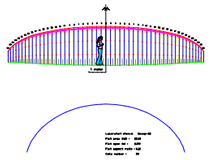
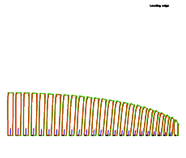
Laboratori d'enval Swoop-22 3.28

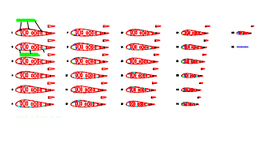


3-1 PLANFORM AND VAULT

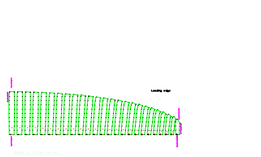
3-2 RIBS



3-3 EXTRADOS PANELS

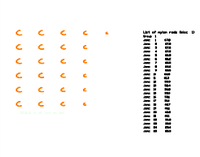


3-4 RIBS FOR CUTTING TABLE

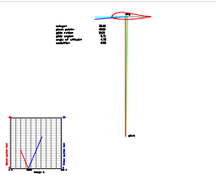


3-5 EXTRADOS PANELS FOR CUTTING TABLE

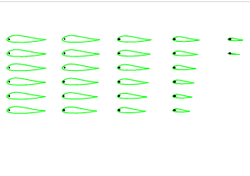
3-6 MIDDLE BALANCED RIBS



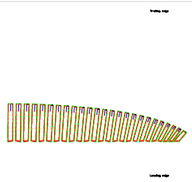
3-7 SOLID RIBS PROFILE, RIBS HOLES



3-1 CHORD EXTENTION

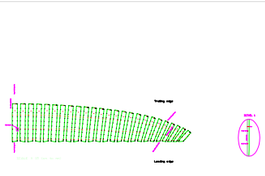


3-2 RIB MIDDLE HOLE



3-3 EXTRADOS PANELS

3-4 HORIZONTALS STRIPS

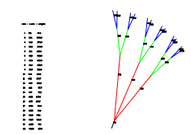


3-5 EXTRADOS PANELS FOR CUTTING TABLE

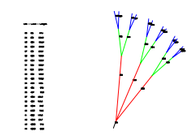
3-6 FULL DIAGONAL RIBS

