



**Logiciel ICAB**

Le 18 Novembre 2012

**EGIR**

**CALCUL DES EFFORTS  
PAR ELEMENTS FINIS**

## DESCRIPTION ETUDE:

- Etude Escalier 6 volées
- Paliers UPN120
- Pieds HEA100
- Limons plat 220x10
  
- Matière : Acier 24
  
- Charge : 250 Kg./m<sup>2</sup> + 80kg/marche

**Note de calcul ICAB**

Projet 1-Dessin/000-Egir/4-Passerelle DDP 10-2012/Jacques/Calcul 8/Passerelle DDP-8  
 Projet créé le 18-11-2012 12:32:29  
 Ecriture de la note 18-11-2012 12:34:30  
 Version icab 4.208

La structure modélisée par la méthode des Eléments finis comprend 171 noeuds, 266 éléments.  
 sorties sur 171 NOEUDS et 266 ELEMENTS:

Ce document contient la liste des données et des résultats dans l'ordre suivant :

Liste des noeuds.....	1
Liste des éléments .....	1
Propriétés physiques et matériaux .....	1
Conditions climatiques .....	1
Conditions limites .....	1
Calculs: combinaisons des charges .....	1
Réactions non pondérées.....	1
Réactions ELS .....	2
Réactions ELU .....	2
Déplacements ELS.....	2
Flèches ELS .....	2
Efforts résultants.....	2
Contraintes.....	2
Critères de ruine - DTU .....	2
Critères de ruine étendus.....	2
Assemblages .....	2

COUT TOTAL: 1597.99

DECOMPOSITION DES PRIX PAR SECTION

LIBELLE		NOMBRE		QUANTITE (m)		COUT VARIABLE		TOTAL
UPN120		53		48.8556		13.30		649.78
HEA100		16		22.928		16.67		382.21
Limon plat 220x1		78		23.7839		17.27		410.76
marche 800x250		71		26.4		4.52		119.37
LE40_4		48		14.845		2.42		35.88

## Liste des noeuds

Noeud	X	Y	Z	Couche
	mm	mm	mm	
1	0	0	-104.000	
2	0	800.000	-104.000	
3	2.102E3	0	1660.000	
4	2.102E3	800.000	1660.000	
5	0.234E3	0	92.000	
6	0.234E3	800.000	92.000	
7	0.467E3	0	288.000	
8	0.467E3	800.000	288.000	
9	0.701E3	0	484.000	
10	0.701E3	800.000	484.000	
11	0.934E3	0	680.000	
12	0.934E3	800.000	680.000	
13	1.168E3	0	876.000	
14	1.168E3	800.000	876.000	
15	1.402E3	0	1072.000	
16	1.402E3	800.000	1072.000	
17	1.635E3	0	1268.000	
18	1.635E3	800.000	1268.000	
19	1.869E3	0	1464.000	
20	1.869E3	800.000	1464.000	
21	12.802E3	0	1660.000	
22	12.802E3	800.000	1660.000	
23	14.204E3	0	484.000	
24	14.204E3	800.000	484.000	
25	13.036E3	0	1464.000	
26	13.036E3	800.000	1464.000	
27	13.269E3	0	1268.000	
28	13.269E3	800.000	1268.000	
29	13.503E3	0	1072.000	
30	13.503E3	800.000	1072.000	
31	13.737E3	0	876.000	
32	13.737E3	800.000	876.000	
33	13.970E3	0	680.000	
34	13.970E3	800.000	680.000	
35	16.068E3	0	484.000	
36	16.068E3	800.000	484.000	
37	17.937E3	0	-1084.000	
38	17.937E3	800.000	-1084.000	
39	16.302E3	0	288.000	
40	16.302E3	800.000	288.000	
41	16.535E3	0	92.000	
42	16.535E3	800.000	92.000	
43	16.769E3	0	-104.000	
44	16.769E3	800.000	-104.000	
45	17.002E3	0	-300.000	
46	17.002E3	800.000	-300.000	
47	17.236E3	0	-496.000	
48	17.236E3	800.000	-496.000	
49	17.470E3	0	-692.000	
50	17.470E3	800.000	-692.000	
51	17.703E3	0	-888.000	
52	17.703E3	800.000	-888.000	
53	14.623E3	800.000	484.000	
54	15.423E3	800.000	484.000	
55	14.623E3	1050.000	484.000	
56	15.423E3	1050.000	484.000	
57	14.623E3	1750.750	-104.000	
58	15.423E3	1750.750	-104.000	
59	14.623E3	2750.000	-104.000	
60	15.423E3	2750.000	-104.000	
61	15.423E3	1283.580	288.000	
62	14.623E3	1283.580	288.000	
63	14.623E3	1517.170	92.000	
64	15.423E3	1517.170	92.000	
65	15.423E3	2132.490	-1040.000	
66	14.623E3	2132.490	-1040.000	

67	14.623E3	2132.490	-104.000
68	15.423E3	2132.490	-104.000
69	5.370E3	0	1660.000
70	5.370E3	800.000	1660.000
71	6.170E3	0	1660.000
72	6.170E3	800.000	1660.000
73	5.370E3	-250.000	1660.000
74	6.170E3	-250.000	1660.000
75	5.370E3	-2118.670	92.000
76	6.170E3	-2118.670	92.000
77	5.370E3	-483.583	1464.000
78	6.170E3	-483.583	1464.000
79	6.170E3	-717.167	1268.000
80	5.370E3	-717.167	1268.000
81	5.370E3	-950.750	1072.000
82	6.170E3	-950.750	1072.000
83	6.170E3	-1184.333	876.000
84	5.370E3	-1184.333	876.000
85	5.370E3	-1417.917	680.000
86	6.170E3	-1417.917	680.000
87	6.170E3	-1651.500	484.000
88	5.370E3	-1651.500	484.000
89	5.370E3	-1885.083	288.000
90	6.170E3	-1885.083	288.000
91	5.370E3	-5682.900	92.000
92	6.170E3	-5682.900	92.000
93	5.370E3	-2200.000	92.000
94	6.170E3	-2200.000	92.000
95	6.170E3	-4600.000	92.000
96	5.370E3	-4600.000	92.000
97	5.370E3	-4600.000	-920.000
98	6.170E3	-4600.000	-920.000
99	6.170E3	-2200.000	-920.000
100	5.370E3	-2200.000	-920.000
101	5.370E3	-6850.820	-888.000
102	6.170E3	-6850.820	-888.000
103	5.370E3	-5916.483	-104.000
104	6.170E3	-5916.483	-104.000
105	6.170E3	-6150.063	-300.000
106	5.370E3	-6150.063	-300.000
107	5.370E3	-6383.643	-496.000
108	6.170E3	-6383.643	-496.000
109	6.170E3	-6617.223	-692.000
110	5.370E3	-6617.223	-692.000
111	3.219E3	0	1660.000
112	3.219E3	0	-820.000
113	3.219E3	800.000	-820.000
114	3.219E3	800.000	1660.000
115	6.619E3	0	1660.000
116	6.619E3	0	-820.000
117	6.619E3	800.000	-820.000
118	6.619E3	800.000	1660.000
119	9.619E3	0	1660.000
120	9.619E3	0	400.000
121	9.619E3	800.000	400.000
122	9.619E3	800.000	1660.000
123	14.285E3	0	484.000
124	14.285E3	800.000	484.000
125	14.623E3	800.000	-1040.000
126	14.623E3	0	-1040.000
127	14.623E3	0	484.000
128	15.423E3	0	484.000
129	12.619E3	0	1660.000
130	12.619E3	800.000	1660.000
131	12.619E3	0	900.000
132	12.619E3	800.000	900.000
133	0.234E3	88.888	91.998
134	0.234E3	711.112	91.998
135	0.467E3	177.776	287.997
136	0.467E3	622.224	287.997
137	0.701E3	266.664	483.995
138	0.701E3	533.336	483.995

139	0.934E3	355.553	679.993
140	0.934E3	444.447	679.993
141	1.168E3	444.441	875.992
142	1.168E3	355.559	875.992
143	1.402E3	533.333	1072.000
144	1.402E3	266.667	1072.000
145	1.635E3	622.221	1267.998
146	1.635E3	177.779	1267.998
147	1.869E3	711.110	1463.997
148	1.869E3	88.890	1463.997
149	13.036E3	666.668	1464.002
150	13.036E3	133.332	1464.002
151	13.269E3	533.346	1268.018
152	13.269E3	266.654	1268.018
153	13.503E3	400.006	1072.008
154	13.737E3	266.668	876.002
155	13.737E3	533.332	876.002
156	13.970E3	133.328	679.992
157	13.970E3	666.672	679.992
158	16.302E3	700.000	288.000
159	16.302E3	100.000	288.000
160	16.535E3	599.996	91.992
161	16.535E3	200.004	91.992
162	16.769E3	499.992	-104.016
163	16.769E3	300.008	-104.016
164	17.002E3	399.988	-300.024
165	17.236E3	299.984	-496.032
166	17.236E3	500.016	-496.032
167	17.470E3	199.980	-692.040
168	17.470E3	600.020	-692.040
169	17.703E3	99.976	-888.048
170	17.703E3	700.024	-888.048
171	1.051E3	400.000	778.000

## Liste des éléments

ELEMENT(TYPE=BEAM\_LINEAR, MAT=ACIER\_24, PROP=Limon plat 220x10)

1; 1, 5,4 ; // 304.919 mm  
2; 2, 6,3 ; // 304.919 mm

ELEMENT(TYPE=BEAM\_LINEAR, MAT=ACIER\_24, PROP=marche 800x250)

3; 5,133 ;// 88.8881 mm  
4; 7,135 ;// 177.776 mm  
5; 9,137 ;// 266.664 mm  
6; 11,139 ; // 355.553 mm  
7; 13,142 ; // 355.559 mm  
8; 15,144 ; // 266.667 mm  
9; 17,146 ; // 177.779 mm  
10; 19,148 ; // 88.8904 mm

ELEMENT(TYPE=BEAM\_LINEAR, MAT=ACIER\_24, PROP=UPN120)

11; 3,111 ;// 1117.12 mm  
12; 22,130 ; // 182.89 mm  
13; 21,22 ;// 800 mm  
14; 4,3 ; // 800 mm

ELEMENT(TYPE=BEAM\_LINEAR, MAT=ACIER\_24, PROP=Limon plat 220x10)

15; 23, 33,22 ; // 304.909 mm  
16; 24, 34,21 ; // 304.909 mm

ELEMENT(TYPE=BEAM\_LINEAR, MAT=ACIER\_24, PROP=marche 800x250)

17; 25,150 ; // 133.332 mm  
18; 27,152 ; // 266.654 mm  
19; 29,153 ; // 400.006 mm  
20; 31,154 ; // 266.668 mm  
21; 33,156 ; // 133.328 mm

```
ELEMENT(TYPE=BEAM_LINEAR, MAT=ACIER_24, PROP=UPN120)
22;      23,123 ;      // 81.34 mm
23;      35,36 ; // 800 mm
24;      36,54 ; // 644.6 mm
25;      24,23 ; // 800 mm

ELEMENT(TYPE=BEAM_LINEAR, MAT=ACIER_24, PROP=Limon plat 220x10)
26;      35, 39,38 ; // 304.921 mm
27;      38, 52,35 ; // 304.848 mm

ELEMENT(TYPE=BEAM_LINEAR, MAT=ACIER_24, PROP=marche 800x250)
28;      39,159 ; // 99.9998 mm
29;      41,161 ; // 200.004 mm
30;      43,163 ; // 300.008 mm
31;      45,164 ; // 399.988 mm
32;      47,165 ; // 299.984 mm
33;      49,167 ; // 199.98 mm
34;      51,169 ; // 99.9757 mm

ELEMENT(TYPE=BEAM_LINEAR, MAT=ACIER_24, PROP=UPN120)
35;      54,56 ; // 250 mm
36;      56,55 ; // 800.03 mm
37;      55,53 ; // 250 mm
38;      58,68 ; // 381.74 mm
39;      60,59 ; // 800.03 mm
40;      59,67 ; // 617.51 mm
41;      57,58 ; // 800.03 mm

ELEMENT(TYPE=BEAM_LINEAR, MAT=ACIER_24, PROP=Limon plat 220x10)
42;      56, 61,57 ; // 304.919 mm
43;      55, 62,58 ; // 304.919 mm

ELEMENT(TYPE=BEAM_LINEAR, MAT=ACIER_24, PROP=marche 800x250)
44;      61,62 ; // 800 mm
45;      64,63 ; // 800 mm

ELEMENT(TYPE=BEAM_LINEAR, MAT=ACIER_24, PROP=HEA100)
46;      68,65 ; // 936 mm
47;      67,66 ; // 936 mm

ELEMENT(TYPE=BEAM_LINEAR, MAT=ACIER_24, PROP=UPN120)
48;      70,69 ; // 800 mm
49;      69,73 ; // 250 mm
50;      73,74 ; // 800 mm
51;      74,71 ; // 250 mm
52;      71,72 ; // 800 mm

ELEMENT(TYPE=BEAM_LINEAR, MAT=ACIER_24, PROP=Limon plat 220x10)
53;      75, 89,74 ; // 304.924 mm
54;      76, 90,73 ; // 304.924 mm

ELEMENT(TYPE=BEAM_LINEAR, MAT=ACIER_24, PROP=marche 800x250)
55;      77,78 ; // 800 mm
56;      80,79 ; // 800 mm
57;      81,82 ; // 800 mm
58;      84,83 ; // 800 mm
59;      85,86 ; // 800 mm
60;      88,87 ; // 800 mm
61;      89,90 ; // 800 mm

ELEMENT(TYPE=BEAM_LINEAR, MAT=ACIER_24, PROP=UPN120)
62;      92,95 ; // 1082.9 mm
63;      76,75 ; // 800 mm
64;      75,93 ; // 81.33 mm
65;      91,92 ; // 800 mm

ELEMENT(TYPE=BEAM_LINEAR, MAT=ACIER_24, PROP=HEA100)
66;      94,99 ; // 1012 mm
67;      95,98 ; // 1012 mm
68;      93,100 ; // 1012 mm
69;      96,97 ; // 1012 mm
```

```
ELEMENT(TYPE=BEAM_LINEAR, MAT=ACIER_24, PROP=Limon plat 220x10)
70;      101, 110,92 ; // 304.932 mm
71;      102, 109,91 ; // 304.932 mm
```

```
ELEMENT(TYPE=BEAM_LINEAR, MAT=ACIER_24, PROP=marche 800x250)
72;      103,104 ; // 800 mm
73;      106,105 ; // 800 mm
74;      107,108 ; // 800 mm
75;      110,109 ; // 800 mm
```

```
ELEMENT(TYPE=BEAM_LINEAR, MAT=ACIER_24, PROP=HEA100)
76;      112,111 ; // 2480 mm
77;      114,113 ; // 2480 mm
78;      115,116 ; // 2480 mm
79;      118,117 ; // 2480 mm
80;      119,120 ; // 1260 mm
81;      122,121 ; // 1260 mm
82;      127,126 ; // 1524 mm
83;      53,125 ; // 1524 mm
```

```
ELEMENT(TYPE=BEAM_LINEAR, MAT=ACIER_24, PROP=Limon plat 220x10)
84;      5, 7,4 ; // 304.919 mm
85;      7, 9,4 ; // 304.919 mm
86;      9, 11,4 ; // 304.919 mm
87;      11, 13,4 ; // 304.919 mm
88;      13, 15,4 ; // 304.934 mm
89;      15, 17,4 ; // 304.919 mm
90;      17, 19,4 ; // 304.919 mm
91;      19, 3,4 ; // 304.927 mm
92;      6, 8,3 ; // 304.919 mm
93;      8, 10,3 ; // 304.919 mm
94;      10, 12,3 ; // 304.919 mm
95;      12, 14,3 ; // 304.919 mm
96;      14, 16,3 ; // 304.934 mm
97;      16, 18,3 ; // 304.919 mm
98;      18, 20,3 ; // 304.919 mm
99;      20, 4,3 ; // 304.927 mm
```

```
ELEMENT(TYPE=BEAM_LINEAR, MAT=ACIER_24, PROP=UPN120)
100;     111,69 ; // 2150.63 mm
101;     69,71 ;// 800 mm
102;     71,115 ; // 449.37 mm
103;     115,119 ; // 2999.99 mm
104;     119,129 ; // 3000 mm
105;     122,118 ; // 2999.99 mm
106;     118,72 ; // 449.37 mm
107;     72,70 ;// 800 mm
108;     70,114 ; // 2150.63 mm
109;     114,4 ;// 1117.12 mm
```

```
ELEMENT(TYPE=BEAM_LINEAR, MAT=ACIER_24, PROP=Limon plat 220x10)
110;     33, 31,22 ; // 304.937 mm
111;     31, 29,22 ; // 304.932 mm
112;     29, 27,22 ; // 304.937 mm
113;     27, 25,22 ; // 304.896 mm
114;     25, 21,22 ; // 304.919 mm
115;     34, 32,21 ; // 304.937 mm
116;     32, 30,21 ; // 304.932 mm
117;     30, 28,21 ; // 304.937 mm
118;     28, 26,21 ; // 304.896 mm
119;     26, 22,21 ; // 304.919 mm
```

```
ELEMENT(TYPE=BEAM_LINEAR, MAT=ACIER_24, PROP=UPN120)
120;     123,127 ; // 338.28 mm
121;     54,53 ;// 800.03 mm
122;     53,124 ; // 338.28 mm
123;     124,24 ; // 81.34 mm
```

```
ELEMENT(TYPE=BEAM_LINEAR, MAT=ACIER_24, PROP=Limon plat 220x10)
124;     39, 41,38 ; // 304.934 mm
125;     41, 43,38 ; // 304.934 mm
126;     43, 45,38 ; // 304.934 mm
```



~ 7 ~

127; 45, 47,38 ; // 304.934 mm  
128; 47, 49,38 ; // 304.934 mm  
129; 49, 51,38 ; // 304.934 mm  
130; 51, 37,38 ; // 304.848 mm  
131; 52, 50,35 ; // 304.934 mm  
132; 50, 48,35 ; // 304.934 mm  
133; 48, 46,35 ; // 304.934 mm  
134; 46, 44,35 ; // 304.934 mm  
135; 44, 42,35 ; // 304.934 mm  
136; 42, 40,35 ; // 304.934 mm  
137; 40, 36,35 ; // 304.921 mm

ELEMENT(TYPE=BEAM\_LINEAR, MAT=ACIER\_24, PROP=UPN120)

138; 68,60 ;// 617.51 mm  
139; 67,57 ;// 381.74 mm

ELEMENT(TYPE=BEAM\_LINEAR, MAT=ACIER\_24, PROP=Limon plat 220x10)

140; 61, 64,57 ; // 304.927 mm  
141; 62, 63,58 ; // 304.927 mm  
142; 89, 88,74 ; // 304.922 mm  
143; 88, 85,74 ; // 304.922 mm  
144; 85, 84,74 ; // 304.922 mm  
145; 84, 81,74 ; // 304.922 mm  
146; 81, 80,74 ; // 304.922 mm  
147; 80, 77,74 ; // 304.922 mm  
148; 77, 73,74 ; // 304.922 mm  
149; 90, 87,73 ; // 304.922 mm  
150; 87, 86,73 ; // 304.922 mm  
151; 86, 83,73 ; // 304.922 mm  
152; 83, 82,73 ; // 304.922 mm  
153; 82, 79,73 ; // 304.922 mm  
154; 79, 78,73 ; // 304.922 mm  
155; 78, 74,73 ; // 304.922 mm

ELEMENT(TYPE=BEAM\_LINEAR, MAT=ACIER\_24, PROP=UPN120)

156; 95,94 ;// 2400 mm  
157; 94,76 ;// 81.33 mm  
158; 93,96 ;// 2400 mm  
159; 96,91 ;// 1082.9 mm

ELEMENT(TYPE=BEAM\_LINEAR, MAT=ACIER\_24, PROP=Limon plat 220x10)

160; 110, 107,92 ; // 304.919 mm  
161; 107, 106,92 ; // 304.919 mm  
162; 106, 103,92 ; // 304.919 mm  
163; 103, 91,92 ; // 304.922 mm  
164; 109, 108,91 ; // 304.919 mm  
165; 108, 105,91 ; // 304.919 mm  
166; 105, 104,91 ; // 304.919 mm  
167; 104, 92,91 ; // 304.922 mm

ELEMENT(TYPE=BEAM\_LINEAR, MAT=ACIER\_24, PROP=UPN120)

168; 128,54 ; // 800 mm  
169; 53,127 ; // 800 mm  
170; 119,122 ; // 800 mm  
171; 111,114 ; // 800 mm  
172; 115,118 ; // 800 mm  
173; 127,128 ; // 800.03 mm  
174; 128,35 ; // 644.6 mm

ELEMENT(TYPE=BEAM\_LINEAR, MAT=ACIER\_24, PROP=Limon plat 220x10)

175; 64, 58,57 ; // 304.919 mm  
176; 63, 57,58 ; // 304.919 mm

ELEMENT(TYPE=BEAM\_LINEAR, MAT=ACIER\_24, PROP=LE40\_4)

177; 23,156 ; // 332.785 mm  
178; 24,157 ; // 332.785 mm  
179; 36,158 ; // 320.9 mm  
180; 38,170 ; // 320.823 mm  
181; 4,147 ;// 317.619 mm  
182; 3,148 ;// 317.619 mm

ELEMENT(TYPE=BEAM\_LINEAR, MAT=ACIER\_24, PROP=HEA100)

183; 129,131 ; // 760 mm  
184; 130,132 ; // 760 mm

ELEMENT(TYPE=BEAM\_LINEAR, MAT=ACIER\_24, PROP=marche 800x250)

185; 133,134 ; // 622.224 mm  
186; 134,6 ;// 88.8881 mm  
187; 135,136 ; // 444.447 mm  
188; 136,8 ;// 177.776 mm  
189; 137,138 ; // 266.671 mm  
190; 138,10 ; // 266.664 mm  
191; 139,140 ; // 88.8948 mm  
192; 140,12 ; // 355.553 mm  
193; 142,141 ; // 88.8814 mm  
194; 141,14 ; // 355.559 mm  
195; 144,143 ; // 266.667 mm  
196; 143,16 ; // 266.667 mm  
197; 146,145 ; // 444.443 mm  
198; 145,18 ; // 177.779 mm  
199; 148,147 ; // 622.219 mm  
200; 147,20 ; // 88.8904 mm

ELEMENT(TYPE=BEAM\_LINEAR, MAT=ACIER\_24, PROP=UPN120)

201; 130,122 ; // 3000 mm

ELEMENT(TYPE=BEAM\_LINEAR, MAT=ACIER\_24, PROP=marche 800x250)

202; 150,149 ; // 533.336 mm  
203; 149,26 ; // 133.332 mm  
204; 152,151 ; // 266.691 mm  
205; 151,28 ; // 266.654 mm  
206; 153,30 ; // 399.994 mm  
207; 154,155 ; // 266.664 mm  
208; 155,32 ; // 266.668 mm  
209; 156,157 ; // 533.344 mm  
210; 157,34 ; // 133.328 mm  
211; 159,158 ; // 600 mm  
212; 158,40 ; // 99.9998 mm  
213; 161,160 ; // 399.992 mm  
214; 160,42 ; // 200.004 mm  
215; 163,162 ; // 199.984 mm  
216; 162,44 ; // 300.008 mm  
217; 164,46 ; // 400.012 mm  
218; 165,166 ; // 200.032 mm  
219; 166,48 ; // 299.984 mm  
220; 167,168 ; // 400.04 mm  
221; 168,50 ; // 199.98 mm  
222; 169,170 ; // 600.049 mm  
223; 170,52 ; // 99.9757 mm

ELEMENT(TYPE=BEAM\_LINEAR, MAT=ACIER\_24, PROP=UPN120)

224; 129,21 ; // 182.89 mm

ELEMENT(TYPE=BEAM\_LINEAR, MAT=ACIER\_24, PROP=LE40\_4)

225; 156,154 ; // 332.815 mm  
226; 154,153 ; // 332.81 mm  
227; 153,151 ; // 332.815 mm  
228; 151,149 ; // 332.771 mm  
229; 149,22 ; // 332.796 mm  
230; 157,155 ; // 332.815 mm  
231; 155,153 ; // 332.806 mm  
232; 153,152 ; // 332.82 mm  
233; 152,150 ; // 332.771 mm  
234; 150,21 ; // 332.796 mm  
235; 158,160 ; // 320.914 mm  
236; 160,162 ; // 320.914 mm  
237; 162,164 ; // 320.914 mm  
238; 164,165 ; // 320.914 mm  
239; 165,167 ; // 320.914 mm  
240; 167,169 ; // 320.914 mm  
241; 169,37 ; // 320.823 mm  
242; 170,168 ; // 320.914 mm  
243; 168,166 ; // 320.914 mm  
244; 166,164 ; // 320.921 mm

```

245;      164,163 ;      // 320.906 mm
246;      163,161 ;      // 320.914 mm
247;      161,159 ;      // 320.914 mm
248;      159,35 ;       // 320.9 mm
249;      147,145 ;      // 317.611 mm
250;      145,143 ;      // 317.611 mm
251;      143,141 ;      // 317.627 mm
252;      141,171 ;      // 158.794 mm
253;      171,139 ;      // 158.817 mm
254;      139,137 ;      // 317.611 mm
255;      137,135 ;      // 317.611 mm
256;      135,133 ;      // 317.611 mm
257;      133,1 ; // 317.611 mm
258;      148,146 ;      // 317.611 mm
259;      146,144 ;      // 317.611 mm
260;      144,142 ;      // 317.627 mm
261;      142,171 ;      // 158.794 mm
262;      171,140 ;      // 158.817 mm
263;      140,138 ;      // 317.611 mm
264;      138,136 ;      // 317.611 mm
265;      136,134 ;      // 317.611 mm
266;      134,2 ; // 317.611 mm

```

## Propriétés physiques et matériaux

PROPERTY(TYPE=ISO)

```

1,ACIER_24;      // ISO      materiau isotrope [ACIER_24]
  comment="acier 24",
  RL=5 // "CM66 Construction Métallique",
  E=      21E3, // daN/mm2      module d'Young
  NU= 0.296296, // ::      coefficient de Poisson
  A=      11E-6, // K-1      dilatation thermique
  YS=      24, // daN/mm2      limite d'élasticité
  XT=      36, // daN/mm2      contrainte de traction limite
  DEN= 0.785E-9; // daT.mm-3      densité massique

```

PROPERTY(TYPE=BEAM\_LINEAR)

```

2, UPN120;      // BEAM_LINEAR poutre droite [UPN120]
  AR=      1700, // mm2      aire de la section (A)
  IYY= 3.64E6, // mm4      moment d'inertie Y
  IZZ= 432E3, // mm4      moment d'inertie Z
  TC= 41.5E3, // mm4      constante de torsion J
  IVY= 60.7E3, // mm3      module de flexion élastique (I/vy=Wel.y)
  IVZ= 11.1E3, // mm3      module de flexion élastique (I/vz=Wel.z)
  ITC= 2650.1, // mm3      module de torsion pour Mx (J/r)
  SP= 36.3E3, // mm3      moment statique Y (Wpl.y/2)
  SPZ= 10.6E3, // mm3      moment statique Z (Wpl.z/2)
  SRY= 2.3, // ::      facteur de cisaillement Ty
  SRZ= 1.9, // ::      facteur de cisaillement Tz
  ARY= 734, // mm2      aire de cisaillement (Av.y)
  ARZ= 880, // mm2      aire de cisaillement (Av.z)
  TKY= 55, // mm      dimension Y (largeur b)
  TKZ= 120, // mm      dimension Z (hauteur h)
  EA= 7, // mm      Epaisseur de l'âme (tw)
  TF= 9, // mm      Epaisseur des semelles (tf)
  LKY= 10.7E3, // mm      longueur minimale de flambement pour moment Myy
  LDY= 10.7E3, // mm      longueur minimale de déversement pour moment Myy
  CVA= 13.3E-3; // mm-1      coût variable

```

PROPERTY(TYPE=BEAM\_LINEAR)

```

3, HEA100;      // BEAM_LINEAR poutre droite [HEA100]
  SECTION=6, // h96 b100 tw5 tf8 r12 IPE HEA,C,M HL,P,D normalisé afnor
  AR= 2123.6, // mm2      aire de la section (A)
  IYY= 3.4923E6, // mm4      moment d'inertie Y
  IZZ= 1.3381E6, // mm4      moment d'inertie Z
  TC= 52.647E3, // mm4      constante de torsion J
  IVY= 72.755E3, // mm3      module de flexion élastique (I/vy=Wel.y)

```

```

IVZ= 26.762E3, // mm3      module de flexion élastique (I/vz=We1.z)
ITC= 6580.9, // mm3      module de torsion pour Mx (J/r)
SP= 41.507E3, // mm3     moment statique Y (Wpl.y/2)
SPZ= 20.57E3, // mm3     moment statique Z (Wpl.z/2)
SRY= 1.2603, // ::      facteur de cisaillement Ty
SRZ= 2.8105, // ::      facteur de cisaillement Tz
ARY= 1685, // mm2       aire de cisaillement (Av.y)
ARZ= 755.61, // mm2     aire de cisaillement (Av.z)
TKY= 100, // mm         dimension Y (largeur b)
TKZ= 96, // mm          dimension Z (hauteur h)
EA= 5, // mm            Epaisseur de l'âme (tw)
TF= 8, // mm           Epaisseur des semelles (tf)
RR= 12, // mm          Rayon de raccordement (r)
CVA= 16.67E-3; // mm-1  coût variable

```

```

PROPERTY(TYPE=BEAM_LINEAR)
4,Limon plat 220x10; // BEAM_LINEAR poutre droite [Limon plat 220x10]
SECTION=1, // P10x220 section rectangulaire pleine
AR= 2200, // mm2      aire de la section (A)
IYY= 18.3333E3, // mm4 moment d'inertie Y
IZZ= 8.87333E6, // mm4 moment d'inertie Z
TC= 71.2333E3, // mm4 constante de torsion J
IW= 73.9444E6, // mm6 moment de gauchissement
IVY= 3666.67, // mm3  module de flexion élastique (I/vy=We1.y)
IVZ= 80.6667E3, // mm3 module de flexion élastique (I/vz=We1.z)
ITC= 7123.88, // mm3  module de torsion pour Mx (J/r)
SP= 2750, // mm3     moment statique Y (Wpl.y/2)
SPZ= 60.5E3, // mm3   moment statique Z (Wpl.z/2)
SRY= 1.2, // ::      facteur de cisaillement Ty
SRZ= 1.2, // ::      facteur de cisaillement Tz
ARY= 1466.67, // mm2  aire de cisaillement (Av.y)
ARZ= 1466.67, // mm2  aire de cisaillement (Av.z)
TKY= 220, // mm      dimension Y (largeur b)
TKZ= 10, // mm       dimension Z (hauteur h)
EA= 10, // mm        Epaisseur de l'âme (tw)
TF= 8.5, // mm       Epaisseur des semelles (tf)
RR= 12, // mm        Rayon de raccordement (r)
LKY= 2744.29, // mm   longueur minimale de flambement pour moment Myy
LDY= 2744.29, // mm   longueur minimale de déversement pour moment Myy
IL= 460, // mm2/mm    surface mouillée linéique
CVA=17.2703E-3; // mm-1 coût variable

```

```

PROPERTY(TYPE=BEAM_LINEAR)
5,marche 800x250; // BEAM_LINEAR poutre droite [marche 800x250]
SECTION=2, // RHS40x250x1 section rectangulaire creuse (RHS)
AR= 576, // mm2      aire de la section (A)
IYY= 199.312E3, // mm4 moment d'inertie Y
IZZ= 3.78219E6, // mm4 moment d'inertie Z
TC= 669.124E3, // mm4 constante de torsion J
IVY= 9965.6, // mm3  module de flexion élastique (I/vy=We1.y)
IVZ= 30.2575E3, // mm3 module de flexion élastique (I/vz=We1.z)
ITC= 19.632E3, // mm3  module de torsion pour Mx (J/r)
SP= 5236, // mm3     moment statique Y (Wpl.y/2)
SPZ= 20.356E3, // mm3   moment statique Z (Wpl.z/2)
SRY= 2.4, // ::      facteur de cisaillement Ty
SRZ= 2.4, // ::      facteur de cisaillement Tz
ARY= 371.605, // mm2  aire de cisaillement (Av.y)
ARZ= 76.1314, // mm2  aire de cisaillement (Av.z)
TKY= 250, // mm      dimension Y (largeur b)
TKZ= 40, // mm       dimension Z (hauteur h)
EA= 1, // mm         Epaisseur de l'âme (tw)
TF= 1, // mm         Epaisseur des semelles (tf)
LKY= 800, // mm      longueur minimale de flambement pour moment Myy
LDY= 800, // mm      longueur minimale de déversement pour moment Myy
IL= 580, // mm2/mm    surface mouillée linéique
CVA= 0; // mm-1      coût variable

```

```

PROPERTY(TYPE=BEAM_LINEAR)
6, LE40_4; // BEAM_LINEAR poutre droite [LE40_4]

```

```

SECTION=9, // L40x40x4 Ri6 Re3 L Cornière (LE, LI)
AR= 307.86, // mm2 aire de la section (A)
IYY= 44.73E3, // mm4 moment d'inertie Y
IZZ= 44.73E3, // mm4 moment d'inertie Z
IYZ= -27.264E3, // mm4 moment d'inertie croisé
TC= 1706.67, // mm4 constante de torsion J
IVY= 1554, // mm3 module de flexion élastique (I/vy=Wel.y)
IVZ= 1554, // mm3 module de flexion élastique (I/vz=Wel.z)
ITC= 426.667, // mm3 module de torsion pour Mx (J/r)
SP= 1602.8, // mm3 moment statique Y (Wpl.y/2)
SPZ= 1602.8, // mm3 moment statique Z (Wpl.z/2)
SRY= 2.7578, // :: facteur de cisaillement Ty
SRZ= 2.7578, // :: facteur de cisaillement Tz
ARY= 111.63, // mm2 aire de cisaillement (Av.y)
ARZ= 111.63, // mm2 aire de cisaillement (Av.z)
TKY= 40, // mm dimension Y (largeur b)
TKZ= 40, // mm dimension Z (hauteur h)
EA= 4, // mm Epaisseur de l'âme (tw)
RR= 6, // mm Rayon de raccordement (r)
RE= 3, // mm Rayon de raccordement externe (r1)
LKY= 2858.52, // mm longueur minimale de flambement pour moment Myy
LDY= 2858.52, // mm longueur minimale de déversement pour moment Myy
CVA= 2.4167E-3, // mm-1 coût variable
    
```

## Conditions climatiques

## Conditions limites

### déplacement imposé

Noeud	Chargement	X mm	Y mm	Z mm	RX rad	RY rad	RZ rad
102		0	0	0	0	0	0
101		0	0	0	0	0	0
98		0	0	0	0	0	0
97		0	0	0	0	0	0
99		0	0	0	0	0	0
100		0	0	0	0	0	0
116		0	0	0	0	0	0
117		0	0	0	0	0	0
120		0	0	0	0	0	0
121		0	0	0	0	0	0
126		0	0	0	0	0	0
125		0	0	0	0	0	0
37		0	0	0	0	0	0
38		0	0	0	0	0	0
65		0	0	0	0	0	0
66		0	0	0	0	0	0
112		0	0	0	0	0	0
113		0	0	0	0	0	0
1		0	0	0	0	0	0
2		0	0	0	0	0	0
131		0	0	0	0	0	0
132		0	0	0	0	0	0

### charge répartie linéique

L repère local (charge)

GP repère global projeté (charge)

G repère global sans projection (charge)

Elément	Chargement	fx daN/mm	fx2 daN/mm	fy daN/mm	fy2 daN/mm	fz daN/mm	fz2 daN/mm
12						-0.100000	L repère

11					-0.100000	L repère
62					-0.100000	L repère
64					-0.100000	L repère
38					-0.100000	L repère
40					-0.100000	L repère
22					-0.100000	L repère
24					-0.100000	L repère
35					-0.100000	L repère
37					-0.100000	L repère
51					-0.100000	L repère
49					-0.100000	L repère
75					-0.100000	L repère
74					-0.100000	L repère
73					-0.100000	L repère
72					-0.100000	L repère
61					-0.100000	L repère
60					-0.100000	L repère
59					-0.100000	L repère
58					-0.100000	L repère
57					-0.100000	L repère
56					-0.100000	L repère
55					-0.100000	L repère
17					-0.100000	L repère
18					-0.100000	L repère
19					-0.100000	L repère
20					-0.100000	L repère
21					-0.100000	L repère
28					-0.100000	L repère
29					-0.100000	L repère
30					-0.100000	L repère
31					-0.100000	L repère
32					-0.100000	L repère
33					-0.100000	L repère
34					-0.100000	L repère
45					-0.100000	L repère
44					-0.100000	L repère
3					-0.100000	L repère
4					-0.100000	L repère
5					-0.100000	L repère
6					-0.100000	L repère
7					-0.100000	L repère
8					-0.100000	L repère
9					-0.100000	L repère
10					-0.100000	L repère
100					-0.100000	L repère
101					-0.100000	L repère
102					-0.100000	L repère
103					-0.100000	L repère
104					-0.100000	L repère
105					-0.100000	L repère
106					-0.100000	L repère
107					-0.100000	L repère
108					-0.100000	L repère
109					-0.100000	L repère
120					-0.100000	L repère
121					-0.100000	L repère
122					-0.100000	L repère
123					-0.100000	L repère
138					-0.100000	L repère
139					-0.100000	L repère
156					-0.100000	L repère
157					-0.100000	L repère
158					-0.100000	L repère
159					-0.100000	L repère
173					-0.100000	L repère
174					-0.100000	L repère
185					-0.100000	L repère
186					-0.100000	L repère
187					-0.100000	L repère
188					-0.100000	L repère
189					-0.100000	L repère
190					-0.100000	L repère

191						-0.100000	L repère
192						-0.100000	L repère
193						-0.100000	L repère
194						-0.100000	L repère
195						-0.100000	L repère
196						-0.100000	L repère
197						-0.100000	L repère
198						-0.100000	L repère
199						-0.100000	L repère
200						-0.100000	L repère
201						-0.100000	L repère
202						-0.100000	L repère
203						-0.100000	L repère
204						-0.100000	L repère
205						-0.100000	L repère
206						-0.100000	L repère
207						-0.100000	L repère
208						-0.100000	L repère
209						-0.100000	L repère
210						-0.100000	L repère
211						-0.100000	L repère
212						-0.100000	L repère
213						-0.100000	L repère
214						-0.100000	L repère
215						-0.100000	L repère
216						-0.100000	L repère
217						-0.100000	L repère
218						-0.100000	L repère
219						-0.100000	L repère
220						-0.100000	L repère
221						-0.100000	L repère
222						-0.100000	L repère
223						-0.100000	L repère
224						-0.100000	L repère

### Calculs: combinaisons des charges

Calcul 1, 'calcul 0'  
Calcul 2, 'calcul 0'

### Réactions non pondérées

Passerelle DDP - Egir  
calcul 1 'calcul 0'

#### REACTIONS (FORCES ET MOMENTS)

Fx force en translation X  
Fy force en translation Y  
Fz force en translation Z  
Mx moment autour de l'axe X  
My moment autour de l'axe Y  
Mz moment autour de l'axe Z

Noeud	Fx daN	Fy daN	Fz daN	Mx daN.mm	My daN.mm	Mz daN.mm
n1						
1	139.6094	44.3816	313.5041	-0.007E3	-89.479E3	0.945E3
n2						
2	167.2406	-51.5239	340.3946	-0.113E3	-93.433E3	-0.455E3
n37						
37	-181.5577	54.3751	340.7572	0.200E3	89.332E3	-0.357E3
n38						
38	-155.0492	-42.9642	314.1013	-0.452E3	86.339E3	0.122E3
n65						
65	3.9736	-9.9797	160.2453	3.112E3	3.681E3	0.013E3

n66						
66	3.1455	0.2577	140.4784	-0.221E3	2.915E3	0.013E3
n97						
97	0.1961	-10.9343	193.5398	6.015E3	0.183E3	0.006E3
n98						
98	-0.1440	-22.9351	227.9857	11.953E3	-0.160E3	0.000E3
n99						
99	-0.7911	3.1480	289.1433	3.435E3	-0.710E3	-0.008E3
n100						
100	-1.3301	32.7401	420.2592	-8.674E3	-1.243E3	-0.021E3
n101						
101	4.6642	45.0890	170.9672	50.698E3	-0.082E3	-0.663E3
n102						
102	-5.2799	-22.1689	145.9247	69.827E3	-0.001E3	0.719E3
n112						
112	17.5393	-2.4672	273.6700	3.144E3	14.056E3	-0.015E3
n113						
113	14.9321	-2.4699	291.8118	3.147E3	11.495E3	-0.013E3
n116						
116	-20.6580	-6.0084	477.8411	7.529E3	-16.727E3	0.015E3
n117						
117	-11.4000	-6.0037	360.1036	7.525E3	-9.679E3	0.015E3
n120						
120	14.7651	-0.6190	288.2064	0.414E3	7.448E3	0.010E3
n121						
121	6.0554	-0.6189	296.9016	0.414E3	2.432E3	0.009E3
n125						
125	9.6615	2.3657	418.1466	-1.373E3	10.324E3	0.005E3
n126						
126	10.2342	0.4149	308.7763	-0.390E3	10.908E3	0.005E3
n131						
131	-0.9523	-1.7676	210.5610	1.312E3	6.875E3	-0.004E3
n132						
132	-14.8545	-2.3113	182.2268	1.711E3	0.771E3	0.005E3

Plus grande valeur négative

Fx -181.5577 daN Noeud 37, Fx force en translation X  
 Fy -51.5239 daN Noeud 2, Fy force en translation Y  
 Mx -8.674E3 daN.mm Noeud 100, Mx moment autour de l'axe X  
 My -93.433E3 daN.mm Noeud 2, My moment autour de l'axe Y  
 Mz -0.663E3 daN.mm Noeud 101, Mz moment autour de l'axe Z

Plus grande valeur positive

Fx 167.2406 daN Noeud 2, Fx force en translation X  
 Fy 54.3751 daN Noeud 37, Fy force en translation Y  
 Fz 477.8411 daN Noeud 116, Fz force en translation Z  
 Mx 69.827E3 daN.mm Noeud 102, Mx moment autour de l'axe X  
 My 89.332E3 daN.mm Noeud 37, My moment autour de l'axe Y  
 Mz 0.945E3 daN.mm Noeud 1, Mz moment autour de l'axe Z

Somme des réactions des forces F et moments M calculés à l'origine  
 Fx,y,z -6.3239E-6, -37.34E-12, 6165.55,  
 Mx,y,z -3.09034E6, -52.823E6, 2.52931E-3,

