CHNICAL DATA DHV TESTREPORT LTF DHV TESTREPORT EN	DATASHEET PARTS LIST OPERATING INSTRUCT	
STREPORT EN 926-2:2013+A1:2021		DHY
UP MERU 2 L		
Type designation	UP Meru 2 L	
Type test reference no		
Holder of certification	UP International GmbH	NA
Manufacturer	UP International GmbH	V 22 des
Classification	D	and the second second
Winch towing	Yes	
Number of seats min / max	1/1	
Accelerator		
Trimmers		
	BEHAVIOUR AT MIN WEIGHT IN FLIGHT (108KG)	BEHAVIOUR AT MAX WEIGHT IN FLIGHT (125KG)
Test pilots		
	Harald Buntz	Mario Eder
	No release	No release
Inflation/take-off	c	C
·	· Overshoots, shall be slowed down to	Overshoots, shall be slowed down
Kishig beliaviou	avoid a front collapse	to avoid a front collapse
Special take off technique required		No
Landing	A	Α
Special landing technique required	No	No
Speeds in straight flight	A	В
Trim speed more than 30 km/h	Yes	Yes
Speed range using the controls larger than 10		Yes
km/h		
Minimum speed	Less than 25 km/h	25 km/h to 30 km/h
Control movement	A	c
Symmetric control pressure		Increasing
Symmetric control travel		50 cm to 65 cm
Pitch stability exiting accelerated flight	A	A
Dive forward angle on exit	<u>.</u>	Dive forward less than 30°
Collapse occurs		No
conapse occurs		
Pitch stability operating controls during accelerated flight	A	A
Collapse occurs	! No	No
		1
Roll stability and damping	Α	Α
Oscillations	Reducing	Reducing
Stability in gentle spirals	A	A
Tendency to return to straight flight	Spontaneous exit	Spontaneous exit
Behaviour exiting a fully developed spiral dive	A	A
L	4	÷
Initial response of glider (first 180°)		Immediate reduction of rate of turn
Tendency to return to straight flight	rate of turn decreasing)	Spontaneous exit (g force decreasing, rate of turn decreasing)

Symmetric front collapse	c	c
Entry	Rocking back less than 45°	Rocking back less than 45°
Recovery	Spontaneous in less than 3 s	Spontaneous in less than 3 s
Dive forward angle on exit		Dive forward 0° to 30°
Change of course	Keeping course	Keeping course
Cascade occurs		No
Folding lines used	yes	yes
	10	! _
Unaccelerated collapse (at least 50 % chord)	c	D
Entry	Rocking back less than 45°	Rocking back less than 45°
Recovery	Spontaneous in less than 3 s	Recovery through pilot action in le than a further 3 s
Dive forward angle on exit	Dive forward 0° to 30°	Dive forward 0° to 30°
Change of course	Keeping course	Entering a turn of 90° to 180°
Cascade occurs	No	No
Folding lines used	yes	yes
Accelerated collapse (at least 50 % chord)	D	D
·····	i	·
-	Rocking back less than 45°	Rocking back less than 45°
	Recovery through pilot action in less than a further 3 s	than a further 3 s
Dive forward angle on exit		Dive forward 30° to 60°
	Entering a turn of less than 90°	Entering a turn of less than 90°
Cascade occurs		No
Folding lines used	yes	yes
Exiting deep stall (parachutal stall)	В	В
Deep stall achieved	Yes	Yes
	Spontaneous in less than 3 s	Spontaneous in less than 3 s
Dive forward angle on exit		Dive forward 30° to 60°
_	Changing course less than 45°	Changing course less than 45°
Cascade occurs		No
High angle of attack recovery	A	A
Recovery	Spontaneous in less than 3 s	Spontaneous in less than 3 s
Cascade occurs		No
Recovery from a developed full stall	В	B
Dive forward angle on exit	i	Dive forward 30° to 60°
_	No collapse	No collapse
		No
Cascade occurs (other than collapses)		Less than 45°
Rocking back	Most lines tight	Most lines tight
Small asymmetric collapse	c	C
Change of course until re-inflation		90° to 180°
Maximum dive forward or roll angle		Dive or roll angle 15° to 45°
	Inflates in less than 3 s from start of pilot action	Inflates in less than 3 s from start of pilot action
Total change of course		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)
	No	No
Twist occurs	NO	
Twist occurs Cascade occurs		No
	No	No yes
Cascade occurs Folding lines used	No yes	yes
Cascade occurs Folding lines used	No yes C	