3-7

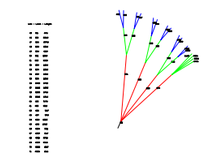
3-1 UPPER VIEW



3-2 LINES A



3-3 LINES B



3-4 LINES C

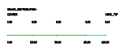
3-5 LINES D

3-6 V-rib Type-A

3-7 V-rib Type-A

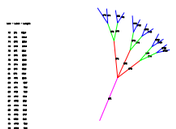
3-1 VAULT VIEW

3-2 LATERAL VIEW



3-3 BRAKE DISTRIBUTION

3-4

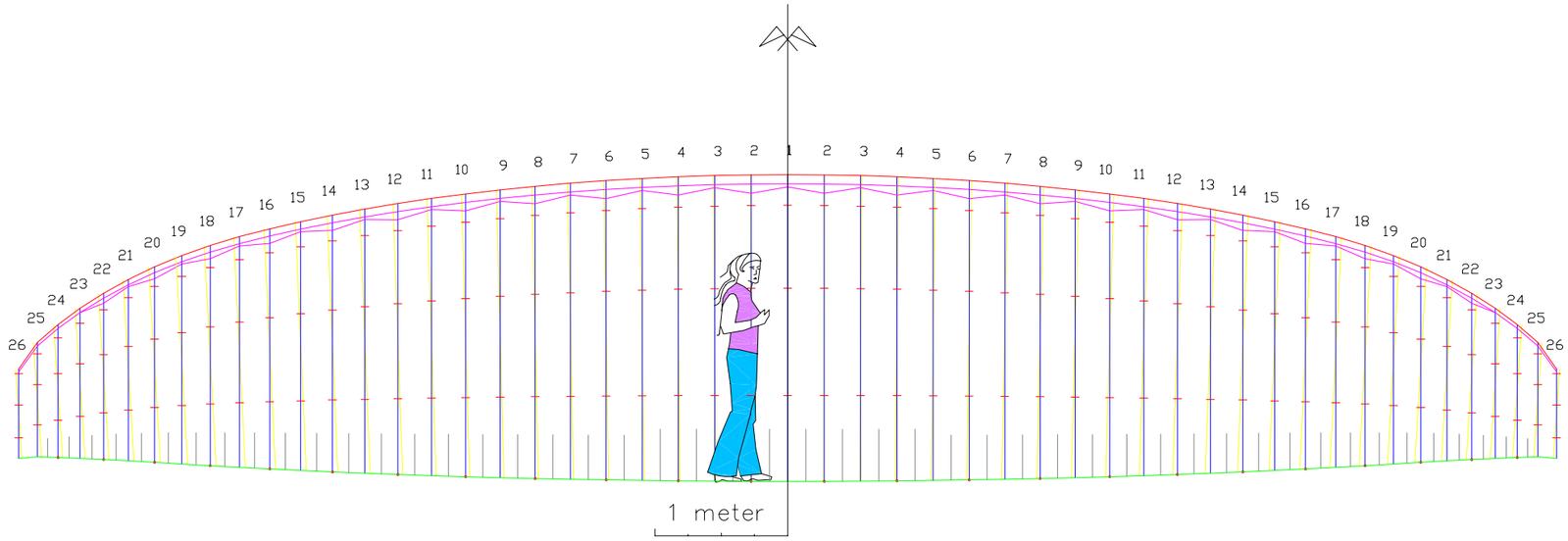


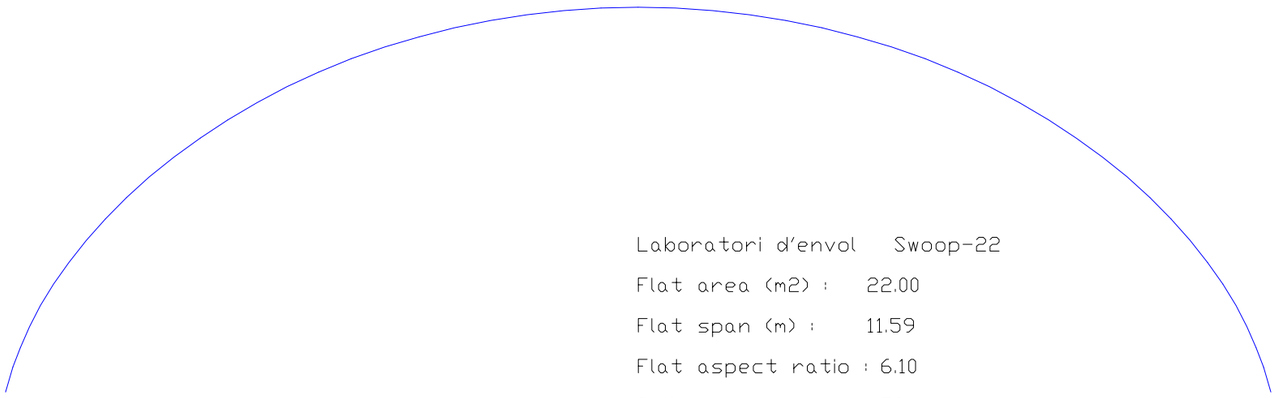
3-5 BRAKES

3-6

PLANE GENERAL NOTES

3-7 GENERAL NOTES





Laboratori d'envol Swoop-22

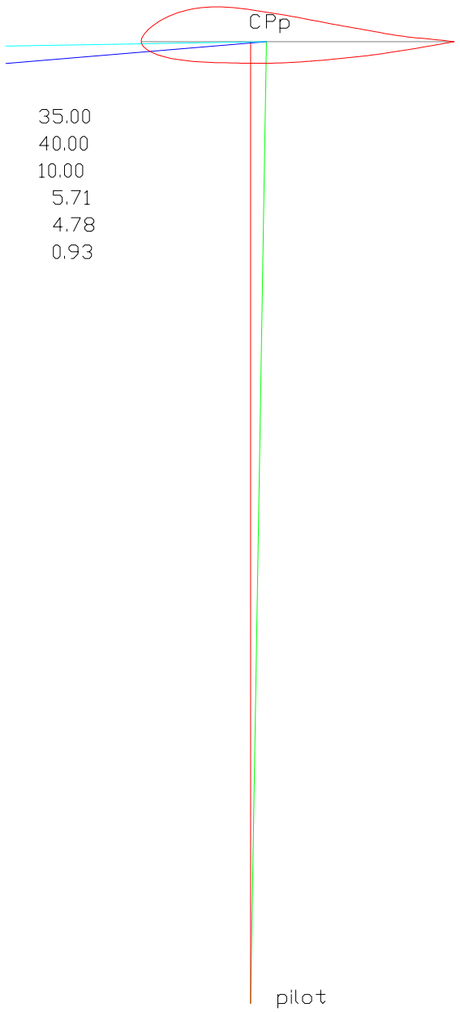
Flat area (m2) : 22.00

Flat span (m) : 11.59

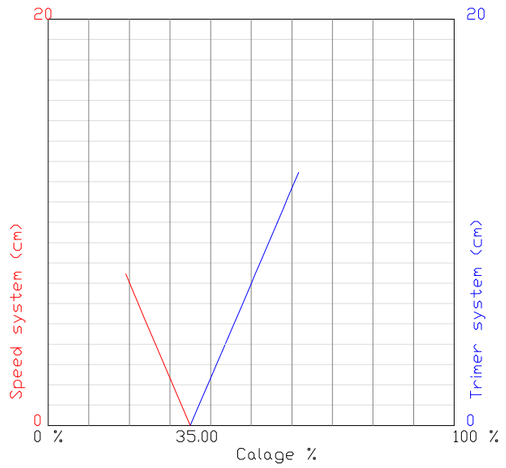
Flat aspect ratio : 6.10

Cells number : 50

1-1 PLANFORM AND VAULT

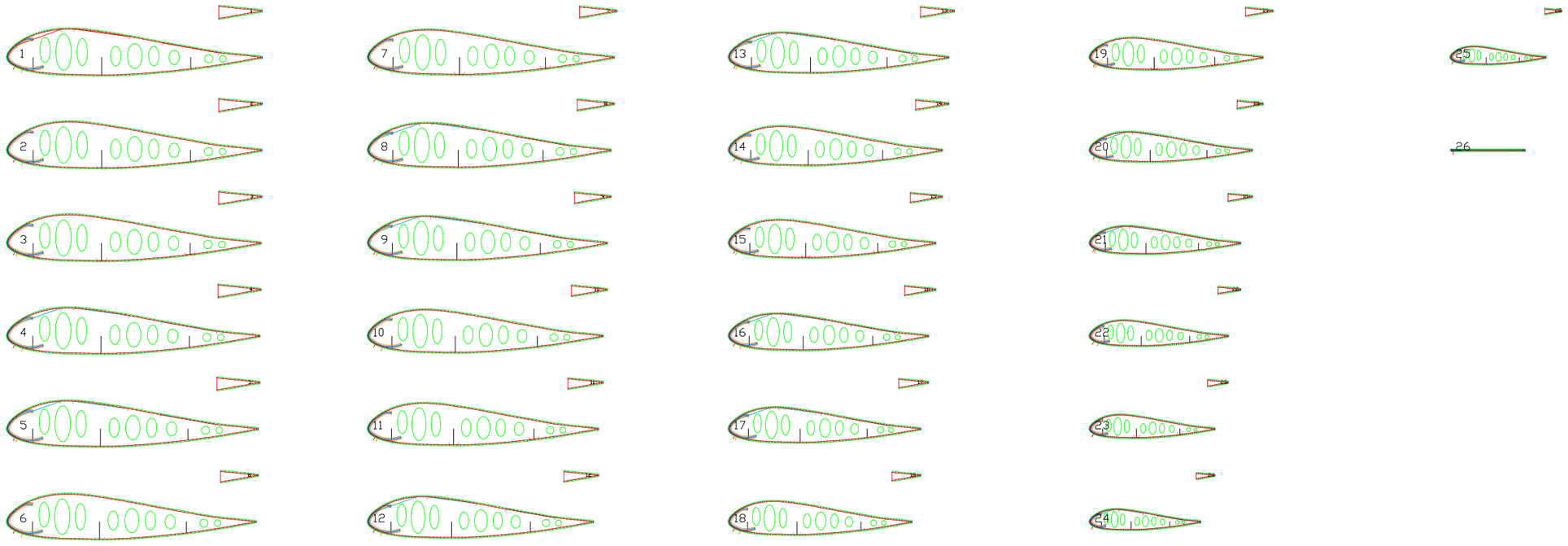


calage=	35.00
plumb point=	40.00
glide ratio=	10.00
glide angle=	5.71
angle of attack=	4.78
assiette=	0.93



