Fédération Aéronautique Internationale
Maison du Sport International, Av. de Rhodanie 54, CH-1007 Lausanne

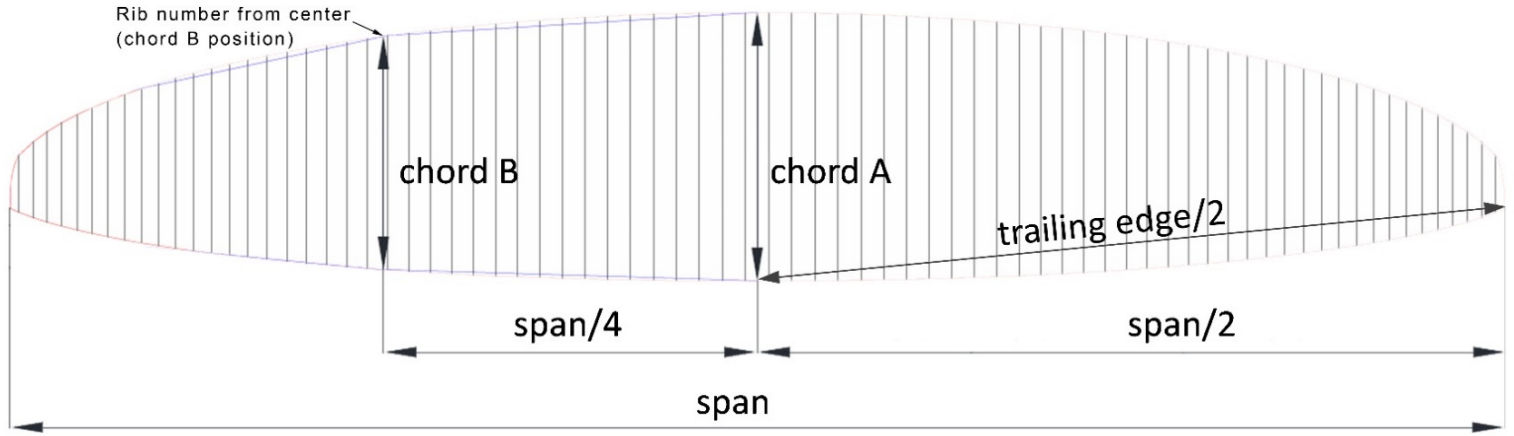
Measurement Report Template

CIVL CCC 2020 (Version 1.0)

Brand	**Davinci Products**	**Size**	**XS**	**Test laboratory | Cert. DHV GS-CCC-018-20**	
Model	**OPERA**	**Serial #**	**COP-XS11010-RBW**	**Certification date**	

Canopy dimensions

Position	Rib # from center	Distance [mm]	Tension [daN]	Manual tolerances	Aspect ratio 4*span / (chord A+2.5*Chord B)		Number cells	Scale factor
Full Span	x	12090	5	+/-2%	**7,63**		**128**	**0,9**
1/2 Trailing Edge	x	6150	5	+/-1%				
Chord A	1	1972	1	+/-1%				
Chord B	29	1745	1	+/-1%	Scale factor	0,9		



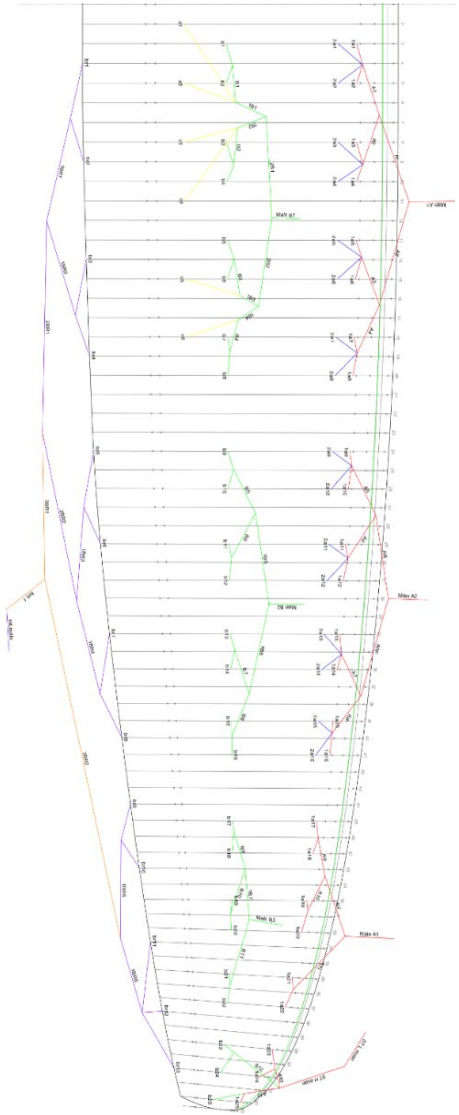
Chord lenght, inlet position, tabs position measured from trailing edge.

(The tab A & B & C can be on different rib, take care to specify it)

On first lined rib (from center)	**Rib n° from center**	**Distance [mm]**	**Tension [daN]**	**Manual tolerances**
Chord	5	1972	1	+/-1%
Top of inlet	5	1898	5	+/-1%
Bottom of inlet	5	1862	5	+/-1%
Tab Aa*	5	1720	5	+/-10mm
Tab Ab*	5	1590	5	+/-10mm
Tab B*	5	900	5	+/-10mm
Tab C*	5	628	5	+/-10mm

On last lined rib of Group 2 (from center)	**Rib n° from center**	**Distance [mm]**	**Tension [daN]**	**Manual tolerances**
Chord	24	1834	1	+/-1%
Top of inlet	24	1774	5	+/-1%
Bottom of inlet	24	1740	5	+/-1%
Tab Aa*	24	1580	5	+/-10mm
Tab Ab*	24	1475	5	+/-10mm
Tab B*	24	835	5	+/-10mm
Tab C*				+/-10mm

On last lined rib (stabilo, from center)	**Rib n° from center**	**Distance [mm]**	**Tension [daN]**	**Manual tolerances**
Chord	64	445	1	+/-1%
Tab A*	64	375	5	+/-10mm
Tab B*	64	207	5	+/-10mm



*Bridle (tab) position measuremt:
end of trailing edge to center bridle (tab)

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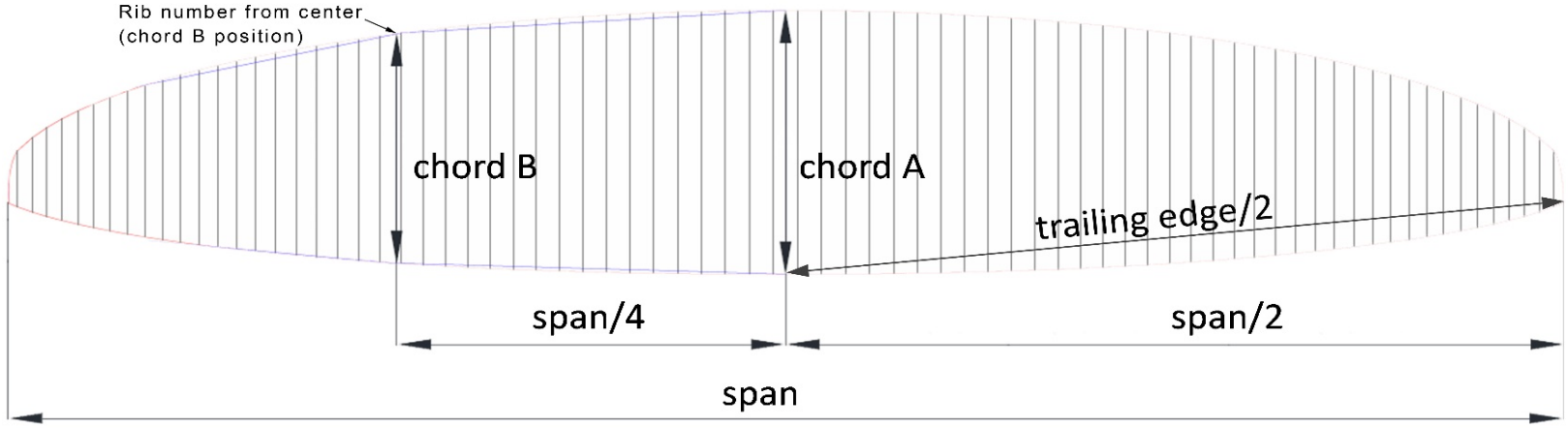
Measurement Report Template

CIVL CCC 2020 (Version 1.0)

Brand	**Davinci Products**	**Size**	**S**	**Test laboratory | Cert. DHV GS-CCC-019-20**	
Model	**OPERA**	**Serial #**	**COP-S11170-BLR**	**Certification date**	

Canopy dimensions

Position	Rib # from center	Distance [mm]	Tension [daN]	Manual tolerances	Aspect ratio 4*span / (chord A+2.5*Chord B)		Number cells	Scale factor
Full Span	x	12600	5	+/-2%	**7,60**		**128**	**0,94**
1/2 Trailing Edge	x	6290	5	+/-1%				
Chord A	1	2069	1	+/-1%				
Chord B	29	1825	1	+/-1%	Scale factor	0,94		



