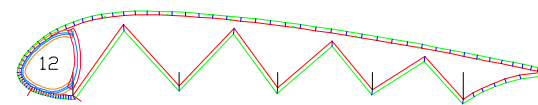
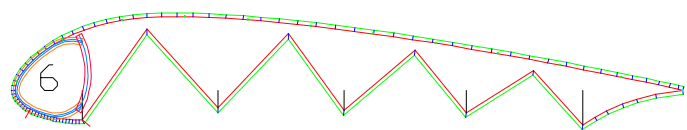
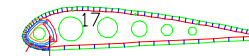
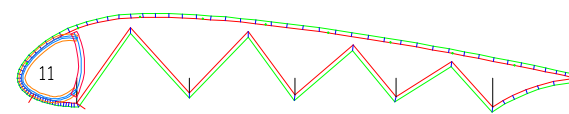
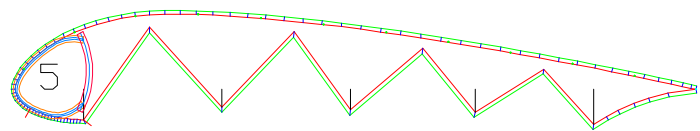
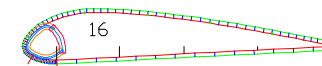
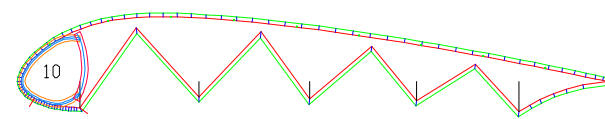
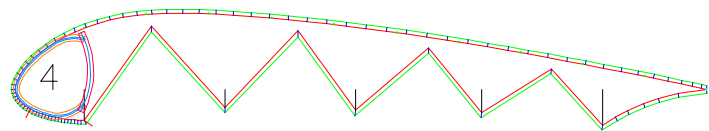
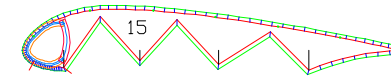
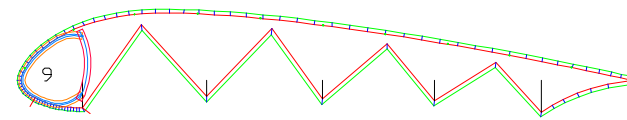
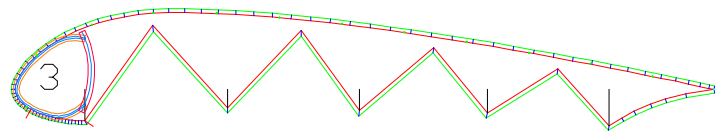
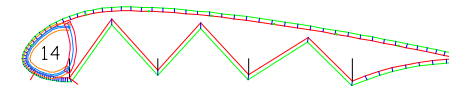
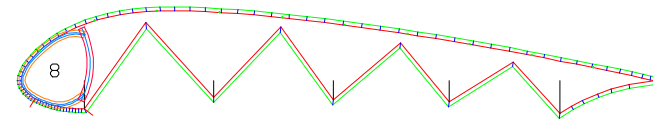
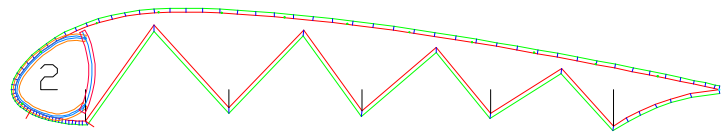
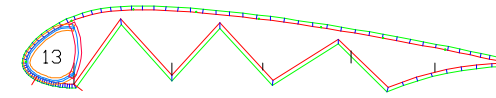
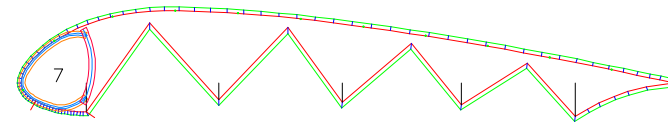
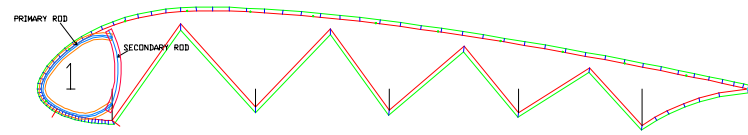
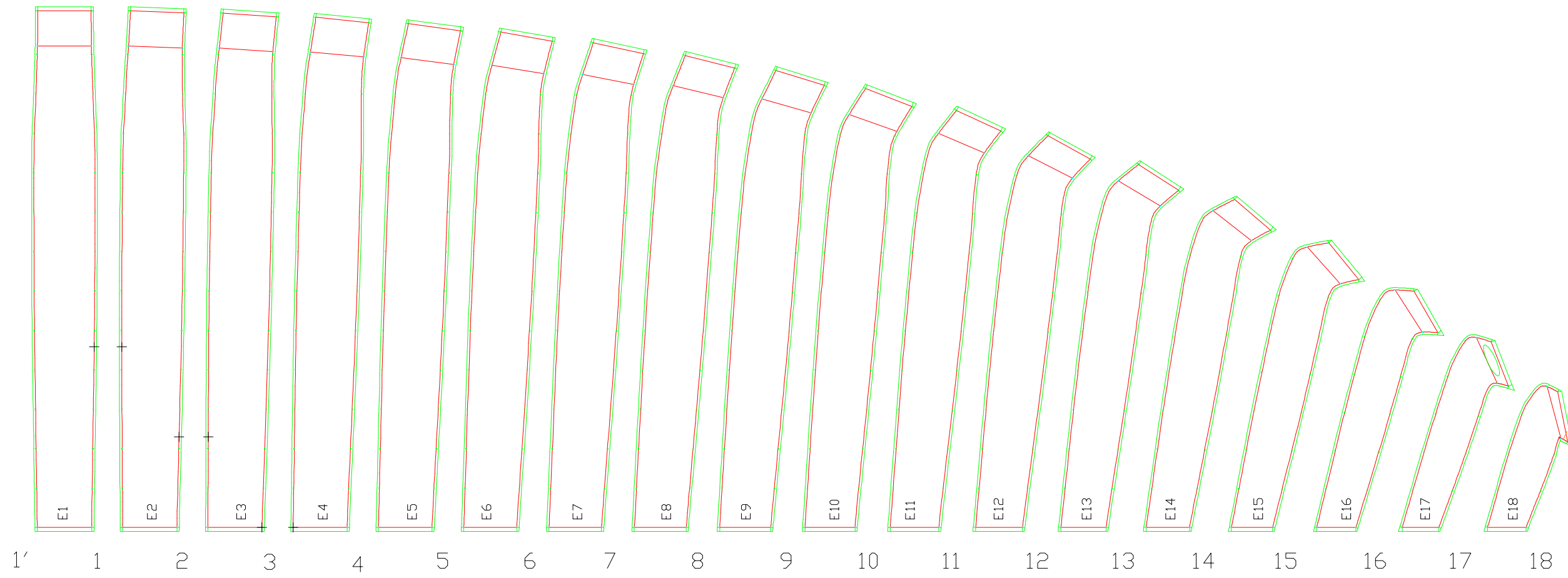


Laboratori d'envol BHL4-24
 Flat area (m²) : 24.04
 Flat span (m) : 10.62
 Flat aspect ratio : 4.69
 Cells number : 35
 Version : 20220106

