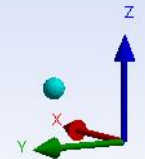
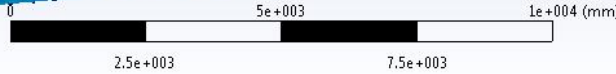
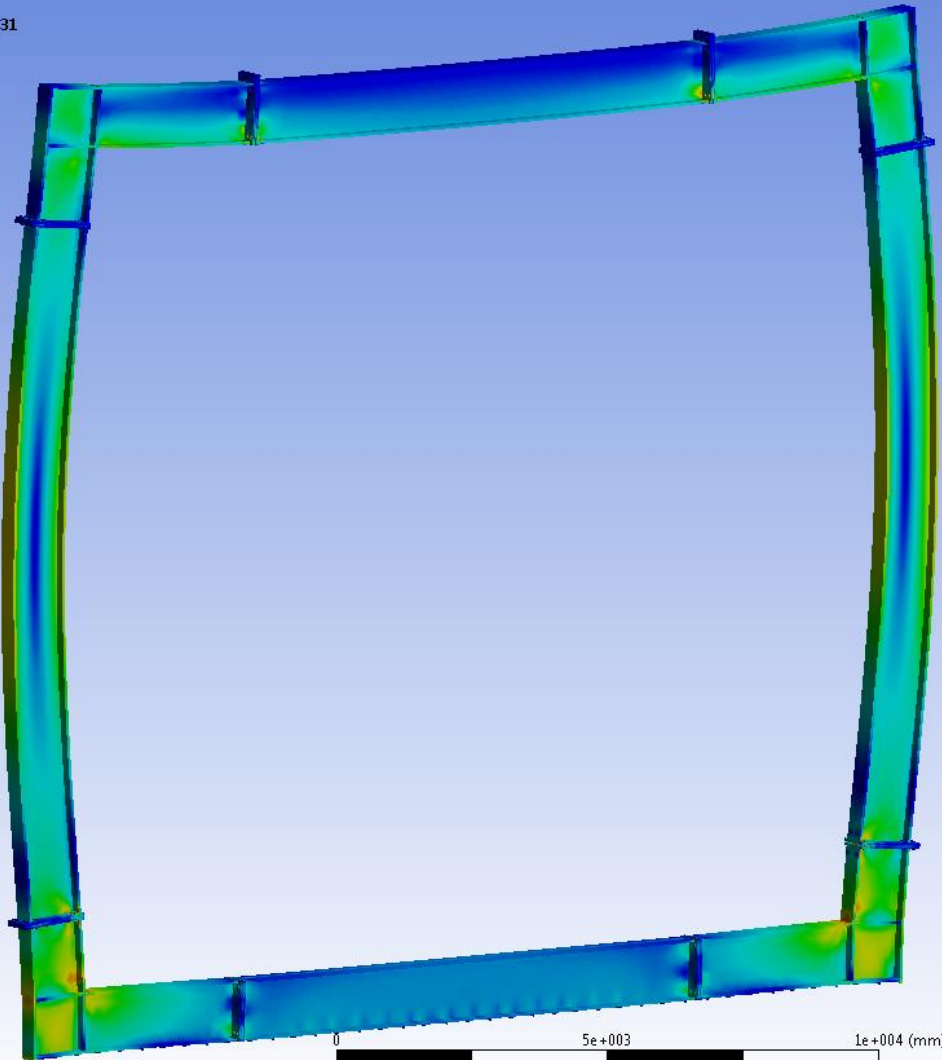
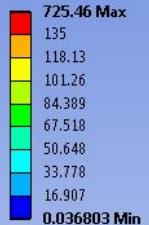


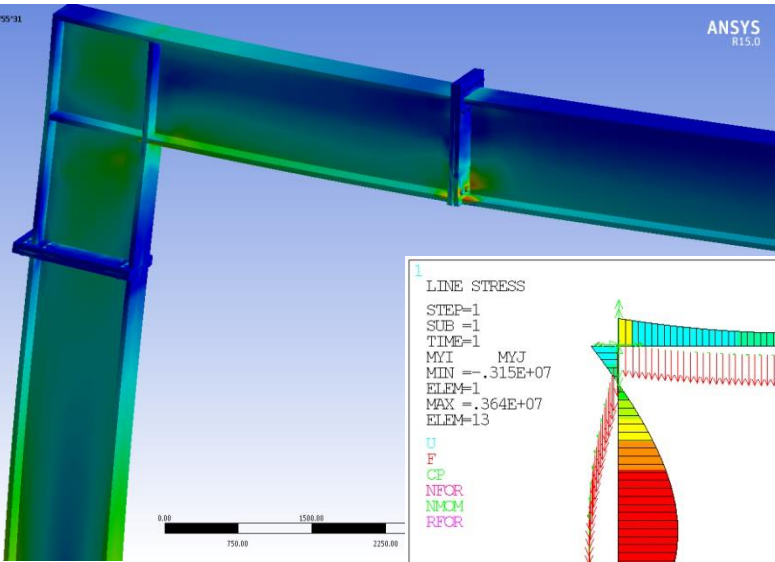
A: frame solid beams 410\*410\*1138\*55\*55\*31

