

# Active Tools 2K Rowing Shoes

Adjustable Length, washable rowing shoes.

Traditional rowing shoes are made in the same way as normal training shoes and have to be manufactured in a range of sizes. As the shoes are fixed to the boats this causes problems as rowers either have to put up with shoes that are the wrong size or change them before going afloat, which is time consuming. The shoes also can't be dried out or cleaned easily so they rapidly become both smelly and unhygienic.

The new Active Tools shoes address these problems by being adjustable from US size 10-15 and having their outer shells moulded from a soft EVA/TPO foam that is both washable and hygienic.

A version is also under development for smaller boats that will adjust from US size 7-12.



Traditional Rowing Shoes

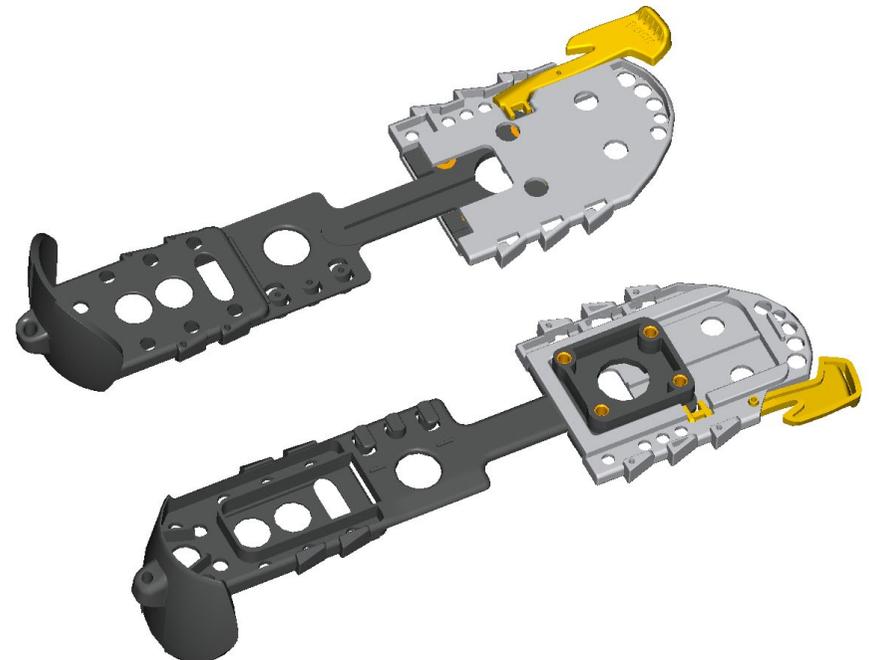




## Length adjustment

The image to the right shows the four threaded inserts that mount the shoes, the dark grey Rear Chassis that flexes as the rower takes a stroke and the light grey Toe Chassis moulding that slides when the yellow lever is pressed down. The spring force to return this lever is generated by the foam shell and in addition the lever is locked in place when the rower presses down with their feet. Note that the Rear Chassis does not move when adjustments are made and this is important as it maintains the geometry of the rowers set up and also prevents the heels being moved into contact with the inner face of the boat, which is extremely delicate.

A size read out window displays the shoe sizes in US, European and UK sizes.



## Width adjustment

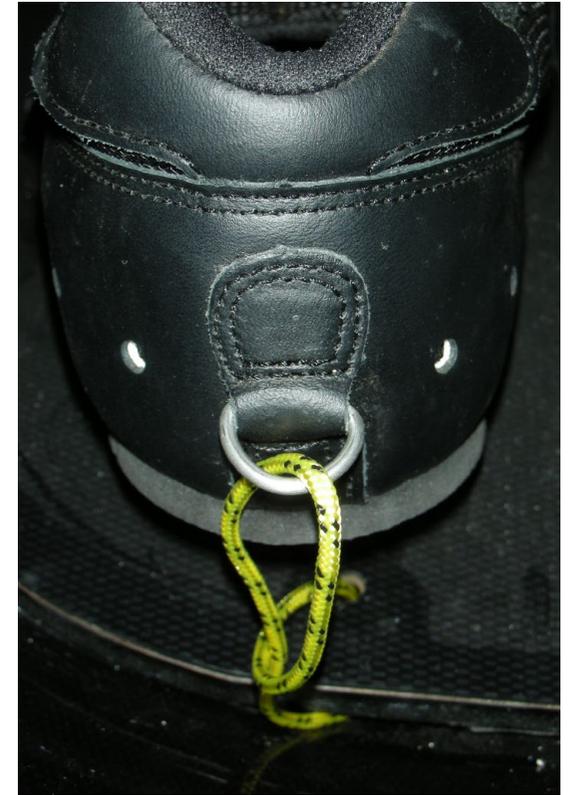
Once the rower has their feet in place they can then adjust the main straps and the toe straps to make the shoes snug on their feet. The toe strap is positioned so it can't trap the rowers' feet if it is over tightened and this is important because of the risk of capsizing.





