



Flying high – The Martin Jetpack



Dynamic Composites was approached in 2004 by the **Martin Aircraft Company** to help fulfil the dream of personal flight. Earlier Jetpack prototypes, although functional, were too heavy requiring the development of the complex composite components of the new ground breaking **Martin Jetpack**. The Martin Jetpack is set to become the world's first commercially viable, ultralight personal jetpack. Development of jetpack design, dating back to the 1950's, has been continually hampered by the problem of sustained flying time. Early Jetpacks could only stay in the air for less than 30 seconds. The Martin Jetpack is being developed to fly for 100 times longer. It sounds like science fiction – but this unique machine is very real. One of the critical factors in developing the Martin Jetpack was weight saving. Using the latest composite technologies, Dynamic Composites has created a carbon fibre composite airframe that weighs less than 30% of the machines' total dry weight – yet is rigid and strong enough to meet the demands of flight. Dynamic Composites also designed carbon fibre components for the unique Martin V4 engine including high temperature carbon fibre engine heads and air boxes.



A primary airframe structure of the Martin Jetpack produced by **Dynamic Composites**

“Nothing is too hard”

Capabilities

- Design
- Research
- Development
- Consultancy
- Solutions
- Specialist Manufacturer

All from an efficient, experienced and professional team delivering world class performance and record breaking results. When you need a top composites development team, talk to us.

“dynamic composites”

T +64 3 384 0206
 E info@dynamic-composites.co.nz
 Unit D 1091 Ferry Rd Ferrymead
 PO Box 18698 Christchurch
 New Zealand

DYNAMIC COMPOSITES LIMITED

www.dynamic-composites.co.nz
 www.zensport.co.nz



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Nothing is too hard,
you are only limited
by your imagination

— our philosophy

**dynamic
composites**

Dynamic Composites Ltd have been pushing the boundaries of what is possible in composite technologies for over ten years. A commitment to producing unique solutions, improved performance and increased functionality has resulted in gold at the Olympics, involvement in the America's Cup and now the unveiling of the Martin Jetpack. With a focus on creative and innovative solutions that are constantly pushing the composite design and manufacturing process – **we know what works.**

ZEN TK8 represents a pinnacle of track cycling performance developed by **Dynamic Composites**.



Uncompromising performance – The ZEN Brand



In 2004 New Zealand's Sarah Ulmer rode the **ZEN TK4** track bike to a World Championship, new World record, Olympic gold and Olympic record six seconds faster than the previous Olympic record. Since then other athletes have stood on top of the world propelled by **ZEN**.

Developed by **Dynamic Composites** the ZEN range is comprised of high performance carbon fibre bike frames and wheels. The ZEN brand represents leading edge carbon fibre cycle development.

ZEN products are the result of exhaustive research and development in extensive CAD modelling, wind tunnel testing and computational fluid dynamics (CFD), finite element analysis (FEA) and mechanical testing, including on track strain gauge data acquisition. This is all used to create the best possible solution. The ZEN range is designed with uncompromising performance in mind and then hand crafted in high accuracy CNC produced tooling with proprietary manufacturing techniques from the best materials available.

Plain sailing – Kiwi Tiller



In 2000 the **Dynamic Composites** designed **Kiwi Tiller** was used by British sailor Ben Ainslie to win gold at the Sydney Olympics. Afterwards he wrote a book on Laser sailing describing the tiller as the 'best tiller in the world'. The Kiwi Tiller is now exported around the world with more than 2300 produced since 1998.

Diversity – Other projects

Dynamic Composites diverse specialised design, development and manufacture capabilities have been applied to projects including a bespoke patient positioning device using carbon fibres radiolucent properties that don't interfere with the function of X-ray. Fans for vineyard frost protection which are quieter and require less energy to operate. Working with a Paralympic gold medallist shooter on improving equipment and performance. Undertaking ground breaking aerodynamic academic research in the sports field. Not to mention other confidential projects like the Martin Jetpack had been prior to unveiling.