Re-inflation behaviour	Spontaneous re-inflation	Spontaneous re-inflation
Total change of course	Less than 360°	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	No	No
Cascade occurs	No	No
Folding lines used	yes	yes
Small asymmetric collapse accelerated	D	c
Change of course until re-inflation	90° to 180°	90° to 180°
Maximum dive forward or roll angle	Dive or roll angle 15° to 45°	Dive or roll angle 15° to 45°
Re-inflation behaviour	Inflates in less than 3 s from start of pilot action	Inflates in less than 3 s from start of pilot action
Total change of course		Less than 360°
Collapse on the opposite side occurs	Yes, causing turn reversal	No (or only a small number of collapsed cells with a spontaneous re inflation)
Twist occurs	No	No
Cascade occurs	No	No
Folding lines used	yes	yes
Large asymmetric collapse accelerated	c	c
Change of course until re-inflation	180° to 360°	180° to 360°
Maximum dive forward or roll angle		Dive or roll angle 45° to 60°
Re-inflation behaviour	Spontaneous re-inflation	Spontaneous re-inflation
Total change of course	Less than 360°	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	No	No
Cascade occurs	No	No
Folding lines used	yes	yes
Directional control with a maintained asymmetric collapse	с	c
Able to keep course	Yes	Yes
	Yes	Yes
180° turn away from the collapsed side possible in 10 s		
, , ,	25 % to 50 % of the symmetric control	25 % to 50 % of the symmetric control travel
possible in 10 s Amount of control range between turn and stall or spin	25 % to 50 % of the symmetric control	control travel
possible in 10 s Amount of control range between turn and stall or spin	25 % to 50 % of the symmetric control travel	control travel
possible in 10 s Amount of control range between turn and stall or spin Trim speed spin tendency Spin occurs	25 % to 50 % of the symmetric control travel A	control travel
possible in 10 s Amount of control range between turn and stall or spin Trim speed spin tendency Spin occurs	25 % to 50 % of the symmetric control travel A No	control travel
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	25 % to 50 % of the symmetric control travel A No A	control travel A No A No
possible in 10 s Amount of control range between turn and stall or spin Trim speed spin tendency Low speed spin tendency Spin occurs Recovery from a developed spin	25 % to 50 % of the symmetric control travel A No A	control travel A No A No A
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	25 % to 50 % of the symmetric control travel A No A No A Stops spinning in less than 90°	control travel A No A No
possible in 10 s Amount of control range between turn and stall or spin Trim speed spin tendency Low speed spin tendency Spin occurs Recovery from a developed spin Spin rotation angle after release Cascade occurs	25 % to 50 % of the symmetric control travel A No A No A Stops spinning in less than 90° No	control travel A No A No A Stops spinning in less than 90° No
possible in 10 s Amount of control range between turn and stall or spin Trim speed spin tendency Low speed spin tendency Spin occurs Recovery from a developed spin Spin rotation angle after release Cascade occurs	25 % to 50 % of the symmetric control travel A No A Stops spinning in less than 90° No	control travel A No A No A Stops spinning in less than 90° No
possible in 10 s Amount of control range between turn and stall or spin Trim speed spin tendency Low speed spin tendency Spin occurs Recovery from a developed spin Spin rotation angle after release Cascade occurs B-line stall Not carried out because the manoeuvre is excluded	25 % to 50 % of the symmetric control travel A No A Stops spinning in less than 90° No in the user's manual	control travel A No A No A Stops spinning in less than 90° No
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 Not carried out because the manoeuvre is excluded Big ears	25 % to 50 % of the symmetric control travel A No A Stops spinning in less than 90° No in the user's manual A	control travel A No A No A Stops spinning in less than 90° No
possible in 10 s Amount of control range between turn and stall or spin Trim speed spin tendency Low speed spin tendency Spin occurs Recovery from a developed spin Spin rotation angle after release Cascade occurs B-line stall Not carried out because the manoeuvre is excluded Big ears Entry procedure	25 % to 50 % of the symmetric control travel A No A Stops spinning in less than 90° No in the user's manual A Standard technique	control travel A No A No A Stops spinning in less than 90° No Staps spinning in less than 90° No Staps spinning in less than 90° No Staps spinning in less than 90° No
possible in 10 s Amount of control range between turn and stall or spin Trim speed spin tendency Low speed spin tendency Spin occurs Recovery from a developed spin Spin rotation angle after release Cascade occurs B-line stall Not carried out because the manoeuvre is excluded Big ears Entry procedure Behaviour during big ears	25 % to 50 % of the symmetric control travel A No A Stops spinning in less than 90° No in the user's manual A Standard technique Stable flight	control travel A No A No A Stops spinning in less than 90° No Staps spinning in less than 90° No
possible in 10 s Amount of control range between turn and stall or spin Trim speed spin tendency Low speed spin tendency Spin occurs Recovery from a developed spin Spin rotation angle after release Cascade occurs B-line stall Not carried out because the manoeuvre is excluded Big ears Entry procedure Behaviour during big ears Recovery	25 % to 50 % of the symmetric control travel A No A Stops spinning in less than 90° No in the user's manual A Standard technique Stable flight Spontaneous in less than 3 s	control travel A No A No A Stops spinning in less than 90° No Staps spinning in less than 90° No
possible in 10 s Amount of control range between turn and stall or spin Trim speed spin tendency Low speed spin tendency Spin occurs Recovery from a developed spin Spin rotation angle after release Cascade occurs B-line stall Not carried out because the manoeuvre is excluded Big ears Entry procedure Behaviour during big ears	25 % to 50 % of the symmetric control travel A No A Stops spinning in less than 90° No in the user's manual A Standard technique Stable flight Spontaneous in less than 3 s	control travel A No A No A Stops spinning in less than 90° No Standard technique Stable flight
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 Not carried out because the manoeuvre is excluded Big ears Entry procedure Behaviour during big ears Recovery Dive forward angle on exit	25 % to 50 % of the symmetric control travel A No A Stops spinning in less than 90° No in the user's manual A Standard technique Stable flight Spontaneous in less than 3 s	control travel A No A No A Stops spinning in less than 90° No Staps spinning in less than 90° No Staps spinning in less than 90° No La Stops spinning in less than 90° No La Staps spinning in less than 3 s Dive forward 0° to 30°
possible in 10 s Amount of control range between turn and stall or spin Trim speed spin tendency Low speed spin tendency Spin occurs Recovery from a developed spin Spin rotation angle after release Cascade occurs B-line stall Not carried out because the manoeuvre is excluded Big ears Entry procedure Behaviour during big ears Recovery Dive forward angle on exit	25 % to 50 % of the symmetric control travel A No A Stops spinning in less than 90° No in the user's manual A Standard technique Stable flight Spontaneous in less than 3 s Dive forward 0° to 30°	control travel A No A No A Stops spinning in less than 90° No Staps spinning in less than 90° No Staps spinning in less than 90° No July and technique Stable flight Spontaneous in less than 3 s Dive forward 0° to 30°

Recovery Spontaneous in less than 3 s	Spontaneous in less than 3 s
Dive forward angle on exit Dive forward 0° to 30°	Dive forward 0° to 30°
Behaviour immediately after releasing the Stable flight accelerator while maintaining big ears	Stable flight
Alternative means of directional control A	А
180° turn achievable in 20 s Yes	Yes
Stall or spin occurs No	No