## Réactions ELS

Passerelle DDP - Egir  
 calcul 2 'calcul 0'

REACTIONS (FORCES ET MOMENTS)

Plus grande valeur négative

Fx -181.5577 daN Noeud 37, Fx force en translation X  
 Fy -51.5239 daN Noeud 2, Fy force en translation Y  
 Mx -8.674E3 daN.mm Noeud 100, Mx moment autour de l'axe X  
 My -93.433E3 daN.mm Noeud 2, My moment autour de l'axe Y  
 Mz -0.663E3 daN.mm Noeud 101, Mz moment autour de l'axe Z

Plus grande valeur positive

Fx 167.2406 daN Noeud 2, Fx force en translation X  
 Fy 54.3751 daN Noeud 37, Fy force en translation Y



```

Fz      477.8411 daN      Noeud 116, Fz force en translation Z
Mx      69.827E3 daN.mm   Noeud 102, Mx moment autour de l'axe X
My      89.332E3 daN.mm   Noeud 37, My moment autour de l'axe Y
Mz      0.945E3 daN.mm    Noeud 1, Mz moment autour de l'axe Z
Somme des réactions des forces F et moments M calculés à l'origine
Fx,y,z -6.3239E-6, -37.34E-12, 6165.55,
Mx,y,z -3.09034E6, -52.823E6, 2.52931E-3,
-----

```

## Réactions ELU

Enveloppe des résultats extrêmes sur tous les calculs  
 REACTIONS (FORCES ET MOMENTS)

Fx force en translation X  
 Fy force en translation Y  
 Fz force en translation Z  
 Mx moment autour de l'axe X  
 My moment autour de l'axe Y  
 Mz moment autour de l'axe Z

Noeud		Fx daN	Fy daN	Fz daN	Mx daN.mm	My daN.mm	Mz daN.mm
-----							
1	min	139.6094	44.3816	313.5041	-0.007E3	-89.479E3	0.945E3
1	max	139.6094	44.3816	313.5041	-0.007E3	-89.479E3	0.945E3
-----							
2	min	167.2406	-51.5239	340.3946	-0.113E3	-93.433E3	-0.455E3
2	max	167.2406	-51.5239	340.3946	-0.113E3	-93.433E3	-0.455E3
-----							
37	min	-181.5577	54.3751	340.7572	0.200E3	89.332E3	-0.357E3
37	max	-181.5577	54.3751	340.7572	0.200E3	89.332E3	-0.357E3
-----							
38	min	-155.0492	-42.9642	314.1013	-0.452E3	86.339E3	0.122E3
38	max	-155.0492	-42.9642	314.1013	-0.452E3	86.339E3	0.122E3
-----							
65	min	3.9736	-9.9797	160.2453	3.112E3	3.681E3	0.013E3
65	max	3.9736	-9.9797	160.2453	3.112E3	3.681E3	0.013E3
-----							
66	min	3.1455	0.2577	140.4784	-0.221E3	2.915E3	0.013E3
66	max	3.1455	0.2577	140.4784	-0.221E3	2.915E3	0.013E3
-----							
97	min	0.1961	-10.9343	193.5398	6.015E3	0.183E3	0.006E3
97	max	0.1961	-10.9343	193.5398	6.015E3	0.183E3	0.006E3
-----							
98	min	-0.1440	-22.9351	227.9857	11.953E3	-0.160E3	0.000E3
98	max	-0.1440	-22.9351	227.9857	11.953E3	-0.160E3	0.000E3
-----							
99	min	-0.7911	3.1480	289.1433	3.435E3	-0.710E3	-0.008E3
99	max	-0.7911	3.1480	289.1433	3.435E3	-0.710E3	-0.008E3
-----							
100							

100	min	-1.3301	32.7401	420.2592	-8.674E3	-1.243E3	-0.021E3
	max	-1.3301	32.7401	420.2592	-8.674E3	-1.243E3	-0.021E3
101	min	4.6642	45.0890	170.9672	50.698E3	-0.082E3	-0.663E3
101	max	4.6642	45.0890	170.9672	50.698E3	-0.082E3	-0.663E3
102	min	-5.2799	-22.1689	145.9247	69.827E3	-0.001E3	0.719E3
102	max	-5.2799	-22.1689	145.9247	69.827E3	-0.001E3	0.719E3
112	min	17.5393	-2.4672	273.6700	3.144E3	14.056E3	-0.015E3
112	max	17.5393	-2.4672	273.6700	3.144E3	14.056E3	-0.015E3
113	min	14.9321	-2.4699	291.8118	3.147E3	11.495E3	-0.013E3
113	max	14.9321	-2.4699	291.8118	3.147E3	11.495E3	-0.013E3
116	min	-20.6580	-6.0084	477.8411	7.529E3	-16.727E3	0.015E3
116	max	-20.6580	-6.0084	477.8411	7.529E3	-16.727E3	0.015E3
117	min	-11.4000	-6.0037	360.1036	7.525E3	-9.679E3	0.015E3
117	max	-11.4000	-6.0037	360.1036	7.525E3	-9.679E3	0.015E3
120	min	14.7651	-0.6190	288.2064	0.414E3	7.448E3	0.010E3
120	max	14.7651	-0.6190	288.2064	0.414E3	7.448E3	0.010E3
121	min	6.0554	-0.6189	296.9016	0.414E3	2.432E3	0.009E3
121	max	6.0554	-0.6189	296.9016	0.414E3	2.432E3	0.009E3
125	min	9.6615	2.3657	418.1466	-1.373E3	10.324E3	0.005E3
125	max	9.6615	2.3657	418.1466	-1.373E3	10.324E3	0.005E3
126	min	10.2342	0.4149	308.7763	-0.390E3	10.908E3	0.005E3
126	max	10.2342	0.4149	308.7763	-0.390E3	10.908E3	0.005E3
131	min	-0.9523	-1.7676	210.5610	1.312E3	6.875E3	-0.004E3
131	max	-0.9523	-1.7676	210.5610	1.312E3	6.875E3	-0.004E3
132	min	-14.8545	-2.3113	182.2268	1.711E3	0.771E3	0.005E3
132	max	-14.8545	-2.3113	182.2268	1.711E3	0.771E3	0.005E3

Plus grande valeur négative

Fx	-181.5577 daN	Calcul 1	Noeud 37, Fx force en translation X
Fy	-51.5239 daN	Calcul 1	Noeud 2, Fy force en translation Y
Mx	-8.674E3 daN.mm	Calcul 1	Noeud 100, Mx moment autour de l'axe X
My	-93.433E3 daN.mm	Calcul 1	Noeud 2, My moment autour de l'axe Y
Mz	-0.663E3 daN.mm	Calcul 1	Noeud 101, Mz moment autour de l'axe Z

Plus grande valeur positive

Fx	167.2406 daN	Calcul 1	Noeud 2, Fx force en translation X
----	--------------	----------	------------------------------------

```

Fy      54.3751 daN      Calcul 1      Noeud 37, Fy force en translation Y
Fz      477.8411 daN      Calcul 1      Noeud 116, Fz force en translation Z
Mx      69.827E3 daN.mm Calcul 1      Noeud 102, Mx moment autour de l'axe X
My      89.332E3 daN.mm Calcul 1      Noeud 37, My moment autour de l'axe Y
Mz      0.945E3 daN.mm Calcul 1      Noeud 1, Mz moment autour de l'axe Z
    
```

## Déplacements ELS

Passerelle DDP - Egir  
calcul 2 'calcul 0'

### DEPLACEMENT (TRANSLATIONS ET ROTATIONS)

X déplacement en translation X  
Y déplacement en translation Y  
Z déplacement en translation Z  
RX rotation autour de l'axe X  
RY rotation autour de l'axe Y  
RZ rotation autour de l'axe Z  
D déplacement total (x,y,z)  
R rotation totale (rx,ry,rz)

Noeud	X mm	Y mm	Z mm	RX rad	RY rad	RZ rad	D mm	R rad
n3-----								
3	0.0166533	0.0198840	-0.037675	-0.027E-3	-0.161E-3	0.0048E-3	0.0457400	0.1635E-3
n4-----								
4	0.0339691	0.0191453	-0.059590	-0.027E-3	-0.161E-3	0.0273E-3	0.0712142	0.1657E-3
n5-----								
5	0.0128294	0.0037054	-0.017074	-0.156E-3	0.1082E-3	-0.020E-3	0.0216755	0.1913E-3
n6-----								
6	0.0134654	0.0033547	-0.018000	0.1383E-3	0.1140E-3	0.0196E-3	0.0227286	0.1803E-3
n7-----								
7	0.0396422	0.0039986	-0.050952	-0.139E-3	0.1495E-3	-0.026E-3	0.0646806	0.2061E-3
n8-----								
8	0.0418955	0.0035747	-0.053975	0.1327E-3	0.1597E-3	0.0208E-3	0.0684204	0.2087E-3
n9-----								
9	0.0688204	0.0049261	-0.087701	-0.141E-3	0.1390E-3	-0.029E-3	0.1115887	0.2003E-3
n10-----								
10	0.0733683	0.0047119	-0.093616	0.1292E-3	0.1521E-3	0.0180E-3	0.1190335	0.2004E-3
n11-----								
11	0.0917009	0.0070007	-0.116964	-0.152E-3	0.0919E-3	-0.032E-3	0.1487909	0.1803E-3
n12-----								
12	0.0989465	0.0069466	-0.126233	0.1287E-3	0.1063E-3	0.0140E-3	0.1605410	0.1675E-3
n13-----								
13	0.1025962	0.0090664	-0.131938	-0.158E-3	0.0233E-3	-0.035E-3	0.1673790	0.1636E-3
n14-----								
14	0.1126762	0.0091148	-0.144710	0.1227E-3	0.0377E-3	0.0104E-3	0.1836300	0.1287E-3
n15-----								
15	0.0987912	0.0106748	-0.129381	-0.159E-3	-0.052E-3	-0.039E-3	0.1631354	0.1719E-3
n16-----								
16	0.1115727	0.0108885	-0.145494	0.1118E-3	-0.039E-3	0.0076E-3	0.1836726	0.1185E-3
n17-----								
17	0.0805399	0.0132168	-0.109618	-0.164E-3	-0.117E-3	-0.042E-3	0.1366658	0.2061E-3
n18-----								
18	0.0956217	0.0136425	-0.128595	0.1091E-3	-0.107E-3	0.0047E-3	0.1608299	0.1530E-3
n19-----								
19	0.0510819	0.0168372	-0.076544	-0.173E-3	-0.159E-3	-0.041E-3	0.0935514	0.2384E-3
n20-----								
20	0.0677874	0.0171463	-0.097579	0.1264E-3	-0.153E-3	-0.001E-3	0.1200447	0.1986E-3
n21-----								
21	-0.028594	0.0099278	-0.003937	-0.001E-3	0.0602E-3	0.0014E-3	0.0305230	0.0602E-3
n22-----								
22	-0.016907	0.0091526	-0.003805	0.0012E-3	0.0654E-3	-0.021E-3	0.0195981	0.0686E-3
n23-----								
23	-0.091207	-0.005428	-0.070574	-0.007E-3	-0.101E-3	0.0022E-3	0.1154508	0.1010E-3
n24-----								
24	-0.086161	-0.004340	-0.076113	-0.006E-3	-0.102E-3	-0.007E-3	0.1150466	0.1026E-3
n25-----								

25		-0.049046		0.0074978		-0.026732		-0.106E-3		0.1145E-3		0.0097E-3		0.0563588		0.1562E-3		
n26	-----+																	
26		-0.038678		0.0081612		-0.027805		0.1103E-3		0.1209E-3		-0.035E-3		0.0483288		0.1674E-3		
n27	-----+																	
27		-0.074285		0.0036314		-0.055418		-0.113E-3		0.1163E-3		0.0143E-3		0.0927507		0.1628E-3		
n28	-----+																	
28		-0.065416		0.0039740		-0.057892		0.1034E-3		0.1230E-3		-0.036E-3		0.0874444		0.1647E-3		
n29	-----+																	
29		-0.095497		0.0014893		-0.079364		-0.123E-3		0.0804E-3		0.0147E-3		0.1241796		0.1478E-3		
n30	-----+																	
30		-0.088103		0.0014908		-0.083218		0.1139E-3		0.0865E-3		-0.033E-3		0.1212001		0.1468E-3		
n31	-----+																	
31		-0.106833		-0.000964		-0.091551		-0.112E-3		0.0222E-3		0.0177E-3		0.1406971		0.1154E-3		
n32	-----+																	
32		-0.100700		-0.001305		-0.096533		0.1047E-3		0.0267E-3		-0.033E-3		0.1395017		0.1129E-3		
n33	-----+																	
33		-0.105379		-0.001795		-0.088554		-0.117E-3		-0.043E-3		0.0154E-3		0.1376576		0.1261E-3		
n34	-----+																	
34		-0.100100		-0.002471		-0.094176		0.0992E-3		-0.041E-3		-0.029E-3		0.1374599		0.1113E-3		
n35	-----+																	
35		-0.099056		-0.019896		-0.136485		0.0054E-3		0.0636E-3		0.0186E-3		0.1698122		0.0665E-3		
n36	-----+																	
36		-0.095341		-0.020617		-0.131724		0.0066E-3		0.0506E-3		0.0150E-3		0.1639090		0.0532E-3		
n39	-----+																	
39		-0.112322		-0.016797		-0.149802		-0.118E-3		0.0441E-3		0.0135E-3		0.1879869		0.1270E-3		
n40	-----+																	
40		-0.106865		-0.016483		-0.142977		0.1423E-3		0.0387E-3		-0.026E-3		0.1792603		0.1498E-3		
n41	-----+																	
41		-0.118475		-0.014618		-0.154779		-0.116E-3		-0.002E-3		0.0177E-3		0.1954648		0.1170E-3		
n42	-----+																	
42		-0.112580		-0.014180		-0.147434		0.1376E-3		-0.002E-3		-0.032E-3		0.1860434		0.1412E-3		
n43	-----+																	
43		-0.113684		-0.012315		-0.146759		-0.120E-3		-0.060E-3		0.0181E-3		0.1860481		0.1356E-3		
n44	-----+																	
44		-0.108289		-0.012143		-0.140026		0.1386E-3		-0.056E-3		-0.031E-3		0.1774295		0.1527E-3		
n45	-----+																	
45		-0.097105		-0.009737		-0.124701		-0.128E-3		-0.116E-3		0.0184E-3		0.1583495		0.1736E-3		
n46	-----+																	
46		-0.092819		-0.009741		-0.119318		0.1425E-3		-0.109E-3		-0.028E-3		0.1514831		0.1817E-3		
n47	-----+																	
47		-0.070872		-0.007151		-0.091124		-0.124E-3		-0.152E-3		0.0213E-3		0.1156616		0.1973E-3		
n48	-----+																	
48		-0.067987		-0.007336		-0.087456		0.1345E-3		-0.145E-3		-0.028E-3		0.1110167		0.1998E-3		
n49	-----+																	
49		-0.040065		-0.004802		-0.052111		-0.123E-3		-0.155E-3		0.0232E-3		0.0659076		0.1992E-3		
n50	-----+																	
50		-0.038568		-0.005258		-0.050154		0.1306E-3		-0.149E-3		-0.026E-3		0.0634865		0.1998E-3		
n51	-----+																	
51		-0.012752		-0.002468		-0.017310		-0.127E-3		-0.110E-3		0.0198E-3		0.0216411		0.1687E-3		
n52	-----+																	
52		-0.012320		-0.002824		-0.016695		0.1342E-3		-0.106E-3		-0.020E-3		0.0209396		0.1719E-3		
n53	-----+																	
53		-0.088105		-0.007325		-0.014291		-0.023E-3		-0.061E-3		-0.017E-3		0.0895568		0.0678E-3		
n54	-----+																	
54		-0.092000		-0.036869		-0.089031		0.0026E-3		0.1101E-3		-0.020E-3		0.1332291		0.1119E-3		
n55	-----+																	
55		-0.082148		-0.007262		-0.022900		-0.022E-3		0.0782E-3		-0.035E-3		0.0855886		0.0886E-3		
n56	-----+																	
56		-0.082411		-0.037001		-0.086584		0.0279E-3		0.0790E-3		-0.042E-3		0.1251295		0.0936E-3		
n57	-----+																	
57		-0.024417		-0.002227		-0.017101		0.0354E-3		0.0290E-3		-0.028E-3		0.0298929		0.0536E-3		
n58	-----+																	
58		-0.024293		0.0007772		-0.040717		0.0967E-3		0.0284E-3		-0.006E-3		0.0474201		0.1009E-3		
n59	-----+																	
59		-0.004046		-0.002198		-0.027210		-0.048E-3		-0.037E-3		0.0003E-3		0.0275972		0.0603E-3		
n60	-----+																	
60		-0.004053		0.0006434		0.0022084		0.0004E-3		-0.037E-3		-0.005E-3		0.0046604		0.0371E-3		
n61	-----+																	
61		-0.064690		-0.029782		-0.077935		0.0511E-3		-0.278E-3		-0.019E-3		0.1055729		0.2837E-3		
n62	-----+																	
62		-0.064369		-0.010151		-0.026699		-0.003E-3		0.3624E-3		-0.035E-3		0.0704214		0.3641E-3		
n63	-----+																	

63	-0.044669	-0.008341	-0.024609	0.0208E-3	0.3476E-3	-0.022E-3	0.0516769	0.3489E-3
n64	-----	-----	-----	-----	-----	-----	-----	-----
64	-0.044333	-0.017003	-0.062424	0.0792E-3	-0.297E-3	-0.005E-3	0.0784306	0.3071E-3
n67	-----	-----	-----	-----	-----	-----	-----	-----
67	-0.012029	-0.002215	-0.002948	0.0034E-3	-0.018E-3	-0.028E-3	0.0125819	0.0340E-3
n68	-----	-----	-----	-----	-----	-----	-----	-----
68	-0.015190	0.0006601	-0.003363	0.0519E-3	-0.023E-3	-0.029E-3	0.0155719	0.0638E-3
n69	-----	-----	-----	-----	-----	-----	-----	-----
69	-0.000591	0.6172850	-0.747720	0.0156E-3	-0.317E-3	-0.173E-3	0.9696011	0.3616E-3
n70	-----	-----	-----	-----	-----	-----	-----	-----
70	0.0211707	0.6164649	-0.650252	0.1673E-3	-0.370E-3	-0.102E-3	0.8962729	0.4182E-3
n71	-----	-----	-----	-----	-----	-----	-----	-----
71	-0.004386	0.3496432	-0.298661	0.1566E-3	-0.688E-3	-0.193E-3	0.4598567	0.7313E-3
n72	-----	-----	-----	-----	-----	-----	-----	-----
72	0.0176478	0.3501843	-0.204595	0.1007E-3	-0.554E-3	-0.190E-3	0.4059551	0.5940E-3
n73	-----	-----	-----	-----	-----	-----	-----	-----
73	-0.060986	0.6177614	-0.739511	-0.089E-3	-0.495E-3	-0.291E-3	0.9655182	0.5807E-3
n74	-----	-----	-----	-----	-----	-----	-----	-----
74	-0.061357	0.3493413	-0.342094	0.1282E-3	-0.498E-3	-0.278E-3	0.4927803	0.5844E-3
n75	-----	-----	-----	-----	-----	-----	-----	-----
75	0.0014965	0.0406177	-0.040102	-0.388E-3	-0.017E-3	0.0564E-3	0.0570985	0.3925E-3
n76	-----	-----	-----	-----	-----	-----	-----	-----
76	0.0016096	0.0818156	-0.026168	-0.257E-3	-0.017E-3	0.0216E-3	0.0859137	0.2590E-3
n77	-----	-----	-----	-----	-----	-----	-----	-----
77	-0.045549	0.5950811	-0.711921	-0.157E-3	-0.102E-3	-0.275E-3	0.9289929	0.3326E-3
n78	-----	-----	-----	-----	-----	-----	-----	-----
78	-0.045865	0.3692466	-0.367138	0.0656E-3	-0.742E-3	-0.291E-3	0.5227208	0.8002E-3
n79	-----	-----	-----	-----	-----	-----	-----	-----
79	-0.037581	0.3737776	-0.373587	-0.023E-3	-0.680E-3	-0.241E-3	0.5298011	0.7213E-3
n80	-----	-----	-----	-----	-----	-----	-----	-----
80	-0.037579	0.5562963	-0.664883	-0.248E-3	-0.031E-3	-0.217E-3	0.8677256	0.3311E-3
n81	-----	-----	-----	-----	-----	-----	-----	-----
81	-0.029912	0.4986337	-0.595094	-0.345E-3	0.0356E-3	-0.164E-3	0.7769605	0.3830E-3
n82	-----	-----	-----	-----	-----	-----	-----	-----
82	-0.029912	0.3592686	-0.357070	-0.123E-3	-0.613E-3	-0.187E-3	0.5074128	0.6529E-3
n83	-----	-----	-----	-----	-----	-----	-----	-----
83	-0.022677	0.3250480	-0.316788	-0.219E-3	-0.548E-3	-0.134E-3	0.4544500	0.6057E-3
n84	-----	-----	-----	-----	-----	-----	-----	-----
84	-0.022677	0.4223188	-0.502823	-0.433E-3	0.1005E-3	-0.111E-3	0.6570377	0.4577E-3
n85	-----	-----	-----	-----	-----	-----	-----	-----
85	-0.015871	0.3305867	-0.391925	-0.496E-3	0.1624E-3	-0.061E-3	0.5129762	0.5258E-3
n86	-----	-----	-----	-----	-----	-----	-----	-----
86	-0.015871	0.2734280	-0.255495	-0.296E-3	-0.487E-3	-0.084E-3	0.3745562	0.5755E-3
n87	-----	-----	-----	-----	-----	-----	-----	-----
87	-0.009485	0.2096939	-0.179490	-0.338E-3	-0.429E-3	-0.038E-3	0.2761852	0.5470E-3
n88	-----	-----	-----	-----	-----	-----	-----	-----
88	-0.009484	0.2296932	-0.269855	-0.521E-3	0.2196E-3	-0.014E-3	0.3545005	0.5652E-3
n89	-----	-----	-----	-----	-----	-----	-----	-----
89	-0.003644	0.1289260	-0.147682	-0.490E-3	0.2696E-3	0.0236E-3	0.1960746	0.5596E-3
n90	-----	-----	-----	-----	-----	-----	-----	-----
90	-0.003299	0.1420918	-0.098602	-0.330E-3	-0.377E-3	0.0073E-3	0.1729835	0.5008E-3
n91	-----	-----	-----	-----	-----	-----	-----	-----
91	0.0101192	0.0446441	-0.058004	-0.004E-3	0.0453E-3	0.0474E-3	0.0738915	0.0657E-3
n92	-----	-----	-----	-----	-----	-----	-----	-----
92	0.0100071	0.0778051	-0.094004	-0.018E-3	0.0447E-3	0.0189E-3	0.1224356	0.0519E-3
n93	-----	-----	-----	-----	-----	-----	-----	-----
93	0.0057678	0.0407749	-0.009537	-0.284E-3	0.0079E-3	0.0494E-3	0.0422707	0.2886E-3
n94	-----	-----	-----	-----	-----	-----	-----	-----
94	0.0032274	0.0817152	-0.006561	-0.181E-3	0.0043E-3	0.0186E-3	0.0820417	0.1821E-3
n95	-----	-----	-----	-----	-----	-----	-----	-----
95	0.0007996	0.0785415	-0.005174	-0.013E-3	0.0012E-3	-0.001E-3	0.0787157	0.0126E-3
n96	-----	-----	-----	-----	-----	-----	-----	-----
96	-0.000847	0.0432125	-0.004392	-0.017E-3	-0.001E-3	-0.015E-3	0.0434434	0.0227E-3
n103	-----	-----	-----	-----	-----	-----	-----	-----
103	0.0079587	0.0419988	-0.054415	-0.029E-3	0.3620E-3	0.0424E-3	0.0691967	0.3657E-3
n104	-----	-----	-----	-----	-----	-----	-----	-----
104	0.0076175	0.0695967	-0.084498	-0.063E-3	-0.284E-3	0.0261E-3	0.1097346	0.2918E-3
n105	-----	-----	-----	-----	-----	-----	-----	-----
105	0.0060900	0.0529644	-0.064688	-0.099E-3	-0.296E-3	0.0123E-3	0.0838260	0.3124E-3
n106	-----	-----	-----	-----	-----	-----	-----	-----
106	0.0060890	0.0336434	-0.043759	-0.057E-3	0.3523E-3	0.0355E-3	0.0555320	0.3586E-3
n107	-----	-----	-----	-----	-----	-----	-----	-----

107	0.0041715	0.0206475	-0.027311	-0.071E-3	0.3402E-3	0.0245E-3	0.0344911	0.3485E-3
n108	----	+	----	+	----	+	----	+
108	0.0041724	0.0311584	-0.038445	-0.111E-3	-0.308E-3	0.0014E-3	0.0496613	0.3274E-3
n109	----	+	----	+	----	+	----	+
109	0.0022183	0.0104188	-0.013206	-0.083E-3	-0.315E-3	-0.004E-3	0.0169668	0.3253E-3
n110	----	+	----	+	----	+	----	+
110	0.0018946	0.0070837	-0.009926	-0.058E-3	0.3272E-3	0.0122E-3	0.0123404	0.3325E-3
n111	----	+	----	+	----	+	----	+
111	0.0114795	0.1213619	-0.015219	-0.008E-3	0.2601E-3	0.0897E-3	0.1228499	0.2753E-3
n114	----	+	----	+	----	+	----	+
114	0.0295410	0.1213580	-0.016228	-0.007E-3	0.2374E-3	0.0767E-3	0.1259515	0.2496E-3
n115	----	+	----	+	----	+	----	+
115	-0.006303	0.2814412	-0.026573	-0.007E-3	-0.301E-3	-0.086E-3	0.2827632	0.3128E-3
n118	----	+	----	+	----	+	----	+
118	0.0153277	0.2814485	-0.020026	-0.007E-3	-0.151E-3	-0.088E-3	0.2825761	0.1748E-3
n119	----	+	----	+	----	+	----	+
119	-0.016529	0.0044073	-0.008143	-0.001E-3	0.0319E-3	-0.029E-3	0.0189460	0.0428E-3
n122	----	+	----	+	----	+	----	+
122	-0.000041	0.0044084	-0.008389	-0.001E-3	0.0238E-3	-0.026E-3	0.0094765	0.0351E-3
n123	----	+	----	+	----	+	----	+
123	-0.091535	-0.005272	-0.059397	-0.005E-3	-0.126E-3	0.0009E-3	0.1092453	0.1260E-3
n124	----	+	----	+	----	+	----	+
124	-0.086538	-0.004777	-0.064555	-0.010E-3	-0.129E-3	-0.005E-3	0.1080692	0.1297E-3
n127	----	+	----	+	----	+	----	+
127	-0.092901	-0.007452	-0.010554	0.0040E-3	-0.065E-3	-0.018E-3	0.0937955	0.0671E-3
n128	----	+	----	+	----	+	----	+
128	-0.096319	-0.036671	-0.079857	-0.017E-3	0.1198E-3	-0.002E-3	0.1303814	0.1211E-3
n129	----	+	----	+	----	+	----	+
129	-0.027905	0.0089832	-0.003588	-0.017E-3	-0.075E-3	0.0071E-3	0.0295341	0.0773E-3
n130	----	+	----	+	----	+	----	+
130	-0.016009	0.0116918	-0.003106	-0.023E-3	-0.066E-3	-0.010E-3	0.0200660	0.0708E-3
n133	----	+	----	+	----	+	----	+
133	0.0158546	0.0037218	-0.031832	-0.164E-3	0.1221E-3	-0.018E-3	0.0357556	0.2055E-3
n134	----	+	----	+	----	+	----	+
134	0.0164583	0.0033461	-0.031166	0.1460E-3	0.1077E-3	0.0174E-3	0.0354032	0.1822E-3
n135	----	+	----	+	----	+	----	+
135	0.0458900	0.0039906	-0.075875	-0.117E-3	0.1626E-3	-0.019E-3	0.0887632	0.2013E-3
n136	----	+	----	+	----	+	----	+
136	0.0472681	0.0035747	-0.077548	0.1036E-3	0.1494E-3	0.0144E-3	0.0908886	0.1824E-3
n137	----	+	----	+	----	+	----	+
137	0.0781657	0.0049232	-0.120375	-0.071E-3	0.1494E-3	-0.017E-3	0.1436115	0.1663E-3
n138	----	+	----	+	----	+	----	+
138	0.0797280	0.0047072	-0.122898	0.0509E-3	0.1444E-3	0.0061E-3	0.1465698	0.1532E-3
n139	----	+	----	+	----	+	----	+
139	0.1039965	0.0070041	-0.155451	-0.029E-3	0.1000E-3	-0.013E-3	0.1871616	0.1050E-3
n140	----	+	----	+	----	+	----	+
140	0.1048036	0.0069464	-0.156685	0.0012E-3	0.1000E-3	-0.004E-3	0.1886324	0.1001E-3
n141	----	+	----	+	----	+	----	+
141	0.1172847	0.0091217	-0.173463	0.0002E-3	0.0285E-3	-0.008E-3	0.2095910	0.0296E-3
n142	----	+	----	+	----	+	----	+
142	0.1161566	0.0090665	-0.172175	-0.030E-3	0.0286E-3	-0.017E-3	0.2078912	0.0448E-3
n143	----	+	----	+	----	+	----	+
143	0.1151552	0.0108874	-0.170770	0.0430E-3	-0.050E-3	-0.004E-3	0.2062561	0.0661E-3
n144	----	+	----	+	----	+	----	+
144	0.1109094	0.0106708	-0.166173	-0.079E-3	-0.044E-3	-0.027E-3	0.2000706	0.0947E-3
n145	----	+	----	+	----	+	----	+
145	0.0980494	0.0136352	-0.148388	0.0887E-3	-0.121E-3	-0.002E-3	0.1783779	0.1501E-3
n146	----	+	----	+	----	+	----	+
146	0.0897306	0.0132168	-0.138522	-0.133E-3	-0.107E-3	-0.036E-3	0.1655733	0.1742E-3
n147	----	+	----	+	----	+	----	+
147	0.0690608	0.0171676	-0.109664	0.1353E-3	-0.167E-3	-0.003E-3	0.1307303	0.2146E-3
n148	----	+	----	+	----	+	----	+
148	0.0559157	0.0168277	-0.092777	-0.179E-3	-0.153E-3	-0.039E-3	0.1096232	0.2387E-3
n149	----	+	----	+	----	+	----	+
149	-0.045233	0.0081813	-0.043266	0.1149E-3	0.1310E-3	-0.031E-3	0.0631263	0.1770E-3
n150	----	+	----	+	----	+	----	+
150	-0.052386	0.0074837	-0.041503	-0.109E-3	0.1140E-3	0.0054E-3	0.0672523	0.1580E-3
n151	----	+	----	+	----	+	----	+
151	-0.077135	0.0039678	-0.080876	0.0459E-3	0.1265E-3	-0.024E-3	0.1118321	0.1366E-3
n152	----	+	----	+	----	+	----	+
152	-0.080140	0.0036231	-0.080517	-0.048E-3	0.1180E-3	0.0015E-3	0.1136597	0.1274E-3
n153	----	+	----	+	----	+	----	+

153	-0.102177	0.0014945	-0.108463	-0.004E-3	0.0849E-3	-0.009E-3	0.1490192	0.0855E-3
n154	-----	-----	-----	-----	-----	-----	-----	-----
154	-0.113572	-0.000968	-0.117027	-0.056E-3	0.0207E-3	0.0048E-3	0.1630798	0.0595E-3
n155	-----	-----	-----	-----	-----	-----	-----	-----
155	-0.111559	-0.001315	-0.119261	0.0393E-3	0.0274E-3	-0.020E-3	0.1633107	0.0519E-3
n156	-----	-----	-----	-----	-----	-----	-----	-----
156	-0.109347	-0.001776	-0.105038	-0.123E-3	-0.052E-3	0.0113E-3	0.1516341	0.1341E-3
n157	-----	-----	-----	-----	-----	-----	-----	-----
157	-0.106000	-0.002483	-0.108061	0.1025E-3	-0.039E-3	-0.025E-3	0.1513913	0.1124E-3
n158	-----	-----	-----	-----	-----	-----	-----	-----
158	-0.110813	-0.016471	-0.158022	0.1463E-3	0.0328E-3	-0.024E-3	0.1937049	0.1518E-3
n159	-----	-----	-----	-----	-----	-----	-----	-----
159	-0.115031	-0.016812	-0.162478	-0.123E-3	0.0353E-3	0.0110E-3	0.1997844	0.1289E-3
n160	-----	-----	-----	-----	-----	-----	-----	-----
160	-0.120866	-0.014180	-0.173820	0.0988E-3	-0.014E-3	-0.024E-3	0.2121864	0.1025E-3
n161	-----	-----	-----	-----	-----	-----	-----	-----
161	-0.123857	-0.014618	-0.177114	-0.078E-3	-0.015E-3	0.0096E-3	0.2166180	0.0804E-3
n162	-----	-----	-----	-----	-----	-----	-----	-----
162	-0.119306	-0.012139	-0.172954	0.0474E-3	-0.063E-3	-0.016E-3	0.2104622	0.0806E-3
n163	-----	-----	-----	-----	-----	-----	-----	-----
163	-0.120677	-0.012322	-0.174651	-0.028E-3	-0.066E-3	0.0031E-3	0.2126452	0.0717E-3
n164	-----	-----	-----	-----	-----	-----	-----	-----
164	-0.104942	-0.009739	-0.154640	0.0101E-3	-0.114E-3	-0.005E-3	0.1871393	0.1147E-3
n165	-----	-----	-----	-----	-----	-----	-----	-----
165	-0.078818	-0.007149	-0.120205	-0.033E-3	-0.146E-3	0.0062E-3	0.1439184	0.1495E-3
n166	-----	-----	-----	-----	-----	-----	-----	-----
166	-0.078081	-0.007334	-0.119254	0.0446E-3	-0.145E-3	-0.013E-3	0.1427305	0.1526E-3
n167	-----	-----	-----	-----	-----	-----	-----	-----
167	-0.046556	-0.004809	-0.075879	-0.086E-3	-0.143E-3	0.0151E-3	0.0891528	0.1675E-3
n168	-----	-----	-----	-----	-----	-----	-----	-----
168	-0.045793	-0.005250	-0.075174	0.0933E-3	-0.141E-3	-0.018E-3	0.0881795	0.1704E-3
n169	-----	-----	-----	-----	-----	-----	-----	-----
169	-0.016058	-0.002463	-0.030911	-0.133E-3	-0.102E-3	0.0173E-3	0.0349199	0.1684E-3
n170	-----	-----	-----	-----	-----	-----	-----	-----
170	-0.015746	-0.002829	-0.030838	0.1391E-3	-0.101E-3	-0.018E-3	0.0347411	0.1728E-3
n171	-----	-----	-----	-----	-----	-----	-----	-----
171	0.1125310	0.0081444	-0.166790	-0.017E-3	0.0698E-3	-0.003E-3	0.2013666	0.0718E-3

Plus grande valeur négative

X	-0.123857 mm	Noeud 161, X déplacement en translation X
Y	-0.037001 mm	Noeud 56, Y déplacement en translation Y
Z	-0.747720 mm	Noeud 69, Z déplacement en translation Z
RX	-0.521E-3 rad	Noeud 88, RX rotation autour de l'axe X
RY	-0.742E-3 rad	Noeud 78, RY rotation autour de l'axe Y
RZ	-0.291E-3 rad	Noeud 78, RZ rotation autour de l'axe Z

Plus grande valeur positive

X	0.1172847 mm	Noeud 141, X déplacement en translation X
Y	0.6177614 mm	Noeud 73, Y déplacement en translation Y
Z	0.0022084 mm	Noeud 60, Z déplacement en translation Z
RX	0.1673E-3 rad	Noeud 70, RX rotation autour de l'axe X
RY	0.3624E-3 rad	Noeud 62, RY rotation autour de l'axe Y
RZ	0.0897E-3 rad	Noeud 111, RZ rotation autour de l'axe Z
D	0.9696011 mm	Noeud 69, D déplacement total (x,y,z)
R	0.8002E-3 rad	Noeud 78, R rotation totale (rx,ry,rz)

## Flèches ELS

Propriété 2 UPN120  
Passerelle DDP - Egir  
calcul 2 'calcul 0'

-----  
FLÈCHES - DÉPLACEMENTS NORMAUX À LA FIBRE NEUTRE

W flèche, déplacement perpendiculaire à l'âme  
Wy déplacement (y) perpendiculaire à l'âme  
Wz déplacement (z) perpendiculaire à l'âme  
Thy rotation (y) de la fibre neutre  
Thz rotation (z) de la fibre neutre  
-----

Elément	W mm	Wy mm	Wz mm	Thy rad	Thz rad
e11					
11	0.042601	0.121362	-0.037675	-0.161E-3	0.0048E-3
e12					
12	0.009912	-0.011692	-0.003805	-0.065E-3	-0.021E-3
e13					
13	0.028863	0.028594	-0.003937	0.0014E-3	0.0014E-3
e14					
14	0.068592	0.034078	-0.059590	-0.027E-3	0.0273E-3
e22					
22	0.070783	-0.005428	-0.070574	-0.101E-3	0.0022E-3
e23					
23	0.168643	0.099966	-0.136485	-0.005E-3	0.0186E-3
e24					
24	0.133327	0.036869	-0.131724	-0.051E-3	0.0150E-3
e25					
25	0.114965	-0.091207	-0.076113	-0.006E-3	-0.007E-3
e35					
35	0.128026	0.092000	-0.089031	-0.003E-3	-0.020E-3
e36					
36	0.094159	0.037001	-0.086584	-0.079E-3	-0.042E-3
e37					
37	0.085280	-0.088105	-0.022900	-0.022E-3	-0.035E-3
e38					
38	0.047414	0.024293	-0.040717	-0.097E-3	-0.006E-3
e39					
39	0.002300	0.002198	0.002208	0.0368E-3	-0.005E-3
e40					
40	0.027510	-0.012029	-0.027210	-0.048E-3	0.0003E-3
e41					
41	0.017246	-0.004635	-0.017101	0.0290E-3	-0.028E-3
e48					
48	0.650597	0.021171	-0.650252	0.1673E-3	-0.102E-3
e49					
49	0.747720	-0.060986	-0.747720	0.0156E-3	-0.173E-3
e50					
50	0.963590	0.617761	-0.739511	-0.495E-3	-0.291E-3
e51					
51	0.347553	0.061357	-0.342094	-0.128E-3	-0.278E-3
e52					
52	0.298694	-0.017648	-0.298661	-0.157E-3	-0.193E-3
e62					
62	0.094535	-0.010007	-0.094004	0.0184E-3	0.0189E-3
e63					
63	0.085899	-0.081816	-0.026168	0.0175E-3	0.0216E-3
e64					
64	0.040130	0.005768	-0.040102	-0.388E-3	0.0564E-3
e65					
65	0.073195	0.077805	-0.058004	0.0453E-3	0.0474E-3
e100					
100	0.122312	0.617285	-0.015219	0.2601E-3	0.0897E-3
e101					
101	0.969601	0.617285	-0.747720	-0.317E-3	-0.173E-3
e102					
102	0.459836	0.349643	-0.298661	-0.688E-3	-0.193E-3
e103					
103	0.282693	0.281441	-0.026573	-0.301E-3	-0.086E-3
e104					
104	0.009259	0.008983	-0.008143	0.0319E-3	-0.029E-3
e105					
105	0.009476	-0.281449	-0.008389	-0.024E-3	-0.026E-3
e106					
106	0.282160	-0.350184	-0.020026	0.1507E-3	-0.088E-3
e107					
107	0.405571	-0.616465	-0.204595	0.5537E-3	-0.190E-3
e108					
108	0.896023	-0.616465	-0.650252	0.3695E-3	-0.102E-3
e109					
109	0.122438	-0.121358	-0.016228	-0.237E-3	0.0767E-3
e120					
120	0.059631	-0.007452	-0.059397	-0.126E-3	0.0009E-3



e121	121	0.096364	0.036869	-0.089031	-0.110E-3	-0.020E-3
e122	122	0.016059	0.007325	-0.014291	0.0614E-3	-0.017E-3
e123	123	0.064732	0.004777	-0.064555	0.1293E-3	-0.005E-3
e138	138	0.015558	0.015190	-0.003363	-0.052E-3	-0.029E-3
e139	139	0.012385	-0.024416	-0.002948	0.0034E-3	-0.028E-3
e156	156	0.005235	-0.009232	-0.005174	0.0125E-3	-0.001E-3
e157	157	0.007312	-0.003227	-0.006561	0.1811E-3	0.0186E-3
e158	158	0.011145	0.023025	-0.009537	-0.284E-3	0.0494E-3
e159	159	0.004473	0.010119	-0.004392	-0.017E-3	-0.015E-3
e168	168	0.125118	0.096319	-0.079857	0.0175E-3	-0.002E-3
e169	169	0.089257	-0.092901	-0.014291	-0.023E-3	-0.017E-3
e170	170	0.018426	0.016529	-0.008143	0.0011E-3	-0.029E-3
e171	171	0.019063	-0.031761	-0.015219	0.0075E-3	0.0897E-3
e172	172	0.027310	-0.015328	-0.026573	0.0069E-3	-0.086E-3
e173	173	0.012920	-0.036671	-0.010554	-0.065E-3	-0.018E-3
e174	174	0.087874	-0.036671	-0.079857	0.1198E-3	-0.002E-3
e201	201	0.012097	-0.011692	-0.003106	0.0665E-3	-0.010E-3
e224	224	0.009673	0.009928	-0.003588	-0.075E-3	0.0071E-3

Plus grande valeur négative

Wy	-0.616465 mm	Elément 107, Wy déplacement (y) perpendiculaire à l'âme
Wz	-0.800343 mm	Elément 100, Wz déplacement (z) perpendiculaire à l'âme
Thy	-0.688E-3 rad	Elément 102, Thy rotation (y) de la fibre neutre
Thz	-0.419E-3 rad	Elément 107, Thz rotation (z) de la fibre neutre

Plus grande valeur positive

W	1.000927 mm	Elément 100, W flèche, déplacement perpendiculaire à l'âme
Wy	0.617761 mm	Elément 50, Wy déplacement (y) perpendiculaire à l'âme
Wz	0.025304 mm	Elément 11, Wz déplacement (z) perpendiculaire à l'âme
Thy	0.6216E-3 rad	Elément 100, Thy rotation (y) de la fibre neutre
Thz	0.3652E-3 rad	Elément 100, Thz rotation (z) de la fibre neutre

Propriété 3 HEA100  
 Passerelle DDP - Egir  
 calcul 2 'calcul 0'

