

# TARGET

Technical *specifications*



**TIVIUK** BEYOND THE GLIDE

# TECHNICAL SPECIFICATIONS

			20	22	24	26	28	30
<b>Cells</b>	Number		34	34	34	34	34	34
<b>Aspect ratio</b>	Flat		4,75	4,75	4,75	4,75	4,75	4,75
	Projected		3,83	3,83	3,83	3,83	3,83	3,83
<b>Area</b>	Flat	m2	20	22	24	26	28	30
	Projected	m2	17,58	19,34	21,09	22,85	24,61	26,37
<b>Span</b>	Flat	m	9,75	10,22	10,68	11,22	11,53	11,94
<b>Chord</b>	Max	m	2,52	2,65	2,76	2,90	2,98	3,09
<b>Lines</b>	Total	m	243	255	267	281	289	299
	Main		2+1/3/2	2+1/3/2	2+1/3/2	2+1/3/2	2+1/3/2	2+1/3/2
<b>Risers</b>	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
	Speed-bar	mm	130	130	130	130	130	130
<b>Glider weight</b>		kg	3,58	3,82	4,04	4,34	4,56	4,88
<b>Total weight in flight</b>	Min-Max	kg	40-75	55-85	65-95	75-105	90-120	105-135
<b>Certification</b>			EN/LTF A	EN/LTF A	EN/LTF A	EN/LTF A	EN/LTF A	EN/LTF A

The total weight of the wing may differ ±2% due to variations in the weight of the fabric supplied by the manufacturers.

