

Test Report

This test report describes the test results of the below mentioned paragliding harness.

All the tests were carried out by:

Air Turquoise SA, official test laboratory of Switzerland.



Standards

Tests were carried out in conformity with the following standards:

- 2. DV LuftGerPV §1, Nr. 7 c (*note: in what follows this will be abbreviated by "LTF")
- European Standard EN1651 September 1999 (*note in what follows this will be abbreviated by "EN")
- European Standard EN12491 September 2001 (*note in what follows this will be abbreviated by "EN12491")

Harness details

Manufacturer: Niviuk Gliders	
Harness model: Konverses	
Size: M	
Harness Weight: 4.6 kg	
Maximum certified pilot 110 kg	
Impact protection type: Air Bag	
Harness type: ABS	
Test responsible: Alain Zoller	
Test place: Villeneuve	
Test date: December 07, 2012	
Test room temp & humidity: 24.9° C; 59%rel	
Certification number EN: PH 047.2013	
Certification number LTF: GZ 047.2013	

The management system governing the provision of this test service is ISO 9001 certified:



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Test summary

A. STRUCTURAL STRENGHT TESTS

A test plan was set up in order to execute the different tests in an efficient order. The table below summarizes this test plan together with the applicable standards and results.

	1	Standa	ard Ref.	٩	Anch	oring	For	ces	Min.	
Test ID	TESTED ?	EN	LTF	TEST setup	Attach - ment points	Dummy	Req. Load in g	Min. force [N]	Test durat ion [sec]	Result
1		5.3.2.1	4.2.1.a	Default flying position	2 main attachment points	Hip fixated	6g 9g	6000 9000	10	ОК
2 3 4	✓	5.3.2.2 5.3.2.7	4.2.1.b	Default, landing position	2 main att. points	Hip fixated, landing conf.	15g 6g 15g	15000 6000 15000	5 10 5	ОК ОК ОК
5	 Image: A second s	5.3.2.4	4.2.1.a rescue	Rescue	2 rescue att.	Hip fixated	9g 15g	9000 15000	10 5	ок ок
7	✓		4.2.1.b rescue	Rescue , landing	Pnts.	Hip fixated, landing conf.	6g	6000	10	ок
8	 ✓ 	5.3.2.3		One riser	ONE main att.	1 central hip fixation	6g	6000	10	ок
9	1	5.3.2.5	4.2.1.d	Towing	2 main att. + 2 tow att.	None	3g 5g	3000 5000	10	n/a
10	✓	5.3.2.6		Default, Neqatif	One main att.	Head fix.	4.5g	4500	10	ок
11	✓ I I		4.2.1.c	Upside down	2 main att. downw.	Head fix.	6g	6000	10	ок
12	✓ 		4.2.1.c rescue	Upside down rescue	2 rescue att. downw.		6g	6000	10	ок

B. HARNESS PROTECTION SHOCK TEST

Most paraglider harnesses are equipped with a protection device that damps the shock on the pilot's spine during a hard landing.

Shock impact tests have to be executed on these harnesses in order to prove the damping characteristics of it.

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		Standa		Ancl	noring		Impac	t L	·	
Test ID	TESTED ?	rd Ref.: LTF	TEST setup	Attach- ment points	Dummy	Max. tolerated peak impact in g	Max Peak impact measured	Impact duration o +38 g (if any) recorded:	Impact duration o + 20 g (if any) recorded:	Result
PRO TECT 1	>	5.1.1	Default flying position	the harness	v is attached to s like a pilot in ight.		36.32 g	0	17 ms	ОК

C. RESCUE DEPLOYMENT RESISTANCE TEST

The deployment of the rescue system has to be ensured in all circumstances of flight. This test is to verify whether the force needed to deploy is in between reasonable limits.

		Standa rd Ref.		Ancl	noring	Force for sir	ngle han _L iviax.	nd deployment	
Test ID	TESTED ?	LTF	TEST set	Attach- ment points	Dummy	Min. force [N]	force [N]	Resistance measured [daN]	Result
Resc depl	~	6.1.5	Default flying position	attached to	ponisble is o the harness ot in flight. ny required)	20 N	70 N	n/t	ок

D. RESCUE DEPLOYMENT STRAP STRENGHT TEST

The connection between handgrip and inner container has to have sufficient load capacity/structural strength in any situation that may arise during normal use. During this test is verified, whether this connection fulfill the requirements.