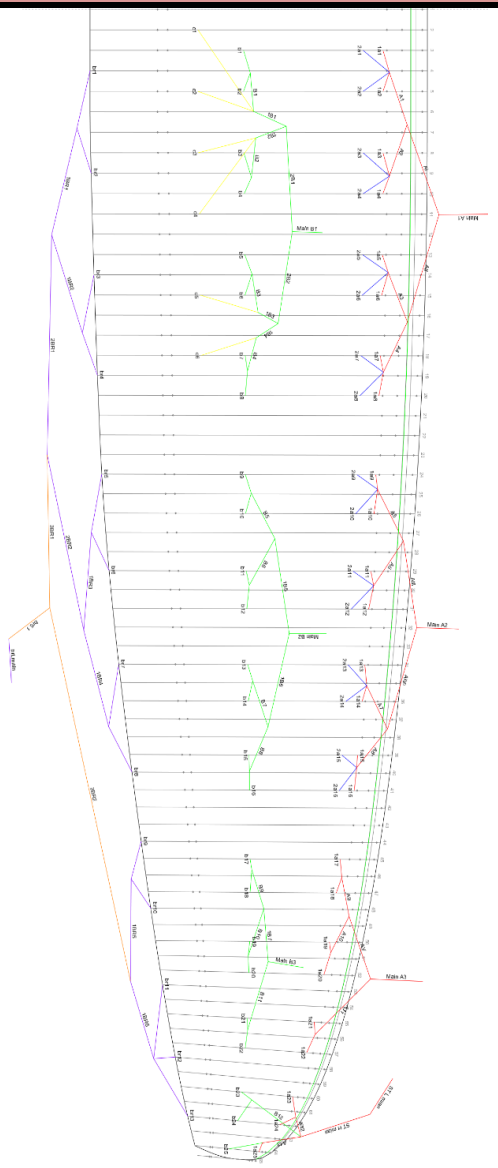
Chord lenght, inlet position, tabs position measured from trailing edge.

(The tab A & B & C can be on different rib, take care to specify it)

On first lined rib (from center)	**Rib n° from center**	**Distance [mm]**	**Tension [daN]**	**Manual tolerances**
Chord	5	2057	1	+/-1%
Top of inlet	5	1983	5	+/-1%
Bottom of inlet	5	1947	5	+/-1%
Tab Aa*	5	1767	5	+/-10mm
Tab Ab*	5	1644	5	+/-10mm
Tab B*	5	932	5	+/-10mm
Tab C*	5	657	5	+/-10mm

On last lined rib of Group 2 (from center)	**Rib n° from center**	**Distance [mm]**	**Tension [daN]**	**Manual tolerances**
Chord	24	1908	1	+/-1%
Top of inlet	24	1845	5	+/-1%
Bottom of inlet	24	1811	5	+/-1%
Tab Aa*	24	1644	5	+/-10mm
Tab Ab*	24	1532	5	+/-10mm
Tab B*	24	866	5	+/-10mm
Tab C*				+/-10mm

On last lined rib (stabilo, from center)	**Rib n° from center**	**Distance [mm]**	**Tension [daN]**	**Manual tolerances**
Chord	64	465	1	+/-1%
Tab A*	64	389	5	+/-10mm
Tab B*	64	215	5	+/-10mm



*Bridle (tab) position measuremt:

end of trailing edge to center bridle (tab)

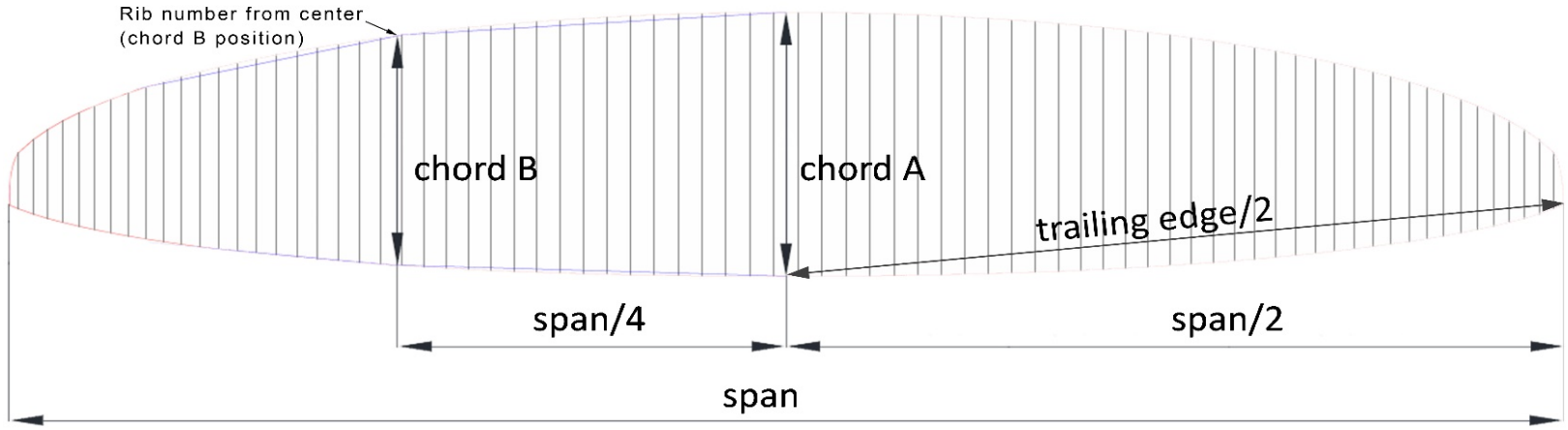
Measurement Report Template

CIVL CCC 2020 (Version 1.0)

Brand	Davinci Products	Size	M	Test laboratory | Cert. DHV GS-CCC-021-20	
Model	OPERA	Serial #	COP-M10800-RBW	Certification date	

Canopy dimensions

Position	Rib # from center	Distance [mm]	Tension [daN]	Manual tolerances	Aspect ratio 4*span / (chord A+2.5*Chord B)		Number cells	Scale factor
Full Span	x	13300	5	+/-2%	7,60		128	1
1/2 Trailing Edge	x	6805	5	+/-1%				
Chord A	1	2180	1	+/-1%				
Chord B	29	1927	1	+/-1%	Scale factor	1		



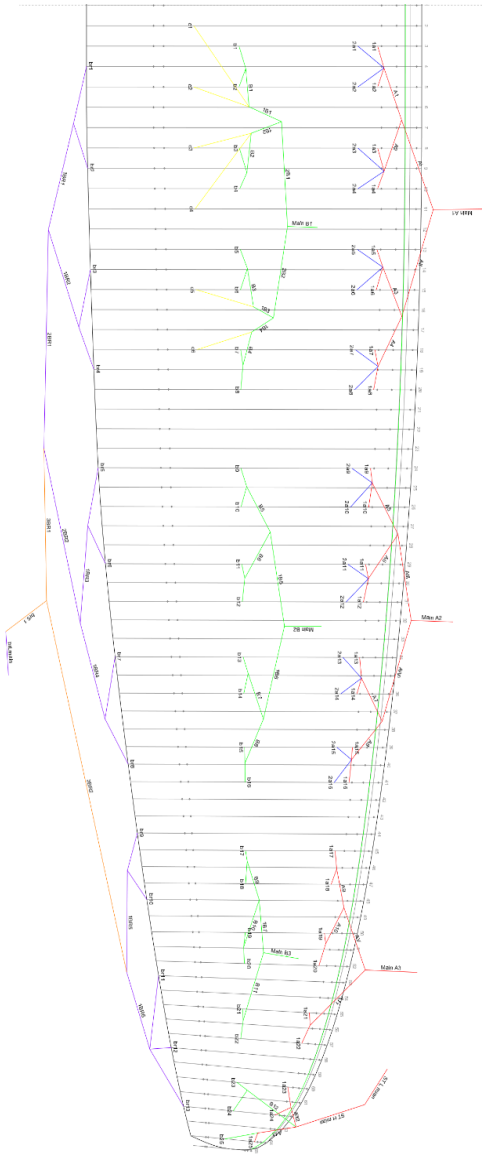
Chord lenght, inlet position, tabs position measured from trailing edge.