FLÈCHES - DÉPLACEMENTS NORMAUX À LA FIBRE NEUTRE

W flèche, déplacement perpendiculaire à l'âme  
 Wy déplacement (y) perpendiculaire à l'âme  
 Wz déplacement (z) perpendiculaire à l'âme  
 Thy rotation (y) de la fibre neutre  
 Thz rotation (z) de la fibre neutre

Elément	W mm	Wy mm	Wz mm	Thy rad	Thz rad	
e46	46	0.015204	0.007325	-0.015190	-0.023E-3	0.0519E-3
e47	47	0.012232	-0.002215	-0.012029	-0.018E-3	0.0034E-3
e66	66	0.081779	0.081715	0.003227	0.0043E-3	-0.181E-3
e67	67	0.078546	0.078541	0.000800	0.0012E-3	-0.013E-3
e68	68					

68	0.041181	0.040775	0.005768	0.0079E-3	-0.284E-3
e69					
69	0.043221	0.043213	-0.000847	-0.001E-3	-0.017E-3
e76					
76	0	0.121362	0	0	0
e77					
77	0.124902	0.121358	0.029541	0.2374E-3	-0.007E-3
e78					
78	0.281512	0.281441	-0.006303	-0.301E-3	-0.007E-3
e79					
79	0.281866	0.281449	0.015328	-0.151E-3	-0.007E-3
e80					
80	0.017107	0.004407	-0.016529	0.0319E-3	-0.001E-3
e81					
81	0.004409	0.004408	-0.000041	0.0238E-3	-0.001E-3
e82					
82	0.093200	-0.007452	-0.092902	-0.065E-3	0.0040E-3
e83					
83	0.088409	-0.011154	-0.088105	-0.061E-3	-0.023E-3
e183					
183	0.029315	0.008983	-0.027905	-0.075E-3	-0.017E-3
e184					
184	0.019824	0.011692	-0.016009	-0.066E-3	-0.023E-3

Plus grande valeur négative

Wy	-0.015571 mm	Elément 68, Wy déplacement (y) perpendiculaire à l'âme
Wz	-0.092902 mm	Elément 82, Wz déplacement (z) perpendiculaire à l'âme
Thy	-0.301E-3 rad	Elément 78, Thy rotation (y) de la fibre neutre
Thz	-0.284E-3 rad	Elément 68, Thz rotation (z) de la fibre neutre

Plus grande valeur positive

W	0.281866 mm	Elément 79, W flèche, déplacement perpendiculaire à l'âme
Wy	0.281449 mm	Elément 79, Wy déplacement (y) perpendiculaire à l'âme
Wz	0.098723 mm	Elément 78, Wz déplacement (z) perpendiculaire à l'âme
Thy	0.2601E-3 rad	Elément 76, Thy rotation (y) de la fibre neutre
Thz	0.0713E-3 rad	Elément 76, Thz rotation (z) de la fibre neutre

Propriété 4 Limon plat 220x10  
 Passerelle DDP - Egir  
 calcul 2 'calcul 0'

FLÈCHES - DÉPLACEMENTS NORMAUX À LA FIBRE NEUTRE

W flèche, déplacement perpendiculaire à l'âme  
 Wy déplacement (y) perpendiculaire à l'âme  
 Wz déplacement (z) perpendiculaire à l'âme  
 Thy rotation (y) de la fibre neutre  
 Thz rotation (z) de la fibre neutre

Elément	W mm	Wy mm	Wz mm	Thy rad	Thz rad
e1					
1	0	0.021326	0	0	0
e2					
2	0	-0.022445	0	0	0
e15					
15	0.112821	-0.135573	-0.005420	-0.003E-3	-0.101E-3
e16					
16	0.113773	0.136486	0.004349	0.0095E-3	0.1022E-3
e26					
26	0.169398	0.186954	-0.019897	-0.018E-3	0.0636E-3
e27					
27	0	0.020706	0	0	0
e42					
42	0.122113	0.090112	0.082410	-0.019E-3	-0.028E-3
e43					
43	0.085098	-0.026976	-0.082149	0.0231E-3	-0.022E-3
e53					
53	0.056848	-0.196003	0.001495	0.0540E-3	-0.388E-3
e54					
54	0.072654	0.166868	-0.001611	-0.028E-3	0.2575E-3
e70					
70	0	-0.012157	0	0	0

e71										
71		0		0.016813		0		0		0
e84										
84		0.021645		0.064513		0.003706		-0.085E-3		0.1082E-3
e85										
85		0.064637		0.111420		0.004000		-0.070E-3		0.1495E-3
e86										
86		0.111529		0.148544		0.004929		-0.069E-3		0.1390E-3
e87										
87		0.148709		0.167017		0.007004		-0.073E-3		0.0919E-3
e88										
88		0.167264		0.168060		0.009060		-0.075E-3		0.0233E-3
e89										
89		0.162964		0.162613		0.010676		-0.072E-3		-0.052E-3
e90										
90		0.136384		0.135742		0.013218		-0.073E-3		-0.117E-3
e91										
91		0.093008		0.091471		0.016837		-0.080E-3		-0.159E-3
e92										
92		0.022694		-0.068278		-0.003354		-0.074E-3		-0.114E-3
e93										
93		0.068371		-0.118874		-0.003573		-0.069E-3		-0.160E-3
e94										
94		0.118967		-0.160302		-0.004709		-0.069E-3		-0.152E-3
e95										
95		0.160452		-0.183281		-0.006943		-0.072E-3		-0.106E-3
e96										
96		0.183508		-0.186133		-0.009122		-0.071E-3		-0.038E-3
e97										
97		0.183496		-0.183173		-0.010887		-0.066E-3		0.0385E-3
e98										
98		0.160554		-0.159974		-0.013641		-0.067E-3		0.1072E-3
e99										
99		0.119559		-0.118323		-0.017146		-0.082E-3		0.1532E-3
e110										
110		0.135583		-0.139864		-0.001804		-0.064E-3		-0.043E-3
e111										
111		0.138805		-0.138802		-0.000971		-0.058E-3		0.0222E-3
e112										
112		0.122189		-0.122180		0.001482		-0.068E-3		0.0804E-3
e113										
113		0.090277		-0.090204		0.003634		-0.062E-3		0.1163E-3
e114										
114		0.052542		-0.052004		0.007498		-0.061E-3		0.1145E-3
e115										
115		0.136508		0.140167		0.002462		-0.042E-3		0.0412E-3
e116										
116		0.138683		0.138677		0.001299		-0.042E-3		-0.027E-3
e117										
117		0.120388		0.120379		-0.001498		-0.048E-3		-0.086E-3
e118										
118		0.086489		0.086397		-0.003972		-0.039E-3		-0.123E-3
e119										
119		0.046877		0.046161		-0.008161		-0.044E-3		-0.121E-3
e124										
124		0.187708		0.194723		-0.016780		0.0657E-3		0.0441E-3
e125										
125		0.195270		0.194723		-0.014600		0.0608E-3		-0.002E-3
e126										
126		0.185907		0.185500		-0.012298		0.0633E-3		-0.060E-3
e127										
127		0.158245		0.157946		-0.009722		0.0683E-3		-0.116E-3
e128										
128		0.115582		0.115362		-0.007140		0.0632E-3		-0.152E-3
e129										
129		0.065848		0.065673		-0.004796		0.0610E-3		-0.155E-3
e130										
130		0.021598		0.021457		-0.002468		0.0664E-3		-0.110E-3
e131										
131		0.020900		0.063211		0.002824		-0.071E-3		0.1056E-3
e132										
132		0.063429		0.110697		0.005257		-0.064E-3		0.1490E-3

e133	133	0.110940	0.151066	0.007334	-0.065E-3	0.1451E-3
e134	134	0.151380	0.176873	0.009739	-0.070E-3	0.1091E-3
e135	135	0.177290	0.185307	0.012140	-0.065E-3	0.0562E-3
e136	136	0.185848	0.185307	0.014177	-0.064E-3	0.0019E-3
e137	137	0.178979	0.178218	0.016483	-0.072E-3	-0.039E-3
e140	140	0.101987	0.078845	0.064691	0.1934E-3	-0.051E-3
e141	141	0.069793	-0.026981	-0.064368	0.2060E-3	-0.003E-3
e142	142	0.196037	-0.354365	-0.003644	-0.155E-3	-0.490E-3
e143	143	0.354492	-0.512729	-0.009484	-0.152E-3	-0.521E-3
e144	144	0.512974	-0.656646	-0.015871	-0.151E-3	-0.496E-3
e145	145	0.657038	-0.776384	-0.022677	-0.150E-3	-0.433E-3
e146	146	0.776960	-0.866911	-0.029912	-0.148E-3	-0.345E-3
e147	147	0.867725	-0.927874	-0.037579	-0.147E-3	-0.248E-3
e148	148	0.928991	-0.963588	-0.045549	-0.145E-3	-0.157E-3
e149	149	0.166901	0.272286	0.003299	-0.248E-3	0.3298E-3
e150	150	0.272451	0.371476	0.009485	-0.247E-3	0.3375E-3
e151	151	0.371815	0.451610	0.015871	-0.248E-3	0.2956E-3
e152	152	0.452179	0.504465	0.022677	-0.250E-3	0.2192E-3
e153	153	0.505351	0.526444	0.029912	-0.251E-3	0.1234E-3
e154	154	0.527784	0.527074	0.037581	-0.252E-3	0.0234E-3
e155	155	0.520616	0.518591	0.045865	-0.254E-3	-0.066E-3
e160	160	0.012304	-0.034194	0.001895	-0.201E-3	-0.058E-3
e161	161	0.034447	-0.055147	0.004172	-0.200E-3	-0.071E-3
e162	162	0.055482	-0.068680	0.006089	-0.199E-3	-0.057E-3
e163	163	0.069140	-0.073130	0.007959	-0.200E-3	-0.029E-3
e164	164	0.016959	0.049479	-0.002218	-0.199E-3	0.0828E-3
e165	165	0.049654	0.083598	-0.004172	-0.199E-3	0.1107E-3
e166	166	0.083820	0.109465	-0.006090	-0.200E-3	0.0990E-3
e167	167	0.109730	0.122023	-0.007618	-0.202E-3	0.0632E-3
e175	175	0.073600	0.058749	0.044333	0.1948E-3	-0.079E-3
e176	176	0.050809	-0.024213	-0.044668	0.2069E-3	0.0209E-3

Plus grande valeur négative

Wy	-0.963588 mm	Elément 148, Wy déplacement (y) perpendiculaire à l'âme
Wz	-0.082149 mm	Elément 43, Wz déplacement (z) perpendiculaire à l'âme
Thy	-0.254E-3 rad	Elément 155, Thy rotation (y) de la fibre neutre
Thz	-0.521E-3 rad	Elément 143, Thz rotation (z) de la fibre neutre

Plus grande valeur positive

W	0.965516 mm	Elément 148, W flèche, déplacement perpendiculaire à l'âme
Wy	0.527074 mm	Elément 154, Wy déplacement (y) perpendiculaire à l'âme
Wz	0.083212 mm	Elément 42, Wz déplacement (z) perpendiculaire à l'âme

Thy 0.2069E-3 rad      Élément 176, Thy rotation (y) de la fibre neutre  
 Thz 0.3408E-3 rad      Élément 149, Thz rotation (z) de la fibre neutre

-----  
 Propriété 5 marche 800x250  
 Passerelle DDP - Egir  
 calcul 2 'calcul 0'

-----  
 FLÈCHES - DÉPLACEMENTS NORMAUX À LA FIBRE NEUTRE  
 W flèche, déplacement perpendiculaire à l'âme  
 Wy déplacement (y) perpendiculaire à l'âme  
 Wz déplacement (z) perpendiculaire à l'âme  
 Thy rotation (y) de la fibre neutre  
 Thz rotation (z) de la fibre neutre

Elément	W mm	Wy mm	Wz mm	Thy rad	Thz rad
e3					
3	0.021356	-0.015855	-0.017073	0.1565E-3	-0.020E-3
e4					
4	0.064557	-0.045890	-0.050952	0.1395E-3	-0.026E-3
e5					
5	0.111480	-0.078166	-0.087701	0.1413E-3	-0.029E-3
e6					
6	0.148626	-0.103996	-0.116964	0.1519E-3	-0.032E-3
e7					
7	0.167133	-0.116156	-0.131937	0.1580E-3	-0.035E-3
e8					
8	0.162786	-0.110909	-0.129381	0.1592E-3	-0.039E-3
e9					
9	0.136025	-0.089730	-0.109618	0.1642E-3	-0.042E-3
e10					
10	0.092023	-0.055915	-0.076544	0.1731E-3	-0.041E-3
e17					
17	0.055858	0.052386	-0.026732	0.1059E-3	0.0097E-3
e18					
18	0.092680	0.080140	-0.055419	0.1131E-3	0.0142E-3
e19					
19	0.124171	0.102177	-0.079364	0.1231E-3	0.0147E-3
e20					
20	0.140694	0.113572	-0.091551	0.1119E-3	0.0177E-3
e21					
21	0.137646	0.109347	-0.088554	0.1175E-3	0.0154E-3
e28					
28	0.187235	0.115031	-0.149802	0.1183E-3	0.0135E-3
e29					
29	0.194918	0.123857	-0.154779	0.1157E-3	0.0177E-3
e30					
30	0.185641	0.120678	-0.146759	0.1200E-3	0.0181E-3
e31					
31	0.158051	0.104943	-0.124701	0.1282E-3	0.0184E-3
e32					
32	0.115441	0.078819	-0.091125	0.1236E-3	0.0212E-3
e33					
33	0.065734	0.046557	-0.052112	0.1225E-3	0.0232E-3
e34					
34	0.021501	0.016059	-0.017311	0.1268E-3	0.0197E-3
e44					
44	0.083432	0.029782	-0.077935	0.2784E-3	-0.019E-3
e45					
45	0.064699	0.017003	-0.062424	0.2967E-3	-0.005E-3
e55					
55	0.927876	0.595081	-0.711921	-0.102E-3	-0.275E-3
e56					
56	0.866911	0.556296	-0.664883	-0.031E-3	-0.217E-3
e57					
57	0.776385	0.498634	-0.595094	0.0356E-3	-0.164E-3
e58					
58	0.656646	0.422319	-0.502823	0.1005E-3	-0.111E-3
e59					
59	0.512731	0.330587	-0.391925	0.1624E-3	-0.061E-3
e60					

60		0.354374		0.229693		-0.269855		0.2196E-3		-0.014E-3	
e61	----	+	----	+	----	+	----	+	----	+	----
61		0.196041		0.142092		-0.147682		0.2696E-3		0.0236E-3	
e72	----	+	----	+	----	+	----	+	----	+	----
72		0.068737		0.069597		-0.054415		0.3620E-3		0.0424E-3	
e73	----	+	----	+	----	+	----	+	----	+	----
73		0.055197		0.052964		-0.043759		0.3523E-3		0.0355E-3	
e74	----	+	----	+	----	+	----	+	----	+	----
74		0.034238		0.031158		-0.027311		0.3402E-3		0.0245E-3	
e75	----	+	----	+	----	+	----	+	----	+	----
75		0.012194		0.010824		-0.009926		0.3272E-3		0.0122E-3	
e185	----	+	----	+	----	+	----	+	----	+	----
185		0.035561		-0.018919		-0.031832		0.1644E-3		-0.018E-3	
e186	----	+	----	+	----	+	----	+	----	+	----
186		0.035245		-0.016458		-0.031166		-0.146E-3		0.0174E-3	
e187	----	+	----	+	----	+	----	+	----	+	----
187		0.088673		-0.048458		-0.075875		0.1171E-3		-0.019E-3	
e188	----	+	----	+	----	+	----	+	----	+	----
188		0.090818		-0.047268		-0.077548		-0.104E-3		0.0144E-3	
e189	----	+	----	+	----	+	----	+	----	+	----
189		0.143527		-0.079915		-0.120375		0.0709E-3		-0.017E-3	
e190	----	+	----	+	----	+	----	+	----	+	----
190		0.146494		-0.079728		-0.122898		-0.051E-3		0.0061E-3	
e191	----	+	----	+	----	+	----	+	----	+	----
191		0.187031		-0.104804		-0.155451		0.0293E-3		-0.013E-3	
e192	----	+	----	+	----	+	----	+	----	+	----
192		0.188505		-0.104804		-0.156685		-0.001E-3		-0.004E-3	
e193	----	+	----	+	----	+	----	+	----	+	----
193		0.207693		-0.117285		-0.172175		0.0302E-3		-0.017E-3	
e194	----	+	----	+	----	+	----	+	----	+	----
194		0.209393		-0.117285		-0.173463		-0.000E-3		-0.008E-3	
e195	----	+	----	+	----	+	----	+	----	+	----
195		0.199786		-0.115155		-0.166173		0.0790E-3		-0.027E-3	
e196	----	+	----	+	----	+	----	+	----	+	----
196		0.205969		-0.115155		-0.170770		-0.043E-3		-0.004E-3	
e197	----	+	----	+	----	+	----	+	----	+	----
197		0.165045		-0.098049		-0.138522		0.1327E-3		-0.036E-3	
e198	----	+	----	+	----	+	----	+	----	+	----
198		0.177856		-0.098050		-0.148388		-0.089E-3		-0.002E-3	
e199	----	+	----	+	----	+	----	+	----	+	----
199		0.108324		-0.069061		-0.092777		0.1793E-3		-0.039E-3	
e200	----	+	----	+	----	+	----	+	----	+	----
200		0.129599		-0.069061		-0.109665		-0.135E-3		-0.003E-3	
e202	----	+	----	+	----	+	----	+	----	+	----
202		0.066835		0.052428		-0.041503		0.1093E-3		0.0054E-3	
e203	----	+	----	+	----	+	----	+	----	+	----
203		0.062594		0.045233		-0.043266		-0.115E-3		-0.031E-3	
e204	----	+	----	+	----	+	----	+	----	+	----
204		0.113602		0.080140		-0.080517		0.0478E-3		0.0015E-3	
e205	----	+	----	+	----	+	----	+	----	+	----
205		0.111761		0.077134		-0.080876		-0.046E-3		-0.024E-3	
e206	----	+	----	+	----	+	----	+	----	+	----
206		0.149012		0.102177		-0.108463		0.0042E-3		-0.009E-3	
e207	----	+	----	+	----	+	----	+	----	+	----
207		0.163077		0.113691		-0.117027		0.0556E-3		0.0048E-3	
e208	----	+	----	+	----	+	----	+	----	+	----
208		0.163305		0.111559		-0.119261		-0.039E-3		-0.020E-3	
e209	----	+	----	+	----	+	----	+	----	+	----
209		0.151624		0.110303		-0.105038		0.1231E-3		0.0113E-3	
e210	----	+	----	+	----	+	----	+	----	+	----
210		0.151371		0.106000		-0.108061		-0.102E-3		-0.025E-3	
e211	----	+	----	+	----	+	----	+	----	+	----
211		0.199076		0.115947		-0.162478		0.1235E-3		0.0110E-3	
e212	----	+	----	+	----	+	----	+	----	+	----
212		0.193003		0.110813		-0.158022		-0.146E-3		-0.024E-3	
e213	----	+	----	+	----	+	----	+	----	+	----
213		0.216124		0.124366		-0.177114		0.0784E-3		0.0096E-3	
e214	----	+	----	+	----	+	----	+	----	+	----
214		0.211711		0.120866		-0.173819		-0.099E-3		-0.024E-3	
e215	----	+	----	+	----	+	----	+	----	+	----
215		0.212288		0.120694		-0.174651		0.0285E-3		0.0031E-3	
e216	----	+	----	+	----	+	----	+	----	+	----

216	0.210111	0.119306	-0.172953	-0.047E-3	-0.016E-3
e217					
217	0.186885	0.104942	-0.154639	-0.010E-3	-0.005E-3
e218					
218	0.143741	0.078992	-0.120205	0.0333E-3	0.0062E-3
e219					
219	0.142541	0.078080	-0.119254	-0.045E-3	-0.013E-3
e220					
220	0.089023	0.047843	-0.075879	0.0862E-3	0.0151E-3
e221					
221	0.088022	0.045792	-0.075173	-0.093E-3	-0.018E-3
e222					
222	0.034833	0.018514	-0.030911	0.1327E-3	0.0173E-3
e223					
223	0.034624	0.015745	-0.030837	-0.139E-3	-0.017E-3

Plus grande valeur négative

Wy	-0.117285 mm	Elément 194, Wy déplacement (y) perpendiculaire à l'âme
Wz	-0.711921 mm	Elément 55, Wz déplacement (z) perpendiculaire à l'âme
Thy	-0.742E-3 rad	Elément 55, Thy rotation (y) de la fibre neutre
Thz	-0.291E-3 rad	Elément 55, Thz rotation (z) de la fibre neutre

Plus grande valeur positive

W	0.927876 mm	Elément 55, W flèche, déplacement perpendiculaire à l'âme
Wy	0.595081 mm	Elément 55, Wy déplacement (y) perpendiculaire à l'âme
Thy	0.3620E-3 rad	Elément 72, Thy rotation (y) de la fibre neutre
Thz	0.0424E-3 rad	Elément 72, Thz rotation (z) de la fibre neutre

Propriété 6 LE40\_4  
 Passerelle DDP - Egir  
 calcul 2 'calcul 0'

FLÈCHES - DÉPLACEMENTS NORMAUX À LA FIBRE NEUTRE

W flèche, déplacement perpendiculaire à l'âme  
 Wy déplacement (y) perpendiculaire à l'âme  
 Wz déplacement (z) perpendiculaire à l'âme  
 Thy rotation (y) de la fibre neutre  
 Thz rotation (z) de la fibre neutre

Elément	W mm	Wy mm	Wz mm	Thy rad	Thz rad
e177					
177	0.113656	0.056979	-0.102102	0.0912E-3	0.0273E-3
e178					
178	0.113725	-0.050392	-0.106849	0.0856E-3	-0.039E-3
e179					
179	0.162974	-0.060780	-0.152876	0.0491E-3	0.0034E-3
e180					
180	0	-0.004796	0	0	0
e181					
181	0.070923	0.009187	-0.070685	0.1410E-3	0.0725E-3
e182					
182	0.042634	-0.035778	-0.034887	0.1603E-3	-0.016E-3
e225					
225	0.150970	0.057672	-0.140299	0.1061E-3	-0.039E-3
e226					
226	0.162748	0.057143	-0.152386	0.0096E-3	-0.031E-3
e227					
227	0.148780	0.049355	-0.140355	-0.072E-3	-0.034E-3
e228					
228	0.111539	0.034793	-0.105973	-0.133E-3	-0.032E-3
e229					
229	0.062401	0.015319	-0.060491	-0.171E-3	-0.004E-3
e230					
230	0.150935	-0.054162	-0.142274	0.0848E-3	0.0210E-3
e231					
231	0.163085	-0.054159	-0.153829	-0.004E-3	0.0118E-3
e232					
232	0.148843	-0.051954	-0.139481	-0.076E-3	0.0152E-3
e233					
233	0.113420	-0.042875	-0.105004	-0.126E-3	0.0112E-3
e234					

234		0.066602		-0.032469		-0.058152		-0.153E-3		-0.018E-3	
e235	----	+	----	+	----	+	----	+	----	+	----
235		0.192564		-0.061116		-0.183382		0.0878E-3		0.0554E-3	
e236	----	+	----	+	----	+	----	+	----	+	----
236		0.210979		-0.060604		-0.202087		0.0264E-3		0.0399E-3	
e237	----	+	----	+	----	+	----	+	----	+	----
237		0.209248		-0.058113		-0.201016		-0.039E-3		0.0291E-3	
e238	----	+	----	+	----	+	----	+	----	+	----
238		0.185946		-0.050254		-0.179027		-0.101E-3		0.0292E-3	
e239	----	+	----	+	----	+	----	+	----	+	----
239		0.142753		-0.037592		-0.137715		-0.147E-3		0.0213E-3	
e240	----	+	----	+	----	+	----	+	----	+	----
240		0.088054		-0.022744		-0.085066		-0.165E-3		-0.002E-3	
e241	----	+	----	+	----	+	----	+	----	+	----
241		0.034001		-0.008788		-0.032899		-0.146E-3		-0.036E-3	
e242	----	+	----	+	----	+	----	+	----	+	----
242		0.034129		-0.013196		-0.033939		0.1476E-3		0.0400E-3	
e243	----	+	----	+	----	+	----	+	----	+	----
243		0.087498		-0.023988		-0.086497		0.1667E-3		0.0040E-3	
e244	----	+	----	+	----	+	----	+	----	+	----
244		0.142070		-0.032357		-0.140029		0.1512E-3		-0.020E-3	
e245	----	+	----	+	----	+	----	+	----	+	----
245		0.186535		-0.036156		-0.183710		0.1090E-3		-0.026E-3	
e246	----	+	----	+	----	+	----	+	----	+	----
246		0.212116		-0.036641		-0.209010		0.0492E-3		-0.029E-3	
e247	----	+	----	+	----	+	----	+	----	+	----
247		0.216199		-0.035307		-0.213297		-0.017E-3		-0.040E-3	
e248	----	+	----	+	----	+	----	+	----	+	----
248		0.199520		-0.031161		-0.197280		-0.081E-3		-0.052E-3	
e249	----	+	----	+	----	+	----	+	----	+	----
249		0.130171		0.022129		-0.129892		0.2038E-3		-0.044E-3	
e250	----	+	----	+	----	+	----	+	----	+	----
250		0.177690		0.030781		-0.176307		0.1447E-3		-0.026E-3	
e251	----	+	----	+	----	+	----	+	----	+	----
251		0.205500		0.033189		-0.203181		0.0621E-3		-0.017E-3	
e252	----	+	----	+	----	+	----	+	----	+	----
252		0.208796		0.033189		-0.206142		-0.027E-3		-0.013E-3	
e253	----	+	----	+	----	+	----	+	----	+	----
253		0.200570		0.032411		-0.197934		-0.071E-3		-0.008E-3	
e254	----	+	----	+	----	+	----	+	----	+	----
254		0.186343		0.030442		-0.183840		-0.104E-3		-0.015E-3	
e255	----	+	----	+	----	+	----	+	----	+	----
255		0.142781		0.023199		-0.140884		-0.165E-3		-0.005E-3	
e256	----	+	----	+	----	+	----	+	----	+	----
256		0.087954		0.012592		-0.087048		-0.194E-3		0.0166E-3	
e257	----	+	----	+	----	+	----	+	----	+	----
257		0.035075		0.004076		-0.035009		-0.173E-3		0.0538E-3	
e258	----	+	----	+	----	+	----	+	----	+	----
258		0.107624		-0.044266		-0.101561		0.2065E-3		0.0395E-3	
e259	----	+	----	+	----	+	----	+	----	+	----
259		0.163941		-0.049419		-0.157852		0.1473E-3		0.0249E-3	
e260	----	+	----	+	----	+	----	+	----	+	----
260		0.198630		-0.049942		-0.192384		0.0696E-3		0.0142E-3	
e261	----	+	----	+	----	+	----	+	----	+	----
261		0.206574		-0.049786		-0.200485		-0.016E-3		0.0105E-3	
e262	----	+	----	+	----	+	----	+	----	+	----
262		0.200112		-0.047635		-0.194359		-0.059E-3		0.0223E-3	
e263	----	+	----	+	----	+	----	+	----	+	----
263		0.187396		-0.043767		-0.182214		-0.094E-3		0.0177E-3	
e264	----	+	----	+	----	+	----	+	----	+	----
264		0.145395		-0.032756		-0.141657		-0.153E-3		0.0072E-3	
e265	----	+	----	+	----	+	----	+	----	+	----
265		0.089789		-0.020152		-0.087499		-0.176E-3		-0.016E-3	
e266	----	+	----	+	----	+	----	+	----	+	----
266		0.034472		-0.009558		-0.033282		-0.153E-3		-0.047E-3	

Plus grande valeur négative

Wy -0.061116 mm Elément 235, Wy déplacement (y) perpendiculaire à l'âme

Wz -0.214066 mm Elément 246, Wz déplacement (z) perpendiculaire à l'âme

Thy -0.194E-3 rad Elément 255, Thy rotation (y) de la fibre neutre

Thz -0.074E-3 rad Elément 228, Thz rotation (z) de la fibre neutre

Plus grande valeur positive



W 0.216778 mm Elément 246, W flèche, déplacement perpendiculaire à l'âme  
 Wy 0.057672 mm Elément 225, Wy déplacement (y) perpendiculaire à l'âme  
 Thy 0.2248E-3 rad Elément 182, Thy rotation (y) de la fibre neutre  
 Thz 0.0734E-3 rad Elément 181, Thz rotation (z) de la fibre neutre

## Efforts résultants

Propriété 2 UPN120  
 Passerelle DDP - Egir  
 calcul 1 'calcul 0'

EFFORTS RESULTANTS [BEAM poutre]  
 Nx effort axial de traction ou compression  
 Ty effort tranchant  
 Tz effort tranchant  
 Mx moment de torsion  
 My moment fléchissant  
 Mz moment fléchissant  
 W flèche, déplacement perpendiculaire à l'âme

Elément	Nx daN	Ty daN	Tz daN	Mx daN.mm	My daN.mm	Mz daN.mm	W mm
e11							
11	-165.3402	3.7460	102.3241	0.01E3	65.18E3	2.78E3	0.042601
e12							
12	-175.1748	2.5540	34.1967	0.04E3	57.69E3	0.79E3	0.009912
e13							
13	-34.5907	-0.8209	0.3212	0.00E3	-0.38E3	-0.58E3	0.028863
e14							
14	-32.9665	-6.2375	0.0892	-0.00E3	-0.07E3	-2.75E3	0.068592
e22							
22	-144.1704	1.7132	170.3203	0.01E3	-30.38E3	-0.21E3	0.070783
e23							
23	-32.1566	-3.5493	-0.0861	-0.01E3	-0.15E3	-1.46E3	0.168643
e24							
24	-185.0264	6.9186	-56.1338	0.00E3	-11.34E3	-2.72E3	0.133327
e25							
25	48.5744	-0.6329	0.0673	-0.00E3	-0.15E3	0.36E3	0.114965
e35							
35	-18.8505	-10.2732	-39.1804	-0.04E3	-10.54E3	-2.09E3	0.128026
e36							
36	-11.7193	0.2367	1.2129	0.02E3	0.56E3	0.17E3	0.094159
e37							
37	9.1285	3.1542	69.9459	0.19E3	7.26E3	1.06E3	0.085280
e38							
38	-10.9478	-4.2800	98.4727	-0.05E3	25.33E3	-1.36E3	0.047414
e39							
39	-0.3065	0.9681	-0.0217	0.02E3	-0.01E3	0.45E3	0.002300
e40							
40	0.9681	0.3064	61.7293	-0.01E3	19.03E3	-0.52E3	0.027510
e41							
41	5.5081	3.4188	-0.9976	0.03E3	-0.46E3	1.62E3	0.017246
e48							
48	-36.5938	18.2619	-36.3784	-0.02E3	-29.05E3	-8.12E3	0.650597
e49							
49	-68.0422	-12.8023	-30.5600	0.24E3	-33.62E3	-5.86E3	0.747720
e50							
50	-16.5402	-8.4503	0.6118	0.09E3	-0.52E3	3.52E3	0.963590
e51							
51	43.1034	10.1173	164.4661	-0.26E3	-27.17E3	4.37E3	0.347553
e52							
52	24.1474	27.1093	-13.2359	0.06E3	10.64E3	10.87E3	0.298694
e62							
62	24.2746	-0.0400	122.9810	-0.01E3	46.63E3	-0.19E3	0.094535
e63							
63	5.0488	2.0598	-0.4011	0.05E3	-0.23E3	1.22E3	0.085899
e64							
64	-69.0005	-1.7098	277.0919	-0.10E3	108.76E3	-0.86E3	0.040130

e65							
65	-5.0047	1.3663	0.0176	-0.01E3	-0.07E3	-0.87E3	0.073195
e100							
100	-200.3753	6.3879	-178.7633	0.00E3	94.63E3	-7.98E3	0.122312
e101							
101	-169.3111	-25.0606	110.4813	0.06E3	-58.30E3	-10.24E3	0.969601
e102							
102	-152.3191	-6.1046	333.1203	-0.12E3	137.37E3	3.52E3	0.459836
e103							
103	-121.6957	-0.4217	-162.8860	0.00E3	102.80E3	0.81E3	0.282693
e104							
104	-135.3697	0.1479	-152.0151	-0.00E3	75.30E3	0.33E3	0.009259
e105							
105	-182.8828	-0.4257	155.9890	0.00E3	88.43E3	-0.83E3	0.009476
e106							
106	-184.3174	-6.7549	-185.9493	-0.08E3	106.96E3	-3.58E3	0.282160
e107							
107	-157.2080	-30.9023	-154.2483	-0.03E3	-57.96E3	13.36E3	0.405571
e108							
108	-138.9462	5.6915	177.1932	0.03E3	91.88E3	6.87E3	0.896023
e109							
109	-141.5098	3.3963	-107.2012	0.01E3	66.35E3	-2.30E3	0.122438
e120							
120	-144.1704	1.7132	204.1483	0.01E3	46.48E3	-0.79E3	0.059631
e121							
121	-173.8207	-3.0798	122.6523	0.01E3	54.79E3	1.26E3	0.096364
e122							
122	-165.4218	2.7562	-219.5809	-0.01E3	50.56E3	0.79E3	0.016059
e123							
123	-165.4218	2.7562	-185.7529	-0.01E3	-32.78E3	-0.37E3	0.064732
e138							
138	-0.9681	-0.3065	-61.7727	-0.01E3	19.10E3	0.45E3	0.015558
e139							
139	1.2260	-2.8389	-78.7491	-0.04E3	19.01E3	0.55E3	0.012385
e156							
156	47.2097	-0.1840	134.9953	0.00E3	71.36E3	0.30E3	0.005235
e157							
157	44.0617	-0.9751	-154.1480	-0.09E3	77.98E3	0.38E3	0.007312
e158							
158	-36.2604	-0.3797	-143.1673	0.00E3	84.30E3	-0.70E3	0.011145
e159							
159	-47.1947	-0.5758	-96.7071	-0.01E3	33.75E3	0.83E3	0.004473
e168							
168	-8.8521	0.9324	-4.8573	-0.00E3	-3.86E3	-0.57E3	0.125118
e169							
169	5.6582	1.8917	-5.9675	0.00E3	5.00E3	-0.77E3	0.089257
e170							
170	0.0494	1.0911	0.9217	-0.00E3	0.37E3	0.47E3	0.018426
e171							
171	-0.1747	-17.4957	7.4174	-0.01E3	-2.98E3	-7.15E3	0.019063
e172							
172	0.3255	9.9655	18.1652	0.06E3	7.28E3	-4.01E3	0.027310
e173							
173	-152.5129	-4.3598	-110.5956	-0.01E3	51.18E3	1.92E3	0.012920
e174							
174	-151.5805	4.4923	38.7247	0.01E3	-8.39E3	1.74E3	0.087874
e201							
201	-190.0293	0.2427	151.9699	-0.00E3	75.66E3	-0.41E3	0.012097
e224							
224	-134.4174	1.9154	-62.5762	0.03E3	61.66E3	-0.46E3	0.009673

Plus grande valeur négative

Nx	-200.3753 daN	Elément 100, Nx effort axial de traction ou compression
Ty	-30.9023 daN	Elément 107, Ty effort tranchant
Tz	-219.5809 daN	Elément 122, Tz effort tranchant
Mx	-0.26E3 daN.mm	Elément 51, Mx moment de torsion
My	-63.84E3 daN.mm	Elément 108, My moment fléchissant
Mz	-11.36E3 daN.mm	Elément 107, Mz moment fléchissant

Plus grande valeur positive

Nx	48.5744 daN	Elément 25, Nx effort axial de traction ou compression
Ty	27.1093 daN	Elément 52, Ty effort tranchant
Tz	333.1203 daN	Elément 102, Tz effort tranchant

Mx 0.24E3 daN.mm Elément 49, Mx moment de torsion  
 My 137.37E3 daN.mm Elément 102, My moment fléchissant  
 Mz 13.36E3 daN.mm Elément 107, Mz moment fléchissant  
 W 1.000927 mm Elément 100, W flèche, déplacement perpendiculaire à l'âme

Propriété 3 HEA100  
 Passerelle DDP - Egir  
 calcul 1 'calcul 0'

EFFORTS RESULTANTS [BEAM poutre]  
 Nx effort axial de traction ou compression  
 Ty effort tranchant  
 Tz effort tranchant  
 Mx moment de torsion  
 My moment fléchissant  
 Mz moment fléchissant  
 W flèche, déplacement perpendiculaire à l'âme

Elément	Nx daN	Ty daN	Tz daN	Mx daN.mm	My daN.mm	Mz daN.mm	W mm
e46							
46	-160.2453	-9.9797	3.9736	-0.01E3	3.68E3	-6.23E3	0.015204
e47							
47	-140.4784	0.2577	3.1455	-0.01E3	2.91E3	-0.22E3	0.012232
e66							
66	-289.1433	3.1480	-0.7911	0.01E3	-0.71E3	6.62E3	0.081779
e67							
67	-227.9857	-22.9351	-0.1440	-0.00E3	-0.16E3	11.95E3	0.078546
e68							
68	-420.2592	32.7401	-1.3301	0.02E3	-1.24E3	24.46E3	0.041181
e69							
69	-193.5398	-10.9343	0.1961	-0.01E3	0.18E3	6.02E3	0.043221
e76							
76	-273.6700	2.4672	17.5393	0.02E3	29.44E3	3.14E3	0
e77							
77	-291.8118	-2.4699	14.9321	0.01E3	-25.54E3	3.15E3	0.124902
e78							
78	-477.8411	-6.0084	-20.6580	-0.01E3	34.50E3	7.53E3	0.281512
e79							
79	-360.1036	-6.0037	-11.4000	-0.02E3	18.59E3	7.52E3	0.281866
e80							
80	-288.2064	-0.6190	14.7651	-0.01E3	-11.16E3	0.41E3	0.017107
e81							
81	-296.9016	-0.6189	6.0554	-0.01E3	-5.20E3	0.41E3	0.004409
e82							
82	-308.7761	0.4149	10.2402	-0.01E3	10.91E3	-0.39E3	0.093200
e83							
83	-418.1464	2.3657	9.6697	-0.00E3	10.32E3	2.23E3	0.088409
e183							
183	-210.5610	-1.7676	-0.9523	0.00E3	7.60E3	1.31E3	0.029315
e184							
184	-182.2268	-2.3113	-14.8545	-0.01E3	12.06E3	1.71E3	0.019824

Plus grande valeur négative

Nx -477.8411 daN Elément 78, Nx effort axial de traction ou compression  
 Ty -22.9351 daN Elément 67, Ty effort tranchant  
 Tz -20.6580 daN Elément 78, Tz effort tranchant  
 Mx -0.02E3 daN.mm Elément 79, Mx moment de torsion  
 My -25.54E3 daN.mm Elément 77, My moment fléchissant  
 Mz -11.26E3 daN.mm Elément 67, Mz moment fléchissant

Plus grande valeur positive

Ty 32.7401 daN Elément 68, Ty effort tranchant  
 Tz 17.5393 daN Elément 76, Tz effort tranchant  
 Mx 0.02E3 daN.mm Elément 68, Mx moment de torsion  
 My 34.50E3 daN.mm Elément 78, My moment fléchissant  
 Mz 24.46E3 daN.mm Elément 68, Mz moment fléchissant  
 W 0.281866 mm Elément 79, W flèche, déplacement perpendiculaire à l'âme

Propriété 4 Limon plat 220x10  
 Passerelle DDP - Egir

calcul 1 'calcul 0'

-----  
 EFFORTS RESULTANTS [BEAM poutre]  
 Nx effort axial de traction ou compression  
 Ty effort tranchant  
 Tz effort tranchant  
 Mx moment de torsion  
 My moment fléchissant  
 Mz moment fléchissant  
 W flèche, déplacement perpendiculaire à l'âme  
 -----

Elément	Nx daN	Ty daN	Tz daN	Mx daN.mm	My daN.mm	Mz daN.mm	W mm
e1							
1	-173.7802	145.3707	-1.5072	-0.25E3	-0.34E3	88.29E3	0
e2							
2	-190.2440	-152.5440	-2.3748	0.22E3	-0.46E3	-92.92E3	0
e15							
15	-106.3086	-28.5498	-1.0645	0.18E3	-0.24E3	39.49E3	0.112821
e16							
16	-141.4922	28.4319	-1.0994	-0.18E3	-0.23E3	-41.63E3	0.113773
e26							
26	-242.7491	69.4024	1.6900	-0.17E3	0.36E3	-22.49E3	0.169398
e27							
27	-196.6522	139.2973	-1.2996	-0.22E3	-0.29E3	85.72E3	0
e42							
42	-4.3642	23.7566	1.4459	-0.55E3	0.49E3	-17.81E3	0.122113
e43							
43	34.9236	-27.7857	8.5614	0.41E3	1.54E3	15.56E3	0.085098
e53							
53	-227.5757	-160.6664	-3.3420	0.38E3	-0.77E3	-86.61E3	0.056848
e54							
54	-58.2667	141.1933	-6.0266	-0.54E3	-1.20E3	65.72E3	0.072654
e70							
70	-144.4330	-101.9896	-4.6694	0.49E3	-0.97E3	-50.70E3	0
e71							
71	-76.8128	126.0365	-5.2864	-0.46E3	-1.06E3	69.83E3	0
e84							
84	-187.4398	117.2488	-3.7911	0.02E3	0.60E3	43.12E3	0.021645
e85							
85	-192.5242	87.7720	-3.2831	-0.01E3	0.50E3	-19.79E3	0.064637
e86							
86	-194.3563	57.7421	-3.1864	-0.02E3	-0.49E3	-37.61E3	0.111529
e87							
87	-193.7189	27.4626	-3.3309	-0.01E3	-0.51E3	-46.11E3	0.148709
e88							
88	-192.6655	-3.0647	-3.3760	-0.01E3	0.52E3	-46.19E3	0.167264
e89							
89	-193.6042	-34.0250	-3.1937	-0.01E3	-0.49E3	-45.40E3	0.162964
e90							
90	-197.8907	-65.3950	-3.2149	-0.01E3	-0.50E3	-35.33E3	0.136384
e91							
91	-210.6383	-94.3111	-2.0210	0.27E3	0.38E3	-15.76E3	0.093008
e92							
92	-203.9181	-123.6421	-3.5821	-0.01E3	0.55E3	-46.79E3	0.022694
e93							
93	-207.7280	-92.3347	-3.6165	-0.01E3	0.55E3	18.75E3	0.068371
e94							
94	-207.9218	-61.3932	-3.8610	-0.01E3	-0.59E3	37.32E3	0.118967
e95							
95	-205.9867	-30.8836	-3.8901	-0.01E3	0.59E3	46.64E3	0.160452
e96							
96	-204.4542	-0.6055	-3.6796	-0.02E3	0.57E3	46.68E3	0.183508
e97							
97	-205.4915	29.4190	-3.7315	-0.01E3	-0.57E3	46.45E3	0.183496
e98							
98	-209.8688	58.8921	-4.2392	0.02E3	-0.67E3	37.06E3	0.160554
e99							
99	-225.5520	87.8049	-1.3971	-0.19E3	0.36E3	18.28E3	0.119559
e110							
110	-123.0984	-0.7326	-2.8871	-0.01E3	0.45E3	40.06E3	0.135583
e111							

