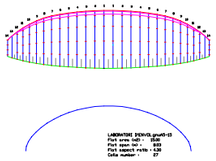
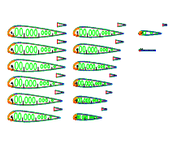
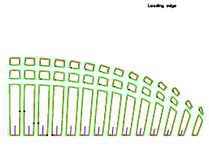
LABORATORI D'ENVOL gnuA5-15 3.15



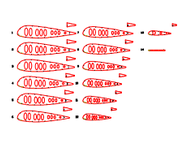
1-1 PLANFORM AND VAULT



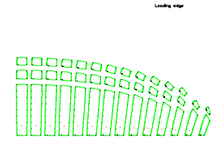
1-2 RIBS



1-3 EXTRADOS PANELS



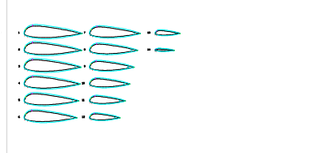
1-4 RIBS (FOR CUTTING TABLE)



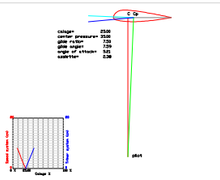
1-5 EXTRADOS PANELS (FOR CUTTING TABLE)

1-6 MIDDLE UNLOADED RIBS

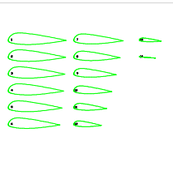
1-7 NYLON RIBS POCKETS, NOSE NYLARS



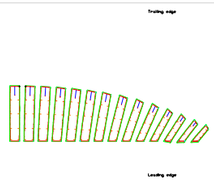
1-8 MIDDLE AND MIDDLE OVALIZED AIRFOILS



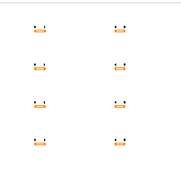
2-1 CALAGE ESTIMATION



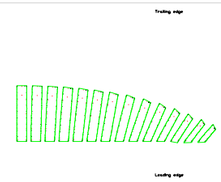
2-2 RIBS WASHIN ANGLE



2-3 INTRADOS PANELS



2-4 MINI-RIBS

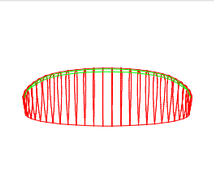


2-5 INTRADOS PANELS (FOR CUTTING TABLE)

