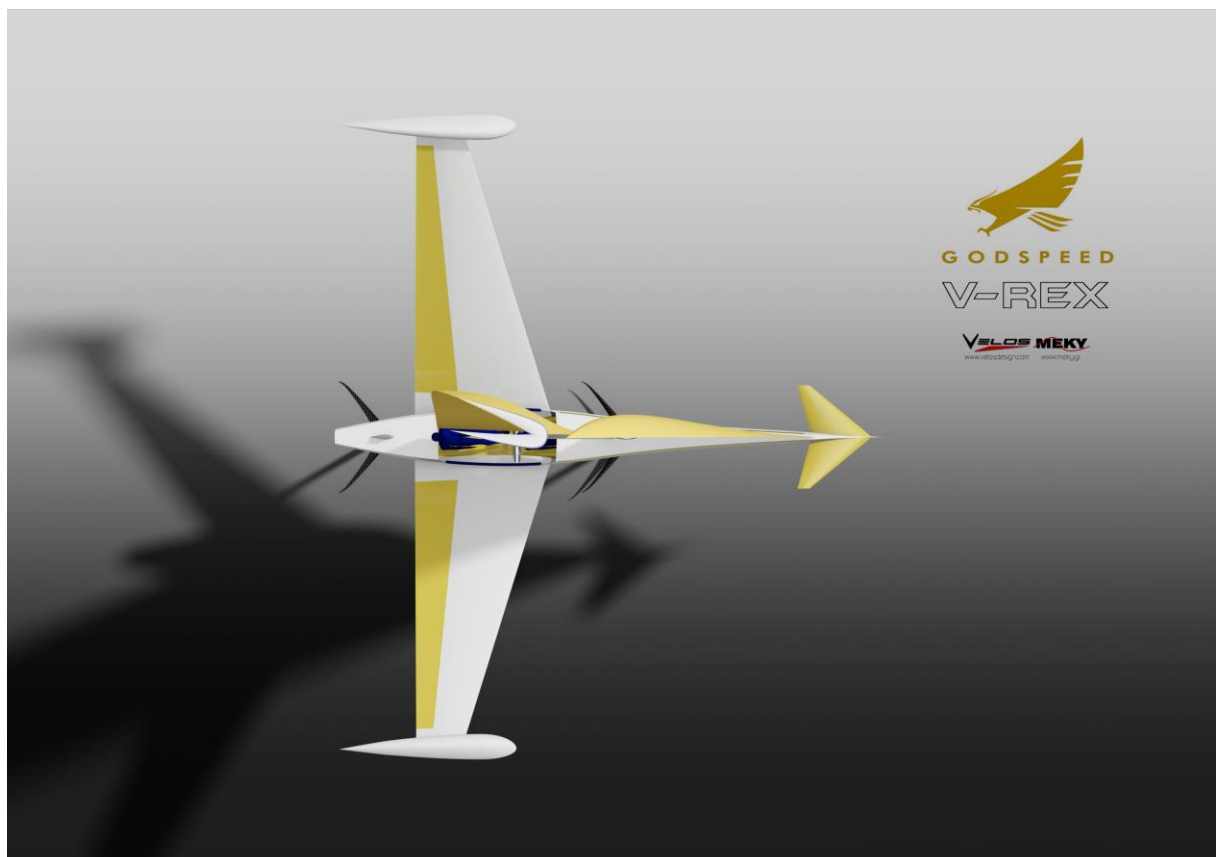




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**PRESS RELEASE:  
NEW SAILBOAT CONCEPT V\_REX**



## **V\_REX – KING OF SPEED**

**The Austrian sailor Peter Steinkogler invented a revolutionary and patented sailboat-concept which now aims to raise the speed on the water to the highest level.**

### **What is V\_REX and how does it work?**

The V\_REX is a sailboat using maximum aerodynamic and only positive sail pressure in order to overcome the resistance of the water. The most striking features are two wings on either side of the narrow, maximum aerodynamically designed body that protrude in an angle of 33 degrees in the air and are referred to as stabilizers. They have a symmetrical airfoil and a water tank at each end. During sailing the windward stabilizer will fly horizontal to the water surface. At the same time the leeward stabilizer will point into the air in an angle of 66 degrees and therefore creates the first aero dynamical lateral plan in the history of sailing. At the bow there is a so-called Canard-Wing, as we know it from combat aircraft, which aims at stabilizing the V\_REX in the longitudinal axis and preserves it from a so-called nose dive. Under the hull there are two hydrofoils minimizing the water resistance. The V\_REX is built for two crew members, both sitting in a cockpit buckled up like in a combat aircraft. The crew member in the front helms the V\_REX like an aeroplane. Pedals for the helm and a joy stick to control lift and heeling. The crew member in the back works on the sails and a valve system for the water ballast tanks.

