Test laboratory for paragliders, paraglider harnesses and paraglider reserve parachutes



# **Emergency parachute inspection certificate**

Inspection certificate number:	EP_266.2018		
Manufacturer data			
Manufacturer name:	Sky Paragliders		
Representative:	Michal Sotek		
Street:	Okruzni 39		
Post code / Place:	73911 Frydlant N.C.		
Country:	Czech Republic		
Sample data			
Name:	Sky System 3	Size:	90
Steerable	n/a	Maximum weight in flight <sup>(1)</sup> [kg]:	86
Weight <sup>(2)</sup> [kg]	1.4	volume packed [cm <sup>3</sup> ]:	4000
Serial number flight:	n/a	Date of reception:	10.01.2008
Serial number strength:	n/a	Date of reception:	n/a
Test report summary	Results	Place	Date
Speed of opening,descent rate, stability and glide ratio test 71.5.1.1	POSITIVE	Villeneuve	25.01.2008
	POSITIVE	France	30.12.2006
Strength test / opening shock 71.5.1.2 Steerable parachute flight test 71.5.1.3	N/A	Villeneuve	n/a
Inner container strength test 71.5.1.4 <sup>(3)</sup>	POSITIVE	Villeneuve	17.02.2009
Riser/bridle strength test 71.5.1.5 <sup>(4)</sup>	POSITIVE	Villeneuve	29.09.2009
Issue data			
Place of declaration:	Villeneuve		
Date of issue:	23.01.2018		
Managing director: Signature:	Alain Zoller		

This signature approve the validity of the test reports 71.5.1.1, 71.5.1.2, 71.5.1.3, 71.5.1.4 and 71.5.1.5 (Only if test report are applicable).

Air Turquoise SA has thoroughly tested the sample of emergency parachute mentioned above and certifies its conformity with the following standards : EN 12491:2001 and LTF NFL II 91/09 chapter 6 Paraglider rescue systems, LTF Ref chapter: 6.1.1 to 6.1.19, except 6.1.10

(1) Total weight in flight exclude weight of paraglider, also called payload - (2) Weight of the emergency parachute - (3) and (4) this item can be use for several models.

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 tests mentioned above and it is complete with the test report number: 71.5.1.1, 71.5.1.2 and 71.5.1.3 only if stearable. 71.5.1.4 and 71.5.1.5 are also included, they can be tested independently.

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#### **Paragliding Emergency Parachute**

Inspection number	EP_266.2018
Manufacturer	Sky Paragliders
Model and size	Sky System 3 90
Steerable	n/a
Weight of model [kg]	1.4
Maximum weight in flight [kg]	86
Volum [cm <sup>3</sup> ]	4000
Flat area [m <sup>2</sup> ]	22.5
Total length of suspension lines [m]	4.84
Serial number : Production date (year / month) :	·

Warning : not suitable for use at speed more than 32 m/s (115 km/h) Read the operating manual before using this equipment!

A sample has been tested and certifies its conformity with the following standard: EN 12491:2001 and LTF NFL II 91/09 chapter 6.1.1-6.1.19 except 6.1.10. This model corresponds with the tested sample and its airworthiness.

RE | rev 05 | 12.01.2017 | ISO | 71.9.9

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## Speed of opening, stability, descent rate

Inspection certificate number:	EP_266.2018		Test Repo
Manufacturer data			
Manufacturer name:	Sky Paragliders		
Representative:	Michal Sotek		
Street:	Okruzni 39		
Post code / Place:	73911 Frydlant N.C.		
Country:	Czech Republic		
Sample data			
Name:	Sky System 3	Size:	90
Steerable	n/a	Maximum weight in flight <sup>(1)</sup> [kg]:	86
Weight <sup>(2)</sup> [kg]	1.4	volume packed [cm <sup>3</sup> ]:	4000
Serial number:	n/a		
Test data <sup>(3)</sup>	Test no. 1	Test no. 2	
Place of test	Villeneuve	Villeneuve	
Date of test	10.01.2008	25.01.2008	
Inspector:	Claude Thurnheer	Claude Thurnheer	
Atmosphere AGL			
[°C]	4.6	3.4	
RH [%]	71.2	83.9	
[hPa]	975.5	991.7	
Wind [m/s]	0	0	

Summary of both results <sup>(4)</sup>	EN	LTF	
Time of opening test [s]:	3.07	3.07	
Calculated descent rate test [m/s]:	5.31	5.31	
Stability test:	POSITIVE	POSITIVE	
Behaviour during descent test:	Stable	Stable	
Glide ratio	POSITIVE		

