55	0.00	0.00	0.00	0.00	
1006	-62	121	2	5		0.00	55	0.00	0.00	0.00	0.00	
1006	121	-59	2	6		0.00	55	0.00	0.00	0.00	0.00	
1006	-59	-60	2	1		0.00	55	0.00	0.00	0.00	0.00	
1006	-60	-31	2	1		0.00	55	0.00	0.00	0.00	0.00	
1006	-31	126	2	5		0.00	55	0.00	0.00	0.00	0.00	
1006	126	-173	5	6		0.00	55	0.00	0.00	0.00	0.00	
1006	-173	-139	5	1		0.00	55	0.00	0.00	0.00	0.00	
1006	-139	-174	5	1		0.00	55	0.00	0.00	0.00	0.00	
1006	-174	-18	5	5		0.00	55	0.00	0.00	0.00	0.00	
1008	101	-24	2	1		0.00	55	0.00	0.00	0.00	0.00	
1008	-24	103	2	1		0.00	55	0.00	0.00	0.00	0.00	
1009	102	-23	2	1		0.00	55	0.00	0.00	0.00	0.00	
1009	-23	104	2	1		0.00	55	0.00	0.00	0.00	0.00	
1009	104	115	2	1		0.00	55	0.00	0.00	0.00	0.00	
1009	115	-20	2	1		0.00	55	0.00	0.00	0.00	0.00	
1009	-20	106	2	1		0.00	55	0.00	0.00	0.00	0.00	
1009	106	-22	2	1		0.00	55	0.00	0.00	0.00	0.00	
1009	-22	108	2	1		0.00	55	0.00	0.00	0.00	0.00	
1014	-47	-132	9	1		0.00	55	0.00	0.00	0.00	0.00	
1014	-132	-46	9	1		0.00	55	0.00	0.00	0.00	0.00	
1014	-46	-131	9	1		0.00	55	0.00	0.00	0.00	0.00	
1014	-131	-45	9	1		0.00	55	0.00	0.00	0.00	0.00	
1014	-45	-130	9	1		0.00	55	0.00	0.00	0.00	0.00	
1014	-130	-44	9	1		0.00	55	0.00	0.00	0.00	0.00	
1014	-44	-129	9	1		0.00	55	0.00	0.00	0.00	0.00	
1014	-129	-43	9	1		0.00	55	0.00	0.00	0.00	0.00	
1014	-43	-128	9	1		0.00	55	0.00	0.00	0.00	0.00	
1014	-128	-42	9	1		0.00	55	0.00	0.00	0.00	0.00	
1015	-122	-79	9	1		0.00	55	0.00	0.00	0.00	0.00	
1015	-80	-122	9	1		0.00	55	0.00	0.00	0.00	0.00	
1015	-121	-80	9	1		0.00	55	0.00	0.00	0.00	0.00	
1015	-81	-121	9	1		0.00	55	0.00	0.00	0.00	0.00	
1015	-120	-81	9	1		0.00	55	0.00	0.00	0.00	0.00	
1015	-82	-120	9	1		0.00	55	0.00	0.00	0.00	0.00	
1015	-119	-82	9	1		0.00	55	0.00	0.00	0.00	0.00	
1015	-83	-119	9	1		0.00	55	0.00	0.00	0.00	0.00	
1015	-118	-83	9	1		0.00	55	0.00	0.00	0.00	0.00	
1015	-84	-118	9	1		0.00	55	0.00	0.00	0.00	0.00	
1016	117	118	2	1		0.00	55	0.00	0.00	0.00	0.00	
1016	118	119	2	1		0.00	55	0.00	0.00	0.00	0.00	
1016	119	-15	2	1		0.00	55	0.00	0.00	0.00	0.00	
1016	-15	120	2	1		0.00	55	0.00	0.00	0.00	0.00	
1016	120	121	2	1		0.00	55	0.00	0.00	0.00	0.00	
1017	-95	-112	9	1		0.00	55	0.00	0.00	0.00	0.00	
1017	-112	-93	9	1		0.00	55	0.00	0.00	0.00	0.00	
1017	-93	-111	9	1		0.00	55	0.00	0.00	0.00	0.00	
1017	-111	-91	9	1		0.00	55	0.00	0.00	0.00	0.00	
1017	-91	-110	9	1		0.00	55	0.00	0.00	0.00	0.00	
1017	-110	-89	9	1		0.00	55	0.00	0.00	0.00	0.00	
1017	-89	-109	9	1		0.00	55	0.00	0.00	0.00	0.00	
1017	-109	-88	9	1		0.00	55	0.00	0.00	0.00	0.00	
1017	-88	-108	9	1		0.00	55	0.00	0.00	0.00	0.00	
1017	-108	-85	9	1		0.00	55	0.00	0.00	0.00	0.00	
1018	-41	-102	9	1		0.00	55	0.00	0.00	0.00	0.00	
1018	-102	-40	9	1		0.00	55	0.00	0.00	0.00	0.00	
1018	-40	-101	9	1		0.00	55	0.00	0.00	0.00	0.00	

Relazione di calcolo

1018	-101	-39	9	1		0.00	55	0.00	0.00	0.00	0.00	
1018	-39	-100	9	1		0.00	55	0.00	0.00	0.00	0.00	
1018	-100	-97	9	1		0.00	55	0.00	0.00	0.00	0.00	
1018	-97	-99	9	1		0.00	55	0.00	0.00	0.00	0.00	
1018	-99	-38	9	1		0.00	55	0.00	0.00	0.00	0.00	
1018	-38	-98	9	1		0.00	55	0.00	0.00	0.00	0.00	
1018	-98	-37	9	1		0.00	55	0.00	0.00	0.00	0.00	
1023	130	129	2	1		0.00	55	0.00	0.00	0.00	0.00	
1023	-19	130	2	1		0.00	55	0.00	0.00	0.00	0.00	
1023	131	-19	2	1		0.00	55	0.00	0.00	0.00	0.00	
1023	-17	131	2	1		0.00	55	0.00	0.00	0.00	0.00	
1023	132	-17	2	1		0.00	55	0.00	0.00	0.00	0.00	
1023	-18	132	2	1		0.00	55	0.00	0.00	0.00	0.00	
1023	133	-18	2	1		0.00	55	0.00	0.00	0.00	0.00	
1046	103	104	2	7		0.00	55	0.00	0.00	0.00	0.00	
1046	104	-156	5	6		0.00	55	0.00	0.00	0.00	0.00	
1046	-156	-134	5	1		0.00	55	0.00	0.00	0.00	0.00	
1046	-134	-155	5	1		0.00	55	0.00	0.00	0.00	0.00	
1046	-155	110	5	5		0.00	55	0.00	0.00	0.00	0.00	
1046	110	-35	5	6		0.00	55	0.00	0.00	0.00	0.00	
1046	-35	-69	5	1		0.00	55	0.00	0.00	0.00	0.00	
1046	-69	-70	5	1		0.00	55	0.00	0.00	0.00	0.00	
1046	-70	118	5	5		0.00	55	0.00	0.00	0.00	0.00	
1046	118	-51	5	6		0.00	55	0.00	0.00	0.00	0.00	
1046	-51	-52	5	1		0.00	55	0.00	0.00	0.00	0.00	
1046	-52	-27	5	1		0.00	55	0.00	0.00	0.00	0.00	
1046	-27	123	5	5		0.00	55	0.00	0.00	0.00	0.00	
1046	123	-165	5	6		0.00	55	0.00	0.00	0.00	0.00	
1046	-165	-143	5	1		0.00	55	0.00	0.00	0.00	0.00	
1046	-143	-166	5	1		0.00	55	0.00	0.00	0.00	0.00	
1046	-166	-19	5	5		0.00	55	0.00	0.00	0.00	0.00	
1100	105	-21	2	1		0.00	55	0.00	0.00	0.00	0.00	
1100	-21	107	2	1		0.00	55	0.00	0.00	0.00	0.00	
1185	101	102	2	7		0.00	55	0.00	0.00	0.00	0.00	
1185	102	-160	2	6		0.00	55	0.00	0.00	0.00	0.00	
1185	-160	-8	2	1		0.00	55	0.00	0.00	0.00	0.00	
1185	-8	-159	2	1		0.00	55	0.00	0.00	0.00	0.00	
1185	-159	109	2	5		0.00	55	0.00	0.00	0.00	0.00	
1191	107	108	2	7		0.00	55	0.00	0.00	0.00	0.00	
1191	108	-146	2	6		0.00	55	0.00	0.00	0.00	0.00	
1191	-146	-4	2	1		0.00	55	0.00	0.00	0.00	0.00	
1191	-4	-145	2	1		0.00	55	0.00	0.00	0.00	0.00	
1191	-145	112	2	5		0.00	55	0.00	0.00	0.00	0.00	
1197	114	109	2	1		0.00	55	0.00	0.00	0.00	0.00	
1197	110	114	2	1		0.00	55	0.00	0.00	0.00	0.00	
1197	116	110	2	1		0.00	55	0.00	0.00	0.00	0.00	
1197	-14	116	2	1		0.00	55	0.00	0.00	0.00	0.00	
1197	111	-14	2	1		0.00	55	0.00	0.00	0.00	0.00	
1197	113	111	2	1		0.00	55	0.00	0.00	0.00	0.00	
1197	112	113	2	1		0.00	55	0.00	0.00	0.00	0.00	
1203	128	122	2	1		0.00	55	0.00	0.00	0.00	0.00	
1203	122	123	2	1		0.00	55	0.00	0.00	0.00	0.00	
1203	123	124	2	1		0.00	55	0.00	0.00	0.00	0.00	
1203	124	-16	2	1		0.00	55	0.00	0.00	0.00	0.00	
1203	-16	125	2	1		0.00	55	0.00	0.00	0.00	0.00	
1203	125	126	2	1		0.00	55	0.00	0.00	0.00	0.00	
1203	126	127	2	1		0.00	55	0.00	0.00	0.00	0.00	
1277	-161	128	2	5		0.00	55	0.00	0.00	0.00	0.00	
1277	-9	-161	2	1		0.00	55	0.00	0.00	0.00	0.00	
1277	-162	-9	2	1		0.00	55	0.00	0.00	0.00	0.00	
1277	129	-162	2	6		0.00	55	0.00	0.00	0.00	0.00	
1283	127	-176	2	6		0.00	55	0.00	0.00	0.00	0.00	
1283	-176	-13	2	1		0.00	55	0.00	0.00	0.00	0.00	
1283	-13	-175	2	1		0.00	55	0.00	0.00	0.00	0.00	
1283	-175	133	2	5		0.00	55	0.00	0.00	0.00	0.00	
2010	-214	-213	9	1		0.00	55	0.00	0.00	0.00	0.00	
2010	-213	-212	9	1		0.00	55	0.00	0.00	0.00	0.00	
2010	-212	-211	9	1		0.00	55	0.00	0.00	0.00	0.00	
2010	-211	-210	9	1		0.00	55	0.00	0.00	0.00	0.00	
2010	-210	-209	9	1		0.00	55	0.00	0.00	0.00	0.00	
2010	-209	-208	9	1		0.00	55	0.00	0.00	0.00	0.00	
2010	-208	-207	9	1		0.00	55	0.00	0.00	0.00	0.00	
2011	-200	-199	9	1		0.00	55	0.00	0.00	0.00	0.00	
2011	-199	-198	9	1		0.00	55	0.00	0.00	0.00	0.00	
2011	-198	-197	9	1		0.00	55	0.00	0.00	0.00	0.00	
2011	-197	-196	9	1		0.00	55	0.00	0.00	0.00	0.00	
2011	-196	-195	9	1		0.00	55	0.00	0.00	0.00	0.00	
2011	-195	-194	9	1		0.00	55	0.00	0.00	0.00	0.00	
2011	-194	-193	9	1		0.00	55	0.00	0.00	0.00	0.00	

Relazione di calcolo

2012	-184	-183	9	1		0.00	55	0.00	0.00	0.00	0.00	
2012	-183	-182	9	1		0.00	55	0.00	0.00	0.00	0.00	
2012	-182	-181	9	1		0.00	55	0.00	0.00	0.00	0.00	
2012	-181	-180	9	1		0.00	55	0.00	0.00	0.00	0.00	
2012	-180	-179	9	1		0.00	55	0.00	0.00	0.00	0.00	
2012	-179	-178	9	1		0.00	55	0.00	0.00	0.00	0.00	
2012	-178	-177	9	1		0.00	55	0.00	0.00	0.00	0.00	
2020	-185	-186	9	1		0.00	55	0.00	0.00	0.00	0.00	
2020	-186	-187	9	1		0.00	55	0.00	0.00	0.00	0.00	
2020	-187	-188	9	1		0.00	55	0.00	0.00	0.00	0.00	
2020	-188	-189	9	1		0.00	55	0.00	0.00	0.00	0.00	
2020	-189	-190	9	1		0.00	55	0.00	0.00	0.00	0.00	
2020	-190	-191	9	1		0.00	55	0.00	0.00	0.00	0.00	
2020	-191	-192	9	1		0.00	55	0.00	0.00	0.00	0.00	
2021	-201	-202	9	1		0.00	55	0.00	0.00	0.00	0.00	
2021	-202	-203	9	1		0.00	55	0.00	0.00	0.00	0.00	
2021	-203	-204	9	1		0.00	55	0.00	0.00	0.00	0.00	
2021	-204	-223	9	1		0.00	55	0.00	0.00	0.00	0.00	
2021	-223	-205	9	1		0.00	55	0.00	0.00	0.00	0.00	
2021	-205	-224	9	1		0.00	55	0.00	0.00	0.00	0.00	
2021	-224	-206	9	1		0.00	55	0.00	0.00	0.00	0.00	
2022	-215	-216	9	1		0.00	55	0.00	0.00	0.00	0.00	
2022	-216	-217	9	1		0.00	55	0.00	0.00	0.00	0.00	
2022	-217	-218	9	1		0.00	55	0.00	0.00	0.00	0.00	
2022	-218	-219	9	1		0.00	55	0.00	0.00	0.00	0.00	
2022	-219	-220	9	1		0.00	55	0.00	0.00	0.00	0.00	
2022	-220	-221	9	1		0.00	55	0.00	0.00	0.00	0.00	
2022	-221	-222	9	1		0.00	55	0.00	0.00	0.00	0.00	

Carichi

Condizioni di carico elementari

Simbologia

- CCE = Numero della condizione di carico elementare
- Comm. = Commento
- Mx = Moltiplicatore della massa in dir. X
- My = Moltiplicatore della massa in dir. Y
- Mz = Moltiplicatore della massa in dir. Z
- Jpx = Moltiplicatore del momento d'inerzia intorno all'asse X
- Jpy = Moltiplicatore del momento d'inerzia intorno all'asse Y
- Jpz = Moltiplicatore del momento d'inerzia intorno all'asse Z
- Tipo CCE = Tipo di CCE per calcolo agli stati limite
- Sic. = Contributo alla sicurezza
- F = a favore
- S = a sfavore
- A = ambigua
- Var. = Tipo di variabilità
- B = di base
- I = indipendente
- A = ambigua

CCE	Comm.	Mx	My	Mz	Jpx	Jpy	Jpz	Tipo CCE	Sic.	Var.
1	Permanenti strutturali	1.00	1.00	0.00	0.00	0.00	1.00	1 D.M. 08 Permanenti strutturali	S	--
2	Permanenti non strutturali	1.00	1.00	0.00	0.00	0.00	1.00	2 D.M. 08 Permanenti non strutturali	S	--
3	Carico neve	1.00	1.00	0.00	0.00	0.00	1.00	11 D.M. 08 Variabili Neve (a quota <= 1000 m s.l.m.)	S	B
4	Vento dir. 1	1.00	1.00	0.00	0.00	0.00	1.00	10 D.M. 08 Variabili Vento	S	B
5	Vento dir.2	1.00	1.00	0.00	0.00	0.00	1.00	10 D.M. 08 Variabili Vento	S	B

Elenco carichi aste

Condizione di carico n. 1: Permanenti strutturali

Elenco peso proprio aste

Simbologia

- Sez. = Numero della sezione
- Comm. = Commento
- A = Area
- Mat. = Materiale
- P = Peso specifico
- PL = Peso specifico a metro lineare

Sez.	Comm.	A <cmq>	Mat.	P <daN/mc>	PL <daN/m>
1	HEA160	38.772600	Acciaio	7850.00	30.44
2	HEA160	38.772600	Acciaio	7850.00	30.44
3	Scat 50x100x4	11.360000	Acciaio	7850.00	8.92
5	HEA160-IPE160	38.772600	Acciaio	7850.00	30.44
6	tub 120x80x4	19.000000	Acciaio	7850.00	14.91
8	Controventi	3.200000	Acciaio	7850.00	2.51
9	Omega 120x90x30x3	11.340000	Acciaio	7850.00	8.90
10	cv pannelli sandwich	0.800000	Acciaio	7850.00	0.63

Elenco carichi aste**Condizione di carico n. 1: Permanenti strutturali****Carichi distribuiti****Simbologia**

Asta = Numero dell'asta

N1 = Nodo iniziale

N2 = Nodo finale

E = Elemento provenienza del carico

S = Solaio

T = Tamponatura

NE = Numero elemento di provenienza del carico

T = Tipo di carico

QA = Primo carico accidentale

QA2 = Secondo carico accidentale

QA3 = Terzo carico accidentale

QPS = Carico permanente strutturale

QPN = Carico permanente non strutturale

M = Manuale

DC = Direzione del carico

XG,YG,ZG = secondo gli assi globali

XL,YL,ZL = secondo gli assi locali

Xi = Distanza iniziale

Qi = Carico iniziale

Xf = Distanza finale

Qf = Carico finale

Asta	N1	N2	E	NE	T	DC	Xi <m>	Qi <daN/m>	Xf <m>	Qf <daN/m>
1002	-25	-71	S	--	M	ZG	0.00	80.00	1.90	80.00
1002	-72	117	S	--	M	ZG	0.00	80.00	1.90	80.00
1002	-49	-50	S	--	M	ZG	0.00	80.00	1.90	80.00
1009	104	115	S	--	M	ZG	0.00	80.00	2.67	80.00
1009	-20	106	S	--	M	ZG	0.00	80.00	2.42	80.00
1023	-19	130	S	--	M	ZG	0.00	80.00	2.58	80.00
1023	-17	131	S	--	M	ZG	0.00	80.00	2.42	80.00
1023	-18	132	S	--	M	ZG	0.00	80.00	2.50	80.00

Asta	N1	N2	E	NE	T	DC	Xi <m>	Qi <daN/m>	Xf <m>	Qf <daN/m>
1002	-71	-72	S	--	M	ZG	0.00	80.00	1.90	80.00
1002	117	-49	S	--	M	ZG	0.00	80.00	1.90	80.00
1002	-50	-26	S	--	M	ZG	0.00	80.00	1.90	80.00
1009	115	-20	S	--	M	ZG	0.00	80.00	2.42	80.00
1023	130	129	S	--	M	ZG	0.00	80.00	2.10	80.00
1023	131	-19	S	--	M	ZG	0.00	80.00	2.58	80.00
1023	132	-17	S	--	M	ZG	0.00	80.00	2.42	80.00

Elenco carichi aste**Condizione di carico n. 2: Permanenti non strutturali****Carichi distribuiti**

Asta	N1	N2	E	NE	T	DC	Xi <m>	Qi <daN/m>	Xf <m>	Qf <daN/m>
1002	-24	-23	S	--	M	ZG	0.00	500.00	2.50	500.00
1002	-23	-157	S	--	M	ZG	0.00	500.00	0.50	500.00
1002	-157	-133	S	--	M	ZG	0.00	500.00	2.35	500.00
1002	-133	-158	S	--	M	ZG	0.00	500.00	2.35	500.00
1002	-158	114	S	--	M	ZG	0.00	500.00	0.50	500.00
1002	114	-25	S	--	M	ZG	0.00	250.00	0.30	250.00
1002	-71	-72	S	--	M	ZG	0.00	250.00	1.90	250.00
1002	117	-49	S	--	M	ZG	0.00	250.00	1.90	250.00
1002	-50	-26	S	--	M	ZG	0.00	250.00	1.90	250.00
1002	122	-164	S	--	M	ZG	0.00	500.00	0.50	500.00
1002	-164	-144	S	--	M	ZG	0.00	500.00	2.35	500.00
1002	-144	-163	S	--	M	ZG	0.00	500.00	2.35	500.00
1002	-163	130	S	--	M	ZG	0.00	500.00	0.50	500.00
1003	115	-154	S	--	M	ZG	0.00	500.00	0.50	500.00
1003	-154	-135	S	--	M	ZG	0.00	500.00	2.35	500.00
1003	-135	-153	S	--	M	ZG	0.00	500.00	2.35	500.00
1003	-153	116	S	--	M	ZG	0.00	500.00	0.50	500.00
1003	116	-36	S	--	M	ZG	0.00	500.00	0.30	500.00
1003	-67	-68	S	--	M	ZG	0.00	500.00	1.90	500.00
1003	119	-53	S	--	M	ZG	0.00	500.00	1.90	500.00
1003	-54	-28	S	--	M	ZG	0.00	500.00	1.90	500.00
1003	124	-168	S	--	M	ZG	0.00	500.00	0.50	500.00
1003	-168	-142	S	--	M	ZG	0.00	500.00	2.35	500.00
1003	-142	-167	S	--	M	ZG	0.00	500.00	2.35	500.00
1003	-167	131	S	--	M	ZG	0.00	500.00	0.50	500.00
1004	-20	-151	S	--	M	ZG	0.00	500.00	0.50	500.00
1004	-151	-136	S	--	M	ZG	0.00	500.00	2.35	500.00
1004	-136	-152	S	--	M	ZG	0.00	500.00	2.35	500.00
1004	-152	-14	S	--	M	ZG	0.00	500.00	0.50	500.00
1004	-14	-34	S	--	M	ZG	0.00	500.00	0.30	500.00
1004	-65	-66	S	--	M	ZG	0.00	500.00	1.90	500.00
1004	-15	-55	S	--	M	ZG	0.00	500.00	1.90	500.00
1004	-56	-29	S	--	M	ZG	0.00	500.00	1.90	500.00
1004	-16	-169	S	--	M	ZG	0.00	500.00	0.50	500.00

Asta	N1	N2	E	NE	T	DC	Xi <m>	Qi <daN/m>	Xf <m>	Qf <daN/m>
1002	-24	-23	S	--	M	ZG	0.00	75.00	2.50	75.00
1002	-23	-157	S	--	M	ZG	0.00	75.00	0.50	75.00
1002	-157	-133	S	--	M	ZG	0.00	75.00	2.35	75.00
1002	-133	-158	S	--	M	ZG	0.00	75.00	2.35	75.00
1002	-158	114	S	--	M	ZG	0.00	75.00	0.50	75.00
1002	-25	-71	S	--	M	ZG	0.00	250.00	1.90	250.00
1002	-72	117	S	--	M	ZG	0.00	250.00	1.90	250.00
1002	-49	-50	S	--	M	ZG	0.00	250.00	1.90	250.00
1002	-26	122	S	--	M	ZG	0.00	250.00	0.30	250.00
1002	122	-164	S	--	M	ZG	0.00	75.00	0.50	75.00
1002	-164	-144	S	--	M	ZG	0.00	75.00	2.35	75.00
1002	-144	-163	S	--	M	ZG	0.00	75.00	2.35	75.00
1002	-163	130	S	--	M	ZG	0.00	75.00	0.50	75.00
1003	115	-154	S	--	M	ZG	0.00	75.00	0.50	75.00
1003	-154	-135	S	--	M	ZG	0.00	75.00	2.35	75.00
1003	-135	-153	S	--	M	ZG	0.00	75.00	2.35	75.00
1003	-153	116	S	--	M	ZG	0.00	75.00	0.50	75.00
1003	-36	-67	S	--	M	ZG	0.00	500.00	1.90	500.00
1003	-68	119	S	--	M	ZG	0.00	500.00	1.90	500.00
1003	-53	-54	S	--	M	ZG	0.00	500.00	1.90	500.00
1003	-28	124	S	--	M	ZG	0.00	500.00	0.30	500.00
1003	124	-168	S	--	M	ZG	0.00	75.00	0.50	75.00
1003	-168	-142	S	--	M	ZG	0.00	75.00	2.35	75.00
1003	-142	-167	S	--	M	ZG	0.00	75.00	2.35	75.00
1003	-167	131	S	--	M	ZG	0.00	75.00	0.50	75.00
1004	-20	-151	S	--	M	ZG	0.00	75.00	0.50	75.00
1004	-151	-136	S	--	M	ZG	0.00	75.00	2.35	75.00
1004	-136	-152	S	--	M	ZG	0.00	75.00	2.35	75.00
1004	-152	-14	S	--	M	ZG	0.00	75.00	0.50	75.00
1004	-34	-65	S	--	M	ZG	0.00	500.00	1.90	500.00
1004	-66	-15	S	--	M	ZG	0.00	500.00	1.90	500.00
1004	-55	-56	S	--	M	ZG	0.00	500.00	1.90	500.00
1004	-29	-16	S	--	M	ZG	0.00	500.00	0.30	500.00
1004	-16	-169	S	--	M	ZG	0.00	75.00	0.50	75.00

Relazione di calcolo

1004	-169	-141	S	--	M	ZG	0.00	500.00	2.35	500.00	1004	-169	-141	S	--	M	ZG	0.00	75.00	2.35	75.00
1004	-141	-170	S	--	M	ZG	0.00	500.00	2.35	500.00	1004	-141	-170	S	--	M	ZG	0.00	75.00	2.35	75.00
1004	-170	-17	S	--	M	ZG	0.00	500.00	0.50	500.00	1004	-170	-17	S	--	M	ZG	0.00	75.00	0.50	75.00
1005	105	106	S	--	M	ZG	0.00	250.00	2.50	250.00	1005	105	106	S	--	M	ZG	0.00	38.00	2.50	38.00
1005	106	-150	S	--	M	ZG	0.00	500.00	0.50	500.00	1005	106	-150	S	--	M	ZG	0.00	75.00	0.50	75.00
1005	-150	-137	S	--	M	ZG	0.00	500.00	2.35	500.00	1005	-150	-137	S	--	M	ZG	0.00	75.00	2.35	75.00
1005	-137	-149	S	--	M	ZG	0.00	500.00	2.35	500.00	1005	-137	-149	S	--	M	ZG	0.00	75.00	2.35	75.00
1005	-149	111	S	--	M	ZG	0.00	500.00	0.50	500.00	1005	-149	111	S	--	M	ZG	0.00	75.00	0.50	75.00
1005	-33	111	S	--	M	ZG	0.00	500.00	0.30	500.00	1005	-64	-33	S	--	M	ZG	0.00	500.00	1.90	500.00
1005	-63	-64	S	--	M	ZG	0.00	500.00	1.90	500.00	1005	120	-63	S	--	M	ZG	0.00	500.00	1.90	500.00
1005	-58	120	S	--	M	ZG	0.00	500.00	1.90	500.00	1005	-57	-58	S	--	M	ZG	0.00	500.00	1.90	500.00
1005	-30	-57	S	--	M	ZG	0.00	500.00	1.90	500.00	1005	125	-30	S	--	M	ZG	0.00	500.00	0.30	500.00
1005	125	-172	S	--	M	ZG	0.00	500.00	0.50	500.00	1005	125	-172	S	--	M	ZG	0.00	75.00	0.50	75.00
1005	-172	-140	S	--	M	ZG	0.00	500.00	2.35	500.00	1005	-172	-140	S	--	M	ZG	0.00	75.00	2.35	75.00
1005	-140	-171	S	--	M	ZG	0.00	500.00	2.35	500.00	1005	-140	-171	S	--	M	ZG	0.00	75.00	2.35	75.00
1005	-171	132	S	--	M	ZG	0.00	500.00	0.50	500.00	1005	-171	132	S	--	M	ZG	0.00	75.00	0.50	75.00
1006	-21	-22	S	--	M	ZG	0.00	500.00	2.50	500.00	1006	-21	-22	S	--	M	ZG	0.00	75.00	2.50	75.00
1006	-22	-147	S	--	M	ZG	0.00	500.00	0.50	500.00	1006	-22	-147	S	--	M	ZG	0.00	75.00	0.50	75.00
1006	-147	-138	S	--	M	ZG	0.00	500.00	2.35	500.00	1006	-147	-138	S	--	M	ZG	0.00	75.00	2.35	75.00
1006	-138	-148	S	--	M	ZG	0.00	500.00	2.35	500.00	1006	-138	-148	S	--	M	ZG	0.00	75.00	2.35	75.00
1006	-148	113	S	--	M	ZG	0.00	500.00	0.50	500.00	1006	-148	113	S	--	M	ZG	0.00	75.00	0.50	75.00
1006	113	-32	S	--	M	ZG	0.00	250.00	0.30	250.00	1006	-32	-61	S	--	M	ZG	0.00	250.00	1.90	250.00
1006	-61	-62	S	--	M	ZG	0.00	250.00	1.90	250.00	1006	-62	121	S	--	M	ZG	0.00	250.00	1.90	250.00
1006	121	-59	S	--	M	ZG	0.00	250.00	1.90	250.00	1006	-59	-60	S	--	M	ZG	0.00	250.00	1.90	250.00
1006	-60	-31	S	--	M	ZG	0.00	250.00	1.90	250.00	1006	-31	126	S	--	M	ZG	0.00	250.00	0.30	250.00
1006	126	-173	S	--	M	ZG	0.00	500.00	0.50	500.00	1006	126	-173	S	--	M	ZG	0.00	75.00	0.50	75.00
1006	-173	-139	S	--	M	ZG	0.00	500.00	2.35	500.00	1006	-173	-139	S	--	M	ZG	0.00	75.00	2.35	75.00
1006	-139	-174	S	--	M	ZG	0.00	500.00	2.35	500.00	1006	-139	-174	S	--	M	ZG	0.00	75.00	2.35	75.00
1006	-174	-18	S	--	M	ZG	0.00	500.00	0.50	500.00	1006	-174	-18	S	--	M	ZG	0.00	75.00	0.50	75.00
1014	-47	-132	S	--	M	ZG	0.00	30.00	1.25	30.00	1014	-132	-46	S	--	M	ZG	0.00	30.00	1.25	30.00
1014	-46	-131	S	--	M	ZG	0.00	30.00	1.33	30.00	1014	-131	-45	S	--	M	ZG	0.00	30.00	1.33	30.00
1014	-45	-130	S	--	M	ZG	0.00	30.00	1.21	30.00	1014	-130	-44	S	--	M	ZG	0.00	30.00	1.21	30.00
1014	-44	-129	S	--	M	ZG	0.00	30.00	1.21	30.00	1014	-129	-43	S	--	M	ZG	0.00	30.00	1.21	30.00
1014	-43	-128	S	--	M	ZG	0.00	30.00	1.25	30.00	1014	-128	-42	S	--	M	ZG	0.00	30.00	1.25	30.00
1015	-122	-79	S	--	M	ZG	0.00	60.00	1.25	60.00	1015	-80	-122	S	--	M	ZG	0.00	60.00	1.25	60.00
1015	-121	-80	S	--	M	ZG	0.00	60.00	1.33	60.00	1015	-81	-121	S	--	M	ZG	0.00	60.00	1.33	60.00
1015	-120	-81	S	--	M	ZG	0.00	60.00	1.21	60.00	1015	-82	-120	S	--	M	ZG	0.00	60.00	1.21	60.00
1015	-119	-82	S	--	M	ZG	0.00	60.00	1.21	60.00	1015	-83	-119	S	--	M	ZG	0.00	60.00	1.21	60.00
1015	-118	-83	S	--	M	ZG	0.00	60.00	1.25	60.00	1015	-84	-118	S	--	M	ZG	0.00	60.00	1.25	60.00
1017	-95	-112	S	--	M	ZG	0.00	60.00	1.25	60.00	1017	-112	-93	S	--	M	ZG	0.00	60.00	1.25	60.00
1017	-93	-111	S	--	M	ZG	0.00	60.00	1.33	60.00	1017	-111	-91	S	--	M	ZG	0.00	60.00	1.33	60.00
1017	-91	-110	S	--	M	ZG	0.00	60.00	1.21	60.00	1017	-110	-89	S	--	M	ZG	0.00	60.00	1.21	60.00
1017	-89	-109	S	--	M	ZG	0.00	60.00	1.21	60.00	1017	-109	-88	S	--	M	ZG	0.00	60.00	1.21	60.00
1017	-88	-108	S	--	M	ZG	0.00	60.00	1.25	60.00	1017	-108	-85	S	--	M	ZG	0.00	60.00	1.25	60.00
1018	-41	-102	S	--	M	ZG	0.00	30.00	1.25	30.00	1018	-102	-40	S	--	M	ZG	0.00	30.00	1.25	30.00
1018	-40	-101	S	--	M	ZG	0.00	30.00	1.33	30.00	1018	-101	-39	S	--	M	ZG	0.00	30.00	1.33	30.00
1018	-39	-100	S	--	M	ZG	0.00	30.00	1.21	30.00	1018	-100	-97	S	--	M	ZG	0.00	30.00	1.21	30.00
1018	-97	-99	S	--	M	ZG	0.00	30.00	1.21	30.00	1018	-99	-38	S	--	M	ZG	0.00	30.00	1.21	30.00
1018	-38	-98	S	--	M	ZG	0.00	30.00	1.25	30.00	1018	-98	-37	S	--	M	ZG	0.00	30.00	1.25	30.00
1046	103	104	S	--	M	ZG	0.00	250.00	2.50	250.00	1046	103	104	S	--	M	ZG	0.00	38.00	2.50	38.00
1046	104	-156	S	--	M	ZG	0.00	500.00	0.50	500.00	1046	104	-156	S	--	M	ZG	0.00	75.00	0.50	75.00
1046	-156	-134	S	--	M	ZG	0.00	500.00	2.35	500.00	1046	-156	-134	S	--	M	ZG	0.00	75.00	2.35	75.00
1046	-134	-155	S	--	M	ZG	0.00	500.00	2.35	500.00	1046	-134	-155	S	--	M	ZG	0.00	75.00	2.35	75.00
1046	-155	110	S	--	M	ZG	0.00	500.00	0.50	500.00	1046	-155	110	S	--	M	ZG	0.00	75.00	0.50	75.00
1046	110	-35	S	--	M	ZG	0.00	500.00	0.30	500.00	1046	-35	-69	S	--	M	ZG	0.00	500.00	1.90	500.00
1046	-69	-70	S	--	M	ZG	0.00	500.00	1.90	500.00	1046	-70	118	S	--	M	ZG	0.00	500.00	1.90	500.00
1046	118	-51	S	--	M	ZG	0.00	500.00	1.90	500.00	1046	-51	-52	S	--	M	ZG	0.00	500.00	1.90	500.00
1046	-52	-27	S	--	M	ZG	0.00	500.00	1.90	500.00	1046	-27	123	S	--	M	ZG	0.00	500.00	0.30	500.00
1046	123	-165	S	--	M	ZG	0.00	500.00	0.50	500.00	1046	123	-165	S	--	M	ZG	0.00	75.00	0.50	75.00
1046	-165	-143	S	--	M	ZG	0.00	500.00	2.35	500.00	1046	-165	-143	S	--	M	ZG	0.00	75.00	2.35	75.00
1046	-143	-166	S	--	M	ZG	0.00	500.00	2.35	500.00	1046	-143	-166	S	--	M	ZG	0.00	75.00	2.35	75.00
1046	-166	-19	S	--	M	ZG	0.00	500.00	0.50	500.00	1046	-166	-19	S	--	M	ZG	0.00	75.00	0.50	75.00
1185	101	102	S	--	M	ZG	0.00	250.00	2.50	250.00	1185	101	102	S	--	M	ZG	0.00	38.00	2.50	38.00
1185	102	-160	S	--	M	ZG	0.00	250.00	0.50	250.00	1185	102	-160	S	--	M	ZG	0.00	38.00	0.50	38.00
1185	-160	-8	S	--	M	ZG	0.00	250.00	2.35	250.00	1185	-160	-8	S	--	M	ZG	0.00	38.00	2.35	38.00
1185	-8	-159	S	--	M	ZG	0.00	250.00	2.35	250.00	1185	-8	-159	S	--	M	ZG	0.00	38.00	2.35	38.00
1185	-159	109	S	--	M	ZG	0.00	250.00	0.50	250.00	1185	-159	109	S	--	M	ZG	0.00	38.00	0.50	38.00
1191	107	108	S	--	M	ZG	0.00	250.00	2.50	250.00	1191	107	108	S	--	M	ZG	0.00	38.00	2.50	38.00
1191	108	-146	S	--	M	ZG	0.00	250.00	0.50	250.00	1191	108	-146	S	--	M	ZG	0.00	38.00	0.50	38.00
1191	-146	-4	S	--	M	ZG	0.00	250.00	2.35	250.00	1191	-146	-4	S	--	M	ZG	0.00	38.00	2.35	38.00
1191	-4	-145	S	--	M	ZG	0.00	250.00	2.35	250.00	1191	-4	-145	S	--	M	ZG	0.00	38.00	2.35	38.00
1191																					

1283	-175	133	S	--	M	ZG	0.00	250.00	0.50	250.00	1283	-175	133	S	--	M	ZG	0.00	38.00	0.50	38.00
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Elenco carichi aste**Condizione di carico n. 3: Carico neve****Carichi distribuiti**

Asta	N1	N2	E	NE	T	DC	Xi <m>	Qi <daN/m>	Xf <m>	Qf <daN/m>
1002	-25	-71	S	--	M	ZG	0.00	120.00	1.90	120.00
1002	-72	117	S	--	M	ZG	0.00	120.00	1.90	120.00
1002	-49	-50	S	--	M	ZG	0.00	120.00	1.90	120.00
1009	104	115	S	--	M	ZG	0.00	120.00	2.67	120.00
1009	-20	106	S	--	M	ZG	0.00	120.00	2.42	120.00
1014	-132	-46	S	--	M	ZG	0.00	114.00	1.25	114.00
1014	-131	-45	S	--	M	ZG	0.00	114.00	1.33	114.00
1014	-130	-44	S	--	M	ZG	0.00	114.00	1.21	114.00
1014	-129	-43	S	--	M	ZG	0.00	114.00	1.21	114.00
1014	-128	-42	S	--	M	ZG	0.00	114.00	1.25	114.00
1015	-80	-122	S	--	M	ZG	0.00	228.00	1.25	228.00
1015	-81	-121	S	--	M	ZG	0.00	228.00	1.33	228.00
1015	-82	-120	S	--	M	ZG	0.00	228.00	1.21	228.00
1015	-83	-119	S	--	M	ZG	0.00	228.00	1.21	228.00
1015	-84	-118	S	--	M	ZG	0.00	228.00	1.25	228.00
1017	-112	-93	S	--	M	ZG	0.00	228.00	1.25	228.00
1017	-111	-91	S	--	M	ZG	0.00	228.00	1.33	228.00
1017	-110	-89	S	--	M	ZG	0.00	228.00	1.21	228.00
1017	-109	-88	S	--	M	ZG	0.00	228.00	1.21	228.00
1017	-108	-85	S	--	M	ZG	0.00	228.00	1.25	228.00
1018	-102	-40	S	--	M	ZG	0.00	114.00	1.25	114.00
1018	-101	-39	S	--	M	ZG	0.00	114.00	1.33	114.00
1018	-100	-97	S	--	M	ZG	0.00	114.00	1.21	114.00
1018	-99	-38	S	--	M	ZG	0.00	114.00	1.21	114.00
1018	-98	-37	S	--	M	ZG	0.00	114.00	1.25	114.00
1023	-19	130	S	--	M	ZG	0.00	120.00	2.58	120.00
1023	-17	131	S	--	M	ZG	0.00	120.00	2.42	120.00
1023	-18	132	S	--	M	ZG	0.00	120.00	2.50	120.00
2010	-213	-212	S	--	M	ZG	0.00	78.00	2.50	78.00
2010	-211	-210	S	--	M	ZG	0.00	78.00	2.42	78.00
2010	-209	-208	S	--	M	ZG	0.00	78.00	2.50	78.00
2011	-200	-199	S	--	M	ZG	0.00	156.00	2.10	156.00
2011	-198	-197	S	--	M	ZG	0.00	156.00	2.67	156.00
2011	-196	-195	S	--	M	ZG	0.00	156.00	2.42	156.00
2011	-194	-193	S	--	M	ZG	0.00	156.00	2.10	156.00
2012	-183	-182	S	--	M	ZG	0.00	78.00	2.50	78.00
2012	-181	-180	S	--	M	ZG	0.00	78.00	2.42	78.00
2012	-179	-178	S	--	M	ZG	0.00	78.00	2.50	78.00
2020	-185	-186	S	--	M	ZG	0.00	78.00	2.10	78.00
2020	-187	-188	S	--	M	ZG	0.00	78.00	2.65	78.00
2020	-189	-190	S	--	M	ZG	0.00	78.00	2.42	78.00
2020	-191	-192	S	--	M	ZG	0.00	78.00	2.10	78.00
2021	-202	-203	S	--	M	ZG	0.00	156.00	2.54	156.00
2021	-204	-223	S	--	M	ZG	0.00	156.00	2.42	156.00
2021	-205	-224	S	--	M	ZG	0.00	156.00	2.50	156.00
2022	-215	-216	S	--	M	ZG	0.00	78.00	2.10	78.00
2022	-217	-218	S	--	M	ZG	0.00	78.00	2.61	78.00
2022	-219	-220	S	--	M	ZG	0.00	78.00	2.42	78.00
2022	-221	-222	S	--	M	ZG	0.00	78.00	2.10	78.00

Asta	N1	N2	E	NE	T	DC	Xi <m>	Qi <daN/m>	Xf <m>	Qf <daN/m>
1002	-71	-72	S	--	M	ZG	0.00	120.00	1.90	120.00
1002	117	-49	S	--	M	ZG	0.00	120.00	1.90	120.00
1002	-50	-26	S	--	M	ZG	0.00	120.00	1.90	120.00
1009	115	-20	S	--	M	ZG	0.00	120.00	2.42	120.00
1014	-47	-132	S	--	M	ZG	0.00	114.00	1.25	114.00
1014	-46	-131	S	--	M	ZG	0.00	114.00	1.33	114.00
1014	-45	-130	S	--	M	ZG	0.00	114.00	1.21	114.00
1014	-44	-129	S	--	M	ZG	0.00	114.00	1.21	114.00
1014	-43	-128	S	--	M	ZG	0.00	114.00	1.25	114.00
1015	-122	-79	S	--	M	ZG	0.00	228.00	1.25	228.00
1015	-121	-80	S	--	M	ZG	0.00	228.00	1.33	228.00
1015	-120	-81	S	--	M	ZG	0.00	228.00	1.21	228.00
1015	-119	-82	S	--	M	ZG	0.00	228.00	1.21	228.00
1015	-118	-83	S	--	M	ZG	0.00	228.00	1.25	228.00
1017	-95	-112	S	--	M	ZG	0.00	228.00	1.25	228.00
1017	-93	-111	S	--	M	ZG	0.00	228.00	1.33	228.00
1017	-91	-110	S	--	M	ZG	0.00	228.00	1.21	228.00
1017	-89	-109	S	--	M	ZG	0.00	228.00	1.21	228.00
1017	-88	-108	S	--	M	ZG	0.00	228.00	1.25	228.00
1018	-41	-102	S	--	M	ZG	0.00	114.00	1.25	114.00
1018	-40	-101	S	--	M	ZG	0.00	114.00	1.33	114.00
1018	-39	-100	S	--	M	ZG	0.00	114.00	1.21	114.00
1018	-97	-99	S	--	M	ZG	0.00	114.00	1.21	114.00
1018	-38	-98	S	--	M	ZG	0.00	114.00	1.25	114.00
1023	130	129	S	--	M	ZG	0.00	120.00	2.10	120.00
1023	131	-19	S	--	M	ZG	0.00	120.00	2.58	120.00
1023	132	-17	S	--	M	ZG	0.00	120.00	2.42	120.00
2010	-214	-213	S	--	M	ZG	0.00	78.00	2.10	78.00
2010	-212	-211	S	--	M	ZG	0.00	78.00	2.67	78.00
2010	-210	-209	S	--	M	ZG	0.00	78.00	2.42	78.00
2010	-208	-207	S	--	M	ZG	0.00	78.00	2.10	78.00
2011	-199	-198	S	--	M	ZG	0.00	156.00	2.50	156.00
2011	-197	-196	S	--	M	ZG	0.00	156.00	2.42	156.00
2011	-195	-194	S	--	M	ZG	0.00	156.00	2.50	156.00
2012	-184	-183	S	--	M	ZG	0.00	78.00	2.10	78.00
2012	-182	-181	S	--	M	ZG	0.00	78.00	2.67	78.00
2012	-180	-179	S	--	M	ZG	0.00	78.00	2.42	78.00
2012	-178	-177	S	--	M	ZG	0.00	78.00	2.10	78.00
2020	-186	-187	S	--	M	ZG	0.00	78.00	2.52	78.00
2020	-188	-189	S	--	M	ZG	0.00	78.00	2.42	78.00
2020	-190	-191	S	--	M	ZG	0.00	78.00	2.50	78.00
2021	-201	-202	S	--	M	ZG	0.00	156.00	2.10	156.00
2021	-203	-204	S	--	M	ZG	0.00	156.00	2.63	156.00
2021	-223	-205	S	--	M	ZG	0.00	156.00	2.42	156.00
2021	-224	-206	S	--	M	ZG	0.00	156.00	2.10	156.00
2022	-216	-217	S	--	M	ZG	0.00	78.00	2.56	78.00
2022	-218	-219	S	--	M	ZG	0.00	78.00	2.42	78.00
2022	-220	-221	S	--	M	ZG	0.00	78.00	2.50	78.00

Elenco carichi aste**Condizione di carico n. 4: Vento dir. 1****Carichi distribuiti**

Asta	N1	N2	E	NE	T	DC	Xi <m>	Qi <daN/m>	Xf <m>	Qf <daN/m>
1	1	101	S	--	M	YG	0.00	-120.00	3.80	-120.00
3	3	103	S	--	M	YG	0.00	-60.00	3.80	-60.00
6	6	106	S	--	M	YG	0.00	-120.00	3.80	-120.00
8	8	108	S	--	M	YG	0.00	-180.00	3.80	-180.00
12	12	112	S	--	M	YG	0.00	-180.00	3.80	-180.00
17	17	117	S	--	M	YG	0.00	-480.00	3.80	-480.00
26	26	126	S	--	M	YG	0.00	-180.00	3.80	-180.00
28	28	128	S	--	M	YG	0.00	-360.00	3.80	-360.00
33	33	133	S	--	M	YG	0.00	-180.00	3.80	-180.00

Asta	N1	N2	E	NE	T	DC	Xi <m>	Qi <daN/m>	Xf <m>	Qf <daN/m>
2	2	102	S	--	M	YG	0.00	-360.00	3.80	-360.00
5	5	105	S	--	M	YG	0.00	-120.00	3.80	-120.00
7	7	107	S	--	M	YG	0.00	-60.00	3.80	-60.00
9	9	109	S	--	M	YG	0.00	-360.00	3.80	-360.00
13	13	113	S	--	M	YG	0.00	-180.00	3.80	-180.00
21	21	121	S	--	M	YG	0.00	-240.00	3.80	-240.00
27	27	127	S	--	M	YG	0.00	-180.00	3.80	-180.00
29	29	129	S	--	M	YG	0.00	-360.00	3.80	-360.00

Elenco carichi aste**Condizione di carico n. 5: Vento dir.2****Carichi distribuiti**

Asta	N1	N2	E	NE	T	DC	Xi	Qi	Xf	Qf
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Asta	N1	N2	E	NE	T	DC	Xi	Qi	Xf	Qf
------	----	----	---	----	---	----	----	----	----	----

Relazione di calcolo

							<m>	<daN/m>	<m>	<daN/m>							<m>	<daN/m>	<m>	<daN/m>	
1	1	101	S	--	M	XG	0.00	-240.00	3.80	-240.00	3	3	103	S	--	M	XG	0.00	-240.00	3.80	-240.00
5	5	105	S	--	M	XG	0.00	-240.00	3.80	-240.00	7	7	107	S	--	M	XG	0.00	-240.00	3.80	-240.00
15	15	115	S	--	M	XG	0.00	-240.00	3.80	-240.00	29	29	129	S	--	M	XG	0.00	-120.00	3.80	-120.00
30	30	130	S	--	M	XG	0.00	-120.00	3.80	-120.00	31	31	131	S	--	M	XG	0.00	-120.00	3.80	-120.00
32	32	132	S	--	M	XG	0.00	-120.00	3.80	-120.00	33	33	133	S	--	M	XG	0.00	-120.00	3.80	-120.00
1014	-47	-132	S	--	M	ZG	0.00	60.00	1.25	60.00	1014	-132	-46	S	--	M	ZG	0.00	60.00	1.25	60.00
1014	-46	-131	S	--	M	ZG	0.00	60.00	1.33	60.00	1014	-131	-45	S	--	M	ZG	0.00	60.00	1.33	60.00
1014	-45	-130	S	--	M	ZG	0.00	60.00	1.21	60.00	1014	-130	-44	S	--	M	ZG	0.00	60.00	1.21	60.00
1014	-44	-129	S	--	M	ZG	0.00	60.00	1.21	60.00	1014	-129	-43	S	--	M	ZG	0.00	60.00	1.21	60.00
1014	-43	-128	S	--	M	ZG	0.00	60.00	1.25	60.00	1014	-128	-42	S	--	M	ZG	0.00	60.00	1.25	60.00
1015	-122	-79	S	--	M	ZG	0.00	120.00	1.25	120.00	1015	-80	-122	S	--	M	ZG	0.00	120.00	1.25	120.00
1015	-121	-80	S	--	M	ZG	0.00	120.00	1.33	120.00	1015	-81	-121	S	--	M	ZG	0.00	120.00	1.33	120.00
1015	-120	-81	S	--	M	ZG	0.00	120.00	1.21	120.00	1015	-82	-120	S	--	M	ZG	0.00	120.00	1.21	120.00
1015	-119	-82	S	--	M	ZG	0.00	120.00	1.21	120.00	1015	-83	-119	S	--	M	ZG	0.00	120.00	1.21	120.00
1015	-118	-83	S	--	M	ZG	0.00	120.00	1.25	120.00	1015	-84	-118	S	--	M	ZG	0.00	120.00	1.25	120.00
1017	-95	-112	S	--	M	ZG	0.00	120.00	1.25	120.00	1017	-112	-93	S	--	M	ZG	0.00	120.00	1.25	120.00
1017	-93	-111	S	--	M	ZG	0.00	120.00	1.33	120.00	1017	-111	-91	S	--	M	ZG	0.00	120.00	1.33	120.00
1017	-91	-110	S	--	M	ZG	0.00	120.00	1.21	120.00	1017	-110	-89	S	--	M	ZG	0.00	120.00	1.21	120.00
1017	-89	-109	S	--	M	ZG	0.00	120.00	1.21	120.00	1017	-109	-88	S	--	M	ZG	0.00	120.00	1.21	120.00
1017	-88	-108	S	--	M	ZG	0.00	120.00	1.25	120.00	1017	-108	-85	S	--	M	ZG	0.00	120.00	1.25	120.00
1018	-41	-102	S	--	M	ZG	0.00	60.00	1.25	60.00	1018	-102	-40	S	--	M	ZG	0.00	60.00	1.25	60.00
1018	-40	-101	S	--	M	ZG	0.00	60.00	1.33	60.00	1018	-101	-39	S	--	M	ZG	0.00	60.00	1.33	60.00
1018	-39	-100	S	--	M	ZG	0.00	60.00	1.21	60.00	1018	-100	-97	S	--	M	ZG	0.00	60.00	1.21	60.00
1018	-97	-99	S	--	M	ZG	0.00	60.00	1.21	60.00	1018	-99	-38	S	--	M	ZG	0.00	60.00	1.21	60.00
1018	-38	-98	S	--	M	ZG	0.00	60.00	1.25	60.00	1018	-98	-37	S	--	M	ZG	0.00	60.00	1.25	60.00

Risultati del calcolo

Parametri di calcolo

La modellazione della struttura e la rielaborazione dei risultati del calcolo sono stati effettuati con:
ModeSt ver. 8.13, prodotto da Tecnisoft s.a.s. - Prato

La struttura è stata calcolata utilizzando come solutore agli elementi finiti:
Xfinest ver. 2015, prodotto da Ce.A.S. S.r.l. - Milano

Tipo di normativa: stati limite D.M. 08
Tipo di calcolo: analisi sismica statica
Vincoli esterni: Considera sempre vincoli assegnati in modellazione
Schematizzazione piani rigidi: metodo Master-Slave solo per forze orizzontali
Modalità di recupero masse secondarie: trasferire all'impalcato più vicino con modifica XY baricentro

Generazione combinazioni

- Lineari: Sì
- Valuta spostamenti e non sollecitazioni: No
- buckling: No

Opzioni di calcolo

- Sono state considerate infinitamente rigide le zone di connessione fra travi, pilastri ed elementi bidimensionali con una riduzione del 20%
- Calcolo con offset rigidi dai nodi: No
- Uniformare i carichi variabili: No
- Massimizzare i carichi variabili: No
- Minimo carico da considerare: 0.00 <daN/m>
- Recupero carichi zone rigide: taglio e momento flettente
- Modalità di combinazione momento torcente: disaccoppiare le azioni

Opzioni del solutore

- Tipo di elemento bidimensionale: QF46
- Calcolo sforzo nei nodi: No
- Trascura deformabilità a taglio delle aste: No
- Analisi dinamica con metodo di Lanczos: Sì
- Check sequenza di Sturm: Sì
- Soluzione matrice con metodo ver. 5.1: No
- Analisi non lineare con Newton modificato: No
- Usa formulazione secante per buckling: No
- Trascura buckling torsionale: No

Dati struttura

- Zona sismica: zona 2
- Sito di costruzione: Via delle Nazioni Unite, 26, 53035 San Martino SI, Italia LON. 11.27990 LAT. 43.34940
Contenuto tra ID reticolo: 21835 22057 21834 22056

Simbologia

TCC = Tipo di combinazione di carico
SLU = Stato limite ultimo

Relazione di calcolo

SLU S = Stato limite ultimo (azione sismica)
 SLE R = Stato limite d'esercizio, combinazione rara
 SLE F = Stato limite d'esercizio, combinazione frequente
 SLE Q = Stato limite d'esercizio, combinazione quasi permanente
 SLD = Stato limite di danno
 SLV = Stato limite di salvaguardia della vita
 SLC = Stato limite di prevenzione del collasso
 SLO = Stato limite di operatività
 SLU I = Stato limite di resistenza al fuoco
 T_R = Periodo di ritorno <anni>
 A_g = Accelerazione orizzontale massima al sito
 F_O = Valore massimo del fattore di amplificazione dello spettro in accelerazione orizzontale
 T_C^* = Periodo di inizio del tratto a velocità costante dello spettro in accelerazione orizzontale <sec>
 S_s = Coefficiente di amplificazione stratigrafica
 C_c = Coefficiente funzione della categoria del suolo

TCC	T_R	A_g <g>	F_O	T_C^*	S_s	C_c
SLD	75	0.0694	2.50	0.26	1.20	1.44
SLV	712	0.1591	2.50	0.28	1.20	1.42

- Edificio esistente: No
 - Tipo di opera: Opera ordinaria
 - Vita nominale V_N : 50.00
 - Classe d'uso: Classe III
 - Applica semplificazioni per zona 4: No
 - SL Esercizio: SLO-Pvr No, SLD-Pvr 63.00
 - SL Ultimi: SLV-Pvr 10.00, SLC-Pvr No
 - Classe di duttilità: Classe B
 - Quota di riferimento: 0.00 <m>
 - Altezza della struttura: 5.80 <m>
 - Numero piani edificio: 1
 - Coefficiente θ : 0.00
 - Edificio regolare in altezza: Si
 - Edificio regolare in pianta: Si
 - Forze orizzontali convenzionali per stati limite non sismici: No
 - Genera stati limite per verifiche di resistenza al fuoco: No

Dati di piano

Simbologia

Imp. = Numero dell'impalcato
 L_x = Dimensione del piano in dir. X
 L_y = Dimensione del piano in dir. Y
 E_x = Eccentricità in dir. X
 E_y = Eccentricità in dir. Y
 E_a = Eccentricità complessiva

Imp.	L_x <m>	L_y <m>	E_x <m>	E_y <m>	E_a <m>
1	26.50	16.70	1.32	0.83	1.57

Dati di calcolo

- Categoria del suolo di fondazione: B
 - Tipologia edificio: acciaio a telaio di un piano
 Coeff. C_1 : 0.085
 Periodo T_1 : 0.31768
 Coeff. λ SLD: 1.00
 Coeff. λ SLV: 1.00
 Rapporto di sovrarresistenza (α_0/α_1): 1.10
 Valore di riferimento del fattore di struttura (q_0): 4.00
 Fattore riduttivo (K_w): 1.00
 Fattore riduttivo regolarità in altezza (K_R): 1.00
 Fattore di struttura (q): 1.00
 - Categoria topografica: T1 - Superficie pianeggiante, pendii e rilievi isolati con inclinazione media $i \leq 15^\circ$
 - Coeff. amplificazione topografica S_T : 1.00
 - Fattore di struttura per sisma verticale (q_v): 1.50
 - Smorzamento spettro: 5.00%

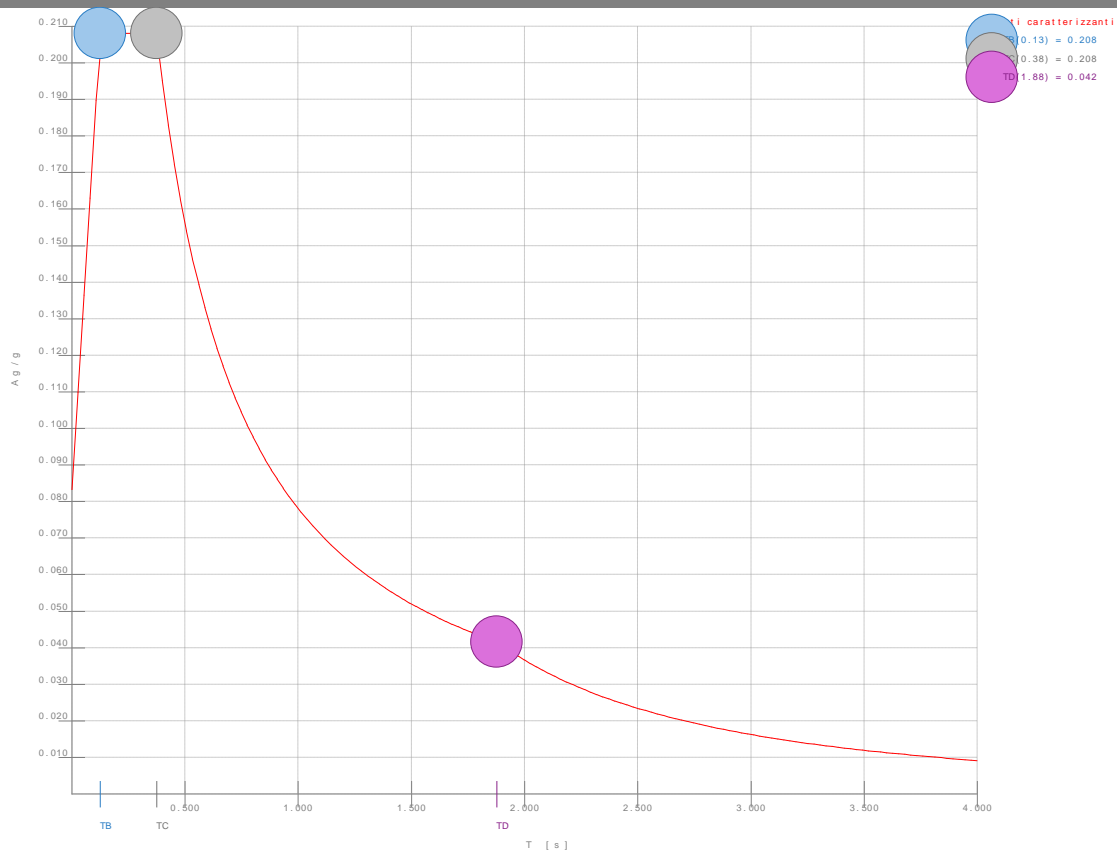


Figura numero 1: Spettro SLD

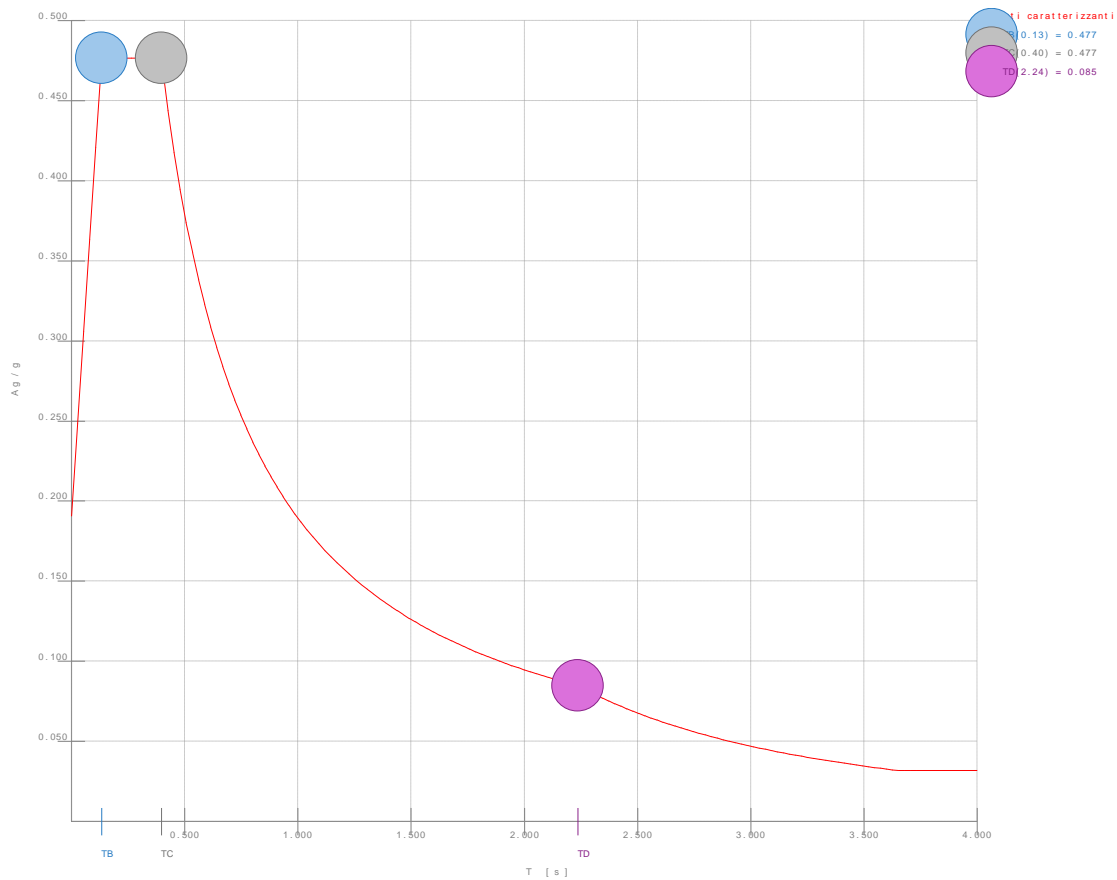


Figura numero 2: Spettro SLV

- Angolo di ingresso del sisma: 0.00 <grad>
- Tipo di combinazione sismica: 30% compatto

Condizioni di carico elementari

Simbologia

- CCE = Numero della condizione di carico elementare
- Comm. = Commento
- Mx = Moltiplicatore della massa in dir. X
- My = Moltiplicatore della massa in dir. Y
- Mz = Moltiplicatore della massa in dir. Z
- Jpx = Moltiplicatore del momento d'inerzia intorno all'asse X
- Jpy = Moltiplicatore del momento d'inerzia intorno all'asse Y
- Jpz = Moltiplicatore del momento d'inerzia intorno all'asse Z
- Tipo CCE = Tipo di CCE per calcolo agli stati limite
- Sic. = Contributo alla sicurezza
- F = a favore
- S = a sfavore
- A = ambigua
- Var. = Tipo di variabilità
- B = di base
- I = indipendente
- A = ambigua

CCE	Comm.	Mx	My	Mz	Jpx	Jpy	Jpz	Tipo CCE	Sic.	Var.
1	Permanenti strutturali	1.00	1.00	0.00	0.00	0.00	1.00	1	S	--
2	Permanenti non strutturali	1.00	1.00	0.00	0.00	0.00	1.00	2	S	--
3	Carico neve	1.00	1.00	0.00	0.00	0.00	1.00	11	S	B
4	Vento dir. 1	1.00	1.00	0.00	0.00	0.00	1.00	10	S	B
5	Vento dir.2	1.00	1.00	0.00	0.00	0.00	1.00	10	S	B

Elenco tipi cce definiti

Simbologia

- Tipo CCE = Tipo condizione di carico elementare
- Comm. = Commento
- Tipo = Tipologia
- G = Permanente
- Q = Variabile
- I = Da ignorare
- A = Azione eccezionale
- P = Precompressione
- Durata = Durata del carico
- N = Non definita
- P = Permanente
- L = Lunga
- M = Media
- B = Breve
- I = Istantanea
- $\gamma_{min.}$ = Coeff. $\gamma_{min.}$
- γ_{max} = Coeff. γ_{max}
- ψ_0 = Coeff. ψ_0
- ψ_1 = Coeff. ψ_1
- ψ_2 = Coeff. ψ_2
- $\psi_{0,s}$ = Coeff. ψ_0 sismico (D.M. 96)

Tipo CCE	Comm.	Tipo	Durata	$\gamma_{min.}$	γ_{max}	ψ_0	ψ_1	ψ_2	$\psi_{0,s}$
1	D.M. 08 Permanenti strutturali	G	N	1.00	1.30				
2	D.M. 08 Permanenti non strutturali	G	N	0.00	1.50				
11	D.M. 08 Variabili Neve (a quota <= 1000 m s.l.m.)	Q	N	0.00	1.50	0.50	0.20	0.00	0.00
10	D.M. 08 Variabili Vento	Q	N	0.00	1.50	0.60	0.20	0.00	0.00

Ambienti di carico

Simbologia

- N Numero
- Comm. Commento
- 1 Permanenti strutturali
- 2 Permanenti non strutturali
- 3 Carico neve
- 4 Vento dir. 1
- 5 Vento dir.2
- F azioni orizzontali convenzionali
- SLU Stato limite ultimo
- SLR Stato limite per combinazioni rare
- SLF Stato limite per combinazioni frequenti
- SLQ/D Stato limite per combinazioni quasi permanenti o di danno

N	Comm.	1	2	3	4	5	S	SLU	SLR	SLF	SLQ
1	Calcolo sismico	Sì	Sì	Sì	Sì	Sì	Sì	Sì	No	No	No

Relazione di calcolo

2	Calcolo statico	Si	Si	Si	Si	Si	No	Si	Si	Si	Si
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Elenco combinazioni di carico simboliche

Simbologia

CC = Numero della combinazione delle condizioni di carico elementari
 Comm. = Commento
 TCC = Tipo di combinazione di carico
 SLU = Stato limite ultimo
 SLU S = Stato limite ultimo (azione sismica)
 SLE R = Stato limite d'esercizio, combinazione rara
 SLE F = Stato limite d'esercizio, combinazione frequente
 SLE Q = Stato limite d'esercizio, combinazione quasi permanente
 SLD = Stato limite di danno
 SLV = Stato limite di salvaguardia della vita
 SLC = Stato limite di prevenzione del collasso
 SLO = Stato limite di operatività
 SLU I = Stato limite di resistenza al fuoco

CC	Comm.	TCC	1	2	3	4	5	S
1	Amb. 1 (Sisma)	SLU S	1	1	ψ_2	ψ_2	ψ_2	1
2	Amb. 2 (SLU)	SLU	γ_{max}	γ_{max}	γ_{max}	γ_{max}	γ_{max}	-----
3	Amb. 2 (SLE R)	SLE R	1	1	1	1	1	-----
4	Amb. 2 (SLE F)	SLE F	1	1	ψ_1	ψ_1	ψ_1	-----
5	Amb. 2 (SLE Q)	SLE Q	1	1	ψ_2	ψ_2	ψ_2	-----

Genera le combinazioni con un solo carico di tipo variabile come di base: No

Considera sollecitazioni dinamiche con segno dei modi principali: No

Combinazioni delle cce

Simbologia

CC = Numero della combinazione delle condizioni di carico elementari
 Comm. = Commento
 TCC = Tipo di combinazione di carico
 SLU = Stato limite ultimo
 SLU S = Stato limite ultimo (azione sismica)
 SLE R = Stato limite d'esercizio, combinazione rara
 SLE F = Stato limite d'esercizio, combinazione frequente
 SLE Q = Stato limite d'esercizio, combinazione quasi permanente
 SLD = Stato limite di danno
 SLV = Stato limite di salvaguardia della vita
 SLC = Stato limite di prevenzione del collasso
 SLO = Stato limite di operatività
 SLU I = Stato limite di resistenza al fuoco
 An. = Tipo di analisi
 L = Lineare
 NL = Non lineare
 Bk = buckling
 S = Sì
 N = No

CC	Comm.	TCC	An.	Bk	1	2	3	4	5	S X*	S Y*
1	CC 1 - Amb. 1 (SLU S) S + (X+0.3Y)	SLV	L	N	1.00	1.00	0.00	0.00	0.00	1.00	0.30
2	CC 2 - Amb. 1 (SLE) S + (X+0.3Y)	SLD	L	N	1.00	1.00	0.00	0.00	0.00	1.00	-0.30
3	CC 3 - Amb. 1 (SLU S) S - (X+0.3Y)	SLV	L	N	1.00	1.00	0.00	0.00	0.00	-1.00	0.30
4	CC 4 - Amb. 1 (SLE) S - (X+0.3Y)	SLD	L	N	1.00	1.00	0.00	0.00	0.00	-1.00	-0.30
5	CC 5 - Amb. 1 (SLU S) S + (Y+0.3Y)	SLV	L	N	1.00	1.00	0.00	0.00	0.00	0.30	1.00
6	CC 6 - Amb. 1 (SLE) S + (Y+0.3Y)	SLD	L	N	1.00	1.00	0.00	0.00	0.00	-0.30	1.00
7	CC 7 - Amb. 1 (SLU S) S - (Y+0.3X)	SLV	L	N	1.00	1.00	0.00	0.00	0.00	0.30	-1.00
8	CC 8 - Amb. 1 (SLE) S - (Y+0.3X)	SLD	L	N	1.00	1.00	0.00	0.00	0.00	-0.30	-1.00
9	CC 9 - Amb. 2 (SLU)	SLU	L	N	1.30	1.50	1.50	0.90	0.00	0.00	0.00
10		SLU	L	N	1.30	1.50	0.75	1.50	0.00	0.00	0.00
11		SLU	L	N	1.30	1.50	0.75	0.00	1.50	0.00	0.00
12	CC 10 - Amb. 2 (SLE R)	SLE R	L	N	1.00	1.00	1.00	0.60	0.00	0.00	0.00
13		SLE F	L	N	1.00	1.00	0.50	1.00	0.00	0.00	0.00
14		SLE F	L	N	1.00	1.00	0.50	0.00	1.00	0.00	0.00
15	CC 11 - Amb. 2 (SLE F)	SLE F	L	N	1.00	1.00	0.20	0.20	0.20	0.00	0.00
16	CC 12 - Amb. 2 (SLE Q)	SLE Q	L	N	1.00	1.00	0.00	0.00	0.00	0.00	0.00

Elenco baricentri e masse impalcati

Simbologia

Imp. = Numero dell'impalcato
 X = Coordinata X
 Y = Coordinata Y
 Z = Coordinata Z
 Mo = Massa orizzontale

Relazione di calcolo

Jpz = Momento d'inerzia polare intorno all'asse Z

Imp.	X <m>	Y <m>	Z <m>	Mo <kg>	Jpz <kg*m ² >
1	13.68	8.72	3.85	101276.00	8556250.00

Totali masse impalcate

Mo <kg>	Jpz <kg*m ² >
101276.00	8556250.00

Elenco forze sismiche di impalcato allo SLD

Simbologia

Imp. = Numero dell'impalcato
 cx = Coeff. c in dir. X
 cy = Coeff. c in dir. Y
 Fx = Forza in dir. X
 Fy = Forza in dir. Y
 Mz = Momento intorno all'asse Z

Imp.	cx	cy	Fx <daN>	Fy <daN>	Mz <daNm>
1	1.00	1.00	20671.60	20671.60	32375.00

Totali forze sismiche

Fx <daN>	Fy <daN>	Mz <daNm>
20671.60	20671.60	32375.00

Elenco forze sismiche di impalcato allo SLV

Imp.	cx	cy	Fx <daN>	Fy <daN>	Mz <daNm>
1	1.00	1.00	47343.10	47343.10	74146.80

Totali forze sismiche

Fx <daN>	Fy <daN>	Mz <daNm>
47343.10	47343.10	74146.80

Spostamenti dei nodi allo stato limite ultimo

Simbologia

Nodo = Numero del nodo
 Sx = Spostamento in dir. X
 CC = Numero della combinazione delle condizioni di carico elementari
 Sy = Spostamento in dir. Y
 Sz = Spostamento in dir. Z
 Rx = Rotazione intorno all'asse X
 Ry = Rotazione intorno all'asse Y
 Rz = Rotazione intorno all'asse Z

Nodo		Sx <cm>	CC	Sy <cm>	CC	Sz <cm>	CC	Rx <rad>	CC	Ry <rad>	CC	Rz <rad>	CC
-224	Max	1.03	1	0.65	5	-1.69	3	0.00	9	0.00	11	0.00	7
-224	Min.	-0.67	3	-0.46	7	-3.10	9	0.00	5	0.00	1	0.00	3
-223	Max	0.91	1	0.63	5	-2.01	7	0.00	7	0.00	3	0.00	7
-223	Min.	-0.69	3	-0.48	7	-3.66	9	0.00	10	-0.00	9	0.00	3
-222	Max	0.93	1	0.64	5	-0.23	1	0.00	9	-0.00	3	0.00	7
-222	Min.	-0.82	3	-0.50	7	-0.43	9	0.00	3	-0.01	9	-0.00	9
-221	Max	0.82	1	0.64	5	-0.75	5	0.00	9	-0.01	7	0.00	7
-221	Min.	-0.89	3	-0.50	7	-1.43	9	0.00	3	-0.01	9	0.00	11
-220	Max	0.71	1	0.64	5	-0.43	1	0.00	10	-0.01	3	0.00	7
-220	Min.	-0.95	3	-0.50	7	-0.82	9	0.00	11	-0.01	9	0.00	3
-219	Max	0.69	1	0.63	5	-0.73	7	0.00	10	-0.01	3	0.00	7
-219	Min.	-0.91	3	-0.50	7	-1.35	9	0.00	14	-0.01	9	0.00	3
-218	Max	0.49	1	0.63	5	-0.45	1	0.00	9	-0.01	3	0.00	7
-218	Min.	-1.11	3	-0.50	7	-0.85	9	0.00	5	-0.01	9	0.00	3
-217	Max	0.53	1	0.63	5	-0.93	5	0.00	10	-0.01	7	0.00	7
-217	Min.	-1.13	3	-0.51	7	-1.80	9	0.00	5	-0.01	9	0.00	3
-216	Max	0.55	1	0.63	5	-0.39	1	-0.00	3	-0.01	3	0.00	9
-216	Min.	-1.16	3	-0.51	7	-0.75	9	-0.00	9	-0.01	9	0.00	5
-215	Max	0.67	1	0.62	5	-0.21	1	0.00	7	-0.00	3	0.00	9
-215	Min.	-1.09	3	-0.51	7	-0.39	9	-0.00	9	-0.01	9	0.00	3
-214	Max	0.94	1	0.59	5	-0.15	3	-0.00	7	0.01	9	0.00	7
-214	Min.	-0.81	3	-0.73	7	-0.45	9	-0.00	11	0.00	1	-0.00	11
-213	Max	0.99	1	0.59	5	-0.97	3	0.00	7	0.01	9	0.00	7
-213	Min.	-0.73	3	-0.73	7	-1.71	9	-0.00	11	0.01	1	0.00	11
-212	Max	1.07	1	0.58	5	-0.46	3	0.00	10	0.01	9	0.00	7