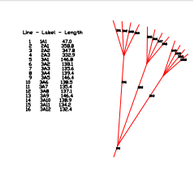
2-6 FULL DIAGONAL RIBS

2-7

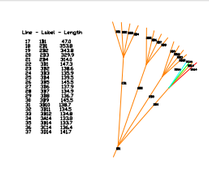
2-8



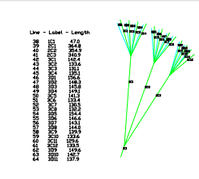
3-1 UPPER VIEW



3-2 LINES A



3-3 LINES B



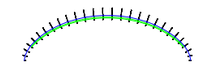
3-4 LINES C

3-5 LINES D

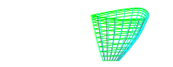
3-6 V-rib type-6

3-7

3-8



4-1 VAULT VIEW



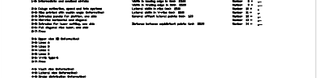
4-2 LATERAL VIEW

4-3 BRAKE DISTRIBUTION

4-4

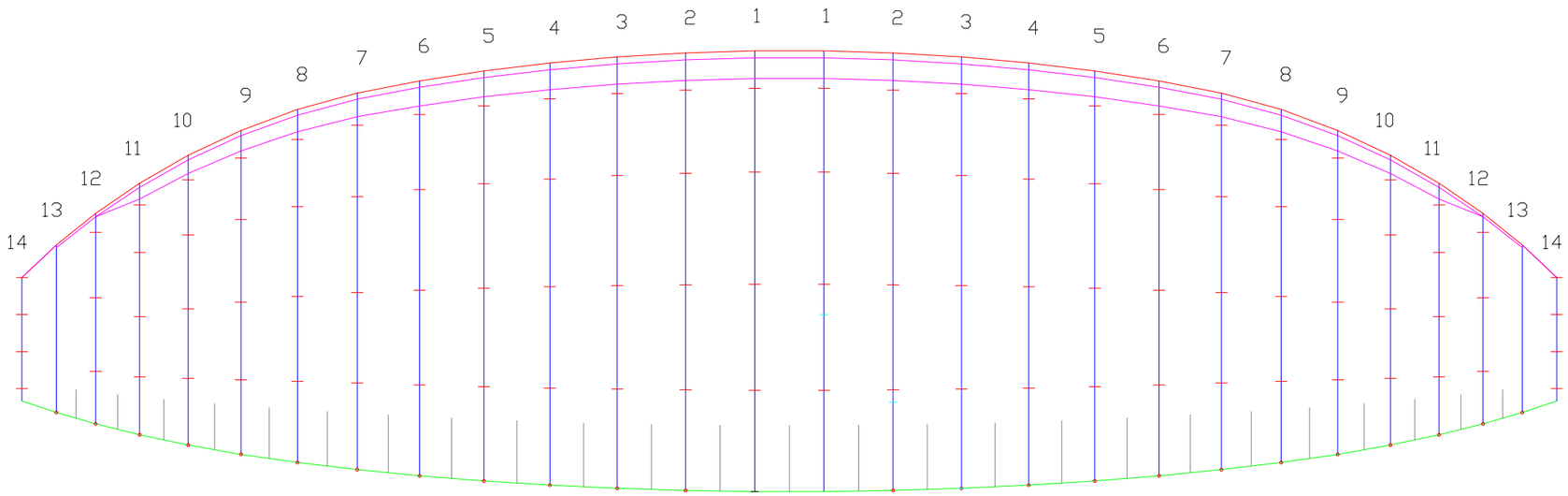
4-5 BRAKES

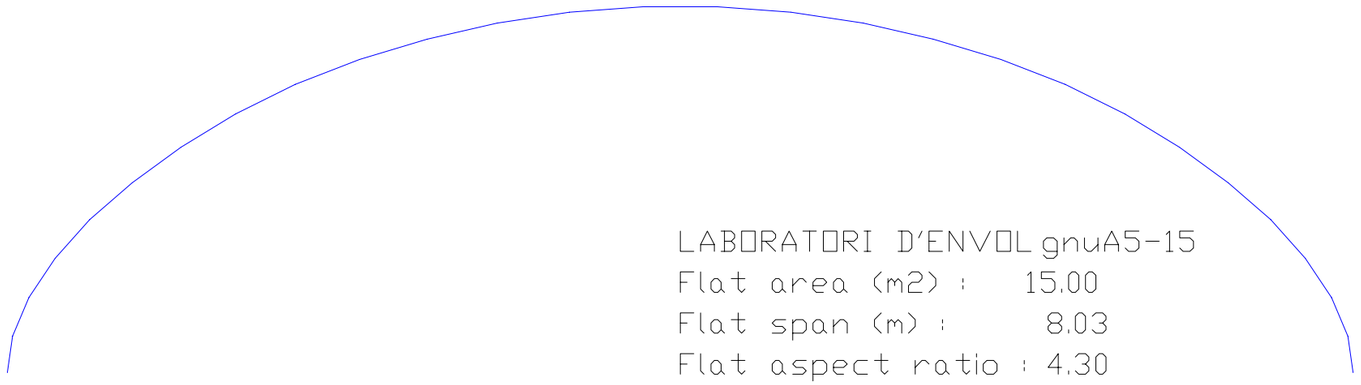
4-6



4-7 GENERAL NOTES

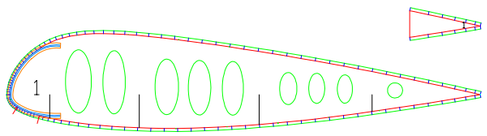
4-8

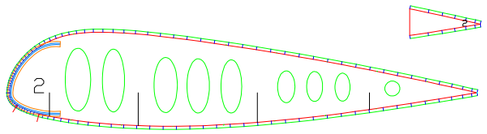


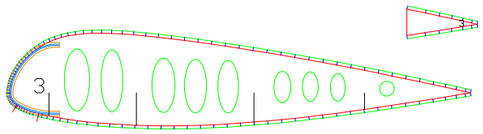


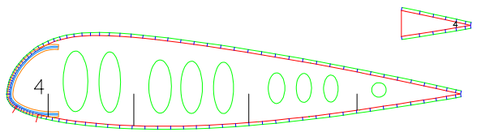
LABORATORI D'ENVOL gnuA5-15
Flat area (m2) : 15.00
Flat span (m) : 8.03
Flat aspect ratio : 4.30
Cells number : 27