“My initial idea was to create a sailboat which can use the driving force – namely the sail pressure – in the most efficient way. At this point of time it was not in my mind to build a record breaking vessel, but actually this is the outcome” explains the Austrian sailor and inventor Peter Steinkogler.

### **Pure positive sail pressure is the main concept**

According to Peter Steinkogler sail pressure can be divided into two parts which makes the working system of the V\_REX easy to understand. Looking at the design of a catamaran both positive and negative sail pressure can be found, whereas the V\_REX is only working with the positive.

*Positive sail pressure* is the windward hull which moves out of the water. The hiking crew and any windward facility trying to keep the boat in an upright position which works against the heeling momentum is positive sail pressure.

*Negative Sail Pressure* – half of this pressure will be given also to the leeward side of the catamaran. This will make the cat to work against

this negative pressure using more buoyancy to overcome the heeling momentum. (f.e. an AC72: boat incl. crew do have 7,9 t of weight, the leeward foils has to carry loads up to 15 tons!) More buoyancy or lift from the foils the more water resistance is produced.

Like a windsurfer the V\_REX is heeling to the windward side and by doing so, its entire weight is used to create pure positive sail pressure. At the same time weight will be removed from the foils. In order to stabilize the sailboat the V\_REX uses aerodynamical stabilizers which also create the first aerodynamical lateral plan in the history of sailing. And with this simple and already patented concept initial CFD (computer fluid dynamics) calculations done by Dr. Antonios Mantouvalos (Mediterranean Hydrodynamic Research Centre), came to the result that the V\_REX can reach up to 60 knots on water.

### **Is there a proof of concept?**

Dr. Antonios Mantouvalos (Mediterranean Hydrodynamic Research Centre) conducted already initial CFD (computer fluid dynamics) calculations which showed that the V\_REX will be able to create more than 60 knots!

The Technical University of Graz, by the guidance of Prof. Dr. Ing. Christof Sommitsch, executed FE (finite element) calculations on the hydro foils and figured out, that there are only minor forces effecting the foils. In other words: The V\_REX is aerodynamically that much stabilized that he doesn't need a lot of buoyancy lift from the foils.

Prof. Richard Flay – a living legend who was instrumental in the Americas Cup victories of both the Emirates Team Black Magic Carpet and Team Alinghi – was that impressed by the V\_REX concept that he offered the inventor to organize a master study concerning the V\_REX at the University of Auckland / New Zealand.

### **Who is the designer of this revolutionary concept?**

Peter Steinkogler is an Austrian sailor and the founder of the sail racing academy GODSPEED. He also worked for the BMW-Sail-Racing-Academy for two years. He is a passionate sailor since four-decades, did an Olympia campaign for Barcelona with his brother and can look back to 17 national champion titles and one European championship title.

„I am addicted to race and high speed sailing“ admits Peter Steinkogler „and since I was trying the international Moth-Class and was sailing GC32 with Andreas Hagara I figured out that foiling on catamarans may not be the fastest way to foil. The way how a foiling cat works is an absolute uneconomical way. Just look at the

windsurf-concept which uses less material and forces by producing a speed which almost reaches the AC72! This actually made me thinking..."

### **When we can see the first V\_REX foiling?**

„Now we have the concept, we have a soft proof from very high institutes like the Mediterranean Hydrodynamic Research Center and the Technical University of Graz. We have Richard Flay who wants to do a master study on the concept in New Zealand. We have Marstrom Composites from Sweden who wants to build the V\_REX and they have all the knowhow from developing aeroplanes as well as high-tech and fast sailing boats. We have Mr. Thomas Glaveriaux from the former Americas Cup Team PRADA who is keen and able to do the engineering of the V\_REX. So, we have a lot – but unfortunately not the needed budget at this point of time. That's where we now start working on. As soon as we have raised the needed capital for the V\_REX development we can show the world an innovative and revolutionary sailing boat which will move faster and safer than any other sailing vessel we know so far“ explains inventor Peter Steinkogler confident and proud.

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