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Inspection certificate number:	EP_266.2018	
Sink rate test no. 1 <sup>(5)</sup>	Formula using to calculate corrected mass	$\mathbf{m}_{c \text{ orr}} \coloneqq \mathbf{m}_{dec} \cdot \frac{\mathbf{p} \cdot \mathbf{T}_{0}}{\mathbf{p}_{0} \cdot \mathbf{T}}$
Ground level atmospheric pressure	e at test location: (p)	975.5 [hPa]
ICAO standard atmospheric press	ure at MSL: (po)	1013.25 [hPa]
Ground level temperature at the te	st location: (T)	4.6 [°C]
		277.75 [°K]
ICAO standard temperature at MS	L: (To)	15 [°C]
		288.15 [°K]
Declared maximum payloadt: (md	Эс)	86 [kg]
Corrected mass: (mcorr)		85.90 [kg]
Corrected mass with uncertainty: (	mcorr)	86.80 [kg]
Time when pilot release rescue		0 [s]
Time when weak link broken		0 [s]
Calculated speed opening [s]:		<b>3.07</b> [s]
Time ball touch the water:		0 <b>[s]</b>
Time pilot touch the water:		0 [s]
Time between ball and pilot touchi	ng water (30m)	-0.15 [s]
Calculated sink rate [m/s]:		<b>5.31</b> [m/s]

## Sink rate test no. 2 (5)

Ground level atmospheric pressure at test location: (p)	991.7 [hPa]
ICAO standard atmospheric pressure at MSL: (po)	1013.25 [hPa]
Ground level temperature at the test location: (T)	3.4 [°C]
	276.55 [°K]
ICAO standard temperature at MSL: (To)	15 [°C]
	288.15 [°K]
Declared maximum payloadt: (mdec)	86 [kg]
Corrected mass: (mcorr)	
	87.70 [kg]
Corrected mass with uncertainty: (mcorr)	88.60 [kg]
Time when pilot release rescue	0 [s]
Time when weak link broken	0 [s]
Calculated speed opening [s]:	<b>3.07</b> [s]
Time ball touch the water:	0 [s]
Time pilot touch the water:	0 [s]
Time between ball and pilot touching water (30m)	-0.15 [s]
Calculated sink rate [m/s]:	<b>5.31</b> [m/s]

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Inspection certificate number: EP 266.2018





#### Weak link test no. 2



Instrument & type no.	Validity	Manufacturer	S/N
Weak link	2020	Tost	N/A
Line 30 meter	2020	Air Turquoise SA	N/A
Geos nº 11 Skywatch	08.05.2017	JDC elec.	22

The validation of this test report is given by the signature of the test manager on inspection certificate 71.5.1

Air Turquoise SA has thoroughly tested the sample of emergency parachute mentioned above and certifies its conformity with the standards: EN 12491:2001 chapter 5.3.3 / 5.3.4 - LTF NFL II 9/09 chapter 6

<sup>(1)</sup> Total weight in flight exclude weight of paraglider, also called payload - <sup>(2)</sup> Weight of the emergency parachute

<sup>(3)</sup>The rescue system is droped from a paraglider in straight flight at 8 [m/s] +-1 [m/s] and a vertical airspeed of less than 1,5 [m/s]. The paraglider is released as the rescue system begins to open. Wink link 200 [N] is used to measure the speed opening. The stability and the glide ratio is observed. After a minimum of 100 m of descent, the average rate of descent is measured over 30 m of descent. The test is carried out twice.

<sup>(4)</sup> The calculated value include the value minus the uncertainty / The uncertainty stated is the expanded uncertainty obtained by multiplying the standard uncertainty by the coverage factor k = 2. The value of the measurand lies within the assigned range of values with a probability of 95%. The tests do not include any compatibility tests with alternative inner containers. Required time from the instant of free drop until a load of 200 [N] is sustained for EN 5 [s] and for LTF 5 [s]. The required maximum sink rate is for EN 5.5 [m/s] and for LTF 6.80 [m/s]. The final result is the worst case of both tests.

(5) Condition for the descent rate test. A. At horizontal airspeed 8 m/s and vertical speed 1.5 m/s B. Formula to be used for correcting the test mass ofr differences from ICAO standard atmosphere

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## Strength test - 40 m/s opening shock