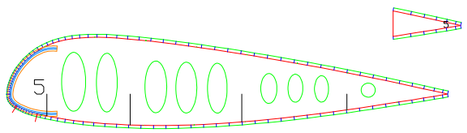
1-1 PLANFORM AND VAULT

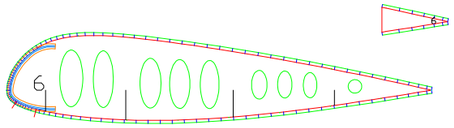


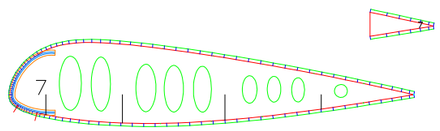


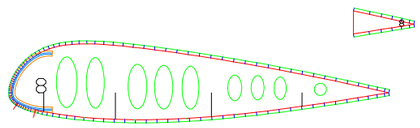


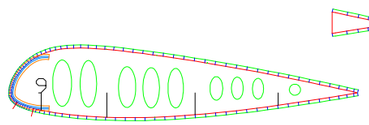


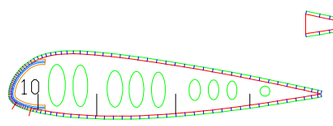


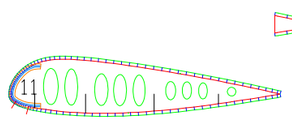


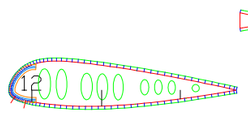


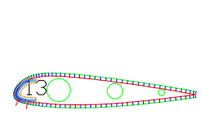






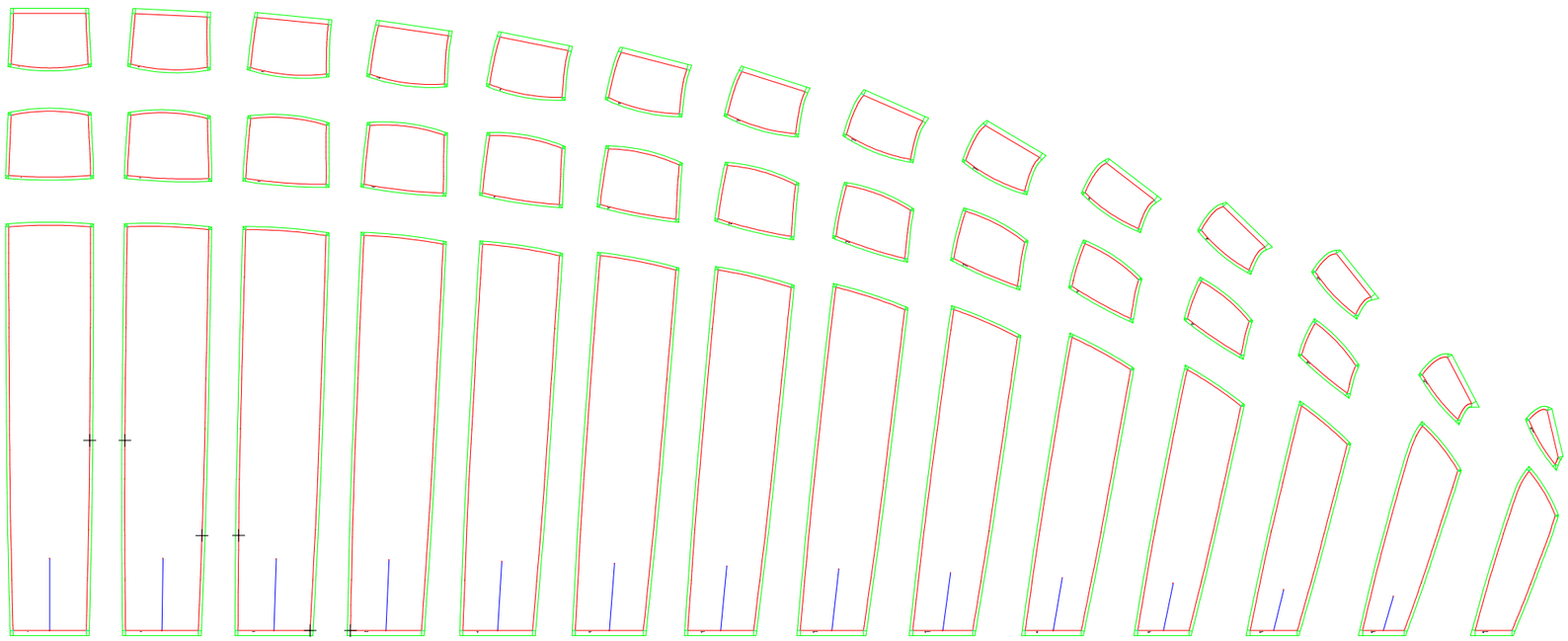






1-2 RIBS

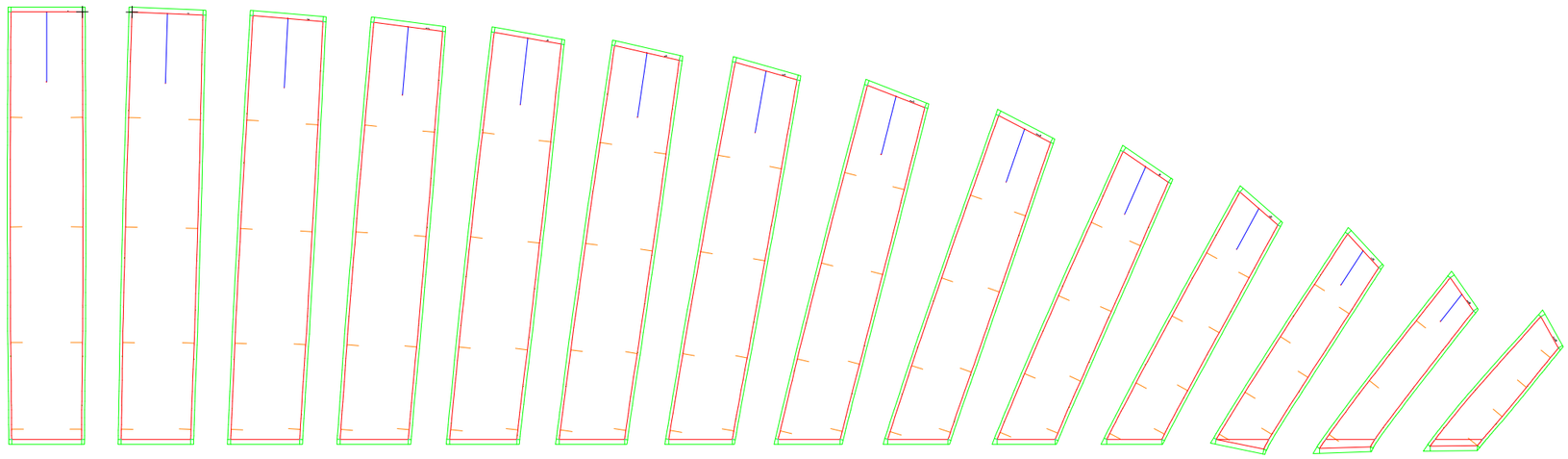