111	-128.8626	29.4927	-2.7276	0.01E3	-0.43E3	40.09E3	0.138805
e112							
112	-130.0801	59.8371	-2.8616	-0.02E3	0.44E3	31.04E3	0.122189
e113							
113	-135.2684	90.8538	-2.4022	-0.02E3	0.37E3	-14.95E3	0.090277
e114							
114	-153.7067	119.8528	-1.1016	-0.16E3	0.24E3	-51.47E3	0.052542
e115							
115	-159.8264	-0.5831	-2.2629	-0.01E3	-0.35E3	-41.54E3	0.136508
e116							
116	-165.3811	-31.5952	-2.6834	-0.01E3	-0.42E3	-41.35E3	0.138683
e117							
117	-166.9082	-61.8919	-2.5461	0.01E3	0.40E3	-31.74E3	0.120388
e118							
118	-172.7625	-92.0635	-2.7319	-0.01E3	-0.42E3	15.28E3	0.086489
e119							
119	-189.3889	-119.6865	-0.8817	0.18E3	0.21E3	52.18E3	0.046877
e124							
124	-229.5882	41.0803	3.4866	-0.00E3	-0.54E3	-34.53E3	0.187708
e125							
125	-224.9307	9.5382	3.4467	-0.01E3	0.53E3	-37.08E3	0.195270
e126							
126	-223.8145	-21.5811	3.6763	-0.01E3	0.57E3	-36.99E3	0.185907
e127							
127	-224.9683	-52.2995	3.6749	0.00E3	-0.57E3	-30.43E3	0.158245
e128							
128	-223.7192	-83.4023	3.4547	-0.00E3	-0.53E3	-14.60E3	0.115582
e129							
129	-218.8821	-114.9170	3.5311	-0.00E3	0.55E3	45.53E3	0.065848
e130							
130	-206.5160	-143.2530	2.0451	0.21E3	-0.40E3	88.81E3	0.021598
e131							
131	-211.8614	111.2539	-2.9424	-0.00E3	0.46E3	43.50E3	0.020900
e132							
132	-218.1444	79.8302	-2.8563	-0.01E3	-0.44E3	-14.56E3	0.063429
e133							
133	-220.7241	48.7956	-2.9498	-0.01E3	-0.46E3	-29.44E3	0.110940
e134							
134	-221.0616	18.1715	-2.9562	0.00E3	0.46E3	-35.05E3	0.151380
e135							
135	-223.4367	-12.8891	-2.8777	0.00E3	0.44E3	-35.18E3	0.177290
e136							
136	-229.1243	-44.3868	-2.9863	0.00E3	-0.46E3	-31.57E3	0.185848
e137							
137	-241.6450	-72.6656	-1.4900	0.25E3	0.30E3	-18.35E3	0.178979
e140							
140	-27.4086	-6.9538	6.3045	-0.04E3	0.96E3	-18.18E3	0.101987
e141							
141	6.5438	2.7877	13.4235	-0.04E3	2.05E3	15.19E3	0.069793
e142							
142	-202.9018	-129.9164	-8.5587	-0.12E3	1.31E3	-38.70E3	0.196037
e143							
143	-178.2128	-99.2360	-8.5413	-0.14E3	1.30E3	29.93E3	0.354492
e144							
144	-153.5246	-68.5669	-8.5454	-0.15E3	1.30E3	49.48E3	0.512974
e145							
145	-128.8364	-37.9068	-8.5454	-0.16E3	1.30E3	59.59E3	0.657038
e146							
146	-104.1482	-7.2552	-8.5412	-0.16E3	1.30E3	60.30E3	0.776960
e147							
147	-79.4595	23.3873	-8.5146	-0.17E3	1.30E3	58.78E3	0.867725
e148							
148	-54.6294	53.8964	-3.7379	-0.59E3	0.87E3	50.14E3	0.928991
e149							
149	-31.5197	110.6579	-11.2437	-0.13E3	1.72E3	21.59E3	0.166901
e150							
150	-4.7856	80.0548	-11.2263	-0.14E3	-1.71E3	-37.81E3	0.272451
e151							
151	21.9492	49.4404	-11.2304	-0.15E3	-1.71E3	-54.24E3	0.371815
e152							
152	48.6841	18.8170	-11.2303	-0.16E3	-1.71E3	-61.43E3	0.452179
e153							

153	75.4189	-11.8149	-11.2261	-0.16E3	-1.71E3	-62.93E3	0.505351
e154							
154	102.1534	-42.4560	-11.1996	-0.15E3	-1.71E3	-60.84E3	0.527784
e155							
155	128.7463	-73.2304	-6.4229	0.37E3	1.17E3	-49.41E3	0.520616
e160							
160	-118.9554	-71.3706	-9.5580	0.03E3	1.46E3	-19.43E3	0.012304
e161							
161	-93.4781	-40.7436	-9.5718	0.03E3	1.46E3	15.02E3	0.034447
e162							
162	-68.0008	-10.0965	-9.5876	0.02E3	-1.46E3	18.39E3	0.055482
e163							
163	-42.5406	20.5985	-4.4289	-0.45E3	0.94E3	18.62E3	0.069140
e164							
164	-50.8749	95.3651	-10.1738	0.02E3	-1.55E3	31.57E3	0.016959
e165							
165	-24.9287	64.7090	-10.1876	0.03E3	-1.55E3	-16.98E3	0.049654
e166							
166	1.0175	34.0729	-10.2033	0.03E3	-1.56E3	-27.08E3	0.083820
e167							
167	26.9807	3.4847	-5.0446	0.47E3	1.04E3	-27.92E3	0.109730
e175							
175	-50.4062	-37.7206	1.2281	0.47E3	-0.45E3	-16.45E3	0.073600
e176							
176	-21.8830	33.3034	8.3449	-0.45E3	-1.54E3	13.94E3	0.050809

Plus grande valeur négative

Nx	-242.7491 daN	Elément 26, Nx effort axial de traction ou compression
Ty	-160.6664 daN	Elément 53, Ty effort tranchant
Tz	-11.2437 daN	Elément 149, Tz effort tranchant
Mx	-0.59E3 daN.mm	Elément 148, Mx moment de torsion
My	-2.05E3 daN.mm	Elément 141, My moment fléchissant
Mz	-92.92E3 daN.mm	Elément 2, Mz moment fléchissant

Plus grande valeur positive

Nx	128.7463 daN	Elément 155, Nx effort axial de traction ou compression
Ty	145.3707 daN	Elément 1, Ty effort tranchant
Tz	13.4235 daN	Elément 141, Tz effort tranchant
Mx	0.49E3 daN.mm	Elément 70, Mx moment de torsion
My	2.05E3 daN.mm	Elément 141, My moment fléchissant
Mz	88.81E3 daN.mm	Elément 130, Mz moment fléchissant
W	0.965516 mm	Elément 148, W flèche, déplacement perpendiculaire à l'âme

Propriété 5 marche 800x250

Passerelle DDP - Egir

calcul 1 'calcul 0'

EFFORTS RESULTANTS [BEAM poutre]

Nx effort axial de traction ou compression

Ty effort tranchant

Tz effort tranchant

Mx moment de torsion

My moment fléchissant

Mz moment fléchissant

W flèche, déplacement perpendiculaire à l'âme

Elément	Nx daN	Ty daN	Tz daN	Mx daN.mm	My daN.mm	Mz daN.mm	W mm
e3							
3	2.2838	-28.5403	-12.7622	0.84E3	0.81E3	3.08E3	0.021356
e4							
4	-0.5079	-22.8424	-19.3122	0.40E3	-1.19E3	4.89E3	0.064557
e5							
5	-0.0968	-20.7065	-21.8264	0.21E3	-1.75E3	6.28E3	0.111480
e6							
6	0.1445	-18.9752	-23.6051	0.12E3	-2.09E3	7.51E3	0.148626
e7							
7	0.0455	-18.8208	-24.0684	0.08E3	-2.20E3	7.48E3	0.167133
e8							
8	-0.1827	-20.6152	-23.1073	0.14E3	-1.98E3	6.26E3	0.162786
e9							
9	0.0213	-23.4481	-21.2753	0.31E3	-1.58E3	4.91E3	0.136025

e10	10	-1.1920	-28.3536	-13.9615	0.37E3	0.78E3	3.02E3	0.092023
e17	17	-1.2989	32.7658	-10.3726	-0.02E3	0.50E3	-4.74E3	0.055858
e18	18	-0.4679	23.9091	-20.4082	0.04E3	-1.57E3	-6.98E3	0.092680
e19	19	0.1354	20.4375	-22.4648	0.06E3	-1.91E3	-8.83E3	0.124171
e20	20	-0.1583	23.8426	-19.4483	-0.03E3	-1.37E3	-7.01E3	0.140694
e21	21	1.8225	30.7484	-10.5227	-0.35E3	0.58E3	-4.51E3	0.137646
e28	28	-1.7927	28.2826	-13.2288	-0.48E3	0.71E3	-3.41E3	0.187235
e29	29	0.0386	23.8420	-21.1697	-0.36E3	-1.56E3	-5.57E3	0.194918
e30	30	-0.2304	20.8573	-23.1220	-0.10E3	-1.98E3	-7.09E3	0.185641
e31	31	0.0010	18.8608	-24.2740	0.02E3	-2.11E3	-8.40E3	0.158051
e32	32	0.2217	20.9485	-23.0239	0.12E3	-1.96E3	-7.12E3	0.115441
e33	33	-0.0711	23.9620	-21.0333	0.34E3	-1.53E3	-5.60E3	0.065734
e34	34	1.5141	27.7439	-13.7740	0.39E3	0.77E3	-3.36E3	0.021501
e44	44	-4.8584	2.0871	41.6623	0.37E3	-6.02E3	-2.46E3	0.083432
e45	45	5.0764	2.1601	41.6483	0.40E3	-6.04E3	-2.48E3	0.064699
e55	55	-4.7767	0.5900	40.6682	1.51E3	-6.02E3	-1.87E3	0.927876
e56	56	-0.0265	0.7840	40.6570	1.52E3	-6.06E3	-2.61E3	0.866911
e57	57	-0.0042	0.7902	40.6503	1.50E3	-6.06E3	-2.63E3	0.776385
e58	58	-0.0000	0.7957	40.6437	1.45E3	-6.06E3	-2.63E3	0.656646
e59	59	0.0041	0.8015	40.6368	1.36E3	-6.06E3	-2.63E3	0.512731
e60	60	-0.0174	0.8082	40.6277	1.24E3	-6.06E3	-2.63E3	0.354374
e61	61	5.2197	0.8626	40.5845	1.08E3	-6.05E3	-1.97E3	0.196041
e72	72	-5.1587	0.2270	40.1205	-0.23E3	-6.04E3	-1.71E3	0.068737
e73	73	0.0156	0.1832	40.1465	-0.28E3	-6.06E3	-2.38E3	0.055197
e74	74	0.0137	0.1702	40.1619	-0.27E3	-6.06E3	-2.37E3	0.034238
e75	75	4.8941	0.1590	40.1692	-0.17E3	-6.02E3	-1.69E3	0.012194
e185	185	-7.3041	-0.6798	32.3605	-0.13E3	-3.70E3	4.75E3	0.035561
e186	186	1.2073	29.0529	13.3504	0.39E3	0.82E3	3.21E3	0.035245
e187	187	-11.3180	-0.7902	22.8924	-0.16E3	-2.90E3	6.22E3	0.088673
e188	188	0.0344	23.0427	21.5337	0.31E3	-1.54E3	4.93E3	0.090818
e189	189	-9.7999	-0.7409	13.6323	-0.10E3	-2.21E3	6.96E3	0.143527
e190	190	0.2445	20.0375	23.5778	0.16E3	-2.00E3	6.22E3	0.146494
e191	191	-7.8470	-0.5875	4.6929	0.00E3	-1.47E3	7.67E3	0.187031
e192	192	0.0292	18.1290	24.6154	0.10E3	-2.24E3	7.35E3	0.188505
e193	193	7.5061	-0.5090	5.1672	-0.01E3	-1.46E3	7.69E3	0.207693
e194	194	-0.2104	18.2940	24.1858	0.14E3	-2.14E3	7.39E3	0.209393

e195							
195	9.8230	-0.0786	13.7224	-0.11E3	-2.21E3	6.88E3	0.199786
e196							
196	0.0517	20.0887	22.3267	0.23E3	-1.75E3	6.22E3	0.205969
e197							
197	11.3870	0.0525	-22.2697	-0.17E3	-2.91E3	6.07E3	0.165045
e198							
198	0.5078	22.2983	19.7638	0.42E3	-1.18E3	4.90E3	0.177856
e199							
199	6.6078	-0.4773	-31.7335	-0.12E3	-3.73E3	4.71E3	0.108324
e200							
200	-2.8403	30.6006	12.0723	0.82E3	0.82E3	3.38E3	0.129599
e202							
202	15.8223	-0.8404	-27.6602	0.17E3	-2.94E3	-5.64E3	0.066835
e203							
203	-1.8484	-30.4948	10.4850	-0.41E3	0.55E3	-4.43E3	0.062594
e204							
204	15.6339	-0.4487	-13.5190	0.17E3	-1.77E3	-7.51E3	0.113602
e205							
205	0.1771	-23.8735	19.3294	-0.07E3	-1.38E3	-6.98E3	0.111761
e206							
206	-0.1358	-20.6443	22.2297	0.02E3	-1.90E3	-8.87E3	0.149012
e207							
207	-15.7494	0.1728	-13.4558	0.14E3	-1.79E3	-7.44E3	0.163077
e208							
208	0.4217	-24.1875	20.1853	-0.01E3	-1.56E3	-7.02E3	0.163305
e209							
209	-16.0240	0.5214	27.4205	0.13E3	-2.96E3	-5.50E3	0.151624
e210							
210	1.1637	-32.7032	10.4497	-0.08E3	0.50E3	-4.70E3	0.151371
e211							
211	6.8756	-0.7250	-30.5173	-0.02E3	-3.38E3	-4.82E3	0.199076
e212							
212	-1.4970	-27.7647	13.6074	0.32E3	0.68E3	-3.20E3	0.193003
e213							
213	13.2440	-0.5725	-20.5298	0.02E3	-2.52E3	-6.75E3	0.216124
e214							
214	0.1106	-24.6025	20.4735	0.32E3	-1.53E3	-5.60E3	0.211711
e215							
215	11.0980	-0.7519	-10.7307	0.07E3	-1.75E3	-7.68E3	0.212288
e216							
216	-0.0760	-21.7841	22.2678	0.13E3	-1.91E3	-7.22E3	0.210111
e217							
217	0.0092	-19.9425	23.2432	0.07E3	-2.05E3	-8.67E3	0.186885
e218							
218	-11.1683	-0.7105	-10.7101	0.01E3	-1.80E3	-7.64E3	0.143741
e219							
219	0.0982	-21.9241	22.1165	0.01E3	-1.88E3	-7.25E3	0.142541
e220							
220	-13.3386	-0.5025	-20.4827	0.02E3	-2.55E3	-6.72E3	0.089023
e221							
221	-0.0775	-25.0111	20.0342	-0.21E3	-1.45E3	-5.67E3	0.088022
e222							
222	-7.3808	-0.4668	-30.4058	0.01E3	-3.40E3	-4.75E3	0.034833
e223							
223	1.5721	-29.7308	11.7203	-0.25E3	0.63E3	-3.38E3	0.034624

Plus grande valeur négative

Nx	-16.0240 daN	Elément 209, Nx effort axial de traction ou compression
Ty	-32.7032 daN	Elément 210, Ty effort tranchant
Tz	-39.8795 daN	Elément 72, Tz effort tranchant
Mx	-0.48E3 daN.mm	Elément 28, Mx moment de torsion
My	-6.06E3 daN.mm	Elément 58, My moment fléchissant
Mz	-8.87E3 daN.mm	Elément 206, Mz moment fléchissant

Plus grande valeur positive

Nx	15.8223 daN	Elément 202, Nx effort axial de traction ou compression
Ty	32.7658 daN	Elément 17, Ty effort tranchant
Tz	41.6623 daN	Elément 44, Tz effort tranchant
Mx	1.52E3 daN.mm	Elément 56, Mx moment de torsion
My	2.65E3 daN.mm	Elément 44, My moment fléchissant
Mz	7.69E3 daN.mm	Elément 193, Mz moment fléchissant
W	0.927876 mm	Elément 55, W flèche, déplacement perpendiculaire à l'âme



-----  
Propriété 6 LE40\_4  
Passerelle DDP - Egir  
calcul 1 'calcul 0'  
-----

EFFORTS RESULTANTS [BEAM poutre]  
Nx effort axial de traction ou compression  
Ty effort tranchant  
Tz effort tranchant  
Mx moment de torsion  
My moment fléchissant  
Mz moment fléchissant  
W flèche, déplacement perpendiculaire à l'âme  
-----

Elément	Nx daN	Ty daN	Tz daN	Mx daN.mm	My daN.mm	Mz daN.mm	W mm
e177							
177	-118.5419	2.8623	-2.5958	0.00E3	-0.50E3	-0.64E3	0.113656
e178							
178	-109.4733	-1.1862	-0.5937	-0.00E3	0.20E3	0.36E3	0.113725
e179							
179	70.6830	-2.0187	-0.5584	0.01E3	0.30E3	0.55E3	0.162974
e180							
180	-130.8309	-1.2315	-1.3477	-0.00E3	0.72E3	0.58E3	0
e181							
181	114.9365	3.7012	-3.0084	-0.00E3	-0.50E3	-0.82E3	0.070923
e182							
182	86.9743	-3.0575	0.0036	0.01E3	0.24E3	0.73E3	0.042634
e225							
225	-73.2599	2.3491	-0.0526	-0.00E3	-0.27E3	-0.53E3	0.150970
e226							
226	-38.2242	0.5426	-0.0030	-0.00E3	-0.24E3	-0.24E3	0.162748
e227							
227	-6.5776	-0.9749	0.6261	-0.00E3	-0.27E3	-0.26E3	0.148780
e228							
228	28.1212	-2.7853	0.6885	-0.00E3	-0.17E3	0.48E3	0.111539
e229							
229	72.8122	-3.4308	3.4120	0.00E3	0.83E3	0.68E3	0.062401
e230							
230	-61.4212	-2.7313	1.8852	0.00E3	-0.58E3	-0.63E3	0.150935
e231							
231	-26.2468	-0.7642	0.6189	0.00E3	-0.30E3	-0.24E3	0.163085
e232							
232	2.6935	1.1104	-0.4767	0.00E3	-0.23E3	-0.28E3	0.148843
e233							
233	37.8874	3.0186	-1.6535	0.00E3	-0.40E3	-0.63E3	0.113420
e234							
234	86.3681	1.2278	0.9059	-0.00E3	0.50E3	0.48E3	0.066602
e235							
235	32.5877	-4.9637	2.7345	-0.00E3	-0.65E3	-0.95E3	0.192564
e236							
236	-0.5992	-2.3468	1.1259	-0.00E3	-0.39E3	-0.53E3	0.210979
e237							
237	-29.7744	-0.3515	0.0916	-0.00E3	-0.19E3	-0.17E3	0.209248
e238							
238	-56.8840	1.0826	-0.3089	-0.00E3	-0.20E3	-0.28E3	0.185946
e239							
239	-87.0000	3.0283	-1.2052	-0.00E3	-0.29E3	-0.59E3	0.142753
e240							
240	-120.8190	5.5928	-2.7315	-0.00E3	-0.44E3	-0.96E3	0.088054
e241							
241	-160.3860	2.6551	0.3776	0.00E3	0.55E3	0.79E3	0.034001
e242							
242	-89.7173	-4.5303	2.1434	0.00E3	-0.35E3	-0.80E3	0.034129
e243							
243	-55.8452	-1.9889	0.6237	0.00E3	-0.19E3	-0.42E3	0.087498
e244							
244	-26.4030	0.0202	-0.3968	0.00E3	-0.20E3	-0.10E3	0.142070
e245							
245	0.7214	1.4538	-0.8070	0.00E3	-0.31E3	-0.35E3	0.186535
e246							

246	30.7368	3.3638	-1.7204	0.00E3	-0.49E3	-0.69E3	0.212116
e247							
247	64.4485	5.8956	-3.2737	0.00E3	-0.74E3	-1.10E3	0.216199
e248							
248	104.9317	2.4479	-0.0378	-0.00E3	0.23E3	0.69E3	0.199520
e249							
249	72.5863	5.9232	-1.5204	0.00E3	-0.38E3	-0.99E3	0.130171
e250							
250	40.7228	3.6672	-0.8525	0.00E3	-0.36E3	-0.71E3	0.177690
e251							
251	12.0102	1.7075	-0.4156	0.00E3	-0.32E3	-0.42E3	0.205500
e252							
252	-14.1830	1.1830	0.0590	-0.00E3	-0.25E3	-0.23E3	0.208796
e253							
253	-16.3409	-0.3184	0.4164	0.00E3	-0.25E3	-0.18E3	0.200570
e254							
254	-42.0645	-1.2475	0.7629	0.00E3	-0.28E3	-0.28E3	0.186343
e255							
255	-70.4940	-3.2150	1.1836	0.00E3	-0.23E3	0.52E3	0.142781
e256							
256	-102.0902	-5.4747	1.8441	0.00E3	0.42E3	1.02E3	0.087954
e257							
257	-141.3005	-4.5263	4.1212	-0.00E3	1.07E3	0.87E3	0.035075
e258							
258	47.8375	-5.6813	3.1929	-0.00E3	-0.71E3	-1.05E3	0.107624
e259							
259	15.7891	-3.4168	1.9159	-0.00E3	-0.55E3	-0.71E3	0.163941
e260							
260	-12.2989	-1.3695	0.8617	-0.00E3	-0.40E3	-0.38E3	0.198630
e261							
261	-37.2391	-0.9094	0.6302	-0.00E3	-0.26E3	-0.16E3	0.206574
e262							
262	-36.1608	1.1944	-0.5738	-0.00E3	-0.27E3	-0.25E3	0.200112
e263							
263	-61.7768	1.8987	-0.7961	-0.00E3	-0.32E3	-0.44E3	0.187396
e264							
264	-90.1874	3.8960	-1.8272	-0.00E3	-0.40E3	-0.73E3	0.145395
e265							
265	-122.7010	6.0292	-3.0063	-0.00E3	0.49E3	-1.01E3	0.089789
e266							
266	-164.1657	3.4088	-0.0695	0.00E3	0.55E3	0.95E3	0.034472

Plus grande valeur négative

Nx -164.1657 daN Elément 266, Nx effort axial de traction ou compression  
 Ty -5.6813 daN Elément 258, Ty effort tranchant  
 Tz -3.2737 daN Elément 247, Tz effort tranchant  
 Mx -0.00E3 daN.mm Elément 178, Mx moment de torsion  
 My -0.74E3 daN.mm Elément 247, My moment fléchissant  
 Mz -1.10E3 daN.mm Elément 247, Mz moment fléchissant

Plus grande valeur positive

Nx 114.9365 daN Elément 181, Nx effort axial de traction ou compression  
 Ty 6.0292 daN Elément 265, Ty effort tranchant  
 Tz 4.1212 daN Elément 257, Tz effort tranchant  
 Mx 0.01E3 daN.mm Elément 182, Mx moment de torsion  
 My 1.07E3 daN.mm Elément 257, My moment fléchissant  
 Mz 1.02E3 daN.mm Elément 256, Mz moment fléchissant  
 W 0.216778 mm Elément 246, W flèche, déplacement perpendiculaire à l'âme

Propriété 2 UPN120  
 Passerelle DDP - Egir  
 calcul 2 'calcul 0'

EFFORTS RESULTANTS [BEAM poutre]

Nx effort axial de traction ou compression  
 Ty effort tranchant  
 Tz effort tranchant  
 Mx moment de torsion  
 My moment fléchissant  
 Mz moment fléchissant  
 W flèche, déplacement perpendiculaire à l'âme

Elément	Nx daN	Ty daN	Tz daN	Mx daN.mm	My daN.mm	Mz daN.mm	W mm
e11							
11	-165.3402	3.7460	102.3241	0.01E3	65.18E3	2.78E3	0.042601
e12							
12	-175.1748	2.5540	34.1967	0.04E3	57.69E3	0.79E3	0.009912
e13							
13	-34.5907	-0.8209	0.3212	0.00E3	-0.38E3	-0.58E3	0.028863
e14							
14	-32.9665	-6.2375	0.0892	-0.00E3	-0.07E3	-2.75E3	0.068592
e22							
22	-144.1704	1.7132	170.3203	0.01E3	-30.38E3	-0.21E3	0.070783
e23							
23	-32.1566	-3.5493	-0.0861	-0.01E3	-0.15E3	-1.46E3	0.168643
e24							
24	-185.0264	6.9186	-56.1338	0.00E3	-11.34E3	-2.72E3	0.133327
e25							
25	48.5744	-0.6329	0.0673	-0.00E3	-0.15E3	0.36E3	0.114965
e35							
35	-18.8505	-10.2732	-39.1804	-0.04E3	-10.54E3	-2.09E3	0.128026
e36							
36	-11.7193	0.2367	1.2129	0.02E3	0.56E3	0.17E3	0.094159
e37							
37	9.1285	3.1542	69.9459	0.19E3	7.26E3	1.06E3	0.085280
e38							
38	-10.9478	-4.2800	98.4727	-0.05E3	25.33E3	-1.36E3	0.047414
e39							
39	-0.3065	0.9681	-0.0217	0.02E3	-0.01E3	0.45E3	0.002300
e40							
40	0.9681	0.3064	61.7293	-0.01E3	19.03E3	-0.52E3	0.027510
e41							
41	5.5081	3.4188	-0.9976	0.03E3	-0.46E3	1.62E3	0.017246
e48							
48	-36.5938	18.2619	-36.3784	-0.02E3	-29.05E3	-8.12E3	0.650597
e49							
49	-68.0422	-12.8023	-30.5600	0.24E3	-33.62E3	-5.86E3	0.747720
e50							
50	-16.5402	-8.4503	0.6118	0.09E3	-0.52E3	3.52E3	0.963590
e51							
51	43.1034	10.1173	164.4661	-0.26E3	-27.17E3	4.37E3	0.347553
e52							
52	24.1474	27.1093	-13.2359	0.06E3	10.64E3	10.87E3	0.298694
e62							
62	24.2746	-0.0400	122.9810	-0.01E3	46.63E3	-0.19E3	0.094535
e63							
63	5.0488	2.0598	-0.4011	0.05E3	-0.23E3	1.22E3	0.085899
e64							
64	-69.0005	-1.7098	277.0919	-0.10E3	108.76E3	-0.86E3	0.040130
e65							
65	-5.0047	1.3663	0.0176	-0.01E3	-0.07E3	-0.87E3	0.073195
e100							
100	-200.3753	6.3879	-178.7633	0.00E3	94.63E3	-7.98E3	0.122312
e101							
101	-169.3111	-25.0606	110.4813	0.06E3	-58.30E3	-10.24E3	0.969601
e102							
102	-152.3191	-6.1046	333.1203	-0.12E3	137.37E3	3.52E3	0.459836
e103							
103	-121.6957	-0.4217	-162.8860	0.00E3	102.80E3	0.81E3	0.282693
e104							
104	-135.3697	0.1479	-152.0151	-0.00E3	75.30E3	0.33E3	0.009259
e105							
105	-182.8828	-0.4257	155.9890	0.00E3	88.43E3	-0.83E3	0.009476
e106							
106	-184.3174	-6.7549	-185.9493	-0.08E3	106.96E3	-3.58E3	0.282160
e107							
107	-157.2080	-30.9023	-154.2483	-0.03E3	-57.96E3	13.36E3	0.405571
e108							
108	-138.9462	5.6915	177.1932	0.03E3	91.88E3	6.87E3	0.896023
e109							
109	-141.5098	3.3963	-107.2012	0.01E3	66.35E3	-2.30E3	0.122438
e120							
120	-144.1704	1.7132	204.1483	0.01E3	46.48E3	-0.79E3	0.059631

e121	121	-173.8207	-3.0798	122.6523	0.01E3	54.79E3	1.26E3	0.096364
e122	122	-165.4218	2.7562	-219.5809	-0.01E3	50.56E3	0.79E3	0.016059
e123	123	-165.4218	2.7562	-185.7529	-0.01E3	-32.78E3	-0.37E3	0.064732
e138	138	-0.9681	-0.3065	-61.7727	-0.01E3	19.10E3	0.45E3	0.015558
e139	139	1.2260	-2.8389	-78.7491	-0.04E3	19.01E3	0.55E3	0.012385
e156	156	47.2097	-0.1840	134.9953	0.00E3	71.36E3	0.30E3	0.005235
e157	157	44.0617	-0.9751	-154.1480	-0.09E3	77.98E3	0.38E3	0.007312
e158	158	-36.2604	-0.3797	-143.1673	0.00E3	84.30E3	-0.70E3	0.011145
e159	159	-47.1947	-0.5758	-96.7071	-0.01E3	33.75E3	0.83E3	0.004473
e168	168	-8.8521	0.9324	-4.8573	-0.00E3	-3.86E3	-0.57E3	0.125118
e169	169	5.6582	1.8917	-5.9675	0.00E3	5.00E3	-0.77E3	0.089257
e170	170	0.0494	1.0911	0.9217	-0.00E3	0.37E3	0.47E3	0.018426
e171	171	-0.1747	-17.4957	7.4174	-0.01E3	-2.98E3	-7.15E3	0.019063
e172	172	0.3255	9.9655	18.1652	0.06E3	7.28E3	-4.01E3	0.027310
e173	173	-152.5129	-4.3598	-110.5956	-0.01E3	51.18E3	1.92E3	0.012920
e174	174	-151.5805	4.4923	38.7247	0.01E3	-8.39E3	1.74E3	0.087874
e201	201	-190.0293	0.2427	151.9699	-0.00E3	75.66E3	-0.41E3	0.012097
e224	224	-134.4174	1.9154	-62.5762	0.03E3	61.66E3	-0.46E3	0.009673

Plus grande valeur négative

Nx	-200.3753 daN	Elément 100, Nx effort axial de traction ou compression
Ty	-30.9023 daN	Elément 107, Ty effort tranchant
Tz	-219.5809 daN	Elément 122, Tz effort tranchant
Mx	-0.26E3 daN.mm	Elément 51, Mx moment de torsion
My	-63.84E3 daN.mm	Elément 108, My moment fléchissant
Mz	-11.36E3 daN.mm	Elément 107, Mz moment fléchissant

Plus grande valeur positive

Nx	48.5744 daN	Elément 25, Nx effort axial de traction ou compression
Ty	27.1093 daN	Elément 52, Ty effort tranchant
Tz	333.1203 daN	Elément 102, Tz effort tranchant
Mx	0.24E3 daN.mm	Elément 49, Mx moment de torsion
My	137.37E3 daN.mm	Elément 102, My moment fléchissant
Mz	13.36E3 daN.mm	Elément 107, Mz moment fléchissant
W	1.000927 mm	Elément 100, W flèche, déplacement perpendiculaire à l'âme

Propriété 3 HEA100  
Passerelle DDP - Egir  
calcul 2 'calcul 0'

EFFORTS RESULTANTS [BEAM poutre]

Nx effort axial de traction ou compression  
Ty effort tranchant  
Tz effort tranchant  
Mx moment de torsion  
My moment fléchissant  
Mz moment fléchissant  
W flèche, déplacement perpendiculaire à l'âme

Elément	Nx	Ty	Tz	Mx	My	Mz	W
	daN	daN	daN	daN.mm	daN.mm	daN.mm	mm
e46	-160.2453	-9.9797	3.9736	-0.01E3	3.68E3	-6.23E3	0.015204
e47							

47	-140.4784	0.2577	3.1455	-0.01E3	2.91E3	-0.22E3	0.012232
e66							
66	-289.1433	3.1480	-0.7911	0.01E3	-0.71E3	6.62E3	0.081779
e67							
67	-227.9857	-22.9351	-0.1440	-0.00E3	-0.16E3	11.95E3	0.078546
e68							
68	-420.2592	32.7401	-1.3301	0.02E3	-1.24E3	24.46E3	0.041181
e69							
69	-193.5398	-10.9343	0.1961	-0.01E3	0.18E3	6.02E3	0.043221
e76							
76	-273.6700	2.4672	17.5393	0.02E3	29.44E3	3.14E3	0
e77							
77	-291.8118	-2.4699	14.9321	0.01E3	-25.54E3	3.15E3	0.124902
e78							
78	-477.8411	-6.0084	-20.6580	-0.01E3	34.50E3	7.53E3	0.281512
e79							
79	-360.1036	-6.0037	-11.4000	-0.02E3	18.59E3	7.52E3	0.281866
e80							
80	-288.2064	-0.6190	14.7651	-0.01E3	-11.16E3	0.41E3	0.017107
e81							
81	-296.9016	-0.6189	6.0554	-0.01E3	-5.20E3	0.41E3	0.004409
e82							
82	-308.7761	0.4149	10.2402	-0.01E3	10.91E3	-0.39E3	0.093200
e83							
83	-418.1464	2.3657	9.6697	-0.00E3	10.32E3	2.23E3	0.088409
e183							
183	-210.5610	-1.7676	-0.9523	0.00E3	7.60E3	1.31E3	0.029315
e184							
184	-182.2268	-2.3113	-14.8545	-0.01E3	12.06E3	1.71E3	0.019824

Plus grande valeur négative

Nx	-477.8411 daN	Elément 78, Nx effort axial de traction ou compression
Ty	-22.9351 daN	Elément 67, Ty effort tranchant
Tz	-20.6580 daN	Elément 78, Tz effort tranchant
Mx	-0.02E3 daN.mm	Elément 79, Mx moment de torsion
My	-25.54E3 daN.mm	Elément 77, My moment fléchissant
Mz	-11.26E3 daN.mm	Elément 67, Mz moment fléchissant

Plus grande valeur positive

Ty	32.7401 daN	Elément 68, Ty effort tranchant
Tz	17.5393 daN	Elément 76, Tz effort tranchant
Mx	0.02E3 daN.mm	Elément 68, Mx moment de torsion
My	34.50E3 daN.mm	Elément 78, My moment fléchissant
Mz	24.46E3 daN.mm	Elément 68, Mz moment fléchissant
W	0.281866 mm	Elément 79, W flèche, déplacement perpendiculaire à l'âme

Propriété 4 Limon plat 220x10

Passerelle DDP - Egir

calcul 2 'calcul 0'

EFFORTS RESULTANTS [BEAM poutre]

Nx effort axial de traction ou compression

Ty effort tranchant

Tz effort tranchant

Mx moment de torsion

My moment fléchissant

Mz moment fléchissant

W flèche, déplacement perpendiculaire à l'âme

Elément	Nx	Ty	Tz	Mx	My	Mz	W
	daN	daN	daN	daN.mm	daN.mm	daN.mm	mm
e1							
1	-173.7802	145.3707	-1.5072	-0.25E3	-0.34E3	88.29E3	0
e2							
2	-190.2440	-152.5440	-2.3748	0.22E3	-0.46E3	-92.92E3	0
e15							
15	-106.3086	-28.5498	-1.0645	0.18E3	-0.24E3	39.49E3	0.112821
e16							
16	-141.4922	28.4319	-1.0994	-0.18E3	-0.23E3	-41.63E3	0.113773
e26							
26	-242.7491	69.4024	1.6900	-0.17E3	0.36E3	-22.49E3	0.169398
e27							

27	-196.6522	139.2973	-1.2996	-0.22E3	-0.29E3	85.72E3	0
e42	-----+	-----+	-----+	-----+	-----+	-----+	-----+
42	-4.3642	23.7566	1.4459	-0.55E3	0.49E3	-17.81E3	0.122113
e43	-----+	-----+	-----+	-----+	-----+	-----+	-----+
43	34.9236	-27.7857	8.5614	0.41E3	1.54E3	15.56E3	0.085098
e53	-----+	-----+	-----+	-----+	-----+	-----+	-----+
53	-227.5757	-160.6664	-3.3420	0.38E3	-0.77E3	-86.61E3	0.056848
e54	-----+	-----+	-----+	-----+	-----+	-----+	-----+
54	-58.2667	141.1933	-6.0266	-0.54E3	-1.20E3	65.72E3	0.072654
e70	-----+	-----+	-----+	-----+	-----+	-----+	-----+
70	-144.4330	-101.9896	-4.6694	0.49E3	-0.97E3	-50.70E3	0
e71	-----+	-----+	-----+	-----+	-----+	-----+	-----+
71	-76.8128	126.0365	-5.2864	-0.46E3	-1.06E3	69.83E3	0
e84	-----+	-----+	-----+	-----+	-----+	-----+	-----+
84	-187.4398	117.2488	-3.7911	0.02E3	0.60E3	43.12E3	0.021645
e85	-----+	-----+	-----+	-----+	-----+	-----+	-----+
85	-192.5242	87.7720	-3.2831	-0.01E3	0.50E3	-19.79E3	0.064637
e86	-----+	-----+	-----+	-----+	-----+	-----+	-----+
86	-194.3563	57.7421	-3.1864	-0.02E3	-0.49E3	-37.61E3	0.111529
e87	-----+	-----+	-----+	-----+	-----+	-----+	-----+
87	-193.7189	27.4626	-3.3309	-0.01E3	-0.51E3	-46.11E3	0.148709
e88	-----+	-----+	-----+	-----+	-----+	-----+	-----+
88	-192.6655	-3.0647	-3.3760	-0.01E3	0.52E3	-46.19E3	0.167264
e89	-----+	-----+	-----+	-----+	-----+	-----+	-----+
89	-193.6042	-34.0250	-3.1937	-0.01E3	-0.49E3	-45.40E3	0.162964
e90	-----+	-----+	-----+	-----+	-----+	-----+	-----+
90	-197.8907	-65.3950	-3.2149	-0.01E3	-0.50E3	-35.33E3	0.136384
e91	-----+	-----+	-----+	-----+	-----+	-----+	-----+
91	-210.6383	-94.3111	-2.0210	0.27E3	0.38E3	-15.76E3	0.093008
e92	-----+	-----+	-----+	-----+	-----+	-----+	-----+
92	-203.9181	-123.6421	-3.5821	-0.01E3	0.55E3	-46.79E3	0.022694
e93	-----+	-----+	-----+	-----+	-----+	-----+	-----+
93	-207.7280	-92.3347	-3.6165	-0.01E3	0.55E3	18.75E3	0.068371
e94	-----+	-----+	-----+	-----+	-----+	-----+	-----+
94	-207.9218	-61.3932	-3.8610	-0.01E3	-0.59E3	37.32E3	0.118967
e95	-----+	-----+	-----+	-----+	-----+	-----+	-----+
95	-205.9867	-30.8836	-3.8901	-0.01E3	0.59E3	46.64E3	0.160452
e96	-----+	-----+	-----+	-----+	-----+	-----+	-----+
96	-204.4542	-0.6055	-3.6796	-0.02E3	0.57E3	46.68E3	0.183508
e97	-----+	-----+	-----+	-----+	-----+	-----+	-----+
97	-205.4915	29.4190	-3.7315	-0.01E3	-0.57E3	46.45E3	0.183496
e98	-----+	-----+	-----+	-----+	-----+	-----+	-----+
98	-209.8688	58.8921	-4.2392	0.02E3	-0.67E3	37.06E3	0.160554
e99	-----+	-----+	-----+	-----+	-----+	-----+	-----+
99	-225.5520	87.8049	-1.3971	-0.19E3	0.36E3	18.28E3	0.119559
e110	-----+	-----+	-----+	-----+	-----+	-----+	-----+
110	-123.0984	-0.7326	-2.8871	-0.01E3	0.45E3	40.06E3	0.135583
e111	-----+	-----+	-----+	-----+	-----+	-----+	-----+
111	-128.8626	29.4927	-2.7276	0.01E3	-0.43E3	40.09E3	0.138805
e112	-----+	-----+	-----+	-----+	-----+	-----+	-----+
112	-130.0801	59.8371	-2.8616	-0.02E3	0.44E3	31.04E3	0.122189
e113	-----+	-----+	-----+	-----+	-----+	-----+	-----+
113	-135.2684	90.8538	-2.4022	-0.02E3	0.37E3	-14.95E3	0.090277
e114	-----+	-----+	-----+	-----+	-----+	-----+	-----+
114	-153.7067	119.8528	-1.1016	-0.16E3	0.24E3	-51.47E3	0.052542
e115	-----+	-----+	-----+	-----+	-----+	-----+	-----+
115	-159.8264	-0.5831	-2.2629	-0.01E3	-0.35E3	-41.54E3	0.136508
e116	-----+	-----+	-----+	-----+	-----+	-----+	-----+
116	-165.3811	-31.5952	-2.6834	-0.01E3	-0.42E3	-41.35E3	0.138683
e117	-----+	-----+	-----+	-----+	-----+	-----+	-----+
117	-166.9082	-61.8919	-2.5461	0.01E3	0.40E3	-31.74E3	0.120388
e118	-----+	-----+	-----+	-----+	-----+	-----+	-----+
118	-172.7625	-92.0635	-2.7319	-0.01E3	-0.42E3	15.28E3	0.086489
e119	-----+	-----+	-----+	-----+	-----+	-----+	-----+
119	-189.3889	-119.6865	-0.8817	0.18E3	0.21E3	52.18E3	0.046877
e124	-----+	-----+	-----+	-----+	-----+	-----+	-----+
124	-229.5882	41.0803	3.4866	-0.00E3	-0.54E3	-34.53E3	0.187708
e125	-----+	-----+	-----+	-----+	-----+	-----+	-----+
125	-224.9307	9.5382	3.4467	-0.01E3	0.53E3	-37.08E3	0.195270
e126	-----+	-----+	-----+	-----+	-----+	-----+	-----+
126	-223.8145	-21.5811	3.6763	-0.01E3	0.57E3	-36.99E3	0.185907
e127	-----+	-----+	-----+	-----+	-----+	-----+	-----+