Relazione di calcolo

-212	Min.	-0.59	3	-0.73	7	-0.87	9	0.00	3	0.01	7	0.00	3
-211	Max	1.04	1	0.58	5	-0.43	3	0.00	13	0.01	9	0.00	7
-211	Min.	-0.56	3	-0.73	7	-0.82	9	-0.00	11	0.01	1	0.00	5
-210	Max	1.17	1	0.59	5	-0.82	3	0.00	10	0.01	9	0.00	7
-210	Min.	-0.44	3	-0.73	7	-1.56	9	0.00	5	0.01	7	0.00	3
-209	Max	1.24	1	0.59	5	-0.44	3	0.00	10	0.01	9	0.00	7
-209	Min.	-0.41	3	-0.73	7	-0.84	9	0.00	1	0.01	1	0.00	3
-208	Max	1.19	1	0.58	5	-0.84	3	0.00	9	0.01	9	0.00	11
-208	Min.	-0.52	3	-0.73	7	-1.53	9	0.00	1	0.00	7	0.00	3
-207	Max	1.15	1	0.59	5	-0.18	3	0.00	9	0.01	9	0.00	11
-207	Min.	-0.59	3	-0.73	7	-0.45	9	0.00	1	0.00	1	0.00	3
-206	Max	1.09	1	0.66	5	-1.02	7	0.01	9	0.00	3	0.00	7
-206	Min.	-0.66	3	-0.45	7	-1.76	9	0.00	5	0.00	11	0.00	3
-205	Max	0.97	1	0.64	5	-1.81	3	0.00	11	0.00	3	0.00	7
-205	Min.	-0.68	3	-0.47	7	-3.30	9	0.00	13	0.00	9	0.00	3
-204	Max	0.76	1	0.62	5	-1.89	7	0.00	9	0.00	3	0.00	7
-204	Min.	-0.84	3	-0.49	7	-3.46	9	0.00	5	0.00	11	0.00	3
-203	Max	0.76	1	0.61	5	-2.19	7	0.00	7	0.00	3	0.00	7
-203	Min.	-0.90	3	-0.50	7	-4.10	9	0.00	9	-0.00	9	0.00	3
-202	Max	0.79	1	0.60	5	-1.65	7	-0.00	7	0.00	13	0.00	10
-202	Min.	-0.92	3	-0.52	7	-3.04	9	-0.01	9	0.00	1	0.00	5
-201	Max	0.81	1	0.59	5	-0.94	5	-0.00	7	0.00	3	0.00	7
-201	Min.	-0.94	3	-0.53	7	-1.63	9	-0.01	9	0.00	11	0.00	3
-200	Max	0.76	1	0.53	5	-0.99	3	-0.00	7	0.00	11	0.00	7
-200	Min.	-0.98	3	-0.73	7	-1.77	9	-0.01	9	0.00	10	0.00	10
-199	Max	0.78	1	0.53	5	-1.85	7	-0.00	7	0.00	3	0.00	7
-199	Min.	-0.92	3	-0.72	7	-3.35	9	-0.00	9	0.00	11	0.00	11
-198	Max	0.81	1	0.54	5	-2.04	7	0.00	11	0.00	9	0.00	7
-198	Min.	-0.84	3	-0.71	7	-3.78	9	0.00	13	0.00	7	0.00	5
-197	Max	0.78	1	0.56	5	-1.83	7	0.00	12	0.00	9	0.00	7
-197	Min.	-0.81	3	-0.70	7	-3.37	9	0.00	10	0.00	14	0.00	3
-196	Max	0.95	1	0.57	5	-2.05	7	0.00	7	0.00	11	0.00	7
-196	Min.	-0.65	3	-0.69	7	-3.74	9	0.00	5	0.00	1	0.00	3
-195	Max	0.97	1	0.58	5	-1.82	3	0.00	9	0.00	10	0.00	7
-195	Min.	-0.68	3	-0.68	7	-3.33	9	0.00	1	0.00	1	0.00	3
-194	Max	0.98	1	0.59	5	-1.72	3	0.00	9	0.00	3	0.00	11
-194	Min.	-0.72	3	-0.66	7	-3.13	9	0.00	5	-0.00	11	0.00	3
-193	Max	0.98	1	0.60	5	-1.01	3	0.01	9	0.00	11	0.00	7
-193	Min.	-0.76	3	-0.66	7	-1.78	9	0.00	5	0.00	1	0.00	10
-192	Max	1.29	1	0.63	5	-0.21	7	0.00	9	0.01	9	0.00	9
-192	Min.	-0.45	3	-0.46	7	-0.43	9	0.00	5	0.00	5	0.00	3
-191	Max	1.31	1	0.62	5	-0.33	3	0.00	7	0.01	9	0.00	9
-191	Min.	-0.40	3	-0.47	7	-0.69	9	0.00	13	0.00	7	0.00	3
-190	Max	1.30	1	0.62	5	-0.42	3	0.00	11	0.01	9	0.00	7
-190	Min.	-0.35	3	-0.47	7	-0.80	9	0.00	13	0.00	1	0.00	3
-189	Max	1.19	1	0.62	5	-0.98	7	0.00	7	0.01	9	0.00	7
-189	Min.	-0.41	3	-0.47	7	-1.78	9	0.00	10	0.00	1	0.00	3
-188	Max	1.11	1	0.61	5	-0.45	3	0.00	11	0.01	9	0.00	7
-188	Min.	-0.49	3	-0.47	7	-0.86	9	0.00	10	0.01	1	0.00	3
-187	Max	1.05	1	0.61	5	-1.10	7	0.00	7	0.01	9	0.00	7
-187	Min.	-0.61	3	-0.47	7	-2.10	9	0.00	10	0.00	5	0.00	3
-186	Max	1.08	1	0.61	5	-0.37	7	0.00	7	0.01	9	0.00	7
-186	Min.	-0.63	3	-0.47	7	-0.74	9	-0.00	9	0.00	5	0.00	9
-185	Max	1.01	1	0.61	5	-0.18	3	0.00	7	0.01	9	0.00	7
-185	Min.	-0.74	3	-0.48	7	-0.38	9	-0.00	9	0.00	7	0.00	9
-184	Max	0.56	1	0.53	5	-0.19	5	0.00	7	-0.00	14	0.00	9
-184	Min.	-1.18	3	-0.66	7	-0.40	9	-0.00	9	-0.01	9	0.00	3
-183	Max	0.49	1	0.53	5	-0.36	7	0.00	7	-0.00	3	0.00	7
-183	Min.	-1.21	3	-0.66	7	-0.77	9	-0.00	9	-0.01	9	0.00	5
-182	Max	0.52	1	0.53	5	-1.07	7	0.00	7	-0.00	3	0.00	7
-182	Min.	-1.14	3	-0.66	7	-2.06	9	0.00	10	-0.01	9	0.00	5
-181	Max	0.44	1	0.54	5	-0.44	1	0.00	11	-0.00	3	0.00	7
-181	Min.	-1.16	3	-0.65	7	-0.84	9	0.00	10	-0.01	9	0.00	5
-180	Max	0.67	1	0.54	5	-0.96	7	0.00	7	-0.00	3	0.00	7
-180	Min.	-0.93	3	-0.65	7	-1.76	9	0.00	10	-0.01	9	0.00	3
-179	Max	0.64	1	0.54	5	-0.41	1	0.00	11	-0.01	3	0.00	7
-179	Min.	-1.01	3	-0.65	7	-0.79	9	0.00	13	-0.01	9	0.00	3
-178	Max	0.70	1	0.55	5	-0.33	5	0.00	7	-0.00	3	0.00	7
-178	Min.	-0.99	3	-0.65	7	-0.69	9	0.00	10	-0.01	9	0.00	10
-177	Max	0.78	1	0.55	5	-0.19	7	0.00	9	-0.00	3	0.00	7
-177	Min.	-0.96	3	-0.64	7	-0.43	9	0.00	5	-0.01	9	0.00	9
-176	Max	1.09	1	0.63	5	-0.21	7	0.00	9	0.01	9	0.00	9
-176	Min.	-0.66	3	-0.45	7	-0.43	9	0.00	13	0.01	5	0.00	3
-175	Max	1.10	1	0.69	5	-0.23	1	0.00	9	-0.01	3	0.00	7
-175	Min.	-0.66	3	-0.44	7	-0.43	9	0.00	3	-0.01	9	-0.00	9
-174	Max	1.02	1	0.65	5	-0.75	5	0.00	9	-0.01	7	0.00	7
-174	Min.	-0.69	3	-0.48	7	-1.43	9	0.00	3	-0.01	9	0.00	11
-173	Max	1.01	1	0.62	5	-0.33	3	0.00	7	0.02	9	0.00	10
-173	Min.	-0.70	3	-0.47	7	-0.69	9	0.00	10	0.01	7	0.00	3

Relazione di calcolo

-172	Max	0.98	1	0.63	5	-0.42	3	0.00	11	0.02	9	0.00	10
-172	Min.	-0.68	3	-0.46	7	-0.80	9	0.00	10	0.01	1	0.00	3
-171	Max	0.98	1	0.64	5	-0.43	1	0.00	10	-0.01	3	0.00	7
-171	Min.	-0.67	3	-0.50	7	-0.82	9	0.00	3	-0.02	9	0.00	3
-170	Max	0.95	1	0.63	5	-0.73	7	0.00	10	-0.01	5	0.00	7
-170	Min.	-0.66	3	-0.50	7	-1.35	9	0.00	14	-0.02	9	0.00	3
-169	Max	0.94	1	0.61	5	-0.98	7	0.00	7	0.01	9	0.00	7
-169	Min.	-0.67	3	-0.47	7	-1.78	9	0.00	10	0.01	5	0.00	3
-168	Max	0.77	1	0.61	5	-0.45	3	0.00	7	0.02	9	0.00	10
-168	Min.	-0.83	3	-0.47	7	-0.86	9	0.00	10	0.01	1	0.00	3
-167	Max	0.78	1	0.64	5	-0.45	1	0.00	10	-0.01	3	0.00	7
-167	Min.	-0.82	3	-0.50	7	-0.85	9	0.00	5	-0.02	9	0.00	3
-166	Max	0.79	1	0.63	5	-0.93	5	0.00	10	-0.01	7	0.00	7
-166	Min.	-0.87	3	-0.50	7	-1.80	9	0.00	5	-0.02	9	0.00	3
-165	Max	0.78	1	0.61	5	-1.10	7	0.00	7	0.01	9	0.00	7
-165	Min.	-0.88	3	-0.47	7	-2.10	9	0.00	10	0.01	5	0.00	3
-164	Max	0.80	1	0.58	5	-0.37	7	0.00	7	0.02	9	0.00	7
-164	Min.	-0.92	3	-0.50	7	-0.74	9	0.00	10	0.01	5	-0.00	9
-163	Max	0.81	1	0.60	5	-0.39	1	0.00	7	-0.01	3	0.00	9
-163	Min.	-0.91	3	-0.54	7	-0.75	9	-0.00	9	-0.02	9	0.00	3
-162	Max	0.82	1	0.61	5	-0.20	1	0.00	7	-0.00	3	0.00	9
-162	Min.	-0.94	3	-0.52	7	-0.39	9	0.00	9	-0.01	9	0.00	3
-161	Max	0.82	1	0.59	5	-0.18	3	0.00	7	0.01	9	0.00	7
-161	Min.	-0.94	3	-0.50	7	-0.38	9	-0.00	9	0.00	7	-0.00	9
-160	Max	0.78	1	0.53	5	-0.15	3	-0.00	13	0.01	9	0.00	7
-160	Min.	-0.98	3	-0.79	7	-0.45	9	-0.00	11	0.01	1	-0.00	9
-159	Max	0.78	1	0.51	5	-0.19	5	0.00	14	-0.01	3	0.00	9
-159	Min.	-0.98	3	-0.68	7	-0.40	9	-0.00	10	-0.01	9	0.00	3
-158	Max	0.80	1	0.51	5	-0.36	7	0.00	11	-0.01	3	0.00	9
-158	Min.	-0.91	3	-0.67	7	-0.77	9	0.00	10	-0.02	9	0.00	3
-157	Max	0.80	1	0.56	5	-0.97	3	0.00	13	0.01	9	0.00	7
-157	Min.	-0.92	3	-0.75	7	-1.71	9	-0.00	11	0.01	1	-0.00	10
-156	Max	0.77	1	0.60	5	-0.46	3	0.00	10	0.02	9	0.00	11
-156	Min.	-0.89	3	-0.71	7	-0.87	9	0.00	3	0.01	7	0.00	13
-155	Max	0.78	1	0.53	5	-1.07	7	0.00	7	-0.01	3	0.00	7
-155	Min.	-0.89	3	-0.65	7	-2.06	9	0.00	10	-0.01	9	0.00	10
-154	Max	0.76	1	0.57	5	-0.43	3	0.00	13	0.02	9	0.00	7
-154	Min.	-0.84	3	-0.75	7	-0.82	9	0.00	11	0.01	1	0.00	10
-153	Max	0.77	1	0.53	5	-0.44	1	0.00	7	-0.01	3	0.00	7
-153	Min.	-0.83	3	-0.65	7	-0.84	9	0.00	10	-0.02	9	0.00	10
-152	Max	0.93	1	0.53	5	-0.96	7	0.00	7	-0.01	5	0.00	7
-152	Min.	-0.67	3	-0.65	7	-1.76	9	0.00	10	-0.01	9	0.00	10
-151	Max	0.93	1	0.59	5	-0.82	3	0.00	10	0.01	9	0.00	7
-151	Min.	-0.68	3	-0.73	7	-1.56	9	0.00	5	0.01	3	0.00	10
-150	Max	0.97	1	0.58	5	-0.44	3	0.00	10	0.02	9	0.00	7
-150	Min.	-0.69	3	-0.73	7	-0.83	9	0.00	1	0.01	1	0.00	10
-149	Max	0.97	1	0.55	5	-0.41	1	0.00	7	-0.01	3	0.00	7
-149	Min.	-0.68	3	-0.64	7	-0.79	9	0.00	10	-0.02	9	0.00	10
-148	Max	1.01	1	0.54	5	-0.33	5	0.00	7	-0.01	7	0.00	7
-148	Min.	-0.70	3	-0.64	7	-0.69	9	0.00	10	-0.02	9	0.00	10
-147	Max	1.01	1	0.60	5	-0.84	3	0.00	10	0.01	9	0.00	11
-147	Min.	-0.70	3	-0.71	7	-1.53	9	0.00	1	0.01	7	0.00	3
-146	Max	0.99	1	0.63	5	-0.18	3	0.00	9	0.01	9	0.00	11
-146	Min.	-0.76	3	-0.68	7	-0.45	9	0.00	1	0.01	1	0.00	3
-145	Max	0.99	1	0.56	5	-0.19	7	0.00	9	-0.01	3	0.00	7
-145	Min.	-0.76	3	-0.63	7	-0.43	9	0.00	10	-0.01	9	-0.00	9
-144	Max	0.80	1	0.46	5	-1.65	7	-0.00	7	0.00	3	0.00	7
-144	Min.	-0.91	3	-0.65	7	-3.04	9	-0.01	9	0.00	1	0.00	3
-143	Max	0.79	1	0.61	5	-2.19	7	0.00	7	0.00	7	0.00	10
-143	Min.	-0.87	3	-0.50	7	-4.10	9	0.00	9	0.00	11	0.00	3
-142	Max	0.78	1	0.64	5	-1.89	7	0.00	9	0.00	3	0.00	7
-142	Min.	-0.83	3	-0.47	7	-3.46	9	0.00	5	0.00	1	0.00	3
-141	Max	0.94	1	0.63	5	-2.01	7	0.00	7	0.00	3	0.00	7
-141	Min.	-0.66	3	-0.48	7	-3.66	9	0.00	10	0.00	11	0.00	3
-140	Max	0.98	1	0.66	5	-1.81	3	0.00	11	0.00	3	0.00	7
-140	Min.	-0.68	3	-0.45	7	-3.30	9	0.00	5	0.00	1	0.00	3
-139	Max	1.02	1	0.71	5	-1.69	3	0.00	9	0.00	9	0.00	10
-139	Min.	-0.69	3	-0.39	7	-3.10	9	0.00	5	0.00	7	0.00	3
-138	Max	1.01	1	0.65	5	-1.72	3	0.00	9	0.00	3	0.00	7
-138	Min.	-0.70	3	-0.60	7	-3.13	9	0.00	5	-0.00	9	0.00	10
-137	Max	0.97	1	0.60	5	-1.82	3	0.00	9	0.00	3	0.00	7
-137	Min.	-0.69	3	-0.65	7	-3.33	9	0.00	5	0.00	1	0.00	10
-136	Max	0.93	1	0.56	5	-2.05	7	0.00	7	0.00	11	0.00	7
-136	Min.	-0.68	3	-0.69	7	-3.74	9	0.00	5	0.00	12	0.00	10
-135	Max	0.76	1	0.54	5	-1.83	7	0.00	12	0.00	3	0.00	7
-135	Min.	-0.84	3	-0.71	7	-3.37	9	0.00	10	0.00	1	0.00	10
-134	Max	0.77	1	0.58	5	-2.04	7	0.00	11	0.00	9	0.00	7
-134	Min.	-0.89	3	-0.67	7	-3.77	9	0.00	13	0.00	7	0.00	10
-133	Max	0.80	1	0.43	5	-1.85	7	-0.00	7	0.00	3	0.00	7

Relazione di calcolo

-133	Min.	-0.92	3	-0.82	7	-3.35	9	-0.00	9	-0.00	11	0.00	10
-132	Max	1.13	1	0.54	5	-0.59	7	-0.00	1	0.00	9	0.00	9
-132	Min.	-0.56	3	-0.62	7	-1.24	9	-0.01	9	0.00	7	0.00	3
-131	Max	1.11	1	0.54	5	-0.63	7	0.01	9	0.00	9	0.00	7
-131	Min.	-0.52	3	-0.63	7	-1.25	9	0.00	7	0.00	3	0.00	9
-130	Max	1.25	1	0.54	5	-0.55	3	-0.00	7	0.00	9	0.00	9
-130	Min.	-0.33	3	-0.63	7	-1.05	9	-0.01	9	0.00	14	0.00	3
-129	Max	1.24	1	0.54	5	-0.44	3	0.01	9	0.00	9	0.00	7
-129	Min.	-0.39	3	-0.63	7	-0.91	9	0.00	1	0.00	3	0.00	3
-128	Max	1.26	1	0.54	5	-0.00	3	0.00	1	0.00	11	0.00	7
-128	Min.	-0.43	3	-0.63	7	-0.22	11	0.00	3	0.00	3	0.00	3
-122	Max	1.13	1	0.50	5	-1.89	7	-0.01	3	0.01	9	0.00	7
-122	Min.	-0.56	3	-0.56	7	-3.86	9	-0.01	11	0.01	7	-0.00	9
-121	Max	1.12	1	0.50	5	-2.18	7	0.01	11	0.01	9	0.00	9
-121	Min.	-0.51	3	-0.56	7	-4.26	11	0.00	7	0.01	3	0.00	3
-120	Max	1.22	1	0.50	5	-2.05	7	-0.00	3	0.01	9	0.00	7
-120	Min.	-0.36	3	-0.56	7	-3.89	11	-0.00	9	0.01	3	-0.00	9
-119	Max	1.27	1	0.50	5	-1.90	3	0.01	11	0.01	9	0.00	9
-119	Min.	-0.36	3	-0.56	7	-3.64	11	0.00	7	0.01	3	0.00	3
-118	Max	1.22	1	0.50	5	-1.22	3	0.01	11	0.01	11	0.00	11
-118	Min.	-0.46	3	-0.56	7	-2.42	11	0.00	3	0.00	3	0.00	3
-113	Max	4.80	11	0.49	5	-37.00	7	-0.00	7	-0.00	3	0.00	7
-113	Min.	2.47	3	-0.52	7	-49.60	9	-0.00	11	-0.01	9	0.00	11
-112	Max	1.08	1	0.58	5	-2.02	7	-0.01	7	0.00	11	0.00	9
-112	Min.	-0.60	3	-0.45	7	-4.10	9	-0.01	11	0.00	13	0.00	3
-111	Max	1.08	1	0.58	5	-2.35	7	0.00	11	0.00	11	0.00	7
-111	Min.	-0.56	3	-0.45	7	-4.57	11	0.00	7	0.00	13	0.00	9
-110	Max	1.23	1	0.58	5	-2.23	7	-0.00	1	0.00	12	0.00	9
-110	Min.	-0.36	3	-0.45	7	-4.23	11	-0.00	9	0.00	11	0.00	3
-109	Max	1.24	1	0.58	5	-2.16	3	0.00	11	0.00	13	0.00	7
-109	Min.	-0.39	3	-0.45	7	-4.10	11	0.00	7	0.00	11	0.00	3
-108	Max	1.23	1	0.58	5	-1.43	3	0.01	11	0.00	14	0.00	9
-108	Min.	-0.45	3	-0.45	7	-2.80	11	0.00	7	0.00	3	0.00	3
-102	Max	0.90	1	0.61	5	-0.62	7	-0.00	3	0.01	9	0.00	7
-102	Min.	-0.79	3	-0.46	7	-1.33	9	-0.01	9	0.00	3	-0.00	9
-101	Max	0.88	1	0.61	5	-0.65	7	0.01	9	0.01	9	0.00	9
-101	Min.	-0.75	3	-0.46	7	-1.29	9	0.00	7	0.01	3	0.00	3
-100	Max	1.00	1	0.61	5	-0.58	7	-0.00	3	0.01	9	0.00	7
-100	Min.	-0.58	3	-0.46	7	-1.11	9	-0.01	9	0.01	3	-0.00	9
-99	Max	1.06	1	0.61	5	-0.61	7	0.01	9	0.01	11	0.00	9
-99	Min.	-0.57	3	-0.46	7	-1.16	9	0.00	3	0.01	3	0.00	3
-98	Max	1.03	1	0.61	5	-0.13	1	0.00	10	0.01	11	0.00	7
-98	Min.	-0.65	3	-0.46	7	-0.36	11	0.00	7	0.00	3	0.00	3
-97	Max	1.07	1	0.61	5	-0.88	7	0.00	7	0.01	9	0.00	7
-97	Min.	-0.54	3	-0.46	7	-1.60	9	0.00	10	0.01	5	0.00	3
-95	Max	1.08	1	0.58	5	-1.41	7	-0.00	7	0.00	11	0.00	7
-95	Min.	-0.63	3	-0.45	7	-2.99	9	-0.01	11	0.00	3	0.00	3
-93	Max	1.07	1	0.58	5	-2.50	7	0.00	12	0.00	11	0.00	7
-93	Min.	-0.60	3	-0.45	7	-4.78	11	-0.00	11	0.00	13	0.00	3
-91	Max	1.10	1	0.58	5	-2.08	3	0.00	9	0.00	12	0.00	7
-91	Min.	-0.51	3	-0.45	7	-3.92	11	0.00	7	0.00	11	0.00	3
-89	Max	1.23	1	0.58	5	-2.36	7	0.00	9	0.00	10	0.00	7
-89	Min.	-0.38	3	-0.45	7	-4.39	11	0.00	7	0.00	3	0.00	3
-88	Max	1.25	1	0.58	5	-1.81	3	0.00	9	0.00	1	0.00	7
-88	Min.	-0.41	3	-0.45	7	-3.43	11	0.00	7	0.00	11	0.00	3
-85	Max	1.20	1	0.58	5	-1.03	3	0.00	9	0.00	11	0.00	11
-85	Min.	-0.51	3	-0.45	7	-1.92	11	0.00	7	0.00	3	0.00	3
-84	Max	1.22	1	0.50	5	-0.92	5	0.00	9	0.01	11	0.00	7
-84	Min.	-0.49	3	-0.56	7	-1.72	11	0.00	3	0.00	3	0.00	3
-83	Max	1.23	1	0.50	5	-1.52	3	0.00	9	0.01	11	0.00	9
-83	Min.	-0.42	3	-0.56	7	-2.91	11	0.00	7	0.00	3	0.00	3
-82	Max	1.29	1	0.50	5	-2.16	3	0.00	9	0.01	9	0.00	7
-82	Min.	-0.32	3	-0.56	7	-4.02	11	0.00	1	0.01	3	0.00	3
-81	Max	1.05	1	0.50	5	-1.90	7	0.00	9	0.01	9	0.00	7
-81	Min.	-0.56	3	-0.56	7	-3.60	11	0.00	7	0.01	3	0.00	3
-80	Max	1.19	1	0.50	5	-2.34	7	0.00	12	0.01	9	0.00	7
-80	Min.	-0.47	3	-0.56	7	-4.49	11	-0.00	11	0.01	7	0.00	3
-79	Max	0.99	1	0.50	5	-1.30	7	-0.00	3	0.01	9	0.00	7
-79	Min.	-0.72	3	-0.56	7	-2.80	9	-0.01	11	0.00	3	-0.00	9
-72	Max	0.80	1	0.39	5	-1.30	7	0.00	10	-0.00	3	0.00	9
-72	Min.	-0.91	3	-0.67	7	-2.79	9	0.00	11	-0.01	9	0.00	3
-71	Max	0.80	1	0.43	5	-1.31	7	0.00	9	0.01	9	0.00	7
-71	Min.	-0.91	3	-0.68	7	-2.80	9	0.00	1	0.00	1	-0.00	11
-70	Max	0.78	1	0.46	5	-2.34	7	0.00	10	-0.00	7	0.00	10
-70	Min.	-0.88	3	-0.60	7	-4.49	11	0.00	5	-0.01	9	0.00	3
-69	Max	0.78	1	0.48	5	-2.30	7	0.00	9	0.01	11	0.00	7
-69	Min.	-0.88	3	-0.63	7	-4.33	9	0.00	5	0.00	5	0.00	3
-68	Max	0.77	1	0.52	5	-1.90	7	0.00	10	-0.01	3	0.00	10
-68	Min.	-0.83	3	-0.54	7	-3.59	11	0.00	3	-0.01	11	0.00	3

Relazione di calcolo

-67	Max	0.77	1	0.52	5	-1.90	3	0.00	9	0.01	11	0.00	10
-67	Min.	-0.83	3	-0.59	7	-3.51	11	0.00	5	0.01	1	0.00	3
-66	Max	0.94	1	0.52	5	-2.16	3	0.00	10	-0.00	3	0.00	10
-66	Min.	-0.67	3	-0.54	7	-4.02	11	0.00	3	-0.01	9	0.00	3
-65	Max	0.94	1	0.53	5	-2.17	3	0.00	9	0.01	11	0.00	10
-65	Min.	-0.67	3	-0.58	7	-3.94	9	0.00	3	0.00	5	0.00	3
-64	Max	0.98	1	0.57	5	-1.41	3	0.00	12	0.01	11	0.00	10
-64	Min.	-0.68	3	-0.53	7	-2.70	11	0.00	11	0.00	1	0.00	3
-63	Max	0.98	1	0.59	5	-1.52	3	0.00	10	-0.00	3	0.00	7
-63	Min.	-0.68	3	-0.47	7	-2.90	11	0.00	5	-0.01	11	0.00	11
-62	Max	1.01	1	0.56	5	-0.92	5	0.00	10	-0.00	3	0.00	7
-62	Min.	-0.70	3	-0.50	7	-1.72	11	0.00	1	-0.00	11	0.00	11
-61	Max	1.01	1	0.56	5	-0.91	3	0.00	9	0.00	11	0.00	9
-61	Min.	-0.70	3	-0.55	7	-1.70	11	0.00	1	0.00	7	0.00	3
-60	Max	1.01	1	0.65	5	-1.02	5	0.00	7	-0.00	7	0.00	7
-60	Min.	-0.70	3	-0.40	7	-1.89	11	0.00	11	-0.01	11	0.00	9
-59	Max	1.01	1	0.65	5	-1.03	3	0.00	13	0.01	11	0.00	11
-59	Min.	-0.70	3	-0.38	7	-1.91	11	0.00	11	0.00	1	0.00	3
-58	Max	0.98	1	0.65	5	-1.81	3	0.00	13	0.01	11	0.00	7
-58	Min.	-0.68	3	-0.38	7	-3.43	11	0.00	11	0.01	1	0.00	13
-57	Max	0.98	1	0.64	5	-1.87	1	0.00	12	-0.00	3	0.00	7
-57	Min.	-0.68	3	-0.42	7	-3.44	11	0.00	11	-0.01	11	0.00	10
-56	Max	0.94	1	0.60	5	-2.40	7	0.00	9	-0.00	3	0.00	7
-56	Min.	-0.67	3	-0.45	7	-4.36	9	0.00	7	-0.01	11	0.00	10
-55	Max	0.94	1	0.59	5	-2.36	7	0.00	10	0.01	11	0.00	7
-55	Min.	-0.67	3	-0.44	7	-4.38	11	0.00	5	0.01	7	0.00	10
-54	Max	0.77	1	0.60	5	-2.11	7	0.00	12	-0.01	3	0.00	7
-54	Min.	-0.83	3	-0.45	7	-3.88	11	0.00	11	-0.01	11	0.00	10
-53	Max	0.77	1	0.59	5	-2.07	3	0.00	10	0.01	11	0.00	7
-53	Min.	-0.83	3	-0.44	7	-3.91	11	0.00	11	0.01	1	0.00	10
-52	Max	0.78	1	0.57	5	-2.49	7	0.00	9	-0.00	5	0.00	7
-52	Min.	-0.88	3	-0.49	7	-4.67	9	0.00	5	-0.01	11	0.00	10
-51	Max	0.78	1	0.55	5	-2.50	7	0.00	10	0.01	9	0.00	7
-51	Min.	-0.88	3	-0.48	7	-4.77	11	0.00	5	0.00	3	0.00	10
-50	Max	0.80	1	0.55	5	-1.40	7	0.00	9	-0.00	3	0.00	11
-50	Min.	-0.92	3	-0.50	7	-3.01	9	0.00	3	-0.01	9	0.00	3
-49	Max	0.80	1	0.51	5	-1.41	7	0.00	9	0.01	9	0.00	7
-49	Min.	-0.92	3	-0.52	7	-2.98	9	0.00	7	0.00	7	0.00	10
-47	Max	1.18	1	0.54	5	-0.15	7	-0.00	1	0.00	9	0.00	9
-47	Min.	-0.54	3	-0.62	7	-0.39	9	-0.00	9	0.00	3	0.00	3
-46	Max	1.09	1	0.54	5	-0.95	7	0.00	5	0.00	11	0.00	7
-46	Min.	-0.57	3	-0.62	7	-1.84	9	0.00	10	0.00	7	0.00	3
-45	Max	1.13	1	0.54	5	-0.25	3	0.00	9	0.00	9	0.00	7
-45	Min.	-0.48	3	-0.63	7	-0.50	11	0.00	7	0.00	14	0.00	3
-44	Max	1.24	1	0.54	5	-0.82	7	0.00	9	0.00	9	0.00	9
-44	Min.	-0.37	3	-0.63	7	-1.50	9	0.00	1	0.00	7	0.00	3
-43	Max	1.25	1	0.54	5	0.00	3	0.00	9	0.00	9	0.00	7
-43	Min.	-0.41	3	-0.63	7	-0.19	1	0.00	7	0.00	3	0.00	3
-42	Max	1.27	1	0.54	5	-0.07	3	0.00	11	0.00	11	0.00	11
-42	Min.	-0.44	3	-0.62	7	-0.23	11	0.00	3	0.00	3	0.00	3
-41	Max	0.79	1	0.61	5	-0.13	7	-0.00	3	0.01	9	0.00	7
-41	Min.	-0.93	3	-0.47	7	-0.41	9	-0.00	9	0.00	3	-0.00	9
-40	Max	0.95	1	0.61	5	-0.98	7	0.00	5	0.01	9	0.00	7
-40	Min.	-0.71	3	-0.46	7	-1.89	9	0.00	10	0.01	5	0.00	3
-39	Max	0.81	1	0.61	5	-0.28	1	0.00	9	0.01	9	0.00	7
-39	Min.	-0.79	3	-0.46	7	-0.54	9	0.00	7	0.01	3	0.00	3
-38	Max	1.03	1	0.61	5	-0.23	1	0.00	9	0.01	11	0.00	9
-38	Min.	-0.63	3	-0.46	7	-0.47	9	0.00	7	0.01	3	0.00	3
-37	Max	1.06	1	0.61	5	-0.07	5	0.00	11	0.01	11	0.00	7
-37	Min.	-0.65	3	-0.46	7	-0.24	11	0.00	7	0.00	7	0.00	9
-36	Max	0.77	1	0.53	5	-0.25	3	0.00	14	0.02	9	0.00	7
-36	Min.	-0.83	3	-0.64	7	-0.49	11	0.00	10	0.01	7	0.00	3
-35	Max	0.78	1	0.52	5	-0.95	7	0.00	14	0.02	11	0.00	7
-35	Min.	-0.89	3	-0.64	7	-1.84	9	0.00	10	0.01	3	0.00	3
-34	Max	0.93	1	0.53	5	-0.82	7	0.00	14	0.01	11	0.00	7
-34	Min.	-0.67	3	-0.63	7	-1.50	9	0.00	10	0.01	3	0.00	3
-33	Max	0.97	1	0.53	5	0.00	3	0.00	7	0.01	11	0.00	7
-33	Min.	-0.68	3	-0.63	7	-0.19	1	0.00	10	0.01	1	0.00	3
-32	Max	1.01	1	0.53	5	-0.07	3	0.00	14	0.01	11	0.00	11
-32	Min.	-0.70	3	-0.63	7	-0.23	11	0.00	10	0.00	7	0.00	3
-31	Max	1.01	1	0.61	5	-0.07	5	0.00	7	-0.01	7	0.00	7
-31	Min.	-0.70	3	-0.46	7	-0.23	11	0.00	10	-0.01	11	0.00	11
-30	Max	0.98	1	0.60	5	-0.23	1	0.00	7	-0.01	3	0.00	7
-30	Min.	-0.68	3	-0.47	7	-0.47	9	-0.00	10	-0.02	11	0.00	3
-29	Max	0.94	1	0.61	5	-0.88	7	0.00	11	-0.01	5	0.00	7
-29	Min.	-0.67	3	-0.47	7	-1.60	9	0.00	10	-0.02	11	0.00	3
-28	Max	0.77	1	0.61	5	-0.28	1	0.00	7	-0.01	3	0.00	7
-28	Min.	-0.83	3	-0.47	7	-0.54	9	0.00	10	-0.02	11	0.00	3
-27	Max	0.78	1	0.60	5	-0.98	7	0.00	7	-0.01	5	0.00	7

Relazione di calcolo

-27	Min.	-0.88	3	-0.47	7	-1.89	9	0.00	10	-0.02	11	0.00	10
-26	Max	0.80	1	0.61	5	-0.13	7	0.00	11	-0.01	3	0.00	7
-26	Min.	-0.92	3	-0.47	7	-0.41	9	0.00	3	-0.02	9	0.00	3
-25	Max	0.80	1	0.52	5	-0.14	7	0.00	9	0.01	9	0.00	7
-25	Min.	-0.91	3	-0.64	7	-0.39	9	0.00	1	0.01	1	0.00	11
-24	Max	0.80	1	0.60	5	-0.28	1	0.00	3	0.00	1	0.00	7
-24	Min.	-0.92	3	-0.79	7	-0.47	11	0.00	7	-0.00	3	0.00	11
-23	Max	0.80	1	0.58	5	-0.61	3	0.00	1	0.00	1	0.00	7
-23	Min.	-0.92	3	-0.75	7	-1.05	11	0.00	10	-0.00	3	0.00	11
-22	Max	1.01	1	0.59	5	-0.48	3	0.00	3	0.00	1	0.00	11
-22	Min.	-0.70	3	-0.74	7	-0.89	9	0.00	7	-0.00	3	0.00	3
-21	Max	1.00	1	0.61	5	-0.26	1	0.00	5	0.00	1	0.00	11
-21	Min.	-0.71	3	-0.79	7	-0.47	11	0.00	7	-0.00	3	0.00	3
-20	Max	0.93	1	0.59	5	-0.38	5	0.00	9	0.00	1	0.00	7
-20	Min.	-0.68	3	-0.74	7	-0.78	9	0.00	7	-0.00	3	0.00	3
-19	Max	0.79	1	0.63	5	-0.47	5	0.00	9	0.00	1	0.00	7
-19	Min.	-0.87	3	-0.50	7	-0.97	9	0.00	7	-0.00	3	0.00	3
-18	Max	1.02	1	0.64	5	-0.37	5	0.00	5	0.00	1	0.00	7
-18	Min.	-0.69	3	-0.50	7	-0.76	9	0.00	7	-0.00	3	0.00	3
-17	Max	0.95	1	0.64	5	-0.27	7	0.00	5	0.00	1	0.00	7
-17	Min.	-0.66	3	-0.50	7	-0.53	9	0.00	7	-0.00	3	0.00	3
-16	Max	0.94	1	0.61	5	-0.59	7	0.00	5	0.00	1	0.00	7
-16	Min.	-0.67	3	-0.47	7	-1.08	9	0.00	9	-0.00	3	0.00	3
-15	Max	0.94	1	0.58	5	-0.64	7	0.00	5	0.00	1	0.00	7
-15	Min.	-0.67	3	-0.43	7	-1.17	11	-0.00	11	-0.00	3	0.00	3
-14	Max	0.93	1	0.53	5	-0.57	7	0.00	5	0.00	1	0.00	7
-14	Min.	-0.67	3	-0.64	7	-1.05	9	0.00	9	-0.00	3	0.00	3
-13	Max	1.10	1	0.81	5	-1.01	7	0.01	9	0.00	3	0.00	10
-13	Min.	-0.66	3	-0.30	7	-1.76	9	0.00	5	0.00	1	0.00	3
-9	Max	0.82	1	0.47	5	-0.94	5	-0.00	7	0.00	3	0.00	7
-9	Min.	-0.94	3	-0.64	7	-1.63	9	-0.01	9	0.00	7	0.00	3
-8	Max	0.78	1	0.36	5	-0.99	3	-0.00	7	0.00	3	0.00	11
-8	Min.	-0.98	3	-0.89	7	-1.77	9	-0.01	9	0.00	1	0.00	10
-4	Max	0.99	1	0.75	5	-1.01	3	0.01	9	0.00	3	0.00	7
-4	Min.	-0.76	3	-0.50	7	-1.78	9	0.00	5	0.00	7	0.00	10
101	Max	0.78	1	0.60	5	0.07	1	-0.00	7	0.00	1	0.00	7
101	Min.	-0.98	3	-0.79	7	-0.10	3	-0.00	11	-0.00	3	0.00	11
102	Max	0.78	1	0.58	5	0.08	3	-0.00	7	0.00	1	0.00	7
102	Min.	-0.98	3	-0.75	7	-0.08	1	-0.01	11	-0.00	3	-0.00	11
103	Max	0.77	1	0.60	5	-0.00	7	0.00	11	0.00	1	0.00	7
103	Min.	-0.89	3	-0.79	7	-0.01	11	0.00	5	-0.00	3	0.00	10
104	Max	0.77	1	0.58	5	-0.02	3	0.00	11	0.00	1	0.00	7
104	Min.	-0.89	3	-0.74	7	-0.03	9	0.00	3	-0.00	3	0.00	3
105	Max	0.97	1	0.61	5	-0.00	5	0.00	7	0.00	1	0.00	7
105	Min.	-0.69	3	-0.78	7	-0.01	11	-0.00	11	-0.00	3	0.00	10
106	Max	0.97	1	0.59	5	-0.02	3	0.00	12	0.00	1	0.00	7
106	Min.	-0.69	3	-0.74	7	-0.04	9	0.00	5	-0.00	3	0.00	3
107	Max	0.99	1	0.61	5	0.09	1	0.00	11	0.00	1	0.00	11
107	Min.	-0.76	3	-0.79	7	-0.08	3	0.00	3	-0.00	3	0.00	3
108	Max	0.99	1	0.59	5	0.06	3	0.01	9	0.00	1	0.00	11
108	Min.	-0.76	3	-0.73	7	-0.10	1	0.00	5	-0.00	3	0.00	3
109	Max	0.78	1	0.52	5	0.05	5	0.00	10	0.00	1	0.00	9
109	Min.	-0.98	3	-0.65	7	-0.06	7	0.00	5	-0.00	3	0.00	14
110	Max	0.78	1	0.53	5	-0.69	7	0.00	5	0.00	1	0.00	7
110	Min.	-0.89	3	-0.64	7	-1.37	9	0.00	7	-0.00	3	0.00	3
111	Max	0.97	1	0.53	5	-0.03	5	0.00	9	0.01	1	0.00	7
111	Min.	-0.68	3	-0.64	7	-0.05	9	0.00	3	-0.00	3	0.00	10
112	Max	0.99	1	0.53	5	0.05	7	0.00	7	0.00	1	0.00	7
112	Min.	-0.76	3	-0.64	7	-0.05	5	0.00	5	-0.00	3	0.00	9
113	Max	1.01	1	0.53	5	0.04	5	0.00	7	0.00	1	0.00	11
113	Min.	-0.70	3	-0.64	7	-0.06	7	0.00	5	-0.00	3	0.00	3
114	Max	0.80	1	0.53	5	0.04	7	-0.00	7	0.00	1	0.00	7
114	Min.	-0.91	3	-0.64	7	-0.07	5	-0.00	9	-0.00	3	0.00	11
115	Max	0.76	1	0.59	5	-0.01	7	-0.00	7	0.00	1	0.00	7
115	Min.	-0.84	3	-0.74	7	-0.03	9	-0.00	9	-0.00	3	0.00	9
116	Max	0.77	1	0.53	5	-0.03	7	0.00	7	0.00	1	0.00	7
116	Min.	-0.83	3	-0.64	7	-0.06	9	0.00	5	-0.00	3	0.00	3
117	Max	0.80	1	0.58	5	-0.02	5	-0.00	13	0.00	1	0.00	7
117	Min.	-0.92	3	-0.43	7	-0.04	9	-0.01	11	-0.00	3	0.00	3
118	Max	0.78	1	0.58	5	-0.97	7	0.00	11	0.00	1	0.00	7
118	Min.	-0.88	3	-0.43	7	-1.85	11	0.00	7	-0.00	3	0.00	3
119	Max	0.77	1	0.58	5	-0.03	7	0.00	11	0.00	1	0.00	7
119	Min.	-0.83	3	-0.43	7	-0.06	11	0.00	5	-0.00	3	0.00	3
120	Max	0.98	1	0.58	5	-0.02	5	0.00	11	0.00	1	0.00	7
120	Min.	-0.68	3	-0.43	7	-0.04	9	0.00	5	-0.00	3	0.00	3
121	Max	1.01	1	0.58	5	-0.01	7	0.00	7	0.00	1	0.00	7
121	Min.	-0.70	3	-0.43	7	-0.01	11	-0.00	11	-0.00	3	0.00	3
122	Max	0.80	1	0.60	5	0.02	7	-0.00	7	0.00	1	0.00	7
122	Min.	-0.92	3	-0.47	7	-0.07	5	-0.00	9	-0.00	3	0.00	3

Relazione di calcolo

123	Max	0.78	1	0.61	5	-0.70	7	0.00	5	0.00	1	0.00	7
123	Min.	-0.88	3	-0.47	7	-1.37	9	0.00	7	-0.00	3	0.00	3
124	Max	0.77	1	0.61	5	-0.04	7	0.00	7	0.00	1	0.00	7
124	Min.	-0.83	3	-0.47	7	-0.06	9	0.00	5	-0.00	3	0.00	3
125	Max	0.98	1	0.61	5	-0.03	5	0.00	9	0.00	1	0.00	7
125	Min.	-0.68	3	-0.47	7	-0.05	9	0.00	5	-0.00	3	0.00	3
126	Max	1.01	1	0.61	5	0.04	5	0.00	7	0.00	1	0.00	7
126	Min.	-0.70	3	-0.47	7	-0.05	7	0.00	11	-0.00	3	0.00	11
127	Max	1.09	1	0.61	5	0.04	7	0.00	7	0.00	1	0.00	9
127	Min.	-0.66	3	-0.47	7	-0.06	5	0.00	5	-0.00	3	0.00	3
128	Max	0.82	1	0.60	5	0.05	5	0.00	10	0.00	1	0.00	7
128	Min.	-0.94	3	-0.47	7	-0.04	7	0.00	5	-0.00	3	0.00	9
129	Max	0.82	1	0.63	5	-0.00	5	0.00	10	0.00	1	0.00	9
129	Min.	-0.94	3	-0.51	7	-0.01	10	0.00	5	-0.00	3	0.00	3
130	Max	0.81	1	0.63	5	-0.01	7	-0.00	7	0.00	1	0.00	9
130	Min.	-0.91	3	-0.51	7	-0.03	9	-0.00	9	-0.00	3	0.00	3
131	Max	0.78	1	0.64	5	-0.02	5	0.00	9	0.00	1	0.00	7
131	Min.	-0.82	3	-0.50	7	-0.04	9	0.00	5	-0.00	3	0.00	3
132	Max	0.98	1	0.64	5	-0.02	5	0.00	7	0.00	1	0.00	7
132	Min.	-0.67	3	-0.50	7	-0.04	9	0.00	10	-0.00	3	0.00	3
133	Max	1.10	1	0.64	5	-0.01	7	0.00	9	0.00	1	0.00	7
133	Min.	-0.66	3	-0.50	7	-0.02	9	0.00	5	-0.00	3	-0.00	9

Min = -49.60
Max = 4.80

Reazioni vincolari

Simbologia

Nodo = Numero del nodo
Rx = Reazione vincolare (forza) in dir. X
CC = Numero della combinazione delle condizioni di carico elementari
Ry = Reazione vincolare (forza) in dir. Y
Rz = Reazione vincolare (forza) in dir. Z
Mx = Reazione vincolare (momento) intorno all'asse X
My = Reazione vincolare (momento) intorno all'asse Y
Mz = Reazione vincolare (momento) intorno all'asse Z

Nodo		Rx <daN>	CC	Ry <daN>	CC	Rz <daN>	CC	Mx <daNm>	CC	My <daNm>	CC	Mz <daNm>	CC
1	Max	13809.50	3	296.86	7	41798.40	3	212.74	10	725.98	3	0.05	11
1	Min.	-10443.00	1	-294.59	10	-30797.20	1	-516.73	7	-665.78	11	-0.06	7
2	Max	13487.20	3	340.02	7	34688.80	1	456.80	10	743.98	3	0.34	11
2	Min.	-10782.00	1	-834.18	10	-38065.10	3	-533.21	7	-533.00	1	0.13	7
3	Max	181.29	3	107.41	7	1351.29	11	431.10	10	659.64	3	0.04	10
3	Min.	-879.00	11	-382.56	10	774.48	7	-277.62	7	-784.36	11	-0.03	7
4	Max	216.39	3	43.49	7	6628.30	9	546.32	5	703.31	3	-0.04	3
4	Min.	-99.70	1	-326.33	5	3798.76	3	-157.92	7	-497.81	1	-0.11	7
5	Max	142.63	3	238.06	7	1351.14	11	277.29	5	512.72	3	0.04	10
5	Min.	-886.41	11	-307.66	10	774.68	5	-408.23	7	-812.46	11	-0.04	7
6	Max	183.31	3	221.52	7	9141.62	9	344.55	10	563.31	3	0.04	3
6	Min.	-132.31	1	-402.82	10	5021.07	3	-411.93	7	-635.07	1	-0.03	7
7	Max	10777.90	3	48.68	7	32797.40	3	516.25	5	567.20	3	0.04	3
7	Min.	-13346.80	1	-395.64	10	-39418.50	1	-169.20	7	-700.86	1	-0.07	11
8	Max	10456.50	3	2.08	7	43311.80	1	847.02	10	583.05	3	-0.13	3
8	Min.	-13685.10	1	-884.88	10	-29064.80	3	-134.15	7	-687.14	1	-0.33	11
9	Max	156.17	3	7526.14	7	26656.30	7	831.00	10	671.18	3	-0.02	14
9	Min.	-178.39	1	-5333.69	5	-19125.30	5	-241.09	7	-602.42	1	-0.12	9
11	Max	336.57	9	50.69	7	10910.40	9	484.70	5	736.00	3	0.06	10
11	Min.	-6.02	1	-290.09	5	5727.84	5	-155.03	7	-481.77	1	-0.02	7
12	Max	114.06	3	6820.59	7	22313.90	5	417.50	10	511.78	3	0.17	9
12	Min.	-218.77	1	-6073.17	5	-23457.10	7	-268.42	7	-755.18	1	0.02	7
13	Max	111.69	3	7167.77	7	26746.00	7	357.18	10	478.73	3	0.02	3
13	Min.	-213.45	1	-5752.48	5	-18468.40	5	-357.36	7	-757.14	1	-0.09	11
14	Max	162.06	3	7169.82	7	25117.90	5	122.87	5	646.40	3	0.03	11
14	Min.	-166.66	1	-5720.68	5	-20469.50	7	-463.10	7	-597.34	1	-0.06	7
15	Max	217.59	3	290.22	7	5872.70	9	195.50	5	679.73	3	0.14	9
15	Min.	-806.82	11	-71.63	5	2759.81	7	-499.32	7	-713.06	11	0.03	7
16	Max	164.00	3	163.30	7	14076.10	9	283.57	5	609.87	3	0.04	3
16	Min.	-142.82	1	-149.45	5	7647.81	7	-321.08	7	-551.00	1	-0.04	7
17	Max	173.65	3	504.58	11	7926.30	9	533.12	10	660.98	3	0.01	3
17	Min.	-153.37	1	-1067.17	10	3882.47	5	-629.09	11	-580.65	1	-0.07	7
19	Max	158.21	3	112.32	7	13726.20	11	286.36	5	601.44	3	0.05	3
19	Min.	-147.15	1	-157.87	5	7471.68	7	-235.91	7	-557.62	1	-0.03	7
20	Max	130.28	3	6.23	7	9611.00	9	451.43	5	493.36	3	0.05	3
20	Min.	-185.30	1	-275.39	5	5152.05	5	-85.28	7	-704.99	1	-0.03	7
21	Max	132.89	3	175.12	7	2969.18	11	516.17	10	504.15	3	0.03	3
21	Min.	-192.97	1	-712.72	10	1542.50	7	-314.93	7	-732.60	1	-0.04	7
22	Max	188.37	3	5267.69	7	28244.00	5	162.64	5	679.66	3	0.09	3
22	Min.	-138.71	1	-6588.74	5	-13691.00	7	-376.41	7	-562.03	1	0.02	7

Relazione di calcolo

24	Max	156.05	3	120.77	7	14181.00	9	318.89	5	598.21	3	0.04	3
24	Min.	-150.51	1	-166.36	5	7716.74	7	-236.59	7	-562.33	1	-0.04	7
25	Max	130.17	3	35.33	7	10673.90	9	460.51	5	493.02	3	0.00	3
25	Min.	-186.14	1	-278.13	5	5701.17	5	-128.21	7	-706.23	1	-0.07	7
26	Max	151.62	3	5278.14	7	20176.70	7	341.98	10	526.89	3	0.06	11
26	Min.	-173.35	1	-6605.55	5	-21410.80	5	-268.80	7	-708.75	1	-0.02	7
27	Max	156.08	3	4929.24	7	25346.70	5	407.37	10	515.57	3	-0.02	3
27	Min.	-177.98	1	-6930.18	5	-16752.10	7	-192.51	7	-752.91	1	-0.16	9
28	Max	208.58	3	5631.87	7	19872.00	7	820.94	10	718.50	3	0.12	9
28	Min.	-127.23	1	-6195.78	5	-22236.20	5	-163.67	7	-556.65	1	0.03	7
29	Max	150.40	3	110.66	7	1549.48	10	828.09	10	644.37	3	-0.02	3
29	Min.	-525.08	11	-1143.71	10	631.86	5	-230.54	7	-630.38	1	-0.17	9
30	Max	117.92	3	213.09	7	6555.31	9	247.67	5	589.38	3	-0.06	3
30	Min.	-567.45	11	-106.36	5	3226.41	7	-359.85	7	-652.25	1	-0.20	9
31	Max	95.20	3	108.64	7	8423.24	9	351.30	5	519.04	3	0.06	3
31	Min.	-583.94	11	-187.94	5	4302.49	5	-227.33	7	-657.68	11	-0.02	7
32	Max	67.65	3	149.36	7	8144.04	9	315.55	5	412.11	3	0.03	3
32	Min.	-582.20	11	-159.24	5	4190.13	5	-278.25	7	-786.85	1	-0.04	7
33	Max	91.75	3	26.11	7	3343.50	9	718.89	10	433.69	3	0.41	9
33	Min.	-551.96	11	-799.98	10	1868.19	7	-148.67	7	-835.03	1	0.17	7

Sollecitazioni aste

Simbologia

Asta = Numero dell'asta
N1 = Nodo1
N2 = Nodo2
X = Coordinata progressiva rispetto al nodo iniziale
N = Sforzo normale
CC = Numero della combinazione delle condizioni di carico elementari
Ty = Taglio in dir. Y
Mz = Momento flettente intorno all'asse Z
Tz = Taglio in dir. Z
My = Momento flettente intorno all'asse Y
Mx = Momento torcente intorno all'asse X

Asta	N1	N2		X <cm>	N <daN>	CC	Ty <daN>	CC	Mz <daNm>	CC	Tz <daN>	CC	My <daNm>	CC	Mx <daNm>	CC
0	2	101	Max	0.00	24134.20	3	0.00	1	0.00	1	14.49	9	0.00	1	0.00	1
0	2	101	Max	227.43									16.48	9		
0	2	101	Max	454.86	24168.10	3	0.00	1	0.00	1	-11.15	1	0.00	9	0.00	1
0	2	101	Min.	0.00	-19408.80	1	0.00	1	0.00	1	11.15	1	0.00	1	0.00	1
0	2	101	Min.	227.43									12.68	1		
0	2	101	Min.	454.86	-19374.90	1	0.00	1	0.00	1	-14.49	9	0.00	1	0.00	1
0	1	102	Max	0.00	18734.80	1	0.00	1	0.00	1	14.49	9	0.00	1	0.00	1
0	1	102	Max	227.43									16.48	9		
0	1	102	Max	454.86	18768.70	1	0.00	1	0.00	1	-11.15	1	0.00	9	0.00	1
0	1	102	Min.	0.00	-24780.90	3	0.00	1	0.00	1	11.15	1	0.00	1	0.00	1
0	1	102	Min.	227.43									12.68	1		
0	1	102	Min.	454.86	-24747.00	3	0.00	1	0.00	1	-14.49	9	0.00	1	0.00	1
0	103	-23	Max	0.00	345.25	10	-0.10	1	0.27	9	5.77	9	0.00	1	-0.01	5
0	103	-23	Max	176.22					-0.06	9			5.10	9		
0	103	-23	Max	353.55	345.25	10	-0.10	1	-0.21	1	-4.44	1	0.00	1	-0.01	5
0	103	-23	Min.	0.00	85.23	1	-0.20	11	0.15	1	4.44	1	0.00	1	-0.04	11
0	103	-23	Min.	176.22					-0.03	1			3.92	1		
0	103	-23	Min.	353.55	85.23	1	-0.20	11	-0.44	11	-5.77	9	0.00	9	-0.04	11
0	-24	104	Max	0.00	-57.63	1	0.15	9	0.09	11	5.77	9	0.00	1	0.05	11
0	-24	104	Max	176.22					0.14	9			5.10	9		
0	-24	104	Max	353.55	-57.63	1	0.15	9	0.40	9	-4.44	1	0.00	1	0.05	11
0	-24	104	Min.	0.00	-325.93	10	0.05	14	-0.13	10	4.44	1	0.00	1	0.02	3
0	-24	104	Min.	176.22					0.09	1			3.92	1		
0	-24	104	Min.	353.55	-325.93	10	0.05	14	0.23	14	-5.77	9	0.00	9	0.02	3
0	-213	-200	Max	0.00	-772.84	3	0.94	9	-0.72	5	1.29	9	0.00	1	0.00	10
0	-213	-200	Max	157.03					0.18	9			1.01	9		
0	-213	-200	Max	315.29	-772.79	3	0.94	9	1.67	9	-0.99	1	0.00	1	0.00	10
0	-213	-200	Min.	0.00	-1561.72	11	0.52	5	-1.30	9	0.99	1	0.00	1	0.00	14
0	-213	-200	Min.	157.03					0.10	1			0.78	1		
0	-213	-200	Min.	315.29	-1561.65	11	0.52	5	0.92	5	-1.29	9	0.00	9	0.00	14
0	-214	-199	Max	0.00	-803.94	14	-0.69	3	2.36	9	1.29	9	0.00	1	0.00	1
0	-214	-199	Max	157.03					0.37	9			1.01	9		
0	-214	-199	Max	315.29	-803.88	14	-0.69	3	-0.92	3	-0.99	1	0.00	1	0.00	1
0	-214	-199	Min.	0.00	-1655.39	9	-1.27	9	1.26	3	0.99	1	0.00	1	0.00	9
0	-214	-199	Min.	157.03					0.18	1			0.78	1		
0	-214	-199	Min.	315.29	-1655.32	9	-1.27	9	-1.64	9	-1.29	9	0.00	9	0.00	9
0	-212	-199	Max	0.00	-1089.32	3	1.20	9	-1.20	3	1.40	9	0.00	1	0.00	11
0	-212	-199	Max	171.61					-0.13	9			1.20	9		
0	-212	-199	Max	343.23	-1089.27	3	1.20	9	1.93	9	-1.08	1	0.00	9	0.00	11
0	-212	-199	Min.	0.00	-1928.41	11	0.66	3	-2.19	9	1.08	1	0.00	9	0.00	3
0	-212	-199	Min.	171.61					-0.08	1			0.92	1		
0	-212	-199	Min.	343.23	-1928.33	11	0.66	3	1.05	5	-1.40	9	0.00	1	0.00	3

Relazione di calcolo

0	-213	-198	Max	0.00	-709.13	5	-0.53	3	1.89	9	1.40	9	0.00	1	0.00	3
0	-213	-198	Max	171.61					0.18	9			1.20	9		
0	-213	-198	Max	343.23	-709.07	5	-0.53	3	-0.83	3	-1.08	1	0.00	9	0.00	3
0	-213	-198	Min.	0.00	-1418.93	9	-1.00	9	1.00	3	1.08	1	0.00	9	0.00	9
0	-213	-198	Min.	171.61					0.09	1			0.92	1		
0	-213	-198	Min.	343.23	-1418.85	9	-1.00	9	-1.54	9	-1.40	9	0.00	1	0.00	9
0	-23	110	Max	0.00	98.43	11	-0.01	13	0.27	11	10.16	9	0.00	1	0.01	10
0	-23	110	Max	310.86					0.04	9			15.81	9		
0	-23	110	Max	622.41	98.43	11	-0.01	13	-0.01	13	-7.82	1	0.00	1	0.01	10
0	-23	110	Min.	0.00	-493.52	10	-0.07	11	0.06	13	7.82	1	0.00	1	0.00	7
0	-23	110	Min.	310.85					0.02	1			12.16	1		
0	-23	110	Min.	622.41	-493.52	10	-0.07	11	-0.17	11	-10.16	9	0.00	9	0.00	7
0	9	114	Max	0.00	10699.00	5	0.00	1	0.00	1	12.17	9	0.00	1	0.00	1
0	9	114	Max	217.08									13.21	9		
0	9	114	Max	434.17	10732.80	5	0.00	1	0.00	1	-9.36	1	0.00	9	0.00	1
0	9	114	Min.	0.00	-15371.50	7	0.00	1	0.00	1	9.36	1	0.00	1	0.00	1
0	9	114	Min.	217.08									10.16	1		
0	9	114	Min.	434.17	-15337.60	7	0.00	1	0.00	1	-12.17	9	0.00	1	0.00	1
0	14	109	Max	0.00	14237.40	7	0.00	1	0.00	1	12.17	9	0.00	1	0.00	1
0	14	109	Max	217.08									13.21	9		
0	14	109	Max	434.17	14271.20	7	0.00	1	0.00	1	-9.36	1	0.00	9	0.00	1
0	14	109	Min.	0.00	-11797.20	5	0.00	1	0.00	1	9.36	1	0.00	1	0.00	1
0	14	109	Min.	217.08									10.16	1		
0	14	109	Min.	434.17	-11763.30	5	0.00	1	0.00	1	-12.17	9	0.00	1	0.00	1
0	-200	-183	Max	0.00	-800.89	14	-0.48	3	1.48	9	1.29	9	0.00	1	0.00	12
0	-200	-183	Max	157.27					0.11	9			1.01	9		
0	-200	-183	Max	315.26	-800.84	14	-0.48	3	-0.72	3	-0.99	1	0.00	1	0.00	12
0	-200	-183	Min.	0.00	-1590.62	9	-0.88	9	0.81	3	0.99	1	0.00	9	0.00	11
0	-200	-183	Min.	157.27					0.04	1			0.78	1		
0	-200	-183	Min.	315.26	-1590.55	9	-0.88	9	-1.28	9	-1.29	9	0.00	9	0.00	11
0	-199	-184	Max	0.00	-725.89	7	1.22	9	-0.85	5	1.29	9	0.00	1	0.00	9
0	-199	-184	Max	157.27					0.32	9			1.01	9		
0	-199	-184	Max	315.26	-725.84	7	1.22	9	2.24	9	-0.99	1	0.00	1	0.00	9
0	-199	-184	Min.	0.00	-1411.99	11	0.63	5	-1.60	9	0.99	1	0.00	9	0.00	14
0	-199	-184	Min.	157.27					0.15	1			0.78	1		
0	-199	-184	Min.	315.26	-1411.93	11	0.63	5	1.14	5	-1.29	9	0.00	9	0.00	14
0	104	114	Max	0.00	729.13	10	0.11	10	-0.16	14	10.16	9	0.00	1	-0.03	7
0	104	114	Max	310.86					-0.05	9			15.81	9		
0	104	114	Max	622.41	729.13	10	0.11	10	0.29	10	-7.82	1	0.00	1	-0.03	7
0	104	114	Min.	0.00	90.76	14	0.03	14	-0.38	10	7.82	1	0.00	1	-0.05	9
0	104	114	Min.	310.85					-0.03	1			12.16	1		
0	104	114	Min.	622.41	90.76	14	0.03	14	0.04	14	-10.16	9	0.00	9	-0.05	9
0	-199	-182	Max	0.00	-639.97	1	-0.54	5	1.76	9	1.40	9	0.00	1	0.00	14
0	-199	-182	Max	171.60					0.09	9			1.20	9		
0	-199	-182	Max	343.20	-639.91	1	-0.54	5	-0.87	5	-1.08	1	0.00	9	0.00	14
0	-199	-182	Min.	0.00	-1272.30	9	-0.97	9	0.97	5	1.08	1	0.00	1	0.00	10
0	-199	-182	Min.	171.60					0.05	1			0.92	1		
0	-199	-182	Min.	343.20	-1272.24	9	-0.97	9	-1.57	9	-1.40	9	0.00	1	0.00	10
0	-198	-183	Max	0.00	-965.06	3	1.16	9	-0.99	5	1.40	9	0.00	1	0.00	11
0	-198	-183	Max	171.60					0.09	9			1.20	9		
0	-198	-183	Max	343.20	-965.00	3	1.16	9	2.08	9	-1.08	1	0.00	9	0.00	11
0	-198	-183	Min.	0.00	-1713.31	9	0.60	5	-1.89	9	1.08	1	0.00	1	0.00	3
0	-198	-183	Min.	171.60					0.04	1			0.92	1		
0	-198	-183	Min.	343.20	-1713.24	9	0.60	5	1.07	5	-1.40	9	0.00	1	0.00	3
0	-197	-212	Max	0.00	-992.38	7	-0.50	7	1.58	9	1.45	9	0.00	1	0.00	7
0	-197	-212	Max	177.90					-0.09	9			1.29	9		
0	-197	-212	Max	355.80	-992.43	7	-0.50	7	-0.94	7	-1.12	1	0.00	9	0.00	7
0	-197	-212	Min.	0.00	-1934.48	9	-0.94	9	0.86	7	1.12	1	0.00	1	0.00	9
0	-197	-212	Min.	177.90					-0.04	1			0.99	1		
0	-197	-212	Min.	355.80	-1934.56	9	-0.94	9	-1.77	9	-1.45	9	0.00	1	0.00	9
0	-211	-198	Max	0.00	-896.13	13	0.89	9	-0.89	1	1.45	9	0.00	1	0.00	9
0	-211	-198	Max	177.90					-0.10	9			1.29	9		
0	-211	-198	Max	355.80	-896.07	13	0.89	9	1.49	9	-1.12	1	0.00	9	0.00	9
0	-211	-198	Min.	0.00	-1569.43	11	0.47	1	-1.69	9	1.12	1	0.00	1	0.00	3
0	-211	-198	Min.	177.90					-0.05	1			0.99	1		
0	-211	-198	Min.	355.80	-1569.35	11	0.47	1	0.79	1	-1.45	9	0.00	1	0.00	3
0	-197	-182	Max	0.00	-780.92	13	0.92	9	-0.92	1	1.45	9	0.00	1	0.00	9
0	-197	-182	Max	177.89					-0.06	9			1.29	9		
0	-197	-182	Max	355.78	-780.87	13	0.92	9	1.58	9	-1.12	1	0.00	9	0.00	9
0	-197	-182	Min.	0.00	-1374.39	11	0.50	7	-1.70	9	1.12	1	0.00	1	0.00	3
0	-197	-182	Min.	177.89					-0.04	1			0.99	1		
0	-197	-182	Min.	355.78	-1374.33	11	0.50	7	0.84	7	-1.45	9	0.00	1	0.00	3
0	-198	-181	Max	0.00	-873.61	7	-0.69	3	2.33	9	1.45	9	0.00	1	0.00	7
0	-198	-181	Max	177.89					0.07	9			1.29	9		
0	-198	-181	Max	355.78	-873.55	7	-0.69	3	-1.19	3	-1.12	1	0.00	9	0.00	7
0	-198	-181	Min.	0.00	-1703.79	9	-1.27	9	1.27	3	1.12	1	0.00	1	0.00	9
0	-198	-181	Min.	177.89					0.04	1			0.99	1		
0	-198	-181	Min.	355.78	-1703.72	9	-1.27	9	-2.20	9	-1.45	9	0.00	1	0.00	9
0	-210	-197	Max	0.00	-894.26	13	1.03	9	-0.96	3	1.38	9	0.00	1	0.00	9

Relazione di calcolo

0	-210	-197	Max	168.54					-0.03	9			1.16	9		
0	-210	-197	Max	337.09	-894.21	13	1.03	9	1.70	9	-1.06	1	0.00	9	0.00	9
0	-210	-197	Min.	0.00	-1544.07	9	0.56	3	-1.76	9	1.06	1	0.00	9	0.00	3
0	-210	-197	Min.	168.54					-0.02	1			0.89	1		
0	-210	-197	Min.	337.09	-1544.00	9	0.56	3	0.93	3	-1.38	9	0.00	1	0.00	3
0	-211	-196	Max	0.00	-1042.06	1	-0.61	3	1.88	9	1.38	9	0.00	1	0.00	3
0	-211	-196	Max	168.54					0.06	9			1.16	9		
0	-211	-196	Max	337.09	-1042.00	1	-0.61	3	-0.98	1	-1.06	1	0.00	9	0.00	3
0	-211	-196	Min.	0.00	-2035.12	9	-1.08	9	1.06	3	1.06	1	0.00	9	0.00	9
0	-211	-196	Min.	168.54					0.04	1			0.89	1		
0	-211	-196	Min.	337.09	-2035.05	9	-1.08	9	-1.75	9	-1.38	9	0.00	1	0.00	9
0	114	118	Max	0.00	622.95	10	0.00	1	0.16	10	10.61	9	0.00	1	0.03	9
0	114	118	Max	325.00					-0.01	9			17.25	9		
0	114	118	Max	650.00	622.95	10	0.00	1	-0.01	1	-8.16	1	0.00	1	0.03	9
0	114	118	Min.	0.00	39.30	1	-0.05	10	-0.02	1	8.16	1	0.00	1	0.01	7
0	114	118	Min.	325.00					-0.01	1			13.27	1		
0	114	118	Min.	650.00	39.30	1	-0.05	10	-0.16	10	-10.61	9	0.00	9	0.01	7
0	110	117	Max	0.00	14.98	1	0.01	11	0.20	10	10.61	9	0.00	1	-0.03	7
0	110	117	Max	325.00					0.04	9			17.25	9		
0	110	117	Max	650.00	14.98	1	0.01	11	0.07	11	-8.16	1	0.00	1	-0.03	7
0	110	117	Min.	0.00	-516.85	10	-0.05	10	0.01	14	8.16	1	0.00	1	-0.06	11
0	110	117	Min.	325.00					0.02	1			13.27	1		
0	110	117	Min.	650.00	-516.85	10	-0.05	10	-0.12	10	-10.61	9	0.00	9	-0.06	11
0	-46	-79	Max	0.00	-443.79	5	-0.11	14	0.10	3	1.86	9	0.00	1	0.00	7
0	-46	-79	Max	227.15					-0.28	9			2.12	9		
0	-46	-79	Max	456.08	-443.58	5	-0.11	14	-0.40	1	-1.43	1	0.00	9	0.00	7
0	-46	-79	Min.	0.00	-884.59	9	-0.16	9	0.07	14	1.43	1	0.00	1	0.00	11
0	-46	-79	Min.	227.15					-0.15	1			1.63	1		
0	-46	-79	Min.	456.08	-884.32	9	-0.16	9	-0.65	9	-1.86	9	0.00	1	0.00	11
0	-47	-80	Max	0.00	-478.75	5	0.10	9	-0.18	1	1.86	9	0.00	1	0.00	9
0	-47	-80	Max	227.15					-0.21	9			2.12	9		
0	-47	-80	Max	456.08	-478.54	5	0.10	9	0.04	7	-1.43	1	0.00	9	0.00	9
0	-47	-80	Min.	0.00	-1027.99	9	0.04	14	-0.42	9	1.43	1	0.00	1	0.00	1
0	-47	-80	Min.	364.87					-0.04	14			1.04	14		
0	-47	-80	Min.	456.08	-1027.71	9	0.04	14	-0.03	11	-1.86	9	0.00	1	0.00	1
0	105	-22	Max	0.00	187.51	11	0.10	11	-0.01	13	5.77	9	0.00	1	0.03	11
0	105	-22	Max	176.22					0.06	9			5.10	9		
0	105	-22	Max	353.55	187.51	11	0.10	11	0.26	11	-4.44	1	0.00	1	0.03	11
0	105	-22	Min.	0.00	-62.04	10	0.03	13	-0.08	11	4.44	1	0.00	1	0.00	7
0	105	-22	Min.	176.22					0.03	1			3.92	1		
0	105	-22	Min.	353.55	-62.04	10	0.03	13	0.08	13	-5.77	9	0.00	9	0.00	7
0	-21	106	Max	0.00	101.35	10	0.12	11	-0.10	1	5.77	9	0.00	1	-0.01	7
0	-21	106	Max	176.22					-0.07	9			5.10	9		
0	-21	106	Max	353.55	101.35	10	0.12	11	0.10	9	-4.44	1	0.00	1	-0.01	7
0	-21	106	Min.	0.00	-175.22	11	0.03	1	-0.32	11	4.44	1	0.00	1	-0.03	11
0	-21	106	Min.	176.22					-0.04	1			3.92	1		
0	-21	106	Min.	353.55	-175.22	11	0.03	1	0.02	1	-5.77	9	0.00	9	-0.03	11
0	-196	-181	Max	0.00	-1014.90	7	1.19	9	-1.13	3	1.38	9	0.00	1	0.00	9
0	-196	-181	Max	168.53					-0.07	9			1.16	9		
0	-196	-181	Max	337.06	-1014.85	7	1.19	9	1.95	9	-1.06	1	0.00	9	0.00	9
0	-196	-181	Min.	0.00	-1753.68	9	0.65	3	-2.08	9	1.06	1	0.00	1	0.00	3
0	-196	-181	Min.	168.53					-0.04	1			0.89	1		
0	-196	-181	Min.	337.06	-1753.61	9	0.65	3	1.06	3	-1.38	9	0.00	1	0.00	3
0	-197	-180	Max	0.00	-787.80	1	-0.50	7	1.48	9	1.38	9	0.00	1	0.00	7
0	-197	-180	Max	168.53					0.00	9			1.16	9		
0	-197	-180	Max	337.06	-787.75	1	-0.50	7	-0.83	7	-1.06	1	0.00	9	0.00	7
0	-197	-180	Min.	0.00	-1540.83	9	-0.88	9	0.84	1	1.06	1	0.00	1	0.00	9
0	-197	-180	Min.	168.53					0.00	1			0.89	1		
0	-197	-180	Min.	337.06	-1540.76	9	-0.88	9	-1.48	9	-1.38	9	0.00	1	0.00	9
0	-209	-196	Max	0.00	-1111.71	1	1.07	9	-1.05	3	1.38	9	0.00	1	0.00	9
0	-209	-196	Max	168.54					-0.09	9			1.16	9		
0	-209	-196	Max	337.09	-1111.66	1	1.07	9	1.71	9	-1.06	1	0.00	9	0.00	9
0	-209	-196	Min.	0.00	-1928.55	9	0.59	3	-1.90	9	1.06	1	0.00	1	0.00	3
0	-209	-196	Min.	168.54					-0.06	1			0.89	1		
0	-209	-196	Min.	337.09	-1928.48	9	0.59	3	0.94	3	-1.38	9	0.00	1	0.00	3
0	-210	-195	Max	0.00	-883.12	3	-0.52	3	1.65	9	1.38	9	0.00	1	0.00	3
0	-210	-195	Max	168.54					0.09	9			1.16	9		
0	-210	-195	Max	337.09	-883.07	3	-0.52	3	-0.82	3	-1.06	1	0.00	9	0.00	3
0	-210	-195	Min.	0.00	-1693.12	9	-0.93	9	0.93	3	1.06	1	0.00	1	0.00	9
0	-210	-195	Min.	168.54					0.06	1			0.89	1		
0	-210	-195	Min.	337.09	-1693.05	9	-0.93	9	-1.47	9	-1.38	9	0.00	1	0.00	9
0	-79	-113	Max	0.00	-59.36	3	20.53	9	-17.09	5	0.93	9	0.00	1	0.00	7
0	-79	-113	Max	114.02					0.79	9			0.53	9		
0	-79	-113	Max	228.04	-59.25	3	20.53	9	24.20	9	-0.71	1	0.00	1	0.00	7
0	-79	-113	Min.	0.00	-115.15	11	15.38	1	-22.61	9	0.71	1	0.00	1	0.00	9
0	-79	-113	Min.	114.02					0.45	1			0.41	1		
0	-79	-113	Min.	228.04	-115.01	11	15.38	1	17.98	1	-0.93	9	0.00	1	0.00	9
0	-45	-80	Max	0.00	-403.06	7	0.08	11	-0.01	12	1.90	9	0.00	1	0.00	7
0	-45	-80	Max	232.08					0.13	9			2.21	9		