Leading edge



Trailing edge

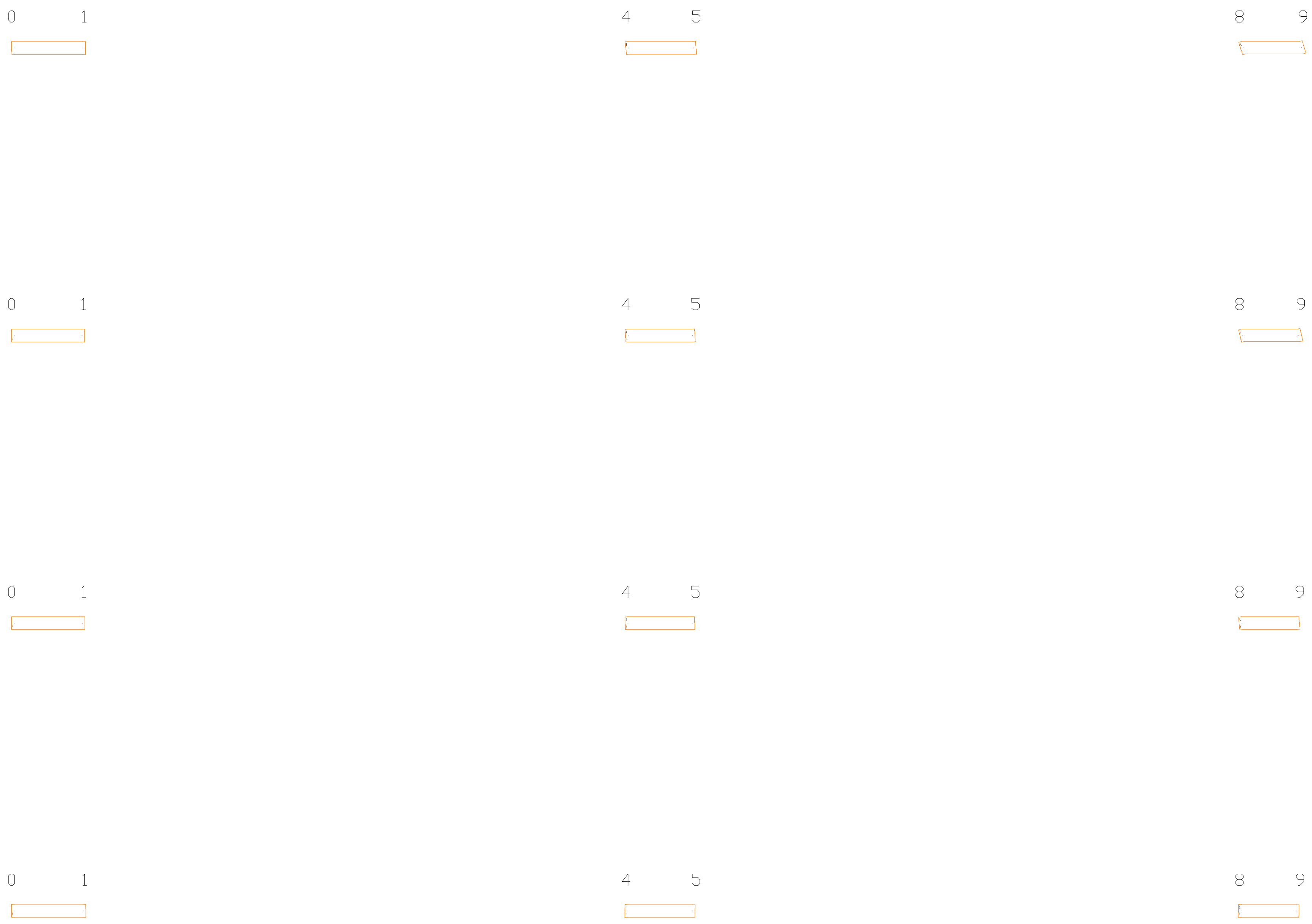
1-3 EXTRADOS PANELS

Trailing edge

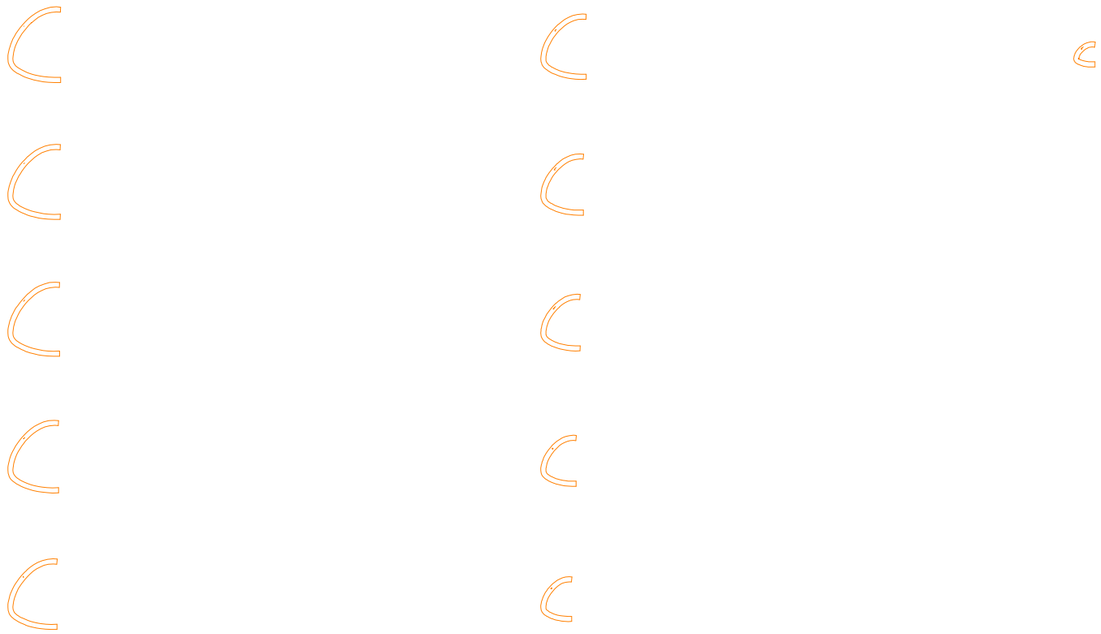


Leading edge

2-3 INTRADOS PANELS



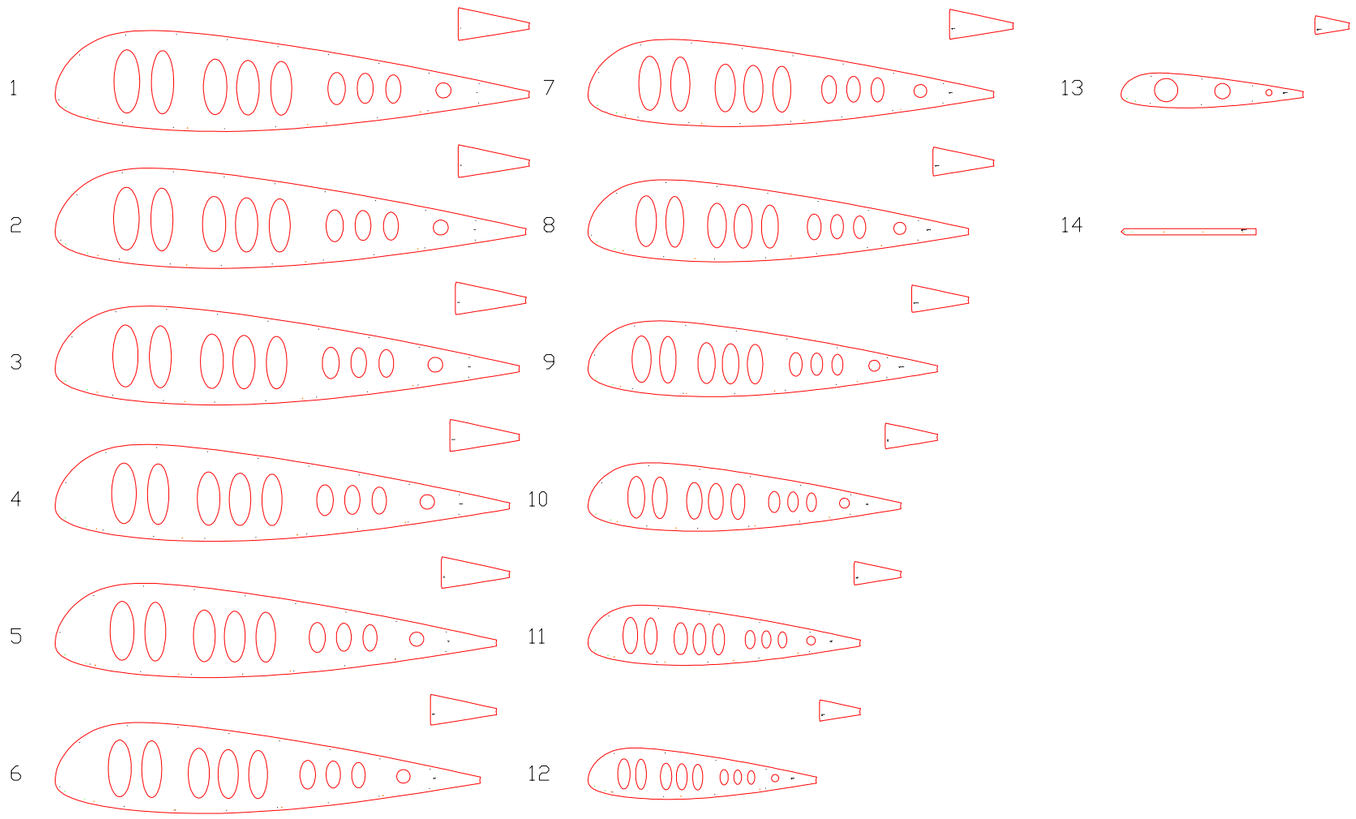
2-4 MINI-RIBS



List of nylon rods (bloc 1)

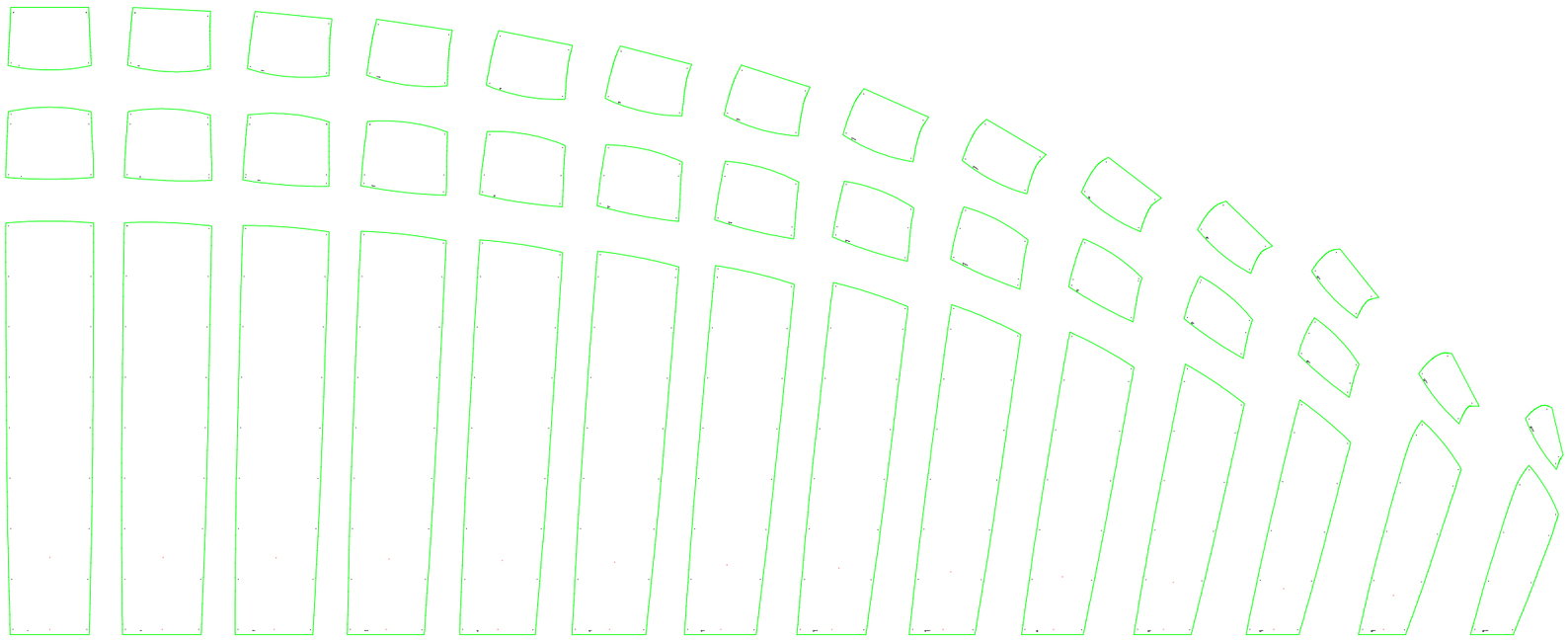
Group	1	
Jonc	1	67.8
Jonc	2	67.3
Jonc	3	66.4
Jonc	4	65.0
Jonc	5	63.1
Jonc	6	60.8
Jonc	7	57.9
Jonc	8	54.3
Jonc	9	49.8
Jonc	10	44.6
Group	2	
Jonc	11	38.7
Jonc	12	32.4
Jonc	13	23.8

