

IKUMA 3

Technical *specifications*



NIVIUK BEYOND
THE GLIDE

TECHNICAL SPECIFICATIONS

			20	22	24	26	28	30
Cells	Number		62	62	62	62	62	62
Aspect ratio	Flat		5.7	5.7	5.7	5.7	5.7	5.7
	Projected		4.4	4.4	4.4	4.4	4.4	4.4
Area	Flat	m ²	19.8	21.8	23.8	25.8	27.8	29.8
	Projected	m ²	16.87	18.58	20.28	21.99	23.69	25.39
Span	Flat	m	10.62	11.15	11.65	12.13	12.59	13.03
Chord	Maximum	m	2.29	2.41	2.51	2.62	2.72	2.81
Lines	Total	m	203	214	224	233	242	251
	Main		2-1/4/2	2-1/4/2	2-1/4/2	2-1/4/2	2-1/4/2	2-1/4/2
Risers	Number	3+1	A-A'/B/C	A-A'/B/C	A-A'/B/C	A-A'/B/C	A-A'/B/C	A-A'/B/C
	Accelerator	mm	180	180	180	180	180	180
Glider weight		kg	3,85	4.2	4.5	4.7	5	5.3
Total weight in flight	Min-Max	kg	55-75	65-85	75-95	85-105	95-115	105-130
Certification			EN/LTF B+	EN/LTF B+	EN/LTF B+	EN/LTF B+	EN/LTF B+	EN/LTF B+

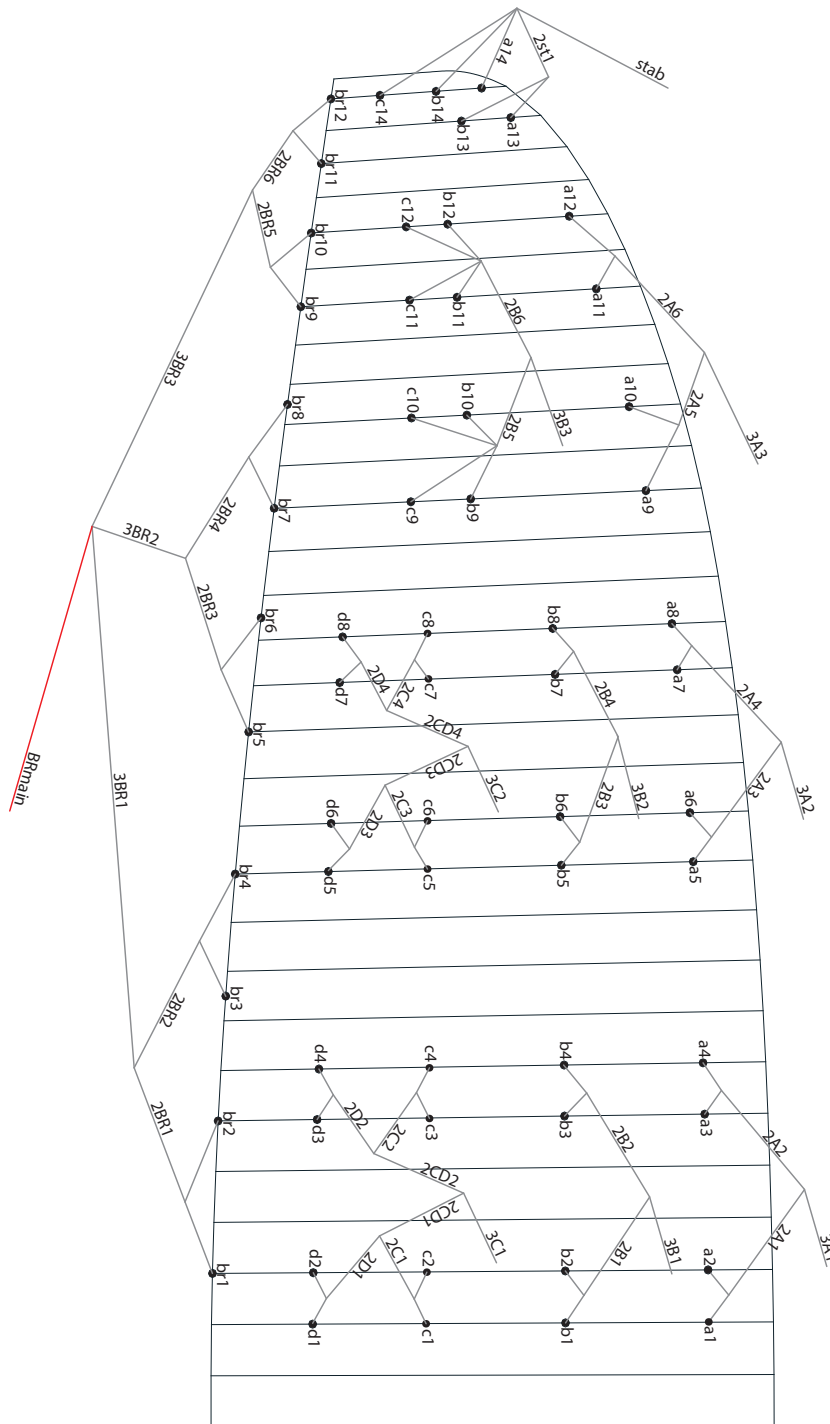
MATERIALS TECHNICAL DATA

CANOPY	FABRIC CODE	SUPPLIER
UPPER SURFACE	30 DMF / N20 DMF	DOMINICO TEX CO (KOREA)
BOTTOM SURFACE	2044 32 PS	DOMINICO TEX CO (KOREA)
PROFILES	30 DFM / 2044 32 FM	DOMINICO TEX CO (KOREA)
DIAGONALS	30 DFM / 2044 32 FM	DOMINICO TEX CO (KOREA)
LOOPS	LKI - 12	KOLON IND. (KOREA)
REINFORCEMENT LOOPS	RIPSTOP FABRIC	DOMINICO TEX CO (KOREA)
TRAILING EDGE REINFORCEMENT	MYLAR	D-P (GERMANY)
RIBS REINFORCEMENT	LTN-0.8/1 STICK	SPORTWARE CO.CHINA
THREAD	SERAFIL 60	AMAN (GERMANY)

