

# Fundamentalism

S

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## BASIC CHARACTERISTICS:

S  
Structural nodes 20  
Additional reference nodes 1  
Number of elements 19  
Number of beam elements 19  
Number of plate elements 0  
Number of bound nodes 2  
Number of loaded nodes 20  
Number of property definitions 8  
Number of auxilliary system definitions 0  
Model span distance 2768,916  
Node attach tolerance (fraction) 0,001  
Node attach tolerance (distance) 2,768916  
Total length of beam elements 6,4735E+03  
Length of longest beam element 5,1452E+02 (S4\*5\*21)  
Length of shortest beam element 2,1831E+02 (S6\*7\*21)  
Length of average beam element 3,4071E+02

## MEMORY REQUIRMENT:

Bandwidth 12  
Model size 8,67 KB  
Solution cost 11,52 KB  
Total model cost 20,19 KB

## SOLUTION QUALITY:

Numerical condition number 12,0 of 15

## NODAL COORDINATES

NAME	X	Y	Z	Use
1	7,1900E+02	-1,2917E+03	0,0000E+00	Structural
2	8,6075E+02	-1,7169E+03	0,0000E+00	Structural
3	1,0489E+03	-1,8750E+03	0,0000E+00	Structural
4	1,4952E+03	-1,9910E+03	0,0000E+00	Structural
5	2,0019E+03	-1,9021E+03	0,0000E+00	Structural
6	2,2528E+03	-1,6748E+03	0,0000E+00	Structural
7	2,3009E+03	-1,4618E+03	0,0000E+00	Structural
8	2,2008E+03	-1,1694E+03	0,0000E+00	Structural
9	2,0167E+03	-1,0312E+03	0,0000E+00	Structural
10	1,6736E+03	-8,9784E+02	0,0000E+00	Structural
11	1,2282E+03	-8,0007E+02	0,0000E+00	Structural
12	8,8824E+02	-6,3009E+02	0,0000E+00	Structural
13	7,6255E+02	-3,6075E+02	0,0000E+00	Structural
14	7,8128E+02	-7,9775E+01	0,0000E+00	Structural
15	9,7074E+02	1,2691E+02	0,0000E+00	Structural
16	1,2801E+03	2,8158E+02	0,0000E+00	Structural
17	1,5870E+03	2,8158E+02	0,0000E+00	Structural
18	1,8413E+03	2,4343E+02	0,0000E+00	Structural
19	2,1552E+03	1,0393E+02	0,0000E+00	Structural
20	2,3004E+03	-2,5912E+02	0,0000E+00	Structural
21	0,0000E+00	0,0000E+00	0,0000E+00	Orientation

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## ELEMENT PROPERTIES

NAME	Description	A	Iy	Iz	J	Sy	Sz	E	G
S1*2*21	SQ 150 x 6	3,4560E+03	1,1965E+07	1,1965E+07	1,7916E+07	1,5953E+05	1,5953E+05	2,0000E+05	7,7000E+04
S2*3*21	SQ 150 x 6	3,4560E+03	1,1965E+07	1,1965E+07	1,7916E+07	1,5953E+05	1,5953E+05	2,0000E+05	7,7000E+04
S3*4*21	SQ 150 x 6	3,4560E+03	1,1965E+07	1,1965E+07	1,7916E+07	1,5953E+05	1,5953E+05	2,0000E+05	7,7000E+04
S4*5*21	SQ 150 x 6	3,4560E+03	1,1965E+07	1,1965E+07	1,7916E+07	1,5953E+05	1,5953E+05	2,0000E+05	7,7000E+04
S5*6*21	SQ 150 x 6	3,4560E+03	1,1965E+07	1,1965E+07	1,7916E+07	1,5953E+05	1,5953E+05	2,0000E+05	7,7000E+04
S6*7*21	SQ 150 x 6	3,4560E+03	1,1965E+07	1,1965E+07	1,7916E+07	1,5953E+05	1,5953E+05	2,0000E+05	7,7000E+04
S7*8*21	SQ 150 x 6	3,4560E+03	1,1965E+07	1,1965E+07	1,7916E+07	1,5953E+05	1,5953E+05	2,0000E+05	7,7000E+04
S8*9*21	SQ 150 x 6	3,4560E+03	1,1965E+07	1,1965E+07	1,7916E+07	1,5953E+05	1,5953E+05	2,0000E+05	7,7000E+04
S9*10*21	SQ 150 x 6	3,4560E+03	1,1965E+07	1,1965E+07	1,7916E+07	1,5953E+05	1,5953E+05	2,0000E+05	7,7000E+04
S10*11*21	SQ 150 x 6	3,4560E+03	1,1965E+07	1,1965E+07	1,7916E+07	1,5953E+05	1,5953E+05	2,0000E+05	7,7000E+04
S11*12*21	SQ 150 x 6	3,4560E+03	1,1965E+07	1,1965E+07	1,7916E+07	1,5953E+05	1,5953E+05	2,0000E+05	7,7000E+04
S12*13*21	SQ 150 x 6	3,4560E+03	1,1965E+07	1,1965E+07	1,7916E+07	1,5953E+05	1,5953E+05	2,0000E+05	7,7000E+04
S13*14*21	SQ 150 x 6	3,4560E+03	1,1965E+07	1,1965E+07	1,7916E+07	1,5953E+05	1,5953E+05	2,0000E+05	7,7000E+04
S14*15*21	SQ 150 x 6	3,4560E+03	1,1965E+07	1,1965E+07	1,7916E+07	1,5953E+05	1,5953E+05	2,0000E+05	7,7000E+04
S15*16*21	SQ 150 x 6	3,4560E+03	1,1965E+07	1,1965E+07	1,7916E+07	1,5953E+05	1,5953E+05	2,0000E+05	7,7000E+04
S16*17*21	SQ 150 x 6	3,4560E+03	1,1965E+07	1,1965E+07	1,7916E+07	1,5953E+05	1,5953E+05	2,0000E+05	7,7000E+04
S17*18*21	SQ 150 x 6	3,4560E+03	1,1965E+07	1,1965E+07	1,7916E+07	1,5953E+05	1,5953E+05	2,0000E+05	7,7000E+04
S18*19*21	SQ 150 x 6	3,4560E+03	1,1965E+07	1,1965E+07	1,7916E+07	1,5953E+05	1,5953E+05	2,0000E+05	7,7000E+04
S19*20*21	SQ 150 x 6	3,4560E+03	1,1965E+07	1,1965E+07	1,7916E+07	1,5953E+05	1,5953E+05	2,0000E+05	7,7000E+04