1-7 NYLON RODS POCKETS, NOSE MYLARS



1-4 RIBS (FOR CUTTING TABLE)

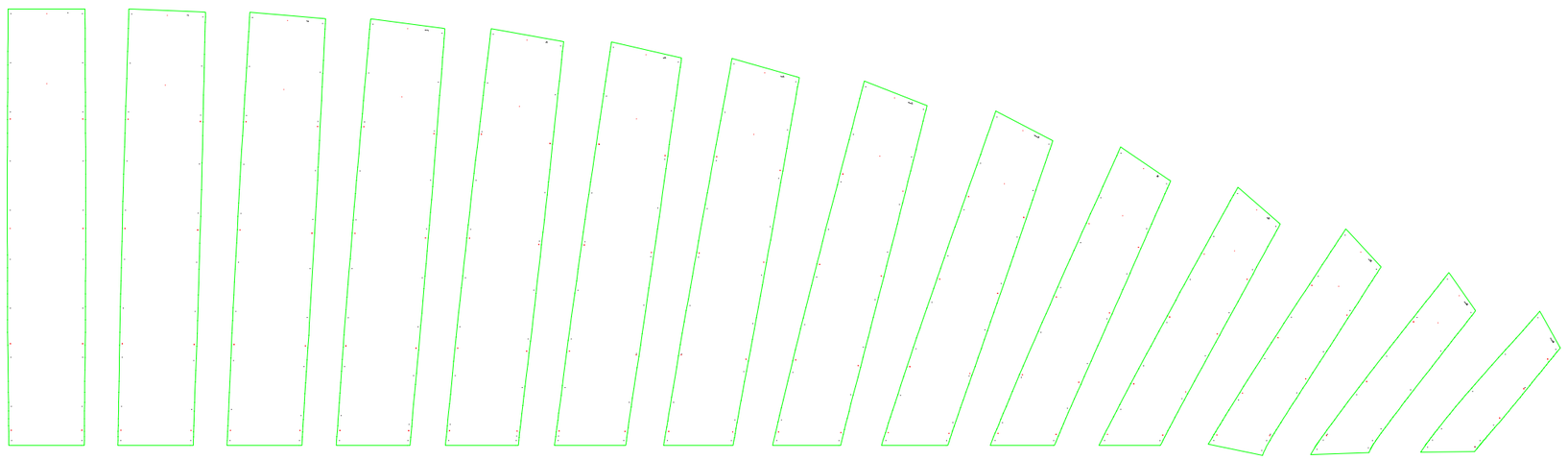
Leading edge



Trailing edge

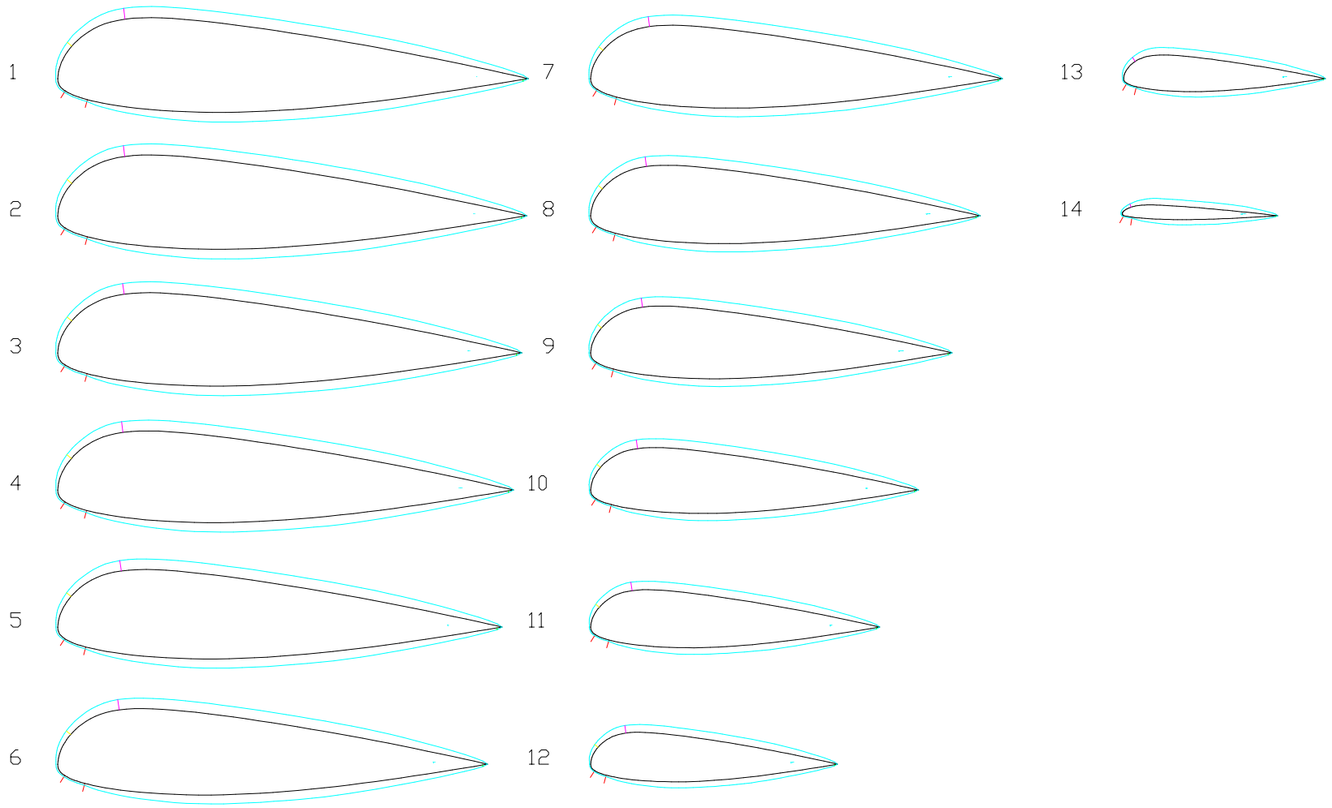
1-5 EXTRADOS PANELS (FOR CUTTING TABLE)

Trailing edge

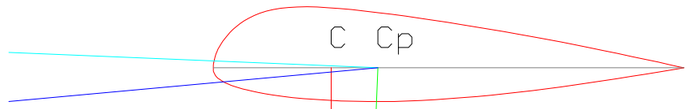


Leading edge

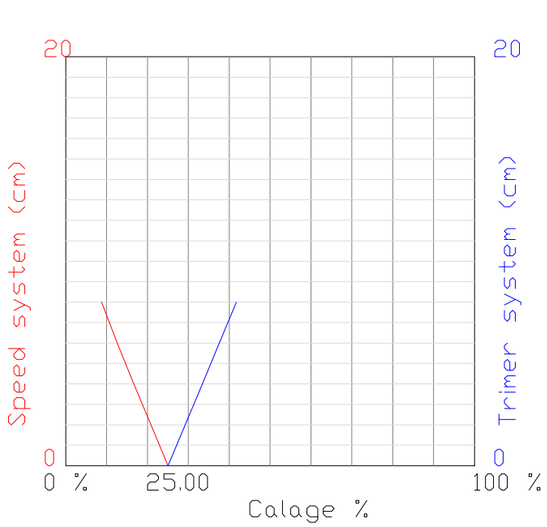
2-5 INTRADOS PANELS (FOR CUTTING TABLE)