Relazione di calcolo

0	-45	-80	Max	465.62	-402.85	7	0.08	11	0.30	11	-1.46	1	0.00	1	0.00	7
0	-45	-80	Min.	0.00	-756.40	11	0.05	12	-0.07	7	1.46	1	0.00	1	0.00	11
0	-45	-80	Min.	232.08					0.08	1			1.70	1		
0	-45	-80	Min.	465.62	-756.13	11	0.05	12	0.20	12	-1.90	9	0.00	9	0.00	11
0	-46	-81	Max	0.00	-312.76	5	-0.06	12	0.21	11	1.90	9	0.00	1	0.00	9
0	-46	-81	Max	232.08					-0.07	9			2.21	9		
0	-46	-81	Max	465.62	-312.55	5	-0.06	12	-0.19	12	-1.46	1	0.00	1	0.00	9
0	-46	-81	Min.	0.00	-602.31	11	-0.12	11	0.08	12	1.46	1	0.00	1	0.00	3
0	-46	-81	Min.	232.08					-0.03	1			1.70	1		
0	-46	-81	Min.	465.62	-602.04	11	-0.12	11	-0.34	11	-1.90	9	0.00	9	0.00	3
0	-80	-113	Max	0.00	-127.74	3	-13.53	12	19.82	10	0.93	9	0.00	1	0.00	9
0	-80	-113	Max	114.02					-0.47	9			0.53	9		
0	-80	-113	Max	228.04	-127.63	3	-13.53	12	-15.76	12	-0.71	1	0.00	1	0.00	9
0	-80	-113	Min.	0.00	-236.02	9	-17.75	10	15.10	12	0.71	1	0.00	1	0.00	5
0	-80	-113	Min.	114.02					-0.27	1			0.41	1		
0	-80	-113	Min.	228.04	-235.89	9	-17.75	10	-20.67	10	-0.93	9	0.00	1	0.00	5
0	-196	-179	Max	0.00	-997.45	3	-0.63	5	1.99	9	1.38	9	0.00	1	0.00	3
0	-196	-179	Max	168.53					0.07	9			1.16	9		
0	-196	-179	Max	337.06	-997.40	3	-0.63	5	-1.02	5	-1.06	1	0.00	9	0.00	3
0	-196	-179	Min.	0.00	-1923.68	9	-1.14	9	1.11	3	1.06	1	0.00	1	0.00	9
0	-196	-179	Min.	168.53					0.05	1			0.89	1		
0	-196	-179	Min.	337.06	-1923.61	9	-1.14	9	-1.85	9	-1.38	9	0.00	1	0.00	9
0	-195	-180	Max	0.00	-718.40	13	1.01	9	-0.97	5	1.38	9	0.00	1	0.00	9
0	-195	-180	Max	168.53					-0.08	9			1.16	9		
0	-195	-180	Max	337.06	-718.35	13	1.01	9	1.62	9	-1.06	1	0.00	9	0.00	9
0	-195	-180	Min.	0.00	-1254.54	9	0.55	5	-1.77	9	1.06	1	0.00	1	0.00	5
0	-195	-180	Min.	168.53					-0.05	1			0.89	1		
0	-195	-180	Min.	337.06	-1254.48	9	0.55	5	0.87	5	-1.38	9	0.00	1	0.00	5
0	-209	-194	Max	0.00	-1041.21	3	-0.63	7	2.01	9	1.40	9	0.00	1	0.00	3
0	-209	-194	Max	171.61					0.06	9			1.20	9		
0	-209	-194	Max	343.23	-1041.16	3	-0.63	7	-1.04	7	-1.08	1	0.00	9	0.00	3
0	-209	-194	Min.	0.00	-1955.08	9	-1.14	9	1.11	7	1.08	1	0.00	9	0.00	9
0	-209	-194	Min.	171.61					0.04	1			0.92	1		
0	-209	-194	Min.	343.23	-1955.01	9	-1.14	9	-1.89	9	-1.40	9	0.00	1	0.00	9
0	-208	-195	Max	0.00	-780.81	7	1.03	9	-1.01	3	1.40	9	0.00	1	0.00	9
0	-208	-195	Max	171.61					-0.16	9			1.20	9		
0	-208	-195	Max	343.23	-780.75	7	1.03	9	1.60	9	-1.08	1	0.00	9	0.00	9
0	-208	-195	Min.	0.00	-1400.37	9	0.54	3	-1.92	9	1.08	1	0.00	9	0.00	7
0	-208	-195	Min.	171.61					-0.08	1			0.92	1		
0	-208	-195	Min.	343.23	-1400.30	9	0.54	3	0.85	3	-1.40	9	0.00	1	0.00	7
0	-113	-95	Max	0.00	-101.51	3	18.29	10	-15.77	12	0.93	9	0.00	1	0.00	3
0	-113	-95	Max	113.58					0.20	9			0.53	9		
0	-113	-95	Max	228.04	-101.40	3	18.29	10	21.02	10	-0.71	1	0.00	9	0.00	3
0	-113	-95	Min.	0.00	-205.74	9	14.00	12	-20.69	10	0.71	1	0.00	1	0.00	9
0	-113	-95	Min.	113.58					0.01	1			0.41	1		
0	-113	-95	Min.	228.04	-205.60	9	14.00	12	16.15	12	-0.93	9	0.00	1	0.00	9
0	8	107	Max	0.00	18699.00	3	0.00	1	0.00	1	14.49	9	0.00	1	0.00	1
0	8	107	Max	227.43									16.48	9		
0	8	107	Max	454.86	18732.90	3	0.00	1	0.00	1	-11.15	1	0.00	9	0.00	1
0	8	107	Min.	0.00	-24615.20	1	0.00	1	0.00	1	11.15	1	0.00	1	0.00	1
0	8	107	Min.	227.43									12.68	1		
0	8	107	Min.	454.86	-24581.30	1	0.00	1	0.00	1	-14.49	9	0.00	1	0.00	1
0	7	108	Max	0.00	23945.30	1	0.00	1	0.00	1	14.49	9	0.00	1	0.00	1
0	7	108	Max	227.43									16.48	9		
0	7	108	Max	454.86	23979.20	1	0.00	1	0.00	1	-11.15	1	0.00	9	0.00	1
0	7	108	Min.	0.00	-19341.20	3	0.00	1	0.00	1	11.15	1	0.00	1	0.00	1
0	7	108	Min.	227.43									12.68	1		
0	7	108	Min.	454.86	-19307.30	3	0.00	1	0.00	1	-14.49	9	0.00	1	0.00	1
0	-22	111	Max	0.00	557.70	10	0.03	10	-0.05	1	10.16	9	0.00	1	0.02	9
0	-22	111	Max	310.86					-0.05	9			15.81	9		
0	-22	111	Max	622.41	557.70	10	0.03	10	0.07	10	-7.82	1	0.00	1	0.02	9
0	-22	111	Min.	0.00	55.37	1	0.01	1	-0.16	11	7.82	1	0.00	1	0.01	3
0	-22	111	Min.	310.85					-0.03	1			12.16	1		
0	-22	111	Min.	622.41	55.37	1	0.01	1	-0.01	1	-10.16	9	0.00	9	0.01	3
0	106	113	Max	0.00	82.69	1	0.05	11	-0.01	1	10.16	9	0.00	1	0.00	1
0	106	113	Max	310.86					0.03	9			15.81	9		
0	106	113	Max	622.41	82.69	1	0.05	11	0.21	11	-7.82	1	0.00	1	0.00	1
0	106	113	Min.	0.00	-344.94	10	0.01	1	-0.12	10	7.82	1	0.00	1	-0.01	9
0	106	113	Min.	310.85					0.01	1			12.16	1		
0	106	113	Min.	622.41	-344.94	10	0.01	1	0.03	1	-10.16	9	0.00	9	-0.01	9
0	-44	-81	Max	0.00	-421.87	1	0.27	9	-0.31	3	1.84	9	0.00	1	0.00	1
0	-44	-81	Max	225.03					0.02	9			2.07	9		
0	-44	-81	Max	451.48	-421.66	1	0.27	9	0.64	9	-1.41	1	0.00	1	0.00	1
0	-44	-81	Min.	0.00	-793.36	9	0.14	3	-0.59	9	1.41	1	0.00	1	0.00	11
0	-44	-81	Min.	225.03					0.01	1			1.60	1		
0	-44	-81	Min.	451.48	-793.08	9	0.14	3	0.33	3	-1.84	9	0.00	9	0.00	11
0	-45	-82	Max	0.00	-499.91	7	-0.10	7	0.37	9	1.84	9	0.00	1	0.00	11
0	-45	-82	Max	225.03					-0.09	9			2.07	9		
0	-45	-82	Max	451.48	-499.70	7	-0.10	7	-0.28	7	-1.41	1	0.00	1	0.00	11

Relazione di calcolo

0	-45	-82	Min.	0.00	-927.14	11	-0.20	9	0.18	7	1.41	1	0.00	1	0.00	1
0	-45	-82	Min.	225.03					-0.05	1			1.60	1		
0	-45	-82	Min.	451.48	-926.87	11	-0.20	9	-0.55	9	-1.84	9	0.00	9	0.00	1
0	-113	-93	Max	0.00	-44.95	7	-15.77	7	24.22	9	0.93	9	0.00	1	0.00	9
0	-113	-93	Max	113.58					0.09	9			0.53	9		
0	-113	-93	Max	228.04	-44.84	7	-15.77	7	-17.96	7	-0.71	1	0.00	9	0.00	9
0	-113	-93	Min.	0.00	-93.87	11	-21.24	9	17.99	1	0.71	1	0.00	1	0.00	7
0	-113	-93	Min.	113.58					0.08	1			0.41	1		
0	-113	-93	Min.	228.04	-93.73	11	-21.24	9	-24.23	9	-0.93	9	0.00	1	0.00	7
0	-207	-194	Max	0.00	-780.70	14	1.21	9	-1.21	3	1.29	9	0.00	1	0.00	11
0	-207	-194	Max	157.03					-0.39	9			1.01	9		
0	-207	-194	Max	315.29	-780.64	14	1.21	9	1.52	9	-0.99	1	0.00	1	0.00	11
0	-207	-194	Min.	0.00	-1464.71	9	0.65	3	-2.29	9	0.99	1	0.00	1	0.00	7
0	-207	-194	Min.	157.03					-0.20	1			0.78	1		
0	-207	-194	Min.	315.29	-1464.64	9	0.65	3	0.84	3	-1.29	9	0.00	9	0.00	7
0	-208	-193	Max	0.00	-792.72	3	-0.53	7	1.38	9	1.29	9	0.00	1	0.00	14
0	-208	-193	Max	157.03					-0.16	9			1.01	9		
0	-208	-193	Max	315.29	-792.66	3	-0.53	7	-0.92	7	-0.99	1	0.00	1	0.00	14
0	-208	-193	Min.	0.00	-1572.06	11	-0.98	9	0.76	7	0.99	1	0.00	1	0.00	10
0	-208	-193	Min.	157.03					-0.08	1			0.78	1		
0	-208	-193	Min.	315.29	-1571.98	11	-0.98	9	-1.72	9	-1.29	9	0.00	9	0.00	10
0	-194	-179	Max	0.00	-774.78	1	1.15	9	-1.10	3	1.40	9	0.00	1	0.00	9
0	-194	-179	Max	171.60					-0.04	9			1.20	9		
0	-194	-179	Max	343.20	-774.73	1	1.15	9	1.94	9	-1.08	1	0.00	9	0.00	9
0	-194	-179	Min.	0.00	-1359.75	9	0.62	3	-2.02	9	1.08	1	0.00	1	0.00	7
0	-194	-179	Min.	171.60					-0.02	1			0.92	1		
0	-194	-179	Min.	343.20	-1359.68	9	0.62	3	1.04	3	-1.40	9	0.00	1	0.00	7
0	-81	-93	Max	0.00	-144.90	7	0.18	9	-0.25	3	1.90	9	0.00	1	0.00	9
0	-81	-93	Max	232.81					-0.07	9			2.21	9		
0	-81	-93	Max	465.62	-144.69	7	0.18	9	0.35	9	-1.46	1	0.00	1	0.00	9
0	-81	-93	Min.	0.00	-293.13	9	0.10	3	-0.50	9	1.46	1	0.00	9	0.00	3
0	-81	-93	Min.	232.81					-0.03	1			1.70	1		
0	-81	-93	Min.	465.62	-292.85	9	0.10	3	0.20	3	-1.90	9	0.00	9	0.00	3
0	-80	-91	Max	0.00	-151.96	3	-0.09	7	0.54	9	1.90	9	0.00	1	0.00	1
0	-80	-91	Max	232.81					0.03	9			2.21	9		
0	-80	-91	Max	465.62	-151.75	3	-0.09	7	-0.21	3	-1.46	1	0.00	1	0.00	1
0	-80	-91	Min.	0.00	-331.25	9	-0.22	9	0.23	7	1.46	1	0.00	9	0.00	9
0	-80	-91	Min.	232.81					0.01	1			1.70	1		
0	-80	-91	Min.	465.62	-330.97	9	-0.22	9	-0.48	9	-1.90	9	0.00	9	0.00	9
0	117	-27	Max	0.00	-64.21	14	0.07	10	-0.10	1	10.16	9	0.00	1	0.02	3
0	117	-27	Max	310.86					-0.04	9			15.81	9		
0	117	-27	Max	622.41	-64.21	14	0.07	10	0.16	10	-7.82	1	0.00	1	0.02	3
0	117	-27	Min.	0.00	-601.18	10	0.03	1	-0.25	10	7.82	1	0.00	1	-0.01	7
0	117	-27	Min.	310.85					-0.01	1			12.16	1		
0	117	-27	Min.	622.41	-601.18	10	0.03	1	0.09	1	-10.16	9	0.00	9	-0.01	7
0	118	122	Max	0.00	626.55	10	0.02	10	0.08	11	10.61	9	0.00	1	-0.01	7
0	118	122	Max	325.00					-0.05	9			17.25	9		
0	118	122	Max	650.00	626.55	10	0.02	10	0.02	10	-8.16	1	0.00	1	-0.01	7
0	118	122	Min.	0.00	107.91	1	-0.04	11	-0.10	10	8.16	1	0.00	1	-0.03	9
0	118	122	Min.	325.00					-0.03	1			13.27	1		
0	118	122	Min.	650.00	107.91	1	-0.04	11	-0.15	11	-10.61	9	0.00	9	-0.03	9
0	122	28	Max	0.00	12480.70	5	0.00	1	0.00	1	12.17	9	0.00	1	0.00	1
0	122	28	Max	217.08									13.21	9		
0	122	28	Max	434.17	12446.80	5	0.00	1	0.00	1	-9.36	1	0.00	9	0.00	1
0	122	28	Min.	0.00	-11497.30	7	0.00	1	0.00	1	9.36	1	0.00	1	0.00	1
0	122	28	Min.	217.08									10.16	1		
0	122	28	Min.	434.17	-11531.20	7	0.00	1	0.00	1	-12.17	9	0.00	1	0.00	1
0	-44	-83	Max	0.00	-321.29	3	0.05	9	-0.05	3	1.84	9	0.00	1	0.00	9
0	-44	-83	Max	225.03					-0.05	9			2.07	9		
0	-44	-83	Max	451.48	-321.08	3	0.05	9	0.06	9	-1.41	1	0.00	1	0.00	9
0	-44	-83	Min.	0.00	-614.37	11	0.01	3	-0.15	9	1.41	1	0.00	1	0.00	3
0	-44	-83	Min.	361.18					-0.01	3			1.02	3		
0	-44	-83	Min.	451.48	-614.09	11	0.01	3	-0.00	1	-1.84	9	0.00	9	0.00	3
0	-43	-82	Max	0.00	-315.85	1	-0.00	7	0.09	9	1.84	9	0.00	1	0.00	7
0	-43	-82	Max	225.03					0.03	9			2.07	9		
0	-43	-82	Max	451.48	-315.64	1	-0.00	7	0.02	7	-1.41	1	0.00	1	0.00	7
0	-43	-82	Min.	0.00	-607.20	9	-0.03	9	0.02	7	1.41	1	0.00	1	0.00	11
0	-43	-82	Min.	225.03					0.02	1			1.60	1		
0	-43	-82	Min.	451.48	-606.92	9	-0.03	9	-0.03	9	-1.84	9	0.00	9	0.00	11
0	12	113	Max	0.00	13831.90	7	0.00	1	0.00	1	12.17	9	0.00	1	0.00	1
0	12	113	Max	217.08									13.21	9		
0	12	113	Max	434.17	13865.70	7	0.00	1	0.00	1	-9.36	1	0.00	9	0.00	1
0	12	113	Min.	0.00	-12324.70	5	0.00	1	0.00	1	9.36	1	0.00	1	0.00	1
0	12	113	Min.	217.08									10.16	1		
0	12	113	Min.	434.17	-12290.80	5	0.00	1	0.00	1	-12.17	9	0.00	1	0.00	1
0	-195	-178	Max	0.00	-844.79	3	-0.54	7	1.65	9	1.40	9	0.00	1	0.00	7
0	-195	-178	Max	171.60					-0.10	9			1.20	9		
0	-195	-178	Max	343.20	-844.74	3	-0.54	7	-0.99	7	-1.08	1	0.00	9	0.00	7
0	-195	-178	Min.	0.00	-1610.07	9	-1.02	9	0.89	7	1.08	1	0.00	1	0.00	9

Relazione di calcolo

0	-195	-178	Min.	171.60					-0.05	1			0.92	1		
0	-195	-178	Min.	343.20	-1610.01	9	-1.02	9	-1.85	9	-1.40	9	0.00	1	0.00	9
0	128	22	Max	0.00	10429.90	7	0.00	1	0.00	1	12.17	9	0.00	1	0.00	1
0	128	22	Max	217.08									13.21	9		
0	128	22	Max	434.17	10396.00	7	0.00	1	0.00	1	-9.36	1	0.00	9	0.00	1
0	128	22	Min.	0.00	-13516.00	5	0.00	1	0.00	1	9.36	1	0.00	1	0.00	1
0	128	22	Min.	217.08									10.16	1		
0	128	22	Min.	434.17	-13549.90	5	0.00	1	0.00	1	-12.17	9	0.00	1	0.00	1
0	-93	-41	Max	0.00	-245.64	7	0.11	11	-0.28	3	1.86	9	0.00	1	0.00	3
0	-93	-41	Max	227.15					-0.28	9			2.12	9		
0	-93	-41	Max	456.08	-245.44	7	0.11	11	0.00	11	-1.43	1	0.00	1	0.00	3
0	-93	-41	Min.	0.00	-525.97	9	0.05	12	-0.49	11	1.43	1	0.00	1	0.00	9
0	-93	-41	Min.	364.87					-0.07	14			1.04	14		
0	-93	-41	Min.	456.08	-525.70	9	0.05	12	-0.11	9	-1.86	9	0.00	1	0.00	9
0	-95	-40	Max	0.00	-241.97	7	-0.16	3	0.53	11	1.86	9	0.00	1	0.00	11
0	-95	-40	Max	227.15					-0.11	9			2.12	9		
0	-95	-40	Max	456.08	-241.76	7	-0.16	3	-0.38	7	-1.43	1	0.00	1	0.00	11
0	-95	-40	Min.	0.00	-488.80	9	-0.27	11	0.31	12	1.43	1	0.00	1	0.00	7
0	-95	-40	Min.	227.15					-0.02	1			1.63	1		
0	-95	-40	Min.	456.08	-488.53	9	-0.27	11	-0.68	11	-1.86	9	0.00	1	0.00	7
0	-82	-91	Max	0.00	-78.30	5	0.07	11	-0.12	3	1.84	9	0.00	1	0.00	11
0	-82	-91	Max	224.86					-0.09	9			2.07	9		
0	-82	-91	Max	451.48	-78.09	5	0.07	11	0.07	11	-1.41	1	0.00	1	0.00	11
0	-82	-91	Min.	0.00	-138.19	11	0.03	13	-0.23	11	1.41	1	0.00	1	0.00	7
0	-82	-91	Min.	224.86					-0.05	1			1.60	1		
0	-82	-91	Min.	451.48	-137.92	11	0.03	13	0.01	12	-1.84	9	0.00	1	0.00	7
0	13	112	Max	0.00	11615.50	5	0.00	1	0.00	1	12.17	9	0.00	1	0.00	1
0	13	112	Max	217.08									13.21	9		
0	13	112	Max	434.17	11649.40	5	0.00	1	0.00	1	-9.36	1	0.00	9	0.00	1
0	13	112	Min.	0.00	-14438.00	7	0.00	1	0.00	1	9.36	1	0.00	1	0.00	1
0	13	112	Min.	217.08									10.16	1		
0	13	112	Min.	434.17	-14404.10	7	0.00	1	0.00	1	-12.17	9	0.00	1	0.00	1
0	-194	-177	Max	0.00	-743.75	3	-0.60	7	1.60	9	1.29	9	0.00	1	0.00	14
0	-194	-177	Max	157.27					-0.24	9			1.01	9		
0	-194	-177	Max	315.26	-743.70	3	-0.60	7	-1.04	7	-0.99	1	0.00	1	0.00	14
0	-194	-177	Min.	0.00	-1425.24	11	-1.17	9	0.86	7	0.99	1	0.00	9	0.00	9
0	-194	-177	Min.	157.27					-0.11	1			0.78	1		
0	-194	-177	Min.	315.26	-1425.17	11	-1.17	9	-2.09	9	-1.29	9	0.00	9	0.00	9
0	-193	-178	Max	0.00	-741.59	14	0.82	9	-0.77	7	1.29	9	0.00	1	0.00	11
0	-193	-178	Max	157.27					-0.10	9			1.01	9		
0	-193	-178	Max	315.26	-741.54	14	0.82	9	1.19	9	-0.99	1	0.00	1	0.00	11
0	-193	-178	Min.	0.00	-1386.85	9	0.45	7	-1.38	9	0.99	1	0.00	9	0.00	9
0	-193	-178	Min.	157.27					-0.06	1			0.78	1		
0	-193	-178	Min.	315.26	-1386.78	9	0.45	7	0.66	3	-1.29	9	0.00	9	0.00	9
0	-81	-89	Max	0.00	-52.47	3	0.00	12	0.14	11	1.84	9	0.00	1	0.00	7
0	-81	-89	Max	224.86					0.08	9			2.07	9		
0	-81	-89	Max	451.48	-52.26	3	0.00	12	0.08	9	-1.41	1	0.00	1	0.00	7
0	-81	-89	Min.	0.00	-112.98	11	-0.02	11	0.05	12	1.41	1	0.00	1	0.00	9
0	-81	-89	Min.	224.86					0.05	1			1.60	1		
0	-81	-89	Min.	451.48	-112.71	11	-0.02	11	0.02	5	-1.84	9	0.00	1	0.00	9
0	-201	-186	Max	0.00	-864.77	5	0.92	9	-0.93	1	1.29	9	0.00	1	0.00	10
0	-201	-186	Max	157.27					-0.19	9			1.01	9		
0	-201	-186	Max	315.26	-864.72	5	0.92	9	1.26	9	-0.99	1	0.00	1	0.00	10
0	-201	-186	Min.	0.00	-1600.36	9	0.53	7	-1.64	9	0.99	1	0.00	9	0.00	12
0	-201	-186	Min.	157.27					-0.10	1			0.78	1		
0	-201	-186	Min.	315.26	-1600.29	9	0.53	7	0.73	7	-1.29	9	0.00	9	0.00	12
0	-185	-202	Max	0.00	-698.05	7	-0.63	5	2.17	9	1.29	9	0.00	1	0.00	1
0	-185	-202	Max	157.27					0.26	9			1.01	9		
0	-185	-202	Max	315.26	-698.10	7	-0.63	5	-0.89	5	-0.99	1	0.00	1	0.00	1
0	-185	-202	Min.	0.00	-1243.42	9	-1.21	9	1.11	5	0.99	1	0.00	9	0.00	9
0	-185	-202	Min.	157.27					0.12	1			0.78	1		
0	-185	-202	Min.	315.26	-1243.48	9	-1.21	9	-1.66	9	-1.29	9	0.00	9	0.00	9
0	-93	-39	Max	0.00	-110.74	1	-0.17	7	0.68	11	1.90	9	0.00	1	0.00	11
0	-93	-39	Max	232.08					-0.09	9			2.21	9		
0	-93	-39	Max	465.62	-110.53	1	-0.17	7	-0.45	7	-1.46	1	0.00	1	0.00	11
0	-93	-39	Min.	0.00	-217.48	11	-0.33	11	0.33	7	1.46	1	0.00	1	0.00	3
0	-93	-39	Min.	232.08					-0.06	1			1.70	1		
0	-93	-39	Min.	465.62	-217.21	11	-0.33	11	-0.87	11	-1.90	9	0.00	9	0.00	3
0	-91	-40	Max	0.00	-183.91	7	0.26	11	-0.26	3	1.90	9	0.00	1	0.00	5
0	-91	-40	Max	232.08					0.11	9			2.21	9		
0	-91	-40	Max	465.62	-183.70	7	0.26	11	0.73	11	-1.46	1	0.00	1	0.00	5
0	-91	-40	Min.	0.00	-353.96	11	0.14	3	-0.50	11	1.46	1	0.00	1	0.00	11
0	-91	-40	Min.	232.08					0.06	1			1.70	1		
0	-91	-40	Min.	465.62	-353.69	11	0.14	3	0.39	5	-1.90	9	0.00	9	0.00	11
0	111	121	Max	0.00	638.82	10	-0.01	1	0.28	10	10.61	9	0.00	1	-0.02	7
0	111	121	Max	325.00					0.03	9			17.25	9		
0	111	121	Max	650.00	638.82	10	-0.01	1	-0.03	1	-8.16	1	0.00	1	-0.02	7
0	111	121	Min.	0.00	39.22	14	-0.08	10	0.05	1	8.16	1	0.00	1	-0.04	11
0	111	121	Min.	325.00					0.01	1			13.27	1		

Relazione di calcolo

0	111	121	Min.	650.00	39.22	14	-0.08	10	-0.21	10	-10.61	9	0.00	9	-0.04	11
0	113	120	Max	0.00	34.02	11	0.03	11	0.14	10	10.61	9	0.00	1	0.03	11
0	113	120	Max	325.00					-0.03	9			17.25	9		
0	113	120	Max	650.00	34.02	11	0.03	11	0.05	11	-8.16	1	0.00	1	0.03	11
0	113	120	Min.	0.00	-604.13	10	-0.05	10	-0.17	11	8.16	1	0.00	1	0.01	7
0	113	120	Min.	325.00					-0.02	1			13.27	1		
0	113	120	Min.	650.00	-604.13	10	-0.05	10	-0.17	10	-10.61	9	0.00	9	0.01	7
0	-43	-84	Max	0.00	-368.06	1	-0.08	3	0.34	9	1.86	9	0.00	1	0.00	11
0	-43	-84	Max	227.15					-0.09	9			2.12	9		
0	-43	-84	Max	456.08	-367.85	1	-0.08	3	-0.22	3	-1.43	1	0.00	9	0.00	11
0	-43	-84	Min.	0.00	-717.70	11	-0.19	11	0.14	7	1.43	1	0.00	1	0.00	3
0	-43	-84	Min.	227.15					-0.04	1			1.63	1		
0	-43	-84	Min.	456.08	-717.43	11	-0.19	11	-0.53	11	-1.86	9	0.00	1	0.00	3
0	-42	-83	Max	0.00	-352.48	7	0.28	11	-0.25	5	1.86	9	0.00	1	0.00	3
0	-42	-83	Max	227.15					0.09	9			2.12	9		
0	-42	-83	Max	456.08	-352.27	7	0.28	11	0.71	11	-1.43	1	0.00	9	0.00	3
0	-42	-83	Min.	0.00	-657.59	9	0.13	5	-0.55	11	1.43	1	0.00	1	0.00	11
0	-42	-83	Min.	227.15					0.05	1			1.63	1		
0	-42	-83	Min.	456.08	-657.32	9	0.13	5	0.35	5	-1.86	9	0.00	1	0.00	11
0	-83	-89	Max	0.00	-127.77	7	0.22	9	-0.31	3	1.84	9	0.00	1	0.00	11
0	-83	-89	Max	224.86					-0.13	9			2.07	9		
0	-83	-89	Max	451.48	-127.56	7	0.22	9	0.36	9	-1.41	1	0.00	1	0.00	11
0	-83	-89	Min.	0.00	-227.44	9	0.11	3	-0.61	9	1.41	1	0.00	9	0.00	3
0	-83	-89	Min.	224.86					-0.06	1			1.60	1		
0	-83	-89	Min.	451.48	-227.17	9	0.11	3	0.18	3	-1.84	9	0.00	1	0.00	3
0	-82	-88	Max	0.00	-152.28	5	-0.11	7	0.61	9	1.84	9	0.00	1	0.00	1
0	-82	-88	Max	224.86					0.14	9			2.07	9		
0	-82	-88	Max	451.48	-152.07	5	-0.11	7	-0.17	7	-1.41	1	0.00	1	0.00	1
0	-82	-88	Min.	0.00	-283.44	11	-0.21	9	0.33	7	1.41	1	0.00	9	0.00	9
0	-82	-88	Min.	224.86					0.08	1			1.60	1		
0	-82	-88	Min.	451.48	-283.16	11	-0.21	9	-0.33	9	-1.84	9	0.00	1	0.00	9
0	-187	-202	Max	0.00	-713.70	3	0.92	9	-0.83	3	1.41	9	0.00	1	0.00	9
0	-187	-202	Max	171.84					0.08	9			1.21	9		
0	-187	-202	Max	344.75	-713.75	3	0.92	9	1.66	9	-1.08	1	0.00	1	0.00	9
0	-187	-202	Min.	0.00	-1366.00	9	0.50	3	-1.50	9	1.08	1	0.00	1	0.00	3
0	-187	-202	Min.	171.84					0.03	1			0.93	1		
0	-187	-202	Min.	344.75	-1366.07	9	0.50	3	0.91	3	-1.41	9	0.00	9	0.00	3
0	-186	-203	Max	0.00	-885.77	1	-0.64	5	2.17	9	1.41	9	0.00	1	0.00	5
0	-186	-203	Max	172.48					0.11	9			1.22	9		
0	-186	-203	Max	346.31	-885.82	1	-0.64	5	-1.05	5	-1.09	1	0.00	1	0.00	5
0	-186	-203	Min.	0.00	-1571.46	9	-1.19	9	1.16	5	1.09	1	0.00	1	0.00	9
0	-186	-203	Min.	172.48					0.06	1			0.94	1		
0	-186	-203	Min.	346.31	-1571.53	9	-1.19	9	-1.96	9	-1.41	9	0.00	1	0.00	9
0	-216	-201	Max	0.00	-961.03	7	-0.49	3	1.24	9	1.29	9	0.00	1	0.00	13
0	-216	-201	Max	157.03					-0.19	9			1.01	9		
0	-216	-201	Max	315.29	-960.98	7	-0.49	3	-0.87	3	-0.99	1	0.00	1	0.00	13
0	-216	-201	Min.	0.00	-1757.34	9	-0.91	9	0.68	3	0.99	1	0.00	1	0.00	9
0	-216	-201	Min.	157.03					-0.09	1			0.78	1		
0	-216	-201	Min.	315.29	-1757.27	9	-0.91	9	-1.63	9	-1.29	9	0.00	9	0.00	9
0	-202	-215	Max	0.00	-800.61	5	1.09	9	-0.74	7	1.29	9	0.00	1	0.00	9
0	-202	-215	Max	157.03					0.37	9			1.01	9		
0	-202	-215	Max	315.29	-800.66	5	1.09	9	2.10	9	-0.99	1	0.00	1	0.00	9
0	-202	-215	Min.	0.00	-1408.35	9	0.58	7	-1.34	9	0.99	1	0.00	1	0.00	3
0	-202	-215	Min.	157.03					0.17	1			0.78	1		
0	-202	-215	Min.	315.29	-1408.42	9	0.58	7	1.09	7	-1.29	9	0.00	9	0.00	3
0	130	-27	Max	0.00	178.54	11	0.11	11	-0.24	13	10.61	9	0.00	1	-0.03	3
0	130	-27	Max	325.00					-0.13	9			17.25	9		
0	130	-27	Max	650.00	178.54	11	0.11	11	0.27	11	-8.16	1	0.00	1	-0.03	3
0	130	-27	Min.	0.00	-149.03	10	0.04	13	-0.46	11	8.16	1	0.00	1	-0.06	9
0	130	-27	Min.	325.00					-0.05	1			13.27	1		
0	130	-27	Min.	650.00	-149.03	10	0.04	13	0.05	13	-10.61	9	0.00	9	-0.06	9
0	122	-19	Max	0.00	398.57	10	-0.04	1	0.26	10	10.22	9	0.00	1	0.03	9
0	122	-19	Max	311.96					0.04	9			15.99	9		
0	122	-19	Max	625.88	398.57	10	-0.04	1	-0.09	1	-7.86	1	0.00	1	0.03	9
0	122	-19	Min.	0.00	-8.59	1	-0.07	10	0.13	14	7.86	1	0.00	1	0.01	7
0	122	-19	Min.	311.96					0.02	1			12.30	1		
0	122	-19	Min.	625.88	-8.59	1	-0.07	10	-0.19	10	-10.22	9	0.00	9	0.01	7
0	-91	-97	Max	0.00	-246.16	7	-0.23	3	0.87	9	1.84	9	0.00	1	0.00	11
0	-91	-97	Max	225.04					-0.09	9			2.07	9		
0	-91	-97	Max	451.48	-245.95	7	-0.23	3	-0.56	3	-1.41	1	0.00	1	0.00	11
0	-91	-97	Min.	0.00	-474.01	9	-0.43	9	0.45	3	1.41	1	0.00	1	0.00	1
0	-91	-97	Min.	225.03					-0.05	1			1.60	1		
0	-91	-97	Min.	451.48	-473.74	9	-0.43	9	-1.06	9	-1.84	9	0.00	9	0.00	1
0	-89	-39	Max	0.00	-222.69	1	0.47	9	-0.53	3	1.84	9	0.00	1	0.00	3
0	-89	-39	Max	225.04					0.07	9			2.07	9		
0	-89	-39	Max	451.48	-222.48	1	0.47	9	1.14	9	-1.41	1	0.00	1	0.00	3
0	-89	-39	Min.	0.00	-414.86	11	0.25	3	-1.00	9	1.41	1	0.00	1	0.00	9
0	-89	-39	Min.	225.03					0.03	1			1.60	1		
0	-89	-39	Min.	451.48	-414.58	11	0.25	3	0.60	3	-1.84	9	0.00	9	0.00	9

Relazione di calcolo

0	-83	-85	Max	0.00	-80.26	5	0.06	9	-0.00	1	1.86	9	0.00	1	0.00	14
0	-83	-85	Max	228.04					0.07	9			2.12	9		
0	-83	-85	Max	456.08	-80.05	5	0.06	9	0.23	11	-1.43	1	0.00	9	0.00	14
0	-83	-85	Min.	0.00	-153.17	11	0.02	1	-0.07	9	1.43	1	0.00	9	0.00	10
0	-83	-85	Min.	228.04					0.05	1			1.63	1		
0	-83	-85	Min.	456.08	-152.90	11	0.02	1	0.10	1	-1.86	9	0.00	1	0.00	10
0	-84	-88	Max	0.00	-43.06	13	0.01	7	0.07	11	1.86	9	0.00	1	0.00	11
0	-84	-88	Max	228.04					-0.00	9			2.12	9		
0	-84	-88	Max	456.08	-42.85	13	0.01	7	0.01	7	-1.43	1	0.00	9	0.00	11
0	-84	-88	Min.	0.00	-81.60	11	-0.03	9	-0.04	7	1.43	1	0.00	9	0.00	13
0	-84	-88	Min.	228.04					-0.01	1			1.63	1		
0	-84	-88	Min.	456.08	-81.33	11	-0.03	9	-0.07	9	-1.86	9	0.00	1	0.00	13
0	-203	-216	Max	0.00	-958.69	3	1.23	9	-1.00	3	1.41	9	0.00	1	0.00	9
0	-203	-216	Max	172.63					0.27	9			1.22	9		
0	-203	-216	Max	346.34	-958.75	3	1.23	9	2.40	9	-1.09	1	0.00	1	0.00	9
0	-203	-216	Min.	0.00	-1840.05	9	0.66	3	-1.85	9	1.09	1	0.00	1	0.00	3
0	-203	-216	Min.	172.63					0.14	1			0.94	1		
0	-203	-216	Min.	346.34	-1840.13	9	0.66	3	1.28	7	-1.41	9	0.00	1	0.00	3
0	-217	-202	Max	0.00	-818.80	7	-0.56	5	1.83	9	1.42	9	0.00	1	0.00	1
0	-217	-202	Max	173.41					0.06	9			1.23	9		
0	-217	-202	Max	347.90	-818.74	7	-0.56	5	-0.94	5	-1.09	1	0.00	1	0.00	1
0	-217	-202	Min.	0.00	-1451.80	9	-1.02	9	0.99	1	1.09	1	0.00	1	0.00	9
0	-217	-202	Min.	173.41					0.03	1			0.95	1		
0	-217	-202	Min.	347.90	-1451.73	9	-1.02	9	-1.73	9	-1.42	9	0.00	9	0.00	9
0	-187	-204	Max	0.00	-815.08	3	-0.49	3	1.61	9	1.45	9	0.00	1	0.00	3
0	-187	-204	Max	176.40					0.01	9			1.28	9		
0	-187	-204	Max	354.19	-815.13	3	-0.49	3	-0.87	3	-1.11	1	0.00	9	0.00	3
0	-187	-204	Min.	0.00	-1442.64	9	-0.91	9	0.86	7	1.11	1	0.00	1	0.00	9
0	-187	-204	Min.	176.40									0.98	1		
0	-187	-204	Min.	354.19	-1442.70	9	-0.91	9	-1.61	9	-1.45	9	0.00	1	0.00	9
0	-188	-203	Max	0.00	-873.77	7	1.27	9	-1.19	7	1.44	9	0.00	1	0.00	9
0	-188	-203	Max	175.75					0.01	9			1.27	9		
0	-188	-203	Max	352.60	-873.82	7	1.27	9	2.25	9	-1.11	1	0.00	1	0.00	9
0	-188	-203	Min.	0.00	-1657.50	9	0.68	7	-2.23	9	1.11	1	0.00	1	0.00	7
0	-188	-203	Min.	175.75					0.01	1			0.98	1		
0	-188	-203	Min.	352.60	-1657.57	9	0.68	7	1.21	7	-1.44	9	0.00	9	0.00	7
0	-89	-38	Max	0.00	-143.25	1	-0.12	7	0.50	11	1.84	9	0.00	1	0.00	11
0	-89	-38	Max	225.04					-0.02	9			2.07	9		
0	-89	-38	Max	451.48	-143.04	1	-0.12	7	-0.30	7	-1.41	1	0.00	1	0.00	11
0	-89	-38	Min.	0.00	-280.16	11	-0.23	11	0.26	7	1.41	1	0.00	1	0.00	7
0	-89	-38	Min.	225.03					-0.02	1			1.60	1		
0	-89	-38	Min.	451.48	-279.89	11	-0.23	11	-0.55	11	-1.84	9	0.00	9	0.00	7
0	-88	-97	Max	0.00	-174.68	7	0.24	11	-0.27	3	1.84	9	0.00	1	0.00	7
0	-88	-97	Max	225.04					0.01	9			2.07	9		
0	-88	-97	Max	451.48	-174.47	7	0.24	11	0.55	11	-1.41	1	0.00	1	0.00	7
0	-88	-97	Min.	0.00	-323.34	11	0.12	3	-0.52	11	1.41	1	0.00	1	0.00	9
0	-88	-97	Min.	225.03					0.01	1			1.60	1		
0	-88	-97	Min.	451.48	-323.06	11	0.12	3	0.29	3	-1.84	9	0.00	9	0.00	9
0	-218	-203	Max	0.00	-986.91	3	-0.58	3	2.04	9	1.44	9	0.00	1	0.00	3
0	-218	-203	Max	175.76					0.12	9			1.27	9		
0	-218	-203	Max	352.62	-986.86	3	-0.58	3	-0.97	3	-1.11	1	0.00	1	0.00	3
0	-218	-203	Min.	0.00	-1758.65	9	-1.09	9	1.08	3	1.11	1	0.00	1	0.00	9
0	-218	-203	Min.	175.76					0.06	1			0.98	1		
0	-218	-203	Min.	352.62	-1758.58	9	-1.09	9	-1.81	9	-1.44	9	0.00	9	0.00	9
0	-204	-217	Max	0.00	-877.99	7	0.94	9	-0.87	7	1.43	9	0.00	1	0.00	9
0	-204	-217	Max	175.52					0.07	9			1.26	9		
0	-204	-217	Max	351.04	-878.04	7	0.94	9	1.72	9	-1.10	1	0.00	9	0.00	9
0	-204	-217	Min.	0.00	-1669.14	9	0.52	7	-1.59	9	1.10	1	0.00	1	0.00	7
0	-204	-217	Min.	175.52					0.04	1			0.97	1		
0	-204	-217	Min.	351.04	-1669.22	9	0.52	7	0.94	7	-1.43	9	0.00	1	0.00	7
0	-188	-223	Max	0.00	-1024.52	7	-0.65	1	1.88	9	1.38	9	0.00	1	0.00	1
0	-188	-223	Max	168.53					-0.09	9			1.16	9		
0	-188	-223	Max	337.06	-1024.57	7	-0.65	1	-1.13	1	-1.06	1	0.00	9	0.00	1
0	-188	-223	Min.	0.00	-1831.74	9	-1.17	9	1.04	1	1.06	1	0.00	9	0.00	9
0	-188	-223	Min.	168.53					-0.05	1			0.89	1		
0	-188	-223	Min.	337.06	-1831.81	9	-1.17	9	-2.07	9	-1.38	9	0.00	1	0.00	9
0	-189	-204	Max	0.00	-786.62	3	0.96	9	-0.88	3	1.38	9	0.00	1	0.00	9
0	-189	-204	Max	168.53					0.03	9			1.16	9		
0	-189	-204	Max	337.06	-786.66	3	0.96	9	1.65	9	-1.06	1	0.00	9	0.00	9
0	-189	-204	Min.	0.00	-1477.94	9	0.53	3	-1.59	9	1.06	1	0.00	9	0.00	3
0	-189	-204	Min.	168.53					0.02	1			0.89	1		
0	-189	-204	Min.	337.06	-1478.01	9	0.53	3	0.91	3	-1.38	9	0.00	1	0.00	3
0	121	125	Max	0.00	543.88	10	0.09	10	-0.07	1	10.61	9	0.00	1	0.03	11
0	121	125	Max	325.00					0.04	9			17.25	9		
0	121	125	Max	650.00	543.88	10	0.09	10	0.33	10	-8.16	1	0.00	1	0.03	11
0	121	125	Min.	0.00	66.94	1	0.03	1	-0.25	10	8.16	1	0.00	1	0.01	7
0	121	125	Min.	325.00					0.02	1			13.27	1		
0	121	125	Min.	650.00	66.94	1	0.03	1	0.11	1	-10.61	9	0.00	9	0.01	7
0	120	126	Max	0.00	-51.21	1	0.03	10	0.06	11	10.61	9	0.00	1	-0.02	7

Relazione di calcolo

0	120	126	Max	325.00					-0.02	9			17.25	9		
0	120	126	Max	650.00	-51.21	1	0.03	10	0.09	10	-8.16	1	0.00	1	-0.02	7
0	120	126	Min.	0.00	-535.52	10	-0.03	11	-0.11	10	8.16	1	0.00	1	-0.03	11
0	120	126	Min.	325.00					-0.01	1			13.27	1		
0	120	126	Min.	650.00	-535.52	10	-0.03	11	-0.12	11	-10.61	9	0.00	9	-0.03	11
0	127	26	Max	0.00	13371.30	5	0.00	1	0.00	1	12.17	9	0.00	1	0.00	1
0	127	26	Max	217.08									13.21	9		
0	127	26	Max	434.17	13337.50	5	0.00	1	0.00	1	-9.36	1	0.00	9	0.00	1
0	127	26	Min.	0.00	-10592.20	7	0.00	1	0.00	1	9.36	1	0.00	1	0.00	1
0	127	26	Min.	217.08									10.16	1		
0	127	26	Min.	434.17	-10626.10	7	0.00	1	0.00	1	-12.17	9	0.00	1	0.00	1
0	-85	-38	Max	0.00	-190.56	7	0.48	11	-0.56	3	1.86	9	0.00	1	0.00	5
0	-85	-38	Max	227.15					0.06	9			2.12	9		
0	-85	-38	Max	456.08	-190.35	7	0.48	11	1.16	9	-1.43	1	0.00	1	0.00	5
0	-85	-38	Min.	0.00	-354.60	11	0.26	5	-1.05	11	1.43	1	0.00	1	0.00	9
0	-85	-38	Min.	227.15					0.03	1			1.63	1		
0	-85	-38	Min.	456.08	-354.33	11	0.26	5	0.62	5	-1.86	9	0.00	1	0.00	9
0	-219	-204	Max	0.00	-927.24	1	-0.53	1	1.67	9	1.38	9	0.00	1	0.00	1
0	-219	-204	Max	168.54					0.07	9			1.16	9		
0	-219	-204	Max	337.09	-927.19	1	-0.53	1	-0.85	1	-1.06	1	0.00	9	0.00	1
0	-219	-204	Min.	0.00	-1626.98	9	-0.95	9	0.93	1	1.06	1	0.00	1	0.00	9
0	-219	-204	Min.	168.54					0.04	1			0.89	1		
0	-219	-204	Min.	337.09	-1626.90	9	-0.95	9	-1.54	9	-1.38	9	0.00	1	0.00	9
0	-223	-218	Max	0.00	-1081.97	3	1.06	9	-0.98	3	1.38	9	0.00	1	0.00	9
0	-223	-218	Max	168.54					0.02	9			1.16	9		
0	-223	-218	Max	337.09	-1082.03	3	1.06	9	1.80	9	-1.06	1	0.00	9	0.00	9
0	-223	-218	Min.	0.00	-2039.42	9	0.59	3	-1.76	9	1.06	1	0.00	1	0.00	3
0	-223	-218	Min.	168.54					0.02	1			0.89	1		
0	-223	-218	Min.	337.09	-2039.50	9	0.59	3	1.02	3	-1.38	9	0.00	1	0.00	3
0	-189	-205	Max	0.00	-754.31	3	-0.55	3	1.61	9	1.38	9	0.00	1	0.00	3
0	-189	-205	Max	168.53					-0.08	9			1.16	9		
0	-189	-205	Max	337.06	-754.36	3	-0.55	3	-0.97	3	-1.06	1	0.00	9	0.00	3
0	-189	-205	Min.	0.00	-1320.67	9	-1.00	9	0.87	3	1.06	1	0.00	1	0.00	9
0	-189	-205	Min.	168.53					-0.04	1			0.89	1		
0	-189	-205	Min.	337.06	-1320.73	9	-1.00	9	-1.77	9	-1.38	9	0.00	1	0.00	9
0	-220	-223	Max	0.00	-1084.83	3	-0.57	3	1.84	9	1.38	9	0.00	1	0.00	3
0	-220	-223	Max	168.54					0.07	9			1.16	9		
0	-220	-223	Max	337.09	-1084.77	3	-0.57	3	-0.93	3	-1.06	1	0.00	9	0.00	3
0	-220	-223	Min.	0.00	-1941.11	9	-1.05	9	1.01	3	1.06	1	0.00	1	0.00	9
0	-220	-223	Min.	168.54					0.04	1			0.89	1		
0	-220	-223	Min.	337.09	-1941.04	9	-1.05	9	-1.70	9	-1.38	9	0.00	1	0.00	9
0	27	126	Max	0.00	9995.63	7	0.00	1	0.00	1	12.17	9	0.00	1	0.00	1
0	27	126	Max	217.08									13.21	9		
0	27	126	Max	434.17	10029.50	7	0.00	1	0.00	1	-9.36	1	0.00	9	0.00	1
0	27	126	Min.	0.00	-14062.50	5	0.00	1	0.00	1	9.36	1	0.00	1	0.00	1
0	27	126	Min.	217.08									10.16	1		
0	27	126	Min.	434.17	-14028.60	5	0.00	1	0.00	1	-12.17	9	0.00	1	0.00	1
0	-88	-37	Max	0.00	-206.86	5	-0.18	7	0.70	9	1.86	9	0.00	1	0.00	11
0	-88	-37	Max	227.15					-0.13	9			2.12	9		
0	-88	-37	Max	456.08	-206.65	5	-0.18	7	-0.47	7	-1.43	1	0.00	1	0.00	11
0	-88	-37	Min.	0.00	-400.76	11	-0.36	9	0.35	7	1.43	1	0.00	1	0.00	7
0	-88	-37	Min.	227.15					-0.06	1			1.63	1		
0	-88	-37	Min.	456.08	-400.49	11	-0.36	9	-0.96	9	-1.86	9	0.00	1	0.00	7
0	-223	-190	Max	0.00	-996.86	5	1.15	9	-1.11	5	1.38	9	0.00	1	0.00	9
0	-223	-190	Max	168.53					-0.06	9			1.16	9		
0	-223	-190	Max	337.06	-996.81	5	1.15	9	1.88	9	-1.06	1	0.00	9	0.00	9
0	-223	-190	Min.	0.00	-1862.96	9	0.64	5	-1.99	9	1.06	1	0.00	1	0.00	5
0	-223	-190	Min.	168.53					-0.03	1			0.89	1		
0	-223	-190	Min.	337.06	-1862.89	9	0.64	5	1.05	5	-1.38	9	0.00	1	0.00	5
0	-205	-219	Max	0.00	-889.14	1	0.94	9	-0.83	1	1.38	9	0.00	1	0.00	9
0	-205	-219	Max	168.54					0.10	9			1.16	9		
0	-205	-219	Max	337.09	-889.20	1	0.94	9	1.68	9	-1.06	1	0.00	9	0.00	9
0	-205	-219	Min.	0.00	-1655.37	9	0.52	1	-1.48	9	1.06	1	0.00	1	0.00	1
0	-205	-219	Min.	168.54					0.05	1			0.89	1		
0	-205	-219	Min.	337.09	-1655.44	9	0.52	1	0.94	1	-1.38	9	0.00	1	0.00	1
0	-190	-224	Max	0.00	-803.14	7	-0.61	7	1.89	9	1.40	9	0.00	1	0.00	7
0	-190	-224	Max	171.60					-0.04	9			1.20	9		
0	-190	-224	Max	343.20	-803.19	7	-0.61	7	-1.09	1	-1.08	1	0.00	9	0.00	7
0	-190	-224	Min.	0.00	-1404.44	9	-1.13	9	1.02	7	1.08	1	0.00	9	0.00	9
0	-190	-224	Min.	171.60					-0.03	1			0.92	1		
0	-190	-224	Min.	343.20	-1404.50	9	-1.13	9	-1.98	9	-1.40	9	0.00	1	0.00	9
0	-205	-191	Max	0.00	-828.91	7	1.02	9	-0.89	7	1.40	9	0.00	1	0.00	9
0	-205	-191	Max	171.60					0.10	9			1.20	9		
0	-205	-191	Max	343.20	-828.86	7	1.02	9	1.86	9	-1.08	1	0.00	9	0.00	9
0	-205	-191	Min.	0.00	-1562.69	9	0.54	7	-1.65	9	1.08	1	0.00	9	0.00	7
0	-205	-191	Min.	171.60					0.05	1			0.92	1		
0	-205	-191	Min.	343.20	-1562.62	9	0.54	7	0.98	7	-1.40	9	0.00	1	0.00	7
0	125	-18	Max	0.00	373.91	10	0.02	11	-0.04	13	10.16	9	0.00	1	-0.01	5
0	125	-18	Max	310.86					-0.06	9			15.81	9		

Relazione di calcolo

0	125	-18	Max	622.41	373.91	10	0.02	11	-0.01	1	-7.82	1	0.00	1	-0.01	5
0	125	-18	Min.	0.00	-43.66	11	0.00	10	-0.12	11	7.82	1	0.00	1	-0.02	11
0	125	-18	Min.	310.85					-0.04	1			12.16	1		
0	125	-18	Min.	622.41	-43.66	11	0.00	10	-0.05	10	-10.16	9	0.00	9	-0.02	11
0	126	132	Max	0.00	278.06	11	-0.01	1	0.13	9	10.16	9	0.00	1	0.01	11
0	126	132	Max	310.86					0.04	9			15.81	9		
0	126	132	Max	622.41	278.06	11	-0.01	1	-0.00	1	-7.82	1	0.00	1	0.01	11
0	126	132	Min.	0.00	-175.66	10	-0.03	10	0.04	1	7.82	1	0.00	1	0.00	13
0	126	132	Min.	310.85					0.02	1			12.16	1		
0	126	132	Min.	622.41	-175.66	10	-0.03	10	-0.05	10	-10.16	9	0.00	9	0.00	13
0	-191	-206	Max	0.00	-785.52	7	-0.45	7	1.16	9	1.29	9	0.00	1	0.00	9
0	-191	-206	Max	157.27					-0.09	9			1.01	9		
0	-191	-206	Max	315.26	-785.57	7	-0.45	7	-0.76	7	-0.99	1	0.00	1	0.00	9
0	-191	-206	Min.	0.00	-1445.83	9	-0.80	9	0.65	7	0.99	1	0.00	9	0.00	5
0	-191	-206	Min.	157.27					-0.05	1			0.78	1		
0	-191	-206	Min.	315.26	-1445.90	9	-0.80	9	-1.34	9	-1.29	9	0.00	9	0.00	5
0	-224	-192	Max	0.00	-730.46	5	1.19	9	-0.87	7	1.29	9	0.00	1	0.00	9
0	-224	-192	Max	157.27					0.25	9			1.01	9		
0	-224	-192	Max	315.26	-730.41	5	1.19	9	2.13	9	-0.99	1	0.00	1	0.00	9
0	-224	-192	Min.	0.00	-1307.17	9	0.62	7	-1.63	9	0.99	1	0.00	9	0.00	7
0	-224	-192	Min.	157.27					0.11	1			0.78	1		
0	-224	-192	Min.	315.26	-1307.10	9	0.62	7	1.07	7	-1.29	9	0.00	9	0.00	7
0	-221	-205	Max	0.00	-832.06	7	-0.57	7	1.92	9	1.40	9	0.00	1	0.00	7
0	-221	-205	Max	170.94					0.15	9			1.20	9		
0	-221	-205	Max	343.23	-832.00	7	-0.57	7	-0.89	7	-1.08	1	0.00	1	0.00	7
0	-221	-205	Min.	0.00	-1475.13	9	-1.03	9	1.05	7	1.08	1	0.00	1	0.00	9
0	-221	-205	Min.	171.08					0.08	1			0.92	1		
0	-221	-205	Min.	343.23	-1475.06	9	-1.03	9	-1.63	9	-1.40	9	0.00	1	0.00	9
0	-224	-220	Max	0.00	-1003.01	3	1.15	9	-1.03	7	1.40	9	0.00	1	0.00	9
0	-224	-220	Max	170.94					0.06	9			1.20	9		
0	-224	-220	Max	343.23	-1003.07	3	1.15	9	2.04	9	-1.08	1	0.00	1	0.00	9
0	-224	-220	Min.	0.00	-1876.71	9	0.62	7	-1.90	9	1.08	1	0.00	1	0.00	7
0	-224	-220	Min.	171.08					0.04	1			0.92	1		
0	-224	-220	Min.	343.23	-1876.78	9	0.62	7	1.11	7	-1.40	9	0.00	1	0.00	7
0	-206	-221	Max	0.00	-840.74	1	1.04	9	-0.97	7	1.29	9	0.00	1	0.00	10
0	-206	-221	Max	157.29					-0.17	9			1.01	9		
0	-206	-221	Max	315.29	-840.80	1	1.04	9	1.47	9	-0.99	1	0.00	1	0.00	10
0	-206	-221	Min.	0.00	-1520.53	9	0.57	7	-1.80	9	0.99	1	0.00	1	0.00	12
0	-206	-221	Min.	157.29					-0.08	1			0.78	1		
0	-206	-221	Min.	315.29	-1520.61	9	0.57	7	0.81	7	-1.29	9	0.00	9	0.00	12
0	-224	-222	Max	0.00	-861.59	3	-0.68	7	1.58	9	1.29	9	0.00	1	0.00	7
0	-224	-222	Max	157.29					-0.41	9			1.01	9		
0	-224	-222	Max	315.29	-861.65	3	-0.68	7	-1.27	7	-0.99	1	0.00	1	0.00	7
0	-224	-222	Min.	0.00	-1498.33	9	-1.27	9	0.86	1	0.99	1	0.00	1	0.00	11
0	-224	-222	Min.	157.29					-0.20	1			0.78	1		
0	-224	-222	Min.	315.29	-1498.40	9	-1.27	9	-2.42	9	-1.29	9	0.00	9	0.00	11
1	1	101	Max	0.00	15151.90	1	296.86	7	212.74	10	847.74	11	725.98	3	0.06	7
1	1	101	Max	234.97					156.14	11			332.35	11		
1	1	101	Max	372.40	15265.30	1	375.73	10	588.78	7	136.69	1	-3.75	14	0.06	7
1	1	101	Min.	0.00	-21089.90	3	-294.59	10	-516.73	7	-198.79	3	-665.78	11	-0.05	11
1	1	101	Min.	216.52					71.06	15			34.77	15		
1	1	101	Min.	372.40	-20976.60	3	-49.53	5	-13.54	5	-492.90	11	-42.16	9	-0.05	11
2	2	102	Max	0.00	17909.10	3	340.02	7	456.80	10	123.93	1	743.98	3	-0.13	7
2	2	102	Max	370.90					727.93	7			-60.71	7		
2	2	102	Max	372.40	18022.40	3	1176.78	10	1094.74	10	123.93	1	-52.58	3	-0.13	7
2	2	102	Min.	0.00	-18468.30	1	-834.18	10	-533.21	7	-213.35	3	-533.00	1	-0.34	11
2	2	102	Min.	370.90					727.93	7			-60.71	7		
2	2	102	Min.	372.40	-18354.90	1	27.16	5	200.21	5	-213.35	3	-113.97	9	-0.34	11
3	3	103	Max	0.00	-774.48	7	107.41	7	431.10	10	879.00	11	659.64	3	0.03	7
3	3	103	Max	243.81					-158.64	11			288.75	11		
3	3	103	Max	372.40	-661.13	7	107.41	7	122.38	7	134.76	1	-5.18	14	0.03	7
3	3	103	Min.	0.00	-1351.29	11	-382.56	10	-277.62	7	-181.29	3	-784.36	11	-0.04	10
3	3	103	Min.	233.35					-107.40	15			21.96	15		
3	3	103	Min.	372.40	-1203.94	11	-239.05	5	-480.13	5	-461.64	11	-42.95	10	-0.04	10
4	4	104	Max	0.00	-3798.76	3	43.49	7	546.32	5	99.70	1	703.31	3	0.11	7
4	4	104	Max	363.38					0.12	7			-111.01	7		
4	4	104	Max	372.40	-3685.42	3	43.49	7	4.04	7	99.70	1	-104.66	3	0.11	7
4	4	104	Min.	0.00	-6628.30	9	-326.33	5	-157.92	7	-216.39	3	-497.81	1	0.04	3
4	4	104	Min.	361.25					-287.86	2			-118.71	2		
4	4	104	Min.	372.40	-6480.95	9	-326.33	5	-668.95	5	-216.39	3	-219.14	9	0.04	3
5	5	105	Max	0.00	-774.68	5	238.06	7	277.29	5	886.41	11	512.72	3	0.04	7
5	5	105	Max	245.75					160.97	11			278.81	11		
5	5	105	Max	372.40	-661.33	5	362.66	10	478.31	7	172.58	1	-5.54	14	0.04	7
5	5	105	Min.	0.00	-1351.14	11	-307.66	10	-408.23	7	-142.63	3	-812.46	11	-0.04	10
5	5	105	Min.	242.10					86.38	15			15.62	15		
5	5	105	Min.	372.40	-1203.79	11	-107.28	5	-122.24	5	-454.23	11	-43.32	9	-0.04	10
6	6	106	Max	0.00	-5021.07	3	221.52	7	344.55	10	132.31	1	563.31	3	0.03	7
6	6	106	Max	363.36					-218.34	5			-125.24	5		
6	6	106	Max	372.40	-4907.73	3	267.50	10	413.01	7	132.31	1	-116.86	3	0.03	7

Relazione di calcolo

6	6	106	Min.	0.00	-9141.62	9	-402.82	10	-411.93	7	-183.31	3	-635.07	1	-0.04	3
6	6	106	Min.	363.36					-218.34	5			-125.24	5		
6	6	106	Min.	372.40	-8994.27	9	-136.67	5	-230.69	5	-183.31	3	-243.89	9	-0.04	3
7	7	107	Max	0.00	19420.30	1	48.68	7	516.25	5	848.50	11	567.20	3	0.07	11
7	7	107	Max	235.19					-156.48	11			331.23	11		
7	7	107	Max	372.40	19533.70	1	48.68	7	12.10	7	176.72	1	-3.80	14	0.07	11
7	7	107	Min.	0.00	-16633.30	3	-395.64	10	-169.20	7	-157.00	3	-700.86	1	-0.04	3
7	7	107	Min.	219.49					-100.91	15			32.45	15		
7	7	107	Min.	372.40	-16519.90	3	-296.60	5	-588.31	5	-492.14	11	-42.75	1	-0.04	3
8	8	108	Max	0.00	13449.40	3	2.08	7	847.02	10	165.54	1	583.05	3	0.33	11
8	8	108	Max	139.66					-107.01	7			32.79	7		
8	8	108	Max	372.40	13562.80	3	120.59	10	-126.39	7	165.54	1	-47.29	3	0.33	11
8	8	108	Min.	0.00	-22741.70	1	-884.88	10	-134.15	7	-169.90	3	-687.14	1	0.13	3
8	8	108	Min.	370.90					-664.75	5			-57.92	5		
8	8	108	Min.	372.40	-22628.40	1	-315.21	5	-689.84	11	-169.90	3	-104.96	9	0.13	3
9	9	109	Max	0.00	9765.70	5	99.34	7	831.00	10	178.39	1	671.18	3	0.12	9
9	9	109	Max	372.40	9879.05	5	858.43	10	283.40	10	178.39	1	122.87	9	0.12	9
9	9	109	Min.	0.00	-13198.00	7	-1152.53	10	-241.09	7	-156.17	3	-602.42	1	0.02	14
9	9	109	Min.	372.40	-13084.60	7	-150.56	5	-276.51	5	-156.17	3	61.16	7	0.02	14
11	11	111	Max	0.00	-5727.84	5	50.69	7	484.70	5	6.02	1	736.00	3	0.02	7
11	11	111	Max	58.93					216.56	3			544.36	3		
11	11	111	Max	372.40	-5614.49	5	50.69	7	33.75	7	6.02	1	-459.36	1	0.02	7
11	11	111	Min.	0.00	-10910.40	9	-290.09	5	-155.03	7	-336.57	9	-481.77	1	-0.06	10
11	11	111	Min.	58.93					216.56	3			544.36	3		
11	11	111	Min.	372.40	-10763.00	9	-290.09	5	-595.58	5	-336.57	9	-909.83	11	-0.06	10
12	12	112	Max	0.00	11355.40	7	122.12	7	417.50	10	218.77	1	511.78	3	-0.02	7
12	12	112	Max	372.40	11468.70	7	437.95	10	186.37	7	218.77	1	132.22	9	-0.02	7
12	12	112	Min.	0.00	-11522.30	5	-567.53	10	-268.42	7	-114.06	3	-755.18	1	-0.17	9
12	12	112	Min.	372.40	-11409.00	5	-120.09	5	-200.07	5	-114.06	3	59.52	1	-0.17	9
13	13	113	Max	0.00	8306.59	5	192.49	7	357.18	10	213.45	1	478.73	3	0.09	11
13	13	113	Max	372.40	8419.93	5	485.82	10	359.46	7	213.45	1	91.33	9	0.09	11
13	13	113	Min.	0.00	-14104.70	7	-519.65	10	-357.36	7	-111.69	3	-757.14	1	-0.02	3
13	13	113	Min.	372.40	-13991.40	7	-126.04	5	-214.78	5	-111.69	3	38.80	1	-0.02	3
14	14	114	Max	0.00	8012.85	7	275.21	7	122.87	5	166.66	1	646.40	3	0.06	7
14	14	114	Max	240.51					130.69	3			256.62	3		
14	14	114	Max	372.40	8126.20	7	275.21	7	561.78	7	166.66	1	43.79	10	0.06	7
14	14	114	Min.	0.00	-14788.00	5	-22.75	5	-463.10	7	-162.06	3	-597.34	1	-0.03	11
14	14	114	Min.	327.90					48.27	5			27.35	5		
14	14	114	Min.	372.40	-14674.70	5	-22.75	5	38.15	5	-162.06	3	12.89	14	-0.03	11
15	15	115	Max	0.00	-2759.81	7	290.22	7	195.50	5	806.82	11	679.73	3	-0.03	7
15	15	115	Max	223.78					144.38	11			191.06	11		
15	15	115	Max	372.40	-2646.47	7	290.22	7	581.46	7	87.70	1	-130.56	3	-0.03	7
15	15	115	Min.	0.00	-5872.70	9	-71.63	5	-499.32	7	-217.59	3	-713.06	11	-0.14	9
15	15	115	Min.	137.11					16.38	15			-12.40	15		
15	15	115	Min.	372.40	-5725.35	9	-71.63	5	-71.25	5	-533.82	11	-263.12	9	-0.14	9
16	16	116	Max	0.00	-7647.81	7	163.30	7	283.57	5	142.82	1	609.87	3	0.04	7
16	16	116	Max	369.65					46.77	8			-8.57	8		
16	16	116	Max	372.40	-7534.46	7	163.30	7	287.04	7	142.82	1	-2.55	3	0.04	7
16	16	116	Min.	0.00	-14076.10	9	-149.45	5	-321.08	7	-164.00	3	-551.00	1	-0.04	3
16	16	116	Min.	146.78					48.02	1			-341.38	1		
16	16	116	Min.	372.40	-13928.70	9	-149.45	5	-272.99	5	-164.00	3	-54.69	11	-0.04	3
17	17	117	Max	0.00	-3882.47	5	504.58	11	533.12	10	153.37	1	660.98	3	0.07	7
17	17	117	Max	372.40	-3769.12	5	1614.11	10	1551.53	10	153.37	1	14.29	3	0.07	7
17	17	117	Min.	0.00	-7926.30	9	-1067.17	10	-629.09	11	-173.65	3	-580.65	1	-0.01	3
17	17	117	Min.	372.40	-7778.95	9	144.68	5	459.22	5	-173.65	3	-9.49	1	-0.01	3
19	19	119	Max	0.00	-7471.68	7	112.32	7	286.36	5	147.15	1	601.44	3	0.03	7
19	19	119	Max	372.40	-7358.34	7	112.32	7	182.37	7	147.15	1	12.25	3	0.03	7
19	19	119	Min.	0.00	-13726.20	11	-157.87	5	-235.91	7	-158.21	3	-557.62	1	-0.05	3
19	19	119	Min.	372.40	-13578.90	11	-157.87	5	-301.55	5	-158.21	3	-9.62	1	-0.05	3
20	20	120	Max	0.00	-5152.05	5	6.23	7	451.43	5	185.30	1	493.36	3	0.03	7
20	20	120	Max	372.40	-5038.70	5	6.23	7	-62.10	7	185.30	1	8.19	3	0.03	7
20	20	120	Min.	0.00	-9611.00	9	-275.39	5	-85.28	7	-130.28	3	-704.99	1	-0.05	3
20	20	120	Min.	372.40	-9463.65	9	-275.39	5	-587.54	9	-130.28	3	-14.93	1	-0.05	3
21	21	121	Max	0.00	-1542.50	7	175.12	7	516.17	10	192.97	1	504.15	3	0.04	7
21	21	121	Max	372.40	-1429.16	7	627.92	10	358.28	10	192.97	1	9.27	3	0.04	7
21	21	121	Min.	0.00	-2969.18	11	-712.72	10	-314.93	7	-132.89	3	-732.60	1	-0.03	3
21	21	121	Min.	372.40	-2821.83	11	-85.12	5	-122.21	5	-132.89	3	-14.00	1	-0.03	3
22	22	122	Max	0.00	4596.47	7	231.09	7	162.64	5	138.71	1	679.66	3	-0.02	7
22	22	122	Max	372.40	4709.81	7	231.09	7	501.82	9	138.71	1	-21.27	14	-0.02	7
22	22	122	Min.	0.00	-16380.10	5	-43.03	5	-376.41	7	-188.37	3	-562.03	1	-0.09	3
22	22	122	Min.	372.40	-16266.70	5	-43.03	5	2.38	5	-188.37	3	-47.13	10	-0.09	3
24	24	124	Max	0.00	-7716.74	7	120.77	7	318.89	5	150.51	1	598.21	3	0.04	7
24	24	124	Max	372.40	-7603.39	7	120.77	7	213.16	7	150.51	1	39.57	11	0.04	7
24	24	124	Min.	0.00	-14181.00	9	-166.36	5	-236.59	7	-156.05	3	-562.33	1	-0.04	3
24	24	124	Min.	372.40	-14033.60	9	-166.36	5	-300.64	5	-156.05	3	-1.83	1	-0.04	3
25	25	125	Max	0.00	-5701.17	5	35.33	7	460.51	5	186.14	1	493.02	3	0.07	7
25	25	125	Max	370.00					-324.19	6			1.07	6		
25	25	125	Max	372.40	-5587.83	5	35.33	7	3.34	7	186.14	1	26.87	11	0.07	7
25	25	125	Min.	0.00	-10673.90	9	-278.13	5	-128.21	7	-130.17	3	-706.23	1	-0.00	3

Relazione di calcolo

25	25	125	Min.	339.42					-8.31	7			-2.33	7		
25	25	125	Min.	372.40	-10526.60	9	-278.13	5	-575.23	5	-130.17	3	-10.94	1	-0.00	3
26	26	126	Max	0.00	9741.79	5	146.65	7	341.98	10	173.35	1	526.89	3	0.02	7
26	26	126	Max	372.40	9855.14	5	494.20	10	310.19	10	173.35	1	-37.72	3	0.02	7
26	26	126	Min.	0.00	-10871.80	7	-511.27	10	-268.80	7	-151.62	3	-708.75	1	-0.06	11
26	26	126	Min.	372.40	-10758.40	7	-146.21	5	-250.59	5	-151.62	3	-87.66	9	-0.06	11
27	27	127	Max	0.00	8008.02	7	86.30	7	407.37	10	177.98	1	515.57	3	0.16	9
27	27	127	Max	356.23					-204.58	5			-72.16	5		
27	27	127	Max	372.40	8121.37	7	442.38	10	182.59	10	177.98	1	-61.60	3	0.16	9
27	27	127	Min.	0.00	-13034.00	5	-563.10	10	-192.51	7	-156.08	3	-752.91	1	0.02	3
27	27	127	Min.	356.23					-204.58	5			-72.16	5		
27	27	127	Min.	372.40	-12920.70	5	-136.52	5	-226.66	5	-156.08	3	-133.24	9	0.02	3
28	28	128	Max	0.00	11346.80	5	62.58	7	820.94	10	127.23	1	718.50	3	-0.03	7
28	28	128	Max	357.98					60.33	7			-65.21	7		
28	28	128	Max	372.40	11460.10	5	863.24	10	291.22	10	127.23	1	-59.99	3	-0.03	7
28	28	128	Min.	0.00	-9774.91	7	-1147.72	10	-163.67	7	-208.58	3	-556.65	1	-0.12	9
28	28	128	Min.	357.98					60.33	7			-65.21	7		
28	28	128	Min.	372.40	-9661.57	7	-167.25	5	-303.42	5	-208.58	3	-121.89	9	-0.12	9
29	29	129	Max	0.00	-631.86	5	110.66	7	828.09	10	525.08	11	644.37	3	0.17	9
29	29	129	Max	291.71					-57.81	11			184.73	11		
29	29	129	Max	372.40	-518.51	5	867.25	10	313.30	10	185.08	1	126.14	11	0.17	9
29	29	129	Min.	0.00	-1549.48	10	-1143.71	10	-230.54	7	-150.40	3	-630.38	1	0.02	3
29	29	129	Min.	292.09					-39.15	14			123.81	14		
29	29	129	Min.	372.40	-1402.13	10	-187.94	5	-349.27	5	-150.40	3	58.87	1	0.02	3
30	30	130	Max	0.00	-3226.41	7	213.09	7	247.67	5	567.45	11	589.38	3	0.20	9
30	30	130	Max	315.35					237.78	11			274.50	11		
30	30	130	Max	372.40	-3113.06	7	213.09	7	433.71	7	209.11	1	251.70	9	0.20	9
30	30	130	Min.	0.00	-6555.31	9	-106.36	5	-359.85	7	-117.92	3	-652.25	1	0.06	3
30	30	130	Min.	365.12					-140.68	5			133.94	5		
30	30	130	Min.	372.40	-6407.96	9	-106.36	5	-148.42	5	-117.92	3	123.86	1	0.06	3
31	31	131	Max	0.00	-4302.49	5	108.64	7	351.30	5	583.94	11	519.04	3	0.02	7
31	31	131	Max	324.33					-76.90	11			289.49	11		
31	31	131	Max	372.40	-4189.14	5	108.64	7	177.26	7	210.40	1	281.09	9	0.02	7
31	31	131	Min.	0.00	-8423.24	9	-187.94	5	-227.33	7	-95.20	3	-657.68	11	-0.06	3
31	31	131	Min.	325.04					-52.96	14			194.40	14		
31	31	131	Min.	372.40	-8275.89	9	-187.94	5	-348.58	5	-95.20	3	143.22	1	-0.06	3
32	32	132	Max	0.00	-4190.13	5	149.36	7	315.55	5	582.20	11	412.11	3	0.04	7
32	32	132	Max	322.03					45.52	11			287.67	11		
32	32	132	Max	372.40	-4076.79	5	149.36	7	277.96	7	248.41	1	274.84	9	0.04	7
32	32	132	Min.	0.00	-8144.04	9	-159.24	5	-278.25	7	-67.65	3	-786.85	1	-0.03	3
32	32	132	Min.	322.77					30.81	14			193.08	14		
32	32	132	Min.	372.40	-7996.69	9	-159.24	5	-277.46	5	-88.12	11	138.25	1	-0.03	3
33	33	133	Max	0.00	-1868.19	7	26.11	7	718.89	10	551.96	11	433.69	3	-0.17	7
33	33	133	Max	306.01					-384.81	11			184.60	11		
33	33	133	Max	372.40	-1754.84	7	205.50	10	-51.45	7	242.50	1	145.69	11	-0.17	7
33	33	133	Min.	0.00	-3343.50	9	-799.98	10	-148.67	7	-91.75	3	-835.03	1	-0.41	9
33	33	133	Min.	35.27					280.86	1			-749.50	1		
33	33	133	Min.	372.40	-3196.15	9	-243.84	5	-527.03	11	-118.36	11	68.04	1	-0.41	9
72	-139	-224	Max	0.00	140.58	7	-106.82	5	-0.93	5	-189.83	14	198.98	10	-7.10	5
72	-139	-224	Max	44.00	147.14	7	-106.82	5	-47.93	5	-189.83	14	-0.06	3	-7.10	5
72	-139	-224	Min.	0.00	-328.84	9	-223.96	9	-1.84	9	-452.46	10	83.46	14	-17.81	10
72	-139	-224	Min.	44.00	-320.31	9	-223.96	9	-100.38	9	-452.46	10	-0.11	9	-17.81	10
73	-141	-223	Max	0.00	108.39	5	8.34	7	0.06	11	-78.70	3	83.82	9	2.38	11
73	-141	-223	Max	44.00	114.95	5	8.34	7	3.70	7	-78.70	3	-0.08	3	2.38	11
73	-141	-223	Min.	0.00	-350.33	9	-23.98	5	0.02	13	-190.85	9	34.54	3	-7.23	10
73	-141	-223	Min.	44.00	-341.80	9	-23.98	5	-10.52	5	-190.85	9	-0.15	9	-7.23	10
74	-175	-222	Max	0.00	-194.41	3	-395.26	3	4.27	10	1153.10	9	-230.90	3	57.95	9
74	-175	-222	Max	35.00	-189.19	3	-395.26	3	-136.74	3	1153.10	9	-20.01	3	57.95	9
74	-175	-222	Min.	0.00	-477.62	9	-843.53	9	1.03	5	659.67	3	-403.61	9	27.59	3
74	-175	-222	Min.	35.00	-470.83	9	-843.53	9	-290.98	9	659.67	3	-0.03	11	27.59	3
75	-174	-221	Max	0.00	270.35	10	-43.52	13	-0.12	5	2089.92	9	-410.63	7	4.64	11
75	-174	-221	Max	35.00	277.14	10	-43.52	13	-16.04	13	2089.92	9	-0.02	7	4.64	11
75	-174	-221	Min.	0.00	114.22	12	-121.52	11	-1.20	10	1173.16	7	-731.52	9	0.89	13
75	-174	-221	Min.	35.00	119.44	12	-121.52	11	-43.35	11	1173.16	7	-0.05	9	0.89	13
76	-171	-220	Max	0.00	-312.03	3	240.85	10	0.00	7	2681.52	9	-511.72	3	0.74	11
76	-171	-220	Max	35.00	-306.81	3	240.85	10	82.77	10	2681.52	9	-0.06	3	0.74	11
76	-171	-220	Min.	0.00	-893.43	9	41.19	5	-1.53	10	1461.88	3	-938.65	9	-9.69	10
76	-171	-220	Min.	35.00	-886.64	9	41.19	5	13.63	5	1461.88	3	-0.12	9	-9.69	10
77	-170	-219	Max	0.00	169.98	1	133.50	10	0.04	5	2241.70	9	-434.17	1	-0.34	14
77	-170	-219	Max	35.00	175.20	1	133.50	10	46.02	10	2241.70	9	-0.02	1	-0.34	14
77	-170	-219	Min.	0.00	23.27	12	14.52	5	-0.70	10	1240.43	1	-784.63	9	-9.88	10
77	-170	-219	Min.	35.00	28.49	12	14.52	5	5.12	5	1240.43	1	-0.03	9	-9.88	10
78	-167	-218	Max	0.00	-324.30	3	-28.42	13	1.00	7	2640.90	9	-502.19	3	4.14	11
78	-167	-218	Max	0.35					0.29	1			-504.03	1		
78	-167	-218	Max	35.00	-319.08	3	-28.42	13	-9.89	13	2640.90	9	-0.06	3	4.14	11
78	-167	-218	Min.	0.00	-927.41	9	-119.99	11	-0.35	5	1434.67	3	-924.42	9	-2.01	10
78	-167	-218	Min.	0.35					0.29	1			-504.03	1		
78	-167	-218	Min.	35.00	-920.63	9	-119.99	11	-41.28	11	1434.67	3	-0.11	9	-2.01	10
79	-166	-217	Max	0.00	204.77	7	44.56	10	46.80	9	2047.49	9	-390.15	7	1.13	1