1-1 PLANFORM AND VAULT



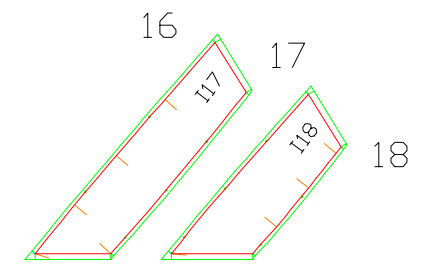
Leading edge



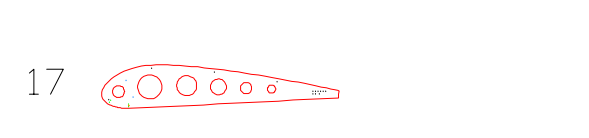
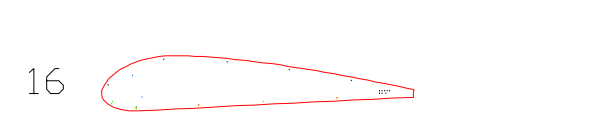
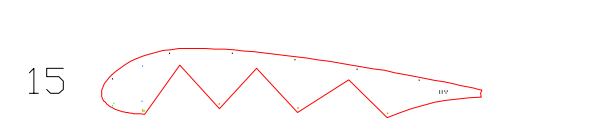
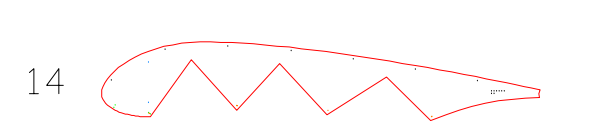
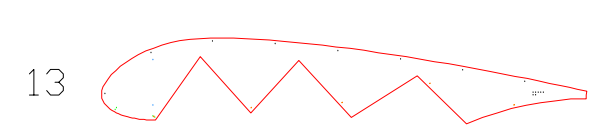
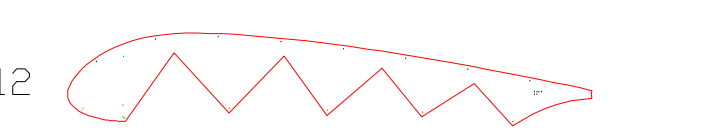
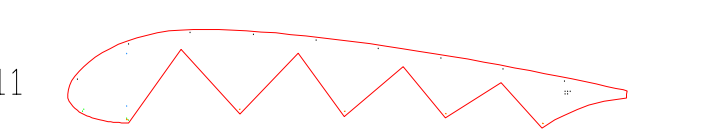
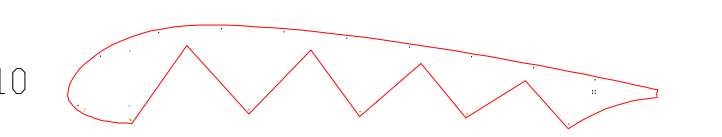
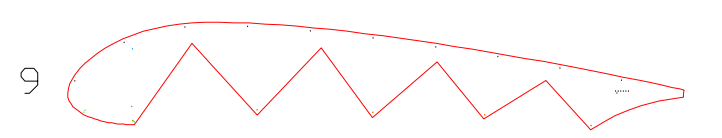
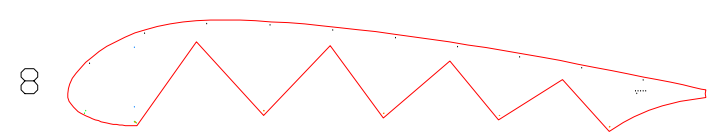
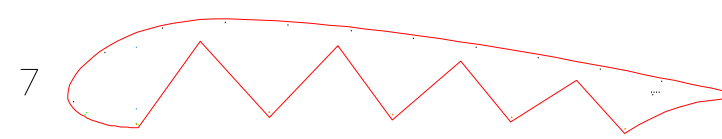
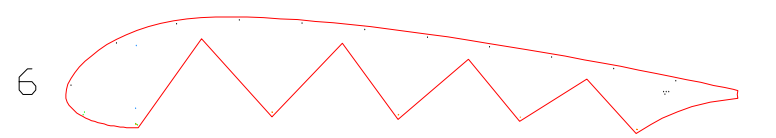
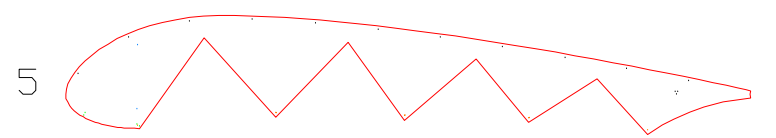
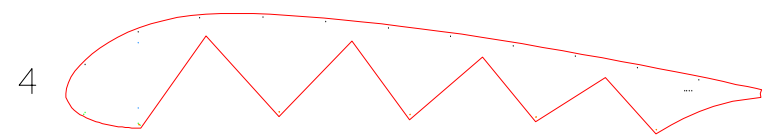
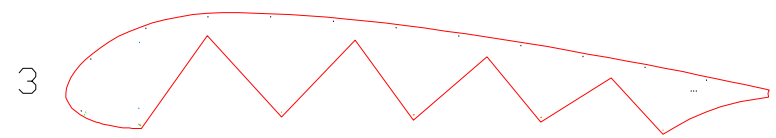
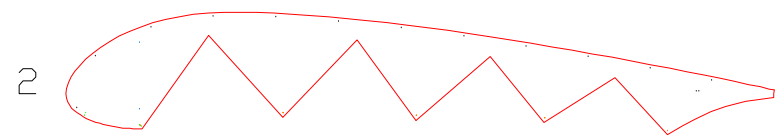
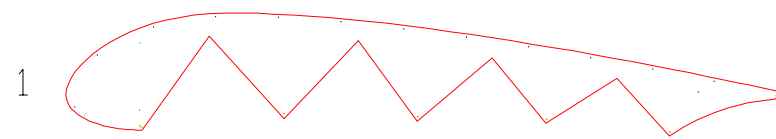
Trailing edge

1-3 EXTRADOS PANELS

Trailing edge

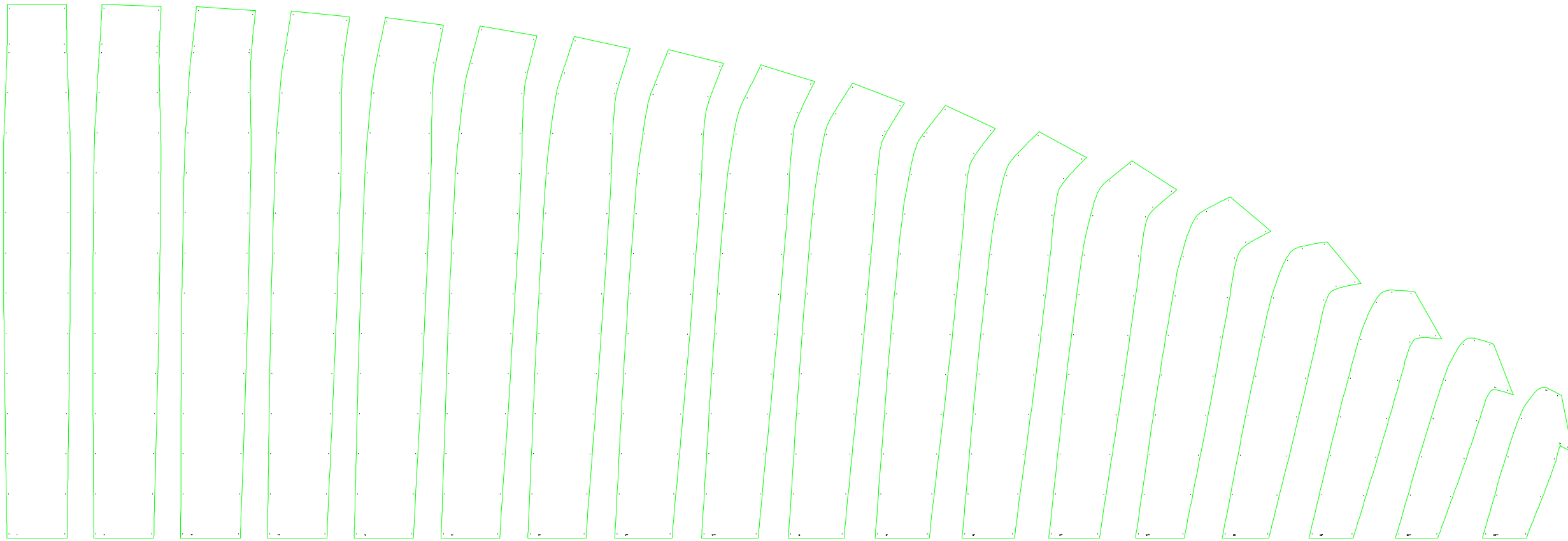


Leading edge



1-4 RIBS (FOR CUTTING TABLE)

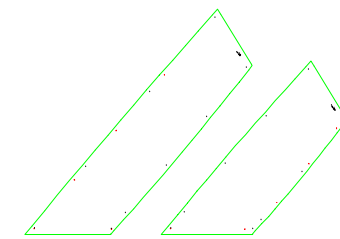
Leading edge



Trailing edge

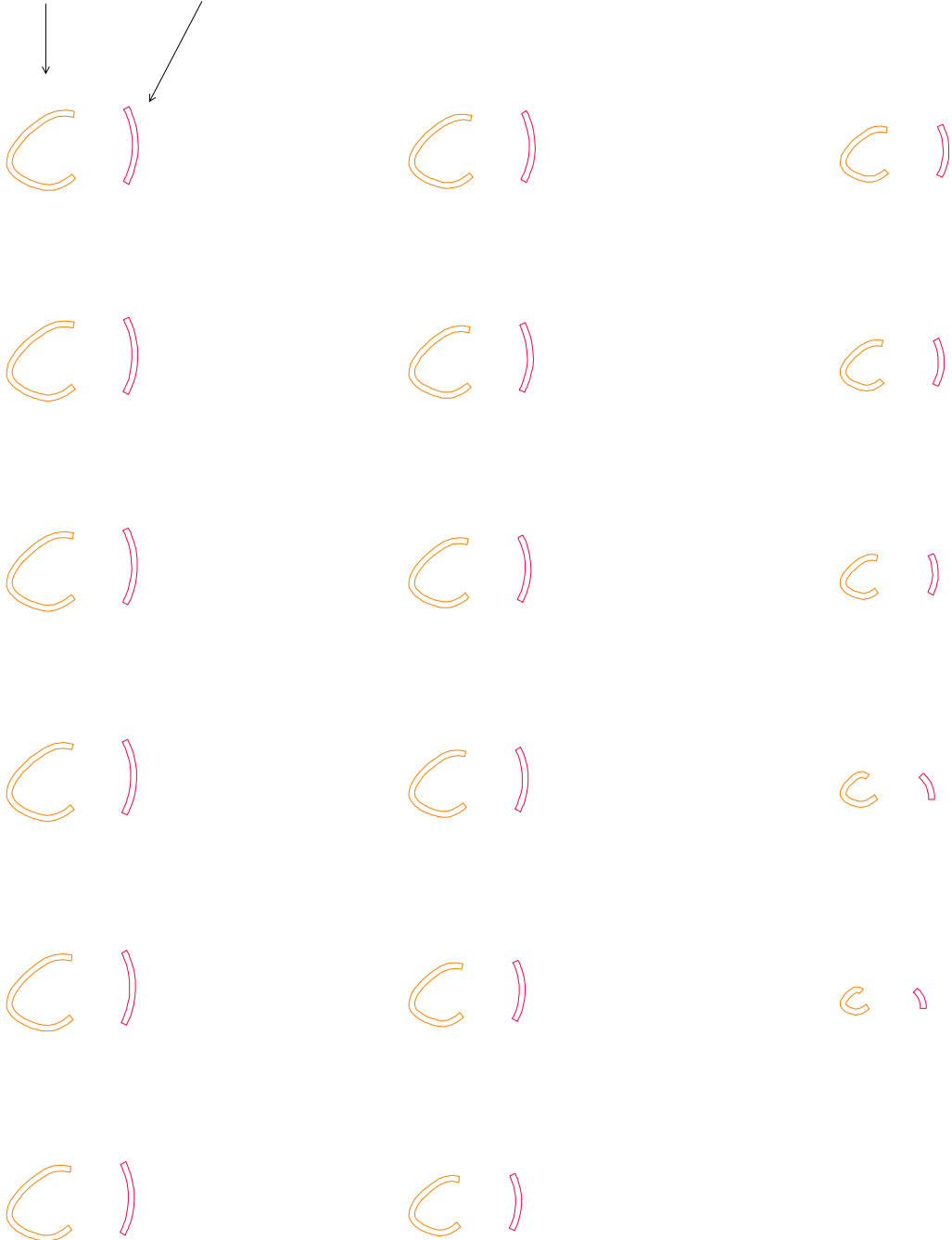
1-5 EXTRADOS PANELS (FOR CUTTING TABLE)

