



DHV TESTREPORT EN926-2:2005

ADVANCE ALPHA 6 31

Type designation Advance Alpha 6 31
Type test reference no DHV GS-01-2164-15
Holder of certification [ADVANCE Thun AG](#)
Manufacturer [ADVANCE Thun AG](#)
Classification A
Winch towing Yes
Number of seats min / max 1 / 1
Accelerator Yes
Trimmers No



BEHAVIOUR AT MIN WEIGHT IN FLIGHT (100KG)

BEHAVIOUR AT MAX WEIGHT IN FLIGHT (145KG)

Test pilots



Reiner Brunn



Sebastian Mackrodt

Inflation/take-off	A	A
Rising behaviour	Smooth, easy and constant rising	Smooth, easy and constant rising
Special take off technique required	No	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 km/h	Yes	Yes
Minimum speed	Less than 25 km/h	Less than 25 km/h
Control movement	A	A
Symmetric control pressure	Increasing	Increasing
Symmetric control travel	Greater than 60 cm	Greater than 65 cm
Pitch stability exiting accelerated flight	A	A
Dive forward angle on exit	Dive forward less than 30°	Dive forward less than 30°
Collapse occurs	No	No
Pitch stability operating controls during accelerated flight	A	A
Collapse occurs	No	No
Roll stability and damping	A	A
Oscillations	Reducing	Reducing
Stability in gentle spirals	A	A
Tendency to return to straight flight	Spontaneous exit	Spontaneous exit
Behaviour in a steeply banked turn ⚠	A	A
Sink rate after two turns	12 m/s to 14 m/s	12 m/s to 14 m/s

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 Keeping course		Keeping course
Cascade occurs No		No
Symmetric front collapse in accelerated flight	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°		Entering a turn of less than 90°
Cascade occurs 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	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
Asymmetric collapse 45-50%	A	A
Change of course until re-inflation Less than 90°		Less than 90°
Maximum dive forward or roll angle Dive or roll angle 0° to 15°		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 No		No
Twist occurs No		No
Cascade occurs No		No
Asymmetric collapse 70-75%	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 No		No
Twist occurs No		No
Cascade occurs No		No
Asymmetric collapse 45-50% in accelerated flight	A	A
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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	No
Twist occurs	No	No
Cascade occurs	No	No
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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
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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
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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
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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°
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Big ears in accelerated flight	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°
Behaviour immediately after releasing the accelerator while maintaining big ears	Stable flight	Stable flight
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Behaviour exiting a steep spiral	A	A
Tendency to return to straight flight	Spontaneous exit	Spontaneous exit
Turn angle to recover normal flight	Less than 720°, spontaneous recovery	Less than 720°, spontaneous recovery
Sink rate when evaluating spiral stability [m/s]	14	14
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Alternative means of directional control	A	A
180° turn achievable in 20 s	Yes	Yes
Stall or spin occurs	No	No
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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		



DHV-tested Equipment

Flying Equipment Database

Manufacturers / Dealers

Flying Schools

Clubs

DHV Databases

TECHNICAL DATA

DHV TESTREPORT LTF

DHV TESTREPORT EN

DATASHEET

PARTS LIST

OPERATING INSTRUCTION

PRINT



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Special landing technique required	No	No
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Symmetric control pressure	Increasing	Increasing
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Dive forward angle on exit	Dive forward less than 30°	Dive forward less than 30°
Collapse occurs	No	No
Pitch stability operating controls during accelerated flight		
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Roll stability and damping		
Oscillations	Reducing	Reducing
Stability in gentle spirals		
Tendency to return to straight flight	Spontaneous exit	Spontaneous exit
Behaviour in a steeply banked turn ⚠		
Sink rate after two turns	12 m/s to 14 m/s	12 m/s to 14 m/s
Symmetric front collapse		
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
Symmetric front collapse in accelerated flight :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°	Entering a turn of less than 90°
Cascade occurs	No	No
Exiting deep stall (parachutal stall) :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		
Recovery	Spontaneous in less than 3 s	Spontaneous in less than 3 s
Cascade occurs	No	No
Recovery from a developed full stall :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
Asymmetric collapse 45-50% :A		
Change of course until re-inflation	Less than 90°	Less than 90°
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Cascade occurs	No	No
Directional control with a maintained asymmetric collapse :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		
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°
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Behaviour during big ears	Stable flight	Stable flight
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