(The tab A & B & C can be on different rib, take care to specify it)

On first lined rib (from center)	**Rib n° from center**	**Distance [mm]**	**Tension [daN]**	**Manual tolerances**
Chord	5	2175	1	+/-1%
Top of inlet	5	2105	5	+/-1%
Bottom of inlet	5	2066	5	+/-1%
Tab Aa*	5	1880	5	+/-10mm
Tab Ab*	5	1754	5	+/-10mm
Tab B*	5	990	5	+/-10mm
Tab C*	5	698	5	+/-10mm

On last lined rib of Group 2 (from center)	**Rib n° from center**	**Distance [mm]**	**Tension [daN]**	**Manual tolerances**
Chord	24	2020	1	+/-1%
Top of inlet	24	1950	5	+/-1%
Bottom of inlet	24	1920	5	+/-1%
Tab Aa*	24	1746	5	+/-10mm
Tab Ab*	24	1630	5	+/-10mm
Tab B*	24	917	5	+/-10mm
Tab C*				+/-10mm

On last lined rib (stabilo, from center)	**Rib n° from center**	**Distance [mm]**	**Tension [daN]**	**Manual tolerances**
Chord	64	490	1	+/-1%
Tab A*	64	413	5	+/-10mm
Tab B*	64	224	5	+/-10mm



*Bridle (tab) position measuremt:
end of trailing edge to center bridle (tab)

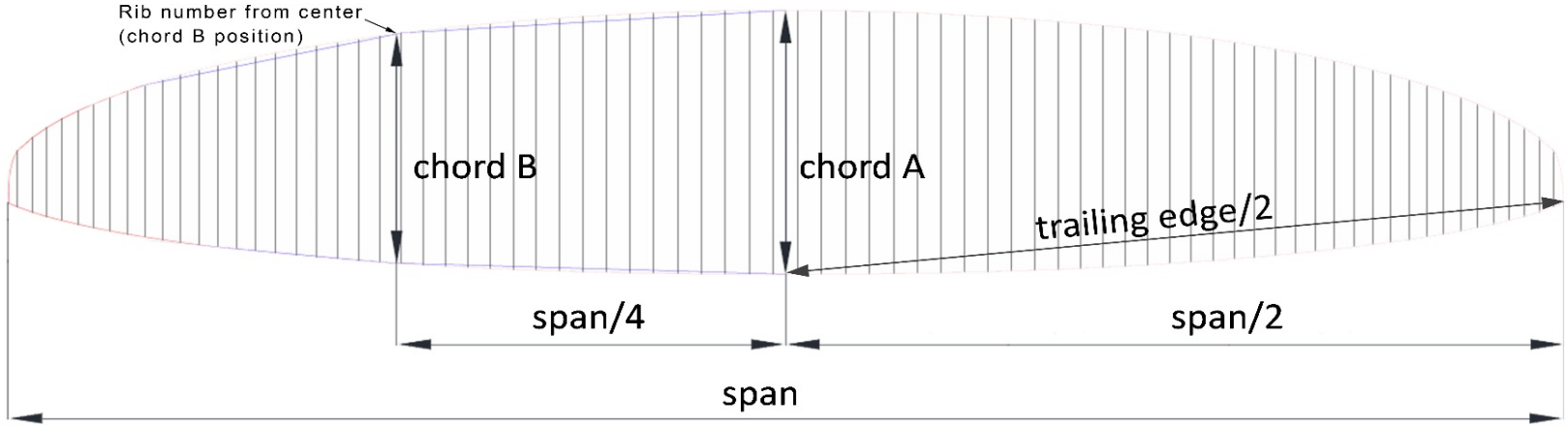
Measurement Report Template

CIVL CCC 2020 (Version 1.0)

Brand	Davinci Products	Size	L	Test laboratory | Cert. DHV GS-CCC-022-20	
Model	OPERA	Serial #	COP-L11180-RBW	Certification date	

Canopy dimensions

Position	Rib # from center	Distance [mm]	Tension [daN]	Manual tolerances	Aspect ratio 4*span / (chord A+2.5*Chord B)		Number cells	Scale factor
Full Span	x	14000	5	+/-2%	7,68		128	1,04
1/2 Trailing Edge	x	7105	5	+/-1%				
Chord A	1	2278	1	+/-1%				
Chord B	29	2007	1	+/-1%	Scale factor	1,04		



Chord lenght, inlet position, tabs position measured from trailing edge.

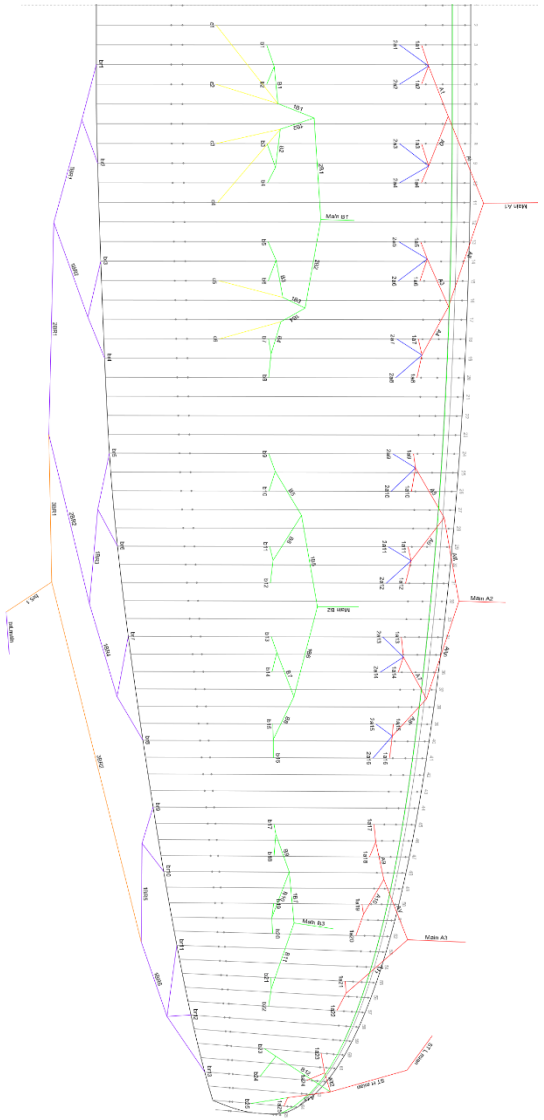
(The tab A & B & C can be on different rib, take care to specify it)

On first lined rib (from center)	**Rib n° from center**	**Distance [mm]**	**Tension [daN]**	**Manual tolerances**
Chord	5	2275	1	+/-1%
Top of inlet	5	2202	5	+/-1%
Bottom of inlet	5	2160	5	+/-1%
Tab Aa*	5	1965	5	+/-10mm
Tab Ab*	5	1832	5	+/-10mm
Tab B*	5	1030	5	+/-10mm
Tab C*	5	727	5	+/-10mm

On last lined rib of Group 2 (from center)	**Rib n° from center**	**Distance [mm]**	**Tension [daN]**	**Manual tolerances**
Chord	24	2110	1	+/-1%
Top of inlet	24	2040	5	+/-1%
Bottom of inlet	24	2005	5	+/-1%
Tab Aa*	24	1820	5	+/-10mm
Tab Ab*	24	1694	5	+/-10mm
Tab B*	24	958	5	+/-10mm
Tab C*				+/-10mm

On last lined rib (stabilo, from center)	**Rib n° from center**	**Distance [mm]**	**Tension [daN]**	**Manual tolerances**
Chord	64	510	1	+/-1%
Tab A*	64	428	5	+/-10mm
Tab B*	64	232	5	+/-10mm

*Bridle (tab) position measuremt:
end of trailing edge to center bridle (tab)



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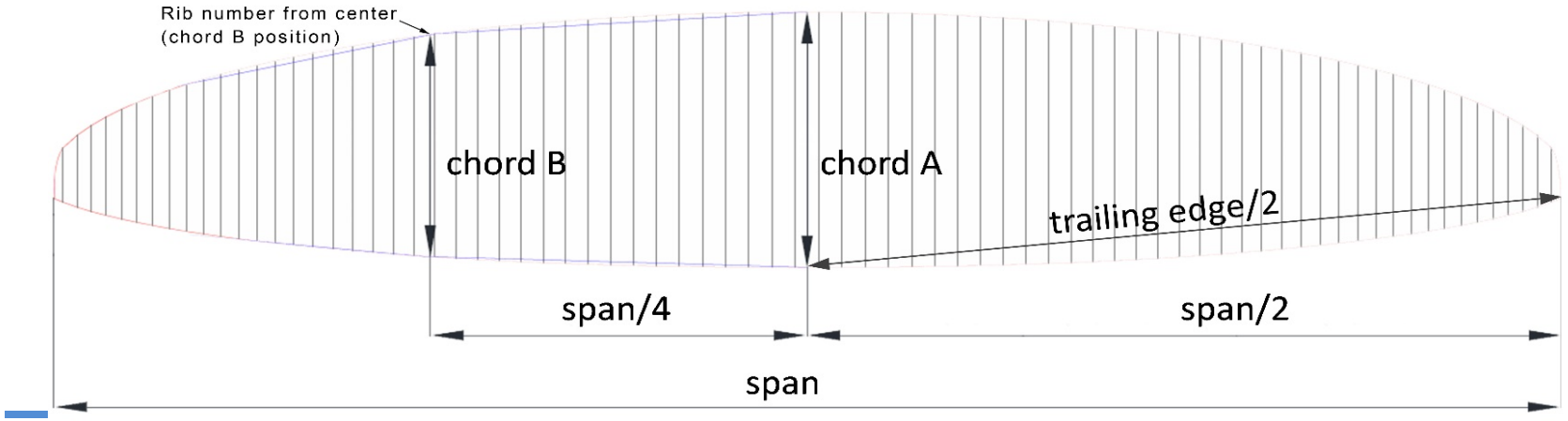
Measurement Report Template