Inspection certificate number:	EP_266.2018		Test Re	port
Manufacturer data				
Manufacturer name:	Sky Paragliders			
Representative:	Michal Sotek			
Street:	Okruzni 39			
Post code / Place:	73911 Frydlant N.C.			
Country:	Czech Republic			
Sample data				
Name:	Sky System 3	Size:	90	
Steerable	n/a	Maximum weight [kg]:	86	
Weight [kg]	1.4	volume packed [cm <sup>3</sup> ]:	4000	
Serial number:	n/a			
Test data <sup>(1)</sup>	Test no. 1	Test no. 2		
Place of test	France	France		
Date of test	30.12.2006	30.12.2006		
Corrected mass [kg]	n/a	n/a		
Inspector:	Aerotest	Aerotest		
Atmosphere AGL				
[°C]	n/a	n/a		
RH [%]	n/a	n/a		
[hPa]	n/a	n/a		
Wind [m/s]	n/a	n/a		
Test results	Test no. 1	Test no. 2		
Speed of opening (maximum 5 s)	POSITIVE	POSITIVE		
Strength test (40m/s shock) Aircraft speed uncertainty K=2	POSITIVE	POSITIVE		
[m/s] <sup>(2)</sup>	1.7	1.7		
Item / type no.	Validity	Manufacturer	S/N	]
Weight	2020	Air Turquoise SA	N/A	
Geos nº 11	08.05.2017	JDC elec.	22	
Weak link				

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Inspection certificate number:



p·T

 $m_{corr} = m_{dec}$ 

n/a [hPa]

Formula using to calculate corrected mass Corrected mass for strength test no. 1 Ground level atmospheric pressure at test location: (p)

EP 266.2018

 ICAO standard atmospheric pressure at MSL: (po)
 1013.25 [hPa]

 Ground level temperature at the test location: (T)
 n/a [°C]

 #VALUE! [°K]
 ICAO standard temperature at MSL: (To)
 15 [°C]

 ICAO standard temperature at MSL: (To)
 15 [°C]
 288.15 [°K]

 Declared maximum payloadt: (mdec)
 86 [kg]
 Corrected mass: (mcorr)

 Corrected mass with uncertainty: (mcorr)
 #VALUE! [kg]

#### Corrected mass for strength test no. 2

n/a [hPa]
1013.25 [hPa]
n/a [°C]
#VALUE! [°K]
15 [°C]
288.15 [°K]
86 [kg]
#VALUE! [kg]
#VALUE! [kg]

The validation of this test report is given by the signature of the test manager on inspection certificate 71.5.1

Air Turquoise SA has thoroughly tested the sample of emergency parachute mentioned above and certifies its conformity with the standards: EN 12491:2001 chapter 5.3.5.1 -LTF NFL II 9/09 chapter 6

<sup>(1)</sup> The emergency parachute (in its standard inner container and packed according to the user's manual instructions) is stowed on the drop test device. The test parachute's riser (or both risers in the case of a two riser parachute) is (are) connected to the single anchor point on the drop test device using the connector(s) specified and supplied by the parachute manufacturer.

The drop test device is accelerated to a straight line velocity of 40 m/s and the parachute deployed using its handle or handle attachment point by a static line attached to a drogue chute or similar low force deployment system.

The test is carried out twice with the same parachute.

Speed of opening must be less than 5 seconds and shock not exceeded 15g.

(2) Calculated value include the value minus the uncertainty (on safe side) / The uncertainty stated is the expanded uncertainty obtained by multiplying the standard uncertainty by the coverage factor k = 2. The value of the measurand lies within the assigned range of values with a probability of 95%.

Test laboratory for paragliders, paraglider harnesses and paraglider reserve parachutes



# **Emergency parachute inspection certificate**

Inspection certificate number:	EP_267.2018		
Manufacturer data			
Manufacturer name:	Sky Paragliders		
Representative:	Michal Sotek		
Street:	Okruzni 39		
Post code / Place:	73911 Frydlant N.C.		
Country:	Czech Republic		
Sample data			
Name:	Sky System 3	Size:	110
Steerable	n/a	Maximum weight in flight (1) [kg]:	105
Weight <sup>(2)</sup> [kg]	1.55	volume packed [cm <sup>3</sup> ]:	4400
Serial number flight:	n/a	Date of reception:	02.01.2008
Serial number strength:	n/a	Date of reception:	n/a
Test report summary	Results	Place	Date
Speed of opening, descent rate, stability			
and glide ratio test 71.5.1.1	POSITIVE	Villeneuve	07.02.2008
Strength test / opening shock 71.5.1.2	POSITIVE	France	30.12.2006
Steerable parachute flight test 71.5.1.3		Villeneuve	n/a
Inner container strength test 71.5.1.4 $^{(3)}$	POSITIVE	Villeneuve	17.02.2009
Riser/bridle strength test 71.5.1.5 <sup>(4)</sup>	POSITIVE	Villeneuve	29.09.2009
Issue data			
Place of declaration:	Villeneuve		
Date of issue:	23.01.2018		
Managing director:	Alain Zoller		
Signature:			

This signature approve the validity of the test reports 71.5.1.1, 71.5.1.2, 71.5.1.3, 71.5.1.4 and 71.5.1.5 (Only if test report are applicable).

