

Oscar Propulsion

FLOWFORCE

FLOWFORCE – Redefining Paddle Performance

For centuries, paddles and oars have followed the same basic principle: a solid blade attached to a shaft. While materials have become lighter and stronger, the fundamental hydrodynamics of how the blade moves through water have remained largely unchanged.

FLOWFORCE changes that.

FLOWFORCE is a patented blade technology designed to improve how power is converted into forward motion across all paddle sports, including Stand Up Paddleboarding (SUP), Kayaking, Canoeing, Dragon Boat, Outrigger, and Rowing.

At the heart of the technology are **precision-engineered slits cut through the blade**, carefully positioned to control how water moves around and through the paddle during each stroke. Rather than forcing water around the outside edges of a solid blade, FLOWFORCE allows controlled flow through the blade itself.

This creates a more balanced pressure distribution across the blade face, reducing turbulence, stabilising the stroke, and improving the efficiency of each pull through the water.

How It Works

Traditional solid blades create abrupt pressure spikes at the catch phase of the stroke. This can cause flutter, drag, and unnecessary peak loading on the paddler's body. Large vortices form behind the blade, wasting energy and reducing effective propulsion.

FLOWFORCE solves this by introducing controlled flow through the blade.

As water squeezes through the narrow slits, velocity increases and pressure drops. This maintains the high-low pressure differential on the front and back of the blade which is so important in delivery efficient driving force. Further, it reduces vortex formation, smooths the force curve through the stroke, and improves the lift-to-drag ratio. The result is a cleaner catch, a more stable drive phase, and a more efficient release.

In simple terms:

More of the paddler's effort is turned into driving force, with less wasted energy.

Benefits for Paddlers

The performance improvements are immediately noticeable across all ability levels.

Greater Efficiency

FLOWFORCE helps paddlers travel further for the same effort by improving propulsion efficiency and reducing wasted energy in every stroke.

Reduced Fatigue

Because force is spread more evenly through the stroke and peak loading is reduced, there is less strain on the shoulders, elbows, wrists, and back—particularly important during long-distance paddling and repetitive training.

Smoother Stroke Feel

Paddlers consistently report a softer, cleaner catch with improved rhythm and less flutter. This creates a more controlled and enjoyable paddling experience.

Better Stability and Control

The blade remains more stable in the water, improving confidence, balance, and consistency, especially in rough water, strong tides, or race conditions.

Improved Performance Without Changing Technique

FLOWFORCE works with the paddler's existing stroke. There is no need to relearn technique—the blade simply makes the stroke more effective.

Proven Across Multiple Sports

FLOWFORCE has been validated through CFD modelling, extensive on-water testing, and athlete feedback across multiple disciplines. From recreational paddlers to elite racers, users consistently report improved comfort, sustained cadence, and better performance over distance.

This is not just a new paddle.

It is a new way of thinking about how a blade should work.

FLOWFORCE — Turning Power into Performance.

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