

Suspension line calculation

Inspection certification number: **PG_1911.2022**
Manufacturer name: **Skywalk**
Model name and size: **Cumeo2 115**
Report valid for the other sizes of model: **85-95-105**

[kg] [daN]
Maximum weight: **115** **112.7**

Line specification and line breaking strength after bending in [daN] (strongest to weakest value) ⁽¹⁾

	Manufacturer	Type no.	Breaking strength [daN]
1	Liros	PPSLS-180	150.3
2	Liros	PPSLS-125	116.5
3	Edelrid	8000U-090	53.7
4	Edelrid	8000U-050	22.8
5	Liros	DC-035	34.6
6	Edelrid	8000U-190	92.8
7	Edelrid	8000U-070	33.6
8			
9			
10			
11			
12			

Line number	Manufacturer	Type no.	Breaking strength [daN]
Handle knot ⁽²⁾	Liros	DFLP-200	82.1

Line breaking strength, theoretical calculation (see details on the following pages) ⁽³⁾

		[daN]	[g]
Sum A+B+C+D+ Stabilo lines	Level 1	2735.60	24.27
	Level 2	1653.60	14.67
	Level 3	3231.60	28.67
	Level 4	3486.40	30.94
	Level 5	n/a	n/a

		[daN]
Sum each level of brake lines	Level 1	164.20
	Level 2	185.60
	Level 3	201.60
	Level 4	273.60
	Level 5	830.40

The breaking strength sum of each level must be at least 1400 [daN] and equal or greater than 14 [g]

Result **POSITIVE**

The break lines strength sum of each level must be equal or exceed 150 [daN] and the handle knot shall have a minimum breaking strength of 75 [daN]

Result **POSITIVE**

Place of inspection:
Date of issue:
Inspector:

Villeneuve
04.11.2021
Magali Asseraf

The validation of this test report is given by the signature of the test manager on the inspection certificate 91.20

Air Turquoise SA has thoroughly tested the suspension line samples of the paraglider mentioned above, and calculated the overall strength. It certifies its conformity with the standards **EN 926-1:2015** | **NfL 2-565-20**