Relazione di calcolo

79	-166	-217	Max	35.00	209.99	7	44.56	10	57.74	10	2047.49	9	-0.03	7	1.13	1
79	-166	-217	Min.	0.00	70.15	12	-42.05	5	25.27	7	1114.64	7	-716.68	9	-7.30	10
79	-166	-217	Min.	35.00	75.37	12	-42.05	5	11.34	5	1114.64	7	-0.06	9	-7.30	10
80	-163	-216	Max	0.00	-193.99	3	904.27	9	-1.54	7	2590.19	9	-487.83	3	-24.62	3
80	-163	-216	Max	35.00	-188.77	3	904.27	9	312.26	9	2590.19	9	-0.06	3	-24.62	3
80	-163	-216	Min.	0.00	-665.70	9	408.04	3	-4.27	10	1393.61	3	-906.69	9	-52.88	9
80	-163	-216	Min.	35.00	-658.91	9	408.04	3	140.76	3	1393.61	3	-0.12	9	-52.88	9
81	-162	-215	Max	0.00	-49.18	1	216.55	9	2.80	10	1052.23	9	-208.93	5	-2.21	5
81	-162	-215	Max	35.00	-43.96	1	216.55	9	78.48	9	1052.23	9	0.02	9	-2.21	5
81	-162	-215	Min.	0.00	-192.78	9	79.24	7	0.10	5	596.97	5	-368.26	9	-10.22	9
81	-162	-215	Min.	35.00	-185.99	9	79.24	7	28.50	1	596.97	5	0.01	7	-10.22	9
82	-160	-214	Max	0.00	-278.61	7	1322.32	9	-3.31	7	-618.46	14	451.17	9	72.63	9
82	-160	-214	Max	35.00	-273.39	7	1322.32	9	455.48	9	-618.46	14	0.03	11	72.63	9
82	-160	-214	Min.	0.00	-630.55	9	645.56	7	-7.33	9	-1289.00	9	216.48	14	30.23	14
82	-160	-214	Min.	35.00	-623.76	9	645.56	7	222.64	7	-1289.00	9	0.01	13	30.23	14
83	-157	-213	Max	0.00	451.58	11	396.95	10	0.90	11	-1024.49	3	677.55	9	27.24	10
83	-157	-213	Max	35.00	458.37	11	396.95	10	138.09	10	-1024.49	3	0.03	9	27.24	10
83	-157	-213	Min.	0.00	233.65	12	60.81	14	-0.84	10	-1935.77	9	358.58	3	-0.32	11
83	-157	-213	Min.	35.00	238.87	12	60.81	14	21.89	14	-1935.77	9	0.01	3	-0.32	11
84	-156	-212	Max	0.00	-258.14	7	-393.52	13	5.67	11	-1425.42	7	920.72	9	-19.96	13
84	-156	-212	Max	35.00	-252.92	7	-393.52	13	-135.17	13	-1425.42	7	0.13	9	-19.96	13
84	-156	-212	Min.	0.00	-732.88	9	-885.22	11	2.56	13	-2630.24	9	498.97	7	-49.73	11
84	-156	-212	Min.	35.00	-726.09	9	-885.22	11	-304.15	11	-2630.24	9	0.07	7	-49.73	11
85	-154	-211	Max	0.00	-191.83	1	673.21	10	-1.64	7	-1338.69	1	864.47	9	48.57	10
85	-154	-211	Max	35.00	-186.61	1	673.21	10	230.75	10	-1338.69	1	0.08	9	48.57	10
85	-154	-211	Min.	0.00	-684.83	9	243.89	1	-4.87	10	-2469.68	9	468.59	1	19.00	7
85	-154	-211	Min.	35.00	-678.04	9	243.89	1	82.90	1	-2469.68	9	0.04	1	19.00	7
86	-151	-210	Max	0.00	195.66	3	147.39	10	1.06	5	-1229.89	3	772.07	9	10.11	10
86	-151	-210	Max	35.00	202.36	10	147.39	10	51.65	10	-1229.89	3	0.03	11	10.11	10
86	-151	-210	Min.	0.00	75.90	12	-56.78	5	0.05	13	-2205.83	9	430.48	3	-4.71	7
86	-151	-210	Min.	35.00	81.12	12	-56.78	5	-18.81	5	-2205.83	9	0.02	12	-4.71	7
87	-150	-209	Max	0.00	-392.08	5	293.39	10	-0.11	7	-1531.69	5	956.47	9	14.45	10
87	-150	-209	Max	35.00	-386.86	5	293.39	10	101.14	10	-1531.69	5	0.13	9	14.45	10
87	-150	-209	Min.	0.00	-1001.03	9	45.50	3	-1.55	10	-2732.39	9	536.16	5	1.14	3
87	-150	-209	Min.	35.00	-994.24	9	45.50	3	14.99	3	-2732.39	9	0.07	5	1.14	3
88	-147	-208	Max	0.00	379.41	10	9.08	10	-0.12	3	-1107.28	3	715.71	9	6.99	11
88	-147	-208	Max	35.00	386.20	10	9.08	10	1.05	10	-1107.28	3	0.04	9	6.99	11
88	-147	-208	Min.	0.00	177.84	12	-168.72	3	-2.13	10	-2044.77	9	387.56	3	-5.27	3
88	-147	-208	Min.	35.00	183.06	12	-168.72	3	-59.31	3	-2044.77	9	0.01	3	-5.27	3
89	-146	-207	Max	0.00	-237.03	1	-528.57	1	6.30	9	-594.16	14	393.58	9	-23.64	14
89	-146	-207	Max	35.00	-231.81	1	-528.57	1	-181.88	1	-594.16	14	0.04	11	-23.64	14
89	-146	-207	Min.	0.00	-526.28	9	-1016.13	9	2.65	5	-1124.44	9	207.98	14	-50.88	9
89	-146	-207	Min.	35.00	-519.49	9	-1016.13	9	-349.35	9	-1124.44	9	0.02	1	-50.88	9
90	-13	-206	Max	0.00	-95.03	3	-98.96	5	-1.83	5	-18.08	5	62.72	11	-11.09	5
90	-13	-206	Max	44.00	-88.46	3	-98.96	5	-45.38	5	-18.08	5	-0.03	7	-11.09	5
90	-13	-206	Min.	0.00	-384.77	9	-251.62	9	-4.09	9	-142.69	11	7.92	5	-22.95	9
90	-13	-206	Min.	44.00	-376.24	9	-251.62	9	-114.80	9	-142.69	11	-0.06	11	-22.95	9
91	-140	-205	Max	0.00	-133.49	3	8.01	7	-0.31	7	-92.57	1	77.68	9	3.69	11
91	-140	-205	Max	44.00	-126.92	3	8.01	7	3.21	7	-92.57	1	-0.06	7	3.69	11
91	-140	-205	Min.	0.00	-809.97	9	-48.24	3	-0.50	11	-176.81	9	40.66	1	-5.75	10
91	-140	-205	Min.	44.00	-801.44	9	-48.24	3	-21.56	3	-176.81	9	-0.12	9	-5.75	10
92	-142	-204	Max	0.00	-170.21	7	11.19	7	-0.24	7	-138.05	7	151.83	11	-0.91	7
92	-142	-204	Max	44.00	-163.65	7	11.19	7	4.68	7	-138.05	7	-0.06	1	-0.91	7
92	-142	-204	Min.	0.00	-896.11	9	-24.24	9	-0.68	9	-345.29	11	60.68	7	-9.86	10
92	-142	-204	Min.	44.00	-887.58	9	-24.24	9	-11.35	9	-345.29	11	-0.10	9	-9.86	10
93	-143	-203	Max	0.00	105.69	3	44.81	7	-0.40	3	-98.38	3	102.92	9	0.50	7
93	-143	-203	Max	28.25					6.62	3			15.41	3		
93	-143	-203	Max	44.00	112.25	3	44.81	7	19.16	7	-98.38	3	-0.08	7	0.50	7
93	-143	-203	Min.	0.00	-393.05	9	6.91	5	-0.94	9	-234.25	9	43.20	3	-8.55	10
93	-143	-203	Min.	28.25					6.62	3			15.41	3		
93	-143	-203	Min.	44.00	-384.52	9	6.91	5	2.59	5	-234.25	9	-0.15	9	-8.55	10
94	-144	-202	Max	0.00	-7.08	5	228.78	9	3.50	9	-79.60	13	75.81	9	14.31	11
94	-144	-202	Max	44.00	-0.51	5	228.78	9	104.16	9	-79.60	13	-0.06	5	14.31	11
94	-144	-202	Min.	0.00	-600.14	9	107.07	7	1.80	7	-172.54	9	34.96	13	4.92	13
94	-144	-202	Min.	44.00	-591.61	9	107.07	7	48.91	7	-172.54	9	-0.11	9	4.92	13
95	-9	-201	Max	0.00	-60.41	7	323.05	9	3.65	9	-35.67	7	78.03	11	8.35	11
95	-9	-201	Max	44.00	-53.85	7	323.05	9	145.79	9	-35.67	7	-0.03	3	8.35	11
95	-9	-201	Min.	0.00	-316.51	9	132.66	7	1.60	7	-177.46	11	15.66	7	2.12	7
95	-9	-201	Min.	44.00	-307.98	9	132.66	7	59.97	7	-177.46	11	-0.06	9	2.12	7
96	-8	-200	Max	0.00	-92.22	7	299.69	9	4.39	9	304.60	11	72.08	10	-7.27	13
96	-8	-200	Max	44.00	-85.66	7	299.69	9	136.25	9	304.60	11	0.07	11	-7.27	13
96	-8	-200	Min.	0.00	-386.87	9	108.97	7	2.07	3	-163.73	10	-133.95	11	-34.32	11
96	-8	-200	Min.	44.00	-378.34	9	108.97	7	50.02	7	-163.73	10	0.03	5	-34.32	11
97	-133	-199	Max	0.00	101.76	3	227.43	9	2.75	9	757.14	9	-139.13	14	-2.78	13
97	-133	-199	Max	44.00	108.32	3	227.43	9	102.82	9	757.14	9	0.12	9	-2.78	13
97	-133	-199	Min.	0.00	-407.20	9	101.91	7	1.43	3	316.33	14	-333.02	9	-29.43	11
97	-133	-199	Min.	44.00	-398.67	9	101.91	7	46.28	7	316.33	14	0.05	14	-29.43	11
98	-134	-198	Max	0.00	4.18	5	50.16	7	-0.41	7	-146.29	3	144.92	10	16.22	10
98	-134	-198	Max	44.00	10.74	5	50.16	7	21.66	7	-146.29	3	0.15	9	16.22	10

Relazione di calcolo

98	-134	-198	Min.	0.00	-580.33	9	-6.40	5	-0.66	10	-329.07	10	64.45	3	-0.97	11
98	-134	-198	Min.	44.00	-571.80	9	-6.40	5	-3.24	5	-329.07	10	0.08	3	-0.97	11
99	-135	-197	Max	0.00	-131.64	7	5.16	7	0.08	7	391.92	9	-84.63	14	8.84	10
99	-135	-197	Max	44.00	-125.07	7	5.16	7	2.35	7	391.92	9	0.11	9	8.84	10
99	-135	-197	Min.	0.00	-830.82	9	-46.89	9	-0.07	9	192.48	14	-172.33	9	-7.64	11
99	-135	-197	Min.	44.00	-822.29	9	-46.89	9	-20.71	9	192.48	14	0.06	3	-7.64	11
100	-136	-196	Max	0.00	111.74	5	15.06	7	0.07	11	185.55	9	-28.11	1	15.54	10
100	-136	-196	Max	44.00	118.31	5	15.06	7	6.66	7	185.55	9	0.14	9	15.54	10
100	-136	-196	Min.	0.00	-340.20	9	-25.14	5	-0.00	10	64.06	1	-81.50	9	-0.24	7
100	-136	-196	Min.	44.00	-331.67	9	-25.14	5	-11.02	5	64.06	1	0.08	3	-0.24	7
101	-137	-195	Max	0.00	-146.75	3	2.54	7	-0.30	7	189.24	10	-23.65	14	14.42	10
101	-137	-195	Max	44.00	-140.18	3	2.54	7	0.81	7	189.24	10	0.12	9	14.42	10
101	-137	-195	Min.	0.00	-831.26	9	-60.91	10	-0.59	9	53.92	14	-83.15	10	-0.12	3
101	-137	-195	Min.	44.00	-822.73	9	-60.91	10	-27.37	10	53.92	14	0.06	3	-0.12	3
102	-138	-194	Max	0.00	151.62	7	-89.38	1	-0.91	3	466.78	9	-61.41	14	28.12	11
102	-138	-194	Max	44.00	158.18	7	-89.38	1	-40.25	1	466.78	9	0.11	9	28.12	11
102	-138	-194	Min.	0.00	-312.10	9	-225.44	9	-1.85	9	139.68	14	-205.28	9	7.97	3
102	-138	-194	Min.	44.00	-303.56	9	-225.44	9	-101.05	9	139.68	14	0.05	14	7.97	3
103	-4	-193	Max	0.00	-96.36	5	-99.44	5	-1.89	3	378.92	11	3.95	3	32.67	11
103	-4	-193	Max	44.00	-89.80	5	-99.44	5	-45.65	5	378.92	11	0.08	11	32.67	11
103	-4	-193	Min.	0.00	-392.86	9	-283.21	9	-4.13	9	-8.90	3	-166.65	11	10.95	3
103	-4	-193	Min.	44.00	-384.33	9	-283.21	9	-128.74	9	-8.90	3	0.03	7	10.95	3
104	-176	-192	Max	0.00	-22.83	5	-43.69	5	2.72	10	-549.33	5	515.14	9	-10.19	5
104	-176	-192	Max	52.00	-15.07	5	-43.69	5	-23.07	5	-549.33	5	-0.03	7	-10.19	5
104	-176	-192	Min.	0.00	-208.41	9	-254.77	9	-0.71	5	-990.77	9	285.62	5	-29.40	9
104	-176	-192	Min.	52.00	-198.33	9	-254.77	9	-130.04	9	-990.77	9	-0.06	9	-29.40	9
105	-173	-191	Max	0.00	118.60	7	-87.58	5	1.12	10	-1133.25	7	1106.21	9	-1.97	5
105	-173	-191	Max	52.00	126.35	7	-87.58	5	-45.83	5	-1133.25	7	-0.02	14	-1.97	5
105	-173	-191	Min.	0.00	-127.29	9	-274.67	10	-0.29	5	-2127.39	9	589.27	7	-8.04	10
105	-173	-191	Min.	52.00	-117.21	9	-274.67	10	-141.71	10	-2127.39	9	-0.03	10	-8.04	10
106	-172	-190	Max	0.00	-170.42	5	-296.43	7	6.84	9	-1272.76	5	1202.33	9	-17.33	7
106	-172	-190	Max	52.00	-162.67	5	-296.43	7	-150.62	7	-1272.76	5	-0.02	7	-17.33	7
106	-172	-190	Min.	0.00	-607.91	9	-686.86	9	3.53	7	-2312.24	9	661.82	5	-36.49	9
106	-172	-190	Min.	52.00	-597.83	9	-686.86	9	-350.32	9	-2312.24	9	-0.03	9	-36.49	9
107	-169	-189	Max	0.00	540.33	11	21.42	11	-0.27	13	-1024.20	3	970.10	9	3.55	11
107	-169	-189	Max	52.00	550.42	11	21.42	11	9.91	11	-1024.20	3	-0.05	7	3.55	11
107	-169	-189	Min.	0.00	294.03	12	-70.48	10	-1.23	11	-1865.77	9	532.53	3	-3.23	10
107	-169	-189	Min.	52.00	301.78	12	-70.48	10	-37.05	10	-1865.77	9	-0.10	9	-3.23	10
108	-168	-188	Max	0.00	-367.81	7	-12.40	7	1.45	10	-1338.88	7	1280.50	9	1.29	7
108	-168	-188	Max	0.26					0.29	3			705.50	3		
108	-168	-188	Max	52.00	-360.06	7	-12.40	7	-5.74	7	-1338.88	7	-0.01	3	1.29	7
108	-168	-188	Min.	0.00	-992.00	9	-165.84	10	-0.04	5	-2462.56	9	696.20	7	-5.38	10
108	-168	-188	Min.	0.26					0.35	4			700.04	4		
108	-168	-188	Min.	52.00	-981.91	9	-165.84	10	-84.78	10	-2462.56	9	-0.03	11	-5.38	10
109	-165	-187	Max	0.00	560.54	11	101.93	7	-23.63	5	-987.97	3	944.99	9	0.52	7
109	-165	-187	Max	52.00	570.62	11	101.93	7	28.13	7	-987.97	3	-0.04	1	0.52	7
109	-165	-187	Min.	0.00	309.11	12	3.57	13	-44.11	9	-1817.43	9	513.70	3	-4.89	10
109	-165	-187	Min.	52.00	316.87	12	3.57	13	-36.83	10	-1817.43	9	-0.07	9	-4.89	10
110	-164	-186	Max	0.00	-126.90	5	822.51	9	-3.58	7	-1262.00	5	1195.80	9	39.84	9
110	-164	-186	Max	52.00	-119.15	5	822.51	9	419.74	9	-1262.00	5	-0.02	13	39.84	9
110	-164	-186	Min.	0.00	-593.30	9	407.66	7	-7.97	9	-2299.67	9	656.22	5	21.43	7
110	-164	-186	Min.	52.00	-583.22	9	407.66	7	208.41	7	-2299.67	9	-0.03	9	21.43	7
111	-161	-185	Max	0.00	16.17	7	128.22	5	4.32	10	-516.18	7	480.90	9	9.04	9
111	-161	-185	Max	0.78					2.75	7			264.35	7		
111	-161	-185	Max	52.00	23.93	7	128.22	5	68.53	9	-516.18	7	-0.03	5	9.04	9
111	-161	-185	Min.	0.00	-115.05	9	-3.53	7	-0.38	5	-924.94	9	268.38	7	1.56	7
111	-161	-185	Min.	0.78					2.75	7			264.35	7		
111	-161	-185	Min.	52.00	-104.96	9	-3.53	7	0.73	7	-924.94	9	-0.06	9	1.56	7
112	-159	-184	Max	0.00	14.95	7	203.78	11	4.52	10	1063.09	11	-280.84	7	-6.26	13
112	-159	-184	Max	2.06					2.39	7			-269.71	7		
112	-159	-184	Max	52.00	22.71	7	203.78	11	106.58	11	1063.09	11	0.07	11	-6.26	13
112	-159	-184	Min.	0.00	-116.60	9	-5.36	7	-1.00	5	540.14	7	-552.74	11	-23.43	11
112	-159	-184	Min.	2.06					2.39	7			-269.71	7		
112	-159	-184	Min.	52.00	-106.52	9	-5.36	7	-0.26	7	540.14	7	0.03	5	-23.43	11
113	-158	-183	Max	0.00	-124.60	5	941.03	11	-3.93	7	2397.68	9	-680.28	5	-19.05	13
113	-158	-183	Max	52.00	-116.84	5	941.03	11	480.63	11	2397.68	9	0.02	10	-19.05	13
113	-158	-183	Min.	0.00	-580.67	9	440.67	13	-8.71	11	1308.25	5	-1246.77	9	-44.61	11
113	-158	-183	Min.	52.00	-570.59	9	440.67	13	224.67	13	1308.25	5	-0.00	11	-44.61	11
114	-155	-182	Max	0.00	555.23	11	89.65	7	2.34	10	1702.97	9	-485.68	1	13.96	10
114	-155	-182	Max	0.26					1.21	5			-485.24	5		
114	-155	-182	Max	52.00	565.31	11	89.65	7	46.28	7	1702.97	9	0.08	9	13.96	10
114	-155	-182	Min.	0.00	295.69	12	-111.59	10	-0.34	7	934.10	1	-885.46	9	-1.02	11
114	-155	-182	Min.	0.26					1.21	5			-485.24	5		
114	-155	-182	Min.	52.00	303.44	12	-111.59	10	-55.68	10	934.10	1	0.04	3	-1.02	11
115	-153	-181	Max	0.00	-366.74	3	18.02	7	1.96	10	2431.59	9	-691.51	7	7.55	10
115	-153	-181	Max	1.04					0.12	2			-681.57	2		
115	-153	-181	Max	52.00	-358.98	3	18.02	7	9.95	7	2431.59	9	0.03	9	7.55	10
115	-153	-181	Min.	0.00	-977.65	9	-225.68	10	-0.42	5	1329.86	7	-1264.39	9	-6.67	11
115	-153	-181	Min.	0.91					0.05	1			-687.86	1		

Relazione di calcolo

115	-153	-181	Min.	52.00	-967.57	9	-225.68	10	-115.39	10	1329.86	7	0.02	14	-6.67	11
116	-152	-180	Max	0.00	550.38	11	37.34	7	0.21	10	1860.20	9	-527.16	1	9.83	10
116	-152	-180	Max	52.00	560.47	11	37.34	7	18.37	7	1860.20	9	0.09	9	9.83	10
116	-152	-180	Min.	0.00	294.90	12	-147.21	10	-1.22	11	1013.87	1	-967.21	9	-2.29	5
116	-152	-180	Min.	52.00	302.66	12	-147.21	10	-76.34	10	1013.87	1	0.05	3	-2.29	5
117	-149	-179	Max	0.00	-169.73	3	-305.43	7	7.32	10	2327.15	9	-659.12	3	39.52	10
117	-149	-179	Max	52.00	-161.98	3	-305.43	7	-155.35	7	2327.15	9	0.03	9	39.52	10
117	-149	-179	Min.	0.00	-609.34	9	-755.60	10	3.47	7	1267.58	3	-1210.08	9	16.00	7
117	-149	-179	Min.	52.00	-599.26	9	-755.60	10	-385.59	10	1267.58	3	0.02	7	16.00	7
118	-148	-178	Max	0.00	135.59	7	-72.42	5	1.88	10	2111.97	9	-592.29	7	13.88	10
118	-148	-178	Max	52.00	143.34	7	-72.42	5	-38.08	5	2111.97	9	0.03	9	13.88	10
118	-148	-178	Min.	0.00	-122.96	9	-355.59	10	-0.35	5	1139.07	7	-1098.19	9	2.30	3
118	-148	-178	Min.	52.00	-112.88	9	-355.59	10	-183.03	10	1139.07	7	0.01	14	2.30	3
119	-145	-177	Max	0.00	-19.13	5	-36.96	5	3.46	10	1084.45	11	-291.49	3	32.17	9
119	-145	-177	Max	52.00	-11.38	5	-36.96	5	-19.73	5	1084.45	11	0.06	9	32.17	9
119	-145	-177	Min.	0.00	-219.17	9	-284.26	10	-0.51	5	560.62	3	-563.85	11	11.03	5
119	-145	-177	Min.	52.00	-209.09	9	-284.26	10	-144.36	10	560.62	3	0.03	7	11.03	5
199	-29	-97	Max	0.00	360.45	10	13.49	11	-0.99	13	560.42	11	-615.70	5	-1.28	1
199	-29	-97	Max	200.00	399.23	10	13.49	11	24.55	11	560.42	11	0.06	9	-1.28	1
199	-29	-97	Min.	0.00	132.28	14	3.69	13	-2.43	11	307.87	5	-1120.79	11	-2.69	11
199	-29	-97	Min.	200.00	162.11	14	3.69	13	6.39	13	307.87	5	0.03	1	-2.69	11
201	-49	-95	Max	0.00	-355.90	7	398.88	11	-2.23	7	-111.54	7	417.13	9	13.88	9
201	-49	-95	Max	166.67	-331.04	7	398.88	11	659.98	11	-111.54	7	0.87	10	13.88	9
201	-49	-95	Min.	0.00	-1020.11	11	179.42	7	-4.82	11	-249.76	9	186.57	7	1.65	1
201	-49	-95	Min.	166.67	-987.80	11	179.42	7	296.79	7	-249.76	9	0.66	12	1.65	1
203	-93	-51	Max	0.00	199.79	3	-61.22	5	186.25	11	-121.23	3	-0.76	7	10.33	10
203	-93	-51	Max	166.67	174.94	3	-61.22	5	0.42	11	-121.23	3	-202.81	3	10.33	10
203	-93	-51	Min.	0.00	-547.00	9	-111.50	11	102.36	5	-237.94	9	-1.04	9	4.42	1
203	-93	-51	Min.	166.67	-579.32	9	-111.50	11	-0.09	10	-237.94	9	-397.60	9	4.42	1
205	-91	-53	Max	0.00	-473.32	7	52.36	11	-20.79	13	-190.55	1	-0.03	3	3.13	10
205	-91	-53	Max	166.67	-498.18	7	52.36	11	0.51	11	-190.55	1	-317.61	1	3.13	10
205	-91	-53	Min.	0.00	-1708.44	11	12.45	13	-86.76	11	-357.39	11	-0.06	9	-2.33	11
205	-91	-53	Min.	166.67	-1740.76	11	12.45	13	-0.08	10	-357.39	11	-595.71	11	-2.33	11
207	-89	-55	Max	0.00	58.39	3	11.08	11	3.62	10	-149.75	7	-0.04	1	7.76	10
207	-89	-55	Max	166.67	33.53	3	11.08	11	-0.22	5	-149.75	7	-249.62	7	7.76	10
207	-89	-55	Min.	0.00	-697.62	11	-2.58	10	-19.01	11	-270.95	11	-0.08	11	1.49	1
207	-89	-55	Min.	166.67	-729.94	11	-2.58	10	-0.70	9	-270.95	11	-451.67	11	1.49	1
208	-88	-58	Max	0.00	-183.50	1	239.66	11	-221.53	7	-174.26	1	-0.02	3	4.01	10
208	-88	-58	Max	166.67	-208.36	1	239.66	11	1.89	11	-174.26	1	-290.45	1	4.01	10
208	-88	-58	Min.	0.00	-1149.58	11	133.60	7	-397.54	11	-321.35	11	-0.04	9	-0.79	11
208	-88	-58	Min.	166.67	-1181.89	11	133.60	7	0.90	13	-321.35	11	-535.63	11	-0.79	11
211	-85	-59	Max	0.00	-206.10	7	273.96	11	-178.32	7	-85.82	1	-0.02	7	6.76	10
211	-85	-59	Max	166.67	-230.96	7	273.96	11	-0.04	7	-85.82	1	-143.06	1	6.76	10
211	-85	-59	Min.	0.00	-771.64	11	106.97	7	-456.94	11	-160.71	9	-0.04	11	1.32	14
211	-85	-59	Min.	166.67	-803.95	11	106.97	7	-0.37	9	-160.71	9	-267.88	9	1.32	14
212	-62	-84	Max	0.00	-151.97	3	-102.39	3	-0.23	7	533.36	11	-377.08	3	15.54	11
212	-62	-84	Max	106.67					-109.58	3			-75.42	3		
212	-62	-84	Max	133.33	-132.08	3	-102.39	3	-136.89	3	533.36	11	0.00	7	15.54	11
212	-62	-84	Min.	0.00	-666.88	11	-284.94	11	-0.85	9	282.81	3	-711.15	11	4.51	13
212	-62	-84	Min.	106.67					-304.74	11			-142.23	11		
212	-62	-84	Min.	133.33	-641.03	11	-284.94	11	-380.73	11	282.81	3	-0.00	10	4.51	13
213	-63	-83	Max	0.00	-216.00	1	-159.63	7	1.47	11	770.42	11	-543.56	3	25.79	11
213	-63	-83	Max	133.33	-196.11	1	-159.63	7	-211.98	7	770.42	11	0.06	11	25.79	11
213	-63	-83	Min.	0.00	-1209.45	11	-286.09	11	0.61	13	407.69	3	-1027.17	11	11.75	13
213	-63	-83	Min.	133.33	-1183.60	11	-286.09	11	-379.99	11	407.69	3	0.03	3	11.75	13
214	-66	-82	Max	0.00	127.35	3	-12.79	13	-0.30	5	838.10	9	-613.30	3	-0.62	1
214	-66	-82	Max	133.33	147.24	3	-12.79	13	-17.60	13	838.10	9	0.08	9	-0.62	1
214	-66	-82	Min.	0.00	-555.53	11	-44.93	11	-0.83	9	460.01	3	-1117.39	9	-6.72	10
214	-66	-82	Min.	133.33	-529.67	11	-44.93	11	-60.55	11	460.01	3	0.04	1	-6.72	10
215	-68	-81	Max	0.00	-443.08	7	-13.52	13	0.33	11	933.62	9	-677.65	3	4.50	11
215	-68	-81	Max	133.33	-423.19	7	-13.52	13	-18.17	13	933.62	9	0.05	11	4.50	11
215	-68	-81	Min.	0.00	-1638.56	11	-67.60	11	-0.21	10	508.26	3	-1244.78	9	-2.98	10
215	-68	-81	Min.	133.33	-1612.71	11	-67.60	11	-89.80	11	508.26	3	0.03	3	-2.98	10
216	-70	-80	Max	0.00	227.98	5	125.47	11	0.58	11	866.44	9	-608.61	7	-2.99	1
216	-70	-80	Max	133.33	247.86	5	125.47	11	167.88	11	866.44	9	-0.55	12	-2.99	1
216	-70	-80	Min.	0.00	-482.01	9	67.10	5	0.07	13	456.02	7	-1155.93	9	-11.27	10
216	-70	-80	Min.	133.33	-456.15	9	67.10	5	89.88	5	456.02	7	-0.72	10	-11.27	10
217	-72	-79	Max	0.00	-303.26	3	476.70	11	-1.94	7	730.52	9	-473.41	3	-34.34	1
217	-72	-79	Max	133.33	-283.38	3	476.70	11	631.60	11	730.52	9	-0.72	1	-34.34	1
217	-72	-79	Min.	0.00	-920.61	11	214.32	7	-4.00	11	354.51	3	-975.00	9	-67.88	9
217	-72	-79	Min.	133.33	-894.76	11	214.32	7	283.63	3	354.51	3	-0.97	9	-67.88	9
249	-25	-47	Max	0.00	-308.96	1	576.35	9	-7.24	7	-408.11	1	888.58	9	29.53	9
249	-25	-47	Max	100.00	-294.04	1	576.35	9	558.30	9	-408.11	1	0.02	11	29.53	9
249	-25	-47	Min.	0.00	-768.90	9	269.95	1	-18.05	9	-888.57	9	408.11	1	10.17	1
249	-25	-47	Min.	100.00	-749.51	9	269.95	1	260.38	1	-888.57	9	0.00	3	10.17	1
250	-35	-46	Max	0.00	279.48	3	17.43	7	2.20	10	-608.09	3	1149.86	11	7.31	9
250	-35	-46	Max	7.66					1.21	6			563.88	6		
250	-35	-46	Max	100.00	294.39	3	17.43	7	17.25	7	-608.09	3	-0.01	3	7.31	9
250	-35	-46	Min.	0.00	14.71	14	-8.08	10	0.03	7	-1149.88	11	608.08	3	2.24	1

Relazione di calcolo

250	-35	-46	Min.	7.94					1.15	3			559.78	3		
250	-35	-46	Min.	100.00	29.62	14	-8.08	10	-5.87	10	-1149.88	11	-0.03	9	2.24	1
251	-45	-36	Max	0.00	-586.77	7	58.35	10	-16.87	7	-774.27	7	-0.01	14	-1.05	13
251	-45	-36	Max	100.00	-601.68	7	58.35	10	2.47	10	-774.27	7	-774.28	7	-1.05	13
251	-45	-36	Min.	0.00	-1516.15	9	18.96	7	-55.87	10	-1439.57	11	-0.01	9	-2.99	11
251	-45	-36	Min.	100.00	-1535.54	9	18.96	7	-0.12	5	-1439.57	11	-1439.58	11	-2.99	11
252	-44	-34	Max	0.00	369.98	3	72.30	10	-17.85	1	-618.67	3	-0.01	1	7.64	9
252	-44	-34	Max	100.00	355.06	3	72.30	10	-0.50	3	-618.67	3	-618.69	3	7.64	9
252	-44	-34	Min.	0.00	111.37	14	17.11	1	-73.27	10	-1150.05	11	-0.02	11	3.36	1
252	-44	-34	Min.	100.00	96.46	14	17.11	1	-1.75	11	-1150.05	11	-1150.07	11	3.36	1
253	-43	-33	Max	0.00	-383.01	1	379.11	9	-190.92	7	-593.06	1	0.01	11	2.10	10
253	-43	-33	Max	100.00	-397.92	1	379.11	9	13.90	9	-593.06	1	-593.05	1	2.10	10
253	-43	-33	Min.	0.00	-1202.64	9	198.89	7	-365.21	9	-1099.92	11	0.01	1	-0.14	1
253	-43	-33	Min.	100.00	-1222.03	9	198.89	7	7.89	5	-1099.92	11	-1099.91	11	-0.14	1
254	-42	-32	Max	0.00	-10.80	3	25.33	9	41.78	3	-295.15	7	-0.02	1	-1.08	13
254	-42	-32	Max	99.50					-0.97	1			-302.46	1		
254	-42	-32	Max	100.00	-25.71	3	25.33	9	-0.20	7	-295.15	7	-295.17	7	-1.08	13
254	-42	-32	Min.	0.00	-244.96	11	-43.06	3	-27.31	11	-548.51	9	-0.04	11	-7.06	11
254	-42	-32	Min.	99.50					-1.83	5			-314.57	5		
254	-42	-32	Min.	100.00	-264.35	11	-43.06	3	-2.31	11	-548.51	9	-548.54	9	-7.06	11
255	-26	-41	Max	0.00	-252.71	3	248.71	9	-9.76	7	484.07	9	-464.99	3	-12.26	1
255	-26	-41	Max	200.00	-222.88	3	248.71	9	475.83	9	484.07	9	-0.02	7	-12.26	1
255	-26	-41	Min.	0.00	-632.42	9	118.67	3	-21.59	9	232.49	3	-968.18	9	-26.53	9
255	-26	-41	Min.	200.00	-593.64	9	118.67	3	225.94	3	232.49	3	-0.04	9	-26.53	9
256	-27	-40	Max	0.00	325.98	1	5.88	7	2.02	10	573.72	11	-616.30	5	1.51	10
256	-27	-40	Max	200.00	357.32	10	5.88	7	11.50	7	573.72	11	0.09	11	1.51	10
256	-27	-40	Min.	0.00	82.40	14	-6.36	10	-0.26	7	308.18	5	-1147.34	11	-1.32	11
256	-27	-40	Min.	200.00	112.23	14	-6.36	10	-10.69	10	308.18	5	0.05	1	-1.32	11
257	-28	-39	Max	0.00	-530.60	3	-1.80	7	2.17	10	642.65	11	-705.47	3	1.74	11
257	-28	-39	Max	3.75					1.41	7			-694.77	7		
257	-28	-39	Max	200.00	-500.77	3	-1.80	7	-2.12	7	642.65	11	0.08	11	1.74	11
257	-28	-39	Min.	0.00	-1382.18	9	-18.91	10	-0.69	5	352.76	3	-1285.22	11	0.81	1
257	-28	-39	Min.	3.75					0.38	1			-701.80	1		
257	-28	-39	Min.	200.00	-1343.40	9	-18.91	10	-35.66	10	352.76	3	0.05	3	0.81	1
258	-38	-30	Max	0.00	-269.72	3	147.42	9	-149.04	7	579.79	11	-0.06	3	7.41	9
258	-38	-30	Max	200.00	-299.55	3	147.42	9	16.53	9	579.79	11	1159.47	11	7.41	9
258	-38	-30	Min.	0.00	-917.12	11	79.11	7	-278.30	9	316.90	3	-0.10	11	3.98	1
258	-38	-30	Min.	200.00	-955.90	11	79.11	7	9.11	3	316.90	3	633.74	3	3.98	1
259	-37	-31	Max	0.00	-3.74	7	43.12	9	-5.50	7	324.46	11	0.00	10	2.52	11
259	-37	-31	Max	196.00					-1.35	1			363.40	1		
259	-37	-31	Max	200.00	-33.58	7	43.12	9	0.17	10	324.46	11	648.92	11	2.52	11
259	-37	-31	Min.	0.00	-213.42	11	2.56	7	-86.92	9	179.15	7	0.00	12	0.82	1
259	-37	-31	Min.	196.00					-0.48	7			351.14	7		
259	-37	-31	Min.	200.00	-252.20	11	2.56	7	-1.84	5	179.15	7	358.31	7	0.82	1
1002	-24	-23	Max	0.00	357.14	11	-24.20	13	99.21	11	1127.58	9	0.00	1	0.16	7
1002	-24	-23	Max	124.54					-12.13	9			704.73	9		
1002	-24	-23	Max	250.00	357.14	11	-24.20	13	-39.57	13	-756.80	1	0.00	9	0.16	7
1002	-24	-23	Min.	0.00	127.28	1	-82.63	11	20.93	13	756.80	1	0.00	1	-0.18	3
1002	-24	-23	Min.	124.54					-5.00	1			472.99	1		
1002	-24	-23	Min.	250.00	127.28	1	-82.63	11	-107.37	11	-1127.58	9	0.00	1	-0.18	3
1002	-23	-157	Max	0.00	800.86	10	495.14	10	-107.07	14	2303.25	9	0.00	1	-0.27	13
1002	-23	-157	Max	50.00	800.86	10	495.14	10	-30.72	13	1852.21	9	1038.86	9	-0.27	13
1002	-23	-157	Min.	0.00	85.09	1	125.67	14	-293.39	10	1195.16	3	0.00	1	-1.88	11
1002	-23	-157	Min.	50.00	85.09	1	125.67	14	-66.09	11	892.44	3	521.90	3	-1.88	11
1002	-157	-133	Max	0.00	2578.40	10	113.94	9	-44.16	14	2200.77	9	361.31	9	-0.61	3
1002	-157	-133	Max	234.12					160.86	11			2753.40	11		
1002	-157	-133	Max	235.00	2578.40	10	113.94	9	180.78	9	80.91	9	3042.28	9	-0.61	3
1002	-157	-133	Min.	0.00	1132.54	1	58.64	1	-86.99	9	1304.77	3	163.32	3	-1.31	9
1002	-157	-133	Min.	215.51					81.90	3			1569.27	3		
1002	-157	-133	Min.	235.00	1132.54	1	58.64	1	93.33	1	-118.00	3	1557.77	3	-1.31	9
1002	-133	-158	Max	0.00	1899.81	10	-60.89	1	191.15	11	-16.25	3	3375.30	9	1.53	11
1002	-133	-158	Max	235.00	1899.81	10	-60.89	1	-38.73	13	-1439.02	3	131.47	11	1.53	11
1002	-133	-158	Min.	0.00	703.83	1	-124.97	11	102.15	1	-326.29	9	1747.16	3	0.78	13
1002	-133	-158	Min.	235.00	703.83	1	-124.97	11	-102.53	11	-2446.15	9	37.22	3	0.78	13
1002	-158	114	Max	0.00	-192.96	13	-503.26	13	-18.13	1	-1564.48	5	1364.46	9	-3.11	7
1002	-158	114	Max	42.40	-192.96	13	-503.26	13	-233.06	13	-1821.19	5	0.00	11	-3.11	7
1002	-158	114	Min.	0.00	-684.47	9	-1066.00	11	-57.92	11	-3026.82	9	717.76	5	-7.18	11
1002	-158	114	Min.	42.40	-684.47	9	-1066.00	11	-509.91	11	-3409.30	9	0.00	12	-7.18	11
1002	114	-25	Max	7.60	60.43	10	661.12	9	-125.91	13	2976.83	9	0.00	1	17.92	9
1002	114	-25	Max	30.00	60.43	10	661.12	9	-41.81	13	2883.97	9	656.41	9	17.92	9
1002	114	-25	Min.	7.60	-348.15	1	324.67	1	-249.80	11	1415.27	1	0.00	1	7.14	7
1002	114	-25	Min.	30.00	-348.15	1	324.67	1	-103.56	11	1352.45	1	309.99	1	7.14	7
1002	-25	-71	Max	0.00	818.59	11	94.23	11	-57.62	13	2115.07	9	-97.87	5	-0.03	13
1002	-25	-71	Max	190.00	818.59	11	94.23	11	49.43	11	787.79	9	2525.55	9	-0.03	13
1002	-25	-71	Min.	0.00	72.13	1	44.54	1	-129.62	11	1043.15	5	-232.17	9	-0.21	11
1002	-25	-71	Min.	190.00	72.13	1	44.54	1	16.36	1	358.32	5	1227.55	7	-0.21	11
1002	-71	-72	Max	0.00	818.59	11	94.23	11	49.43	11	787.79	9	2525.55	9	-0.03	13
1002	-71	-72	Max	112.77					138.33	9			2969.76	9		
1002	-71	-72	Max	190.00	818.59	11	94.23	11	228.47	11	-302.66	14	2761.44	9	-0.03	13

Relazione di calcolo

1002	-71	-72	Min.	0.00	72.13	1	44.54	1	16.36	1	358.32	5	1227.55	7	-0.21	11
1002	-71	-72	Min.	100.72					61.22	7			1410.20	7		
1002	-71	-72	Min.	190.00	72.13	1	44.54	1	100.99	1	-539.49	9	1263.68	1	-0.21	11
1002	-72	117	Max	0.00	169.86	10	-171.15	1	293.98	11	-625.27	7	3736.44	9	-2.04	7
1002	-72	117	Max	182.40	169.86	10	-171.15	1	-176.84	1	-1282.71	7	0.00	9	-2.04	7
1002	-72	117	Min.	0.00	-287.56	1	-382.46	11	135.33	1	-1411.39	9	1740.08	7	-4.21	11
1002	-72	117	Min.	182.40	-287.56	1	-382.46	11	-403.63	11	-2685.58	9	0.00	7	-4.21	11
1002	117	-49	Max	7.60	231.82	10	309.95	11	-160.25	1	2642.10	9	0.00	1	4.92	11
1002	117	-49	Max	190.00	231.82	10	309.95	11	204.92	11	1367.92	9	3657.14	9	4.92	11
1002	117	-49	Min.	7.60	-191.70	1	138.54	1	-360.43	11	1258.84	7	0.00	1	2.31	7
1002	117	-49	Min.	190.00	-191.70	1	138.54	1	92.45	1	601.41	7	1696.55	7	2.31	7
1002	-49	-50	Max	0.00	442.10	10	-41.25	13	196.33	11	393.18	9	3240.00	9	0.11	11
1002	-49	-50	Max	55.11					131.05	9			3350.60	9		
1002	-49	-50	Max	190.00	442.10	10	-41.25	13	27.86	10	-436.41	3	2726.13	9	0.11	11
1002	-49	-50	Min.	0.00	-74.16	1	-88.92	11	90.80	1	204.32	14	1508.27	3	-0.01	10
1002	-49	-50	Min.	68.07					61.49	7			1593.12	7		
1002	-49	-50	Min.	190.00	-74.16	1	-88.92	11	9.00	1	-934.10	9	1325.39	7	-0.01	10
1002	-50	-26	Max	0.00	442.10	10	-41.25	13	27.86	10	-436.41	3	2726.13	9	0.11	11
1002	-50	-26	Max	190.00	442.10	10	-41.25	13	-60.07	13	-1121.24	3	-150.10	3	0.11	11
1002	-50	-26	Min.	0.00	-74.16	1	-88.92	11	9.00	1	-934.10	9	1325.39	7	-0.01	10
1002	-50	-26	Min.	190.00	-74.16	1	-88.92	11	-141.57	11	-2261.38	9	-309.57	9	-0.01	10
1002	-26	122	Max	0.00	29.94	10	-165.63	1	-44.94	13	-1374.33	3	658.61	9	-9.69	7
1002	-26	122	Max	22.40	29.94	10	-165.63	1	-86.18	13	-1437.15	3	0.00	9	-9.69	7
1002	-26	122	Min.	0.00	-310.20	1	-333.69	11	-117.01	11	-2893.79	9	314.89	3	-21.54	9
1002	-26	122	Min.	22.40	-310.20	1	-333.69	11	-191.75	11	-2986.66	9	0.00	3	-21.54	9
1002	122	-164	Max	7.60	74.87	10	951.07	9	-243.17	1	3467.02	9	0.00	1	6.11	9
1002	122	-164	Max	50.00	74.87	10	951.07	9	-20.77	1	3084.54	9	1388.93	9	6.11	9
1002	122	-164	Min.	7.60	-294.66	1	524.52	1	-452.15	9	1854.10	5	0.00	1	2.59	7
1002	122	-164	Min.	50.00	-294.66	1	524.52	1	-48.89	9	1597.40	5	731.72	5	2.59	7
1002	-164	-144	Max	0.00	2144.73	10	128.56	9	-43.72	1	2491.24	9	193.13	9	-0.98	5
1002	-164	-144	Max	235.00	2144.73	10	128.56	9	213.38	9	371.38	9	3556.71	9	-0.98	5
1002	-164	-144	Min.	0.00	995.36	1	65.50	1	-88.73	9	1470.49	5	75.50	5	-1.86	9
1002	-164	-144	Min.	235.00	995.36	1	65.50	1	110.20	1	47.72	5	1859.40	5	-1.86	9
1002	-144	-163	Max	0.00	2270.09	9	-51.24	1	202.56	9	39.85	5	3480.89	9	1.64	9
1002	-144	-163	Max	4.70					100.97	7			1841.35	7		
1002	-144	-163	Max	235.00	2270.09	9	-51.24	1	-17.04	1	-1382.93	5	452.47	9	1.64	9
1002	-144	-163	Min.	0.00	1129.04	1	-100.22	9	103.38	1	-228.76	9	1813.86	5	0.81	7
1002	-144	-163	Min.	4.70					100.97	5			1815.06	5		
1002	-144	-163	Min.	235.00	1129.04	1	-100.22	9	-32.95	9	-2348.62	9	235.46	3	0.81	7
1002	-163	130	Max	0.00	-83.90	13	-483.48	1	22.43	10	-1577.55	3	1359.16	9	-0.72	7
1002	-163	130	Max	42.40	-83.90	13	-483.48	1	-196.67	1	-1834.25	3	0.00	7	-0.72	7
1002	-163	130	Min.	0.00	-320.10	9	-1004.49	9	8.32	1	-3014.32	9	723.30	3	-2.77	10
1002	-163	130	Min.	42.40	-320.10	9	-1004.49	9	-405.97	9	-3396.80	9	0.00	9	-2.77	10
1003	115	-154	Max	7.60	-15.86	1	638.87	10	-42.53	1	3521.81	9	0.00	1	4.86	9
1003	115	-154	Max	50.00	-15.86	1	638.87	10	132.49	9	3139.33	9	1412.16	9	4.86	9
1003	115	-154	Min.	7.60	-475.88	11	253.36	1	-151.78	10	1895.65	1	0.00	1	1.70	7
1003	115	-154	Min.	50.00	-475.88	11	253.36	1	64.89	1	1638.95	1	749.34	1	1.70	7
1003	-154	-135	Max	0.00	2425.79	9	-20.89	1	86.81	9	2454.50	9	547.69	9	0.15	11
1003	-154	-135	Max	235.00	2425.79	9	-20.89	1	-3.73	1	334.64	9	3824.94	9	0.15	11
1003	-154	-135	Min.	0.00	1238.74	14	-43.77	9	45.37	1	1444.63	7	280.81	7	-0.05	10
1003	-154	-135	Min.	235.00	1238.74	14	-43.77	9	-16.05	9	21.85	7	2004.97	7	-0.05	10
1003	-135	-153	Max	0.00	2033.87	9	8.15	10	0.86	1	-109.79	7	3997.27	9	0.18	11
1003	-135	-153	Max	235.00	2033.87	9	8.15	10	0.14	10	-1532.56	7	340.41	9	0.18	11
1003	-135	-153	Min.	0.00	1046.26	14	-6.21	11	-19.02	10	-496.18	9	2099.70	7	-0.08	10
1003	-135	-153	Min.	235.00	1046.26	14	-6.21	11	-18.43	11	-2616.04	9	168.35	3	-0.08	10
1003	-153	116	Max	0.00	-227.28	1	233.83	10	-5.39	13	-1900.42	3	1604.81	9	1.89	10
1003	-153	116	Max	42.40	-227.28	1	233.83	10	91.73	10	-2157.12	3	0.00	1	1.89	10
1003	-153	116	Min.	0.00	-626.17	11	6.33	1	-11.93	9	-3593.69	9	860.20	3	-0.30	5
1003	-153	116	Min.	42.40	-626.17	11	6.33	1	-5.18	1	-3976.16	9	0.00	9	-0.30	5
1003	116	-36	Max	7.60	-237.36	1	-29.53	1	62.17	9	4315.38	9	0.00	1	0.16	5
1003	116	-36	Max	30.00	-237.36	1	-29.53	1	44.70	10	4138.51	9	946.84	9	0.16	5
1003	116	-36	Min.	7.60	-587.34	11	-77.97	9	19.09	1	2283.13	7	0.00	1	-2.29	10
1003	116	-36	Min.	30.00	-587.34	11	-77.97	9	12.48	1	2164.31	7	498.11	7	-2.29	10
1003	-36	-67	Max	0.00	999.98	9	-8.09	1	47.20	9	2618.60	11	-274.31	1	0.18	10
1003	-36	-67	Max	190.00	999.98	9	-8.09	1	9.95	10	1118.42	11	3056.26	11	0.18	10
1003	-36	-67	Min.	0.00	544.41	1	-21.99	9	14.33	1	1562.63	7	-493.91	11	0.04	3
1003	-36	-67	Min.	190.00	544.41	1	-21.99	9	-3.35	11	554.80	7	1734.61	7	0.04	3
1003	-67	-68	Max	0.00	999.98	9	-8.09	1	9.95	10	1118.42	11	3056.26	11	0.18	10
1003	-67	-68	Max	141.65					-31.46	11			3848.38	11		
1003	-67	-68	Max	190.00	999.98	9	-8.09	1	-16.39	1	-256.48	14	3756.09	11	0.18	10
1003	-67	-68	Min.	0.00	544.41	1	-21.99	9	-3.35	11	554.80	7	1734.61	7	0.04	3
1003	-67	-68	Min.	104.69					-9.49	7			2025.27	7		
1003	-67	-68	Min.	190.00	544.41	1	-21.99	9	-41.05	11	-537.55	10	1832.24	7	0.04	3
1003	-68	119	Max	0.00	66.36	9	47.75	11	-15.74	13	-894.40	3	4998.50	11	0.40	11
1003	-68	119	Max	182.40	66.36	9	47.75	11	41.55	11	-1861.91	3	0.00	9	0.40	11
1003	-68	119	Min.	0.00	-79.62	11	0.66	13	-45.55	11	-2020.32	11	2513.75	3	-0.03	10
1003	-68	119	Min.	182.40	-79.62	11	0.66	13	-21.52	10	-3460.49	11	0.00	7	-0.03	10
1003	119	-53	Max	7.60	76.44	9	-0.94	13	46.42	11	3440.88	11	0.00	1	-0.05	13
1003	119	-53	Max	190.00	76.44	9	-0.94	13	-9.85	1	2000.71	11	4962.73	11	-0.05	13

Relazione di calcolo

1003	119	-53	Min.	7.60	-8.81	11	-40.74	11	-17.25	10	1847.59	7	0.00	1	-0.51	11
1003	119	-53	Min.	190.00	-8.81	11	-40.74	11	-27.88	11	880.08	7	2487.64	7	-0.51	11
1003	-53	-54	Max	0.00	426.63	9	17.19	10	-8.43	1	422.26	10	4367.02	11	0.00	7
1003	-53	-54	Max	32.92					-21.72	11			4409.81	11		
1003	-53	-54	Max	190.00	426.63	9	17.19	10	10.21	10	-625.93	7	3435.75	11	0.00	7
1003	-53	-54	Min.	0.00	230.59	1	3.89	1	-26.07	9	174.25	14	2169.19	7	-0.14	10
1003	-53	-54	Min.	72.00					-5.63	7			2306.67	7		
1003	-53	-54	Min.	190.00	230.59	1	3.89	1	-3.47	11	-1240.23	11	1937.36	7	-0.14	10
1003	-54	-28	Max	0.00	426.63	9	17.19	10	10.21	10	-625.93	7	3435.75	11	0.00	7
1003	-54	-28	Max	190.00	426.63	9	17.19	10	42.88	10	-1633.76	7	-206.00	3	0.00	7
1003	-54	-28	Min.	0.00	230.59	1	3.89	1	-3.47	11	-1240.23	11	1937.36	7	-0.14	10
1003	-54	-28	Min.	190.00	230.59	1	3.89	1	6.35	1	-2740.41	11	-345.85	11	-0.14	10
1003	-28	124	Max	0.00	-124.17	1	36.11	10	41.59	10	-2165.93	3	941.27	9	2.02	10
1003	-28	124	Max	22.40	-124.17	1	36.11	10	49.67	10	-2284.75	3	0.00	9	2.02	10
1003	-28	124	Min.	0.00	-294.07	11	6.63	1	5.54	1	-4113.69	9	498.48	3	-0.69	5
1003	-28	124	Min.	22.40	-294.07	11	6.63	1	7.02	1	-4290.55	9	0.00	3	-0.69	5
1003	124	-168	Max	7.60	-115.33	1	-36.25	1	88.79	10	4023.61	9	0.00	1	0.21	5
1003	124	-168	Max	50.00	-115.33	1	-36.25	1	12.05	9	3641.13	9	1624.93	9	0.21	5
1003	124	-168	Min.	7.60	-207.28	9	-183.94	10	20.56	1	2175.48	7	0.00	1	-0.99	10
1003	124	-168	Min.	50.00	-207.28	9	-183.94	10	5.19	1	1918.77	7	867.98	7	-0.99	10
1003	-168	-142	Max	0.00	2255.28	9	-5.20	1	16.17	10	2649.14	9	344.42	9	0.50	9
1003	-168	-142	Max	235.00	2255.28	9	-5.20	1	-8.24	1	529.28	9	4079.06	9	0.50	9
1003	-168	-142	Min.	0.00	1235.62	1	-19.50	9	3.99	1	1550.96	7	171.78	7	0.16	7
1003	-168	-142	Min.	235.00	1235.62	1	-19.50	9	-29.91	9	128.18	7	2144.77	7	0.16	7
1003	-142	-167	Max	0.00	2532.62	9	4.74	9	-7.04	1	-41.99	7	3957.13	9	-0.07	13
1003	-142	-167	Max	235.00	2532.62	9	4.74	9	-5.07	1	-1464.77	7	604.24	9	-0.07	13
1003	-142	-167	Min.	0.00	1389.04	1	0.84	1	-22.33	9	-366.83	9	2082.16	3	-0.18	9
1003	-142	-167	Min.	235.00	1389.04	1	0.84	1	-11.72	10	-2486.69	9	311.01	3	-0.18	9
1003	-167	131	Max	0.00	100.91	11	123.08	11	-6.88	13	-1789.84	3	1528.67	9	0.92	7
1003	-167	131	Max	42.40	100.91	11	123.08	11	38.70	11	-2046.54	3	0.00	9	0.92	7
1003	-167	131	Min.	0.00	-108.28	9	29.74	13	-13.49	11	-3414.11	9	813.31	3	-0.42	5
1003	-167	131	Min.	42.40	-108.28	9	29.74	13	5.73	13	-3796.58	9	0.00	1	-0.42	5
1004	-20	-151	Max	0.00	-21.79	13	151.10	10	7.93	1	2553.13	9	0.00	1	-0.20	13
1004	-20	-151	Max	50.00	-21.79	13	151.10	10	-1.86	13	2102.09	9	1163.81	9	-0.20	13
1004	-20	-151	Min.	0.00	-64.08	11	-35.42	1	-78.12	10	1430.70	3	0.00	1	-1.09	5
1004	-20	-151	Min.	50.00	-64.08	11	-35.42	1	-14.76	11	1127.98	3	639.67	3	-1.09	5
1004	-151	-136	Max	0.00	2160.07	9	3.71	10	-5.26	1	2212.43	9	391.74	9	-0.02	7
1004	-151	-136	Max	230.62					-4.13	10			2778.03	10		
1004	-151	-136	Max	235.00	2160.07	9	3.71	10	-2.40	1	92.57	9	3100.11	9	-0.02	7
1004	-151	-136	Min.	0.00	1213.53	1	1.22	1	-12.69	10	1322.96	3	208.69	3	-0.23	10
1004	-151	-136	Min.	218.51					-2.60	3			1654.12	3		
1004	-151	-136	Min.	235.00	1213.53	1	1.22	1	-5.30	9	-99.81	3	1645.90	3	-0.23	10
1004	-136	-152	Max	0.00	1974.52	9	19.55	10	-2.24	1	13.84	1	3181.61	9	0.02	7
1004	-136	-152	Max	1.69					-2.18	3			1697.48	3		
1004	-136	-152	Max	235.00	1974.52	9	19.55	10	26.43	10	-1408.93	1	108.84	9	0.02	7
1004	-136	-152	Min.	0.00	1121.73	1	3.53	1	-19.51	10	-247.63	9	1684.94	1	-0.23	10
1004	-136	-152	Min.	2.35					-2.16	1			1685.09	1		
1004	-136	-152	Min.	235.00	1121.73	1	3.53	1	6.05	1	-2367.49	9	45.70	1	-0.23	10
1004	-152	-14	Max	0.00	156.40	11	166.76	10	17.78	11	-994.37	1	1076.06	9	-0.02	10
1004	-152	-14	Max	50.00	156.40	11	166.76	10	99.98	10	-1297.09	1	0.00	9	-0.02	10
1004	-152	-14	Min.	0.00	73.07	12	-15.16	1	8.11	1	-1926.60	9	572.86	1	-1.22	11
1004	-152	-14	Min.	50.00	73.07	12	-15.16	1	0.53	1	-2377.64	9	0.00	7	-1.22	11
1004	-14	-34	Max	0.00	185.95	11	-44.24	14	65.32	10	2413.32	11	0.00	1	1.82	11
1004	-14	-34	Max	30.00	185.95	11	-44.24	14	39.00	10	2176.44	11	688.46	11	1.82	11
1004	-14	-34	Min.	0.00	101.97	12	-87.76	10	25.12	14	1214.69	3	0.00	1	0.56	3
1004	-14	-34	Min.	30.00	101.97	12	-87.76	10	11.85	14	1055.56	3	340.54	3	0.56	3
1004	-34	-65	Max	0.00	1336.00	11	-7.10	14	32.17	10	2321.33	11	-262.21	1	0.19	10
1004	-34	-65	Max	190.00	1336.00	11	-7.10	14	2.79	10	821.15	11	2523.74	11	0.19	10
1004	-34	-65	Min.	0.00	732.29	1	-15.46	10	7.62	14	1407.65	1	-461.61	11	0.05	1
1004	-34	-65	Min.	190.00	732.29	1	-15.46	10	-8.85	11	399.82	1	1444.19	3	0.05	1
1004	-65	-66	Max	0.00	1336.00	11	-7.10	14	2.79	10	821.15	11	2523.74	11	0.19	10
1004	-65	-66	Max	104.00					-19.92	11			2950.74	11		
1004	-65	-66	Max	190.00	1336.00	11	-7.10	14	-17.69	13	-456.37	14	2658.76	11	0.19	10
1004	-65	-66	Min.	0.00	732.29	1	-15.46	10	-8.85	11	399.82	1	1444.19	3	0.05	1
1004	-65	-66	Min.	76.00					-9.86	3			1597.13	3		
1004	-65	-66	Min.	190.00	732.29	1	-15.46	10	-29.08	11	-795.94	10	1251.91	3	0.05	1
1004	-66	-15	Max	0.00	501.90	11	34.28	11	-13.08	13	-477.69	3	3770.82	11	-0.26	5
1004	-66	-15	Max	190.00	501.90	11	34.28	11	36.84	11	-1485.52	3	0.00	11	-0.26	5
1004	-66	-15	Min.	0.00	270.86	1	2.49	13	-28.29	11	-1234.56	11	1865.05	3	-0.68	9
1004	-66	-15	Min.	190.00	270.86	1	2.49	13	-11.88	10	-2734.73	11	0.00	3	-0.68	9
1004	-15	-55	Max	0.00	517.40	11	12.30	10	9.46	1	2745.95	11	0.00	1	0.62	9
1004	-15	-55	Max	190.00	517.40	11	12.30	10	-1.27	12	1245.77	11	3792.13	11	0.62	9
1004	-15	-55	Min.	0.00	285.12	1	-7.34	11	-28.39	10	1491.57	3	0.00	1	0.22	5
1004	-15	-55	Min.	190.00	285.12	1	-7.34	11	-6.12	11	483.74	3	1876.55	3	0.22	5
1004	-55	-56	Max	0.00	788.36	11	9.72	10	-4.08	1	645.96	10	3340.46	11	0.01	5
1004	-55	-56	Max	65.33					-6.85	11			3508.96	11		
1004	-55	-56	Max	190.00	788.36	11	9.72	10	5.70	10	-490.55	3	2895.37	11	0.01	5
1004	-55	-56	Min.	0.00	435.02	1	0.93	1	-12.78	10	346.48	14	1626.38	3	-0.13	10
1004	-55	-56	Min.	97.57					-3.17	3			1878.60	3		

Relazione di calcolo

1004	-55	-56	Min.	190.00	435.02	1	0.93	1	-2.30	1	-984.35	11	1649.78	5	-0.13	10
1004	-56	-29	Max	0.00	788.36	11	9.72	10	5.70	10	-490.55	3	2895.38	11	0.01	5
1004	-56	-29	Max	190.00	788.36	11	9.72	10	24.17	10	-1498.38	3	-238.06	3	0.01	5
1004	-56	-29	Min.	0.00	435.02	1	0.93	1	-2.30	1	-984.35	11	1649.78	5	-0.13	10
1004	-56	-29	Min.	190.00	435.02	1	0.93	1	-0.53	1	-2484.52	11	-404.06	9	-0.13	10
1004	-29	-16	Max	0.00	227.93	11	4.91	10	26.10	10	-1155.88	1	720.74	11	-1.07	13
1004	-29	-16	Max	30.00	227.93	11	4.91	10	27.58	10	-1315.01	1	0.00	11	-1.07	13
1004	-29	-16	Min.	0.00	125.31	12	-9.75	11	0.75	1	-2284.03	11	370.63	1	-2.43	11
1004	-29	-16	Min.	30.00	125.31	12	-9.75	11	-1.22	1	-2520.90	11	0.00	1	-2.43	11
1004	-16	-169	Max	0.00	215.06	11	14.99	11	59.11	10	2389.44	9	0.00	1	1.22	11
1004	-16	-169	Max	50.00	215.06	11	14.99	11	16.60	9	1938.40	9	1081.96	9	1.22	11
1004	-16	-169	Min.	0.00	121.37	1	-85.92	10	2.05	14	1305.60	3	0.00	1	0.35	13
1004	-16	-169	Min.	50.00	121.37	1	-85.92	10	7.07	14	1002.88	3	577.12	3	0.35	13
1004	-169	-141	Max	0.00	2059.34	9	-4.34	14	19.38	10	2377.87	9	111.86	9	0.12	10
1004	-169	-141	Max	234.12					-5.66	7			1711.89	7		
1004	-169	-141	Max	235.00	2059.34	9	-4.34	14	-5.53	14	258.01	9	3209.01	9	0.12	10
1004	-169	-141	Min.	0.00	1157.85	1	-15.43	10	4.67	14	1414.15	3	44.59	3	-0.01	11
1004	-169	-141	Min.	232.65					-5.58	3			1696.12	3		
1004	-169	-141	Min.	235.00	1157.85	1	-15.43	10	-16.88	10	-8.62	3	1696.09	3	-0.01	11
1004	-141	-170	Max	0.00	2250.19	9	10.73	11	-5.61	1	100.53	5	3125.19	9	0.14	10
1004	-141	-170	Max	3.00					-9.41	10			2800.88	10		
1004	-141	-170	Max	235.00	2250.19	9	10.73	11	14.63	11	-1322.25	5	417.40	9	0.14	10
1004	-141	-170	Min.	0.00	1253.65	1	4.80	1	-11.04	9	-92.32	9	1654.39	5	0.03	7
1004	-141	-170	Min.	15.90					-4.85	5			1662.72	5		
1004	-141	-170	Min.	235.00	1253.65	1	4.80	1	5.67	1	-2212.18	9	217.96	1	0.03	7
1004	-170	-17	Max	0.00	10.77	11	-11.74	14	19.11	9	-1152.90	1	1202.03	9	0.08	5
1004	-170	-17	Max	50.00	10.77	11	-11.74	14	6.65	11	-1455.61	1	0.00	3	0.08	5
1004	-170	-17	Min.	0.00	-1.18	1	-125.54	10	6.96	1	-2178.55	9	652.13	1	-0.56	10
1004	-170	-17	Min.	50.00	-1.18	1	-125.54	10	-43.85	10	-2629.58	9	0.00	9	-0.56	10
1005	105	106	Max	7.60	17.87	10	-6.43	13	32.27	11	553.62	9	0.00	1	0.80	9
1005	105	106	Max	123.59					1.76	9			324.93	9		
1005	105	106	Max	242.40	17.87	10	-6.43	13	-6.81	12	-373.84	1	0.00	9	0.80	9
1005	105	106	Min.	7.60	-658.51	11	-29.36	11	7.41	13	373.84	1	0.00	1	0.28	7
1005	105	106	Min.	123.59					-0.82	1			219.41	1		
1005	105	106	Min.	242.40	-658.51	11	-29.36	11	-36.67	11	-553.62	9	0.00	1	0.28	7
1005	106	-150	Max	7.60	287.10	10	255.97	10	6.32	1	3830.12	9	0.00	1	1.63	10
1005	106	-150	Max	50.00	287.10	10	255.97	10	60.19	10	3447.65	9	1542.89	9	1.63	10
1005	106	-150	Min.	7.60	-834.55	11	63.72	1	-48.34	10	2103.13	5	0.00	1	0.28	7
1005	106	-150	Min.	50.00	-834.55	11	63.72	1	32.74	12	1846.42	5	837.30	5	0.28	7
1005	-150	-137	Max	0.00	2741.56	10	-24.36	1	48.22	11	2446.62	9	586.42	9	0.24	11
1005	-150	-137	Max	235.00	2741.56	10	-24.36	1	-25.59	1	326.76	9	3845.14	9	0.24	11
1005	-150	-137	Min.	0.00	1174.55	14	-37.66	9	29.25	12	1451.39	3	301.23	1	0.06	13
1005	-150	-137	Min.	235.00	1174.55	14	-37.66	9	-44.32	9	28.62	3	2043.75	3	0.06	13
1005	-137	-149	Max	0.00	2552.32	10	23.49	10	-26.00	1	-118.04	3	3918.48	9	-0.14	7
1005	-137	-149	Max	235.00	2552.32	10	23.49	10	-1.05	13	-1540.82	3	242.09	9	-0.14	7
1005	-137	-149	Min.	0.00	1120.62	14	6.61	1	-56.63	10	-504.49	9	2069.74	3	-0.49	10
1005	-137	-149	Min.	235.00	1120.62	14	6.61	1	-20.69	11	-2624.35	9	120.58	3	-0.49	10
1005	-149	111	Max	0.00	414.19	10	779.09	10	-27.51	1	-1710.55	3	1452.17	9	6.83	10
1005	-149	111	Max	42.40	414.19	10	779.09	10	289.38	10	-1967.26	3	0.00	3	6.83	10
1005	-149	111	Min.	0.00	-417.98	11	360.61	1	-53.21	11	-3233.69	9	779.70	3	3.33	7
1005	-149	111	Min.	42.40	-417.98	11	360.61	1	125.39	1	-3616.17	9	0.00	9	3.33	7
1005	-33	111	Max	0.00	4.26	10	-256.38	1	-58.31	1	-1961.83	1	0.00	1	-7.77	5
1005	-33	111	Max	22.40	4.26	10	-256.38	1	-115.74	1	-2080.65	1	-452.76	1	-7.77	5
1005	-33	111	Min.	0.00	-598.00	11	-447.89	9	-120.99	10	-3841.70	9	0.00	9	-13.63	9
1005	-33	111	Min.	22.40	-598.00	11	-447.89	9	-219.01	9	-4018.57	9	-880.35	9	-13.63	9
1005	-64	-33	Max	0.00	1007.15	10	-37.35	1	21.00	11	-556.08	1	2463.28	11	0.30	10
1005	-64	-33	Max	190.00	1007.15	10	-37.35	1	-58.44	1	-1563.91	1	-593.05	1	0.30	10
1005	-64	-33	Min.	0.00	338.70	14	-68.78	9	5.48	13	-1125.27	11	1413.99	3	0.11	7
1005	-64	-33	Min.	190.00	338.70	14	-68.78	9	-118.90	10	-2625.45	11	-1099.91	11	0.11	7
1005	-63	-64	Max	0.00	1007.15	10	-37.35	1	144.19	11	521.27	10	3176.13	11	0.30	10
1005	-63	-64	Max	46.91					113.77	11			3265.13	11		
1005	-63	-64	Max	190.00	1007.15	10	-37.35	1	21.00	11	-556.08	1	2463.28	11	0.30	10
1005	-63	-64	Min.	0.00	338.70	14	-68.78	9	83.47	1	251.46	14	1520.03	1	0.11	7
1005	-63	-64	Min.	84.63					51.87	1			1712.40	1		
1005	-63	-64	Min.	190.00	338.70	14	-68.78	9	5.48	13	-1125.27	11	1413.99	3	0.11	7
1005	120	-63	Max	7.60	310.20	10	221.25	11	-112.66	13	3024.53	11	0.00	1	1.65	11
1005	120	-63	Max	190.00	310.20	10	221.25	11	169.98	11	1584.36	11	4203.30	11	1.65	11
1005	120	-63	Min.	7.60	-268.50	11	117.88	13	-233.59	11	1629.61	3	0.00	9	0.82	13
1005	120	-63	Min.	190.00	-268.50	11	117.88	13	97.44	1	662.10	3	2090.03	3	0.82	13
1005	-58	120	Max	0.00	240.68	10	-96.25	13	131.65	11	-678.92	1	4253.21	11	-1.04	5
1005	-58	120	Max	182.40	240.68	10	-96.25	13	-93.98	13	-1646.43	1	0.00	9	-1.04	5
1005	-58	120	Min.	0.00	-54.63	1	-176.42	11	73.48	1	-1611.72	11	2120.72	1	-1.99	11
1005	-58	120	Min.	182.40	-54.63	1	-176.42	11	-190.14	11	-3051.89	11	0.00	5	-1.99	11
1005	-57	-58	Max	0.00	532.24	10	66.66	9	10.70	11	1070.35	11	3109.09	11	-0.05	7
1005	-57	-58	Max	135.56					96.43	11			3834.58	11		
1005	-57	-58	Max	190.00	532.24	10	66.66	9	131.67	9	-288.16	14	3717.58	11	-0.05	7
1005	-57	-58	Min.	0.00	123.80	1	34.72	1	0.81	13	536.12	3	1766.29	5	-0.22	10
1005	-57	-58	Min.	101.23					41.90	5			2038.09	5		
1005	-57	-58	Min.	190.00	123.80	1	34.72	1	72.71	1	-569.47	10	1829.10	5	-0.22	10

