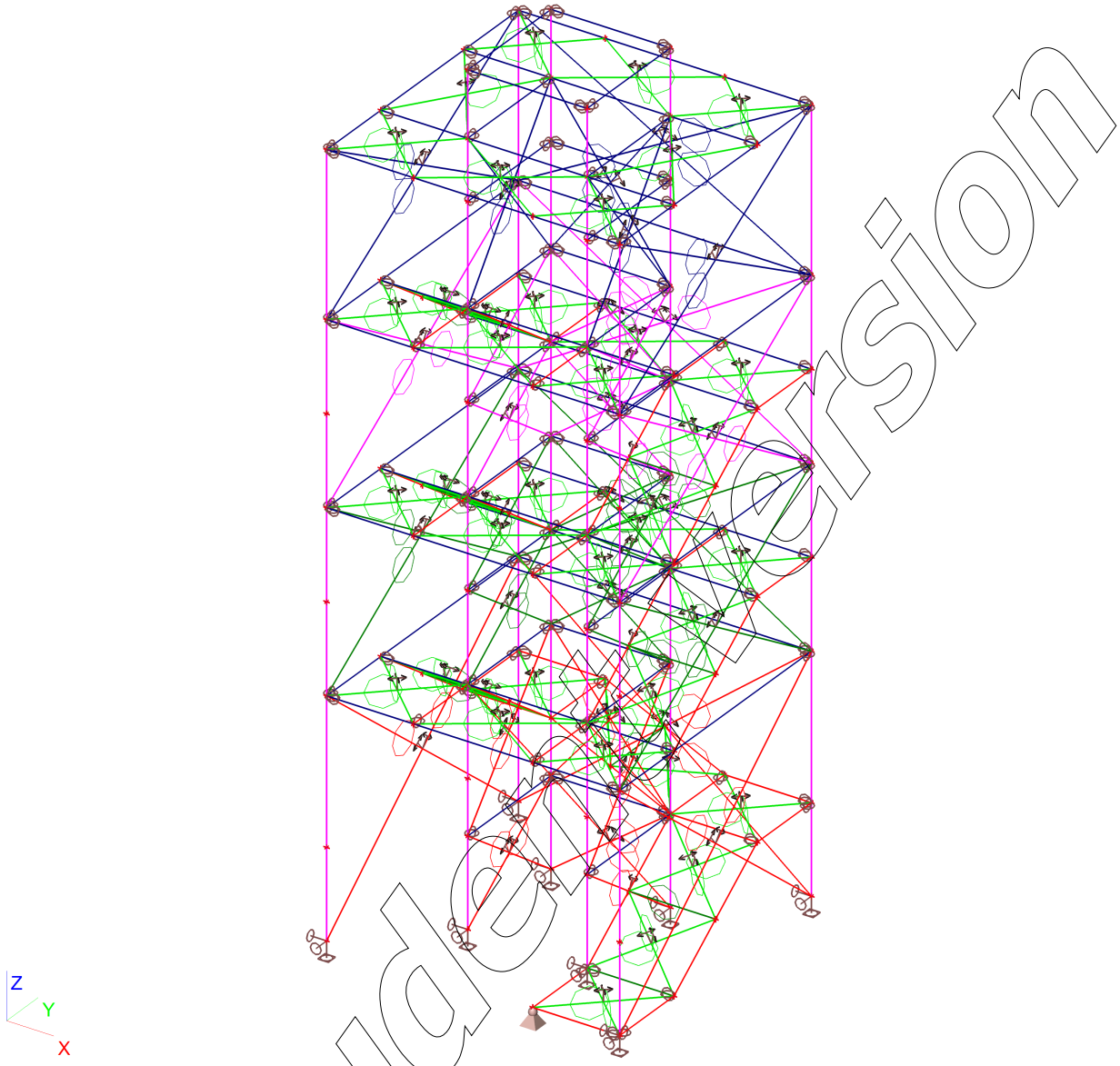
1. Zasnova 3D modela



2. Load cases

Name	Description	Action type	LoadGroup	Load type	Spec	Direction	Duration	Master load case
*Student version¹	*Student version¹	*Student version¹	*Student version¹	*Student version¹	*Student version¹	*Student version¹	*Student version¹	*Student version¹	*Stu
Profili		Permanent	LG1	Self weight		-Z		
G	stalna	Permanent	LG1	Standard				
Q	koristna	Variable	LG2	Static	Standard		Short	None
S	sneg	Variable	LG2	Static	Standard		Short	None
Wx	veter v x smeri	Variable	LG2	Static	Standard		Short	None
Wy	veter v y smeri	Variable	LG2	Static	Standard		Short	None
D	dvigalo	Variable	LG2	Static	Standard		Short	None

3. Nonlinear combinations

Name	Type	Load cases	Coeff. [-]
Student version	*Student version*	*Student version*	*Student version*
NC1	Ultimate	Profili	1,35
		G - stalna	1,35
		Q - koristna	1,50
		S - sneg	0,75
		Wx - veter v x smeri	0,90
		D - dvigalo	1,50
NC2	Ultimate	Profili	1,35
		G - stalna	1,35
		Q - koristna	1,50
		S - sneg	0,75
		Wy - veter v y smeri	0,90
		D - dvigalo	1,50
NC3	Ultimate	Profili	1,35
		G - stalna	1,35
		Q - koristna	1,05
		S - sneg	1,50
		Wy - veter v y smeri	0,90
		D - dvigalo	1,05
NC4	Ultimate	Profili	1,35
		G - stalna	1,35
		Q - koristna	1,05
		S - sneg	1,50
		Wx - veter v x smeri	0,90
		D - dvigalo	1,05
NC5	Ultimate	Profili	1,35
		G - stalna	1,35