Equivalent Stress  
Type: Equivalent (von-Mises) Stress  
Unit: MPa  
Time: 1  
04/05/2015 07:45



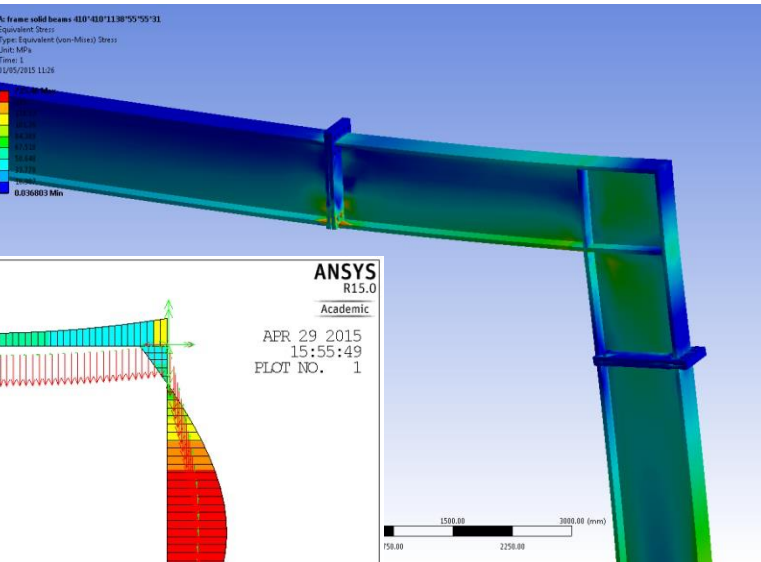
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Equivalent Stress  
Type: Equivalent (von-Mises) Stress  
Unit: MPa  
Time: 1  
01/05/2015 11:26

725.46 Max  
125  
118.13  
101.26  
84.393  
67.518  
56.648  
33.778  
16.987  
0.036883 Min



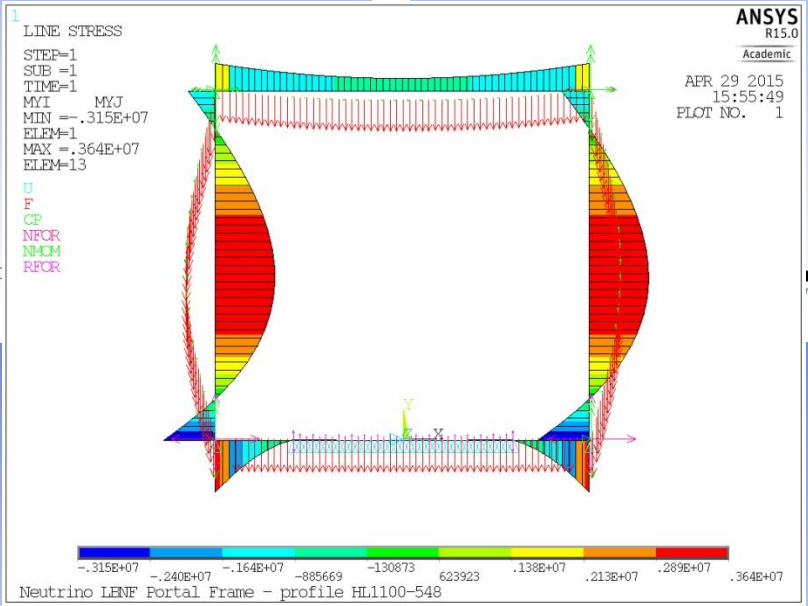
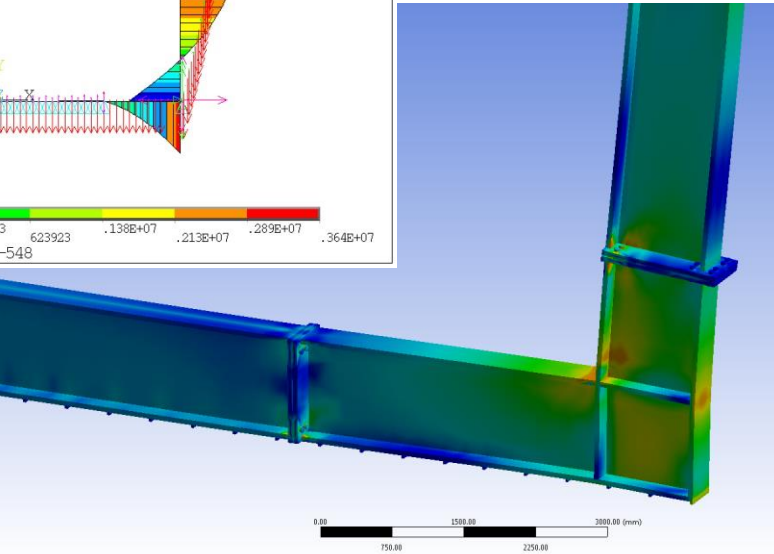
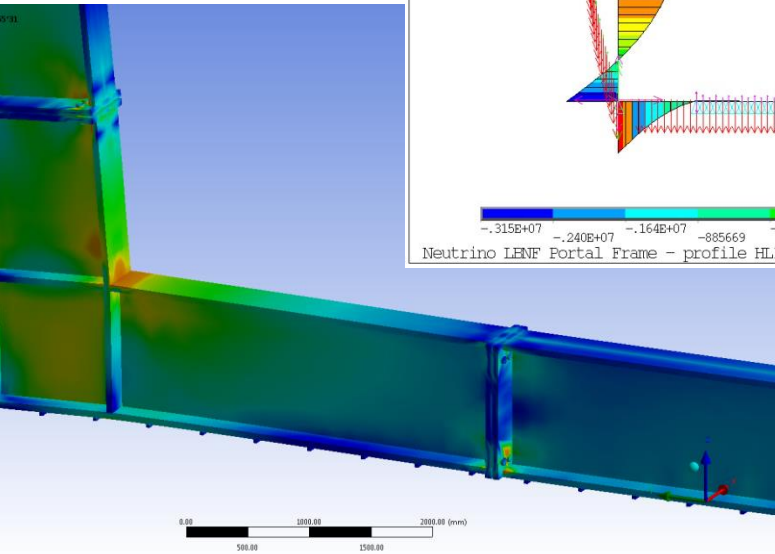
A: frame solid beams 410°410°1130°55°55°31  
Equivalent Stress  
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Time: 1  
01/05/2015 11:26