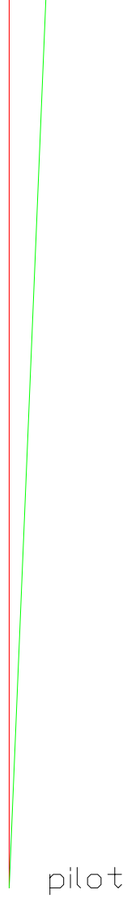


1-8 MIDDLE AND MIDDLE OVALIZED AIRFOILS

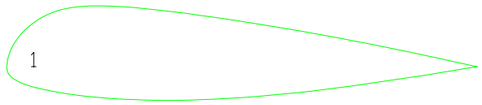


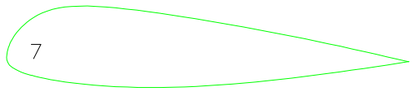
calage=	25.00
center pressure=	35.00
glide ratio=	7.50
glide angle=	7.59
angle of attack=	5.21
assiette=	2.38

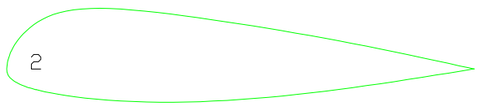


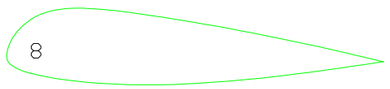


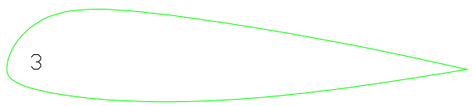
2-1 CALAGE ESTIMATION

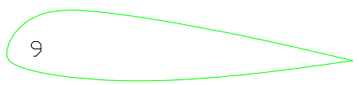


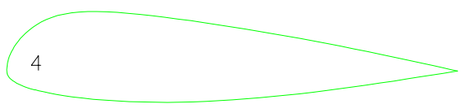


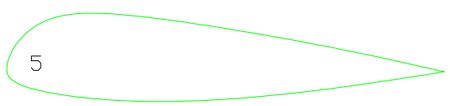


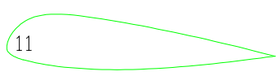


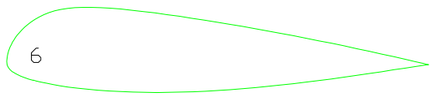






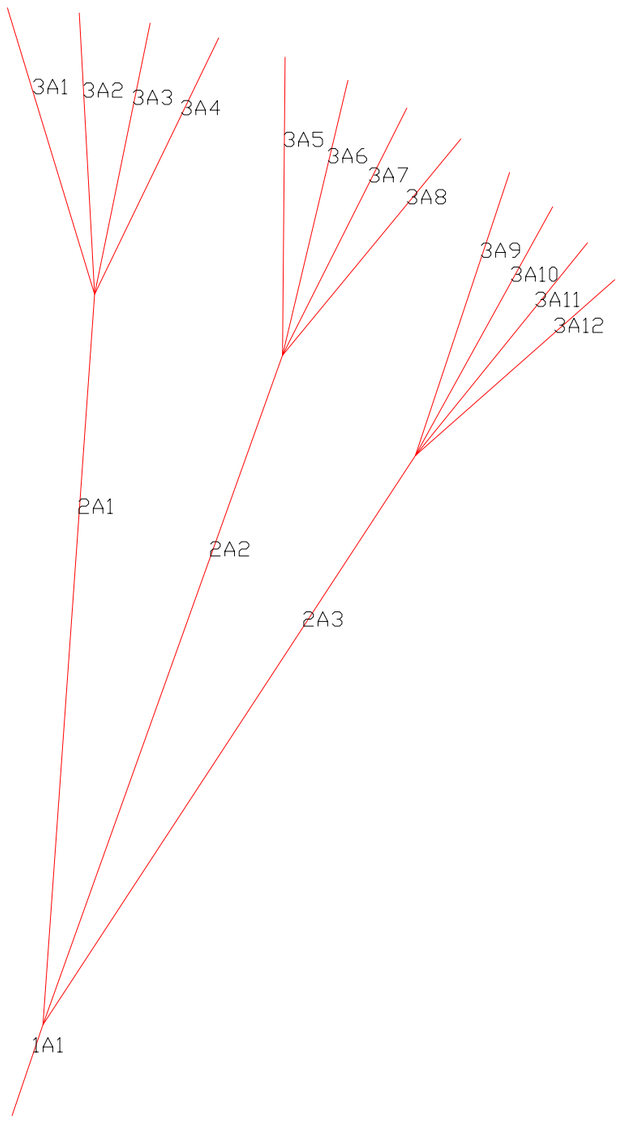






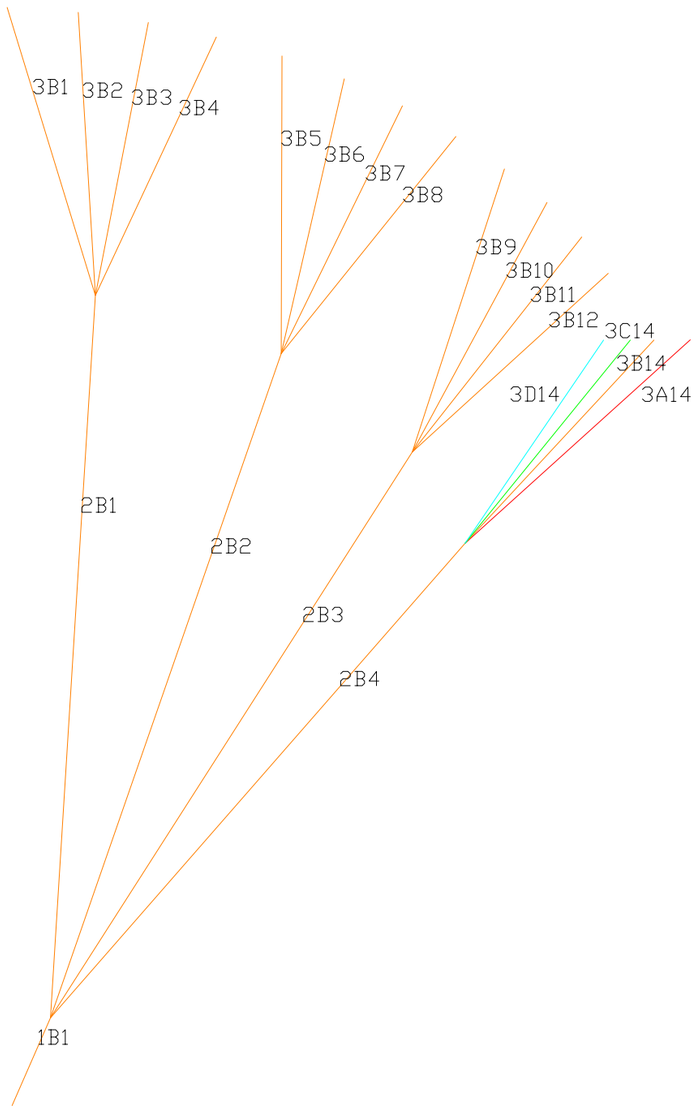
2-2 RIBS WASHIN ANGLE

Line	Label	Length
1	1A1	47.0
2	2A1	358.8
3	2A2	347.8
4	2A3	332.9
5	3A1	146.8
6	3A2	138.1
7	3A3	135.6
8	3A4	139.4
9	3A5	146.4
10	3A6	138.5
11	3A7	135.4
12	3A8	137.1
13	3A9	146.4
14	3A10	138.9
15	3A11	134.2
16	3A12	132.4