SUSPENSION LINES	FABRIC CODE	SUPPLIER
UPPER CASCADES	DC - 60	LIROS GMHB (GERMANY)
UPPER CASCADES	DC - 40	LIROS GMHB (GERMANY)
MIDDLE CASCADES	DC - 60	LIROS GMHB (GERMANY)
MIDDLE CASCADES	DC - 40	LIROS GMHB (GERMANY)
MIDDLE CASCADES	A-8001/U 50	EDELRID (GERMANY)
MIDDLE CASCADES	A-8001/U 70	EDELRID (GERMANY)
MIDDLE CASCADES	A-8001/U 90	EDELRID (GERMANY)
MIDDLE CASCADES	A-8001/U 130	EDELRID (GERMANY)
MAIN	A-8001/U 70	EDELRID (GERMANY)
MAIN	A-8001/U 90	EDELRID (GERMANY)
MAIN	A-8001/U 130	EDELRID (GERMANY)
MAIN	A-8001/U 190	EDELRID (GERMANY)
MAIN	A-8001/U 230	EDELRID (GERMANY)
MAIN	A-8001/U 280	EDELRID (GERMANY)
MAIN BREAK	TARAX-240	EDELRID (GERMANY)
THREAD	SERAFIL 60	AMAN (GERMANY)

RISERS	FABRIC CODE	SUPPLIER
MATERIAL	3455	COUSIN (FRANCE)
COLOR INDICATOR	210D	TECNI SANGLES (FRANCE)
THREAD	V138	COATS (ENGLAND)
MAILLONS	3.5	ANSUNG PRECISION (KOREA)
PULLEYS	RF25109	RONSTAN (AUSTRALIA)

LINE PLAN



LINE REPLACEMENT

The use of new high performance materials in modern wings is now common. The advantages of using these materials in terms of performance are widely acknowledged as part of our sport's evolution. However, along with those technological advances come additional responsibilities which cannot be avoided. As a result, line inspection and replacement must be carried out more frequently. That increased frequency appears to be encouraging some pilots to try to perform line replacement themselves.

WE STRONGLY RECOMMEND ANY LINE REPLACEMENT IS PERFORMED BY AN AUTHORISED SPECIALIST ONLY.

Ultimately, if the pilot decides to perform any line replacement without professional oversight they therefore assume all responsibility. In this case, these guidelines will have to be followed.

BEFORE REMOVING ANY LINES, CHECK:

- That the line plan is correct according to the glider model and size.
- That the line kit is complete and correct.
- Never assume but always check each individual line for the correct specification.

AFTER CONFIRMING THAT ALL LINES ARE CORRECT:

- Fit the new line(s) **WITHOUT** removing the label.
- Once replaced, measure each line length to confirm the correct measurement.
- Inflate the wing to check for irregularities.
- The line labels may then be removed but **NOT BEFORE** completion of the line replacement.

Niviuk strongly recommends for any line replacement to be carried out by an authorised professional only, and will not accept responsibility for any damage or injury caused as a result of incorrect re-assembly.

SPECIAL CONFIGURATION ON LINES 3C1 – 3C2 – 3B3

The 3C1 - 3C2 - 3B3 lines are connected to the maillon by means of a special fixation method. See diagram below.

The lark's foot/clove hitch is used to adjust the trim to the preset range. The loop will allow readjustment of the trim due to use, stretching or shrinking. Failure to make this loop compromises the trim of the wing and the safety of the pilot.

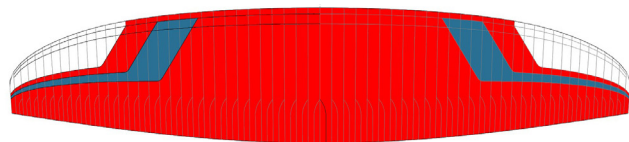


RISER PLAN

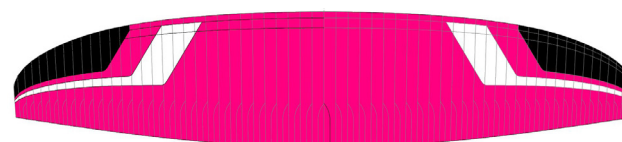
A	A'	B	C
3A1	3A3	3B1	3C1
3A2		3B2	3C2
		3B3	
		stab	



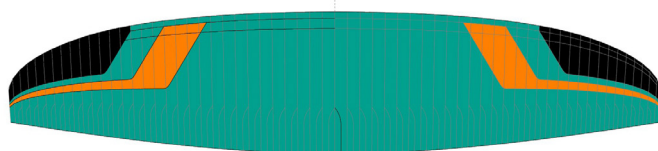
COLORS



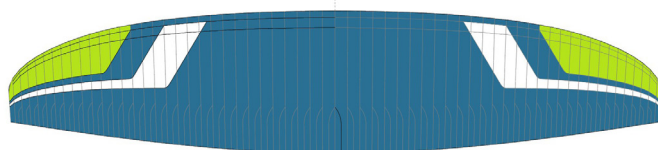
MARS	SB1	DRAGON RED	TOP	REF: 636
	SB2	WHITE	BOTTOM - ALL WHITE	REF: 001
	SB3	WHITE	HORN	REF: 001
	SB4	SLATE BLUE	SHADOW	REF: 317



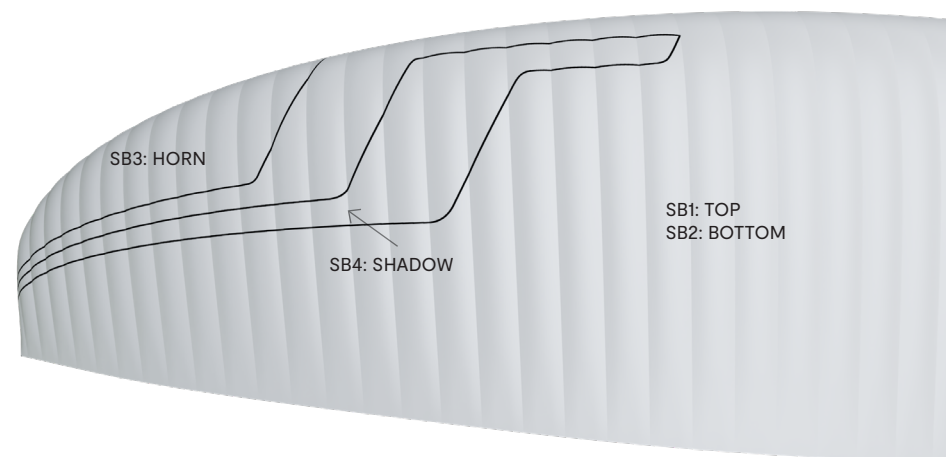
FUCHSIA	SB1	PINK	TOP	REF: 19-2047
	SB2	WHITE	BOTTOM - ALL WHITE	REF: 001
	SB3	BLACK	HORN	REF: 102
	SB4	WHITE	SHADOW	REF: 001



UNAKIT	SB1	SPECTRA GREEN	TOP	REF: 17-5335
	SB2	WHITE	BOTTOM - ALL WHITE	REF: 001
	SB3	BLACK	HORN	REF: 102
	SB4	ORANGE	SHADOW	REF: 744