CIVL CCC 2020 (Version 1.0)

Brand	Davinci Products	Size	XL	Test laboratory | Cert. DHV GS-CCC-023-20	
Model	OPERA	Serial #	COP-XL11340-BGRB	Certification date	

Canopy dimensions

Position	Rib # from center	Distance [mm]	Tension [daN]	Manual tolerances	Aspect ratio 4*span / (chord A+2.5*Chord B)		Number cells	Scale factor
Full Span	x	14420	5	+/-2%	7,62		128	1,08
1/2 Trailing Edge	x	7350	5	+/-1%				
Chord A	1	2370	1	+/-1%				
Chord B	29	2079	1	+/-1%	Scale factor	1,08		



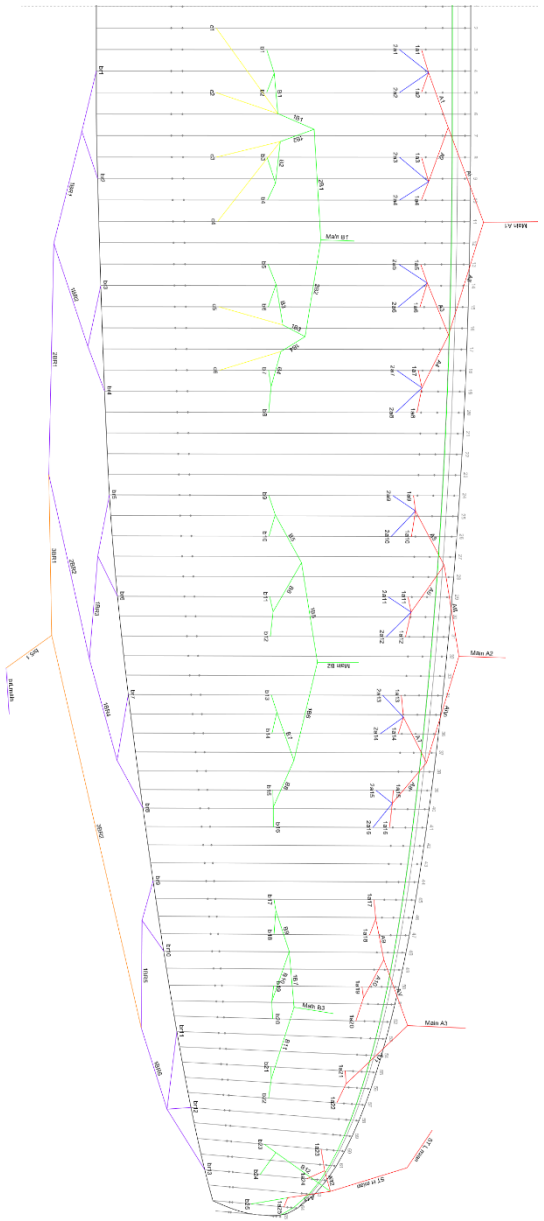
Chord lenght, inlet position, tabs position measured from trailing edge.

On first lined rib (from center)	**Rib n° from center**	**Distance [mm]**	**Tension [daN]**	**Manual tolerances**
Chord	5	2350	1	+/-1%
Top of inlet	5	2263	5	+/-1%
Bottom of inlet	5	2230	5	+/-1%
Tab Aa*	5	2030	5	+/-10mm
Tab Ab*	5	1890	5	+/-10mm
Tab B*	5	1070	5	+/-10mm
Tab C*	5	750	5	+/-10mm

On last lined rib of Group 2 (from center)	**Rib n° from center**	**Distance [mm]**	**Tension [daN]**	**Manual tolerances**
Chord	24	2179	1	+/-1%
Top of inlet	24	2100	5	+/-1%
Bottom of inlet	24	2065	5	+/-1%
Tab Aa*	24	1880	5	+/-10mm
Tab Ab*	24	1757	5	+/-10mm
Tab B*	24	992	5	+/-10mm
Tab C*				+/-10mm

On last lined rib (stabilo, from center)	**Rib n° from center**	**Distance [mm]**	**Tension [daN]**	**Manual tolerances**
Chord	525	510	1	+/-1%
Tab A*	440	428	5	+/-10mm
Tab B*	245	232	5	+/-10mm

*Bridle (tab) position measuremt:
end of trailing edge to center bridle (tab)



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Measurement Report Template

CIVL CCC 2020 (Version 1.0)

ABSOLUTE LINE LENGHT

Absolute line length from bottom riser to canopy in mm with 5daN of tension (Manual tolerances +/-10mm)
For scaled sizes: lines are within +/-20mm of the initial size x scale factor

Manufacturer: Davinci gliders **Size: XS**
Glider: Opera **S/N: COP-XS11010-RBW** **Done by:** **date:**

Line measurement

Lines mesurements with risers in mm under 5kg (from wing to bottom of risers)

	A			A2			B			C		
	Manual	Sample Glider	Dif	Manual	Sample Glider	Dif	Manual	Sample Glider	Dif	Manual	Sample Glider	Dif
1	7716	7719	-3	7703	7708	-5	7707	7711	-4	7852	7852	0
2	7646	7651	-5	7624	7626	-2	7621	7628	-7	7712	7714	-2
3	7579	7585	-6	7560	7566	-6	7553	7559	-6	7643	7646	-3
4	7576	7583	-7	7558	7564	-6	7549	7553	-4	7660	7660	0
5	7556	7562	-6	7537	7542	-5	7529	7523	6	7597	7592	5
6	7535	7546	-11	7517	7521	-4	7510	7503	7	7628	7623	5
7	7566	7569	-3	7546	7545	1	7542	7541	1			
8	7614	7620	-6	7601	7600	1	7599	7594	5			
9	7546	7549	-3	7531	7534	-3	7538	7532	6			
10	7470	7474	-4	7454	7455	-1	7457	7453	4			
11	7400	7407	-7	7384	7390	-6	7386	7384	2			
12	7391	7400	-9	7380	7384	-4	7378	7373	5			
13	7358	7355	3	7344	7341	3	7346	7341	5			
14	7332	7334	-2	7322	7319	3	7325	7319	6			
15	7351	7356	-5	7337	7337	0	7343	7342	1			
16	7385	7386	-1	7380	7377	3	7390	7386	4			
17	7221	7223	-2				7211	7211	0			
18	7155	7159	-4				7147	7148	-1			
19	7094	7100	-6				7086	7088	-2			
20	7086	7090	-4				7083	7083	0			
21	7021	7024	-3				7028	7026	2			
22	7020	7016	4				7024	7018	6			
23	6891	6887	4				6917	6912	5			
24	6844	6837	7				6877	6871	6			
25	6818	6810	8				6849	6846	3			

Manufacturer: Davinci gliders **Size: S**
Glider: Opera **S/N: COP-S11170-BLR** Done by:

Line measurement

Lines mesurements with risers in mm under 5kg (from wing to bottom of risers)

	A			A2			B			C		
	Manual	Sample Glider	Dif	Manual	Sample Glider	Dif	Manual	Sample Glider	Dif	Manual	Sample Glider	Dif
1	8067	8067	0	8052	8053	-1	8046	8046	0	8196	8192	4
2	7994	7992	2	7971	7964	7	7957	7960	-3	8051	8050	1
3	7925	7931	-6	7905	7903	2	7888	7891	-3	7981	7982	-1
4	7923	7925	-2	7904	7905	-1	7883	7883	0	7999	8004	-5
5	7902	7904	-2	7882	7880	2	7863	7860	3	7934	7934	0
6	7881	7882	-1	7861	7860	1	7844	7844	0	7966	7968	-2
7	7914	7911	3	7893	7892	1	7877	7876	1			
8	7965	7966	-1	7951	7946	5	7936	7933	3			
9	7894	7900	-6	7879	7882	-3	7874	7876	-2			
10	7816	7821	-5	7798	7799	-1	7790	7791	-1			
11	7742	7746	-4	7725	7728	-3	7716	7713	3			
12	7733	7733	0	7721	7719	2	7708	7705	3			
13	7700	7701	-1	7684	7679	5	7676	7677	-1			
14	7672	7671	1	7662	7658	4	7654	7653	1			
15	7692	7689	3	7677	7671	6	7672	7672	0			
16	7728	7725	3	7722	7713	9	7721	7717	4			
17	7565	7562	3				7533	7537	-4			
18	7496	7493	3				7465	7468	-3			
19	7432	7432	0				7402	7404	-2			
20	7424	7423	1				7399	7396	3			
21	7355	7353	2				7336	7335	1			
22	7349	7344	5				7337	7340	-3			
23	7204	7208	-4				7236	7236	0			
24	7155	7158	-3				7194	7195	-1			
25	7128	7131	-3				7166	7164	2			

Manufacturer: Davinci gliders **Size: M**
Glider: Opera **S/N: COP-M10800-RBW** Done by:

Line measurement

Lines mesurements with risers in mm under 5kg (from wing to bottom of risers)

	A			A2			B			C		
	Manual	Sample Glider	Dif	Manual	Sample Glider	Dif	Manual	Sample Glider	Dif	Manual	Sample Glider	Dif
1	8543	8535	8	8522	8522	0	8532	8532	0	8689	8686	3
2	8466	8462	4	8436	8431	5	8438	8436	2	8536	8535	1
3	8394	8391	3	8368	8369	-1	8365	8364	1	8462	8458	4
4	8393	8390	3	8367	8373	-6	8361	8358	3	8482	8482	0
5	8371	8372	-1	8345	8353	-8	8341	8342	-1	8415	8412	3
6	8350	8349	1	8324	8329	-5	8321	8322	-1	8450	8448	2
7	8386	8384	2	8357	8362	-5	8358	8357	1			
8	8439	8435	4	8419	8422	-3	8421	8418	3			
9	8365	8364	1	8343	8349	-6	8355	8360	-5			
10	8282	8282	0	8258	8268	-10	8267	8269	-2			
11	8205	8206	-1	8182	8191	-9	8188	8189	-1			
12	8195	8196	-1	8178	8184	-6	8180	8181	-1			
13	8161	8155	6	8139	8137	2	8145	8145	0			
14	8132	8127	5	8116	8111	5	8122	8123	-1			
15	8153	8145	8	8132	8129	3	8142	8136	6			
16	8191	8176	15	8179	8169	10	8193	8190	3			
17	8014	8014	0				8006	8000	6			
18	7942	7943	-1				7934	7934	0			
19	7874	7875	-1				7868	7867	1			
20	7865	7868	-3				7864	7863	1			
21	7791	7793	-2				7793	7797	-4			
22	7784	7781	3				7788	7778	10			
23	7641	7640	1				7676	7678	-2			
24	7590	7591	-1				7631	7633	-2			
25	7561	7563	-2				7601	7605	-4			

Manufacturer: Davinci gliders **Size: L**
Glider: Opera **S/N: COP-L11180-RBW** Done by:

Line measurement

Lines mesurements with risers in mm under 5kg (from wing to bottom of risers)

	A			A2			B			C		
	Manual	Sample Glider	Dif	Manual	Sample Glider	Dif	Manual	Sample Glider	Dif	Manual	Sample Glider	Dif
1	8889	8892	-3	8867	8870	-3	8867	8866	1	9023	9020	3
2	8810	8812	-2	8779	8784	-5	8770	8769	1	8865	8867	-2
3	8735	8744	-9	8708	8719	-11	8697	8695	2	8790	8793	-3
4	8734	8740	-6	8707	8714	-7	8693	8693	0	8811	8812	-1
5	8712	8716	-4	8685	8690	-5	8671	8672	-1	8742	8740	2
6	8690	8694	-4	8663	8669	-6	8651	8649	2	8778	8774	4
7	8727	8729	-2	8698	8697	1	8689	8688	1			
8	8783	8779	4	8762	8761	1	8754	8748	6			
9	8708	8715	-7	8685	8691	-6	8686	8688	-2			
10	8622	8628	-6	8597	8603	-6	8594	8598	-4			
11	8541	8547	-6	8517	8522	-5	8515	8519	-4			
12	8532	8533	-1	8513	8519	-6	8506	8512	-6			
13	8496	8497	-1	8473	8472	1	8470	8469	1			
14	8466	8467	-1	8449	8449	0	8446	8449	-3			
15	8488	8489	-1	8466	8468	-2	8467	8467	0			
16	8527	8522	5	8515	8511	4	8520	8520	0			
17	8344	8350	-6				8325	8325	0			
18	8268	8275	-7				8251	8250	1			
19	8197	8205	-8				8182	8177	5			
20	8188	8193	-5				8178	8175	3			
21	8111	8114	-3				8113	8104	9			
22	8103	8105	-2				8098	8096	2			
23	7951	7952	-1				7987	7983	4			
24	7897	7898	-1				7940	7936	4			
25	7868	7866	2				7909	7909	0			

Manufacturer: Davinci gliders **Size: XL**
Glider: Opera **S/N: COP-XL11340-BGRB** Done by:

Line measurement

Lines mesurements with risers in mm under 5kg (from wing to bottom of risers)

	A			A2			B			C		
	Manual	Sample Glider	Dif	Manual	Sample Glider	Dif	Manual	Sample Glider	Dif	Manual	Sample Glider	Dif
1	9218	9209	9	9195	9185	10	9205	9192	13	9371	9358	13
2	9136	9126	10	9104	9094	10	9105	9097	8	9208	9203	5
3	9060	9054	6	9031	9027	4	9029	9011	18	9130	9114	16
4	9059	9054	5	9031	9022	9	9026	9007	19	9153	9134	19
5	9037	9036	1	9008	9007	1	9004	8990	14	9082	9070	12
6	9014	9012	2	8986	8984	2	8983	8968	15	9120	9110	10
7	9053	9046	7	9022	9021	1	9023	9007	16			
8	9111	9102	9	9089	9079	10	9091	9075	16			
9	9034	9026	8	9011	9006	5	9027	9016	11			
10	8946	8937	9	8920	8915	5	8932	8923	9			
11	8862	8858	4	8837	8834	3	8848	8841	7			
12	8852	8844	8	8833	8828	5	8840	8829	11			
13	8815	8809	6	8791	8788	3	8803	8792	11			
14	8784	8774	10	8766	8760	6	8779	8770	9			
15	8806	8796	10	8783	8773	10	8799	8790	9			
16	8847	8833	14	8834	8823	11	8855	8843	12			
17	8657	8653	4				8656	8651	5			
18	8579	8579	0				8579	8574	5			
19	8504	8502	2				8507	8501	6			
20	8495	8494	1				8503	8500	3			
21	8417	8418	-1				8436	8432	4			
22	8408	8408	0				8430	8417	13			
23	8264	8253	11				8302	8293	9			
24	8208	8198	10				8253	8244	9			
25	8178	8169	9				8221	8208	13			

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Measurement Report Template

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Riser length

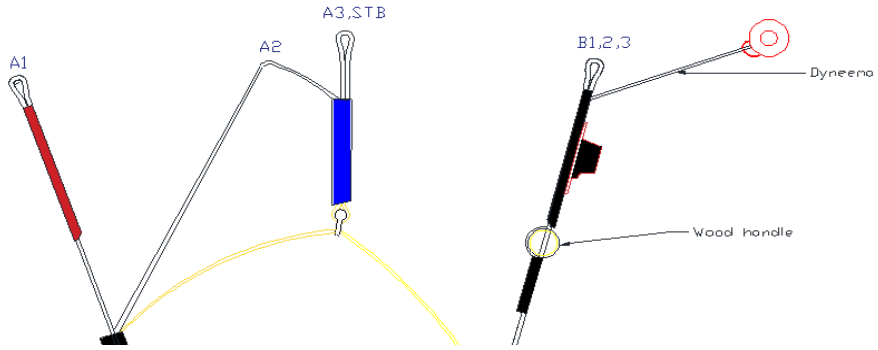
From bottom riser to top maillon on each branche in mm with 5daN (Manual tolerances +/-5mm)

Trimm speed setting	A1	A2	A3/STB	B	Δt (= A1-B)	Attachment rod Ø [mm]
Manual	552	552	552	552	0	10
Glider	552	552	552	552	0	

Full speed setting	Δa (=B-A1)	B-A3	Total speed range (Δa+Δt)
Manual	140	70	140
Glider	140	72	140

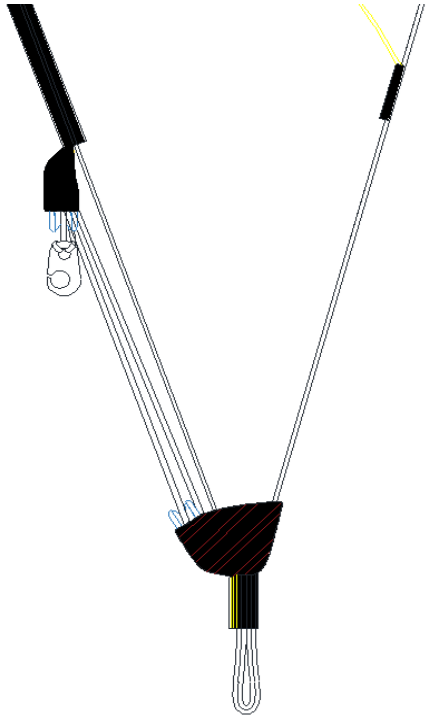
High speed setting	Δa (=B-A1)	Total high speed range > 100	
CCC	> 100	Yes	No
Glider	100		

Riser XS			
	Trim	Accelerated	
A1	552	452	286
A2	552	478	320
A3/Stb	552	502	354
B	552	552	426
Acc(mm)	0	100	140



Trimmer	n/a

Riser S, M, L, XL		
	Trim	Accelerated
A1	552	286
A2	552	320
A3/Stb	552	354
B	552	426
Acc(mm)	0	140
Trimmer	n/a	