Relazione di calcolo

1005	-30	-57	Max	0.00	532.24	10	66.66	9	-59.21	1	2570.53	11	-207.28	3	-0.05	7
1005	-30	-57	Max	190.00	532.24	10	66.66	9	10.70	11	1070.35	11	3109.09	11	-0.05	7
1005	-30	-57	Min.	0.00	123.80	1	34.72	1	-123.19	10	1543.95	3	-349.75	11	-0.22	10
1005	-30	-57	Min.	190.00	123.80	1	34.72	1	0.81	13	536.12	3	1766.29	5	-0.22	10
1005	125	-30	Max	7.60	5.88	10	214.08	9	-81.69	1	3703.29	11	0.00	1	16.35	9
1005	125	-30	Max	30.00	5.88	10	214.08	9	-55.23	1	3526.43	11	809.73	11	16.35	9
1005	125	-30	Min.	7.60	-298.72	11	118.15	1	-163.31	10	1962.31	3	0.00	1	9.06	3
1005	125	-30	Min.	30.00	-298.72	11	118.15	1	-116.44	10	1843.50	3	426.25	3	9.06	3
1005	125	-172	Max	7.60	182.24	10	-359.38	1	228.39	10	3598.58	9	0.00	1	-3.39	7
1005	125	-172	Max	50.00	182.24	10	-359.38	1	-40.01	1	3216.10	9	1444.71	9	-3.39	7
1005	125	-172	Min.	7.60	-116.63	1	-689.73	9	112.36	1	1963.45	5	0.00	1	-6.55	9
1005	125	-172	Min.	50.00	-116.63	1	-689.73	9	-72.90	11	1706.74	5	778.08	5	-6.55	9
1005	-172	-140	Max	0.00	2339.91	9	2.90	11	-16.64	13	2608.19	9	242.38	9	0.34	10
1005	-172	-140	Max	235.00	2339.91	9	2.90	11	-22.76	1	488.33	9	3880.80	9	0.34	10
1005	-172	-140	Min.	0.00	1163.54	1	-8.13	10	-41.77	11	1536.13	3	116.26	5	0.14	7
1005	-172	-140	Min.	235.00	1163.54	1	-8.13	10	-43.35	10	113.35	3	2054.86	5	0.14	7
1005	-140	-171	Max	0.00	2516.73	9	41.06	9	-23.86	1	-20.13	3	3803.11	9	-0.11	13
1005	-140	-171	Max	235.00	2516.73	9	41.06	9	57.58	11	-1442.91	3	556.44	9	-0.11	13
1005	-140	-171	Min.	0.00	1268.65	1	23.95	1	-39.35	9	-321.63	9	2005.87	3	-0.27	11
1005	-140	-171	Min.	235.00	1268.65	1	23.95	1	32.42	1	-2441.49	9	286.79	3	-0.27	11
1005	-171	132	Max	0.00	20.02	10	-44.61	1	63.06	9	-1754.94	3	1495.09	9	-0.17	7
1005	-171	132	Max	42.40	20.02	10	-44.61	1	26.65	11	-2011.65	3	0.00	1	-0.17	7
1005	-171	132	Min.	0.00	-206.43	1	-202.82	10	32.62	1	-3334.92	9	798.52	3	-1.69	10
1005	-171	132	Min.	42.40	-206.43	1	-202.82	10	-24.56	10	-3717.40	9	0.00	10	-1.69	10
1006	-21	-22	Max	0.00	345.34	11	71.83	11	-30.32	1	1127.58	9	0.00	1	-0.00	3
1006	-21	-22	Max	124.54					-3.46	9			704.73	9		
1006	-21	-22	Max	250.00	345.34	11	71.83	11	86.16	11	-756.80	1	0.00	9	-0.00	3
1006	-21	-22	Min.	0.00	48.98	13	24.47	1	-93.41	11	756.80	1	0.00	1	-0.32	1
1006	-21	-22	Min.	124.54					0.15	1			472.99	1		
1006	-21	-22	Min.	250.00	48.98	13	24.47	1	30.85	1	-1127.58	9	0.00	1	-0.32	1
1006	-22	-147	Max	0.00	264.88	11	-49.71	13	149.77	9	2351.92	9	0.00	1	2.61	10
1006	-22	-147	Max	50.00	264.88	11	-49.71	13	66.28	9	1900.89	9	1063.20	9	2.61	10
1006	-22	-147	Min.	0.00	-560.48	10	-166.99	9	68.26	13	1252.53	7	0.00	1	0.47	3
1006	-22	-147	Min.	50.00	-560.48	10	-166.99	9	25.86	1	949.81	7	550.58	7	0.47	3
1006	-147	-138	Max	0.00	2274.51	11	-44.88	1	65.65	9	2168.03	9	347.50	9	0.63	9
1006	-147	-138	Max	230.30					-127.07	11			2674.27	11		
1006	-147	-138	Max	235.00	2274.51	11	-44.88	1	-75.54	1	48.17	9	2951.53	9	0.63	9
1006	-147	-138	Min.	0.00	863.45	13	-92.80	9	27.13	14	1290.08	7	161.92	7	0.32	13
1006	-147	-138	Min.	213.08					-65.70	7			1536.38	7		
1006	-147	-138	Min.	235.00	863.45	13	-92.80	9	-152.42	9	-132.70	7	1521.84	7	0.32	13
1006	-138	-148	Max	0.00	2068.29	11	132.65	9	-84.24	1	18.92	7	3156.80	9	-0.55	7
1006	-138	-148	Max	0.59					-83.87	1			1685.89	1		
1006	-138	-148	Max	235.00	2068.29	11	132.65	9	139.50	11	-1403.86	7	71.24	11	-0.55	7
1006	-138	-148	Min.	0.00	566.20	13	62.57	1	-174.66	9	-263.93	9	1632.40	7	-1.22	9
1006	-138	-148	Min.	3.13					-82.29	7			1632.69	7		
1006	-138	-148	Min.	235.00	566.20	13	62.57	1	62.81	1	-2383.78	9	5.10	7	-1.22	9
1006	-148	113	Max	0.00	261.64	11	476.67	10	130.08	11	-1280.58	7	1143.94	9	0.69	10
1006	-148	113	Max	42.40	261.64	11	476.67	10	313.64	9	-1537.29	7	0.00	9	0.69	10
1006	-148	113	Min.	0.00	-1103.20	10	162.76	1	59.69	1	-2506.74	9	597.39	7	-0.91	5
1006	-148	113	Min.	42.40	-1103.20	10	162.76	1	128.71	1	-2889.22	9	0.00	7	-0.91	5
1006	113	-32	Max	7.60	630.34	11	-2.31	1	116.21	9	1644.62	11	0.00	1	2.36	11
1006	113	-32	Max	30.00	630.34	11	-2.31	1	95.92	9	1551.76	11	358.00	11	2.36	11
1006	113	-32	Min.	7.60	-550.97	10	-90.58	9	30.03	1	879.81	3	0.00	1	0.21	7
1006	113	-32	Min.	30.00	-550.97	10	-90.58	9	29.52	1	816.99	3	190.04	3	0.21	7
1006	-32	-61	Max	0.00	1167.22	11	-22.37	1	98.75	9	1287.42	11	-102.40	7	0.16	10
1006	-32	-61	Max	190.00	1167.22	11	-22.37	1	-8.61	13	499.74	11	1518.87	11	0.16	10
1006	-32	-61	Min.	0.00	-43.24	10	-65.25	9	31.19	1	786.15	7	-191.97	9	0.01	3
1006	-32	-61	Min.	190.00	-43.24	10	-65.25	9	-40.20	11	253.32	7	876.61	3	0.01	3
1006	-61	-62	Max	0.00	1167.22	11	-22.37	1	-8.61	13	499.74	11	1518.87	11	0.16	10
1006	-61	-62	Max	119.33					-106.72	11			1820.04	11		
1006	-61	-62	Max	190.00	1167.22	11	-22.37	1	-53.80	1	-195.56	14	1720.07	11	0.16	10
1006	-61	-62	Min.	0.00	-43.24	10	-65.25	9	-40.20	11	253.32	7	876.61	3	0.01	3
1006	-61	-62	Min.	91.87					-31.85	3			995.70	3		
1006	-61	-62	Min.	190.00	-43.24	10	-65.25	9	-149.22	9	-348.50	10	859.50	7	0.01	3
1006	-62	121	Max	0.00	633.86	11	229.20	11	-59.58	1	-424.71	3	2431.22	11	-0.19	7
1006	-62	121	Max	182.40	633.86	11	229.20	11	256.40	11	-936.23	3	0.00	9	-0.19	7
1006	-62	121	Min.	0.00	-514.55	10	83.32	1	-161.66	11	-954.82	11	1241.18	3	-0.75	11
1006	-62	121	Min.	182.40	-514.55	10	83.32	1	92.41	1	-1710.99	11	0.00	1	-0.75	11
1006	121	-59	Max	7.60	513.31	11	-83.56	1	241.50	11	1709.60	11	0.00	1	0.42	5
1006	121	-59	Max	190.00	513.31	11	-83.56	1	-59.82	1	953.43	11	2428.69	11	0.42	5
1006	121	-59	Min.	7.60	-408.39	10	-213.91	11	92.59	1	944.05	1	0.00	1	0.11	7
1006	121	-59	Min.	190.00	-408.39	10	-213.91	11	-148.67	11	432.54	1	1255.45	1	0.11	7
1006	-59	-60	Max	0.00	672.99	11	65.50	9	-61.60	1	228.87	10	2162.52	11	0.05	11
1006	-59	-60	Max	36.06					-128.97	11			2189.47	11		
1006	-59	-60	Max	190.00	672.99	11	65.50	9	-11.93	13	-329.65	7	1698.24	11	0.05	11
1006	-59	-60	Min.	0.00	-261.32	10	24.93	1	-153.40	9	102.13	14	1102.65	7	-0.08	10
1006	-59	-60	Min.	72.45					-43.54	7			1176.25	7		
1006	-59	-60	Min.	190.00	-261.32	10	24.93	1	-36.52	11	-638.20	11	981.61	7	-0.08	10
1006	-60	-31	Max	0.00	672.99	11	65.50	9	-11.93	13	-329.65	7	1698.24	11	0.05	11

Relazione di calcolo

1006	-60	-31	Max	190.00	672.99	11	65.50	9	95.49	9	-862.48	7	-148.76	3	0.05	11
1006	-60	-31	Min.	0.00	-261.32	10	24.93	1	-36.52	11	-638.20	11	981.61	7	-0.08	10
1006	-60	-31	Min.	190.00	-261.32	10	24.93	1	33.12	1	-1425.88	11	-262.63	11	-0.08	10
1006	-31	126	Max	0.00	348.53	11	108.62	9	93.89	9	-898.50	7	386.29	11	0.09	10
1006	-31	126	Max	22.40	348.53	11	108.62	9	118.22	9	-961.31	7	0.00	11	0.09	10
1006	-31	126	Min.	0.00	-556.38	10	32.90	1	32.30	1	-1678.07	11	208.30	7	-1.82	5
1006	-31	126	Min.	22.40	-556.38	10	32.90	1	39.67	1	-1770.93	11	0.00	7	-1.82	5
1006	126	-173	Max	7.60	-185.37	14	-171.81	1	293.46	9	2907.60	9	0.00	1	0.88	11
1006	126	-173	Max	50.00	-185.37	14	-171.81	1	125.23	9	2525.12	9	1151.74	9	0.88	11
1006	126	-173	Min.	7.60	-1097.75	10	-396.78	9	132.34	1	1536.72	7	0.00	1	-0.05	10
1006	126	-173	Min.	50.00	-1097.75	10	-396.78	9	59.49	1	1280.02	7	597.15	7	-0.05	10
1006	-173	-139	Max	0.00	1602.38	11	-62.37	1	131.61	9	2397.83	9	55.44	11	1.15	9
1006	-173	-139	Max	234.71					-84.19	6			1691.54	6		
1006	-173	-139	Max	235.00	1602.38	11	-62.37	1	-84.37	1	277.97	9	3189.59	9	1.15	9
1006	-173	-139	Min.	0.00	586.01	13	-128.50	9	62.19	1	1409.30	7	7.88	7	0.55	7
1006	-173	-139	Min.	232.81					-83.01	7			1648.12	7		
1006	-173	-139	Min.	235.00	586.01	13	-128.50	9	-170.37	9	-13.48	7	1647.97	7	0.55	7
1006	-139	-174	Max	0.00	1883.16	11	95.46	9	-76.92	1	127.11	7	2992.29	9	-0.37	5
1006	-139	-174	Max	4.70					-130.10	11			2703.30	11		
1006	-139	-174	Max	235.00	1883.16	11	95.46	9	71.47	9	-1295.67	7	381.91	9	-0.37	5
1006	-139	-174	Min.	0.00	890.29	13	47.46	1	-152.85	9	-50.87	9	1559.42	7	-0.69	9
1006	-139	-174	Min.	20.81					-67.04	7			1572.76	7		
1006	-139	-174	Min.	235.00	890.29	13	47.46	1	34.61	1	-2170.73	9	186.35	7	-0.69	9
1006	-174	-18	Max	0.00	-81.47	14	203.92	9	67.49	9	-1042.60	7	1113.43	9	-0.49	5
1006	-174	-18	Max	50.00	-81.47	14	203.92	9	169.45	9	-1345.32	7	0.00	3	-0.49	5
1006	-174	-18	Min.	0.00	-550.09	10	99.87	13	30.51	1	-2001.34	9	596.98	7	-1.79	9
1006	-174	-18	Min.	50.00	-550.09	10	99.87	13	91.01	13	-2452.38	9	0.00	9	-1.79	9
1008	101	-24	Max	8.00	-198.48	1	188.29	11	-66.41	13	708.99	9	47.65	5	0.14	11
1008	101	-24	Max	210.00	-198.48	1	188.29	11	181.84	11	629.06	9	1044.59	11	0.14	11
1008	101	-24	Min.	8.00	-537.52	10	56.55	13	-198.50	11	369.10	5	-559.25	7	-0.01	7
1008	101	-24	Min.	210.00	-537.52	10	56.55	13	47.82	13	307.62	5	676.45	7	-0.01	7
1008	-24	103	Max	0.00	-186.60	1	-21.11	1	82.54	11	-180.24	7	1044.54	11	0.11	11
1008	-24	103	Max	242.00	-186.60	1	-21.11	1	-23.86	1	-253.90	7	150.97	7	0.11	11
1008	-24	103	Min.	0.00	-342.98	10	-55.82	11	26.98	13	-506.79	11	676.28	7	-0.05	7
1008	-24	103	Min.	242.00	-342.98	10	-55.82	11	-52.56	11	-602.54	11	-455.73	5	-0.05	7
1009	102	-23	Max	8.00	1073.94	11	-51.87	14	324.38	9	1823.69	9	-134.99	5	0.16	11
1009	102	-23	Max	210.00	1073.94	11	-51.87	14	-8.11	14	1743.77	9	2647.55	9	0.16	11
1009	102	-23	Min.	8.00	177.30	13	-253.99	9	96.67	14	917.69	5	-1050.14	10	-0.00	7
1009	102	-23	Min.	210.00	177.30	13	-253.99	9	-190.90	10	856.21	5	1564.99	7	-0.00	7
1009	-23	104	Max	0.00	1174.48	11	12.34	1	43.02	10	-954.73	7	2648.50	9	0.18	11
1009	-23	104	Max	242.00	1174.48	11	12.34	1	56.39	11	-1028.39	7	-834.11	7	0.18	11
1009	-23	104	Min.	0.00	502.35	13	-3.00	10	10.08	1	-1703.00	9	1565.47	7	-0.01	7
1009	-23	104	Min.	242.00	502.35	13	-3.00	10	24.48	13	-1798.75	9	-1588.62	9	-0.01	7
1009	104	115	Max	8.00	697.25	9	35.43	11	-6.82	13	485.72	11	-565.04	3	0.09	3
1009	104	115	Max	253.98					-16.54	4			-381.35	4		
1009	104	115	Max	259.00	697.25	9	35.43	11	-3.47	14	182.54	7	-147.16	7	0.09	3
1009	104	115	Min.	8.00	266.24	14	-29.11	10	-93.39	11	152.24	5	-1176.95	11	-0.32	11
1009	104	115	Min.	155.18					-54.08	9			-770.33	9		
1009	104	115	Min.	259.00	266.24	14	-29.11	10	-82.27	10	-335.92	9	-944.70	9	-0.32	11
1009	115	-20	Max	8.00	1180.61	9	-22.03	1	110.23	10	1744.29	9	-382.36	5	0.21	11
1009	115	-20	Max	241.50	1180.61	9	-22.03	1	-6.37	1	988.76	9	2017.61	9	0.21	11
1009	115	-20	Min.	8.00	449.06	14	-67.11	10	45.06	1	736.47	5	-1173.22	9	-0.05	7
1009	115	-20	Min.	241.50	449.06	14	-67.11	10	-46.47	10	478.60	5	1030.39	3	-0.05	7
1009	-20	106	Max	0.00	1241.90	9	14.22	11	31.66	10	-852.25	7	2018.26	9	0.21	11
1009	-20	106	Max	233.50	1241.90	9	14.22	11	9.66	11	-1110.11	7	-1250.72	7	0.21	11
1009	-20	106	Min.	0.00	430.48	14	-35.59	10	-23.53	11	-1564.37	9	1031.27	3	-0.05	7
1009	-20	106	Min.	233.50	430.48	14	-35.59	10	-51.44	10	-2319.90	9	-2516.62	9	-0.05	7
1009	106	-22	Max	8.00	1286.21	9	32.91	11	1.35	10	2138.24	9	-1236.18	3	-0.03	3
1009	106	-22	Max	250.00	1286.21	9	32.91	11	60.82	11	2042.48	9	2480.20	9	-0.03	3
1009	106	-22	Min.	8.00	594.95	14	5.83	13	-18.81	11	1141.77	3	-2578.47	9	-0.23	11
1009	106	-22	Min.	250.00	594.95	14	5.83	13	14.39	13	1068.12	3	1437.78	3	-0.23	11
1009	-22	108	Max	0.00	1286.60	10	125.06	9	35.94	11	-754.29	7	2477.33	9	-0.01	3
1009	-22	108	Max	202.00	1286.60	10	125.06	9	196.47	9	-815.77	7	-66.18	7	-0.01	3
1009	-22	108	Min.	0.00	567.52	1	19.54	14	-56.15	9	-1452.96	9	1437.28	3	-0.20	11
1009	-22	108	Min.	202.00	567.52	1	19.54	14	63.45	14	-1532.88	9	-612.28	5	-0.20	11
1014	-47	-132	Max	0.00	-2.50	12	-11.83	1	29.95	9	672.53	9	-260.39	1	-0.01	3
1014	-47	-132	Max	125.00	-2.50	12	-11.83	1	-4.43	1	388.06	9	104.87	11	-0.01	3
1014	-47	-132	Min.	0.00	-53.86	11	-32.24	9	10.36	1	257.51	1	-558.33	9	-0.03	9
1014	-47	-132	Min.	125.00	-53.86	11	-32.24	9	-10.35	9	208.88	1	30.57	7	-0.03	9
1014	-132	-46	Max	0.00	-2.50	12	-11.83	1	-4.43	1	388.06	9	104.87	11	-0.01	3
1014	-132	-46	Max	125.00	-2.50	12	-11.83	1	-19.22	1	175.50	3	411.83	9	-0.01	3
1014	-132	-46	Min.	0.00	-53.86	11	-32.24	9	-10.35	9	208.88	1	30.57	7	-0.03	9
1014	-132	-46	Min.	125.00	-53.86	11	-32.24	9	-50.64	9	56.41	14	261.81	1	-0.03	9
1014	-46	-131	Max	0.00	-76.84	1	30.01	9	-17.22	1	-47.18	14	411.10	10	0.00	12
1014	-46	-131	Max	133.50	-76.84	1	30.01	9	-0.57	1	-204.38	7	75.21	11	0.00	12
1014	-46	-131	Min.	0.00	-189.05	11	12.47	1	-43.55	9	-177.56	10	252.39	14	-0.01	11
1014	-46	-131	Min.	133.50	-189.05	11	12.47	1	-3.50	9	-399.51	9	13.85	5	-0.01	11
1014	-131	-45	Max	0.00	-76.84	1	30.01	9	-0.57	1	-204.38	7	75.21	11	0.00	12
1014	-131	-45	Max	133.50	-76.84	1	30.01	9	36.56	9	-256.31	7	-292.60	7	0.00	12

Relazione di calcolo

1014	-131	-45	Min.	0.00	-189.05	11	12.47	1	-3.50	9	-399.51	9	13.85	5	-0.01	11
1014	-131	-45	Min.	133.50	-189.05	11	12.47	1	16.08	1	-703.32	9	-662.49	9	-0.01	11
1014	-45	-130	Max	0.00	-22.53	1	-8.30	1	33.72	9	689.57	9	-276.06	7	0.00	11
1014	-45	-130	Max	120.75	-22.53	1	-8.30	1	8.39	9	414.77	9	59.44	11	0.00	11
1014	-45	-130	Min.	0.00	-79.89	11	-20.98	9	14.11	1	261.83	7	-608.78	9	0.00	12
1014	-45	-130	Min.	120.75	-79.89	11	-20.98	9	4.09	1	214.85	7	9.70	1	0.00	12
1014	-130	-44	Max	0.00	-22.53	1	-8.30	1	8.39	9	414.77	9	59.44	11	0.00	11
1014	-130	-44	Max	120.75	-22.53	1	-8.30	1	-5.93	1	199.11	10	392.89	9	0.00	11
1014	-130	-44	Min.	0.00	-79.89	11	-20.98	9	4.09	1	214.85	7	9.70	1	0.00	12
1014	-130	-44	Min.	120.75	-79.89	11	-20.98	9	-16.94	9	81.55	14	242.82	7	0.00	12
1014	-44	-129	Max	0.00	-35.87	1	3.57	9	-2.21	1	-101.60	14	456.81	9	-0.00	14
1014	-44	-129	Max	120.75	-35.87	1	3.57	9	-1.87	1	-224.64	1	80.37	11	-0.00	14
1014	-44	-129	Min.	0.00	-108.55	11	0.28	1	-8.56	9	-243.31	10	267.60	1	-0.00	3
1014	-44	-129	Min.	120.75	-108.55	11	0.28	1	-4.25	9	-449.31	9	22.26	7	-0.00	3
1014	-129	-43	Max	0.00	-35.87	1	3.57	9	-1.87	1	-224.64	1	80.36	11	-0.00	14
1014	-129	-43	Max	120.75	-35.87	1	3.57	9	0.07	12	-271.61	1	-274.90	1	-0.00	14
1014	-129	-43	Min.	0.00	-108.55	11	0.28	1	-4.25	9	-449.31	9	22.26	7	-0.00	3
1014	-129	-43	Min.	120.75	-108.55	11	0.28	1	-2.44	10	-724.10	9	-628.27	9	-0.00	3
1014	-43	-128	Max	0.00	334.84	9	3.24	11	0.87	9	383.88	11	-54.37	1	0.02	11
1014	-43	-128	Max	124.65					-0.21	1			-5.61	1		
1014	-43	-128	Max	125.00	334.84	9	3.24	11	2.46	11	94.43	9	36.79	11	0.02	11
1014	-43	-128	Min.	0.00	220.39	13	0.44	12	-1.84	1	63.36	1	-263.03	9	0.01	1
1014	-43	-128	Min.	124.53					-0.21	3			-10.96	3		
1014	-43	-128	Min.	125.00	220.39	13	0.44	12	-0.21	1	14.73	1	-11.15	3	0.01	1
1014	-128	-42	Max	0.00	334.84	9	3.24	11	2.46	11	94.43	9	36.79	11	0.02	11
1014	-128	-42	Max	40.42					3.77	11			55.74	11		
1014	-128	-42	Max	125.00	334.84	9	3.24	11	6.51	11	17.64	3	41.80	3	0.02	11
1014	-128	-42	Min.	0.00	220.39	13	0.44	12	-0.21	1	14.73	1	-11.15	3	0.01	1
1014	-128	-42	Min.	37.88					0.29	1			-2.77	1		
1014	-128	-42	Min.	125.00	220.39	13	0.44	12	0.80	13	-196.30	11	-27.28	11	0.01	1
1015	-122	-79	Max	0.00	112.59	10	63.91	9	-19.82	1	-223.64	7	195.72	11	0.04	9
1015	-122	-79	Max	125.00	112.59	10	63.91	9	45.98	9	-309.77	7	-284.65	3	0.04	9
1015	-122	-79	Min.	0.00	54.86	14	30.02	1	-33.90	9	-380.07	11	48.53	7	0.02	1
1015	-122	-79	Min.	125.00	54.86	14	30.02	1	17.70	1	-945.78	11	-632.94	11	0.02	1
1015	-80	-122	Max	0.00	112.59	10	63.91	9	-57.35	1	208.18	9	339.56	10	0.04	9
1015	-80	-122	Max	41.02					-82.14	11			355.31	11		
1015	-80	-122	Max	125.00	112.59	10	63.91	9	-19.82	1	-223.64	7	195.72	11	0.04	9
1015	-80	-122	Min.	0.00	54.86	14	30.02	1	-113.78	9	-141.92	5	179.58	12	0.02	1
1015	-80	-122	Min.	47.82					-57.24	12			213.53	12		
1015	-80	-122	Min.	125.00	54.86	14	30.02	1	-33.90	9	-380.07	11	48.53	7	0.02	1
1015	-121	-80	Max	0.00	-16.08	1	-29.43	1	0.52	1	283.61	11	175.25	11	-0.01	1
1015	-121	-80	Max	62.16					-37.75	11			264.11	11		
1015	-121	-80	Max	133.50	-16.08	1	-29.43	1	-38.77	1	67.06	5	191.69	5	-0.01	1
1015	-121	-80	Min.	0.00	-103.96	9	-62.36	9	-1.59	9	150.85	7	40.61	7	-0.01	9
1015	-121	-80	Min.	84.33					-28.43	13			140.29	13		
1015	-121	-80	Min.	133.50	-103.96	9	-62.36	9	-84.83	9	-327.63	9	83.11	12	-0.01	9
1015	-81	-121	Max	0.00	-16.08	1	-29.43	1	81.66	9	887.79	11	-222.02	7	-0.01	1
1015	-81	-121	Max	133.50	-16.08	1	-29.43	1	0.52	1	283.61	11	175.25	11	-0.01	1
1015	-81	-121	Min.	0.00	-103.96	9	-62.36	9	39.81	1	242.83	7	-606.66	11	-0.01	9
1015	-81	-121	Min.	133.50	-103.96	9	-62.36	9	-1.59	9	150.85	7	40.61	7	-0.01	9
1015	-120	-81	Max	0.00	-3.31	1	61.60	9	5.69	9	-130.45	3	106.10	11	0.00	9
1015	-120	-81	Max	120.75	-3.31	1	61.60	9	80.08	9	-213.65	3	-189.62	3	0.00	9
1015	-120	-81	Min.	0.00	-75.57	9	29.75	1	2.19	1	-251.88	9	17.26	1	0.00	1
1015	-120	-81	Min.	120.75	-75.57	9	29.75	1	38.12	1	-789.17	11	-522.28	9	0.00	1
1015	-82	-120	Max	0.00	-3.31	1	61.60	9	-33.74	1	303.79	11	149.39	10	0.00	9
1015	-82	-120	Max	63.97					-29.29	9			176.76	9		
1015	-82	-120	Max	120.75	-3.31	1	61.60	9	5.69	9	-130.45	3	106.10	11	0.00	9
1015	-82	-120	Min.	0.00	-75.57	9	29.75	1	-68.69	9	-53.78	1	47.58	14	0.00	1
1015	-82	-120	Min.	16.83					-31.37	15			108.67	15		
1015	-82	-120	Min.	120.75	-75.57	9	29.75	1	2.19	1	-251.88	9	17.26	1	0.00	1
1015	-119	-82	Max	0.00	-26.04	1	-21.25	1	-6.98	1	246.49	11	162.11	11	-0.01	1
1015	-119	-82	Max	54.20					-34.60	11			229.24	11		
1015	-119	-82	Max	120.75	-26.04	1	-21.25	1	-32.64	1	58.17	3	176.47	10	-0.01	1
1015	-119	-82	Min.	0.00	-125.45	9	-39.97	9	-13.95	9	136.03	7	45.63	3	-0.02	9
1015	-119	-82	Min.	78.55					-26.02	13			134.44	13		
1015	-119	-82	Min.	120.75	-125.45	9	-39.97	9	-62.21	9	-299.99	11	83.31	12	-0.02	9
1015	-83	-119	Max	0.00	-26.04	1	-21.25	1	34.32	9	792.98	11	-168.01	7	-0.01	1
1015	-83	-119	Max	120.75	-26.04	1	-21.25	1	-6.98	1	246.49	11	162.11	11	-0.01	1
1015	-83	-119	Min.	0.00	-125.45	9	-39.97	9	18.67	1	219.23	7	-465.47	11	-0.02	9
1015	-83	-119	Min.	120.75	-125.45	9	-39.97	9	-13.95	9	136.03	7	45.63	3	-0.02	9
1015	-118	-83	Max	0.00	175.03	10	1.30	10	10.87	11	118.08	11	120.41	11	-0.01	3
1015	-118	-83	Max	25.39					10.04	11			135.80	11		
1015	-118	-83	Max	125.00	175.03	10	1.30	10	11.05	9	-5.71	1	52.42	1	-0.01	3
1015	-118	-83	Min.	0.00	102.81	12	-3.25	11	4.81	1	68.02	13	5.13	3	-0.02	9
1015	-118	-83	Min.	100.00					4.19	3			41.44	3		
1015	-118	-83	Min.	125.00	102.81	12	-3.25	11	4.03	1	-447.64	11	-93.13	9	-0.02	9
1015	-84	-118	Max	0.00	175.03	10	1.30	10	14.94	11	683.79	11	-136.90	3	-0.01	3
1015	-84	-118	Max	125.00	175.03	10	1.30	10	10.87	11	118.08	11	120.41	11	-0.01	3
1015	-84	-118	Min.	0.00	102.81	12	-3.25	11	4.26	13	156.78	3	-380.76	11	-0.02	9

Relazione di calcolo

1015	-84	-118	Min.	125.00	102.81	12	-3.25	11	4.81	1	68.02	13	5.13	3	-0.02	9
1016	117	118	Max	8.00	249.00	11	25.05	10	-18.13	1	2318.14	9	-385.70	5	0.06	3
1016	117	118	Max	250.00	249.00	11	25.05	10	21.85	10	2222.39	9	4134.72	11	0.06	3
1016	117	118	Min.	8.00	-652.42	10	9.81	1	-46.41	11	1124.46	5	-1511.11	10	-0.06	7
1016	117	118	Min.	250.00	-652.42	10	9.81	1	5.60	1	1050.81	5	2193.25	7	-0.06	7
1016	118	119	Max	0.00	579.91	11	11.75	11	-1.44	13	-1646.29	7	4135.88	11	0.06	3
1016	118	119	Max	259.00	579.91	11	11.75	11	14.43	11	-1725.12	7	-2167.78	7	0.06	3
1016	118	119	Min.	0.00	12.49	13	-0.40	10	-16.00	11	-3179.81	11	2193.69	7	-0.06	7
1016	118	119	Min.	259.00	12.49	13	-0.40	10	-2.89	10	-3282.29	11	-4232.53	11	-0.06	7
1016	119	-15	Max	8.00	562.06	11	7.31	9	10.52	11	3265.87	11	-2123.89	5	0.07	3
1016	119	-15	Max	241.50	562.06	11	7.31	9	9.55	9	3173.48	11	3455.50	11	0.07	3
1016	119	-15	Min.	8.00	78.60	13	-6.16	11	-7.53	9	1758.71	5	-4062.43	11	-0.05	7
1016	119	-15	Min.	241.50	78.60	13	-6.16	11	-3.86	11	1687.64	5	1889.80	7	-0.05	7
1016	-15	120	Max	0.00	520.43	11	-10.73	1	25.47	9	-1225.94	7	3454.38	11	0.07	3
1016	-15	120	Max	233.50	520.43	11	-10.73	1	-12.48	1	-1297.01	7	-1056.26	7	0.07	3
1016	-15	120	Min.	0.00	84.70	13	-21.67	11	12.58	1	-2326.73	9	1889.14	7	-0.05	7
1016	-15	120	Min.	233.50	84.70	13	-21.67	11	-26.15	10	-2419.12	9	-2099.62	9	-0.05	7
1016	120	121	Max	8.00	503.11	10	0.39	10	18.51	11	846.17	9	-738.68	5	0.05	3
1016	120	121	Max	242.00	503.11	10	0.39	10	3.30	10	753.59	9	348.89	10	0.05	3
1016	120	121	Min.	8.00	143.10	1	-14.30	11	1.50	13	289.28	5	-1615.49	9	-0.06	7
1016	120	121	Min.	242.00	143.10	1	-14.30	11	-14.95	11	218.06	5	-145.10	5	-0.06	7
1017	-95	-112	Max	0.00	4.86	13	-9.41	1	34.28	9	966.17	11	-297.77	7	0.00	3
1017	-95	-112	Max	125.00	4.86	13	-9.41	1	7.31	11	400.45	11	192.91	11	0.00	3
1017	-95	-112	Min.	0.00	-49.14	11	-23.78	9	17.63	1	319.48	7	-661.23	11	-0.00	10
1017	-95	-112	Min.	125.00	-49.14	11	-23.78	9	3.65	12	233.35	7	47.72	7	-0.00	10
1017	-112	-93	Max	0.00	4.86	13	-9.41	1	7.31	11	400.45	11	192.91	11	0.00	3
1017	-112	-93	Max	88.48					-8.05	11			370.08	11		
1017	-112	-93	Max	125.00	4.86	13	-9.41	1	-5.91	1	153.48	3	359.99	10	0.00	3
1017	-112	-93	Min.	0.00	-49.14	11	-23.78	9	3.65	12	233.35	7	47.72	7	-0.00	10
1017	-112	-93	Min.	80.96					-10.10	12			223.26	12		
1017	-112	-93	Min.	125.00	-49.14	11	-23.78	9	-25.17	9	-189.99	9	194.88	12	-0.00	10
1017	-93	-111	Max	0.00	-60.20	1	27.46	9	-19.25	1	324.04	9	191.74	3	-0.00	13
1017	-93	-111	Max	70.64					-15.87	11			268.02	11		
1017	-93	-111	Max	133.50	-60.20	1	27.46	9	-1.76	11	-149.52	7	178.60	11	-0.00	13
1017	-93	-111	Min.	0.00	-173.50	11	12.84	1	-40.14	9	-66.04	3	87.81	12	-0.01	11
1017	-93	-111	Min.	47.37					-15.92	13			143.30	13		
1017	-93	-111	Min.	133.50	-173.50	11	12.84	1	-3.48	9	-284.49	11	41.96	7	-0.01	11
1017	-111	-91	Max	0.00	-60.20	1	27.46	9	-1.76	11	-149.52	7	178.60	11	-0.00	13
1017	-111	-91	Max	133.50	-60.20	1	27.46	9	33.17	9	-241.51	7	-218.98	7	-0.00	13
1017	-111	-91	Min.	0.00	-173.50	11	12.84	1	-3.48	9	-284.49	11	41.96	7	-0.01	11
1017	-111	-91	Min.	133.50	-173.50	11	12.84	1	15.02	1	-888.67	11	-604.48	11	-0.01	11
1017	-91	-110	Max	0.00	-67.00	1	-8.61	1	32.86	9	784.44	11	-191.50	7	0.01	11
1017	-91	-110	Max	120.75	-67.00	1	-8.61	1	5.38	9	247.37	9	99.59	11	0.01	11
1017	-91	-110	Min.	0.00	-174.25	11	-22.76	9	13.23	1	212.13	7	-523.90	9	0.00	1
1017	-91	-110	Min.	120.75	-174.25	11	-22.76	9	2.84	1	128.93	7	13.88	5	0.00	1
1017	-110	-89	Max	0.00	-67.00	1	-8.61	1	5.38	9	247.37	9	99.59	11	0.01	11
1017	-110	-89	Max	55.26					-7.19	9			167.15	9		
1017	-110	-89	Max	120.75	-67.00	1	-8.61	1	-7.56	1	50.77	3	136.03	10	0.01	11
1017	-110	-89	Min.	0.00	-174.25	11	-22.76	9	2.84	1	128.93	7	13.88	5	0.00	1
1017	-110	-89	Min.	101.33					-7.30	15			102.15	15		
1017	-110	-89	Min.	120.75	-174.25	11	-22.76	9	-22.10	9	-308.52	11	39.51	14	0.00	1
1017	-89	-109	Max	0.00	-60.76	1	14.34	9	-5.59	1	355.31	11	138.41	3	-0.00	1
1017	-89	-109	Max	78.21					-2.31	11			215.42	11		
1017	-89	-109	Max	120.75	-60.76	1	14.34	9	3.29	11	-106.54	7	175.04	11	-0.00	1
1017	-89	-109	Min.	0.00	-175.71	11	6.12	1	-14.71	9	-28.44	3	49.45	12	-0.01	11
1017	-89	-109	Min.	38.56					-3.73	15			119.21	15		
1017	-89	-109	Min.	120.75	-175.71	11	6.12	1	1.61	12	-191.18	11	52.85	7	-0.01	11
1017	-109	-88	Max	0.00	-60.76	1	14.34	9	3.29	11	-106.54	7	175.04	11	-0.00	1
1017	-109	-88	Max	120.75	-60.76	1	14.34	9	19.93	9	-189.74	7	-126.02	7	-0.00	1
1017	-109	-88	Min.	0.00	-175.71	11	6.12	1	1.61	12	-191.18	11	52.85	7	-0.01	11
1017	-109	-88	Min.	120.75	-175.71	11	6.12	1	9.18	1	-737.66	11	-385.74	11	-0.01	11
1017	-88	-108	Max	0.00	46.51	1	-4.25	1	21.23	9	378.24	11	100.36	5	0.01	11
1017	-88	-108	Max	82.97					10.89	11			169.88	11		
1017	-88	-108	Max	125.00	46.51	1	-4.25	1	7.45	9	-109.89	7	131.05	11	0.01	11
1017	-88	-108	Min.	0.00	3.87	11	-11.02	9	8.18	1	-27.48	5	3.49	12	0.00	7
1017	-88	-108	Min.	42.51					7.58	15			81.88	15		
1017	-88	-108	Min.	125.00	3.87	11	-11.02	9	2.87	1	-187.48	11	11.91	3	0.00	7
1017	-108	-85	Max	0.00	46.51	1	-4.25	1	7.45	9	-109.89	7	131.05	11	0.01	11
1017	-108	-85	Max	125.00	46.51	1	-4.25	1	-2.18	14	-196.01	7	-178.28	7	0.01	11
1017	-108	-85	Min.	0.00	3.87	11	-11.02	9	2.87	1	-187.48	11	11.91	3	0.00	7
1017	-108	-85	Min.	125.00	3.87	11	-11.02	9	-7.79	10	-753.19	11	-456.87	11	0.00	7
1018	-41	-102	Max	0.00	39.46	9	45.91	9	-12.27	1	630.21	9	-225.93	3	0.04	11
1018	-41	-102	Max	125.00	39.46	9	45.91	9	30.75	9	345.74	9	134.14	9	0.04	11
1018	-41	-102	Min.	0.00	16.80	14	22.17	1	-26.64	9	240.90	3	-475.83	9	0.02	7
1018	-41	-102	Min.	125.00	16.80	14	22.17	1	15.45	1	192.27	3	44.69	3	0.02	7
1018	-102	-40	Max	0.00	39.46	9	45.91	9	30.75	9	345.74	9	134.14	9	0.04	11
1018	-102	-40	Max	125.00	39.46	9	45.91	9	88.14	9	156.29	1	388.53	9	0.04	11
1018	-102	-40	Min.	0.00	16.80	14	22.17	1	15.45	1	192.27	3	44.69	3	0.02	7
1018	-102	-40	Min.	125.00	16.80	14	22.17	1	43.17	1	31.98	14	251.09	14	0.02	7

Relazione di calcolo

1018	-40	-101	Max	0.00	-9.20	1	-31.44	1	88.35	9	-43.25	14	398.03	10	0.00	1
1018	-40	-101	Max	133.50	-9.20	1	-31.44	1	2.34	9	-204.42	3	73.75	11	0.00	1
1018	-40	-101	Min.	0.00	-35.30	9	-64.43	9	42.34	1	-170.03	1	246.14	14	-0.00	11
1018	-40	-101	Min.	133.50	-35.30	9	-64.43	9	0.37	1	-389.83	9	12.46	5	-0.00	11
1018	-101	-39	Max	0.00	-9.20	1	-31.44	1	2.34	9	-204.42	3	73.75	11	0.00	1
1018	-101	-39	Max	133.50	-9.20	1	-31.44	1	-41.60	1	-256.35	3	-294.06	3	0.00	1
1018	-101	-39	Min.	0.00	-35.30	9	-64.43	9	0.37	1	-389.83	9	12.46	5	-0.00	11
1018	-101	-39	Min.	133.50	-35.30	9	-64.43	9	-83.67	9	-693.64	9	-651.25	9	-0.00	11
1018	-39	-100	Max	0.00	84.96	9	62.13	9	-40.63	1	691.12	9	-288.51	3	-0.00	3
1018	-39	-100	Max	120.75	84.96	9	62.13	9	-3.04	1	416.32	9	49.24	11	-0.00	3
1018	-39	-100	Min.	0.00	47.63	1	31.13	1	-81.71	9	267.98	3	-621.42	9	-0.00	9
1018	-39	-100	Min.	120.75	47.63	1	31.13	1	-6.69	9	221.01	3	6.05	5	-0.00	9
1018	-100	-97	Max	0.00	84.96	9	62.13	9	-3.04	1	416.32	9	49.24	11	-0.00	3
1018	-100	-97	Max	120.75	84.96	9	62.13	9	68.32	9	199.89	10	384.01	9	-0.00	3
1018	-100	-97	Min.	0.00	47.63	1	31.13	1	-6.69	9	221.01	3	6.05	5	-0.00	9
1018	-100	-97	Min.	120.75	47.63	1	31.13	1	34.55	1	85.31	14	245.22	3	-0.00	9
1018	-97	-99	Max	0.00	3.21	1	-20.97	1	65.16	9	-40.88	14	364.75	10	-0.00	1
1018	-97	-99	Max	120.75	3.21	1	-20.97	1	14.68	9	-186.06	3	103.54	9	-0.00	1
1018	-97	-99	Min.	0.00	-15.31	9	-41.81	9	32.99	1	-153.67	1	232.32	3	-0.00	9
1018	-97	-99	Min.	120.75	-15.31	9	-41.81	9	7.67	1	-350.05	9	35.20	7	-0.00	9
1018	-99	-38	Max	0.00	3.21	1	-20.97	1	14.68	9	-186.06	3	103.54	9	-0.00	1
1018	-99	-38	Max	120.75	3.21	1	-20.97	1	-17.66	1	-233.04	3	-215.24	3	-0.00	1
1018	-99	-38	Min.	0.00	-15.31	9	-41.81	9	7.67	1	-350.05	9	35.20	7	-0.00	9
1018	-99	-38	Min.	120.75	-15.31	9	-41.81	9	-35.81	9	-624.85	9	-485.06	9	-0.00	9
1018	-38	-98	Max	0.00	176.92	11	10.85	9	-13.35	1	339.35	11	-56.45	3	-0.02	5
1018	-38	-98	Max	125.00	176.92	11	10.85	9	-6.85	1	49.26	11	33.77	11	-0.02	5
1018	-38	-98	Min.	0.00	112.68	13	5.20	1	-27.76	9	61.12	5	-209.11	11	-0.04	9
1018	-38	-98	Min.	125.00	112.68	13	5.20	1	-14.20	9	12.49	5	-12.05	1	-0.04	9
1018	-98	-37	Max	0.00	176.92	11	10.85	9	-6.85	1	49.26	11	33.77	11	-0.02	5
1018	-98	-37	Max	21.22					-11.47	11			39.00	11		
1018	-98	-37	Max	125.00	176.92	11	10.85	9	-0.34	1	-19.25	7	-5.52	7	-0.02	5
1018	-98	-37	Min.	0.00	112.68	13	5.20	1	-14.20	9	12.49	5	-12.05	1	-0.04	9
1018	-98	-37	Min.	28.77					-5.35	5			-9.92	5		
1018	-98	-37	Min.	125.00	112.68	13	5.20	1	-1.58	11	-240.84	11	-86.98	9	-0.04	9
1023	130	129	Max	8.00	297.56	11	281.23	9	-140.04	1	927.65	9	-464.21	7	-0.03	3
1023	130	129	Max	202.00	297.56	11	281.23	9	264.23	9	463.51	5	322.87	5	-0.03	3
1023	130	129	Min.	8.00	-573.95	10	133.83	1	-281.36	9	212.69	7	-1394.46	9	-0.20	9
1023	130	129	Min.	202.00	-573.95	10	133.83	1	119.59	1	-1.56	7	-389.80	10	-0.20	9
1023	-19	130	Max	0.00	909.49	11	97.75	10	-30.49	1	-603.18	5	2214.94	9	0.04	3
1023	-19	130	Max	250.50	909.49	11	97.75	10	170.04	9	-879.82	5	-735.26	5	0.04	3
1023	-19	130	Min.	0.00	223.36	13	43.64	1	-78.02	10	-1139.03	9	1122.20	5	-0.08	7
1023	-19	130	Min.	250.50	223.36	13	43.64	1	78.83	1	-1949.56	9	-1653.52	9	-0.08	7
1023	131	-19	Max	8.00	928.53	11	-6.50	13	30.34	9	2258.13	9	-1041.58	7	0.08	5
1023	131	-19	Max	258.50	928.53	11	-6.50	13	-5.61	13	1447.60	9	2216.08	9	0.08	5
1023	131	-19	Min.	8.00	385.45	13	-20.03	9	10.68	13	1011.47	7	-2425.35	9	-0.03	7
1023	131	-19	Min.	258.50	385.45	13	-20.03	9	-19.85	9	734.83	7	1123.30	5	-0.03	7
1023	-17	131	Max	0.00	843.56	11	12.24	10	2.12	11	-680.87	5	1746.43	9	0.06	3
1023	-17	131	Max	233.50	843.56	11	12.24	10	4.49	10	-938.73	5	-969.64	5	0.06	3
1023	-17	131	Min.	0.00	414.09	13	-12.62	11	-24.09	10	-1342.30	9	910.00	7	-0.05	7
1023	-17	131	Min.	233.50	414.09	13	-12.62	11	-27.35	11	-2097.83	9	-2269.93	9	-0.05	7
1023	132	-17	Max	8.00	907.45	9	19.98	10	-0.14	14	2042.81	9	-923.65	7	0.06	3
1023	132	-17	Max	241.50	907.45	9	19.98	10	19.77	10	1287.28	9	1745.91	9	0.06	3
1023	132	-17	Min.	8.00	498.28	13	-1.85	11	-26.89	10	914.01	7	-2141.97	9	-0.05	7
1023	132	-17	Min.	241.50	498.28	13	-1.85	11	-4.53	11	656.14	7	909.50	7	-0.05	7
1023	-18	132	Max	0.00	1068.71	9	-0.06	10	52.45	11	-666.02	5	1985.39	9	0.14	11
1023	-18	132	Max	242.00	1068.71	9	-0.06	10	11.52	10	-933.28	5	-919.49	5	0.14	11
1023	-18	132	Min.	0.00	476.12	1	-29.50	11	7.86	13	-1319.95	9	1015.67	5	0.01	7
1023	-18	132	Min.	242.00	476.12	1	-29.50	11	-18.94	11	-2102.98	9	-2156.35	9	0.01	7
1023	133	-18	Max	8.00	1030.38	10	-119.06	1	344.97	9	1222.52	9	-6.44	7	0.13	11
1023	133	-18	Max	210.00	1030.38	10	-119.06	1	-68.75	14	1142.59	9	1983.58	9	0.13	11
1023	133	-18	Min.	8.00	343.44	1	-241.53	9	169.57	1	572.50	7	-469.69	5	0.01	7
1023	133	-18	Min.	210.00	343.44	1	-241.53	9	-142.93	9	511.02	7	1015.26	5	0.01	7
1046	103	104	Max	7.60	-88.26	1	70.43	11	-22.99	1	553.62	9	0.00	1	0.38	9
1046	103	104	Max	123.59					29.33	9			324.93	9		
1046	103	104	Max	242.40	-88.26	1	70.43	11	113.41	11	-373.84	1	0.00	9	0.38	9
1046	103	104	Min.	7.60	-673.81	11	35.77	1	-51.95	11	373.84	1	0.00	1	0.03	7
1046	103	104	Min.	123.59					18.51	1			219.41	1		
1046	103	104	Min.	242.40	-673.81	11	35.77	1	61.01	1	-553.62	9	0.00	1	0.03	7
1046	104	-156	Max	7.60	-318.70	1	-362.94	13	208.77	11	3499.95	9	0.00	1	-2.55	13
1046	104	-156	Max	50.00	-318.70	1	-362.94	13	-83.48	13	3117.47	9	1402.89	9	-2.55	13
1046	104	-156	Min.	7.60	-1224.16	10	-839.71	11	70.41	13	1917.90	7	0.00	1	-5.43	11
1046	104	-156	Min.	50.00	-1224.16	10	-839.71	11	-147.27	11	1661.20	7	758.77	7	-5.43	11
1046	-156	-134	Max	0.00	1633.56	9	51.76	9	-60.54	1	2384.60	9	482.17	9	0.24	11
1046	-156	-134	Max	230.70					4.41	5			1889.52	5		
1046	-156	-134	Max	235.00	1633.56	9	51.76	9	16.40	9	264.74	9	3595.14	9	0.24	11
1046	-156	-134	Min.	0.00	809.10	13	28.15	1	-105.24	9	1402.65	3	259.10	7	0.02	13
1046	-156	-134	Min.	230.30					4.30	7			1885.48	7		
1046	-156	-134	Min.	235.00	809.10	13	28.15	1	5.62	1	-20.12	3	1885.23	7	0.02	13
1046	-134	-155	Max	0.00	1947.70	9	10.43	10	10.37	11	-14.02	1	3456.78	9	-0.27	7

Relazione di calcolo

1046	-134	-155	Max	235.00	1947.70	9	10.43	10	20.74	10	-1436.79	1	224.30	9	-0.27	7
1046	-134	-155	Min.	0.00	1030.66	13	0.28	14	-3.79	10	-315.59	9	1810.98	1	-0.64	10
1046	-134	-155	Min.	235.00	1030.66	13	0.28	14	7.58	1	-2435.45	9	104.91	7	-0.64	10
1046	-155	110	Max	0.00	325.35	1	122.02	10	12.08	11	-1032.42	1	1109.76	9	1.70	10
1046	-155	110	Max	50.00	325.35	1	122.02	10	67.79	10	-1335.14	1	0.00	9	1.70	10
1046	-155	110	Min.	0.00	2.47	10	-82.38	11	4.77	13	-1994.01	9	591.89	1	-0.61	7
1046	-155	110	Min.	50.00	2.47	10	-82.38	11	-29.11	11	-2445.04	9	0.00	7	-0.61	7
1046	110	-35	Max	0.00	321.32	11	36.33	11	2.98	13	2495.31	11	0.00	1	-0.01	7
1046	110	-35	Max	30.00	321.32	11	36.33	11	4.78	10	2258.44	11	713.06	11	-0.01	7
1046	110	-35	Min.	0.00	29.43	13	3.99	13	-32.42	11	1255.06	3	0.00	1	-2.05	10
1046	110	-35	Min.	30.00	29.43	13	3.99	13	-21.52	11	1095.93	3	352.65	3	-2.05	10
1046	-35	-69	Max	0.00	1471.20	11	22.76	11	-0.35	13	2285.07	9	-249.40	1	0.15	10
1046	-35	-69	Max	190.00	1471.20	11	22.76	11	25.11	10	784.89	9	2477.97	9	0.15	10
1046	-35	-69	Min.	0.00	714.71	13	8.89	13	-26.46	11	1372.41	5	-438.49	9	0.02	7
1046	-35	-69	Min.	190.00	714.71	13	8.89	13	9.67	1	364.58	5	1400.25	5	0.02	7
1046	-69	-70	Max	0.00	1471.20	11	22.76	11	25.11	10	784.89	9	2477.97	9	0.15	10
1046	-69	-70	Max	99.41					35.42	9			2868.09	9		
1046	-69	-70	Max	190.00	1471.20	11	22.76	11	60.02	11	-479.53	12	2544.09	9	0.15	10
1046	-69	-70	Min.	0.00	714.71	13	8.89	13	9.67	1	364.58	5	1400.25	5	0.02	7
1046	-69	-70	Min.	68.74					18.90	5			1525.54	5		
1046	-69	-70	Min.	190.00	714.71	13	8.89	13	31.70	12	-832.77	10	1135.51	5	0.02	7
1046	-70	118	Max	0.00	630.25	11	-55.57	1	67.59	11	-414.95	5	3700.03	9	0.62	11
1046	-70	118	Max	190.00	630.25	11	-55.57	1	-67.40	1	-1422.78	5	0.00	9	0.62	11
1046	-70	118	Min.	0.00	188.32	13	-108.77	10	37.37	12	-1197.29	9	1745.84	5	0.17	13
1046	-70	118	Min.	190.00	188.32	13	-108.77	10	-143.54	10	-2697.47	9	0.00	5	0.17	13
1046	118	-51	Max	0.00	673.17	11	91.05	10	-59.26	1	2633.61	9	0.00	1	-0.08	13
1046	118	-51	Max	190.00	673.17	11	91.05	10	66.15	11	1133.44	9	3578.70	9	-0.08	13
1046	118	-51	Min.	0.00	201.85	13	50.20	1	-119.89	10	1388.37	3	0.00	1	-0.49	11
1046	118	-51	Min.	190.00	201.85	13	50.20	1	34.22	12	380.54	3	1680.46	3	-0.49	11
1046	-51	-52	Max	0.00	893.94	11	-10.27	13	59.72	11	689.26	10	3181.10	9	-0.04	7
1046	-51	-52	Max	70.18					31.75	9			3375.55	9		
1046	-51	-52	Max	190.00	893.94	11	-10.27	13	13.08	11	-452.17	3	2808.77	9	-0.04	7
1046	-51	-52	Min.	0.00	351.01	13	-24.55	11	27.15	13	370.76	12	1477.08	3	-0.21	10
1046	-51	-52	Min.	104.58					18.60	5			1767.55	5		
1046	-51	-52	Min.	190.00	351.01	13	-24.55	11	7.24	12	-946.06	9	1573.20	5	-0.21	10
1046	-52	-27	Max	0.00	893.94	11	-10.27	13	13.08	11	-452.17	3	2808.77	9	-0.04	7
1046	-52	-27	Max	190.00	893.94	11	-10.27	13	-11.89	13	-1460.00	3	-241.17	3	-0.04	7
1046	-52	-27	Min.	0.00	351.01	13	-24.55	11	7.24	12	-946.06	9	1573.20	5	-0.21	10
1046	-52	-27	Min.	190.00	351.01	13	-24.55	11	-33.56	11	-2446.23	9	-413.91	9	-0.21	10
1046	-27	123	Max	0.00	70.75	11	288.92	10	-12.74	13	-1152.82	1	735.98	11	1.87	10
1046	-27	123	Max	30.00	70.75	11	288.92	10	66.51	10	-1311.95	1	0.00	11	1.87	10
1046	-27	123	Min.	0.00	-407.72	10	-59.31	11	-31.81	11	-2334.83	11	369.72	1	-0.26	7
1046	-27	123	Min.	30.00	-407.72	10	-59.31	11	-49.60	11	-2571.70	11	0.00	1	-0.26	7
1046	123	-165	Max	0.00	3.87	11	97.70	11	15.77	10	2396.50	9	0.00	1	0.58	7
1046	123	-165	Max	50.05	3.87	11	97.70	11	4.18	10	1945.06	9	1086.37	9	0.58	7
1046	123	-165	Min.	0.00	-458.12	10	-23.16	10	-58.06	11	1307.17	3	0.00	1	-0.91	10
1046	123	-165	Min.	50.05	-458.12	10	-23.16	10	-9.17	11	1004.18	3	578.36	3	-0.91	10
1046	-165	-143	Max	0.00	1620.01	11	13.66	11	9.06	10	2406.07	9	140.43	9	0.19	10
1046	-165	-143	Max	234.72					15.31	7			1734.01	7		
1046	-165	-143	Max	235.01	1620.01	11	13.66	11	24.79	11	286.12	9	3303.88	9	0.19	10
1046	-165	-143	Min.	0.00	800.17	13	1.61	13	-7.85	1	1417.85	3	63.66	3	0.02	7
1046	-165	-143	Min.	234.13					15.25	3			1724.68	3		
1046	-165	-143	Min.	235.01	800.17	13	1.61	13	9.92	13	-4.98	3	1724.66	3	0.02	7
1046	-143	-166	Max	0.00	1769.45	11	-12.70	1	28.14	9	102.98	7	3200.96	9	0.15	10
1046	-143	-166	Max	2.35					26.41	11			2851.18	11		
1046	-143	-166	Max	235.01	1769.45	11	-12.70	1	-14.85	1	-1319.86	7	458.63	9	0.15	10
1046	-143	-166	Min.	0.00	940.57	13	-25.29	9	15.01	1	-106.93	9	1673.02	7	0.02	7
1046	-143	-166	Min.	16.33					12.93	7			1681.76	7		
1046	-143	-166	Min.	235.01	940.57	13	-25.29	9	-31.71	11	-2226.87	9	241.70	1	0.02	7
1046	-166	-19	Max	0.00	-50.62	1	4.50	1	-13.66	13	-1115.08	7	1176.40	9	1.12	9
1046	-166	-19	Max	50.05	-50.62	1	4.50	1	-13.64	1	-1418.08	7	0.00	11	1.12	9
1046	-166	-19	Min.	0.00	-466.40	10	-98.69	10	-31.14	11	-2124.96	9	633.86	7	0.39	3
1046	-166	-19	Min.	50.05	-466.40	10	-98.69	10	-69.59	10	-2576.40	9	0.00	3	0.39	3
1100	105	-21	Max	8.00	-166.63	1	44.26	11	-6.75	13	602.38	11	150.27	5	0.02	3
1100	105	-21	Max	250.00	-166.63	1	44.26	11	76.25	11	506.63	11	1044.03	11	0.02	3
1100	105	-21	Min.	8.00	-342.38	10	14.45	13	-30.86	11	254.10	5	-454.54	7	-0.14	11
1100	105	-21	Min.	250.00	-342.38	10	14.45	13	25.46	1	180.44	5	676.06	5	-0.14	11
1100	-21	107	Max	0.00	-150.47	13	-63.32	1	169.98	11	-308.29	7	1044.27	11	0.01	3
1100	-21	107	Max	202.00	-150.47	13	-63.32	1	-72.03	1	-369.77	7	45.99	7	0.01	3
1100	-21	107	Min.	0.00	-351.29	11	-177.10	11	55.87	1	-632.97	10	676.34	5	-0.16	11
1100	-21	107	Min.	202.00	-351.29	11	-177.10	11	-187.76	11	-712.89	10	-558.96	5	-0.16	11
1185	101	102	Max	7.60	247.21	11	-99.62	1	196.25	11	553.62	9	0.00	1	-0.53	13
1185	101	102	Max	123.59					-85.95	9			324.93	9		
1185	101	102	Max	242.40	247.21	11	-99.62	1	-162.14	1	-373.84	1	0.00	9	-0.53	13
1185	101	102	Min.	7.60	-79.48	10	-227.18	11	63.37	13	373.84	1	0.00	1	-1.18	11
1185	101	102	Min.	123.59					-43.78	1			219.41	1		
1185	101	102	Min.	242.40	-79.48	10	-227.18	11	-337.16	11	-553.62	9	0.00	1	-1.18	11
1185	102	-160	Max	7.60	726.85	11	1436.15	9	-271.18	1	2098.65	9	0.00	1	5.42	11
1185	102	-160	Max	50.00	726.85	11	1436.15	9	84.39	11	1898.71	9	847.44	9	5.42	11

Relazione di calcolo

1185	102	-160	Min.	7.60	-411.48	10	767.05	1	-540.22	9	1182.64	7	0.00	1	2.50	7
1185	102	-160	Min.	50.00	-411.48	10	767.05	1	47.05	12	1047.62	7	472.81	7	2.50	7
1185	-160	-8	Max	0.00	1639.63	11	113.82	9	39.93	11	1268.16	9	421.17	11	-0.80	3
1185	-160	-8	Max	235.00	1639.63	11	113.82	9	263.56	9	159.97	9	2074.32	9	-0.80	3
1185	-160	-8	Min.	0.00	550.84	13	45.88	1	-3.92	9	769.01	7	226.38	7	-1.92	9
1185	-160	-8	Min.	235.00	550.84	13	45.88	1	124.30	1	20.68	7	1154.26	7	-1.92	9
1185	-8	-159	Max	0.00	1335.04	11	-94.52	1	278.72	9	-71.54	7	2016.57	9	2.46	9
1185	-8	-159	Max	235.00	1335.04	11	-94.52	1	-86.15	1	-819.87	7	181.24	9	2.46	9
1185	-8	-159	Min.	0.00	661.01	13	-193.57	11	135.97	1	-228.90	11	1136.67	7	1.26	1
1185	-8	-159	Min.	235.00	661.01	13	-193.57	11	-194.54	11	-1337.08	11	70.17	14	1.26	1
1185	-159	109	Max	0.00	271.95	11	-132.81	13	-76.93	1	-804.92	7	657.90	9	6.51	10
1185	-159	109	Max	42.40	271.95	11	-132.81	13	-141.52	13	-939.93	7	0.00	10	6.51	10
1185	-159	109	Min.	0.00	101.30	13	-397.35	11	-171.11	11	-1451.68	9	369.91	7	0.26	5
1185	-159	109	Min.	42.40	101.30	13	-397.35	11	-339.59	11	-1651.62	9	0.00	12	0.26	5
1191	107	108	Max	7.60	331.00	10	210.79	11	-69.99	1	553.62	9	0.00	1	1.04	10
1191	107	108	Max	123.59					70.63	9			324.93	9		
1191	107	108	Max	242.40	331.00	10	210.79	11	309.09	11	-373.84	1	0.00	9	1.04	10
1191	107	108	Min.	7.60	113.34	1	93.56	1	-185.84	11	373.84	1	0.00	1	0.37	1
1191	107	108	Min.	123.59					38.53	1			219.41	1		
1191	107	108	Min.	242.40	113.34	1	93.56	1	149.69	1	-553.62	9	0.00	1	0.37	1
1191	108	-146	Max	7.60	828.67	11	-652.16	1	419.56	9	1971.34	9	0.00	1	-1.91	5
1191	108	-146	Max	50.00	828.67	11	-652.16	1	-37.50	12	1771.40	9	793.46	9	-1.91	5
1191	108	-146	Min.	7.60	21.54	1	-1118.85	9	230.09	1	1137.97	1	0.00	1	-4.82	10
1191	108	-146	Min.	50.00	21.54	1	-1118.85	9	-70.34	11	1002.95	1	453.87	1	-4.82	10
1191	-146	-4	Max	0.00	1706.82	11	-41.98	1	-3.19	12	1245.12	9	406.50	11	1.58	9
1191	-146	-4	Max	235.00	1706.82	11	-41.98	1	-113.97	1	136.94	9	2023.80	9	1.58	9
1191	-146	-4	Min.	0.00	705.53	1	-102.72	9	-35.47	11	765.92	1	221.30	5	0.72	3
1191	-146	-4	Min.	235.00	705.53	1	-102.72	9	-245.34	9	17.59	1	1142.79	1	0.72	3
1191	-4	-145	Max	0.00	1327.90	11	180.48	9	-125.49	1	-77.63	5	2078.78	9	-1.15	1
1191	-4	-145	Max	235.00	1327.90	11	180.48	9	176.59	11	-825.95	5	175.24	9	-1.15	1
1191	-4	-145	Min.	0.00	679.29	1	86.86	1	-269.35	9	-255.93	9	1153.59	5	-2.55	9
1191	-4	-145	Min.	235.00	679.29	1	86.86	1	78.64	1	-1364.11	9	77.20	14	-2.55	9
1191	-145	112	Max	0.00	243.45	11	463.02	9	146.44	11	-837.67	5	713.70	9	1.82	7
1191	-145	112	Max	42.40	243.45	11	463.02	9	327.00	11	-972.69	5	0.00	11	1.82	7
1191	-145	112	Min.	0.00	99.28	1	187.83	1	65.32	1	-1583.28	9	383.80	5	-1.67	5
1191	-145	112	Min.	42.40	99.28	1	187.83	1	144.97	1	-1783.22	9	0.00	12	-1.67	5
1197	114	109	Max	8.00	684.05	9	334.60	11	-114.21	13	1011.20	11	-956.56	7	0.40	11
1197	114	109	Max	202.00	684.05	9	334.60	11	342.99	11	934.43	11	237.66	5	0.40	11
1197	114	109	Min.	8.00	306.51	1	131.57	13	-306.13	11	438.63	7	-1817.67	9	0.03	7
1197	114	109	Min.	202.00	306.51	1	131.57	13	141.04	13	379.58	7	-390.15	10	0.03	7
1197	110	114	Max	0.00	1797.54	10	-3.65	1	32.80	11	-1152.14	5	3447.39	9	0.08	3
1197	110	114	Max	242.00	1797.54	10	-3.65	1	2.36	1	-1225.80	5	-1018.22	5	0.08	3
1197	110	114	Min.	0.00	571.03	1	-29.63	11	11.19	1	-2299.28	9	1839.67	7	-0.03	7
1197	110	114	Min.	242.00	571.03	1	-29.63	11	-38.91	11	-2395.03	9	-2232.71	9	-0.03	7
1197	116	110	Max	8.00	1369.12	11	24.11	11	30.33	10	2720.13	9	-1713.97	7	0.07	3
1197	116	110	Max	267.00	1369.12	11	24.11	11	29.67	11	2617.65	9	3450.28	9	0.07	3
1197	116	110	Min.	8.00	617.40	1	-25.07	10	-32.79	11	1412.45	7	-3462.14	9	-0.04	7
1197	116	110	Min.	267.00	617.40	1	-25.07	10	-34.61	10	1333.62	7	1838.88	7	-0.04	7
1197	-14	116	Max	0.00	1292.26	11	17.58	1	-2.33	13	-1428.26	3	3024.72	9	0.44	9
1197	-14	116	Max	233.50	1292.26	11	17.58	1	18.15	1	-1499.33	3	-1747.12	5	0.44	9
1197	-14	116	Min.	0.00	592.23	1	-2.61	10	-26.77	11	-2686.75	9	1649.81	3	0.18	7
1197	-14	116	Min.	233.50	592.23	1	-2.61	10	-9.01	10	-2779.14	9	-3356.70	9	0.18	7
1197	111	-14	Max	8.00	1235.36	11	-1.74	1	62.72	10	2142.22	9	-986.64	7	0.44	9
1197	111	-14	Max	241.50	1235.36	11	-1.74	1	3.99	1	2049.83	9	3022.24	9	0.44	9
1197	111	-14	Min.	8.00	517.73	13	-42.96	10	8.04	1	1165.75	7	-1871.99	9	0.18	7
1197	111	-14	Min.	241.50	517.73	13	-42.96	10	-37.58	10	1094.69	7	1648.30	3	0.18	7
1197	113	111	Max	8.00	231.49	11	19.72	11	0.21	13	-179.79	5	542.50	7	-0.44	1
1197	113	111	Max	242.00	231.49	11	19.72	11	-4.79	14	-251.01	5	-593.92	5	-0.44	1
1197	113	111	Min.	8.00	-714.26	10	-12.95	10	-52.73	11	-734.82	9	-89.88	5	-0.98	11
1197	113	111	Min.	242.00	-714.26	10	-12.95	10	-30.11	10	-827.41	9	-1462.89	9	-0.98	11
1197	112	113	Max	8.00	332.03	11	-131.99	1	334.65	11	215.66	5	206.68	10	-0.05	3
1197	112	113	Max	148.53					-36.86	7			227.40	7		
1197	112	113	Max	202.00	332.03	11	-131.99	1	-107.44	1	156.61	5	307.46	11	-0.05	3
1197	112	113	Min.	8.00	-360.76	10	-308.48	11	148.63	1	-32.19	10	-191.60	5	-0.38	11
1197	112	113	Min.	196.82					-135.48	12			126.42	12		
1197	112	113	Min.	202.00	-360.76	10	-308.48	11	-263.80	11	-108.95	10	47.10	13	-0.38	11
1203	128	122	Max	8.00	538.19	9	-116.32	1	250.38	9	-389.41	13	264.37	5	0.00	3
1203	128	122	Max	202.00	538.19	9	-116.32	1	-110.10	1	-448.45	13	-969.34	7	0.00	3
1203	128	122	Min.	8.00	267.61	1	-246.65	9	115.56	1	-932.56	11	-398.58	10	-0.15	11
1203	128	122	Min.	202.00	267.61	1	-246.65	9	-228.11	9	-1009.32	11	-1812.47	9	-0.15	11
1203	122	123	Max	8.00	1230.14	10	-28.82	14	81.30	9	2397.99	9	-1077.25	5	0.04	3
1203	122	123	Max	250.00	1230.14	10	-28.82	14	-24.54	1	2302.24	9	3451.94	9	0.04	3
1203	122	123	Min.	8.00	380.25	1	-55.00	9	44.93	14	1250.28	5	-2235.33	9	-0.07	7
1203	122	123	Min.	250.00	380.25	1	-55.00	9	-51.79	9	1176.63	5	1845.36	7	-0.07	7
1203	123	124	Max	0.00	1022.48	9	20.92	11	3.61	10	-1349.00	7	3453.85	9	0.06	5
1203	123	124	Max	259.00	1022.48	9	20.92	11	26.94	11	-1427.84	7	-1751.49	7	0.06	5
1203	123	124	Min.	0.00	470.98	1	2.37	13	-27.24	11	-2633.72	9	1844.52	7	-0.06	7
1203	123	124	Min.	259.00	470.98	1	2.37	13	4.10	1	-2736.19	9	-3500.19	9	-0.06	7
1203	124	-16	Max	8.00	850.91	9	24.91	10	-3.24	14	2845.38	9	-1787.80	5	0.07	3

Relazione di calcolo

1203	124	-16	Max	241.50	850.91	9	24.91	10	22.27	10	2752.99	9	3119.85	9	0.07	3
1203	124	-16	Min.	8.00	434.55	1	1.53	14	-35.90	10	1540.55	5	-3416.26	9	-0.04	7
1203	124	-16	Min.	241.50	434.55	1	1.53	14	0.06	11	1469.48	5	1711.39	7	-0.04	7
1203	-16	125	Max	0.00	829.88	11	23.40	10	1.76	11	-1137.32	7	3116.54	9	0.07	3
1203	-16	125	Max	233.50	829.88	11	23.40	10	47.21	9	-1208.39	7	-1029.64	7	0.07	3
1203	-16	125	Min.	0.00	442.27	1	9.93	14	-9.27	10	-2118.36	9	1708.98	7	-0.04	7
1203	-16	125	Min.	233.50	442.27	1	9.93	14	24.43	14	-2210.75	9	-1937.69	9	-0.04	7
1203	125	126	Max	8.00	137.10	11	24.88	10	-17.39	14	864.34	9	-591.20	5	0.11	5
1203	125	126	Max	242.00	137.10	11	24.88	10	7.03	10	771.75	9	458.74	7	0.11	5
1203	125	126	Min.	8.00	-388.30	10	-3.88	11	-51.19	10	236.17	5	-1523.80	9	0.01	7
1203	125	126	Min.	242.00	-388.30	10	-3.88	11	-34.59	11	164.95	5	-121.89	5	0.01	7
1203	126	127	Max	8.00	288.55	11	253.71	9	-97.82	1	104.62	10	322.84	11	0.25	11
1203	126	127	Max	202.00	288.55	11	253.71	9	306.49	9	27.86	10	214.37	10	0.25	11
1203	126	127	Min.	8.00	-158.85	10	123.86	1	-185.70	9	-153.96	5	58.06	13	0.06	7
1203	126	127	Min.	202.00	-158.85	10	123.86	1	142.48	1	-221.87	11	-218.04	5	0.06	7
1277	-161	128	Max	0.00	232.10	11	292.01	9	124.23	9	-780.94	7	643.37	9	-0.43	5
1277	-161	128	Max	42.40	232.10	11	292.01	9	248.04	9	-915.95	7	0.00	9	-0.43	5
1277	-161	128	Min.	0.00	95.99	1	132.50	1	58.68	1	-1417.40	9	359.74	7	-5.79	10
1277	-161	128	Min.	42.40	95.99	1	132.50	1	114.86	1	-1617.34	9	0.00	3	-5.79	10
1277	-9	-161	Max	0.00	1142.14	9	167.45	9	-120.63	1	-47.32	7	1920.88	9	-0.81	3
1277	-9	-161	Max	235.00	1142.14	9	167.45	9	133.27	9	-795.64	7	162.46	9	-0.81	3
1277	-9	-161	Min.	0.00	636.83	1	77.83	1	-260.24	9	-194.17	9	1078.48	7	-1.82	9
1277	-9	-161	Min.	235.00	636.83	1	77.83	1	62.27	1	-1302.35	9	88.51	7	-1.82	9
1277	-162	-9	Max	0.00	1304.54	11	-73.65	1	111.04	9	1230.53	9	277.61	9	1.83	9
1277	-162	-9	Max	235.00	1304.54	11	-73.65	1	-117.78	1	122.34	9	1867.23	9	1.83	9
1277	-162	-9	Min.	0.00	701.92	1	-155.60	9	55.29	1	759.96	7	156.14	7	0.79	7
1277	-162	-9	Min.	235.00	701.92	1	-155.60	9	-254.61	9	11.63	7	1063.98	7	0.79	7
1277	129	-162	Max	7.60	378.59	11	-155.32	1	258.61	9	1623.25	9	0.00	1	4.52	9
1277	129	-162	Max	50.00	378.59	11	-155.32	1	100.82	9	1423.30	9	645.87	9	4.52	9
1277	129	-162	Min.	7.60	96.40	1	-372.15	9	118.55	1	945.20	7	0.00	1	0.90	5
1277	129	-162	Min.	50.00	96.40	1	-372.15	9	52.70	1	810.18	7	372.14	7	0.90	5
1283	127	-176	Max	7.60	256.13	11	-184.47	1	294.68	9	1755.44	9	0.00	1	1.86	5
1283	127	-176	Max	50.00	256.13	11	-184.47	1	114.64	9	1555.49	9	701.92	9	1.86	5
1283	127	-176	Min.	7.60	114.55	1	-424.62	9	138.42	1	979.27	5	0.00	1	-1.35	7
1283	127	-176	Min.	50.00	114.55	1	-424.62	9	60.21	1	844.25	5	386.59	5	-1.35	7
1283	-176	-13	Max	0.00	1226.69	9	-81.44	1	144.04	9	1347.08	9	186.78	9	2.54	9
1283	-176	-13	Max	235.00	1226.69	9	-81.44	1	-118.29	1	238.90	9	2050.31	9	2.54	9
1283	-176	-13	Min.	0.00	686.36	1	-169.85	9	73.10	1	821.42	5	98.43	5	1.15	3
1283	-176	-13	Min.	235.00	686.36	1	-169.85	9	-255.11	9	73.10	5	1149.50	5	1.15	3
1283	-13	-175	Max	0.00	1347.45	11	81.77	9	-106.75	1	-21.14	3	2017.92	9	-0.68	5
1283	-13	-175	Max	235.00	1347.45	11	81.77	9	-27.17	1	-769.46	3	373.01	9	-0.68	5
1283	-13	-175	Min.	0.00	728.80	1	33.86	1	-232.16	9	-145.87	9	1135.10	3	-1.55	9
1283	-13	-175	Min.	235.00	728.80	1	33.86	1	-48.72	11	-1254.05	9	206.15	3	-1.55	9
1283	-175	133	Max	0.00	323.16	11	925.31	9	-55.81	1	-963.87	3	776.62	9	3.03	10
1283	-175	133	Max	42.40	323.16	11	925.31	9	294.38	9	-1098.88	3	0.00	9	3.03	10
1283	-175	133	Min.	0.00	63.67	1	470.25	1	-97.94	9	-1731.67	9	437.30	3	0.35	5
1283	-175	133	Min.	42.40	63.67	1	470.25	1	143.57	1	-1931.62	9	0.00	7	0.35	5
2010	-214	-213	Max	0.00	-41.32	7	-18.71	14	70.27	9	575.22	9	-222.61	7	0.02	9
2010	-214	-213	Max	210.00	-41.32	7	-18.71	14	-10.61	14	348.26	10	469.03	9	0.02	9
2010	-214	-213	Min.	0.00	-306.63	11	-54.34	9	28.69	14	246.48	7	-455.43	9	0.00	3
2010	-214	-213	Min.	210.00	-306.63	11	-54.34	9	-44.04	10	205.22	12	275.38	7	0.00	3
2010	-213	-212	Max	0.00	-138.78	7	27.74	9	-11.18	14	-87.57	12	403.55	11	0.05	9
2010	-213	-212	Max	250.00	-138.78	7	27.74	9	48.37	9	-187.32	7	-194.91	7	0.05	9
2010	-213	-212	Min.	0.00	-595.88	11	16.36	13	-20.99	9	-222.52	11	218.66	13	0.03	7
2010	-213	-212	Min.	250.00	-595.88	11	16.36	13	28.99	13	-451.47	9	-377.40	9	0.03	7
2010	-212	-211	Max	0.00	328.07	9	0.37	11	14.02	10	172.46	9	-24.14	3	-0.00	7
2010	-212	-211	Max	133.78					-0.78	12			-5.42	12		
2010	-212	-211	Max	267.00	328.07	9	0.37	11	-0.56	14	-12.81	7	-34.01	7	-0.00	7
2010	-212	-211	Min.	0.00	71.23	14	-11.12	10	-1.84	11	5.42	3	-123.57	9	-0.01	11
2010	-212	-211	Min.	111.72					-1.07	1			-24.85	1		
2010	-212	-211	Min.	267.00	71.23	14	-11.12	10	-15.66	10	-170.83	9	-121.39	9	-0.01	11
2010	-211	-210	Max	0.00	83.92	1	-10.73	1	33.90	9	410.60	9	-120.00	1	-0.01	1
2010	-211	-210	Max	241.50	83.92	1	-10.73	1	-12.03	1	152.17	10	276.24	10	-0.01	1
2010	-211	-210	Min.	0.00	-243.05	11	-27.21	9	13.87	1	118.61	1	-343.25	9	-0.02	9
2010	-211	-210	Min.	241.50	-243.05	11	-27.21	9	-31.83	9	68.41	12	140.47	1	-0.02	9
2010	-210	-209	Max	0.00	130.12	1	25.61	11	-14.06	13	-72.82	12	252.26	9	0.02	9
2010	-210	-209	Max	241.50	130.12	1	25.61	11	32.03	11	-148.31	1	-173.72	1	0.02	9
2010	-210	-209	Min.	0.00	-200.94	11	12.05	13	-29.82	11	-153.10	11	153.47	13	0.01	1
2010	-210	-209	Min.	241.50	-200.94	11	12.05	13	15.05	13	-416.71	9	-379.16	9	0.01	1
2010	-209	-208	Max	0.00	19.40	1	-12.28	14	37.03	9	472.00	9	-201.44	5	-0.02	3
2010	-209	-208	Max	250.00	19.40	1	-12.28	14	-7.64	14	216.81	10	360.97	10	-0.02	3
2010	-209	-208	Min.	0.00	-317.64	11	-23.13	10	20.33	5	177.50	5	-438.52	9	-0.04	9
2010	-209	-208	Min.	250.00	-317.64	11	-23.13	10	-21.60	10	100.87	12	211.86	5	-0.04	9
2010	-208	-207	Max	0.00	44.51	1	31.93	9	-2.55	14	-138.28	12	367.63	9	-0.00	3
2010	-208	-207	Max	210.00	44.51	1	31.93	9	48.59	9	-206.24	1	-181.85	1	-0.00	3
2010	-208	-207	Min.	0.00	-142.91	11	11.77	14	-18.47	9	-249.34	11	231.62	1	-0.01	9
2010	-208	-207	Min.	210.00	-142.91	11	11.77	14	22.17	14	-476.39	9	-349.30	9	-0.01	9
2011	-200	-199	Max	0.00	1692.31	9	26.04	11	-7.18	13	375.43	9	-50.03	7	0.01	10
2011	-200	-199	Max	208.29					20.13	11			156.51	11		