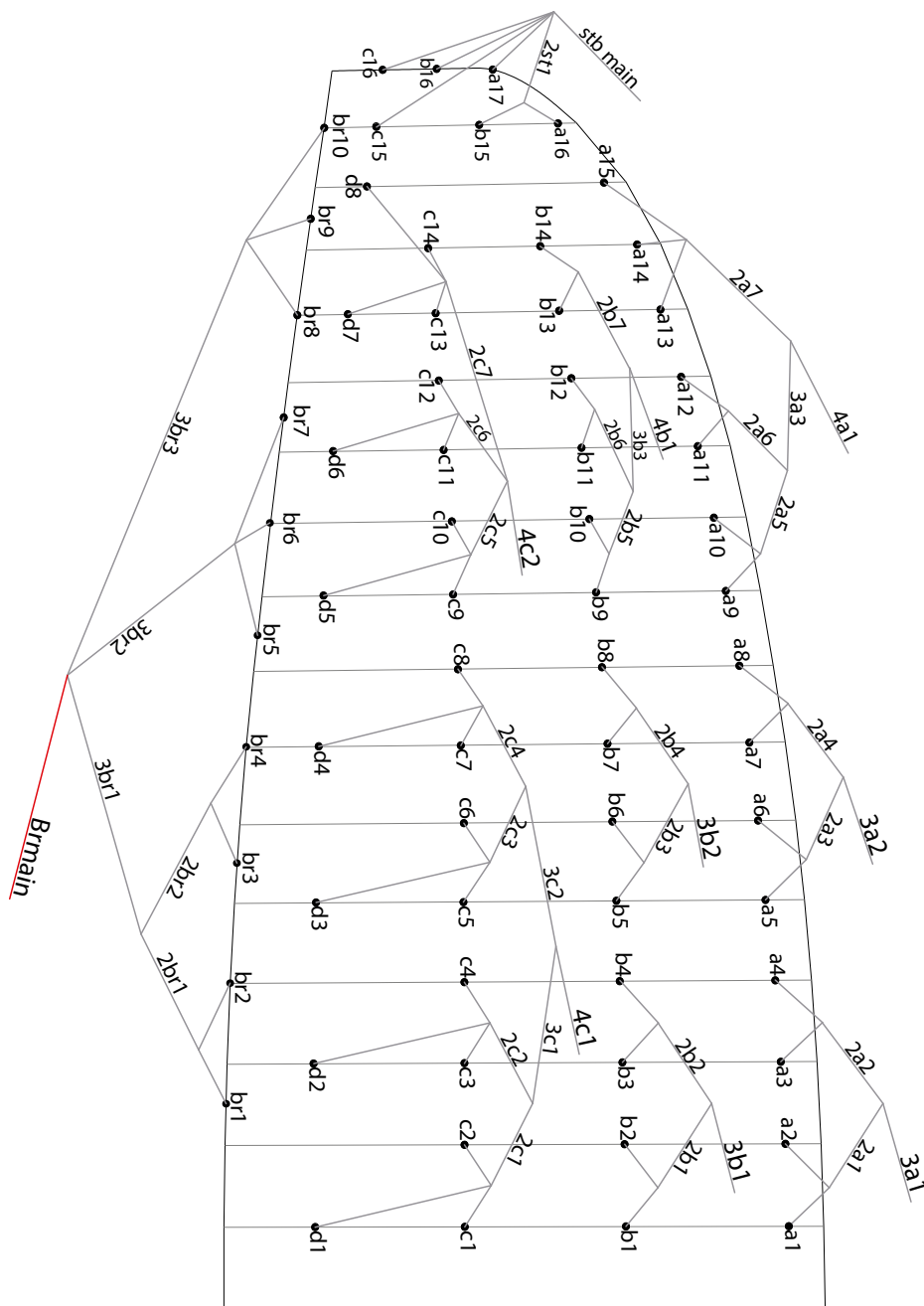
# MATERIALS

CANOPY	FABRIC CODE	SUPPLIER
UPPER SURFACE	N30 DMF	DOMINICO TEX CO (KOREA)
BOTTOM SURFACE	N20 DMF	DOMINICO TEX CO (KOREA)
PROFILES	30DFM	DOMINICO TEX CO (KOREA)
DIAGONALS	30DFM	DOMINICO TEX CO (KOREA)
LOOPS	LKI - 12	KOLON IND. (KOREA)
REINFORCEMENT LOOPS	W-420	D-P (GERMANY)
TRAILING EDGE REINFORCEMENT	MYLAR	D-P (GERMANY)
RIBS REINFORCEMENT	LTN-0.5/0.8 STICK	SPORTWARE CO.CHINA
THREAD	SERAFIL 60	AMAN (GERMANY)

SUSPENSION LINES	FABRIC CODE	SUPPLIER
UPPER CASCADES	TNL - 80	TEIJIM LIMITED (JAPAN)
MIDDLE CASCADES	TNL - 80	TEIJIM LIMITED (JAPAN)
MIDDLE CASCADES	TNL - 140	TEIJIM LIMITED (JAPAN)
MIDDLE CASCADES	TNL - 220	TEIJIM LIMITED (JAPAN)
MAIN	TNL - 140	TEIJIM LIMITED (JAPAN)
MAIN	TNL - 220	TEIJIM LIMITED (JAPAN)
MAIN	TNL - 280	TEIJIM LIMITED (JAPAN)
MAIN	TNL - 400	TEIJIM LIMITED (JAPAN)
MAIN BREAK	TARAX-200	EDELRID (GERMANY)
THREAD	SERAFIL 60	AMAN (GERMANY)

RISERS	FABRIC CODE	SUPPLIER
MATERIAL	G-R 19	TECNI SANGLES (FRANCE)
COLOR INDICATOR	210D	TECNI SANGLES (FRANCE)
THREAD	V138	COATS (ENGLAND)
MAILLONS	MRI4	ANSUNG PRECISION (KOREA)

# 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 any irregularities.
- The line labels may then be removed but NOT BEFORE completion of the line replacement.

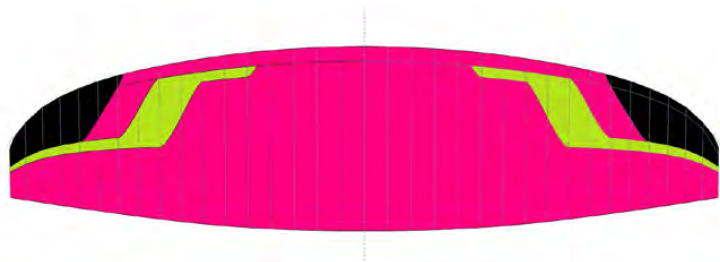
Niviuk strongly recommends for any line replacement to be carried out by an authorised professional only, and will not accept responsibility for any damage or injury caused as a result of incorrect re-assembly.

# RISER PLAN

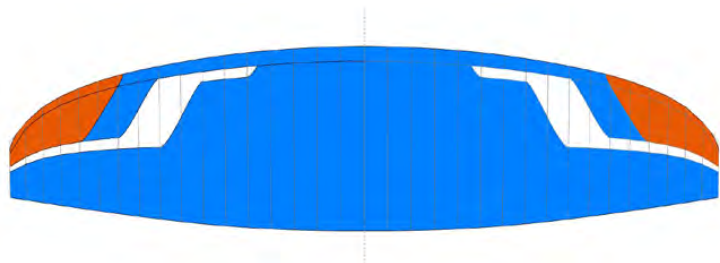
<b>A</b>	<b>A'</b>	<b>B</b>	<b>C</b>
3a1	3a3	3b1	4c1
3a2		3b2	4c2
		3b3	
		stb main	



