

Turn angle to recover normal flight



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Flight test report: EN 926-2:2013

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Manufacturer	Velocity Paragliders USA	Certification number		PG_0876.2014	
Address	8591 Hogan Dam Road 95252 Valley Springs Ca USA	Date of flight test		04. 09. 2014	
Glider model	Elektra 26	Classification		В	
Representative	None	Place of test		Villeneuve	
Trimmer	no				
Test pilot Harness Harness to risers distance (cm) Distance between risers (cm) Total weight in flight (kg)		Thurnheer Claude Supair - Altiplume S 44 42 76		Zoller Alain Flugsau - Lightsau 41 44 97	
1. Inflation/Take-off		A			
Rising behaviour		Smooth, easy and constant rising	Α	Smooth, easy and constant rising	Α
Special take off technique	required	No	Α	No	Α
2. Landing		A			
Special landing technique		No	Α	No	Α
3. Speed in straight flight		A			
Trim speed more than 30 km/h		Yes	Α	Yes	Α
Speed range using the controls larger than 10 km/h		Yes	Α	Yes	Α
Minimum speed		Less than 25 km/h	Α	Less than 25 km/h	Α
4. Control movement		A			
Max. weight in flight up t	o 80 kg				
Symmetric control pressure / travel		Increasing / greater than 55 cm	Α	not available	0
Max. weight in flight 80 k	ra to 100 ka				
Symmetric control pressure / travel		not available	0	Increasing / greater than 60 cm	Α
.,				3 3	
Max. weight in flight grea	ater than 100 kg				
Symmetric control pressure	e / travel	not available	0	not available	0
5. Pitch stability exiting a		A			
Dive forward angle on exit		Dive forward less than 30°	Α	Dive forward less than 30°	Α
Collapse occurs		No	Α	No	Α
6. Pitch stability operatin flight	ng controls during accelerated	Α			
Collapse occurs		No	Α	No	Α
7. Roll stability and damp	ping	A			
Oscillations		Reducing	Α	Reducing	Α
8. Stability in gentle spirals		A		_	
Tendency to return to straight flight		Spontaneous exit	Α	Spontaneous exit	Α
9. Behaviour exiting a fully developed spiral dive		A			
Initial response of glider (first 180°)		Immediate reduction of rate of turn	Α	Immediate reduction of rate of turn	Α
Tendency to return to straight flight		Spontaneous exit (g force decreasing, rate of turn	Α	Spontaneous exit (g force decreasing, rate of turn decreasing)	Α

decreasing)

recovery

Less than 720°, spontaneous

A Less than 720°, spontaneous

recovery

10. Symmetric front collapse	A			
Approximately 30 % chord				
Entry	Rocking back less than 45°	Α	Rocking back less than 45°	Α
Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Dive forward angle on exit Change of course	Dive forward 0° to 30° Keeping course	Α	Dive forward 0° to 30° Keeping course	Α
Cascade occurs	No	Α	No	Α
Folding lines used	No	Α	No	Α
At least 50% chord				
Entry	Rocking back less than 45°	Α	Rocking back less than 45°	Α
Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Dive forward angle on exit / Change of course	Dive forward 0° to 30° / Keeping course	Α	Dive forward 0° to 30° / Keeping course	Α
Cascade occurs	No	Α	No	Α
Folding lines used	No	Α	No	Α
With accelerator				
Entry	Rocking back less than 45°	Α	Rocking back less than 45°	Α
Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Dive forward angle on exit / Change of course	Dive forward 0° to 30° / Keeping	A	Dive forward 0° to 30° / Keeping	A
Casaada aagura	course	۸	course	^
Cascade occurs	No	A	No No	A
Folding lines used	No A	Α	No	Α
11. Exiting deep stall (parachutal stall) Deep stall achieved	Yes	Α	Yes	۸
· ·				A
Recovery	Spontaneous in less than 3 s	A	Spontaneous in less than 3 s	A
Dive forward angle on exit	Dive forward 0° to 30°	A	Dive forward 0° to 30°	A
Change of course	Changing course less than 45°	A	Changing course less than 45°	A
Cascade occurs	No	Α	No	Α
12. High angle of attack recovery	A Spontaneous in less than 2 o	۸	Countain and in loss than 2 a	^
Recovery	Spontaneous in less than 3 s	A	Spontaneous in less than 3 s	A
Cascade occurs	No A	Α	No	Α
13. Recovery from a developed full stall		۸	Dive ferward 0° to 20°	۸
Dive forward angle on exit	Dive forward 0° to 30°	A	Dive forward 0° to 30°	A
Collapse	No collapse	A	No collapse	A
Cascade occurs (other than collapses)	No	A	No	A
Rocking back	Less than 45°	A	Less than 45°	A
Line tension 14. Asymmetric collapse	Most lines tight B	Α	Most lines tight	Α
14. Asymmetric conapse	В			
Small asymmetric collapse				
Change of course until re-inflation / Maximum dive forward or roll angle	Less than 90° / Dive or roll angle 0° to 15°	Α	Less than 90° / Dive or roll angle 0° to 15°	Α
Re-inflation behaviour	Spontaneous re-inflation	Α	Spontaneous re-inflation	Α
Total change of course	Less than 360°	Α	Less than 360°	Α
Collapse on the opposite side occurs	No (or only a small number of collapsed cells with a spontaneous reinflation)	Α	No (or only a small number of collapsed cells with a spontaneous reinflation)	Α
Twist occurs	No	Α	No	Α
Cascade occurs	No	Α	No	Α
Folding lines used	No	Α	No	Α
Large asymmetric collapse		_		_
Change of course until re-inflation / Maximum dive forward or roll angle	90° to 180° / Dive or roll angle 15° to 45°	В	90° to 180° / Dive or roll angle 15° to 45°	В
Re-inflation behaviour				
	Spontaneous re-inflation	Α	Spontaneous re-inflation	Α
Total change of course	Spontaneous re-inflation Less than 360°	A A	Spontaneous re-inflation Less than 360°	A A