Relazione di calcolo

2011	-200	-199	Max	210.00	1692.31	9	26.04	11	20.57	11	90.98	3	156.50	11	0.01	10
2011	-200	-199	Min.	0.00	913.28	3	4.18	13	-34.10	11	84.66	7	-136.26	9	-0.02	11
2011	-200	-199	Min.	198.71					1.13	13			94.75	13		
2011	-200	-199	Min.	210.00	913.28	3	4.18	13	1.60	13	-140.28	9	73.61	12	-0.02	11
2011	-199	-198	Max	0.00	1869.17	9	9.70	11	-1.09	13	289.76	9	74.61	5	0.02	11
2011	-199	-198	Max	117.07					1.70	9			178.77	9		
2011	-199	-198	Max	250.00	1869.17	9	9.70	11	15.16	11	-16.07	7	51.05	7	0.02	11
2011	-199	-198	Min.	0.00	926.76	3	2.16	13	-9.08	11	-2.56	5	4.89	12	0.01	13
2011	-199	-198	Min.	80.06					-1.24	7			64.71	7		
2011	-199	-198	Min.	250.00	926.76	3	2.16	13	4.32	13	-324.17	9	-35.18	9	0.01	13
2011	-198	-197	Max	0.00	1990.10	9	-3.99	7	22.21	10	240.34	9	45.11	5	-0.00	7
2011	-198	-197	Max	97.87					8.72	9			62.56	9		
2011	-198	-197	Max	267.00	1990.10	9	-3.99	7	-1.92	14	-52.94	7	-80.21	7	-0.00	7
2011	-198	-197	Min.	0.00	1027.23	3	-13.37	10	7.75	7	-40.96	5	-55.04	9	-0.01	11
2011	-198	-197	Min.	9.73					9.08	15			22.63	15		
2011	-198	-197	Min.	267.00	1027.23	3	-13.37	10	-13.49	10	-415.34	9	-288.67	9	-0.01	11
2011	-197	-196	Max	0.00	1767.14	9	7.19	11	-3.00	13	424.07	9	-77.19	3	0.00	11
2011	-197	-196	Max	172.69					0.41	9			98.19	9		
2011	-197	-196	Max	241.50	1767.14	9	7.19	11	7.12	11	59.66	7	86.37	7	0.00	11
2011	-197	-196	Min.	0.00	930.31	3	1.28	13	-10.24	11	75.99	5	-267.97	9	-0.00	9
2011	-197	-196	Min.	207.58					-0.34	13			58.94	13		
2011	-197	-196	Min.	241.50	930.31	3	1.28	13	0.03	10	-168.98	9	27.60	12	-0.00	9
2011	-196	-195	Max	0.00	1825.54	9	-1.99	3	15.69	10	175.73	9	90.43	5	-0.00	13
2011	-196	-195	Max	71.01					7.40	9			108.57	9		
2011	-196	-195	Max	241.50	1825.54	9	-1.99	3	-0.35	3	-71.34	7	-67.50	7	-0.00	13
2011	-196	-195	Min.	0.00	982.45	3	-10.63	10	4.47	3	-59.40	5	31.37	12	-0.01	11
2011	-196	-195	Min.	35.37					8.01	13			64.20	13		
2011	-196	-195	Min.	241.50	982.45	3	-10.63	10	-9.98	10	-417.33	9	-246.03	9	-0.01	11
2011	-195	-194	Max	0.00	1962.89	9	0.06	3	4.73	10	414.46	9	-50.89	3	-0.00	3
2011	-195	-194	Max	167.87					-2.27	9			129.13	9		
2011	-195	-194	Max	250.00	1962.89	9	0.06	3	-0.23	3	56.74	7	102.05	7	-0.00	3
2011	-195	-194	Min.	0.00	1030.16	7	-4.79	10	-0.38	3	64.96	3	-220.61	9	-0.01	11
2011	-195	-194	Min.	199.25					-3.21	13			70.99	13		
2011	-195	-194	Min.	250.00	1030.16	7	-4.79	10	-7.24	10	-199.47	9	31.87	12	-0.01	11
2011	-194	-193	Max	0.00	1657.23	9	-8.71	3	25.82	11	125.51	9	185.68	11	0.02	11
2011	-194	-193	Max	50.23					7.57	9			181.24	9		
2011	-194	-193	Max	210.00	1657.23	9	-8.71	3	-10.77	3	-90.85	5	-45.66	5	0.02	11
2011	-194	-193	Min.	0.00	907.99	7	-27.72	11	7.44	5	-93.20	7	99.45	12	0.00	7
2011	-194	-193	Min.	50.91					4.98	12			121.26	12		
2011	-194	-193	Min.	210.00	907.99	7	-27.72	11	-32.38	11	-390.20	9	-128.75	9	0.00	7
2012	-184	-183	Max	0.00	736.01	11	9.93	11	-4.93	13	136.45	9	0.24	7	-0.01	5
2012	-184	-183	Max	189.14					-2.84	11			18.73	11		
2012	-184	-183	Max	210.00	736.01	11	9.93	11	-0.46	14	45.20	5	44.30	5	-0.01	5
2012	-184	-183	Min.	0.00	375.79	5	-4.19	10	-21.61	11	-5.27	7	-106.62	11	-0.04	11
2012	-184	-183	Min.	84.95					-7.23	13			0.29	13		
2012	-184	-183	Min.	210.00	375.79	5	-4.19	10	-15.99	10	-133.55	9	-59.02	9	-0.04	11
2012	-183	-182	Max	0.00	248.94	11	36.29	9	-25.68	3	514.65	9	-221.09	3	0.01	11
2012	-183	-182	Max	250.00	248.94	11	36.29	9	41.00	11	276.50	11	446.80	11	0.01	11
2012	-183	-182	Min.	0.00	4.04	5	18.56	3	-50.26	9	199.51	3	-476.39	9	0.01	3
2012	-183	-182	Min.	250.00	4.04	5	18.56	3	20.72	3	130.20	12	249.88	3	0.01	3
2012	-182	-181	Max	0.00	484.48	11	-18.02	3	49.15	9	-134.83	12	429.82	10	-0.01	7
2012	-182	-181	Max	267.00	484.48	11	-18.02	3	-24.84	3	-191.72	7	-244.43	7	-0.01	7
2012	-182	-181	Min.	0.00	128.06	3	-38.27	9	23.26	3	-258.00	10	235.73	7	-0.02	9
2012	-182	-181	Min.	267.00	128.06	3	-38.27	9	-53.03	9	-543.99	9	-569.52	9	-0.02	9
2012	-181	-180	Max	0.00	650.80	11	43.50	9	-28.82	3	500.69	9	-241.15	3	0.02	11
2012	-181	-180	Max	241.50	650.80	11	43.50	9	54.43	11	266.86	11	385.97	11	0.02	11
2012	-181	-180	Min.	0.00	230.99	3	24.34	3	-51.01	9	205.57	3	-483.75	9	0.01	3
2012	-181	-180	Min.	241.50	230.99	3	24.34	3	29.97	3	127.94	12	215.30	13	0.01	3
2012	-180	-179	Max	0.00	525.40	11	-22.09	3	58.01	9	-132.27	12	395.57	10	-0.01	3
2012	-180	-179	Max	241.50	525.40	11	-22.09	3	-25.53	3	-185.83	3	-203.25	3	-0.01	3
2012	-180	-179	Min.	0.00	138.09	13	-46.54	9	27.94	3	-253.46	10	219.57	3	-0.02	11
2012	-180	-179	Min.	241.50	138.09	13	-46.54	9	-54.38	9	-507.70	9	-464.37	9	-0.02	11
2012	-179	-178	Max	0.00	801.75	11	9.64	11	-8.35	5	166.14	9	-13.44	5	0.01	9
2012	-179	-178	Max	129.22					-7.84	9			16.85	9		
2012	-179	-178	Max	250.00	801.75	11	9.64	11	7.58	11	24.95	7	33.15	7	0.01	9
2012	-179	-178	Min.	0.00	340.55	7	3.08	5	-16.57	9	9.11	5	-90.49	9	0.00	5
2012	-179	-178	Min.	101.83					-5.34	5			-8.77	5		
2012	-179	-178	Min.	250.00	340.55	7	3.08	5	-1.88	10	-155.29	9	-76.94	9	0.00	5
2012	-178	-177	Max	0.00	700.35	11	-5.37	5	16.56	11	27.61	9	114.62	10	0.04	11
2012	-178	-177	Max	21.48					5.25	9			84.28	9		
2012	-178	-177	Max	210.00	700.35	11	-5.37	5	-9.92	5	-29.32	5	-19.75	5	0.04	11
2012	-178	-177	Min.	0.00	359.08	7	-21.44	11	1.35	5	-81.30	7	22.19	5	0.01	7
2012	-178	-177	Min.	22.39					3.54	12			56.19	12		
2012	-178	-177	Min.	210.00	359.08	7	-21.44	11	-30.08	9	-242.39	9	-144.40	10	0.01	7
2020	-185	-186	Max	0.00	702.82	9	4.19	7	6.87	9	135.23	9	-0.75	7	0.03	9
2020	-185	-186	Max	105.18					9.76	9			2.55	9		
2020	-185	-186	Max	210.00	702.82	9	4.19	7	12.65	9	38.52	5	34.21	5	0.03	9
2020	-185	-186	Min.	0.00	373.95	5	-1.10	5	0.39	7	-7.03	7	-68.57	9	0.01	5
2020	-185	-186	Min.	122.55					5.10	8			-12.52	8		

Relazione di calcolo

2020	-185	-186	Min.	210.00	373.95	5	-1.10	5	2.77	5	-134.77	9	-68.09	9	0.01	5
2020	-186	-187	Max	0.00	119.03	7	-18.64	5	51.57	9	522.66	9	-219.05	5	0.00	1
2020	-186	-187	Max	252.13	119.03	7	-18.64	5	-20.41	1	261.70	11	435.81	11	0.00	1
2020	-186	-187	Min.	0.00	-32.09	9	-36.14	9	26.37	5	197.93	5	-487.84	9	-0.00	10
2020	-186	-187	Min.	252.13	-32.09	9	-36.14	9	-39.69	11	133.77	12	251.69	5	-0.00	10
2020	-187	-188	Max	0.00	85.81	7	36.13	9	-21.61	1	-142.13	12	437.16	9	0.02	9
2020	-187	-188	Max	264.88	85.81	7	36.13	9	52.92	9	-195.59	7	-246.33	7	0.02	9
2020	-187	-188	Min.	0.00	-6.46	9	17.86	7	-42.80	9	-259.63	10	240.52	7	0.01	7
2020	-187	-188	Min.	264.88	-6.46	9	17.86	7	25.63	7	-551.72	9	-573.19	9	0.01	7
2020	-188	-189	Max	0.00	242.52	10	-23.37	7	51.54	11	508.46	9	-241.09	1	-0.01	7
2020	-188	-189	Max	241.50	242.52	10	-23.37	7	-29.38	7	262.13	11	380.84	11	-0.01	7
2020	-188	-189	Min.	0.00	143.35	14	-43.65	11	27.06	7	205.09	1	-494.67	9	-0.03	9
2020	-188	-189	Min.	241.50	143.35	14	-43.65	11	-54.00	9	133.11	12	228.24	1	-0.03	9
2020	-189	-190	Max	0.00	181.19	11	44.06	9	-28.20	1	-126.17	12	377.30	9	0.02	9
2020	-189	-190	Max	241.50	181.19	11	44.06	9	51.74	9	-185.74	7	-202.63	7	0.02	9
2020	-189	-190	Min.	0.00	99.64	12	22.71	1	-54.67	9	-236.11	10	219.97	7	0.01	7
2020	-189	-190	Min.	241.50	99.64	12	22.71	1	26.71	1	-498.42	9	-451.44	9	0.01	7
2020	-190	-191	Max	0.00	576.75	11	-2.42	5	16.40	11	173.59	9	-8.80	5	-0.00	5
2020	-190	-191	Max	135.01					7.09	9			16.06	9		
2020	-190	-191	Max	250.00	576.75	11	-2.42	5	2.29	10	16.80	7	21.54	7	-0.00	5
2020	-190	-191	Min.	0.00	288.73	7	-8.64	11	7.27	5	4.50	5	-101.12	9	-0.01	9
2020	-190	-191	Min.	50.00					6.06	5			-7.66	5		
2020	-190	-191	Min.	250.00	288.73	7	-8.64	11	-5.20	11	-147.85	9	-68.94	9	-0.01	9
2020	-191	-192	Max	0.00	629.79	11	15.62	9	-0.22	5	39.79	9	90.79	10	-0.01	7
2020	-191	-192	Max	30.95					-0.69	9			76.01	9		
2020	-191	-192	Max	210.00	629.79	11	15.62	9	27.27	9	-32.76	5	-23.09	5	-0.01	7
2020	-191	-192	Min.	0.00	342.27	7	4.42	5	-8.37	11	-79.66	7	18.06	5	-0.03	9
2020	-191	-192	Min.	31.61					-0.54	12			50.85	12		
2020	-191	-192	Min.	210.00	342.27	7	4.42	5	9.06	5	-230.21	9	-130.08	9	-0.03	9
2021	-201	-202	Max	0.00	1912.06	9	-1.59	7	8.40	11	314.96	9	-59.97	7	0.00	11
2021	-201	-202	Max	127.61					-0.95	9			56.18	9		
2021	-201	-202	Max	210.00	1912.06	9	-1.59	7	-1.20	7	52.37	5	53.07	5	0.00	11
2021	-201	-202	Min.	0.00	1061.06	5	-7.29	11	2.15	7	56.30	7	-145.80	9	-0.00	3
2021	-201	-202	Min.	157.44					-1.56	13			24.43	13		
2021	-201	-202	Min.	210.00	1061.06	5	-7.29	11	-6.91	11	-200.74	9	-25.87	9	-0.00	3
2021	-202	-203	Max	0.00	1986.18	9	-2.15	13	7.07	11	399.97	9	-3.88	5	-0.00	7
2021	-202	-203	Max	162.56					-3.48	9			195.69	9		
2021	-202	-203	Max	254.25	1986.18	9	-2.15	13	-3.86	13	40.82	7	139.02	11	-0.00	7
2021	-202	-203	Min.	0.00	1040.32	5	-6.95	11	1.60	13	57.33	5	-130.04	9	-0.01	10
2021	-202	-203	Min.	189.28					-2.46	13			108.08	13		
2021	-202	-203	Min.	254.25	1040.32	5	-6.95	11	-10.60	11	-224.39	9	63.51	12	-0.01	10
2021	-203	-204	Max	0.00	1990.29	9	10.05	10	-4.89	7	173.21	9	122.03	11	0.00	9
2021	-203	-204	Max	69.54					-6.78	9			138.94	9		
2021	-203	-204	Max	262.75	1990.29	9	10.05	10	12.50	10	-86.51	7	-95.67	7	0.00	9
2021	-203	-204	Min.	0.00	1076.67	5	3.49	7	-13.92	10	-71.20	5	53.24	12	0.00	14
2021	-203	-204	Min.	24.88					-6.86	14			85.43	14		
2021	-203	-204	Min.	262.75	1076.67	5	3.49	7	4.27	7	-472.03	9	-314.71	9	0.00	14
2021	-204	-223	Max	0.00	1920.83	9	-1.44	13	8.39	11	428.49	9	-96.76	5	-0.00	14
2021	-204	-223	Max	174.49					-1.74	9			70.47	9		
2021	-204	-223	Max	241.50	1920.83	9	-1.44	13	-1.65	13	60.96	7	72.96	7	-0.00	14
2021	-204	-223	Min.	0.00	1060.67	5	-6.38	11	1.83	13	79.64	5	-303.36	9	-0.01	9
2021	-204	-223	Min.	212.19					-1.23	13			43.69	13		
2021	-204	-223	Min.	241.50	1060.67	5	-6.38	11	-7.01	11	-164.57	9	10.69	12	-0.01	9
2021	-223	-205	Max	0.00	1896.23	9	5.74	10	-3.08	14	190.31	9	80.71	5	0.01	9
2021	-223	-205	Max	77.50					-4.94	9			99.38	9		
2021	-223	-205	Max	241.50	1896.23	9	5.74	10	4.14	10	-63.12	7	-57.12	7	0.01	9
2021	-223	-205	Min.	0.00	1053.82	7	0.85	14	-9.71	10	-50.70	5	17.64	12	0.01	7
2021	-223	-205	Min.	46.04					-4.73	13			56.03	13		
2021	-223	-205	Min.	241.50	1053.82	7	0.85	14	-1.52	11	-402.75	9	-230.89	9	0.01	7
2021	-205	-224	Max	0.00	2020.57	9	2.58	10	1.94	11	408.24	9	-45.99	3	0.01	11
2021	-205	-224	Max	165.27					1.47	9			128.25	9		
2021	-205	-224	Max	250.00	2020.57	9	2.58	10	4.61	10	50.01	7	92.50	7	0.01	11
2021	-205	-224	Min.	0.00	1063.87	7	-1.31	11	-1.86	10	59.61	3	-211.07	9	0.00	13
2021	-205	-224	Min.	194.34					2.10	13			68.05	13		
2021	-205	-224	Min.	250.00	1063.87	7	-1.31	11	-1.34	11	-205.69	9	28.11	12	0.00	13
2021	-224	-206	Max	0.00	1722.92	9	18.71	11	-7.22	5	135.32	9	171.48	11	-0.00	13
2021	-224	-206	Max	54.21					-5.58	9			179.77	9		
2021	-224	-206	Max	210.00	1722.92	9	18.71	11	22.52	11	-89.88	5	-45.38	5	-0.00	13
2021	-224	-206	Min.	0.00	945.96	7	8.61	5	-16.77	11	-88.34	7	95.26	12	-0.01	11
2021	-224	-206	Min.	6.13					-8.27	13			114.68	13		
2021	-224	-206	Min.	210.00	945.96	7	8.61	5	10.86	5	-380.38	9	-114.81	9	-0.01	11
2022	-215	-216	Max	0.00	720.70	9	1.76	9	-1.06	14	144.50	9	-28.48	1	-0.03	7
2022	-215	-216	Max	112.39					-6.15	9			2.77	9		
2022	-215	-216	Max	210.00	720.70	9	1.76	9	-1.14	3	2.95	3	-3.72	3	-0.03	7
2022	-215	-216	Min.	0.00	448.42	3	-2.70	11	-8.12	9	19.88	1	-78.44	9	-0.06	9
2022	-215	-216	Min.	147.83					-2.20	15			-7.30	15		
2022	-215	-216	Min.	210.00	448.42	3	-2.70	11	-7.21	11	-125.50	9	-58.49	9	-0.06	9
2022	-216	-217	Max	0.00	99.78	7	32.07	9	-25.23	3	432.73	9	-144.47	3	-0.00	7
2022	-216	-217	Max	256.38	99.78	7	32.07	9	26.07	9	153.54	10	316.14	9	-0.00	7

Relazione di calcolo

2022	-216	-217	Min.	0.00	-3.93	12	13.80	3	-56.16	9	136.99	3	-370.73	9	-0.01	10
2022	-216	-217	Min.	256.38	-3.93	12	13.80	3	10.14	3	70.51	12	177.49	3	-0.01	10
2022	-217	-218	Max	0.00	217.75	11	-9.79	3	22.20	9	-60.95	12	270.38	9	-0.01	3
2022	-217	-218	Max	260.63	217.75	11	-9.79	3	-14.44	3	-138.94	3	-167.72	3	-0.01	3
2022	-217	-218	Min.	0.00	111.22	13	-19.93	9	11.07	3	-136.78	11	164.14	3	-0.01	9
2022	-217	-218	Min.	260.63	111.22	13	-19.93	9	-29.75	9	-423.89	9	-397.71	9	-0.01	9
2022	-218	-219	Max	0.00	420.49	9	25.59	9	-12.83	3	394.58	9	-145.17	3	0.02	9
2022	-218	-219	Max	241.50	420.49	9	25.59	9	33.94	9	131.55	10	217.16	10	0.02	9
2022	-218	-219	Min.	0.00	256.16	1	11.50	3	-27.85	9	123.55	3	-362.94	9	0.01	3
2022	-218	-219	Min.	241.50	256.16	1	11.50	3	14.95	3	57.32	12	128.75	3	0.01	3
2022	-219	-220	Max	0.00	340.35	10	-11.33	3	26.55	9	-32.10	12	192.37	11	-0.00	3
2022	-219	-220	Max	241.50	340.35	10	-11.33	3	-14.00	3	-115.70	3	-132.39	3	-0.00	3
2022	-219	-220	Min.	0.00	209.87	14	-22.35	9	13.36	3	-108.76	1	116.40	13	-0.01	9
2022	-219	-220	Min.	241.50	209.87	14	-22.35	9	-27.43	9	-357.22	9	-308.70	9	-0.01	9
2022	-220	-221	Max	0.00	141.16	3	19.76	10	-14.00	3	425.61	9	-148.09	3	0.04	9
2022	-220	-221	Max	250.00	141.16	3	19.76	10	17.44	10	158.06	10	286.99	10	0.04	9
2022	-220	-221	Min.	0.00	63.33	7	7.47	3	-33.14	9	132.91	3	-379.49	9	0.02	3
2022	-220	-221	Min.	250.00	63.33	7	7.47	3	4.68	3	70.63	12	156.36	3	0.02	3
2022	-221	-222	Max	0.00	183.32	10	-16.59	3	18.90	9	-106.02	12	321.80	9	0.02	9
2022	-221	-222	Max	210.00	183.32	10	-16.59	3	-26.30	3	-163.56	3	-136.72	3	0.02	9
2022	-221	-222	Min.	0.00	100.90	7	-35.44	9	7.89	14	-195.32	10	187.13	3	0.01	7
2022	-221	-222	Min.	210.00	100.90	7	-35.44	9	-55.53	9	-426.77	9	-290.93	9	0.01	7

Criteri di progetto utilizzati

Aste in acciaio

Generali	
Verifica aste in acciaio	
Numero punti di verifica	10.00
Numero CC da considerare di tipo I	99.00
Stati limite D.M. 08	
Verifiche con EC3	No
Coeff. amplificativo sollecitazioni per effetti del secondo ordine	1.00
Stampe	
Verifiche da riportare in relazione	Aste più sollecitate a parità di sezione e numero

Specifici	1
Materiali	
CNR 10011	
Tipo di acciaio	FE430
D.M. 08	
Tipo di acciaio per profilati a sezione aperta	S275
	UNI EN
	10025-2
Tipo di acciaio per profilati a sezione cava	S275H
	UNI EN
	10210-1
EC3	
Tipo di acciaio	S275
-Fy <daN/cm²>	2750.00
-Fu <daN/cm²>	4300.00
γ M0	1.00
γ M1	1.00
γ M2	1.25
γ Rd	1.30
γ Ov	1.25
-Considera come elemento esistente (S.L. D.M. 08/EC3)	No
-Livello di conoscenza	LC1
-Fattore di confidenza	1.35
Verifiche di resistenza	
Rapporto fra area effettiva e area nominale	1.00
Rapporto fra area netta e area nominale	1.00
Coeff. di forma intorno all'asse Y	1.00
Coeff. di forma intorno all'asse Z	1.00
Verifica le bielle solo con sollecitazioni di trazione moltiplicate per	Si
Valutare la τ per torsione nei punti di spigolo (CNR 10011)	No
-Pari a	
Stati limite D.M. 08/EC3	
-Fai sempre verifiche in campo elastico	Si
-Effettua le verifiche della gerarchia delle resistenze per strutture intelaiate	No
-Usa classe 1 in pressoflessione deviata se non presente in archivio	No
Stati limite D.M. 08	

Relazione di calcolo

-Usa prescrizioni EC3 quando più dettagliate	Si
-Considera prescrizioni relative ai ponti	No
Verifiche di deformabilità	
Max valore del rapporto tra la luce e la freccia (totale)	250.00
Max valore del rapporto tra la luce e la freccia (solo accidentali)	300.00
Max valore del rapporto tra altezza e spostamento orizz. (aste)	300.00
Max valore del rapporto tra altezza e spostamento orizz. (membrature)	500.00
Considerare anche spostamento relativo nodi per calcolo freccia	No
Considerare solo la verifica di deformabilità delle membrature	Si
Trascura deformazione dovuta al sisma (T.A.)	No
Verifiche di stabilità asta	
Riduzione lunghezza libera d'inflessione	
-Distanza fra i nodi dell'asta	x
-Distanza ridotta delle zone rigide moltiplicate per il valore	
Tipo di accoppiamento aste composte	
-Separate	
-Calastrellate	
-Imbottite	
-Automatico	x
Calcolo momento medio usando valori assoluti	Si
Interasse calastrelli o imbottiture	
-Distanza pari a <m>	
-Interasse da normativa moltiplicato per il valore	0.80
-Aste rigidamente collegate	
Curva di stabilità (D.M. 08/EC3)	Automatica
Aste laminate	Si
Sigma max amm. senza verifiche di stabilità (CNR 10011) <%>	2.00
Verifiche di stabilità globale in dir. Y locale	Si
-Coeff. β intorno all'asse Y	1.00
Verifiche di stabilità globale in dir. Z locale	Si
-Coeff. β intorno all'asse Z	1.00
Verifiche di stabilità flesso - torsionale	Si
-Coeff. per calcolo interasse ritegni torsionali	1.00
Aste inflesse (D.M. 08/EC3)	
-Coeff. Ψ per calcolo momento critico	
-Valuta in base ai momenti dell'asta	x
-Utilizza valore imposto	
-Fattore correttivo di distribuzione K_c	0.94
-Snellezza di riferimento $\lambda_{LT,0}$	0.40
-Coeff. β	0.75
Aste pressoinflesse (D.M. 08/EC3)	
-Considera come molto deformabile a torsione	No
-Fattore correttivo di distribuzione α_{mY}/C_{mY}	0.95
-Fattore correttivo di distribuzione α_{mZ}/C_{mZ}	0.95
-Fattore correttivo di distribuzione α_{mLT}/C_{mLT}	0.95
Eeguire anche le verifiche al punto 7.3.2 (CNR 10011)	Si
Carichi sull'estradosso (CNR 10011)	Si
Verifiche di stabilità all'imbozzamento (CNR 10011)	
-Numero irrigidimenti orizzontali anima	0.00
-Interasse irrigidimenti verticali anima	
-Numero di suddivisioni	
-Distanza non inferiore a <cm>	
-Pari alla lunghezza dell'asta	x
-Modalità di calcolo $\sigma_{cr,id}$	
-Normativa	
-Massonet	x
-Ballio	
Verifiche di stabilità membratura	
Massimo numero aste costituenti unica membratura	1.00
Sforzo normale di verifica	
-Massimo valore fra tutte le aste	x
-Media aritmetica dei valori di tutte le aste	
-Media pesata di tutte le aste	
Contributo eventuali sforzi di trazione	No
Verifica nei piani principali	Si
Incremento snellezza	Si
Verifiche di stabilità globale in dir. Y locale	Si
-Coeff. β calcolato in funzione dello sforzo normale	
-Coeff. β	1.00
Verifiche di stabilità globale in dir. Z locale	Si
-Coeff. β calcolato in funzione dello sforzo normale	
-Coeff. β	1.00
Dati per verifiche di resistenza al fuoco	
-Tempo di verifica (REI) <minuti>	120.00

-Fattore di momento uniforme equivalente β M, y	1.10
-Fattore di momento uniforme equivalente β M, z	1.10
-Fattore di momento uniforme equivalente β M, LT	1.10

Verifiche aste in acciaio

Simbologia

Sez.	=	Numero della sezione
Cod.	=	Codice
Tipo	=	Tipologia
		2C = Doppia C lato labbri
		2Cdx = Doppia C lato costola
		2I = Doppia I
		2L = Doppia L lato labbri
		2Ldx = Doppia L lato costole
		C = Sezione a C
		Cdx = C destra
		Cir. = Circolare
		Cir.c = Circolare cava
		I = Sezione a I
		L = Sezione a L
		Ldx = L destra
		Om. = Omega
		Pg = Pi greco
		Pr = Poligono regolare
		Prc = Poligono regolare cavo
		Pc = Per coordinate
		Ia = Inerzie assegnate
		R = Rettangolare
		Rc = Rettangolare cava
		T = Sezione a T
		U = Sezione a U
		Ur = U rovescia
		V = Sezione a V
		Vr = V rovescia
		Z = Sezione a Z
		Zdx = Z destra
		Ts = T stondata
		Ls = L stondata
		Cs = C stondata
		Is = I stondata
		Dis. = Disegnata
D	<cm>	= Distanza
Area	<cmq>	= Area
Anet	<cmq>	= Area netta per compressione
Aeff	<cmq>	= Area effettiva per trazione
Jy	<cm4>	= Momento d'inerzia rispetto all'asse Y
Jz	<cm4>	= Momento d'inerzia rispetto all'asse Z
Iy	<cm>	= Raggio giratorio d'inerzia rispetto all'asse Y
Iz	<cm>	= Raggio giratorio d'inerzia rispetto all'asse Z
Wymin	<cmc>	= Modulo di resistenza minimo rispetto all'asse Y
Wzmin	<cmc>	= Modulo di resistenza minimo rispetto all'asse Z
TP		= Tipo di acciaio
Fyk	<daN/cmq>	= Tensione caratteristica di snervamento dell'acciaio
Fyt	<daN/cmq>	= Tensione caratteristica di rottura
Wy,plas	<cmc>	= Modulo di resistenza plastico intorno all'asse Y
Wz,plas	<cmc>	= Modulo di resistenza plastico intorno all'asse Z
Atag,y	<cmq>	= Area resistente a taglio in dir. Y
Atag,z	<cmq>	= Area resistente a taglio in dir. Z
J ₀	<cm6>	= Costante di ingobbamento
L _{cr}	<m>	= Lunghezza di libera inflessione laterale fra ritegni torsionali
α _{imp}		= Coefficiente di imperfezione
k _c		= Coeff. di correzione momento flettente per stabilità laterale membrane inflesse
ψ		= Coeff. di correzione momento critico per stabilità laterale membrane inflesse
M _{cr}	<daNm>	= Momento critico per instabilità flessione torsionale
λ _{LT}		= Coefficiente di imperfezione per stabilità laterale membrane inflesse
λ _{LT,0}		= Coefficiente di imperfezione di confronto per stabilità laterale membrane inflesse
β _{LT}		= Coefficiente per calcolo Φ _{LT}
Φ _{LT}		= Coefficiente Φ per stabilità laterale membrane inflesse
f		= Fattore di modifica per il coefficiente di riduzione
χ _{LT}		= Coefficiente di riduzione per stabilità laterale membrane inflesse
My,Ed	<daNm>	= Momento flettente di calcolo intorno all'asse Y
My,b,Rd	<daNm>	= Resistenza di calcolo a flessione ridotta per stabilità laterale membrane inflesse
CC		= Numero della combinazione delle condizioni di carico elementari
N,Ed	<daN>	= Forza assiale di calcolo
Mz,Ed	<daNm>	= Momento flettente di calcolo intorno all'asse Z
Nc,Rd	<daN>	= Resistenza a compressione
My,c,Rd	<daNm>	= Resistenza di calcolo a flessione intorno all'asse Y
Mz,c,Rd	<daNm>	= Resistenza di calcolo a flessione intorno all'asse Z
L	<cm>	= Lunghezza dell'asta
α _{my} , α _{mz} , α _{LT}		= Coefficienti correttivi per il momento flettente
λ _y		= Snellezza per inflessione intorno all'asse y(c)
Ncr,y	<daN>	= Sforzo normale critico euleriano per inflessione intorno all'asse y(c)
λ _y		= Snellezza adimensionale per inflessione intorno all'asse y(c)
Curva		= Curva di instabilità adottata
Φ _y		= Coefficiente Φ per inflessione intorno all'asse y(c)
χ _y		= Coefficiente χ di riduzione per instabilità intorno all'asse y(c)
λ _z		= Snellezza per inflessione intorno all'asse z(e)
Ncr,z	<daN>	= Sforzo normale critico euleriano per inflessione intorno all'asse z(e)
λ _z		= Snellezza adimensionale per inflessione intorno all'asse z(e)
Φ _z		= Coefficiente Φ per inflessione intorno all'asse z(e)
χ _z		= Coefficiente χ di riduzione per instabilità intorno all'asse z(e)
Kyy, Kyz, Kzy, Kzz		= Coefficienti di interazione
X1	<m>	= Coordinata progressiva (dal nodo iniziale dell'asta) in cui viene effettuato il progetto/verifica
N	<daN>	= Sforzo normale
Tz	<daN>	= Taglio in dir. Z
My	<daNm>	= Momento flettente intorno all'asse Y
Ty	<daN>	= Taglio in dir. Y
Mz	<daNm>	= Momento flettente intorno all'asse Z
σ _N	<daN/cmq>	= Tensione normale per sforzo normale
σ _M	<daN/cmq>	= Tensione normale per momento flettente
τ	<daN/cmq>	= Tensione tangenziale per taglio e/o torsione

Relazione di calcolo

$\sigma_{ID,max}$	<daN/cm>	= Tensione ideale massima
M_x	<daNm>	= Momento torcente intorno all'asse X
$M_{yEq,Ed}$	<daNm>	= Valore equivalente del momento flettente intorno all'asse Y
$M_{zEq,Ed}$	<daNm>	= Valore equivalente del momento flettente intorno all'asse Z
$f_{z,L}$	<cm>	= Freccia in direzione Z locale
$f_{z,G}$	<cm>	= Freccia in direzione Z globale
δ	<cm>	= Spostamento relativo asta

Caratteristiche profilati utilizzati

Sez.	Cod.	Tipo	D <cm>	Area <cm>	Anet <cm>	Aeff <cm>	Jy <cm>	Jz <cm>	Iy <cm>	Iz <cm>	Wymin <cm>	Wzmin <cm>	Tp	Fyk <daN/cm>	Fyt <daN/cm>
1	HEA160	Is	--	38.77	38.77	38.77	1673.02	615.58	6.57	3.98	220.13	76.95	S275	2750.00	4300.00
2	HEA160	Is	--	38.77	38.77	38.77	1673.02	615.58	6.57	3.98	220.13	76.95	S275	2750.00	4300.00
5	HEA160-IPE160	Is	--	38.77	38.77	38.77	1673.02	615.58	6.57	3.98	220.13	76.95	S275	2750.00	4300.00
6	tub 120x80x4	Rc	--	19.00	19.00	19.00	197.58	375.58	3.22	4.45	49.40	62.60	S275	2750.00	4300.00
9	Omega 120x90x30x3	Om.	--	11.34	11.34	11.34	225.67	207.54	4.46	4.28	34.91	28.82	S275	2750.00	4300.00

Caratteristiche profilati utilizzati

Sez.	Cod.	Wy,plas <cm>	Wz,plas <cm>	Atag,y <cm>	Atag,z <cm>	Jw <cm>
1	HEA160	246.26	117.79	32.53	13.21	31409.70
2	HEA160	246.26	117.79	32.53	13.21	31409.70
5	HEA160-IPE160	246.26	117.79	32.53	13.21	31409.70
6	tub 120x80x4	57.25	76.25	11.40	7.60	
9	Omega 120x90x30x3	45.53	46.09	4.50	7.20	

Asta n. 1 (1 101) HEA160 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 - Classe 3
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.68$ $M_{cr}=18121.70$ $\lambda_{LT}=0.58$
 $\lambda_{LT,0}=0.40$ $\beta_{LT}=0.75$ $\Phi_{LT}=0.66$ $\beta_{LT}=0.75$ $f=0.97$ $\chi_{LT}=0.95$
 $CC\ 1$ $My,Ed=548.76$ $My,b,Rd=5492.75$ $My,Ed/My,b,Rd=0.10$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 3 - Classe 3
Sollecitazioni: $N,Ed=-21089.90$ $My,Ed=-725.98$ $Mz,Ed=137.43$
Resistenze: $Nc,Rd=101547.00$ $My,c,Rd=5765.43$ $Mz,c,Rd=2015.27$ $L=380.00$
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.77$ $M_{cr}=19151.70$ $\lambda_{LT}=0.56$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.65$ $\beta_{LT}=0.75$ $f=0.97$ $\chi_{LT}=0.96$
 $\lambda_y=57.85$ $N_{cr,y}=240134.00$ $\lambda_y^*=0.67$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$
 $\lambda_z=95.37$ $N_{cr,z}=88355.30$ $\lambda_z^*=1.10$ Curva c: $\Phi_z=1.32$ $\chi_z=0.49$
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=1.05, 1.19, 0.84, 1.19$
Verifica YY: $0.26+0.14+0.08=0.48$
Verifica ZZ: $0.43+0.11+0.08=0.62$
- Verifica in termini tensionali (4.2.5) - CC 7 $Xl=0.00$ - Classe 3
Sollecitazioni: $N=11749.60$ $T_z=106.34$ $M_y=433.41$ $T_y=296.86$ $M_z=-516.73$
Tensioni: $\sigma_N=303.04$ $\sigma_M=868.42$ $\tau=0.00$ $\sigma_{max}=1171.46$
Tensioni: $\sigma_N=303.04$ $\sigma_M=-324.67$ $\tau=14.76$ $\tau_{max}=14.76$
Tensioni: $\sigma_N=303.04$ $\sigma_M=868.42$ $\tau=0.00$ $\sigma_{ID,max}=1171.46$
- Verifica spostamento relativo massimo per singola asta - CC 12
 $\delta=0.12$ (L/2996)

Asta n. 2 (2 102) HEA160 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 3 - Classe 3
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.83$ $M_{cr}=19745.50$ $\lambda_{LT}=0.55$
 $\lambda_{LT,0}=0.40$ $\beta_{LT}=0.75$ $\Phi_{LT}=0.64$ $\beta_{LT}=0.75$ $f=0.97$ $\chi_{LT}=0.96$
 $CC\ 3$ $My,Ed=-743.98$ $My,b,Rd=5551.66$ $My,Ed/My,b,Rd=0.13$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 7 - Classe 3
Sollecitazioni: $N,Ed=-15266.40$ $My,Ed=417.93$ $Mz,Ed=733.01$
Resistenze: $Nc,Rd=101547.00$ $My,c,Rd=5765.43$ $Mz,c,Rd=2015.27$ $L=380.00$
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.60$ $M_{cr}=17334.80$ $\lambda_{LT}=0.59$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.66$ $\beta_{LT}=0.75$ $f=0.97$ $\chi_{LT}=0.95$
 $\lambda_y=57.85$ $N_{cr,y}=240134.00$ $\lambda_y^*=0.67$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$
 $\lambda_z=95.37$ $N_{cr,z}=88355.30$ $\lambda_z^*=1.10$ Curva c: $\Phi_z=1.32$ $\chi_z=0.49$
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=1.02, 1.13, 0.82, 1.13$
Verifica YY: $0.19+0.08+0.41=0.68$
Verifica ZZ: $0.31+0.06+0.41=0.78$
- Verifica in termini tensionali (4.2.5) - CC 10 $Xl=3.72$ - Classe 3
Sollecitazioni: $N=-3574.25$ $T_z=-43.55$ $M_y=104.09$ $T_y=1176.78$ $M_z=1094.74$
Tensioni: $\sigma_N=-92.19$ $\sigma_M=-1470.00$ $\tau=0.00$ $\sigma_{max}=-1562.19$
Tensioni: $\sigma_N=-92.19$ $\sigma_M=278.43$ $\tau=58.08$ $\tau_{max}=58.08$
Tensioni: $\sigma_N=-92.19$ $\sigma_M=-1470.00$ $\tau=0.00$ $\sigma_{ID,max}=1562.19$
- Verifica spostamento relativo massimo per singola asta - CC 12
 $\delta=0.18$ (L/2070)

Asta n. 3 (3 103) HEA160 Crit. 1

-
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 3 - Classe 3
 Sollecitazioni: N,Ed=-1039.75 My,Ed=-659.64 Mz,Ed=-462.36
 Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=380.00
 α_{my} , α_{mz} , $\alpha_{LT}=0.95$, 0.95, 0.95
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.77$ M,cr=19195.40 $\lambda_{LT}=0.56$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.65$ $\beta_{LT}=0.75$ f=0.97 $\chi_{LT}=0.96$
 $\lambda_y=57.85$ Ncr,y=240134.00 $\lambda^*_y=0.67$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$
 $\lambda_z=95.37$ Ncr,z=88355.30 $\lambda^*_z=1.10$ Curva c: $\Phi_z=1.32$ $\chi_z=0.49$
 Kyy, Kyz, Kzy, Kzz=0.95, 0.96, 0.76, 0.96
 Verifica YY: 0.01+0.11+0.22=0.34
 Verifica ZZ: 0.01+0.09+0.22=0.32
- Verifica in termini tensionali (4.2.5) - CC 3 Xl=0.00 - Classe 3
 Sollecitazioni: N=-1039.75 Tz=-181.29 My=-659.64 Ty=-225.29 Mz=376.63
 Tensioni: $\sigma_N=-26.82$ $\sigma_M=-789.13$ $\tau=0.00$ $\sigma_{max}=-815.94$
 Tensioni: $\sigma_N=-26.82$ $\sigma_M=18.36$ $\tau=23.59$ $\tau_{max}=23.59$
 Tensioni: $\sigma_N=-26.82$ $\sigma_M=-789.13$ $\tau=0.00$ $\sigma_{ID,max}=815.94$
- Verifica spostamento relativo massimo per singola asta - CC 12
 $\delta=0.20$ (L/1848)

Asta n. 4 (4 104) HEA160 Crit. 1

-
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
 Sollecitazioni: N,Ed=-6628.30 My,Ed=219.14 Mz,Ed=-549.63
 Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=380.00
 α_{my} , α_{mz} , $\alpha_{LT}=0.95$, 0.95, 0.95
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=2.14$ M,cr=23093.70 $\lambda_{LT}=0.51$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.62$ $\beta_{LT}=0.75$ f=0.97 $\chi_{LT}=0.98$
 $\lambda_y=57.85$ Ncr,y=240134.00 $\lambda^*_y=0.67$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$
 $\lambda_z=95.37$ Ncr,z=88355.30 $\lambda^*_z=1.10$ Curva c: $\Phi_z=1.32$ $\chi_z=0.49$
 Kyy, Kyz, Kzy, Kzz=0.98, 1.03, 0.78, 1.03
 Verifica YY: 0.08+0.04+0.28=0.40
 Verifica ZZ: 0.13+0.03+0.28=0.45
- Verifica in termini tensionali (4.2.5) - CC 5 Xl=3.72 - Classe 3
 Sollecitazioni: N=-3725.98 Tz=-49.53 My=123.57 Ty=-326.33 Mz=-668.95
 Tensioni: $\sigma_N=-96.10$ $\sigma_M=-925.50$ $\tau=0.00$ $\sigma_{max}=-1021.60$
 Tensioni: $\sigma_N=-96.10$ $\sigma_M=-245.09$ $\tau=16.13$ $\tau_{max}=16.13$
 Tensioni: $\sigma_N=-96.10$ $\sigma_M=-925.50$ $\tau=0.00$ $\sigma_{ID,max}=1021.60$
- Verifica spostamento relativo massimo per singola asta - CC 12
 $\delta=0.23$ (L/1650)

Asta n. 5 (5 105) HEA160 Crit. 1

-
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 11 - Classe 3
 Sollecitazioni: N,Ed=-1351.14 My,Ed=812.46 Mz,Ed=335.02
 Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=380.00
 α_{my} , α_{mz} , $\alpha_{LT}=0.95$, 0.95, 0.95
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.74$ M,cr=18818.60 $\lambda_{LT}=0.57$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.65$ $\beta_{LT}=0.75$ f=0.97 $\chi_{LT}=0.96$
 $\lambda_y=57.85$ Ncr,y=240134.00 $\lambda^*_y=0.67$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$
 $\lambda_z=95.37$ Ncr,z=88355.30 $\lambda^*_z=1.10$ Curva c: $\Phi_z=1.32$ $\chi_z=0.49$
 Kyy, Kyz, Kzy, Kzz=0.96, 0.97, 0.77, 0.97
 Verifica YY: 0.01+0.14+0.16=0.31
 Verifica ZZ: 0.01+0.11+0.16=0.29
- Verifica in termini tensionali (4.2.5) - CC 7 Xl=3.72 - Classe 3
 Sollecitazioni: N=-933.84 Tz=-8.87 My=28.59 Ty=238.06 Mz=478.31
 Tensioni: $\sigma_N=-24.09$ $\sigma_M=-634.60$ $\tau=0.00$ $\sigma_{max}=-658.68$
 Tensioni: $\sigma_N=-24.09$ $\sigma_M=128.41$ $\tau=11.75$ $\tau_{max}=11.75$
 Tensioni: $\sigma_N=-24.09$ $\sigma_M=-634.60$ $\tau=0.00$ $\sigma_{ID,max}=658.68$
- Verifica spostamento relativo massimo per singola asta - CC 12
 $\delta=0.14$ (L/2620)

Asta n. 6 (6 106) HEA160 Crit. 1

-
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 10 - Classe 3
 Sollecitazioni: N,Ed=-8319.71 My,Ed=217.18 Mz,Ed=344.55
 Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=380.00
 α_{my} , α_{mz} , $\alpha_{LT}=0.95$, 0.95, 0.95
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=2.06$ M,cr=22329.00 $\lambda_{LT}=0.52$

$\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.62$ $\beta_{LT}=0.75$ $f=0.97$ $\chi_{LT}=0.98$
 $\lambda_y=57.85$ $N_{cr,y}=240134.00$ $\lambda^*_y=0.67$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$
 $\lambda_z=95.37$ $N_{cr,z}=88355.30$ $\lambda^*_z=1.10$ Curva c: $\Phi_z=1.32$ $\chi_z=0.49$
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.99, 1.05, 0.79, 1.05$
 Verifica YY: $0.10+0.04+0.18=0.32$
 Verifica ZZ: $0.17+0.03+0.18=0.38$

- Verifica in termini tensionali (4.2.5) - CC 7 $X_l=3.72$ - Classe 3
 Sollecitazioni: $N=-5041.63$ $T_z=-49.66$ $M_y=137.40$ $T_y=221.52$ $M_z=413.01$
 Tensioni: $\sigma_N=-130.03$ $\sigma_M=-599.17$ $\tau=0.00$ $\sigma_{max}=-729.20$
 Tensioni: $\sigma_N=-130.03$ $\sigma_M=65.74$ $\tau=10.97$ $\tau_{max}=10.97$
 Tensioni: $\sigma_N=-130.03$ $\sigma_M=-599.17$ $\tau=0.00$ $\sigma_{ID,max}=729.20$

- Verifica spostamento relativo massimo per singola asta - CC 12
 $\delta=0.13$ (L/2772)

Asta n. 7 (7 107) HEA160 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 - Classe 3
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.69$ $M_{cr}=18246.10$ $\lambda_{LT}=0.58$
 $\lambda_{LT,0}=0.40$ $\beta_{LT}=0.75$ $\Phi_{LT}=0.65$ $\beta_{LT}=0.75$ $f=0.97$ $\chi_{LT}=0.95$
 CC 1 $M_y, Ed=700.86$ $M_y, b, Rd=5497.61$ $M_y, Ed/M_y, b, Rd=0.13$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 3 - Classe 3
 Sollecitazioni: $N, Ed=-16633.30$ $M_y, Ed=-567.20$ $M_z, Ed=-189.28$
 Resistenze: $N_c, Rd=101547.00$ $M_y, c, Rd=5765.43$ $M_z, c, Rd=2015.27$ $L=380.00$
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.78$ $M_{cr}=19279.30$ $\lambda_{LT}=0.56$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.65$ $\beta_{LT}=0.75$ $f=0.97$ $\chi_{LT}=0.96$
 $\lambda_y=57.85$ $N_{cr,y}=240134.00$ $\lambda^*_y=0.67$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$
 $\lambda_z=95.37$ $N_{cr,z}=88355.30$ $\lambda^*_z=1.10$ Curva c: $\Phi_z=1.32$ $\chi_z=0.49$
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=1.03, 1.14, 0.82, 1.14$
 Verifica YY: $0.20+0.11+0.11=0.42$
 Verifica ZZ: $0.34+0.08+0.11=0.53$

- Verifica in termini tensionali (4.2.5) - CC 1 $X_l=0.00$ - Classe 3
 Sollecitazioni: $N=19420.30$ $T_z=176.72$ $M_y=700.86$ $T_y=-232.34$ $M_z=385.37$
 Tensioni: $\sigma_N=500.88$ $\sigma_M=819.20$ $\tau=0.00$ $\sigma_{max}=1320.07$
 Tensioni: $\sigma_N=500.88$ $\sigma_M=18.78$ $\tau=23.00$ $\tau_{max}=23.00$
 Tensioni: $\sigma_N=500.88$ $\sigma_M=819.20$ $\tau=0.00$ $\sigma_{ID,max}=1320.07$

- Verifica spostamento relativo massimo per singola asta - CC 12
 $\delta=0.21$ (L/1757)

Asta n. 8 (8 108) HEA160 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 3 - Classe 3
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.84$ $M_{cr}=19869.00$ $\lambda_{LT}=0.55$
 $\lambda_{LT,0}=0.40$ $\beta_{LT}=0.75$ $\Phi_{LT}=0.64$ $\beta_{LT}=0.75$ $f=0.97$ $\chi_{LT}=0.96$
 CC 3 $M_y, Ed=-583.05$ $M_y, b, Rd=5555.78$ $M_y, Ed/M_y, b, Rd=0.10$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 - Classe 3
 Sollecitazioni: $N, Ed=-22741.70$ $M_y, Ed=687.14$ $M_z, Ed=-390.14$
 Resistenze: $N_c, Rd=101547.00$ $M_y, c, Rd=5765.43$ $M_z, c, Rd=2015.27$ $L=380.00$
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.65$ $M_{cr}=17826.70$ $\lambda_{LT}=0.58$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.66$ $\beta_{LT}=0.75$ $f=0.97$ $\chi_{LT}=0.95$
 $\lambda_y=57.85$ $N_{cr,y}=240134.00$ $\lambda^*_y=0.67$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$
 $\lambda_z=95.37$ $N_{cr,z}=88355.30$ $\lambda^*_z=1.10$ Curva c: $\Phi_z=1.32$ $\chi_z=0.49$
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=1.06, 1.21, 0.84, 1.21$
 Verifica YY: $0.28+0.13+0.23=0.65$
 Verifica ZZ: $0.46+0.11+0.23=0.80$

- Verifica in termini tensionali (4.2.5) - CC 5 $X_l=3.72$ - Classe 3
 Sollecitazioni: $N=-15074.80$ $T_z=95.21$ $M_y=58.32$ $T_y=-315.21$ $M_z=-669.46$
 Tensioni: $\sigma_N=-388.80$ $\sigma_M=-896.53$ $\tau=0.00$ $\sigma_{max}=-1285.33$
 Tensioni: $\sigma_N=-388.80$ $\sigma_M=-219.11$ $\tau=15.64$ $\tau_{max}=15.64$
 Tensioni: $\sigma_N=-388.80$ $\sigma_M=-896.53$ $\tau=0.00$ $\sigma_{ID,max}=1285.33$

- Verifica spostamento relativo massimo per singola asta - CC 12
 $\delta=0.34$ (L/1102)

Asta n. 9 (9 109) HEA160 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 3 - Classe 3
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.62$ $M_{cr}=17468.70$ $\lambda_{LT}=0.59$
 $\lambda_{LT,0}=0.40$ $\beta_{LT}=0.75$ $\Phi_{LT}=0.66$ $\beta_{LT}=0.75$ $f=0.97$ $\chi_{LT}=0.95$

CC 3 My,Ed=-671.18 My,b,Rd=5466.16 My,Ed/My,b,Rd=0.12

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 7 - Classe 3
 Sollecitazioni: N,Ed=-13198.00 My,Ed=485.54 Mz,Ed=-241.09
 Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=380.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.89$ $M_{cr}=20408.70$ $\lambda_{LT}=0.54$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.64$ $\beta_{LT}=0.75$ $f=0.97$ $\chi_{LT}=0.97$
 $\lambda_y=57.85$ Ncr,y=240134.00 $\lambda^*_y=0.67$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$
 $\lambda_z=95.37$ Ncr,z=88355.30 $\lambda^*_z=1.10$ Curva c: $\Phi_z=1.32$ $\chi_z=0.49$
 Kyy, Kyz, Kzy, Kzz=1.01, 1.10, 0.81, 1.10
 Verifica YY: $0.16+0.09+0.13=0.38$
 Verifica ZZ: $0.27+0.07+0.13=0.47$

- Verifica in termini tensionali (4.2.5) - CC 10 Xl=0.00 - Classe 3
 Sollecitazioni: N=1345.12 Tz=44.73 My=53.91 Ty=-1152.53 Mz=831.00
 Tensioni: $\sigma_N=34.69$ $\sigma_M=1104.46$ $\tau=0.00$ $\sigma_{max}=1139.15$
 Tensioni: $\sigma_N=34.69$ $\sigma_M=221.40$ $\tau=56.88$ $\tau_{max}=56.88$
 Tensioni: $\sigma_N=34.69$ $\sigma_M=1104.46$ $\tau=0.00$ $\sigma_{ID,max}=1139.15$

- Verifica spostamento relativo massimo per singola asta - CC 12
 $\delta=0.18$ (L/2101)

Asta n. 11 (11 111) HEA160 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
 Sollecitazioni: N,Ed=-10910.40 My,Ed=883.64 Mz,Ed=-478.50
 Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=380.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=2.24$ $M_{cr}=24246.70$ $\lambda_{LT}=0.50$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.61$ $\beta_{LT}=0.75$ $f=0.98$ $\chi_{LT}=0.98$
 $\lambda_y=57.85$ Ncr,y=240134.00 $\lambda^*_y=0.67$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$
 $\lambda_z=95.37$ Ncr,z=88355.30 $\lambda^*_z=1.10$ Curva c: $\Phi_z=1.32$ $\chi_z=0.49$
 Kyy, Kyz, Kzy, Kzz=1.00, 1.08, 0.80, 1.08
 Verifica YY: $0.13+0.16+0.26=0.55$
 Verifica ZZ: $0.22+0.12+0.26=0.60$

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=3.72 - Classe 3
 Sollecitazioni: N=-10763.00 Tz=-336.57 My=883.64 Ty=-201.11 Mz=-478.50
 Tensioni: $\sigma_N=-277.59$ $\sigma_M=-1023.27$ $\tau=0.00$ $\sigma_{max}=-1300.86$
 Tensioni: $\sigma_N=-277.59$ $\sigma_M=-23.32$ $\tau=43.73$ $\tau_{max}=43.73$
 Tensioni: $\sigma_N=-277.59$ $\sigma_M=-1023.27$ $\tau=0.00$ $\sigma_{ID,max}=1300.86$

- Verifica spostamento relativo massimo per singola asta - CC 12
 $\delta=0.21$ (L/1740)

Asta n. 12 (12 112) HEA160 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 2 - Classe 3
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=2.15$ $M_{cr}=23257.10$ $\lambda_{LT}=0.51$
 $\lambda_{LT,0}=0.40$ $\beta_{LT}=0.75$ $\Phi_{LT}=0.62$ $\beta_{LT}=0.75$ $f=0.98$ $\chi_{LT}=0.98$
 CC 2 My,Ed=208.56 My,b,Rd=5935.29 My,Ed/My,b,Rd=0.04

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 5 - Classe 3
 Sollecitazioni: N,Ed=-11522.30 My,Ed=488.02 Mz,Ed=247.14
 Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=380.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.89$ $M_{cr}=20460.40$ $\lambda_{LT}=0.54$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.64$ $\beta_{LT}=0.75$ $f=0.97$ $\chi_{LT}=0.97$
 $\lambda_y=57.85$ Ncr,y=240134.00 $\lambda^*_y=0.67$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$
 $\lambda_z=95.37$ Ncr,z=88355.30 $\lambda^*_z=1.10$ Curva c: $\Phi_z=1.32$ $\chi_z=0.49$
 Kyy, Kyz, Kzy, Kzz=1.00, 1.08, 0.80, 1.08
 Verifica YY: $0.14+0.09+0.13=0.36$
 Verifica ZZ: $0.23+0.07+0.13=0.44$

- Verifica in termini tensionali (4.2.5) - CC 5 Xl=0.00 - Classe 3
 Sollecitazioni: N=-11522.30 Tz=148.11 My=488.02 Ty=-120.09 Mz=247.14
 Tensioni: $\sigma_N=-297.18$ $\sigma_M=-542.87$ $\tau=0.00$ $\sigma_{max}=-840.05$
 Tensioni: $\sigma_N=-297.18$ $\sigma_M=12.04$ $\tau=19.25$ $\tau_{max}=19.25$
 Tensioni: $\sigma_N=-297.18$ $\sigma_M=-542.87$ $\tau=0.00$ $\sigma_{ID,max}=840.05$

- Verifica spostamento relativo massimo per singola asta - CC 12
 $\delta=0.10$ (L/3831)

Asta n. 13 (13 113) HEA160 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 5 - Classe 3

$L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.87$ $M_{cr}=20212.60$ $\lambda_{LT}=0.55$
 $\lambda_{LT,0}=0.40$ $\beta_{LT}=0.75$ $\Phi_{LT}=0.64$ $\beta_{LT}=0.75$ $f=0.97$ $\chi_{LT}=0.97$
 CC 5 $M_y, Ed=488.43$ $M_y, b, Rd=5566.97$ $M_y, Ed/M_y, b, Rd=0.09$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 7 - Classe 3
 Sollecitazioni: $N, Ed=-14104.70$ $M_y, Ed=-39.50$ $M_z, Ed=359.46$
 Resistenze: $N_c, Rd=101547.00$ $M_y, c, Rd=5765.43$ $M_z, c, Rd=2015.27$ $L=380.00$
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=2.37$ $M_{cr}=25623.30$ $\lambda_{LT}=0.49$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.60$ $\beta_{LT}=0.75$ $f=0.98$ $\chi_{LT}=0.99$
 $\lambda_y=57.85$ $N_{cr,y}=240134.00$ $\lambda^*_y=0.67$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$
 $\lambda_z=95.37$ $N_{cr,z}=88355.30$ $\lambda^*_z=1.10$ Curva c: $\Phi_z=1.32$ $\chi_z=0.49$
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=1.02, 1.11, 0.81, 1.11$
 Verifica YY: $0.17+0.01+0.20=0.38$
 Verifica ZZ: $0.29+0.01+0.20=0.49$

- Verifica in termini tensionali (4.2.5) - CC 7 $X_1=3.72$ - Classe 3
 Sollecitazioni: $N=-13991.40$ $T_z=18.55$ $M_y=-39.50$ $T_y=192.49$ $M_z=359.46$
 Tensioni: $\sigma_N=-360.86$ $\sigma_M=-485.10$ $\tau=0.00$ $\sigma_{max}=-845.96$
 Tensioni: $\sigma_N=-360.86$ $\sigma_M=120.93$ $\tau=9.51$ $\tau_{max}=9.51$
 Tensioni: $\sigma_N=-360.86$ $\sigma_M=-485.10$ $\tau=0.00$ $\sigma_{ID,max}=845.96$

- Verifica spostamento relativo massimo per singola asta - CC 12
 $\delta=0.09$ ($L/3950$)

Asta n. 14 (14 114) HEA160 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 7 - Classe 3
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.83$ $M_{cr}=19811.50$ $\lambda_{LT}=0.55$
 $\lambda_{LT,0}=0.40$ $\beta_{LT}=0.75$ $\Phi_{LT}=0.64$ $\beta_{LT}=0.75$ $f=0.97$ $\chi_{LT}=0.96$
 CC 7 $M_y, Ed=468.16$ $M_y, b, Rd=5553.87$ $M_y, Ed/M_y, b, Rd=0.08$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
 Sollecitazioni: $N, Ed=-9848.28$ $M_y, Ed=64.08$ $M_z, Ed=496.84$
 Resistenze: $N_c, Rd=101547.00$ $M_y, c, Rd=5765.43$ $M_z, c, Rd=2015.27$ $L=380.00$
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=2.36$ $M_{cr}=25515.40$ $\lambda_{LT}=0.49$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.60$ $\beta_{LT}=0.75$ $f=0.98$ $\chi_{LT}=0.99$
 $\lambda_y=57.85$ $N_{cr,y}=240134.00$ $\lambda^*_y=0.67$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$
 $\lambda_z=95.37$ $N_{cr,z}=88355.30$ $\lambda^*_z=1.10$ Curva c: $\Phi_z=1.32$ $\chi_z=0.49$
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=1.00, 1.06, 0.80, 1.06$
 Verifica YY: $0.12+0.01+0.26=0.39$
 Verifica ZZ: $0.20+0.01+0.26=0.47$

- Verifica in termini tensionali (4.2.5) - CC 7 $X_1=0.00$ - Classe 3
 Sollecitazioni: $N=8012.85$ $T_z=133.55$ $M_y=468.16$ $T_y=275.21$ $M_z=-463.10$
 Tensioni: $\sigma_N=206.66$ $\sigma_M=814.51$ $\tau=0.00$ $\sigma_{max}=1021.18$
 Tensioni: $\sigma_N=206.66$ $\sigma_M=-22.57$ $\tau=17.43$ $\tau_{max}=17.43$
 Tensioni: $\sigma_N=206.66$ $\sigma_M=814.51$ $\tau=0.00$ $\sigma_{ID,max}=1021.18$

- Verifica spostamento relativo massimo per singola asta - CC 12
 $\delta=0.17$ ($L/2138$)

Asta n. 15 (15 115) HEA160 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 11 - Classe 3
 Sollecitazioni: $N, Ed=-4997.68$ $M_y, Ed=713.06$ $M_z, Ed=361.97$
 Resistenze: $N_c, Rd=101547.00$ $M_y, c, Rd=5765.43$ $M_z, c, Rd=2015.27$ $L=380.00$
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.47$ $M_{cr}=15933.80$ $\lambda_{LT}=0.62$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.68$ $\beta_{LT}=0.75$ $f=0.97$ $\chi_{LT}=0.94$
 $\lambda_y=57.85$ $N_{cr,y}=240134.00$ $\lambda^*_y=0.67$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$
 $\lambda_z=95.37$ $N_{cr,z}=88355.30$ $\lambda^*_z=1.10$ Curva c: $\Phi_z=1.32$ $\chi_z=0.49$
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.97, 1.01, 0.78, 1.01$
 Verifica YY: $0.06+0.13+0.18=0.37$
 Verifica ZZ: $0.10+0.10+0.18=0.39$

- Verifica in termini tensionali (4.2.5) - CC 7 $X_1=3.72$ - Classe 3
 Sollecitazioni: $N=-2646.47$ $T_z=43.19$ $M_y=149.47$ $T_y=290.22$ $M_z=581.46$
 Tensioni: $\sigma_N=-68.26$ $\sigma_M=-823.57$ $\tau=0.00$ $\sigma_{max}=-891.82$
 Tensioni: $\sigma_N=-68.26$ $\sigma_M=110.17$ $\tau=14.34$ $\tau_{max}=14.34$
 Tensioni: $\sigma_N=-68.26$ $\sigma_M=-823.57$ $\tau=0.00$ $\sigma_{ID,max}=891.82$

- Verifica spostamento relativo massimo per singola asta - CC 12
 $\delta=0.17$ ($L/2211$)

Asta n. 16 (16 116) HEA160 Crit. 1

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- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 7 - Classe 3
 Sollecitazioni: N,Ed=-7647.81 My,Ed=381.87 Mz,Ed=-321.08
 Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=380.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.72$ M,cr=18611.00 $\lambda_{LT}=0.57$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.65$ $\beta_{LT}=0.75$ f=0.97 $\chi_{LT}=0.96$
 $\lambda_y=57.85$ Ncr,y=240134.00 $\lambda^*_y=0.67$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$
 $\lambda_z=95.37$ Ncr,z=88355.30 $\lambda^*_z=1.10$ Curva c: $\Phi_z=1.32$ $\chi_z=0.49$
 Kyy, Kyz, Kzy, Kzz=0.99, 1.04, 0.79, 1.04
 Verifica YY: 0.09+0.07+0.17=0.33
 Verifica ZZ: 0.16+0.05+0.17=0.38
- Verifica in termini tensionali (4.2.5) - CC 7 Xl=0.00 - Classe 3
 Sollecitazioni: N=-7647.81 Tz=98.15 My=381.87 Ty=163.30 Mz=-321.08
 Tensioni: $\sigma_N=-197.25$ $\sigma_M=-590.75$ $\tau=0.00$ $\sigma_{max}=-788.00$
 Tensioni: $\sigma_N=-197.25$ $\sigma_M=-15.65$ $\tau=12.79$ $\tau_{max}=12.79$
 Tensioni: $\sigma_N=-197.25$ $\sigma_M=-590.75$ $\tau=0.00$ $\sigma_{ID,max}=788.00$
- Verifica spostamento relativo massimo per singola asta - CC 12
 $\delta=0.08$ (L/4493)

Asta n. 17 (17 117) HEA160 Crit. 1

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- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
 Sollecitazioni: N,Ed=-7926.30 My,Ed=50.80 Mz,Ed=1511.48
 Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=380.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.80$ M,cr=19432.00 $\lambda_{LT}=0.56$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.64$ $\beta_{LT}=0.75$ f=0.97 $\chi_{LT}=0.96$
 $\lambda_y=57.85$ Ncr,y=240134.00 $\lambda^*_y=0.67$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$
 $\lambda_z=95.37$ Ncr,z=88355.30 $\lambda^*_z=1.10$ Curva c: $\Phi_z=1.32$ $\chi_z=0.49$
 Kyy, Kyz, Kzy, Kzz=0.99, 1.04, 0.79, 1.04
 Verifica YY: 0.10+0.01+0.78=0.89
 Verifica ZZ: 0.16+0.01+0.78=0.95
- Verifica in termini tensionali (4.2.5) - CC 10 Xl=3.72 - Classe 3
 Sollecitazioni: N=-6773.92 Tz=13.57 My=-2.11 Ty=1614.11 Mz=1551.53
 Tensioni: $\sigma_N=-174.71$ $\sigma_M=-2017.32$ $\tau=0.00$ $\sigma_{max}=-2192.03$
 Tensioni: $\sigma_N=-174.71$ $\sigma_M=454.53$ $\tau=79.66$ $\tau_{max}=79.66$
 Tensioni: $\sigma_N=-174.71$ $\sigma_M=-2017.32$ $\tau=0.00$ $\sigma_{ID,max}=2192.03$
- Verifica spostamento relativo massimo per singola asta - CC 12
 $\delta=0.27$ (L/1366)

Asta n. 19 (19 119) HEA160 Crit. 1

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- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 11 - Classe 3
 Sollecitazioni: N,Ed=-13726.20 My,Ed=199.49 Mz,Ed=-165.12
 Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=380.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.74$ M,cr=18784.60 $\lambda_{LT}=0.57$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.65$ $\beta_{LT}=0.75$ f=0.97 $\chi_{LT}=0.96$
 $\lambda_y=57.85$ Ncr,y=240134.00 $\lambda^*_y=0.67$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$
 $\lambda_z=95.37$ Ncr,z=88355.30 $\lambda^*_z=1.10$ Curva c: $\Phi_z=1.32$ $\chi_z=0.49$
 Kyy, Kyz, Kzy, Kzz=1.01, 1.11, 0.81, 1.11
 Verifica YY: 0.17+0.04+0.09=0.30
 Verifica ZZ: 0.28+0.03+0.09=0.40
- Verifica in termini tensionali (4.2.5) - CC 3 Xl=0.00 - Classe 3
 Sollecitazioni: N=-7498.66 Tz=-158.21 My=-601.44 Ty=-116.55 Mz=206.33
 Tensioni: $\sigma_N=-193.40$ $\sigma_M=-541.37$ $\tau=0.00$ $\sigma_{max}=-734.77$
 Tensioni: $\sigma_N=-193.40$ $\sigma_M=10.06$ $\tau=20.56$ $\tau_{max}=20.56$
 Tensioni: $\sigma_N=-193.40$ $\sigma_M=-541.37$ $\tau=0.00$ $\sigma_{ID,max}=734.77$
- Verifica spostamento relativo massimo per singola asta - CC 12
 $\delta=0.15$ (L/2494)

Asta n. 20 (20 120) HEA160 Crit. 1

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- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
 Sollecitazioni: N,Ed=-9611.00 My,Ed=73.24 Mz,Ed=-587.54
 Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=380.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.70$ M,cr=18381.80 $\lambda_{LT}=0.57$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.65$ $\beta_{LT}=0.75$ f=0.97 $\chi_{LT}=0.95$
 $\lambda_y=57.85$ Ncr,y=240134.00 $\lambda^*_y=0.67$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$

$\lambda_z=95.37$ Ncr,z=88355.30 $\lambda^*_z=1.10$ Curva c: $\Phi_z=1.32$ $\chi_z=0.49$
 Kyy, Kyz, Kzy, Kzz=0.99, 1.06, 0.80, 1.06
 Verifica YY: 0.12+0.01+0.31=0.44
 Verifica ZZ: 0.20+0.01+0.31=0.52

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=3.72 - Classe 3
 Sollecitazioni: N=-9463.65 Tz=18.71 My=3.56 Ty=-252.06 Mz=-587.54
 Tensioni: $\sigma_N=-244.08$ $\sigma_M=-765.19$ $\tau=0.00$ $\sigma_{max}=-1009.27$
 Tensioni: $\sigma_N=-244.08$ $\sigma_M=-173.23$ $\tau=12.44$ $\tau_{max}=12.44$
 Tensioni: $\sigma_N=-244.08$ $\sigma_M=-765.19$ $\tau=0.00$ $\sigma_{ID,max}=1009.27$

- Verifica spostamento relativo massimo per singola asta - CC 12
 $\delta=0.25$ (L/1504)

Asta n. 21 (21 121) HEA160 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 10 - Classe 3
 Sollecitazioni: N,Ed=-2579.07 My,Ed=69.49 Mz,Ed=516.17
 Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=380.00
 α_{my} , α_{mz} , $\alpha_{LT}=0.95$, 0.95, 0.95
 Lcr=3.80 Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.72$ M,cr=18610.30 $\lambda_{LT}=0.57$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.65$ $\beta_{LT}=0.75$ $f=0.97$ $\chi_{LT}=0.96$
 $\lambda_y=57.85$ Ncr,y=240134.00 $\lambda^*_y=0.67$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$
 $\lambda_z=95.37$ Ncr,z=88355.30 $\lambda^*_z=1.10$ Curva c: $\Phi_z=1.32$ $\chi_z=0.49$
 Kyy, Kyz, Kzy, Kzz=0.96, 0.98, 0.77, 0.98
 Verifica YY: 0.03+0.01+0.25=0.29
 Verifica ZZ: 0.03+0.01+0.25=0.29

- Verifica in termini tensionali (4.2.5) - CC 10 Xl=0.00 - Classe 3
 Sollecitazioni: N=-2579.07 Tz=18.14 My=69.49 Ty=-712.72 Mz=516.17
 Tensioni: $\sigma_N=-66.52$ $\sigma_M=-702.38$ $\tau=0.00$ $\sigma_{max}=-768.90$
 Tensioni: $\sigma_N=-66.52$ $\sigma_M=123.11$ $\tau=35.18$ $\tau_{max}=35.18$
 Tensioni: $\sigma_N=-66.52$ $\sigma_M=-702.38$ $\tau=0.00$ $\sigma_{ID,max}=768.90$

- Verifica spostamento relativo massimo per singola asta - CC 12
 $\delta=0.14$ (L/2597)

Asta n. 22 (22 122) HEA160 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 7 - Classe 3
 Lcr=3.80 Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.64$ M,cr=17747.00 $\lambda_{LT}=0.58$
 $\lambda_{LT,0}=0.40$ $\beta_{LT}=0.75$ $\Phi_{LT}=0.66$ $\beta_{LT}=0.75$ $f=0.97$ $\chi_{LT}=0.95$
 CC 7 My,Ed=429.63 My,b,Rd=5477.72 My,Ed/My,b,Rd=0.08

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
 Sollecitazioni: N,Ed=-9653.50 My,Ed=37.91 Mz,Ed=501.82
 Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=380.00
 α_{my} , α_{mz} , $\alpha_{LT}=0.95$, 0.95, 0.95
 Lcr=3.80 Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.08$ M,cr=11733.20 $\lambda_{LT}=0.72$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.75$ $\beta_{LT}=0.75$ $f=0.97$ $\chi_{LT}=0.89$
 $\lambda_y=57.85$ Ncr,y=240134.00 $\lambda^*_y=0.67$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$
 $\lambda_z=95.37$ Ncr,z=88355.30 $\lambda^*_z=1.10$ Curva c: $\Phi_z=1.32$ $\chi_z=0.49$
 Kyy, Kyz, Kzy, Kzz=0.99, 1.06, 0.80, 1.06
 Verifica YY: 0.12+0.01+0.26=0.39
 Verifica ZZ: 0.20+0.01+0.26=0.47

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=3.72 - Classe 3
 Sollecitazioni: N=-9506.15 Tz=-1.72 My=37.91 Ty=199.30 Mz=501.82
 Tensioni: $\sigma_N=-245.18$ $\sigma_M=-669.38$ $\tau=0.00$ $\sigma_{max}=-914.56$
 Tensioni: $\sigma_N=-245.18$ $\sigma_M=131.56$ $\tau=9.84$ $\tau_{max}=9.84$
 Tensioni: $\sigma_N=-245.18$ $\sigma_M=-669.38$ $\tau=0.00$ $\sigma_{ID,max}=914.56$

- Verifica spostamento relativo massimo per singola asta - CC 12
 $\delta=0.17$ (L/2168)

Asta n. 24 (24 124) HEA160 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 - Classe 3
 Sollecitazioni: N,Ed=-7802.38 My,Ed=562.33 Mz,Ed=198.21
 Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=380.00
 α_{my} , α_{mz} , $\alpha_{LT}=0.95$, 0.95, 0.95
 Lcr=3.80 Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.75$ M,cr=18889.80 $\lambda_{LT}=0.57$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.65$ $\beta_{LT}=0.75$ $f=0.97$ $\chi_{LT}=0.96$
 $\lambda_y=57.85$ Ncr,y=240134.00 $\lambda^*_y=0.67$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$
 $\lambda_z=95.37$ Ncr,z=88355.30 $\lambda^*_z=1.10$ Curva c: $\Phi_z=1.32$ $\chi_z=0.49$
 Kyy, Kyz, Kzy, Kzz=0.99, 1.04, 0.79, 1.04
 Verifica YY: 0.10+0.10+0.10=0.30