Any other flight procedure and/or configuration described in the user's manual

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STREPORT EN 926-2:2013+A1:2021		
UP MERU 2 M		
Type designation	UP Meru 2 M	
Type test reference no	DHV GS-01-2851-24	The second
Holder of certification	UP International GmbH	A Ball
Manufacturer	UP International GmbH	· ·
Classification	D	Containing Containing
Winch towing		
Number of seats min / max	1/1	
Accelerator		
Trimmers		
	BEHAVIOUR AT MIN WEIGHT IN FLIGHT (97KG)	BEHAVIOUR AT MAX
Test pilots		WEIGHT IN FLIGHT (112KG)
	Harald Buntz	Mario Eder
	No release	No release
Inflation/take-off	В	в
Rising behaviour	Easy rising, some pilot correction is required	Easy rising, some pilot correction is required
Special take off technique required		No
Landing	A	A
Special landing technique required	No	No
Speeds in straight flight	в	В
Trim speed more than 30 km/h	Yes	Yes
Speed range using the controls larger than 10		Yes
km/h		
Minimum speed	25 km/h to 30 km/h	25 km/h to 30 km/h
		1
Control movement	¦A	c
Symmetric control pressure	-	Increasing
Symmetric control trave	Greater than 60 cm	50 cm to 65 cm
<u></u>	1-	1-
Pitch stability exiting accelerated flight	<u>¦A</u>	A
Dive forward angle on exit		Dive forward less than 30°
Collapse occurs	No	No
Pitch stability operating controls during accelerated flight	A	A
Collapse occurs		No
Roll stability and damping	A	A
L	<u>.</u>	·•
Oscillations	Reducing	Reducing
Stability in gentle spirals	A	Α
Tendency to return to straight flight		Spontaneous exit
Behaviour exiting a fully developed spiral dive	в	В
Initial response of glider (first 180°)		en : keine unmittelbare Reaktion
Tendency to return to straight flight		Spontaneous exit (g force decreasing, rate of turn decreasing)

Symmetric front collapse	c	c
Entry	r Rocking back less than 45°	Rocking back less than 45°
-	Spontaneous in less than 3 s	Spontaneous in less than 3 s
Dive forward angle on exit		Dive forward 0° to 30°
Change of course		Keeping course
Cascade occurs		No
Folding lines used		yes
	'	'
Unaccelerated collapse (at least 50 % chord)	c	C
Entry	Rocking back less than 45°	Rocking back less than 45°
	Spontaneous in 3 s to 5 s	Spontaneous in 3 s to 5 s
Dive forward angle on exit	Dive forward 0° to 30°	Dive forward 0° to 30°
Change of course	Keeping course	Keeping course
Cascade occurs	No	No
Folding lines used	yes	yes
Accelerated collapse (at least 50 % chord)	D	c
Fntrv	r Rocking back less than 45°	Rocking back less than 45°
	Recovery through pilot action in less than a further 3 s	-
Dive forward angle on exit	Dive forward 30° to 60°	Dive forward 30° to 60°
Change of course	Keeping course	Keeping course
Cascade occurs	No	No
Folding lines used	yes	yes
Exiting deep stall (parachutal stall)	A	A
Deep stall achieved	<u>.</u>	No
		1
High angle of attack recovery	i	A
		Spontaneous in less than 3 s
Cascade occurs	No	No
Recovery from a developed full stall	в	В
Dive forward angle on exit	Dive forward 30° to 60°	Dive forward 30° to 60°
Collapse	No collapse	No collapse
Cascade occurs (other than collapses)	No	No
Rocking back	Less than 45°	Less than 45°
Line tension	Most lines tight	Most lines tight
	c	
Small asymmetric collapse	4	
Change of course until re-inflation		180° to 360°
Maximum dive forward or roll angle		Dive or roll angle 45° to 60°
Vountiation hobavious		
	Spontaneous re-inflation	Spontaneous re-inflation
Total change of course	Less than 360°	Less than 360°
Total change of course		1
Total change of course	Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation)	Less than 360° No (or only a small number of collapsed cells with a spontaneous
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	Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation)
Total change of course Collapse on the opposite side occurs Twist occurs	Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation) No	Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation) No
Total change of course Collapse on the opposite side occurs Twist occurs Cascade occurs Folding lines used	Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation) No No yes	Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation) No No yes
Total change of course Collapse on the opposite side occurs Twist occurs Cascade occurs Folding lines used	Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation) No No yes	Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation) No No yes
Total change of course Collapse on the opposite side occurs Twist occurs Cascade occurs Folding lines used Large asymmetric collapse Change of course until re-inflation	Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation) No No yes c 90° to 180°	Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation) No No yes c 90° to 180°
Total change of course Collapse on the opposite side occurs Twist occurs Cascade occurs Folding lines used Large asymmetric collapse Change of course until re-inflation Maximum dive forward or roll angle	Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation) No No yes c 90° to 180° Dive or roll angle 45° to 60°	Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation) No No yes C 90° to 180° Dive or roll angle 45° to 60°
Total change of course Collapse on the opposite side occurs Twist occurs Cascade occurs Folding lines used Large asymmetric collapse Change of course until re-inflation Maximum dive forward or roll angle Re-inflation behaviour	Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation) No No yes c 90° to 180° Dive or roll angle 45° to 60° Spontaneous re-inflation	Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation) No No yes c 90° to 180° Dive or roll angle 45° to 60° Spontaneous re-inflation
Total change of course Collapse on the opposite side occurs Twist occurs Cascade occurs Folding lines used Large asymmetric collapse Change of course until re-inflation Maximum dive forward or roll angle Re-inflation behaviour Total change of course	Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation) No No yes c 90° to 180° Dive or roll angle 45° to 60° Spontaneous re-inflation Less than 360° No (or only a small number of collapsed	Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation) No No yes c 90° to 180° Dive or roll angle 45° to 60° Spontaneous re-inflation Less than 360° No (or only a small number of
Total change of course Collapse on the opposite side occurs Twist occurs Cascade occurs Folding lines used Large asymmetric collapse Change of course until re-inflation Maximum dive forward or roll angle Re-inflation behaviour Total change of course	Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation) No No yes c 90° to 180° Dive or roll angle 45° to 60° Spontaneous re-inflation Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation)	Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation) No No yes c 90° to 180° Dive or roll angle 45° to 60° Spontaneous re-inflation Less than 360°