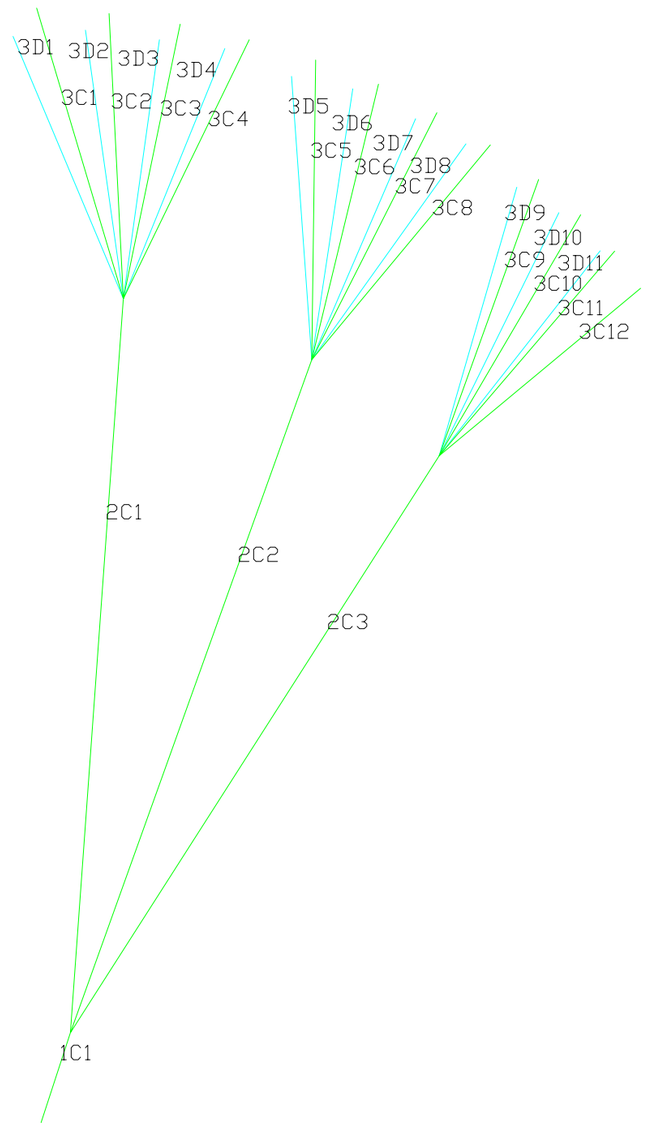
3-2 LINES A

Line	Label	Length
17	1B1	47.0
18	2B1	353.8
19	2B2	343.8
20	2B3	329.9
21	2B4	314.0
22	3B1	147.3
23	3B2	138.6
24	3B3	135.9
25	3B4	139.5
26	3B5	145.5
27	3B6	137.9
28	3B7	134.9
29	3B8	136.7
30	3B9	145.5
31	3B10	138.7
32	3B11	134.5
33	3B12	134.8
34	3A14	133.8
35	3B14	133.7
36	3C14	136.4
37	3D14	141.7



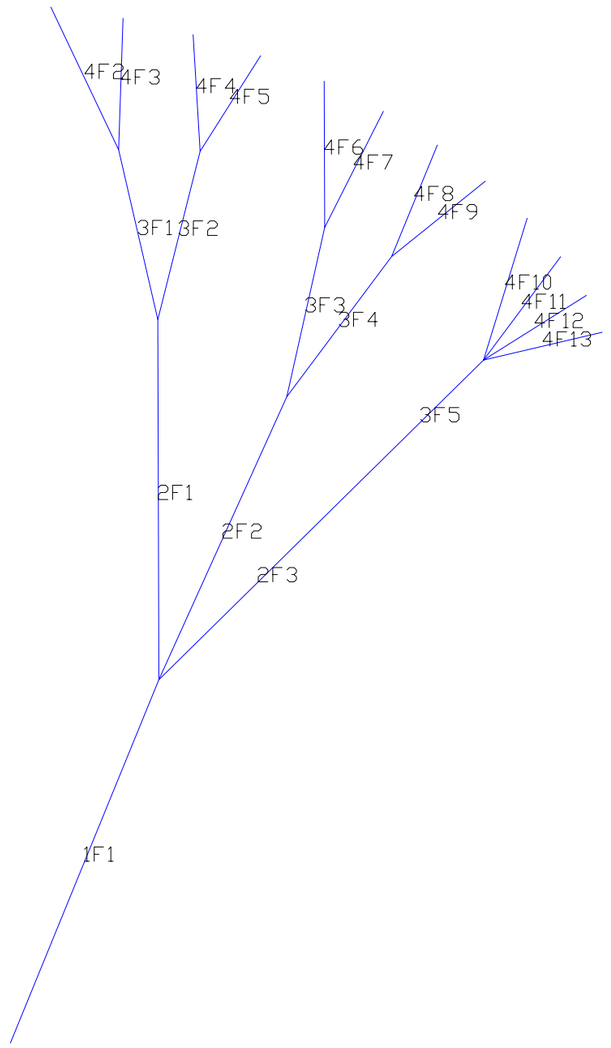
3-3 LINES B

Line	Label	Length
38	1C1	47.0
39	2C1	364.8
40	2C2	354.9
41	2C3	340.9
42	3C1	142.4
43	3C2	133.6
44	3C3	131.1
45	3C4	135.1
46	3D1	156.6
47	3D2	148.3
48	3D3	145.8
49	3D4	149.1
50	3C5	141.3
51	3C6	133.4
52	3C7	130.5
53	3C8	132.2
54	3D5	154.4
55	3D6	146.6
56	3D7	143.1
57	3D8	144.0
58	3C9	139.9
59	3C10	133.6
60	3C11	129.6
61	3C12	133.5
62	3D9	149.6
63	3D10	142.7
64	3D11	137.9