Test ID	TESTED ?	Standa	ard Ref. EN 12491	TEST setup	Minimum force [N]	Min. Test durati on [s]	Breaking resistance measured	Result
Resc strap	~	6.1.8	5.3.2	Connection strap in tensile testing machine	700N	10	n/t	ок

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After careful examination as explained in above mentioned test reports (from page 2 to page 18), the undersigned persons declare that the harness:

Niviuk Gliders Konverses M

DID complied with:

• European Standard EN 1651 September 1999

And / or (if tested)

• European Standard EN 12491 March 2001

And / or (if tested)

• 2. DV LuftGerPV §1, Nr. 7 c

A ATF Testing cent 31 N.D Alain Zoller 1A

Test responsible

Place, Date

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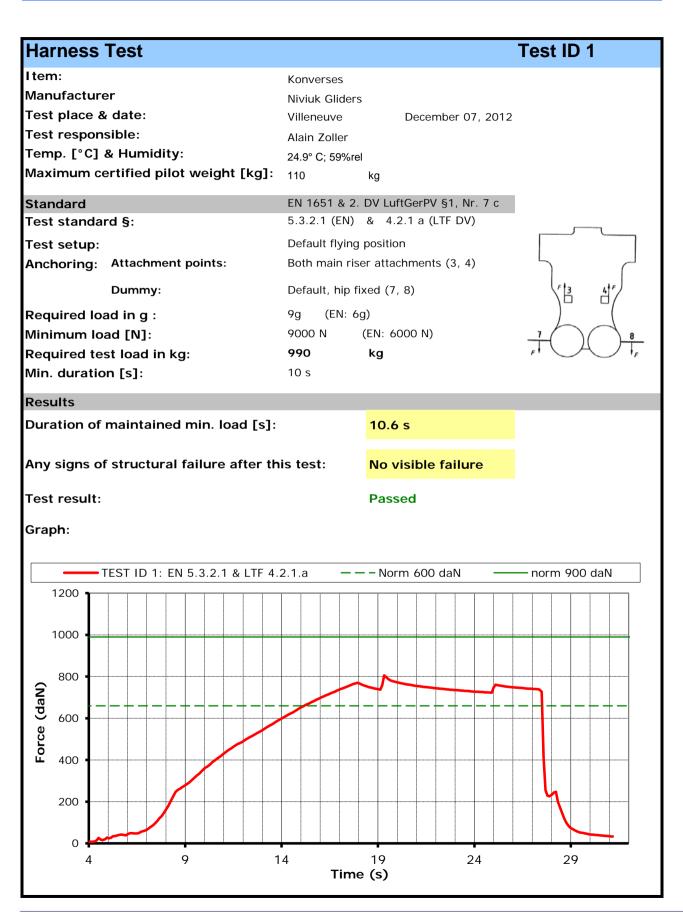
The management system governing the provision of this test service is ISO 9001 certified:

Villeneuve, December 07, 2012

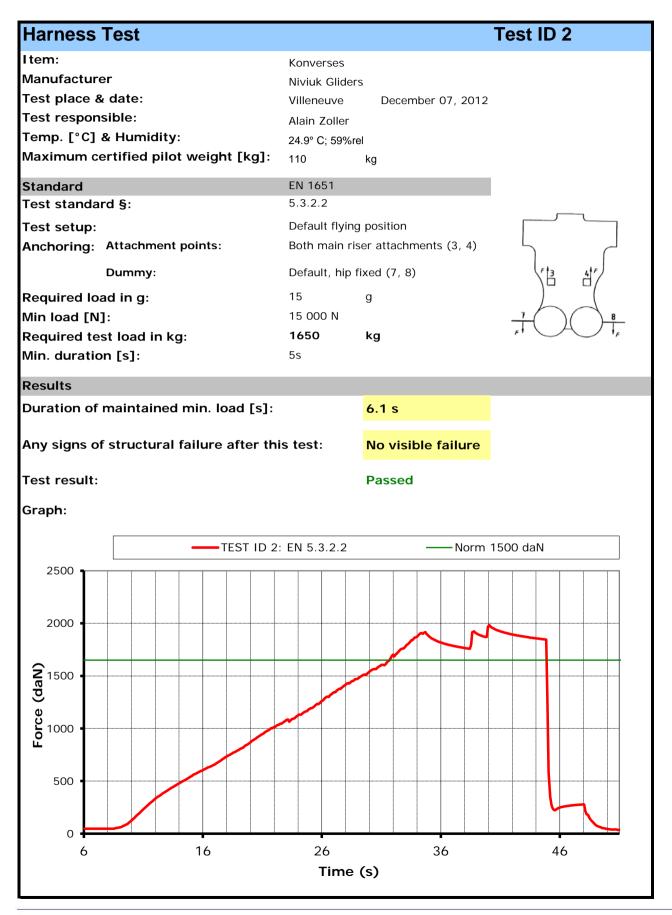


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Annex: detailed test reports









