

DOBERMANN 3

Technical *specifications*

TECHNICAL SPECIFICATIONS

			14	15	17	19
Cells	Number		64	64	64	64
Aspect ratio	Flat		5,75	5,75	5,75	5,75
	Projected		4,47	4,47	4,47	4,47
Area	Flat	m2	14	15	17	19
	Projected	m2	12,11	12,97	14,7	16,4
Span	Flat	m	9	9,3	9,9	10,46
Chord	Max	m	1,92	1,99	2,12	2,24
Lines	Total	m	190	198	211	224
	Main		2+1/4/2+1	2+1/4/2+1	2+1/4/2+1	2+1/4/2+1
Risers	Number	3+2	A+A'/B/C+C'	A+A'/B/C+C'	A+A'/B/C+C'	A+A'/B/C+C'
	Speed-bar	mm	140	140	140	140
	Trimmers	mm	70	70	70	70
Speed range	Closed trim	km/h	42 (*7kg/m2)	42 (*7kg/m2)	42 (*7kg/m2)	42 (*7kg/m2)
	Open trim	km/h	54 (*7kg/m2)	54 (*7kg/m2)	54 (*7kg/m2)	54 (*7kg/m2)
	Top speed	km/h	80-85 (*7-8kg/m2)	80-85 (*7-8kg/m2)	80-85 (*7-8kg/m2)	80-85 (*7-8kg/m2)
Glider weight		kg	3,85	4	4,3	4,6
Total weight in flight	Min-Max	kg	55-120	60-130	65-150	70-170
Certification			230kg DGAC	230kg DGAC	230kg DGAC	230kg DGAC