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Measurement Report Template

CIVL CCC 2020 (Version 1.0)

Table of line materials

Lines material - Opera XS, S, SM, M

A1			A2			B			C			BR		
1	Edlerid	8000U-070	1	Edlerid	8000U-070	1			1			1		
2			2			2			2			2		
3			3			3			3	Edlerid	8000U-025	3		
4			4			4			4			4		
5			5			5			5			5		
6			6			6	Edlerid	8000U-050	6			6		
7			7			7						7	Edlerid	8000U-025
8			8			8						8		
9			9	Edlerid	8000U-050	9						9		
10			10			10						10		
11			11			11						11		
12			12			12						12		
13			13			13						13		
14	Edlerid	8000U-050	14			14								
15			15			15								
16			16			16								
17						17								
18						18								
19						19	Edlerid	8000U-025						
20						20								
21						21								
22						22								
23						23								
24						24								
25						25								

H / Middle line

A			B			BR H/Mid		
1		8000U-130	1			1		
2		8000U-090	2			2		
3			3			3	Edlerid	8000U-025
4		8000U-130	4			4		
5		8000U-090	5			5		
6	Edlerid		6	Edlerid	8000U-050	6		
7		8000U-070	7					
8			8			BR Mid		
9			9			1	Edlerid	8000U-050
10		8000U-050	10			**2**		
11			11					
12			12					
13								

Middle line

L / Middle line

A			B			B			BR L/Mid		
1			1			1	Edlerid	8000U-90	1	Edlerid	8000U-070
2	Edlerid	8000U-190	2		8000U-090	2			2		
3			3	Edlerid							
4		8000U-130	4		8000U-070						
5			5		8000U-090						
			6								
			7		8000U-050						

Main line

A			B			BR Main		
1		8000U-360	1			1	Edlerid	8000U-070
2	Edlerid	8000U-360	2	Edlerid	8000U-190	2	Liros	PPSL160
3		8000U-190	3		8000U-050			
ST H		8000U-050						
ST L	Liros	DSL 70						

Lines material - Opera for L, XL

A1			A2			B			C			BR		
1	Edlerid	8000U-070	1	Edlerid	8000U-070	1			1			1		
2			2			2			2			2		
3			3			3			3	Edlerid	8000U-025	3		
4			4			4			4			4		
5			5			5			5			5		
6			6			6	Edlerid	8000U-050	6			6		
7			7			7						7	Edlerid	8000U-025
8			8			8						8		
9			9	Edlerid	8000U-050	9						9		
10			10			10						10		
11			11			11						11		
12			12			12						12		
13			13			13						13		
14	Edlerid	8000U-050	14			14								
15			15			15								
16			16			16								
17						17								
18						18								
19						19	Edlerid	8000U-025						
20						20								
21						21								
22						22								
23						23								
24						24								
25						25								

H / Middle line

A			B			BR H/Mid		
1		8000U-130	1			1		
2		8000U-090	2			2		
3			3			3	Edlerid	8000U-025
4		8000U-130	4			4		
5		8000U-090	5			5		
6	Edlerid		6	Edlerid	8000U-050	6		
7		8000U-070	7					
8			8			BR Mid		
9			9			1	Edlerid	8000U-050
10		8000U-050	10			**2**		
11			11					
12			12					
13								

Middle line

L / Middle line

A			B			B			BR L/Mid		
1			1			1	Edlerid	8000U-90	1	Edlerid	8000U-070
2	Edlerid	8000U-230	2		8000U-090	2			2		
3			3	Edlerid							
4		8000U-190	4		8000U-070						
5		8000U-130	5		8000U-090						
			6								
			7		8000U-050						

Main line

A			B			BR Main		
1		8000U-470	1			1	Edlerid	8000U-070
2	Edlerid	8000U-360	2	Edlerid	8000U-190	2	Liros	PPSL160
3		8000U-230	3		8000U-050			
ST H		8000U-050						
ST L	Liros	DSL 70						

Line Breaking strngth report

Manufacturer name	Davinci Products Inc.
Model name and size	OPERA XS
Maximum weight	92kg 90.252daN

Line specification and line braking strength in daN

Line Number	Manufacturer	Type no.	Breaking strength (daN)
1	Edelrid	8000U-360	337,2
2	Edelrid	8000U-190	182,8
3	Edelrid	8000U-130	116,4
4	Edelrid	8000U-090	89,5
5	Edelrid	8000U-070	62,9
6	Edelrid	8000U-050	54,8
7	Edelrid	8000U-025	24,0
8	Liros	DSL70	68,8

Line braking strength, theorical calulation

		DaN	g	norm 23g limit [G]
Sum A+B+C+ Stable lines	Level 1	2664,8	28,6	>23g
	Level 2	2692,8	28,9	>LEVEL 1
	Level 3	3312,6	35,6	>LEVEL 2
	Level 4	6785,6	72,9	>LEVEL 3

A, B and C, the sum of each level must be equal or exceed 2300daN or 23g

Result : Positive

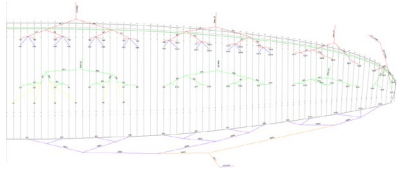
Main A1	8000U-360	337,2	AI	8000U-190	182,8	A1	8000U-130	116,4	1a1	8000U-070	62,9
									1a2	8000U-070	62,9
									2a1	8000U-070	62,9
									2a2	8000U-070	62,9
						A2	8000U-90	89,5	1a3	8000U-050	54,8
									1a4	8000U-050	54,8
									2a3	8000U-050	54,8
									2a4	8000U-050	54,8
			AII	8000U-190	182,8	A3	8000U-90	89,5	1a5	8000U-050	54,8
									1a6	8000U-050	54,8
									2a5	8000U-050	54,8
									2a6	8000U-050	54,8
						A4	8000U-130	116,4	1a7	8000U-050	54,8
									1a8	8000U-050	54,8
									2a7	8000U-050	54,8
									2a8	8000U-050	54,8
Main A2	8000U-360	337,2	AIII	8000U-190	182,8	A5	8000U-90	89,5	1a9	8000U-050	54,8
									1a10	8000U-050	54,8
									2a9	8000U-050	54,8
									2a10	8000U-050	54,8
						A6	8000U-90	89,5	1a11	8000U-050	54,8
									1a12	8000U-050	54,8
									2a11	8000U-050	54,8
									2a12	8000U-050	54,8
			AIV	8000U-130	116,4	A7	8000U-70	62,9	1a13	8000U-050	54,8
									1a14	8000U-050	54,8
									2a13	8000U-050	54,8
									2a14	8000U-050	54,8
						A8	8000U-70	62,9	1a15	8000U-050	54,8
									1a16	8000U-050	54,8
									2a15	8000U-050	54,8
									2a16	8000U-050	54,8
Main A3	8000U-190	182,8	AV	8000U-130	116,4	A9	8000U-70	62,9	1a17	8000U-050	54,8
									1a18	8000U-050	54,8
						A10	8000U-50	54,8	1a19	8000U-050	54,8
									1a20	8000U-050	54,8
						A11	8000U-50	54,8	1a21	8000U-050	54,8
									1a22	8000U-050	54,8
Main B1	8000U-190	182,8	1B1	8000U-090	89,5	B1	8000U-50	54,8	b1	8000U-050	54,8
									b2	8000U-050	54,8
									c1	8000U-025	24,0
									c2	8000U-025	24,0
			1B2	8000U-090	89,5	B2	8000U-50	54,8	b3	8000U-050	54,8
									b4	8000U-050	54,8
									c3	8000U-025	24,0
									c4	8000U-025	24,0
			1B3	8000U-090	89,5	B3	8000U-50	54,8	b5	8000U-050	54,8
									b6	8000U-050	54,8
									c5	8000U-025	24,0
			1B4	8000U-070	62,9	B4	8000U-50	54,8	b7	8000U-050	54,8
									b8	8000U-050	54,8
									c6	8000U-025	24,0
			2B1	8000U-90	89,5						
			2B2	8000U-90	89,5						
Main B2	8000U-190	182,8	1B5	8000U-090	89,5	B5	8000U-50	54,8	b9	8000U-050	54,8
									b10	8000U-050	54,8
						B6	8000U-50	54,8	b11	8000U-050	54,8
									b12	8000U-050	54,8
			1B6	8000U-090	89,5	B7	8000U-50	54,8	b13	8000U-025	24,0
									b14	8000U-025	24,0
						B8	8000U-50	54,8	b15	8000U-025	24,0
									b16	8000U-025	24,0
Main B3	8000U-050	54,8	1B7	8000U-050	54,8	B9	8000U-50	54,8	b17	8000U-025	24,0
									b18	8000U-025	24,0
						B10	8000U-50	54,8	b19	8000U-025	24,0
									b20	8000U-025	24,0
						B11	8000U-50	54,8	b21	8000U-025	24,0
									b22	8000U-025	24,0
ST H main	8000U-50	54,8	ST L main	DSL70	54,8	A12	8000U-50	54,8	1a23	8000U-050	54,8
									1a24	8000U-050	54,8
						A13	8000U-50	54,8	1a25	8000U-050	54,8
									b25	8000U-025	24,0
						B12	8000U-50	54,8	b23	8000U-025	24,0
									b24	8000U-025	24,0
LEVEL 1		**2664,8**	LEVEL 2		**2692,8**	LEVEL 3		**3312,6**	LEVEL 4		**6785,6**