Trailing edge



Leading edge

PRIMARY ROD SECONDARY ROD



List of primary nylon rods

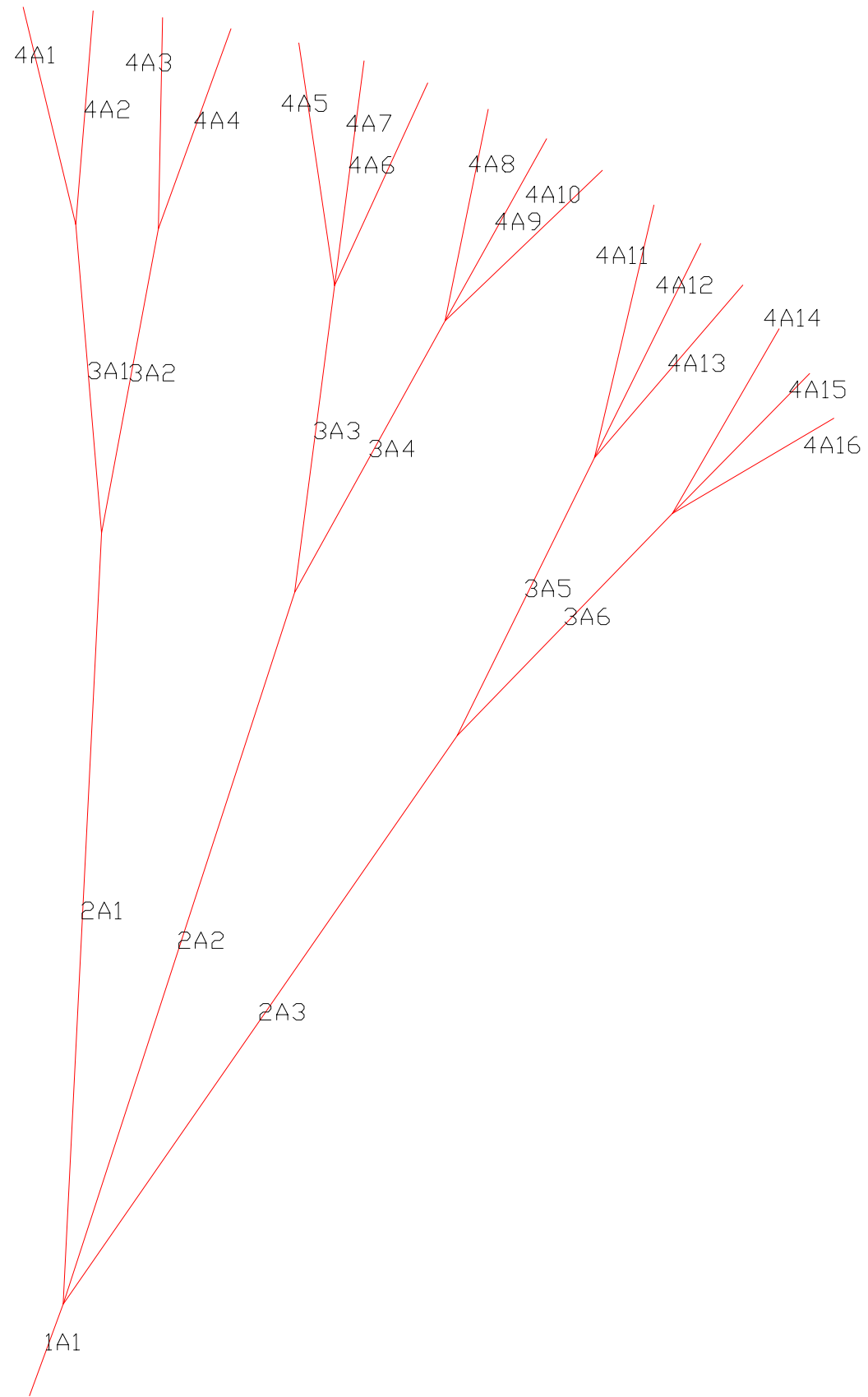
Jonc	1	72.4
Jonc	2	72.1
Jonc	3	71.6
Jonc	4	70.8
Jonc	5	69.7
Jonc	6	68.4
Jonc	7	66.8
Jonc	8	64.9
Jonc	9	62.7
Jonc	10	60.0
Jonc	11	56.8
Jonc	12	53.2
Jonc	13	49.2
Jonc	14	44.4
Jonc	15	38.5
Jonc	16	33.1
Jonc	17	25.1

List of secondary nylon rods

Jonc	1	33.3
Jonc	2	33.1
Jonc	3	32.9
Jonc	4	32.5
Jonc	5	32.0
Jonc	6	31.4
Jonc	7	30.6
Jonc	8	29.8
Jonc	9	28.7
Jonc	10	27.4
Jonc	11	26.0
Jonc	12	24.3
Jonc	13	22.4
Jonc	14	20.2
Jonc	15	17.3
Jonc	16	11.8
Jonc	17	8.8

Line - Label - Length

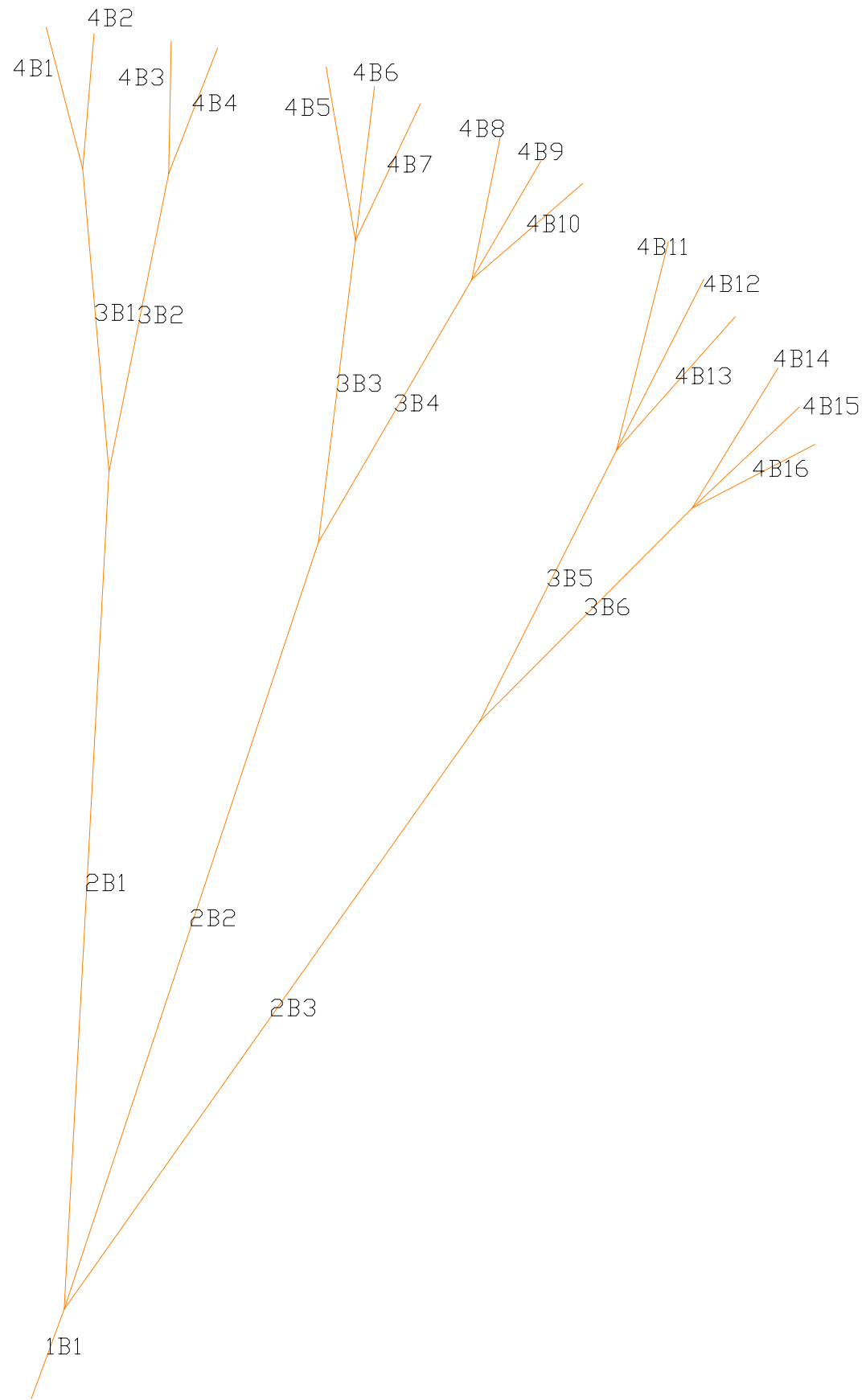
1	1A1	47.0
2	2A1	376.8
3	2A2	364.8
4	2A3	338.9
5	3A1	149.9
6	3A2	149.9
7	3A3	149.9
8	3A4	149.9
9	3A5	149.9
10	3A6	149.9
11	4A1	108.4
12	4A2	104.0
13	4A3	102.2
14	4A4	103.1
15	4A5	118.6
16	4A6	109.6
17	4A7	107.7
18	4A8	104.6
19	4A9	101.4
20	4A10	106.0
21	4A11	122.8
22	4A12	112.6
23	4A13	107.2
24	4A14	99.7
25	4A15	92.1
26	4A16	92.0