## Safety

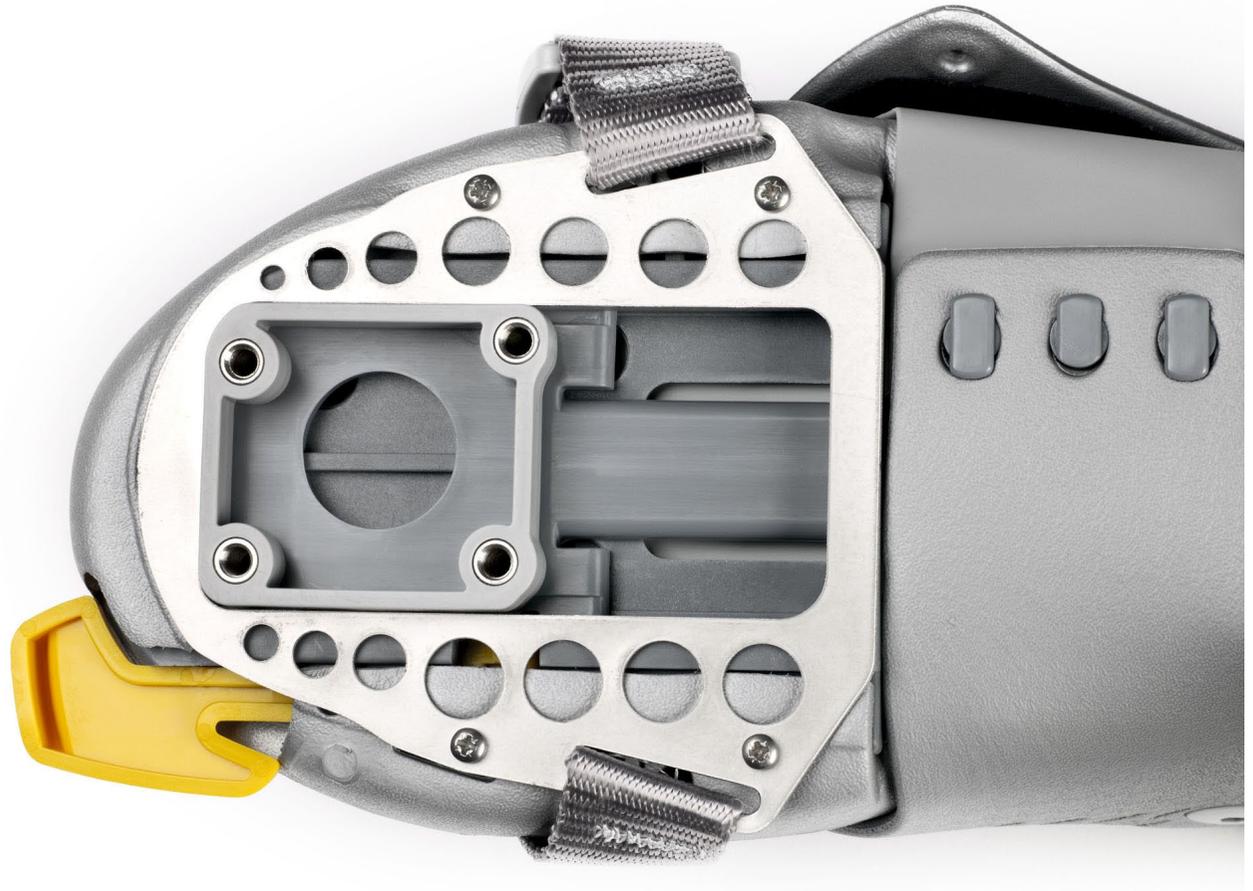
It is vital that if the boat overturns that the rowers' feet pull out of their shoes. This is achieved by having ties linking the heels of the shoes to the boat, which hold the heels of the shoes down. Generally the fixing points for these ties are metal loops sewn to the shoes and these inevitably perish over time. On the 2K shoes the fixing points are part of the Heel chassis mouldings so can never fail.



Traditional Heel Ties

## Strength

Rowing shoes suffer a great deal of abuse when rowers are being taught as they often 'catch crabs' (get their oars stuck in the water during a stroke). Rowers can even be ejected from the boat if they catch a very bad crab! To make the adjustment mechanism strong enough to survive this, stainless steel plates run under the shoes and have the Toe Straps attached to them. This means that the force is transferred to the 4 mounting screws.





The Active Tools 2K Rowing Shoes were launched in spring 2010 and are now sold throughout the world. The first major customer was the UK National Rowing squad who bought them for their new recruits who are generally extremely tall and therefore have very large feet!