		Q - koristna	1,05
		S - sneg	0,75
		Wx - veter v x smeri	1,50
		D - dvigalo	1,05
NC6	Ultimate	Profili	1,35
		G - stalna	1,35
		Q - koristna	1,05
		S - sneg	0,75
		Wy - veter v y smeri	1,50
		D - dvigalo	1,05
NC7	Ultimate	Profili	1,00
		G - stalna	1,00
		Wy - veter v y smeri	1,50
		D - dvigalo	1,50
NC8	Ultimate	Profili	1,00
		G - stalna	1,00
		Wx - veter v x smeri	1,50
		D - dvigalo	1,50
MSU1	Ultimate	Profili	1,00
		G - stalna	1,00
		Q - koristna	0,70
		S - sneg	0,50
		Wx - veter v x smeri	1,00
		D - dvigalo	0,00
MSU2	Ultimate	Profili	1,00
		G - stalna	1,00
		Q - koristna	0,70
		S - sneg	0,50
		Wy - veter v y smeri	1,00
		D - dvigalo	0,00
Student version	*Student version*	*Student version*	*Student version*
MSU3	Ultimate	Profili	1,00
		G - stalna	1,00
		Q - koristna	1,00
		S - sneg	0,50
		Student version	*Student version*

Name	Type	Load cases	Coeff. [-]
Student version	*Student version*	*Student version*	*Student version* *Student version* *Student version* *Stude
MSU3	Ultimate		
		Wx - veter v x smeri	0,60
		D - dvigalo	1,00
MSU4	Ultimate	Profili	1,00
		G - stalna	1,00
		Q - koristna	1,00
		S - sneg	0,50
		Wy - veter v y smeri	0,60
		D - dvigalo	1,00

4. Result classes

Name	List
Student version	*Student version*
MSN TDR	NC1
	NC2
	NC3
	NC4
	NC5
	NC6
	NC7
	NC8
MSU TDR	MSU1
	MSU2
	MSU3
	MSU4
OBTEŽBE	Profili
	G
	Q
	S
	Wx
	Wy
	D