Harness Test			Test ID 3
I tem: Manufacturer Test place & date: Test responsible: Temp. [°C] & Humidity: Maximum certified pilot weight [kg]: Standard Test standard §: Test setup: Anchoring: Attachment points:	Alain Zoller 24.9° C; 59%rel 110 kg 2. DV LuftGerPV §1, 4.2.1.b Flying position befor board (11) in landing straps (10) closed. Both of the main rise	Nr. 7 c re landing: seat g position, leg	3/4
Dummy: Required load in g: Min load [N]: Required test load in kg: Min. duration [s]: Results	attached (3 and 4); Default, hip fixed (7 6 g 6000 N 660 kg 10 s		
Duration of maintained min. load [s]: Any signs of structural failure after thi Test result: Graph:	s test: N	1.7 s lo visible failure assed	
TEST ID 3: LT 1000 900 800 700 600 500 400 300 200 10 15 20		Norm 600	daN



Item: Konverses Manufacturer Niviuk Gilders Test place & date: Villeneuve December 07, 2012 Test preponsible: Alain Zoller Temp. [*C] & Humidity: 24,9°C; 59%rel Maximum certified pilot weight [kg]: 110 kg Standard EN 1651 Test standard §: EN 5.3.2.7 Test setup: Flying position before landing: seat board (11) in landing position, leg straps (10) closed. Anchoring: Attachment points: Both of the main riser attachments attached (3 and 4): Dummy: Default, hip fixed (7, 8) Required load in g: 15 g Min load [N]: 15 000 N Required test load in kg: 5 s Results Duration of maintained min. load [S]: 5.1 s Any signs of structural failure after this test: No visible failure Test result: Passed Graph:	Harness 7	Fest			Test ID 4
Manufacturer Nivlak Gilders Test place & date: Villeneuve December 07, 2012 Test responsible: Alain Zoller Temp. [*C] & Humidity: 24,9°, C, 59% ell Maximum certified pilot weight [kg]: 110 kg Standard EN 1651 Test standard §: EN 5.3.2.7 Test setup: EN 5.3.2.7 Test setup: EN 5.3.2.7 Test setup: Default, hip fixed (7, 8) Required load in g: 15 g Min load [N]: 15 000 N Required test load in kg: 1650 kg Min duration [s]: 5 s Results Duration of maintained min. load [s]: 5.1 s Any signs of structural failure after this test: No visible failure Test result: Passed Graph: 200 - 0	Item:		Konverses		
Test place & date: Test responsible: Temp. [*C] & Humidity: Temp. [*C] & Humidity: Alain Zoller Temp. [*C] & Humidity: Temp. [*C] & Humidity: Temp. [*C] & Humidity: Temp. [*C] & Humidity: Test standard <u>EN 1651</u> Test standard §: Test standard §: Test setup: Dummy: Default, hip fixed (7, 8) Required load in g: Tiber for all for all the main riser attachements attached (7, 8) Required load in g: Tiber for all for all the main riser attachements attached (7, 8) Required load in g: Tiber for all the main riser attachements attached (7, 8) Required load in kg: Tiber for all the main riser attachement for all the main riser attachement for all the main riser attachement for all the main riser attachements attached (7, 8) Required load in kg: Test result: Duration of maintained min. load [s]: Test result: Test rest result: Test result: Test result: Test rest result: Test	Manufacture	r		rs	
Temp. [*C] & Humidity: 24.9*C; 5%krel Maximum certified pilot weight [kg]: 110 kg Standard EN 1651 Test standard §: EN 5.3.2.7 Test setup: Fying position before landing: seat board (11) in landing position, leg straps (10) closed. Anchoring: Attachment points: Both of the main riser attachments attached (3 and 4): Dummy: Default, hip fixed (7, 8) Required test load in kg: 15 g Min load [N]: 15 000 N Required test load in kg: 5 s Results Duration of maintained min. load [s]: 5.1 s Any signs of structural failure after this test: No visible failure Test result: Passed Graph: 200 - 100 -	Test place &	date:			
Maximum certified pilot weight [kg]: 10 kg Standard EN 1651 Test standard §: EN 5.3.2.7 Test setup: Flying position before landing: seat board (11) in landing position, leg straps (10) closed Anchoring: Attachment points: Both of the main risor attachments attached (3 and 4): Dummy: Default, hip fixed (7, 8) Required load in g: 15 g Min load [N]: 15 000 N Required test load in kg: 1650 kg Min. duration [s]: 5 s Results Duration of maintained min. load [s]: 5.1 s Any signs of structural failure after this test: No visible failure Test result: Passed Graph: 00000 00000 0000 0000 0000 0000 0000 00000 0000 00000 0000 0	Test respons	ible:	Alain Zoller		
Maximum certified pilot weight [kg]: 10 kg Standard EN 1651 Test standard §: EN 5.3.2.7 Test setup: EVIDENCE Indug: seat board (11) in landing position, leg straps (10) closed. Anchoring: Attachment points: Both of the main riser attachments attached (3 and 4): Dummy: Default, hip fixed (7, 8). Required load in g: 15 g Min load [N]: 15 00 N Required test load in kg: 1650 kg Min. duration [s]: 5 s Results Duration of maintained min. load [s]: 5.1 s Anchoring: Attachment points: Enternets Test result: Passed Graph: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Temp. [°C] &	& Humidity:	24.9° C; 59%r	el	
