
ROLLER
Remember when you had no limits

INTRODUCTION

The Roller is the new speedflying wing from Niviuk. It is a wing with an extensive speed range which can be manoeuvred quickly and is precise at all times.

Its intuitive, direct handling also provides a high degree of safety and user-friendliness.

The versatility of this wing means the pilot is not limited to quick descents, but it can also be used to have fun turning in thermals, soaring, practicing *carving* or long flights in strong winds up to 70 km/h.

IS THE ROLLER AN IMPROVED VERSION OF THE ZION?

No, **the Roller is NOT an optimised version of the Zion**. This is a completely new wing. All our newest technologies have been integrated into the design and this offers many more possibilities for speedflying pilots.

	ZION	ROLLER
Aspect ratio	4.9 m^2	4.3 m^2
Curvature of the canopy arc	15 %	12 %
Number of lines	244	164
Number of risers	4	3
Maximum differential between front and rear riser*	140 mm	190 mm
Trimmers	✓	✓
Speed-bar	X	✓
SLE (Structured Leading Edge)	X	✓
TNT (Titanium Technology)	X	✓
RAM (RAM Air Intake)	X	✓
3DL (3D Leading Edge)	X	✓
3DP (3D Pattern Cut Optimisation)	X	✓

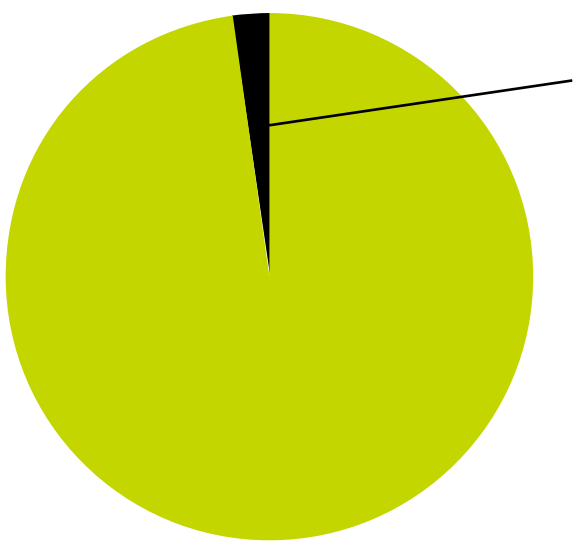
** Distance between the front and rear riser with the fitted acceleration system fully activated (Zion = trimmers; Roller = speed-bar + trimmers)*

TARGET MARKET

The Roller is intended for speedflying lovers and can be used as a first or second wing.

100 %

WINGS SOLD WORLD-WIDE



2 %

SPEEDFLYING AND SPEEDRIDING WINGS

The Roller is not recommended for beginners; it is ideal for those pilots able to fly actively.

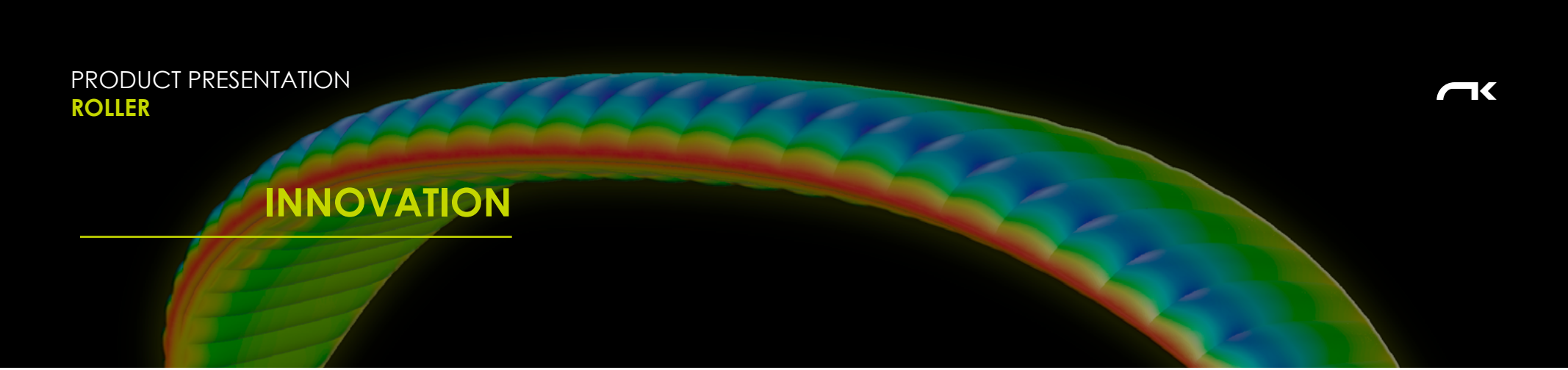
Source: PMA (Paragliding Manufacturers Association)