127	-224.9683	-52.2995	3.6749	0.00E3	-0.57E3	-30.43E3	0.158245
e128							
128	-223.7192	-83.4023	3.4547	-0.00E3	-0.53E3	-14.60E3	0.115582
e129							
129	-218.8821	-114.9170	3.5311	-0.00E3	0.55E3	45.53E3	0.065848
e130							
130	-206.5160	-143.2530	2.0451	0.21E3	-0.40E3	88.81E3	0.021598
e131							
131	-211.8614	111.2539	-2.9424	-0.00E3	0.46E3	43.50E3	0.020900
e132							
132	-218.1444	79.8302	-2.8563	-0.01E3	-0.44E3	-14.56E3	0.063429
e133							
133	-220.7241	48.7956	-2.9498	-0.01E3	-0.46E3	-29.44E3	0.110940
e134							
134	-221.0616	18.1715	-2.9562	0.00E3	0.46E3	-35.05E3	0.151380
e135							
135	-223.4367	-12.8891	-2.8777	0.00E3	0.44E3	-35.18E3	0.177290
e136							
136	-229.1243	-44.3868	-2.9863	0.00E3	-0.46E3	-31.57E3	0.185848
e137							
137	-241.6450	-72.6656	-1.4900	0.25E3	0.30E3	-18.35E3	0.178979
e140							
140	-27.4086	-6.9538	6.3045	-0.04E3	0.96E3	-18.18E3	0.101987
e141							
141	6.5438	2.7877	13.4235	-0.04E3	2.05E3	15.19E3	0.069793
e142							
142	-202.9018	-129.9164	-8.5587	-0.12E3	1.31E3	-38.70E3	0.196037
e143							
143	-178.2128	-99.2360	-8.5413	-0.14E3	1.30E3	29.93E3	0.354492
e144							
144	-153.5246	-68.5669	-8.5454	-0.15E3	1.30E3	49.48E3	0.512974
e145							
145	-128.8364	-37.9068	-8.5454	-0.16E3	1.30E3	59.59E3	0.657038
e146							
146	-104.1482	-7.2552	-8.5412	-0.16E3	1.30E3	60.30E3	0.776960
e147							
147	-79.4595	23.3873	-8.5146	-0.17E3	1.30E3	58.78E3	0.867725
e148							
148	-54.6294	53.8964	-3.7379	-0.59E3	0.87E3	50.14E3	0.928991
e149							
149	-31.5197	110.6579	-11.2437	-0.13E3	1.72E3	21.59E3	0.166901
e150							
150	-4.7856	80.0548	-11.2263	-0.14E3	-1.71E3	-37.81E3	0.272451
e151							
151	21.9492	49.4404	-11.2304	-0.15E3	-1.71E3	-54.24E3	0.371815
e152							
152	48.6841	18.8170	-11.2303	-0.16E3	-1.71E3	-61.43E3	0.452179
e153							
153	75.4189	-11.8149	-11.2261	-0.16E3	-1.71E3	-62.93E3	0.505351
e154							
154	102.1534	-42.4560	-11.1996	-0.15E3	-1.71E3	-60.84E3	0.527784
e155							
155	128.7463	-73.2304	-6.4229	0.37E3	1.17E3	-49.41E3	0.520616
e160							
160	-118.9554	-71.3706	-9.5580	0.03E3	1.46E3	-19.43E3	0.012304
e161							
161	-93.4781	-40.7436	-9.5718	0.03E3	1.46E3	15.02E3	0.034447
e162							
162	-68.0008	-10.0965	-9.5876	0.02E3	-1.46E3	18.39E3	0.055482
e163							
163	-42.5406	20.5985	-4.4289	-0.45E3	0.94E3	18.62E3	0.069140
e164							
164	-50.8749	95.3651	-10.1738	0.02E3	-1.55E3	31.57E3	0.016959
e165							
165	-24.9287	64.7090	-10.1876	0.03E3	-1.55E3	-16.98E3	0.049654
e166							
166	1.0175	34.0729	-10.2033	0.03E3	-1.56E3	-27.08E3	0.083820
e167							
167	26.9807	3.4847	-5.0446	0.47E3	1.04E3	-27.92E3	0.109730
e175							
175	-50.4062	-37.7206	1.2281	0.47E3	-0.45E3	-16.45E3	0.073600
e176							

176 | -21.8830 | 33.3034 | 8.3449 | -0.45E3 | -1.54E3 | 13.94E3 | 0.050809 |

-----  
Plus grande valeur négative

Nx -242.7491 daN Elément 26, Nx effort axial de traction ou compression  
 Ty -160.6664 daN Elément 53, Ty effort tranchant  
 Tz -11.2437 daN Elément 149, Tz effort tranchant  
 Mx -0.59E3 daN.mm Elément 148, Mx moment de torsion  
 My -2.05E3 daN.mm Elément 141, My moment fléchissant  
 Mz -92.92E3 daN.mm Elément 2, Mz moment fléchissant

Plus grande valeur positive

Nx 128.7463 daN Elément 155, Nx effort axial de traction ou compression  
 Ty 145.3707 daN Elément 1, Ty effort tranchant  
 Tz 13.4235 daN Elément 141, Tz effort tranchant  
 Mx 0.49E3 daN.mm Elément 70, Mx moment de torsion  
 My 2.05E3 daN.mm Elément 141, My moment fléchissant  
 Mz 88.81E3 daN.mm Elément 130, Mz moment fléchissant  
 W 0.965516 mm Elément 148, W flèche, déplacement perpendiculaire à l'âme

-----  
Propriété 5 marche 800x250

Passerelle DDP - Egir

calcul 2 'calcul 0'

-----  
EFFORTS RESULTANTS [BEAM poutre]

Nx effort axial de traction ou compression

Ty effort tranchant

Tz effort tranchant

Mx moment de torsion

My moment fléchissant

Mz moment fléchissant

W flèche, déplacement perpendiculaire à l'âme

Elément	Nx daN	Ty daN	Tz daN	Mx daN.mm	My daN.mm	Mz daN.mm	W mm
e3-----							
3	2.2838	-28.5403	-12.7622	0.84E3	0.81E3	3.08E3	0.021356
e4-----							
4	-0.5079	-22.8424	-19.3122	0.40E3	-1.19E3	4.89E3	0.064557
e5-----							
5	-0.0968	-20.7065	-21.8264	0.21E3	-1.75E3	6.28E3	0.111480
e6-----							
6	0.1445	-18.9752	-23.6051	0.12E3	-2.09E3	7.51E3	0.148626
e7-----							
7	0.0455	-18.8208	-24.0684	0.08E3	-2.20E3	7.48E3	0.167133
e8-----							
8	-0.1827	-20.6152	-23.1073	0.14E3	-1.98E3	6.26E3	0.162786
e9-----							
9	0.0213	-23.4481	-21.2753	0.31E3	-1.58E3	4.91E3	0.136025
e10-----							
10	-1.1920	-28.3536	-13.9615	0.37E3	0.78E3	3.02E3	0.092023
e17-----							
17	-1.2989	32.7658	-10.3726	-0.02E3	0.50E3	-4.74E3	0.055858
e18-----							
18	-0.4679	23.9091	-20.4082	0.04E3	-1.57E3	-6.98E3	0.092680
e19-----							
19	0.1354	20.4375	-22.4648	0.06E3	-1.91E3	-8.83E3	0.124171
e20-----							
20	-0.1583	23.8426	-19.4483	-0.03E3	-1.37E3	-7.01E3	0.140694
e21-----							
21	1.8225	30.7484	-10.5227	-0.35E3	0.58E3	-4.51E3	0.137646
e28-----							
28	-1.7927	28.2826	-13.2288	-0.48E3	0.71E3	-3.41E3	0.187235
e29-----							
29	0.0386	23.8420	-21.1697	-0.36E3	-1.56E3	-5.57E3	0.194918
e30-----							
30	-0.2304	20.8573	-23.1220	-0.10E3	-1.98E3	-7.09E3	0.185641
e31-----							
31	0.0010	18.8608	-24.2740	0.02E3	-2.11E3	-8.40E3	0.158051
e32-----							
32	0.2217	20.9485	-23.0239	0.12E3	-1.96E3	-7.12E3	0.115441
e33-----							
33	-0.0711	23.9620	-21.0333	0.34E3	-1.53E3	-5.60E3	0.065734



e34	34	1.5141	27.7439	-13.7740	0.39E3	0.77E3	-3.36E3	0.021501
e44	44	-4.8584	2.0871	41.6623	0.37E3	-6.02E3	-2.46E3	0.083432
e45	45	5.0764	2.1601	41.6483	0.40E3	-6.04E3	-2.48E3	0.064699
e55	55	-4.7767	0.5900	40.6682	1.51E3	-6.02E3	-1.87E3	0.927876
e56	56	-0.0265	0.7840	40.6570	1.52E3	-6.06E3	-2.61E3	0.866911
e57	57	-0.0042	0.7902	40.6503	1.50E3	-6.06E3	-2.63E3	0.776385
e58	58	-0.0000	0.7957	40.6437	1.45E3	-6.06E3	-2.63E3	0.656646
e59	59	0.0041	0.8015	40.6368	1.36E3	-6.06E3	-2.63E3	0.512731
e60	60	-0.0174	0.8082	40.6277	1.24E3	-6.06E3	-2.63E3	0.354374
e61	61	5.2197	0.8626	40.5845	1.08E3	-6.05E3	-1.97E3	0.196041
e72	72	-5.1587	0.2270	40.1205	-0.23E3	-6.04E3	-1.71E3	0.068737
e73	73	0.0156	0.1832	40.1465	-0.28E3	-6.06E3	-2.38E3	0.055197
e74	74	0.0137	0.1702	40.1619	-0.27E3	-6.06E3	-2.37E3	0.034238
e75	75	4.8941	0.1590	40.1692	-0.17E3	-6.02E3	-1.69E3	0.012194
e185	185	-7.3041	-0.6798	32.3605	-0.13E3	-3.70E3	4.75E3	0.035561
e186	186	1.2073	29.0529	13.3504	0.39E3	0.82E3	3.21E3	0.035245
e187	187	-11.3180	-0.7902	22.8924	-0.16E3	-2.90E3	6.22E3	0.088673
e188	188	0.0344	23.0427	21.5337	0.31E3	-1.54E3	4.93E3	0.090818
e189	189	-9.7999	-0.7409	13.6323	-0.10E3	-2.21E3	6.96E3	0.143527
e190	190	0.2445	20.0375	23.5778	0.16E3	-2.00E3	6.22E3	0.146494
e191	191	-7.8470	-0.5875	4.6929	0.00E3	-1.47E3	7.67E3	0.187031
e192	192	0.0292	18.1290	24.6154	0.10E3	-2.24E3	7.35E3	0.188505
e193	193	7.5061	-0.5090	5.1672	-0.01E3	-1.46E3	7.69E3	0.207693
e194	194	-0.2104	18.2940	24.1858	0.14E3	-2.14E3	7.39E3	0.209393
e195	195	9.8230	-0.0786	13.7224	-0.11E3	-2.21E3	6.88E3	0.199786
e196	196	0.0517	20.0887	22.3267	0.23E3	-1.75E3	6.22E3	0.205969
e197	197	11.3870	0.0525	-22.2697	-0.17E3	-2.91E3	6.07E3	0.165045
e198	198	0.5078	22.2983	19.7638	0.42E3	-1.18E3	4.90E3	0.177856
e199	199	6.6078	-0.4773	-31.7335	-0.12E3	-3.73E3	4.71E3	0.108324
e200	200	-2.8403	30.6006	12.0723	0.82E3	0.82E3	3.38E3	0.129599
e202	202	15.8223	-0.8404	-27.6602	0.17E3	-2.94E3	-5.64E3	0.066835
e203	203	-1.8484	-30.4948	10.4850	-0.41E3	0.55E3	-4.43E3	0.062594
e204	204	15.6339	-0.4487	-13.5190	0.17E3	-1.77E3	-7.51E3	0.113602
e205	205	0.1771	-23.8735	19.3294	-0.07E3	-1.38E3	-6.98E3	0.111761
e206	206	-0.1358	-20.6443	22.2297	0.02E3	-1.90E3	-8.87E3	0.149012
e207	207	-15.7494	0.1728	-13.4558	0.14E3	-1.79E3	-7.44E3	0.163077

e208							
208	0.4217	-24.1875	20.1853	-0.01E3	-1.56E3	-7.02E3	0.163305
e209							
209	-16.0240	0.5214	27.4205	0.13E3	-2.96E3	-5.50E3	0.151624
e210							
210	1.1637	-32.7032	10.4497	-0.08E3	0.50E3	-4.70E3	0.151371
e211							
211	6.8756	-0.7250	-30.5173	-0.02E3	-3.38E3	-4.82E3	0.199076
e212							
212	-1.4970	-27.7647	13.6074	0.32E3	0.68E3	-3.20E3	0.193003
e213							
213	13.2440	-0.5725	-20.5298	0.02E3	-2.52E3	-6.75E3	0.216124
e214							
214	0.1106	-24.6025	20.4735	0.32E3	-1.53E3	-5.60E3	0.211711
e215							
215	11.0980	-0.7519	-10.7307	0.07E3	-1.75E3	-7.68E3	0.212288
e216							
216	-0.0760	-21.7841	22.2678	0.13E3	-1.91E3	-7.22E3	0.210111
e217							
217	0.0092	-19.9425	23.2432	0.07E3	-2.05E3	-8.67E3	0.186885
e218							
218	-11.1683	-0.7105	-10.7101	0.01E3	-1.80E3	-7.64E3	0.143741
e219							
219	0.0982	-21.9241	22.1165	0.01E3	-1.88E3	-7.25E3	0.142541
e220							
220	-13.3386	-0.5025	-20.4827	0.02E3	-2.55E3	-6.72E3	0.089023
e221							
221	-0.0775	-25.0111	20.0342	-0.21E3	-1.45E3	-5.67E3	0.088022
e222							
222	-7.3808	-0.4668	-30.4058	0.01E3	-3.40E3	-4.75E3	0.034833
e223							
223	1.5721	-29.7308	11.7203	-0.25E3	0.63E3	-3.38E3	0.034624

Plus grande valeur négative

Nx	-16.0240 daN	Elément 209, Nx effort axial de traction ou compression
Ty	-32.7032 daN	Elément 210, Ty effort tranchant
Tz	-39.8795 daN	Elément 72, Tz effort tranchant
Mx	-0.48E3 daN.mm	Elément 28, Mx moment de torsion
My	-6.06E3 daN.mm	Elément 58, My moment fléchissant
Mz	-8.87E3 daN.mm	Elément 206, Mz moment fléchissant

Plus grande valeur positive

Nx	15.8223 daN	Elément 202, Nx effort axial de traction ou compression
Ty	32.7658 daN	Elément 17, Ty effort tranchant
Tz	41.6623 daN	Elément 44, Tz effort tranchant
Mx	1.52E3 daN.mm	Elément 56, Mx moment de torsion
My	2.65E3 daN.mm	Elément 44, My moment fléchissant
Mz	7.69E3 daN.mm	Elément 193, Mz moment fléchissant
W	0.927876 mm	Elément 55, W flèche, déplacement perpendiculaire à l'âme

Propriété 6 LE40\_4  
Passerelle DDP - Egir  
calcul 2 'calcul 0'

EFFORTS RESULTANTS [BEAM poutre]

Nx effort axial de traction ou compression  
Ty effort tranchant  
Tz effort tranchant  
Mx moment de torsion  
My moment fléchissant  
Mz moment fléchissant  
W flèche, déplacement perpendiculaire à l'âme

Elément	Nx	Ty	Tz	Mx	My	Mz	W
	daN	daN	daN	daN.mm	daN.mm	daN.mm	mm
e177							
177	-118.5419	2.8623	-2.5958	0.00E3	-0.50E3	-0.64E3	0.113656
e178							
178	-109.4733	-1.1862	-0.5937	-0.00E3	0.20E3	0.36E3	0.113725
e179							
179	70.6830	-2.0187	-0.5584	0.01E3	0.30E3	0.55E3	0.162974
e180							

180	-130.8309	-1.2315	-1.3477	-0.00E3	0.72E3	0.58E3	0
e181							
181	114.9365	3.7012	-3.0084	-0.00E3	-0.50E3	-0.82E3	0.070923
e182							
182	86.9743	-3.0575	0.0036	0.01E3	0.24E3	0.73E3	0.042634
e225							
225	-73.2599	2.3491	-0.0526	-0.00E3	-0.27E3	-0.53E3	0.150970
e226							
226	-38.2242	0.5426	-0.0030	-0.00E3	-0.24E3	-0.24E3	0.162748
e227							
227	-6.5776	-0.9749	0.6261	-0.00E3	-0.27E3	-0.26E3	0.148780
e228							
228	28.1212	-2.7853	0.6885	-0.00E3	-0.17E3	0.48E3	0.111539
e229							
229	72.8122	-3.4308	3.4120	0.00E3	0.83E3	0.68E3	0.062401
e230							
230	-61.4212	-2.7313	1.8852	0.00E3	-0.58E3	-0.63E3	0.150935
e231							
231	-26.2468	-0.7642	0.6189	0.00E3	-0.30E3	-0.24E3	0.163085
e232							
232	2.6935	1.1104	-0.4767	0.00E3	-0.23E3	-0.28E3	0.148843
e233							
233	37.8874	3.0186	-1.6535	0.00E3	-0.40E3	-0.63E3	0.113420
e234							
234	86.3681	1.2278	0.9059	-0.00E3	0.50E3	0.48E3	0.066602
e235							
235	32.5877	-4.9637	2.7345	-0.00E3	-0.65E3	-0.95E3	0.192564
e236							
236	-0.5992	-2.3468	1.1259	-0.00E3	-0.39E3	-0.53E3	0.210979
e237							
237	-29.7744	-0.3515	0.0916	-0.00E3	-0.19E3	-0.17E3	0.209248
e238							
238	-56.8840	1.0826	-0.3089	-0.00E3	-0.20E3	-0.28E3	0.185946
e239							
239	-87.0000	3.0283	-1.2052	-0.00E3	-0.29E3	-0.59E3	0.142753
e240							
240	-120.8190	5.5928	-2.7315	-0.00E3	-0.44E3	-0.96E3	0.088054
e241							
241	-160.3860	2.6551	0.3776	0.00E3	0.55E3	0.79E3	0.034001
e242							
242	-89.7173	-4.5303	2.1434	0.00E3	-0.35E3	-0.80E3	0.034129
e243							
243	-55.8452	-1.9889	0.6237	0.00E3	-0.19E3	-0.42E3	0.087498
e244							
244	-26.4030	0.0202	-0.3968	0.00E3	-0.20E3	-0.10E3	0.142070
e245							
245	0.7214	1.4538	-0.8070	0.00E3	-0.31E3	-0.35E3	0.186535
e246							
246	30.7368	3.3638	-1.7204	0.00E3	-0.49E3	-0.69E3	0.212116
e247							
247	64.4485	5.8956	-3.2737	0.00E3	-0.74E3	-1.10E3	0.216199
e248							
248	104.9317	2.4479	-0.0378	-0.00E3	0.23E3	0.69E3	0.199520
e249							
249	72.5863	5.9232	-1.5204	0.00E3	-0.38E3	-0.99E3	0.130171
e250							
250	40.7228	3.6672	-0.8525	0.00E3	-0.36E3	-0.71E3	0.177690
e251							
251	12.0102	1.7075	-0.4156	0.00E3	-0.32E3	-0.42E3	0.205500
e252							
252	-14.1830	1.1830	0.0590	-0.00E3	-0.25E3	-0.23E3	0.208796
e253							
253	-16.3409	-0.3184	0.4164	0.00E3	-0.25E3	-0.18E3	0.200570
e254							
254	-42.0645	-1.2475	0.7629	0.00E3	-0.28E3	-0.28E3	0.186343
e255							
255	-70.4940	-3.2150	1.1836	0.00E3	-0.23E3	0.52E3	0.142781
e256							
256	-102.0902	-5.4747	1.8441	0.00E3	0.42E3	1.02E3	0.087954
e257							
257	-141.3005	-4.5263	4.1212	-0.00E3	1.07E3	0.87E3	0.035075
e258							

258	47.8375	-5.6813	3.1929	-0.00E3	-0.71E3	-1.05E3	0.107624
e259	-----+	-----+	-----+	-----+	-----+	-----+	-----+
259	15.7891	-3.4168	1.9159	-0.00E3	-0.55E3	-0.71E3	0.163941
e260	-----+	-----+	-----+	-----+	-----+	-----+	-----+
260	-12.2989	-1.3695	0.8617	-0.00E3	-0.40E3	-0.38E3	0.198630
e261	-----+	-----+	-----+	-----+	-----+	-----+	-----+
261	-37.2391	-0.9094	0.6302	-0.00E3	-0.26E3	-0.16E3	0.206574
e262	-----+	-----+	-----+	-----+	-----+	-----+	-----+
262	-36.1608	1.1944	-0.5738	-0.00E3	-0.27E3	-0.25E3	0.200112
e263	-----+	-----+	-----+	-----+	-----+	-----+	-----+
263	-61.7768	1.8987	-0.7961	-0.00E3	-0.32E3	-0.44E3	0.187396
e264	-----+	-----+	-----+	-----+	-----+	-----+	-----+
264	-90.1874	3.8960	-1.8272	-0.00E3	-0.40E3	-0.73E3	0.145395
e265	-----+	-----+	-----+	-----+	-----+	-----+	-----+
265	-122.7010	6.0292	-3.0063	-0.00E3	0.49E3	-1.01E3	0.089789
e266	-----+	-----+	-----+	-----+	-----+	-----+	-----+
266	-164.1657	3.4088	-0.0695	0.00E3	0.55E3	0.95E3	0.034472

Plus grande valeur négative

Nx	-164.1657 daN	Elément 266, Nx effort axial de traction ou compression
Ty	-5.6813 daN	Elément 258, Ty effort tranchant
Tz	-3.2737 daN	Elément 247, Tz effort tranchant
Mx	-0.00E3 daN.mm	Elément 178, Mx moment de torsion
My	-0.74E3 daN.mm	Elément 247, My moment fléchissant
Mz	-1.10E3 daN.mm	Elément 247, Mz moment fléchissant

Plus grande valeur positive

Nx	114.9365 daN	Elément 181, Nx effort axial de traction ou compression
Ty	6.0292 daN	Elément 265, Ty effort tranchant
Tz	4.1212 daN	Elément 257, Tz effort tranchant
Mx	0.01E3 daN.mm	Elément 182, Mx moment de torsion
My	1.07E3 daN.mm	Elément 257, My moment fléchissant
Mz	1.02E3 daN.mm	Elément 256, Mz moment fléchissant
W	0.216778 mm	Elément 246, W flèche, déplacement perpendiculaire à l'âme

## Contraintes

Propriété 2 UPN120  
Passerelle DDP - Egir  
calcul 1 'calcul 0'

-----  
CONSTRAINTES [BEAM poutre]

Sx contrainte d'effort axial Nx  
Sty contrainte d'effort tranchant Ty  
Stz contrainte d'effort tranchant Tz  
Stx contrainte du moment de torsion Mx  
Sfy contrainte du moment fléchissant My  
Sfz contrainte du moment fléchissant Mz  
Sm contrainte de Mises (poutre)  
Stt contrainte de membrane (pression interne)

Elément	Sx	Sty	Stz	Stx	Sfy	Sfz	Sm	Stt
	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2
e11	-----+	-----+	-----+	-----+	-----+	-----+	-----+	-----+
11	-0.097259	0.005104	0.116277	0.002269	1.073763	0.250620	1.313584	0
e12	-----+	-----+	-----+	-----+	-----+	-----+	-----+	-----+
12	-0.103044	0.003480	0.038860	0.016446	0.950340	0.070911	1.086462	0
e13	-----+	-----+	-----+	-----+	-----+	-----+	-----+	-----+
13	-0.020347	-0.001118	0.000365	0.000828	-0.006224	-0.052117	0.078763	0
e14	-----+	-----+	-----+	-----+	-----+	-----+	-----+	-----+
14	-0.019392	-0.008498	0.000101	-0.000013	-0.001146	-0.247758	0.268700	0
e22	-----+	-----+	-----+	-----+	-----+	-----+	-----+	-----+
22	-0.084806	0.002334	0.193546	0.003474	-0.500431	-0.019357	0.675506	0
e23	-----+	-----+	-----+	-----+	-----+	-----+	-----+	-----+
23	-0.018916	-0.004836	-0.000098	-0.002062	-0.002452	-0.131627	0.152328	0
e24	-----+	-----+	-----+	-----+	-----+	-----+	-----+	-----+
24	-0.108839	0.009426	-0.063788	0.000782	-0.186871	-0.244861	0.540396	0
e25	-----+	-----+	-----+	-----+	-----+	-----+	-----+	-----+
25	0.028573	-0.000862	0.000076	-0.000238	-0.002403	0.032330	0.062448	0

e35									
35	-0.011089	-0.013996	-0.044523	-0.015789	-0.173704	-0.187979	0.283918	0	
e36									
36	-0.006894	0.000322	0.001378	0.007894	0.009282	0.015062	0.032858	0	
e37									
37	0.005370	0.004297	0.079484	0.070832	0.119529	0.095945	0.303859	0	
e38									
38	-0.006440	-0.005831	0.111901	-0.017157	0.417272	-0.122809	0.500860	0	
e39									
39	-0.000180	0.001319	-0.000025	0.007629	-0.000164	0.040248	0.043411	0	
e40									
40	0.000569	0.000417	0.070147	-0.003765	0.313548	-0.046573	0.382736	0	
e41									
41	0.003240	0.004658	-0.001134	0.009718	-0.007511	0.145695	0.156577	0	
e48									
48	-0.021526	0.024880	-0.041339	-0.008337	-0.478541	-0.731330	1.235151	0	
e49									
49	-0.040025	-0.017442	-0.034727	0.090250	-0.553840	-0.527518	1.069570	0	
e50									
50	-0.009730	-0.011513	0.000695	0.034388	-0.008554	0.317356	0.337088	0	
e51									
51	0.025355	0.013784	0.186893	-0.096503	-0.447588	0.393562	0.972860	0	
e52									
52	0.014204	0.036934	-0.015041	0.021284	0.175311	0.979310	1.173456	0	
e62									
62	0.014279	-0.000054	0.139751	-0.005096	0.768209	-0.017059	0.834265	0	
e63									
63	0.002970	0.002806	-0.000456	0.020708	-0.003826	0.109770	0.121248	0	
e64									
64	-0.040589	-0.002329	0.314877	-0.038328	1.791766	-0.077232	1.993265	0	
e65									
65	-0.002944	0.001861	0.000020	-0.002255	-0.001102	-0.078334	0.082456	0	
e100									
100	-0.117868	0.008703	-0.203140	0.001362	1.558956	-0.718842	2.224071	0	
e101									
101	-0.099595	-0.034142	0.125547	0.022364	-0.960518	-0.922654	1.986105	0	
e102									
102	-0.089599	-0.008317	0.378546	-0.046160	2.263048	0.317036	2.769213	0	
e103									
103	-0.071586	-0.000575	-0.185098	0.000247	1.693568	0.072699	1.834737	0	
e104									
104	-0.079629	0.000201	-0.172744	-0.000687	1.240528	0.029711	1.382888	0	
e105									
105	-0.107578	-0.000580	0.177260	0.000254	1.456823	-0.074548	1.634083	0	
e106									
106	-0.108422	-0.009203	-0.211306	-0.030415	1.762090	-0.322127	2.232310	0	
e107									
107	-0.092475	-0.042101	-0.175282	-0.010564	-0.954852	1.204016	2.258517	0	
e108									
108	-0.081733	0.007754	0.201356	0.010304	1.513658	0.619175	2.111058	0	
e109									
109	-0.083241	0.004627	-0.121820	0.002241	1.093115	-0.207017	1.328659	0	
e120									
120	-0.084806	0.002334	0.231987	0.003474	0.765807	-0.071568	1.008345	0	
e121									
121	-0.102247	-0.004196	0.139378	0.004118	0.902562	0.113812	1.145923	0	
e122									
122	-0.097307	0.003755	-0.249524	-0.005162	0.832941	0.071153	1.094276	0	
e123									
123	-0.097307	0.003755	-0.211083	-0.005162	-0.539983	-0.033042	0.760222	0	
e138									
138	-0.000569	-0.000418	-0.070196	-0.002776	0.314654	0.040248	0.361256	0	
e139									
139	0.000721	-0.003868	-0.089488	-0.015750	0.313221	0.049893	0.405071	0	
e156									
156	0.027770	-0.000251	0.153404	0.000163	1.175653	0.026582	1.258436	0	
e157									
157	0.025919	-0.001329	-0.175168	-0.033901	1.284727	0.034432	1.386073	0	
e158									
158	-0.021330	-0.000517	-0.162690	0.000477	1.388810	-0.062829	1.499836	0	
e159									
159	-0.027762	-0.000785	-0.109894	-0.005444	0.556005	0.074892	0.634740	0	

e168									
168	-0.005207	0.001270	-0.005520	-0.001531	-0.063672	-0.051282	0.120800	0	
e169									
169	0.003328	0.002577	-0.006781	0.000491	0.082341	-0.069204	0.153384	0	
e170									
170	0.000029	0.001486	0.001047	-0.001284	0.006078	0.042117	0.048488	0	
e171									
171	-0.000103	-0.023836	0.008429	-0.003604	-0.049038	-0.643803	0.694726	0	
e172									
172	0.000191	0.013577	0.020642	0.023763	0.119984	-0.361254	0.488101	0	
e173									
173	-0.089713	-0.005940	-0.125677	-0.003404	0.843185	0.173010	1.097193	0	
e174									
174	-0.089165	0.006120	0.044005	0.004505	-0.138264	0.157090	0.338689	0	
e201									
201	-0.111782	0.000331	0.172693	-0.000906	1.246381	-0.037242	1.427434	0	
e224									
224	-0.079069	0.002610	-0.071109	0.011040	1.015748	-0.041454	1.113847	0	

Plus grande valeur négative

Sx	-0.117868	daN/mm2	Elément 100, Sx	contrainte d'effort axial Nx
Sty	-0.042101	daN/mm2	Elément 107, Sty	contrainte d'effort tranchant Ty
Stz	-0.249524	daN/mm2	Elément 122, Stz	contrainte d'effort tranchant Tz
Stx	-0.096503	daN/mm2	Elément 51, Stx	contrainte du moment de torsion Mx
Sfy	-1.051806	daN/mm2	Elément 108, Sfy	contrainte du moment fléchissant My
Sfz	-1.023180	daN/mm2	Elément 107, Sfz	contrainte du moment fléchissant Mz

Plus grande valeur positive

Sx	0.028573	daN/mm2	Elément 25, Sx	contrainte d'effort axial Nx
Sty	0.036934	daN/mm2	Elément 52, Sty	contrainte d'effort tranchant Ty
Stz	0.378546	daN/mm2	Elément 102, Stz	contrainte d'effort tranchant Tz
Stx	0.090250	daN/mm2	Elément 49, Stx	contrainte du moment de torsion Mx
Sfy	2.263048	daN/mm2	Elément 102, Sfy	contrainte du moment fléchissant My
Sfz	1.204016	daN/mm2	Elément 107, Sfz	contrainte du moment fléchissant Mz
Sm	2.769213	daN/mm2	Elément 102, Sm	contrainte de Mises (poutre)

Propriété 3 HEA100  
Passerelle DDP - Egir  
calcul 1 'calcul 0'

-----  
CONTRAINTES [BEAM poutre]

Sx contrainte d'effort axial Nx  
Sty contrainte d'effort tranchant Ty  
Stz contrainte d'effort tranchant Tz  
Stx contrainte du moment de torsion Mx  
Sfy contrainte du moment fléchissant My  
Sfz contrainte du moment fléchissant Mz  
Sm contrainte de Mises (poutre)  
Stt contrainte de membrane (pression interne)

Elément	Sx	Sty	Stz	Stx	Sfy	Sfz	Sm	Stt
	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2
e46								
46	-0.075459	-0.005923	0.005259	-0.002000	0.050596	-0.232751	0.309173	0
e47								
47	-0.066151	0.000153	0.004163	-0.001968	0.040063	-0.008271	0.114977	0
e66								
66	-0.136157	0.001868	-0.001047	0.001190	-0.009764	0.247395	0.384834	0
e67								
67	-0.107358	-0.013611	-0.000191	-0.000069	-0.002195	0.446657	0.556715	0
e68								
68	-0.197899	0.019430	-0.001760	0.003162	-0.017088	0.913961	1.113965	0
e69								
69	-0.091138	-0.006489	0.000260	-0.000934	0.002512	0.224771	0.318680	0
e76								
76	-0.128871	0.001464	0.023212	0.002344	0.404668	0.117495	0.646197	0
e77								
77	-0.137414	-0.001466	0.019762	0.002004	-0.350993	0.117576	0.600898	0
e78								
78	-0.225015	-0.003566	-0.027339	-0.002253	0.474255	0.281319	0.976106	0
e79								
79	-0.169572	-0.003563	-0.015087	-0.002308	0.255552	0.281178	0.700978	0

e80									
80	-0.135716	-0.000367	0.019541	-0.001470	-0.153341	0.015469	0.304913		0
e81									
81	-0.139811	-0.000367	0.008014	-0.001329	-0.071445	0.015469	0.225509		0
e82									
82	-0.145402	0.000246	0.013552	-0.000763	0.149928	-0.014571	0.310892		0
e83									
83	-0.196905	0.001404	0.012797	-0.000720	0.141904	0.083429	0.390810		0
e183									
183	-0.099153	-0.001049	-0.001260	0.000608	0.104443	0.049035	0.242711		0
e184									
184	-0.085810	-0.001372	-0.019659	-0.000811	0.165764	0.063920	0.255773		0

Plus grande valeur négative

Sx	-0.225015 daN/mm2	Elément 78, Sx	contrainte d'effort axial Nx
Sty	-0.013611 daN/mm2	Elément 67, Sty	contrainte d'effort tranchant Ty
Stz	-0.027339 daN/mm2	Elément 78, Stz	contrainte d'effort tranchant Tz
Stx	-0.002308 daN/mm2	Elément 79, Stx	contrainte du moment de torsion Mx
Sfy	-0.350993 daN/mm2	Elément 77, Sfy	contrainte du moment fléchissant My
Sfz	-0.420630 daN/mm2	Elément 67, Sfz	contrainte du moment fléchissant Mz

Plus grande valeur positive

Sty	0.019430 daN/mm2	Elément 68, Sty	contrainte d'effort tranchant Ty
Stz	0.023212 daN/mm2	Elément 76, Stz	contrainte d'effort tranchant Tz
Stx	0.003162 daN/mm2	Elément 68, Stx	contrainte du moment de torsion Mx
Sfy	0.474255 daN/mm2	Elément 78, Sfy	contrainte du moment fléchissant My
Sfz	0.913961 daN/mm2	Elément 68, Sfz	contrainte du moment fléchissant Mz
Sm	1.113965 daN/mm2	Elément 68, Sm	contrainte de Mises (poutre)

Propriété 4 Limon plat 220x10  
 Passerelle DDP - Egir  
 calcul 1 'calcul 0'

CONTRAINTES [BEAM poutre]

Sx contrainte d'effort axial Nx  
 Sty contrainte d'effort tranchant Ty  
 Stz contrainte d'effort tranchant Tz  
 Stx contrainte du moment de torsion Mx  
 Sfy contrainte du moment fléchissant My  
 Sfz contrainte du moment fléchissant Mz  
 Sm contrainte de Mises (poutre)  
 Stt contrainte de membrane (pression interne)

Elément	Sx	Sty	Stz	Stx	Sfy	Sfz	Sm	Stt
	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2
e1								
1	-0.078991	0.099116	-0.001028	-0.035281	-0.092001	1.094519	1.229097	0
e2								
2	-0.086475	-0.104007	-0.001619	0.031476	-0.124193	-1.151846	1.332445	0
e15								
15	-0.048322	-0.019466	-0.000726	0.024641	-0.065101	0.489487	0.607732	0
e16								
16	-0.064315	0.019385	-0.000750	-0.025184	-0.063308	-0.516018	0.648254	0
e26								
26	-0.110340	0.047320	0.001152	-0.024296	0.099008	-0.278746	0.503615	0
e27								
27	-0.089387	0.094975	-0.000886	-0.030700	-0.078504	1.062679	1.201495	0
e42								
42	-0.001984	0.016198	0.000986	-0.076637	0.133170	-0.220768	0.390561	0
e43								
43	0.015874	-0.018945	0.005837	0.057793	0.418955	0.192862	0.641689	0
e53								
53	-0.103443	-0.109545	-0.002279	0.052656	-0.210998	-1.073676	1.275382	0
e54								
54	-0.026485	0.096268	-0.004109	-0.075580	-0.326336	0.814734	1.058787	0
e70								
70	-0.065651	-0.069538	-0.003184	0.068666	-0.263373	-0.628486	0.853363	0
e71								
71	-0.034915	0.085934	-0.003604	-0.064726	-0.288322	0.865618	1.083748	0
e84								
84	-0.085200	0.079942	-0.002585	0.002493	0.162909	0.534557	0.795596	0
e85								

85	-0.087511	0.059845	-0.002238	-0.000881	0.136867	-0.245353	0.480686		0
e86	-----+		-----+		-----+		-----+	-----+	
86	-0.088344	0.039370	-0.002173	-0.002628	-0.134087	-0.466240	0.692513		0
e87	-----+		-----+		-----+		-----+	-----+	
87	-0.088054	0.018724	-0.002271	-0.001866	-0.138888	-0.571575	0.799323		0
e88	-----+		-----+		-----+		-----+	-----+	
88	-0.087575	-0.002090	-0.002302	-0.000926	0.141167	-0.572569	0.801339		0
e89	-----+		-----+		-----+		-----+	-----+	
89	-0.088002	-0.023199	-0.002178	-0.001489	-0.133145	-0.562766	0.784386		0
e90	-----+		-----+		-----+		-----+	-----+	
90	-0.089950	-0.044588	-0.002192	-0.001573	-0.136054	-0.438005	0.664093		0
e91	-----+		-----+		-----+		-----+	-----+	
91	-0.095745	-0.064303	-0.001378	0.037379	0.104309	-0.195397	0.432902		0
e92	-----+		-----+		-----+		-----+	-----+	
92	-0.092690	-0.084301	-0.002442	-0.000925	0.150522	-0.580017	0.836370		0
e93	-----+		-----+		-----+		-----+	-----+	
93	-0.094422	-0.062955	-0.002466	-0.001185	0.150387	0.232476	0.490034		0
e94	-----+		-----+		-----+		-----+	-----+	
94	-0.094510	-0.041859	-0.002632	-0.000800	-0.161473	0.462604	0.722390		0
e95	-----+		-----+		-----+		-----+	-----+	
95	-0.093630	-0.021057	-0.002652	-0.001834	0.162131	0.578147	0.834103		0
e96	-----+		-----+		-----+		-----+	-----+	
96	-0.092934	-0.000413	-0.002509	-0.002688	0.154653	0.578694	0.824041		0
e97	-----+		-----+		-----+		-----+	-----+	
97	-0.093405	0.020058	-0.002544	-0.001039	-0.155304	0.575801	0.825035		0
e98	-----+		-----+		-----+		-----+	-----+	
98	-0.095395	0.040154	-0.002890	0.002625	-0.181485	0.459371	0.729604		0
e99	-----+		-----+		-----+		-----+	-----+	
99	-0.102524	0.059867	-0.000953	-0.026490	0.099432	0.226640	0.453949		0
e110	-----+		-----+		-----+		-----+	-----+	
110	-0.055954	-0.000500	-0.001968	-0.000753	0.121867	0.496613	0.671681		0
e111	-----+		-----+		-----+		-----+	-----+	
111	-0.058574	0.020109	-0.001860	0.001771	-0.116682	0.496990	0.666804		0
e112	-----+		-----+		-----+		-----+	-----+	
112	-0.059127	0.040798	-0.001951	-0.002111	0.121092	0.384756	0.569853		0
e113	-----+		-----+		-----+		-----+	-----+	
113	-0.061486	0.061946	-0.001638	-0.002243	0.100286	-0.185280	0.363658		0
e114	-----+		-----+		-----+		-----+	-----+	
114	-0.069867	0.081718	-0.000751	-0.022678	0.066719	-0.638087	0.754822		0
e115	-----+		-----+		-----+		-----+	-----+	
115	-0.072648	-0.000398	-0.001543	-0.001784	-0.094281	-0.514987	0.681576		0
e116	-----+		-----+		-----+		-----+	-----+	
116	-0.075173	-0.021542	-0.001830	-0.001898	-0.113564	-0.512612	0.698571		0
e117	-----+		-----+		-----+		-----+	-----+	
117	-0.075867	-0.042199	-0.001736	0.001589	0.109055	-0.393443	0.583325		0
e118	-----+		-----+		-----+		-----+	-----+	
118	-0.078528	-0.062771	-0.001863	-0.001190	-0.115480	0.189385	0.399092		0
e119	-----+		-----+		-----+		-----+	-----+	
119	-0.086086	-0.081604	-0.000601	0.024640	0.057057	0.646904	0.771521		0
e124	-----+		-----+		-----+		-----+	-----+	
124	-0.104358	0.028009	0.002377	-0.000181	-0.146649	-0.428094	0.677537		0
e125	-----+		-----+		-----+		-----+	-----+	
125	-0.102241	0.006503	0.002350	-0.000950	0.144157	-0.459714	0.706242		0
e126	-----+		-----+		-----+		-----+	-----+	
126	-0.101734	-0.014714	0.002507	-0.001720	0.154610	-0.458524	0.711970		0
e127	-----+		-----+		-----+		-----+	-----+	
127	-0.102258	-0.035659	0.002506	0.000449	-0.154586	-0.377179	0.637116		0
e128	-----+		-----+		-----+		-----+	-----+	
128	-0.101691	-0.056865	0.002355	-0.000110	-0.144402	-0.180976	0.438341		0
e129	-----+		-----+		-----+		-----+	-----+	
129	-0.099492	-0.078353	0.002408	-0.000295	0.148674	0.564467	0.823982		0
e130	-----+		-----+		-----+		-----+	-----+	
130	-0.093871	-0.097672	0.001394	0.029185	-0.107871	1.100952	1.276043		0
e131	-----+		-----+		-----+		-----+	-----+	
131	-0.096301	0.075855	-0.002006	-0.000348	0.124817	0.539301	0.771796		0
e132	-----+		-----+		-----+		-----+	-----+	
132	-0.099157	0.054430	-0.001947	-0.001078	-0.119237	-0.180483	0.410314		0
e133	-----+		-----+		-----+		-----+	-----+	
133	-0.100329	0.033270	-0.002011	-0.001728	-0.124232	-0.365008	0.592687		0
e134	-----+		-----+		-----+		-----+	-----+	
134	-0.100483	0.012390	-0.002016	0.000369	0.124419	-0.434560	0.656854		0
e135	-----+		-----+		-----+		-----+	-----+	