5. Stability combinations

Name	Load cases	Coeff. [-]
Student version	*Student version* *Student version* *Student version* *Student version*	*Student version* *Student
S1	G - stalna	1,35
	Q - koristna	1,50
	S - sneg	0,75
	Wx - veter v x smeri	0,90
	D - dvigalo	1,50
	Profili	1,35
S2	G - stalna	1,35
	Q - koristna	1,05
	S - sneg	0,75
	Wy - veter v y smeri	1,50
	D - dvigalo	1,05
	Profili	1,35
S3	G - stalna	1,35
	Q - koristna	1,05
	S - sneg	1,50
	Wx - veter v x smeri	0,90
	D - dvigalo	1,05
	Profili	1,35
Student version	*Student version* *Student version* *Student version* *Student version*	*Student version* *Student
S4	G - stalna	1,35
	Q - koristna	1,05
	S - sneg	1,50
	Wy - veter v y smeri	0,90
Student version	*Student version* *Student ver	*Student version* *Stu

Name	Load cases	Coeff. [-]
Student version *Student version* *Student version* *Student version* *Student version* *Student		
S4		
	D - dvigalo	1,05
	Profili	1,35
S5	G - stalna	1,35
	Q - koristna	1,05
	S - sneg	0,75
	Wx - veter v x smeri	1,50
	D - dvigalo	1,05
	Profili	1,35
S6	G - stalna	1,35
	Q - koristna	1,05
	S - sneg	0,75
	Wy - veter v y smeri	1,50
	D - dvigalo	1,05
	Profili	1,35
S7	G - stalna	1,00
	Wx - veter v x smeri	1,50
	D - dvigalo	1,50
	Profili	1,00
S8	G - stalna	1,00
	Wy - veter v y smeri	1,50
	D - dvigalo	1,50
	Profili	1,00

6. Critical load coefficients

Critical load coefficients

Student version *Student version* *Student version* *Student ve

N -	f []
Student version *Student version* *Student version* *Stu	
Stability combination : S1	
1	17,15
2	30,28
3	33,37
4	37,95
Stability combination : S2	
1	18,79
2	24,73
3	30,36
4	37,23
Stability combination : S3	
1	20,93
2	37,16
3	40,89
4	46,93
Stability combination : S4	
1	20,01
2	26,56
3	32,30
4	39,63
Stability combination : S5	
1	20,18
2	38,06
3	47,84
4	48,11
Stability combination : S6	
1	18,79
2	24,73
3	30,36
4	37,23
Stability combination : S7	
1	29,26
2	53,37
3	58,91
4	66,01
Stability combination : S8	
1	26,44
2	39,82
3	50,77

7. Reakcije Rx, Ry, Rz v podporah - Ovojnica MSN

Nonlinear calculation, Extreme : Global
Selection : All
Class : MSN TDR

Support	Case	Rx [kN]	Ry [kN]	Rz [kN]
*Student version³	*Student version³	*Student version³	*Student version³	*Stud
Sn38/N54	NC8	**-64,16**	15,47	**-183,88**
Sn40/N13	NC2	**7,34**	**43,75**	196,44
Sn34/N102	NC5	-0,40	**-25,97**	28,93
Sn39/N40	NC5	-0,39	1,40	**215,05**

8. Rezultanta reakcij Rx, Ry, Rz za posamezni obtežni primer

Linear calculation, Extreme : No
Selection : All
Class : OBTEŽBE

Case	Rx [kN]	Ry [kN]	Rz [kN]
*Student version³	*Student version³	*Student version³	*Stud
Profili	0,00	0,00	111,21
G	0,00	0,00	32,33
Q	0,00	0,00	235,49
S	0,00	0,00	34,63
Wx	-40,47	0,00	0,00
Wy	0,00	41,24	0,00
D	-35,75	35,10	40,70

Central point :

Type Name	X [m]	Y [m]	Z [m]
*Student version³	*Student version³	*Student version³	*Student
Resultant	0,122	-0,294	1,960

9. Notranje sile za stebre HEA 180 - ovojnica MSN

Nonlinear calculation, Extreme : Global, System : Principal
Selection : All
Class : MSN TDR
Cross-section : CS18 - HEA180