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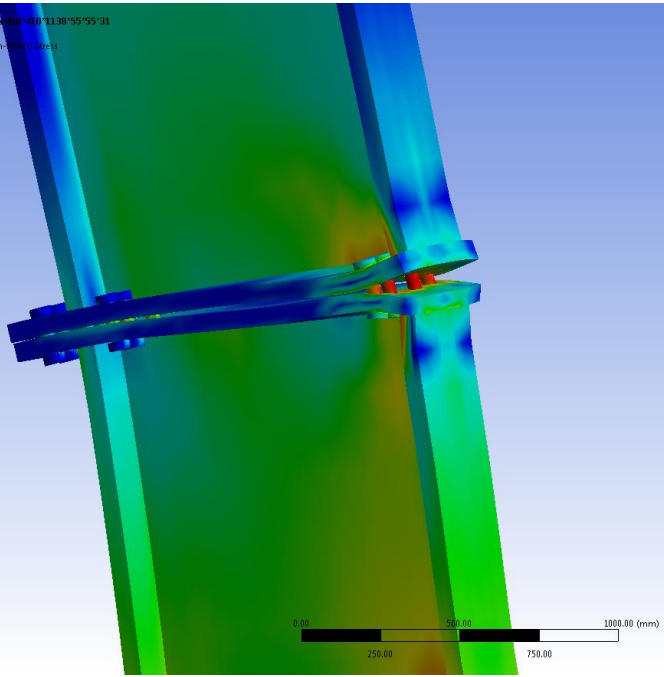
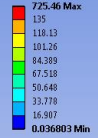
A: frame solid beams 410°410°1130°55°55°31  
Equivalent Stress  
Type: Equivalent (von-Mises) Stress  
Unit: MPa  
Time: 1  
01/05/2015 11:26

725.46 Max  
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118.13  
101.26  
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0.036883 Min