Relazione di calcolo

Verifica ZZ: $0.16+0.08+0.10=0.34$

- Verifica in termini tensionali (4.2.5) - CC 1 X1=0.00 - Classe 3
Sollecitazioni: $N=-7802.38$ $T_z=150.51$ $M_y=562.33$ $T_y=-103.99$ $M_z=198.21$
Tensioni: $\sigma_N=-201.24$ $\sigma_M=-513.04$ $\tau=0.00$ $\sigma_{max}=-714.28$
Tensioni: $\sigma_N=-201.24$ $\sigma_M=9.66$ $\tau=19.56$ $\tau_{max}=19.56$
Tensioni: $\sigma_N=-201.24$ $\sigma_M=-513.04$ $\tau=0.00$ $\sigma_{ID,max}=714.28$

- Verifica spostamento relativo massimo per singola asta - CC 12
 $\delta=0.08$ (L/4855)

Asta n. 25 (25 125) HEA160 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
Sollecitazioni: $N,Ed=-10673.90$ $M_y,Ed=79.06$ $M_z,Ed=-483.31$
Resistenze: $N_c,Rd=101547.00$ $M_y,c,Rd=5765.43$ $M_z,c,Rd=2015.27$ $L=380.00$
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.82$ $M_{cr}=19680.30$ $\lambda_{LT}=0.55$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.64$ $\beta_{LT}=0.75$ $f=0.97$ $\chi_{LT}=0.96$
 $\lambda_y=57.85$ $N_{cr,y}=240134.00$ $\lambda^*_y=0.67$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$
 $\lambda_z=95.37$ $N_{cr,z}=88355.30$ $\lambda^*_z=1.10$ Curva c: $\Phi_z=1.32$ $\chi_z=0.49$
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=1.00, 1.07, 0.80, 1.07$
Verifica YY: $0.13+0.01+0.26=0.40$
Verifica ZZ: $0.22+0.01+0.26=0.49$

- Verifica in termini tensionali (4.2.5) - CC 5 X1=0.00 - Classe 3
Sollecitazioni: $N=-5701.17$ $T_z=113.94$ $M_y=432.31$ $T_y=-278.13$ $M_z=460.51$
Tensioni: $\sigma_N=-147.04$ $\sigma_M=-794.87$ $\tau=0.00$ $\sigma_{max}=-941.91$
Tensioni: $\sigma_N=-147.04$ $\sigma_M=-111.92$ $\tau=14.96$ $\tau_{max}=14.96$
Tensioni: $\sigma_N=-147.04$ $\sigma_M=-794.87$ $\tau=0.00$ $\sigma_{ID,max}=941.91$

- Verifica spostamento relativo massimo per singola asta - CC 12
 $\delta=0.18$ (L/2065)

Asta n. 26 (26 126) HEA160 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 - Classe 3
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.66$ $M_{cr}=17939.80$ $\lambda_{LT}=0.58$
 $\lambda_{LT,0}=0.40$ $\beta_{LT}=0.75$ $\Phi_{LT}=0.66$ $\beta_{LT}=0.75$ $f=0.97$ $\chi_{LT}=0.95$
CC 1 $M_y,Ed=708.75$ $M_y,b,Rd=5485.53$ $M_y,Ed/M_y,b,Rd=0.13$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 7 - Classe 3
Sollecitazioni: $N,Ed=-10871.80$ $M_y,Ed=44.93$ $M_z,Ed=277.32$
Resistenze: $N_c,Rd=101547.00$ $M_y,c,Rd=5765.43$ $M_z,c,Rd=2015.27$ $L=380.00$
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=2.41$ $M_{cr}=26068.10$ $\lambda_{LT}=0.48$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.60$ $\beta_{LT}=0.75$ $f=0.98$ $\chi_{LT}=0.99$
 $\lambda_y=57.85$ $N_{cr,y}=240134.00$ $\lambda^*_y=0.67$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$
 $\lambda_z=95.37$ $N_{cr,z}=88355.30$ $\lambda^*_z=1.10$ Curva c: $\Phi_z=1.32$ $\chi_z=0.49$
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=1.00, 1.08, 0.80, 1.08$
Verifica YY: $0.13+0.01+0.15=0.29$
Verifica ZZ: $0.22+0.01+0.15=0.38$

- Verifica in termini tensionali (4.2.5) - CC 5 X1=0.00 - Classe 3
Sollecitazioni: $N=9741.79$ $T_z=101.74$ $M_y=438.20$ $T_y=-146.21$ $M_z=293.92$
Tensioni: $\sigma_N=251.25$ $\sigma_M=581.03$ $\tau=0.00$ $\sigma_{max}=832.29$
Tensioni: $\sigma_N=251.25$ $\sigma_M=14.32$ $\tau=13.25$ $\tau_{max}=13.25$
Tensioni: $\sigma_N=251.25$ $\sigma_M=581.03$ $\tau=0.00$ $\sigma_{ID,max}=832.29$

- Verifica spostamento relativo massimo per singola asta - CC 12
 $\delta=0.09$ (L/4219)

Asta n. 27 (27 127) HEA160 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 4 - Classe 3
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=2.28$ $M_{cr}=24670.90$ $\lambda_{LT}=0.50$
 $\lambda_{LT,0}=0.40$ $\beta_{LT}=0.75$ $\Phi_{LT}=0.61$ $\beta_{LT}=0.75$ $f=0.98$ $\chi_{LT}=0.99$
CC 4 $M_y,Ed=-164.48$ $M_y,b,Rd=5970.10$ $M_y,Ed/M_y,b,Rd=0.03$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 5 - Classe 3
Sollecitazioni: $N,Ed=-13034.00$ $M_y,Ed=487.02$ $M_z,Ed=281.75$
Resistenze: $N_c,Rd=101547.00$ $M_y,c,Rd=5765.43$ $M_z,c,Rd=2015.27$ $L=380.00$
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $L_{cr}=3.80$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.60$ $M_{cr}=17270.60$ $\lambda_{LT}=0.59$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.66$ $\beta_{LT}=0.75$ $f=0.97$ $\chi_{LT}=0.95$
 $\lambda_y=57.85$ $N_{cr,y}=240134.00$ $\lambda^*_y=0.67$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$
 $\lambda_z=95.37$ $N_{cr,z}=88355.30$ $\lambda^*_z=1.10$ Curva c: $\Phi_z=1.32$ $\chi_z=0.49$

Relazione di calcolo

Kyy, Kyz, Kzy, Kzz=1.01, 1.10, 0.81, 1.10
Verifica YY: 0.16+0.09+0.15=0.40
Verifica ZZ: 0.26+0.07+0.15=0.49

- Verifica in termini tensionali (4.2.5) - CC 5 Xl=0.00 - Classe 3
Sollecitazioni: N=-13034.00 Tz=108.34 My=487.02 Ty=-136.52 Mz=281.75
Tensioni: $\sigma_N=-336.17$ $\sigma_M=-587.39$ $\tau=0.00$ $\sigma_{max}=-923.56$
Tensioni: $\sigma_N=-336.17$ $\sigma_M=13.73$ $\tau=14.10$ $\tau_{max}=14.10$
Tensioni: $\sigma_N=-336.17$ $\sigma_M=-587.39$ $\tau=0.00$ $\sigma_{ID,max}=923.56$

- Verifica spostamento relativo massimo per singola asta - CC 12
 $\delta=0.15$ (L/2459)

Asta n. 28 (28 128) HEA160 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 - Classe 3
Lcr=3.80 Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.59$ M,cr=17232.70 $\lambda_{LT}=0.59$
 $\lambda_{LT,0}=0.40$ $\beta_{LT}=0.75$ $\Phi_{LT}=0.66$ $\beta_{LT}=0.75$ f=0.97 $\chi_{LT}=0.95$
CC 1 My,Ed=556.65 My,b,Rd=5456.08 My,Ed/My,b,Rd=0.10

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 7 - Classe 3
Sollecitazioni: N,Ed=-9774.91 My,Ed=442.54 Mz,Ed=-163.67
Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=380.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
Lcr=3.80 Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.59$ M,cr=17242.50 $\lambda_{LT}=0.59$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.66$ $\beta_{LT}=0.75$ f=0.97 $\chi_{LT}=0.95$
 $\lambda_y=57.85$ Ncr,y=240134.00 $\lambda^*_y=0.67$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$
 $\lambda_z=95.37$ Ncr,z=88355.30 $\lambda^*_z=1.10$ Curva c: $\Phi_z=1.32$ $\chi_z=0.49$
Kyy, Kyz, Kzy, Kzz=1.00, 1.06, 0.80, 1.06
Verifica YY: 0.12+0.08+0.09=0.29
Verifica ZZ: 0.20+0.06+0.09=0.35

- Verifica in termini tensionali (4.2.5) - CC 10 Xl=0.00 - Classe 3
Sollecitazioni: N=914.90 Tz=-24.21 My=23.20 Ty=-1147.72 Mz=820.94
Tensioni: $\sigma_N=23.60$ $\sigma_M=1077.43$ $\tau=0.00$ $\sigma_{max}=1101.02$
Tensioni: $\sigma_N=23.60$ $\sigma_M=230.76$ $\tau=56.64$ $\tau_{max}=56.64$
Tensioni: $\sigma_N=23.60$ $\sigma_M=1077.43$ $\tau=0.00$ $\sigma_{ID,max}=1101.02$

- Verifica spostamento relativo massimo per singola asta - CC 12
 $\delta=0.18$ (L/2018)

Asta n. 29 (29 129) HEA160 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 10 - Classe 3
Sollecitazioni: N,Ed=-1549.48 My,Ed=140.64 Mz,Ed=828.09
Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=380.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
Lcr=3.80 Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=2.78$ M,cr=30030.40 $\lambda_{LT}=0.45$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.58$ $\beta_{LT}=0.75$ f=0.98 $\chi_{LT}=1.00$
 $\lambda_y=57.85$ Ncr,y=240134.00 $\lambda^*_y=0.67$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$
 $\lambda_z=95.37$ Ncr,z=88355.30 $\lambda^*_z=1.10$ Curva c: $\Phi_z=1.32$ $\chi_z=0.49$
Kyy, Kyz, Kzy, Kzz=0.96, 0.97, 0.77, 0.97
Verifica YY: 0.02+0.02+0.40=0.44
Verifica ZZ: 0.02+0.02+0.40=0.43

- Verifica in termini tensionali (4.2.5) - CC 10 Xl=0.00 - Classe 3
Sollecitazioni: N=-1549.48 Tz=67.85 My=140.64 Ty=-1143.71 Mz=828.09
Tensioni: $\sigma_N=-39.96$ $\sigma_M=-1140.07$ $\tau=0.00$ $\sigma_{max}=-1180.03$
Tensioni: $\sigma_N=-39.96$ $\sigma_M=185.82$ $\tau=56.46$ $\tau_{max}=56.46$
Tensioni: $\sigma_N=-39.96$ $\sigma_M=-1140.07$ $\tau=0.00$ $\sigma_{ID,max}=1180.03$

- Verifica spostamento relativo massimo per singola asta - CC 12
 $\delta=0.18$ (L/2076)

Asta n. 30 (30 130) HEA160 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 11 - Classe 3
Sollecitazioni: N,Ed=-5880.36 My,Ed=619.93 Mz,Ed=310.29
Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=380.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
Lcr=3.80 Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=2.21$ M,cr=23923.90 $\lambda_{LT}=0.50$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.61$ $\beta_{LT}=0.75$ f=0.98 $\chi_{LT}=0.98$
 $\lambda_y=57.85$ Ncr,y=240134.00 $\lambda^*_y=0.67$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$
 $\lambda_z=95.37$ Ncr,z=88355.30 $\lambda^*_z=1.10$ Curva c: $\Phi_z=1.32$ $\chi_z=0.49$
Kyy, Kyz, Kzy, Kzz=0.98, 1.02, 0.78, 1.02
Verifica YY: 0.07+0.11+0.16=0.34
Verifica ZZ: 0.12+0.09+0.16=0.36

- Verifica in termini tensionali (4.2.5) - CC 7 Xl=0.00 - Classe 3
Sollecitazioni: N=-3226.41 T_z=174.83 M_y=521.62 T_y=213.09 M_z=-359.85
Tensioni: σ_N =-83.21 σ_M =-704.61 τ =0.00 σ_{max} =-787.83
Tensioni: σ_N =-83.21 σ_M =-17.54 τ =22.75 τ_{max} =22.75
Tensioni: σ_N =-83.21 σ_M =-704.61 τ =0.00 $\sigma_{ID,max}$ =787.83
- Verifica spostamento relativo massimo per singola asta - CC 12
 δ =0.14 (L/2658)

Asta n. 31 (31 131) HEA160 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 - Classe 3
Sollecitazioni: N,Ed=-4317.05 My,Ed=640.30 Mz,Ed=-246.16
Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=380.00
 α_{my} , α_{mz} , α_{LT} =0.95, 0.95, 0.95
L_{cr}=3.80 Curva b: α_{imp} =0.34 k_c=0.94 ψ =2.00 M_{cr}=21629.20 λ_{LT} =0.53
 $\lambda_{LT,0}$ =0.40 Φ_{LT} =0.63 β_{LT} =0.75 f=0.97 χ_{LT} =0.97
 λ_y =57.85 Ncr,y=240134.00 λ^*_y =0.67 Curva b: Φ_y =0.80 χ_y =0.80
 λ_z =95.37 Ncr,z=88355.30 λ^*_z =1.10 Curva c: Φ_z =1.32 χ_z =0.49
Kyy, Kyz, Kzy, Kzz=0.97, 1.00, 0.78, 1.00
Verifica YY: 0.05+0.11+0.12=0.29
Verifica ZZ: 0.09+0.09+0.12=0.30

- Verifica in termini tensionali (4.2.5) - CC 1 Xl=0.00 - Classe 3
Sollecitazioni: N=-4317.05 T_z=210.40 M_y=640.30 T_y=-130.19 M_z=238.66
Tensioni: σ_N =-111.34 σ_M =-601.03 τ =0.00 σ_{max} =-712.38
Tensioni: σ_N =-111.34 σ_M =11.63 τ =27.34 τ_{max} =27.34
Tensioni: σ_N =-111.34 σ_M =-601.03 τ =0.00 $\sigma_{ID,max}$ =712.38
- Verifica spostamento relativo massimo per singola asta - CC 12
 δ =0.11 (L/3338)

Asta n. 32 (32 132) HEA160 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 5 - Classe 3
Sollecitazioni: N,Ed=-4190.13 My,Ed=512.84 Mz,Ed=315.55
Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=380.00
 α_{my} , α_{mz} , α_{LT} =0.95, 0.95, 0.95
L_{cr}=3.80 Curva b: α_{imp} =0.34 k_c=0.94 ψ =2.07 M_{cr}=22347.80 λ_{LT} =0.52
 $\lambda_{LT,0}$ =0.40 Φ_{LT} =0.62 β_{LT} =0.75 f=0.97 χ_{LT} =0.98
 λ_y =57.85 Ncr,y=240134.00 λ^*_y =0.67 Curva b: Φ_y =0.80 χ_y =0.80
 λ_z =95.37 Ncr,z=88355.30 λ^*_z =1.10 Curva c: Φ_z =1.32 χ_z =0.49
Kyy, Kyz, Kzy, Kzz=0.97, 1.00, 0.78, 1.00
Verifica YY: 0.05+0.09+0.16=0.30
Verifica ZZ: 0.09+0.07+0.16=0.31

- Verifica in termini tensionali (4.2.5) - CC 5 Xl=0.00 - Classe 3
Sollecitazioni: N=-4190.13 T_z=176.13 M_y=512.84 T_y=-159.24 M_z=315.55
Tensioni: σ_N =-108.07 σ_M =-643.06 τ =0.00 σ_{max} =-751.13
Tensioni: σ_N =-108.07 σ_M =15.38 τ =22.90 τ_{max} =22.90
Tensioni: σ_N =-108.07 σ_M =-643.06 τ =0.00 $\sigma_{ID,max}$ =751.13
- Verifica spostamento relativo massimo per singola asta - CC 12
 δ =0.11 (L/3500)

Asta n. 33 (33 133) HEA160 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 10 - Classe 3
Sollecitazioni: N,Ed=-3052.65 My,Ed=177.71 Mz,Ed=718.89
Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=380.00
 α_{my} , α_{mz} , α_{LT} =0.95, 0.95, 0.95
L_{cr}=3.80 Curva b: α_{imp} =0.34 k_c=0.94 ψ =2.69 M_{cr}=29071.50 λ_{LT} =0.46
 $\lambda_{LT,0}$ =0.40 Φ_{LT} =0.59 β_{LT} =0.75 f=0.98 χ_{LT} =1.00
 λ_y =57.85 Ncr,y=240134.00 λ^*_y =0.67 Curva b: Φ_y =0.80 χ_y =0.80
 λ_z =95.37 Ncr,z=88355.30 λ^*_z =1.10 Curva c: Φ_z =1.32 χ_z =0.49
Kyy, Kyz, Kzy, Kzz=0.96, 0.99, 0.77, 0.99
Verifica YY: 0.03+0.03+0.35=0.41
Verifica ZZ: 0.03+0.02+0.35=0.41

- Verifica in termini tensionali (4.2.5) - CC 10 Xl=0.00 - Classe 3
Sollecitazioni: N=-3052.65 T_z=82.93 M_y=177.71 T_y=-799.98 M_z=718.89
Tensioni: σ_N =-78.73 σ_M =-1015.00 τ =0.00 σ_{max} =-1093.73
Tensioni: σ_N =-78.73 σ_M =139.04 τ =39.51 τ_{max} =39.51
Tensioni: σ_N =-78.73 σ_M =-1015.00 τ =0.00 $\sigma_{ID,max}$ =1093.73

- Verifica spostamento relativo massimo per singola asta - CC 12

$\delta=0.30$ (L/1259)

Asta n. 72 (-139 -224) tub 120x80x4 Crit. 1

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- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
Sollecitazioni: N,Ed=-328.84 My,Ed=-197.29 Mz,Ed=-100.38
Resistenze: Nc,Rd=49761.90 My,c,Rd=1293.70 Mz,c,Rd=1639.45 L=44.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $\lambda_y=9.90$ Ncr,y=4020870.00 $\lambda^*_y=0.11$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=13.64$ Ncr,z=2115260.00 $\lambda^*_z=0.16$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
Kyy, Kyz, Kzy, Kzz=0.95, 0.95, 0.76, 0.95
Verifica YY: 0.01+0.14+0.06=0.20
Verifica ZZ: 0.01+0.11+0.06=0.17
 - Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
Sollecitazioni: N=-328.84 Tz=-448.66 My=-197.29 Ty=-223.96 Mz=-1.84 Mx=-17.51
Tensioni: $\sigma_N=-17.31$ $\sigma_M=-402.36$ $\tau=20.30$ $\sigma_{max}=-419.67$
Tensioni: $\sigma_N=-17.31$ $\sigma_M=-2.70$ $\tau=85.32$ $\tau_{max}=85.32$
Tensioni: $\sigma_N=-17.31$ $\sigma_M=-402.36$ $\tau=20.30$ $\sigma_{ID,max}=421.14$

Asta n. 73 (-141 -223) tub 120x80x4 Crit. 1

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- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
Sollecitazioni: N,Ed=-350.33 My,Ed=-83.82 Mz,Ed=-10.31
Resistenze: Nc,Rd=49761.90 My,c,Rd=1293.70 Mz,c,Rd=1639.45 L=44.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $\lambda_y=9.90$ Ncr,y=4020870.00 $\lambda^*_y=0.11$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=13.64$ Ncr,z=2115260.00 $\lambda^*_z=0.16$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
Kyy, Kyz, Kzy, Kzz=0.95, 0.95, 0.76, 0.95
Verifica YY: 0.01+0.06+0.01=0.07
Verifica ZZ: 0.01+0.05+0.01=0.06
 - Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
Sollecitazioni: N=-350.33 Tz=-190.85 My=-83.82 Ty=-23.53 Mz=-4.24
Tensioni: $\sigma_N=-18.44$ $\sigma_M=-169.69$ $\tau=4.92$ $\sigma_{max}=-188.13$
Tensioni: $\sigma_N=-18.44$ $\sigma_M=0.00$ $\tau=32.57$ $\tau_{max}=32.57$
Tensioni: $\sigma_N=-18.44$ $\sigma_M=-169.69$ $\tau=4.92$ $\sigma_{ID,max}=188.32$

Asta n. 74 (-175 -222) tub 120x80x4 Crit. 1

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- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
Sollecitazioni: N,Ed=-477.62 My,Ed=403.61 Mz,Ed=-290.98
Resistenze: Nc,Rd=49761.90 My,c,Rd=1293.70 Mz,c,Rd=1639.45 L=35.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $\lambda_y=7.87$ Ncr,y=6354610.00 $\lambda^*_y=0.09$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=10.85$ Ncr,z=3342970.00 $\lambda^*_z=0.13$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
Kyy, Kyz, Kzy, Kzz=0.95, 0.95, 0.76, 0.95
Verifica YY: 0.01+0.30+0.17=0.47
Verifica ZZ: 0.01+0.24+0.17=0.42
 - Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
Sollecitazioni: N=-477.62 Tz=1153.10 My=403.61 Ty=-843.53 Mz=4.26 Mx=57.95
Tensioni: $\sigma_N=-25.14$ $\sigma_M=-823.90$ $\tau=67.18$ $\sigma_{max}=-849.03$
Tensioni: $\sigma_N=-25.14$ $\sigma_M=6.24$ $\tau=234.33$ $\tau_{max}=234.33$
Tensioni: $\sigma_N=-25.14$ $\sigma_M=-823.90$ $\tau=67.18$ $\sigma_{ID,max}=856.97$

Asta n. 75 (-174 -221) tub 120x80x4 Crit. 1

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- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
Sollecitazioni: N=169.39 Tz=2089.92 My=731.52 Ty=-108.46 Mz=-1.10 Mx=3.98
Tensioni: $\sigma_N=8.92$ $\sigma_M=1482.70$ $\tau=4.62$ $\sigma_{max}=1491.62$
Tensioni: $\sigma_N=8.92$ $\sigma_M=-1.61$ $\tau=307.40$ $\tau_{max}=307.40$
Tensioni: $\sigma_N=8.92$ $\sigma_M=1482.70$ $\tau=4.62$ $\sigma_{ID,max}=1491.64$

Asta n. 76 (-171 -220) tub 120x80x4 Crit. 1

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- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
Sollecitazioni: N,Ed=-893.43 My,Ed=938.65 Mz,Ed=70.79
Resistenze: Nc,Rd=49761.90 My,c,Rd=1293.70 Mz,c,Rd=1639.45 L=35.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $\lambda_y=7.87$ Ncr,y=6354610.00 $\lambda^*_y=0.09$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=10.85$ Ncr,z=3342970.00 $\lambda^*_z=0.13$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
Kyy, Kyz, Kzy, Kzz=0.95, 0.95, 0.76, 0.95
Verifica YY: 0.02+0.69+0.04=0.75
Verifica ZZ: 0.02+0.55+0.04=0.61
 - Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
Sollecitazioni: N=-893.43 Tz=2681.52 My=938.65 Ty=205.75 Mz=-1.22 Mx=-5.91

Relazione di calcolo

Tensioni: $\sigma_N = -47.02$ $\sigma_M = -1902.23$ $\tau = 6.86$ $\sigma_{max} = -1949.25$
Tensioni: $\sigma_N = -47.02$ $\sigma_M = 1.79$ $\tau = 395.35$ $\tau_{max} = 395.35$
Tensioni: $\sigma_N = -47.02$ $\sigma_M = -1902.23$ $\tau = 6.86$ $\sigma_{ID, max} = 1949.28$

Asta n. 77 (-170 -219) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
Sollecitazioni: $N=33.63$ $T_z=2241.70$ $M_y=784.63$ $T_y=104.66$ $M_x=-7.39$
Tensioni: $\sigma_N=1.77$ $\sigma_M=1588.45$ $\tau=8.57$ $\sigma_{max}=1590.22$
Tensioni: $\sigma_N=1.77$ $\sigma_M=-0.00$ $\tau=333.34$ $\tau_{max}=333.34$
Tensioni: $\sigma_N=1.77$ $\sigma_M=1588.45$ $\tau=19.19$ $\sigma_{ID, max}=1590.57$

Asta n. 78 (-167 -218) tub 120x80x4 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
Sollecitazioni: $N, Ed=-927.41$ $M_y, Ed=924.42$ $M_z, Ed=-34.78$
Resistenze: $N_c, R_d=49761.90$ $M_y, c, R_d=1293.70$ $M_z, c, R_d=1639.45$ $L=35.00$
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $\lambda_y=7.87$ $N_{cr, y}=6354610.00$ $\lambda^*_y=0.09$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=10.85$ $N_{cr, z}=3342970.00$ $\lambda^*_z=0.13$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.95, 0.76, 0.95$
Verifica YY: $0.02+0.68+0.02=0.72$
Verifica ZZ: $0.02+0.54+0.02=0.58$

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
Sollecitazioni: $N=-927.41$ $T_z=2640.90$ $M_y=924.42$ $T_y=-100.67$ $M_x=2.13$
Tensioni: $\sigma_N=-48.81$ $\sigma_M=-1871.46$ $\tau=2.47$ $\sigma_{max}=-1920.27$
Tensioni: $\sigma_N=-48.81$ $\sigma_M=-0.00$ $\tau=385.07$ $\tau_{max}=385.07$
Tensioni: $\sigma_N=-48.81$ $\sigma_M=-1871.46$ $\tau=7.74$ $\sigma_{ID, max}=1920.32$

Asta n. 79 (-166 -217) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
Sollecitazioni: $N=101.91$ $T_z=2047.49$ $M_y=716.68$ $T_y=-2.99$ $M_z=46.80$ $M_x=-3.76$
Tensioni: $\sigma_N=5.36$ $\sigma_M=1525.66$ $\tau=4.36$ $\sigma_{max}=1531.02$
Tensioni: $\sigma_N=5.36$ $\sigma_M=-68.53$ $\tau=300.99$ $\tau_{max}=300.99$
Tensioni: $\sigma_N=5.36$ $\sigma_M=1525.66$ $\tau=4.36$ $\sigma_{ID, max}=1531.04$

Asta n. 80 (-163 -216) tub 120x80x4 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
Sollecitazioni: $N, Ed=-665.70$ $M_y, Ed=906.69$ $M_z, Ed=312.26$
Resistenze: $N_c, R_d=49761.90$ $M_y, c, R_d=1293.70$ $M_z, c, R_d=1639.45$ $L=35.00$
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $\lambda_y=7.87$ $N_{cr, y}=6354610.00$ $\lambda^*_y=0.09$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=10.85$ $N_{cr, z}=3342970.00$ $\lambda^*_z=0.13$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.95, 0.76, 0.95$
Verifica YY: $0.01+0.67+0.18=0.86$
Verifica ZZ: $0.01+0.53+0.18=0.73$

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
Sollecitazioni: $N=-665.70$ $T_z=2590.19$ $M_y=906.69$ $T_y=904.27$ $M_z=-4.24$ $M_x=-52.88$
Tensioni: $\sigma_N=-35.04$ $\sigma_M=-1842.33$ $\tau=61.31$ $\sigma_{max}=-1877.36$
Tensioni: $\sigma_N=-35.04$ $\sigma_M=6.21$ $\tau=436.62$ $\tau_{max}=436.62$
Tensioni: $\sigma_N=-35.04$ $\sigma_M=-1842.33$ $\tau=61.31$ $\sigma_{ID, max}=1880.37$

Asta n. 81 (-162 -215) tub 120x80x4 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
Sollecitazioni: $N, Ed=-192.78$ $M_y, Ed=368.26$ $M_z, Ed=78.48$
Resistenze: $N_c, R_d=49761.90$ $M_y, c, R_d=1293.70$ $M_z, c, R_d=1639.45$ $L=35.00$
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $\lambda_y=7.87$ $N_{cr, y}=6354610.00$ $\lambda^*_y=0.09$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=10.85$ $N_{cr, z}=3342970.00$ $\lambda^*_z=0.13$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.95, 0.76, 0.95$
Verifica YY: $0.00+0.27+0.05=0.32$
Verifica ZZ: $0.00+0.22+0.05=0.27$

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
Sollecitazioni: $N=-192.78$ $T_z=1052.23$ $M_y=368.26$ $T_y=216.55$ $M_z=2.69$ $M_x=-10.22$
Tensioni: $\sigma_N=-10.15$ $\sigma_M=-749.82$ $\tau=11.85$ $\sigma_{max}=-759.97$
Tensioni: $\sigma_N=-10.15$ $\sigma_M=-3.93$ $\tau=164.30$ $\tau_{max}=164.30$
Tensioni: $\sigma_N=-10.15$ $\sigma_M=-749.82$ $\tau=11.85$ $\sigma_{ID, max}=760.25$

Asta n. 82 (-160 -214) tub 120x80x4 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3

Sollecitazioni: N,Ed=-630.55 My,Ed=-451.17 Mz,Ed=455.48
 Resistenze: Nc,Rd=49761.90 My,c,Rd=1293.70 Mz,c,Rd=1639.45 L=35.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $\lambda_y=7.87$ Ncr,y=6354610.00 $\lambda^*_y=0.09$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=10.85$ Ncr,z=3342970.00 $\lambda^*_z=0.13$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
 Kyy, Kyz, Kzy, Kzz=0.95, 0.95, 0.76, 0.95
 Verifica YY: 0.01+0.33+0.26=0.61
 Verifica ZZ: 0.01+0.27+0.26=0.54

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3

Sollecitazioni: N=-630.55 Tz=-1289.00 My=-451.17 Ty=1322.32 Mz=-7.33 Mx=72.63
 Tensioni: $\sigma_N=-33.19$ $\sigma_M=-925.09$ $\tau=84.21$ $\sigma_{max}=-958.28$
 Tensioni: $\sigma_N=-33.19$ $\sigma_M=10.73$ $\tau=271.15$ $\tau_{max}=271.15$
 Tensioni: $\sigma_N=-33.19$ $\sigma_M=-925.09$ $\tau=84.21$ $\sigma_{ID,max}=969.32$

Asta n. 83 (-157 -213) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3

Sollecitazioni: N=348.55 Tz=-1935.77 My=-677.55 Ty=342.47 Mz=23.43
 Tensioni: $\sigma_N=18.34$ $\sigma_M=1371.68$ $\tau=27.17$ $\sigma_{max}=1390.03$
 Tensioni: $\sigma_N=18.34$ $\sigma_M=0.00$ $\tau=307.63$ $\tau_{max}=307.63$
 Tensioni: $\sigma_N=18.34$ $\sigma_M=1371.68$ $\tau=61.93$ $\sigma_{ID,max}=1394.16$

Asta n. 84 (-156 -212) tub 120x80x4 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3

Sollecitazioni: N,Ed=-732.88 My,Ed=-920.72 Mz,Ed=-253.84
 Resistenze: Nc,Rd=49761.90 My,c,Rd=1293.70 Mz,c,Rd=1639.45 L=35.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $\lambda_y=7.87$ Ncr,y=6354610.00 $\lambda^*_y=0.09$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=10.85$ Ncr,z=3342970.00 $\lambda^*_z=0.13$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
 Kyy, Kyz, Kzy, Kzz=0.95, 0.95, 0.76, 0.95
 Verifica YY: 0.01+0.68+0.15=0.84
 Verifica ZZ: 0.01+0.54+0.15=0.70

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3

Sollecitazioni: N=-732.88 Tz=-2630.24 My=-920.72 Ty=-738.99 Mz=4.81 Mx=-39.41
 Tensioni: $\sigma_N=-38.57$ $\sigma_M=-1871.64$ $\tau=45.69$ $\sigma_{max}=-1910.21$
 Tensioni: $\sigma_N=-38.57$ $\sigma_M=7.04$ $\tau=426.79$ $\tau_{max}=426.79$
 Tensioni: $\sigma_N=-38.57$ $\sigma_M=-1871.64$ $\tau=45.69$ $\sigma_{ID,max}=1911.85$

Asta n. 85 (-154 -211) tub 120x80x4 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3

Sollecitazioni: N,Ed=-684.83 My,Ed=-864.47 Mz,Ed=221.87
 Resistenze: Nc,Rd=49761.90 My,c,Rd=1293.70 Mz,c,Rd=1639.45 L=35.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $\lambda_y=7.87$ Ncr,y=6354610.00 $\lambda^*_y=0.09$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=10.85$ Ncr,z=3342970.00 $\lambda^*_z=0.13$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
 Kyy, Kyz, Kzy, Kzz=0.95, 0.95, 0.76, 0.95
 Verifica YY: 0.01+0.64+0.13=0.78
 Verifica ZZ: 0.01+0.51+0.13=0.65

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3

Sollecitazioni: N=-684.83 Tz=-2469.68 My=-864.47 Ty=647.54 Mz=-4.78 Mx=45.68
 Tensioni: $\sigma_N=-36.04$ $\sigma_M=-1757.72$ $\tau=52.96$ $\sigma_{max}=-1793.76$
 Tensioni: $\sigma_N=-36.04$ $\sigma_M=6.99$ $\tau=410.79$ $\tau_{max}=410.79$
 Tensioni: $\sigma_N=-36.04$ $\sigma_M=-1757.72$ $\tau=52.96$ $\sigma_{ID,max}=1796.11$

Asta n. 86 (-151 -210) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3

Sollecitazioni: N=110.33 Tz=-2205.83 My=-772.07 Ty=59.03 Mz=2.64
 Tensioni: $\sigma_N=5.81$ $\sigma_M=1563.02$ $\tau=3.07$ $\sigma_{max}=1568.83$
 Tensioni: $\sigma_N=5.81$ $\sigma_M=0.00$ $\tau=322.64$ $\tau_{max}=322.64$
 Tensioni: $\sigma_N=5.81$ $\sigma_M=1563.02$ $\tau=9.06$ $\sigma_{ID,max}=1568.90$

Asta n. 87 (-150 -209) tub 120x80x4 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3

Sollecitazioni: N,Ed=-1001.03 My,Ed=-956.47 Mz,Ed=59.36
 Resistenze: Nc,Rd=49761.90 My,c,Rd=1293.70 Mz,c,Rd=1639.45 L=35.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $\lambda_y=7.87$ Ncr,y=6354610.00 $\lambda^*_y=0.09$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=10.85$ Ncr,z=3342970.00 $\lambda^*_z=0.13$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
 Kyy, Kyz, Kzy, Kzz=0.95, 0.95, 0.76, 0.95
 Verifica YY: 0.02+0.70+0.03=0.76

Relazione di calcolo

Verifica ZZ: $0.02+0.56+0.03=0.62$

- Verifica in termini tensionali (4.2.5) - CC 9 X1=0.00 - Classe 3
Sollecitazioni: $N=-1001.03$ $T_z=-2732.39$ $M_y=-956.47$ $T_y=171.76$ $M_x=5.60$
Tensioni: $\sigma_N=-52.69$ $\sigma_M=-1936.34$ $\tau=6.49$ $\sigma_{max}=-1989.03$
Tensioni: $\sigma_N=-52.69$ $\sigma_M=0.00$ $\tau=402.35$ $\tau_{max}=402.35$
Tensioni: $\sigma_N=-52.69$ $\sigma_M=-1936.34$ $\tau=10.95$ $\sigma_{ID,max}=1989.12$

Asta n. 88 (-147 -208) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 X1=0.00 - Classe 3
Sollecitazioni: $N=267.14$ $T_z=-2044.77$ $M_y=-715.71$ $T_y=-74.19$ $M_z=-1.97$
Tensioni: $\sigma_N=14.06$ $\sigma_M=1452.07$ $\tau=0.00$ $\sigma_{max}=1466.13$
Tensioni: $\sigma_N=14.06$ $\sigma_M=-2.89$ $\tau=296.24$ $\tau_{max}=296.24$
Tensioni: $\sigma_N=14.06$ $\sigma_M=1452.07$ $\tau=0.00$ $\sigma_{ID,max}=1466.13$

Asta n. 89 (-146 -207) tub 120x80x4 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
Sollecitazioni: $N, Ed=-526.28$ $M_y, Ed=-393.58$ $M_z, Ed=-349.35$
Resistenze: $N_c, Rd=49761.90$ $M_y, c, Rd=1293.70$ $M_z, c, Rd=1639.45$ $L=35.00$
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $\lambda_y=7.87$ $N_{cr,y}=6354610.00$ $\lambda^*_y=0.09$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=10.85$ $N_{cr,z}=3342970.00$ $\lambda^*_z=0.13$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.95, 0.76, 0.95$
Verifica YY: $0.01+0.29+0.20=0.50$
Verifica ZZ: $0.01+0.23+0.20=0.44$

- Verifica in termini tensionali (4.2.5) - CC 9 X1=0.00 - Classe 3
Sollecitazioni: $N=-526.28$ $T_z=-1124.44$ $M_y=-393.58$ $T_y=-1016.13$ $M_z=6.30$ $M_x=-50.88$
Tensioni: $\sigma_N=-27.70$ $\sigma_M=-806.85$ $\tau=58.99$ $\sigma_{max}=-834.55$
Tensioni: $\sigma_N=-27.70$ $\sigma_M=9.22$ $\tau=222.03$ $\tau_{max}=222.03$
Tensioni: $\sigma_N=-27.70$ $\sigma_M=-806.85$ $\tau=58.99$ $\sigma_{ID,max}=840.78$

Asta n. 90 (-13 -206) tub 120x80x4 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 11 - Classe 3
Sollecitazioni: $N, Ed=-265.38$ $M_y, Ed=-62.72$ $M_z, Ed=-97.47$
Resistenze: $N_c, Rd=49761.90$ $M_y, c, Rd=1293.70$ $M_z, c, Rd=1639.45$ $L=44.00$
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $\lambda_y=9.90$ $N_{cr,y}=4020870.00$ $\lambda^*_y=0.11$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=13.64$ $N_{cr,z}=2115260.00$ $\lambda^*_z=0.16$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.95, 0.76, 0.95$
Verifica YY: $0.01+0.05+0.06=0.11$
Verifica ZZ: $0.01+0.04+0.06=0.10$

- Verifica in termini tensionali (4.2.5) - CC 9 X1=0.44 - Classe 3
Sollecitazioni: $N=-376.24$ $T_z=-73.76$ $T_y=-251.62$ $M_z=-114.80$ $M_x=-22.95$
Tensioni: $\sigma_N=-19.80$ $\sigma_M=-183.40$ $\tau=26.61$ $\sigma_{max}=-203.20$
Tensioni: $\sigma_N=-19.80$ $\sigma_M=-0.00$ $\tau=52.15$ $\tau_{max}=52.15$
Tensioni: $\sigma_N=-19.80$ $\sigma_M=-183.40$ $\tau=37.29$ $\sigma_{ID,max}=213.22$

Asta n. 91 (-140 -205) tub 120x80x4 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
Sollecitazioni: $N, Ed=-809.97$ $M_y, Ed=-77.68$ $M_z, Ed=-19.82$
Resistenze: $N_c, Rd=49761.90$ $M_y, c, Rd=1293.70$ $M_z, c, Rd=1639.45$ $L=44.00$
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $\lambda_y=9.90$ $N_{cr,y}=4020870.00$ $\lambda^*_y=0.11$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=13.64$ $N_{cr,z}=2115260.00$ $\lambda^*_z=0.16$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.95, 0.76, 0.95$
Verifica YY: $0.02+0.06+0.01=0.08$
Verifica ZZ: $0.02+0.05+0.01=0.07$

- Verifica in termini tensionali (4.2.5) - CC 9 X1=0.00 - Classe 3
Sollecitazioni: $N=-809.97$ $T_z=-176.81$ $M_y=-77.68$ $T_y=-43.93$ $M_x=-2.09$
Tensioni: $\sigma_N=-42.63$ $\sigma_M=-157.27$ $\tau=2.43$ $\sigma_{max}=-199.90$
Tensioni: $\sigma_N=-42.63$ $\sigma_M=0.00$ $\tau=28.04$ $\tau_{max}=28.04$
Tensioni: $\sigma_N=-42.63$ $\sigma_M=-157.27$ $\tau=2.43$ $\sigma_{ID,max}=199.94$

Asta n. 92 (-142 -204) tub 120x80x4 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 11 - Classe 3
Sollecitazioni: $N, Ed=-576.42$ $M_y, Ed=-151.83$ $M_z, Ed=-7.62$
Resistenze: $N_c, Rd=49761.90$ $M_y, c, Rd=1293.70$ $M_z, c, Rd=1639.45$ $L=44.00$
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $\lambda_y=9.90$ $N_{cr,y}=4020870.00$ $\lambda^*_y=0.11$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$

$\lambda_z=13.64$ Ncr,z=2115260.00 $\lambda^*_z=0.16$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
 Kyy, Kyz, Kzy, Kzz=0.95, 0.95, 0.76, 0.95
 Verifica YY: 0.01+0.11+0.00=0.13
 Verifica ZZ: 0.01+0.09+0.00=0.11

- Verifica in termini tensionali (4.2.5) - CC 11 Xl=0.00 - Classe 3
 Sollecitazioni: N=-576.42 Tz=-345.29 My=-151.83 Ty=-16.16 Mx=-3.32
 Tensioni: $\sigma_N=-30.34$ $\sigma_M=-307.37$ $\tau=3.84$ $\sigma_{max}=-337.71$
 Tensioni: $\sigma_N=-30.34$ $\sigma_M=0.00$ $\tau=53.87$ $\tau_{max}=53.87$
 Tensioni: $\sigma_N=-30.34$ $\sigma_M=-307.37$ $\tau=3.84$ $\sigma_{ID,max}=337.77$

Asta n. 93 (-143 -203) tub 120x80x4 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
 Sollecitazioni: N,Ed=-393.05 My,Ed=-102.92 Mz,Ed=15.31
 Resistenze: Nc,Rd=49761.90 My,c,Rd=1293.70 Mz,c,Rd=1639.45 L=44.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $\lambda_y=9.90$ Ncr,y=4020870.00 $\lambda^*_y=0.11$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=13.64$ Ncr,z=2115260.00 $\lambda^*_z=0.16$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
 Kyy, Kyz, Kzy, Kzz=0.95, 0.95, 0.76, 0.95
 Verifica YY: 0.01+0.07+0.01=0.09
 Verifica ZZ: 0.01+0.06+0.01=0.07

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
 Sollecitazioni: N=-393.05 Tz=-234.25 My=-102.92 Ty=36.94 Mx=-5.49
 Tensioni: $\sigma_N=-20.69$ $\sigma_M=-208.35$ $\tau=6.36$ $\sigma_{max}=-229.04$
 Tensioni: $\sigma_N=-20.69$ $\sigma_M=0.00$ $\tau=40.30$ $\tau_{max}=40.30$
 Tensioni: $\sigma_N=-20.69$ $\sigma_M=-208.35$ $\tau=10.11$ $\sigma_{ID,max}=229.71$

Asta n. 94 (-144 -202) tub 120x80x4 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
 Sollecitazioni: N,Ed=-600.14 My,Ed=-75.81 Mz,Ed=104.16
 Resistenze: Nc,Rd=49761.90 My,c,Rd=1293.70 Mz,c,Rd=1639.45 L=44.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $\lambda_y=9.90$ Ncr,y=4020870.00 $\lambda^*_y=0.11$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=13.64$ Ncr,z=2115260.00 $\lambda^*_z=0.16$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
 Kyy, Kyz, Kzy, Kzz=0.95, 0.95, 0.76, 0.95
 Verifica YY: 0.01+0.06+0.06=0.13
 Verifica ZZ: 0.01+0.04+0.06=0.12

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.44 - Classe 3
 Sollecitazioni: N=-591.61 Tz=-172.54 Ty=228.78 Mz=104.16 Mx=10.82
 Tensioni: $\sigma_N=-31.14$ $\sigma_M=-166.40$ $\tau=12.54$ $\sigma_{max}=-197.54$
 Tensioni: $\sigma_N=-31.14$ $\sigma_M=-152.54$ $\tau=37.58$ $\tau_{max}=37.58$
 Tensioni: $\sigma_N=-31.14$ $\sigma_M=-166.40$ $\tau=37.54$ $\sigma_{ID,max}=207.97$

Asta n. 95 (-9 -201) tub 120x80x4 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 11 - Classe 3
 Sollecitazioni: N,Ed=-204.54 My,Ed=-78.03 Mz,Ed=124.82
 Resistenze: Nc,Rd=49761.90 My,c,Rd=1293.70 Mz,c,Rd=1639.45 L=44.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $\lambda_y=9.90$ Ncr,y=4020870.00 $\lambda^*_y=0.11$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=13.64$ Ncr,z=2115260.00 $\lambda^*_z=0.16$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
 Kyy, Kyz, Kzy, Kzz=0.95, 0.95, 0.76, 0.95
 Verifica YY: 0.00+0.06+0.07=0.13
 Verifica ZZ: 0.00+0.05+0.07=0.12

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.44 - Classe 3
 Sollecitazioni: N=-307.98 Tz=-122.06 Ty=323.05 Mz=145.79 Mx=5.63
 Tensioni: $\sigma_N=-16.21$ $\sigma_M=-232.91$ $\tau=6.53$ $\sigma_{max}=-249.12$
 Tensioni: $\sigma_N=-16.21$ $\sigma_M=0.00$ $\tau=39.34$ $\tau_{max}=39.34$
 Tensioni: $\sigma_N=-16.21$ $\sigma_M=-232.91$ $\tau=24.21$ $\sigma_{ID,max}=252.62$

Asta n. 96 (-8 -200) tub 120x80x4 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 11 - Classe 3
 Sollecitazioni: N,Ed=-265.15 My,Ed=133.95 Mz,Ed=123.80
 Resistenze: Nc,Rd=49761.90 My,c,Rd=1293.70 Mz,c,Rd=1639.45 L=44.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $\lambda_y=9.90$ Ncr,y=4020870.00 $\lambda^*_y=0.11$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=13.64$ Ncr,z=2115260.00 $\lambda^*_z=0.16$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
 Kyy, Kyz, Kzy, Kzz=0.95, 0.95, 0.76, 0.95
 Verifica YY: 0.01+0.10+0.07=0.18
 Verifica ZZ: 0.01+0.08+0.07=0.16

- Verifica in termini tensionali (4.2.5) - CC 11 Xl=0.00 - Classe 3

Sollecitazioni: $N=-265.15$ $T_z=304.60$ $M_y=133.95$ $T_y=272.77$ $M_z=3.78$ $M_x=-34.32$
 Tensioni: $\sigma_N=-13.96$ $\sigma_M=-277.23$ $\tau=39.79$ $\sigma_{max}=-291.18$
 Tensioni: $\sigma_N=-13.96$ $\sigma_M=-5.54$ $\tau=83.95$ $\tau_{max}=83.95$
 Tensioni: $\sigma_N=-13.96$ $\sigma_M=-277.23$ $\tau=39.79$ $\sigma_{ID,max}=299.23$

Asta n. 97 (-133 -199) tub 120x80x4 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
 Sollecitazioni: $N, Ed=-407.20$ $M_y, Ed=333.02$ $M_z, Ed=102.82$
 Resistenze: $N_c, Rd=49761.90$ $M_y, c, Rd=1293.70$ $M_z, c, Rd=1639.45$ $L=44.00$
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $\lambda_y=9.90$ $N_{cr,y}=4020870.00$ $\lambda^*_y=0.11$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=13.64$ $N_{cr,z}=2115260.00$ $\lambda^*_z=0.16$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.95, 0.76, 0.95$
 Verifica YY: $0.01+0.23+0.06=0.30$
 Verifica ZZ: $0.01+0.19+0.06=0.25$

- Verifica in termini tensionali (4.2.5) - CC 9 $X_l=0.00$ - Classe 3
 Sollecitazioni: $N=-407.20$ $T_z=757.14$ $M_y=333.02$ $T_y=227.43$ $M_z=2.75$ $M_x=-9.72$
 Tensioni: $\sigma_N=-21.43$ $\sigma_M=-678.58$ $\tau=11.27$ $\sigma_{max}=-700.02$
 Tensioni: $\sigma_N=-21.43$ $\sigma_M=-4.03$ $\tau=120.97$ $\tau_{max}=120.97$
 Tensioni: $\sigma_N=-21.43$ $\sigma_M=-678.58$ $\tau=11.27$ $\sigma_{ID,max}=700.29$

Asta n. 98 (-134 -198) tub 120x80x4 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 10 - Classe 3
 Sollecitazioni: $N, Ed=-283.79$ $M_y, Ed=-144.92$ $M_z, Ed=14.69$
 Resistenze: $N_c, Rd=49761.90$ $M_y, c, Rd=1293.70$ $M_z, c, Rd=1639.45$ $L=44.00$
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $\lambda_y=9.90$ $N_{cr,y}=4020870.00$ $\lambda^*_y=0.11$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=13.64$ $N_{cr,z}=2115260.00$ $\lambda^*_z=0.16$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.95, 0.76, 0.95$
 Verifica YY: $0.01+0.11+0.01=0.12$
 Verifica ZZ: $0.01+0.09+0.01=0.10$

- Verifica in termini tensionali (4.2.5) - CC 9 $X_l=0.00$ - Classe 3
 Sollecitazioni: $N=-580.33$ $T_z=-314.13$ $M_y=-138.37$ $T_y=46.64$ $M_x=11.28$
 Tensioni: $\sigma_N=-30.54$ $\sigma_M=-280.12$ $\tau=13.08$ $\sigma_{max}=-310.66$
 Tensioni: $\sigma_N=-30.54$ $\sigma_M=0.00$ $\tau=58.59$ $\tau_{max}=58.59$
 Tensioni: $\sigma_N=-30.54$ $\sigma_M=-280.12$ $\tau=13.08$ $\sigma_{ID,max}=311.49$

Asta n. 99 (-135 -197) tub 120x80x4 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
 Sollecitazioni: $N, Ed=-830.82$ $M_y, Ed=172.33$ $M_z, Ed=-20.71$
 Resistenze: $N_c, Rd=49761.90$ $M_y, c, Rd=1293.70$ $M_z, c, Rd=1639.45$ $L=44.00$
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $\lambda_y=9.90$ $N_{cr,y}=4020870.00$ $\lambda^*_y=0.11$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=13.64$ $N_{cr,z}=2115260.00$ $\lambda^*_z=0.16$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.95, 0.76, 0.95$
 Verifica YY: $0.02+0.13+0.01=0.16$
 Verifica ZZ: $0.02+0.10+0.01=0.13$

- Verifica in termini tensionali (4.2.5) - CC 9 $X_l=0.00$ - Classe 3
 Sollecitazioni: $N=-830.82$ $T_z=391.92$ $M_y=172.33$ $T_y=-46.89$
 Tensioni: $\sigma_N=-43.73$ $\sigma_M=-348.88$ $\tau=0.00$ $\sigma_{max}=-392.60$
 Tensioni: $\sigma_N=-43.73$ $\sigma_M=-0.00$ $\tau=56.78$ $\tau_{max}=56.78$
 Tensioni: $\sigma_N=-43.73$ $\sigma_M=-348.88$ $\tau=4.76$ $\sigma_{ID,max}=392.69$

Asta n. 100 (-136 -196) tub 120x80x4 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
 Sollecitazioni: $N, Ed=-340.20$ $M_y, Ed=81.50$ $M_z, Ed=-5.65$
 Resistenze: $N_c, Rd=49761.90$ $M_y, c, Rd=1293.70$ $M_z, c, Rd=1639.45$ $L=44.00$
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $\lambda_y=9.90$ $N_{cr,y}=4020870.00$ $\lambda^*_y=0.11$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=13.64$ $N_{cr,z}=2115260.00$ $\lambda^*_z=0.16$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.95, 0.76, 0.95$
 Verifica YY: $0.01+0.06+0.00=0.07$
 Verifica ZZ: $0.01+0.05+0.00=0.06$

- Verifica in termini tensionali (4.2.5) - CC 9 $X_l=0.00$ - Classe 3
 Sollecitazioni: $N=-340.20$ $T_z=185.55$ $M_y=81.50$ $T_y=-12.91$ $M_x=8.93$
 Tensioni: $\sigma_N=-17.91$ $\sigma_M=-165.00$ $\tau=10.35$ $\sigma_{max}=-182.91$
 Tensioni: $\sigma_N=-17.91$ $\sigma_M=-0.00$ $\tau=37.23$ $\tau_{max}=37.23$
 Tensioni: $\sigma_N=-17.91$ $\sigma_M=-165.00$ $\tau=10.35$ $\sigma_{ID,max}=183.78$

Relazione di calcolo

Asta n. 101 (-137 -195) tub 120x80x4 Crit. 1

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- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 10 - Classe 3
Sollecitazioni: N,Ed=-521.73 My,Ed=83.15 Mz,Ed=-27.37
Resistenze: Nc,Rd=49761.90 My,c,Rd=1293.70 Mz,c,Rd=1639.45 L=44.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $\lambda_y=9.90$ Ncr,y=4020870.00 $\lambda^*_y=0.11$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=13.64$ Ncr,z=2115260.00 $\lambda^*_z=0.16$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
Kyy, Kyz, Kzy, Kzz=0.95, 0.95, 0.76, 0.95
Verifica YY: 0.01+0.06+0.02=0.09
Verifica ZZ: 0.01+0.05+0.02=0.08
 - Verifica in termini tensionali (4.2.5) - CC 10 Xl=0.00 - Classe 3
Sollecitazioni: N=-521.73 Tz=189.24 My=83.15 Ty=-60.91 Mx=14.42
Tensioni: $\sigma_N=-27.46$ $\sigma_M=-168.34$ $\tau=16.72$ $\sigma_{max}=-195.80$
Tensioni: $\sigma_N=-27.46$ $\sigma_M=-0.00$ $\tau=44.13$ $\tau_{max}=44.13$
Tensioni: $\sigma_N=-27.46$ $\sigma_M=-168.34$ $\tau=16.72$ $\sigma_{ID,max}=197.93$

Asta n. 102 (-138 -194) tub 120x80x4 Crit. 1

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- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
Sollecitazioni: N,Ed=-312.10 My,Ed=205.28 Mz,Ed=-101.05
Resistenze: Nc,Rd=49761.90 My,c,Rd=1293.70 Mz,c,Rd=1639.45 L=44.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $\lambda_y=9.90$ Ncr,y=4020870.00 $\lambda^*_y=0.11$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=13.64$ Ncr,z=2115260.00 $\lambda^*_z=0.16$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
Kyy, Kyz, Kzy, Kzz=0.95, 0.95, 0.76, 0.95
Verifica YY: 0.01+0.14+0.06=0.21
Verifica ZZ: 0.01+0.11+0.06=0.18
 - Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
Sollecitazioni: N=-312.10 Tz=466.78 My=205.28 Ty=-225.44 Mz=-1.85 Mx=22.24
Tensioni: $\sigma_N=-16.43$ $\sigma_M=-418.53$ $\tau=25.78$ $\sigma_{max}=-434.96$
Tensioni: $\sigma_N=-16.43$ $\sigma_M=-2.71$ $\tau=93.42$ $\tau_{max}=93.42$
Tensioni: $\sigma_N=-16.43$ $\sigma_M=-418.53$ $\tau=25.78$ $\sigma_{ID,max}=437.24$

Asta n. 103 (-4 -193) tub 120x80x4 Crit. 1

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- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 11 - Classe 3
Sollecitazioni: N,Ed=-271.84 My,Ed=166.65 Mz,Ed=-113.92
Resistenze: Nc,Rd=49761.90 My,c,Rd=1293.70 Mz,c,Rd=1639.45 L=44.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $\lambda_y=9.90$ Ncr,y=4020870.00 $\lambda^*_y=0.11$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=13.64$ Ncr,z=2115260.00 $\lambda^*_z=0.16$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
Kyy, Kyz, Kzy, Kzz=0.95, 0.95, 0.76, 0.95
Verifica YY: 0.01+0.12+0.07=0.19
Verifica ZZ: 0.01+0.10+0.07=0.17
 - Verifica in termini tensionali (4.2.5) - CC 11 Xl=0.00 - Classe 3
Sollecitazioni: N=-271.84 Tz=378.92 My=166.65 Ty=-250.99 Mz=-3.48 Mx=32.67
Tensioni: $\sigma_N=-14.31$ $\sigma_M=-342.93$ $\tau=37.87$ $\sigma_{max}=-357.24$
Tensioni: $\sigma_N=-14.31$ $\sigma_M=-5.09$ $\tau=92.79$ $\tau_{max}=92.79$
Tensioni: $\sigma_N=-14.31$ $\sigma_M=-342.93$ $\tau=37.87$ $\sigma_{ID,max}=363.21$

Asta n. 104 (-176 -192) tub 120x80x4 Crit. 1

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- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
Sollecitazioni: N,Ed=-208.41 My,Ed=-515.14 Mz,Ed=-130.04
Resistenze: Nc,Rd=49761.90 My,c,Rd=1293.70 Mz,c,Rd=1639.45 L=52.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $\lambda_y=11.70$ Ncr,y=2878850.00 $\lambda^*_y=0.13$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=16.13$ Ncr,z=1514480.00 $\lambda^*_z=0.19$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
Kyy, Kyz, Kzy, Kzz=0.95, 0.95, 0.76, 0.95
Verifica YY: 0.00+0.38+0.08=0.46
Verifica ZZ: 0.00+0.30+0.08=0.38
 - Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
Sollecitazioni: N=-208.41 Tz=-990.77 My=-515.14 Ty=-254.77 Mz=2.44 Mx=-29.40
Tensioni: $\sigma_N=-10.97$ $\sigma_M=-1046.77$ $\tau=34.08$ $\sigma_{max}=-1057.74$
Tensioni: $\sigma_N=-10.97$ $\sigma_M=3.57$ $\tau=177.63$ $\tau_{max}=177.63$
Tensioni: $\sigma_N=-10.97$ $\sigma_M=-1046.77$ $\tau=34.08$ $\sigma_{ID,max}=1059.39$

Asta n. 105 (-173 -191) tub 120x80x4 Crit. 1

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- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
Sollecitazioni: N,Ed=-127.29 My,Ed=-1106.21 Mz,Ed=-138.79
Resistenze: Nc,Rd=49761.90 My,c,Rd=1293.70 Mz,c,Rd=1639.45 L=52.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$

$\lambda_y=11.70$ Ncr,y=2878850.00 $\lambda^*_y=0.13$ Curva a: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=16.13$ Ncr,z=1514480.00 $\lambda^*_z=0.19$ Curva a: $\Phi_z=0.00$ $\chi_z=1.00$
 Kyy, Kyz, Kzy, Kzz=0.95, 0.95, 0.76, 0.95
 Verifica YY: 0.00+0.77+0.08=0.85
 Verifica ZZ: 0.00+0.62+0.08=0.70

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
 Sollecitazioni: N=-127.29 Tz=-2127.39 My=-1106.21 Ty=-268.27 Mx=-6.38
 Tensioni: $\sigma_N=-6.70$ $\sigma_M=-2239.48$ $\tau=7.40$ $\sigma_{max}=-2246.18$
 Tensioni: $\sigma_N=-6.70$ $\sigma_M=0.00$ $\tau=315.61$ $\tau_{max}=315.61$
 Tensioni: $\sigma_N=-6.70$ $\sigma_M=-2239.48$ $\tau=19.84$ $\sigma_{ID,max}=2246.44$

Asta n. 106 (-172 -190) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
 Sollecitazioni: N=-607.91 Tz=-2312.24 My=-1202.33 Ty=-686.86 Mz=6.84 Mx=-36.49
 Tensioni: $\sigma_N=-32.00$ $\sigma_M=-2445.01$ $\tau=42.31$ $\sigma_{max}=-2477.00$
 Tensioni: $\sigma_N=-32.00$ $\sigma_M=10.02$ $\tau=377.33$ $\tau_{max}=377.33$
 Tensioni: $\sigma_N=-32.00$ $\sigma_M=-2445.01$ $\tau=42.31$ $\sigma_{ID,max}=2478.09$

Asta n. 107 (-169 -189) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
 Sollecitazioni: N=439.46 Tz=-1865.77 My=-970.10 Ty=-34.92
 Tensioni: $\sigma_N=23.13$ $\sigma_M=1963.93$ $\tau=0.00$ $\sigma_{max}=1987.06$
 Tensioni: $\sigma_N=23.13$ $\sigma_M=0.00$ $\tau=270.31$ $\tau_{max}=270.31$
 Tensioni: $\sigma_N=23.13$ $\sigma_M=1963.93$ $\tau=3.54$ $\sigma_{ID,max}=1987.07$

Asta n. 108 (-168 -188) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
 Sollecitazioni: N=-992.00 Tz=-2462.56 My=-1280.50 Ty=-153.58 Mz=1.34 Mx=-3.87
 Tensioni: $\sigma_N=-52.21$ $\sigma_M=-2594.48$ $\tau=4.48$ $\sigma_{max}=-2646.69$
 Tensioni: $\sigma_N=-52.21$ $\sigma_M=1.97$ $\tau=361.25$ $\tau_{max}=361.25$
 Tensioni: $\sigma_N=-52.21$ $\sigma_M=-2594.48$ $\tau=4.48$ $\sigma_{ID,max}=2646.70$

Asta n. 109 (-165 -187) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
 Sollecitazioni: N=461.01 Tz=-1817.43 My=-944.99 Ty=54.28 Mz=-44.11 Mx=-3.14
 Tensioni: $\sigma_N=24.26$ $\sigma_M=1983.57$ $\tau=3.64$ $\sigma_{max}=2007.83$
 Tensioni: $\sigma_N=24.26$ $\sigma_M=-64.59$ $\tau=266.95$ $\tau_{max}=266.95$
 Tensioni: $\sigma_N=24.26$ $\sigma_M=1983.57$ $\tau=3.64$ $\sigma_{ID,max}=2007.84$

Asta n. 110 (-164 -186) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
 Sollecitazioni: N=-593.30 Tz=-2299.67 My=-1195.80 Ty=822.51 Mz=-7.97 Mx=39.84
 Tensioni: $\sigma_N=-31.23$ $\sigma_M=-2433.58$ $\tau=46.19$ $\sigma_{max}=-2464.81$
 Tensioni: $\sigma_N=-31.23$ $\sigma_M=11.67$ $\tau=379.41$ $\tau_{max}=379.41$
 Tensioni: $\sigma_N=-31.23$ $\sigma_M=-2433.58$ $\tau=46.19$ $\sigma_{ID,max}=2466.11$

Asta n. 111 (-161 -185) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
 Sollecitazioni: N=-115.05 Tz=-924.94 My=-480.90 Ty=124.56 Mz=3.76 Mx=9.04
 Tensioni: $\sigma_N=-6.06$ $\sigma_M=-979.58$ $\tau=10.48$ $\sigma_{max}=-985.64$
 Tensioni: $\sigma_N=-6.06$ $\sigma_M=-5.51$ $\tau=144.48$ $\tau_{max}=144.48$
 Tensioni: $\sigma_N=-6.06$ $\sigma_M=-979.58$ $\tau=10.48$ $\sigma_{ID,max}=985.80$

Asta n. 112 (-159 -184) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 11 Xl=0.00 - Classe 3
 Sollecitazioni: N=-108.08 Tz=1063.09 My=552.74 Ty=203.78 Mx=-23.43
 Tensioni: $\sigma_N=-5.69$ $\sigma_M=-1119.00$ $\tau=27.16$ $\sigma_{max}=-1124.69$
 Tensioni: $\sigma_N=-5.69$ $\sigma_M=0.00$ $\tau=181.18$ $\tau_{max}=181.18$
 Tensioni: $\sigma_N=-5.69$ $\sigma_M=-1119.00$ $\tau=27.16$ $\sigma_{ID,max}=1125.67$

Asta n. 113 (-158 -183) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
 Sollecitazioni: N=-580.67 Tz=2397.68 My=1246.77 Ty=817.75 Mz=-7.86 Mx=-35.20
 Tensioni: $\sigma_N=-30.56$ $\sigma_M=-2536.61$ $\tau=40.81$ $\sigma_{max}=-2567.17$
 Tensioni: $\sigma_N=-30.56$ $\sigma_M=11.51$ $\tau=388.22$ $\tau_{max}=388.22$
 Tensioni: $\sigma_N=-30.56$ $\sigma_M=-2536.61$ $\tau=40.81$ $\sigma_{ID,max}=2568.14$

Asta n. 114 (-155 -182) tub 120x80x4 Crit. 1

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- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
Sollecitazioni: N=441.45 Tz=1702.97 My=885.46 Ty=-34.59 Mz=1.81 Mx=8.68
Tensioni:  $\sigma_N=23.23$   $\sigma_M=1795.48$   $\tau=10.06$   $\sigma_{max}=1818.71$ 
Tensioni:  $\sigma_N=23.23$   $\sigma_M=2.65$   $\tau=256.78$   $\tau_{max}=256.78$ 
Tensioni:  $\sigma_N=23.23$   $\sigma_M=1795.48$   $\tau=10.06$   $\sigma_{ID,max}=1818.80$ 

Asta n. 115 (-153 -181) tub 120x80x4 Crit. 1
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- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
Sollecitazioni: N=-977.65 Tz=2431.59 My=1264.39 Ty=-167.63 Mz=1.40 Mx=2.28
Tensioni:  $\sigma_N=-51.46$   $\sigma_M=-2561.95$   $\tau=2.64$   $\sigma_{max}=-2613.40$ 
Tensioni:  $\sigma_N=-51.46$   $\sigma_M=2.05$   $\tau=354.92$   $\tau_{max}=354.92$ 
Tensioni:  $\sigma_N=-51.46$   $\sigma_M=-2561.95$   $\tau=2.64$   $\sigma_{ID,max}=2613.41$ 

Asta n. 116 (-152 -180) tub 120x80x4 Crit. 1
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- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
Sollecitazioni: N=440.89 Tz=1860.20 My=967.21 Ty=-68.79 Mz=3.84
Tensioni:  $\sigma_N=23.20$   $\sigma_M=1958.09$   $\tau=4.45$   $\sigma_{max}=1981.29$ 
Tensioni:  $\sigma_N=23.20$   $\sigma_M=0.00$   $\tau=273.95$   $\tau_{max}=273.95$ 
Tensioni:  $\sigma_N=23.20$   $\sigma_M=1958.09$   $\tau=11.43$   $\sigma_{ID,max}=1981.39$ 

Asta n. 117 (-149 -179) tub 120x80x4 Crit. 1
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- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
Sollecitazioni: N=-609.34 Tz=2327.15 My=1210.08 Ty=-732.92 Mz=7.24 Mx=37.72
Tensioni:  $\sigma_N=-32.07$   $\sigma_M=-2461.33$   $\tau=43.73$   $\sigma_{max}=-2493.40$ 
Tensioni:  $\sigma_N=-32.07$   $\sigma_M=10.60$   $\tau=380.92$   $\tau_{max}=380.92$ 
Tensioni:  $\sigma_N=-32.07$   $\sigma_M=-2461.33$   $\tau=43.73$   $\sigma_{ID,max}=2494.55$ 

Asta n. 118 (-148 -178) tub 120x80x4 Crit. 1
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- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
Sollecitazioni: N=-122.96 Tz=2111.97 My=1098.19 Ty=-306.46 Mz=1.12 Mx=9.61
Tensioni:  $\sigma_N=-6.47$   $\sigma_M=-2225.04$   $\tau=11.14$   $\sigma_{max}=-2231.51$ 
Tensioni:  $\sigma_N=-6.47$   $\sigma_M=1.64$   $\tau=317.12$   $\tau_{max}=317.12$ 
Tensioni:  $\sigma_N=-6.47$   $\sigma_M=-2225.04$   $\tau=11.14$   $\sigma_{ID,max}=2231.60$ 

Asta n. 119 (-145 -177) tub 120x80x4 Crit. 1
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- Verifica in termini tensionali (4.2.5) - CC 11 Xl=0.00 - Classe 3
Sollecitazioni: N=-154.68 Tz=1084.45 My=563.85 Ty=-248.29 Mz=2.49 Mx=30.15
Tensioni:  $\sigma_N=-8.14$   $\sigma_M=-1145.47$   $\tau=34.95$   $\sigma_{max}=-1153.61$ 
Tensioni:  $\sigma_N=-8.14$   $\sigma_M=3.65$   $\tau=192.07$   $\tau_{max}=192.07$ 
Tensioni:  $\sigma_N=-8.14$   $\sigma_M=-1145.47$   $\tau=34.95$   $\sigma_{ID,max}=1155.20$ 

Asta n. 199 (-29 -97) tub 120x80x4 Crit. 1
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- Verifica in termini tensionali (4.2.5) - CC 11 Xl=0.00 - Classe 3
Sollecitazioni: N=200.49 Tz=560.42 My=1120.79 Ty=13.49 Mz=-2.43 Mx=-2.69
Tensioni:  $\sigma_N=10.55$   $\sigma_M=2272.88$   $\tau=3.12$   $\sigma_{max}=2283.43$ 
Tensioni:  $\sigma_N=10.55$   $\sigma_M=3.56$   $\tau=84.31$   $\tau_{max}=84.31$ 
Tensioni:  $\sigma_N=10.55$   $\sigma_M=2272.88$   $\tau=3.12$   $\sigma_{ID,max}=2283.44$ 

Asta n. 201 (-49 -95) tub 120x80x4 Crit. 1
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- Verifica in termini tensionali (4.2.5) - CC 11 Xl=1.67 - Classe 3
Sollecitazioni: N=-987.80 Tz=-222.24 Ty=398.88 Mz=659.98 Mx=8.59
Tensioni:  $\sigma_N=-51.99$   $\sigma_M=-1054.32$   $\tau=9.96$   $\sigma_{max}=-1106.31$ 
Tensioni:  $\sigma_N=-51.99$   $\sigma_M=0.00$   $\tau=50.50$   $\tau_{max}=50.50$ 
Tensioni:  $\sigma_N=-51.99$   $\sigma_M=-1054.32$   $\tau=42.16$   $\sigma_{ID,max}=1108.72$ 

Asta n. 203 (-93 -51) tub 120x80x4 Crit. 1
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- Verifica in termini tensionali (4.2.5) - CC 9 Xl=1.67 - Classe 3
Sollecitazioni: N=-579.32 Tz=-237.94 My=397.60 Ty=-100.29 Mz=9.02
Tensioni:  $\sigma_N=-30.49$   $\sigma_M=-804.92$   $\tau=10.46$   $\sigma_{max}=-835.41$ 
Tensioni:  $\sigma_N=-30.49$   $\sigma_M=0.00$   $\tau=44.93$   $\tau_{max}=44.93$ 
Tensioni:  $\sigma_N=-30.49$   $\sigma_M=-804.92$   $\tau=10.46$   $\sigma_{ID,max}=835.60$ 

Asta n. 205 (-91 -53) tub 120x80x4 Crit. 1
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- Verifica in termini tensionali (4.2.5) - CC 11 Xl=1.67 - Classe 3
Sollecitazioni: N=-1740.76 Tz=-357.39 My=595.71 Ty=52.36 Mx=-2.33
Tensioni:  $\sigma_N=-91.62$   $\sigma_M=-1205.99$   $\tau=2.71$   $\sigma_{max}=-1297.61$ 
Tensioni:  $\sigma_N=-91.62$   $\sigma_M=0.00$   $\tau=54.49$   $\tau_{max}=54.49$ 

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Tensioni: $\sigma_N = -91.62$ $\sigma_M = -1205.99$ $\tau = 2.71$ $\sigma_{ID, \max} = 1297.62$

Asta n. 207 (-89 -55) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 11 $X_1 = 1.67$ - Classe 3
Sollecitazioni: $N = -729.94$ $T_z = -270.95$ $M_y = 451.67$ $T_y = 11.08$ $M_x = 3.18$
Tensioni: $\sigma_N = -38.42$ $\sigma_M = -914.38$ $\tau = 3.69$ $\sigma_{\max} = -952.80$
Tensioni: $\sigma_N = -38.42$ $\sigma_M = -0.00$ $\tau = 42.94$ $\tau_{\max} = 42.94$
Tensioni: $\sigma_N = -38.42$ $\sigma_M = -914.38$ $\tau = 4.81$ $\sigma_{ID, \max} = 952.84$

Asta n. 208 (-88 -58) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 11 $X_1 = 1.67$ - Classe 3
Sollecitazioni: $N = -1181.89$ $T_z = -321.35$ $M_y = 535.63$ $T_y = 239.66$ $M_x = 1.89$
Tensioni: $\sigma_N = -62.20$ $\sigma_M = -1087.39$ $\tau = 0.00$ $\sigma_{\max} = -1149.59$
Tensioni: $\sigma_N = -62.20$ $\sigma_M = 2.77$ $\tau = 46.59$ $\tau_{\max} = 46.59$
Tensioni: $\sigma_N = -62.20$ $\sigma_M = -1087.14$ $\tau = 14.68$ $\sigma_{ID, \max} = 1149.62$

Asta n. 211 (-85 -59) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 11 $X_1 = 0.00$ - Classe 3
Sollecitazioni: $N = -771.64$ $T_z = -159.68$ $T_y = 273.96$ $M_z = -456.94$ $M_x = 1.95$
Tensioni: $\sigma_N = -40.61$ $\sigma_M = -729.98$ $\tau = 2.26$ $\sigma_{\max} = -770.59$
Tensioni: $\sigma_N = -40.61$ $\sigma_M = -0.00$ $\tau = 30.11$ $\tau_{\max} = 30.11$
Tensioni: $\sigma_N = -40.61$ $\sigma_M = -729.98$ $\tau = 20.88$ $\sigma_{ID, \max} = 771.44$

Asta n. 212 (-62 -84) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 11 $X_1 = 0.00$ - Classe 3
Sollecitazioni: $N = -666.88$ $T_z = 533.36$ $M_y = 711.15$ $T_y = -284.94$ $M_x = 15.54$
Tensioni: $\sigma_N = -35.10$ $\sigma_M = -1439.69$ $\tau = 18.01$ $\sigma_{\max} = -1474.79$
Tensioni: $\sigma_N = -35.10$ $\sigma_M = -0.00$ $\tau = 95.31$ $\tau_{\max} = 95.31$
Tensioni: $\sigma_N = -35.10$ $\sigma_M = -1439.69$ $\tau = 18.01$ $\sigma_{ID, \max} = 1475.12$

Asta n. 213 (-63 -83) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 11 $X_1 = 0.00$ - Classe 3
Sollecitazioni: $N = -1209.45$ $T_z = 770.42$ $M_y = 1027.17$ $T_y = -286.09$ $M_z = 1.47$ $M_x = 25.79$
Tensioni: $\sigma_N = -63.66$ $\sigma_M = -2081.81$ $\tau = 29.90$ $\sigma_{\max} = -2145.47$
Tensioni: $\sigma_N = -63.66$ $\sigma_M = 2.15$ $\tau = 141.53$ $\tau_{\max} = 141.53$
Tensioni: $\sigma_N = -63.66$ $\sigma_M = -2081.81$ $\tau = 29.90$ $\sigma_{ID, \max} = 2146.09$

Asta n. 214 (-66 -82) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 $X_1 = 0.00$ - Classe 3
Sollecitazioni: $N = -532.66$ $T_z = 838.10$ $M_y = 1117.39$ $T_y = -27.39$ $M_x = -5.50$
Tensioni: $\sigma_N = -28.03$ $\sigma_M = -2262.12$ $\tau = 6.38$ $\sigma_{\max} = -2290.15$
Tensioni: $\sigma_N = -28.03$ $\sigma_M = -0.00$ $\tau = 127.80$ $\tau_{\max} = 127.80$
Tensioni: $\sigma_N = -28.03$ $\sigma_M = -2262.12$ $\tau = 9.16$ $\sigma_{ID, \max} = 2290.21$

Asta n. 215 (-68 -81) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 $X_1 = 0.00$ - Classe 3
Sollecitazioni: $N = -1606.53$ $T_z = 933.62$ $M_y = 1244.78$ $T_y = -45.39$
Tensioni: $\sigma_N = -84.55$ $\sigma_M = -2520.02$ $\tau = 0.00$ $\sigma_{\max} = -2604.57$
Tensioni: $\sigma_N = -84.55$ $\sigma_M = -0.00$ $\tau = 135.26$ $\tau_{\max} = 135.26$
Tensioni: $\sigma_N = -84.55$ $\sigma_M = -2520.02$ $\tau = 4.61$ $\sigma_{ID, \max} = 2604.59$