## EXTERNAL LOADS

NODE	Fx	Fy	Fz	Mx	My	Mz	Res-F	Res-M
1	0,0000E+00	-6,0515E+02	-2,9137E+02	0,0000E+00	0,0000E+00	0,0000E+00	6,7164E+02	0,0000E+00
2	0,0000E+00	-9,3693E+02	-4,5111E+02	0,0000E+00	0,0000E+00	0,0000E+00	1,0399E+03	0,0000E+00
3	0,0000E+00	-9,5423E+02	-4,5945E+02	0,0000E+00	0,0000E+00	0,0000E+00	1,0591E+03	0,0000E+00
4	0,0000E+00	-1,3170E+03	-6,3413E+02	0,0000E+00	0,0000E+00	0,0000E+00	1,4618E+03	0,0000E+00
5	0,0000E+00	-1,1516E+03	-5,5446E+02	0,0000E+00	0,0000E+00	0,0000E+00	1,2781E+03	0,0000E+00
6	0,0000E+00	-7,5169E+02	-3,6193E+02	0,0000E+00	0,0000E+00	0,0000E+00	8,3429E+02	0,0000E+00
7	0,0000E+00	-7,1204E+02	-3,4283E+02	0,0000E+00	0,0000E+00	0,0000E+00	7,9028E+02	0,0000E+00
8	0,0000E+00	-7,2805E+02	-3,5054E+02	0,0000E+00	0,0000E+00	0,0000E+00	8,0805E+02	0,0000E+00
9	0,0000E+00	-8,0762E+02	-3,8886E+02	0,0000E+00	0,0000E+00	0,0000E+00	8,9636E+02	0,0000E+00
10	0,0000E+00	-1,1125E+03	-5,3566E+02	0,0000E+00	0,0000E+00	0,0000E+00	1,2348E+03	0,0000E+00
11	0,0000E+00	-1,1287E+03	-5,4347E+02	0,0000E+00	0,0000E+00	0,0000E+00	1,2528E+03	0,0000E+00
12	0,0000E+00	-9,1437E+02	-4,4025E+02	0,0000E+00	0,0000E+00	0,0000E+00	1,0148E+03	0,0000E+00
13	0,0000E+00	-7,8141E+02	-3,7624E+02	0,0000E+00	0,0000E+00	0,0000E+00	8,6727E+02	0,0000E+00
14	0,0000E+00	-7,5867E+02	-3,6528E+02	0,0000E+00	0,0000E+00	0,0000E+00	8,4203E+02	0,0000E+00
15	0,0000E+00	-8,4543E+02	-4,0706E+02	0,0000E+00	0,0000E+00	0,0000E+00	9,3832E+02	0,0000E+00
16	0,0000E+00	-8,8119E+02	-4,2428E+02	0,0000E+00	0,0000E+00	0,0000E+00	9,7801E+02	0,0000E+00
17	0,0000E+00	-7,6149E+02	-3,6665E+02	0,0000E+00	0,0000E+00	0,0000E+00	8,4516E+02	0,0000E+00
18	0,0000E+00	-8,1091E+02	-3,9044E+02	0,0000E+00	0,0000E+00	0,0000E+00	9,0001E+02	0,0000E+00
19	0,0000E+00	-9,9156E+02	-4,7742E+02	0,0000E+00	0,0000E+00	0,0000E+00	1,1005E+03	0,0000E+00
20	0,0000E+00	-5,2788E+02	-2,5416E+02	0,0000E+00	0,0000E+00	0,0000E+00	5,8588E+02	0,0000E+00
Totals	0,0000E+00	-1,7479E+04	-8,4156E+03	NA	NA	NA	1,9399E+04	NA
Maximum	0,0000E+00	-5,2788E+02	-2,5416E+02	0,0000E+00	0,0000E+00	0,0000E+00	1,4618E+03	0,0000E+00
Minimum	0,0000E+00	-1,3170E+03	-6,3413E+02	0,0000E+00	0,0000E+00	0,0000E+00	5,8588E+02	0,0000E+00

## BOUNDARY CONDITIONS

NODE	X	Y	Z	Xrot	Yrot	Zrot
4	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
5	Free	Fixed	Free	Fixed	Free	Free

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## DISPLACEMENTS

NODE	X	Y	Z	Xrot	Yrot	Zrot
1	-1,3120E-01	-1,1490E-01	-1,2061E-01	-1,1998E-04	-9,1828E-05	2,1151E-04
2	-4,2510E-02	-8,4949E-02	-5,8401E-02	-1,0837E-04	-8,7959E-05	2,0347E-04
3	-1,2098E-02	-4,8195E-02	-2,6890E-02	-8,5671E-05	-7,9857E-05	1,7976E-04
4	0,0000E+00	0,0000E+00	0,0000E+00	0,0000E+00	0,0000E+00	0,0000E+00
5	-2,0223E-03	0,0000E+00	1,5966E-02	0,0000E+00	-1,8618E-04	2,8259E-04
6	-1,7034E-01	1,7960E-01	-1,3571E-02	-1,7283E-03	-1,2094E-03	1,2456E-03
7	-5,1959E-01	2,5475E-01	-3,8013E-01	-2,4086E-03	-1,9502E-03	2,0356E-03
8	-1,2754E+00	-8,7678E-03	-1,4092E+00	-3,0123E-03	-2,6646E-03	3,1194E-03
9	-1,7524E+00	-6,4820E-01	-2,3744E+00	-3,4743E-03	-2,9301E-03	3,7818E-03
10	-2,3050E+00	-2,0741E+00	-3,9406E+00	-4,2553E-03	-3,1493E-03	4,4438E-03
11	-2,7516E+00	-4,1142E+00	-5,8163E+00	-5,1874E-03	-3,1400E-03	4,5965E-03
12	-3,5057E+00	-5,6265E+00	-7,7748E+00	-5,8482E-03	-2,8250E-03	4,2303E-03
13	-4,5803E+00	-6,1307E+00	-9,7215E+00	-6,1541E-03	-2,3874E-03	3,7406E-03
14	-5,5603E+00	-6,0676E+00	-1,1425E+01	-6,2504E-03	-1,9719E-03	3,2359E-03
15	-6,1825E+00	-5,4993E+00	-1,2369E+01	-6,2190E-03	-1,6863E-03	2,7929E-03
16	-6,5827E+00	-4,7008E+00	-1,2841E+01	-6,1432E-03	-1,4662E-03	2,4013E-03
17	-6,5827E+00	-3,9990E+00	-1,2407E+01	-6,0904E-03	-1,3662E-03	2,1934E-03
18	-6,5008E+00	-3,4540E+00	-1,1834E+01	-6,0553E-03	-1,3240E-03	2,1021E-03
19	-6,2112E+00	-2,8033E+00	-1,0580E+01	-6,0281E-03	-1,3051E-03	2,0568E-03
20	-5,4659E+00	-2,5055E+00	-8,2040E+00	-6,0205E-03	-1,3021E-03	2,0506E-03
	X	Y	Z	Xrot	Yrot	Zrot
Maximum	0,0000E+00	2,5475E-01	1,5966E-02	0,0000E+00	0,0000E+00	4,5965E-03
Max node	4	7	5	4	4	11
Minimum	-6,5827E+00	-6,1307E+00	-1,2841E+01	-6,2504E-03	-3,1493E-03	0,0000E+00
Min node	16	13	16	10	4	

## REACTIONS

Node	X	Y	Z	Xrot	Yrot	Zrot	Res-F	Res-M
4	-6,9781E-09	1,9299E+04	8,4156E+03	6,1080E+05	-9,4881E+04	1,1197E+06	2,1054E+04	1,2790E+06
5	0,0000E+00	-1,8206E+03	0,0000E+00	8,8920E+06	0,0000E+00	0,0000E+00	1,8206E+03	8,8920E+06
	X	Y	Z	Xrot	Yrot	Zrot	Res-F	Res-M
Max	0,0000E+00	1,9299E+04	8,4156E+03	8,8920E+06	0,0000E+00	1,1197E+06	2,1054E+04	8,8920E+06
Min	-6,9781E-09	-1,8206E+03	0,0000E+00	6,1080E+05	-9,4881E+04	0,0000E+00	1,8206E+03	1,2790E+06
Total	-6,9781E-09	1,7479E+04	8,4156E+03	9,5028E+06	-9,4881E+04	1,1197E+06		

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## BEAM INTERNAL LOADS - ABSOLUTE MAX OF EITHER NODE - LOCAL

Element	Fx	Fy	Fz	Mx	My	Mz
S1*2*21	5,7409E+02	1,9136E+02	2,9137E+02	5,0619E-10	1,3061E+05	8,5780E+04
S2*3*21	9,9185E+02	1,1808E+03	7,4248E+02	6,8309E+04	2,9379E+05	3,7597E+05
S3*4*21	6,2816E+02	2,4160E+03	1,2019E+03	1,8796E+05	7,9009E+05	1,4899E+06
S4*5*21	2,6759E+03	1,5253E+04	6,5795E+03	8,6257E+04	2,5455E+06	5,2382E+06
S5*6*21	8,4031E+03	9,2724E+03	6,0251E+03	8,0195E+06	3,8640E+06	8,3769E+06
S6*7*21	1,1473E+04	2,5907E+03	5,6631E+03	5,5130E+06	6,1032E+06	8,9424E+06
S7*8*21	1,0455E+04	3,5767E+03	5,3203E+03	2,1441E+06	7,0344E+06	8,9424E+06
S8*9*21	6,1931E+03	8,2574E+03	4,9698E+03	1,2605E+06	5,6619E+06	7,8368E+06
S9*10*21	3,4484E+03	8,8673E+03	4,5809E+03	2,4304E+06	4,0118E+06	5,9361E+06
S10*11*21	1,8014E+03	8,2063E+03	4,0452E+03	2,7599E+06	1,9232E+06	2,6724E+06
S11*12*21	3,2525E+03	6,5051E+03	3,5018E+03	2,6566E+06	7,5237E+05	3,5423E+06
S12*13*21	5,7620E+03	2,6889E+03	3,0615E+03	2,4409E+06	1,1974E+06	4,3415E+06
S13*14*21	5,5648E+03	3,7099E+02	2,6853E+03	1,9997E+06	1,4289E+06	4,3415E+06
S14*15*21	3,5520E+03	3,2560E+03	2,3200E+03	1,1401E+06	1,7753E+06	4,2371E+06
S15*16*21	1,7768E+03	3,5536E+03	1,9129E+03	6,6323E+05	1,4578E+06	3,3242E+06
S16*17*21	5,5879E-09	3,0918E+03	1,4887E+03	2,3714E+05	1,0087E+06	2,0951E+06
S17*18*21	3,4569E+02	2,3046E+03	1,1220E+03	1,5264E+05	5,8100E+05	1,1463E+06
S18*19*21	6,1710E+02	1,3885E+03	7,3158E+02	6,9332E+04	3,2248E+05	5,5356E+05
S19*20*21	4,9012E+02	1,9605E+02	2,5416E+02	4,0294E-08	9,9384E+04	7,6660E+04

