

Anti-Balling Systems for Crampons

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Crampons are dangerous! We often start off our crampon technique training courses with this phrase. The pitfalls of crampon use include potential injuries of the ankle joint, but more importantly the risk of stumbling. Walking with crampons differs from “normal” walking in several respects: for a start, the legs must be kept apart sufficiently, otherwise there is a permanent danger that the points will get caught in your trouser legs. The third risk – and it is this risk that the present contribution will focus on – is falling as a consequence of the so-called „balling-up“ phenomenon.

The perpendicular crampon points are keen “snow catchers”. Especially when the snow is wet or sticky, large lumps can form quickly, prevent the points from gripping and create a very dangerous situation.

When the climber sets off in the early morning, he will easily forget this risk. After all, the firm is still hard and the grip of the points superb.

However, on descent it is an entirely different story. The snow now tends to be soft, and the mountaineer’s tired feet often have to drag along a heavy load of snow.

Remedies

- The most important and easiest countermeasure to prevent balling of snow on the points is to use a crampon only when you really need it. Unfortunately, it is still not a rare sight to spy a mountaineer walking on a glacier in the deep snow with crampons on his feet (but without a rope!).
- Many climbers also try to prevent balling-up by regularly hitting their crampons with the ice axe. Although this will help, it does little to solve the problem in the long term.



Fig. 1: Typical balling up



Fig. 2: No balling up with anti-balling systems

- However, anti-balling systems are ideal to prevent the problem. Almost all crampon manufacturers (Austri-Alpin, Black Diamond, Camp, Cassin, Charlet-Moser, Grivel, Simond, Salewa, Stubai) have responded to the challenge and now offer fitting anti-balling systems for their crampons. The function principle is amazingly simple. Normally the snow gets stuck between the sole and crampon frame and then ices up. On this foundation, balling-up will readily occur. anti-balling plates are smooth plates which cover the entire sole. They are made of latex, a material that retains its elasticity to -40°C . As a result of the constant movement, the plates prevent the build-up of snow.

The effect of these flexiplates is so convincing that we have now made the use of this piece of equipment compulsory for our guide training courses. In other words, every participant must use crampons with anti-balling systems. And as they themselves confirm: use them once, and you will be hooked forever!

UIAA standard?

The UIAA Safety Commission has clearly recognised the importance of the anti-balling plate. Currently, the commission is discussing whether it should not be a compulsory requirement for the manufacturer to offer a suitable anti-balling system for his crampon before a UIAA label is even considered.



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