Test standard §: EN 5.3.2.7 Test setup: Flying position before landing: seat board (11) in landing position, leg straps (10) closed. Anchoring: Attachment points: Both of the main riser attachments attached (3 and 4): Dummy: Default, hip fixed (7, 8) Required load in g: 15 g Min load [N]: 15 000 N Required test load in kg: 1650 kg Min. duration [s]: 5 s Results Duration of maintained min. load [s]: 5.1 s Any signs of structural failure after this test: No visible failure Test result: Passed Graph: 2500	Maximum ce	rtified pilot weight [kg]:			
Test setup: Test setup: Anchoring: Attachment points: Dummy: Dummy: Default, hip fixed (7, 8) Required load in g: 15 9 Min load [M]: Min load [M]: Test result: Duration of maintained min. load [S]: Test result: Test rest result: Test rest result: Test result: Test r	Standard		EN 1651		
board (11) in landing position, leg straps (10) closed. Anchoring: Attachment points: Dummy: Dummy: Default, hip fixed (7, 8) Required load in g: 15 g Min load [N]: Required test load in kg: Min. duration [s]: 5 s Results Duration of maintained min. load [s]: Test result: Test result: Test result: Dure to get to be the straps of structural failure after this test: Test result: Duration of maintained min. load [s]: Test result: Dura	Test standar	d §:	EN 5.3.2.7		
attached (3 and 4): Dummy: Default, hip fixed (7, 8) Required load in g: 15 g Min load [N]: 15 000 N Required test load in kg: 1650 kg Min. duration [s]: 5 s Results Duration of maintained min. load [s]: 5.1 s Any signs of structural failure after this test: No visible failure Test result: Passed Graph: $ \begin{array}{r} & & & \\ & & & \\ & & \\ & & & \\ & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & & \\ & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ $	Test setup:		board (11) in	n landing position, leg	
Required load in g: Min load [N]: Required test load in kg: Min. duration [s]: Acceleration of maintained min. load [s]: Any signs of structural failure after this test: Test result: Test result: Graph: $15 \ 00 \ N$ $1650 \ kg$ $5.1 \ s$ No visible failure Test result: $15 \ 00 \ N$ $1500 \ dN$ $1500 \ dN$ 150	Anchoring:	Attachment points:			3/4
Min load [N]: 15 000 N Required test load in kg: 1650 kg Min. duration [s]: 5 s Results Duration of maintained min. load [s]: 5.1 s Any signs of structural failure after this test: No visible failure Test result: Passed Graph: $ \begin{array}{r} & & & \\ & & & \\ & & \\ & & & & \\ & & & \\ & & & & \\ & & & \\ & & & & \\ & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & &$		Dummy:	Default, hip	fixed (7, 8)	
Required test load in kg: 1650 kg Min. duration [s]: 5 s Results Duration of maintained min. load [s]: 5.1 s Any signs of structural failure after this test: No visible failure Test result: Passed Graph: $ \begin{array}{c} $	Required loa	d in g:	15	g	
Min. duration [s]: 5 s Results Duration of maintained min. load [s]: 5.1 s Any signs of structural failure after this test: No visible failure Test result: Passed Graph: $ \begin{array}{c} $	Min load [N]	:	15 000 N		7/8 F
Results Duration of maintained min. load [s]: 5.1 s Any signs of structural failure after this test: No visible failure Test result: Passed Graph:	Required tes	t load in kg:	1650	kg	
Duration of maintained min. load [s]: 5.1 s Any signs of structural failure after this test: No visible failure Test result: Passed Graph:	Min. duration	n [s]:	5 s		
Duration of maintained min. load [s]: 5.1 s Any signs of structural failure after this test: No visible failure Test result: Passed Graph:					
Any signs of structural failure after this test: No visible failure Test result: Passed Graph:					
Test result: Passed Graph: $\int \frac{1}{\sqrt{1 + 1}} \int \frac{1}{1 $	Duration of r	maintained min. load [s]:		5.1 s	
	Any signs of	structural failure after this	test:	No visible failure	
$ \underbrace{ -\text{TEST ID 4: EN 5.3.2.7}}_{000} \\ - \underbrace{ -\text{TEST ID 4: EN 5.3.2.7}}_{000} \\ - \underbrace{ -\text{Norm 1500 daN}}_{000} \\ - - \underbrace{ - \underbrace{ - \underbrace{ - \underbrace{ - \underbrace{ - \underbrace{ - $	Test result:			Passed	
$\begin{array}{c} 250\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0$	Graph:				
$\begin{array}{c} 200 \\ (0) \\$		TEST ID 4: EN	5.3.2.7	Norm 1500) daN
$\left(\begin{array}{c} \mathbf{y} \\ \mathbf{y} \\$	2500				
500 0 8 18 28 38 48 58 68	2000 -				
500 0 8 18 28 38 48 58 68					
500 0 8 18 28 38 48 58 68	2 1500 -				
500 0 8 18 28 38 48 58 68	e				
	۵ ¹⁰⁰⁰				
8 18 28 38 48 58 68	500 •				
			•		
Time (s)	8	18 28	38 Time		58 68