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BEAM STRESSES - Maximum of either end

Element	S1	S2	S12	Sn1	Sn2	Ss	Fx/A	Fy/A*	Fz/A*	Mx/St	My/Sy	Mz/Sz	VonMises	Length
S1*2*21	-1,5292E+00 1,5325E+00	4,7604E-02 4,4826E+02	7,6792E-01	-1,5225E+00	1,1903E+00	1,0086E-01	-1,6611E-01	-5,5371E-02	8,4307E-02	2,0343E-15	8,1870E-01	5,3771E-01		
S2*3*21	-4,5845E+00 4,6348E+00	2,5551E-01 2,4577E+02	2,3418E+00	-4,4854E+00	3,9114E+00	6,7402E-01	-2,8699E-01	3,4166E-01	-2,1484E-01	2,7452E-01	-1,8416E+00	-2,3568E+00		
S3*4*21	-1,4631E+01 1,4710E+01	5,0792E-01 4,6107E+02	7,3940E+00	-1,4474E+01	1,4110E+01	1,5161E+00	-1,8176E-01	6,9907E-01	-3,4778E-01	7,5535E-01	-4,9526E+00	-9,3395E+00		
S4*5*21	-5,0091E+01 5,0356E+01	1,1192E+00 5,1452E+02	2,5308E+01	-4,9566E+01	4,8017E+01	5,1303E+00	-7,7429E-01	-4,4134E+00	1,9038E+00	-3,4665E-01	1,5956E+01	3,2835E+01		
S5*6*21	-8,1689E+01 9,0322E+01	1,6466E+01 3,3849E+02	4,8500E+01	-6,6379E+01	6,1516E+01	3,5365E+01	-2,4315E+00	-2,6830E+00	1,7434E+00	-3,2229E+01	-2,4221E+01	5,2510E+01		
S6*7*21	-9,9789E+01 1,0276E+02	5,9376E+00 2,1831E+02	5,2745E+01	-9,4087E+01	8,7448E+01	2,3853E+01	-3,3197E+00	-7,4962E-01	1,6386E+00	-2,2155E+01	-3,8258E+01	5,6055E+01		
S7*8*21	-1,0422E+02 1,0475E+02	1,2509E+00 3,0912E+02	5,2634E+01	-1,0317E+02	9,7125E+01	1,0443E+01	-3,0252E+00	1,0349E+00	1,5394E+00	-8,6167E+00	-4,4095E+01	5,6055E+01		
S8*9*21	-8,7107E+01 8,7458E+01	8,9209E-01 2,3017E+02	4,3903E+01	-8,6408E+01	8,2824E+01	7,8009E+00	-1,7920E+00	2,3893E+00	1,4380E+00	5,0656E+00	-3,5492E+01	4,9125E+01		
S9*10*21	-6,5751E+01 6,6981E+01	4,2996E+00 3,6807E+02	3,4073E+01	-6,3356E+01	6,1361E+01	1,2549E+01	-9,9779E-01	-2,5658E+00	-1,3255E+00	9,7672E+00	2,5148E+01	-3,7210E+01		
S10*11*21	-3,4681E+01 3,7644E+01	1,0301E+01 4,5602E+02	2,0017E+01	-2,9329E+01	2,8286E+01	1,3625E+01	-5,2123E-01	-2,3745E+00	-1,1705E+00	1,1092E+01	1,2055E+01	-1,6752E+01		
S11*12*21	-3,1865E+01 3,4693E+01	7,9773E+00 3,8008E+02	1,8479E+01	-2,6773E+01	2,4891E+01	1,2738E+01	-9,4113E-01	-1,8823E+00	-1,0132E+00	1,0676E+01	4,7162E+00	2,2205E+01		
S12*13*21	-3,4842E+01 3,6697E+01	3,5280E+00 2,9722E+02	1,9153E+01	-3,1378E+01	2,8044E+01	1,0986E+01	-1,6672E+00	7,7805E-01	8,8586E-01	9,8096E+00	-7,5061E+00	-2,7215E+01		
S13*14*21	-3,9679E+01 4,0660E+01	2,1771E+00 2,8160E+02	2,0788E+01	-3,7782E+01	3,4562E+01	8,6748E+00	-1,6102E+00	-1,0735E-01	7,7699E-01	8,0365E+00	-8,9572E+00	-2,7215E+01		
S14*15*21	-3,9545E+01 3,9966E+01	1,0926E+00 2,8038E+02	2,0187E+01	-3,8716E+01	3,6660E+01	5,7260E+00	-1,0278E+00	-9,4212E-01	6,7130E-01	4,5819E+00	-1,1128E+01	-2,6560E+01		
S15*16*21	-3,0956E+01 3,1192E+01	7,4449E-01 3,4587E+02	1,5711E+01	-3,0490E+01	2,9462E+01	3,7987E+00	-5,1412E-01	-1,0282E+00	5,5351E-01	2,6654E+00	-9,1383E+00	-2,0837E+01		
S16*17*21	1,9644E+01 1,9738E+01	-3,3518E-01 3,0686E+02	9,9155E+00	1,9456E+01	-1,9456E+01	1,9184E+00	1,6169E-12	8,9463E-01	-4,3075E-01	9,5301E-01	6,3233E+00	1,3133E+01		
S17*18*21	1,1089E+01 1,1170E+01	-3,1257E-01 2,5721E+02	5,6249E+00	1,0928E+01	-1,0728E+01	1,3366E+00	1,0002E-01	6,6683E-01	-3,2466E-01	6,1343E-01	3,6420E+00	7,1856E+00		
S18*19*21	5,7612E+00 5,8074E+00	-3,5891E-01 3,4347E+02	2,9262E+00	5,6700E+00	-5,3129E+00	7,2497E-01	1,7856E-01	4,0176E-01	-2,1168E-01	2,7863E-01	2,0215E+00	3,4700E+00		
S19*20*21	1,2522E+00 1,2557E+00	-4,5944E-02 3,9102E+02	6,2956E-01	1,2453E+00	-9,6170E-01	9,2879E-02	1,4182E-01	5,6727E-02	-7,3543E-02	1,6193E-13	6,2298E-01	4,8054E-01		
Maximum	1,9644E+01 1,0475E+02	1,6466E+01 5,1452E+02	5,2745E+01	1,9456E+01	9,7125E+01	3,5365E+01	1,7856E-01	2,3893E+00	1,9038E+00	1,1092E+01	2,5148E+01	5,6055E+01		
Minimum	-1,0422E+02	-3,5891E-01	6,2956E-01	-1,0317E+02	-1,9456E+01	9,2879E-02	-3,3197E+00	-4,4134E+00	-1,3255E+00	-3,2229E+01	-4,4095E+01	-3,7210E+01	1,2557E+00	2,1831E+02