Air Turquoise SA has thoroughly tested the sample of emergency parachute mentioned above and certifies its conformity with the following standards : EN 12491:2001 and LTF NFL II 91/09 chapter 6 Paraglider rescue systems, LTF Ref chapter: 6.1.1 to 6.1.19, except 6.1.10

<sup>(1)</sup> Total weight in flight exclude weight of paraglider, also called payload - <sup>(2)</sup> Weight of the emergency parachute - <sup>(3)</sup> and <sup>(4)</sup> this item can be use for several models.

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 tests mentioned above and it is complete with the test report number: 71.5.1.1, 71.5.1.2 and 71.5.1.3 only if stearable. 71.5.1.4 and 71.5.1.5 are aslo included, they can be tested independently.

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#### **Paragliding Emergency Parachute**

Inspection number	EP_267.2018
Manufacturer	Sky Paragliders
Model and size	Sky System 3 110
Steerable	n/a
Weight of model [kg]	1.55
Maximum weight in flight [kg]	105
Volum [cm <sup>3</sup> ]	4400
Flat area [m <sup>2</sup> ]	26.3
Total length of suspension lines [m]	5.18
Serial number : Production date (year / month) :	

Warning : not suitable for use at speed more than 32 m/s (115 km/h) Read the operating manual before using this equipment!

A sample has been tested and certifies its conformity with the following standard: EN 12491:2001 and LTF NFL II 91/09 chapter 6.1.1-6.1.19 except 6.1.10. This model corresponds with the tested sample and its airworthiness.

RE | rev 05 | 12.01.2017 | ISO | 71.9.9

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## Speed of opening, stability, descent rate

Inspection certificate number:	EP_267.2018		Test Report
Manufacturer data			
Manufacturer name:	Sky Paragliders		
Representative:	Michal Sotek		
Street:	Okruzni 39		
Post code / Place:	73911 Frydlant N.C.		
Country:	Czech Republic		
Sample data			
Name:	Sky System 3	Size:	110
Steerable	n/a	Maximum weight in flight <sup>(1)</sup> [kg]:	105
Weight <sup>(2)</sup> [kg]	1.55	volume packed [cm <sup>3</sup> ]:	4400
Serial number:	n/a		
Test data <sup>(3)</sup>	Test no. 1	Test no. 2	
Place of test	Villeneuve	Villeneuve	
Date of test	02.01.2008	07.02.2008	
Inspector:	Alain Zoller	Alain Zoller	
Atmosphere AGL			
[°C]	2.2	82.2	
RH [%]	79.9	4.4	
[hPa]	970.1	989.3	
Wind [m/s]	0	0	

Summary of both results <sup>(4)</sup>	EN	LTF	
Time of opening test [s]:	3.07	3.07	
Calculated descent rate test [m/s]:	5.36	5.36	
Stability test:			
Behaviour during descent test:			
Glide ratio			

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Inspection certificate number:	EP_267.2018	
	Formula uping to coloulate corrected mass	$\mathbf{m}_{c \text{ orr}} := \mathbf{m}_{dec} \cdot \frac{\mathbf{p} \cdot \mathbf{T}_{0}}{\mathbf{p}_{0} \cdot \mathbf{T}}$
Sink rate test no. 1 <sup>(5)</sup>	Formula using to calculate corrected mass	
Ground level atmospheric pressur	e at test location: (p)	970.1 [hPa]
ICAO standard atmospheric press	ure at MSL: (po)	1013.25 [hPa]
Ground level temperature at the te	est location: (T)	2.2 [°C]
		275.35 [°K]
ICAO standard temperature at MS	iL: (То)	15 [°C]
		288.15 [°K]
Declared maximum payloadt: (md	ec)	105 [kg]
Corrected mass: (mcorr)		105.20 [kg]
Corrected mass with uncertainty:	(mcorr)	106.10 [kg]
Time when pilot release rescue		0 [s]
Time when weak link broken		0 [s]
Calculated speed opening [s]:		<b>3.07</b> [s]
Time ball touch the water:		0 [s]
Time pilot touch the water:		0 [s]
Time between ball and pilot touch	ng water (30m)	-0.15 [s]
Calculated sink rate [m/s]:		<b>5.28</b> [m/s]

## Sink rate test no. 2 (5)

Ground level atmospheric pressure at test location: (p)	989.3 [hPa]
ICAO standard atmospheric pressure at MSL: (po)	
	1013.25 [hPa]
Ground level temperature at the test location: (T)	82.2 [°C]
	355.35 [°K]
ICAO standard temperature at MSL: (To)	15 [°C]
	288.15 [°K]
Declared maximum payloadt: (mdec)	105 [kg]
Corrected mass: (mcorr)	83.13 [kg]
Corrected mass with uncertainty: (mcorr)	84.03 [kg]
Time when pilot release rescue	0 [s]
Time when weak link broken	0 [s]
Calculated speed opening [s]:	<b>3.07</b> [s]
Time ball touch the water:	0 <b>[s]</b>
Time pilot touch the water:	
	0 [s]
Time between ball and pilot touching water (30m)	-0.15 [s]
Calculated sink rate [m/s]:	<b>5.36</b> [m/s]