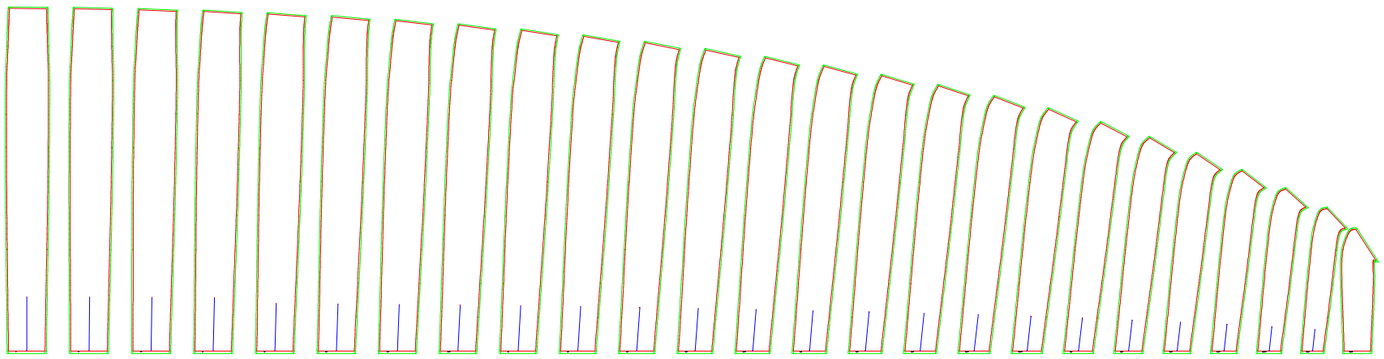
2-1 CALAGE ESTIMATION

2-2 RIBS WASHIN ANGLE



1-2 RIBS

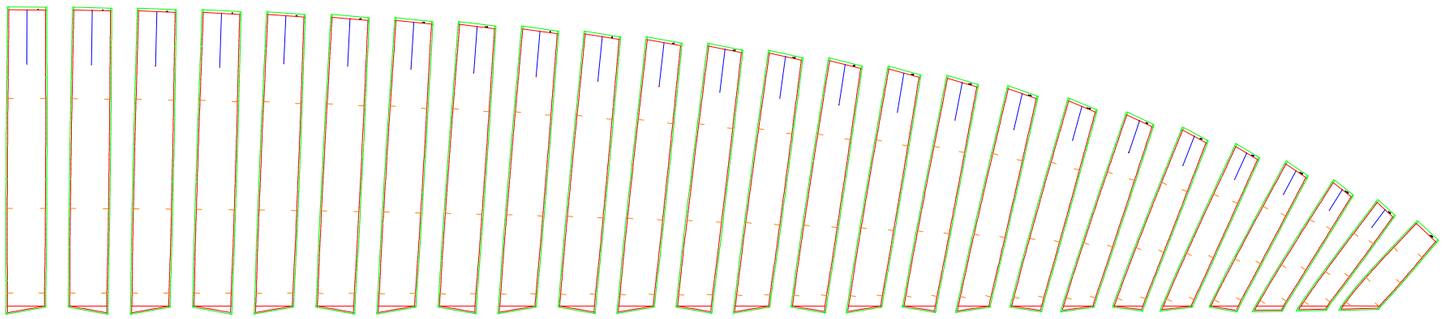
Leading edge



Trailing edge

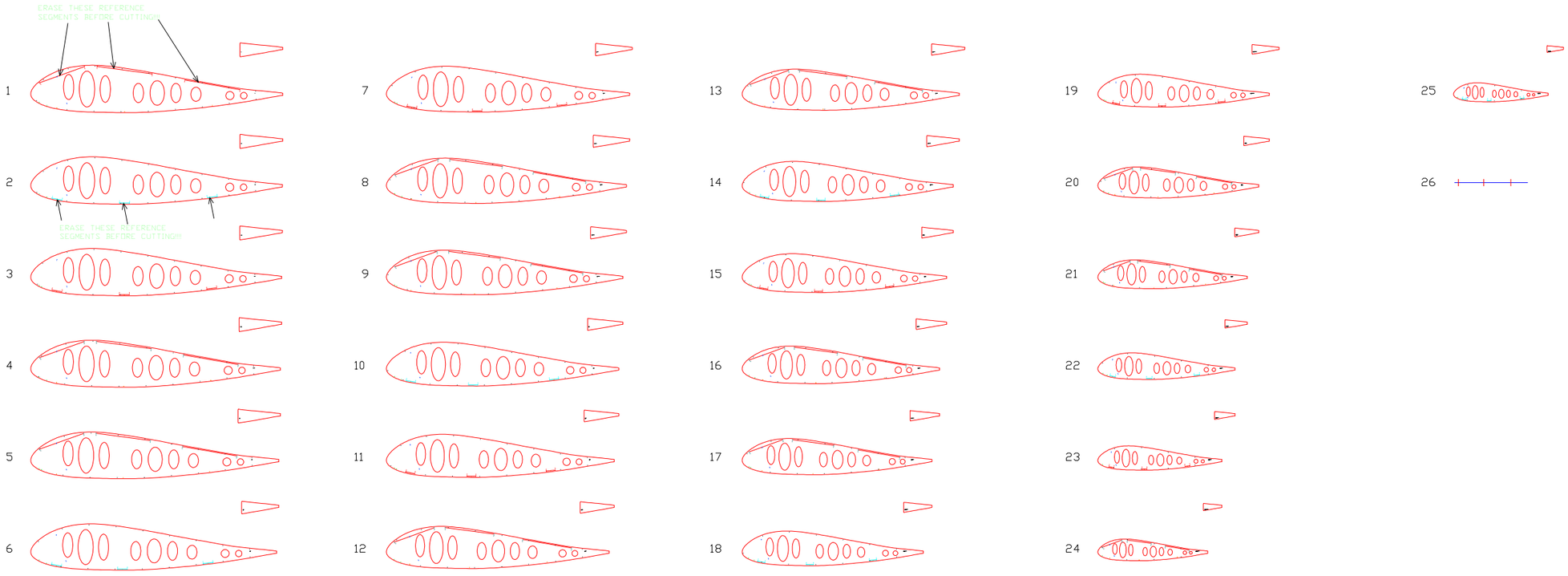
1-3 EXTRADOS PANELS