# Fundamentalism

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# Fundamentalism

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# Fundamentalism

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# Fundamentalism

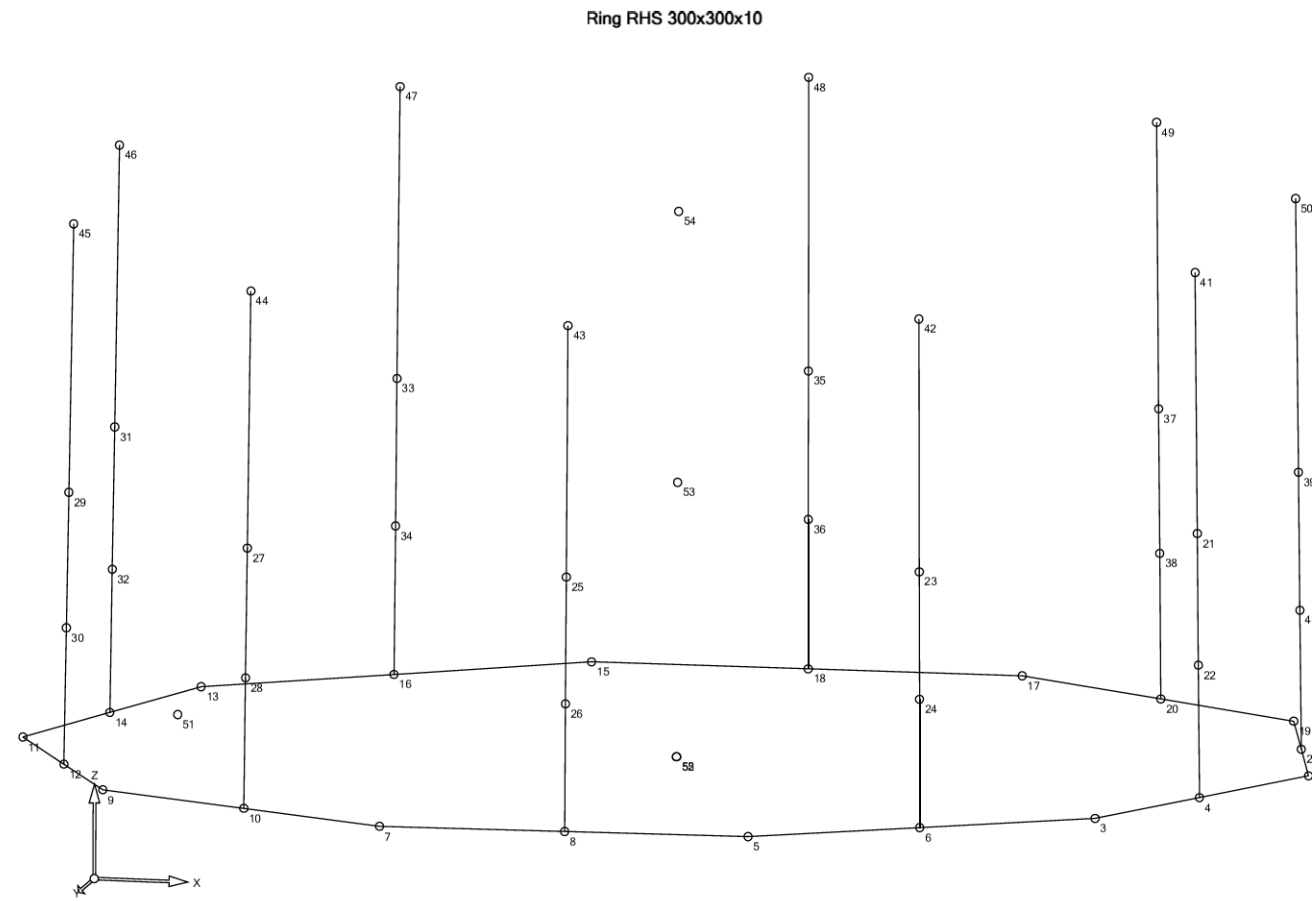
## S

### NODAL COORDINATES

NAME	X	Y	Z	Use
1	4000	0	0	Structural
2	3618	-1176	0	Structural
3	3236	2351	0	Structural
4	3618	1176	0	Structural
5	1236	3804	0	Structural
6	2236	3078	0	Structural
7	-1236	3804	0	Structural
8	0	3804	0	Structural
9	-3236	2351	0	Structural
10	-2236	3078	0	Structural
11	-4000	0	0	Structural
12	-3618	1176	0	Structural
13	-3236	-2351	0	Structural
14	-3618	-1176	0	Structural
15	-1236	-3804	0	Structural
16	-2236	-3078	0	Structural
17	1236	-3804	0	Structural
18	0	-3804	0	Structural
19	3236	-2351	0	Structural
20	2236	-3078	0	Structural
21	3618	1176	1700	Structural
22	3618	1176	850	Structural
23	2236	3078	1700	Structural
24	2236	3078	850	Structural
25	0	3804	1700	Structural
26	0	3804	850	Structural
27	-2236	3078	1700	Structural
28	-2236	3078	850	Structural
29	-3618	1176	1700	Structural
30	-3618	1176	850	Structural
31	-3618	-1176	1700	Structural
32	-3618	-1176	850	Structural
33	-2236	-3078	1700	Structural
34	-2236	-3078	850	Structural
35	0	-3804	1700	Structural
36	0	-3804	850	Structural
37	2236	-3078	1700	Structural
38	2236	-3078	850	Structural
39	3618	-1176	1700	Structural
40	3618	-1176	850	Structural
41	3618	1176	3400	Structural
42	2236	3078	3400	Structural
43	0	3804	3400	Structural
44	-2236	3078	3400	Structural
45	-3618	1176	3400	Structural
46	-3618	-1176	3400	Structural
47	-2236	-3078	3400	Structural
48	0	-3804	3400	Structural
49	2236	-3078	3400	Structural
50	3618	-1176	3400	Structural
51	-3218	-1176	0	Unused point
52	0	0	0	Unused point
53	0	0	1700	Unused point
54	0	0	3400	Unused point
55	0	0	0	Orientation

# Fundamentalism

S



# Fundamentalism

## S

### ELEMENT ATTRIBUTES

NAME	DESCRIPTION	GROUP	TYPE	SIZE	ORIGIN	AXIS	REF
S1*2*55	SQ 300 x 10	unnamed	Standard beam	1236	1	2	55
S2*19*55	SQ 300 x 10	unnamed	Standard beam	1236	2	19	55
S3*4*55	SQ 300 x 10	unnamed	Standard beam	1236	3	4	55
S4*1*55	SQ 300 x 10	unnamed	Standard beam	1236	4	1	55
S5*6*55	SQ 300 x 10	unnamed	Standard beam	1236	5	6	55
S6*3*55	SQ 300 x 10	unnamed	Standard beam	1236	6	3	55
S7*8*55	SQ 300 x 10	unnamed	Standard beam	1236	7	8	55
S8*5*55	SQ 300 x 10	unnamed	Standard beam	1236	8	5	55
S9*10*55	SQ 300 x 10	unnamed	Standard beam	1236	9	10	55
S10*7*55	SQ 300 x 10	unnamed	Standard beam	1236	10	7	55
S11*12*55	SQ 300 x 10	unnamed	Standard beam	1236	11	12	55
S12*9*55	SQ 300 x 10	unnamed	Standard beam	1236	12	9	55
S13*14*55	SQ 300 x 10	unnamed	Standard beam	1236	13	14	55
S14*11*55	SQ 300 x 10	unnamed	Standard beam	1236	14	11	55
S15*16*55	SQ 300 x 10	unnamed	Standard beam	1236	15	16	55
S16*13*55	SQ 300 x 10	unnamed	Standard beam	1236	16	13	55
S17*18*55	SQ 300 x 10	unnamed	Standard beam	1236	17	18	55
S18*15*55	SQ 300 x 10	unnamed	Standard beam	1236	18	15	55
S19*20*55	SQ 300 x 10	unnamed	Standard beam	1236	19	20	55
S20*17*55	SQ 300 x 10	unnamed	Standard beam	1236	20	17	55
S21*22*55	SQ 120 x 8,1	unnamed	Standard beam	850	21	22	55
S22*4*55	SQ 250 x 17	unnamed	Standard beam	850	22	4	55
S23*24*55	SQ 120 x 8,1	unnamed	Standard beam	850	23	24	55
S24*6*55	SQ 250 x 17	unnamed	Standard beam	850	24	6	55
S25*26*55	SQ 120 x 8,1	unnamed	Standard beam	850	25	26	55
S26*8*55	SQ 250 x 17	unnamed	Standard beam	850	26	8	55
S27*28*55	SQ 120 x 8,1	unnamed	Standard beam	850	27	28	55
S28*10*55	SQ 250 x 17	unnamed	Standard beam	850	28	10	55
S29*30*55	SQ 120 x 8,1	unnamed	Standard beam	850	29	30	55
S30*12*55	SQ 250 x 17	unnamed	Standard beam	850	30	12	55
S31*32*55	SQ 120 x 8,1	unnamed	Standard beam	850	31	32	55
S32*14*55	SQ 250 x 17	unnamed	Standard beam	850	32	14	55
S33*34*55	SQ 120 x 8,1	unnamed	Standard beam	850	33	34	55
S34*16*55	SQ 250 x 17	unnamed	Standard beam	850	34	16	55
S35*36*55	SQ 120 x 8,1	unnamed	Standard beam	850	35	36	55
S36*18*55	SQ 250 x 17	unnamed	Standard beam	850	36	18	55
S37*38*55	SQ 120 x 8,1	unnamed	Standard beam	850	37	38	55
S38*20*55	SQ 250 x 17	unnamed	Standard beam	850	38	20	55
S39*40*55	SQ 120 x 8,1	unnamed	Standard beam	850	39	40	55
S40*2*55	SQ 250 x 17	unnamed	Standard beam	850	40	2	55
S41*21*55	SQ 120 x 8,1	unnamed	Standard beam	1700	41	21	55
S42*23*55	SQ 120 x 8,1	unnamed	Standard beam	1700	42	23	55
S43*25*55	SQ 120 x 8,1	unnamed	Standard beam	1700	43	25	55
S44*27*55	SQ 120 x 8,1	unnamed	Standard beam	1700	44	27	55
S45*29*55	SQ 120 x 8,1	unnamed	Standard beam	1700	45	29	55
S46*31*55	SQ 120 x 8,1	unnamed	Standard beam	1700	46	31	55
S47*33*55	SQ 120 x 8,1	unnamed	Standard beam	1700	47	33	55
S48*35*55	SQ 120 x 8,1	unnamed	Standard beam	1700	48	35	55
S49*37*55	SQ 120 x 8,1	unnamed	Standard beam	1700	49	37	55
S50*39*55	SQ 120 x 8,1	unnamed	Standard beam	1700	50	39	55