135	-0.101562	-0.008788	-0.001962	0.000066	0.120079	-0.436116	0.657945	0
e136	-----	-----	-----	-----	-----	-----	-----	-----
136	-0.104147	-0.030264	-0.002036	0.000007	-0.126710	-0.391321	0.619346	0
e137	-----	-----	-----	-----	-----	-----	-----	-----
137	-0.109839	-0.049545	-0.001016	0.034621	0.081170	-0.227464	0.443142	0
e140	-----	-----	-----	-----	-----	-----	-----	-----
140	-0.012458	-0.004741	0.004298	-0.006056	0.262620	-0.225342	0.499875	0
e141	-----	-----	-----	-----	-----	-----	-----	-----
141	0.002974	0.001901	0.009152	-0.005348	0.558481	0.188288	0.749534	0
e142	-----	-----	-----	-----	-----	-----	-----	-----
142	-0.092228	-0.088579	-0.005835	-0.016669	0.356942	-0.479781	0.946723	0
e143	-----	-----	-----	-----	-----	-----	-----	-----
143	-0.081006	-0.067661	-0.005824	-0.019560	0.355559	0.371039	0.820869	0
e144	-----	-----	-----	-----	-----	-----	-----	-----
144	-0.069784	-0.046750	-0.005826	-0.021156	0.355799	0.613358	1.044674	0
e145	-----	-----	-----	-----	-----	-----	-----	-----
145	-0.058562	-0.025846	-0.005826	-0.022190	0.355807	0.738725	1.155163	0
e146	-----	-----	-----	-----	-----	-----	-----	-----
146	-0.047340	-0.004947	-0.005824	-0.022812	0.355692	0.747576	1.150613	0
e147	-----	-----	-----	-----	-----	-----	-----	-----
147	-0.036118	0.015946	-0.005805	-0.024135	0.354544	0.728738	1.121596	0
e148	-----	-----	-----	-----	-----	-----	-----	-----
148	-0.024832	0.036748	-0.002549	-0.082693	0.238214	0.621612	0.908535	0
e149	-----	-----	-----	-----	-----	-----	-----	-----
149	-0.014327	0.075449	-0.007666	-0.018234	0.467829	0.267584	0.767213	0
e150	-----	-----	-----	-----	-----	-----	-----	-----
150	-0.002175	0.054583	-0.007654	-0.019683	-0.467318	-0.468694	0.947057	0
e151	-----	-----	-----	-----	-----	-----	-----	-----
151	0.009977	0.033709	-0.007657	-0.021160	-0.467442	-0.672445	1.153861	0
e152	-----	-----	-----	-----	-----	-----	-----	-----
152	0.022129	0.012830	-0.007657	-0.022186	-0.467446	-0.761495	1.252610	0
e153	-----	-----	-----	-----	-----	-----	-----	-----
153	0.034281	-0.008056	-0.007654	-0.022669	-0.467221	-0.780069	1.281873	0
e154	-----	-----	-----	-----	-----	-----	-----	-----
154	0.046433	-0.028947	-0.007636	-0.021423	-0.466266	-0.754246	1.268849	0
e155	-----	-----	-----	-----	-----	-----	-----	-----
155	0.058521	-0.049930	-0.004379	0.052029	0.317796	-0.612483	1.004475	0
e160	-----	-----	-----	-----	-----	-----	-----	-----
160	-0.054071	-0.048662	-0.006517	0.004747	0.397803	-0.240825	0.698939	0
e161	-----	-----	-----	-----	-----	-----	-----	-----
161	-0.042490	-0.027780	-0.006526	0.004334	0.398233	0.186256	0.629070	0
e162	-----	-----	-----	-----	-----	-----	-----	-----
162	-0.030909	-0.006884	-0.006537	0.003159	-0.398998	0.227945	0.658179	0
e163	-----	-----	-----	-----	-----	-----	-----	-----
163	-0.019337	0.014044	-0.003020	-0.063585	0.255580	0.230776	0.523289	0
e164	-----	-----	-----	-----	-----	-----	-----	-----
164	-0.023125	0.065022	-0.006937	0.002267	-0.423064	0.391306	0.845571	0
e165	-----	-----	-----	-----	-----	-----	-----	-----
165	-0.011331	0.044120	-0.006946	0.004321	-0.423832	-0.210481	0.651184	0
e166	-----	-----	-----	-----	-----	-----	-----	-----
166	0.000463	0.023232	-0.006957	0.004873	-0.425117	-0.335752	0.762981	0
e167	-----	-----	-----	-----	-----	-----	-----	-----
167	0.012264	0.002376	-0.003440	0.065596	0.284305	-0.346093	0.640759	0
e175	-----	-----	-----	-----	-----	-----	-----	-----
175	-0.022912	-0.025719	0.000837	0.066266	-0.122854	-0.203953	0.384304	0
e176	-----	-----	-----	-----	-----	-----	-----	-----
176	-0.009947	0.022707	0.005690	-0.063733	-0.419187	0.172853	0.620404	0

Plus grande valeur négative

Sx	-0.110340 daN/mm2	Elément 26, Sx	contrainte d'effort axial Nx
Sty	-0.109545 daN/mm2	Elément 53, Sty	contrainte d'effort tranchant Ty
Stz	-0.007666 daN/mm2	Elément 149, Stz	contrainte d'effort tranchant Tz
Stx	-0.082693 daN/mm2	Elément 148, Stx	contrainte du moment de torsion Mx
Sfy	-0.557843 daN/mm2	Elément 141, Sfy	contrainte du moment fléchissant My
Sfz	-1.151846 daN/mm2	Elément 2, Sfz	contrainte du moment fléchissant Mz

Plus grande valeur positive

Sx	0.058521 daN/mm2	Elément 155, Sx	contrainte d'effort axial Nx
Sty	0.099116 daN/mm2	Elément 1, Sty	contrainte d'effort tranchant Ty
Stz	0.009152 daN/mm2	Elément 141, Stz	contrainte d'effort tranchant Tz
Stx	0.068666 daN/mm2	Elément 70, Stx	contrainte du moment de torsion Mx
Sfy	0.558481 daN/mm2	Elément 141, Sfy	contrainte du moment fléchissant My
Sfz	1.100952 daN/mm2	Elément 130, Sfz	contrainte du moment fléchissant Mz

Sm 1.332445 daN/mm2 Elément 2, Sm contrainte de Mises (poutre)

Propriété 5 marche 800x250  
 Passerelle DDP - Egir  
 calcul 1 'calcul 0'

CONTRAINTES [BEAM poutre]

Sx contrainte d'effort axial Nx  
 Sty contrainte d'effort tranchant Ty  
 Stz contrainte d'effort tranchant Tz  
 Stx contrainte du moment de torsion Mx  
 Sfy contrainte du moment fléchissant My  
 Sfz contrainte du moment fléchissant Mz  
 Sm contrainte de Mises (poutre)  
 Stt contrainte de membrane (pression interne)

Elément	Sx daN/mm2	Sty daN/mm2	Stz daN/mm2	Stx daN/mm2	Sfy daN/mm2	Sfz daN/mm2	Sm daN/mm2	Stt daN/mm2
e3-----								
3	0.003965	-0.076803	-0.167633	0.042990	0.080972	0.101790	0.401706	0
e4-----								
4	-0.000882	-0.061470	-0.253669	0.020274	-0.119387	0.161568	0.495436	0
e5-----								
5	-0.000168	-0.055722	-0.286693	0.010776	-0.175142	0.207544	0.531433	0
e6-----								
6	0.000251	-0.051063	-0.310057	0.006271	-0.210066	0.248128	0.562269	0
e7-----								
7	0.000079	-0.050647	-0.316142	0.004083	-0.220317	0.247096	0.569181	0
e8-----								
8	-0.000317	-0.055476	-0.303518	0.007321	-0.199163	0.206970	0.554170	0
e9-----								
9	0.000037	-0.063099	-0.279455	0.015835	-0.158468	0.162330	0.530206	0
e10-----								
10	-0.002069	-0.076300	-0.183387	0.018833	0.078186	0.099719	0.386641	0
e17-----								
17	-0.002255	0.088174	-0.136245	-0.000968	0.050473	-0.156710	0.289893	0
e18-----								
18	-0.000812	0.064340	-0.268066	0.001802	-0.157517	-0.230819	0.485932	0
e19-----								
19	0.000235	0.054998	-0.295079	0.003072	-0.191771	-0.291681	0.532011	0
e20-----								
20	-0.000275	0.064161	-0.255458	-0.001547	-0.137039	-0.231696	0.464804	0
e21-----								
21	0.003164	0.082745	-0.138217	-0.017898	0.058495	-0.149150	0.315165	0
e28-----								
28	-0.003112	0.076109	-0.173762	-0.024422	0.071439	-0.112681	0.379474	0
e29-----								
29	0.000067	0.064160	-0.278068	-0.018228	-0.157000	-0.184244	0.533420	0
e30-----								
30	-0.000400	0.056128	-0.303712	-0.004892	-0.198631	-0.234333	0.551938	0
e31-----								
31	0.000002	0.050755	-0.318843	0.000967	-0.212151	-0.277704	0.570182	0
e32-----								
32	0.000385	0.056373	-0.302424	0.006161	-0.196265	-0.235202	0.552001	0
e33-----								
33	-0.000124	0.064483	-0.276276	0.017426	-0.153447	-0.185123	0.529390	0
e34-----								
34	0.002629	0.074660	-0.180924	0.020093	0.077070	-0.111120	0.384417	0
e44-----								
44	-0.008435	0.005616	0.547242	0.018794	-0.603993	-0.081160	1.042768	0
e45-----								
45	0.008813	0.005813	0.547058	0.020123	-0.605842	-0.081948	1.044215	0
e55-----								
55	-0.008293	0.001588	0.534184	0.076926	-0.603926	-0.061669	1.098982	0
e56-----								
56	-0.000046	0.002110	0.534037	0.077405	-0.607953	-0.086359	1.102817	0
e57-----								
57	-0.000007	0.002127	0.533949	0.076318	-0.608280	-0.086758	1.100795	0
e58-----								
58	-0.000000	0.002141	0.533863	0.073637	-0.608289	-0.086851	1.096143	0
e59-----								

59		0.000007		0.002157		0.533772		0.069299		-0.608283		-0.086909		1.088722		0	
e60	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
60		-0.000030		0.002175		0.533652		0.063199		-0.607982		-0.086873		1.078369		0	
e61	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
61		0.009062		0.002321		0.533085		0.055191		-0.606971		-0.065055		1.060325		0	
e72	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
72		-0.008956		0.000611		0.526990		-0.011634		-0.606562		-0.056668		0.970288		0	
e73	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
73		0.000027		0.000493		0.527331		-0.014481		-0.607967		-0.078564		0.979117		0	
e74	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
74		0.000024		0.000458		0.527534		-0.013521		-0.607951		-0.078263		0.977955		0	
e75	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
75		0.008497		0.000428		0.527629		-0.008732		-0.604532		-0.055936		0.967292		0	
e185	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
185		-0.012681		-0.001829		0.425061		-0.006387		-0.371369		0.156842		0.814025		0	
e186	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
186		0.002096		0.078182		0.175360		0.019665		0.082714		0.105948		0.378882		0	
e187	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
187		-0.019649		-0.002127		0.300696		-0.008189		-0.291144		0.205555		0.592094		0	
e188	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
188		0.000060		0.062009		0.282849		0.016012		-0.155010		0.162987		0.537714		0	
e189	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
189		-0.017014		-0.001994		0.179062		-0.005256		-0.221531		0.230100		0.492843		0	
e190	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
190		0.000424		0.053921		0.309699		0.007961		-0.201033		0.205425		0.567382		0	
e191	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
191		-0.013623		-0.001581		0.061642		0.000008		-0.147095		0.253607		0.417211		0	
e192	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
192		0.000051		0.048786		0.323327		0.004918		-0.224793		0.242916		0.584664		0	
e193	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
193		0.013031		-0.001370		0.067872		-0.000260		-0.146986		0.254080		0.417976		0	
e194	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
194		-0.000365		0.049230		0.317684		0.007162		-0.214997		0.244258		0.578689		0	
e195	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
195		0.017054		-0.000211		0.180247		-0.005773		-0.221898		0.227270		0.491996		0	
e196	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
196		0.000090		0.054059		0.293266		0.011885		-0.175979		0.205680		0.546026		0	
e197	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
197		0.019769		0.000141		-0.292517		-0.008646		-0.291770		0.200462		0.584260		0	
e198	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
198		0.000882		0.060005		0.259601		0.021476		-0.118822		0.161864		0.509160		0	
e199	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
199		0.011472		-0.001284		-0.416825		-0.006118		-0.374209		0.155795		0.787248		0	
e200	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
200		-0.004931		0.082347		0.158572		0.041584		0.082389		0.111573		0.390398		0	
e202	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
202		0.027469		-0.002261		-0.363322		0.008813		-0.295509		-0.186290		0.711646		0	
e203	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
203		-0.003209		-0.082063		0.137723		-0.020974		0.054929		-0.146476		0.317317		0	
e204	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
204		0.027142		-0.001207		-0.177575		0.008764		-0.177301		-0.248352		0.484330		0	
e205	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
205		0.000307		-0.064244		0.253896		-0.003663		-0.138123		-0.230687		0.465028		0	
e206	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
206		-0.000236		-0.055554		0.291991		0.001093		-0.190850		-0.293060		0.530996		0	
e207	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
207		-0.027343		0.000465		-0.176744		0.006909		-0.179152		-0.245881		0.480416		0	
e208	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
208		0.000732		-0.065089		0.265138		-0.000706		-0.156307		-0.232094		0.478874		0	
e209	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
209		-0.027819		0.001403		0.360173		0.006586		-0.296581		-0.181870		0.698340		0	
e210	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
210		0.002020		-0.088005		0.137259		-0.004238		0.050384		-0.155311		0.295542		0	
e211	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
211		0.011937		-0.001951		-0.400851		-0.001117		-0.339346		-0.159223		0.757702		0	
e212	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
212		-0.002599		-0.074716		0.178736		0.016159		0.068102		-0.105814		0.371325		0	
e213	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
213		0.022993		-0.001541		-0.269663		0.001223		-0.252891		-0.223095		0.550355		0	
e214	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
214		0.000192		-0.066206		0.268924		0.016138		-0.153258		-0.184995		0.513080		0	
e215	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----

215	0.019267	-0.002023	-0.140950	0.003564	-0.176061	-0.253732	0.464738	0
e216								
216	-0.000132	-0.058622	0.292492	0.006390	-0.191807	-0.238459	0.533506	0
e217								
217	0.000016	-0.053666	0.305303	0.003534	-0.205827	-0.286411	0.549205	0
e218								
218	-0.019389	-0.001912	-0.140679	0.000359	-0.180226	-0.252590	0.464368	0
e219								
219	0.000170	-0.058998	0.290504	0.000275	-0.188862	-0.239772	0.519952	0
e220								
220	-0.023157	-0.001352	-0.269044	0.000964	-0.255420	-0.222246	0.550524	0
e221								
221	-0.000135	-0.067306	0.263152	-0.010481	-0.145450	-0.187526	0.494311	0
e222								
222	-0.012814	-0.001256	-0.399385	0.000586	-0.340785	-0.156979	0.752101	0
e223								
223	0.002729	-0.080007	0.153949	-0.012510	0.062923	-0.111814	0.329554	0

Plus grande valeur négative

Sx	-0.027819	daN/mm2	Elément 209, Sx	contrainte d'effort axial Nx
Sty	-0.088005	daN/mm2	Elément 210, Sty	contrainte d'effort tranchant Ty
Stz	-0.523824	daN/mm2	Elément 72, Stz	contrainte d'effort tranchant Tz
Stx	-0.024422	daN/mm2	Elément 28, Stx	contrainte du moment de torsion Mx
Sfy	-0.608289	daN/mm2	Elément 58, Sfy	contrainte du moment fléchissant My
Sfz	-0.293060	daN/mm2	Elément 206, Sfz	contrainte du moment fléchissant Mz

Plus grande valeur positive

Sx	0.027469	daN/mm2	Elément 202, Sx	contrainte d'effort axial Nx
Sty	0.088174	daN/mm2	Elément 17, Sty	contrainte d'effort tranchant Ty
Stz	0.547242	daN/mm2	Elément 44, Stz	contrainte d'effort tranchant Tz
Stx	0.077405	daN/mm2	Elément 56, Stx	contrainte du moment de torsion Mx
Sfy	0.265489	daN/mm2	Elément 44, Sfy	contrainte du moment fléchissant My
Sfz	0.254080	daN/mm2	Elément 193, Sfz	contrainte du moment fléchissant Mz
Sm	1.102817	daN/mm2	Elément 56, Sm	contrainte de Mises (poutre)

Propriété 6 LE40\_4  
Passerelle DDP - Egir  
calcul 1 'calcul 0'

CONTRAINTES [BEAM poutre]

Sx contrainte d'effort axial Nx  
Sty contrainte d'effort tranchant Ty  
Stz contrainte d'effort tranchant Tz  
Stx contrainte du moment de torsion Mx  
Sfy contrainte du moment fléchissant My  
Sfz contrainte du moment fléchissant Mz  
Sm contrainte de Mises (poutre)  
Stt contrainte de membrane (pression interne)

Elément	Sx	Sty	Stz	Stx	Sfy	Sfz	Sm	Stt
	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2
e177								
177	-0.385051	0.025641	-0.023254	0.010330	0.172088	-0.338007	0.747110	0
e178								
178	-0.355595	-0.010626	-0.005318	-0.010896	-0.225913	0.372407	0.792150	0
e179								
179	0.229595	-0.018084	-0.005003	0.013212	0.366682	0.485509	0.765082	0
e180								
180	-0.424969	-0.011032	-0.012073	-0.008128	0.622768	0.412472	1.101380	0
e181								
181	0.373340	0.033156	-0.026950	-0.010134	0.241843	-0.524783	0.902786	0
e182								
182	0.282513	-0.027389	0.000032	0.014358	0.390389	0.601940	0.924362	0
e225								
225	-0.237965	0.021043	-0.000471	-0.002160	-0.410198	0.409510	0.818574	0
e226								
226	-0.124161	0.004860	-0.000027	-0.001810	-0.203380	-0.098919	0.344916	0
e227								
227	-0.021365	-0.008733	0.005609	-0.002617	-0.116114	0.104419	0.174597	0
e228								
228	0.091344	-0.024951	0.006168	-0.004967	-0.241334	0.453950	0.607784	0
e229								

229		0.236511		-0.030734		0.030565		0.005798		0.431035		-0.286032		0.706619		0	
e230	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
230		-0.199510		-0.024467		0.016888		0.001988		-0.199287		-0.286265		0.551058		0	
e231	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
231		-0.085256		-0.006846		0.005544		0.001353		-0.155938		0.072101		0.252867		0	
e232	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
232		0.008749		0.009947		-0.004270		0.002304		-0.125715		-0.147009		0.192656		0	
e233	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
233		0.123067		0.027041		-0.014812		0.004580		-0.080783		-0.395985		0.523036		0	
e234	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
234		0.280543		0.010999		0.008115		-0.005503		0.463928		0.368950		0.802444		0	
e235	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
235		0.105852		-0.044465		0.024496		-0.002029		-0.163403		-0.570944		0.686921		0	
e236	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
236		-0.001946		-0.021023		0.010086		-0.002696		-0.174005		-0.293075		0.311895		0	
e237	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
237		-0.096714		-0.003149		0.000821		-0.001815		-0.136075		0.048804		0.241436		0	
e238	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
238		-0.184772		0.009698		-0.002767		-0.002889		-0.144285		-0.161928		0.380954		0	
e239	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
239		-0.282596		0.027128		-0.010797		-0.004530		-0.139588		-0.420914		0.711840		0	
e240	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
240		-0.392448		0.050102		-0.024470		-0.004822		0.146969		-0.709504		1.121931		0	
e241	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
241		-0.520971		0.023785		0.003383		0.007602		0.603395		0.542105		1.249269		0	
e242	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
242		-0.291422		-0.040583		0.019201		0.004591		0.137465		-0.597454		0.908539		0	
e243	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
243		-0.181398		-0.017817		0.005587		0.004039		-0.125911		-0.309536		0.499757		0	
e244	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
244		-0.085763		0.000181		-0.003555		0.002039		-0.142723		-0.046970		0.231012		0	
e245	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
245		0.002343		0.013024		-0.007229		0.001813		-0.125490		-0.164950		0.200875		0	
e246	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
246		0.099840		0.030134		-0.015412		0.002480		-0.178472		-0.400614		0.510430		0	
e247	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
247		0.209344		0.052814		-0.029327		0.001806		-0.173623		-0.663512		0.882987		0	
e248	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
248		0.340842		0.021929		-0.000339		-0.009893		0.285419		0.558927		0.933587		0	
e249	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
249		0.235777		0.053061		-0.013620		0.002133		-0.452277		0.846013		1.199154		0	
e250	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
250		0.132277		0.032851		-0.007637		0.001558		-0.382065		0.528473		0.786772		0	
e251	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
251		0.039012		0.015296		-0.003723		0.001208		-0.270226		0.244968		0.404812		0	
e252	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
252		-0.046070		0.010597		0.000529		-0.000422		-0.233292		0.116140		0.307267		0	
e253	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
253		-0.053079		-0.002852		0.003730		0.001382		-0.142463		-0.032023		0.199375		0	
e254	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
254		-0.136635		-0.011175		0.006835		0.001959		-0.116617		0.146476		0.324397		0	
e255	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
255		-0.228981		-0.028800		0.010603		0.003245		-0.180783		0.446888		0.713476		0	
e256	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
256		-0.331612		-0.049043		0.016520		0.004621		0.282798		0.778255		1.140011		0	
e257	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
257		-0.458976		-0.040547		0.036918		-0.009988		0.549875		-0.429872		1.059145		0	
e258	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
258		0.155387		-0.050894		0.028603		-0.002377		-0.156638		-0.635161		0.801210		0	
e259	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
259		0.051287		-0.030609		0.017163		-0.002759		-0.174918		-0.386018		0.460423		0	
e260	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
260		-0.039950		-0.012268		0.007720		-0.002250		-0.167272		-0.144358		0.262507		0	
e261	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
261		-0.120961		-0.008146		0.005645		-0.001352		-0.171061		0.087630		0.302895		0	
e262	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
262		-0.117459		0.010700		-0.005140		-0.000814		-0.144166		-0.086177		0.271332		0	
e263	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
263		-0.200665		0.017009		-0.007132		-0.003126		-0.171318		-0.249950		0.472936		0	
e264	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----
264		-0.292949		0.034901		-0.016368		-0.004335		-0.133687		-0.495809		0.794221		0	
e265	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----	+	----

265	-0.398561	0.054011	-0.026931	-0.004562	0.154277	-0.741803	1.161691	0
e266	-----							
266	-0.533248	0.030537	-0.000623	0.008975	0.616839	0.636568	1.303447	0

Plus grande valeur négative

Sx	-0.533248 daN/mm2	Elément 266, Sx	contrainte d'effort axial Nx
Sty	-0.050894 daN/mm2	Elément 258, Sty	contrainte d'effort tranchant Ty
Stz	-0.029327 daN/mm2	Elément 247, Stz	contrainte d'effort tranchant Tz
Stx	-0.010896 daN/mm2	Elément 178, Stx	contrainte du moment de torsion Mx
Sfy	-0.452277 daN/mm2	Elément 249, Sfy	contrainte du moment fléchissant My
Sfz	-0.778830 daN/mm2	Elément 249, Sfz	contrainte du moment fléchissant Mz

Plus grande valeur positive

Sx	0.373340 daN/mm2	Elément 181, Sx	contrainte d'effort axial Nx
Sty	0.054011 daN/mm2	Elément 265, Sty	contrainte d'effort tranchant Ty
Stz	0.036918 daN/mm2	Elément 257, Stz	contrainte d'effort tranchant Tz
Stx	0.014358 daN/mm2	Elément 182, Stx	contrainte du moment de torsion Mx
Sfy	0.622768 daN/mm2	Elément 180, Sfy	contrainte du moment fléchissant My
Sfz	0.846013 daN/mm2	Elément 249, Sfz	contrainte du moment fléchissant Mz
Sm	1.303447 daN/mm2	Elément 266, Sm	contrainte de Mises (poutre)

Propriété 2 UPN120  
 Passerelle DDP - Egir  
 calcul 2 'calcul 0'

CONTRAINTES [BEAM poutre]

Sx contrainte d'effort axial Nx  
 Sty contrainte d'effort tranchant Ty  
 Stz contrainte d'effort tranchant Tz  
 Stx contrainte du moment de torsion Mx  
 Sfy contrainte du moment fléchissant My  
 Sfz contrainte du moment fléchissant Mz  
 Sm contrainte de Mises (poutre)  
 Stt contrainte de membrane (pression interne)

Elément	Sx	Sty	Stz	Stx	Sfy	Sfz	Sm	Stt
	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2
e11	-----							
11	-0.097259	0.005104	0.116277	0.002269	1.073763	0.250620	1.313584	0
e12	-----							
12	-0.103044	0.003480	0.038860	0.016446	0.950340	0.070911	1.086462	0
e13	-----							
13	-0.020347	-0.001118	0.000365	0.000828	-0.006224	-0.052117	0.078763	0
e14	-----							
14	-0.019392	-0.008498	0.000101	-0.000013	-0.001146	-0.247758	0.268700	0
e22	-----							
22	-0.084806	0.002334	0.193546	0.003474	-0.500431	-0.019357	0.675506	0
e23	-----							
23	-0.018916	-0.004836	-0.000098	-0.002062	-0.002452	-0.131627	0.152328	0
e24	-----							
24	-0.108839	0.009426	-0.063788	0.000782	-0.186871	-0.244861	0.540396	0
e25	-----							
25	0.028573	-0.000862	0.000076	-0.000238	-0.002403	0.032330	0.062448	0
e35	-----							
35	-0.011089	-0.013996	-0.044523	-0.015789	-0.173704	-0.187979	0.283918	0
e36	-----							
36	-0.006894	0.000322	0.001378	0.007894	0.009282	0.015062	0.032858	0
e37	-----							
37	0.005370	0.004297	0.079484	0.070832	0.119529	0.095945	0.303859	0
e38	-----							
38	-0.006440	-0.005831	0.111901	-0.017157	0.417272	-0.122809	0.500860	0
e39	-----							
39	-0.000180	0.001319	-0.000025	0.007629	-0.000164	0.040248	0.043411	0
e40	-----							
40	0.000569	0.000417	0.070147	-0.003765	0.313548	-0.046573	0.382736	0
e41	-----							
41	0.003240	0.004658	-0.001134	0.009718	-0.007511	0.145695	0.156577	0
e48	-----							
48	-0.021526	0.024880	-0.041339	-0.008337	-0.478541	-0.731330	1.235151	0
e49	-----							
49	-0.040025	-0.017442	-0.034727	0.090250	-0.553840	-0.527518	1.069570	0
e50	-----							

50	-0.009730	-0.011513	0.000695	0.034388	-0.008554	0.317356	0.337088	0
e51								
51	0.025355	0.013784	0.186893	-0.096503	-0.447588	0.393562	0.972860	0
e52								
52	0.014204	0.036934	-0.015041	0.021284	0.175311	0.979310	1.173456	0
e62								
62	0.014279	-0.000054	0.139751	-0.005096	0.768209	-0.017059	0.834265	0
e63								
63	0.002970	0.002806	-0.000456	0.020708	-0.003826	0.109770	0.121248	0
e64								
64	-0.040589	-0.002329	0.314877	-0.038328	1.791766	-0.077232	1.993265	0
e65								
65	-0.002944	0.001861	0.000020	-0.002255	-0.001102	-0.078334	0.082456	0
e100								
100	-0.117868	0.008703	-0.203140	0.001362	1.558956	-0.718842	2.224071	0
e101								
101	-0.099595	-0.034142	0.125547	0.022364	-0.960518	-0.922654	1.986105	0
e102								
102	-0.089599	-0.008317	0.378546	-0.046160	2.263048	0.317036	2.769213	0
e103								
103	-0.071586	-0.000575	-0.185098	0.000247	1.693568	0.072699	1.834737	0
e104								
104	-0.079629	0.000201	-0.172744	-0.000687	1.240528	0.029711	1.382888	0
e105								
105	-0.107578	-0.000580	0.177260	0.000254	1.456823	-0.074548	1.634083	0
e106								
106	-0.108422	-0.009203	-0.211306	-0.030415	1.762090	-0.322127	2.232310	0
e107								
107	-0.092475	-0.042101	-0.175282	-0.010564	-0.954852	1.204016	2.258517	0
e108								
108	-0.081733	0.007754	0.201356	0.010304	1.513658	0.619175	2.111058	0
e109								
109	-0.083241	0.004627	-0.121820	0.002241	1.093115	-0.207017	1.328659	0
e120								
120	-0.084806	0.002334	0.231987	0.003474	0.765807	-0.071568	1.008345	0
e121								
121	-0.102247	-0.004196	0.139378	0.004118	0.902562	0.113812	1.145923	0
e122								
122	-0.097307	0.003755	-0.249524	-0.005162	0.832941	0.071153	1.094276	0
e123								
123	-0.097307	0.003755	-0.211083	-0.005162	-0.539983	-0.033042	0.760222	0
e138								
138	-0.000569	-0.000418	-0.070196	-0.002776	0.314654	0.040248	0.361256	0
e139								
139	0.000721	-0.003868	-0.089488	-0.015750	0.313221	0.049893	0.405071	0
e156								
156	0.027770	-0.000251	0.153404	0.000163	1.175653	0.026582	1.258436	0
e157								
157	0.025919	-0.001329	-0.175168	-0.033901	1.284727	0.034432	1.386073	0
e158								
158	-0.021330	-0.000517	-0.162690	0.000477	1.388810	-0.062829	1.499836	0
e159								
159	-0.027762	-0.000785	-0.109894	-0.005444	0.556005	0.074892	0.634740	0
e168								
168	-0.005207	0.001270	-0.005520	-0.001531	-0.063672	-0.051282	0.120800	0
e169								
169	0.003328	0.002577	-0.006781	0.000491	0.082341	-0.069204	0.153384	0
e170								
170	0.000029	0.001486	0.001047	-0.001284	0.006078	0.042117	0.048488	0
e171								
171	-0.000103	-0.023836	0.008429	-0.003604	-0.049038	-0.643803	0.694726	0
e172								
172	0.000191	0.013577	0.020642	0.023763	0.119984	-0.361254	0.488101	0
e173								
173	-0.089713	-0.005940	-0.125677	-0.003404	0.843185	0.173010	1.097193	0
e174								
174	-0.089165	0.006120	0.044005	0.004505	-0.138264	0.157090	0.338689	0
e201								
201	-0.111782	0.000331	0.172693	-0.000906	1.246381	-0.037242	1.427434	0
e224								
224	-0.079069	0.002610	-0.071109	0.011040	1.015748	-0.041454	1.113847	0

Plus grande valeur négative

Sx -0.117868 daN/mm2 Elément 100, Sx contrainte d'effort axial Nx  
 Sty -0.042101 daN/mm2 Elément 107, Sty contrainte d'effort tranchant Ty  
 Stz -0.249524 daN/mm2 Elément 122, Stz contrainte d'effort tranchant Tz  
 Stx -0.096503 daN/mm2 Elément 51, Stx contrainte du moment de torsion Mx  
 Sfy -1.051806 daN/mm2 Elément 108, Sfy contrainte du moment fléchissant My  
 Sfz -1.023180 daN/mm2 Elément 107, Sfz contrainte du moment fléchissant Mz

Plus grande valeur positive

Sx 0.028573 daN/mm2 Elément 25, Sx contrainte d'effort axial Nx  
 Sty 0.036934 daN/mm2 Elément 52, Sty contrainte d'effort tranchant Ty  
 Stz 0.378546 daN/mm2 Elément 102, Stz contrainte d'effort tranchant Tz  
 Stx 0.090250 daN/mm2 Elément 49, Stx contrainte du moment de torsion Mx  
 Sfy 2.263048 daN/mm2 Elément 102, Sfy contrainte du moment fléchissant My  
 Sfz 1.204016 daN/mm2 Elément 107, Sfz contrainte du moment fléchissant Mz  
 Sm 2.769213 daN/mm2 Elément 102, Sm contrainte de Mises (poutre)

-----  
 Propriété 3 HEA100  
 Passerelle DDP - Egir  
 calcul 2 'calcul 0'  
 -----

CONSTRAINTES [BEAM poutre]

Sx contrainte d'effort axial Nx  
 Sty contrainte d'effort tranchant Ty  
 Stz contrainte d'effort tranchant Tz  
 Stx contrainte du moment de torsion Mx  
 Sfy contrainte du moment fléchissant My  
 Sfz contrainte du moment fléchissant Mz  
 Sm contrainte de Mises (poutre)  
 Stt contrainte de membrane (pression interne)

Elément	Sx	Sty	Stz	Stx	Sfy	Sfz	Sm	Stt
	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2
e46								
46	-0.075459	-0.005923	0.005259	-0.002000	0.050596	-0.232751	0.309173	0
e47								
47	-0.066151	0.000153	0.004163	-0.001968	0.040063	-0.008271	0.114977	0
e66								
66	-0.136157	0.001868	-0.001047	0.001190	-0.009764	0.247395	0.384834	0
e67								
67	-0.107358	-0.013611	-0.000191	-0.000069	-0.002195	0.446657	0.556715	0
e68								
68	-0.197899	0.019430	-0.001760	0.003162	-0.017088	0.913961	1.113965	0
e69								
69	-0.091138	-0.006489	0.000260	-0.000934	0.002512	0.224771	0.318680	0
e76								
76	-0.128871	0.001464	0.023212	0.002344	0.404668	0.117495	0.646197	0
e77								
77	-0.137414	-0.001466	0.019762	0.002004	-0.350993	0.117576	0.600898	0
e78								
78	-0.225015	-0.003566	-0.027339	-0.002253	0.474255	0.281319	0.976106	0
e79								
79	-0.169572	-0.003563	-0.015087	-0.002308	0.255552	0.281178	0.700978	0
e80								
80	-0.135716	-0.000367	0.019541	-0.001470	-0.153341	0.015469	0.304913	0
e81								
81	-0.139811	-0.000367	0.008014	-0.001329	-0.071445	0.015469	0.225509	0
e82								
82	-0.145402	0.000246	0.013552	-0.000763	0.149928	-0.014571	0.310892	0
e83								
83	-0.196905	0.001404	0.012797	-0.000720	0.141904	0.083429	0.390810	0
e183								
183	-0.099153	-0.001049	-0.001260	0.000608	0.104443	0.049035	0.242711	0
e184								
184	-0.085810	-0.001372	-0.019659	-0.000811	0.165764	0.063920	0.255773	0

Plus grande valeur négative

Sx -0.225015 daN/mm2 Elément 78, Sx contrainte d'effort axial Nx  
 Sty -0.013611 daN/mm2 Elément 67, Sty contrainte d'effort tranchant Ty  
 Stz -0.027339 daN/mm2 Elément 78, Stz contrainte d'effort tranchant Tz  
 Stx -0.002308 daN/mm2 Elément 79, Stx contrainte du moment de torsion Mx  
 Sfy -0.350993 daN/mm2 Elément 77, Sfy contrainte du moment fléchissant My



Sfz -0.420630 daN/mm2 Elément 67, Sfz contrainte du moment fléchissant Mz  
 Plus grande valeur positive  
 Sty 0.019430 daN/mm2 Elément 68, Sty contrainte d'effort tranchant Ty  
 Stz 0.023212 daN/mm2 Elément 76, Stz contrainte d'effort tranchant Tz  
 Stx 0.003162 daN/mm2 Elément 68, Stx contrainte du moment de torsion Mx  
 Sfy 0.474255 daN/mm2 Elément 78, Sfy contrainte du moment fléchissant My  
 Sfz 0.913961 daN/mm2 Elément 68, Sfz contrainte du moment fléchissant Mz  
 Sm 1.113965 daN/mm2 Elément 68, Sm contrainte de Mises (poutre)

Propriété 4 Limon plat 220x10  
 Passerelle DDP - Egir  
 calcul 2 'calcul 0'

-----  
 CONTRAINTES [BEAM poutre]

Sx contrainte d'effort axial Nx  
 Sty contrainte d'effort tranchant Ty  
 Stz contrainte d'effort tranchant Tz  
 Stx contrainte du moment de torsion Mx  
 Sfy contrainte du moment fléchissant My  
 Sfz contrainte du moment fléchissant Mz  
 Sm contrainte de Mises (poutre)  
 Stt contrainte de membrane (pression interne)

Elément	Sx	Sty	Stz	Stx	Sfy	Sfz	Sm	Stt
	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2
e1-----								
1	-0.078991	0.099116	-0.001028	-0.035281	-0.092001	1.094519	1.229097	0
e2-----								
2	-0.086475	-0.104007	-0.001619	0.031476	-0.124193	-1.151846	1.332445	0
e15-----								
15	-0.048322	-0.019466	-0.000726	0.024641	-0.065101	0.489487	0.607732	0
e16-----								
16	-0.064315	0.019385	-0.000750	-0.025184	-0.063308	-0.516018	0.648254	0
e26-----								
26	-0.110340	0.047320	0.001152	-0.024296	0.099008	-0.278746	0.503615	0
e27-----								
27	-0.089387	0.094975	-0.000886	-0.030700	-0.078504	1.062679	1.201495	0
e42-----								
42	-0.001984	0.016198	0.000986	-0.076637	0.133170	-0.220768	0.390561	0
e43-----								
43	0.015874	-0.018945	0.005837	0.057793	0.418955	0.192862	0.641689	0
e53-----								
53	-0.103443	-0.109545	-0.002279	0.052656	-0.210998	-1.073676	1.275382	0
e54-----								
54	-0.026485	0.096268	-0.004109	-0.075580	-0.326336	0.814734	1.058787	0
e70-----								
70	-0.065651	-0.069538	-0.003184	0.068666	-0.263373	-0.628486	0.853363	0
e71-----								
71	-0.034915	0.085934	-0.003604	-0.064726	-0.288322	0.865618	1.083748	0
e84-----								
84	-0.085200	0.079942	-0.002585	0.002493	0.162909	0.534557	0.795596	0
e85-----								
85	-0.087511	0.059845	-0.002238	-0.000881	0.136867	-0.245353	0.480686	0
e86-----								
86	-0.088344	0.039370	-0.002173	-0.002628	-0.134087	-0.466240	0.692513	0
e87-----								
87	-0.088054	0.018724	-0.002271	-0.001866	-0.138888	-0.571575	0.799323	0
e88-----								
88	-0.087575	-0.002090	-0.002302	-0.000926	0.141167	-0.572569	0.801339	0
e89-----								
89	-0.088002	-0.023199	-0.002178	-0.001489	-0.133145	-0.562766	0.784386	0
e90-----								
90	-0.089950	-0.044588	-0.002192	-0.001573	-0.136054	-0.438005	0.664093	0
e91-----								
91	-0.095745	-0.064303	-0.001378	0.037379	0.104309	-0.195397	0.432902	0
e92-----								
92	-0.092690	-0.084301	-0.002442	-0.000925	0.150522	-0.580017	0.836370	0
e93-----								
93	-0.094422	-0.062955	-0.002466	-0.001185	0.150387	0.232476	0.490034	0
e94-----								
94	-0.094510	-0.041859	-0.002632	-0.000800	-0.161473	0.462604	0.722390	0

e95									
95	-0.093630	-0.021057	-0.002652	-0.001834	0.162131	0.578147	0.834103	0	
e96									
96	-0.092934	-0.000413	-0.002509	-0.002688	0.154653	0.578694	0.824041	0	
e97									
97	-0.093405	0.020058	-0.002544	-0.001039	-0.155304	0.575801	0.825035	0	
e98									
98	-0.095395	0.040154	-0.002890	0.002625	-0.181485	0.459371	0.729604	0	
e99									
99	-0.102524	0.059867	-0.000953	-0.026490	0.099432	0.226640	0.453949	0	
e110									
110	-0.055954	-0.000500	-0.001968	-0.000753	0.121867	0.496613	0.671681	0	
e111									
111	-0.058574	0.020109	-0.001860	0.001771	-0.116682	0.496990	0.666804	0	
e112									
112	-0.059127	0.040798	-0.001951	-0.002111	0.121092	0.384756	0.569853	0	
e113									
113	-0.061486	0.061946	-0.001638	-0.002243	0.100286	-0.185280	0.363658	0	
e114									
114	-0.069867	0.081718	-0.000751	-0.022678	0.066719	-0.638087	0.754822	0	
e115									
115	-0.072648	-0.000398	-0.001543	-0.001784	-0.094281	-0.514987	0.681576	0	
e116									
116	-0.075173	-0.021542	-0.001830	-0.001898	-0.113564	-0.512612	0.698571	0	
e117									
117	-0.075867	-0.042199	-0.001736	0.001589	0.109055	-0.393443	0.583325	0	
e118									
118	-0.078528	-0.062771	-0.001863	-0.001190	-0.115480	0.189385	0.399092	0	
e119									
119	-0.086086	-0.081604	-0.000601	0.024640	0.057057	0.646904	0.771521	0	
e124									
124	-0.104358	0.028009	0.002377	-0.000181	-0.146649	-0.428094	0.677537	0	
e125									
125	-0.102241	0.006503	0.002350	-0.000950	0.144157	-0.459714	0.706242	0	
e126									
126	-0.101734	-0.014714	0.002507	-0.001720	0.154610	-0.458524	0.711970	0	
e127									
127	-0.102258	-0.035659	0.002506	0.000449	-0.154586	-0.377179	0.637116	0	
e128									
128	-0.101691	-0.056865	0.002355	-0.000110	-0.144402	-0.180976	0.438341	0	
e129									
129	-0.099492	-0.078353	0.002408	-0.000295	0.148674	0.564467	0.823982	0	
e130									
130	-0.093871	-0.097672	0.001394	0.029185	-0.107871	1.100952	1.276043	0	
e131									
131	-0.096301	0.075855	-0.002006	-0.000348	0.124817	0.539301	0.771796	0	
e132									
132	-0.099157	0.054430	-0.001947	-0.001078	-0.119237	-0.180483	0.410314	0	
e133									
133	-0.100329	0.033270	-0.002011	-0.001728	-0.124232	-0.365008	0.592687	0	
e134									
134	-0.100483	0.012390	-0.002016	0.000369	0.124419	-0.434560	0.656854	0	
e135									
135	-0.101562	-0.008788	-0.001962	0.000066	0.120079	-0.436116	0.657945	0	
e136									
136	-0.104147	-0.030264	-0.002036	0.000007	-0.126710	-0.391321	0.619346	0	
e137									
137	-0.109839	-0.049545	-0.001016	0.034621	0.081170	-0.227464	0.443142	0	
e140									
140	-0.012458	-0.004741	0.004298	-0.006056	0.262620	-0.225342	0.499875	0	
e141									
141	0.002974	0.001901	0.009152	-0.005348	0.558481	0.188288	0.749534	0	
e142									
142	-0.092228	-0.088579	-0.005835	-0.016669	0.356942	-0.479781	0.946723	0	
e143									
143	-0.081006	-0.067661	-0.005824	-0.019560	0.355559	0.371039	0.820869	0	
e144									
144	-0.069784	-0.046750	-0.005826	-0.021156	0.355799	0.613358	1.044674	0	
e145									
145	-0.058562	-0.025846	-0.005826	-0.022190	0.355807	0.738725	1.155163	0	
e146									
146	-0.047340	-0.004947	-0.005824	-0.022812	0.355692	0.747576	1.150613	0	

e147									
147	-0.036118	0.015946	-0.005805	-0.024135	0.354544	0.728738	1.121596		0
e148									
148	-0.024832	0.036748	-0.002549	-0.082693	0.238214	0.621612	0.908535		0
e149									
149	-0.014327	0.075449	-0.007666	-0.018234	0.467829	0.267584	0.767213		0
e150									
150	-0.002175	0.054583	-0.007654	-0.019683	-0.467318	-0.468694	0.947057		0
e151									
151	0.009977	0.033709	-0.007657	-0.021160	-0.467442	-0.672445	1.153861		0
e152									
152	0.022129	0.012830	-0.007657	-0.022186	-0.467446	-0.761495	1.252610		0
e153									
153	0.034281	-0.008056	-0.007654	-0.022669	-0.467221	-0.780069	1.281873		0
e154									
154	0.046433	-0.028947	-0.007636	-0.021423	-0.466266	-0.754246	1.268849		0
e155									
155	0.058521	-0.049930	-0.004379	0.052029	0.317796	-0.612483	1.004475		0
e160									
160	-0.054071	-0.048662	-0.006517	0.004747	0.397803	-0.240825	0.698939		0
e161									
161	-0.042490	-0.027780	-0.006526	0.004334	0.398233	0.186256	0.629070		0
e162									
162	-0.030909	-0.006884	-0.006537	0.003159	-0.398998	0.227945	0.658179		0
e163									
163	-0.019337	0.014044	-0.003020	-0.063585	0.255580	0.230776	0.523289		0
e164									
164	-0.023125	0.065022	-0.006937	0.002267	-0.423064	0.391306	0.845571		0
e165									
165	-0.011331	0.044120	-0.006946	0.004321	-0.423832	-0.210481	0.651184		0
e166									
166	0.000463	0.023232	-0.006957	0.004873	-0.425117	-0.335752	0.762981		0
e167									
167	0.012264	0.002376	-0.003440	0.065596	0.284305	-0.346093	0.640759		0
e175									
175	-0.022912	-0.025719	0.000837	0.066266	-0.122854	-0.203953	0.384304		0
e176									
176	-0.009947	0.022707	0.005690	-0.063733	-0.419187	0.172853	0.620404		0