Single line strength calulation for XS, S, SM, M SIZE

Line	Material	Inner.radii(Ainf)	LEVEL 4	Line	Material	Inner.radii(Ainf)	LEVEL 3	Line	Material	Inner.radii(Ainf)	LEVEL 2	Line	Material	Inner.radii(Ainf)	LEVEL 1
1a1	80/20/z-1260	62.9	125.8	A1	80/20/z-1260	116.4	232.8	A1	80/20/z-1260	182.8	365.6	Main-A1	80/20/z-1260	337.2	674.4
1a2	80/20/z-1260	62.9	125.8	A2	80/20/z-1260	89.5	179.0	A2	80/20/z-1260	182.8	365.6	Main-A2	80/20/z-1260	337.2	674.4
1a3	80/20/z-1260	54.8	109.6	A3	80/20/z-1260	89.5	179.0	A3	80/20/z-1260	182.8	365.6	Main-A3	80/20/z-1260	182.8	365.6
1a4	80/20/z-1260	54.8	109.6	A4	80/20/z-1260	116.4	232.8	A4	80/20/z-1260	182.8	365.6	ST H-main	80/20/z-1260	54.8	109.6
1a5	80/20/z-1260	54.8	109.6	A5	80/20/z-1260	89.5	179.0	A5	80/20/z-1260	116.4	232.8	Main-B1	80/20/z-1260	182.8	365.6
1a6	80/20/z-1260	54.8	109.6	A6	80/20/z-1260	89.5	179.0	A6	80/20/z-1260	116.4	232.8	Main-B2	80/20/z-1260	182.8	365.6
1a7	80/20/z-1260	54.8	109.6	A7	80/20/z-1260	62.9	125.8	A7	80/20/z-1260	116.4	232.8	Main-B3	80/20/z-1260	54.8	109.6
1a8	80/20/z-1260	54.8	109.6	A8	80/20/z-1260	62.9	125.8	1B1	80/20/z-1260	89.5	179	ST L-main	80x70	68.8	
1a9	80/20/z-1260	54.8	109.6	A9	80/20/z-1260	62.9	125.8	1B2	80/20/z-1260	89.5	179.0				
1a10	80/20/z-1260	54.8	109.6	A10	80/20/z-1260	54.8	109.6	1B3	80/20/z-1260	89.5	179.0				
1a11	80/20/z-1260	54.8	109.6	A11	80/20/z-1260	54.8	109.6	1B4	80/20/z-1260	89.5	179.0				
1a12	80/20/z-1260	54.8	109.6	A12	80/20/z-1260	54.8	109.6	1B5	80/20/z-1260	54.8	109.6				
1a13	80/20/z-1260	54.8	109.6	A13	80/20/z-1260	54.8	109.6	2B1	80/20/z-1260	89.5					
1a14	80/20/z-1260	54.8	109.6	B1	80/20/z-1260	54.8	109.6	2B2	80/20/z-1260	89.5					
1a15	80/20/z-1260	54.8	109.6	B2	80/20/z-1260	54.8	109.6								
1a16	80/20/z-1260	54.8	109.6	B3	80/20/z-1260	54.8	109.6								
1a17	80/20/z-1260	54.8	109.6	B4	80/20/z-1260	54.8	109.6								
1a18	80/20/z-1260	54.8	109.6	B5	80/20/z-1260	54.8	109.6								
1a19	80/20/z-1260	54.8	109.6	B6	80/20/z-1260	54.8	109.6								
1a20	80/20/z-1260	54.8	109.6	B7	80/20/z-1260	54.8	109.6								
1a21	80/20/z-1260	54.8	109.6	B8	80/20/z-1260	54.8	109.6								
1a22	80/20/z-1260	54.8	109.6	B9	80/20/z-1260	54.8	109.6								
1a23	80/20/z-1260	54.8	109.6	B10	80/20/z-1260	54.8	109.6								
1a24	80/20/z-1260	54.8	109.6	B11	80/20/z-1260	54.8	109.6								
1a25	80/20/z-1260	54.8	109.6	B12	80/20/z-1260	54.8	109.6								
2a1	80/20/z-1260	62.9	125.8												
2a2	80/20/z-1260	54.8	109.6												
2a3	80/20/z-1260	54.8	109.6												
2a4	80/20/z-1260	54.8	109.6												
2a5	80/20/z-1260	54.8	109.6												
2a6	80/20/z-1260	54.8	109.6												
2a7	80/20/z-1260	54.8	109.6												
2a8	80/20/z-1260	54.8	109.6												
2a9	80/20/z-1260	54.8	109.6												
2a10	80/20/z-1260	54.8	109.6												
2a11	80/20/z-1260	54.8	109.6												
2a12	80/20/z-1260	54.8	109.6												
2a13	80/20/z-1260	54.8	109.6												
2a14	80/20/z-1260	54.8	109.6												
2a15	80/20/z-1260	54.8	109.6												
3a1	80/20/z-1260	54.8	109.6												
3a2	80/20/z-1260	54.8	109.6												
3a3	80/20/z-1260	54.8	109.6												
3a4	80/20/z-1260	54.8	109.6												
3a5	80/20/z-1260	54.8	109.6												
3a6	80/20/z-1260	54.8	109.6												
3a7	80/20/z-1260	54.8	109.6												
3a8	80/20/z-1260	54.8	109.6												
3a9	80/20/z-1260	54.8	109.6												
3a10	80/20/z-1260	54.8	109.6												
3a11	80/20/z-1260	54.8	109.6												
3a12	80/20/z-1260	54.8	109.6												
3a13	80/20/z-1260	54.8	109.6												
3a14	80/20/z-1260	54.8	109.6												
3a15	80/20/z-1260	54.8	109.6												
4a1	80/20/z-525	24.0	48.0												
4a2	80/20/z-525	24.0	48.0												
4a3	80/20/z-525	24.0	48.0												
4a4	80/20/z-525	24.0	48.0												
4a5	80/20/z-525	24.0	48.0												
4a6	80/20/z-525	24.0	48.0												
4a7	80/20/z-525	24.0	48.0												
4a8	80/20/z-525	24.0	48.0												
4a9	80/20/z-525	24.0	48.0												
4a10	80/20/z-525	24.0	48.0												
4a11	80/20/z-525	24.0	48.0												
4a12	80/20/z-525	24.0	48.0												
4a13	80/20/z-525	24.0	48.0												
4a14	80/20/z-525	24.0	48.0												
4a15	80/20/z-525	24.0	48.0												
4a16	80/20/z-525	24.0	48.0												
4a17	80/20/z-525	24.0	48.0												
4a18	80/20/z-525	24.0	48.0												
4a19	80/20/z-525	24.0	48.0												
4a20	80/20/z-525	24.0	48.0												
4a21	80/20/z-525	24.0	48.0												
4a22	80/20/z-525	24.0	48.0												
4a23	80/20/z-525	24.0	48.0												
4a24	80/20/z-525	24.0	48.0												
4a25	80/20/z-525	24.0	48.0												
x1	80/20/z-525	24.0	48.0												
x2	80/20/z-525	24.0	48.0												
x3	80/20/z-525	24.0	48.0												
x4	80/20/z-525	24.0	48.0												
x5	80/20/z-525	24.0	48.0												
x6	80/20/z-525	24.0	48.0												
	Line LEVEL		**LEVEL 4**				**LEVEL 3**				**LEVEL 2**				**LEVEL 1**
	sum.Ainf		14789.4				34277.6				54277.6				74277.6
	sum.Jig Sect.[N]		Kalver0 4				Kalver0 3				Kalver0 2				Kalver0 1
	Breaking strength [N]		72.9K				89.9K				28.9K				28.6K
	max weight per level [kg]		800.79				548.83				539.95				518.33
	CHINA XS, S, SM, M								Max allowed weight						**518.3**