TECHNICAL DATA AND COLOURS

ROLLER			14	16	18	20
Flat	Area	m^2	14	16	18	20
	Aspect ratio		4.3	4.3	4.3	4.3
Intermediate weight	Minimum	kg	60	70	80	90
in flight	Maximum	kg	90	100	110	120
Glider weight		kg	3	3.3	3.6	3.9
Certification			EN 926-1	EN 926-1	EN 926-1	EN 926-1

ANANAS

HARDOS



INNOVATION

The Niviuk R&D team use Computational Fluid Dynamics (CFD) to simulate and study the aerodynamics of the wing, as well as analysing its behaviour under different conditions within the air mass.

The CFD is key to testing and finding the perfect balance between speed, stability, accuracy and efficiency in turning.

All our wings are tested and evaluated by our test pilots in real situations to guarantee the best outcome for the eventual pilot.

TECHNOLOGY AND FEATURES

LOWER ASPECT RATIO

COMPACT WING

- Agile and responsive handling.
- Fast inflation and simple take off.
- Easy to control in flight.
- Fast and safe turns and rolls.
- No span woobling.
- Passive safety and stability.

LESS WEIGHT

- Fewer cell openings.
- Reduced inertia for excellent performance.
- Smoother responses.

TECHNOLOGY AND FEATURES

PROFILE DESIGN

HIGH PERFORMANCE PROFILE

- Low aerodynamic resistance → Speed without restrictions
- Stable at high speed.
- Collapse resistant.
- No pitching.

RAM AIR INTAKE

EXCELLENT INTERNAL PRESSURE DISTRIBUTION

- Great turbulence buffering.
- Consistency throughout the wide speed range.
  - Excellent slow flying characteristics without the risk of stalling.
- Capacity for a low angle of attack.
- Collapse resistant.

TECHNOLOGY AND FEATURES

DESIGN WITH A REDUCED CANOPY ARC

PRECISE AND RESPONSIVE LATERAL TURNS

Total sensation of control in turns.

STABILITY

Throughout the entire speed range.

Throughout the entire range of angles of attack.

TECHNOLOGY AND FEATURES

TRIMMER AND SPEED SYSTEM

WIDE SPEED RANGE THANKS TO THE EFFICIENCY OF THE SPEED-BAR AND TRIMMERS

- Wide range of angles of attack.
- Wide range of flying possibilities: speedflying, thermalling, soaring, *carving*…

FUN MODE

- Incredible barrel rolls.
- Great swooping potential.
- High speed/altitude fun.

TECHNOLOGY AND FEATURES

BRAKE SYSTEM

DIRECT, PRECISE AND INTUITIVE HANDLING IN FLIGHT

Good feedback ⟷ Easy to predict and control

BRAKING WITH GOOD SPEED RETENTION

Smooth and controlled landings.

TECHNOLOGY AND FEATURES

LINE PLAN

SIMPLE DESIGN

3-liner.

Easy set up → Simple take off

LESS WEIGHT

Less inertia.

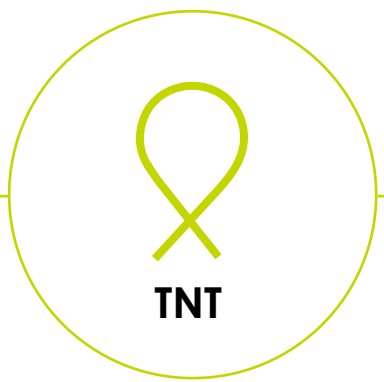
Better passive safety.

LESS DRAG

More performance in flight.

TECHNOLOGY AND FEATURES

TITANIUM TECHNOLOGY (NITINOL)



DURABILITY

- A more resistant profile.
- Durable materials.
- No deformation due to Nitinol's form memory and super-flexibility.