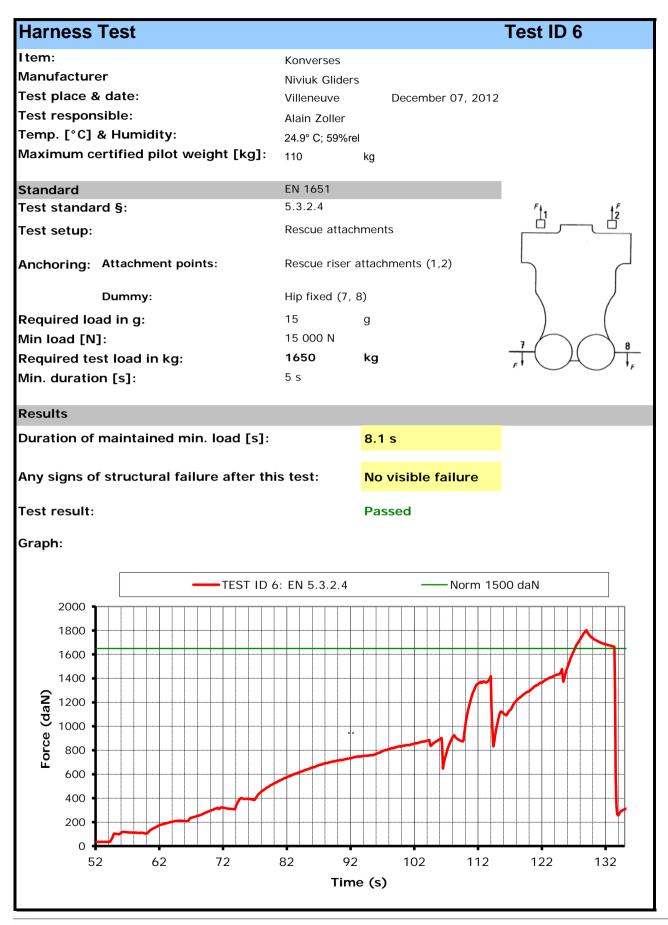
The management system governing the provision of this test service is ISO 9001 certified:



Air Turquoise S.A. – Certification of paraglider equipment Tested in accordance with EN 1651 :1999 and 2.DV LuftGerPV §1, Nr. 7 c

