SWING Flugsportgeräte GmbH
An der Leiten 4
82290 Landsberied, Germany
Tel.: +49 (0) 81413277888
info@swing.de
www.swing.de

TWIN RS 2

Service- Kontrollheft
Maintenance and Service Book
Controle et Feuille de Service

Revision: 1.0
Date: 18.03.2020

Technische Daten - technical data - fiche technique	TWIN RS 2

LTF / EN Homologation **LTF / EN Klassifizierung** homologation LTF / EN	**B**

Size **Größe** Taille	**39**	**41**
Take off weight **Startgewicht [kg]** Poids pilote avec équipement	**110-190**	**130-225**
Cells **Zellen** Caissons	**49**	**49**
Wing area **Flügelfläche [m²]** Surface	**38,7**	**41,6**
Wing area projected **Flügelfläche projiziert [m²]** Surface projetée	**34,7**	**37,3**
Wing span **Spannweite [m]** Envergure	**14,7**	**15,3**
Projected wing span **Spannweite projiziert [m]** Envergure projetée	**12,0**	**12,5**
Aspect ratio **Streckung** Allongement	**5,6**	**5,6**
Projected aspect ratio **Streckung projiziert** Allongement projetée	**4,2**	**4,2**
Canopy weight **Schirmgewicht [kg]** Poids de l'aile	**7,1**	**7,8**
Min. sink rate **Min. Sinkgeschwindigkeit [m/s]** Taux de chute min	**1,0**	**1,0**
Max speed **Max. Geschwindigkeit [km/h]** Vitesse avec accelerateur	**±3**	**±3**
Trim speed **Trimmgeschwindigkeit [km/h]** Vitesse bras hauts	**±2**	**±2**

Rev.: 1.1

AIR TURQUOISE SA | PARA-TEST.COM
Route du Pré-au-Comte 8 ▲ CH-1844 Villeneuve ▲ +41 (0)21 965 65 65

Test laboratory for paragliders, paraglider harnesses
and paraglider reserve parachutes

paragliding by air turquoise

Paraglider inspection certificate

Inspection certificate number: **PG_1599.2019**

Manufacturer data

Manufacturer name:	**Swing Flugsportgeräte GmbH**
Representative	**Günther Wörl**
Street:	**An der Leiten 4**
Post code / place:	**82290 Landsberied**
Country:	**Germany**

Sample data

Name:	**Twin RS 2**	Size:	**39**
Min weight in flight [kg]:	**110**	Max weight in flight [kg]:	**190**
Weight [kg]:	**7.1**	Number of seat:	**Two-seater**
Sample load serial number:	**n/a**	Date of reception:	**n/a**
Sample flight serial number :	**99283**	Date of reception:	**03.10.2019**

Test report summary	Result	Place	Date of test
91.23 | Shock loading test:	**Test done on size 41, inspection PG_1538.2019**		**08.08.2019**
91.23 | Sustained loading test:	**Test done on size 41, inspection PG_1538.2019**		**08.08.2019**
91.22 | Flight test:	**B**	Villeneuve	**11.11.2019**
91.24 | Measurement:	**POSITIVE**	Villeneuve	**19.11.2019**
91.27 | Suspension line calculation:	**POSITIVE**	Villeneuve	**19.11.2019**

Issue data

Place of declaration:	**Villeneuve**
Date of issue:	**22.11.2019**
Managing Director:	**Randi Eriksen**
Signature:	Randi Eriksen

This signature approve the validity of the test reports 71.8.2, 71.8.3, 71.4.3 and 71.8.3 (Only if test report are applicable).

Air Turquoise SA has thoroughly tested the sample of paraglider mentioned above and certifies its conformity with the following standards : EN 926-2:2013 / EN 926-1:2015 / LTF: NFL II 91/09 / 2-60-14 / 2-251-16

This inspection certificate confirms that the above sample identified by its serial number and only this is in conforms with the standards.

The inspection certificate contain the following test and is complete with the test report number: 71.8.2, 71.8.3, 71.4.3, 71.6.3
(If the 71.8.3 tests are not done, it has been done for another size of a sample within the definition of same model)

The declaration must not be reproduced in part without the written permission of Air Turquoise SA.

AIR TURQUOISE SA | PARA-TEST.COM
Route du Pré-au-Comte 8 ▲ CH-1844 Villeneuve ▲ +41 (0)21 965 65 65

Test laboratory for paragliders, paraglider harnesses
and paraglider reserve parachutes

paragliding by air turquoise

Paraglider inspection certificate

Inspection certificate number: **PG_1538.2019**

Manufacturer data

Manufacturer name:	**Swing Flugsportgeräte GmbH**
Representative	**Günther Wörl**
Street:	**An der Leiten 4**
Post code / place:	**82290 Landsberied**
Country:	**Germany**

Sample data

Name:	**Twin RS 2**	Size:	**41**
Min weight in flight [kg]:	**130**	Max weight in flight [kg]:	**225**
Weight [kg]:	**7.8**	Number of seat:	**Two-seater**
Sample load serial number:	**99285**	Date of reception:	**by DHV**
Sample flight serial number :	**70892**	Date of reception:	**03.10.2019**