Folding lines used yes yes Small asymmetric collapse accelerated [C C Change of course until re-inflation 180° to 360° Dive or roll angle 45° to 60° Maximum dive forward or roll angle dis to 500 Dive or roll angle 45° to 60° Spontaneous re-inflation Calapse on the opposite side occurs No (or only a small number of collapsed Collapse for the opposite side occurs No No Twist occurs No No No No Re-inflation behaviour Spontaneous re-inflation Dive or roll angle 45° to 60° Dive or roll angle 45° to 60° Change of course until re-inflation Less than 90° Maximum dive forward or roll angle 45° to 60° Dive or roll angle 45° to 60° Maximum dive forward or roll angle 165° to 50° Re-inflation behaviour Spontaneous re-inflation Dive or roll angle 45° to 60° Maximum dive forward or roll angle 45° to 60° Re-inflation behaviour Spontaneous re-inflation Dive or roll angle 45° to 60° Maximum dive forward or roll angle 45° to 60° Re-inflation East than 30° No Collapse on the opposite side occurs No No No Collapse accurs in No No Collapse on the opposite side occurs No No No Collapse accurs in Soft No Folding lines used yes Yes Spontaneous re-inflation Less than 30° No Collapse on the			Na
Small asymmetric collapse accelerated C C Change of course until re-inflation 180° to 360° 180° to 360° Maximum dive forward or roll angle 50° to 60° 180° to 360° Dive or roll angle 45° to 60° Re-inflation behaviors 'pontaneous re-inflation Total change of course (Less thin 30° Dive or roll angle 45° to 60° Collapse on the opposite side occurs No No No Collapsed cells with a spontaneous re-inflation Twist occurs No No No No No Change of course until re-inflation Less than 90° No No No Maximum dive forward or roll angle 45° to 60° Dive or roll angle 45° to 60° Dive or roll angle 45° to 60° Maximum dive forward or roll angle 45° to 60° Dive or roll angle 45° to 60° Dive or roll angle 45° to 60° Maximum dive forward or roll angle 45° to 60° Dive or roll angle 45° to 60° Dive or roll angle 45° to 60° Change of course until re-inflation Less than 30° Collapsed cells with a spontaneous re-inflation Less than 30° Collapse on the opposite side occurs No No No No Cascade occurs No No No No Cascade occurs			No
Change of course until re-inflation 180° to 360° 180° to 360° Maximum dive forward or roll angle 50% or roll angle 45° to 60° Dive or roll angle 45° to 60° Re-inflation behaviors Spontaneous re-inflation Total change of course Less than 360° Collapse on the opposite side occurs No No Twist occurs No No Change of course until re-inflation Less than 90° No Change of course until re-inflation Less than 90° No Maximum dive forward or roll angle 45° to 60° Ce Change of course until re-inflation Less than 90° No Maximum dive forward or roll angle 50° to 60° Dive or roll angle 45° to 60° Maximum dive forward or roll angle 50° to 60° Dive or roll angle 45° to 60° Re-inflation behaviours postnanous re-inflation Less than 360° Collapse on the opposite side occurs No No Re-inflation behaviours postnanous re-inflation Less than 360° Collapse on the opposite side occurs No No Folding lines used yes Yes Scaced occurs No No Folding lines used yes Yes Issert on angle 45° to 60° Spontanous re-inflation Collapse on the opposite side occurs No No Folding lines used yes Yes Issert on angle 45° to 60° Spontaneous re-inflation Coll	Folding lines used	yes	yes
Change of course until re-inflation 180° to 360° 180° to 360° Maximum dive forward or roll angle 50% or roll angle 45° to 60° Dive or roll angle 45° to 60° Re-inflation behaviors Spontaneous re-inflation Total change of course Less than 360° Collapse on the opposite side occurs No No Twist occurs No No Change of course until re-inflation Less than 90° No Change of course until re-inflation Less than 90° No Maximum dive forward or roll angle 45° to 60° Ce Change of course until re-inflation Less than 90° No Maximum dive forward or roll angle 50° to 60° Dive or roll angle 45° to 60° Maximum dive forward or roll angle 50° to 60° Dive or roll angle 45° to 60° Re-inflation behaviours postnanous re-inflation Less than 360° Collapse on the opposite side occurs No No Re-inflation behaviours postnanous re-inflation Less than 360° Collapse on the opposite side occurs No No Folding lines used yes Yes Scaced occurs No No Folding lines used yes Yes Issert on angle 45° to 60° Spontanous re-inflation Collapse on the opposite side occurs No No Folding lines used yes Yes Issert on angle 45° to 60° Spontaneous re-inflation Coll	Small asymmetric collapse accelerated	c	c
Maximum dive forward or roll angle Dive or roll angle 45° to 60° Dive or roll angle 50° to 60° Re-Inflation behaviour Spontaneous re-inflation Less than 360° Collapse on the opposite side occurs No No Twist occurs No No Collapse on the opposite side occurs No No Collapse on the opposite side occurs No No Change of course until re-inflation No Folding lines used yes Yes Large asymmetric collapse accelerated C C Change of course until re-inflation Less than 90° Less than 30° Maximum dive forward or roll angle 45° to 60° Dive or roll angle 45° to 60° Re-inflation behaviour Spontaneous re-inflation Spontaneous re-inflation Total change of course Less than 30° Less than 30° Maximum dive forward or roll angle 45° to 60° Dive or roll angle 45° to 60° Re-inflation behaviour Spontaneous re-inflation Less than 360° Collapse on the opposite side occurs No No Collapse accurs No No Collapse accurs No No Collapse accurs No No Collapse accurs No No Total change of course una 25 % No 50 % of the symmetric control 25 % th 50 % of the symmetric control range between turn and 25 % No 50 % of the symmetric control travel Dire ortrol angle 42° ro collapse <th>·</th> <th></th> <th></th>	·		
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Recovery Spontaneous in less than 3 s Spontaneous in less than 3 s Dive forward angle on exit Dive forward 0° to 30° Dive forward 0° to 30° Big ears in accelerated flight A Entry procedure Standard technique Standard technique Behaviour during big ears Stable flight Stable flight Recovery Spontaneous in less than 3 s Spontaneous in less than 3 s Dive forward angle on exit Dive forward 0° to 30° Dive forward 0° to 30° Behaviour immediately after releasing the Stable flight accelerator while maintaining big ears Stable flight	Entry procedure	Standard technique	Standard technique
Dive forward angle on exit Dive forward 0° to 30° Dive forward 0° to 30° Big ears in accelerated flight A A Entry procedure Standard technique Standard technique Behaviour during big ears Stable flight Stable flight Recovery Spontaneous in less than 3 s Spontaneous in less than 3 s Dive forward angle on exit Dive forward 0° to 30° Dive forward 0° to 30° Behaviour immediately after releasing the Stable flight Stable flight Accelerator while maintaining big ears Stable flight Stable flight	Behaviour during big ears	Stable flight	Stable flight
Big ears in accelerated flight A Entry procedure Standard technique Behaviour during big ears Stable flight Behaviour during big ears Stable flight Recovery Spontaneous in less than 3 s Dive forward angle on exit Dive forward 0° to 30° Behaviour immediately after releasing the Stable flight Accelerator while maintaining big ears Stable flight	Recovery	Spontaneous in less than 3 s	Spontaneous in less than 3 s
Entry procedure Standard technique Standard technique Behaviour during big ears Stable flight Stable flight Recovery Spontaneous in less than 3 s Spontaneous in less than 3 s Dive forward angle on exit Dive forward 0° to 30° Dive forward 0° to 30° Behaviour immediately after releasing the Stable flight Stable flight accelerator while maintaining big ears Item 1 Stable flight	Dive forward angle on exit	Dive forward 0° to 30°	Dive forward 0° to 30°
Entry procedure Standard technique Standard technique Behaviour during big ears Stable flight Stable flight Recovery Spontaneous in less than 3 s Spontaneous in less than 3 s Dive forward angle on exit Dive forward 0° to 30° Dive forward 0° to 30° Behaviour immediately after releasing the Stable flight Stable flight accelerator while maintaining big ears Item 1 Stable flight	tan in a state of the	1	1
Behaviour during big earsStable flightStable flightRecoverySpontaneous in less than 3 sSpontaneous in less than 3 sDive forward angle on exitDive forward 0° to 30°Dive forward 0° to 30°Behaviour immediately after releasing theStable flightStable flightaccelerator while maintaining big earsStable flightStable flight	L	<u>.</u>	<u>.</u>
Recovery Spontaneous in less than 3 s Spontaneous in less than 3 s Dive forward angle on exit Dive forward 0° to 30° Dive forward 0° to 30° Behaviour immediately after releasing the Stable flight accelerator while maintaining big ears Stable flight			
Dive forward angle on exit Dive forward 0° to 30° Dive forward 0° to 30° Behaviour immediately after releasing the Stable flight Stable flight accelerator while maintaining big ears Stable flight Stable flight			
Behaviour immediately after releasing the Stable flight Stable flight accelerator while maintaining big ears Stable flight	-		•
accelerator while maintaining big ears	_		
Alternative means of directional control A			Stable flight
	Alternative means of directional control	Α	Α