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Inspection certificate number: EP\_267.2018

Weak link test no. 1



Weak link test no. 2



Instrument & type no.	Validity	Manufacturer	S/N
Weak link	2020	Tost	N/A
Line 30 meter	2020	Air Turquoise SA	N/A
Geos nº 11 Skywatch	08.05.2017	JDC elec.	22

The validation of this test report is given by the signature of the test manager on inspection certificate 71.5.1

Air Turquoise SA has thoroughly tested the sample of emergency parachute mentioned above and certifies its conformity with the standards: EN 12491:2001 chapter 5.3.3 / 5.3.4 - LTF NFL II 9/09 chapter 6

<sup>(1)</sup> Total weight in flight exclude weight of paraglider, also called payload - <sup>(2)</sup> Weight of the emergency parachute

<sup>(3)</sup>The rescue system is droped from a paraglider in straight flight at 8 [m/s] +-1 [m/s] and a vertical airspeed of less than 1,5 [m/s]. The paraglider is released as the rescue system begins to open. Wink link 200 [N] is used to measure the speed opening. The stability and the glide ratio is observed. After a minimum of 100 m of descent, the average rate of descent is measured over 30 m of descent. The test is carried out twice.

<sup>(4)</sup> The calculated value include the value minus the uncertainty / The uncertainty stated is the expanded uncertainty obtained by multiplying the standard uncertainty by the coverage factor k = 2. The value of the measurand lies within the assigned range of values with a probability of 95%. The tests do not include any compatibility tests with alternative inner containers. Required time from the instant of free drop until a load of 200 [N] is sustained for EN 5 [s] and for LTF 5 [s]. The required maximum sink rate is for EN 5.5 [m/s] and for LTF 6.80 [m/s]. The final result is the worst case of both tests.

(5) Condition for the descent rate test. A. At horizontal airspeed 8 m/s and vertical speed 1.5 m/s B. Formula to be used for correcting the test mass ofr differences from ICAO standard atmosphere

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## Strength test - 40 m/s opening shock

Inspection certificate number:	EP_267.2018			Test Report
Manufacturer data				
Manufacturer name:	Sky Paragliders			
Representative:	Michal Sotek			
Street:	Okruzni 39			
Post code / Place:	73911 Frydlant N.C.			
Country:	Czech Republic			
Sample data				
Name:	Sky System 3	Size:	110	
Steerable	n/a	Maximum weight [kg]:	105	
Weight [kg]	1.55	volume packed [cm <sup>3</sup> ]:	4400	
Serial number:	n/a			
Test data <sup>(1)</sup>	Test no. 1	Test no. 2		
Place of test	France	France		
Date of test	29.09.2009	29.09.2009		
Corrected mass [kg]	n/a	n/a		
	n/a	n/a		
Inspector:	Aerotest	Aerotest		
Atmosphere AGL				
[°C]	n/a	n/a		
RH [%]	n/a	n/a		
[hPa]	n/a	n/a		
Wind [m/s]	n/a	n/a		
	174	iva		
Test results	Test no. 1	Test no. 2		
Speed of opening (maximum 5 s)	POSITIVE	POSITIVE		
Strength test (40m/s shock)	POSITIVE	POSITIVE		
Aircraft speed uncertainty K=2				
[m/s] <sup>(2)</sup>	1.7	1.7		
Item / type no.	Validity	Manufacturer	S/N	
Weight	2020	Air Turquoise SA	N/A	
Geos nº 11	08.05.2017	JDC elec.	22	
Weak link	2020	Tost	N/A	
	/			

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Inspection certificate number: EP\_267.2018

Formula using to calculate corre Corrected mass for strength test no. 1	$m_{c \text{ orr}} \coloneqq m_{dec} \cdot \frac{p \cdot T_0}{p_0 \cdot T}$
Ground level atmospheric pressure at test location: (p)	n/a [hPa]
ICAO standard atmospheric pressure at MSL: (po)	1013.25 [hPa]
Ground level temperature at the test location: (T)	n/a [°C]
	#VALUE! [°K]
ICAO standard temperature at MSL: (To)	15 [°C]
	288.15 [°K]
Declared maximum payloadt: (mdec)	105 [kg]
Corrected mass: (mcorr)	#VALUE! [kg]
Corrected mass with uncertainty: (mcorr)	#VALUE! [kg]