3-2 LINES A

Line - Label - Length

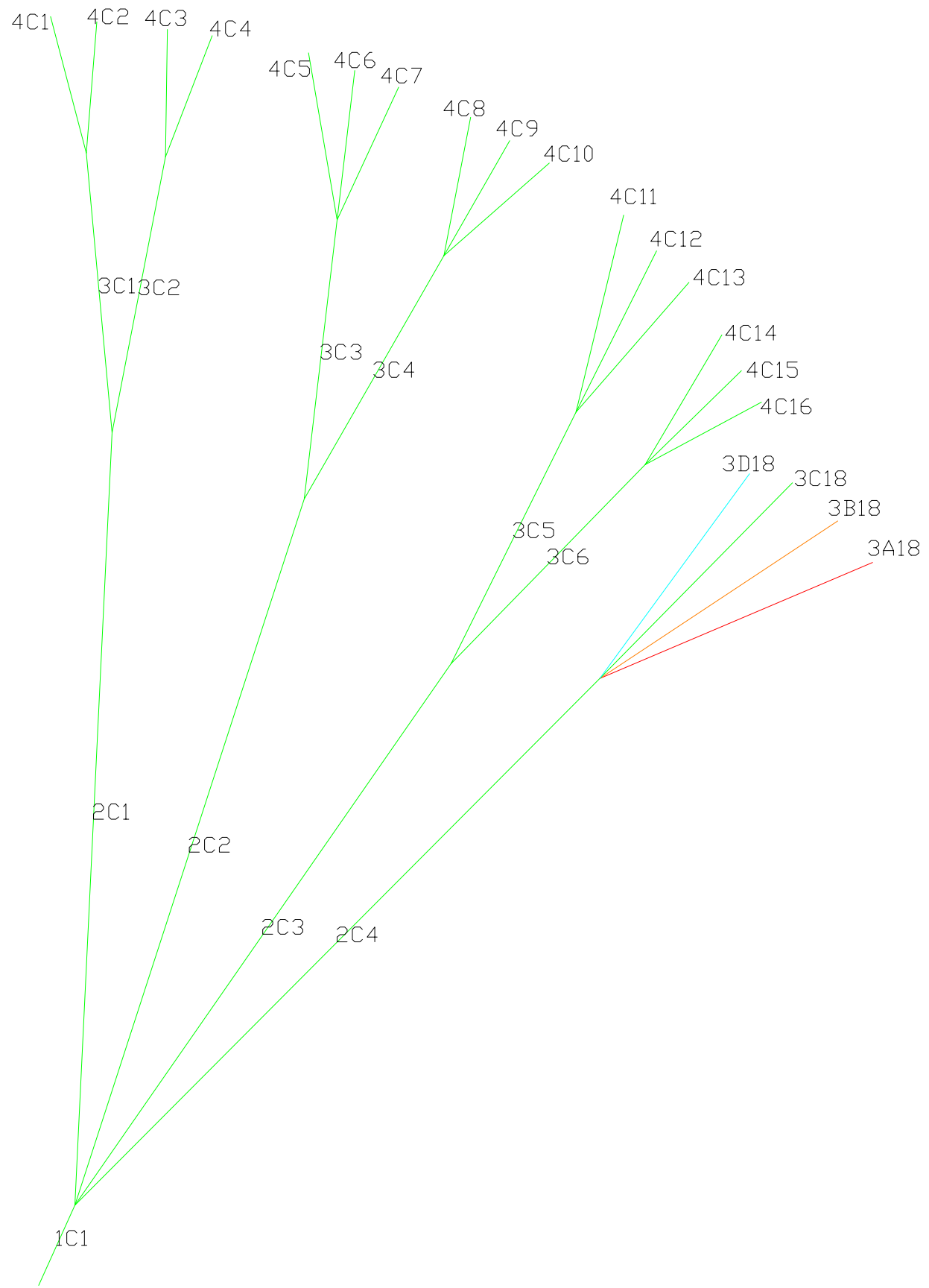
27	1B1	47.0
28	2B1	414.8
29	2B2	398.8
30	2B3	359.9
31	3B1	149.9
32	3B2	149.9
33	3B3	149.9
34	3B4	149.9
35	3B5	149.9
36	3B6	149.9
37	4B1	71.2
38	4B2	66.3
39	4B3	64.5
40	4B4	66.0
41	4B5	86.6
42	4B6	76.6
43	4B7	74.8
44	4B8	71.9
45	4B9	68.4
46	4B10	73.8
47	4B11	101.1
48	4B12	90.0
49	4B13	84.3
50	4B14	76.4
51	4B15	69.2
52	4B16	68.1



3-3 LINES B

Line - Label - Length

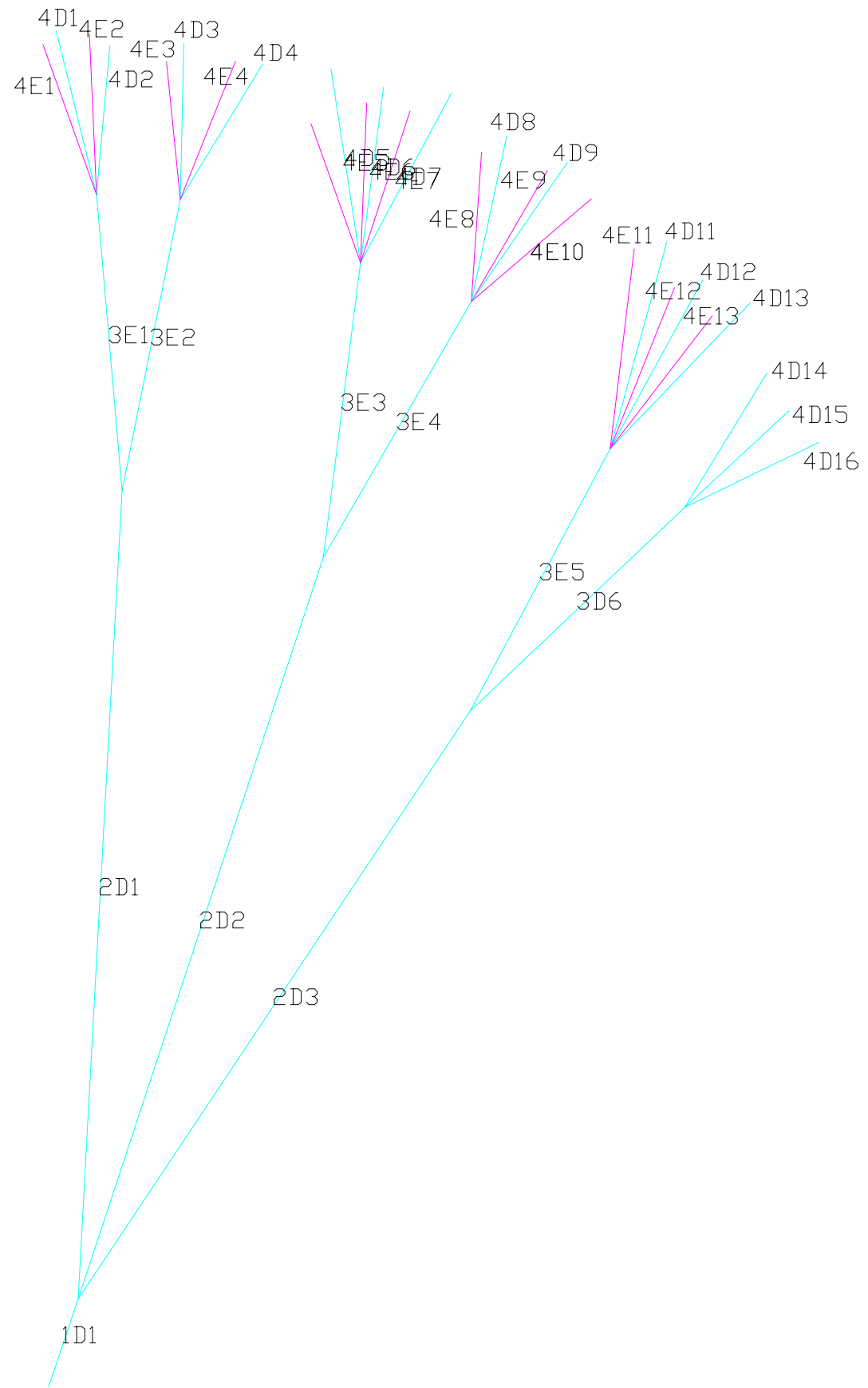
53	1C1	47.0
54	2C1	409.9
55	2C2	394.9
56	2C3	351.9
57	2C4	399.0
58	3C1	150.0
59	3C2	150.0
60	3C3	150.0
61	3C4	150.0
62	3C5	150.0
63	3C6	150.0
64	3A18	152.7
65	3B18	150.4
66	3C18	150.2
67	3D18	152.3
68	4C1	75.3
69	4C2	70.3
70	4C3	68.5
71	4C4	69.9
72	4C5	89.3
73	4C6	79.5
74	4C7	77.8
75	4C8	75.0
76	4C9	70.9
77	4C10	75.5
78	4C11	106.8
79	4C12	95.5
80	4C13	91.9
81	4C14	79.5
82	4C15	71.9
83	4C16	71.9