Harness Test			Test ID 5
l tem: Manufacturer Test place & date: Test responsible: Temp. [°C] & Humidity: Maximum certified pilot weight [kg]:	Konverses Niviuk Glider Villeneuve Alain Zoller 24.9° C; 59%re 110	December 07	, 2012
Standard	2. DV LuftGe	rPV §1, Nr. 7 c	
Test standard §: Test setup:	4.2.1.a rescu Rescue attac	hments	
Anchoring: Attachment points:	Rescue riser	attachments (1,2)	
Dummy:	Hip fixed (7,	8)	\backslash
Required load in g: Min load [N]:	9 9 000 N	g	
Min load [N]: Required test load in kg: Min. duration [s]:	9 000 N 990 10 s	kg	$\frac{1}{F^{\dagger}}$
Results			
Duration of maintained min. load [s]:		12.2 s	
Any signs of structural failure after this	s test:	No visible fail	lure
Test result:		Passed	
Graph:			
	2.1.a.rescue		— Norm 900 daN
1400			
1200 •			
• 008 (ga X)			
ድ 400 •			
200			
5 10 15		25	5 30 35
	Time	e (s)	







Harness Test	Test ID 7	
Item:	Konverses	
Manufacturer	Niviuk Gliders	
Test place & date:	Villeneuve December 07, 2012	
Test responsible:	Alain Zoller	
Temp. [°C] & Humidity:	24.9° C; 59%rel	
Maximum certified pilot weight [kg]:	110 kg	
Standard	2. DV LuftGerPV §1, Nr. 7 c	
Test standard §:	4.2.1.b rescue	
Test setup: Anchoring: Attachment points:	Flying position before landing: seat board (11) in landing position, leg straps (10) closed. Both of the rescue riser attachments	7
	attached (1 and 2); Default, hip fixed (7, 8)	,
Dummy:	\sim / /	0
Required load in g:	6 g 6 000 N	•
Min load [N]:	7/8 V/ 1	1
Required test load in kg:	5 U	
Min. duration [s]:	10 s	
Results		
Duration of maintained min. load [s]:	10.3 s	
Any signs of structural failure after th	nis test: No visible failure	
Test result:	Passed	
Graph:		
TEST ID 7: L	TF 4.2.1.b.rescue — Norm 600 daN	
1000		
900 •		
800 •		
800 •		
800 •		
800 •		
800 •		
800 •		
800 •		
800 • 700 •		
800 • 700 •		
800 • 700 • 600 •		
800 • 700 •	26 36 46 Time (s)	



Harness Test			Test ID 8
Item: Manufacturer Test place & date: Test responsible: Temp. [°C] & Humidity: Maximum certified pilot weight [kg]:	Konverses Niviuk Gliders Villeneuve Alain Zoller 24.9° C; 59%rel 110	December 07, 2012 kg	
Standard	EN 1651		
Test standard §:	5.3.2.3		
Test setup:	Only one riser	attached	\wedge .
Anchoring: Attachment points:	One main riser	attachments (3)	
Dummy:	Hip fixed (7, 8	-> 12)	\mathcal{V}
Required load in g:	6	g	$\langle \langle \cdot \rangle$
Min load [N]:	6 000 N		~
Required test load in kg:	660	kg	r 12
Min. duration [s]:	10 s		
Results			
Duration of maintained min. load [s]:		14.1 s	
Any signs of structural failure after th	is test:	No visible failure	
Test result:		Passed	
Graph:			
	3.2.3	Norm 60	0 daN
900			
800 •			
700			
2 600			
9 500			
e e e e e e e e e e e e e e e e e e e			
300			<u>h</u>
200			
100			
0			
4 14	24 Time	34	44
	rime	(>)	



Harness Test	Test ID 10
I tem: Manufacturer	Konverses
	Niviuk Gliders
Test place & date:	Villeneuve December 07, 2012
Test responsible:	Alain Zoller
Temp. [°C] & Humidity:	24.9° C; 59%rel
Maximum certified pilot weight [kg]:	110 kg
Standard	EN 1651
Test standard §:	5.3.2.6
Test setup:	Normal flying position in NEGATIF
Anchoring: Attachment points:	ONE of the main riser attachments attached downwards(3 or 4);
Dummy:	Dummy anchored at the head position (9) 3/4
Required load in g:	4.5 g
Min load [N]:	4500 N
Required test load in kg:	495 kg
Min. duration [s]:	10 s
Results	
Duration of maintained min. load [s]:	11.3 s
Any signs of structural failure after thi	is test: No visible failure
Test result:	Passed
Graph:	
TEST ID 10:	EN 5.3.2.6 — Norm 450 daN
700	
600	
500	
200 • 000 •	
2 300	
200 •	
100	
100	
	30 40 50 60 Time (s)