Detailed line strength calculation by level

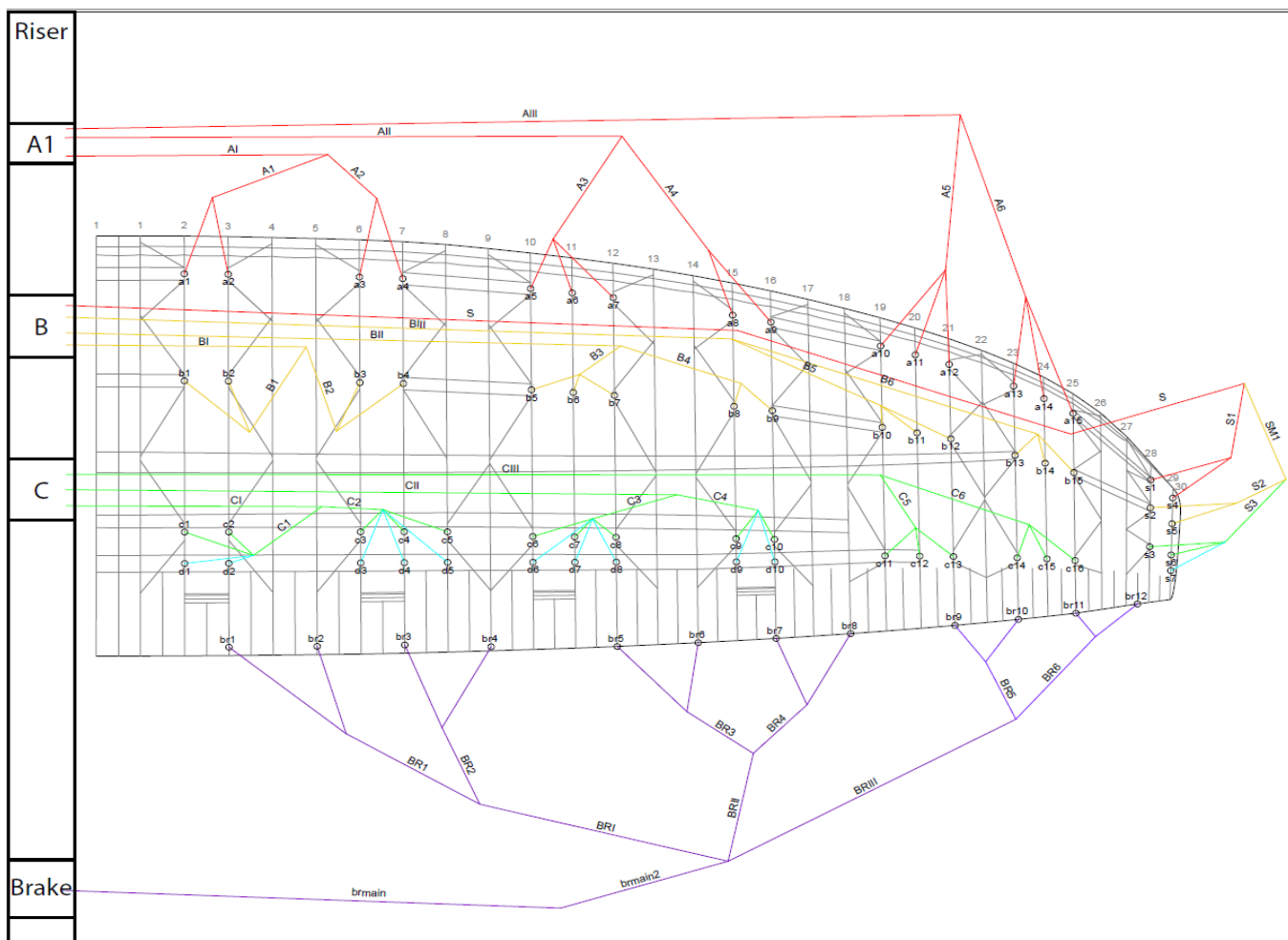
Level 1				Level 2			Level 3					
	Name	Type no.	Breaking strength [daN]	Name	Type no.	Breaking strength [daN]	Name	Type no.	Breaking strength [daN]	Name	Type no.	Breaking strength [daN]
1	AI	PPSLS-180	150.3	A1	8000U-090	53.7	a1	8000U-050	22.8	b14	DC-035	34.6
2	AII	PPSLS-180	150.3	A2	8000U-090	53.7	a2	8000U-050	22.8	b15	DC-035	34.6
3	AIII	PPSLS-125	116.5	A3	8000U-090	53.7	a3	8000U-050	22.8	c1	8000U-050	22.8
4	S	PPSLS-125	116.5	A4	8000U-090	53.7	a4	8000U-050	22.8	c2	8000U-050	22.8
5	BI	PPSLS-180	150.3	A5	8000U-050	22.8	a5	8000U-050	22.8	c3	8000U-050	22.8
6	BII	PPSLS-180	150.3	A6	8000U-050	22.8	a6	8000U-050	22.8	c4	8000U-050	22.8
7	BIII	PPSLS-125	116.5	S1	8000U-050	22.8	a7	8000U-050	22.8	c5	8000U-050	22.8
8	CI	PPSLS-180	150.3	SM1	8000U-050	22.8	a8	8000U-050	22.8	c6	8000U-050	22.8
9	CII	PPSLS-180	150.3	B1	8000U-090	53.7	a9	8000U-050	22.8	c7	8000U-050	22.8
10	CIII	PPSLS-125	116.5	B2	8000U-090	53.7	a10	DC-035	34.6	c8	8000U-050	22.8
11				B3	8000U-090	53.7	a11	DC-035	34.6	c9	8000U-050	22.8
12				B4	8000U-090	53.7	a12	DC-035	34.6	c10	DC-035	34.6
13				B5	8000U-050	22.8	a13	DC-035	34.6	c11	DC-035	34.6
14				B6	8000U-050	22.8	a14	DC-035	34.6	c12	DC-035	34.6
15				C1	8000U-090	53.7	a15	DC-035	34.6	c13	DC-035	34.6
16				C2	8000U-090	53.7	s1	DC-035	34.6	c14	DC-035	34.6
17				C3	8000U-090	53.7	s4	DC-035	34.6	c15	DC-035	34.6
18				C4	8000U-090	53.7	S2	8000U-050	22.8	c16	DC-035	34.6
19				C5	8000U-050	22.8	S3	8000U-050	22.8	d1	8000U-050	22.8
20				C6	8000U-050	22.8	b1	8000U-050	22.8	d2	8000U-050	22.8
21							b2	8000U-050	22.8	d3	8000U-050	22.8
22							b3	8000U-050	22.8	d4	8000U-050	22.8
23							b4	8000U-050	22.8	d5	8000U-050	22.8
24							b5	8000U-050	22.8	d6	8000U-050	22.8
25							b6	8000U-050	22.8	d7	8000U-050	22.8
26							b7	8000U-050	22.8	d8	8000U-050	22.8
27							b8	8000U-050	22.8	d9	8000U-050	22.8
28							b9	8000U-050	22.8	d10	8000U-050	22.8
29							b10	DC-035	34.6			
30							b11	DC-035	34.6			
31							b12	DC-035	34.6			
32							b13	DC-035	34.6			
Total Level 1			2735.6	Total Level 2							Total Level 3	3231.6

