

# FEVA RS



RS promises a revolution in small boats with its new Feva.  
**Jeremy Evans** finds out if it's plastic fantastic for the latest multi-role boat.

**N**ick Peters and Martin Wadhams from RS Racing masterminded the overall concept of the multi-role RS Feva, setting out on a mission to match the success of the Pico and Topaz. The job of designer went to Paul Handley, who designed the ultra smooth K6 keelboat before introducing it to the RS range and, with children who sail a Mirror and Firefly, was also in touch with smaller dinghies. They decided to create a small, doublehanded race boat that comes in two modes at cutting edge prices – the full spec Feva XL has everything ready-to-race for £2,995,

while the simpler, singlehanded Feva S gets down to £2,250 with a smaller, unbattened mainsail.

### Plastic fantastic?

The reason RS opted for its first rotomoulded polyethylene dinghy was primarily cost. Nick Peters calculated that a glassfibre Feva would end up much the same price as the 2ft longer Vareo, with polyethylene saving almost a thousand pounds. Glassfibre would be lighter, but would only save 7-8kg on a fully fitted Feva, plus polyethylene should be more durable and bash resistant.

RS labels the Feva as 'revolutionary' because they believe it breaks new ground. The Pico blazed the polyethylene trail, followed by the Topaz, but no one has attempted to create a full-on polyethylene race dinghy. This presented the RS team with three major problems. First and foremost, they needed maximum accuracy of shape to be able to label the Feva a one-design racer. This is not so easy with polyethylene, since shrinkage can be unpredictable while the plastic cools inside the mould.

On a basic level, the triple layer polyethylene process sounds simple. Hull



A secondary purple polyethylene foredeck moulding adds 2kg, creating a spinnaker chute while separating pole from kite.

and deck moulds are clamped together, then heated, rocked and rolled with the first wear resistant outer layer of polyethylene coating the inside. They then pour in the low density middle foam layer to add stiffness, and finally add the other side of the hard wearing skin. Interestingly, the weight of the plastic granules that go in is exactly the same as the moulding that comes out, allowing confident prediction of a 63kg one-design weight. Throughout the process, the shrinkage problem was solved by ensuring that cooling takes place at the same rate both inside and outside the moulds. It's really impossible to check without painstakingly measuring the different hulls, but there's little doubt the Feva looks considerably more one-design than the variety seen at a Mirror or Cadet meeting.

The second and third problems in producing a polyethylene race boat are stiffness and rig tension. Stiffness of the cockpit floor is vital when the crew are bouncing around and maximising speed. Making the boat heavier is no use since it eats into performance, while a reinforcing pillar between deck and hull would distort the hull under pressure and create a general weak area. RS reckon they have got over this by putting suspended aluminium stiffeners inside the mould. The prototype Fevas had one each side, and following a test programme they

added a third stiffener under the mast step which extends back to the daggerboard case. This supports rig load under full three-sail stress, while providing enough luff tension for the jib to make a major contribution to performance.

Perhaps the most interesting thing is that the Feva hull and deck has a lot more detail than was formerly thought possible with polyethylene. A chined shape gives it character, but also provides stiffness and stability to a hull that gets its performance from reduced wetted surface. The bilge rails are carefully shaped so that fingers – particularly small fingers – can get a grip on the insides, while the concave undersides of the gunwales have a non-slip finish to hold feet in place during a semi-inverted capsize. A secondary purple polyethylene foredeck moulding adds 2kg, creating a spinnaker chute while separating pole from kite.

### Rigorous testing

RS did not want to get caught by unexpected hull failure. The first batch of polyethylene Fevas were delivered to Hayling Island and the UK Sailing Academy in Cowes at the end of last summer, ready for an intense period of final development accompanied by abuse and misuse. Apart from dragging and dropping the boat or pouring sand down

the mast step, Nick Peters came up with a sail-to-destruct programme that must have been fun to watch. As an ultimate test, two Fevas sailed full pelt into each other while close reaching on a 30 knot day. They had to try and try again, since it generally ended in a glancing blow as any dents popped back out. Eventually, 90kg Nick managed to hit the other boat with a perfect 90-degree broadside, but only succeeded in puncturing the hull rather than sailing through to the other side! This was a somewhat ridiculous test, but it makes the point that the Feva hull will readily accept abuse and is unlikely to fail.