Plus grande valeur négative

Sx	-0.110340 daN/mm2	Elément 26, Sx	contrainte d'effort axial Nx
Sty	-0.109545 daN/mm2	Elément 53, Sty	contrainte d'effort tranchant Ty
Stz	-0.007666 daN/mm2	Elément 149, Stz	contrainte d'effort tranchant Tz
Stx	-0.082693 daN/mm2	Elément 148, Stx	contrainte du moment de torsion Mx
Sfy	-0.557843 daN/mm2	Elément 141, Sfy	contrainte du moment fléchissant My
Sfz	-1.151846 daN/mm2	Elément 2, Sfz	contrainte du moment fléchissant Mz

Plus grande valeur positive

Sx	0.058521 daN/mm2	Elément 155, Sx	contrainte d'effort axial Nx
Sty	0.099116 daN/mm2	Elément 1, Sty	contrainte d'effort tranchant Ty
Stz	0.009152 daN/mm2	Elément 141, Stz	contrainte d'effort tranchant Tz
Stx	0.068666 daN/mm2	Elément 70, Stx	contrainte du moment de torsion Mx
Sfy	0.558481 daN/mm2	Elément 141, Sfy	contrainte du moment fléchissant My
Sfz	1.100952 daN/mm2	Elément 130, Sfz	contrainte du moment fléchissant Mz
Sm	1.332445 daN/mm2	Elément 2, Sm	contrainte de Mises (poutre)

Propriété 5 marche 800x250

Passerelle DDP - Egir

calcul 2 'calcul 0'

CONTRAINTES [BEAM poutre]

Sx contrainte d'effort axial Nx  
 Sty contrainte d'effort tranchant Ty  
 Stz contrainte d'effort tranchant Tz  
 Stx contrainte du moment de torsion Mx  
 Sfy contrainte du moment fléchissant My  
 Sfz contrainte du moment fléchissant Mz  
 Sm contrainte de Mises (poutre)  
 Stt contrainte de membrane (pression interne)

Elément	Sx	Sty	Stz	Stx	Sfy	Sfz	Sm	Stt
	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2	daN/mm2

e3																
3		0.003965		-0.076803		-0.167633		0.042990		0.080972		0.101790		0.401706		0
e4																
4		-0.000882		-0.061470		-0.253669		0.020274		-0.119387		0.161568		0.495436		0
e5																
5		-0.000168		-0.055722		-0.286693		0.010776		-0.175142		0.207544		0.531433		0
e6																
6		0.000251		-0.051063		-0.310057		0.006271		-0.210066		0.248128		0.562269		0
e7																
7		0.000079		-0.050647		-0.316142		0.004083		-0.220317		0.247096		0.569181		0
e8																
8		-0.000317		-0.055476		-0.303518		0.007321		-0.199163		0.206970		0.554170		0
e9																
9		0.000037		-0.063099		-0.279455		0.015835		-0.158468		0.162330		0.530206		0
e10																
10		-0.002069		-0.076300		-0.183387		0.018833		0.078186		0.099719		0.386641		0
e17																
17		-0.002255		0.088174		-0.136245		-0.000968		0.050473		-0.156710		0.289893		0
e18																
18		-0.000812		0.064340		-0.268066		0.001802		-0.157517		-0.230819		0.485932		0
e19																
19		0.000235		0.054998		-0.295079		0.003072		-0.191771		-0.291681		0.532011		0
e20																
20		-0.000275		0.064161		-0.255458		-0.001547		-0.137039		-0.231696		0.464804		0
e21																
21		0.003164		0.082745		-0.138217		-0.017898		0.058495		-0.149150		0.315165		0
e28																
28		-0.003112		0.076109		-0.173762		-0.024422		0.071439		-0.112681		0.379474		0
e29																
29		0.000067		0.064160		-0.278068		-0.018228		-0.157000		-0.184244		0.533420		0
e30																
30		-0.000400		0.056128		-0.303712		-0.004892		-0.198631		-0.234333		0.551938		0
e31																
31		0.000002		0.050755		-0.318843		0.000967		-0.212151		-0.277704		0.570182		0
e32																
32		0.000385		0.056373		-0.302424		0.006161		-0.196265		-0.235202		0.552001		0
e33																
33		-0.000124		0.064483		-0.276276		0.017426		-0.153447		-0.185123		0.529390		0
e34																
34		0.002629		0.074660		-0.180924		0.020093		0.077070		-0.111120		0.384417		0
e44																
44		-0.008435		0.005616		0.547242		0.018794		-0.603993		-0.081160		1.042768		0
e45																
45		0.008813		0.005813		0.547058		0.020123		-0.605842		-0.081948		1.044215		0
e55																
55		-0.008293		0.001588		0.534184		0.076926		-0.603926		-0.061669		1.098982		0
e56																
56		-0.000046		0.002110		0.534037		0.077405		-0.607953		-0.086359		1.102817		0
e57																
57		-0.000007		0.002127		0.533949		0.076318		-0.608280		-0.086758		1.100795		0
e58																
58		-0.000000		0.002141		0.533863		0.073637		-0.608289		-0.086851		1.096143		0
e59																
59		0.000007		0.002157		0.533772		0.069299		-0.608283		-0.086909		1.088722		0
e60																
60		-0.000030		0.002175		0.533652		0.063199		-0.607982		-0.086873		1.078369		0
e61																
61		0.009062		0.002321		0.533085		0.055191		-0.606971		-0.065055		1.060325		0
e72																
72		-0.008956		0.000611		0.526990		-0.011634		-0.606562		-0.056668		0.970288		0
e73																
73		0.000027		0.000493		0.527331		-0.014481		-0.607967		-0.078564		0.979117		0
e74																
74		0.000024		0.000458		0.527534		-0.013521		-0.607951		-0.078263		0.977955		0
e75																
75		0.008497		0.000428		0.527629		-0.008732		-0.604532		-0.055936		0.967292		0
e185																
185		-0.012681		-0.001829		0.425061		-0.006387		-0.371369		0.156842		0.814025		0
e186																
186		0.002096		0.078182		0.175360		0.019665		0.082714		0.105948		0.378882		0
e187																
187		-0.019649		-0.002127		0.300696		-0.008189		-0.291144		0.205555		0.592094		0

e188																
188		0.000060		0.062009		0.282849		0.016012		-0.155010		0.162987		0.537714		0
e189																
189		-0.017014		-0.001994		0.179062		-0.005256		-0.221531		0.230100		0.492843		0
e190																
190		0.000424		0.053921		0.309699		0.007961		-0.201033		0.205425		0.567382		0
e191																
191		-0.013623		-0.001581		0.061642		0.000008		-0.147095		0.253607		0.417211		0
e192																
192		0.000051		0.048786		0.323327		0.004918		-0.224793		0.242916		0.584664		0
e193																
193		0.013031		-0.001370		0.067872		-0.000260		-0.146986		0.254080		0.417976		0
e194																
194		-0.000365		0.049230		0.317684		0.007162		-0.214997		0.244258		0.578689		0
e195																
195		0.017054		-0.000211		0.180247		-0.005773		-0.221898		0.227270		0.491996		0
e196																
196		0.000090		0.054059		0.293266		0.011885		-0.175979		0.205680		0.546026		0
e197																
197		0.019769		0.000141		-0.292517		-0.008646		-0.291770		0.200462		0.584260		0
e198																
198		0.000882		0.060005		0.259601		0.021476		-0.118822		0.161864		0.509160		0
e199																
199		0.011472		-0.001284		-0.416825		-0.006118		-0.374209		0.155795		0.787248		0
e200																
200		-0.004931		0.082347		0.158572		0.041584		0.082389		0.111573		0.390398		0
e202																
202		0.027469		-0.002261		-0.363322		0.008813		-0.295509		-0.186290		0.711646		0
e203																
203		-0.003209		-0.082063		0.137723		-0.020974		0.054929		-0.146476		0.317317		0
e204																
204		0.027142		-0.001207		-0.177575		0.008764		-0.177301		-0.248352		0.484330		0
e205																
205		0.000307		-0.064244		0.253896		-0.003663		-0.138123		-0.230687		0.465028		0
e206																
206		-0.000236		-0.055554		0.291991		0.001093		-0.190850		-0.293060		0.530996		0
e207																
207		-0.027343		0.000465		-0.176744		0.006909		-0.179152		-0.245881		0.480416		0
e208																
208		0.000732		-0.065089		0.265138		-0.000706		-0.156307		-0.232094		0.478874		0
e209																
209		-0.027819		0.001403		0.360173		0.006586		-0.296581		-0.181870		0.698340		0
e210																
210		0.002020		-0.088005		0.137259		-0.004238		0.050384		-0.155311		0.295542		0
e211																
211		0.011937		-0.001951		-0.400851		-0.001117		-0.339346		-0.159223		0.757702		0
e212																
212		-0.002599		-0.074716		0.178736		0.016159		0.068102		-0.105814		0.371325		0
e213																
213		0.022993		-0.001541		-0.269663		0.001223		-0.252891		-0.223095		0.550355		0
e214																
214		0.000192		-0.066206		0.268924		0.016138		-0.153258		-0.184995		0.513080		0
e215																
215		0.019267		-0.002023		-0.140950		0.003564		-0.176061		-0.253732		0.464738		0
e216																
216		-0.000132		-0.058622		0.292492		0.006390		-0.191807		-0.238459		0.533506		0
e217																
217		0.000016		-0.053666		0.305303		0.003534		-0.205827		-0.286411		0.549205		0
e218																
218		-0.019389		-0.001912		-0.140679		0.000359		-0.180226		-0.252590		0.464368		0
e219																
219		0.000170		-0.058998		0.290504		0.000275		-0.188862		-0.239772		0.519952		0
e220																
220		-0.023157		-0.001352		-0.269044		0.000964		-0.255420		-0.222246		0.550524		0
e221																
221		-0.000135		-0.067306		0.263152		-0.010481		-0.145450		-0.187526		0.494311		0
e222																
222		-0.012814		-0.001256		-0.399385		0.000586		-0.340785		-0.156979		0.752101		0
e223																
223		0.002729		-0.080007		0.153949		-0.012510		0.062923		-0.111814		0.329554		0

Plus grande valeur négative

```

Sx      -0.027819 daN/mm2 Elément 209, Sx contrainte d'effort axial Nx
Sty     -0.088005 daN/mm2 Elément 210, Sty contrainte d'effort tranchant Ty
Stz     -0.523824 daN/mm2 Elément 72, Stz contrainte d'effort tranchant Tz
Stx     -0.024422 daN/mm2 Elément 28, Stx contrainte du moment de torsion Mx
Sfy     -0.608289 daN/mm2 Elément 58, Sfy contrainte du moment fléchissant My
Sfz     -0.293060 daN/mm2 Elément 206, Sfz contrainte du moment fléchissant Mz
Plus grande valeur positive
Sx      0.027469 daN/mm2 Elément 202, Sx contrainte d'effort axial Nx
Sty     0.088174 daN/mm2 Elément 17, Sty contrainte d'effort tranchant Ty
Stz     0.547242 daN/mm2 Elément 44, Stz contrainte d'effort tranchant Tz
Stx     0.077405 daN/mm2 Elément 56, Stx contrainte du moment de torsion Mx
Sfy     0.265489 daN/mm2 Elément 44, Sfy contrainte du moment fléchissant My
Sfz     0.254080 daN/mm2 Elément 193, Sfz contrainte du moment fléchissant Mz
Sm      1.102817 daN/mm2 Elément 56, Sm contrainte de Mises (poutre)

```

Propriété 6 LE40\_4  
 Passerelle DDP - Egir  
 calcul 2 'calcul 0'

-----  
 CONTRAINTES [BEAM poutre]

```

Sx contrainte d'effort axial Nx
Sty contrainte d'effort tranchant Ty
Stz contrainte d'effort tranchant Tz
Stx contrainte du moment de torsion Mx
Sfy contrainte du moment fléchissant My
Sfz contrainte du moment fléchissant Mz
Sm contrainte de Mises (poutre)
Stt contrainte de membrane (pression interne)

```

Elément	Sx daN/mm2	Sty daN/mm2	Stz daN/mm2	Stx daN/mm2	Sfy daN/mm2	Sfz daN/mm2	Sm daN/mm2	Stt daN/mm2
e177								
177	-0.385051	0.025641	-0.023254	0.010330	0.172088	-0.338007	0.747110	0
e178								
178	-0.355595	-0.010626	-0.005318	-0.010896	-0.225913	0.372407	0.792150	0
e179								
179	0.229595	-0.018084	-0.005003	0.013212	0.366682	0.485509	0.765082	0
e180								
180	-0.424969	-0.011032	-0.012073	-0.008128	0.622768	0.412472	1.101380	0
e181								
181	0.373340	0.033156	-0.026950	-0.010134	0.241843	-0.524783	0.902786	0
e182								
182	0.282513	-0.027389	0.000032	0.014358	0.390389	0.601940	0.924362	0
e225								
225	-0.237965	0.021043	-0.000471	-0.002160	-0.410198	0.409510	0.818574	0
e226								
226	-0.124161	0.004860	-0.000027	-0.001810	-0.203380	-0.098919	0.344916	0
e227								
227	-0.021365	-0.008733	0.005609	-0.002617	-0.116114	0.104419	0.174597	0
e228								
228	0.091344	-0.024951	0.006168	-0.004967	-0.241334	0.453950	0.607784	0
e229								
229	0.236511	-0.030734	0.030565	0.005798	0.431035	-0.286032	0.706619	0
e230								
230	-0.199510	-0.024467	0.016888	0.001988	-0.199287	-0.286265	0.551058	0
e231								
231	-0.085256	-0.006846	0.005544	0.001353	-0.155938	0.072101	0.252867	0
e232								
232	0.008749	0.009947	-0.004270	0.002304	-0.125715	-0.147009	0.192656	0
e233								
233	0.123067	0.027041	-0.014812	0.004580	-0.080783	-0.395985	0.523036	0
e234								
234	0.280543	0.010999	0.008115	-0.005503	0.463928	0.368950	0.802444	0
e235								
235	0.105852	-0.044465	0.024496	-0.002029	-0.163403	-0.570944	0.686921	0
e236								
236	-0.001946	-0.021023	0.010086	-0.002696	-0.174005	-0.293075	0.311895	0
e237								
237	-0.096714	-0.003149	0.000821	-0.001815	-0.136075	0.048804	0.241436	0
e238								
238	-0.184772	0.009698	-0.002767	-0.002889	-0.144285	-0.161928	0.380954	0

e239									
239	-0.282596	0.027128	-0.010797	-0.004530	-0.139588	-0.420914	0.711840	0	
e240									
240	-0.392448	0.050102	-0.024470	-0.004822	0.146969	-0.709504	1.121931	0	
e241									
241	-0.520971	0.023785	0.003383	0.007602	0.603395	0.542105	1.249269	0	
e242									
242	-0.291422	-0.040583	0.019201	0.004591	0.137465	-0.597454	0.908539	0	
e243									
243	-0.181398	-0.017817	0.005587	0.004039	-0.125911	-0.309536	0.499757	0	
e244									
244	-0.085763	0.000181	-0.003555	0.002039	-0.142723	-0.046970	0.231012	0	
e245									
245	0.002343	0.013024	-0.007229	0.001813	-0.125490	-0.164950	0.200875	0	
e246									
246	0.099840	0.030134	-0.015412	0.002480	-0.178472	-0.400614	0.510430	0	
e247									
247	0.209344	0.052814	-0.029327	0.001806	-0.173623	-0.663512	0.882987	0	
e248									
248	0.340842	0.021929	-0.000339	-0.009893	0.285419	0.558927	0.933587	0	
e249									
249	0.235777	0.053061	-0.013620	0.002133	-0.452277	0.846013	1.199154	0	
e250									
250	0.132277	0.032851	-0.007637	0.001558	-0.382065	0.528473	0.786772	0	
e251									
251	0.039012	0.015296	-0.003723	0.001208	-0.270226	0.244968	0.404812	0	
e252									
252	-0.046070	0.010597	0.000529	-0.000422	-0.233292	0.116140	0.307267	0	
e253									
253	-0.053079	-0.002852	0.003730	0.001382	-0.142463	-0.032023	0.199375	0	
e254									
254	-0.136635	-0.011175	0.006835	0.001959	-0.116617	0.146476	0.324397	0	
e255									
255	-0.228981	-0.028800	0.010603	0.003245	-0.180783	0.446888	0.713476	0	
e256									
256	-0.331612	-0.049043	0.016520	0.004621	0.282798	0.778255	1.140011	0	
e257									
257	-0.458976	-0.040547	0.036918	-0.009988	0.549875	-0.429872	1.059145	0	
e258									
258	0.155387	-0.050894	0.028603	-0.002377	-0.156638	-0.635161	0.801210	0	
e259									
259	0.051287	-0.030609	0.017163	-0.002759	-0.174918	-0.386018	0.460423	0	
e260									
260	-0.039950	-0.012268	0.007720	-0.002250	-0.167272	-0.144358	0.262507	0	
e261									
261	-0.120961	-0.008146	0.005645	-0.001352	-0.171061	0.087630	0.302895	0	
e262									
262	-0.117459	0.010700	-0.005140	-0.000814	-0.144166	-0.086177	0.271332	0	
e263									
263	-0.200665	0.017009	-0.007132	-0.003126	-0.171318	-0.249950	0.472936	0	
e264									
264	-0.292949	0.034901	-0.016368	-0.004335	-0.133687	-0.495809	0.794221	0	
e265									
265	-0.398561	0.054011	-0.026931	-0.004562	0.154277	-0.741803	1.161691	0	
e266									
266	-0.533248	0.030537	-0.000623	0.008975	0.616839	0.636568	1.303447	0	

Plus grande valeur négative

Sx	-0.533248	daN/mm2	Elément 266, Sx	contrainte d'effort axial Nx
Sty	-0.050894	daN/mm2	Elément 258, Sty	contrainte d'effort tranchant Ty
Stz	-0.029327	daN/mm2	Elément 247, Stz	contrainte d'effort tranchant Tz
Stx	-0.010896	daN/mm2	Elément 178, Stx	contrainte du moment de torsion Mx
Sfy	-0.452277	daN/mm2	Elément 249, Sfy	contrainte du moment fléchissant My
Sfz	-0.778830	daN/mm2	Elément 249, Sfz	contrainte du moment fléchissant Mz

Plus grande valeur positive

Sx	0.373340	daN/mm2	Elément 181, Sx	contrainte d'effort axial Nx
Sty	0.054011	daN/mm2	Elément 265, Sty	contrainte d'effort tranchant Ty
Stz	0.036918	daN/mm2	Elément 257, Stz	contrainte d'effort tranchant Tz
Stx	0.014358	daN/mm2	Elément 182, Stx	contrainte du moment de torsion Mx
Sfy	0.622768	daN/mm2	Elément 180, Sfy	contrainte du moment fléchissant My
Sfz	0.846013	daN/mm2	Elément 249, Sfz	contrainte du moment fléchissant Mz
Sm	1.303447	daN/mm2	Elément 266, Sm	contrainte de Mises (poutre)

## Critères de ruine - DTU

Propriété 2 UPN120  
 Passerelle DDP - Egir  
 calcul 1 'calcul 0'

CRITERES DE RUINE (CRITIQUES SI VALEUR > 1)  
 Sc critère de contrainte axiale (CM66, CB71)  
 Tc contrainte de cisaillement/(0.65 S0), (CM66)  
 Mc critère de Mises (ou Tsai-Wu)  
 F\_cm66 flambement simple (CM66 ou CB71)  
 D\_cm66 flambement avec déversement (CM66)  
 V\_cm66 voile CM66 pour profil en I (CM66)

Elément	Sc	Tc	Mc	F_cm66	D_cm66	V_cm66
e11						
11	0.0540586	0.0076062	0.0547327	0.0559077	0.2103515	0.0000003
e12						
12	0.0450922	0.0035522	0.0452692	0.0468185	0.1889155	0.0000002
e13						
13	0.0032787	0.0001269	0.0032818	0.0032830	0.0101785	0.0000000
e14						
14	0.0111790	0.0005456	0.0111959	0.0111844	0.0172298	0.0000000
e22						
22	0.0246683	0.0126304	0.0281461	0.0254201	0.1091007	0.0000002
e23						
23	0.0063275	0.0004422	0.0063470	0.0063310	0.0122431	0.0000000
e24						
24	0.0224941	0.0041830	0.0225165	0.0228977	0.0777413	0.0000000
e25						
25	0.0026008	0.0000707	0.0026020	0.0014102	0.0015818	0.0000000
e35						
35	0.0109536	0.0039689	0.0118299	0.0109660	0.0324201	0.0000000
e36						
36	0.0011941	0.0005948	0.0013691	0.0011951	0.0040453	0.0000000
e37						
37	0.0090993	0.0096396	0.0126608	0.0088755	0.0219636	0.0000001
e38						
38	0.0186707	0.0082814	0.0208692	0.0187158	0.0674439	0.0000001
e39						
39	0.0016896	0.0005736	0.0018088	0.0016896	0.0017606	0.0000000
e40						
40	0.0150287	0.0047381	0.0159473	0.0150050	0.0500591	0.0000000
e41						
41	0.0064405	0.0009244	0.0065240	0.0063055	0.0069452	0.0000000
e48						
48	0.0513082	0.0035614	0.0514646	0.0514949	0.1120530	0.0000002
e49						
49	0.0436250	0.0080890	0.0445654	0.0439560	0.1124024	0.0000002
e50						
50	0.0136490	0.0029427	0.0140453	0.0136518	0.0168585	0.0000000
e51						
51	0.0361044	0.0181879	0.0405359	0.0350479	0.0850878	0.0000005
e52						
52	0.0487010	0.0038544	0.0488940	0.0481092	0.0677719	0.0000002
e62						
62	0.0331520	0.0092851	0.0347610	0.0325570	0.1184381	0.0000002
e63						
63	0.0047583	0.0015076	0.0050520	0.0046346	0.0048051	0.0000000
e64						
64	0.0790441	0.0226418	0.0830527	0.0802783	0.2962256	0.0000011
e65						
65	0.0034228	0.0002639	0.0034357	0.0034231	0.0044214	0.0000000
e100						
100	0.0914847	0.0131210	0.0926696	0.0950705	0.3138920	0.0000008
e101						





Mc critère de Mises (ou Tsai-Wu)  
 F\_cm66 flambement simple (CM66 ou CB71)  
 D\_cm66 flambement avec déversement (CM66)  
 V\_cm66 voile CM66 pour profil en I (CM66)

Elément	Sc	Tc	Mc	F_cm66	D_cm66	V_cm66
e46						
46	0.0128639	0.0006096	0.0128822	0.0128720	0.0130586	0.0000000
e47						
47	0.0047702	0.0003931	0.0047907	0.0047713	0.0049360	0.0000000
e66						
66	0.0160330	0.0002072	0.0160347	0.0160520	0.0164487	0.0000000
e67						
67	0.0231754	0.0008770	0.0231965	0.0232011	0.0235584	0.0000001
e68						
68	0.0463864	0.0014526	0.0464152	0.0464821	0.0470786	0.0000002
e69						
69	0.0132675	0.0004761	0.0132783	0.0132789	0.0135766	0.0000000
e76						
76	0.0268614	0.0016409	0.0269249	0.0269762	0.0320614	0.0000001
e77						
77	0.0249879	0.0013984	0.0250374	0.0251024	0.0304339	0.0000001
e78						
78	0.0406142	0.0019107	0.0406711	0.0409606	0.0495814	0.0000002
e79						
79	0.0291793	0.0011382	0.0292074	0.0293905	0.0357881	0.0000001
e80						
80	0.0126139	0.0013470	0.0127047	0.0126244	0.0133367	0.0000000
e81						
81	0.0093720	0.0005994	0.0093962	0.0093794	0.0100879	0.0000000
e82						
82	0.0129125	0.0009178	0.0129538	0.0129293	0.0141881	0.0000000
e83						
83	0.0162542	0.0008711	0.0162837	0.0162868	0.0179678	0.0000000
e183						
183	0.0101118	0.0001373	0.0101130	0.0101147	0.0102756	0.0000000
e184						
184	0.0105539	0.0013151	0.0106572	0.0105559	0.0107064	0.0000000

Plus grande valeur positive

Sc	0.0463864	Elément 68, Sc critère de contrainte axiale (CM66, CB71)
Tc	0.0019107	Elément 78, Tc contrainte de cisaillement/(0.65 S0), (CM66)
Mc	0.0464152	Elément 68, Mc critère de Mises (ou Tsai-Wu)
F_cm66	0.0464821	Elément 68, F_cm66 flambement simple (CM66 ou CB71)
D_cm66	0.0495814	Elément 78, D_cm66 flambement avec déversement (CM66)
V_cm66	0.0000002	Elément 68, V_cm66 voile CM66 pour profil en I (CM66)

Propriété 4 Limon plat 220x10  
 Passerelle DDP - Egir  
 calcul 1 'calcul 0'

CRITERES DE RUINE (CRITIQUES SI VALEUR > 1)  
 Sc critère de contrainte axiale (CM66, CB71)  
 Tc contrainte de cisaillement/(0.65 S0), (CM66)  
 Mc critère de Mises (ou Tsai-Wu)  
 F\_cm66 flambement simple (CM66 ou CB71)  
 D\_cm66 flambement avec déversement (CM66)  
 V\_cm66 voile CM66 pour profil en I (CM66)

Elément	Sc	Tc	Mc	F_cm66	D_cm66	V_cm66
e1						
1	0.0502854	0.0086155	0.0512124	0.0522455	0.5031732	0.0000000
e2						
2	0.0546506	0.0086854	0.0555185	0.0589525	0.5522642	0.0000000
e15						
15	0.0251212	0.0028277	0.0253221	0.0265169	0.3015723	0.0000000
e16						
16	0.0268183	0.0028574	0.0270106	0.0289781	0.3941555	0.0000000
e26						





```

175      |0.0145717|0.0058967|0.0160127|0.0155156|0.1458857|0.0000000|
e176----+-----+-----+-----+-----+-----+-----+
176      |0.0250828|0.0055530|0.0258502|0.0263329|0.0836678|0.0000000|
-----+-----+-----+-----+-----+-----+

```

Plus grande valeur positive

```

Sc      0.0546506      Elément 2, Sc critère de contrainte axiale (CM66, CB71)
Tc      0.0110190      Elément 54, Tc contrainte de cisaillement/(0.65 S0), (CM66)
Mc      0.0555185      Elément 2, Mc critère de Mises (ou Tsai-Wu)
F_cm66 0.0591052      Elément 142, F_cm66 flambement simple (CM66 ou CB71)
D_cm66 0.6522696      Elément 26, D_cm66 flambement avec déversement (CM66)
V_cm66 0.0000000      Elément 53, V_cm66 voile CM66 pour profil en I (CM66)
-----+-----+-----+-----+-----+-----+

```

```

Propriété 5 marche 800x250
Passerelle DDP - Egir
calcul 1 'calcul 0'
-----+-----+-----+-----+-----+-----+

```

CRITERES DE RUINE (CRITIQUES SI VALEUR > 1)

```

Sc critère de contrainte axiale (CM66, CB71)
Tc contrainte de cisaillement/(0.65 S0), (CM66)
Mc critère de Mises (ou Tsai-Wu)
F_cm66 flambement simple (CM66 ou CB71)
D_cm66 flambement avec déversement (CM66)
V_cm66 voile CM66 pour profil en I (CM66)
-----+-----+-----+-----+-----+-----+

```

Elément	Sc	Tc	Mc	F_cm66	D_cm66	V_cm66
e3-----						
3	0.0046891	0.0143711	0.0167377	0.0045238	0.0045238	0.0000086
e4-----						
4	0.0117432	0.0179971	0.0206432	0.0117433	0.0117462	0.0000135
e5-----						
5	0.0155323	0.0194002	0.0221430	0.0155323	0.0155329	0.0000157
e6-----						
6	0.0167792	0.0205399	0.0234279	0.0167687	0.0167687	0.0000176
e7-----						
7	0.0171750	0.0207824	0.0237159	0.0171717	0.0171717	0.0000180
e8-----						
8	0.0168724	0.0202405	0.0230904	0.0168724	0.0168735	0.0000170
e9-----						
9	0.0133681	0.0193562	0.0220919	0.0133666	0.0133666	0.0000156
e10-----						
10	0.0045205	0.0138549	0.0161100	0.0045205	0.0045274	0.0000080
e17-----						
17	0.0066606	0.0104552	0.0120789	0.0066606	0.0066682	0.0000046
e18-----						
18	0.0153995	0.0177840	0.0202472	0.0153996	0.0154023	0.0000132
e19-----						
19	0.0162791	0.0194347	0.0221671	0.0162693	0.0162693	0.0000157
e20-----						
20	0.0142925	0.0169803	0.0193668	0.0142925	0.0142934	0.0000120
e21-----						
21	0.0066340	0.0113262	0.0131319	0.0065022	0.0065022	0.0000053
e28-----						
28	0.0052886	0.0136088	0.0158114	0.0052886	0.0052990	0.0000077
e29-----						
29	0.0142213	0.0194335	0.0222258	0.0142185	0.0142185	0.0000157
e30-----						
30	0.0170757	0.0201068	0.0229974	0.0170757	0.0170771	0.0000168
e31-----						
31	0.0175103	0.0207572	0.0237576	0.0175102	0.0175102	0.0000179
e32-----						
32	0.0169827	0.0201084	0.0230001	0.0169667	0.0169667	0.0000168
e33-----						
33	0.0141123	0.0192755	0.0220579	0.0141123	0.0141127	0.0000155
e34-----						
34	0.0051964	0.0137458	0.0160174	0.0050868	0.0050868	0.0000079
e44-----						
44	0.0277499	0.0362861	0.0434487	0.0277529	0.0277810	0.0000551
e45-----						
45	0.0278353	0.0363596	0.0435090	0.0274681	0.0274681	0.0000553
e55-----						

55		0.0277537		0.0391738		0.0457909		0.0277566		0.0277843		0.0000640	
e56	----	+	----	+	----	+	----	+	----	+	----	+	----
56		0.0284998		0.0391953		0.0459507		0.0284998		0.0284999		0.0000641	
e57	----	+	----	+	----	+	----	+	----	+	----	+	----
57		0.0285250		0.0391199		0.0458665		0.0285250		0.0285250		0.0000639	
e58	----	+	----	+	----	+	----	+	----	+	----	+	----
58		0.0285259		0.0389425		0.0456726		0.0285259		0.0285259		0.0000633	
e59	----	+	----	+	----	+	----	+	----	+	----	+	----
59		0.0285252		0.0386586		0.0453634		0.0285249		0.0285249		0.0000624	
e60	----	+	----	+	----	+	----	+	----	+	----	+	----
60		0.0285084		0.0382599		0.0449321		0.0285084		0.0285085		0.0000611	
e61	----	+	----	+	----	+	----	+	----	+	----	+	----
61		0.0279036		0.0377103		0.0441802		0.0275260		0.0275260		0.0000594	
e72	----	+	----	+	----	+	----	+	----	+	----	+	----
72		0.0278827		0.0345272		0.0404287		0.0278858		0.0279157		0.0000498	
e73	----	+	----	+	----	+	----	+	----	+	----	+	----
73		0.0285057		0.0347316		0.0407965		0.0285046		0.0285046		0.0000504	
e74	----	+	----	+	----	+	----	+	----	+	----	+	----
74		0.0284995		0.0346830		0.0407481		0.0284985		0.0284985		0.0000502	
e75	----	+	----	+	----	+	----	+	----	+	----	+	----
75		0.0277859		0.0343821		0.0403039		0.0274319		0.0274319		0.0000494	
e185	----	+	----	+	----	+	----	+	----	+	----	+	----
185		0.0222459		0.0276572		0.0339177		0.0222487		0.0222910		0.0000321	
e186	----	+	----	+	----	+	----	+	----	+	----	+	----
186		0.0046384		0.0134687		0.0157868		0.0045510		0.0045510		0.0000076	
e187	----	+	----	+	----	+	----	+	----	+	----	+	----
187		0.0212727		0.0198008		0.0246706		0.0212761		0.0213417		0.0000165	
e188	----	+	----	+	----	+	----	+	----	+	----	+	----
188		0.0132524		0.0195658		0.0224048		0.0132499		0.0132499		0.0000159	
e189	----	+	----	+	----	+	----	+	----	+	----	+	----
189		0.0193908		0.0118160		0.0205351		0.0193931		0.0194499		0.0000063	
e190	----	+	----	+	----	+	----	+	----	+	----	+	----
190		0.0169535		0.0206541		0.0236409		0.0169358		0.0169358		0.0000178	
e191	----	+	----	+	----	+	----	+	----	+	----	+	----
191		0.0172276		0.0039532		0.0173838		0.0172288		0.0172743		0.0000012	
e192	----	+	----	+	----	+	----	+	----	+	----	+	----
192		0.0172709		0.0212725		0.0243610		0.0172688		0.0172688		0.0000188	
e193	----	+	----	+	----	+	----	+	----	+	----	+	----
193		0.0172229		0.0043683		0.0174157		0.0166799		0.0166799		0.0000014	
e194	----	+	----	+	----	+	----	+	----	+	----	+	----
194		0.0169115		0.0210612		0.0241120		0.0169116		0.0169128		0.0000185	
e195	----	+	----	+	----	+	----	+	----	+	----	+	----
195		0.0194115		0.0119243		0.0204999		0.0187009		0.0187009		0.0000064	
e196	----	+	----	+	----	+	----	+	----	+	----	+	----
196		0.0156256		0.0198655		0.0227511		0.0156219		0.0156219		0.0000164	
e197	----	+	----	+	----	+	----	+	----	+	----	+	----
197		0.0213173		0.0193054		0.0243442		0.0204936		0.0204936		0.0000157	
e198	----	+	----	+	----	+	----	+	----	+	----	+	----
198		0.0117320		0.0184238		0.0212150		0.0116952		0.0116952		0.0000141	
e199	----	+	----	+	----	+	----	+	----	+	----	+	----
199		0.0223570		0.0271119		0.0328020		0.0218790		0.0218790		0.0000308	
e200	----	+	----	+	----	+	----	+	----	+	----	+	----
200		0.0054523		0.0138740		0.0162666		0.0054523		0.0054688		0.0000080	
e202	----	+	----	+	----	+	----	+	----	+	----	+	----
202		0.0209109		0.0238552		0.0296519		0.0197663		0.0197663		0.0000240	
e203	----	+	----	+	----	+	----	+	----	+	----	+	----
203		0.0063969		0.0114525		0.0132216		0.0063969		0.0064077		0.0000055	
e204	----	+	----	+	----	+	----	+	----	+	----	+	----
204		0.0187841		0.0119451		0.0201804		0.0176532		0.0176532		0.0000064	
e205	----	+	----	+	----	+	----	+	----	+	----	+	----
205		0.0142642		0.0170160		0.0193762		0.0142514		0.0142514		0.0000120	
e206	----	+	----	+	----	+	----	+	----	+	----	+	----
206		0.0161718		0.0191220		0.0221248		0.0161719		0.0161726		0.0000152	
e207	----	+	----	+	----	+	----	+	----	+	----	+	----
207		0.0188173		0.0117727		0.0200173		0.0188203		0.0189116		0.0000062	
e208	----	+	----	+	----	+	----	+	----	+	----	+	----
208		0.0153364		0.0175446		0.0199531		0.0153059		0.0153059		0.0000128	
e209	----	+	----	+	----	+	----	+	----	+	----	+	----
209		0.0209031		0.0235104		0.0290975		0.0209081		0.0210009		0.0000233	
e210	----	+	----	+	----	+	----	+	----	+	----	+	----
210		0.0065651		0.0106816		0.0123143		0.0064809		0.0064809		0.0000048	
e211	----	+	----	+	----	+	----	+	----	+	----	+	----







266 |0.0670121|0.0025331|0.0543103|0.0789305|0.5400494|0.0000000|

-----  
Plus grande valeur positive

Sc 0.0670121 Elément 266, Sc critère de contrainte axiale (CM66, CB71)  
 Tc 0.0041325 Elément 265, Tc contrainte de cisaillement/(0.65 S0), (CM66)  
 Mc 0.0543103 Elément 266, Mc critère de Mises (ou Tsai-Wu)  
 F\_cm66 0.0789305 Elément 266, F\_cm66 flambement simple (CM66 ou CB71)  
 D\_cm66 0.5400494 Elément 266, D\_cm66 flambement avec déversement (CM66)  
 V\_cm66 0.0000000 Elément 266, V\_cm66 voile CM66 pour profil en I (CM66)  
 -----

Propriété 2 UPN120  
 Passerelle DDP - Egir  
 calcul 2 'calcul 0'

-----  
 CRITERES DE RUINE (CRITIQUES SI VALEUR > 1)  
 Sc critère de contrainte axiale (CM66, CB71)  
 Tc contrainte de cisaillement/(0.65 S0), (CM66)  
 Mc critère de Mises (ou Tsai-Wu)  
 F\_cm66 flambement simple (CM66 ou CB71)  
 D\_cm66 flambement avec déversement (CM66)  
 V\_cm66 voile CM66 pour profil en I (CM66)  
 -----

Elément	Sc	Tc	Mc	F_cm66	D_cm66	V_cm66
e11						
11	0.0540586	0.0076062	0.0547327	0.0559077	0.2103515	0.0000003
e12						
12	0.0450922	0.0035522	0.0452692	0.0468185	0.1889155	0.0000002
e13						
13	0.0032787	0.0001269	0.0032818	0.0032830	0.0101785	0.0000000
e14						
14	0.0111790	0.0005456	0.0111959	0.0111844	0.0172298	0.0000000
e22						
22	0.0246683	0.0126304	0.0281461	0.0254201	0.1091007	0.0000002
e23						
23	0.0063275	0.0004422	0.0063470	0.0063310	0.0122431	0.0000000
e24						
24	0.0224941	0.0041830	0.0225165	0.0228977	0.0777413	0.0000000
e25						
25	0.0026008	0.0000707	0.0026020	0.0014102	0.0015818	0.0000000
e35						
35	0.0109536	0.0039689	0.0118299	0.0109660	0.0324201	0.0000000
e36						
36	0.0011941	0.0005948	0.0013691	0.0011951	0.0040453	0.0000000
e37						
37	0.0090993	0.0096396	0.0126608	0.0088755	0.0219636	0.0000001
e38						
38	0.0186707	0.0082814	0.0208692	0.0187158	0.0674439	0.0000001
e39						
39	0.0016896	0.0005736	0.0018088	0.0016896	0.0017606	0.0000000
e40						
40	0.0150287	0.0047381	0.0159473	0.0150050	0.0500591	0.0000000
e41						
41	0.0064405	0.0009244	0.0065240	0.0063055	0.0069452	0.0000000
e48						
48	0.0513082	0.0035614	0.0514646	0.0514949	0.1120530	0.0000002
e49						
49	0.0436250	0.0080890	0.0445654	0.0439560	0.1124024	0.0000002
e50						
50	0.0136490	0.0029427	0.0140453	0.0136518	0.0168585	0.0000000
e51						
51	0.0361044	0.0181879	0.0405359	0.0350479	0.0850878	0.0000005
e52						
52	0.0487010	0.0038544	0.0488940	0.0481092	0.0677719	0.0000002
e62						
62	0.0331520	0.0092851	0.0347610	0.0325570	0.1184381	0.0000002
e63						
63	0.0047583	0.0015076	0.0050520	0.0046346	0.0048051	0.0000000
e64						
64	0.0790441	0.0226418	0.0830527	0.0802783	0.2962256	0.0000011
e65						



-----  
 CRITERES DE RUINE (CRITIQUES SI VALEUR > 1)  
 Sc critère de contrainte axiale (CM66, CB71)  
 Tc contrainte de cisaillement/(0.65 S0), (CM66)  
 Mc critère de Mises (ou Tsai-Wu)  
 F\_cm66 flambement simple (CM66 ou CB71)  
 D\_cm66 flambement avec déversement (CM66)  
 V\_cm66 voile CM66 pour profil en I (CM66)  
 -----