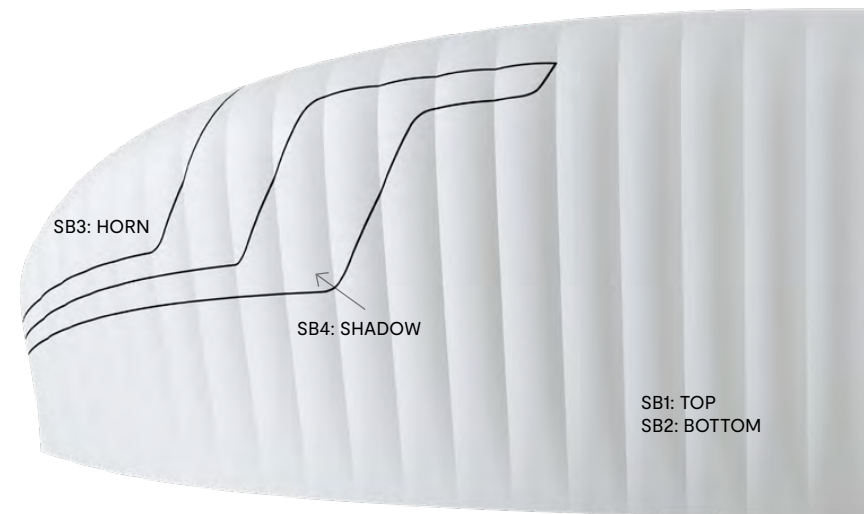
# COLORS



<b>TROPIK</b>	SB1	PINK	TOP	REF: 19-2047
	SB2	WHITE	BOTTOM - ALL WHITE	REF: 001
	SB3	BLACK	HORN	REF: 102
	SB4	LIMA	SHADOW	REF: 500



<b>SKYFIRE</b>	SB1	ROYAL BLUE	TOP	REF: 317
	SB2	WHITE	BOTTOM - ALL WHITE	REF: 001
	SB3	DARK BRICK	HORN	REF: 137
	SB4	WHITE	SHADOW	REF: 001















# LINE MEASUREMENTS

## TARGET - 20

LINES HEIGHT MM

	A	B	C	D	br
1	6102	6008	6167	6286	6260
2	6036	5944	6053	6125	6040
3	6021	5932	5994	6134	5944
4	6059	5971	6025	6184	5963
5	6053	5969	6009	6131	5849
6	6002	5922	6006	6014	5787
7	5991	5914	6059	5954	5830
8	6020	5947	6172	5915	5848
9	6035	5956	6014		5765
10	5949	5881	5966		5663
11	5901	5845	5914		
12	5893	5845	5902		
13	5852	5825	5881		
14	5798	5816	5863		
15	5783	5655	5731		
16	5688	5637	5706		
17	5615				

RISERS LENGHT MM

A	A'	B	C	
470	470	470	470	STANDARD
340	340	383	470	ACCELERATED

## TARGET - 22

LINES HEIGHT MM

	A	B	C	D	br
1	6398	6300	6468	6593	6584
2	6329	6233	6349	6424	6353
3	6314	6219	6287	6429	6250
4	6352	6260	6318	6477	6267
5	6344	6257	6299	6416	6141
6	6288	6204	6294	6286	6070
7	6275	6194	6345	6214	6108
8	6302	6225	6461	6171	6123
9	6314	6232	6294		6034
10	6220	6149	6239		5942
11	6166	6106	6181		
12	6153	6102	6162		
13	6104	6076	6136		
14	6046	6066	6116		
15	6031	5900	5980		
16	5936	5883	5956		
17	5860				

RISERS LENGHT MM

A	A'	B	C	
470	470	470	470	STANDARD
340	340	383	470	ACCELERATED

## TARGET - 24

LINES HEIGHT MM

	A	B	C	D	br
1	6682	6578	6754	6884	6886
2	6608	6506	6628	6701	6639
3	6588	6489	6559	6695	6523
4	6622	6526	6585	6733	6531
5	6607	6514	6559	6658	6389
6	6542	6453	6547	6514	6309
7	6520	6436	6595	6437	6343
8	6543	6463	6710	6414	6359
9	6551	6466	6530		6283
10	6449	6375	6468		6218
11	6388	6326	6404		
12	6371	6318	6381		
13	6320	6292	6354		
14	6268	6289	6342		
15	6266	6146	6232		
16	6184	6152	6228		
17	6127				