NIMBUS	SB1	SLATE BLUE	TOP	REF: 317
	SB2	WHITE	BOTTOM - ALL WHITE	REF: 001
	SB3	LIMA	HORN	REF: 500
	SB4	WHITE	SHADOW	REF: 001



WING LOAD TECHNICAL DATA

IKUMA 3

20		22		24		26		28		30	
P.T.V.	KG/M2	P.T.V.	KG/M2	P.T.V.	KG/M2	P.T.V.	KG/M2	P.T.V.	KG/M2	P.T.V.	KG/M2
55	= 2.78	65	= 3.48	75	= 3.15	85	= 3.29	95	= 3.42	105	= 3.52
56	= 2.83	66	= 3.52	76	= 3.19	86	= 3.33	96	= 3.45	106	= 3.56
57	= 2.88	67	= 3.57	77	= 3.24	87	= 3.37	97	= 3.49	107	= 3.59
58	= 2.93	68	= 3.61	78	= 3.28	88	= 3.41	98	= 3.53	108	= 3.62
59	= 2.98	69	= 3.65	79	= 3.32	89	= 3.45	99	= 3.56	109	= 3.66
60	= 3.03	70	= 3.70	80	= 3.36	90	= 3.49	100	= 3.60	110	= 3.69
61	= 3.08	71	= 3.74	81	= 3.40	91	= 3.53	101	= 3.63	111	= 3.72
62	= 3.13	72	= 3.78	82	= 3.45	92	= 3.57	102	= 3.67	112	= 3.76
63	= 3.18	73	= 3.83	83	= 3.49	93	= 3.60	103	= 3.71	113	= 3.79
64	= 3.23	74	= 3.87	84	= 3.53	94	= 3.64	104	= 3.74	114	= 3.83
65	= 3.28	75	= 3.91	85	= 3.57	95	= 3.68	105	= 3.78	115	= 3.86
66	= 3.33	76	= 3.96	86	= 3.61	96	= 3.72	106	= 3.81	116	= 3.89
67	= 3.38	77	= 4.00	87	= 3.66	97	= 3.76	107	= 3.85	117	= 3.93
68	= 3.43	78	= 4.04	88	= 3.70	98	= 3.80	108	= 3.88	118	= 3.96
69	= 3.48	79	= 4.09	89	= 3.74	99	= 3.84	109	= 3.92	119	= 3.99
70	= 3.54	80	= 4.13	90	= 3.78	100	= 3.88	110	= 3.96	120	= 4.03
71	= 3.59	81	3.72	91	= 3.82	101	= 3.91	111	= 3.99	121	= 4.06
72	= 3.64	82	3.76	92	= 3.87	102	= 3.95	112	= 4.03	122	= 4.09
73	= 3.69	83	3.81	93	= 3.91	103	= 3.99	113	= 4.06	123	= 4.13
74	= 3.74	84	3.85	94	= 3.95	104	= 4.03	114	= 4.10	124	= 4.16
75	= 3.79	85	3.90	95	= 3.99	105	= 4.07	115	= 4.14	125	= 4.19
										126	= 4.23
										127	= 4.26
										128	= 4.30
										129	= 4.33
										130	= 4.36

LINES TECHNICAL DATA

IKUMA 3 20

REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm
A					B					C					D					BRAKE				
a1	DC	100	WHT	274	b1	DC	60	WHT	271	c1	DC	40	WHT	275	d1	DC	40	WHT	276	br1	DC	40	WHT	767
a2	DC	60	WHT	239	b2	DC	60	WHT	236	c2	DC	40	WHT	227	d2	DC	40	WHT	231	br2	DC	40	WHT	386
a3	DC	60	WHT	252	b3	DC	60	WHT	249	c3	DC	40	WHT	239	d3	DC	40	WHT	245	br3	DC	40	WHT	558
a4	DC	60	WHT	259	b4	DC	60	WHT	256	c4	DC	40	WHT	264	d4	DC	40	WHT	263	br4	DC	40	WHT	571
a5	DC	60	WHT	257	b5	DC	60	WHT	253	c5	DC	40	WHT	257	d5	DC	40	WHT	260	br5	DC	40	WHT	578
a6	DC	60	WHT	221	b6	DC	40	WHT	219	c6	DC	40	WHT	211	d6	DC	40	WHT	211	br6	DC	40	WHT	431
a7	DC	60	WHT	227	b7	DC	40	WHT	222	c7	DC	40	WHT	216	d7	DC	40	WHT	228	br7	DC	40	WHT	429
a8	DC	60	WHT	234	b8	DC	60	WHT	231	c8	DC	40	WHT	238	d8	DC	40	WHT	232	br8	DC	40	WHT	517
a9	8001/U	70	ORG	507	b9	8001/U	50	ORG	587	c9	8001/U	50	BLUE	643						br9	DC	40	WHT	372
a10	8001/U	50	ORG	415	b10	8001/U	50	ORG	505	c10	8001/U	50	BLUE	562						br10	DC	40	WHT	297
a11	8001/U	50	ORG	476	b11	8001/U	50	ORG	519	c11	8001/U	50	BLUE	564						br11	DC	40	WHT	230
a12	8001/U	50	ORG	460	b12	8001/U	50	ORG	507	c12	8001/U	50	BLUE	551						br12	DC	40	WHT	332
a13	8001/U	50	ORG	587	b13	8001/U	50	ORG	569	c13	8001/U	50	ORG	1283										
a14	8001/U	50	ORG	1220	b14	8001/U	50	ORG	1221															
2A1	8001/U	130	ORG	1716	2B1	8001/U	130	BLUE	1695	2C1	8001/U	70	BLUE	479	2D1	8001/U	70	BLUE	550	2BR1	DC	40	WHT	899
2A2	8001/U	130	ORG	1658	2B2	8001/U	130	BLUE	1639	2C2	8001/U	70	BLUE	454	2D2	8001/U	70	BLUE	521	2BR2	DC	40	WHT	596
2A3	8001/U	130	ORG	1555	2B3	8001/U	130	BLUE	1529	2C3	8001/U	70	BLUE	440	2D3	8001/U	70	BLUE	505	2BR3	DC	40	WHT	778
2A4	8001/U	90	ORG	1483	2B4	8001/U	90	BLUE	1465	2C4	8001/U	70	BLUE	415	2D4	8001/U	70	BLUE	462	2BR4	DC	40	WHT	727
2A5	8001/U	70	ORG	1422	2B5	8001/U	70	BLUE	1272	2CD1	8001/U	90	BLUE	730						2BR5	DC	40	WHT	413
2A6	8001/U	70	ORG	1264	2B6	8001/U	70	BLUE	1180	2CD2	8001/U	90	BLUE	704						2BR6	DC	40	WHT	476
2ST1	8001/U	50	ORG	684						2CD3	8001/U	70	BLUE	674						3BR1	DC	60	WHT	2502
										2CD4	8001/U	70	BLUE	637						3BR2	DC	60	WHT	2109
																				3BR3	DC	60	WHT	2425
3A1	8001/U	230	ORG	4017	3B1	8001/U	190	BLUE	3958	3C1	8001/U	190	BLUE	4542						BRMAIN	TARAX	240	RED	2862
3A2	8001/U	190	ORG	4039	3B2	8001/U	130	BLUE	3993	3C2	8001/U	130	BLUE	4512						POINT AT:				2662
3A3	8001/U	190	ORG	3715	3B3	8001/U	90	BLUE	3776															
					STAB	8001/U	70	ORG	3993															