Harness Test	Test ID 11
Harness Test Item: Manufacturer Test place & date: Test responsible: Temp. [°C] & Humidity: Maximum certified pilot weight [kg]: Maximum certified pilot weight [kg]: Standard Test standard §: Test setup: Anchoring: Attachment points: Dummy:	Konverses Niviuk Gliders Villeneuve December 07, 2012 Alain Zoller 24.9° C; 59%rel 110 kg 2. DV LuftGerPV §1, Nr. 7 c 4.2.1.c Pilot upside down flying position Both of the main riser attachments attached downwards (3 and 4); Dummy anchored at the head position
Required load in g: Min load [N]: Required test load in kg: Min. duration [s]:	(9) 6 g 6 000 N 660 kg 10 s
Results	
Any signs of structural failure after this Test result: Graph:	e test: No visible failure Passed
TEST ID 11: LT	F 4.2.1.c ——Norm 600 daN
1000 900 800 700 600 500 400 300 200 100 0	
0 5 10	15 20 25 30 Time (s)



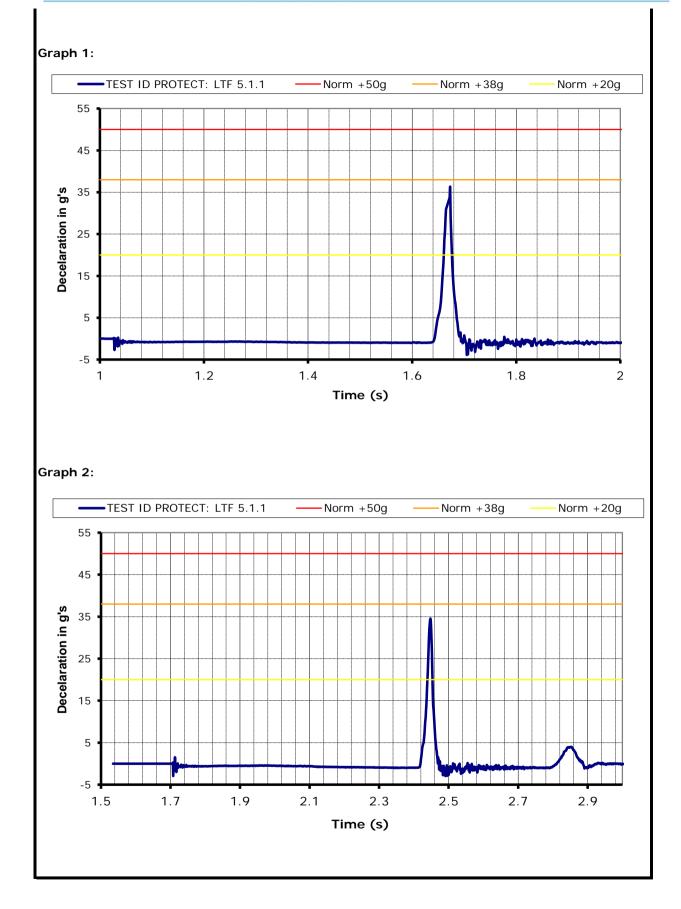
Harness Test	Test ID 12				
Item: Manufacturer Test place & date: Test responsible: Temp. [°C] & Humidity: Maximum certified pilot weight [kg]:	Konverses Niviuk Gliders Villeneuve December 07, 2012 Alain Zoller 24.9° C; 59%rel 110 kg				
	<u> </u>				
Standard	2. DV LuftGerPV §1, Nr. 7 c 4.2.1.c rescue				
Test standard §:	$\frac{1}{1}$ $\frac{1}{1}$ $\frac{1}{1}$ $\frac{1}{2}$				
Test setup:	Pilot upside down flying position				
Anchoring: Attachment points:	Both of the rescue riser attachments attached downwards (1 and 2);				
Dummy:	Dummy anchored at the head position (9)				
Required load in g:	6 g) (
Min load [N]:	6 000 N				
Required test load in kg:	660 kg				
Min. duration [s]:	10 s				
Results					
Duration of maintained min. load [s]:	11.4 s				
Any signs of structural failure after th	is test: No visible failure				
Test result:	Passed				
Graph:					
TEST ID 12: LT	F 4.2.1.c.rescue —— Norm 600 daN				
1000					
900 •					
800					
700					
b) 500					
8 100					
600 • 600 •					
300					
200					
100					
0					
20 25 30 35 40 45 50 Time (s)					