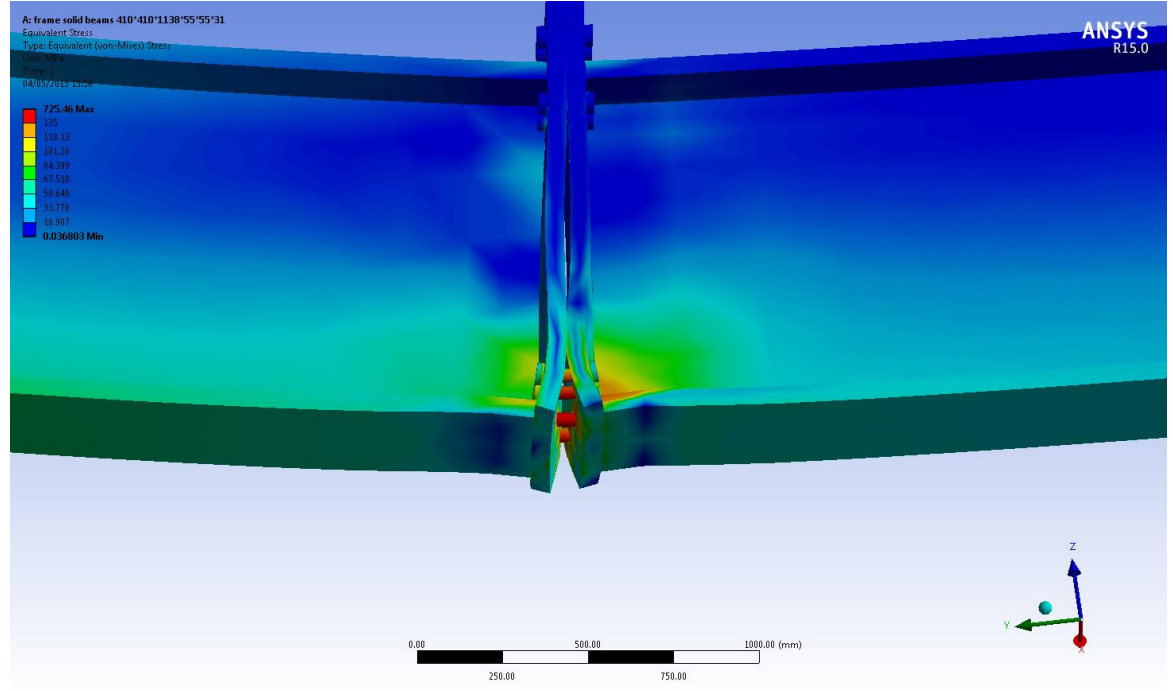
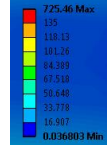
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Equivalent Stress  
Type: Equivalent (von-Mises) Stress  
Unit: MPa  
Time: 1  
04/05/2015 15:56