A glassfibre hull will invariably need a bit of care and repair if it is used hard, but the polyethylene Feva claims to be virtually zero upkeep. Scratches and scrapes won't matter, but will start to detract from the good looks of the boat. 'Zero upkeep' is not quite true; the rudder and daggerboard foils are made from the same tough and low maintenance PU foam as the Laser or Vareo, but may need attention if you hit the bottom at speed. So, why didn't RS go for an all forgiving centreboard? Mainly because it would add cost and complexity to the boat, as well as filling too much space in the cockpit. As with other boats in the RS range, the daggerboard is not totally unforgiving and can rock back to absorb unexpected impact, having been designed to balance the difference between sailing with main and jib or mainsail alone by angling its lateral resistance further aft.

The Feva has two mainsails – small with no battens or large with three battens – and together with the jib they are made by Hyde in Kevlar-reinforced Mylar. It looks great on a modern dinghy and has the advantage of providing a see-through bottom panel, though schools and institutions have the choice of plain Dacron alternatives. Dacron is more resistant to hot sun and misuse, but a well treated Mylar sail will retain its all important shape long after a Dacron has turned to flab.

### Rigging and launching

Unlike many dinghies, the Feva comes with a manual that provides 47 pages of comprehensive instruction on what to do.

You'll probably need a cover, since the light grey and purple of the Feva hull and deck will eventually fade. Plus you'll feel more relaxed about leaving everything in the boat, including the two-part mast which fits neatly inside. This has a sealed top half, and is stiff enough to stand alone with no shrouds in single-sail Feva S mode. You can roll the unbattened mainsail round the mast in Topper or Pico style, though it also has a single slab





Mast gate mechanism

for horizontal reefing which is the most efficient way to reduce size.

The Feva XL needs shrouds to support jib and kite, using the same simple clip system as the Vareo. This makes it quick and easy to get the mast up or down, with a stylish mast gate holding it in place. From there on rigging is straightforward and the Owner's Manual sets out everything as clearly as can be expected. For most people, 10 minutes should be plenty to get the boat sorted. With a handle on the bows and each side of the transom you could carry the Feva, but it's obviously easier to use a trolley which should be fully manageable by a solo adult or two young teenage children on an average slipway.

## Sailing

I reckon the Feva looks a really nice and interesting small boat with much greater cockpit and deck detailing than other polyethylene boats. The Feva is designed to cope with pretty much all ages and abilities, so I sailed alone while my daughter tried it two-up. Weighing around 75kg I found the boat stable from the start, with really simple controls, although the daggerboard was too tight in its case – Nick Peters said this was an isolated glitch, as the Feva daggerboard should slide easily enough for a 10-year-old to whip it up or down.

On a breezy day the Feva had loads of

get up and go and should provide fun for anyone. There's plenty of room and buoyancy for an adult singlehander if you're not on the big side, and the deck layout is really comfortable, though if you are dedicated to sailing alone it would be worth considering the slightly larger and faster Vareo. The big mainsail feels good and provides plenty of power for the more experienced singlehander who can also enjoy the small kite. One problem here is that the kite is set up for the crew to handle, so a singlehander has to reach right forward to hoist or drop and may experience consequent wobbles which won't occur two-up.

The Feva tacks and gybes in thoroughbred style and should be a great tactical boat for young racers. Like any performance boat it can also fall over, but RS has done everything possible to ensure it's easy to get back upright. The Feva does not float high on its side but did seem prone to semi-invert. Non-slip under the gunwales provides a good hand-hold or toe-hold on the hull, or you can get a grip on the bilge rails. If you can't get up onto the dagger or don't have the weight to pull it down, RS have added a righting line system for young crews, with lines led under the gunwale and secured either side at the transom. There may be occasional exceptions, but this should ensure failsafe recovery from capsizes.

## The opposition

Where does the Feva fit into the market? Here are three of the alternatives potential Feva buyers might measure her up against...

### Pico

**RRP:** £2,095

**LOA:** 3.5m

**Beam:** 1.37m

**Hull weight:**

60kg

**Construction:** Polyethelene

**Sail area:** mainsail 5.1sq m, jib

1.09sq m

**PN:** Singlehanded standard sail 1260; doublehanded two sail 1287.

Laser was the first big name to launch a rotomoulded dinghy and their Pico is very popular at sailing schools. While the Pico can be sailed two-up by children, its size makes it best suited as a singlehander.