Single line strength calulation for L, XL SIZE

Line	Material	Inner.radii(Ainf)	LEVEL 4	Line	Material	Inner.radii(Ainf)	LEVEL 3	Line	Material	Inner.radii(Ainf)	LEVEL 2	Line	Material	Inner.radii(Ainf)	LEVEL 1
1a1	80/20/z-1260	62.9	125.8	A1	80/20/z-1260	116.4	232.8	A1	80/20/z-1260	228.2	456.4	Main-A1	80/20/z-1260	698.7	1396.4
1a2	80/20/z-1260	62.9	125.8	A2	80/20/z-1260	89.5	179.0	A2	80/20/z-1260	182.8	365.6	Main-A2	80/20/z-1260	337.2	674.4
1a3	80/20/z-1260	54.8	109.6	A3	80/20/z-1260	89.5	179.0	A3	80/20/z-1260	182.8	365.6	Main-A3	80/20/z-1260	228.2	456.4
1a4	80/20/z-1260	54.8	109.6	A4	80/20/z-1260	116.4	232.8	A4	80/20/z-1260	182.8	365.6	ST H-main	80/20/z-1260	54.8	109.6
1a5	80/20/z-1260	54.8	109.6	A5	80/20/z-1260	89.5	179.0	A5	80/20/z-1260	116.4	232.8	Main-B1	80/20/z-1260	182.8	365.6
1a6	80/20/z-1260	54.8	109.6	A6	80/20/z-1260	89.5	179.0	1B1	80/20/z-1260	116.4	232.8	Main-B2	80/20/z-1260	182.8	365.6
1a7	80/20/z-1260	54.8	109.6	A7	80/20/z-1260	62.9	125.8	1B2	80/20/z-1260	116.4	232.8	Main-B3	80/20/z-1260	54.8	109.6
1a8	80/20/z-1260	54.8	109.6	A8	80/20/z-1260	62.9	125.8	1B3	80/20/z-1260	89.5	179	ST L-main	80x70	68.8	
1a9	80/20/z-1260	54.8	109.6	A9	80/20/z-1260	62.9	125.8	1B4	80/20/z-1260	89.5	179.0				
1a10	80/20/z-1260	54.8	109.6	A10	80/20/z-1260	54.8	109.6	1B5	80/20/z-1260	89.5	179.0				
1a11	80/20/z-1260	54.8	109.6	A11	80/20/z-1260	54.8	109.6	1B6	80/20/z-1260	89.5	179.0				
1a12	80/20/z-1260	54.8	109.6	A12	80/20/z-1260	54.8	109.6	1B7	80/20/z-1260	54.8	109.6				
1a13	80/20/z-1260	54.8	109.6	A13	80/20/z-1260	54.8	109.6	2B1	80/20/z-1260	116.4					
1a14	80/20/z-1260	54.8	109.6	B1	80/20/z-1260	54.8	109.6	2B2	80/20/z-1260	89.5					
1a15	80/20/z-1260	54.8	109.6	B2	80/20/z-1260	54.8	109.6								
1a16	80/20/z-1260	54.8	109.6	B3	80/20/z-1260	54.8	109.6								
1a17	80/20/z-1260	54.8	109.6	B4	80/20/z-1260	54.8	109.6								
1a18	80/20/z-1260	54.8	109.6	B5	80/20/z-1260	54.8	109.6								
1a19	80/20/z-1260	54.8	109.6	B6	80/20/z-1260	54.8	109.6								
1a20	80/20/z-1260	54.8	109.6	B7	80/20/z-1260	54.8	109.6								
1a21	80/20/z-1260	54.8	109.6	B8	80/20/z-1260	54.8	109.6								
1a22	80/20/z-1260	54.8	109.6	B9	80/20/z-1260	54.8	109.6								
1a23	80/20/z-1260	54.8	109.6	B10	80/20/z-1260	54.8	109.6								
1a24	80/20/z-1260	54.8	109.6	B11	80/20/z-1260	54.8	109.6								
1a25	80/20/z-1260	54.8	109.6	B12	80/20/z-1260	54.8	109.6								
2a1	80/20/z-1260	62.9	125.8												
2a2	80/20/z-1260	54.8	109.6												
2a3	80/20/z-1260	54.8	109.6												
2a4	80/20/z-1260	54.8	109.6												
2a5	80/20/z-1260	54.8	109.6												
2a6	80/20/z-1260	54.8	109.6												
2a7	80/20/z-1260	54.8	109.6												
2a8	80/20/z-1260	54.8	109.6												
2a9	80/20/z-1260	54.8	109.6												
2a10	80/20/z-1260	54.8	109.6												
2a11	80/20/z-1260	54.8	109.6												
2a12	80/20/z-1260	54.8	109.6												
2a13	80/20/z-1260	54.8	109.6												
2a14	80/20/z-1260	54.8	109.6												
2a15	80/20/z-1260	54.8	109.6												
3a1	80/20/z-1260	54.8	109.6												
3a2	80/20/z-1260	54.8	109.6												
3a3	80/20/z-1260	54.8	109.6												
3a4	80/20/z-1260	54.8	109.6												
3a5	80/20/z-1260	54.8	109.6												
3a6	80/20/z-1260	54.8	109.6												
3a7	80/20/z-1260	54.8	109.6												
3a8	80/20/z-1260	54.8	109.6												
3a9	80/20/z-1260	54.8	109.6												
3a10	80/20/z-1260	54.8	109.6												
3a11	80/20/z-1260	54.8	109.6												
3a12	80/20/z-1260	54.8	109.6												
3a13	80/20/z-1260	54.8	109.6												
3a14	80/20/z-1260	54.8	109.6												
3a15	80/20/z-1260	54.8	109.6												
4a1	80/20/z-525	24.0	48.0												
4a2	80/20/z-525	24.0	48.0												
4a3	80/20/z-525	24.0	48.0												
4a4	80/20/z-525	24.0	48.0												
4a5	80/20/z-525	24.0	48.0												
4a6	80/20/z-525	24.0	48.0												
4a7	80/20/z-525	24.0	48.0												
4a8	80/20/z-525	24.0	48.0												
4a9	80/20/z-525	24.0	48.0												
4a10	80/20/z-525	24.0	48.0												
4a11	80/20/z-525	24.0	48.0												
4a12	80/20/z-525	24.0	48.0												
4a13	80/20/z-525	24.0	48.0												
4a14	80/20/z-525	24.0	48.0												
4a15	80/20/z-525	24.0	48.0												
4a16	80/20/z-525	24.0	48.0												
4a17	80/20/z-525	24.0	48.0												
4a18	80/20/z-525	24.0	48.0												
4a19	80/20/z-525	24.0	48.0												
4a20	80/20/z-525	24.0	48.0												
4a21	80/20/z-525	24.0	48.0												
4a22	80/20/z-525	24.0	48.0												
4a23	80/20/z-525	24.0	48.0												
4a24	80/20/z-525	24.0	48.0												
4a25	80/20/z-525	24.0	48.0												
x1	80/20/z-525	24.0	48.0												
x2	80/20/z-525	24.0	48.0												
x3	80/20/z-525	24.0	48.0												
x4	80/20/z-525	24.0	48.0												
x5	80/20/z-525	24.0	48.0												
x6	80/20/z-525	24.0	48.0												
	Line LEVEL		**LEVEL 4**				**LEVEL 3**				**LEVEL 2**				**LEVEL 1**
	sum.Ainf		14789.4				34222.6				54222.6				74222.6
	sum.Jig Sect.[N]		Kalver0 4				Kalver0 3				Kalver0 2				Kalver0 1
	Breaking strength [N]		72.9K				89.9K				89.9K				89.9K
	max weight per level [kg]		800.79				548.83				548.08				548.08
	CHINA XL, L, SML, M								Max allowed weight						**548.08**



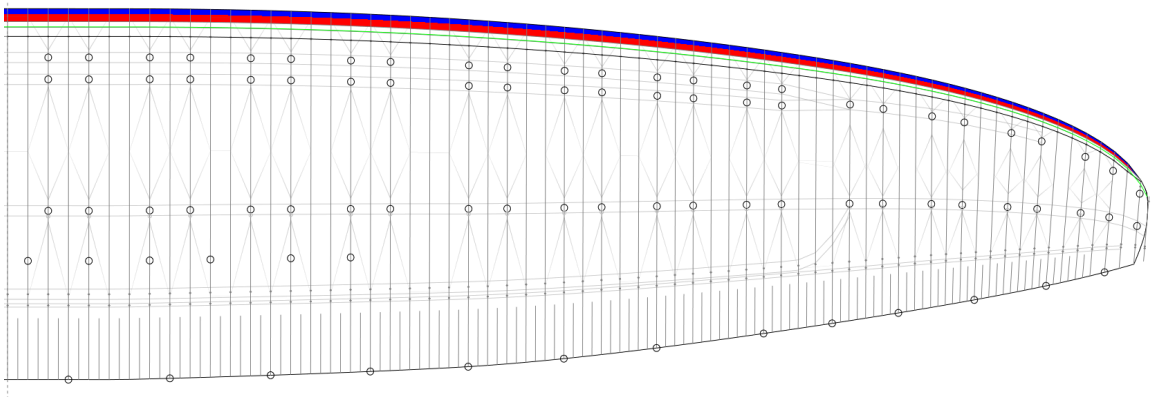
Fédération Aéronautique Internationale
Maison du Sport International, Av. de Rhodanie 54, CH-1007 Lausanne

Measurement Report Template

CIVL CCC 2020 (Version 1.0)

Drawings and pictures

Diagonals, Hstraps and Mini Ribs (top view)



Diagonals (Front view)

Diagonal A, B

Vent (Inlet) shape