Member	Case	dx [m]	N [kN]	Vy [kN]	Vz [kN]	My [kNm]	Mz [kNm]
*Student version³	*Student version³	*Student version³	*Student version³	*Student version³	*Student version³	*Student version³	*Studen
B459	NC5	0,000	**-214,96**	0,79	1,14	0,00	0,00
B468	NC8	1,640	**128,94**	-0,73	4,94	7,91	-1,13
B1020	NC7	1,650	33,62	**-6,09**	1,85	0,73	-5,18
B1020	NC7	1,650	13,16	**8,58**	0,16	0,73	**-5,18**
B466	NC8	1,010	79,63	4,47	**-18,56**	-10,76	3,34
B465	NC1	0,000	1,97	0,69	**9,65**	**-13,04**	-1,70
B466	NC1	0,000	0,90	5,59	-11,89	**7,96**	-0,92
B1020	NC8	3,300	25,55	7,95	-1,59	0,65	**8,21**

10. Notranje sile za HEA 140 - ovojnica MSN

Nonlinear calculation, Extreme : Global, System : Principal
Selection : All
Class : MSN TDR
Cross-section : CS17 - HEA140

Member	Case	dx [m]	N [kN]	Vy [kN]	Vz [kN]	My [kNm]	Mz [kNm]
*Student version³	*Student version³	*Student version³	*Student version³	*Student version³	*Student version³	*Student version³	*Stude
B98	NC8	0,000	**-40,32**	0,93	4,17	-4,38	-0,81
B97	NC7	2,300	**5,87**	-2,05	-1,40	0,00	0,00
B1091	NC7	0,000	-22,83	**-2,10**	1,41	0,00	0,00
B1091	NC7	2,300	-26,88	**2,11**	-1,41	0,00	0,00
B155	NC1	1,600	0,97	-0,45	**-8,20**	0,00	0,00
B133	NC8	0,000	1,30	1,09	**8,25**	**-8,40**	-1,17
*Student version³	*Student version³	*Student version³	*Student version³	*Student version³	*Student version³	*Student version³	*Stude

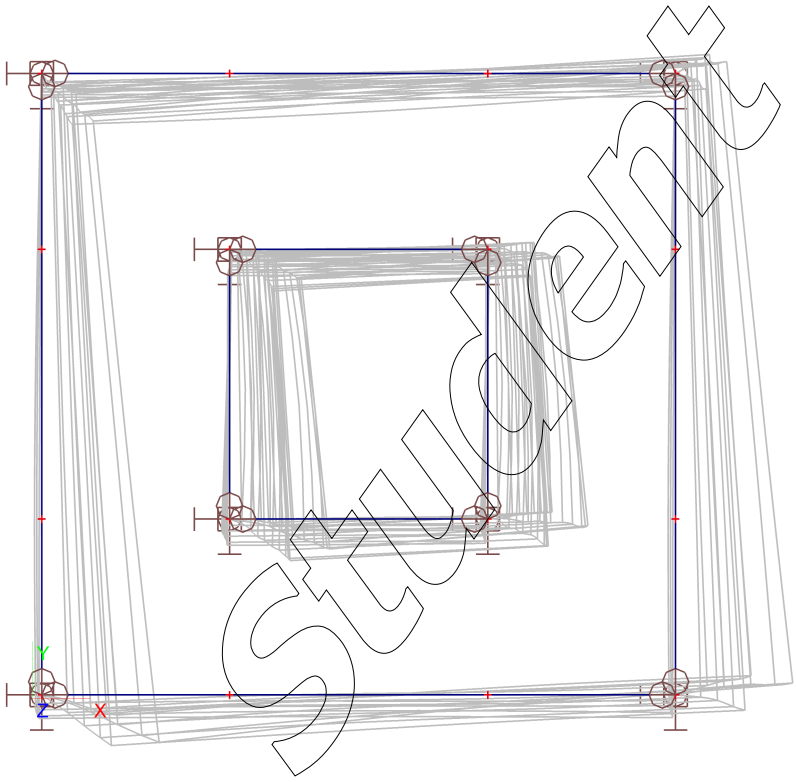
Member	Case	dx [m]	N [kN]	Vy [kN]	Vz [kN]	My [kNm]	Mz [kNm]
*Student version³	*Student version³	*Student version³	*Student version³	*Student version³	*Student version³	*Student version³	*Stude
B154	NC1	1,100	-4,93	0,68	-0,01	**13,11**	-0,02
B1091	NC7	1,150	-22,83	-2,06	1,12	1,46	**-2,40**
B106	NC2	1,150	-6,29	2,06	1,12	1,51	**2,38**