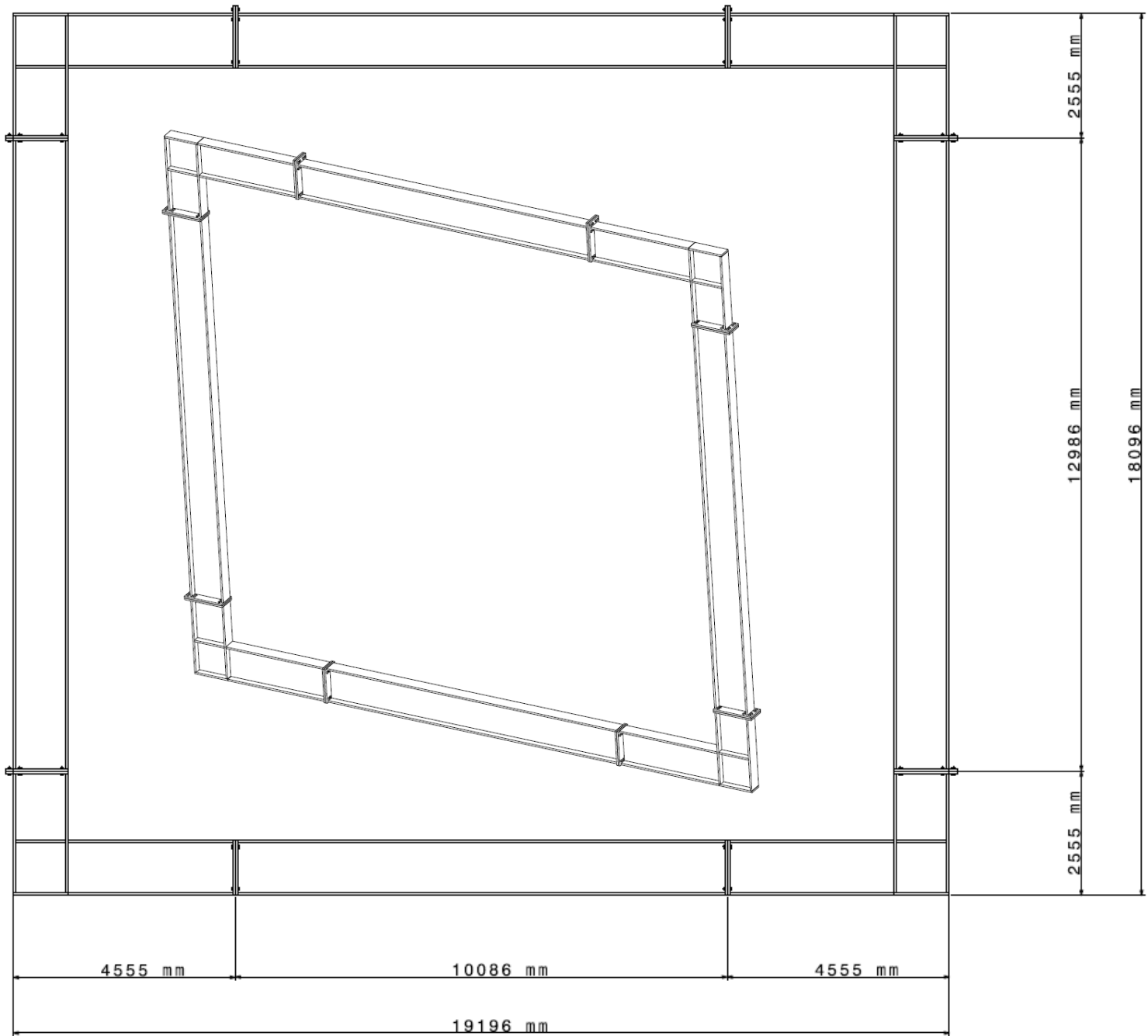
ANSYS  
R15.0

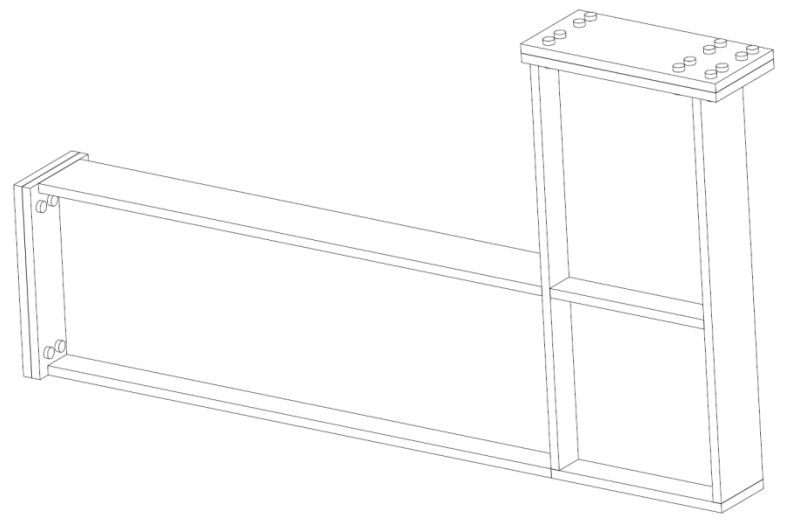