Asta n. 216 (-70 -80) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 $X_1 = 0.00$ - Classe 3
Sollecitazioni: $N = -482.01$ $T_z = 866.44$ $M_y = 1155.93$ $T_y = 112.97$ $M_x = -9.40$
Tensioni: $\sigma_N = -25.37$ $\sigma_M = -2340.15$ $\tau = 10.90$ $\sigma_{\max} = -2365.52$
Tensioni: $\sigma_N = -25.37$ $\sigma_M = -0.00$ $\tau = 136.43$ $\tau_{\max} = 136.43$
Tensioni: $\sigma_N = -25.37$ $\sigma_M = -2340.15$ $\tau = 10.90$ $\sigma_{ID, \max} = 2365.59$

Asta n. 217 (-72 -79) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 $X_1 = 0.00$ - Classe 3
Sollecitazioni: $N = -871.91$ $T_z = 730.52$ $M_y = 975.00$ $T_y = 446.14$ $M_z = -3.76$ $M_x = -67.88$
Tensioni: $\sigma_N = -45.89$ $\sigma_M = -1979.85$ $\tau = 78.70$ $\sigma_{\max} = -2025.74$
Tensioni: $\sigma_N = -45.89$ $\sigma_M = 5.50$ $\tau = 184.57$ $\tau_{\max} = 184.57$
Tensioni: $\sigma_N = -45.89$ $\sigma_M = -1979.85$ $\tau = 78.70$ $\sigma_{ID, \max} = 2030.33$

Asta n. 249 (-25 -47) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 $X_1 = 0.00$ - Classe 3

Relazione di calcolo

Sollecitazioni: $N=-768.90$ $T_z=-888.57$ $M_y=-888.58$ $T_y=576.35$ $M_z=-18.05$ $M_x=29.53$
 Tensioni: $\sigma_N=-40.47$ $\sigma_M=-1827.74$ $\tau=34.24$ $\sigma_{max}=-1868.21$
 Tensioni: $\sigma_N=-40.47$ $\sigma_M=26.43$ $\tau=163.03$ $\tau_{max}=163.03$
 Tensioni: $\sigma_N=-40.47$ $\sigma_M=-1827.74$ $\tau=34.24$ $\sigma_{ID,max}=1869.15$

Asta n. 250 (-35 -46) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 11 $X_l=0.00$ - Classe 3
 Sollecitazioni: $N=23.41$ $T_z=-1149.88$ $M_y=-1149.86$ $T_y=13.57$ $M_z=1.37$ $M_x=4.94$
 Tensioni: $\sigma_N=1.23$ $\sigma_M=2330.04$ $\tau=5.72$ $\sigma_{max}=2331.28$
 Tensioni: $\sigma_N=1.23$ $\sigma_M=-2.01$ $\tau=172.31$ $\tau_{max}=172.31$
 Tensioni: $\sigma_N=1.23$ $\sigma_M=2330.04$ $\tau=5.72$ $\sigma_{ID,max}=2331.30$

Asta n. 251 (-45 -36) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 11 $X_l=1.00$ - Classe 3
 Sollecitazioni: $N=-1514.71$ $T_z=-1439.57$ $M_y=1439.58$ $T_y=47.05$ $M_z=1.93$ $M_x=-2.99$
 Tensioni: $\sigma_N=-79.72$ $\sigma_M=-2917.45$ $\tau=3.47$ $\sigma_{max}=-2997.17$
 Tensioni: $\sigma_N=-79.72$ $\sigma_M=2.82$ $\tau=212.03$ $\tau_{max}=212.03$
 Tensioni: $\sigma_N=-79.72$ $\sigma_M=-2917.45$ $\tau=3.47$ $\sigma_{ID,max}=2997.18$

Asta n. 252 (-44 -34) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 11 $X_l=1.00$ - Classe 3
 Sollecitazioni: $N=144.88$ $T_z=-1150.05$ $M_y=1150.07$ $T_y=56.99$ $M_z=-1.75$ $M_x=6.10$
 Tensioni: $\sigma_N=7.63$ $\sigma_M=2331.07$ $\tau=7.07$ $\sigma_{max}=2338.69$
 Tensioni: $\sigma_N=7.63$ $\sigma_M=2.56$ $\tau=173.69$ $\tau_{max}=173.69$
 Tensioni: $\sigma_N=7.63$ $\sigma_M=2331.07$ $\tau=7.07$ $\sigma_{ID,max}=2338.73$

Asta n. 253 (-43 -33) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 11 $X_l=1.00$ - Classe 3
 Sollecitazioni: $N=-1214.91$ $T_z=-1099.92$ $M_y=1099.91$ $T_y=360.94$ $M_z=13.32$
 Tensioni: $\sigma_N=-63.94$ $\sigma_M=-2248.01$ $\tau=0.00$ $\sigma_{max}=-2311.95$
 Tensioni: $\sigma_N=-63.94$ $\sigma_M=19.51$ $\tau=159.38$ $\tau_{max}=159.38$
 Tensioni: $\sigma_N=-63.94$ $\sigma_M=-2248.01$ $\tau=0.00$ $\sigma_{ID,max}=2311.95$

Asta n. 254 (-42 -32) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 $X_l=1.00$ - Classe 3
 Sollecitazioni: $N=-259.34$ $T_z=-548.51$ $M_y=548.54$ $T_y=25.33$ $M_z=-1.66$ $M_x=-2.83$
 Tensioni: $\sigma_N=-13.65$ $\sigma_M=-1113.16$ $\tau=3.28$ $\sigma_{max}=-1126.81$
 Tensioni: $\sigma_N=-13.65$ $\sigma_M=-2.44$ $\tau=82.74$ $\tau_{max}=82.74$
 Tensioni: $\sigma_N=-13.65$ $\sigma_M=-1113.16$ $\tau=3.28$ $\sigma_{ID,max}=1126.82$

Asta n. 255 (-26 -41) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 $X_l=0.00$ - Classe 3
 Sollecitazioni: $N=-632.42$ $T_z=484.07$ $M_y=968.18$ $T_y=248.71$ $M_z=-21.59$ $M_x=-26.53$
 Tensioni: $\sigma_N=-33.29$ $\sigma_M=-1994.53$ $\tau=30.76$ $\sigma_{max}=-2027.82$
 Tensioni: $\sigma_N=-33.29$ $\sigma_M=31.62$ $\tau=100.91$ $\tau_{max}=100.91$
 Tensioni: $\sigma_N=-33.29$ $\sigma_M=-1994.53$ $\tau=30.76$ $\sigma_{ID,max}=2028.52$

Asta n. 256 (-27 -40) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 11 $X_l=0.00$ - Classe 3
 Sollecitazioni: $N=126.23$ $T_z=573.72$ $M_y=1147.34$ $T_y=3.21$ $M_x=-1.32$
 Tensioni: $\sigma_N=6.64$ $\sigma_M=2322.74$ $\tau=1.53$ $\sigma_{max}=2329.39$
 Tensioni: $\sigma_N=6.64$ $\sigma_M=-0.00$ $\tau=84.65$ $\tau_{max}=84.65$
 Tensioni: $\sigma_N=6.64$ $\sigma_M=2322.74$ $\tau=1.86$ $\sigma_{ID,max}=2329.39$

Asta n. 257 (-28 -39) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 11 $X_l=0.00$ - Classe 3
 Sollecitazioni: $N=-1364.78$ $T_z=642.65$ $M_y=1285.22$ $T_y=-11.29$ $M_z=1.07$ $M_x=1.74$
 Tensioni: $\sigma_N=-71.83$ $\sigma_M=-2603.59$ $\tau=2.02$ $\sigma_{max}=-2675.42$
 Tensioni: $\sigma_N=-71.83$ $\sigma_M=1.57$ $\tau=95.13$ $\tau_{max}=95.13$
 Tensioni: $\sigma_N=-71.83$ $\sigma_M=-2603.59$ $\tau=2.02$ $\sigma_{ID,max}=2675.42$

Asta n. 258 (-38 -30) tub 120x80x4 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 11 $X_l=2.00$ - Classe 3
 Sollecitazioni: $N=-955.90$ $T_z=579.79$ $M_y=-1159.47$ $T_y=141.92$ $M_z=15.86$ $M_x=7.06$
 Tensioni: $\sigma_N=-50.31$ $\sigma_M=-2372.64$ $\tau=8.19$ $\sigma_{max}=-2422.95$
 Tensioni: $\sigma_N=-50.31$ $\sigma_M=23.22$ $\tau=92.19$ $\tau_{max}=92.19$
 Tensioni: $\sigma_N=-50.31$ $\sigma_M=-2372.64$ $\tau=8.19$ $\sigma_{ID,max}=2422.99$

Relazione di calcolo

Asta n. 259 (-37 -31) tub 120x80x4 Crit. 1

 - Verifica in termini tensionali (4.2.5) - CC 11 X1=2.00 - Classe 3
 Sollecitazioni: N=-252.20 T_z=324.46 M_y=-648.92 T_y=42.39 M_z=-1.14 M_x=2.52
 Tensioni: σ_N =-13.27 σ_M =-1315.53 τ =2.92 σ_{max} =-1328.80
 Tensioni: σ_N =-13.27 σ_M =-1.67 τ =49.93 τ_{max} =49.93
 Tensioni: σ_N =-13.27 σ_M =-1315.53 τ =2.92 $\sigma_{ID,max}$ =1328.81

Asta n. 1002 (-72 117) HEA160 Crit. 1

 - Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 11 - Classe 3
 L_{cr}=1.90 Curva b: α_{imp} =0.34 k_c=0.94 ψ =1.75 M_{cr}=53821.60 λ_{LT} =0.34
 $\lambda_{LT,0}$ =0.40 β_{LT} =0.75 Φ_{LT} =0.53 β_{LT} =0.75 f=0.98 χ_{LT} =1.00
 CC 11 M_y,Ed=-3477.45 M_y,b,Rd=5765.43 M_y,Ed/M_y,b,Rd=0.60

 - Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
 Sollecitazioni: N,Ed=-118.84 M_y,Ed=-3736.44 M_z,Ed=-387.46
 Resistenze: N_c,Rd=101547.00 M_y,c,Rd=5765.43 M_z,c,Rd=2015.27 L=190.00
 α_{my} , α_{mz} , α_{LT} =0.95, 0.95, 0.95
 L_{cr}=1.90 Curva b: α_{imp} =0.34 k_c=0.94 ψ =1.75 M_{cr}=53821.60 λ_{LT} =0.34
 $\lambda_{LT,0}$ =0.40 Φ_{LT} =0.53 β_{LT} =0.75 f=0.98 χ_{LT} =1.00
 λ_y =28.92 N_{cr,y}=960536.00 λ^*_y =0.33 Curva b: Φ_y =0.58 χ_y =0.95
 λ_z =47.68 N_{cr,z}=353421.00 λ^*_z =0.55 Curva c: Φ_z =0.74 χ_z =0.82
 K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.95, 0.76, 0.95
 Verifica YY: 0.00+0.62+0.18=0.80
 Verifica ZZ: 0.00+0.49+0.18=0.68

Asta n. 1002 (-26 122) HEA160 Crit. 1

 - Verifica freccia massima per soli carichi accidentali - CC 12
 f_{z,L}=0.02 (L/1189)

 - Verifica freccia massima carichi totali - CC 12
 f_{z,L}=0.07 (L/343)

Asta n. 1002 (-72 117) HEA160 Crit. 1

 - Verifica in termini tensionali (4.2.5) - CC 9 X1=0.00 - Classe 3
 Sollecitazioni: N=-118.84 T_z=-1411.39 M_y=-3736.44 T_y=-361.37 M_z=271.68 M_x=-3.89
 Tensioni: σ_N =-3.06 σ_M =-2050.41 τ =32.39 σ_{max} =-2053.48
 Tensioni: σ_N =-3.06 σ_M =-13.24 τ =186.56 τ_{max} =186.56
 Tensioni: σ_N =-3.06 σ_M =-2050.41 τ =32.39 $\sigma_{ID,max}$ =2054.25

Asta n. 1002 (-164 -144) HEA160-IPE160 Crit. 1

 - Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 9 - Classe 3
 L_{cr}=2.35 Curva b: α_{imp} =0.34 k_c=0.94 ψ =1.69 M_{cr}=36879.40 λ_{LT} =0.41
 $\lambda_{LT,0}$ =0.40 β_{LT} =0.75 Φ_{LT} =0.56 β_{LT} =0.75 f=0.98 χ_{LT} =1.00
 CC 9 M_y,Ed=-3556.71 M_y,b,Rd=5765.43 M_y,Ed/M_y,b,Rd=0.62

Asta n. 1002 (122 -164) HEA160-IPE160 Crit. 1

 - Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
 Sollecitazioni: N,Ed=-202.12 M_y,Ed=-1388.93 M_z,Ed=-452.15
 Resistenze: N_c,Rd=101547.00 M_y,c,Rd=5765.43 M_z,c,Rd=2015.27 L=50.00
 α_{my} , α_{mz} , α_{LT} =0.95, 0.95, 0.95
 L_{cr}=0.50 Curva b: α_{imp} =0.34 k_c=0.94 ψ =1.75 M_{cr}=648560.00 λ_{LT} =0.10
 $\lambda_{LT,0}$ =0.40 Φ_{LT} =0.45 β_{LT} =0.75 f=1.00 χ_{LT} =1.00
 λ_y =7.61 N_{cr,y}=13870100.00 λ^*_y =0.09 Curva b: Φ_y =0.00 χ_y =1.00
 λ_z =12.55 N_{cr,z}=5103400.00 λ^*_z =0.14 Curva c: Φ_z =0.00 χ_z =1.00
 K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.95, 0.76, 0.95
 Verifica YY: 0.00+0.23+0.21=0.44
 Verifica ZZ: 0.00+0.18+0.21=0.40

Asta n. 1002 (-158 114) HEA160-IPE160 Crit. 1

 - Verifica freccia massima per soli carichi accidentali - CC 12
 f_{z,L}=0.01 (L/3227)

 - Verifica freccia massima carichi totali - CC 12
 f_{z,G}=0.08 (L/562)

Asta n. 1002 (-164 -144) HEA160-IPE160 Crit. 1

 - Verifica in termini tensionali (4.2.5) - CC 9 X1=2.35 - Classe 3
 Sollecitazioni: N=2097.55 T_z=371.38 M_y=-3556.71 T_y=128.56 M_z=213.38 M_x=-1.86
 Tensioni: σ_N =54.10 σ_M =1893.01 τ =15.47 σ_{max} =1947.11
 Tensioni: σ_N =54.10 σ_M =10.40 τ =50.91 τ_{max} =50.91

Tensioni: $\sigma_N=54.10$ $\sigma_M=1893.01$ $\tau=15.47$ $\sigma_{ID,max}=1947.29$

Asta n. 1003 (-68 119) HEA160-IPE160 Crit. 1

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- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 9 - Classe 3
 $L_{cr}=1.90$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=53821.60$ $\lambda_{LT}=0.34$
 $\lambda_{LT,0}=0.40$ $\beta_{LT}=0.75$ $\Phi_{LT}=0.53$ $\beta_{LT}=0.75$ $f=0.98$ $\chi_{LT}=1.00$
 $CC\ 9$ $My,Ed=-4968.55$ $My,b,Rd=5765.43$ $My,Ed/My,b,Rd=0.86$
 - Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 11 - Classe 3
 Sollecitazioni: $N,Ed=-79.62$ $My,Ed=-4998.50$ $Mz,Ed=-45.55$
 Resistenze: $N_c,Rd=101547.00$ $My,c,Rd=5765.43$ $Mz,c,Rd=2015.27$ $L=190.00$
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $L_{cr}=1.90$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=53821.60$ $\lambda_{LT}=0.34$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.53$ $\beta_{LT}=0.75$ $f=0.98$ $\chi_{LT}=1.00$
 $\lambda_y=28.92$ $N_{cr,y}=960536.00$ $\lambda^*_y=0.33$ Curva b: $\Phi_y=0.58$ $\chi_y=0.95$
 $\lambda_z=47.68$ $N_{cr,z}=353421.00$ $\lambda^*_z=0.55$ Curva c: $\Phi_z=0.74$ $\chi_z=0.82$
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.95, 0.76, 0.95$
 Verifica YY: $0.00+0.82+0.02=0.85$
 Verifica ZZ: $0.00+0.66+0.02=0.68$

Asta n. 1003 (-28 124) HEA160-IPE160 Crit. 1

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- Verifica freccia massima per soli carichi accidentali - CC 12
 $f_{z,L}=0.01$ (L/1515)
 - Verifica freccia massima carichi totali - CC 12
 $f_{z,G}=0.08$ (L/273)

Asta n. 1003 (-68 119) HEA160-IPE160 Crit. 1

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- Verifica in termini tensionali (4.2.5) - CC 11 $X1=0.00$ - Classe 3
 Sollecitazioni: $N=-79.62$ $T_z=-2020.32$ $My=-4998.50$ $T_y=47.75$ $M_z=-45.55$
 Tensioni: $\sigma_N=-2.05$ $\sigma_M=-2329.86$ $\tau=0.00$ $\sigma_{max}=-2331.91$
 Tensioni: $\sigma_N=-2.05$ $\sigma_M=-2.22$ $\tau=262.40$ $\tau_{max}=262.40$
 Tensioni: $\sigma_N=-2.05$ $\sigma_M=-2329.86$ $\tau=0.00$ $\sigma_{ID,max}=2331.91$

Asta n. 1004 (-15 -55) HEA160-IPE160 Crit. 1

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- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 11 - Classe 3
 $L_{cr}=1.90$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=53821.60$ $\lambda_{LT}=0.34$
 $\lambda_{LT,0}=0.40$ $\beta_{LT}=0.75$ $\Phi_{LT}=0.53$ $\beta_{LT}=0.75$ $f=0.98$ $\chi_{LT}=1.00$
 $CC\ 11$ $My,Ed=-3792.13$ $My,b,Rd=5765.43$ $My,Ed/My,b,Rd=0.66$

Asta n. 1004 (-20 -151) HEA160-IPE160 Crit. 1

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- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 10 - Classe 3
 Sollecitazioni: $N,Ed=-31.52$ $My,Ed=-1061.02$ $Mz,Ed=-78.12$
 Resistenze: $N_c,Rd=101547.00$ $My,c,Rd=5765.43$ $Mz,c,Rd=2015.27$ $L=50.00$
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $L_{cr}=0.50$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=648560.00$ $\lambda_{LT}=0.10$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.45$ $\beta_{LT}=0.75$ $f=1.00$ $\chi_{LT}=1.00$
 $\lambda_y=7.61$ $N_{cr,y}=13870100.00$ $\lambda^*_y=0.09$ Curva b: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=12.55$ $N_{cr,z}=5103400.00$ $\lambda^*_z=0.14$ Curva c: $\Phi_z=0.00$ $\chi_z=1.00$
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.95, 0.76, 0.95$
 Verifica YY: $0.00+0.17+0.04=0.21$
 Verifica ZZ: $0.00+0.14+0.04=0.18$

Asta n. 1004 (-55 -56) HEA160-IPE160 Crit. 1

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- Verifica freccia massima per soli carichi accidentali - CC 12
 $f_{z,L}=0.06$ (L/3323)
 - Verifica freccia massima carichi totali - CC 12
 $f_{z,L}=0.29$ (L/647)

Asta n. 1004 (-66 -15) HEA160-IPE160 Crit. 1

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- Verifica in termini tensionali (4.2.5) - CC 11 $X1=0.00$ - Classe 3
 Sollecitazioni: $N=501.90$ $T_z=-1234.56$ $My=-3770.82$ $T_y=34.28$ $M_z=-28.29$
 Tensioni: $\sigma_N=12.94$ $\sigma_M=1749.73$ $\tau=0.00$ $\sigma_{max}=1762.67$
 Tensioni: $\sigma_N=12.94$ $\sigma_M=-1.38$ $\tau=160.35$ $\tau_{max}=160.35$
 Tensioni: $\sigma_N=12.94$ $\sigma_M=1749.73$ $\tau=0.00$ $\sigma_{ID,max}=1762.67$

Asta n. 1005 (105 106) HEA160 Crit. 1

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- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 10 - Classe 3
 $L_{cr}=2.50$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=34597.10$ $\lambda_{LT}=0.42$

$\lambda_{LT,0}=0.40$ $\beta_{LT}=0.75$ $\Phi_{LT}=0.57$ $\beta_{LT}=0.75$ $f=0.98$ $\chi_{LT}=1.00$
 CC 10 My,Ed=-324.98 My,b,Rd=5765.43 My,Ed/My,b,Rd=0.06

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 11 - Classe 3
 Sollecitazioni: N,Ed=-658.51 My,Ed=-324.98 Mz,Ed=-36.67
 Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=250.00
 α_{my} , α_{mz} , $\alpha_{LT}=0.95$, 0.95, 0.95
 $L_{cr}=2.50$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.75$ M,cr=34597.10 $\lambda_{LT}=0.42$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.57$ $\beta_{LT}=0.75$ $f=0.98$ $\chi_{LT}=1.00$
 $\lambda_y=38.06$ Ncr,y=554806.00 $\lambda_y^*=0.44$ Curva b: $\Phi_y=0.64$ $\chi_y=0.91$
 $\lambda_z=62.74$ Ncr,z=204136.00 $\lambda_z^*=0.72$ Curva c: $\Phi_z=0.89$ $\chi_z=0.71$
 Kyy, Kyz, Kzy, Kzz=0.95, 0.95, 0.76, 0.95
 Verifica YY: 0.01+0.05+0.02=0.08
 Verifica ZZ: 0.01+0.04+0.02=0.07

- Verifica freccia massima carichi totali - CC 12
 $f_{z,L}=0.03$ (L/6805)

- Verifica in termini tensionali (4.2.5) - CC 11 X1=1.36 - Classe 3
 Sollecitazioni: N=-658.51 Tz=-50.33 My=-322.29 Ty=-29.36 Mz=-5.33
 Tensioni: $\sigma_N=-16.98$ $\sigma_M=-153.34$ $\tau=0.00$ $\sigma_{max}=-170.32$
 Tensioni: $\sigma_N=-16.98$ $\sigma_M=-0.26$ $\tau=6.54$ $\tau_{max}=6.54$
 Tensioni: $\sigma_N=-16.98$ $\sigma_M=-153.34$ $\tau=0.00$ $\sigma_{ID,max}=170.32$

Asta n. 1005 (-58 120) HEA160-IPE160 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 9 - Classe 3
 $L_{cr}=1.90$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.75$ M,cr=53821.60 $\lambda_{LT}=0.34$
 $\lambda_{LT,0}=0.40$ $\beta_{LT}=0.75$ $\Phi_{LT}=0.53$ $\beta_{LT}=0.75$ $f=0.98$ $\chi_{LT}=1.00$
 CC 9 My,Ed=-4227.97 My,b,Rd=5765.43 My,Ed/My,b,Rd=0.73

Asta n. 1005 (120 -63) HEA160-IPE160 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 11 - Classe 3
 Sollecitazioni: N,Ed=-268.50 My,Ed=-4203.30 Mz,Ed=-233.59
 Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=190.00
 α_{my} , α_{mz} , $\alpha_{LT}=0.95$, 0.95, 0.95
 $L_{cr}=1.90$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.75$ M,cr=53821.60 $\lambda_{LT}=0.34$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.53$ $\beta_{LT}=0.75$ $f=0.98$ $\chi_{LT}=1.00$
 $\lambda_y=28.92$ Ncr,y=960536.00 $\lambda_y^*=0.33$ Curva b: $\Phi_y=0.58$ $\chi_y=0.95$
 $\lambda_z=47.68$ Ncr,z=353421.00 $\lambda_z^*=0.55$ Curva c: $\Phi_z=0.74$ $\chi_z=0.82$
 Kyy, Kyz, Kzy, Kzz=0.95, 0.95, 0.76, 0.95
 Verifica YY: 0.00+0.69+0.11=0.81
 Verifica ZZ: 0.00+0.55+0.11=0.67

Asta n. 1005 (125 -30) HEA160-IPE160 Crit. 1

- Verifica freccia massima per soli carichi accidentali - CC 12
 $f_{z,L}=0.01$ (L/1736)

- Verifica freccia massima carichi totali - CC 12
 $f_{z,L}=0.07$ (L/305)

Asta n. 1005 (120 -63) HEA160-IPE160 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 11 X1=1.90 - Classe 3
 Sollecitazioni: N=-268.50 Tz=1584.36 My=-4203.30 Ty=221.25 Mz=169.98 Mx=1.65
 Tensioni: $\sigma_N=-6.92$ $\sigma_M=-2130.33$ $\tau=13.73$ $\sigma_{max}=-2137.25$
 Tensioni: $\sigma_N=-6.92$ $\sigma_M=-8.28$ $\tau=206.34$ $\tau_{max}=206.34$
 Tensioni: $\sigma_N=-6.92$ $\sigma_M=-2130.33$ $\tau=13.73$ $\sigma_{ID,max}=2137.39$

Asta n. 1006 (-62 121) HEA160 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 11 - Classe 3
 $L_{cr}=1.90$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.75$ M,cr=53821.60 $\lambda_{LT}=0.34$
 $\lambda_{LT,0}=0.40$ $\beta_{LT}=0.75$ $\Phi_{LT}=0.53$ $\beta_{LT}=0.75$ $f=0.98$ $\chi_{LT}=1.00$
 CC 11 My,Ed=-2431.22 My,b,Rd=5765.43 My,Ed/My,b,Rd=0.42

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
 Sollecitazioni: N,Ed=-211.10 My,Ed=-2396.94 Mz,Ed=218.18
 Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=190.00
 α_{my} , α_{mz} , $\alpha_{LT}=0.95$, 0.95, 0.95
 $L_{cr}=1.90$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.75$ M,cr=53821.60 $\lambda_{LT}=0.34$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.53$ $\beta_{LT}=0.75$ $f=0.98$ $\chi_{LT}=1.00$
 $\lambda_y=28.92$ Ncr,y=960536.00 $\lambda_y^*=0.33$ Curva b: $\Phi_y=0.58$ $\chi_y=0.95$
 $\lambda_z=47.68$ Ncr,z=353421.00 $\lambda_z^*=0.55$ Curva c: $\Phi_z=0.74$ $\chi_z=0.82$
 Kyy, Kyz, Kzy, Kzz=0.95, 0.95, 0.76, 0.95
 Verifica YY: 0.00+0.40+0.10=0.50

Relazione di calcolo

Verifica ZZ: $0.00+0.32+0.10=0.42$

Asta n. 1006 (-31 126) HEA160 Crit. 1

- Verifica freccia massima per soli carichi accidentali - CC 12
 $f_{z,L}=0.01$ (L/3343)

- Verifica freccia massima carichi totali - CC 12
 $f_{z,L}=0.04$ (L/537)

Asta n. 1006 (-62 121) HEA160 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 11 $X_1=0.00$ - Classe 3
Sollecitazioni: $N=633.86$ $T_z=-954.82$ $M_y=-2431.22$ $T_y=229.20$ $M_z=-161.66$
Tensioni: $\sigma_N=16.35$ $\sigma_M=1314.51$ $\tau=0.00$ $\sigma_{max}=1330.86$
Tensioni: $\sigma_N=16.35$ $\sigma_M=-7.88$ $\tau=124.02$ $\tau_{max}=124.02$
Tensioni: $\sigma_N=16.35$ $\sigma_M=1314.51$ $\tau=0.00$ $\sigma_{TD,max}=1330.86$

Asta n. 1006 (-173 -139) HEA160-IPE160 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 9 - Classe 3
 $L_{cr}=2.35$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.74$ $M_{cr}=37776.50$ $\lambda_{LT}=0.40$
 $\lambda_{LT,0}=0.40$ $\beta_{LT}=0.75$ $\Phi_{LT}=0.56$ $\beta_{LT}=0.75$ $f=0.98$ $\chi_{LT}=1.00$
CC 9 $M_y, Ed=-3189.59$ $M_y, b, Rd=5765.43$ $M_y, Ed/M_y, b, Rd=0.55$

Asta n. 1006 (-148 113) HEA160-IPE160 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
Sollecitazioni: $N, Ed=-818.56$ $M_y, Ed=-1143.94$ $M_z, Ed=313.64$
Resistenze: $N_c, Rd=101547.00$ $M_y, c, Rd=5765.43$ $M_z, c, Rd=2015.27$ $L=50.00$
 α_{my} , α_{mz} , $\alpha_{LT}=0.95$, 0.95 , 0.95
 $L_{cr}=0.50$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.75$ $M_{cr}=648559.00$ $\lambda_{LT}=0.10$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.45$ $\beta_{LT}=0.75$ $f=1.00$ $\chi_{LT}=1.00$
 $\lambda_y=7.61$ $N_{cr,y}=13870100.00$ $\lambda^*_y=0.09$ Curva b: $\Phi_y=0.00$ $\chi_y=1.00$
 $\lambda_z=12.55$ $N_{cr,z}=5103400.00$ $\lambda^*_z=0.14$ Curva c: $\Phi_z=0.00$ $\chi_z=1.00$
 K_{yy} , K_{yz} , K_{zy} , $K_{zz}=0.95$, 0.95 , 0.76 , 0.95
Verifica YY: $0.01+0.19+0.15=0.34$
Verifica ZZ: $0.01+0.15+0.15=0.31$

- Verifica freccia massima per soli carichi accidentali - CC 12
 $f_{z,L}=0.01$ (L/3514)

- Verifica freccia massima carichi totali - CC 12
 $f_{z,L}=0.07$ (L/603)

Asta n. 1006 (-173 -139) HEA160-IPE160 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 $X_1=2.35$ - Classe 3
Sollecitazioni: $N=1212.13$ $T_z=277.97$ $M_y=-3189.59$ $T_y=-128.50$ $M_z=-170.37$ $M_x=1.15$
Tensioni: $\sigma_N=31.26$ $\sigma_M=1670.34$ $\tau=9.60$ $\sigma_{max}=1701.60$
Tensioni: $\sigma_N=31.26$ $\sigma_M=-8.30$ $\tau=37.58$ $\tau_{max}=37.58$
Tensioni: $\sigma_N=31.26$ $\sigma_M=1670.34$ $\tau=9.60$ $\sigma_{TD,max}=1701.68$

Asta n. 1008 (101 -24) HEA160 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 11 - Classe 3
Sollecitazioni: $N, Ed=-367.49$ $M_y, Ed=-1044.59$ $M_z, Ed=-198.50$
Resistenze: $N_c, Rd=101547.00$ $M_y, c, Rd=5765.43$ $M_z, c, Rd=2015.27$ $L=210.00$
 α_{my} , α_{mz} , $\alpha_{LT}=0.95$, 0.95 , 0.95
 $L_{cr}=2.10$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=2.08$ $M_{cr}=54184.50$ $\lambda_{LT}=0.33$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.53$ $\beta_{LT}=0.75$ $f=0.98$ $\chi_{LT}=1.00$
 $\lambda_y=31.97$ $N_{cr,y}=786289.00$ $\lambda^*_y=0.37$ Curva b: $\Phi_y=0.60$ $\chi_y=0.94$
 $\lambda_z=52.70$ $N_{cr,z}=289309.00$ $\lambda^*_z=0.61$ Curva c: $\Phi_z=0.78$ $\chi_z=0.78$
 K_{yy} , K_{yz} , K_{zy} , $K_{zz}=0.95$, 0.95 , 0.76 , 0.95
Verifica YY: $0.00+0.17+0.09=0.27$
Verifica ZZ: $0.00+0.14+0.09=0.24$

Asta n. 1008 (-24 103) HEA160 Crit. 1

- Verifica freccia massima per soli carichi accidentali - CC 12
 $f_{z,L}=0.00$ (L/86018)

- Verifica freccia massima carichi totali - CC 12
 $f_{z,L}=0.06$ (L/3903)

Asta n. 1008 (101 -24) HEA160 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 11 $X_1=2.10$ - Classe 3
Sollecitazioni: $N=-367.49$ $T_z=626.57$ $M_y=-1044.59$ $T_y=188.29$ $M_z=181.84$

Tensioni: $\sigma_N = -9.48$ $\sigma_M = -710.84$ $\tau = 0.00$ $\sigma_{max} = -720.32$
Tensioni: $\sigma_N = -9.48$ $\sigma_M = 8.86$ $\tau = 81.39$ $\tau_{max} = 81.39$
Tensioni: $\sigma_N = -9.48$ $\sigma_M = -710.84$ $\tau = 0.00$ $\sigma_{ID,max} = 720.32$

Asta n. 1009 (-23 104) HEA160 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 9 - Classe 3
 $L_{cr} = 2.50$ Curva b: $\alpha_{imp} = 0.34$ $k_e = 0.94$ $\psi = 2.49$ $M_{cr} = 49182.30$ $\lambda_{LT} = 0.35$
 $\lambda_{LT,0} = 0.40$ $\beta_{LT} = 0.75$ $\Phi_{LT} = 0.54$ $\beta_{LT} = 0.75$ $f = 0.98$ $\chi_{LT} = 1.00$
CC 9 $M_{y,Ed} = -2648.50$ $M_{y,b,Rd} = 5765.43$ $M_{y,Ed}/M_{y,b,Rd} = 0.46$

Asta n. 1009 (106 -22) HEA160 Crit. 1

- Verifica freccia massima per soli carichi accidentali - CC 12
 $f_{z,L} = 0.02$ (L/10507)

Asta n. 1009 (104 115) HEA160 Crit. 1

- Verifica freccia massima carichi totali - CC 12
 $f_{z,G} = 0.14$ (L/1776)

Asta n. 1009 (102 -23) HEA160 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 $X1 = 2.10$ - Classe 3
Sollecitazioni: $N = 726.96$ $T_z = 1743.77$ $M_y = -2647.55$ $T_y = -253.99$ $M_z = -188.67$
Tensioni: $\sigma_N = 18.75$ $\sigma_M = 1447.90$ $\tau = 0.00$ $\sigma_{max} = 1466.64$
Tensioni: $\sigma_N = 18.75$ $\sigma_M = -9.19$ $\tau = 226.49$ $\tau_{max} = 226.49$
Tensioni: $\sigma_N = 18.75$ $\sigma_M = 1447.90$ $\tau = 0.00$ $\sigma_{ID,max} = 1466.64$

Asta n. 1014 (-131 -45) Omega 120x90x30x3 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 9 - Classe 3
Sollecitazioni: $N_{Ed} = -178.04$ $M_{y,Ed} = 496.87$ $M_{z,Ed} = 27.42$
Resistenze: $N_{c,Rd} = 29700.00$ $M_{y,c,Rd} = 914.31$ $M_{z,c,Rd} = 754.93$ $L = 133.50$
 $\lambda_y = 29.93$ $N_{cr,y} = 262438.00$ $\lambda^*_y = 0.34$ Curva b: $\Phi_y = 0.58$ $\chi_y = 0.95$
 $\lambda_z = 31.21$ $N_{cr,z} = 241354.00$ $\lambda^*_z = 0.36$ Curva b: $\Phi_z = 0.59$ $\chi_z = 0.94$
 $\chi_{min} = 0.94$
Verifica: $0.01 + 0.54 + 0.04 = 0.59$

Asta n. 1014 (-46 -131) Omega 120x90x30x3 Crit. 1

- Verifica freccia massima per soli carichi accidentali - CC 12
 $f_{z,L} = 0.02$ (L/7069)

- Verifica freccia massima carichi totali - CC 12
 $f_{z,L} = 0.09$ (L/1469)

Asta n. 1014 (-131 -45) Omega 120x90x30x3 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 $X1 = 1.33$ - Classe 3
Sollecitazioni: $N = -178.04$ $T_z = -703.32$ $M_y = 662.49$ $T_y = 30.01$ $M_z = 36.56$
Tensioni: $\sigma_N = -15.70$ $\sigma_M = 2024.56$ $\tau = 0.00$ $\sigma_{max} = 2008.86$
Tensioni: $\sigma_N = -15.70$ $\sigma_M = 73.99$ $\tau = 118.05$ $\tau_{max} = 118.05$
Tensioni: $\sigma_N = -15.70$ $\sigma_M = 2024.56$ $\tau = 0.00$ $\sigma_{ID,max} = 2008.86$

Asta n. 1015 (-81 -121) Omega 120x90x30x3 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 11 - Classe 3
Sollecitazioni: $N_{Ed} = -101.22$ $M_{y,Ed} = 508.24$ $M_{z,Ed} = 57.45$
Resistenze: $N_{c,Rd} = 29700.00$ $M_{y,c,Rd} = 914.31$ $M_{z,c,Rd} = 754.93$ $L = 133.50$
 $\lambda_y = 29.93$ $N_{cr,y} = 262438.00$ $\lambda^*_y = 0.34$ Curva b: $\Phi_y = 0.58$ $\chi_y = 0.95$
 $\lambda_z = 31.21$ $N_{cr,z} = 241354.00$ $\lambda^*_z = 0.36$ Curva b: $\Phi_z = 0.59$ $\chi_z = 0.94$
 $\chi_{min} = 0.94$
Verifica: $0.00 + 0.56 + 0.08 = 0.64$

Asta n. 1015 (-121 -80) Omega 120x90x30x3 Crit. 1

- Verifica freccia massima per soli carichi accidentali - CC 12
 $f_{z,L} = 0.02$ (L/8694)

Asta n. 1015 (-80 -122) Omega 120x90x30x3 Crit. 1

- Verifica freccia massima carichi totali - CC 12
 $f_{z,L} = 0.08$ (L/1506)

Asta n. 1015 (-81 -121) Omega 120x90x30x3 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 11 $X1 = 0.00$ - Classe 3
Sollecitazioni: $N = -101.22$ $T_z = 887.79$ $M_y = 606.66$ $T_y = -58.44$ $M_z = 76.60$

Relazione di calcolo

Tensioni: $\sigma_N = -8.93$ $\sigma_M = 2003.53$ $\tau = 0.00$ $\sigma_{max} = 1994.61$
Tensioni: $\sigma_N = -8.93$ $\sigma_M = 155.02$ $\tau = 149.02$ $\tau_{max} = 149.02$
Tensioni: $\sigma_N = -8.93$ $\sigma_M = 2003.53$ $\tau = 0.00$ $\sigma_{ID,max} = 1994.61$

Asta n. 1016 (118 119) HEA160 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 11 - Classe 3
L_{cr}=2.67 Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=3.06$ M_{cr}=54755.60 $\lambda_{LT}=0.33$
 $\lambda_{LT,0}=0.40$ $\beta_{LT}=0.75$ $\Phi_{LT}=0.53$ $\beta_{LT}=0.75$ $f=0.98$ $\chi_{LT}=1.00$
CC 11 My,Ed=4232.53 My,b,Rd=5765.43 My,Ed/My,b,Rd=0.73

Asta n. 1016 (117 118) HEA160 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
Sollecitazioni: N,Ed=-279.03 My,Ed=-4067.06 Mz,Ed=-41.63
Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=250.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
L_{cr}=2.50 Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=2.16$ M_{cr}=42610.60 $\lambda_{LT}=0.38$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.55$ $\beta_{LT}=0.75$ $f=0.98$ $\chi_{LT}=1.00$
 $\lambda_y=38.06$ Ncr,y=554806.00 $\lambda_y^*=0.44$ Curva b: $\Phi_y=0.64$ $\chi_y=0.91$
 $\lambda_z=62.74$ Ncr,z=204136.00 $\lambda_z^*=0.72$ Curva c: $\Phi_z=0.89$ $\chi_z=0.71$
Kyy, Kyz, Kzy, Kzz=0.95, 0.95, 0.95, 0.76, 0.95
Verifica YY: 0.00+0.67+0.02=0.69
Verifica ZZ: 0.00+0.54+0.02=0.56

- Verifica freccia massima per soli carichi accidentali - CC 12
f_{z,L}=0.02 (L/10099)

- Verifica freccia massima carichi totali - CC 12
f_{z,L}=0.21 (L/1178)

Asta n. 1016 (118 119) HEA160 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 11 X1=2.59 - Classe 3
Sollecitazioni: N=579.91 T_z=-3282.29 M_y=4232.53 T_y=11.75 M_z=14.43
Tensioni: $\sigma_N=14.96$ $\sigma_M=1941.46$ $\tau=0.00$ $\sigma_{max}=1956.41$
Tensioni: $\sigma_N=14.96$ $\sigma_M=0.70$ $\tau=426.31$ $\tau_{max}=426.31$
Tensioni: $\sigma_N=14.96$ $\sigma_M=1941.46$ $\tau=0.00$ $\sigma_{ID,max}=1956.41$

Asta n. 1017 (-95 -112) Omega 120x90x30x3 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 10 - Classe 3
L_{cr}=1.25 Curva d: $\alpha_{imp}=0.76$ $k_c=0.94$ $\psi=2.02$ M_{cr}=0.00 $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 10 My,Ed=530.97 My,b,Rd=914.31 My,Ed/My,b,Rd=0.58

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 11 - Classe 3
Sollecitazioni: N,Ed=-49.14 Myeq,Ed=555.19 Mzeq,Ed=23.60
Resistenze: Nc,Rd=29700.00 My,c,Rd=914.31 Mz,c,Rd=754.93 L=125.00
 $\lambda_y=28.02$ Ncr,y=299343.00 $\lambda_y^*=0.32$ Curva b: $\Phi_y=0.57$ $\chi_y=0.96$
 $\lambda_z=29.22$ Ncr,z=275294.00 $\lambda_z^*=0.34$ Curva b: $\Phi_z=0.58$ $\chi_z=0.95$
 $\chi_{min}=0.95$
Verifica: 0.00+0.61+0.03=0.64

Asta n. 1017 (-112 -93) Omega 120x90x30x3 Crit. 1

- Verifica freccia massima per soli carichi accidentali - CC 12
f_{z,L}=0.01 (L/8767)

- Verifica freccia massima carichi totali - CC 12
f_{z,L}=0.09 (L/1461)

Asta n. 1017 (-95 -112) Omega 120x90x30x3 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 11 X1=0.00 - Classe 3
Sollecitazioni: N=-49.14 T_z=966.17 M_y=661.23 T_y=-17.36 M_z=29.01
Tensioni: $\sigma_N=-4.33$ $\sigma_M=1994.73$ $\tau=0.00$ $\sigma_{max}=1990.40$
Tensioni: $\sigma_N=-4.33$ $\sigma_M=58.70$ $\tau=162.18$ $\tau_{max}=162.18$
Tensioni: $\sigma_N=-4.33$ $\sigma_M=1994.73$ $\tau=0.00$ $\sigma_{ID,max}=1990.40$

Asta n. 1018 (-97 -99) Omega 120x90x30x3 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 - Classe 3
L_{cr}=1.21 Curva d: $\alpha_{imp}=0.76$ $k_c=0.94$ $\psi=1.59$ M_{cr}=0.00 $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 1 My,Ed=-252.81 My,b,Rd=914.31 My,Ed/My,b,Rd=0.28

Asta n. 1018 (-101 -39) Omega 120x90x30x3 Crit. 1

 - Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 9 - Classe 3
 Sollecitazioni: N,Ed=-35.30 Myeq,Ed=488.44 Mzeq,Ed=-62.75
 Resistenze: Nc,Rd=29700.00 My,c,Rd=914.31 Mz,c,Rd=754.93 L=133.50
 $\lambda_y=29.93$ Ncr,y=262438.00 $\lambda^*_y=0.34$ Curva b: $\Phi_y=0.58$ $\chi_y=0.95$
 $\lambda_z=31.21$ Ncr,z=241354.00 $\lambda^*_z=0.36$ Curva b: $\Phi_z=0.59$ $\chi_z=0.94$
 $\chi_{\min}=0.94$
 Verifica: $0.00+0.53+0.08=0.62$

Asta n. 1018 (-40 -101) Omega 120x90x30x3 Crit. 1

 - Verifica freccia massima per soli carichi accidentali - CC 12
 $f_{z,L}=0.02$ (L/7142)
 - Verifica freccia massima carichi totali - CC 12
 $f_{z,L}=0.09$ (L/1513)

Asta n. 1018 (-101 -39) Omega 120x90x30x3 Crit. 1

 - Verifica in termini tensionali (4.2.5) - CC 9 X1=1.33 - Classe 3
 Sollecitazioni: N=-35.30 Tz=-693.64 My=651.25 Ty=-64.43 Mz=-83.67
 Tensioni: $\sigma_N=-3.11$ $\sigma_M=2155.79$ $\tau=0.00$ $\sigma_{\max}=2152.67$
 Tensioni: $\sigma_N=-3.11$ $\sigma_M=-169.32$ $\tau=116.43$ $\tau_{\max}=116.43$
 Tensioni: $\sigma_N=-3.11$ $\sigma_M=2155.79$ $\tau=0.00$ $\sigma_{ID,\max}=2152.67$

Asta n. 1023 (131 -19) HEA160 Crit. 1

 - Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 9 - Classe 3
 $L_{cr}=2.58$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=2.96$ M,cr=55587.20 $\lambda_{LT}=0.33$
 $\lambda_{LT,0}=0.40$ $\beta_{LT}=0.75$ $\Phi_{LT}=0.53$ $\beta_{LT}=0.75$ f=0.98 $\chi_{LT}=1.00$
 CC 9 My,Ed=2425.35 My,b,Rd=5765.43 My,Ed/My,b,Rd=0.42

Asta n. 1023 (130 129) HEA160 Crit. 1

 - Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
 Sollecitazioni: N,Ed=-156.57 My,Ed=1394.46 Mz,Ed=-281.36
 Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=210.00
 α_{my} , α_{mz} , $\alpha_{LT}=0.95$, 0.95, 0.95
 $L_{cr}=2.10$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.60$ M,cr=41790.80 $\lambda_{LT}=0.38$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.55$ $\beta_{LT}=0.75$ f=0.98 $\chi_{LT}=1.00$
 $\lambda_y=31.97$ Ncr,y=786289.00 $\lambda^*_y=0.37$ Curva b: $\Phi_y=0.60$ $\chi_y=0.94$
 $\lambda_z=52.70$ Ncr,z=289309.00 $\lambda^*_z=0.61$ Curva c: $\Phi_z=0.78$ $\chi_z=0.78$
 Kyy, Kyz, Kzy, Kzz=0.95, 0.95, 0.76, 0.95
 Verifica YY: $0.00+0.23+0.13=0.36$
 Verifica ZZ: $0.00+0.18+0.13=0.32$

- Verifica freccia massima per soli carichi accidentali - CC 12
 $f_{z,L}=0.03$ (L/7118)

Asta n. 1023 (133 -18) HEA160 Crit. 1

 - Verifica freccia massima carichi totali - CC 12
 $f_{z,L}=0.08$ (L/2431)

Asta n. 1023 (131 -19) HEA160 Crit. 1

 - Verifica in termini tensionali (4.2.5) - CC 9 X1=0.08 - Classe 3
 Sollecitazioni: N=845.16 Tz=2258.13 My=2425.35 Ty=-20.03 Mz=30.34
 Tensioni: $\sigma_N=21.80$ $\sigma_M=1141.19$ $\tau=0.00$ $\sigma_{\max}=1162.98$
 Tensioni: $\sigma_N=21.80$ $\sigma_M=1.48$ $\tau=293.29$ $\tau_{\max}=293.29$
 Tensioni: $\sigma_N=21.80$ $\sigma_M=1141.19$ $\tau=0.00$ $\sigma_{ID,\max}=1162.98$

Asta n. 1046 (103 104) HEA160 Crit. 1

 - Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 11 - Classe 3
 Sollecitazioni: N,Ed=-673.81 My,Ed=-324.98 Mz,Ed=113.41
 Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=250.00
 α_{my} , α_{mz} , $\alpha_{LT}=0.95$, 0.95, 0.95
 $L_{cr}=2.50$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.75$ M,cr=34597.10 $\lambda_{LT}=0.42$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.57$ $\beta_{LT}=0.75$ f=0.98 $\chi_{LT}=1.00$
 $\lambda_y=38.06$ Ncr,y=554806.00 $\lambda^*_y=0.44$ Curva b: $\Phi_y=0.64$ $\chi_y=0.91$
 $\lambda_z=62.74$ Ncr,z=204136.00 $\lambda^*_z=0.72$ Curva c: $\Phi_z=0.89$ $\chi_z=0.71$
 Kyy, Kyz, Kzy, Kzz=0.95, 0.95, 0.76, 0.95
 Verifica YY: $0.01+0.05+0.05=0.11$
 Verifica ZZ: $0.01+0.04+0.05=0.10$

- Verifica freccia massima carichi totali - CC 12
 $f_{z,L}=0.03$ (L/6773)

- Verifica in termini tensionali (4.2.5) - CC 11 Xl=1.78 - Classe 3
 Sollecitazioni: N=-673.81 T_z=-251.65 M_y=-257.83 T_y=70.43 M_z=68.31
 Tensioni: σ_N =-17.38 σ_M =-205.91 τ =0.00 σ_{max} =-223.28
 Tensioni: σ_N =-17.38 σ_M =3.33 τ =32.69 τ_{max} =32.69
 Tensioni: σ_N =-17.38 σ_M =-205.91 τ =0.00 $\sigma_{ID,max}$ =223.28

Asta n. 1046 (-70 118) HEA160-IPE160 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 9 - Classe 3
 L_{cr}=1.90 Curva b: α_{imp} =0.34 k_c=0.94 ψ =1.75 M_{cr}=53821.60 λ_{LT} =0.34
 $\lambda_{LT,0}$ =0.40 β_{LT} =0.75 Φ_{LT} =0.53 β_{LT} =0.75 f=0.98 χ_{LT} =1.00
 CC 9 My,Ed=-3700.03 My,b,Rd=5765.43 My,Ed/My,b,Rd=0.64

Asta n. 1046 (104 -156) HEA160-IPE160 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 11 - Classe 3
 Sollecitazioni: N,Ed=-974.31 My,Ed=-1275.60 Mz,Ed=208.77
 Resistenze: N_c,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=50.00
 α_{my} , α_{mz} , α_{LT} =0.95, 0.95, 0.95
 L_{cr}=0.50 Curva b: α_{imp} =0.34 k_c=0.94 ψ =1.75 M_{cr}=648560.00 λ_{LT} =0.10
 $\lambda_{LT,0}$ =0.40 Φ_{LT} =0.45 β_{LT} =0.75 f=1.00 χ_{LT} =1.00
 λ_y =7.61 N_{cr,y}=13870100.00 λ'_y =0.09 Curva b: Φ_y =0.00 χ_y =1.00
 λ_z =12.55 N_{cr,z}=5103400.00 λ'_z =0.14 Curva c: Φ_z =0.00 χ_z =1.00
 K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.95, 0.76, 0.95
 Verifica YY: 0.01+0.21+0.10=0.32
 Verifica ZZ: 0.01+0.17+0.10=0.28

- Verifica freccia massima per soli carichi accidentali - CC 12
 f_{z,L}=0.01 (L/2836)

- Verifica freccia massima carichi totali - CC 12
 f_{z,L}=0.08 (L/518)

Asta n. 1046 (-70 118) HEA160-IPE160 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
 Sollecitazioni: N=518.39 T_z=-1197.29 M_y=-3700.03 T_y=-97.73 M_z=58.63
 Tensioni: σ_N =13.37 σ_M =1757.00 τ =0.00 σ_{max} =1770.37
 Tensioni: σ_N =13.37 σ_M =2.86 τ =155.51 τ_{max} =155.51
 Tensioni: σ_N =13.37 σ_M =1757.00 τ =0.00 $\sigma_{ID,max}$ =1770.37

Asta n. 1100 (-21 107) HEA160 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 11 - Classe 3
 Sollecitazioni: N,Ed=-351.29 My,Ed=-1044.27 Mz,Ed=-187.76
 Resistenze: N_c,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=210.00
 α_{my} , α_{mz} , α_{LT} =0.95, 0.95, 0.95
 L_{cr}=2.10 Curva b: α_{imp} =0.34 k_c=0.94 ψ =2.08 M_{cr}=54206.60 λ_{LT} =0.33
 $\lambda_{LT,0}$ =0.40 Φ_{LT} =0.53 β_{LT} =0.75 f=0.98 χ_{LT} =1.00
 λ_y =31.97 N_{cr,y}=786289.00 λ'_y =0.37 Curva b: Φ_y =0.60 χ_y =0.94
 λ_z =52.70 N_{cr,z}=289308.00 λ'_z =0.61 Curva c: Φ_z =0.78 χ_z =0.78
 K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.95, 0.76, 0.95
 Verifica YY: 0.00+0.17+0.09=0.26
 Verifica ZZ: 0.00+0.14+0.09=0.23

Asta n. 1100 (105 -21) HEA160 Crit. 1

- Verifica freccia massima per soli carichi accidentali - CC 12
 f_{z,L}=0.00 (L/96668)

- Verifica freccia massima carichi totali - CC 12
 f_{z,L}=0.06 (L/4151)

Asta n. 1100 (-21 107) HEA160 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 11 Xl=0.00 - Classe 3
 Sollecitazioni: N=-351.29 T_z=-626.73 M_y=-1044.27 T_y=-177.10 M_z=169.98
 Tensioni: σ_N =-9.06 σ_M =-695.28 τ =0.00 σ_{max} =-704.34
 Tensioni: σ_N =-9.06 σ_M =8.28 τ =81.41 τ_{max} =81.41
 Tensioni: σ_N =-9.06 σ_M =-695.28 τ =0.00 $\sigma_{ID,max}$ =704.34

Asta n. 1185 (-160 -8) HEA160 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 9 - Classe 3
 L_{cr}=2.35 Curva b: α_{imp} =0.34 k_c=0.94 ψ =1.56 M_{cr}=33972.70 λ_{LT} =0.42
 $\lambda_{LT,0}$ =0.40 β_{LT} =0.75 Φ_{LT} =0.57 β_{LT} =0.75 f=0.98 χ_{LT} =1.00
 CC 9 My,Ed=-2074.32 My,b,Rd=5765.43 My,Ed/My,b,Rd=0.36

Asta n. 1185 (102 -160) HEA160 Crit. 1

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- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
 Sollecitazioni: N,Ed=-306.08 My,Ed=-847.44 Mz,Ed=-540.22
 Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=50.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $L_{cr}=0.50$ Curva b: $\alpha_{imp}=0.34 k_c=0.94 \psi=1.75 M, cr=648560.00 \lambda_{LT}=0.10$
 $\lambda_{LT,0}=0.40 \Phi_{LT}=0.45 \beta_{LT}=0.75 f=1.00 \chi_{LT}=1.00$
 $\lambda_y=7.61 N_{cr,y}=13870100.00 \lambda^*_y=0.09$ Curva b: $\Phi_y=0.00 \chi_y=1.00$
 $\lambda_z=12.55 N_{cr,z}=5103400.00 \lambda^*_z=0.14$ Curva c: $\Phi_z=0.00 \chi_z=1.00$
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.95, 0.76, 0.95$
 Verifica YY: $0.00+0.14+0.25=0.40$
 Verifica ZZ: $0.00+0.11+0.25=0.37$
- Verifica freccia massima per soli carichi accidentali - CC 12
 $f_{z,g}=0.01$ (L/7732)
- Verifica freccia massima carichi totali - CC 12
 $f_{z,L}=0.04$ (L/997)

Asta n. 1185 (-160 -8) HEA160 Crit. 1

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- Verifica in termini tensionali (4.2.5) - CC 9 Xl=2.35 - Classe 3
 Sollecitazioni: N=982.92 Tz=159.97 My=-2074.32 Ty=113.82 Mz=263.56 Mx=-1.92
 Tensioni: $\sigma_N=25.35 \sigma_M=1284.81 \tau=16.02 \sigma_{max}=1310.16$
 Tensioni: $\sigma_N=25.35 \sigma_M=657.57 \tau=26.74 \tau_{max}=26.74$
 Tensioni: $\sigma_N=25.35 \sigma_M=1284.81 \tau=16.02 \sigma_{ID,max}=1310.46$

Asta n. 1191 (-4 -145) HEA160 Crit. 1

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- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 9 - Classe 3
 $L_{cr}=2.35$ Curva b: $\alpha_{imp}=0.34 k_c=0.94 \psi=1.66 M, cr=36220.80 \lambda_{LT}=0.41$
 $\lambda_{LT,0}=0.40 \beta_{LT}=0.75 \Phi_{LT}=0.56 \beta_{LT}=0.75 f=0.98 \chi_{LT}=1.00$
 CC 9 My,Ed=-2078.78 My,b,Rd=5765.43 My,Ed/My,b,Rd=0.36

Asta n. 1191 (-145 112) HEA160 Crit. 1

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- Verifica freccia massima per soli carichi accidentali - CC 12
 $f_{z,L}=0.01$ (L/7799)

Asta n. 1191 (108 -146) HEA160 Crit. 1

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- Verifica freccia massima carichi totali - CC 12
 $f_{z,L}=0.04$ (L/1008)

Asta n. 1191 (-4 -145) HEA160 Crit. 1

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- Verifica in termini tensionali (4.2.5) - CC 9 Xl=0.00 - Classe 3
 Sollecitazioni: N=1259.05 Tz=-255.93 My=-2078.78 Ty=180.48 Mz=-269.35 Mx=-2.55
 Tensioni: $\sigma_N=32.47 \sigma_M=1294.37 \tau=21.24 \sigma_{max}=1326.84$
 Tensioni: $\sigma_N=32.47 \sigma_M=-13.13 \tau=40.07 \tau_{max}=40.07$
 Tensioni: $\sigma_N=32.47 \sigma_M=1294.37 \tau=21.24 \sigma_{ID,max}=1327.35$

Asta n. 1197 (116 110) HEA160 Crit. 1

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- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 9 - Classe 3
 $L_{cr}=2.67$ Curva b: $\alpha_{imp}=0.34 k_c=0.94 \psi=3.09 M, cr=55325.50 \lambda_{LT}=0.33$
 $\lambda_{LT,0}=0.40 \beta_{LT}=0.75 \Phi_{LT}=0.53 \beta_{LT}=0.75 f=0.98 \chi_{LT}=1.00$
 CC 9 My,Ed=3462.14 My,b,Rd=5765.43 My,Ed/My,b,Rd=0.60

Asta n. 1197 (113 111) HEA160 Crit. 1

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- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
 Sollecitazioni: N,Ed=-340.33 My,Ed=1462.89 Mz,Ed=-23.42
 Resistenze: Nc,Rd=101547.00 My,c,Rd=5765.43 Mz,c,Rd=2015.27 L=250.00
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $L_{cr}=2.50$ Curva b: $\alpha_{imp}=0.34 k_c=0.94 \psi=2.03 M, cr=40144.40 \lambda_{LT}=0.39$
 $\lambda_{LT,0}=0.40 \Phi_{LT}=0.55 \beta_{LT}=0.75 f=0.98 \chi_{LT}=1.00$
 $\lambda_y=38.06 N_{cr,y}=554806.00 \lambda^*_y=0.44$ Curva b: $\Phi_y=0.64 \chi_y=0.91$
 $\lambda_z=62.74 N_{cr,z}=204136.00 \lambda^*_z=0.72$ Curva c: $\Phi_z=0.89 \chi_z=0.71$
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.95, 0.76, 0.95$
 Verifica YY: $0.00+0.24+0.01=0.26$
 Verifica ZZ: $0.00+0.19+0.01=0.21$

Asta n. 1197 (114 109) HEA160 Crit. 1

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- Verifica freccia massima per soli carichi accidentali - CC 12
 $f_{z,L}=0.03$ (L/6239)

- Verifica freccia massima carichi totali - CC 12
 $f_{z,L}=0.11$ (L/1776)

Asta n. 1197 (110 114) HEA160 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 X1=0.00 - Classe 3
 Sollecitazioni: $N=1623.10$ $T_z=-2299.28$ $M_y=-3447.39$ $T_y=-13.13$ $M_z=24.25$
 Tensioni: $\sigma_N=41.86$ $\sigma_M=1597.56$ $\tau=0.00$ $\sigma_{max}=1639.42$
 Tensioni: $\sigma_N=41.86$ $\sigma_M=1.18$ $\tau=298.63$ $\tau_{max}=298.63$
 Tensioni: $\sigma_N=41.86$ $\sigma_M=1597.56$ $\tau=0.00$ $\sigma_{ID,max}=1639.42$

Asta n. 1203 (123 124) HEA160 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 9 - Classe 3
 $L_{cr}=2.67$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=3.08$ $M_{cr}=55036.80$ $\lambda_{LT}=0.33$
 $\lambda_{LT,0}=0.40$ $\beta_{LT}=0.75$ $\Phi_{LT}=0.53$ $\beta_{LT}=0.75$ $f=0.98$ $\chi_{LT}=1.00$
 CC 9 $M_y,Ed=3500.19$ $M_y,b,Rd=5765.43$ $M_y,Ed/M_y,b,Rd=0.61$

Asta n. 1203 (125 126) HEA160 Crit. 1

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 9 - Classe 3
 Sollecitazioni: $N,Ed=-134.15$ $M_y,Ed=1523.80$ $M_z,Ed=-44.55$
 Resistenze: $N_c,Rd=101547.00$ $M_y,c,Rd=5765.43$ $M_z,c,Rd=2015.27$ $L=250.00$
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$
 $L_{cr}=2.50$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=2.04$ $M_{cr}=40305.10$ $\lambda_{LT}=0.39$
 $\lambda_{LT,0}=0.40$ $\Phi_{LT}=0.55$ $\beta_{LT}=0.75$ $f=0.98$ $\chi_{LT}=1.00$
 $\lambda_y=38.06$ $N_{cr,y}=554806.00$ $\lambda^*_y=0.44$ Curva b: $\Phi_y=0.64$ $\chi_y=0.91$
 $\lambda_z=62.74$ $N_{cr,z}=204136.00$ $\lambda^*_z=0.72$ Curva c: $\Phi_z=0.89$ $\chi_z=0.71$
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.95, 0.76, 0.95$
 Verifica YY: $0.00+0.25+0.02=0.27$
 Verifica ZZ: $0.00+0.20+0.02=0.22$

Asta n. 1203 (128 122) HEA160 Crit. 1

- Verifica freccia massima per soli carichi accidentali - CC 12
 $f_{z,L}=0.03$ (L/6220)
 - Verifica freccia massima carichi totali - CC 12
 $f_{z,G}=0.10$ (L/1866)

Asta n. 1203 (122 123) HEA160 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 X1=2.50 - Classe 3
 Sollecitazioni: $N=1127.96$ $T_z=2302.24$ $M_y=-3451.94$ $T_y=-55.00$ $M_z=-51.79$
 Tensioni: $\sigma_N=29.09$ $\sigma_M=1635.41$ $\tau=0.00$ $\sigma_{max}=1664.50$
 Tensioni: $\sigma_N=29.09$ $\sigma_M=-2.52$ $\tau=299.02$ $\tau_{max}=299.02$
 Tensioni: $\sigma_N=29.09$ $\sigma_M=1635.41$ $\tau=0.00$ $\sigma_{ID,max}=1664.50$

Asta n. 1277 (-9 -161) HEA160 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 9 - Classe 3
 $L_{cr}=2.35$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.66$ $M_{cr}=36214.70$ $\lambda_{LT}=0.41$
 $\lambda_{LT,0}=0.40$ $\beta_{LT}=0.75$ $\Phi_{LT}=0.56$ $\beta_{LT}=0.75$ $f=0.98$ $\chi_{LT}=1.00$
 CC 9 $M_y,Ed=-1920.88$ $M_y,b,Rd=5765.43$ $M_y,Ed/M_y,b,Rd=0.33$

Asta n. 1277 (129 -162) HEA160 Crit. 1

- Verifica freccia massima per soli carichi accidentali - CC 12
 $f_{z,G}=0.01$ (L/7799)
 - Verifica freccia massima carichi totali - CC 12
 $f_{z,G}=0.04$ (L/1063)

Asta n. 1277 (-9 -161) HEA160 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 X1=0.00 - Classe 3
 Sollecitazioni: $N=1142.14$ $T_z=-194.17$ $M_y=-1920.88$ $T_y=167.45$ $M_z=-260.24$ $M_x=-1.82$
 Tensioni: $\sigma_N=29.46$ $\sigma_M=1210.80$ $\tau=15.15$ $\sigma_{max}=1240.26$
 Tensioni: $\sigma_N=29.46$ $\sigma_M=584.35$ $\tau=30.03$ $\tau_{max}=30.03$
 Tensioni: $\sigma_N=29.46$ $\sigma_M=1210.80$ $\tau=15.15$ $\sigma_{ID,max}=1240.54$

Asta n. 1283 (-176 -13) HEA160 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 9 - Classe 3
 $L_{cr}=2.35$ Curva b: $\alpha_{imp}=0.34$ $k_c=0.94$ $\psi=1.66$ $M_{cr}=36073.10$ $\lambda_{LT}=0.41$
 $\lambda_{LT,0}=0.40$ $\beta_{LT}=0.75$ $\Phi_{LT}=0.56$ $\beta_{LT}=0.75$ $f=0.98$ $\chi_{LT}=1.00$
 CC 9 $M_y,Ed=-2050.31$ $M_y,b,Rd=5765.43$ $M_y,Ed/M_y,b,Rd=0.36$

Relazione di calcolo

Asta n. 1283 (-175 133) HEA160 Crit. 1

-
- Verifica freccia massima per soli carichi accidentali - CC 12
 $f_{z,L}=0.01$ (L/7113)
 - Verifica freccia massima carichi totali - CC 12
 $f_{z,G}=0.04$ (L/946)

Asta n. 1283 (-176 -13) HEA160 Crit. 1

-
- Verifica in termini tensionali (4.2.5) - CC 9 $X_1=2.35$ - Classe 3
Sollecitazioni: $N=1226.69$ $T_z=238.90$ $M_y=-2050.31$ $T_y=-169.85$ $M_z=-255.11$ $M_x=2.54$
Tensioni: $\sigma_N=31.64$ $\sigma_M=1262.93$ $\tau=21.16$ $\sigma_{max}=1294.57$
Tensioni: $\sigma_N=31.64$ $\sigma_M=-12.43$ $\tau=38.17$ $\tau_{max}=38.17$
Tensioni: $\sigma_N=31.64$ $\sigma_M=1262.93$ $\tau=21.16$ $\sigma_{ID,max}=1295.09$

Asta n. 2010 (-210 -209) Omega 120x90x30x3 Crit. 1

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- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 9 - Classe 3
 $L_{cr}=2.42$ Curva d: $\alpha_{imp}=0.76$ $k_c=0.94$ $\psi=2.58$ $M_{cr}=0.00$ $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 9 $M_y,Ed=379.16$ $M_y,b,Rd=914.31$ $M_y,Ed/M_y,b,Rd=0.41$

Asta n. 2010 (-214 -213) Omega 120x90x30x3 Crit. 1

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- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 9 - Classe 3
Sollecitazioni: $N,Ed=-220.71$ $M_{y,Ed}=-469.03$ $M_{z,Ed}=70.27$
Resistenze: $N_c,Rd=29700.00$ $M_{y,c,Rd}=914.31$ $M_{z,c,Rd}=754.93$ $L=210.00$
 $\lambda_y=47.08$ $N_{cr,y}=106060.00$ $\lambda^*_y=0.54$ Curva b: $\Phi_y=0.71$ $\chi_y=0.87$
 $\lambda_z=49.09$ $N_{cr,z}=97539.10$ $\lambda^*_z=0.57$ Curva b: $\Phi_z=0.72$ $\chi_z=0.85$
 $\chi_{min}=0.85$
Verifica: $0.01+0.51+0.09=0.61$

Asta n. 2010 (-211 -210) Omega 120x90x30x3 Crit. 1

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- Verifica freccia massima per soli carichi accidentali - CC 12
 $f_{z,L}=0.03$ (L/9158)

Asta n. 2010 (-213 -212) Omega 120x90x30x3 Crit. 1

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- Verifica freccia massima carichi totali - CC 12
 $f_{z,L}=0.11$ (L/2270)

Asta n. 2010 (-214 -213) Omega 120x90x30x3 Crit. 1

-
- Verifica in termini tensionali (4.2.5) - CC 9 $X_1=0.00$ - Classe 3
Sollecitazioni: $N=-220.71$ $T_z=575.22$ $M_y=455.43$ $T_y=-54.34$ $M_z=70.27$
Tensioni: $\sigma_N=-19.46$ $\sigma_M=1548.39$ $\tau=0.00$ $\sigma_{max}=1528.93$
Tensioni: $\sigma_N=-19.46$ $\sigma_M=142.22$ $\tau=96.55$ $\tau_{max}=96.55$
Tensioni: $\sigma_N=-19.46$ $\sigma_M=1548.39$ $\tau=0.00$ $\sigma_{ID,max}=1528.93$

Asta n. 2011 (-199 -198) Omega 120x90x30x3 Crit. 1

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- Verifica freccia massima per soli carichi accidentali - CC 12
 $f_{z,G}=0.06$ (L/4424)
 - Verifica freccia massima carichi totali - CC 12
 $f_{z,L}=0.16$ (L/1544)

Asta n. 2011 (-198 -197) Omega 120x90x30x3 Crit. 1

-
- Verifica in termini tensionali (4.2.5) - CC 9 $X_1=2.67$ - Classe 3
Sollecitazioni: $N=1990.10$ $T_z=-415.34$ $M_y=288.67$ $T_y=-11.34$ $M_z=-10.45$
Tensioni: $\sigma_N=175.49$ $\sigma_M=863.17$ $\tau=0.00$ $\sigma_{max}=1038.66$
Tensioni: $\sigma_N=175.49$ $\sigma_M=-21.15$ $\tau=69.72$ $\tau_{max}=69.72$
Tensioni: $\sigma_N=175.49$ $\sigma_M=863.17$ $\tau=0.00$ $\sigma_{ID,max}=1038.66$

Asta n. 2012 (-182 -181) Omega 120x90x30x3 Crit. 1

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- Verifica freccia massima per soli carichi accidentali - CC 12
 $f_{z,L}=0.04$ (L/7225)

Asta n. 2012 (-183 -182) Omega 120x90x30x3 Crit. 1

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- Verifica freccia massima carichi totali - CC 12
 $f_{z,G}=0.10$ (L/2509)

Asta n. 2012 (-182 -181) Omega 120x90x30x3 Crit. 1

Relazione di calcolo

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=2.67 - Classe 3
Sollecitazioni: N=212.89 T_z=-543.99 M_y=569.52 T_y=-38.27 M_z=-53.03
Tensioni: $\sigma_N=18.77$ $\sigma_M=1815.40$ $\tau=0.00$ $\sigma_{max}=1834.17$
Tensioni: $\sigma_N=18.77$ $\sigma_M=-107.32$ $\tau=91.31$ $\tau_{max}=91.31$
Tensioni: $\sigma_N=18.77$ $\sigma_M=1815.40$ $\tau=0.00$ $\sigma_{ID,max}=1834.17$

Asta n. 2020 (-187 -188) Omega 120x90x30x3 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 10 - Classe 3
L_{cr}=2.65 Curva d: $\alpha_{imp}=0.76$ $k_e=0.94$ $\psi=2.88$ M_{cr}=0.00 $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 10 M_y,Ed=501.55 M_y,b,Rd=914.31 M_y,Ed/M_y,b,Rd=0.55

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 9 - Classe 3
Sollecitazioni: N,Ed=-6.46 M_{yeq},Ed=573.19 M_{zeq},Ed=52.92
Resistenze: N_c,Rd=29700.00 M_y,c,Rd=914.31 M_z,c,Rd=754.93 L=264.88
 $\lambda_y=59.38$ N_{cr,y}=66666.30 $\lambda^*_y=0.68$ Curva b: $\Phi_y=0.82$ $\chi_y=0.79$
 $\lambda_z=61.92$ N_{cr,z}=61310.50 $\lambda^*_z=0.71$ Curva b: $\Phi_z=0.84$ $\chi_z=0.78$
 $\chi_{min}=0.78$
Verifica: 0.00+0.63+0.07=0.70

- Verifica freccia massima per soli carichi accidentali - CC 12
 $f_{z,L}=0.04$ (L/7195)

Asta n. 2020 (-186 -187) Omega 120x90x30x3 Crit. 1

- Verifica freccia massima carichi totali - CC 12
 $f_{z,L}=0.10$ (L/2408)

Asta n. 2020 (-187 -188) Omega 120x90x30x3 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=2.65 - Classe 3
Sollecitazioni: N=-6.46 T_z=-551.72 M_y=573.19 T_y=36.13 M_z=52.92
Tensioni: $\sigma_N=-0.57$ $\sigma_M=1825.49$ $\tau=0.00$ $\sigma_{max}=1824.92$
Tensioni: $\sigma_N=-0.57$ $\sigma_M=107.09$ $\tau=92.61$ $\tau_{max}=92.61$
Tensioni: $\sigma_N=-0.57$ $\sigma_M=1825.49$ $\tau=0.00$ $\sigma_{ID,max}=1824.92$

Asta n. 2021 (-202 -203) Omega 120x90x30x3 Crit. 1

- Verifica freccia massima per soli carichi accidentali - CC 12
 $f_{z,L}=0.07$ (L/3844)

- Verifica freccia massima carichi totali - CC 12
 $f_{z,G}=0.17$ (L/1494)

Asta n. 2021 (-203 -204) Omega 120x90x30x3 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=2.63 - Classe 3
Sollecitazioni: N=1990.29 T_z=-472.03 M_y=314.71 T_y=9.74 M_z=12.05
Tensioni: $\sigma_N=175.51$ $\sigma_M=943.28$ $\tau=0.00$ $\sigma_{max}=1118.79$
Tensioni: $\sigma_N=175.51$ $\sigma_M=24.38$ $\tau=79.23$ $\tau_{max}=79.23$
Tensioni: $\sigma_N=175.51$ $\sigma_M=943.28$ $\tau=0.00$ $\sigma_{ID,max}=1118.79$

Asta n. 2022 (-216 -217) Omega 120x90x30x3 Crit. 1

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 10 - Classe 3
L_{cr}=2.56 Curva d: $\alpha_{imp}=0.76$ $k_e=0.94$ $\psi=3.10$ M_{cr}=0.00 $\lambda_{LT}=0.00$
 $\lambda_{LT,0}=0.00$ $\beta_{LT}=0.00$ $\Phi_{LT}=0.00$ $\beta_{LT}=0.00$ $f=0.00$ $\chi_{LT}=1.00$
CC 10 M_y,Ed=312.32 M_y,b,Rd=914.31 M_y,Ed/M_y,b,Rd=0.34

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.1) - CC 9 - Classe 3
Sollecitazioni: N,Ed=-3.36 M_{yeq},Ed=370.73 M_{zeq},Ed=-53.45
Resistenze: N_c,Rd=29700.00 M_y,c,Rd=914.31 M_z,c,Rd=754.93 L=256.38
 $\lambda_y=57.47$ N_{cr,y}=71160.20 $\lambda^*_y=0.66$ Curva b: $\Phi_y=0.80$ $\chi_y=0.80$
 $\lambda_z=59.93$ N_{cr,z}=65443.40 $\lambda^*_z=0.69$ Curva b: $\Phi_z=0.82$ $\chi_z=0.79$
 $\chi_{min}=0.79$
Verifica: 0.00+0.41+0.07=0.48

- Verifica freccia massima per soli carichi accidentali - CC 12
 $f_{z,L}=0.04$ (L/6982)

- Verifica freccia massima carichi totali - CC 12
 $f_{z,L}=0.10$ (L/2528)

Asta n. 2022 (-217 -218) Omega 120x90x30x3 Crit. 1

- Verifica in termini tensionali (4.2.5) - CC 9 Xl=2.61 - Classe 3
Sollecitazioni: N=169.10 T_z=-423.89 M_y=397.71 T_y=-19.93 M_z=-29.75
Tensioni: $\sigma_N=14.91$ $\sigma_M=1242.48$ $\tau=0.00$ $\sigma_{max}=1257.40$

Tensioni: $\sigma_N=14.91$ $\sigma_M=-60.21$ $\tau=71.15$ $\tau_{\max}=71.15$

Tensioni: $\sigma_N=14.91$ $\sigma_M=1242.48$ $\tau=0.00$ $\sigma_{ID,\max}=1257.40$