



DHV Databases

TECHNICAL DATA | DHV TESTREPORT LTF | DHV TESTREPORT EN | DATASHEET | PRINT



DHV TESTREPORT EN926-2:2014

GRADIENT GOLDENS 30

Type designation GRADIENT Golden5 30
Type test reference no DHV GS-01-2365-18
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 (110KG)

BEHAVIOUR AT MAX WEIGHT IN FLIGHT (135KG)

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 65 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 : keine unmittelbare Reaktion

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 | 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 im beschleunigten Flug mindestens 50% Flügeltiefe | B | 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 30° to 60° | | 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 |
| 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 | B |
| Dive forward angle on exit Dive forward 0° to 30° | | 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 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 | 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 : 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 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 im beschleunigten Flug

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 |

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

Low speed spin tendency

A

A

Spin occurs No No

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

A

A

| | | |
|--|-----------------------------------|-----------------------------------|
| 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

A

A

| | | |
|-----------------------------------|------------------------------|------------------------------|
| Entry procedure | Dedicated controls | Dedicated controls |
| 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° |

Big ears in accelerated flight

A

A

| | | |
|---|---------------------------|------------------------------|
| Entry procedure | Dedicated controls | Dedicated controls |
| Behaviour during big ears | Stable flight | Stable flight |
| Recovery | Spontaneous in 3 s to 5 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 accelerator while maintaining big ears | Stable flight | 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

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