11. Pomiki stebrov HEA 180 - Ovojnica MSU

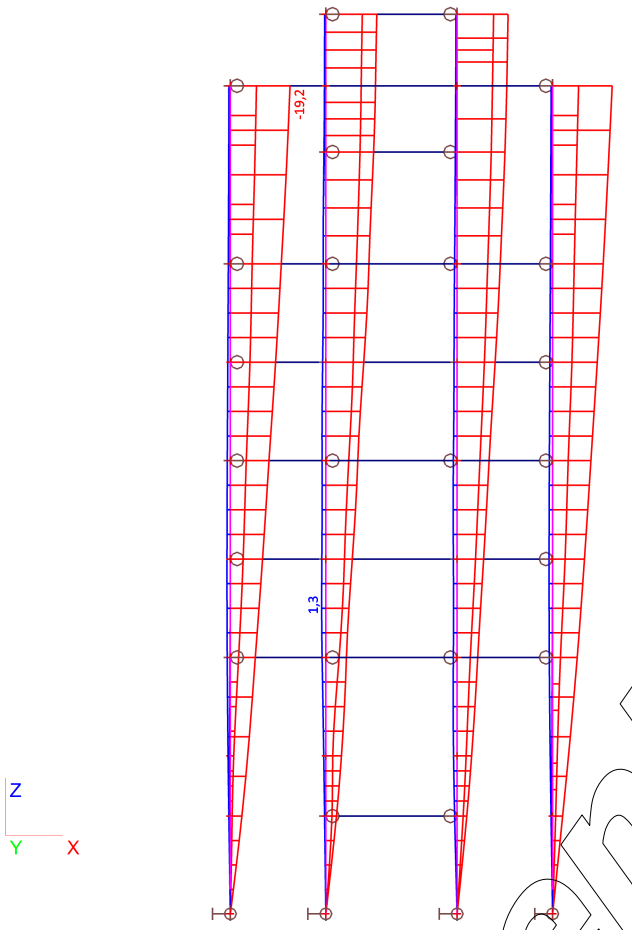
Nonlinear calculation, Extreme : Global
Selection : All
Class : MSU TDR
Cross-section : CS18 - HEA180

Case	Member	dx [m]	ux [mm]	uy [mm]	uz [mm]	fix [mrad]	fiy [mrad]	fiz [mrad]
*Student version³	*Student version³	*Student version³	*Student version³	*Student version³	*Student version³	*Student version³	*Student version³	*St
MSU4	B1023	1,200	**-0,8**	-6,8	-9,9	1,0	0,2	-0,3
MSU3	B466	0,000	**0,0**	-0,5	-2,0	0,6	0,6	-0,5
MSU4	B420	4,635	-0,1	**-8,3**	-5,0	1,2	0,3	-0,2
MSU1	B485	2,985	-0,2	**3,1**	-12,3	0,0	0,6	0,2
MSU3	B490	2,985	-0,5	-7,8	**-19,2**	0,0	0,8	-0,3
MSU2	B445	0,825	-0,3	-1,3	**1,3**	0,1	0,0	-0,4
MSU2	B442	0,000	-0,5	-2,6	0,8	**-0,1**	0,2	-0,3
MSU3	B34	2,310	-0,8	-1,1	-11,7	**1,8**	0,3	0,2
MSU2	B474	0,410	0,0	0,0	0,2	0,0	**-0,5**	0,0
MSU3	B1007	0,000	0,0	0,0	0,0	0,0	**2,4**	-0,7
MSU4	B1044	0,000	0,0	0,0	0,0	0,0	0,0	**-1,7**
MSU3	B412	1,650	-0,5	1,7	-5,0	1,5	0,7	**0,6**