Trailing edge



Leading edge

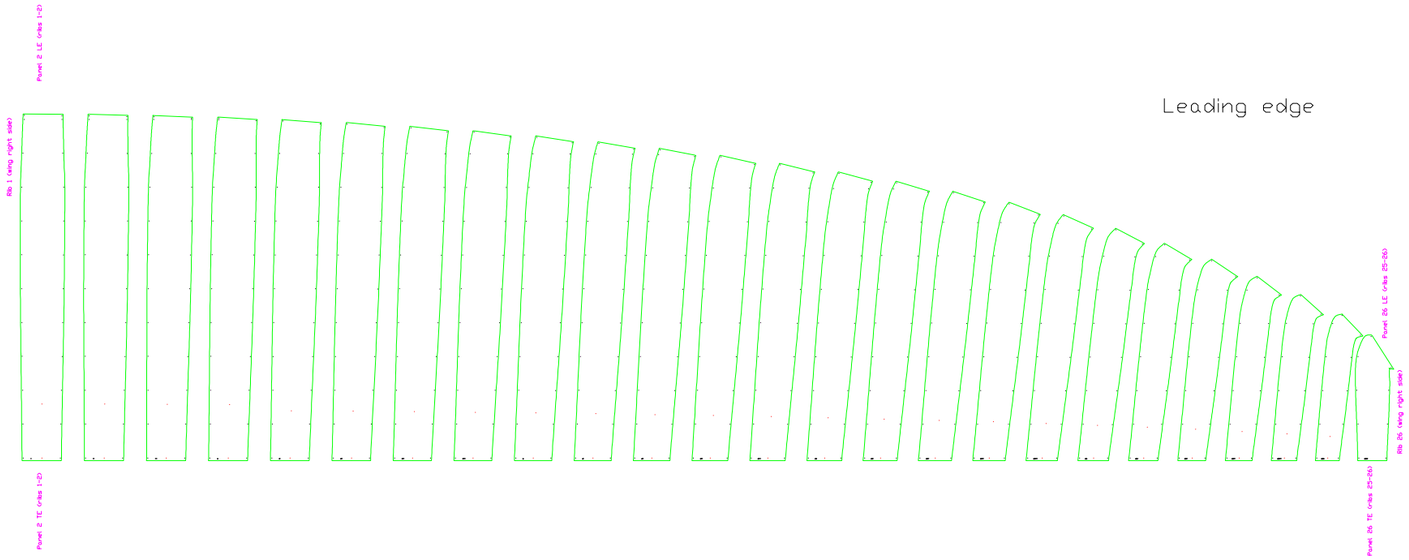
2-3 INTRADOS PANELS



SCALE X 10 (cm to mm)

1-4 RIBS (FOR CUTTING TABLE)

Leading edge

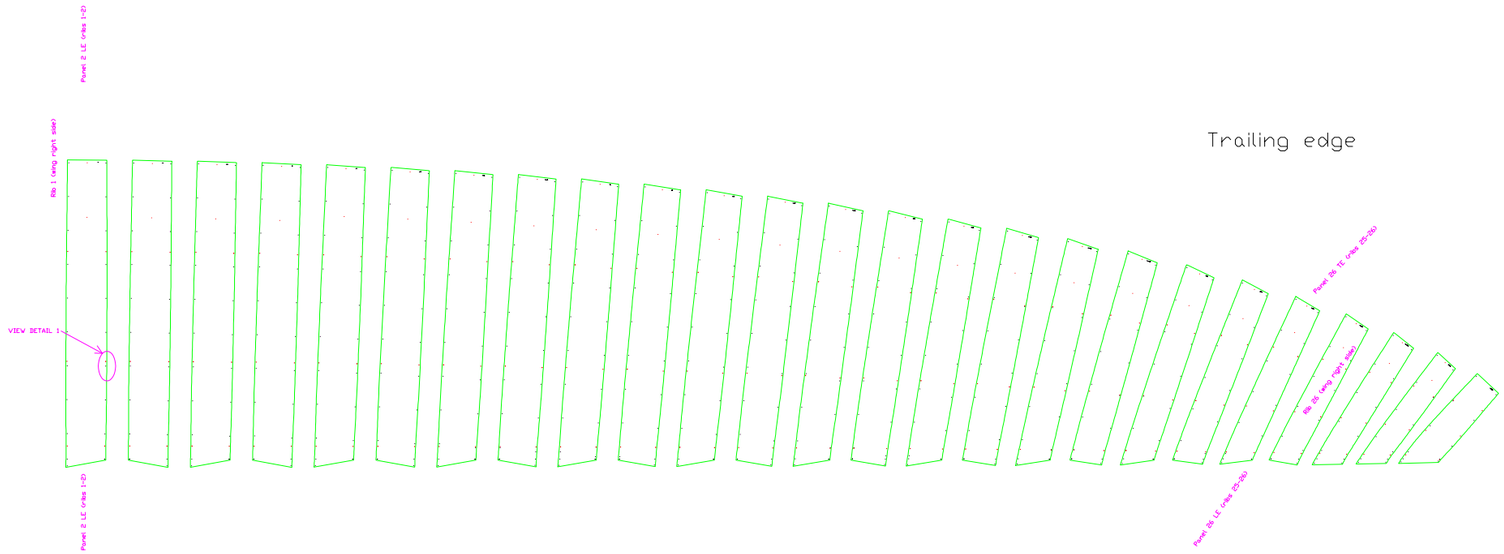


SCALE X 10 (cm to mm)

