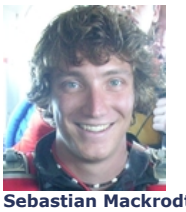
# TESTREPORT LTF 2014

## UP RIMO SM

| | |
|---|---|
| **Type designation** | UP Rimo SM |
| **Type test reference no** | DHV GS-01-2623-21 |
| **Holder of certification** | UP International GmbH |
| **Manufacturer** | UP International GmbH |
| **Classification** | A |
| **Winch towing** | Yes |
| **Number of seats min / max** | 1 / 1 |
| **Accelerator** | Yes |
| **Trimmers** | No |

| | BEHAVIOUR AT MIN WEIGHT IN FLIGHT (70KG) | BEHAVIOUR AT MAX WEIGHT IN FLIGHT (105KG) |
|---|---|---|
| **Test pilots** |  **Beni Stocker** |  **Sebastian Mackrodt** |
| | No release | No release |
| **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 55 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 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** | **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 |
| **Folding lines used** | no | no |

| **Unaccelerated collapse (at least 50 % chord)** | **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 |
| **Folding lines used** | no | no |

| **Accelerated collapse (at least 50 % chord)** | **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 |
| **Folding lines used** | 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 |

| **Small asymmetric collapse** | **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 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** | no | no |

| **Large asymmetric collapse** | **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 (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** | no | no |

| **Small asymmetric collapse accelerated** | **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 (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** | no | no |

| **Large asymmetric collapse accelerated** | **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 (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** | 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 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 |

| **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