

CIRCULAR THINKING

A RECYCLABLE ELECTRIC CATAMARAN BUILT FROM RECYCLED ALLOYS AND DESIGNED FOR SAILORS, IS VAAN'S NEW R4 VISION THE FUTURE, ASKS SAM FORTESCUE?

Even if Vaan's debut boat had not been the only catamaran moored to the ancient brickwork of the canal at Hellevoetsluis, there would have been no mistaking this fascinating boat. With its sleek silvery 'spoiler' arch, open cockpit and sculpted hull, the R4 is a real headturner.

The impression is more than skin deep. Vaan's 12.8m debut model is built to be as sustainable as possible, with a hull in almost entirely recycled aluminium and a host of upcycled or naturally-sourced interior materials to boot. Quite simply, the R4 is unlike any other catamaran I've been aboard. It is neither testosterone-laden flyer, nor buxom family caravan, groaning with mod-cons. This is a catamaran conceived for people that really enjoy the feeling of sailing – a bit of heel, a burst of acceleration and a helming position that puts you close to the water.

"We built this boat also for monohull sailors," says Vaan founder Igor Kluin. "We wanted to create a sailing sensation." He gestures me over to the huge aft lockers where the steering gear can be seen. Sturdy Jefa direct linkage gears connect the twin helms to the rudders. "No hydraulics or wires to get in the way. There's real feedback."

And it's true. Out of the wind shadow of the low coast, we get 10, then 12 and 14 knots of true wind, pushing the boat to a day's best of 8 knots. OK, we're heading downwind with the huge black gennaker pulling hard, but there's plenty of information coming out of the helm.

My crew of three makes short work of snuffing and lowering the gennaker, then unfurling the jib to tack back upwind. With one of the Netherlands' most storied dinghy sailors whispering advice in my ear, I experiment with what this boat will do. On a course of around 50° AWA we make 4.2 knots of boat speed in 8 knots of true wind. It is respectable, but not stellar for a catamaran. The optional longer centreboards (fixed or swing) should improve pointing to windward.

STEERING POSITIONS

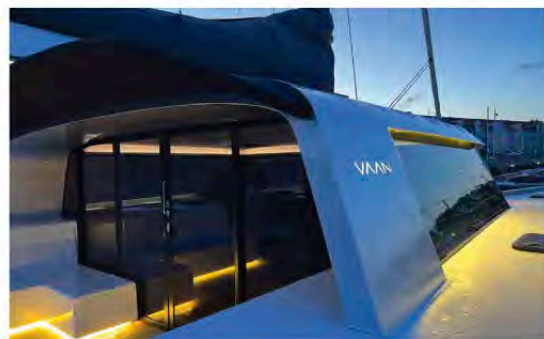
Even in the cold grey that passes for spring here, this boat is a genuine joy to sail. And though the cold is not of Kluin's making, it does raise a valid point about this boat.

Unlike most of the 'family' cats on the market, there is no hefty aft extension to the coachroof – no great sheet of gleaming white GRP covering the cockpit. I appreciate that, because it feels like real sailing, but there is a drawback. Combine this with the helms on the quarter, and you are more in the elements than you would be on a Lagoon or a Fountaine-Pajot, for instance. Not exposed, because the topsides and aft railing keep you safe, while an optional bimini arrangement offers shade. But if the seas were generating spray, you'd certainly feel it.

Luckily there is a solution, as Kluin points out. "Just move over here," he says, from the leeward helm station. Both helms have a comfy seat that folds down out of the bulwark, giving you something akin to the perspective enjoyed by a MOD70 helm: back to the water, head turned to windward with the helm at your shoulder.

Sail handling is well thought out, with the control lines all led under the deck to emerge at a unique V-shaped winch 'tree' that sprouts from the aft end of the bridgedeck. The electrics for the lead Harken were still waiting to be connected up (the boat was six weeks off delivery), so a fair degree of elbow grease was required for sail trimming. But the concept is excellent. The

Sleek and stylish silvery coachroof arch makes the Vaan R4 stand out from the crowd



Photos: Vaan Yachts

Sustainably-built Vaan R4 is also a joy to sail



Far left: large cockpit locker for stowage also houses steering gear. Left: unique V-shaped winch pedestal. Above: comfortable fold-down helm seat



UPCYCLING TO A VAAN

Sustainability is an overused term that has been contorted into all sorts of questionable positions by boatbuilders. But Vaan's Igor Kluin has really done his homework here. Looking at lifecycle analyses, he calculated that aluminium was the best hull material because it can be harvested from waste and can itself be recycled easily and efficiently at end of life – something that is far from true with composite construction.

A specific alloy of aluminium is required for marine use, containing precise amounts of copper, chromium, magnesium and other elements. It turns out that old road signs and window frames offer a very similar alloy, but isolating them is not straightforward. Aluminium smelter Hydro has developed a technique that involves shredding waste aluminium and X-raying the small chunks on a conveyor belt to identify which ones are unsuitable. A computer then fires individual compressed air nozzles grouped in a battery at the end of the conveyor – with such precision that it is capable of launching the reject chunks into a separate hopper.

When recombined, the resultant alloy requires some virgin metal to be added in order to achieve the precise characteristics required. It means that the hull of the Vaan R4 is made of 60% recycled aluminium, while extruded parts reach 75%.



Above: saloon layout is quite plain, but aft doors open out onto a broad, comfortable cockpit

mainsheet is fixed to a traveller up on the arch, while the jib is on a self-tacking system and requires just one sheet. The jib traveller track has manual stoppers, so you can confine the sheeting angle for the self-tacker.