Elément	Sc	Tc	Mc	F_cm66	D_cm66	V_cm66
e46						
46	0.0128639	0.0006096	0.0128822	0.0128720	0.0130586	0.0000000
e47						
47	0.0047702	0.0003931	0.0047907	0.0047713	0.0049360	0.0000000
e66						
66	0.0160330	0.0002072	0.0160347	0.0160520	0.0164487	0.0000000
e67						
67	0.0231754	0.0008770	0.0231965	0.0232011	0.0235584	0.0000001
e68						
68	0.0463864	0.0014526	0.0464152	0.0464821	0.0470786	0.0000002
e69						
69	0.0132675	0.0004761	0.0132783	0.0132789	0.0135766	0.0000000
e76						
76	0.0268614	0.0016409	0.0269249	0.0269762	0.0320614	0.0000001
e77						
77	0.0249879	0.0013984	0.0250374	0.0251024	0.0304339	0.0000001
e78						
78	0.0406142	0.0019107	0.0406711	0.0409606	0.0495814	0.0000002
e79						
79	0.0291793	0.0011382	0.0292074	0.0293905	0.0357881	0.0000001
e80						
80	0.0126139	0.0013470	0.0127047	0.0126244	0.0133367	0.0000000
e81						
81	0.0093720	0.0005994	0.0093962	0.0093794	0.0100879	0.0000000
e82						
82	0.0129125	0.0009178	0.0129538	0.0129293	0.0141881	0.0000000
e83						
83	0.0162542	0.0008711	0.0162837	0.0162868	0.0179678	0.0000000
e183						
183	0.0101118	0.0001373	0.0101130	0.0101147	0.0102756	0.0000000
e184						
184	0.0105539	0.0013151	0.0106572	0.0105559	0.0107064	0.0000000

Plus grande valeur positive

Sc 0.0463864 Elément 68, Sc critère de contrainte axiale (CM66, CB71)  
 Tc 0.0019107 Elément 78, Tc contrainte de cisaillement/(0.65 S0), (CM66)  
 Mc 0.0464152 Elément 68, Mc critère de Mises (ou Tsai-Wu)  
 F\_cm66 0.0464821 Elément 68, F\_cm66 flambement simple (CM66 ou CB71)  
 D\_cm66 0.0495814 Elément 78, D\_cm66 flambement avec déversement (CM66)  
 V\_cm66 0.0000002 Elément 68, V\_cm66 voile CM66 pour profil en I (CM66)  
 -----

Propriété 4 Limon plat 220x10  
 Passerelle DDP - Egir  
 calcul 2 'calcul 0'  
 -----

CRITERES DE RUINE (CRITIQUES SI VALEUR > 1)  
 Sc critère de contrainte axiale (CM66, CB71)  
 Tc contrainte de cisaillement/(0.65 S0), (CM66)  
 Mc critère de Mises (ou Tsai-Wu)  
 F\_cm66 flambement simple (CM66 ou CB71)  
 D\_cm66 flambement avec déversement (CM66)  
 V\_cm66 voile CM66 pour profil en I (CM66)  
 -----

Elément	Sc	Tc	Mc	F_cm66	D_cm66	V_cm66
e1						
1	0.0502854	0.0086155	0.0512124	0.0522455	0.5031732	0.0000000
e2						
2	0.0546506	0.0086854	0.0555185	0.0589525	0.5522642	0.0000000
e15						

15	0.0251212	0.0028277	0.0253221	0.0265169	0.3015723	0.0000000
e16	-----+	-----+	-----+	-----+	-----+	-----+
16	0.0268183	0.0028574	0.0270106	0.0289781	0.3941555	0.0000000
e26	-----+	-----+	-----+	-----+	-----+	-----+
26	0.0203373	0.0045914	0.0209839	0.0303236	0.6522696	0.0000000
e27	-----+	-----+	-----+	-----+	-----+	-----+
27	0.0492338	0.0080563	0.0500623	0.0516255	0.5606999	0.0000000
e42	-----+	-----+	-----+	-----+	-----+	-----+
42	0.0148301	0.0059513	0.0162734	0.0149055	0.0274370	0.0000000
e43	-----+	-----+	-----+	-----+	-----+	-----+
43	0.0261538	0.0049333	0.0267370	0.0254924	0.0268633	0.0000000
e53	-----+	-----+	-----+	-----+	-----+	-----+
53	0.0518353	0.0103986	0.0531409	0.0579605	0.6458738	0.0000000
e54	-----+	-----+	-----+	-----+	-----+	-----+
54	0.0423360	0.0110190	0.0441161	0.0439157	0.1979542	0.0000000
e70	-----+	-----+	-----+	-----+	-----+	-----+
70	0.0341285	0.0088616	0.0355568	0.0381824	0.4115874	0.0000000
e71	-----+	-----+	-----+	-----+	-----+	-----+
71	0.0438268	0.0096604	0.0451562	0.0457649	0.2475631	0.0000000
e84	-----+	-----+	-----+	-----+	-----+	-----+
84	0.0326111	0.0052869	0.0331498	0.0409366	0.5236805	0.0000000
e85	-----+	-----+	-----+	-----+	-----+	-----+
85	0.0195426	0.0038953	0.0200286	0.0270295	0.5210494	0.0000000
e86	-----+	-----+	-----+	-----+	-----+	-----+
86	0.0286947	0.0026958	0.0288547	0.0362295	0.5361840	0.0000000
e87	-----+	-----+	-----+	-----+	-----+	-----+
87	0.0332715	0.0013279	0.0333051	0.0409920	0.5399312	0.0000000
e88	-----+	-----+	-----+	-----+	-----+	-----+
88	0.0333880	0.0002465	0.0333891	0.0411322	0.5373943	0.0000000
e89	-----+	-----+	-----+	-----+	-----+	-----+
89	0.0326338	0.0015887	0.0326827	0.0400259	0.5386132	0.0000000
e90	-----+	-----+	-----+	-----+	-----+	-----+
90	0.0274688	0.0029624	0.0276706	0.0351550	0.5439551	0.0000000
e91	-----+	-----+	-----+	-----+	-----+	-----+
91	0.0164771	0.0065187	0.0180376	0.0237205	0.5635709	0.0000000
e92	-----+	-----+	-----+	-----+	-----+	-----+
92	0.0343012	0.0054655	0.0348487	0.0435674	0.5685715	0.0000000
e93	-----+	-----+	-----+	-----+	-----+	-----+
93	0.0198857	0.0041146	0.0204181	0.0295336	0.5622537	0.0000000
e94	-----+	-----+	-----+	-----+	-----+	-----+
94	0.0299411	0.0027397	0.0300996	0.0402470	0.5747960	0.0000000
e95	-----+	-----+	-----+	-----+	-----+	-----+
95	0.0347145	0.0014772	0.0347543	0.0448008	0.5750815	0.0000000
e96	-----+	-----+	-----+	-----+	-----+	-----+
96	0.0343330	0.0003342	0.0343350	0.0438817	0.5702377	0.0000000
e97	-----+	-----+	-----+	-----+	-----+	-----+
97	0.0343422	0.0013622	0.0343765	0.0440188	0.5730147	0.0000000
e98	-----+	-----+	-----+	-----+	-----+	-----+
98	0.0302423	0.0027485	0.0304002	0.0413284	0.5808334	0.0000000
e99	-----+	-----+	-----+	-----+	-----+	-----+
99	0.0178581	0.0055361	0.0189145	0.0260803	0.6040515	0.0000000
e110	-----+	-----+	-----+	-----+	-----+	-----+
110	0.0279860	0.0001774	0.0279867	0.0310486	0.3491312	0.0000000
e111	-----+	-----+	-----+	-----+	-----+	-----+
111	0.0277383	0.0014076	0.0277835	0.0307388	0.3635686	0.0000000
e112	-----+	-----+	-----+	-----+	-----+	-----+
112	0.0235406	0.0027534	0.0237439	0.0268603	0.3621715	0.0000000
e113	-----+	-----+	-----+	-----+	-----+	-----+
113	0.0144264	0.0041160	0.0151524	0.0173866	0.3647981	0.0000000
e114	-----+	-----+	-----+	-----+	-----+	-----+
114	0.0305351	0.0066922	0.0314509	0.0317872	0.4288327	0.0000000
e115	-----+	-----+	-----+	-----+	-----+	-----+
115	0.0283980	0.0002148	0.0283990	0.0321541	0.4442066	0.0000000
e116	-----+	-----+	-----+	-----+	-----+	-----+
116	0.0290576	0.0015071	0.0291071	0.0336378	0.4598820	0.0000000
e117	-----+	-----+	-----+	-----+	-----+	-----+
117	0.0240986	0.0028092	0.0243052	0.0287375	0.4581981	0.0000000
e118	-----+	-----+	-----+	-----+	-----+	-----+
118	0.0159748	0.0041018	0.0166288	0.0211833	0.4644302	0.0000000
e119	-----+	-----+	-----+	-----+	-----+	-----+
119	0.0312188	0.0068107	0.0321467	0.0327786	0.5209394	0.0000000
e124	-----+	-----+	-----+	-----+	-----+	-----+

124	0.0281568	0.0018135	0.0282307	0.0399221	0.6293837	0.0000000
e125	-----+	-----+	-----+	-----+	-----+	-----+
125	0.0294214	0.0005009	0.0294268	0.0406489	0.6184510	0.0000000
e126	-----+	-----+	-----+	-----+	-----+	-----+
126	0.0296411	0.0010657	0.0296654	0.0412023	0.6161703	0.0000000
e127	-----+	-----+	-----+	-----+	-----+	-----+
127	0.0264177	0.0023202	0.0265465	0.0383643	0.6158066	0.0000000
e128	-----+	-----+	-----+	-----+	-----+	-----+
128	0.0177945	0.0036554	0.0182642	0.0288883	0.6020125	0.0000000
e129	-----+	-----+	-----+	-----+	-----+	-----+
129	0.0338597	0.0050439	0.0343326	0.0446511	0.6076725	0.0000000
e130	-----+	-----+	-----+	-----+	-----+	-----+
130	0.0523742	0.0081324	0.0531684	0.0569139	0.5913865	0.0000000
e131	-----+	-----+	-----+	-----+	-----+	-----+
131	0.0316841	0.0048865	0.0321582	0.0402517	0.5852185	0.0000000
e132	-----+	-----+	-----+	-----+	-----+	-----+
132	0.0166199	0.0035603	0.0170964	0.0254466	0.5843430	0.0000000
e133	-----+	-----+	-----+	-----+	-----+	-----+
133	0.0245654	0.0022471	0.0246953	0.0339764	0.6005023	0.0000000
e134	-----+	-----+	-----+	-----+	-----+	-----+
134	0.0273531	0.0008280	0.0273689	0.0366154	0.6043939	0.0000000
e135	-----+	-----+	-----+	-----+	-----+	-----+
135	0.0274066	0.0005813	0.0274144	0.0368265	0.6106534	0.0000000
e136	-----+	-----+	-----+	-----+	-----+	-----+
136	0.0257130	0.0019448	0.0258061	0.0358660	0.6239003	0.0000000
e137	-----+	-----+	-----+	-----+	-----+	-----+
137	0.0174364	0.0053956	0.0184642	0.0258322	0.6446498	0.0000000
e140	-----+	-----+	-----+	-----+	-----+	-----+
140	0.0208112	0.0007450	0.0208281	0.0218082	0.0934931	0.0000000
e141	-----+	-----+	-----+	-----+	-----+	-----+
141	0.0312127	0.0009375	0.0312306	0.0310888	0.0325218	0.0000000
e142	-----+	-----+	-----+	-----+	-----+	-----+
142	0.0387063	0.0067571	0.0394468	0.0591052	0.5812476	0.0000000
e143	-----+	-----+	-----+	-----+	-----+	-----+
143	0.0336160	0.0056035	0.0342029	0.0492408	0.5077468	0.0000000
e144	-----+	-----+	-----+	-----+	-----+	-----+
144	0.0432493	0.0043690	0.0435281	0.0552259	0.4520378	0.0000000
e145	-----+	-----+	-----+	-----+	-----+	-----+
145	0.0480049	0.0031018	0.0481318	0.0570449	0.3914398	0.0000000
e146	-----+	-----+	-----+	-----+	-----+	-----+
146	0.0478963	0.0018628	0.0479422	0.0545248	0.3257960	0.0000000
e147	-----+	-----+	-----+	-----+	-----+	-----+
147	0.0466417	0.0025961	0.0467332	0.0512659	0.2592241	0.0000000
e148	-----+	-----+	-----+	-----+	-----+	-----+
148	0.0368607	0.0076582	0.0378556	0.0388387	0.1825043	0.0000000
e149	-----+	-----+	-----+	-----+	-----+	-----+
149	0.0312392	0.0060253	0.0319672	0.0333058	0.1159096	0.0000000
e150	-----+	-----+	-----+	-----+	-----+	-----+
150	0.0390911	0.0047858	0.0394607	0.0393812	0.0546281	0.0000000
e151	-----+	-----+	-----+	-----+	-----+	-----+
151	0.0479110	0.0035513	0.0480775	0.0474953	0.0516444	0.0000000
e152	-----+	-----+	-----+	-----+	-----+	-----+
152	0.0521279	0.0022977	0.0521921	0.0512059	0.0558652	0.0000000
e153	-----+	-----+	-----+	-----+	-----+	-----+
153	0.0533625	0.0020297	0.0534114	0.0519341	0.0566991	0.0000000
e154	-----+	-----+	-----+	-----+	-----+	-----+
154	0.0527407	0.0032658	0.0528687	0.0508060	0.0554223	0.0000000
e155	-----+	-----+	-----+	-----+	-----+	-----+
155	0.0412000	0.0065418	0.0418531	0.0387616	0.0424722	0.0000000
e160	-----+	-----+	-----+	-----+	-----+	-----+
160	0.0288624	0.0034490	0.0291225	0.0378267	0.3441307	0.0000000
e161	-----+	-----+	-----+	-----+	-----+	-----+
161	0.0261043	0.0021006	0.0262112	0.0325034	0.2732836	0.0000000
e162	-----+	-----+	-----+	-----+	-----+	-----+
162	0.0274105	0.0007681	0.0274241	0.0316845	0.2074656	0.0000000
e163	-----+	-----+	-----+	-----+	-----+	-----+
163	0.0210705	0.0049800	0.0218037	0.0226566	0.1331326	0.0000000
e164	-----+	-----+	-----+	-----+	-----+	-----+
164	0.0348923	0.0043363	0.0352321	0.0380960	0.1709647	0.0000000
e165	-----+	-----+	-----+	-----+	-----+	-----+
165	0.0269018	0.0031369	0.0271327	0.0283546	0.0937125	0.0000000
e166	-----+	-----+	-----+	-----+	-----+	-----+



44	0.0277499	0.0362861	0.0434487	0.0277529	0.0277810	0.0000551
e45	-----+	-----+	-----+	-----+	-----+	-----+
45	0.0278353	0.0363596	0.0435090	0.0274681	0.0274681	0.0000553
e55	-----+	-----+	-----+	-----+	-----+	-----+
55	0.0277537	0.0391738	0.0457909	0.0277566	0.0277843	0.0000640
e56	-----+	-----+	-----+	-----+	-----+	-----+
56	0.0284998	0.0391953	0.0459507	0.0284998	0.0284999	0.0000641
e57	-----+	-----+	-----+	-----+	-----+	-----+
57	0.0285250	0.0391199	0.0458665	0.0285250	0.0285250	0.0000639
e58	-----+	-----+	-----+	-----+	-----+	-----+
58	0.0285259	0.0389425	0.0456726	0.0285259	0.0285259	0.0000633
e59	-----+	-----+	-----+	-----+	-----+	-----+
59	0.0285252	0.0386586	0.0453634	0.0285249	0.0285249	0.0000624
e60	-----+	-----+	-----+	-----+	-----+	-----+
60	0.0285084	0.0382599	0.0449321	0.0285084	0.0285085	0.0000611
e61	-----+	-----+	-----+	-----+	-----+	-----+
61	0.0279036	0.0377103	0.0441802	0.0275260	0.0275260	0.0000594
e72	-----+	-----+	-----+	-----+	-----+	-----+
72	0.0278827	0.0345272	0.0404287	0.0278858	0.0279157	0.0000498
e73	-----+	-----+	-----+	-----+	-----+	-----+
73	0.0285057	0.0347316	0.0407965	0.0285046	0.0285046	0.0000504
e74	-----+	-----+	-----+	-----+	-----+	-----+
74	0.0284995	0.0346830	0.0407481	0.0284985	0.0284985	0.0000502
e75	-----+	-----+	-----+	-----+	-----+	-----+
75	0.0277859	0.0343821	0.0403039	0.0274319	0.0274319	0.0000494
e185	-----+	-----+	-----+	-----+	-----+	-----+
185	0.0222459	0.0276572	0.0339177	0.0222487	0.0222910	0.0000321
e186	-----+	-----+	-----+	-----+	-----+	-----+
186	0.0046384	0.0134687	0.0157868	0.0045510	0.0045510	0.0000076
e187	-----+	-----+	-----+	-----+	-----+	-----+
187	0.0212727	0.0198008	0.0246706	0.0212761	0.0213417	0.0000165
e188	-----+	-----+	-----+	-----+	-----+	-----+
188	0.0132524	0.0195658	0.0224048	0.0132499	0.0132499	0.0000159
e189	-----+	-----+	-----+	-----+	-----+	-----+
189	0.0193908	0.0118160	0.0205351	0.0193931	0.0194499	0.0000063
e190	-----+	-----+	-----+	-----+	-----+	-----+
190	0.0169535	0.0206541	0.0236409	0.0169358	0.0169358	0.0000178
e191	-----+	-----+	-----+	-----+	-----+	-----+
191	0.0172276	0.0039532	0.0173838	0.0172288	0.0172743	0.0000012
e192	-----+	-----+	-----+	-----+	-----+	-----+
192	0.0172709	0.0212725	0.0243610	0.0172688	0.0172688	0.0000188
e193	-----+	-----+	-----+	-----+	-----+	-----+
193	0.0172229	0.0043683	0.0174157	0.0166799	0.0166799	0.0000014
e194	-----+	-----+	-----+	-----+	-----+	-----+
194	0.0169115	0.0210612	0.0241120	0.0169116	0.0169128	0.0000185
e195	-----+	-----+	-----+	-----+	-----+	-----+
195	0.0194115	0.0119243	0.0204999	0.0187009	0.0187009	0.0000064
e196	-----+	-----+	-----+	-----+	-----+	-----+
196	0.0156256	0.0198655	0.0227511	0.0156219	0.0156219	0.0000164
e197	-----+	-----+	-----+	-----+	-----+	-----+
197	0.0213173	0.0193054	0.0243442	0.0204936	0.0204936	0.0000157
e198	-----+	-----+	-----+	-----+	-----+	-----+
198	0.0117320	0.0184238	0.0212150	0.0116952	0.0116952	0.0000141
e199	-----+	-----+	-----+	-----+	-----+	-----+
199	0.0223570	0.0271119	0.0328020	0.0218790	0.0218790	0.0000308
e200	-----+	-----+	-----+	-----+	-----+	-----+
200	0.0054523	0.0138740	0.0162666	0.0054523	0.0054688	0.0000080
e202	-----+	-----+	-----+	-----+	-----+	-----+
202	0.0209109	0.0238552	0.0296519	0.0197663	0.0197663	0.0000240
e203	-----+	-----+	-----+	-----+	-----+	-----+
203	0.0063969	0.0114525	0.0132216	0.0063969	0.0064077	0.0000055
e204	-----+	-----+	-----+	-----+	-----+	-----+
204	0.0187841	0.0119451	0.0201804	0.0176532	0.0176532	0.0000064
e205	-----+	-----+	-----+	-----+	-----+	-----+
205	0.0142642	0.0170160	0.0193762	0.0142514	0.0142514	0.0000120
e206	-----+	-----+	-----+	-----+	-----+	-----+
206	0.0161718	0.0191220	0.0221248	0.0161719	0.0161726	0.0000152
e207	-----+	-----+	-----+	-----+	-----+	-----+
207	0.0188173	0.0117727	0.0200173	0.0188203	0.0189116	0.0000062
e208	-----+	-----+	-----+	-----+	-----+	-----+
208	0.0153364	0.0175446	0.0199531	0.0153059	0.0153059	0.0000128
e209	-----+	-----+	-----+	-----+	-----+	-----+

209	0.0209031	0.0235104	0.0290975	0.0209081	0.0210009	0.0000233
e210	-----+	-----+	-----+	-----+	-----+	-----+
210	0.0065651	0.0106816	0.0123143	0.0064809	0.0064809	0.0000048
e211	-----+	-----+	-----+	-----+	-----+	-----+
211	0.0209715	0.0257675	0.0315709	0.0204742	0.0204742	0.0000279
e212	-----+	-----+	-----+	-----+	-----+	-----+
212	0.0052784	0.0133799	0.0154719	0.0052785	0.0052872	0.0000075
e213	-----+	-----+	-----+	-----+	-----+	-----+
213	0.0206331	0.0173648	0.0229315	0.0196751	0.0196751	0.0000128
e214	-----+	-----+	-----+	-----+	-----+	-----+
214	0.0141019	0.0187596	0.0213783	0.0140939	0.0140939	0.0000146
e215	-----+	-----+	-----+	-----+	-----+	-----+
215	0.0186073	0.0092646	0.0193641	0.0178045	0.0178045	0.0000041
e216	-----+	-----+	-----+	-----+	-----+	-----+
216	0.0166842	0.0195241	0.0222294	0.0166842	0.0166842	0.0000159
e217	-----+	-----+	-----+	-----+	-----+	-----+
217	0.0170294	0.0200939	0.0228836	0.0170287	0.0170287	0.0000168
e218	-----+	-----+	-----+	-----+	-----+	-----+
218	0.0187440	0.0090418	0.0193487	0.0187462	0.0188109	0.0000039
e219	-----+	-----+	-----+	-----+	-----+	-----+
219	0.0165712	0.0190195	0.0216647	0.0165641	0.0165641	0.0000150
e220	-----+	-----+	-----+	-----+	-----+	-----+
220	0.0207292	0.0173084	0.0229385	0.0207329	0.0208101	0.0000127
e221	-----+	-----+	-----+	-----+	-----+	-----+
221	0.0138796	0.0180634	0.0205963	0.0138796	0.0138800	0.0000136
e222	-----+	-----+	-----+	-----+	-----+	-----+
222	0.0210812	0.0256393	0.0313375	0.0210838	0.0211266	0.0000276
e223	-----+	-----+	-----+	-----+	-----+	-----+
223	0.0049605	0.0118389	0.0137314	0.0048468	0.0048468	0.0000058

-----  
Plus grande valeur positive

Sc	0.0285259	Elément 58, Sc	critère de contrainte axiale (CM66, CB71)
Tc	0.0391953	Elément 56, Tc	contrainte de cisaillement/(0.65 S0), (CM66)
Mc	0.0459507	Elément 56, Mc	critère de Mises (ou Tsai-Wu)
F_cm66	0.0285259	Elément 58, F_cm66	flambement simple (CM66 ou CB71)
D_cm66	0.0285259	Elément 58, D_cm66	flambement avec déversement (CM66)
V_cm66	0.0000641	Elément 56, V_cm66	voile CM66 pour profil en I (CM66)

-----

Propriété 6 LE40\_4  
Passerelle DDP - Egir  
calcul 2 'calcul 0'

-----  
CRITERES DE RUINE (CRITIQUES SI VALEUR > 1)  
Sc critère de contrainte axiale (CM66, CB71)  
Tc contrainte de cisaillement/(0.65 S0), (CM66)  
Mc critère de Mises (ou Tsai-Wu)  
F\_cm66 flambement simple (CM66 ou CB71)  
D\_cm66 flambement avec déversement (CM66)  
V\_cm66 voile CM66 pour profil en I (CM66)

Elément	Sc	Tc	Mc	F_cm66	D_cm66	V_cm66
e177	-----+	-----+	-----+	-----+	-----+	-----+
177	0.0350416	0.0027457	0.0311296	0.0379682	0.3718215	0.0000000
e178	-----+	-----+	-----+	-----+	-----+	-----+
178	0.0397464	0.0014212	0.0330063	0.0430058	0.3517080	0.0000000
e179	-----+	-----+	-----+	-----+	-----+	-----+
179	0.0390082	0.0020316	0.0318784	0.0294417	0.0297417	0.0000000
e180	-----+	-----+	-----+	-----+	-----+	-----+
180	0.0545679	0.0014754	0.0458908	0.0625945	0.4315037	0.0000000
e181	-----+	-----+	-----+	-----+	-----+	-----+
181	0.0375410	0.0032688	0.0376161	0.0219851	0.0219890	0.0000000
e182	-----+	-----+	-----+	-----+	-----+	-----+
182	0.0457897	0.0026761	0.0385151	0.0340184	0.0343094	0.0000000
e225	-----+	-----+	-----+	-----+	-----+	-----+
225	0.0440697	0.0014877	0.0341073	0.0465868	0.2540047	0.0000000
e226	-----+	-----+	-----+	-----+	-----+	-----+
226	0.0172037	0.0004276	0.0143715	0.0178198	0.1261874	0.0000000
e227	-----+	-----+	-----+	-----+	-----+	-----+
227	0.0098008	0.0008116	0.0072749	0.0098491	0.0286276	0.0000000
e228	-----+	-----+	-----+	-----+	-----+	-----+

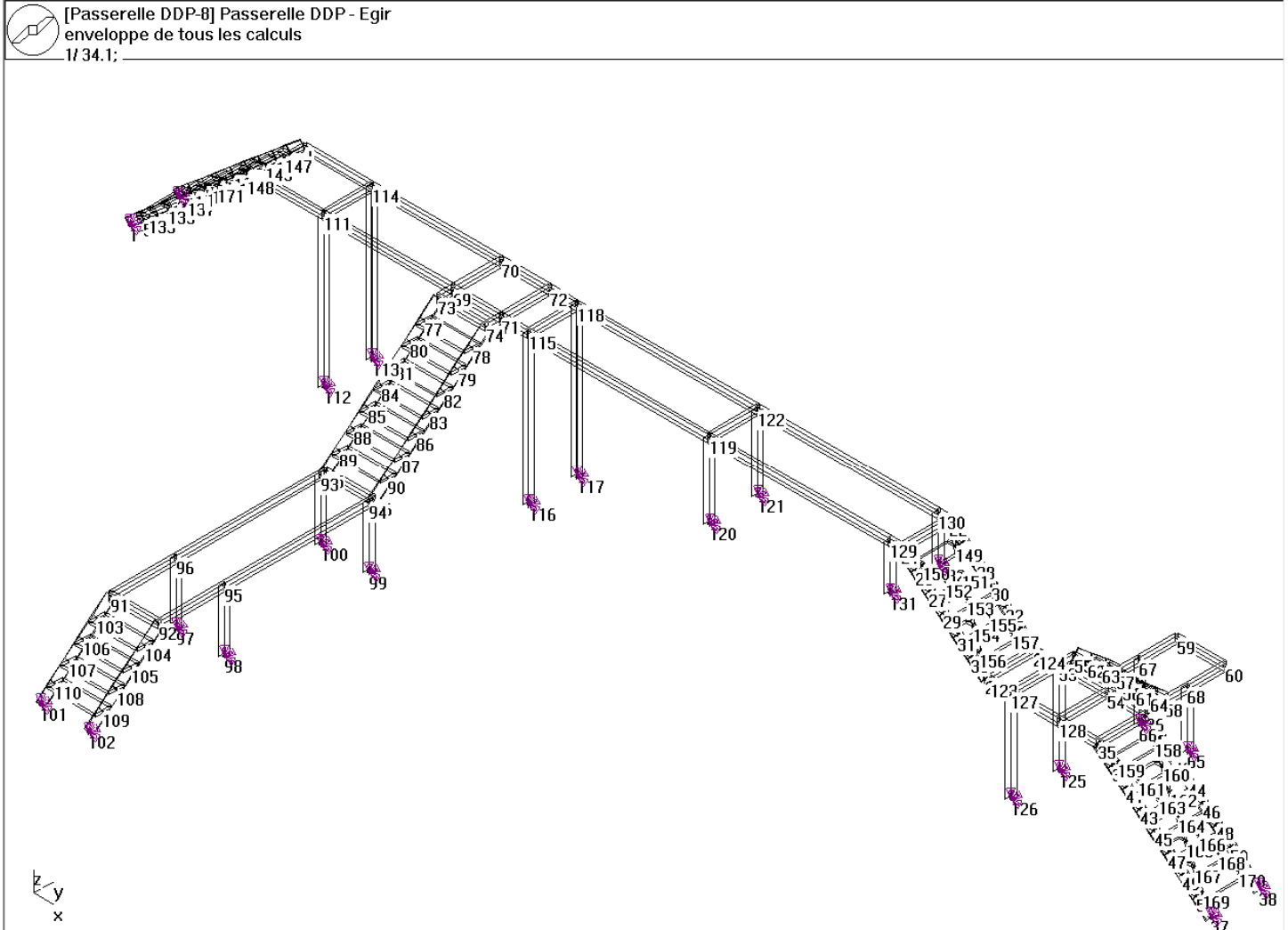


228	0.0327762	0.0019582	0.0253243	0.0289702	0.0292976	0.0000000
e229	-----+	-----+	-----+	-----+	-----+	-----+
229	0.0350792	0.0030533	0.0294425	0.0252245	0.0258094	0.0000000
e230	-----+	-----+	-----+	-----+	-----+	-----+
230	0.0285443	0.0020120	0.0229607	0.0297291	0.2035092	0.0000000
e231	-----+	-----+	-----+	-----+	-----+	-----+
231	0.0125399	0.0006344	0.0105361	0.0128497	0.0873155	0.0000000
e232	-----+	-----+	-----+	-----+	-----+	-----+
232	0.0111184	0.0008317	0.0080273	0.0107539	0.0109245	0.0000000
e233	-----+	-----+	-----+	-----+	-----+	-----+
233	0.0223463	0.0022384	0.0217932	0.0172186	0.0172420	0.0000000
e234	-----+	-----+	-----+	-----+	-----+	-----+
234	0.0409179	0.0011788	0.0334352	0.0292286	0.0298580	0.0000000
e235	-----+	-----+	-----+	-----+	-----+	-----+
235	0.0325678	0.0033688	0.0286217	0.0281573	0.0283790	0.0000000
e236	-----+	-----+	-----+	-----+	-----+	-----+
236	0.0178536	0.0016522	0.0129956	0.0178596	0.0197925	0.0000000
e237	-----+	-----+	-----+	-----+	-----+	-----+
237	0.0117331	0.0003225	0.0100598	0.0120619	0.0964682	0.0000000
e238	-----+	-----+	-----+	-----+	-----+	-----+
238	0.0192084	0.0008261	0.0158731	0.0200695	0.1809863	0.0000000
e239	-----+	-----+	-----+	-----+	-----+	-----+
239	0.0322669	0.0021441	0.0296600	0.0336147	0.2791229	0.0000000
e240	-----+	-----+	-----+	-----+	-----+	-----+
240	0.0520384	0.0038544	0.0467471	0.0553458	0.3955960	0.0000000
e241	-----+	-----+	-----+	-----+	-----+	-----+
241	0.0637523	0.0020236	0.0520529	0.0750016	0.5257013	0.0000000
e242	-----+	-----+	-----+	-----+	-----+	-----+
242	0.0427642	0.0031465	0.0378558	0.0445865	0.2978216	0.0000000
e243	-----+	-----+	-----+	-----+	-----+	-----+
243	0.0232677	0.0014461	0.0208232	0.0238512	0.1817276	0.0000000
e244	-----+	-----+	-----+	-----+	-----+	-----+
244	0.0105975	0.0003587	0.0096255	0.0108884	0.0857772	0.0000000
e245	-----+	-----+	-----+	-----+	-----+	-----+
245	0.0116234	0.0010579	0.0083698	0.0115257	0.0116960	0.0000000
e246	-----+	-----+	-----+	-----+	-----+	-----+
246	0.0266011	0.0023123	0.0212679	0.0224410	0.0226832	0.0000000
e247	-----+	-----+	-----+	-----+	-----+	-----+
247	0.0417080	0.0039741	0.0367911	0.0329853	0.0332209	0.0000000
e248	-----+	-----+	-----+	-----+	-----+	-----+
248	0.0455072	0.0020400	0.0388995	0.0313054	0.0315664	0.0000000
e249	-----+	-----+	-----+	-----+	-----+	-----+
249	0.0639195	0.0036442	0.0499648	0.0540954	0.0547091	0.0000000
e250	-----+	-----+	-----+	-----+	-----+	-----+
250	0.0434506	0.0022594	0.0327822	0.0379391	0.0384574	0.0000000
e251	-----+	-----+	-----+	-----+	-----+	-----+
251	0.0230919	0.0010845	0.0168672	0.0214664	0.0218330	0.0000000
e252	-----+	-----+	-----+	-----+	-----+	-----+
252	0.0164793	0.0007072	0.0128028	0.0166902	0.0571514	0.0000000
e253	-----+	-----+	-----+	-----+	-----+	-----+
253	0.0094819	0.0003752	0.0083073	0.0096427	0.0560821	0.0000000
e254	-----+	-----+	-----+	-----+	-----+	-----+
254	0.0166206	0.0009491	0.0135165	0.0171012	0.1361837	0.0000000
e255	-----+	-----+	-----+	-----+	-----+	-----+
255	0.0356938	0.0021637	0.0297282	0.0370794	0.2363720	0.0000000
e256	-----+	-----+	-----+	-----+	-----+	-----+
256	0.0546888	0.0035993	0.0475005	0.0574422	0.3454536	0.0000000
e257	-----+	-----+	-----+	-----+	-----+	-----+
257	0.0514185	0.0040118	0.0441310	0.0598440	0.4577122	0.0000000
e258	-----+	-----+	-----+	-----+	-----+	-----+
258	0.0371472	0.0038759	0.0333837	0.0306727	0.0308853	0.0000000
e259	-----+	-----+	-----+	-----+	-----+	-----+
259	0.0238160	0.0024053	0.0191843	0.0216791	0.0219164	0.0000000
e260	-----+	-----+	-----+	-----+	-----+	-----+
260	0.0146492	0.0010540	0.0109378	0.0147836	0.0498229	0.0000000
e261	-----+	-----+	-----+	-----+	-----+	-----+
261	0.0153047	0.0007083	0.0126206	0.0157994	0.1213220	0.0000000
e262	-----+	-----+	-----+	-----+	-----+	-----+
262	0.0134466	0.0008083	0.0113055	0.0138369	0.1162580	0.0000000
e263	-----+	-----+	-----+	-----+	-----+	-----+
263	0.0242373	0.0013693	0.0197057	0.0253219	0.2000624	0.0000000
e264	-----+	-----+	-----+	-----+	-----+	-----+



## Modélisation de la structure et interprétation des résultats..

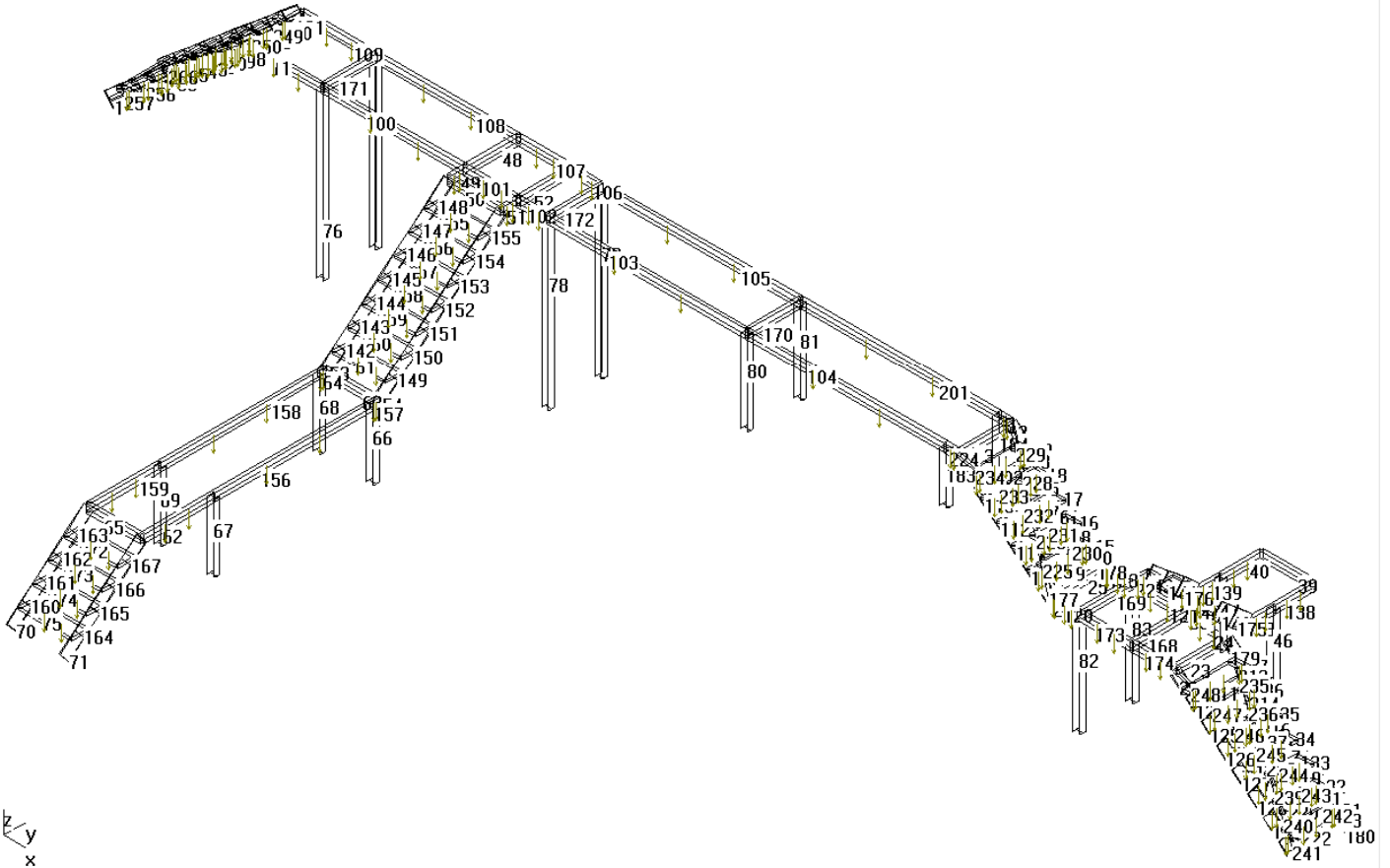
### 1. Nœuds, Blocages.



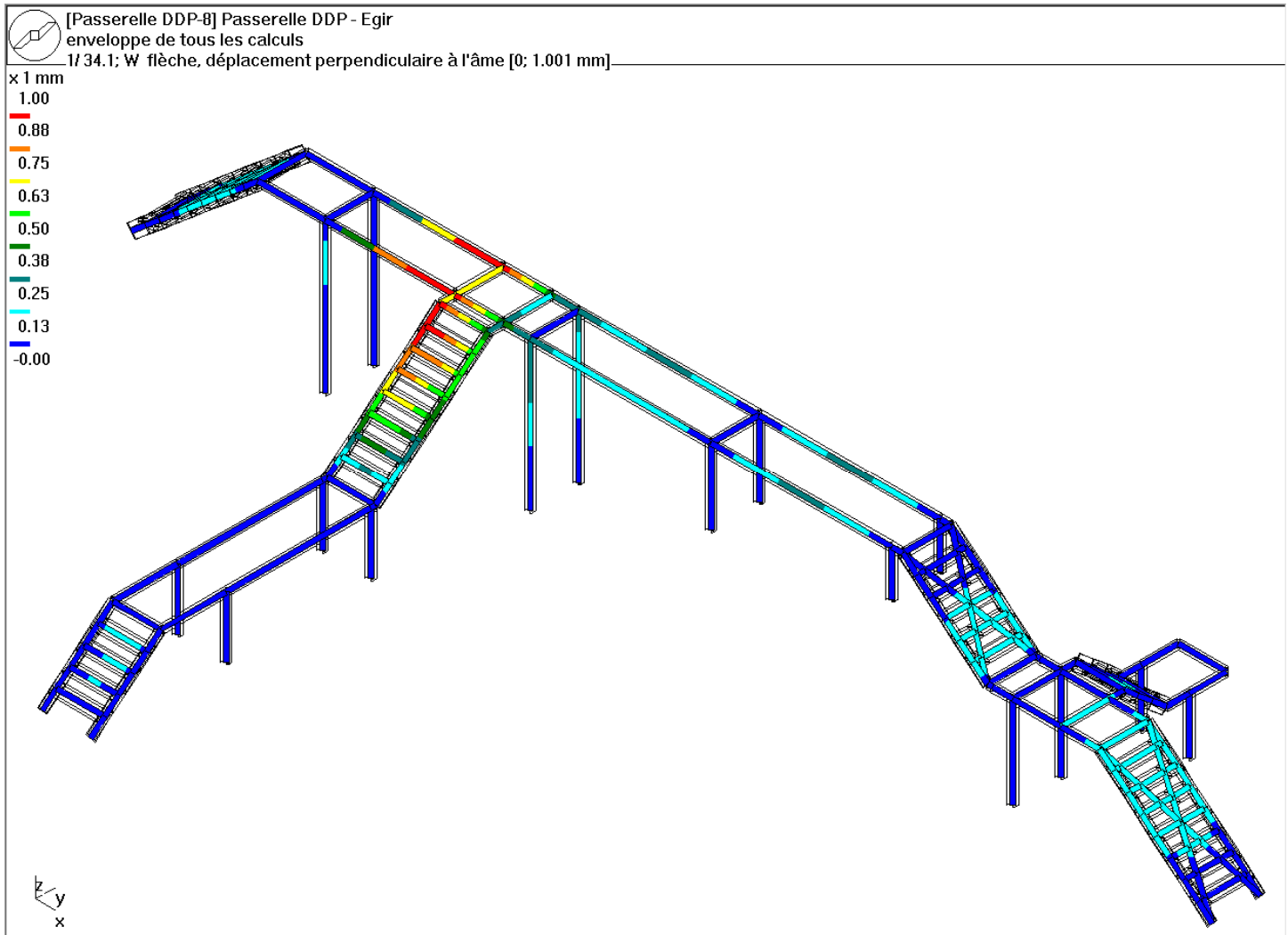
### 1. Eléments, Charges.



[Passerelle DDP-B] Passerelle DDP - Egir  
enveloppe de tous les calculs  
1/ 34.1:



2. Déplacement perpendiculaire à l'âme.



3. Flambement avec déversement. (CM66)