10. Symmetric front collapse

Collapse on the opposite side occurs	No (or only a small number of collapsed cells with a spontaneous reinflation)	Α	No (or only a small number of collapsed cells with a spontaneous reinflation)	Α
Twist occurs	No	Α	No	Α
Cascade occurs	No	Α	No	Α
Folding lines used	No	Α	No	Α
rodding lines dsed	NO	^	NO	^
Small asymmetric collapse with fully activated accelerator				
Change of course until re-inflation / Maximum dive forward or roll angle	Less than 90° / Dive or roll angle 15° to 45°	Α	Less than 90° / Dive or roll angle 15° to 45°	Α
Re-inflation behaviour	Spontaneous re-inflation	Α	Spontaneous re-inflation	Α
Total change of course	Less than 360°	Α	Less than 360°	Α
Collapse on the opposite side occurs	No (or only a small number of collapsed cells with a spontaneous reinflation)	Α	No (or only a small number of collapsed cells with a spontaneous reinflation)	Α
Twist occurs	No	Α	No	Α
Cascade occurs	No	Α	No	Α
Folding lines used	No	Α	No	Α
Large commetrie colleges with fully activated appelarator				
Large asymmetric collapse with fully activated accelerator Change of course until re-inflation / Maximum dive forward or		Р	00° to 190° / Dive or roll apple 45°	D
roll angle	90° to 180° / Dive or roll angle 15° to 45°	В	90° to 180° / Dive or roll angle 15° to 45°	В
Re-inflation behaviour	Spontaneous re-inflation	Α	Spontaneous re-inflation	Α
Total change of course	Less than 360°	Α	Less than 360°	Α
Collapse on the opposite side occurs	No (or only a small number of	Α	No (or only a small number of	Α
Collapse on the opposite side occurs	collapsed cells with a spontaneous reinflation)	,,	collapsed cells with a spontaneous reinflation)	,,
Twist occurs	No	Α	No	Α
Cascade occurs	No	Α	No	Α
Folding lines used	No	Α	No	Α
15. Directional control with a maintained asymmetric collapse	A			
Able to keep course	Yes	Α	Yes	Α
180° turn away from the collapsed side possible in 10 s	Yes	Α	Yes	Α
Amount of control range between turn and stall or spin	More than 50 % of the symmetric control travel	Α	More than 50 % of the symmetric control travel	Α
16. Trim speed spin tendency	A			
Spin occurs	No	Α	No	Α
17. Low speed spin tendency	Α			
Spin occurs	No	Α	No	Α
18. Recovery from a developed spin	A			
Spin rotation angle after release	Stops spinning in less than 90°	Α	Stops spinning in less than 90°	Α
Cascade occurs	No	Α	No	Α
19. B-line stall	A	, ,		, ,
Change of course before release	Changing course less than 45°	Α	Changing course less than 45°	Α
Behaviour before release				
Benaviour before release	Remains stable with straight span	Α	Remains stable with straight span	Α
Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α
Cascade occurs	No	Α	No	Α
20. Big ears	Α			
Entry procedure	Dedicated controls	Α	Dedicated controls	Α
Behaviour during big ears	Stable flight	Α	Stable flight	Α
Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α
21. Big ears in accelerated flight	A	^	5.10 10 Wald 0 10 00	
		٨	Dedicated controls	۸
Entry procedure	Dedicated controls	A	Dedicated controls	A
Behaviour during big ears	Stable flight	A	Stable flight	Α
Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α

Behaviour immediately after releasing the accelerator while maintaining big ears	Stable flight	А	Stable flight	Α
22. Alternative means of directional control	Α			
180° turn achievable in 20 s	Yes	Α	Yes	Α
Stall or spin occurs	No	Α	No	Α
23. Any other flight procedure and/or configuration described in the user's manual	0			
Procedure works as described	not available	0	not available	0
Procedure suitable for novice pilots	not available	0	not available	0
Cascade occurs	not available	0	not available	0

24. Comments of test pilot

Comments