Test report summary	Result	Place	Date of test
91.23 | Shock loading test:	POSITIVE	Fürstennfeldbruck	**08.08.2019**
91.23 | Sustained loading test:	POSITIVE	Fürstennfeldbruck	**08.08.2019**
91.22 | Flight test:	**B**	Villeneuve	**03.10.2019**
91.24 | Measurement:	POSITIVE	Villeneuve	**19.11.2019**
91.27 | Suspension line calculation:	POSITIVE	Villeneuve	**19.11.2019**

Issue data

Place of declaration:	**Villeneuve**
Date of issue:	**22.11.2019**
Managing Director:	**Randi Eriksen**
Signature:	Randi Eriksen

This signature approve the validity of the test reports 71.8.2, 71.8.3, 71.4.3 and 71.6.3 (Only if test report are applicable).

Air Turquoise SA has thoroughly tested the sample of paraglider mentioned above and certifies its conformity with the following standards : EN 926-2:2013 / EN 926-1:2015 / LTF: NFL II 91/09 / 2-60-14 / 2-251-16

This inspection certificate confirms that the above sample identified by its serial number and only this is in conforms with the standards.

The inspection certificate contain the following test and is complete with the test report number: 71.8.2, 71.8.3, 71.4.3, 71.6.3
(If the 71.8.3 tests are not done, it has been done for another size of a sample within the definition of same model)

The declaration must not be reproduced in part without the written permission of Air Turquoise SA.

AIR TURQUOISE SA | Rte du Pré-au-Comte 8 | CH-1844 Villeneuve | +41 (0)21 965 65 65
Test laboratory for paragliders, paraglider harnesses and paraglider reserve parachutes

paragliding by air turquoise

Line and Riser Measurements of flight test Paraglider [1]

Report No. :	PG_1599.2019	Sample name:	Twin RS 2 39	Date measure:	14.11.2019	Place:	Villeneuve
Manufacturer:	Swing	S/N:	99283	Responsible:	Claude Thurnheer	Linked:	ISO 71.8.1

Total line length including risers [mm]

Main brake line with diff color than A,B,C main line? Yes

		A			B			C			D			E			Stab			Brake			+strap
		Manu [2]	Sample	Diff	Manu	Sample	Diff	Manu	Sample	Diff	Manu	Sample	Diff	Manu	Sample	Diff	Manu	Sample	Diff	Manu	Sample	Diff	Sample
Center	1	8990	8977	-13	8895	8884	-11	8930	8922	-8	9025	9012	-13	9130	9117	-13	7835	7824	-11	9555	9580	25	
	2	8855	8846	-9	8760	8751	-9	8795	8788	-7	8900	8887	-13	8960	8954	-6	7755	7742	-13	9225	9253	28	
	3	8805	8796	-10	8710	8699	-11	8740	8733	-7	8840	8831	-9	8895	8882	-13	7865	7851	-14	8980	9008	28	
	4	8750	8744	-6	8645	8639	-6	8685	8676	-9	8785	8774	-11	8935	8925	-11				8865	8894	29	
	5	8735	8727	-8	8635	8625	-10	8665	8659	-6	8770	8757	-13	8855	8851	-4				8695	8716	21	
	6	8810	8800	-11	8710	8704	-6	8740	8732	-8	8840	8826	-14	8730	8722	-8				8525	8547	22	
	7	8730	8723	-8	8635	8626	-9	8665	8660	-5	8770	8758	-12	8670	8661	-9				8445	8456	11	
	8	8630	8625	-6	8540	8527	-13	8570	8563	-7	8665	8653	-12	8675	8665	-11				8440	8459	19	
	9	8610	8602	-8	8515	8507	-8	8540	8538	-2	8635	8627	-8							8285	8299	14	
	10	8560	8556	-4	8475	8466	-9	8500	8489	-11	8590	8580	-10							8155	8170	15	
	11	8545	8538	-7	8465	8455	-10	8480	8475	-5	8570	8557	-13							8030	8045	15	
	12	8590	8586	-4	8515	8508	-7	8530	8525	-5	8605	8595	-11							7975	7994	19	
	13	8425	8414	-11	8360	8350	-10	8370	8361	-9	8450	8443	-7										
	14	8320	8310	-10	8260	8251	-9	8270	8258	-12	8350	8337	-14										
	15	8270	8262	-8	8215	8209	-6	8220	8211	-9	8295	8283	-12										
	16	8130	8116	-14	8090	8082	-9	8085	8074	-11	8135	8122	-13										
Wing	17	8065	8055	-11	8030	8019	-11	8020	8007	-13	8065	8051	-14										
tip	18	8055	8041	-14	8020	8008	-12	8000	7988	-12	8030	8018	-12										

Stab line to riser: B

Number Cell: 49

Weight of the glider [kg]: 7.12

Tolerance [mm] [4]: ±15

Riser measurement - total length (inner edge) [mm] [3]

Total length (incl. Carabiner or connect)	Risers	Closed	Open	Trim
	A	396	396	
	A'	396	396	
	B	397	411	
	C	400	470	
	D	399	543	
	Acc	n/a	*[mm]	
	Trimmer	144	[mm]	