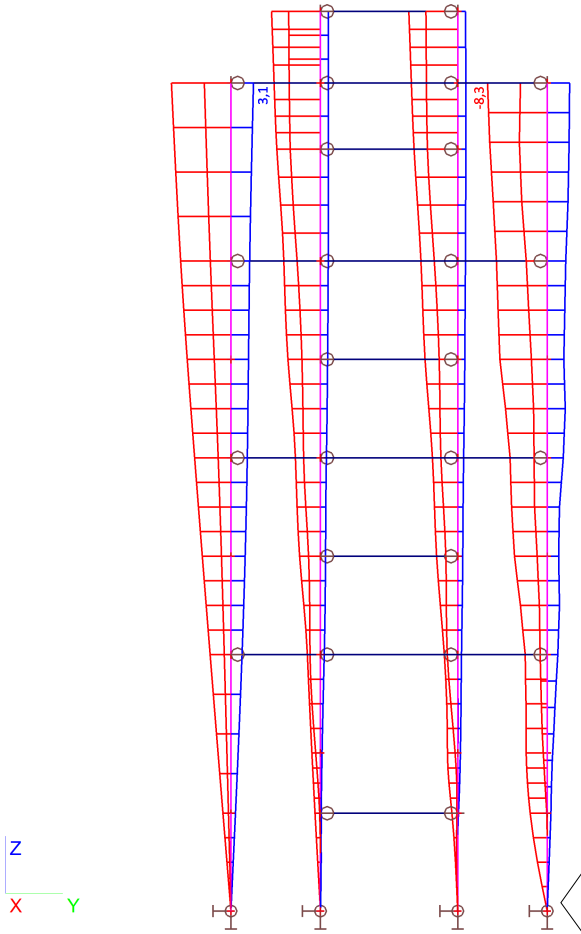
12. Deformacija celotne konstrukcije - Ovojnica MSU



13. Horizontalni pomiki Ux v stebrih - Ovojnica MSU



14. Horizontalni pomiki Uy v stebrih - Ovojnica MSU



15. Bill of material

Name	Mass [kg]	Surface [m²]	Volume [m³]
*Student version¹ *Student version¹ *Student version¹ *Student version¹ *Stud			
Total results :	11336,9	340,917	1,4442e+00

CSS	Material	Unit mass [kg/m]	Length [m]	Mass [kg]	Surface [m²]	Unit volume mass [kg/m³]	Volume [m³]
*Student version¹ *Student version¹ *Student version¹ *Student version¹ *Student version¹ *Student version¹ *Student version¹ *Student version¹ *Student version¹ *Student version¹ *Studen							
CS2 - U180	S 355	22,0	76,798	1688,0	46,280	7850,0	2,1503e-01
CS5 - RD24	S 450	3,5	76,038	269,9	5,733	7850,0	3,4381e-02
CS16 - RD12	S 235	0,9	182,023	161,5	6,862	7850,0	2,0576e-02
CS17 - HEA140	S 235	24,6	191,000	4708,0	151,712	7850,0	5,9974e-01
CS18 - HEA180	S 355	35,6	115,880	4120,8	118,676	7850,0	5,2494e-01
CS28 - RD16	S 450	1,6	65,614	103,5	3,298	7850,0	1,3186e-02
CS29 - RD20	S 450	2,5	65,614	161,7	4,122	7850,0	2,0603e-02
CS31 - RD10	S 450	0,6	59,161	36,5	1,858	7850,0	4,6441e-03
CS32 - SHS50/50/5.0	S 235	6,9	12,700	87,0	2,376	7850,0	1,1087e-02