RISERS LENGHT MM

A	A'	B	C	
470	470	470	470	STANDARD
340	340	383	470	ACCELERATED

# LINE MEASUREMENTS

## TARGET - 26

LINES HEIGHT MM

	A	B	C	D	br
1	6955	6846	7029	7165	7186
2	6879	6773	6899	6978	6930
3	6858	6755	6829	6971	6808
4	6895	6794	6858	7012	6818
5	6879	6783	6830	6937	6672
6	6812	6720	6818	6788	6589
7	6790	6703	6868	6707	6626
8	6814	6731	6989	6684	6642
9	6824	6735	6803		6565
10	6718	6640	6739		6507
11	6655	6590	6673		
12	6638	6581	6649		
13	6585	6554	6621		
14	6530	6551	6608		
15	6529	6404	6493		
16	6443	6410	6489		
17	6384				

RISERS LENGHT MM

A	A'	B	C	
470	470	470	470	STANDARD
340	340	383	470	ACCELERATED

## TARGET - 28

LINES HEIGHT MM

	A	B	C	D	br
1	7216	7104	7296	7437	7476
2	7138	7028	7162	7243	7211
3	7119	7011	7089	7238	7085
4	7157	7053	7119	7281	7095
5	7142	7042	7091	7205	6944
6	7072	6977	7079	7051	6859
7	7051	6961	7133	6968	6898
8	7077	6991	7258	6944	6915
9	7088	6995	7066		6835
10	6978	6897	7000		6784
11	6913	6845	6931		
12	6895	6837	6907		
13	6840	6808	6878		
14	6783	6806	6865		
15	6783	6652	6745		
16	6693	6658	6740		
17	6632				

RISERS LENGHT MM

A	A'	B	C	
470	470	470	470	STANDARD
340	340	383	470	ACCELERATED

## TARGET - 30

LINES HEIGHT MM

	A	B	C	D	br
1	7470	7352	7551	7697	7753
2	7390	7275	7413	7498	7479
3	7370	7258	7339	7494	7350
4	7410	7302	7371	7541	7362
5	7395	7291	7342	7464	7207
6	7324	7224	7331	7304	7120
7	7302	7208	7387	7218	7161
8	7330	7239	7518	7193	7179
9	7342	7245	7319		7096
10	7228	7145	7251		7050
11	7161	7092	7180		
12	7143	7083	7155		
13	7086	7053	7125		
14	7027	7051	7112		
15	7027	6892	6988		
16	6935	6898	6982		
17	6870				

RISERS LENGHT MM

A	A'	B	C	
470	470	470	470	STANDARD
340	340	383	470	ACCELERATED

## SUSPENSION LINES – MINIMUM STRENGTH

LINE REFERENCE	SIZE					
	20	22	24	26	28	30
<b>TNL-80</b>	22	25	28	31	35	40
<b>TNL-140</b>	43	48	54	60	68	77
<b>TNL-220</b>	66	75	83	92	105	119
<b>TNL-280</b>	83	94	105	116	132	149
<b>TNL-400</b>	100	113	126	139	159	179

Minimum resistance values in daN

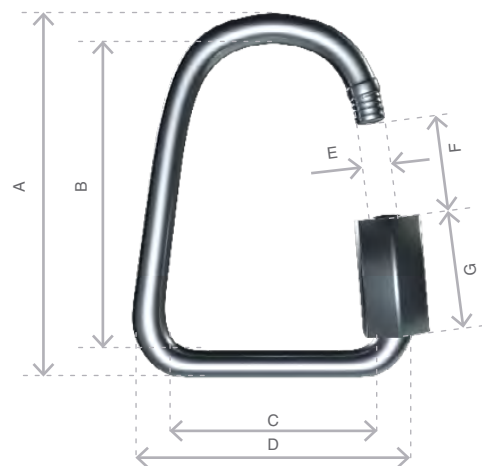
Based on the original experimental resistance values of each suspension line material obtained in certification tests, a correction factor is applied depending on the material and its aging, resulting in the reference values shown in the table.

# MAILLON & PULLEY

## DESCRIPTION

MAILLON	DELTA
CODE	MRI4
MATERIAL	STAINLESS STEEL
SIZE	4,3 m/m
WEIGHT	12 G/PIECE
QUANTITY	8 PIECES
INSERTS	4 GREEN / 4 BLACK

## TECHNICAL SPECIFICATIONS



DIMENSIONS	m/m
A	38
B	30
C	20
D	28
E	4
F	4
G	11
LOAD	KG
WORKING LIMIT	150
BREAKING	750

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



## **Niviuk Paragliders**

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