3-4 LINES C

Line - Label - Length

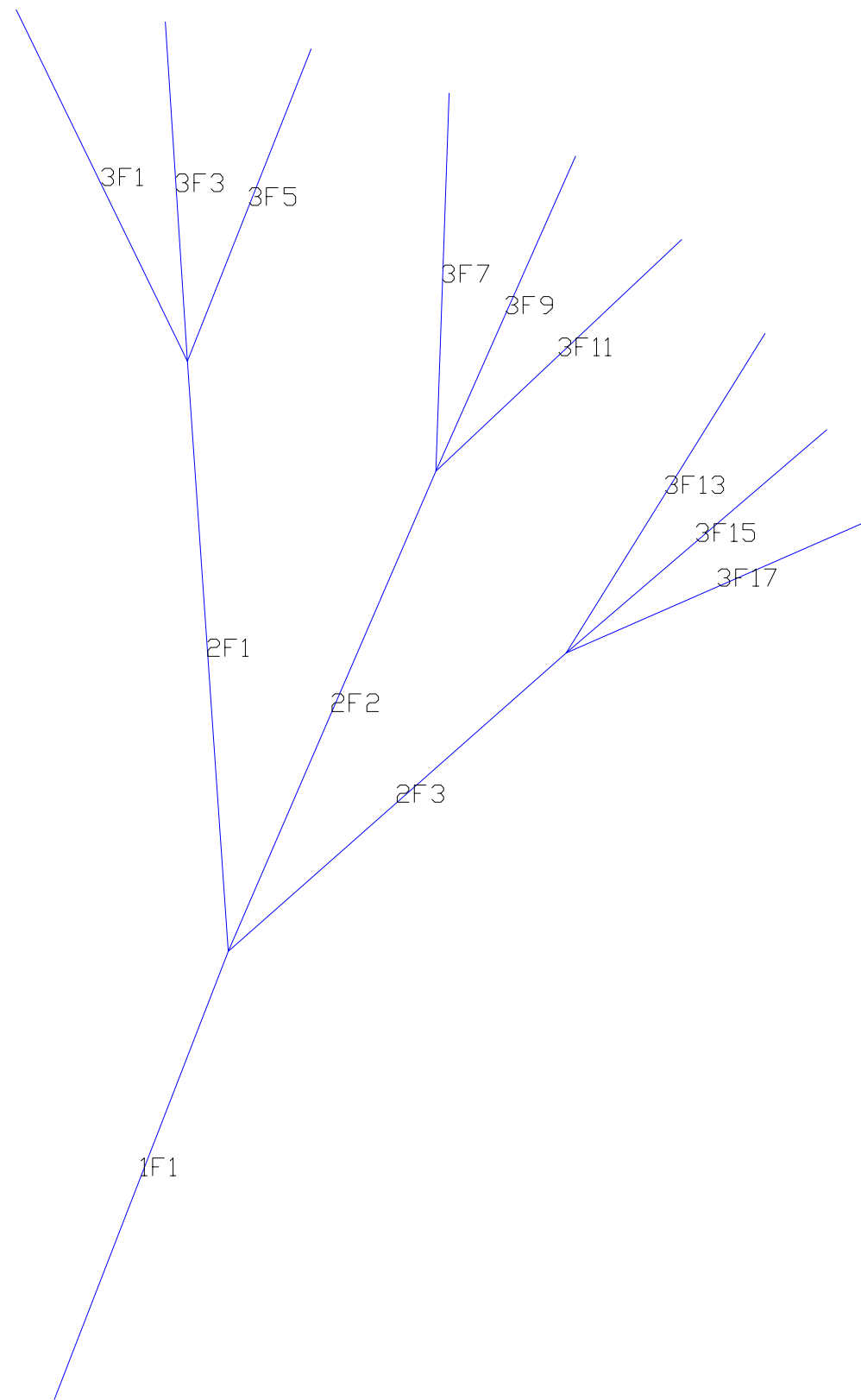
84	1D1	47.0
85	2D1	403.9
86	2D2	389.9
87	2D3	352.9
88	3E1	150.0
89	3E2	150.0
90	3E3	150.0
91	3E4	150.0
92	3E5	150.0
93	3D6	150.0
94	4D1	83.1
95	4E1	91.8
96	4D2	78.5
97	4E2	87.4
98	4D3	76.9
99	4E3	85.9
100	4D4	78.3
101	4E4	86.8
102	4D5	95.7
103	4E5	102.9
104	4D6	86.7
105	4E6	94.0
106	4D7	85.6
107	4E7	92.4
108	4E8	88.1
109	4D8	83.1
110	4E9	83.8
111	4D9	79.8
112	4E10	86.9
113	4E10	86.9
114	4D11	105.6
115	4E11	108.9
116	4D12	94.6
117	4E12	97.2
118	4D13	100.0
119	4E13	96.2
120	4D14	78.7
121	4D15	71.3
122	4D16	74.7



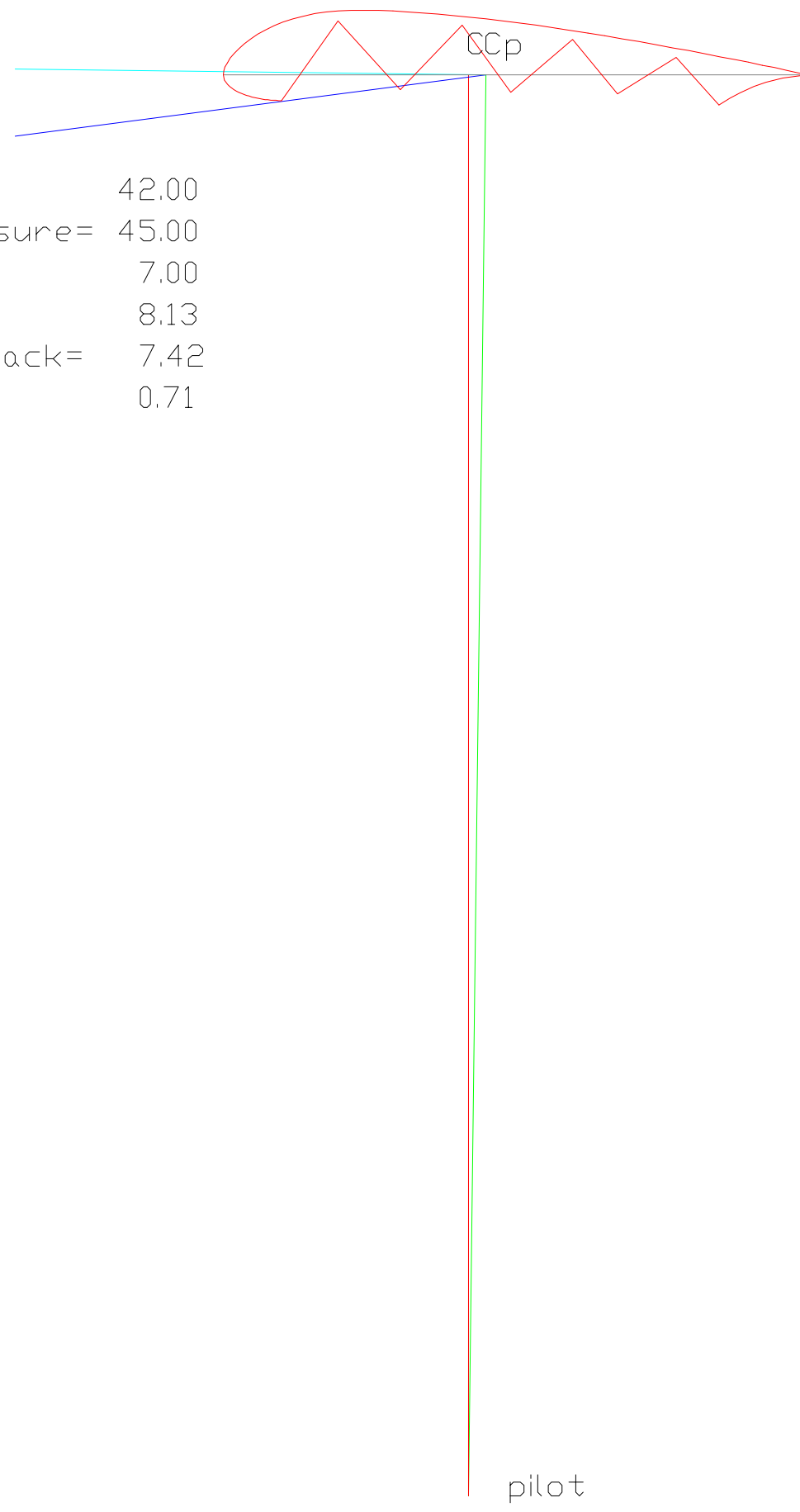
3-5 LINES D

Line - Label - Length

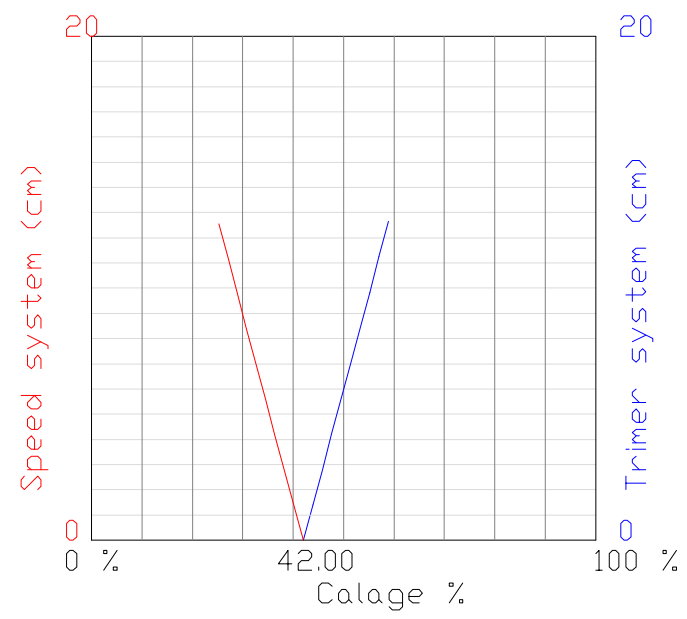
123	1F1	230.0
124	2F1	274.0
125	2F2	241.0
126	2F3	204.0
127	3F1	186.2
128	3F3	163.3
129	3F5	160.5
130	3F7	181.1
131	3F9	163.9
132	3F11	158.9
133	3F13	179.2
134	3F15	162.4
135	3F17	155.4



