

Packrafts and Zips



Why are they useful?

Why do experienced packrafters say they would never be without one?

Reasons we like them and recommend them

An airtight, waterproof zip (the brand name is TiZip, made in Germany) in the bow or stern of your packraft enables you to;

- ✓ Pack camping gear inside the tubes
- ✓ No pack wobbling around on the bow obscuring your forward vision
- ✓ No pack to stop you dead in a hole or breaking wave
- ✓ Two chances of keeping your gear dry
- ✓ Enables you to load the boat for optimum balance fore and aft.
- ✓ Keeps gear low – centre of gravity low = much more stability.
- ✓ Less chance of damage or loss of vital gear if you have OOBE (*out of boat experience*)



There is an extra cost – but we deliberately make our zips very affordable so you will include the option.

The weight penalty is only a few grams.

Care of TiZips

Look after your TiZip and it will give good service.

- Keep it clean – dirt, grit, sand – use a toothbrush (hint: zips have teeth)
- Keep it dry when not in use - leave the boat unzipped when stored
- No suncream, butter, or oil. Use a silicone lubricant, either TiZip tubes, or a bigger tube from SuperCheapAuto. https://www.supercheapauto.co.nz/p/herschell-herschell-silicone-paste-grease-tube---100g/402033.html#q=silicone%2B&lang=en_NZ&start=21 The best \$9.00 you will spend. Use it on parkas, tent zips too.

Bow or stern zip?

If you have a spray skirt, you will need to have a stern zip. Hunters who want to carry game animals will not want blood and dirt on their zip, so for that use a stern zip is better. You can use a cover.

Bike rafters have pointy bits of metal that have to load onto the bow that are best kept away from zips.

Otherwise there are some reasons why a bow zip is a good option.

- ✓ Most packrafts are stern heavy with the paddler sitting behind the middle of the boat. The boat stands on its tail in bigger waves and bounces about when its stern heavy.
- ✓ The load needs to be forward to counter-balance the paddler.
- ✓ Loads tend to want to slide towards the stern – hence the internal clips on other brands

Zips and physics *(for the engineers and nerds, or people who have friends in these categories)*

Most TiZips you'll see are fitted into the stern on an angle. They are almost always mounted assymmetrically. This imposes a twist to the zip. Some brands have TiZips mounted horizontally along the side of the stern tube. Neither of these mountings are ideal.

We looked at this. Everyone copies everyone in many ways, but zips always bothered me. I'm an engineer and I still remember some of what I was taught at university.

Hoop stress..... mmmmmm. The stress in a cylinder is highest along the axis. This is called hoop stress. It's why barrels have "hoops". The stress on a line around the curve is exactly 50% of that stress. Ask an engineer. This why pipes always burst like in this picture.



TiZips are an amazing piece of engineering but why subject them to 200% of the load when you can design the boat so that cannot occur? Not picking on anyone. Many TiZips are mounted

like this



or like this.



Not picking on anybody. Our TiZips were also mounted like on the red boat above, but two years ago (2018) we tried a whitewater model with a bow zip in an insert segment. It worked fine in the testing rental market.

All our TiZips are mounted in the position of least stress around the curve symmetrically and as far away from impacts as possible. They are welded in a small insert piece along a seam in either the bow or stern. This mounting is symmetrical – no twist on the zip.

Our TiZips have 50% of the load, no twist. It's purely by design.



You see the evolution of our design over the page, moving from left to right. The spray skirt models now have the TiZip mounted right on the stern seam. Don't worry, the seams are sewn and taped internally and externally. The insert is welded in. The bow is stronger than before.

The whitewater models have theirs in the bow. Progression from 2019 to 2020.



CW220 removable spray deck WW255 spray skirt WW255 self-bailer WW265 self-bailer WW275 self-bailer

New stern shape

New stern shape New stern shape

Loading your packraft

You can buy other brands with factory fittings inside the tubes, and specialised dry bags. These items are included in the zip option but it's usually quite a bit of extra cash.

Blue Duck has a simpler system, which works. It avoids tube mounted fittings which can be awkward to access, can break, are in a fixed position and are a potential site for wear and leaks.

We use a length of strapping/webbing with loops tied in to suit your bags.

We use 15 litre dry bags which are a good fit inside the tubes. They're 250 diameter and the tubes are 270mm, or 300mm in the doubles. We buy the bags from that well-known outdoor store K-Mart. They are \$6.99 each, and I have 6 of them. They're well made, robust enough, light, and they seal OK. I don't ask why they're so cheap. Try online as they run out of stock locally. Or just buy long skinny lightweight dry bags in trusted brand names from outdoor retailers.

It is useful to have multiple bags so you can find stuff.

1. Sleeping bag
2. Inflatable bed roll, pillow, torch, spare matches, socks, etc
3. Tent or fly
4. Spare clothes/camp clothes
5. Food and a few utensils – wrap in bubble wrap
6. Cooker, and spare canisters wrapped in bubble wrap.

7. More food

The Blue Duck Internal Storage Method explained

1. Lay out your packraft uninflated.
2. Lay out all your gear in the dry bags where you would like to load them.
3. Make loops in the webbing where the closure clips on the dry bags are. This webbing will be in the shape of an inverted "U".
4. Push the bags into the tubes on both sides.
5. Hold the bow up and shake everything into place. The webbing loops around inside the bow and stops the bags from sliding back.
6. Close zip and inflate.
7. Go paddling.
8. To unload, undo zip and pull the webbing with all the bags attached.



Lay your gear out.



Stuff the bags inside



Tent last

(poles and pegs well covered)

Zip up. Blow up. Shake it all down. Feel through – no sharp or hard edges on the underside of the tubes. That's it! It seems simple and it is. \$28 for dry bags and \$10 worth of webbing. Don't use cord as it's abrasive.

Portaging is easier. Just put the boat on your shoulder. Don't drag it on the ground. If you have to unload the gear in a difficult portage this simple method is quicker and easier both to unload and load.

Stern Zips

You want the load secured from the bow.

With stern zips it is worth the effort to insert a continuous loop of webbing inside the tubes. Make a loop using a butterfly knot every 400mm and tie the ends together. Leave the tape in there.

To load, just clip a bag on, pull the loop around, clip the next bag, and so on. Position the bags as you wish. Doubles also benefit from a continuous loop of webbing. They are a bit more nuanced to load, depending on what you need access to during a race or long trip, and the weights of the two paddlers. Trial and error BEFORE the race or that big expedition is prudent.

Happy paddling.

Hugh Canard

Blue Duck Packrafting Ltd

Christchurch, NEW ZEALAND