Trailing edge

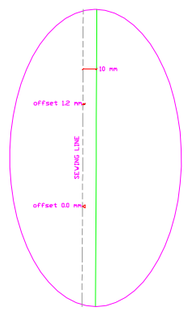
1-5 EXTRADOS PANELS (FOR CUTTING TABLE)

Trailing edge



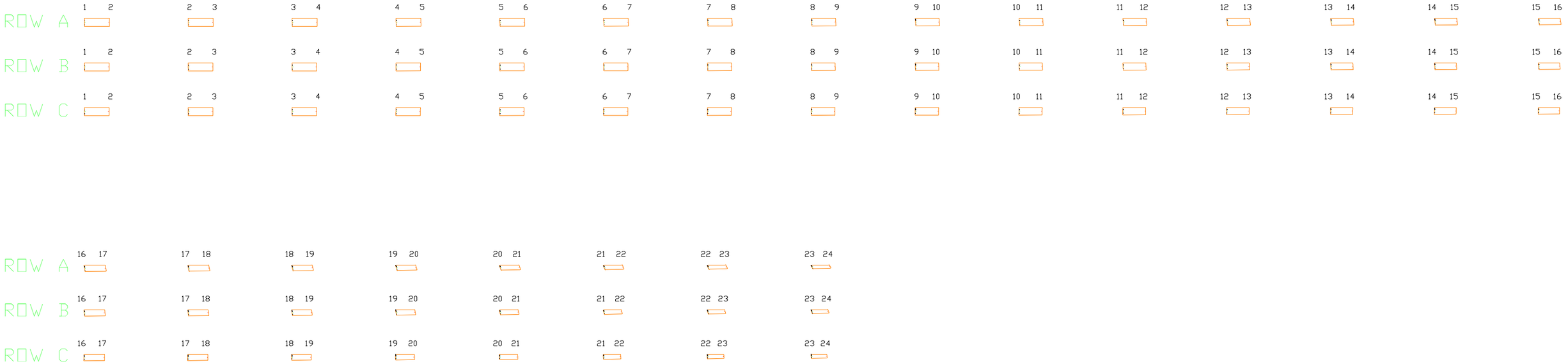
SCALE X 10 (cm to mm)

DETAIL 1

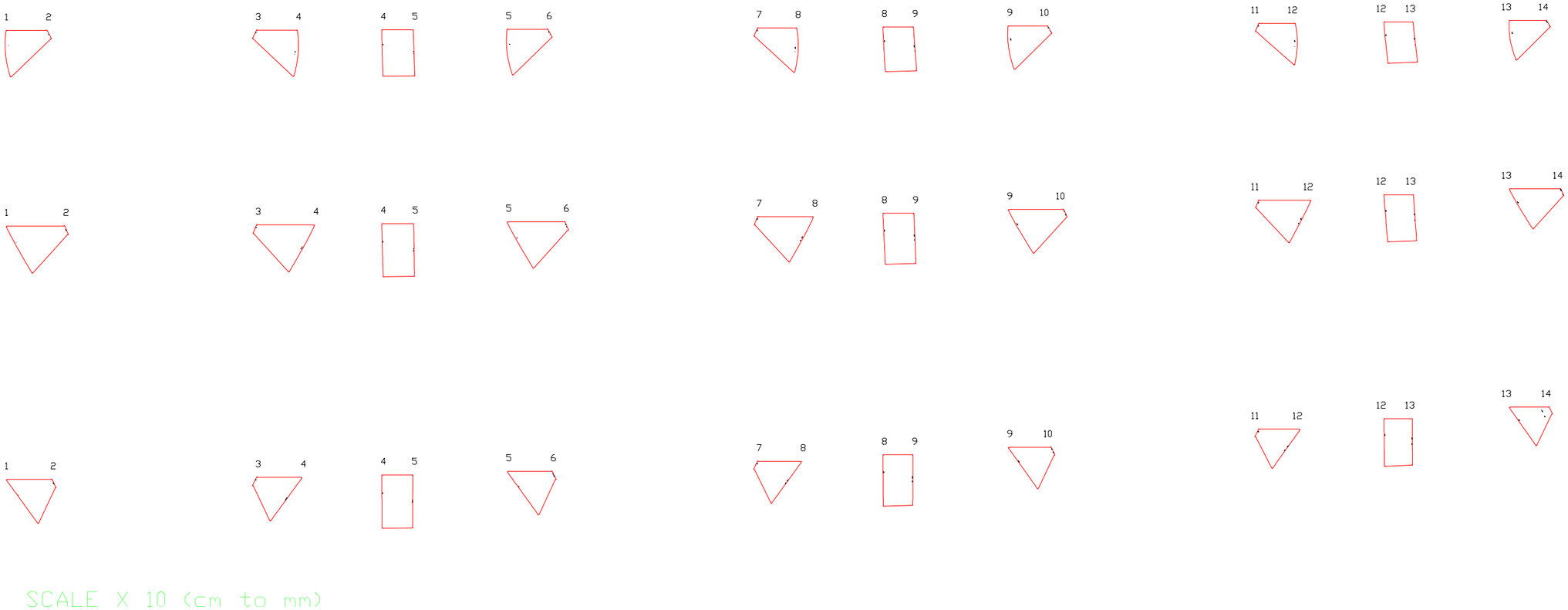


Leading edge

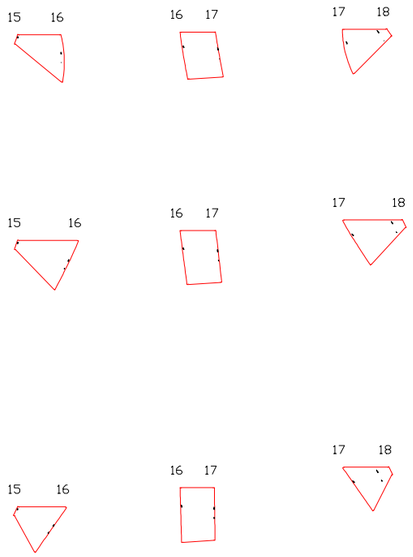
2-5 INTRADOS PANELS (FOR CUTTING TABLE)