Any other flight procedure and/or configuration described in the user's manual

TECHNICAL DATA DHV TESTREPORT LTF DHV TESTREPORT EN	DATASHEET PARTS LIST OPERATING INSTRUCT	
ESTREPORT EN 926-2:2013+A1:2021		
UP MERU 2 SM		
Type designation Type test reference no Holder of certification Manufacturer Classification Winch towing Number of seats min / max Accelerator	DHV GS-01-2850-24 <u>UP International GmbH</u> <u>UP International GmbH</u> D Yes 1 / 1	0436
Trimmers	No BEHAVIOUR AT MIN WEIGHT IN FLIGHT (88KG)	BEHAVIOUR AT MAX WEIGHT IN FLIGHT (101KG)
Test pilots	Josef Bauer	Mario Eder
Inflation/take-off	No release	No release C
Rising behaviour	Overshoots, shall be slowed down to avoid a front collapse	Overshoots, shall be slowed down to avoid a front collapse
Special take off technique required	No	No
Landing	A	A
Special landing technique required	No	No
Speeds in straight flight	A	в
Trim speed more than 30 km/h Speed range using the controls larger than 10 km/h	Yes	Yes Yes
Minimum speed	Less than 25 km/h	25 km/h to 30 km/h
Control movement	c	c
Symmetric control pressure Symmetric control travel	5	Increasing 50 cm to 65 cm
Pitch stability exiting accelerated flight	A	Α
Dive forward angle on exit Collapse occurs		Dive forward less than 30° No
Pitch stability operating controls during accelerated flight	A	A
Collapse occurs	No	No
Roll stability and damping	A	A
Oscillations		Reducing
Stability in gentle spirals	A	A
Tendency to return to straight flight	ė	Spontaneous exit
Behaviour exiting a fully developed spiral dive	A	c
Initial response of glider (first 180°)		en : keine unmittelbare Reaktion
Tendency to return to straight flight	Spontaneous exit (g force decreasing, rate of turn decreasing)	Spontaneous exit (g force decreasing, rate of turn decreasing)