LINES TECHNICAL DATA

IKUMA 3 22

REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm
A					B					C					D					BRAKE				
a1	DC	100	WHT	288	b1	DC	60	WHT	284	c1	DC	40	WHT	289	d1	DC	40	WHT	289	br1	DC	40	WHT	805
a2	DC	60	WHT	251	b2	DC	60	WHT	248	c2	DC	40	WHT	239	d2	DC	40	WHT	243	br2	DC	40	WHT	407
a3	DC	60	WHT	264	b3	DC	60	WHT	260	c3	DC	40	WHT	250	d3	DC	40	WHT	256	br3	DC	40	WHT	585
a4	DC	60	WHT	272	b4	DC	60	WHT	269	c4	DC	40	WHT	278	d4	DC	40	WHT	276	br4	DC	40	WHT	600
a5	DC	60	WHT	270	b5	DC	60	WHT	265	c5	DC	40	WHT	270	d5	DC	40	WHT	272	br5	DC	40	WHT	606
a6	DC	60	WHT	232	b6	DC	40	WHT	230	c6	DC	40	WHT	221	d6	DC	40	WHT	222	br6	DC	40	WHT	454
a7	DC	60	WHT	238	b7	DC	40	WHT	233	c7	DC	40	WHT	226	d7	DC	40	WHT	239	br7	DC	40	WHT	449
a8	DC	60	WHT	246	b8	DC	60	WHT	243	c8	DC	40	WHT	250	d8	DC	40	WHT	244	br8	DC	40	WHT	543
a9	8001/U	70	ORG	531	b9	8001/U	50	ORG	615	c9	8001/U	50	BLUE	675						br9	DC	40	WHT	390
a10	8001/U	50	ORG	436	b10	8001/U	50	ORG	530	c10	8001/U	50	BLUE	590						br10	DC	40	WHT	312
a11	8001/U	50	ORG	499	b11	8001/U	50	ORG	545	c11	8001/U	50	BLUE	591						br11	DC	40	WHT	241
a12	8001/U	50	ORG	483	b12	8001/U	50	ORG	532	c12	8001/U	50	BLUE	578						br12	DC	40	WHT	349
a13	8001/U	50	ORG	616	b13	8001/U	50	ORG	597	c13	8001/U	50	ORG	1346										
a14	8001/U	50	ORG	1281	b14	8001/U	50	ORG	1281															
2A1	8001/U	130	ORG	1799	2B1	8001/U	130	BLUE	1777	2C1	8001/U	70	Blue	501	2D1	8001/U	70	Blue	577	2BR1	DC	40	WHT	941
2A2	8001/U	130	ORG	1743	2B2	8001/U	130	BLUE	1722	2C2	8001/U	70	BLUE	478	2D2	8001/U	70	BLUE	548	2BR2	DC	40	WHT	627
2A3	8001/U	130	ORG	1630	2B3	8001/U	130	BLUE	1603	2C3	8001/U	70	BLUE	462	2D3	8001/U	70	BLUE	530	2BR3	DC	40	WHT	814
2A4	8001/U	90	ORG	1558	2B4	8001/U	90	BLUE	1540	2C4	8001/U	70	BLUE	436	2D4	8001/U	70	BLUE	485	2BR4	DC	40	WHT	766
2A5	8001/U	70	ORG	1492	2B5	8001/U	70	BLUE	1334	2CD1	8001/U	90	BLUE	765						2BR5	DC	40	WHT	432
2A6	8001/U	70	ORG	1328	2B6	8001/U	70	BLUE	1240	2CD2	8001/U	90	BLUE	740						2BR6	DC	40	WHT	501
2ST1	8001/U	50	ORG	718						2CD3	8001/U	70	BLUE	707						3BR1	DC	60	WHT	2620
										2CD4	8001/U	70	BLUE	669						3BR2	DC	60	WHT	2215
																				3BR3	DC	60	WHT	2553
3A1	8001/U	230	ORG	4250	3B1	8001/U	190	BLUE	4184	3C1	8001/U	190	BLUE	4795						BRMAIN	TARAX	240	RED	3023
3A2	8001/U	190	ORG	4279	3B2	8001/U	130	BLUE	4228	3C2	8001/U	130	BLUE	4771						POINT AT:				2823
3A3	8001/U	190	ORG	3940	3B3	8001/U	90	BLUE	4003															
					STAB	8001/U	70	ORG	4234															