#### Corrected mass for strength test no. 2

Ground level atmospheric pressure at test location: (p)	n/a [hPa]
ICAO standard atmospheric pressure at MSL: (po)	1013.25 [hPa]
Ground level temperature at the test location: (T)	n/a [°C]
	#VALUE! [°K]
ICAO standard temperature at MSL: (To)	15 [°C]
	288.15 [°K]
Declared maximum payloadt: (mdec)	105 [kg]
Corrected mass: (mcorr)	#VALUE! [kg]
Corrected mass with uncertainty: (mcorr)	#VALUE! [kg]

The validation of this test report is given by the signature of the test manager on inspection certificate 71.5.1

Air Turquoise SA has thoroughly tested the sample of emergency parachute mentioned above and certifies its conformity with the standards: EN 12491:2001 chapter 5.3.5.1 -LTF NFL II 9/09 chapter 6

<sup>(1)</sup> The emergency parachute (in its standard inner container and packed according to the user's manual instructions) is stowed on the drop test device. The test parachute's riser (or both risers in the case of a two riser parachute) is (are) connected to the single anchor point on the drop test device using the connector(s) specified and supplied by the parachute manufacturer.

The drop test device is accelerated to a straight line velocity of 40 m/s and the parachute deployed using its handle or handle attachment point by a static line attached to a drogue chute or similar low force deployment system.

The test is carried out twice with the same parachute.

Speed of opening must be less than 5 seconds and shock not exceeded 15g.

(2) Calculated value include the value minus the uncertainty (on safe side) / The uncertainty stated is the expanded uncertainty obtained by multiplying the standard uncertainty by the coverage factor k = 2. The value of the measurand lies within the assigned range of values with a probability of 95%.

Test laboratory for paragliders, paraglider harnesses and paraglider reserve parachutes



# **Emergency parachute inspection certificate**

Inspection certificate number:	EP_268.2018		
Manufacturer data			
Manufacturer name:	Sky Paragliders		
Representative:	Michal Sotek		
Street:	Okruzni 39		
Post code / Place:	73911 Frydlant N.C.		
Country:	Czech Republic		
Sample data			
Name:	Sky System 3	Size:	135
Steerable	n/a	Maximum weight in flight <sup>(1)</sup> [kg]:	130
Weight <sup>(2)</sup> [kg]	1.85	volume packed [cm <sup>3</sup> ]:	4900
Serial number flight:	n/a	Date of reception:	01.04.2008
Serial number strength:	n/a	Date of reception:	n/a
Test report summary	Results	Place	Date
Speed of opening,descent rate, stability and glide ratio test 71.5.1.1	POSITIVE	Villeneuve	24.04.2008
Strength test / opening shock 71.5.1.2	POSITIVE	France	30.12.2006
Steerable parachute flight test 71.5.1.3	N/A	Villeneuve	n/a
Inner container strength test 71.5.1.4 <sup>(3)</sup>	POSITIVE	Villeneuve	17.02.2009
Riser/bridle strength test 71.5.1.5 <sup>(4)</sup>	POSITIVE	Villeneuve	29.09.2009
Issue data			
Place of declaration:	Villeneuve		
Date of issue:	23.01.2018		
Managing director:	Alain Zoller		
Signature:			

This signature approve the validity of the test reports 71.5.1.1, 71.5.1.2, 71.5.1.3, 71.5.1.4 and 71.5.1.5 (Only if test report are applicable).

Air Turquoise SA has thoroughly tested the sample of emergency parachute mentioned above and certifies its conformity with the following standards : EN 12491:2001 and LTF NFL II 91/09 chapter 6 Paraglider rescue systems, LTF Ref chapter: 6.1.1 to 6.1.19, except 6.1.10

(1) Total weight in flight exclude weight of paraglider, also called payload - <sup>(2)</sup> Weight of the emergency parachute - <sup>(3)</sup> and <sup>(4)</sup> this item can be use for several models.

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 tests mentioned above and it is complete with the test report number: 71.5.1.1, 71.5.1.2 and 71.5.1.3 only if stearable. 71.5.1.4 and 71.5.1.5 are aslo included, they can be tested independently.

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

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#### **Paragliding Emergency Parachute**

Inspection number	EP_268.2018
Manufacturer	Sky Paragliders
Model and size	Sky System 3 135
Steerable	n/a
Weight of model [kg]	1.85
Maximum weight in flight [kg]	130
Volum [cm <sup>3</sup> ]	4900
Flat area [m <sup>2</sup> ]	32.5
Total length of suspension lines [m]	5.62
Serial number : Production date (year / month) :	·

Warning : not suitable for use at speed more than 32 m/s (115 km/h) Read the operating manual before using this equipment!

A sample has been tested and certifies its conformity with the following standard: EN 12491:2001 and LTF NFL II 91/09 chapter 6.1.1-6.1.19 except 6.1.10. This model corresponds with the tested sample and its airworthiness.