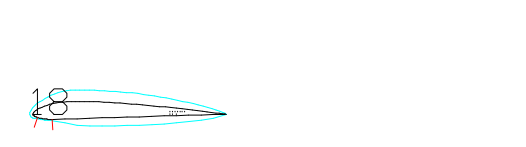
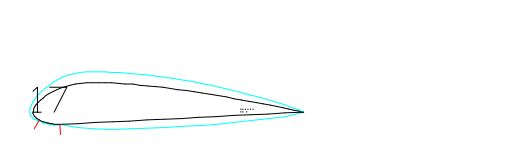
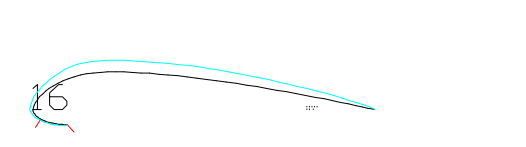
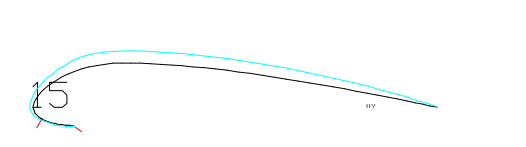
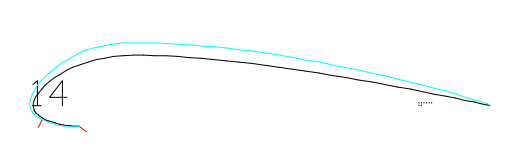
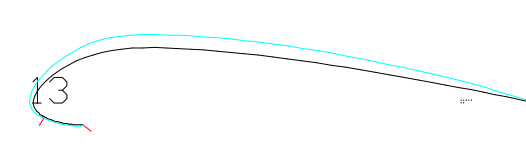
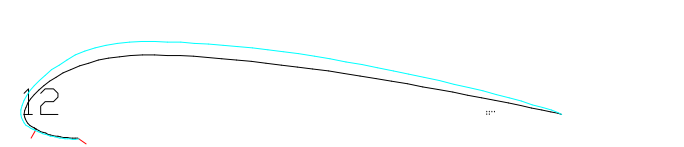
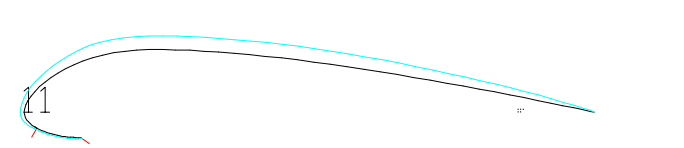
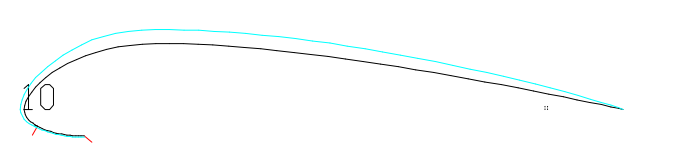
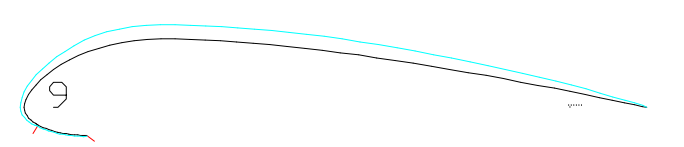
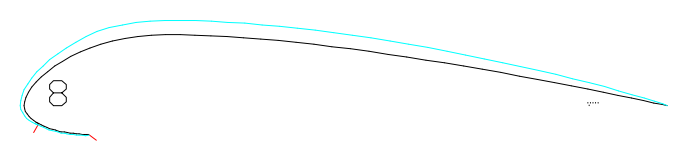
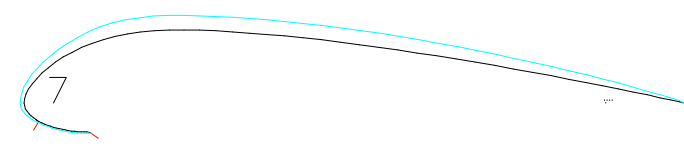
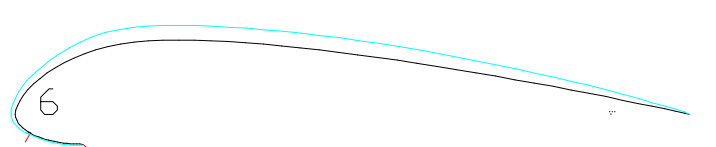
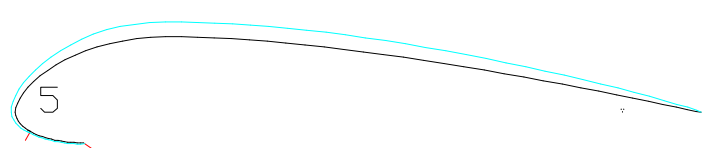
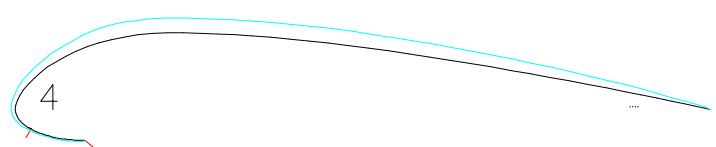
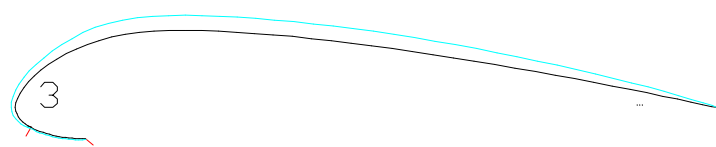
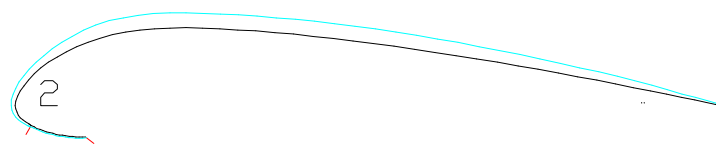
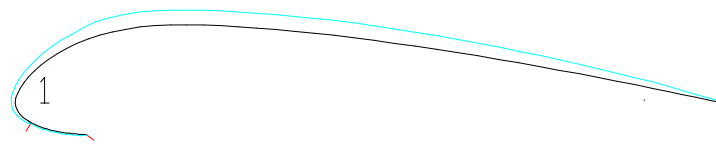
4-5 BRAKES



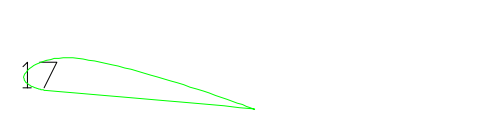
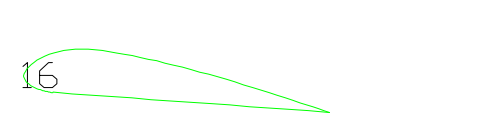
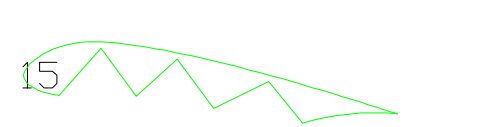
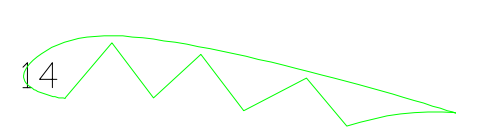
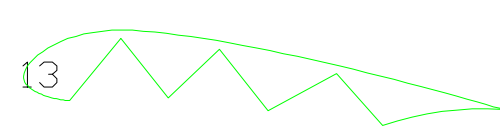
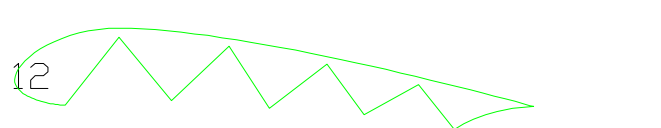
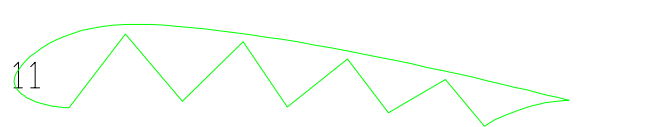
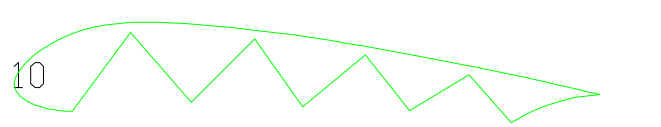
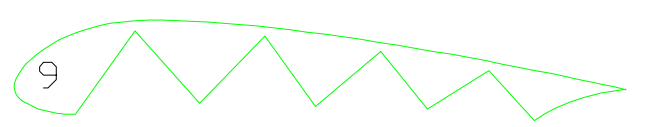
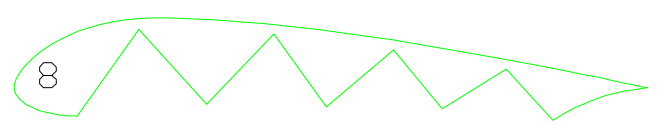
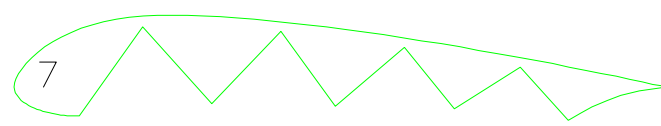
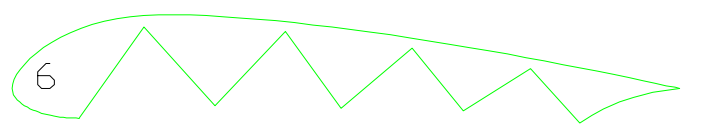
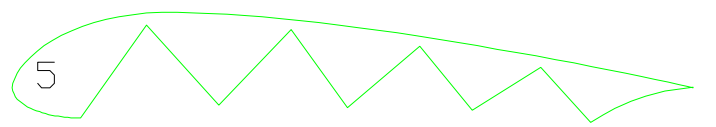
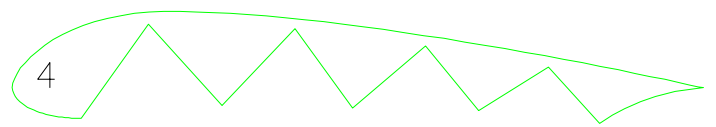
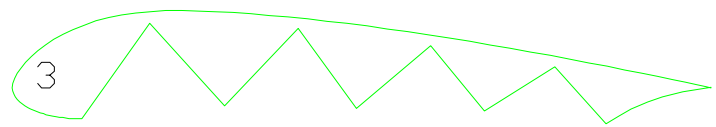
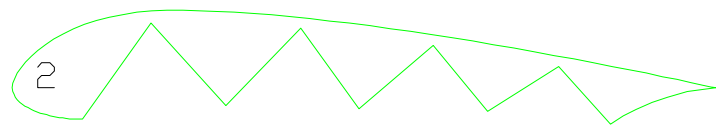
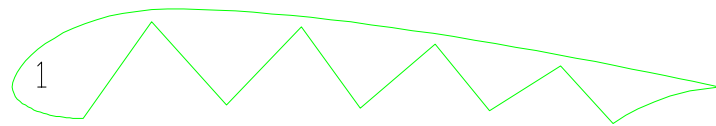
calage= 42.00
 center pressure= 45.00
 glide ratio= 7.00
 glide angle= 8.13
 angle of attack= 7.42
 assiette= 0.71