LINES TECHNICAL DATA

IKUMA 3 24

REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm
A					B					C					D					BRAKE				
a1	DC	100	WHT	301	b1	DC	60	WHT	297	c1	DC	40	WHT	289	d1	DC	40	WHT	302	br1	DC	40	WHT	841
a2	DC	60	WHT	263	b2	DC	60	WHT	260	c2	DC	40	WHT	239	d2	DC	40	WHT	254	br2	DC	40	WHT	425
a3	DC	60	WHT	276	b3	DC	60	WHT	272	c3	DC	40	WHT	250	d3	DC	40	WHT	267	br3	DC	40	WHT	611
a4	DC	60	WHT	284	b4	DC	60	WHT	281	c4	DC	40	WHT	278	d4	DC	40	WHT	289	br4	DC	40	WHT	627
a5	DC	60	WHT	282	b5	DC	60	WHT	277	c5	DC	40	WHT	270	d5	DC	40	WHT	284	br5	DC	40	WHT	633
a6	DC	60	WHT	243	b6	DC	40	WHT	240	c6	DC	40	WHT	221	d6	DC	40	WHT	232	br6	DC	40	WHT	474
a7	DC	60	WHT	249	b7	DC	40	WHT	243	c7	DC	40	WHT	226	d7	DC	40	WHT	250	br7	DC	40	WHT	469
a8	DC	60	WHT	257	b8	DC	60	WHT	254	c8	DC	40	WHT	250	d8	DC	40	WHT	255	br8	DC	40	WHT	567
a9	8001/U	70	ORG	555	b9	8001/U	50	ORG	643	c9	8001/U	50	BLUE	675						br9	DC	40	WHT	407
a10	8001/U	50	ORG	455	b10	8001/U	50	ORG	553	c10	8001/U	50	BLUE	590						br10	DC	40	WHT	326
a11	8001/U	50	ORG	521	b11	8001/U	50	ORG	569	c11	8001/U	50	BLUE	591						br11	DC	40	WHT	251
a12	8001/U	50	ORG	504	b12	8001/U	50	ORG	556	c12	8001/U	50	BLUE	578						br12	DC	40	WHT	364
a13	8001/U	50	ORG	644	b13	8001/U	50	ORG	623	c13	8001/U	50	ORG	1346										
a14	8001/U	50	ORG	1338	b14	8001/U	50	ORG	1338															
<hr/>																								
2A1	8001/U	130	ORG	1880	2B1	8001/U	130	BLUE	1856	2C1	8001/U	70	Blue	501	2D1	8001/U	70	BLUE	602	2BR1	DC	40	WHT	984
2A2	8001/U	130	ORG	1821	2B2	8001/U	130	BLUE	1800	2C2	8001/U	70	BLUE	478	2D2	8001/U	70	BLUE	573	2BR2	DC	40	WHT	656
2A3	8001/U	130	ORG	1704	2B3	8001/U	130	BLUE	1675	2C3	8001/U	70	BLUE	462	2D3	8001/U	70	BLUE	554	2BR3	DC	40	WHT	850
2A4	8001/U	90	ORG	1628	2B4	8001/U	90	BLUE	1609	2C4	8001/U	70	BLUE	436	2D4	8001/U	70	BLUE	507	2BR4	DC	40	WHT	801
2A5	8001/U	70	ORG	1559	2B5	8001/U	70	BLUE	1394	2CD1	8001/U	90	BLUE	765						2BR5	DC	40	WHT	452
2A6	8001/U	70	ORG	1387	2B6	8001/U	70	BLUE	1294	2CD2	8001/U	90	BLUE	740						2BR6	DC	40	WHT	523
2ST1	8001/U	50	ORG	750						2CD3	8001/U	70	BLUE	707						3BR1	DC	60	WHT	2737
										2CD4	8001/U	70	BLUE	669						3BR2	DC	60	WHT	2314
																				3BR3	DC	60	WHT	2668
<hr/>																								
3A1	8001/U	230	ORG	4464	3B1	8001/U	190	BLUE	4396	3C1	8001/U	190	BLUE	4795						BRMAIN	TARAX	240	RED	3167
3A2	8001/U	190	ORG	4494	3B2	8001/U	130	BLUE	4442	3C2	8001/U	130	BLUE	4771						POINT AT:				2967
3A3	8001/U	190	ORG	4140	3B3	8001/U	90	BLUE	4205															
					STAB	8001/U	70	ORG	4444															

LINES TECHNICAL DATA

IKUMA 3 26

REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm
A					B					C					D					BRAKE				
a1	DC	100	WHT	313	b1	DC	60	WHT	309	c1	DC	40	WHT	314	d1	DC	40	WHT	314	br1	DC	40	WHT	876
a2	DC	60	WHT	274	b2	DC	60	WHT	271	c2	DC	40	WHT	260	d2	DC	40	WHT	264	br2	DC	40	WHT	444
a3	DC	60	WHT	287	b3	DC	60	WHT	283	c3	DC	40	WHT	272	d3	DC	40	WHT	278	br3	DC	40	WHT	635
a4	DC	60	WHT	296	b4	DC	60	WHT	293	c4	DC	40	WHT	302	d4	DC	40	WHT	301	br4	DC	40	WHT	653
a5	DC	60	WHT	293	b5	DC	60	WHT	288	c5	DC	40	WHT	294	d5	DC	40	WHT	296	br5	DC	40	WHT	659
a6	DC	60	WHT	253	b6	DC	40	WHT	250	c6	DC	40	WHT	241	d6	DC	40	WHT	241	br6	DC	40	WHT	495
a7	DC	60	WHT	259	b7	DC	40	WHT	253	c7	DC	40	WHT	246	d7	DC	40	WHT	260	br7	DC	40	WHT	488
a8	DC	60	WHT	268	b8	DC	60	WHT	264	c8	DC	40	WHT	272	d8	DC	40	WHT	265	br8	DC	40	WHT	591
a9	8001/U	70	ORG	578	b9	8001/U	50	ORG	670	c9	8001/U	50	BLUE	734						br9	DC	40	WHT	424
a10	8001/U	50	ORG	474	b10	8001/U	50	ORG	576	c10	8001/U	50	BLUE	641						br10	DC	40	WHT	340
a11	8001/U	50	ORG	543	b11	8001/U	50	ORG	593	c11	8001/U	50	BLUE	644						br11	DC	40	WHT	261
a12	8001/U	50	ORG	525	b12	8001/U	50	ORG	579	c12	8001/U	50	BLUE	629						br12	DC	40	WHT	380
a13	8001/U	50	ORG	671	b13	8001/U	50	ORG	649	c13	8001/U	50	ORG	1464										
a14	8001/U	50	ORG	1394	b14	8001/U	50	ORG	1394															
2A1	8001/U	130	ORG	1956	2B1	8001/U	130	BLUE	1932	2C1	8001/U	70	BLUE	545	2D1	8001/U	70	BLUE	627	2BR1	DC	40	WHT	1023
2A2	8001/U	130	ORG	1897	2B2	8001/U	130	BLUE	1875	2C2	8001/U	70	BLUE	520	2D2	8001/U	70	BLUE	597	2BR2	DC	40	WHT	684
2A3	8001/U	130	ORG	1774	2B3	8001/U	130	BLUE	1744	2C3	8001/U	70	BLUE	502	2D3	8001/U	70	BLUE	576	2BR3	DC	40	WHT	885
2A4	8001/U	90	ORG	1695	2B4	8001/U	90	BLUE	1676	2C4	8001/U	70	BLUE	474	2D4	8001/U	70	BLUE	528	2BR4	DC	40	WHT	835
2A5	8001/U	70	ORG	1623	2B5	8001/U	70	BLUE	1452	2CD1	8001/U	90	BLUE	832						2BR5	DC	40	WHT	470
2A6	8001/U	70	ORG	1444	2B6	8001/U	70	BLUE	1348	2CD2	8001/U	90	BLUE	805						2BR6	DC	40	WHT	546
2ST1	8001/U	50	ORG	781						2CD3	8001/U	70	BLUE	769						3BR1	DC	60	WHT	2847
										2CD4	8001/U	70	BLUE	728						3BR2	DC	60	WHT	2410
																				3BR3	DC	60	WHT	2782
3A1	8001/U	230	ORG	4675	3B1	8001/U	190	BLUE	4601	3C1	8001/U	190	BLUE	5265						BRMAIN	TARAX	240	RED	3310
3A2	8001/U	190	ORG	4710	3B2	8001/U	130	BLUE	4653	3C2	8001/U	130	BLUE	5240						POINT AT:				3110
3A3	8001/U	190	ORG	4339	3B3	8001/U	90	BLUE	4405															
					STAB	8001/U	70	ORG	4656															