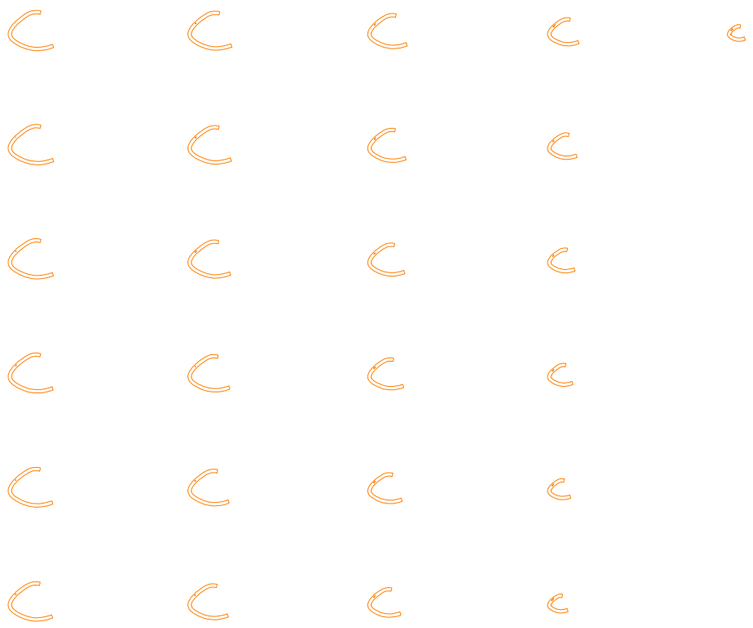
2-4 HORIZONTALS STRAPS



3-6 V-rib Type-6



3-7 V-Rib type-6



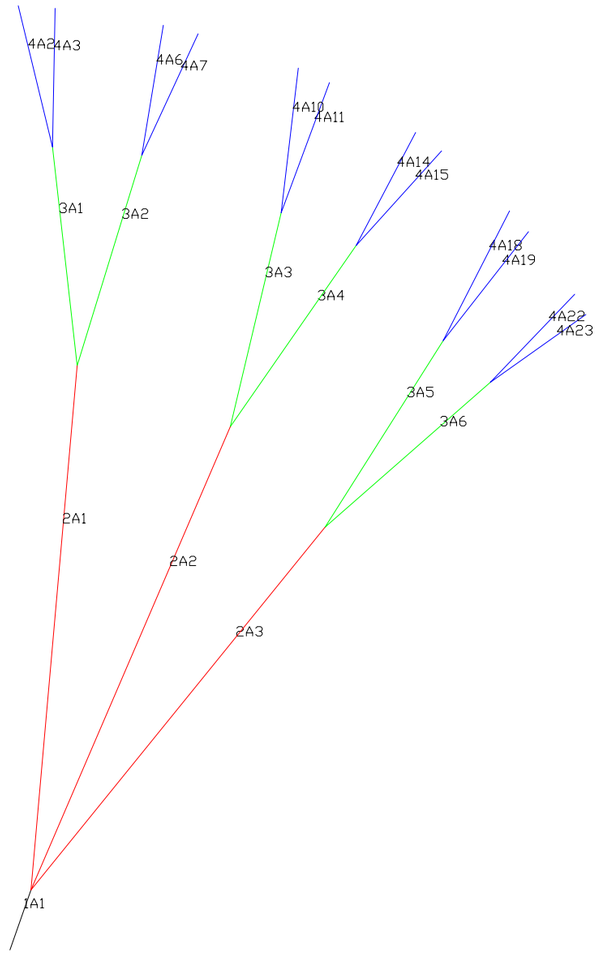
SCALE X 10 (cm to mm)

List of nylon rods (bloc 1)

Group	1	
Jonc	1	67.8
Jonc	2	67.8
Jonc	3	67.6
Jonc	4	67.2
Jonc	5	66.8
Jonc	6	66.2
Jonc	7	65.5
Jonc	8	64.6
Jonc	9	63.6
Jonc	10	62.5
Jonc	11	61.3
Jonc	12	59.9
Jonc	13	58.4
Jonc	14	56.8
Jonc	15	55.0
Jonc	16	53.1
Jonc	17	51.0
Jonc	18	48.7
Jonc	19	46.1
Jonc	20	43.2
Jonc	21	40.1
Jonc	22	36.8
Jonc	23	33.2
Jonc	24	29.4
Jonc	25	25.3