# Fundamentalism

## S

ELEMENT PROPERTIES

NAME	Description	A	ly	lz	J	Sy	Sz	E	G
S1*2*55	SQ 300 x 10	11493	162568600	160260900	243890000	1083790	1068406	210000	83000
S2*19*55	SQ 300 x 10	11493	162568600	160260900	243890000	1083790	1068406	210000	83000
S3*4*55	SQ 300 x 10	11493	162568600	160260900	243890000	1083790	1068406	210000	83000
S4*1*55	SQ 300 x 10	11493	162568600	160260900	243890000	1083790	1068406	210000	83000
S5*6*55	SQ 300 x 10	11493	162568600	160260900	243890000	1083790	1068406	210000	83000
S6*3*55	SQ 300 x 10	11493	162568600	160260900	243890000	1083790	1068406	210000	83000
S7*8*55	SQ 300 x 10	11493	162568600	160260900	243890000	1083790	1068406	210000	83000
S8*5*55	SQ 300 x 10	11493	162568600	160260900	243890000	1083790	1068406	210000	83000
S9*10*55	SQ 300 x 10	11493	162568600	160260900	243890000	1083790	1068406	210000	83000
S10*7*55	SQ 300 x 10	11493	162568600	160260900	243890000	1083790	1068406	210000	83000
S11*12*55	SQ 300 x 10	11493	162568600	160260900	243890000	1083790	1068406	210000	83000
S12*9*55	SQ 300 x 10	11493	162568600	160260900	243890000	1083790	1068406	210000	83000
S13*14*55	SQ 300 x 10	11493	162568600	160260900	243890000	1083790	1068406	210000	83000
S14*11*55	SQ 300 x 10	11493	162568600	160260900	243890000	1083790	1068406	210000	83000
S15*16*55	SQ 300 x 10	11493	162568600	160260900	243890000	1083790	1068406	210000	83000
S16*13*55	SQ 300 x 10	11493	162568600	160260900	243890000	1083790	1068406	210000	83000
S17*18*55	SQ 300 x 10	11493	162568600	160260900	243890000	1083790	1068406	210000	83000
S18*15*55	SQ 300 x 10	11493	162568600	160260900	243890000	1083790	1068406	210000	83000
S19*20*55	SQ 300 x 10	11493	162568600	160260900	243890000	1083790	1068406	210000	83000
S20*17*55	SQ 300 x 10	11493	162568600	160260900	243890000	1083790	1068406	210000	83000
S21*22*55	SQ 120 x 8,1	3626	7605954	7605954	11349460	126766	126766	210000	83000
S22*4*55	SQ 250 x 17	15844	144122300	144122300	215038700	1152978	1152978	210000	83000
S23*24*55	SQ 120 x 8,1	3626	7605954	7605954	11349460	126766	126766	210000	83000
S24*6*55	SQ 250 x 17	15844	144122300	144122300	215038700	1152978	1152978	210000	83000
S25*26*55	SQ 120 x 8,1	3626	7605954	7605954	11349460	126766	126766	210000	83000
S26*8*55	SQ 250 x 17	15844	144122300	144122300	215038700	1152978	1152978	210000	83000
S27*28*55	SQ 120 x 8,1	3626	7605954	7605954	11349460	126766	126766	210000	83000
S28*10*55	SQ 250 x 17	15844	144122300	144122300	215038700	1152978	1152978	210000	83000
S29*30*55	SQ 120 x 8,1	3626	7605954	7605954	11349460	126766	126766	210000	83000
S30*12*55	SQ 250 x 17	15844	144122300	144122300	215038700	1152978	1152978	210000	83000
S31*32*55	SQ 120 x 8,1	3626	7605954	7605954	11349460	126766	126766	210000	83000
S32*14*55	SQ 250 x 17	15844	144122300	144122300	215038700	1152978	1152978	210000	83000
S33*34*55	SQ 120 x 8,1	3626	7605954	7605954	11349460	126766	126766	210000	83000
S34*16*55	SQ 250 x 17	15844	144122300	144122300	215038700	1152978	1152978	210000	83000
S35*36*55	SQ 120 x 8,1	3626	7605954	7605954	11349460	126766	126766	210000	83000
S36*18*55	SQ 250 x 17	15844	144122300	144122300	215038700	1152978	1152978	210000	83000
S37*38*55	SQ 120 x 8,1	3626	7605954	7605954	11349460	126766	126766	210000	83000
S38*20*55	SQ 250 x 17	15844	144122300	144122300	215038700	1152978	1152978	210000	83000
S39*40*55	SQ 120 x 8,1	3626	7605954	7605954	11349460	126766	126766	210000	83000
S40*2*55	SQ 250 x 17	15844	144122300	144122300	215038700	1152978	1152978	210000	83000
S41*21*55	SQ 120 x 8,1	3626	7605954	7605954	11349460	126766	126766	210000	83000
S42*23*55	SQ 120 x 8,1	3626	7605954	7605954	11349460	126766	126766	210000	83000
S43*25*55	SQ 120 x 8,1	3626	7605954	7605954	11349460	126766	126766	210000	83000
S44*27*55	SQ 120 x 8,1	3626	7605954	7605954	11349460	126766	126766	210000	83000
S45*29*55	SQ 120 x 8,1	3626	7605954	7605954	11349460	126766	126766	210000	83000
S46*31*55	SQ 120 x 8,1	3626	7605954	7605954	11349460	126766	126766	210000	83000
S47*33*55	SQ 120 x 8,1	3626	7605954	7605954	11349460	126766	126766	210000	83000
S48*35*55	SQ 120 x 8,1	3626	7605954	7605954	11349460	126766	126766	210000	83000
S49*37*55	SQ 120 x 8,1	3626	7605954	7605954	11349460	126766	126766	210000	83000
S50*39*55	SQ 120 x 8,1	3626	7605954	7605954	11349460	126766	126766	210000	83000