Total length (no carabiner or connect)	Risers	Closed	Open
	A	366	
	A'	366	
	B	367	
	C	370	
	D	369	
	Acc	n/a	*[mm]
	Trimmer	144	[mm]

No. of risers 4

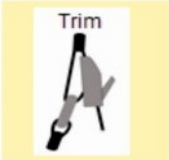
Tolerance [mm] 5

Carabiner [mm] 30

Tolerance [mm] 2

*Travel range (distance between A and rear riser)

Acc system configuration max travel



Another trim configuration No

If yes (description):

Test Atmosphere AGL

Pressure [hPa]	973.5
Humidity [%]	46
Temperature [°C]	22.5

Plausibility check :

[mm]	500	499.9
[mm]	10000	10002

Remark:

Instrument validity

	date
Laser distance meter	07.09.2023
Line measurements system	07.09.2023

Uncertainty of instrument [mm] 3

Present inspection's scope only extends to the conformity of a given sample, on a given date and in a given place – as mentioned here above. The validation of this report is given by the signature of the test manager on inspection certificate 71.8.1

[1] Total length measured from the underside of the glider to the inner edge of the risers with a tenstion of 50 [N]. Measured values do not include the uncertainty/The uncertainty stated is the expanded uncertainty obtained by multiplying the standard uncertainty by the coverage factor k = 2. The measured values lies within the assigned range of values with a probability of 95%. [2] Manu=Values from manufacturer, Sample=Measured by inspector.

[3] Risers, Std=Trim speed, Acc=Accelerated, AND if trimmer: Open=trimmer open, Closed=trimmer closed, Trim=measured at this position. [4] Tolerance line and riser is +/-15 [mm]

AIR TURQUOISE SA | Rte du Pré-au-Comte 8 | CH-1844 Villeneuve | +41 (0)21 965 65 65
Test laboratory for paragliders, paraglider harnesses and paraglider reserve parachutes

paragliding by air turquoise

Line and Riser Measurements of flight test Paraglider [1]

Report No. :	PG_1538.2019	Sample name:	Twin 2 RS 41	Date measure:	19.11.2019	Place:	Villeneuve
Manufacturer:	Swing Flugsportgeräte	S/N:	70892	Responsible:	Claude Thurnheer	Linked:	ISO 71.8.1

Total line length including risers [mm]

Main brake line with diff color than A,B,C main line? Yes

		A			B			C			D			E			Stab			Brake			+strap
		Manu [2]	Sample	Diff	Manu	Sample	Diff	Manu	Sample	Diff	Manu	Sample	Diff	Manu	Sample	Diff	Manu	Sample	Diff	Manu	Sample	Diff	Sample
Center	1	9320	9321	1	9200	9203	3	9265	9261	-4	9375	9371	-4	9475	9475	0	8075	8081	6	9935	9961	26	
	2	9185	9189	4	9055	9065	10	9125	9127	2	9245	9238	-7	9305	9301	-4	8025	8031	6	9610	9638	28	
	3	9135	9137	2	9010	9016	6	9075	9078	3	9190	9183	-7	9235	9233	-3	8115	8118	3	9370	9395	25	
	4	9070	9077	7	8945	8953	8	9015	9015	0	9125	9123	-2	9285	9280	-5				9255	9273	18	
	5	9060	9061	1	8925	8933	8	8995	8994	-1	9110	9108	-2	9220	9217	-3				9080	9106	26	
	6	9130	9138	8	9005	9013	8	9075	9077	2	9180	9181	1	9090	9086	-4				8900	8929	29	
	7	9060	9055	-6	8945	8949	4	9015	9014	-1	9125	9116	-9	9025	9017	-8				8835	8858	23	
	8	8950	8949	-1	8840	8842	2	8920	8919	-1	9025	9021	-4	9035	9027	-8				8840	8861	21	
	9	8925	8927	2	8820	8824	4	8895	8896	1	8990	8987	-3							8690	8708	18	
	10	8885	8880	-5	8775	8780	5	8840	8842	2	8945	8938	-7							8565	8588	23	
	11	8865	8861	-4	8765	8770	5	8835	8831	-4	8920	8911	-9							8445	8463	18	
Wing	12	8915	8914	-2	8820	8821	1	8880	8876	-4	8960	8950	-10							8355	8378	23	
tip	13	8745	8751	6	8665	8673	8	8695	8697	2	8775	8784	9										
	14	8635	8639	4	8560	8568	8	8595	8595	-1	8670	8670	0										
	15	8580	8581	1	8515	8523	8	8520	8512	-8	8610	8616	6										
	16	8430	8430	0	8370	8381	11	8400	8399	-1	8445	8438	-7										
	17	8360	8362	2	8315	8320	5	8330	8329	-1	8365	8358	-7										
	18	8355	8357	2	8305	8310	5	8310	8308	-2	8335	8327	-8										

Stab line to riser: B

Number Cell: 47

Weight of the glider [kg]: 7.82

Tolerance [mm] [4]: ±15

Riser measurement - total length (inner edge) [mm] [3]