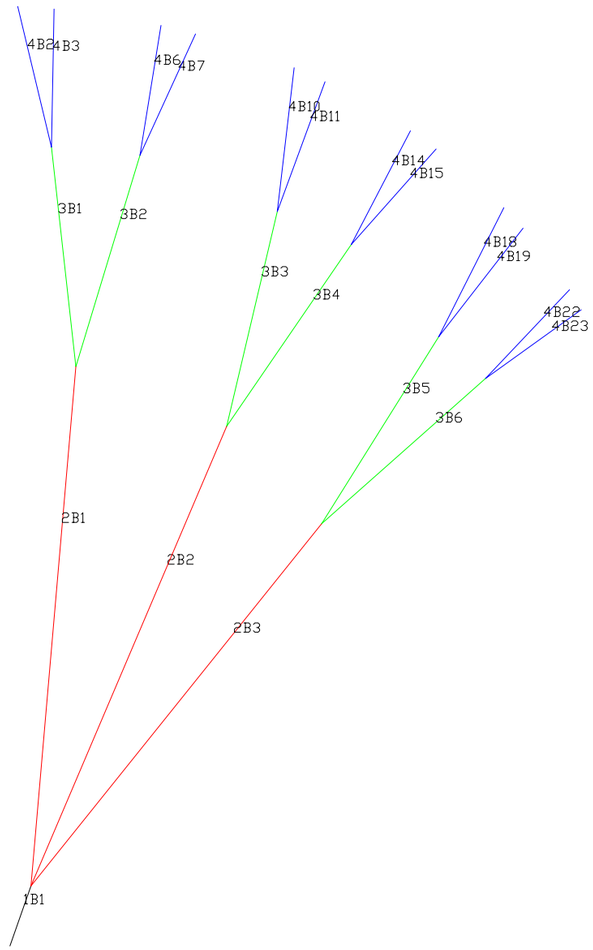
1-7 NYLON RODS POCKETS, NOSE MYLARS

Line	Label	Length
1	1A1	47.0
2	2A1	389.9
3	2A2	372.9
4	2A3	344.9
5	3A1	162.9
6	3A2	162.9
7	3A3	162.9
8	3A4	162.9
9	3A5	163.0
10	3A6	163.0
11	4A2	107.7
12	4A3	102.9
13	4A6	97.7
14	4A7	99.1
15	4A10	107.8
16	4A11	102.7
17	4A14	94.4
18	4A15	94.1
19	4A18	108.1
20	4A19	102.4
21	4A22	90.1
22	4A23	87.6



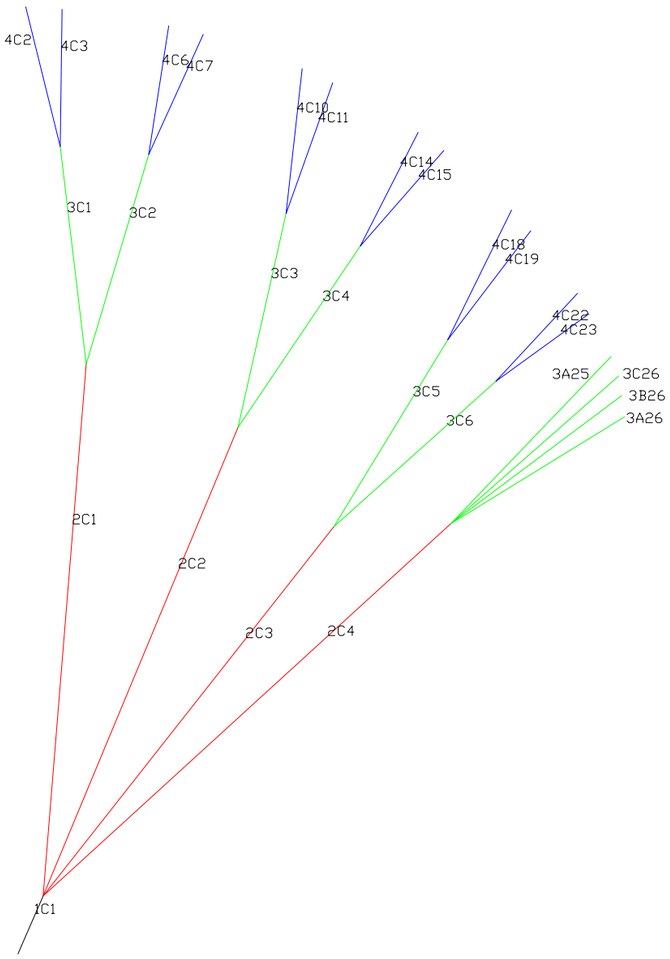
3-2 LINES A

Line	Label	Length
23	1B1	47.0
24	2B1	384.9
25	2B2	368.9
26	2B3	343.9
27	3B1	162.9
28	3B2	162.9
29	3B3	162.9
30	3B4	162.9
31	3B5	163.0
32	3B6	163.0
33	4B2	106.8
34	4B3	102.1
35	4B6	97.1
36	4B7	98.5
37	4B10	106.9
38	4B11	102.2
39	4B14	94.7
40	4B15	94.6
41	4B18	106.8
42	4B19	101.7
43	4B22	90.6
44	4B23	88.2