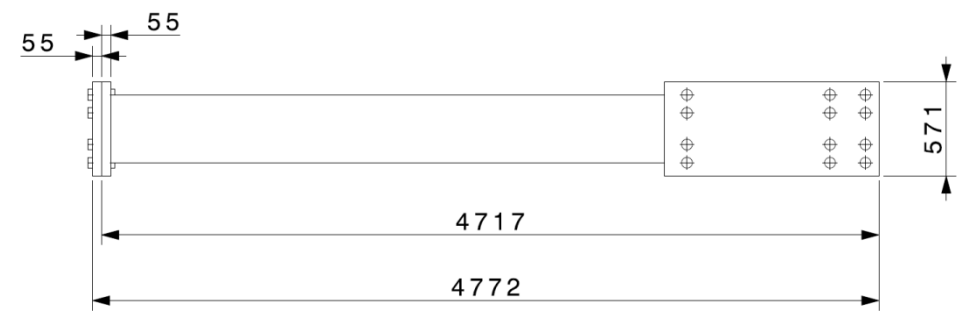
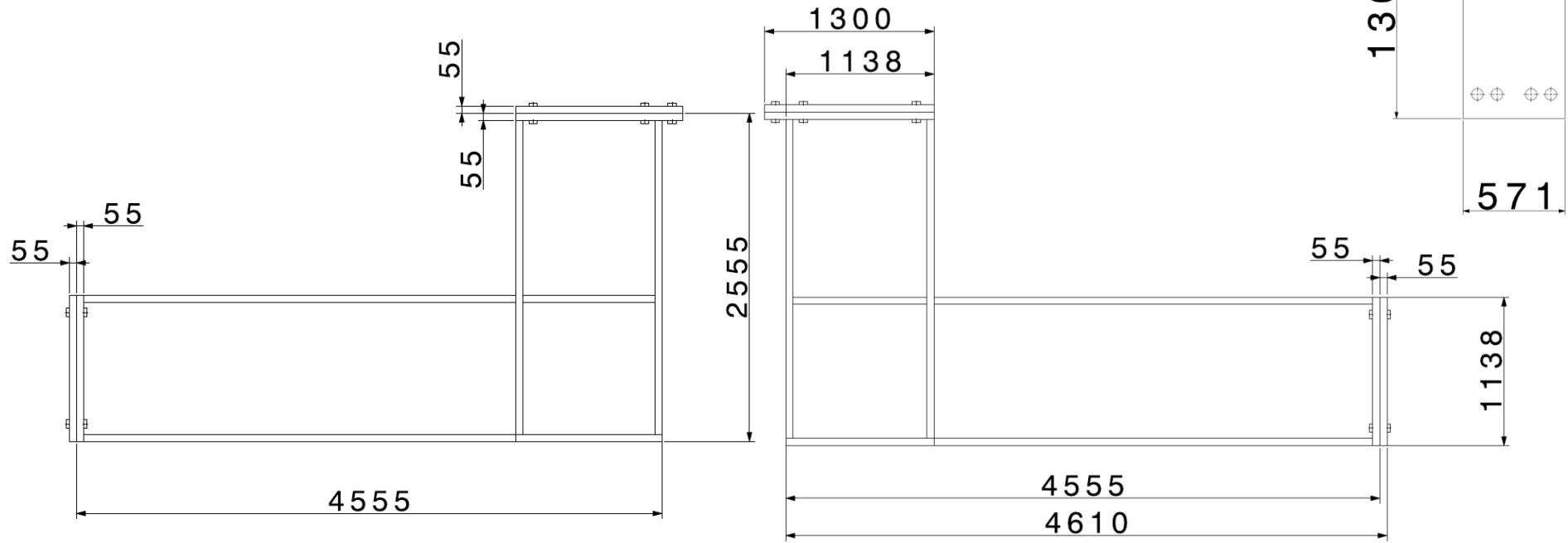