### Topaz

**RRP:** from

£2,195 (Uno),

£2,355 (Uno

Race Plus with

jib), £3,275

(Duo), £3,795

(Tres)

**LOA:** 3.86m

**Beam:** 1.42m

**Hull weight:** 60kg

**Construction:** Polyethelene

**Sail area:** Uno 5.2sq m, Tres 8.3sq m

**PN:** 1255 (Uno), 1240 (Uno Race

Plus and Duo), 1175 (Tres).

Available with a wide choice of rig options, from simple singlehander to gennaker and trapeze, the Topaz has been joined by the newly launched Magno, the biggest rotomoulded dinghy available.



### Mirror

**RRP:** £3,999

(GRP race boat),

£2,999 (standard

GRP) £795 (hull

in kit form)

**Loa:** 3.325m

**Beam:** 1.4m

**Hull weight:** 45.5kg

**Construction:** wood or fibreglass

foam-sandwich

**Sail area:** 6.4sq m

**PN:** 1386

Launched 40 years before the Feva, the Mirror benefits from being an RYA Youth class with national and international racing on tap, and can provide unbeatable value second-hand (from £250).





The Feva hull and deck has a lot more detail than was formerly thought possible with polyethylene. A chined shape gives it character, but also provides stiffness and stability to a hull that gets its performance from reduced wetted surface.

Once up it's easy to get back in over the low side – best to roll the crew in – or through the open transom which lets the water drain out while anything left disappears through the daggerboard case. With experience, you could capsize and be back sailing the Feva in no time at all, and still be in the race.

### The verdict

The Feva's main use appears evenly divided between a great modern kids' race boat or an ideal family start-up boat. It's not big, but there's room enough for two reasonable size adults to enjoy undemanding sailing, or an adult with two children out for a ride. There is plenty of room as an adult singlehander – apart from the seriously over-sized – with the option of the big main and kite turning the entry level Feva S into something

more challenging. It also seems an obvious boat for sailing school and holiday operators, with Mark Warner first to equip their Mediterranean centres.

In XL mode the Feva is a two-up junior race boat that gives the crew more than enough to do since jib, kite, hiking and trim all have to be taken care of. It is also a pure one-design that is bang up to date with good relative performance for its size while retaining a good level of stability which won't frighten people off.

With experience from his own children, Nick Peters reckons the ideal start-up age for Feva sailing will be from about 11 upwards for serious junior racers. It's no surprise that RS have planned a Feva circuit for the coming season, with half a dozen open events plus the first national championship which will be staged at Hayling Island.

## answerBack by LDC Racing Sailboats



A major key to the Feva's success is its versatility. Newcomers can start with a basic boat and add to its capabilities with growing experience. More expert sailors will love the handling performance and the racing opportunities. Young or old, single or multi-handed, the Feva is simple to rig, easy to sail, comfortable, fast and great fun. This versatility is also of huge benefit to many sailing clubs, schools and holiday companies.

Genuine developments in the polyethylene roto-moulding process used for the Feva mean the durable, virtually maintenance free construction system is lighter than ever before.

The Feva is not only great fun, it will also have a one-design coached racing programme starting this summer. Racing will be open to all ages with special categories for young sailors. There will also be Feva class starts at some RYA Zone Youth Championships.

Development of the Feva has been a big project for RS and we are very grateful for the input from so many enthusiastic and expert people, both from within the marine industry and from clubs, schools and the RYA. The reward is that the boat has been received with huge excitement and sales are outstripping even our most ambitious predictions!

### Specifications

|                          |                                   |
|--------------------------|-----------------------------------|
| Loa:                     | 3.64m                             |
| Beam:                    | 1.42m                             |
| Hull weight:             | 63kg                              |
| Sail area: reefing main: | 5.5sq m                           |
| 3 batten main:           | 6.5 sq m                          |
| Jib:                     | 2.1sq m                           |
| Spinnaker:               | 7sq m                             |
| Suggested PN:            | Feva XL: 1195<br>Feva S: 1260     |
| Price inc VAT:           | Feva XL: £2,995<br>Feva S: £2,250 |

Contact: RS Racing, Trafalgar Close,  
Chandlers Ford, Eastleigh,  
Hants SO53 4BW

Tel: 023 8027 4500

E-mail: [rs@ldcracingsailboats.co.uk](mailto:rs@ldcracingsailboats.co.uk)

Website:

[www.ldcracingsailboats.co.uk](http://www.ldcracingsailboats.co.uk)