"I wanted to build a boat that had decent low-wind performance, so that you were more likely to use the sail instead of switching on the motor," says Kluin.

Engine hours are a big issue on the R4, because the boat is designed for electric saildrives from either Oceanvolt (2 x 15kW) or Torqeedo (2 x 12kW). The standard equipment includes 22kWh of batteries – enough for nearly an hour of motoring at full throttle, or four to seven hours at cruising speed. Naturally, some owners have opted to increase that somewhat. Power is paramount for hotel loads too, as the boat uses a Canbus system to operate lights (with a backup on-off on the switchboard), induction hob and electric cooker.

POWER GENERATION

But the Vaan can also generate power as it goes. There can be 1,650W of high output, semi-flexible Solbian solar panels on the coachroof, with the option of another 400W on the spoiler. And Oceanvolt's variable pitch Servoprop is capable of regenerating 350W at 5 knots, or even 5kW at 10 knots – a speed it is just capable of grazing with the big gennaker on a broad reach in 20 knots.

"I have a background in renewable energy," says Kluin. "So I'd always suggest that bluewater owners install some emergency generation. It doesn't have to be built-in – you could just use a portable generator for the crossing."

Sustainability is a very genuine design principle for Vaan, not just window dressing. The hull is built in aluminium, up to 75% of which is recycled from old window frames and traffic signs. The concept extends

to the interior fittings, where cork decking, linen and glassfibre wool insulation are used. Pineapple leaves even help create a leather alternative. There's no melamine or carbon on board, and the joinery is all in plywood veneer.

To my eyes the saloon is a little empty, with the galley lining one half and a sofa the other. There's just a small table, so I'm not surprised to hear that some owners have added island units and other paraphernalia. The headline is that two of the four aft doors slide open to connect to the broad, comfy cockpit. The port hull makes a generous owner's suite, complete with ample stowage, heads and shower. To starboard, you can choose between a second double or a twin, and even a third cabin forward with bunks or a V-berth. Bluewater cruisers will want to use some of the stowage space here for a washing machine, as in the first hull.

The test boat had been fitted out on the water and wasn't entirely complete, so there were some loose ends, but finish quality is likely to get a boost from the imminent move to dedicated manufacturing facilities.

OUR VERDICT

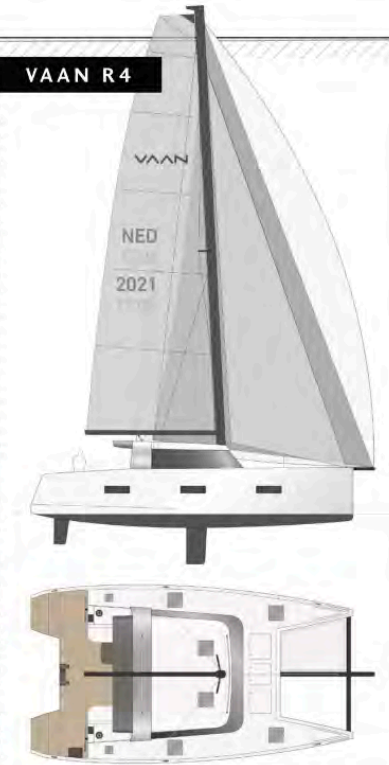
Vaan's sustainable R4 marks the evolution of the catamaran towards a yacht that is genuinely fun to sail, without being racy. It offers the stability and volumes of a multihull with handling more akin to a monohull. The interior is comfortable with the look of a chic hotel, but Vaan has not sought to fill every cubic centimetre.

Some may find it too basic, and lacking in the armchairs, wine coolers and flybridges that characterise this market. But many will appreciate the aesthetic – and the lighter displacement it brings. And with an aluminium hull this should be a boat that can take you safely into higher latitudes.



Above: the port hull houses a generous owners' suite

VAAN R4



SPECIFICATION

LOA 12.80m 42ft 0in
LWL 12.75m 41ft 11in
Beam 7.06m 24ft 11in
Displacement 10,900kg 24,030lb
Draught 1.30m-1.95m 4ft 3in-6ft 5in
Sail area main 55m² 592ft², jib 30m² 323ft², gennaker 135m² 1,453ft²
Engines 2 x Torqeedo 12FP (25hp eq) or 2 x Oceanvolt SD15 (30hp eq)
Berths 4-6
Price from: €429,000 ex-VAT
www.vaan-yachts

ALSO CONSIDER

Nautitech 44 Open

Sharp looker with helm stations on the quarter, well balanced rig and good sailing ability. Price from £465,000 ex-VAT.
nautitechcatamarans.com



Neel 43

Light and manoeuvrable tri with open plan living space. Built with some bio-sourced materials. Price from €359,000 ex-VAT.
neel-trimarans.com



Excess 14

Promises a nice sailing experience with direct-drive aft helms, forward stepped mast and fin keels. See page 75. Price TBA.
excess-catamarans.com



Andreas Lindtner



Robin Christol/Outremer

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MULTIHULL Q&A

Offshore sailor Nikki Henderson reveals what you really need to know before going bluewater catamaran cruising

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Vaan Yachts

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A recyclable electric catamaran built from recycled alloys... is Vaan's new R4 a vision for the future?



COVER PICTURE

The freshly minted new Oyster 495 *Carpe Diem* as featured in our exclusive three-day test, page 60
Photo by Richard Langdon

SEPTEMBER 2022

Yachting World

OYSTER 495

EXCLUSIVE

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