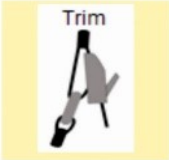
Total length (incl. Carabiner or connect)	Risers	Closed	Open	Trim
	A	382	382	
	A'	382	382	
	B	376	408	
	C	381	448	
	D	376	517	
	Acc		*[mm]	
	Trimmer	141	[mm]	

Total length (no carabiner or connect)	Risers	Closed	Open
	A	352	
	A'	352	
	B	346	
	C	351	
	D	346	
	Acc		*[mm]
	Trimmer	141	[mm]

No. of risers	4
Tolerance [mm]	5
Carabiner [mm]	30
Tolerance [mm]	2

*Travel range (distance between A and rear riser)

Acc system configuration max travel



Another trim configuration No

If yes (description):

Test Atmosphere AGL

Pressure [hPa]	978.6
Humidity [%]	66
Temperature [°C]	21.6

Plausibility check :

[mm]	500	500
[mm]	10000	10001

Remark:

Instrument validity	date
Laser distance meter	07.09.2023
Line measurements system	07.09.2023

Uncertainty of instrument [mm] 3

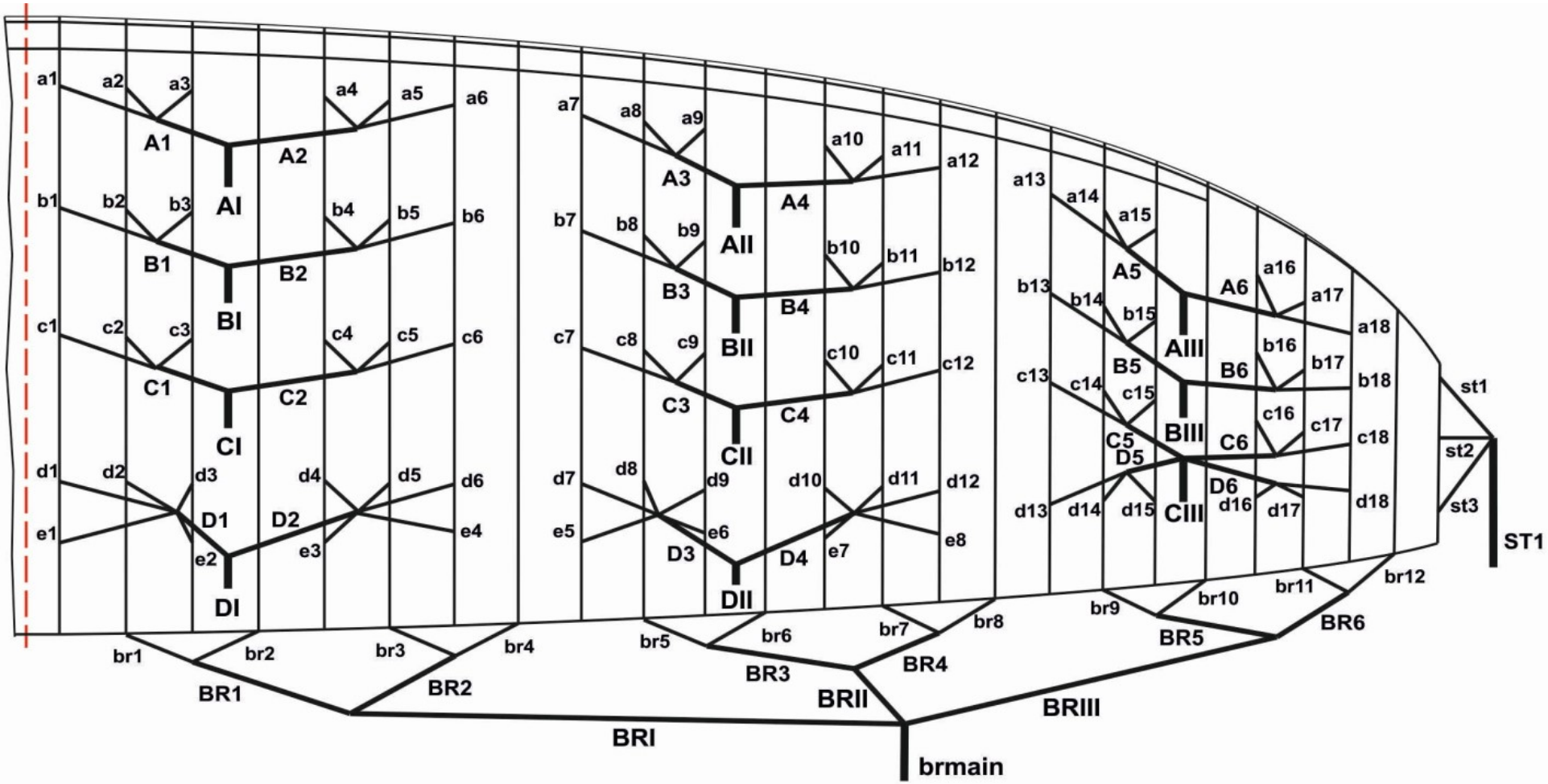
Present inspection's scope only extends to the conformity of a given sample, on a given date and in a given place – as mentioned here above. The validation of this report is given by the signature of the test manager on inspection certificate 71.8.1

[1] Total length measured from the underside of the glider to the inner edge of the risers with a tenstion of 50 [N]. Measured values do not include the uncertainty/The uncertainty stated is the expanded uncertainty obtained by multiplying the standard uncertainty by the coverage factor k = 2. The measured values lies within the assigned range of values with a probability of 95%. [2] Manu=Values from manufacturer, Sample=Measured by inspector.