2-1 CALAGE ESTIMATION



1-8 MIDDLE AND MIDDLE OVALIZED AIRFOILS



2-2 RIBS WASHIN ANGLE

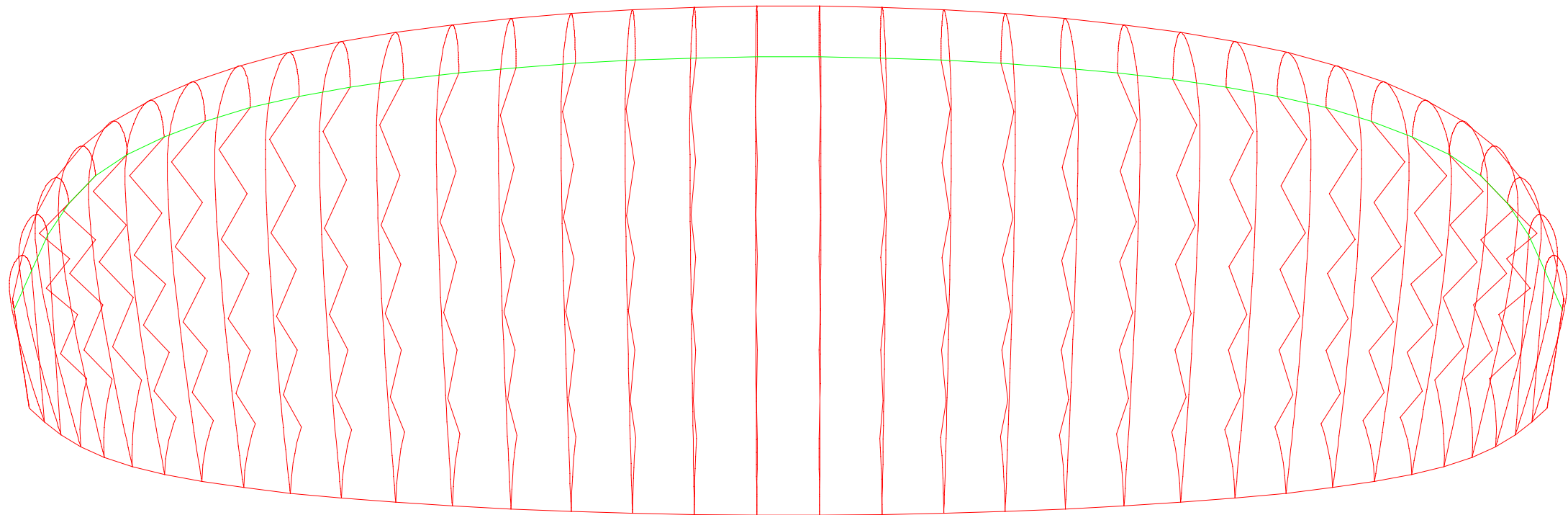
0 1


4 5

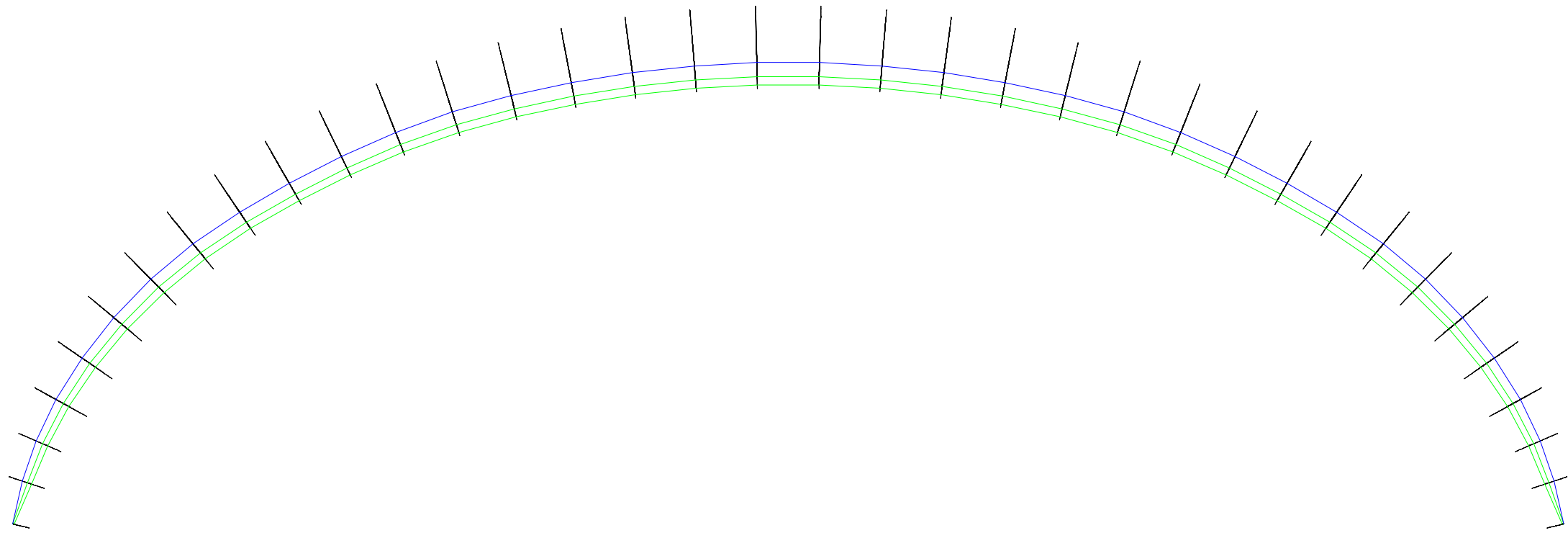

7 8


10 11

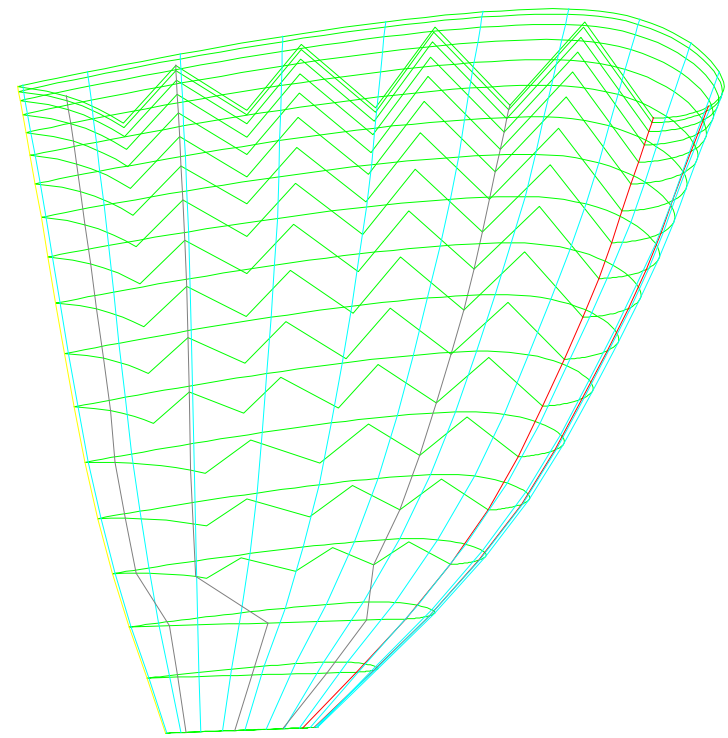

13 14

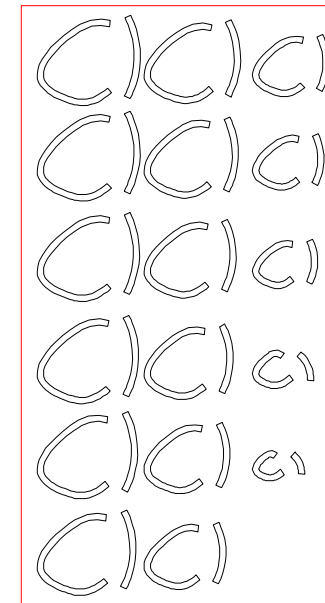
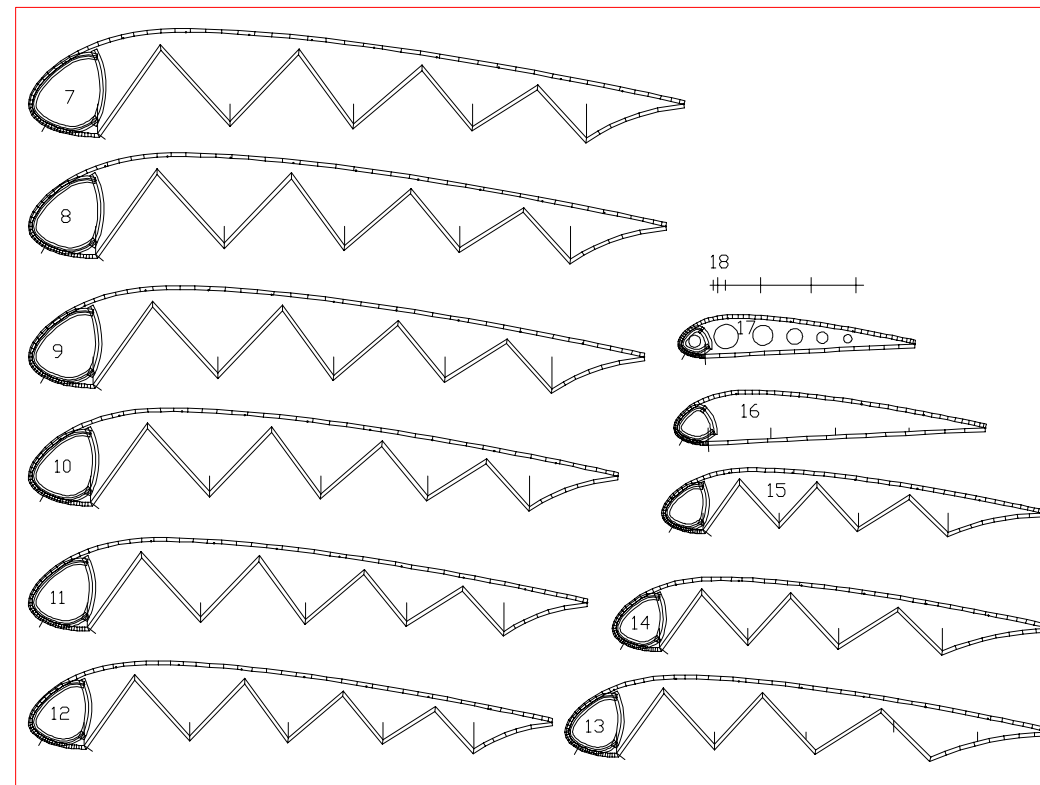
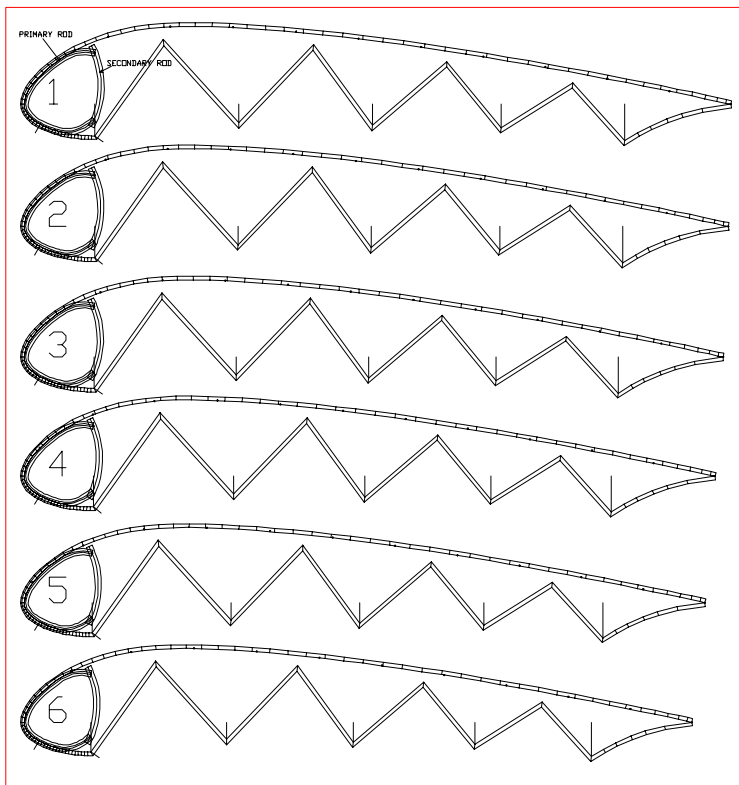
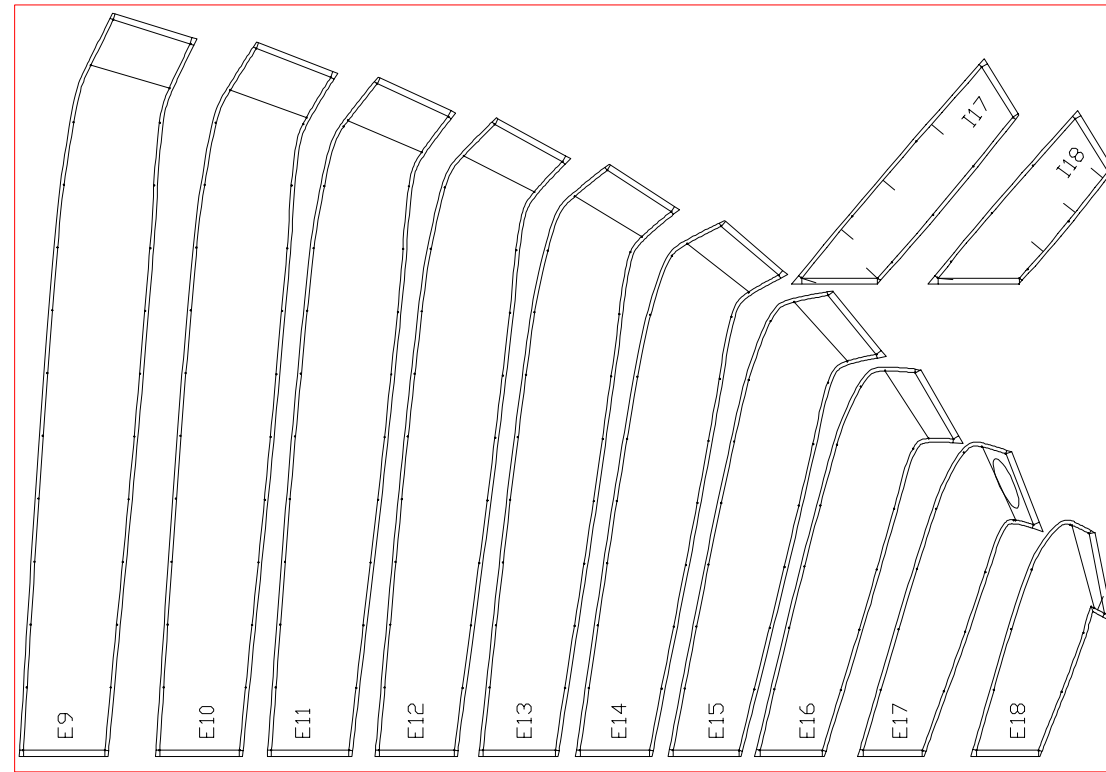
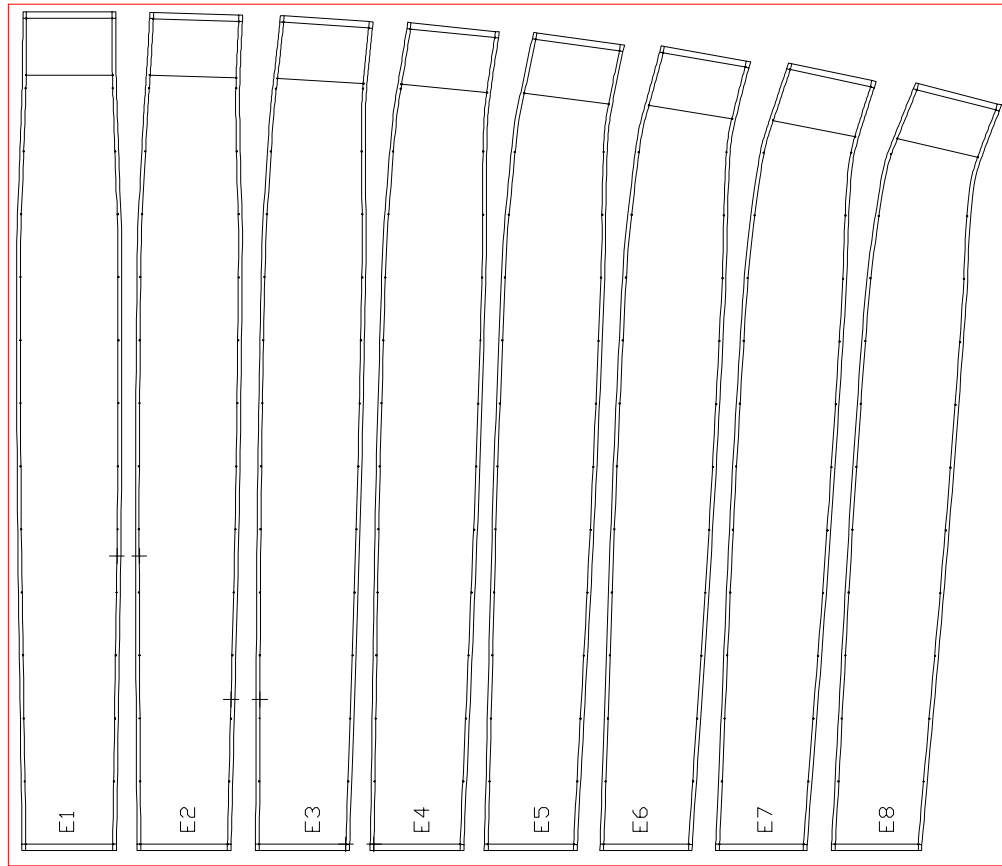
3-1 UPPER VIEW



4-1 VAULT VIEW



4-2 LATERAL VIEW



3-8 ALL PARTS TO PRINT

BRAKE_DISTRIBUTION
CENTER

0.00

0.00

0.00

0.00

WING_TIP

0.00

0.00

25.00

55.00

70.00

100.00

PLANS GENERAL NOTES

- 1-1: Planform and vault view (informative)
- 1-2: Ribs for plotter, one side
- 1-3: Extradados panels for plotter, one side
- 1-4: Ribs for laser cutting, one side. Units cm
- 1-5: Extradados 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 extradados (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 =
- Number 15 =
- Number 16 =
- Number 17 =
- Number 18 =