A: frame solid beams 410\*410\*1138\*55\*55\*31  
Equivalent Stress  
Type: Equivalent (von-Mises) Stress  
Unit: MPa  
Time: 1  
04/05/2015 15:56

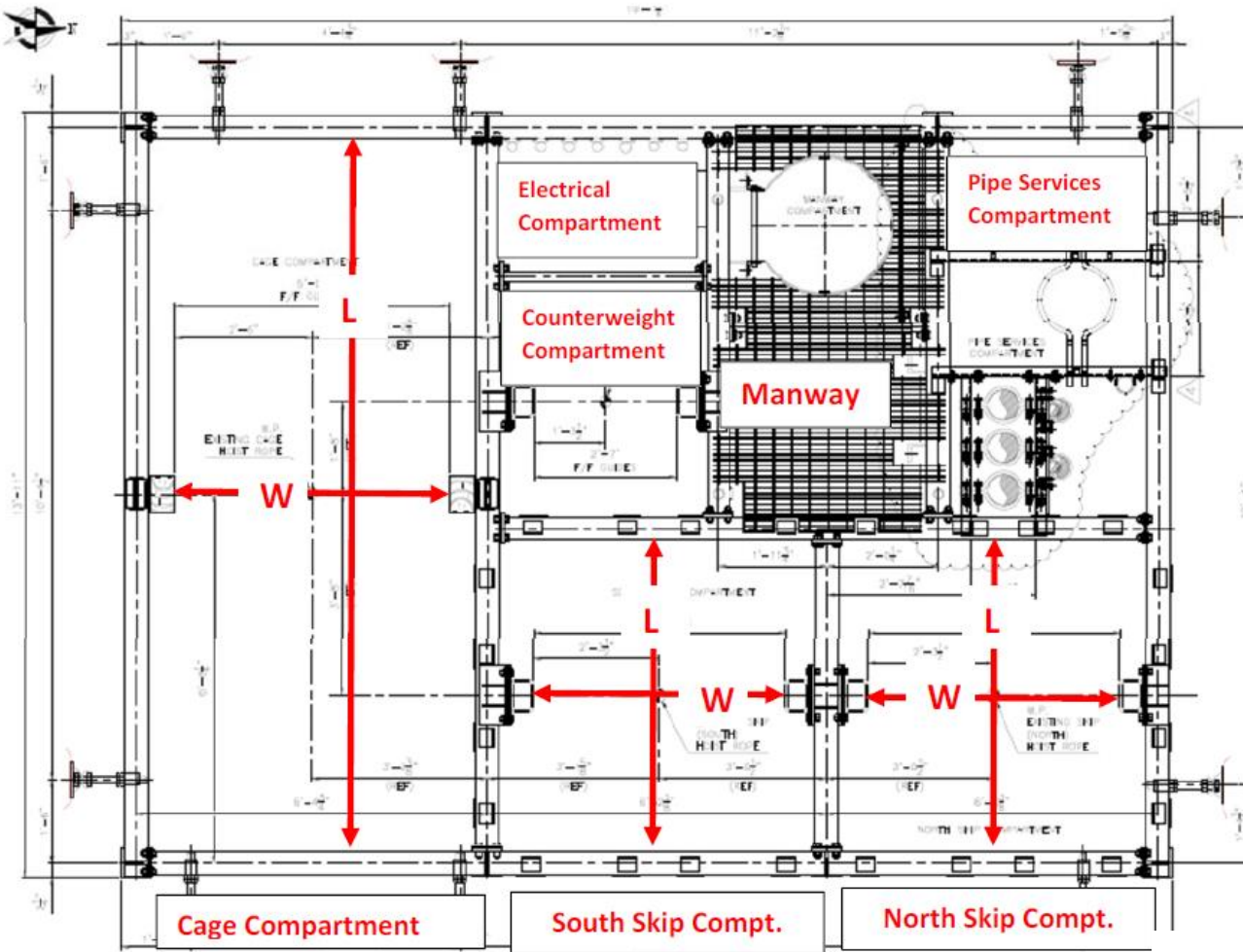
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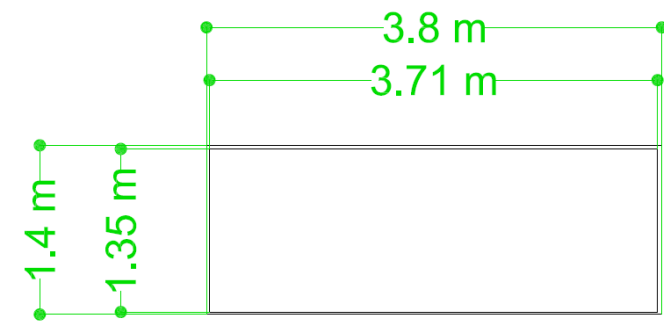