[3] Risers, Std=Trim speed, Acc=Accelerated, AND if trimmer: Open=trimmer open, Closed=trimmer closed, Trim=measured at this position. [4] Tolerance line and riser is +/-15 [mm]

Leinenverbindungsplan - line connection plan - plan de connection des suspentes

TWIN RS 2



Riser	A-R1	A-R2	B	C	D
Lines	AI, AII	AIII	BI, BII, BIII, ST	CI, CII, CIII	DI, DII

Beim Bestellen bitte Leinenbezeichnung angeben- When ordering, please use line denomination above

Rev.: 1.0

linelength (mm)	TWIN RS 2 39

Nr	A	B	C	D	E	Brake min	Brake max	Nr
1	8595	8490	8535	8630	8720	9585	9635	1
2	8460	8355	8400	8505	8550	9255	9305	2
3	8410	8305	8345	8445	8485	9010	9060	3
4	8355	8240	8290	8390	8525	8895	8945	4
5	8340	8230	8270	8375	8445	8725	8775	5
6	8415	8305	8345	8445	8320	8555	8605	6
7	8335	8230	8270	8375	8260	8475	8525	7
8	8235	8135	8175	8270	8265	8470	8520	8
9	8215	8110	8145	8240		8315	8365	9
10	8165	8070	8105	8195		8185	8235	10
11	8150	8060	8085	8175		8060	8110	11
12	8195	8110	8135	8210		8005	8055	12
13	8030	7965	7975	8055				13
14	7925	7865	7875	7955				14
15	7875	7820	7825	7900				15
16	7735	7695	7690	7740				16
17	7670	7635	7625	7670				17
18	7660	7625	7605	7635				18
19								19
20								20
S1		7440				2985	3035	BrMain
S2		7360						
S3		7470						

Zum Beispiel: For example: Par example:

A1 A Leine Mitte - inner A Line - A la plus intériur

D14 C Leine aussen - outer C line - C exterieur

S1 Stabiloleinen - stabilo lines stabilo

Br. Brakelinelength range
all linelength including risers and lineloops

Rev.: 1.4

single linelength (mm)												TWIN RS 2 39		
Nr	Length (mm)	Articel No.	Nr	Length (mm)	Articel No.	Nr	Length (mm)	Articel No.	Nr	Length (mm)	Articel No.	Nr	Length (mm)	Articel No.
a1	1410	8000U-130	b1	1305	8000U-130	c1	1350	8000U-130	d1	1440	8000U-090	e1	1530	8000U-090
a2	1275	8000U-130	b2	1170	8000U-130	c2	1215	8000U-130	d2	1315	8000U-090	e2	1360	8000U-090
a3	1225	8000U-130	b3	1120	8000U-130	c3	1160	8000U-130	d3	1255	8000U-090	e3	1445	8000U-090
a4	1320	8000U-130	b4	1205	8000U-130	c4	1255	8000U-130	d4	1350	8000U-090	e4	1485	8000U-090
a5	1305	8000U-130	b5	1195	8000U-130	c5	1235	8000U-130	d5	1335	8000U-090	e5	1405	8000U-090
a6	1380	8000U-130	b6	1270	8000U-130	c6	1310	8000U-130	d6	1405	8000U-090	e6	1280	8000U-090
a7	1300	8000U-130	b7	1195	8000U-130	c7	1235	8000U-130	d7	1335	8000U-090	e7	1220	8000U-090
a8	1200	8000U-130	b8	1100	8000U-130	c8	1140	8000U-130	d8	1230	8000U-090	e8	1225	8000U-090
a9	1180	8000U-130	b9	1075	8000U-130	c9	1110	8000U-130	d9	1200	8000U-090			
a10	1130	8000U-130	b10	1035	8000U-130	c10	1070	8000U-130	d10	1155	8000U-090	br1	1565	8000U-130
a11	1115	8000U-130	b11	1025	8000U-130	c11	1050	8000U-130	d11	1135	8000U-090	br2	1235	8000U-130
a12	1160	8000U-130	b12	1075	8000U-130	c12	1100	8000U-130	d12	1170	8000U-090	br3	1440	8000U-130
a13	1110	8000U-130	b13	1025	8000U-130	c13	1040	8000U-130	d13	1120	8000U-090	br4	1325	8000U-130
a14	1005	8000U-130	b14	925	8000U-130	c14	940	8000U-130	d14	1020	8000U-090	br5	1255	8000U-130
a15	955	8000U-130	b15	880	8000U-130	c15	890	8000U-130	d15	965	8000U-090	br6	1085	8000U-130
a16	1065	8000U-130	b16	1005	8000U-130	c16	1005	8000U-130	d16	1055	8000U-090	br7	1055	8000U-130
a17	1000	8000U-130	b17	945	8000U-130	c17	940	8000U-130	d17	985	8000U-090	br8	1050	8000U-130
a18	990	8000U-130	b18	935	8000U-130	c18	920	8000U-130	d18	950	8000U-090	br9	945	8000U-130
												br10	815	8000U-130
st1	645	8000U-130	st2	565	8000U-130	st3	675	8000U-130				br11	840	8000U-130
												br12	785	8000U-130
A1	1900	7343-230	B1	1900	7343-230	C1	1900	7343-230	D1	1900	7343-140			
A2	1750	7343-230	B2	1750	7343-230	C2	1750	7343-230	D2	1750	7343-140	BR1	2300	8000U-130
A3	1750	7343-230	B3	1750	7343-230	C3	1750	7343-230	D3	1750	7343-140	BR2	1850	8000U-130
A4	1750	7343-230	B4	1750	7343-230	C4	1750	7343-230	D4	1750	7343-140	BR3	1750	8000U-130
A5	1900	7343-140	B5	1900	7343-140	C5	1900	7343-140	D5	1900	7343-140	BR4	1700	8000U-130
A6	1650	7343-140	B6	1650	7343-140	C6	1650	7343-140	D6	1650	7343-140	BR5	1650	8000U-130
												BR6	1500	8000U-130
AI	5290	7343-420	BI	5290	7343-420	CI	5300	7343-420	DI	5300	7343-230			
AII	5290	7343-420	BII	5290	7343-420	CII	5300	7343-420	DII	5300	7343-230	BRI	2700	DSL 70
			BIII	5050	7343-230	CIII	5050	7343-230				BRII	2700	DSL 70
AIII/1	510	7343-230										BRIII	2700	DSL 70
AIII/2	4530	7343-230				ST1	6800	PPSL 120	BrM	2985	DFLS 200			