# Fundamentalism

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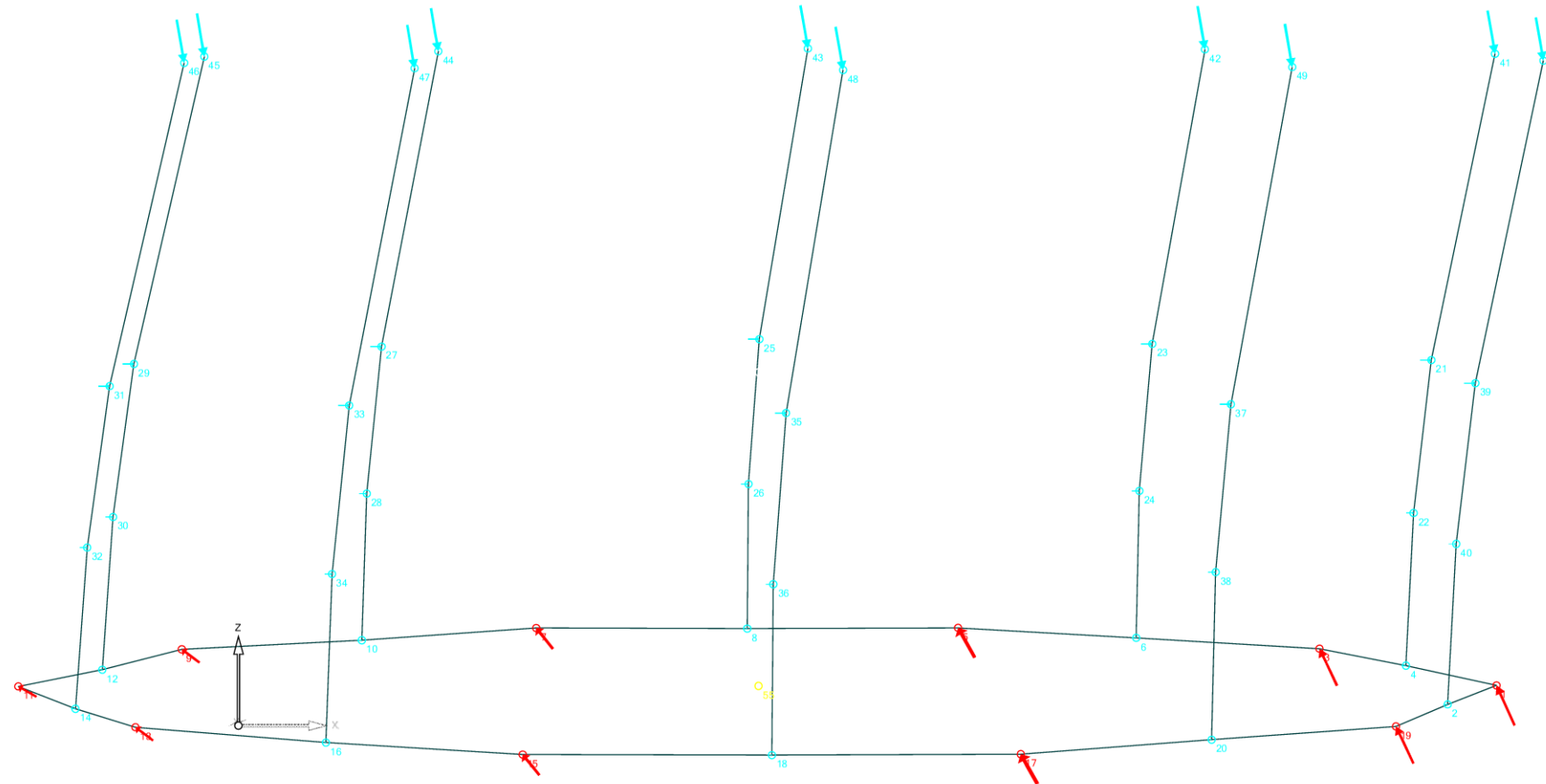
## EXTERNAL LOADS

NODE	Fx	Fy	Fz	Mx	My	Mz	Res-F	Res-M
2	1190	0	0	0	0	0	1190	0
4	1190	0	0	0	0	0	1190	0
6	1190	0	0	0	0	0	1190	0
8	1190	0	0	0	0	0	1190	0
10	1190	0	0	0	0	0	1190	0
12	1190	0	0	0	0	0	1190	0
14	1190	0	0	0	0	0	1190	0
16	1190	0	0	0	0	0	1190	0
18	1190	0	0	0	0	0	1190	0
20	1190	0	0	0	0	0	1190	0
21	3570	0	0	0	0	0	3570	0
22	2380	0	0	0	0	0	2380	0
23	3570	0	0	0	0	0	3570	0
24	2380	0	0	0	0	0	2380	0
25	3570	0	0	0	0	0	3570	0
26	2380	0	0	0	0	0	2380	0
27	3570	0	0	0	0	0	3570	0
28	2380	0	0	0	0	0	2380	0
29	3570	0	0	0	0	0	3570	0
30	2380	0	0	0	0	0	2380	0
31	3570	0	0	0	0	0	3570	0
32	2380	0	0	0	0	0	2380	0
33	3570	0	0	0	0	0	3570	0
34	2380	0	0	0	0	0	2380	0
35	3570	0	0	0	0	0	3570	0
36	2380	0	0	0	0	0	2380	0
37	3570	0	0	0	0	0	3570	0
38	2380	0	0	0	0	0	2380	0
39	3570	0	0	0	0	0	3570	0
40	2380	0	0	0	0	0	2380	0
41	2380	0	-13833	0	0	0	14036	0
42	2380	0	-13833	0	0	0	14036	0
43	2380	0	-13833	0	0	0	14036	0
44	2380	0	-13833	0	0	0	14036	0
45	2380	0	-13833	0	0	0	14036	0
46	2380	0	-13833	0	0	0	14036	0
47	2380	0	-13833	0	0	0	14036	0
48	2380	0	-13833	0	0	0	14036	0
49	2380	0	-13833	0	0	0	14036	0
50	2380	0	-13833	0	0	0	14036	0
Totals	Fx	Fy	Fz	Mx	My	Mz	Res-F	Res-M
Maximum	95200	0	-138330	NA	NA	NA	167923	NA
Minimum	3570	0	0	0	0	0	14036	0
	1190	0	-13833	0	0	0	1190	0

# Fundamentalism

S

Ring RHS 300x300x10



# Fundamentalism

S

## EXTERNAL LOADS

NODE	Fx	Fy	Fz	Mx	My	Mz	Res-F	Res-M
2	1190	0	0	0	0	0	1190	0
4	1190	0	0	0	0	0	1190	0
6	1190	0	0	0	0	0	1190	0
8	1190	0	0	0	0	0	1190	0
10	1190	0	0	0	0	0	1190	0
12	1190	0	0	0	0	0	1190	0
14	1190	0	0	0	0	0	1190	0
16	1190	0	0	0	0	0	1190	0
18	1190	0	0	0	0	0	1190	0
20	1190	0	0	0	0	0	1190	0
21	3570	0	0	0	0	0	3570	0
22	2380	0	0	0	0	0	2380	0
23	3570	0	0	0	0	0	3570	0
24	2380	0	0	0	0	0	2380	0
25	3570	0	0	0	0	0	3570	0
26	2380	0	0	0	0	0	2380	0
27	3570	0	0	0	0	0	3570	0
28	2380	0	0	0	0	0	2380	0
29	3570	0	0	0	0	0	3570	0
30	2380	0	0	0	0	0	2380	0
31	3570	0	0	0	0	0	3570	0
32	2380	0	0	0	0	0	2380	0
33	3570	0	0	0	0	0	3570	0
34	2380	0	0	0	0	0	2380	0
35	3570	0	0	0	0	0	3570	0
36	2380	0	0	0	0	0	2380	0
37	3570	0	0	0	0	0	3570	0
38	2380	0	0	0	0	0	2380	0
39	3570	0	0	0	0	0	3570	0
40	2380	0	0	0	0	0	2380	0
41	2380	0	-13833	0	0	0	14036	0
42	2380	0	-13833	0	0	0	14036	0
43	2380	0	-13833	0	0	0	14036	0
44	2380	0	-13833	0	0	0	14036	0
45	2380	0	-13833	0	0	0	14036	0
46	2380	0	-13833	0	0	0	14036	0
47	2380	0	-13833	0	0	0	14036	0
48	2380	0	-13833	0	0	0	14036	0
49	2380	0	-13833	0	0	0	14036	0
50	2380	0	-13833	0	0	0	14036	0
Totals	Fx	Fy	Fz	Mx	My	Mz	Res-F	Res-M
Maximum	95200	0	-138330	NA	NA	NA	167923	NA
Minimum	3570	0	0	0	0	0	14036	0
	1190	0	-13833	0	0	0	1190	0