LESS WEIGHT

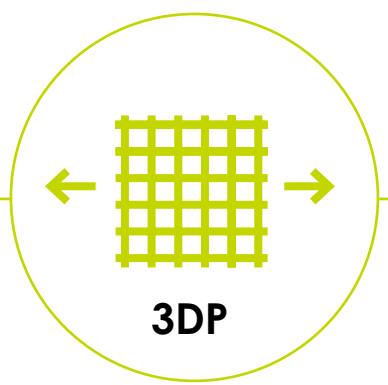
- Less inertia.
- Better passive safety.

MORE COMPACT AND SMOOTH SURFACE

- Crease-free fabric.
- ↓
- Less drag.
- ↓
- More efficiency.

TECHNOLOGY AND FEATURES

3D PATTERN CUT OPTIMISATION

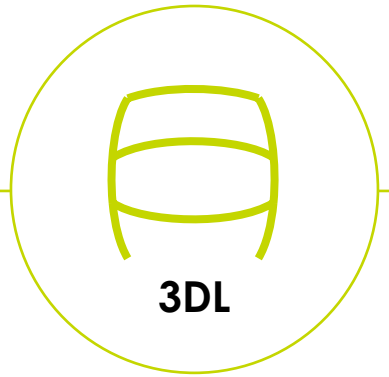


ORIENTATION OF THE FABRIC

- Individually cut sections.
- Optimum fabric tension distribution.
- Perfect modelling from 2D to 3D.
- Crease-free.
- Optimised fabric tension.

TECHNOLOGY AND FEATURES

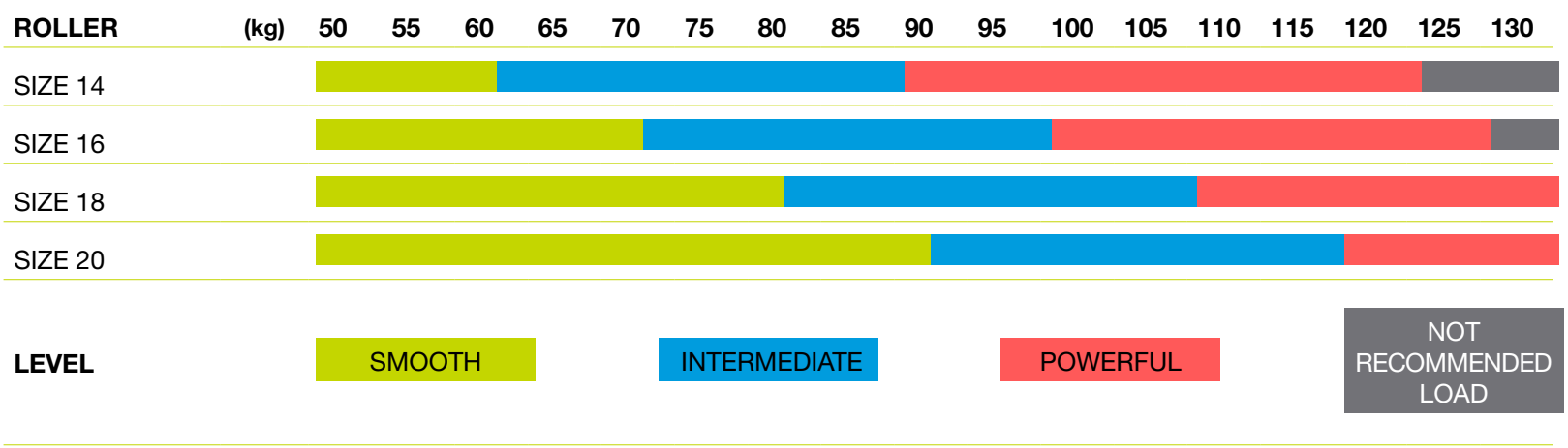
3D LEADING EDGE



EXTRA STITCHING ON THE LEADING EDGE

- Better fabric layout.
- Cleaner profile, without creases.
- Less drag.
- Better leading edge load distribution.
- Better performance.

LEVEL RANGE


ROLLER
(kg)
50 55 60 65 70 75 80 85 90 95 100 105 110 115 120 125 130
SIZE 14
SIZE 16
SIZE 18
SIZE 20
LEVEL
SMOOTH
INTERMEDIATE
POWERFUL
NOT RECOMMENDED LOAD


NIVIUK