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

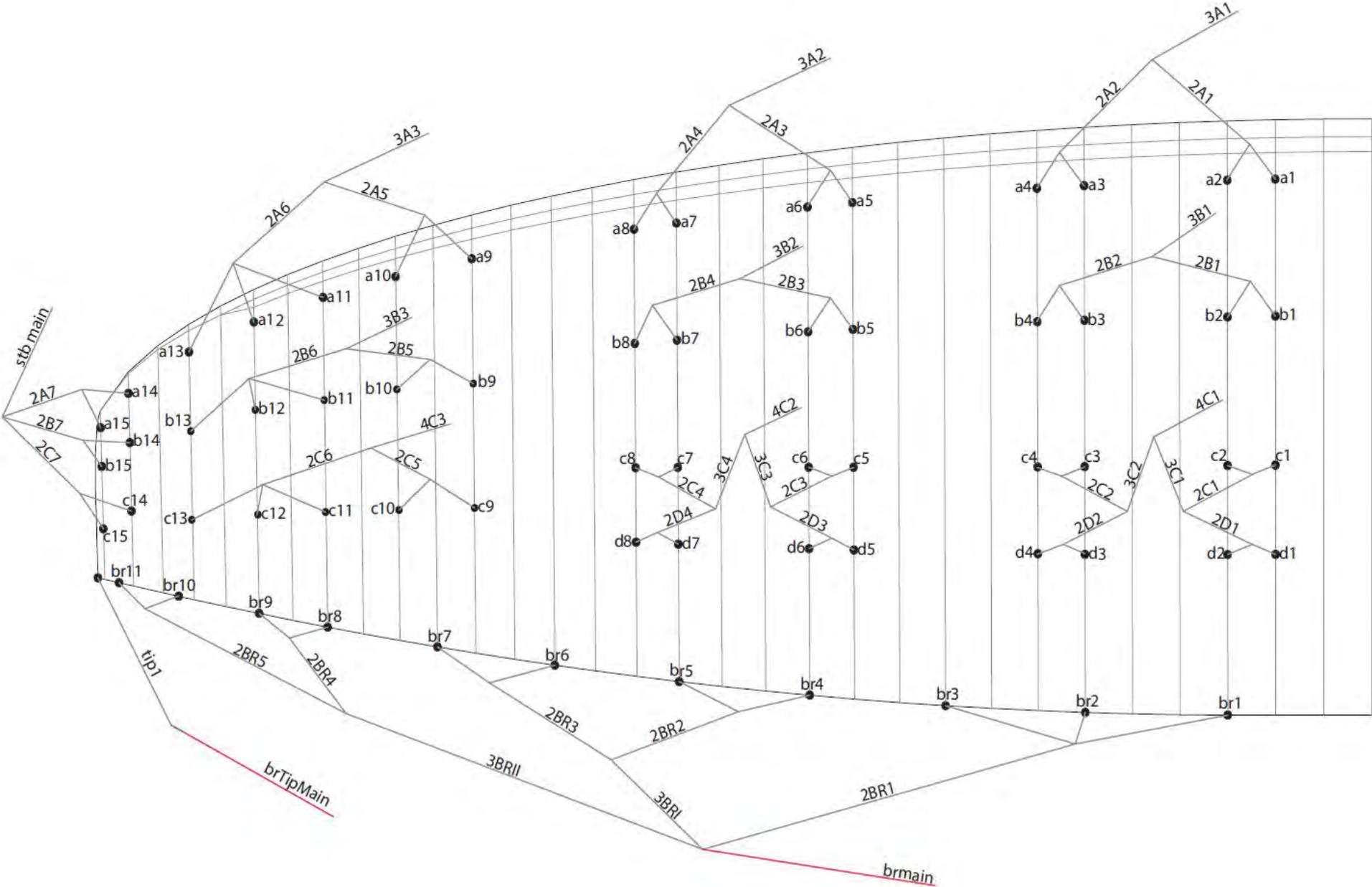
MATERIALS

CANOPY	FABRIC CODE	SUPPLIER
UPPER SURFACE	N30 DMF	DOMINICO TEX CO (KOREA)
BOTTOM SURFACE	N30 DMF	DOMINICO TEX CO (KOREA)
PROFILES	30DFM	DOMINICO TEX CO (KOREA)
DIAGONALS	30DFM	DOMINICO TEX CO (KOREA)
LOOPS	LKI - 10	KOLON IND. (KOREA)
REINFORCEMENT LOOPS	W-420	D-P (GERMANY)
TRAILING EDGE REINFORCEMENT	MYLAR	D-P (GERMANY)
RIBS REINFORCEMENT	LTN-0.8 STICK	SPORTWARE CO.CHINA
THREAD	SERAFIL 60	AMAN (GERMANY)

SUSPENSION LINES	FABRIC CODE	SUPPLIER
UPPER CASCADES	A-8001/U 50	EDELRID (GERMANY)
UPPER CASCADES	A-8001/U 70	EDELRID (GERMANY)
UPPER CASCADES	A-8001/U 90	EDELRID (GERMANY)
UPPER CASCADES	A-8001/U 130	EDELRID (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)
MIDDLE CASCADES	A-8001/U 190	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 340	EDELRID (GERMANY)
MAIN BREAK	TARAX - 240	EDELRID (GERMANY)
MAIN TIP	PPSL - 120	LIROS GMHB (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)
PULLEYS	RF25109	RONSTAN (AUSTRALIA)

SUSPENSION PLAN

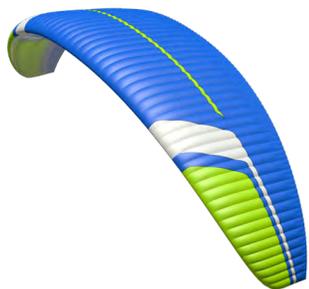


RISERS PLAN

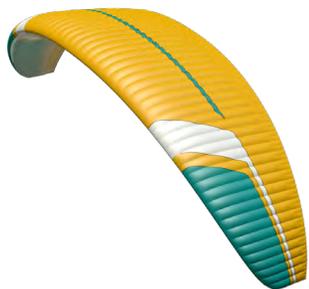
A	A'	B	C'	C
3A1	3A3	3B1	4C3	4C1
3A2		3B2		4C2
		3B3		
		stbmain		