## BOUNDARY CONDITIONS

NODE	X	Y	Z	Xrot	Yrot	Zrot
1	Fixed	Fixed	Fixed	Free	Free	Free
3	Fixed	Fixed	Fixed	Free	Free	Free
5	Fixed	Fixed	Fixed	Free	Free	Free
7	Fixed	Fixed	Fixed	Free	Free	Free
9	Fixed	Fixed	Fixed	Free	Free	Free
11	Fixed	Fixed	Fixed	Free	Free	Free
13	Fixed	Fixed	Fixed	Free	Free	Free
15	Fixed	Fixed	Fixed	Free	Free	Free
17	Fixed	Fixed	Fixed	Free	Free	Free
19	Fixed	Fixed	Fixed	Free	Free	Free



# Fundamentalism

S

## DISPLACEMENTS

NODE	X	Y	Z	Xrot	Yrot	Zrot
1	0	0	0	0	0	0
2	0	0	0	0	0	0
3	0	0	0	0	0	0
4	0	0	0	0	0	0
5	0	0	0	0	0	0
6	0	0	0	0	0	0
7	0	0	0	0	0	0
8	0	0	0	0	0	0
9	0	0	0	0	0	0
10	0	0	0	0	0	0
11	0	0	0	0	0	0
12	0	0	0	0	0	0
13	0	0	0	0	0	0
14	0	0	0	0	0	0
15	0	0	0	0	0	0
16	0	0	0	0	0	0
17	0	0	0	0	0	0
18	0	0	0	0	0	0
19	0	0	0	0	0	0
20	0	0	0	0	0	0
21	4	1	0	0	0	0
22	1	0	0	0	0	0
23	3	1	0	0	0	0
24	1	0	0	0	0	0
25	2	-1	0	0	0	0
26	0	0	0	0	0	0
27	4	-2	0	0	0	0
28	1	-1	0	0	0	0
29	6	-1	0	0	0	0
30	2	-1	0	0	0	0
31	6	1	0	0	0	0
32	2	1	0	0	0	0
33	4	2	0	0	0	0
34	1	1	0	0	0	0
35	2	1	0	0	0	0
36	0	0	0	0	0	0
37	3	-1	0	0	0	0
38	1	0	0	0	0	0
39	4	-1	0	0	0	0
40	1	0	0	0	0	0
41	16	1	0	0	0	0
42	13	2	0	0	0	0
43	11	-2	0	0	0	0
44	14	-4	0	0	0	0
45	19	-2	0	0	0	0
46	19	2	0	0	0	0
47	14	4	0	0	0	0
48	11	2	0	0	0	0
49	13	-2	0	0	0	0
50	16	-1	0	0	0	0
	X	Y	Z	Xrot	Yrot	Zrot
Maximum	19	4	0	0	0	0
Max node	45	47	4	44	45	5
Minimum	0	-4	0	0	0	0
Min node	1	44	46	47	17	15

# Fundamentalism

S

## REACTIONS

Node	X	Y	Z	Xrot	Yrot	Zrot	Res-F	Res-M
1	-9959	0	21925	0	0	0	24081	0
3	-9656	-418	20380	0	0	0	22555	0
5	-9165	-258	16334	0	0	0	18731	0
7	-9165	258	11332	0	0	0	14577	0
9	-9656	418	7286	0	0	0	12104	0
11	-9959	0	5741	0	0	0	11495	0
13	-9656	-418	7286	0	0	0	12104	0
15	-9165	-258	11332	0	0	0	14577	0
17	-9165	258	16334	0	0	0	18731	0
19	-9656	418	20380	0	0	0	22555	0
	X	Y	Z	Xrot	Yrot	Zrot	Res-F	Res-M
Max	-9165	418	21925	0	0	0	24081	0
Min	-9959	-418	5741	0	0	0	11495	0
Total	-95200	0	138330	0	0	0		

# Fundamentalism

## S

### BEAM INTERNAL LOADS - ABSOLUTE MAX OF EITHER NODE - LOCAL

Element	Fx	Fy	Fz	Mx	My	Mz
S1*2*55	1471	4758	10962	5133695	15799893	2988082
S2*19*55	1471	4296	2871	10258204	10798771	2892970
S3*4*55	1471	4296	2871	10258204	10798771	2892970
S4*1*55	1471	4758	10962	5133695	15799893	2988082
S5*6*55	3851	2194	3676	11464423	6216747	1787954
S6*3*55	3851	3402	17509	1951707	14766010	2417410
S7*8*55	4760	747	6177	8291621	8091994	923368
S8*5*55	4760	747	20010	8291621	16641259	923368
S9*10*55	3851	3402	3676	1951712	14766004	2417410
S10*7*55	3851	2194	17509	11464416	23315269	1787954
S11*12*55	1471	4758	2871	5133692	19348022	2988082
S12*9*55	1471	4296	10962	10258205	24349152	2892970
S13*14*55	1471	4296	10962	10258205	24349152	2892970
S14*11*55	1471	4758	2871	5133692	19348022	2988082
S15*16*55	3851	2194	17509	11464416	23315269	1787954
S16*13*55	3851	3402	3676	1951712	14766004	2417410
S17*18*55	4760	747	20010	8291621	16641259	923368
S18*15*55	4760	747	6177	8291621	8091994	923368
S19*20*55	3851	3402	17509	1951707	14766010	2417410
S20*17*55	3851	2194	3676	11464423	6216747	1787954
S21*22*55	13833	5659	1839	0	2813137	8657943
S22*4*55	13833	7922	2574	0	5001133	15391898
S23*24*55	13833	3497	4814	0	7364887	5350903
S24*6*55	13833	4896	6739	0	13093132	9512716
S25*26*55	13833	0	5950	0	9103500	0
S26*8*55	13833	0	8330	0	16184000	0
S27*28*55	13833	3497	4814	0	7364887	5350903
S28*10*55	13833	4896	6739	0	13093132	9512716
S29*30*55	13833	5659	1839	0	2813137	8657943
S30*12*55	13833	7922	2574	0	5001133	15391898
S31*32*55	13833	5659	1839	0	2813137	8657943
S32*14*55	13833	7922	2574	0	5001133	15391898
S33*34*55	13833	3497	4814	0	7364887	5350903
S34*16*55	13833	4896	6739	0	13093132	9512716
S35*36*55	13833	0	5950	0	9103500	0
S36*18*55	13833	0	8330	0	16184000	0
S37*38*55	13833	3497	4814	0	7364887	5350903
S38*20*55	13833	4896	6739	0	13093132	9512716
S39*40*55	13833	5659	1839	0	2813137	8657943
S40*2*55	13833	7922	2574	0	5001133	15391898
S41*21*55	13833	2264	735	0	1250283	3847974
S42*23*55	13833	1399	1925	0	3273283	2378179
S43*25*55	13833	0	2380	0	4046000	0
S44*27*55	13833	1399	1925	0	3273283	2378179
S45*29*55	13833	2264	735	0	1250283	3847974
S46*31*55	13833	2264	735	0	1250283	3847974
S47*33*55	13833	1399	1925	0	3273283	2378179
S48*35*55	13833	0	2380	0	4046000	0
S49*37*55	13833	1399	1925	0	3273283	2378179
S50*39*55	13833	2264	735	0	1250283	3847974