	Level 4						Level 5						
	Name	Type no.	Breaking strength [daN]	Name	Type no.	Breaking strength [daN]	Name	Type no.	Breaking strength [daN]	Name	Type no.	Breaking strength [daN]	
1	a1	8000U-050	22.8	b11	DC-035	34.6							
2	a2	8000U-050	22.8	b12	DC-035	34.6							
3	a3	8000U-050	22.8	b13	DC-035	34.6							
4	a4	8000U-050	22.8	b14	DC-035	34.6							
5	a5	8000U-050	22.8	b15	DC-035	34.6							
6	a6	8000U-050	22.8	c1	8000U-050	22.8							
7	a7	8000U-050	22.8	c2	8000U-050	22.8							
8	a8	8000U-050	22.8	c3	8000U-050	22.8							
9	a9	8000U-050	22.8	c4	8000U-050	22.8							
10	a10	DC-035	34.6	c5	8000U-050	22.8							
11	a11	DC-035	34.6	c6	8000U-050	22.8							
12	a12	DC-035	34.6	c7	8000U-050	22.8							
13	a13	DC-035	34.6	c8	8000U-050	22.8							
14	a14	DC-035	34.6	c9	8000U-050	22.8							
15	a15	DC-035	34.6	c10	DC-035	34.6							
16	s1	DC-035	34.6	c11	DC-035	34.6							
17	s2	DC-035	34.6	c12	DC-035	34.6							
18	s3	DC-035	34.6	c13	DC-035	34.6							
19	s4	DC-035	34.6	c14	DC-035	34.6							
20	s5	DC-035	34.6	c15	DC-035	34.6							
21	s6	DC-035	34.6	c16	DC-035	34.6							
22	s7	DC-035	34.6	d1	8000U-050	22.8							
23	b1	8000U-050	22.8	d2	8000U-050	22.8							
24	b2	8000U-050	22.8	d3	8000U-050	22.8							
25	b3	8000U-050	22.8	d4	8000U-050	22.8							
26	b4	8000U-050	22.8	d5	8000U-050	22.8							
27	b5	8000U-050	22.8	d6	8000U-050	22.8							
28	b6	8000U-050	22.8	d7	8000U-050	22.8							
29	b7	8000U-050	22.8	d8	8000U-050	22.8							
30	b8	8000U-050	22.8	d9	8000U-050	22.8							
31	b9	8000U-050	22.8	d10	8000U-050	22.8							
32	b10	DC-035	34.6										
					Total Level 4	3486.4						Total Level 5	0

Break detailed line strength calculation by level

Level 1				Level 3			Level 4			Level 5			
	Name	Type no.	Breaking strength [daN]	Name	Type no.	Breaking strength [daN]	Name	Type no.	Breaking strength [daN]	Name	Type no.	Breaking strength [daN]	
1	Brmain	DFLP-200	82.1	BRI	8000U-070	33.6	BR1	8000U-050	22.8	br1	DC-035	34.6	1
		Total Level 1	164.2	BRII	8000U-070	33.6	BR2	8000U-050	22.8	br2	DC-035	34.6	2
				BRIII	8000U-070	33.6	BR3	8000U-050	22.8	br3	DC-035	34.6	3
							BR4	8000U-050	22.8	br4	DC-035	34.6	4
							BR5	8000U-050	22.8	br5	DC-035	34.6	5
							BR6	8000U-050	22.8	br6	DC-035	34.6	6
										br7	DC-035	34.6	7
Level 2										br8	DC-035	34.6	8
	Name	Type no.	Breaking strength [daN]							br9	DC-035	34.6	9
										br10	DC-035	34.6	10
1	Brmain2	8000U-190	92.8							br11	DC-035	34.6	11
2										br12	DC-035	34.6	12
3													13
4													14
5													15
6													16
7													17
8													18
9													19
10													20
		Total Level 2	185.6		Total Level 3	201.6		Total Level 4	273.6		Total Level 5	830.4	

Line plan



- (1) Suspension lines have been tested according to EN 926-1:2015, and for the calculation the lowest value out of 3 test specimen is used. The minimum breaking strength of any lines shall be greater than 200 N.
- (2) Handle knot. The connection between the control (main handle) and the first level of line shall have a minimum breaking strength of 750 N
- (3) Sum of each level for A, B, C, stabilo and brake suspension lines and value for the entire paragliding (part left and right (2X)). Subsequent levels are defined by each further line junction. First level is defined as the line attached to riser or main control handle.