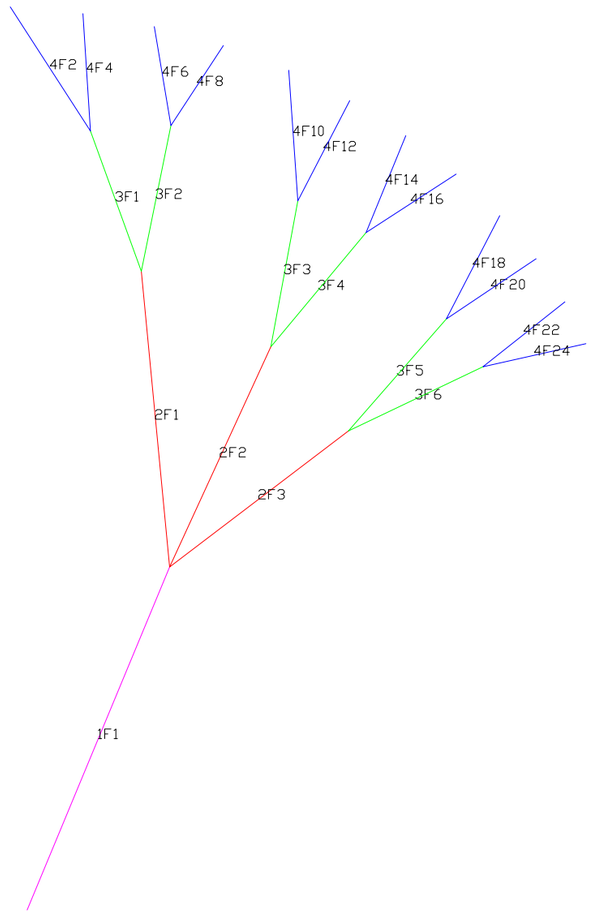
3-3 LINES B

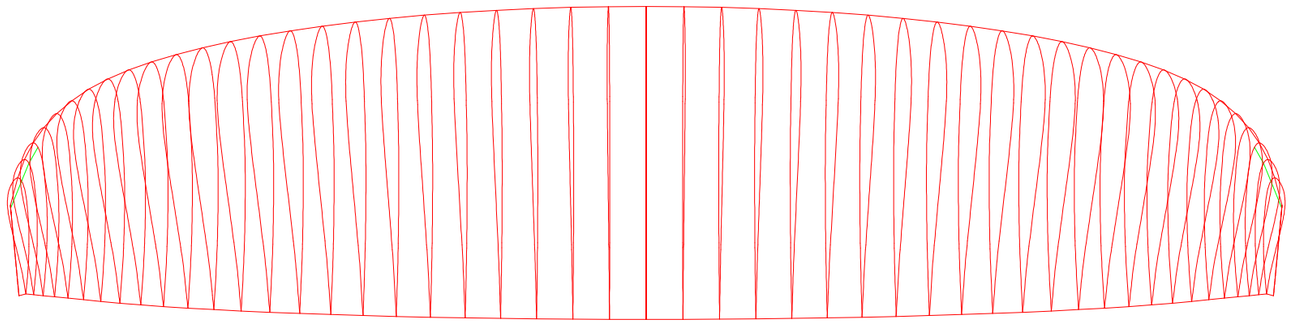
Line	Label	Length
45	1C1	47.0
46	2C1	396.9
47	2C2	377.9
48	2C3	351.0
49	2C4	411.0
50	3C1	163.0
51	3C2	163.0
52	3C3	163.0
53	3C4	163.0
54	3C5	163.0
55	3C6	163.0
56	3A25	170.8
57	3A26	167.5
58	3B26	170.0
59	3C26	176.0
60	4C2	107.0
61	4C3	102.1
62	4C6	96.7
63	4C7	97.9
64	4C10	108.5
65	4C11	103.5
66	4C14	95.1
67	4C15	94.7
68	4C18	107.8
69	4C19	102.2
70	4C22	89.7
71	4C23	86.6



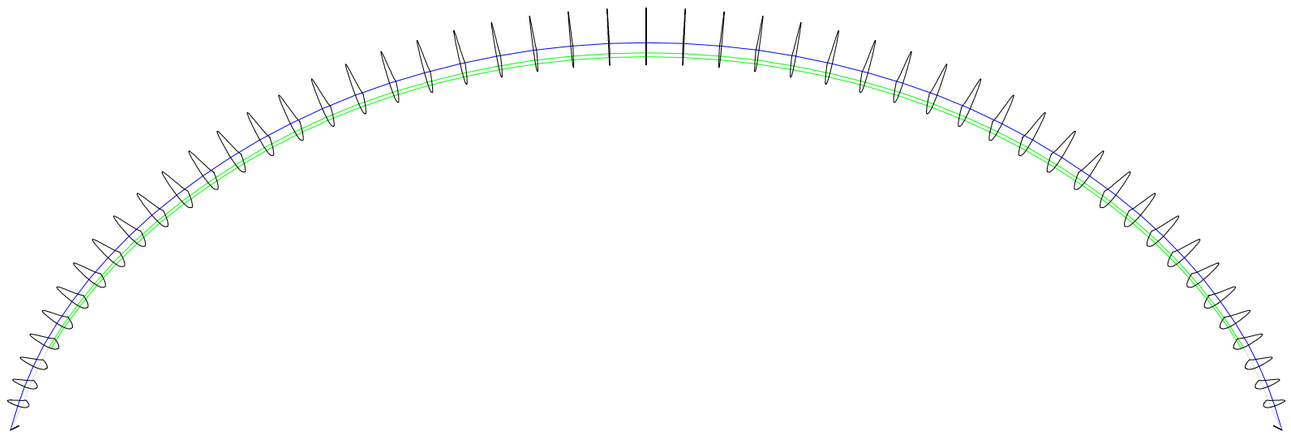
3-4 LINES C

Line	Label	Length
72	1F1	281.0
73	2F1	224.0
74	2F2	183.0
75	2F3	169.0
76	3F1	112.0
77	3F2	112.0
78	3F3	112.0
79	3F4	112.0
80	3F5	112.0
81	3F6	112.0
82	4F2	110.6
83	4F4	88.7
84	4F6	75.6
85	4F8	72.0
86	4F10	98.4
87	4F12	85.1
88	4F14	79.0
89	4F16	80.5
90	4F18	87.7
91	4F20	81.2
92	4F22	78.6
93	4F24	79.0

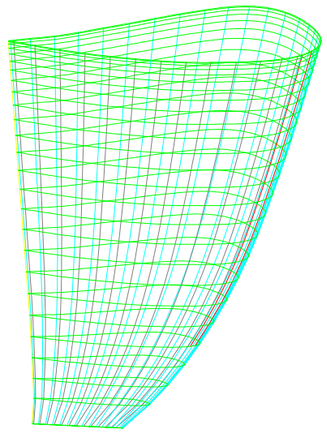




3-1 UPPER VIEW



4-1 VAULT VIEW



4-2 LATERAL VIEW

RECOMMENDED RIB REINFORCEMENTS

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: Horizontal straps
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: V-rib type-6

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): 10.00
Width in leading edge ex (mm): 10.00
Width in trailing edge ex (mm): 20.00
Lateral width in intrados (mm): 10.00
Width in leading edge in (mm): 10.00
Width in trailing edge in (mm): 20.00
Lateral width in ribs (mm): 10.00
Lateral width in V-ribs (mm): 10.00
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 = :....
Number 15 = ::
Number 16 = ::.
Number 17 = ::..
Number 18 = ::...
Number 19 = ::....
Number 20 = :::
Number 21 = :::.
Number 22 = :::..
Number 23 = :::...
Number 24 = :::....
Number 25 = ::::
Number 26 = ::::.