Turn angle to recover normal flight Less than 720°, spontaneous recovery

en : 1080° bis 1440°, selbstständige Rückkehr in den Normalflug

Symmetric front collapse	c	c
Entry	Rocking back less than 45°	Rocking back less than 45°
-	Spontaneous in less than 3 s	Spontaneous in 3 s to 5 s
Dive forward angle on exit		Dive forward 0° to 30°
Change of course		Entering a turn of less than 90°
Cascade occurs		No
Folding lines used		
Folding mes used	yes	yes
Unaccelerated collapse (at least 50 % chord)	c	D
L	<u> </u>	· · · · · · · · · · · · · · · · · · ·
	Rocking back less than 45°	Rocking back less than 45°
	Spontaneous in less than 3 s	Recovery through pilot action in less than a further 3 s
Dive forward angle on exit	Dive forward 0° to 30°	Dive forward 0° to 30°
Change of course	Keeping course	Entering a turn of 90° to 180°
Cascade occurs	No	No
Folding lines used	yes	yes
	1	
·	¦C	c
-	Rocking back less than 45°	Rocking back less than 45°
Recovery	Spontaneous in less than 3 s	Spontaneous in less than 3 s
Dive forward angle on exit	Dive forward 30° to 60°	Dive forward 30° to 60°
Change of course	Entering a turn of less than 90°	Entering a turn of less than 90°
Cascade occurs	No	No
Folding lines used	yes	yes
Exiting deep stall (parachutal stall)	В	В
	<u>.</u>	- <u>+</u>
Deep stall achieved		Yes
	Spontaneous in less than 3 s	Spontaneous in less than 3 s
Dive forward angle on exit		Dive forward 30° to 60°
	Changing course less than 45°	Changing course less than 45°
Cascade occurs	No	No
High angle of attack recovery	A	A
Recovery	Spontaneous in less than 3 s	Spontaneous in less than 3 s
Cascade occurs	•	No
·	'_	۱_
Recovery from a developed full stall	B	В
Dive forward angle on exit		Dive forward 30° to 60°
-	No collapse	No collapse
Cascade occurs (other than collapses)		No
Rocking back	Less than 45°	Less than 45°
Line tension	Most lines tight	Most lines tight
Small asymmetric collapse	c	c
L	<u></u>	
Change of course until re-inflation		90° to 180°
Maximum dive forward or roll angle		Dive or roll angle 15° to 45°
Re-inflation behaviour	Inflates in less than 3 s from start of pilot action	Inflates in less than 3 s from start of pilot action
Total change of course	Less than 360°	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	No	No
Cascade occurs		No
Folding lines used		yes
Large asymmetric collapse	c	C
Change of course until re-inflation Maximum dive forward or roll angle		90° to 180° Dive or roll angle 15° to 45°

Pe-inflation behaviour	Spontaneous re-inflation	Spontaneous re-inflation
Total change of course		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	No	No
Cascade occurs	s No	No
Folding lines used	yes	yes
Small asymmetric collapse accelerated	c	c
Change of course until re-inflation	90° to 180°	90° to 180°
Maximum dive forward or roll angle	Dive or roll angle 45° to 60°	Dive or roll angle 45° to 60°
Re-inflation behaviour	Inflates in less than 3 s from start of	Inflates in less than 3 s from start
	pilot action	of pilot action
Total change of course		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	s No	No
Cascade occurs		No
Folding lines used	yes	yes
Large asymmetric collapse accelerated	c	c
Change of course until re-inflation	<u>i</u>	180° to 360°
Maximum dive forward or roll angle		Dive or roll angle 45° to 60°
_	Inflates in less than 3 s from start of	Inflates in less than 3 s from start
	pilot action	of pilot action
Total change of course		Less than 360° No (or only a small number of
	No (or only a small number of collapsed cells with a spontaneous re inflation)	collapsed cells with a spontaneous re inflation)
Twist occurs	s No	No
Cascade occurs	s No	No
Folding lines used	yes	yes
Folding lines used Directional control with a maintained asymmetric collapse	yes C	yes C
Directional control with a maintained	c	1
Directional control with a maintained asymmetric collapse Able to keep course 180° turn away from the collapsed side	c Yes Yes	c
Directional control with a maintained asymmetric collapse Able to keep course 180° turn away from the collapsed side possible in 10 s	c Yes Yes	c Yes Yes
Directional control with a maintained asymmetric collapse Able to keep course 180° turn away from the collapsed side	c Yes Yes 25 % to 50 % of the symmetric control	c Yes
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	c Yes Yes 25 % to 50 % of the symmetric control	Yes Yes 25 % to 50 % of the symmetric
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	C Yes 25 % to 50 % of the symmetric control travel	c Yes Yes 25 % to 50 % of the symmetric control travel
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	c Yes Yes 25 % to 50 % of the symmetric control travel A	C Yes Yes 25 % to 50 % of the symmetric control travel A No
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	c Yes 25 % to 50 % of the symmetric control travel A	C Yes Yes 25 % to 50 % of the symmetric control travel A No
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	c Yes 25 % to 50 % of the symmetric control travel A	C Yes Yes 25 % to 50 % of the symmetric control travel A
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	c Yes 25 % to 50 % of the symmetric control travel A	C Yes Yes 25 % to 50 % of the symmetric control travel A No
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	c Yes 25 % to 50 % of the symmetric control travel A No A	c Yes Yes 25 % to 50 % of the symmetric control travel A No
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	c Yes 25 % to 50 % of the symmetric control travel A No A Stops spinning in less than 90°	c Yes Yes 25 % to 50 % of the symmetric control travel A No A
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	c Yes 25 % to 50 % of the symmetric control travel A No A Stops spinning in less than 90° No	c Yes Yes 25 % to 50 % of the symmetric control travel A No A Stops spinning in less than 90° No
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	c Yes 25 % to 50 % of the symmetric control travel A No A Stops spinning in less than 90° No	c Yes Yes 25 % to 50 % of the symmetric control travel A No A Stops spinning in less than 90° No
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 Low speed spin tendency Spin occurs Recovery from a developed spin Spin rotation angle after release Cascade occurs	c Yes 25 % to 50 % of the symmetric control travel A No A Stops spinning in less than 90° No	c Yes Yes 25 % to 50 % of the symmetric control travel A No A Stops spinning in less than 90° No
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 Course Low speed spin tendency Spin occurs Recovery from a developed spin Spin rotation angle after release Cascade occurs B-line stall Not carried out because the manoeuvre is excluded Big ears	c Yes Yes 25 % to 50 % of the symmetric control travel A No A Stops spinning in less than 90° No in the user's manual	C Yes Yes 25 % to 50 % of the symmetric control travel A No A Stops spinning in less than 90° No
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 Not carried out because the manoeuvre is excluded Big ears Entry procedure	c Yes 25 % to 50 % of the symmetric control travel A No A Stops spinning in less than 90° No in the user's manual A Standard technique	c Yes Yes 25 % to 50 % of the symmetric control travel A No A No A Stops spinning in less than 90° No A Standard technique
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 Not carried out because the manoeuvre is excluded Big ears Entry procedure Behaviour during big ears	c Yes Yes 25 % to 50 % of the symmetric control travel A No A No A Stops spinning in less than 90° No in the user's manual A Standard technique Stable flight	c Yes Yes 25 % to 50 % of the symmetric control travel A No A No A Stops spinning in less than 90° No Standard technique Stable flight
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 Not carried out because the manoeuvre is excluded Big ears Entry procedure Behaviour during big ears	c Yes Yes 25 % to 50 % of the symmetric control travel A No A No A Stops spinning in less than 90° No in the user's manual A Standard technique Stable flight Spontaneous in less than 3 s	c Yes Yes 25 % to 50 % of the symmetric control travel A No A No A Stops spinning in less than 90° No A Standard technique
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 Not carried out because the manoeuvre is excluded Big ears Entry procedure Behaviour during big ears Recovery Dive forward angle on exit	c Yes Yes 25 % to 50 % of the symmetric control travel A No A No A Stops spinning in less than 90° No in the user's manual A Standard technique Stable flight Spontaneous in less than 3 s Dive forward 0° to 30°	C Yes Yes 25 % to 50 % of the symmetric control travel A No A Stops spinning in less than 90° No A Standard technique Stable flight Spontaneous in less than 3 s Dive forward 0° to 30°
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 Not carried out because the manoeuvre is excluded Big ears Entry procedure Behaviour during big ears Recovery Dive forward angle on exit	c Yes Yes 25 % to 50 % of the symmetric control travel A No A No A Stops spinning in less than 90° No in the user's manual A Standard technique Stable flight Spontaneous in less than 3 s	c Yes Yes 25 % to 50 % of the symmetric control travel A No A No A Stops spinning in less than 90° No Standard technique Stable flight Spontaneous in less than 3 s

