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The Story of the North EVO 2008

Ralf Grösel was in charge of developing one of our tube kites for the first time. Ralf has been working as a soft kite designer for North since 2003. Together with the development team of North, he introduced lots of new impulses in the development of our products. Having been in the kite business since 2001, Ralf can draw from several layers of experience and knowledge. Apart from his work at North, he is also responsible for the development of the Parasailor. Meanwhile, this special spinnaker with a built-in wing has become a familiar concept in sailing.

Early 2007 saw the starting signal for the EVO development. EVO was the internal name for an easy-to-fly, forgiving intermediate kite with particularly good water re-launch properties and a characteristic North handling. What began as a simple briefing soon turned into an extremely intensive design work.

In our first prototypes we placed an intensive focus on the backstall problem. Profiles with a strong lift often have a tendency to backstall at higher angles of attack. This has a negative impact especially with light winds, when the kite is kept under traction with sine movements.

The objective was to develop a profile that can both generate enough traction and still allow for an easy and intuitive handling.

After several different profile models, we inclined toward a specific profile form. This form, however, presented an important disadvantage. The leading edge was extremely full, causing a collapse of the sailcloth between the struts when in a depowered state.

A solution had to be found in order to use these profiles. We managed to bring the sail back into shape by thinning out the intermediate profiles. Surprisingly, these profiles had a very positive impact on the performance and handling of the kites. A good basis had been created. The next stage was the water start. The kite should definitely have to fly even on 4 lines and remain functional even after rolling through on the water. But we didn't want to give up the possibility of a 5th line safety either. We've really racked our brains over the four-line model. How could we support the kite without a 5th line? A simple line configuration with a roller seemed to be the right solution, but the deflection roller in the system had a negative impact on the overall flight behaviour. The handling was no longer what we had expected. Therefore, we tested different radiuses of curvature to optimize handling and to minimize the impact of the roller in the system.

Based on our know-how of various kite concepts, we knew that kites with a distinctive aft swept wing deliver good water starts. Therefore, we continued development in this direction. The sharp sweep angle of the leading edge, however, was causing problems with stability. Ten prototypes later, we had found the right combination between curvature radius, sweep angle, profile geometry, and suspension.

A kite was born that delivers in all respects. EVO combines the typical North handling with a large wind range and the auto-relaunch effect.

Performance was never easier to achieve!

Its astonishing light wind properties, the enormous application range, forgiving flight properties, and a homogeneous, exact bar feeling make this kite unique.

The precise control response allows for high, controlled jumps and quick turns. Its innovative profile geometry ensures an extremely early planning with a pulled bar, without provoking a backstall.

We developed a special 4-line bar for the EVO. The safety function is triggered by pulling down the front lines. The kite tilts down over the nose and falls on the leading edge. Once it lies on the water, the EVO always strives to move toward the wind window edge, as long as the safety stays pulled. From there, the kite can be started by pulling the bar towards oneself. But the kite can also be flown with the normal 5th element bar and 5th line by North. In this case, the safety will then be triggered through the 5th line as usual.



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