RE | rev 05 | 12.01.2017 | ISO | 71.9.9

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## Speed of opening, stability, descent rate

Inspection certificate number:	EP_268.2018		Test Repor
Manufacturer data			
Manufacturer name:	Sky Paragliders		
Representative:	Michal Sotek		
Street:	Okruzni 39		
Post code / Place:	73911 Frydlant N.C.		
Country:	Czech Republic		
Sample data			
Name:	Sky System 3	Size:	135
Steerable	n/a	Maximum weight in flight <sup>(1)</sup> [kg]:	130
Weight <sup>(2)</sup> [kg]	1.85	volume packed [cm <sup>3</sup> ]:	4900
Serial number:	n/a		
Test data <sup>(3)</sup>	Test no. 1	Test no. 2	
Place of test	Villeneuve	Villeneuve	
Date of test	01.04.2008	24.04.2008	
Inspector:	Alain Zoller	Alain Zoller	
Atmosphere AGL			
[°C]	8.9	8	
RH [%]	77.5	82.8	
[hPa]	979	980	
Wind [m/s]	0	0	

Summary of both results <sup>(4)</sup>	EN	LTF	
Time of opening test [s]:	3.07	3.07	
Calculated descent rate test [m/s]:	5.47	5.47	
Stability test:	POSITIVE	POSITIVE	
Behaviour during descent test:	Stable	Stable	
Glide ratio	POSITIVE		

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Inspection certificate number:	EP_268.2018	
Sink rate test no. 1 <sup>(5)</sup>	Formula using to calculate corrected mass	$\mathbf{m}_{c \text{ orr}} \coloneqq \mathbf{m}_{dec} \cdot \frac{\mathbf{p} \cdot \mathbf{T}_{0}}{\mathbf{p}_{0} \cdot \mathbf{T}}$
Ground level atmospheric pressur	e at test location: (p)	979 [hPa]
ICAO standard atmospheric press	ure at MSL: (po)	1013.25 [hPa]
Ground level temperature at the te	est location: (T)	8.9 [°C]
		282.05 [°K]
ICAO standard temperature at MS	ы. (То)	15 [°C]
		288.15 [°K]
Declared maximum payloadt: (md	ec)	130 [kg]
Corrected mass: (mcorr)		128.32 [kg]
Corrected mass with uncertainty: (mcorr)		129.22 [kg]
Time when pilot release rescue		0 [s]
Time when weak link broken		0 [s]
Calculated speed opening [s]:		<b>3.07</b> [s]
Time ball touch the water:		0 [s]
Time pilot touch the water:		0 [s]
Time between ball and pilot touch	ng water (30m)	-0.15 [s]
Calculated sink rate [m/s]:		<b>5.47</b> [m/s]

## Sink rate test no. 2 (5)

Ground level atmospheric pressure at test location: (p)	980 [hPa]
ICAO standard atmospheric pressure at MSL: (po)	1013.25 [hPa]
Ground level temperature at the test location: (T)	8 [°C]
	281.15 [°K]
ICAO standard temperature at MSL: (To)	15 [°C]
	288.15 [°K]
Declared maximum payloadt: (mdec)	130 [kg]
Corrected mass: (mcorr)	128.86 [kg]
Corrected mass with uncertainty: (mcorr)	129.76 [kg]
Time when pilot release rescue	0 [s]
Time when weak link broken	0 [s]
Calculated speed opening [s]:	<b>3.07</b> [s]
Time ball touch the water:	0 [s]
Time pilot touch the water:	0 [s]
Time between ball and pilot touching water (30m)	-0.15 [s]
Calculated sink rate [m/s]:	<b>5.47</b> [m/s]

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Inspection certificate number: EP\_268.2018

Weak link test no. 1



Weak link test no. 2



Instrument & type no.	Validity	Manufacturer	S/N
Weak link	2020	Tost	N/A
Line 30 meter	2020	Air Turquoise SA	N/A
Geos nº 11 Skywatch	08.05.2017	JDC elec.	22

The validation of this test report is given by the signature of the test manager on inspection certificate 71.5.1

Air Turquoise SA has thoroughly tested the sample of emergency parachute mentioned above and certifies its conformity with the standards: EN 12491:2001 chapter 5.3.3 / 5.3.4 - LTF NFL II 9/09 chapter 6

<sup>(1)</sup> Total weight in flight exclude weight of paraglider, also called payload - <sup>(2)</sup> Weight of the emergency parachute

<sup>(3)</sup>The rescue system is droped from a paraglider in straight flight at 8 [m/s] +-1 [m/s] and a vertical airspeed of less than 1,5 [m/s]. The paraglider is released as the rescue system begins to open. Wink link 200 [N] is used to measure the speed opening. The stability and the glide ratio is observed. After a minimum of 100 m of descent, the average rate of descent is measured over 30 m of descent. The test is carried out twice.