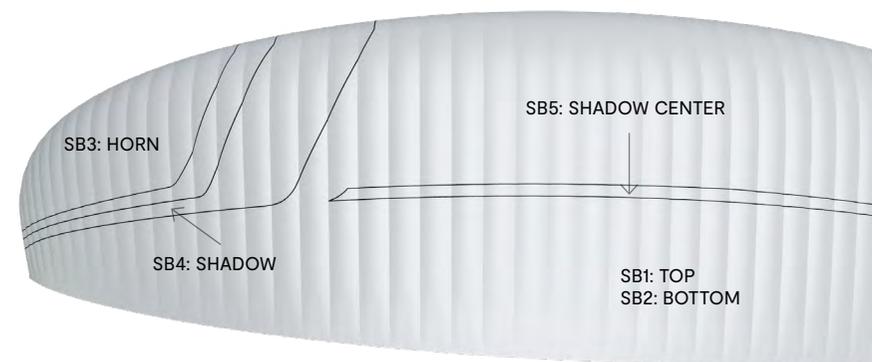
COLORS



BOREAL				
SB1	ROYAL BLUE	TOP		REF: 317
SB2	WHITE	BOTTOM		REF: 001
SB3	LIMA	HORN		REF: 500
SB4	WHITE	SHADOW		REF: 001
SB5	LIMA	SHADOW CENTER		REF: 500



EARTH				
SB1	GOLD	TOP		REF: 939
SB2	WHITE	BOTTOM		REF: 001
SB3	SPECTRA GREEN	HORN		REF: 17-5335
SB4	WHITE	SHADOW		REF: 001
SB5	SPECTRA GREEN	SHADOW CENTER		REF: 17-5335



WING LOAD

DOBERMANN 3

14		
P.T.V.		KG/M2
55	=	3,67
60	=	4,00
65	=	4,33
70	=	4,67
75	=	5,00
80	=	5,33
85	=	5,67
90	=	6,00
95	=	6,33
100	=	6,67
105	=	7,00

15		
P.T.V.		KG/M2
60	=	4,00
65	=	4,33
70	=	4,67
75	=	5,00
80	=	5,33
85	=	5,67
90	=	6,00
95	=	6,33
100	=	6,67
105	=	7,00
110	=	7,33
115	=	7,67

17		
P.T.V.		KG/M2
65	=	3,82
70	=	4,12
75	=	4,41
80	=	4,71
85	=	5,00
90	=	5,29
95	=	5,59
100	=	5,88
105	=	6,18
110	=	6,47
115	=	6,76
120	=	7,06
125	=	7,35
130	=	7,65

19		
P.T.V.		KG/M2
70	=	3,68
75	=	3,95
80	=	4,21
85	=	4,47
90	=	4,74
95	=	5,00
100	=	5,26
105	=	5,53
110	=	5,79
115	=	6,05
120	=	6,32
125	=	6,58
130	=	6,84
135	=	7,11
140	=	7,37
145	=	7,63
150	=	7,89

LINE MEASUREMENTS

DOBERMANN 3 - 14

LINES HEIGHT MM

	A	B	C	D	br
1	4808	4736	4772	4864	5649
2	4776	4705	4734	4833	5364
3	4737	4670	4703	4797	5238
4	4748	4681	4723	4812	5135
5	4685	4625	4667	4748	5014
6	4658	4601	4636	4720	4953
7	4618	4572	4609	4689	4977
8	4628	4583	4627	4701	4899
9	4537	4503	4549		4869
10	4480	4451	4487		4875
11	4446	4424	4463		4945
12	4413	4399	4449		4204
13	4437	4429	4506		
14	4280	4262	4304		
15	4254	4253	4308		

RISERS LENGHT MM

	A	B	C	
	500	500	500	STANDARD
	500	535	570	TRIM OPENED
	360	465	570	ACCELERATED

DOBERMANN 3 - 15

LINES HEIGHT MM

	A	B	C	D	br
1	4993	4919	4957	5053	5965
2	4961	4887	4918	5021	5671
3	4924	4853	4887	4984	5542
4	4935	4865	4907	5000	5437
5	4870	4809	4852	4936	5312
6	4843	4784	4820	4907	5251
7	4802	4755	4793	4876	5277
8	4814	4767	4812	4888	5195
9	4721	4684	4731		5164
10	4662	4631	4667		5169
11	4627	4603	4643		5242
12	4593	4577	4628		4376
13	4618	4608	4687		
14	4455	4436	4479		
15	4428	4426	4483		