LINES TECHNICAL DATA

IKUMA 3 28

REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm
A					B					C					D					BRAKE				
a1	DC	60	WHT	285	b1	DC	60	WHT	321	c1	DC	40	WHT	326	d1	DC	40	WHT	326	br1	DC	40	WHT	910
a2	DC	60	WHT	297	b2	DC	60	WHT	281	c2	DC	40	WHT	270	d2	DC	40	WHT	275	br2	DC	40	WHT	461
a3	DC	60	WHT	308	b3	DC	60	WHT	293	c3	DC	40	WHT	282	d3	DC	40	WHT	289	br3	DC	40	WHT	659
a4	DC	60	WHT	304	b4	DC	60	WHT	304	c4	DC	40	WHT	314	d4	DC	40	WHT	312	br4	DC	40	WHT	678
a5	DC	60	WHT	263	b5	DC	60	WHT	299	c5	DC	40	WHT	305	d5	DC	40	WHT	307	br5	DC	40	WHT	684
a6	DC	60	WHT	269	b6	DC	40	WHT	260	c6	DC	40	WHT	250	d6	DC	40	WHT	251	br6	DC	40	WHT	514
a7	DC	60	WHT	278	b7	DC	40	WHT	263	c7	DC	40	WHT	255	d7	DC	40	WHT	270	br7	DC	40	WHT	506
a8	8001/U	70	ORG	600	b8	DC	60	WHT	275	c8	DC	40	WHT	282	d8	DC	40	WHT	276	br8	DC	40	WHT	613
a9	8001/U	50	ORG	492	b9	8001/U	50	ORG	695	c9	8001/U	50	BLUE	762						br9	DC	40	WHT	440
a10	8001/U	50	ORG	563	b10	8001/U	50	ORG	598	c10	8001/U	50	BLUE	666						br10	DC	40	WHT	354
a11	8001/U	50	ORG	545	b11	8001/U	50	ORG	615	c11	8001/U	50	BLUE	668						br11	DC	40	WHT	271
a12	8001/U	50	ORG	696	b12	8001/U	50	ORG	601	c12	8001/U	50	BLUE	652						br12	DC	40	WHT	394
a13	8001/U	50	ORG	1447	b13	8001/U	50	ORG	674	c13	8001/U	50	ORG	1519										
a14	8001/U	50	ORG	1394	b14	8001/U	50	ORG	1447															
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2A1	8001/U	130	ORG	2030	2B1	8001/U	130	BLUE	2005	2C1	8001/U	70	BLUE	565	2D1	8001/U	70	BLUE	650	2BR1	DC	40	WHT	1061
2A2	8001/U	130	ORG	1971	2B2	8001/U	130	BLUE	1948	2C2	8001/U	70	BLUE	541	2D2	8001/U	70	BLUE	620	2BR2	DC	40	WHT	711
2A3	8001/U	130	ORG	1841	2B3	8001/U	130	BLUE	1810	2C3	8001/U	70	BLUE	521	2D3	8001/U	70	BLUE	598	2BR3	DC	40	WHT	917
2A4	8001/U	90	ORG	1761	2B4	8001/U	90	BLUE	1740	2C4	8001/U	70	BLUE	493	2D4	8001/U	70	BLUE	548	2BR4	DC	40	WHT	868
2A5	8001/U	70	ORG	1685	2B5	8001/U	70	BLUE	1507	2CD1	8001/U	90	BLUE	863						2BR5	DC	40	WHT	487
2A6	8001/U	70	ORG	1500	2B6	8001/U	70	BLUE	1399	2CD2	8001/U	90	BLUE	836						2BR6	DC	40	WHT	567
2ST1	8001/U	50	ORG	811						2CD3	8001/U	70	BLUE	798						3BR1	DC	60	WHT	2953
										2CD4	8001/U	70	BLUE	756						3BR2	DC	60	WHT	2503
																				3BR3	DC	60	WHT	2891
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3A1	8001/U	230	ORG	4873	3B1	8001/U	190	BLUE	4798	3C1	8001/U	190	BLUE	5486						BRMAIN	TARAX	240	RED	3448
3A2	8001/U	190	ORG	4913	3B2	8001/U	130	BLUE	4855	3C2	8001/U	130	BLUE	5463						POINT AT:				3248
3A3	8001/U	190	ORG	4531	3B3	8001/U	90	BLUE	4598															
					STAB	8001/U	70	ORG	4859															