Rev.: 1.4

linelength (mm)	TWIN RS 2 41

Nr	A	B	C	D	E	Brake min	Brake max	Nr
1	8950	8835	8895	9010	9110	9935	9985	1
2	8815	8690	8755	8880	8940	9610	9660	2
3	8765	8645	8705	8825	8870	9370	9420	3
4	8700	8580	8645	8760	8920	9255	9305	4
5	8690	8560	8625	8745	8855	9080	9130	5
6	8760	8640	8705	8815	8725	8900	8950	6
7	8690	8580	8645	8760	8660	8835	8885	7
8	8580	8475	8550	8660	8670	8840	8890	8
9	8555	8455	8525	8625		8690	8740	9
10	8515	8410	8470	8580		8565	8615	10
11	8495	8400	8465	8555		8445	8495	11
12	8545	8455	8510	8595		8355	8405	12
13	8375	8300	8325	8405				13
14	8265	8195	8225	8300				14
15	8210	8150	8150	8240				15
16	8060	8005	8030	8075				16
17	7990	7950	7960	7995				17
18	7985	7940	7940	7965				18
19								19
20								20
S1		7710				3050	3100	BrMain
S2		7660						
S3		7750						

Zum Beispiel: For example: Par example:

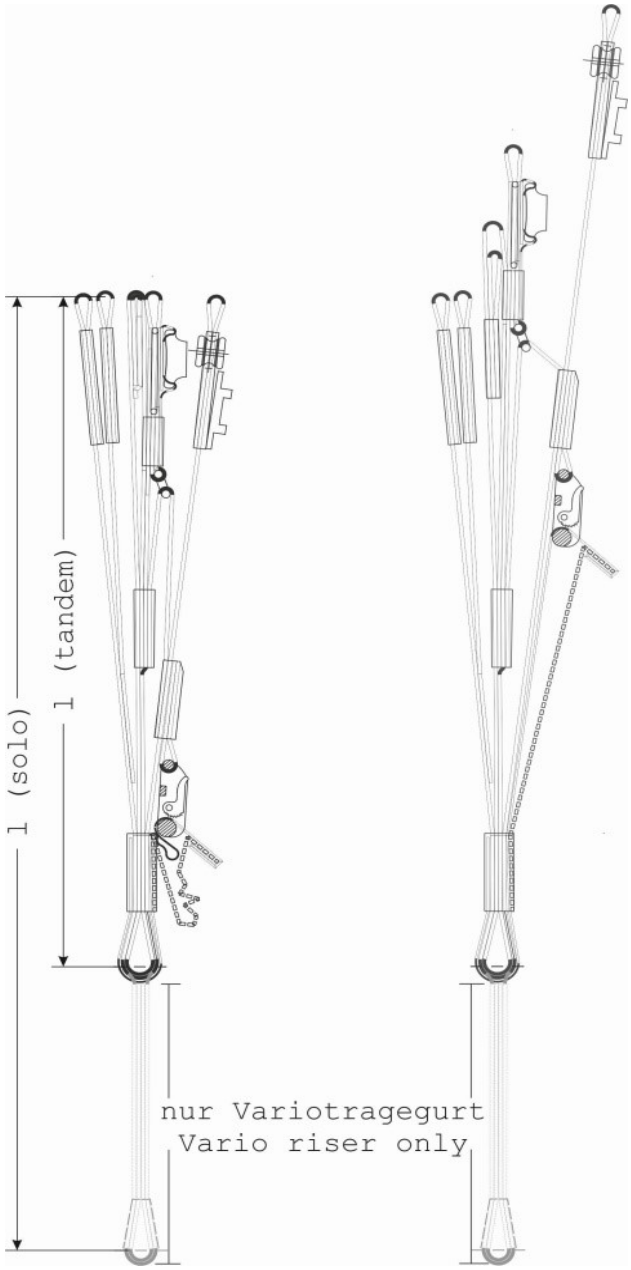
A1 A Leine Mitte - inner A Line - A la plus intériur
D14 C Leine aussen - outer C line - C exterieur
S1 Stabiloleinen - stabilo lines stabilo
Br. Brakelinelength range
all linelength including risers and lineloops