<sup>(4)</sup> The calculated value include the value minus the uncertainty / The uncertainty stated is the expanded uncertainty obtained by multiplying the standard uncertainty by the coverage factor k = 2. The value of the measurand lies within the assigned range of values with a probability of 95%. The tests do not include any compatibility tests with alternative inner containers. Required time from the instant of free drop until a load of 200 [N] is sustained for EN 5 [s] and for LTF 5 [s]. The required maximum sink rate is for EN 5.5 [m/s] and for LTF 6.80 [m/s]. The final result is the worst case of both tests.

(5) Condition for the descent rate test. A. At horizontal airspeed 8 m/s and vertical speed 1.5 m/s B. Formula to be used for correcting the test mass ofr differences from ICAO standard atmosphere

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## Strength test - 40 m/s opening shock

Inspection certificate number:	EP_268.2018		Test Report
Manufacturer data			
Manufacturer name:	Sky Paragliders		
Representative:	Michal Sotek		
Street:	Okruzni 39		
Post code / Place:	73911 Frydlant N.C.		
Country:	Czech Republic		
Sample data			
Name:	Sky System 3	Size:	135
Steerable	n/a	Maximum weight [kg]:	130
Weight [kg]	1.85	volume packed [cm <sup>3</sup> ]:	4900
Serial number:	n/a		
Test data <sup>(1)</sup>	Test no. 1	Test no. 2	
Place of test	Illarsaz	Illarsaz	
Date of test			
	dd.mm.yyyy	dd.mm.yyyy	
Corrected mass [kg]	#VALUE!	#VALUE!	
Inspector:	Alain Zoller	Alain Zoller	
Atmosphere AGL			
[°C]	XX	XX	
RH [%]	XX	XX	
[hPa]	XXX	XXX	
Wind [m/s]	X	X	
	*	*	
Test results	Test no. 1	Test no. 2	
Speed of opening (maximum 5 s)			
Strength test (40m/s shock)			
Aircraft speed uncertainty K=2			
[m/s] <sup>(2)</sup>	1.7	1.7	
Item / type no.	Validity	Manufacturer	S/N
Weight	2020	Air Turquoise SA	N/A
Geos nº 11	08.05.2017	JDC elec.	22
Weak link			
	2020	Tost	N/A

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EP 268.2018

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Inspection certificate number:



p·T  $m_{corr} = m_{dec}$ Formula using to calculate corrected mass Corrected mass for strength test no. 1 Ground level atmospheric pressure at test location: (p) xxx [hPa] ICAO standard atmospheric pressure at MSL: (po) 1013.25 [hPa] Ground level temperature at the test location: (T) XX [°C] #VALUE! [°K] ICAO standard temperature at MSL: (To) 15 [°C] 288.15 [°K] Declared maximum payloadt: (mdec) 130 [kg] Corrected mass: (mcorr) #VALUE! [kg] Corrected mass with uncertainty: (mcorr) #VALUE! [kg]

#### Corrected mass for strength test no. 2

Ground level atmospheric pressure at test location: (p)	xxx [hPa]
ICAO standard atmospheric pressure at MSL: (po)	1013.25 [hPa]
Ground level temperature at the test location: (T)	xx [°C]
	#VALUE! [°K]
ICAO standard temperature at MSL: (To)	15 [°C]
	288.15 [°K]
Declared maximum payloadt: (mdec)	130 [kg]
Corrected mass: (mcorr)	#VALUE! [kg]
Corrected mass with uncertainty: (mcorr)	#VALUE! [kg]

The validation of this test report is given by the signature of the test manager on inspection certificate 71.5.1

Air Turquoise SA has thoroughly tested the sample of emergency parachute mentioned above and certifies its conformity with the standards: EN 12491:2001 chapter 5.3.5.1 -LTF NFL II 9/09 chapter 6

<sup>(1)</sup> The emergency parachute (in its standard inner container and packed according to the user's manual instructions) is stowed on the drop test device. The test parachute's riser (or both risers in the case of a two riser parachute) is (are) connected to the single anchor point on the drop test device using the connector(s) specified and supplied by the parachute manufacturer.

The drop test device is accelerated to a straight line velocity of 40 m/s and the parachute deployed using its handle or handle attachment point by a static line attached to a drogue chute or similar low force deployment system.

The test is carried out twice with the same parachute.

Speed of opening must be less than 5 seconds and shock not exceeded 15g.

(2) Calculated value include the value minus the uncertainty (on safe side) / The uncertainty stated is the expanded uncertainty obtained by multiplying the standard uncertainty by the coverage factor k = 2. The value of the measurand lies within the assigned range of values with a probability of 95%.