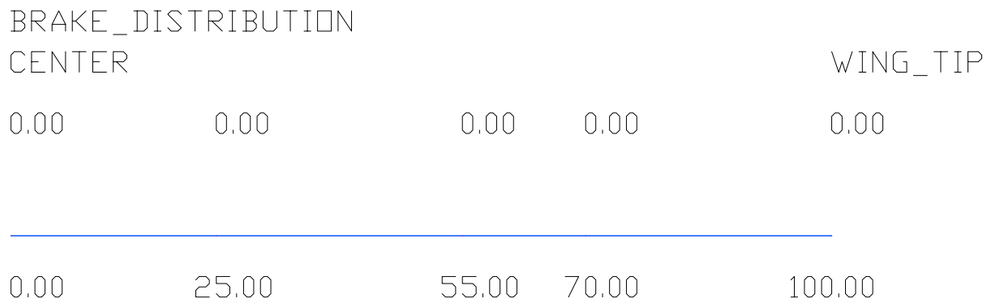


3-4 LINES C

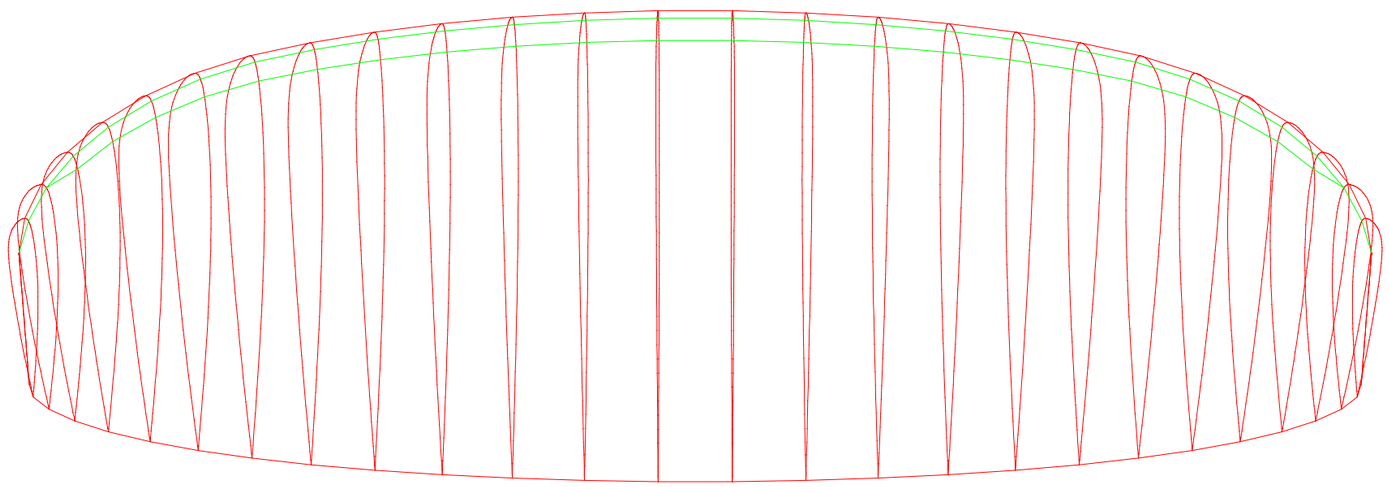
Line	Label	Length
65	1F1	201.0
66	2F1	185.0
67	2F2	159.0
68	2F3	141.0
69	3F1	89.0
70	3F2	89.0
71	3F3	89.0
72	3F4	89.0
73	3F5	89.0
74	4F2	80.3
75	4F3	67.6
76	4F4	59.9
77	4F5	57.5
78	4F6	75.0
79	4F7	66.5
80	4F8	61.6
81	4F9	60.4
82	4F10	76.2
83	4F11	65.6
84	4F12	60.7
85	4F13	60.0



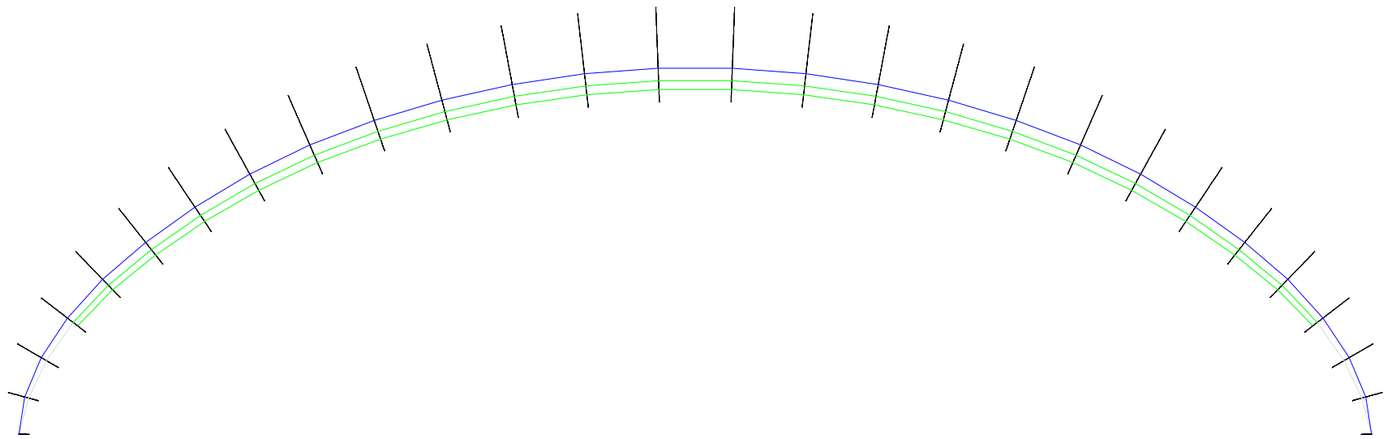
4-5 BRAKES



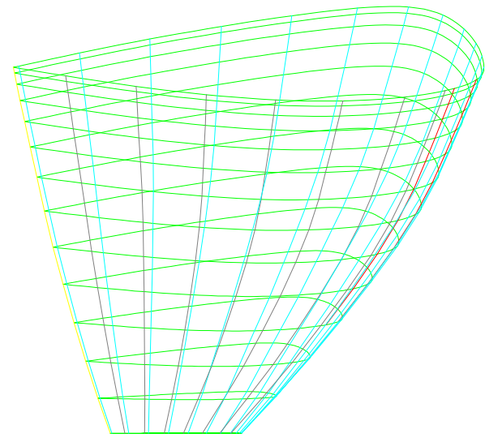
4-3 BRAKE DISTRIBUTION



3-1 UPPER VIEW



4-1 VAULT VIEW



4-2 LATERAL VIEW

PLANS GENERAL NOTES

1-1: Planform and vault view (informative)
1-2: Ribs for plotter, one side
1-3: Extrados panels for plotter, one side
1-4: Ribs for laser cutting, one side. Units cm
1-5: Extrados for laser cutting, one side.Units cm
1-6: Middle unloaded ribs for laser cutting,
one side Units cm
1-7: Rods pockets and nylons lengths, mylars
1-8: Intermediate and ovalized airfoils

2-1: Calage estimation, speed and trim systems
2-2: Ribs printed with washin angle (informative)
2-3: Intrados panels for plotter, one side
2-4: Mini-ribs horizontal and diagonal
2-5: Intrados for laser cutting, one side
2-6: Full diagonal ribs laser, one side
2-7: Free

3-1: Upper view 3D (informative)
3-2: Lines A
3-3: Lines B
3-4: Lines C
3-5: Lines D
3-6: V-rib type-6
3-7: Free

4-1: Vault view (informative)
4-2: Lateral view (informative)
4-3: Brake distribution (informative)
4-4: Free
4-5: Brake lines
4-6: Free
4-7: General notes

UNITS

Main units are centimeters. Scale x10 to use in mm

WIDTHS FOR SEWING AND OFFSETS

Lateral width in extrados (mm): 15.00
Width in leading edge ex (mm): 25.00
Width in trailing edge ex (mm): 25.00
Lateral width in intrados (mm): 15.00
Width in leading edge in (mm): 25.00
Width in trailing edge in (mm): 25.00
Lateral width in ribs (mm): 15.00
Lateral width in V-ribs (mm): 15.00
General offset lateral points (mm): 1.20

Distance between equidistant points (cm): 25.00

"ROMAN" NUMBERS CODIFICATION
Numbering panels, ribs, mini-ribs, V-ribs

Number 1 = .
Number 2 = ..
Number 3 = ...
Number 4 = ...
Number 5 = :.
Number 6 = :..
Number 7 = :...
Number 8 = :....
Number 9 = :.....
Number 10 = :
Number 11 = :.
Number 12 = :..
Number 13 = :...
Number 14 = :....

4-7 GENERAL NOTES