Rev.: 2.4

single linelength (mm)												TWIN RS 2 41		
Nr	Length (mm)	Articel No.	Nr	Length (mm)	Articel No.	Nr	Length (mm)	Articel No.	Nr	Length (mm)	Articel No.	Nr	Length (mm)	Articel No.
a1	1455	8000U-130	b1	1340	8000U-130	c1	1410	8000U-130	d1	1525	8000U-090	e1	1625	8000U-090
a2	1320	8000U-130	b2	1195	8000U-130	c2	1270	8000U-130	d2	1395	8000U-090	e2	1455	8000U-090
a3	1270	8000U-130	b3	1150	8000U-130	c3	1220	8000U-130	d3	1340	8000U-090	e3	1535	8000U-090
a4	1355	8000U-130	b4	1235	8000U-130	c4	1310	8000U-130	d4	1425	8000U-090	e4	1585	8000U-090
a5	1345	8000U-130	b5	1215	8000U-130	c5	1290	8000U-130	d5	1410	8000U-090	e5	1520	8000U-090
a6	1415	8000U-130	b6	1295	8000U-130	c6	1370	8000U-130	d6	1480	8000U-090	e6	1390	8000U-090
a7	1345	8000U-130	b7	1235	8000U-130	c7	1310	8000U-130	d7	1425	8000U-090	e7	1325	8000U-090
a8	1235	8000U-130	b8	1130	8000U-130	c8	1215	8000U-130	d8	1325	8000U-090	e8	1335	8000U-090
a9	1210	8000U-130	b9	1110	8000U-130	c9	1190	8000U-130	d9	1290	8000U-090			
a10	1170	8000U-130	b10	1065	8000U-130	c10	1135	8000U-130	d10	1245	8000U-090	br1	1650	8000U-130
a11	1150	8000U-130	b11	1055	8000U-130	c11	1130	8000U-130	d11	1220	8000U-090	br2	1325	8000U-130
a12	1200	8000U-130	b12	1110	8000U-130	c12	1175	8000U-130	d12	1260	8000U-090	br3	1535	8000U-130
a13	1125	8000U-130	b13	1060	8000U-130	c13	1090	8000U-130	d13	1170	8000U-090	br4	1420	8000U-130
a14	1015	8000U-130	b14	955	8000U-130	c14	990	8000U-130	d14	1065	8000U-090	br5	1395	8000U-130
a15	960	8000U-130	b15	910	8000U-130	c15	915	8000U-130	d15	1005	8000U-090	br6	1215	8000U-130
a16	1060	8000U-130	b16	1015	8000U-130	c16	1045	8000U-130	d16	1090	8000U-090	br7	1200	8000U-130
a17	990	8000U-130	b17	960	8000U-130	c17	975	8000U-130	d17	1010	8000U-090	br8	1205	8000U-130
a18	985	8000U-130	b18	950	8000U-130	c18	955	8000U-130	d18	980	8000U-090	br9	1105	8000U-130
												br10	980	8000U-130
st1	915	8000U-130	st2	865	8000U-130	st3	955	8000U-130				br11	960	8000U-130
												br12	870	8000U-130
A1	2000	7343-230	B1	2000	7343-230	C1	2000	7343-230	D1	2000	7343-140			
A2	1850	7343-230	B2	1850	7343-230	C2	1850	7343-230	D2	1850	7343-140	BR1	2400	8000U-130
A3	1850	7343-230	B3	1850	7343-230	C3	1850	7343-230	D3	1850	7343-140	BR2	1950	8000U-130
A4	1850	7343-230	B4	1850	7343-230	C4	1850	7343-230	D4	1850	7343-140	BR3	1800	8000U-130
A5	2000	7343-140	B5	2000	7343-140	C5	2000	7343-140	D5	2000	7343-140	BR4	1750	8000U-130
A6	1750	7343-140	B6	1750	7343-140	C6	1750	7343-140	D6	1750	7343-140	BR5	1700	8000U-130
												BR6	1600	8000U-130
AI	5500	7343-420	BI	5500	7343-420	CI	5500	7343-420	DI	5500	7343-230			
AII	5500	7343-420	BII	5500	7343-420	CII	5500	7343-420	DII	5500	7343-230	BRI	2800	DSL 70
			BIII	5250	7343-230	CIII	5250	7343-230				BRII	2800	DSL 70
AIII/1	510	7343-230										BRIII	2800	DSL 70
AIII/2	4750	7343-230				ST1	6800	PPSL 120	BrM	3050	DFLS 200			