# Ross Shaft Typical Set General Arrangement Plan View – New Furnishings



	Length 'L' (ft)	Width 'W' (ft)
Cage Compartment	12' 10 1/2"	5'
South Skip Compt.	5' 7 1/4"	4' 7"
North Skip Compt.	5' 7 1/4"	4' 7"



Top View

Table 1A (Cont'd)  
Section I; Section III, Classes 2 and 3;\* Section VIII, Division 1; and Section XII  
Maximum Allowable Stress Values S for Ferrous Materials  
(\*See Maximum Temperature Limits for Restrictions on Class)

Table 1A (Cont'd)  
Section I; Section III, Classes 2 and 3;\* Section VIII, Division 1; and Section XII  
Maximum Allowable Stress Values S for Ferrous Materials  
(\*See Maximum Temperature Limits for Restrictions on Class)

Line No.	Nominal Composition	Product Form	Spec. No.	Type/Grade	Alloy Desig./UNS	Class/Con- dition/ Temper	Size/Thickness, in.	P-No.	Applicability and Max. Temperature Limits (NP = Not Permitted) (SPT = Supports Only)					External Pressure Chart No.	Notes		
									Line No.	Min. Ten- sile Strength, ksi	Min. Yield Strength, ksi	I	III			VIII-1	XII
1	5Ni- $\frac{1}{4}$ Mo	Plate	SA-645	A	K41583	—	—	11A	1	95	65	NP	NP	250	250	CS-3	—
2	8Ni	Forgings	SA-522	II	K71340	—	—	11A	2	100	75	NP	200 (Cl. 3 only)	NP	NP	CS-3	G20, W5
3	8Ni	Plate	SA-553	II	K71340	—	—	11A	3	100	85	NP	200 (Cl. 3 only)	250	250	CS-3	G20, W5
4	8Ni	Plate	SA-553	II	K71340	—	—	11A	4	100	85	NP	200 (Cl. 3 only)	250	250	CS-3	G20, W4
(13)	9Ni	Plate	SA/EN 10028-4	X8Ni9	—	NNT640	≤2	11A	5	93	69.5	NP	NP	250	250	CS-3	G20
(13)	9Ni	Plate	SA/EN 10028-4	X8Ni9	—	QT640	≤2	11A	6	93	69.5	NP	NP	250	250	CS-3	G20
(13)	9Ni	Plate	SA/EN 10028-4	X7Ni9	—	QT	≤2	11A	7	98.5	83.5	NP	NP	250	250	CS-3	G20, W4
(13)	9Ni	Plate	SA/EN 10028-4	X7Ni9	—	QT	≤2	11A	8	98.5	83.5	NP	NP	250	250	CS-3	G20, W5
(13)	9Ni	Plate	SA/EN 10028-4	X8Ni9	—	QT680	≤2	11A	9	98.5	83.5	NP	NP	250	250	CS-3	G20, W4
(13)	9Ni	Plate	SA/EN 10028-4	X8Ni9	—	QT680	≤2	11A	10	98.5	83.5	NP	NP	250	250	CS-3	G20, W5
11	9Ni	Smls. & wld. pipe	SA-333	8	K81340	—	—	11A	11	100	75	NP	200 (Cl. 3 only)	NP	NP	CS-3	G20, W12
12	9Ni	Smls. & wld. pipe	SA-333	8	K81340	—	—	11A	12	100	75	NP	200 (Cl. 3 only)	NP	NP	CS-3	G20, W5, W12
13	9Ni	Smls. pipe	SA-333	8	K81340	—	—	11A	13	100	75	NP	NP	250	250	CS-3	G20, W4
14	9Ni	Smls. pipe	SA-333	8	K81340	—	—	11A	14	100	75	NP	NP	250	250	CS-3	G20, W5
15	9Ni	Wld. pipe	SA-333	8	K81340	—	—	11A	15	100	75	NP	NP	250	250	CS-3	G20, G24, W3
16	9Ni	Wld. tube	SA-334	8	K81340	—	—	11A	16	100	75	NP	200 (Cl. 3 only)	NP	NP	CS-3	G20, W12
17	9Ni	Smls. & wld. tube	SA-334	8	K81340	—	—	11A	17	100	75	NP	200 (Cl. 3 only)	NP	NP	CS-3	G20, W5, W12
18	9Ni	Smls. tube	SA-334	8	K81340	—	—	11A	18	100	75	NP	NP	250	250	CS-3	G20, W4
19	9Ni	Smls. tube	SA-334	8	K81340	—	—	11A	19	100	75	NP	NP	250	250	CS-3	G20, W5
20	9Ni	Wld. tube	SA-334	8	K81340	—	—	11A	20	100	75	NP	NP	250	250	CS-3	G20, G24, W3
21	9Ni	Plate	SA-353	—	K81340	—	—	11A	21	100	75	NP	200 (Cl. 3 only)	250	250	CS-3	G20, W4
22	9Ni	Plate	SA-353	—	K81340	—	—	11A	22	100	75	NP	NP	250	250	CS-3	G20, W5
23	9Ni	Plate	SA-353	—	K81340	—	—	11A	23	100	75	NP	200 (Cl. 3 only)	NP	NP	CS-3	G20, W5
24	9Ni	Smls. & wld. fittings	SA-420	WPL8	K81340	—	—	11A	24	100	75	NP	NP	250	250	CS-3	G20, W4
25	9Ni	Smls. & wld. fittings	SA-420	WPL8	K81340	—	—	11A	25	100	75	NP	NP	250	250	CS-3	G20, W3
26	9Ni	Forgings	SA-522	I	K81340	—	—	11A	26	100	75	NP	200 (Cl. 3 only)	250	250	CS-3	G20, S8, W4
27	9Ni	Forgings	SA-522	I	K81340	—	—	11A	27	100	75	NP	NP	250	250	CS-3	G20, S8, W5
28	9Ni	Plate	SA-553	I	K81340	—	—	11A	28	100	85	NP	200 (Cl. 3 only)	250	250	CS-3	G20, W4
29	9Ni	Plate	SA-553	I	K81340	—	—	11A	29	100	85	NP	200 (Cl. 3 only)	250	250	CS-3	G20, W5
30	25Ni-15Cr-2Ti	Bar	SA-638	660	S66286	—	—	—	30	130	85	NP	700	700	NP	HA-5	W1
31	27Ni-22Cr-7Mo-Mn-Cu-N	Smls. tube	SA-213	—	S31277	—	—	45	31	112	52	NP	NP	800	NP	NFN-26	G5
32	27Ni-22Cr-7Mo-Mn-Cu-N	Smls. tube	SA-213	—	S31277	—	—	45	32	112	52	NP	NP	800	NP	NFN-26	—
33	27Ni-22Cr-7Mo-Mn-Cu-N	Plate	SA-240	—	S31277	—	—	45	33	112	52	NP	NP	800	NP	NFN-26	G5
34	27Ni-22Cr-7Mo-Mn-Cu-N	Plate	SA-240	—	S31277	—	—	45	34	112	52	NP	NP	800	NP	NFN-26	—
35	27Ni-22Cr-7Mo-Mn-Cu-N	Wld. tube	SA-249	—	S31277	—	—	45	35	112	52	NP	NP	800	NP	NFN-26	G3, G5
36	27Ni-22Cr-7Mo-Mn-Cu-N	Wld. tube	SA-249	—	S31277	—	—	45	36	112	52	NP	NP	800	NP	NFN-26	—
37	29Ni-20Cr-3Cu-2Mo	Castings	SA-351	CN7M	J95150	—	—	45	37	62	25	600	600 (Cl. 3 only)	600	NP	NFN-9	G1, G5
38	29Ni-20Cr-3Cu-2Mo	Castings	SA-351	CN7M	J95150	—	—	45	38	62	25	600	NP	600	NP	NFN-9	G1
39	16Cr-4Ni-6Mn	Plate	SA-240	201LN	S20153	—	—	8	39	95	45	NP	NP	800	650	HA-6	G5
40	16Cr-4Ni-6Mn	Plate	SA-240	201LN	S20153	—	—	8	40	95	45	NP	NP	800	650	HA-6	—
41	16Cr-9Mn-2Ni-N	Plate	SA-240	204	S20400	—	—	8	41	95	48	NP	NP	900	650	HA-6	G5
42	16Cr-9Mn-2Ni-N	Plate	SA-240	204	S20400	—	—	8	42	95	48	NP	NP	900	650	HA-6	—



