

TECHNICAL DATA

DHV TESTREPORT LTF

DHV TESTREPORT EN

DATASHEET

OPERATING INSTRUCTION

PRINT



DHV TESTREPORT EN 926-2:2013+A1:2021

DAVINCI MAMBO L

Type designation	Davinci Mambo L
Type test reference no	DHV GS-01-2950-24
Holder of certification	Davinci Products INC
Manufacturer	Davinci Products INC
Classification	C
Winch towing	Yes
Number of seats min / max	1 / 1
Accelerator	Yes
Trimmers	No



BEHAVIOUR AT MIN WEIGHT IN FLIGHT (95KG)

BEHAVIOUR AT MAX WEIGHT IN FLIGHT (120KG)

Test pilots



Harald Buntz

No release

C



Mario Eder

No release

C

Inflation/take-off

Rising behaviour Overshoots, shall be slowed down to avoid a front collapse

Special take off technique required No

Overshoots, shall be slowed down to avoid a front collapse

No

Landing

Special landing technique required No

Speeds in straight flight

Trim speed more than 30 km/h Yes

Speed range using the controls larger than 10 km/h Yes

Minimum speed 25 km/h to 30 km/h

Yes

Yes

25 km/h to 30 km/h

Control movement

Symmetric control pressure Increasing

Symmetric control travel 45 cm to 60 cm

Increasing

50 cm to 65 cm

Pitch stability exiting accelerated flight

Dive forward angle on exit Dive forward less than 30°

Collapse occurs No

Dive forward less than 30°

No

Pitch stability operating controls during accelerated flight

Collapse occurs No

No

Roll stability and damping

Oscillations Reducing

Reducing

Stability in gentle spirals

Tendency to return to straight flight Spontaneous exit

Spontaneous exit

Behaviour exiting a fully developed spiral dive	A	A
Initial response of glider (first 180°)	Immediate reduction of rate of turn	Immediate reduction of rate of turn
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	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	Entering a turn of less than 90°	Entering a turn of less than 90°
Cascade occurs	No	No
Folding lines used	yes	yes
Unaccelerated 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 less than 3 s
Dive forward angle on exit	Dive forward 0° to 30°	Dive forward 0° to 30°
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
Accelerated 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 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 90° to 180°	Entering a turn of 90° to 180°
Cascade occurs	No	No
Folding lines used	yes	yes
Exiting deep stall (parachutal stall)	A	A
Deep stall achieved	Yes	Yes
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	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	No
Recovery from a developed full stall	A	A
Dive forward angle on exit	Dive forward 0° to 30°	Dive forward 0° to 30°
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	Less than 90°	Less than 90°
Maximum dive forward or roll angle	Dive or roll angle 15° to 45°	Dive or roll angle 15° to 45°
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
Large 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°
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

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°
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

Large 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	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

A

A

Able to keep course	Yes	Yes
180° turn away from the collapsed side possible in 10 s	Yes	Yes
Amount of control range between turn and stall or spin	More than 50 % of the symmetric control travel	More than 50 % of the symmetric control travel

Trim speed spin tendency

A

A

Spin occurs	No	No
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Low speed spin tendency

A

A

Spin occurs	No	No
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Recovery from a developed spin

A

A

Spin rotation angle after release	Stops spinning in less than 90°	Stops spinning in less than 90°
Cascade occurs	No	No

B-line stall

Not carried out because the manoeuvre is excluded in the user's manual

Big ears

B

B

Entry procedure	Standard technique	Standard technique
Behaviour during big ears	Stable flight	Stable flight
Recovery	Recovery through pilot action in less than a further 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°

Big ears in accelerated flight

B

B

Entry procedure	Standard technique	Standard technique
Behaviour during big ears	Stable flight	Stable flight
Recovery	Recovery through pilot action in less than a further 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°
Behaviour immediately after releasing the accelerator while maintaining big ears	Stable flight	Stable flight

Alternative means of directional control

A

A

180° turn achievable in 20 s Yes
Stall or spin occurs No

Yes
 No

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

No other flight procedure or configuration described in the user's manual