Behaviour during big ears Stable flight	Stable flight	
Recovery Spontaneous in less than 3 s	Spontaneous in less than 3 s	
Dive forward angle on exit Dive forward 0° to 30°	Dive forward 0° to 30°	
Behaviour immediately after releasing the Stable flight accelerator while maintaining big ears	Stable flight	
Alternative means of directional control A	A	
180° turn achievable in 20 s Yes	Yes	
Stall or spin occurs No	No	
Any other flight procedure and/or configuration described in the user's manual		

ECHNICAL DATA DHV TESTREPORT LTF DHV TESTREPORT EN	DATASHEET PARTS LIST OPERATING INSTRUCT	
STREPORT EN 926-2:2013+A1:2021		
UP MERU 2 S		
Type designation	UP Meru 2 S	
Type test reference no	DHV GS-01-2849-24	
Holder of certification	UP International GmbH	A CONTRACTOR
Manufacturer	UP International GmbH	-
Classification	D	Contraction of the second
Winch towing	Yes	and the second second
Number of seats min / max	1/1	
Accelerator	Yes	
Trimmers	No	
	BEHAVIOUR AT MIN WEIGHT IN FLIGHT (78KG)	BEHAVIOUR AT MAX WEIGHT IN FLIGHT (90KG)
Test pilots	Josef Bauer	Harald Buntz
	No release	No release
Inflation/take-off	c	с
Rising behaviour	Overshoots, shall be slowed down to avoid a front collapse	Overshoots, shall be slowed down to avoid a front collapse
Special take off technique required		No
Landing	A	A
Special landing technique required	No	No
Speeds in straight flight	A	A
Trim speed more than 30 km/h	Yes	Yes
Speed range using the controls larger than 10	Yes	Yes
km/h		
Minimum speed	Less than 25 km/h	Less than 25 km/h
Control movement	c	A
·	<u>.</u>	±
Symmetric control pressure	5	Increasing
Symmetric control travel	40 cm to 55 cm	Greater than 60 cm
Pitch stability exiting accelerated flight	A	A
L	i	÷
Dive forward angle on exit Collapse occurs		Dive forward less than 30° No
Pitch stability operating controls during accelerated flight	A	A
Collapse occurs		No
Roll stability and damping	A	A
Oscillations		Reducing
Stability in gentle spirals	A	A
Tendency to return to straight flight	Spontaneous exit	Spontaneous exit
Behaviour exiting a fully developed spiral dive	A	A
L	L	Immediate reduction of rate of turn
Initial response of glider (first 180°) Tendency to return to straight flight	Spontaneous exit (g force decreasing,	Spontaneous exit (g force
	rate of turn decreasing)	decreasing, rate of turn decreasing)

Turn angle to recover normal flight Less than 720°, spontaneous recovery Less than 720°, spontaneous recovery

