



Kit Cat Tips on a catalogue of kit

Weight Systems

Kit List:-

Mask ✓

Fins ✓

BCD ✓

Weight Systems ✓

Regulator

Exposure Suits

Do you remember the first time you were fitted out with dive gear? The instructor gave you a load of bits and pieces with dangly bits and it felt like a ton on your back and then they said – “Oh and you’ll need some weights”. You’ve got to be joking.

But now you understand that physics takes over and for every chunk of gear you lob into the water there is an equal force trying to push it out again. Not to mention all those hidden pockets of air just itching to be buoyant. You need extra weight not only to counterbalance the natural buoyancy of your exposure suit but also your body. Remember - fat floats. Just think of oil on water. However lean and mean you have honed your physique the human body is naturally positively buoyant.

The rule for correct weighting is: You should float at eye level, with your BCD fully deflated while holding a normal breath.

The most common method of offsetting buoyancy is to use a heavy metal such as lead and attaching it to your body. For safety, this attachment must have a method of quick-release in case of emergency.

The main weight systems include:



Threaded weight belt - A webbing belt threaded through lead weights. Can be uncomfortable especially if you end up with a weight trapped under your cylinder and for ladies often causes tell-tale bruising round the hips.



Lead shot belt - This is the most comfortable type of weight belt. It is made up of a webbing belt with pockets holding lead pellets which mould to the shape of your body, making no uncomfortable pressure points.



Pocket weight belt - More comfortable than the threaded belt, this style has standard or bullet-style lead weights held in pockets. It is easy to add or subtract weights, which makes it popular for dive schools and charter boats.

BCD-integrated weight systems - Some BCDs have weight systems built into them in the form of removable pockets (like my lovely SeaQuest Diva). They must still have a quick-release system. This type of weight system is great for people who have back injuries, as the weight is carried by the entire back instead of just the small of the back. The disadvantage is that it makes the SCUBA system (including the BCD) very heavy out of the water so if you can remember to remove the pockets first before handing your gear to the boat crew.





Harness – allows the lead to be suspended from the shoulders giving a degree of flexibility in its layout. The weight can be fixed or in releasable pockets. Particularly useful in drysuits where you don't want the restriction of a waist belt to inhibit the flow of air round your suit.

Ankle Weights – For those irritating floaty feet often common with dry suits



Hints and Tips

- Get it right - Too much weight and you will use more energy and air to compensate, too little and you run the risk of a buoyant ascent as the dive progresses. None of us carries spare lead for fun, but having too little at the end of a dive is at best inconvenient and at worse dangerous
- Do a weight check – Over time you will get used to judging how much weight you need but you should perform the check each time something changes – shorty to dry suit, or carrying camera or torches and of course the water you are in. You'll need more weight in salt water than fresh
- Don't carry weight in your kit bag – it can damage other equipment and put undue strain on the handles
- If you need to take your weight belt off underwater, DON'T let it go!
- Hold the Loose end – carry a web belt by the loose end opposite the buckle. That way should the weights slip they won't drop off the end.
- The Deeper you are, the Heavier you will feel - as your suit gets compressed and loses its buoyancy. You may feel like you can take your belt off and let it go without any problem. The problem is that if you start to ascend, your suit and any air in your BCD will expand rapidly, increasing your buoyancy, which could lead to an uncontrolled ascent.
- Be Comfortable – choose a system that suits you and your equipment for that dive. When you are comfortable, you'll be relaxed and enjoy the dive all the more.
- Watch Out – take care when handling or storing weights, - they're hard and heavy! If they drop chances are they land on something (or someone) breakable and expensive.
- Keep a log – Don't just write down where you were and what you saw. Make a note of what gear you had including exposure suit, size/material of cylinder, did you have a camera, etc. Did you dive in fresh or salt water? (The Red Sea is one of the most saline seas) How much lead did you carry? And most importantly – was it right?

For this and any other equipment advice please feel free to ask us at the club or visit your friendly local dive store who will be more than happy to help.