# SLIMSWINGER

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On Test:
U-Turn Nitro

**The appearance of the U-Turn range at the beginning of 2004 caused a stir in the market, especially as the U-Turn crew had instructed Ernst Strobl, head of development, to build a new high performance kite. The Nitro is easy to recognise as a race kite with it's stretched, curved shape, but what does the Nitro Hold in store? That is the purpose of this extensive test.**

There are eleven kites in the range up to a gigantic 15.4 square meters, the aspect ratio rising in four steps up to 5.57 with 42 cells for the bigger sizes, very ambitious figures for a kite! It's certainly possible to increase performance with a clean aerodynamically tapered profile, but can such a kite be stable in flight? Are there buggy pilots skilled enough to benefit from such a concept?

The first Nitros were delivered at the end of January and when a test kite reached the Kite & Friends office it was snowkite season. For us this meant... get out of the office, onto the snowboard and get the Nitro into the air. As you need some more power on the snow, we used the 9.7 and were astonished by the great agility of this big wing on 25-meter lines. Even though the inland wind was a little gusty the kite was stable in the sky, and with proper use of the brakes could be controlled and easily pulled back if it rushed ahead of the flyer. The real test of course was to take place on the beach, where the high performer has the room to show its speed and what it has to offer on all directions to the wind.

Now a race buggy is the proper platform and the Nitro accelerates calmly but steadily from the start. As usual with high performance kites you can boost power by moving the kite, using the brakes to provide additional thrust. The Nitro quickly gives the pilot a taste for speed as it accelerates easily right to the front of the wind window. In this position the Kite is extremely stable and you can even take your hands off the brakes for a time. As the Nitro moves farther forward it only needs the occasional touch of brake to keep it in the window, not that the wing shoots forward unexpectedly, there is always plenty time to react and is no problem for the experienced pilot.

After the first high speed rides it's time for the loop and here another power bonus is available, the Nitro turns precisely without spinning afterwards. With the high performance construction it is surprising that acceleration in the loop is moderate and the kite doesn't shoot off uncontrollably. This is of course relatively speaking, those used to looping powerful kites will enjoy the Nitro, the inexperienced will most likely land in a heap.

**The Nitro also goes well on the snow**

Into wind the Nitro behaves in the same way as already described, sitting right at the front of the window, allowing you to gain a lot of ground against the wind. If the Nitro is well powered and in full flow it is a delight to head up into wind and will leave many competitors behind. While the smaller sizes aren't as unrestrained as expected, the bigger kites are just the opposite. The performance of the 9.7, 12.2 and the 15.4 shines through,

when in almost no wind they will provide propulsion in an apparently "magical" way. Even inland we lost our caution for the size and flew the kites on long lines, but what is for an experienced pilot a challenge in physics can become frustrating or dangerous for the inexperienced flyer who underestimates the forces at play, such powerful kites are only for the experienced.

**The Nitro stands out with its stretched form**

We experienced the safe and stable landing behaviour without problems. The Nitro can be over-braked in a controlled way and be brought back to earth without collapsing or suddenly powering up. However, if you do manage to completely fold the kite in the air, a recovery may not be so simple as it could be possible to tangle the bridle lines on the knots where the brake bridles pass though the rings attached to the main bridle.

With the bridle we can start our examination of the materials and workmanship. The use of a drag reducing unsheathed kevlar bridle* is unusual, but contrary to reports elsewhere, is not illegal in racing (according to the original French rules of Class 8) and as we can see with the Nitro, is very suitable. The canopy is made from water repellent Porcher Marine cloth and is perfectly processed to top paraglider standards. The complex construction of v-ribs, strapping and reinforcements is to the same standard, as is the secure double stitching of the "claw" design on the top surface and the load bearing seams. The high performance kite also has mesh at the ends of each rib, allowing water and sand to filter along to the wingtips to be removed through the "dirt-outs". This quality and the considerable development costs lead to prices on top of the high performance level. Along with eleven available sizes, in U-Turns usual 25 per cent "power-steps", the whole lot accumulates to a grand overall budget.

**The distinctive U-Turn "claw"**

Conclusion:

The Nitro is an uncompromising kite, dedicated to racing, with its high top speed and good up wind power. In the high aspect wing lie numerous hidden values, waiting to be found and awaked by experienced pilots who will benefit not only from the speed and power of the Nitro, but also from the unexpected smoothness when in full flow. This combination of possibilities and challenges can be addictive, whether with a complete race set or a single kite.


**Another exciting test day comes to an end**

* The Nitro is supplied as standard with a sheathed kevlar bridle, unsheathed kevlar is available as an option.