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DHV TESTREPORT EN926-2:2014

GRADIENT GOLDENS 28

Type designation GRADIENT Golden5 28
Type test reference no DHV GS-01-2335-17
Holder of certification [Gradient s.r.o.](#)
Manufacturer [Gradient s.r.o.](#)
Classification B
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 (115KG)

Test pilots



Harald Buntz



Sebastian Mackrodt

Inflation/take-off

Rising behaviour Smooth, easy and constant rising
Special take off technique required No

Smooth, easy and constant rising
 No

Landing

Special landing technique required No

No

Speeds in straight flight

Trim speed more than 30 km/h Yes
Speed range using the controls larger than 10 km/h Yes

Yes
 Yes

Minimum speed Less than 25 km/h

Less than 25 km/h

Control movement

Symmetric control pressure Increasing
Symmetric control travel Greater than 60 cm

Increasing
 Greater than 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

en : Verhalten beim Verlassen einer vollständigen Steilspirale

en : Erstes Ansprechen des Gleitschirms (die ersten 180°) en : unmittelbare Verringerung der Drehgeschwindigkeit

en : unmittelbare Verringerung der Drehgeschwindigkeit

Tendency to return to straight flight en : selbstständiges Ausleiten (G-Kraft abnehmend, Drehgeschwindigkeit abnehmend)

en : selbstständiges Ausleiten (G-Kraft abnehmend, Drehgeschwindigkeit abnehmend)

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

Symmetric front collapse	A	A
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°		Keeping course
Cascade occurs No		No
en : Faltleinen wurden benutzt no		no
en : Symmetrischer Frontklapper mindestens 50% Flügeltiefe	B	B
Entry Rocking back less than 45°		Rocking back less than 45°
Recovery 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 30° to 60°
Change of course Entering a turn of less than 90°		Entering a turn of less than 90°
Cascade occurs No		No
en : Faltleinen wurden benutzt no		no
en : Symmetrischer Frontklapper im beschleunigten Flug mindestens 50% Flügeltiefe	B	B
Entry Rocking back less than 45°		Rocking back less than 45°
Recovery Spontaneous in 3 s to 5 s		Spontaneous in 3 s to 5 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
en : Faltleinen wurden benutzt no		no
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	B	B
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
en : Kleiner einseitiger Klapper	A	A
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 en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung)		en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung)
Twist occurs No		No
Cascade occurs No		No
en : Faltleinen wurden benutzt no		no
en : Großer einseitiger Klapper	B	B
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 en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung)		en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung)
Twist occurs No		No
Cascade occurs No		No
en : Faltleinen wurden benutzt no		no
en : Kleiner einseitiger Klapper im beschleunigten Flug	A	A
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 0° to 15°
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	en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung)	en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung)
Twist occurs	No	No
Cascade occurs	No	No
en : Faltleinen wurden benutzt	no	no

en : Großer einseitiger Klapper im beschleunigten Flug	B	B
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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	en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung)	en : Nein (oder nur eine kleine Anzahl von eingeklappten Zellen mit selbstständiger Wiederöffnung)
Twist occurs	No	No
Cascade occurs	No	No
en : Faltleinen wurden benutzt	no	no

Directional control with a maintained asymmetric collapse	A	A
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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
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Spin occurs	No	No
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Low speed spin tendency	A	A
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Spin occurs	No	No
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Recovery from a developed spin	A	A
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Spin rotation angle after release	Stops spinning in less than 90°	Stops spinning in less than 90°
Cascade occurs	No	No

B-line stall	A	A
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Change of course before release	Changing course less than 45°	Changing course less than 45°
Behaviour before release	Remains stable with straight span	Remains stable with straight span
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°
Cascade occurs	No	No

Big ears	B	B
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Entry procedure	Dedicated controls	Dedicated controls
Behaviour during big ears	Stable flight	Stable flight
Recovery	Recovery through pilot action in less than a further 3 s	Spontaneous in 3 s to 5 s
Dive forward angle on exit	Dive forward 0° to 30°	Dive forward 0° to 30°

Big ears in accelerated flight	A	A
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Entry procedure	Dedicated controls	Dedicated controls
Behaviour during big ears	Stable flight	Stable flight
Recovery	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°
Behaviour immediately after releasing the accelerator while maintaining big ears	Stable flight	Stable flight

Alternative means of directional control	A	A
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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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No other flight procedure or configuration described in the user's manual