# Fundamentalism

## S

AXIAL LOADS - compression is negative

Element	Axial load	Length	Pcry @ c=1	Pcrz @ c=1
S1*2*55	-1471	1236	-220531516	-217401002
S2*19*55	1471	1236	-220531864	-217401346
S3*4*55	1471	1236	-220531864	-217401346
S4*1*55	-1471	1236	-220531516	-217401002
S5*6*55	3851	1236	-220531777	-217401260
S6*3*55	-3851	1236	-220531603	-217401088
S7*8*55	4760	1236	-220531690	-217401174
S8*5*55	-4760	1236	-220531690	-217401174
S9*10*55	3851	1236	-220531603	-217401088
S10*7*55	-3851	1236	-220531777	-217401260
S11*12*55	1471	1236	-220531516	-217401002
S12*9*55	-1471	1236	-220531864	-217401346
S13*14*55	-1471	1236	-220531864	-217401346
S14*11*55	1471	1236	-220531516	-217401002
S15*16*55	-3851	1236	-220531777	-217401260
S16*13*55	3851	1236	-220531603	-217401088
S17*18*55	-4760	1236	-220531690	-217401174
S18*15*55	4760	1236	-220531690	-217401174
S19*20*55	-3851	1236	-220531603	-217401088
S20*17*55	3851	1236	-220531777	-217401260
S21*22*55	-13833	850	-21819002	-21819002
S22*4*55	-13833	850	-413439898	-413439898
S23*24*55	-13833	850	-21819002	-21819002
S24*6*55	-13833	850	-413439898	-413439898
S25*26*55	-13833	850	-21819002	-21819002
S26*8*55	-13833	850	-413439898	-413439898
S27*28*55	-13833	850	-21819002	-21819002
S28*10*55	-13833	850	-413439898	-413439898
S29*30*55	-13833	850	-21819002	-21819002
S30*12*55	-13833	850	-413439898	-413439898
S31*32*55	-13833	850	-21819002	-21819002
S32*14*55	-13833	850	-413439898	-413439898
S33*34*55	-13833	850	-21819002	-21819002
S34*16*55	-13833	850	-413439898	-413439898
S35*36*55	-13833	850	-21819002	-21819002
S36*18*55	-13833	850	-413439898	-413439898
S37*38*55	-13833	850	-21819002	-21819002
S38*20*55	-13833	850	-413439898	-413439898
S39*40*55	-13833	850	-21819002	-21819002
S40*2*55	-13833	850	-413439898	-413439898
S41*21*55	-13833	1700	-5454751	-5454751
S42*23*55	-13833	1700	-5454751	-5454751
S43*25*55	-13833	1700	-5454751	-5454751
S44*27*55	-13833	1700	-5454751	-5454751
S45*29*55	-13833	1700	-5454751	-5454751
S46*31*55	-13833	1700	-5454751	-5454751
S47*33*55	-13833	1700	-5454751	-5454751
S48*35*55	-13833	1700	-5454751	-5454751
S49*37*55	-13833	1700	-5454751	-5454751
S50*39*55	-13833	1700	-5454751	-5454751

Maximum and minimum axial load

Element	Axial load	Length	Pcry @ c=1	Pcrz @ c=1
S18*15*55	4760	1236	-220531690	-217401174
S40*2*55	-13833	850	-413439898	-413439898

# Fundamentalism

S

BEAM STRESSES - Maximum of either end

Element	S1	S2	S12	Sn1	Sn2	Ss	Fx/A	Fy/A*	Fz/A*	Mx/St	My/Sy	Mz/Sz	VonMises	Length
S1*2*55	-18	2	10	-18	17	4	0	0	-1	-3	15	-3	19	1236
S2*19*55	15	-3	9	12	-12	7	0	0	0	6	10	3	17	1236
S3*4*55	15	-3	9	12	-12	7	0	0	0	-6	10	3	17	1236
S4*1*55	-18	2	10	-18	17	4	0	0	1	3	15	-3	19	1236
S5*6*55	12	-6	8	8	-7	7	0	0	0	-7	6	2	15	1236
S6*3*55	-17	1	9	-16	16	3	0	0	2	-1	14	-2	17	1236
S7*8*55	11	-5	7	9	-8	5	0	0	1	-5	-7	1	13	1236
S8*5*55	-18	3	10	-16	15	6	0	0	2	-5	-15	-1	19	1236
S9*10*55	16	0	8	16	-16	2	0	0	0	-1	-14	2	16	1236
S10*7*55	-26	7	14	-24	23	8	0	0	2	-7	-22	-2	27	1236
S11*12*55	21	-1	11	21	-20	4	0	0	0	3	-18	3	22	1236
S12*9*55	-27	3	14	-25	25	7	0	0	1	-6	-22	-3	28	1236
S13*14*55	-27	3	14	-25	25	7	0	0	-1	6	-22	-3	28	1236
S14*11*55	21	-1	11	21	-20	4	0	0	0	-3	-18	3	22	1236
S15*16*55	-26	7	14	-24	23	8	0	0	-2	7	-22	-2	27	1236
S16*13*55	16	0	8	16	-16	2	0	0	0	1	-14	2	16	1236
S17*18*55	-18	3	10	-16	15	6	0	0	-2	5	-15	-1	19	1236
S18*15*55	11	-5	7	9	-8	5	0	0	-1	5	-7	1	13	1236
S19*20*55	-17	1	9	-16	16	3	0	0	-2	1	14	-2	17	1236
S20*17*55	12	-6	8	8	-7	7	0	0	0	7	6	2	15	1236
S21*22*55	-94	0	47	-94	87	2	-4	2	-1	0	-22	-68	94	850
S22*4*55	-19	0	9	-19	17	1	-1	1	0	0	-4	-13	19	850
S23*24*55	-104	0	52	-104	96	2	-4	1	-1	0	-58	-42	104	850
S24*6*55	-20	0	10	-20	19	1	-1	0	0	0	-11	-8	20	850
S25*26*55	-76	0	38	-76	68	2	-4	0	-2	0	-72	0	76	850
S26*8*55	-15	0	7	-15	13	1	-1	0	-1	0	-14	0	15	850
S27*28*55	-104	0	52	-104	96	2	-4	-1	-1	0	-58	42	104	850
S28*10*55	-20	0	10	-20	19	1	-1	0	0	0	-11	8	20	850
S29*30*55	-94	0	47	-94	87	2	-4	-2	-1	0	-22	68	94	850
S30*12*55	-19	0	9	-19	17	1	-1	-1	0	0	-4	13	19	850
S31*32*55	-94	0	47	-94	87	2	-4	-2	1	0	22	68	94	850
S32*14*55	-19	0	9	-19	17	1	-1	-1	0	0	4	13	19	850
S33*34*55	-104	0	52	-104	96	2	-4	-1	1	0	58	42	104	850
S34*16*55	-20	0	10	-20	19	1	-1	0	0	0	11	8	20	850
S35*36*55	-76	0	38	-76	68	2	-4	0	2	0	72	0	76	850
S36*18*55	-15	0	7	-15	13	1	-1	0	1	0	14	0	15	850
S37*38*55	-104	0	52	-104	96	2	-4	1	1	0	58	-42	104	850
S38*20*55	-20	0	10	-20	19	1	-1	0	0	0	11	-8	20	850
S39*40*55	-94	0	47	-94	87	2	-4	2	1	0	22	-68	94	850
S40*2*55	-19	0	9	-19	17	1	-1	1	0	0	4	-13	19	850
S41*21*55	-44	0	22	-44	36	1	-4	1	0	0	-10	-30	44	1700
S42*23*55	-48	0	24	-48	41	1	-4	0	-1	0	-26	-19	48	1700
S43*25*55	-36	0	18	-36	28	1	-4	0	-1	0	-32	0	36	1700
S44*27*55	-48	0	24	-48	41	1	-4	0	-1	0	-26	19	48	1700
S45*29*55	-44	0	22	-44	36	1	-4	-1	0	0	-10	30	44	1700
S46*31*55	-44	0	22	-44	36	1	-4	-1	0	0	10	30	44	1700
S47*33*55	-48	0	24	-48	41	1	-4	0	1	0	26	19	48	1700
S48*35*55	-36	0	18	-36	28	1	-4	0	1	0	32	0	36	1700
S49*37*55	-48	0	24	-48	41	1	-4	0	1	0	26	-19	48	1700
S50*39*55	-44	0	22	-44	36	1	-4	1	0	0	10	-30	44	1700
Maximum	S1 21	S2 7	S12 52	Sn1 21	Sn2 96	Ss 8	Fx/A 0	Fy/A* 2	Fz/A* 2	Mx/St 7	My/Sy 72	Mz/Sz 68	VonMises 104	Length 1700
Minimum	-104	-6	7	-104	-20	1	-4	-2	-2	-7	-72	-68	13	850

# Fundamentalism

S

MAXIMUM/MINIMUM NORMAL STRESS, SN1 OR SN2 - MAXIMUM OF EITHER END

Property name	Max/Min
SQ 300 x 10	25 -25
SQ 120 x 8,1	96 -104
SQ 250 x 17	19 -20