Symmetric front collapse	c	c
Entry	Rocking back less than 45°	Rocking back less than 45°
Recovery	Spontaneous in less than 3 s	Spontaneous in less than 3 s
Dive forward angle on exit	Dive forward 0° to 30°	Dive forward 0° to 30°
Change of course	Keeping course	Keeping course
Cascade occurs	No	No
Folding lines used	yes	yes
Jnaccelerated collapse (at least 50 % chord)	c	c
Entry	Rocking back less than 45°	Rocking back less than 45°
Recovery	Spontaneous in less than 3 s	Spontaneous in 3 s to 5 s
Dive forward angle on exit	Dive forward 0° to 30°	Dive forward 0° to 30°
Change of course	Keeping course	Keeping course
Cascade occurs	No	No
Folding lines used	yes	yes
Accelerated collapse (at least 50 % chord)	c	D
Entry	Rocking back less than 45°	Rocking back less than 45°
	Spontaneous in less than 3 s	Recovery through pilot action in le than a further 3 s
Dive forward angle on exit	Dive forward 30° to 60°	Dive forward 30° to 60°
Change of course	Entering a turn of less than 90°	Entering a turn of less than 90°
Cascade occurs	No	No
Folding lines used	yes	yes
Exiting deep stall (parachutal stall)	В	В
Deep stall achieved	Yes	Yes
	Spontaneous in less than 3 s	Spontaneous in less than 3 s
۔ Dive forward angle on exit		Dive forward 30° to 60°
Change of course	Changing course less than 45°	Changing course less than 45°
Cascade occurs		No
High angle of attack recovery	A	A
Recovery	Spontaneous in less than 3 s	Spontaneous in less than 3 s
Cascade occurs	No	No
Recovery from a developed full stall	В	В
Dive forward angle on exit	Dive forward 30° to 60°	Dive forward 30° to 60°
Collapse	No collapse	No collapse
Cascade occurs (other than collapses)	No	No
Rocking back	Less than 45°	Less than 45°
Line tension	Most lines tight	Most lines tight
Small asymmetric collapse	c	c
Change of course until re-inflation	90° to 180°	90° to 180°
· · · · · · · · · · · · · · · · · · ·		
Maximum dive forward or roll angle	Dive or roll angle 15° to 45°	Dive or roll angle 15° to 45°
Maximum dive forward or roll angle Re-inflation behaviour	Dive or roll angle 15° to 45° Inflates in less than 3 s from start of pilot action	Dive or roll angle 15° to 45° Inflates in less than 3 s from start of pilot action
	Inflates in less than 3 s from start of pilot action	Inflates in less than 3 s from start
Re-inflation behaviour Total change of course	Inflates in less than 3 s from start of pilot action	Inflates in less than 3 s from start of pilot action Less than 360° No (or only a small number of
Re-inflation behaviour Total change of course	Inflates in less than 3 s from start of pilot action Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation)	Inflates in less than 3 s from start of pilot action Less than 360° No (or only a small number of collapsed cells with a spontaneous
Re-inflation behaviour Total change of course Collapse on the opposite side occurs	Inflates in less than 3 s from start of pilot action Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation) No	Inflates in less than 3 s from start of pilot action Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation)
Re-inflation behaviour Total change of course Collapse on the opposite side occurs Twist occurs	Inflates in less than 3 s from start of pilot action Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation) No No	Inflates in less than 3 s from start of pilot action Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation) No
Re-inflation behaviour Total change of course Collapse on the opposite side occurs Twist occurs Cascade occurs Folding lines used	Inflates in less than 3 s from start of pilot action Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation) No No	Inflates in less than 3 s from start of pilot action Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation) No No yes
Re-inflation behaviour Total change of course Collapse on the opposite side occurs Twist occurs Cascade occurs Folding lines used Large asymmetric collapse	Inflates in less than 3 s from start of pilot action Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation) No No yes	Inflates in less than 3 s from start of pilot action Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation) No No yes
Re-inflation behaviour Total change of course Collapse on the opposite side occurs Twist occurs Cascade occurs	Inflates in less than 3 s from start of pilot action Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation) No No yes c 90° to 180°	Inflates in less than 3 s from start of pilot action Less than 360° No (or only a small number of collapsed cells with a spontaneous re inflation) No No yes

Total change of course	less than 360°	Less than 360°
-	No (or only a small number of collapsed	No (or only a small number of
	cells with a spontaneous re inflation)	collapsed cells with a spontaneous
Twist ecour	No	re inflation)
Twist occurs Cascade occurs		No No
Folding lines used		yes
. crang mes used		,
Small asymmetric collapse accelerated	c	D
Change of course until re-inflation	90° to 180°	90° to 180°
Maximum dive forward or roll angle	-	Dive or roll angle 15° to 45°
Re-inflation behaviour	Inflates in less than 3 s from start of pilot action	Inflates in less than 3 s from start of pilot action
Total change of course	1	Less than 360°
	No (or only a small number of collapsed	Yes, causing turn reversal
	cells with a spontaneous re inflation)	
Twist occurs		No
Cascade occurs		No
Folding lines used	yes	yes
Large asymmetric collapse accelerated	c	c
Change of course until re-inflation	180° to 360°	180° to 360°
Maximum dive forward or roll angle	Dive or roll angle 45° to 60°	Dive or roll angle 45° to 60°
	Spontaneous re-inflation	Spontaneous re-inflation
Total change of course		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	No	No
Cascade occurs	s No	No
Folding lines used	yes	yes
Directional control with a maintained	1	1
asymmetric collapse	c	C
Able to keep course	Yes	Yes
180° turn away from the collapsed side		Yes
possible in 10 s Amount of control range between turn and		25 % to 50 % of the symmetric
stall or spin		control travel
Trim speed spin tendency	A	A
Spin occurs		No
	,	1
Low speed spin tendency	<u>¦A</u>	A
Spin occurs	s No	No
Recovery from a developed spin	A	A
Spin rotation angle after release	±	Stops spinning in less than 90°
Cascade occurs		No
Not carried out because the manoeuvre is excluded	in the user's manual	
Big ears	A	Α
Entry procedure	Standard technique	Standard technique
Behaviour during big ears		Stable flight
Recovery Dive forward angle on exit	r Spontaneous in less than 3 s : Dive forward 0° to 30°	Spontaneous in less than 3 s Dive forward 0° to 30°
		1
	Α	Α
L		
Entry procedure	Standard technique	Standard technique
Behaviour during big ears	Standard technique Stable flight	Stable flight
Entry procedure Behaviour during big ears	Standard technique Stable flight Spontaneous in less than 3 s	

Behaviour immediately after releasing the Stable flight accelerator while maintaining big ears	Stable flight
Alternative means of directional control A	A
180° turn achievable in 20 s Yes	Yes
Stall or spin occurs No	No

Any other flight procedure and/or configuration described in the user's manual