LINES TECHNICAL DATA

IKUMA 3 30

REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm	REF.	MAT.	kg	COLOR	mm
A					B					C					D					BRAKE				
a1	DC	100	WHT	336	b1	DC	60	WHT	332	c1	DC	40	WHT	337	d1	DC	40	WHT	338	br1	DC	40	WHT	942
a2	DC	60	WHT	295	b2	DC	60	WHT	292	c2	DC	40	WHT	280	d2	DC	40	WHT	285	br2	DC	40	WHT	478
a3	DC	60	WHT	308	b3	DC	60	WHT	304	c3	DC	40	WHT	291	d3	DC	40	WHT	299	br3	DC	40	WHT	682
a4	DC	100	WHT	319	b4	DC	60	WHT	315	c4	DC	40	WHT	325	d4	DC	40	WHT	323	br4	DC	40	WHT	702
a5	DC	100	WHT	315	b5	DC	60	WHT	310	c5	DC	40	WHT	316	d5	DC	40	WHT	318	br5	DC	40	WHT	708
a6	DC	60	WHT	272	b6	DC	40	WHT	269	c6	DC	40	WHT	259	d6	DC	40	WHT	260	br6	DC	40	WHT	533
a7	DC	60	WHT	278	b7	DC	40	WHT	272	c7	DC	40	WHT	264	d7	DC	40	WHT	279	br7	DC	40	WHT	523
a8	DC	60	WHT	288	b8	DC	60	WHT	284	c8	DC	40	WHT	292	d8	DC	40	WHT	285	br8	DC	40	WHT	635
a9	8001/U	70	ORG	621	b9	8001/U	50	ORG	720	c9	8001/U	50	BLUE	789						br9	DC	40	WHT	455
a10	8001/U	50	ORG	510	b10	8001/U	50	ORG	619	c10	8001/U	50	BLUE	689						br10	DC	40	WHT	367
a11	8001/U	50	ORG	583	b11	8001/U	50	ORG	637	c11	8001/U	50	BLUE	692						br11	DC	40	WHT	280
a12	8001/U	50	ORG	565	b12	8001/U	50	ORG	622	c12	8001/U	50	BLUE	675						br12	DC	40	WHT	408
a13	8001/U	50	ORG	721	b13	8001/U	50	ORG	697	c13	8001/U	50	ORG	1573										
a14	8001/U	50	ORG	1498	b14	8001/U	50	ORG	1498															
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2A1	8001/U	190	ORG	2101	2B1	8001/U	130	BLUE	2075	2C1	8001/U	70	BLUE	584	2D1	8001/U	70	BLUE	673	2BR1	DC	40	Wht	1098
2A2	8001/U	130	ORG	2042	2B2	8001/U	130	BLUE	2018	2C2	8001/U	70	BLUE	560	2D2	8001/U	70	BLUE	643	2BR2	DC	40	WHT	736
2A3	8001/U	130	ORG	1906	2B3	8001/U	130	BLUE	1873	2C3	8001/U	70	BLUE	539	2D3	8001/U	70	BLUE	619	2BR3	DC	40	WHT	949
2A4	8001/U	130	ORG	1824	2B4	8001/U	90	BLUE	1802	2C4	8001/U	70	BLUE	510	2D4	8001/U	70	BLUE	568	2BR4	DC	40	WHT	900
2A5	8001/U	70	ORG	1744	2B5	8001/U	70	BLUE	1560	2CD1	8001/U	90	BLUE	893						2BR5	DC	40	WHT	504
2A6	8001/U	70	ORG	1553	2B6	8001/U	70	BLUE	1449	2CD2	8001/U	90	BLUE	866						2BR6	DC	40	WHT	588
2ST1	8001/U	50	ORG	840						2CD3	8001/U	70	BLUE	826						3BR1	DC	60	WHT	3055
										2CD4	8001/U	70	BLUE	783						3BR2	DC	60	WHT	2592
																				3BR3	DC	60	WHT	2997
<hr/>																								
3A1	8001/U	280	ORG	5055	3B1	8001/U	230	BLUE	4982	3C1	8001/U	190	BLUE	5700						BRMAIN	TARAX	240	RED	3581
3A2	8001/U	230	ORG	5102	3B2	8001/U	190	BLUE	5045	3C2	8001/U	130	BLUE	5678						POINT AT:				3381
3A3	8001/U	190	ORG	4716	3B3	8001/U	90	BLUE	4785															
					STAB	8001/U	70	ORG	5056															

LINE MEASUREMENTS

IKUMA 3 - 20

LINES HEIGHT + RISER mm

	A	B	C	D	BR
1	6544	6463	6544	6616	6869
2	6507	6428	6496	6571	6488
3	6463	6384	6457	6530	6356
4	6470	6391	6482	6548	6369
5	6389	6315	6405	6472	6164
6	6353	6281	6358	6424	6017
7	6290	6224	6300	6360	5965
8	6297	6232	6323	6364	6052
9	6199	6161	6221		5909
10	6109	6079	6139		5835
11	6014	6002	6049		5830
12	5997	5989	6036		5933
13	5814	5796	5830		
14	5763	5768			

RISERS LENGHT mm

A	A'	B	C	
530	530	530	530	STANDARD
350	350	410	530	ACCELERATED

IKUMA 3 - 22

LINES HEIGHT + RISER mm

	A	B	C	D	BR
1	6877	6782	6870	6946	7228
2	6839	6746	6820	6900	6830
3	6796	6704	6782	6859	6693
4	6804	6713	6810	6879	6708
5	6715	6637	6732	6803	6496
6	6678	6601	6684	6752	6344
7	6614	6543	6625	6687	6291
8	6622	6553	6649	6692	6385
9	6521	6480	6543		6236
10	6427	6395	6459		6159
11	6328	6315	6366		6156
12	6312	6302	6352		6264
13	6119	6100	6135		
14	6066	6070			

RISERS LENGHT mm

A	A'	B	C	
530	530	530	530	STANDARD
350	350	410	530	ACCELERATED

LINE MEASUREMENTS

IKUMA 3 - 24

LINES HEIGHT + RISER mm

	A	B	C	D	BR
1	7188	7092	7191	7269	7562
2	7149	7055	7138	7221	7146
3	7104	7011	7099	7179	7004
4	7112	7020	7128	7201	7020
5	7025	6939	7046	7120	6797
6	6986	6902	6995	7068	6638
7	6919	6841	6933	6999	6584
8	6927	6852	6958	7004	6682
9	6801	6784	6847		6527
10	6703	6694	6758		6446
11	6599	6610	6660		6442
12	6582	6597	6646		6555
13	6392	6371	6408		
14	6336	6340			

RISERS LENGHT mm

A	A'	B	C	
530	530	530	530	STANDARD
350	350	410	530	ACCELERATED

IKUMA 3 - 26

LINES HEIGHT + RISER mm

	A	B	C	D	BR
1	7483	7384	7486	7568	7899
2	7443	7346	7432	7518	7467
3	7398	7301	7392	7475	7319
4	7407	7311	7422	7498	7337
5	7318	7229	7338	7414	7107
6	7278	7191	7285	7359	6943
7	7208	7128	7221	7289	6886
8	7217	7139	7247	7294	6989
9	7085	7068	7132		6829
10	6983	6974	7039		6745
11	6875	6887	6938		6742
12	6857	6873	6923		6861
13	6661	6639	6677		
14	6603	6607			

RISERS LENGHT mm

A	A'	B	C	
530	530	530	530	STANDARD
350	350	410	530	ACCELERATED

LINE MEASUREMENTS

IKUMA 3 - 28

LINES HEIGHT + RISER mm

	A	B	C	D	BR
1	7766	7669	7770	7855	8215
2	7726	7629	7714	7804	7766
3	7680	7584	7675	7761	7614
4	7691	7595	7707	7784	7633
5	7599	7511	7620	7699	7395
6	7558	7472	7565	7643	7225
7	7487	7407	7500	7570	7168
8	7496	7419	7527	7576	7275
9	7363	7344	7408		7109
10	7257	7247	7312		7023
11	7145	7156	7206		7020
12	7127	7142	7190		7143
13	6922	6900	6938		
14	6862	6866			

RISERS LENGHT mm

A	A'	B	C	
530	530	530	530	STANDARD
350	350	410	530	ACCELERATED

IKUMA 3 - 30

LINES HEIGHT + RISER mm

	A	B	C	D	BR
1	8039	7933	8034	8123	8513
2	7997	7893	7977	8070	8050
3	7951	7849	7937	8026	7892
4	7962	7860	7971	8051	7913
5	7869	7774	7882	7964	7668
6	7826	7734	7825	7906	7493
7	7753	7667	7758	7830	7434
8	7763	7680	7786	7837	7546
9	7629	7592	7661		7374
10	7519	7491	7561		7285
11	7403	7398	7452		7283
12	7385	7383	7436		7411
13	7168	7144	7183		
14	7105	7108			

