Open book on closures

Garment construction seems to offer an ever-growing range of possibilities for innovation with no stitch or square-centimetre exempt from the expert eyes of textile engineers who want to add functionality and—increasingly—of designers who want to add style anywhere they can.

Closures are part of this now; our recent conversations with some important outdoor and sports brands have proved this. Closures, in equipment and in garments, are now an open book.

To start at an obvious place, with gloves for winter sports, German manufacturer Reusch confirms that it is always trying to add "touches" to the closure systems it uses in its gloves for design reasons.

A leather skiing glove, for example, an expensive product, has a small metal rectangle on the back of the closure strap just to add a touch of class. Others in the latest winter collection have tiny raised bumps in the same spot. "The bumps are also for design effect," confirms Alexander Nikol, winter sports product manager for the brand, "even if you can hardly see them. They are more of a tactile thing, but I think it works really well. It's not easy to add design touches to products that have such a small surface area as a glove so it's important not to forget about the closure as one possible area for doing this."

The company has also added what it calls "genuine closure innovation" to its new line of ski helmets. The clasp has a whole series of raised ridges so that, on hard impact, it's much less likely to come loose.

Another helmet company, a quirky US brand called Nutcase—which specialises in protection for cycling, skating and snowboarding, and uses the slogan, 'The most fun a helmet ever had'—has focused much of its creative energy so far on graphic presentation. And to good effect: a display of Nutcase helmets looks like a collection of the brightest Easter eggs. It feels it chose a "good, standard, one-hand closure system" three years ago when it launched and is sticking with it for the time being. However, a company spokesperson has told WSA: "Doing more with the closures is a good idea. We'd definitely like to do more in that area in the future."



A touch of glamour in closures can give outdoor apparel a more fashionable look.

TNF

Same old stuff

Perhaps, though, it's not so easy to come up with improvements to closure ideas that have worked well for a long time. Certainly French alpine skier Jean-Baptiste Grange harbours the cynicism of someone who's heard a lot of pitches from design teams down through the years only to meet with disappointment when taking their products onto the most difficult slalom courses in the world.

Asked by WSA if he has noticed many major improvements in closures and bindings during his career, the four-times World Cup event-winner could scarcely be more forthright with his answer. "It's all the same old stuff," he says. "Sure we've got new bindings on skis to accommodate every size and style of ski-boot, which is a good thing, but you lose something in terms of vibration on contact with the ground. And gloves? They're either too long for the jackets we wear now or too short. Gloves were better in the old days when we just wore a leather glove with one closure at the end. That's my honest opinion."

Weak point

If the makers of apparel and equipment continue to put the effort into closures, there's a chance they'll come up with something that Mr Grange likes one day. You certainly could not fault them for effort.

Take The North Face (TNF). This brand splits its focus on closures into four distinct areas: zips, snaps (press-studs), hook-and-loop (Velcro) and lacing. Product manager Mark McCarthy specialises in outerwear and snowsports and the "essentials" for his collections are hats and gloves, which leaves him looking less frequently at lacing, but he is enthusiastic about TNF developments in the other three kinds of closures.

He explains: "In zippers, what we're trying to do is combine durability with smoothness and ease of operation. The zip needs to be smooth so that the wearer of one of our garments can operate it one-handed. The zip is always one of the weak points of any jacket, like the neck or the sleeve, so we also need to make it as durable and weather-resistant as we can."

In technical jackets, the smart zipper money at the moment is going into reverse-exposed zips, with the teeth exposed only on the inside. In Mark McCarthy's opinion, one of the main benefits of this is that it simply looks neater. By applying polyurethane (PU) to the outer side, it gives a shiny look and, more importantly, makes the whole closure more weather-resistant—this is on a mountaineering jacket such as the Vanquish model, for which TNF has dispensed with the storm-flap effect over the YKK zip. It has Gore fabric for high performance, is highly breathable and waterproof.



The Vanquish mountaineering jacket from The North Face. The teeth of the YKK zip face inwards and the outer side is coated with a PU finish to make it smooth, neat and weather resistant.

TNF

"If we go back 10 or 15 years there were three flaps on jackets like these for more efficient closure and moisture repellency," Mr McCarthy continues. "But that meant extra bulk. Skiers now want better fabrics, lighter fabrics, garments that pack down smaller. A jacket like the Vanquish uses fabric technology to reduce weight; construction technology has to try to do the same."

A splash of colour

He points out that it is possible to use this zipper technology creatively by using a variety of colours, different-sized plastic teeth and so on. Some snowsport brands are even using gradient dyeing on zips to give their garments a fashion element. They take the zippers before they're coated and dye them as they wish.

Another TNF jacket, the lighter, easier-to-pack On-Sight, has no PU coating, but does have a durable water repellent (DWR) finish on the zip so that moisture hitting it will bead up.

The big challenge facing Velcro closures in the winter sports arena is keeping them sticky. TNF combats this by working with a reputable supplier who can consistently provide a product with just the right sized hoops, slightly bigger than normal to make it easier to shed snow. "There is a trade-off in this, though," Mark McCarthy continues, "because you end up with quite aggressive Velcro that can be abrasive to the fabric, sometimes even ripping it."

Further improvements will keep coming. The open book of closure innovation will never close.