Protector sho	ock test	Test ID Protect		
Item: Manufacturer Test place & date: Test responsible: Temp. [°C] & Humidity: Maximum certified pilot weight [kg]:		KonversesNiviuk GlidersVilleneuveDecember 07, 2012Alain Zoller24.9° C; 59%rel110kg		
Standard		2. DV LuftGerPV §1, Nr. 7 c		
Test standard §:		5.1.1		
Test setup:		 Harness attached to protector test dummy, in a similar way like a real pilot in flight. Impact will be simulated by dropping the dummy from a certain height (with and without reserve). To simulate the "in-flight" conditions, the airbag is inflated with pressurized air equalling an airspeed of 7m/s. Inflation has to be stopped at least 5 sec before impact. Impact will be measured by an accelerometer mounted on the dummy. (Impact measured in g's) 		
Requirements:	Minimun height:	1.65 m (between lowest point test dummy and impact surface)		
	Impact requirements:	+50g as absolute maximum; +38g during less than 7 msec;		
Repetitions:		+20g during less than 25 msec. The test will be performed 2 times, minimum 1 hour and maximum 2 hours after the first impact (with airbag protectors this pause is not necessary). The 2 Max-values should not differ more than 20%		
Results <u>Shock test 1:</u>				
Impact at a heigl	at of 1 65m.	36.32 g —		
Impact duration of+ 38 g (if any): Impact duration of +20 g (if any):		$\frac{17 \text{ ms}}{\Delta < 20 \% ?}$		
<u>Shock test 2:</u>				
Impact at a height of 1.65m:		<mark>34.52g</mark>		
Impact duration of+ 38 g (if any):		0		
Impact duration of +20 g (if any):		14 ms		
Test Result:		Passed		
l				



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The management system governing the provision of this test service is ISO 9001 certified:

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paragliding by air turguoise



Rescue deployment resistar	nce test Test ID resc		
l tem: Manufacturer Test place & date: Test responsible: Temp. [°C] & Humidity: Maximum certified pilot weight [kg]:	Konverses Niviuk Gliders Villeneuve December 07, 2012 Alain Zoller 24.9° C; 59%rel 110 kg		
Standard	2. DV LuftGerPV §1, Nr. 7 c		
Test standard §:	6.1.5		
Test setup:	The deployment of the rescue system has to be ensured in all circumstances, especially with a damaged glider.		
	The pilot has to be able to deploy the rescue chute with a single pull out of the outer container, single handed and in an anatomical favorable direction.		
	In order to simulate this, the test responsible deploys the rescue seated in the harness. In a similar way as in real flight. The deployment resistance is approximately measured by the load cell, which is placed between the hand of the test responsible and the rescue hand grip.		
	On the other hand inadvertent deployment has to be fairly remote. Therefore a shear link has to withstand a minimum load.		
Requirements: Max force for single hand deployment: Min force to prevent unwanted opening:	approx. 70 N approx. 20 N		
Results			
Measured peak to peak required forc for deployment [daN]:	e 6.7 daN		
Comment:	Passed		
Graph:			
TEST ID rescue deploy	yment 1 Max 7 daN Min 2 daN		
89 79			
79 . 69 .			
79 . 69 .			
79 • • • • • • • • • • • • • • • • • • •			



Rescue deployment strap stre	ngth test	Test ID resc strap		
Item: Manufacturer Test place & date: Test responsible: Temp. [°C] & Humidity: Maximum certified pilot weight [kg]:	Konverses Niviuk Gliders Villeneuve December 07, 2012 Alain Zoller 24.9° C; 59%rel 110 kg			
Standard	EN 12491 & 2. DV LuftGerPV	§1, Nr. 7 c		
Test standard §:	5.3.2 (EN 12491) & 6.1.8 (L			
Test setup:	The handgrip of the outer container has to be connected to the inner container with a removable loop in a way that it is possible to use the inner container with different types of outer containers. The connection between handgrip and inner container has to have sufficient load capacity/structural strength in any situation that may arise during normal operation. In order to verify this, the connection is tested on its tensile strength by a default tensile testing setup. In addition to this the breaking resistance will also be			
Requirements: Min. tensile strenght for 10 s:	measured.			
Results				
Duration of maintained load [s]:	13.5			
Breaking resistance [daN]:	100.6			
Comment: Graph:	Passed			
TEST ID rescue st				
120 100 100 80 40 40 20 0 -20 7 12 17	22 27 32 Time (s)	37		