RISERS LENGHT mm

A	A'	B	C	
530	530	530	530	STANDARD
350	350	410	530	ACCELERATED

SUSPENSION TECHNICAL DATA

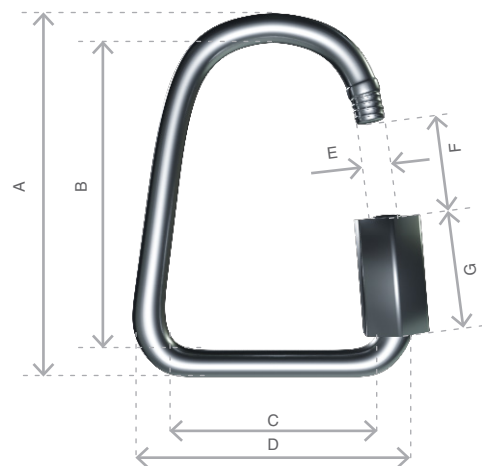
MATERIAL CODE		DC	DC	A-8001/U	A-8001/U	A-8001/U	A-8001/U	A-8001/U	A-8001/U	A-8001/U	TARAX
STRENGTH CODE		040	060	50	070	90	130	190	230	280	240
DIAMETER m/m	∅	040	060	50	070	90	130	190	230	280	240
CORE MATERIAL		DYNEEMA	ARAMID	ARAMID	ARAMID	ARAMID	ARAMID	ARAMID	ARAMID	ARAMID	Dyneema
SLEEVE MATERIAL		NO	NO	NO	NO	NO	NO	NO	NO	NO	Polyester
WEIGHT G/M	TOTAL	0.19	0.24	0.25	0.4	0.5	0.8	1.1	1.4	1.7	2.3
BREAKING STRENGTH daN	MINIMUM	40	60	50	70	90	130	190	230	280	240
	MAXIMUM	48	84		78	110	144	211	255		
STRENGTH AFTER											
5.000 BENDING	TEST EN	33	74	26	39	49	88	52	69		
CYCLES											
ELONGATION AT	5 daN en %			0.4	0.5	0.4	0.4	0.4	0.3	0.2	0.1-0.3
	10 daN en %		0.43	0.7	0.7	0.6	0.6	0.6	0.5	0.3	0.2-0.4
	15 daN en %			1.1	1	0.8	0.8	0.7	0.6	0.4	0.2-0.6
	20 daN en %			1.5	1.3	1	0.9	0.9	0.7	0.5	0.3-0.7
	25 daN en %			1.9	1.5	1.3	1	1	0.8	0.36	0.4-0.8
	30 daN en %		1.2	3.3	2.8	2.3	1.8	1.6	1.3		
	75 daN en %				3.7	3.2	3.1	2.7	2.3	1.5	0.9-1.2
	100 daN en %							2.6	3.6	1.9	1.1-1.5
	125 daN en %							3.5	3.3		
	150 daN en %							4.3	3.6	2.6	1.5-2.1
	175 daN en %										
	200 daN en %									3.1	2-2.8
ELONGATION MAX. BREAKING STRENGTH %			3.2	3.8	3.9	4.3	4	4.4	4.4	5	

MAILLON & PULLEY TECHNICAL DATA

DESCRIPTION

MAILLON	DELTA
CODE	3.5
MATERIAL	STAINLESS STEEL
SIZE	3 m/m
WEIGHT	5 G/PIECE
QUANTITY	8 PIECES
INSERTS	4 GREEN / 4 BLACK

TECHNICAL SPECIFICATIONS



DIMENSIONS	m/m
A	37
B	29
C	14
D	22
E	4
F	5
G	12
LOAD	KG
WORKING LIMIT	110
BREAKING	550

MATERIAL

AISI 304 STAINLESS STEEL

STANDARD

CLOSING APPLIED BY MANUAL & ENTIRE SCREWING OF THE NUT
TO GUARANTEE THE HIGHEST SAFETY (NO THREAD SHOULD BE OBVIOUS)

SYSTEMATIC CONTROL OF MAILLON QUICK-LINKS BEFORE EVERY FLIGHT

DESCRIPTION

PULLEY	20 m/m
CODE	RF25109
MATERIALS	STAINLESS STEEL
	NYLON
	CARBON ACETAL
BEARING	DELRIN®
WEIGHT	14 G/PIECE

TECHNICAL SPECIFICATIONS



DIMENSIONS	m/m
A	33
B	20
Ø	5 MAX
LOAD	KG
WORKING LIMIT	200
BREAKING	400

THREAD TECHNICAL DATA

WING MAKING

NAME	SERAFIL
N° OF REFERENCE	60
MATERIAL	POLYESTER
TYPE OF FINISH	SILK
LINEAR DENSITY	NM 61 / 3 (DTEX 163 * 3)
BREAKING STRENGTH	3,000 CN
ELONGATION	17,00%

PROPIETIES SERAFIL

SOLIDITY ARTIFICIAL LIGTH	ISO 105 B02 > 5 - 6
SOLIDITY SWEAT	ISO 105 E04 > 4
SOLIDITY WASHING	ISO 105 C04 > 3
SOLIDITY GRAZE IN DRY	ISO 105 X12 > 4
SOLIDITY WASHING IN DRY	ISO 105 D01 > 3 - 4

TREATMENT WATER REPELLENT	WR
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RISERS MAKING

NAME	COATS BONDED C.F.P.
N° OF REFERENCE	V138
MATERIAL	POLYESTER
TYPE OF FINISH	SILK
BREAKING STRENGTH	9,5 KG
ELONGATION	19%

RISERS TECHNICAL DATA

RISERS

N° OF REFERENCE	3455
MATERIAL	POLYESTER & TECHNORA
WIDTH	12 MM
THICKNESS	2,25 MM
BREAKING STRENGTH	1.100 DAN
ELONGATION	MAX. 11%
WEIGHT	21,1 G/M
COLOR	BLACK

COLOR INDICATOR

N° OF REFERENCE	IC-G 1-2
MATERIAL	POLYESTER
WIDTH	70 M/M
THICKNESS	0,80 M/M
BREAKING STRENGTH	130 DN
ELONGATION	35 %
WEIGHT	32 G * L.M.
COLOR	GREEN

LOOPS

N° OF REFERENCE	LKI - 12
MATERIAL	NYLON
WIDTH	12 M/M
BREAKING STRENGTH	84 KG
COLOR	WHITE



Niviuk Paragliders

C/ Del Ter 6 - nave D

17165 La Cellera de Ter - Girona - Spain

+34 972 422 878 | info@niviuk.com

www.niviuk.com