RISERS LENGHT MM

	A	B	C	
	500	500	500	STANDARD
	500	535	570	TRIM OPENED
	360	465	570	ACCELERATED

DOBERMANN 3 - 17

LINES HEIGHT MM

	A	B	C	D	br
1	5347	5268	5310	5412	6270
2	5314	5235	5270	5379	5959
3	5276	5202	5239	5342	5825
4	5289	5216	5261	5359	5715
5	5224	5160	5204	5294	5583
6	5196	5134	5171	5264	5520
7	5155	5104	5145	5232	5548
8	5167	5117	5165	5246	5461
9	5070	5031	5080		5428
10	5007	4974	5012		5434
11	4971	4944	4986		5512
12	4935	4917	4970		4692
13	4961	4950	5034		
14	4788	4767	4812		
15	4759	4756	4816		

RISERS LENGHT MM

	A	B	C	
	500	500	500	STANDARD
	500	535	570	TRIM OPENED
	360	465	570	ACCELERATED

LINE MEASUREMENTS

DOBERMANN 3 - 19

LINES HEIGHT MM

	A	B	C	D	br
1	5682	5598	5640	5748	6701
2	5647	5564	5598	5714	6374
3	5610	5531	5570	5678	6234
4	5624	5547	5594	5697	6121
5	5560	5489	5536	5631	5984
6	5531	5462	5501	5599	5919
7	5487	5433	5475	5567	5951
8	5501	5447	5497	5582	5858
9	5398	5357	5410		5823
10	5332	5297	5339		5829
11	5293	5266	5311		5911
12	5256	5238	5295		4983
13	5284	5273	5361		
14	5102	5079	5126		
15	5070	5068	5130		

RISERS LENGHT MM

A	B	C	
500	500	500	STANDARD
500	535	570	TRIM OPENED
360	465	570	ACCELERATED

SUSPENSION

MATERIAL CODE		A-8001/U	A-8001/U	A-8001/U	A-8001/U	A-8001/U	A-8001/U	A-8001/U	PPSL	TARAX
STRENGTH CODE		050	070	90	130	190	230	340	120	240
DIAMETER m/m	∅	0,5	0,7	0,8	0,9	1,1	1,1 x 1,4	1,4 X 1,9	1,15	1,9
CORE MATERIAL		ARAMID	ARAMID	ARAMID	ARAMID	ARAMID	ARAMID	ARAMID	DYNEEMA	DYNEEMA
SLEEVE MATERIAL		NO	NO	NO	NO	NO	NO	NO	POLYESTER	POLYESTER
WEIGHT G/M	TOTAL	0,3	0,4	0,5	0,8	1,1	1,4	2,1	1	2,3
BREAKING STRENGTH daN	MINIMUM	50	70	90	130	190	230	340	120	240
	MAXIMUM	59	78	110	144	211	255	380	159	
STRENGTH AFTER 5.000 BENDING CYCLES	TEST EN	26	39	49	88	52	69	196,6	135	
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 %	0,7	0,7	0,6	0,6	0,6	0,5	0,3	0,2	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	0,6		0,4-0,8
	30 daN en %	3,3	2,8	2,3	1,8	1,6	1,3		0,6	
	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 %		3,8	3,9	4,3	4	4,4	4,4		2	

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
L.T.	28
L.I.	20
H.T.	38
H.I.	30
O	4
E	11
T	4
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

DESCRIPTION

PULLEY	20 m/m
CODE	ID018041
MATERIALS	STAINLESS STEEL NYLON CARBON ACETAL
BEARING	DELRIN®
WEIGHT	14 G/PIECE

TECHNICAL SPECIFICATIONS



DIMENSIONS	m/m
L.T.	20
H.T.	33
Ø	5 MAX
LOAD	KG
WORKING LIMIT	200
BREAKING	400

THREAD

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

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

RISERS

N° OF REFERENCE	G-R 19
MATERIAL	POLYESTER
WIDTH	19 M/M
THICKNESS	1,6 M/M
BREAKING STRENGTH	850 KG
ELONGATION	MAX. 12%
WEIGHT	23 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 - 10
MATERIAL	NYLON
WIDTH	10 M/M
BREAKING STRENGTH	84 KG
ELONGATION	30 %
WEIGHT	5,5 G/M
COLOR	WHITE



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