Rev.: 2.4

riser length (l) [mm]	TWIN RS 2



		Trim		Beschleunigt / Accelerated	
Größe / Size		39 Tandem (solo)	41	39 Tandem (solo)	41
Tragegurt Riser	A1	350 (500)	350	350 (500)	350
	A2	350 (500)	350	350 (500)	350
	B	350 (500)	350	350 (523)	373
	C	350 (500)	350	350 (575)	425
	D	350 (500)	350	350 (650)	500

Trimmerweg Trimmerlength	150 mm

Rev.: 1.0

MATERIAL DATEN - MATERIAL DATA	TWIN RS 2

SEGELTUCH - SAIL CLOTH - TISSUS		
Obersegel - upper sail - extrados	Nylon - Polyurethan	38g/m²
Untersegel - lower sail - intrados	Nylon - Polyurethan	32g/m²
Rippen - ribs - nervures	Nylon - Polyurethan	32g/m²

LEINENMATERIAL - LINE MATERIAL - SUSPENTES				
Obere Galerie Upper Gallery suspentage haut	Aramid	8000U-130	1,0mm	130daN
	Aramid	8000U-090	0,8mm	90daN
Mittlere Galerie intermediate lines suspentage intermédiaire	Aramid	7343-230	1,6mm	230daN
	Aramid	7343-140	1,3mm	140daN
Stammleinen main lines suspentage bas	Aramid	7343-420	2,3mm	420daN
	Aramid	7343-230	1,6mm	230daN

LEINENLÄNGENTOLERANZEN - LINE LENGTH TOLERANCE TOLÉRANCE DES LONGEURS DE SUSPENTES					
Leinen - lines suspentes	**A**	**B**	**C**	**D**	**Brake**
länger - longer tolérance en plus	+ 5 mm	+ 5 mm	+10 mm	+10 mm	+ 10 mm
kürzer - shorter tolérance en moins	- 10 mm	- 5 mm	- 5 mm	- 5 mm	- 10 mm

LEINENFESTIGKEITEN / LINE STRENGTH RÉSISTANCE DES SUSPENTES		
Schirmgröße size - tailles	**39**	**41**
Top Lines		
all	32 / 25	38 / 30
Intermediate Lines		
A+B	79 / 63	94 / 75
C+D	76 / 57	90 / 68
Main Lines		
A+B	158 / 127	188 / 150
C+D	152 / 114	180 / 135
minimum / absol. minimum		

Rev.: 1.0

Porositätstabelle - porosity table - table de porosité

Messgerät - instrument - appareil de mesure Messwert - test result - mesure						
Kretschmer			JDC			
LD 100 [1s]	LD 100 [1/10s]	LD 150 [1/10s]	**[s]**	**Zustand**	**condition**	**état**
> 250	> 2500	> 10000	**> 150**	neu	new	neuf
200 - 250	2000 - 2500	7500 - 10000	**100 - 150**	neuwertig	like new	comme neuf
150 - 200	1500 - 2000	5000 - 7500	**50 - 100**	gebraucht, sehr guter Zustand	used - in very good condition	utilisé - en très bon état
100 - 150	1000 - 1500	2000 - 5000	**25 - 50**	gebraucht, guter Zustand	used - in good condition	utilisé - en bon état
50 - 100	500 - 1000	500 - 2000	**10 - 25**	deutlich gebraucht, guter Zustand	hard used - in good condition	très utilisé - en bon état
10 - 50	100 - 500	150 - 500	**5 - 10**	stark gebraucht, Materialkontrolle in kürzeren Abständen erforderlich	hard used - material check in short intervals necessary	très utilisé - matériel à contrôler fréquemment
0 - 10	**0 - 100**	**0 - 150**	**0 - 5**	**überbeansprucht NICHT mehr lufttüchtig**	**worn out NOT airworthy anymore**	**plus en état de vol - NON homologué**

Rev.: 1.0

Maintainence and Service sheet
Kontroll und Serviceblatt
Contrôle et Feuille de Service

Type:
Typ: TWIN RS 2 __
Type de voile:

Color:
Farbe: _____
couleur:

Serial Number
Serien Nummer: __/__/ - __/__/__/ - __/__/__/__/__/
Numéro de Série:

Checkflight (date):
Eingeflogen am: __/__/ - __/__/ 20___
Première main ou voile d´occasion (Date):
Mark and signature:
Händlerstempel und Unterschrift: _____
cachet et signature

Date: **Datum:** Date:	Control remark: **Überprüfungsbemerkung:** Contrôle et remarques:	Signature: **Unterschrift:** Signature:

Rev.: 1.0

owner
Halter
détenteur

1. Pilot	
Name: **Name:** nome:	
street **Straße:** rue:	
City: **Wohnort:** domicile:	
Telephone: **Telefon:** telephone:	
Email: **Email:** email:	

2. Pilot	
Name: **Name:** nome:	
street **Straße:** rue:	
City: **Wohnort:** domicile:	
Telephone: **Telefon:** telephone:	
Email: **Email:** email:	

3. Pilot	
Name: **Name:** nome:	
street **Straße:** rue:	
City: **Wohnort:** domicile:	
Telephone: **Telefon:** telephone:	
Email: **Email:** email:	