

	<u>UP International GmbH</u> <u>UP International GmbH</u>	
Classification Winch towing Number of seats min / max	Yes 1 / 1	
	No BEHAVIOUR AT MIN WEIGHT IN	
Test pilots	FLIGHT (65KG)	WEIGHT IN FLIGHT (85KG)
	Juliette Schönsee	Josef Bauer
•	Reiner Brunn No release	No release
Rising behaviour	B Easy rising, some pilot correction is required	B Easy rising, some pilot correction is required
Special take off technique required Landing	No A	No A
Special landing technique required Speeds in straight flight	No A	No
Trim speed more than 30 km/h Speed range using the controls larger than 10 km/h		Yes Yes
	Less than 25 km/h	Less than 25 km/h
Symmetric control pressure Symmetric control travel	-	Increasing Greater than 60 cm
Dive forward angle on exit		A Dive forward less than 30° No
Collapse occurs Pitch stability operating controls during accelerated flight	A	A
Collapse occurs	·	No
<u>Roll stability and damping</u> Oscillations	Reducing	; A Reducing
<u>Stability in gentle spirals</u> Tendency to return to straight flight	A Spontaneous exit	A Spontaneous exit
Behaviour exiting a fully developed spiral dive Initial response of glider (first 180°) Tendency to return to straight flight	Immediate reduction of rate of turn	B en : keine unmittelbare Reaktion Spontaneous exit (g force
	rate of turn decreasing)	decreasing, rate of turn decreasing Less than 720°, spontaneous recovery
	A Rocking back less than 45°	A Rocking back less than 45°
Recovery Dive forward angle on exit	Spontaneous in less than 3 s	Spontaneous in less than 3 s Dive forward 0° to 30° Keeping course
Cascade occurs Folding lines used	No	No
-	Rocking back less than 45°	A Rocking back less than 45°
Dive forward angle on exit Change of course	Entering a turn of less than 90°	Spontaneous in less than 3 s Dive forward 0° to 30° Keeping course
Cascade occurs Folding lines used		No no
Entry	A Rocking back less than 45° Spontaneous in less than 3 s	B Rocking back less than 45° Spontaneous in less than 3 s
Dive forward angle on exit	Dive forward 0° to 30° Entering a turn of less than 90°	Dive forward 30° to 60° Keeping course No
Folding lines used		no
Deep stall achieved Recovery	Yes Spontaneous in less than 3 s	Yes Spontaneous in less than 3 s
Dive forward angle on exit Change of course Cascade occurs	Changing course less than 45°	Dive forward 30° to 60° Changing course less than 45° No
	A Spontaneous in less than 3 s	A Spontaneous in less than 3 s
Cascade occurs Recovery from a developed full stall	No	No
Dive forward angle on exit Collapse	No collapse	Dive forward 30° to 60° No collapse No
Cascade occurs (other than collapses) Rocking back Line tension		Less than 45° Most lines tight
Change of course until re-inflation		A Less than 90°
Maximum dive forward or roll angle Re-inflation behaviour Total change of course	Spontaneous re-inflation	Dive or roll angle 15° to 45° Spontaneous re-inflation Less than 360°
	cells with a spontaneous re inflation)	No (or only a small number of collapsed cells with a spontaneous re inflation)
Twist occurs Cascade occurs Folding lines used	No	No No no
Large asymmetric collapse Change of course until re-inflation	B 90° to 180°	B 90° to 180°
Maximum dive forward or roll angle Re-inflation behaviour Total change of course	Spontaneous re-inflation	Dive or roll angle 15° to 45° Spontaneous re-inflation Less than 360°
Collapse on the opposite side occurs	No (or only a small number of collapsed cells with a spontaneous re inflation)	No (or only a small number of collapsed cells with a spontaneous re inflation)
Twist occurs Cascade occurs Folding lines used	No	No No no
Small asymmetric collapse accelerated Change of course until re-inflation	B 90° to 180°	A Less than 90°
Maximum dive forward or roll angle Re-inflation behaviour Total change of course	Dive or roll angle 15° to 45° Spontaneous re-inflation	Dive or roll angle 15° to 45° Spontaneous re-inflation Less than 360°
Collapse on the opposite side occurs		No (or only a small number of collapsed cells with a spontaneous re inflation)
Twist occurs Cascade occurs Folding lines used	No	No No no
,,	B	B 90° to 180°
Change of course until re-inflation Maximum dive forward or roll angle Re-inflation behaviour	Dive or roll angle 15° to 45° Spontaneous re-inflation	Dive or roll angle 15° to 45° Spontaneous re-inflation
Total change of course Collapse on the opposite side occurs		Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation)
	No	No
Twist occurs Cascade occurs Folding lines used	No	no
Cascade occurs Folding lines used Directional control with a maintained	No	no
Cascade occurs Folding lines used Directional control with a maintained asymmetric collapse Able to keep course 180° turn away from the collapsed side	No no A Yes	
Cascade occurs Folding lines used Directional control with a maintained asymmetric collapse Able to keep course	No no A Yes Yes More than 50 % of the symmetric control	A Yes Yes
Cascade occurs Folding lines used Directional control with a maintained asymmetric collapse Able to keep course 180° turn away from the collapsed side possible in 10 s Amount of control range between turn and stall or spin	No no A Yes Yes More than 50 % of the symmetric control travel A	A Yes Yes More than 50 % of the symmetric
Cascade occurs Folding lines used Directional control with a maintained asymmetric collapse Able to keep course 180° turn away from the collapsed side possible in 10 s Amount of control range between turn and stall or spin Trim speed spin tendency Spin occurs	No no A Yes Yes More than 50 % of the symmetric control travel A No A	A Yes Yes More than 50 % of the symmetric control travel
Cascade occurs Folding lines used Directional control with a maintained asymmetric collapse Able to keep course 180° turn away from the collapsed side possible in 10 s Amount of control range between turn and stall or spin Trim speed spin tendency Spin occurs Low speed spin tendency	No no A Yes Yes More than 50 % of the symmetric control travel A No A No	A Yes Yes More than 50 % of the symmetric control travel A No
Cascade occurs Folding lines used Directional control with a maintained asymmetric collapse Able to keep course 180° turn away from the collapsed side possible in 10 s Amount of control range between turn and stall or spin Trim speed spin tendency Spin occurs Low speed spin tendency Spin occurs Recovery from a developed spin Spin rotation angle after release Cascade occurs	No no A Yes Yes More than 50 % of the symmetric control travel A No A No A Stops spinning in less than 90°	A Yes Yes More than 50 % of the symmetric control travel A No A
Cascade occurs Folding lines used Directional control with a maintained asymmetric collapse Able to keep course 180° turn away from the collapsed side possible in 10 s Amount of control range between turn and stall or spin Trim speed spin tendency Spin occurs Low speed spin tendency Spin occurs Recovery from a developed spin Spin rotation angle after release Cascade occurs B-line stall Change of course before release Behaviour before release	No no A Yes Yes More than 50 % of the symmetric control travel A No A No A Stops spinning in less than 90° No A Changing course less than 45° Remains stable with straight span	AYesYesMore than 50 % of the symmetric control travelANoANoAStops spinning in less than 90° NoAChanging course less than 45° Remains stable with straight span
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