



## A New Way to Skin a Ski



Montana International AG knows winter sports equipment. They are one of the leaders in ski and snowboard service machines and storage equipment. They've also been making high quality climbing skins since 1936. Walter Arnold, freelance designer, Ashlar-Vellum user and Swiss native, was recently engaged by Montana International to design a new fastener for these skins that was easy to use and flexible enough to work with any ski tip or split board design.

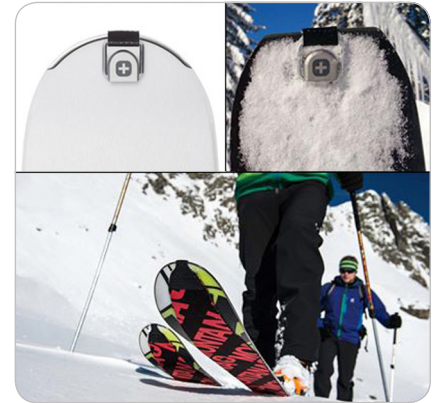
For those who are not backcountry ski aficionados, ski skins or climbing skins are used for flat skiing and climbing to those places inaccessible by any chair lift, allowing skiers or boarders to whoosh through the pristine powder of ungroomed slopes.

Originally made of seal skins, ski skins are today made of mohair, nylon or a combination of the two. The skin has a nap, which is smooth when rubbed one way but has friction when rubbed the other. This gives traction for easier climbing up the hills without sliding backwards, and comfortable gliding forward on flat terrain. Ski skins are usually taken off at the summit and stored carefully for the run down the mountain.

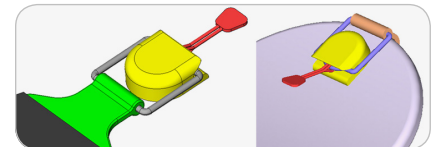
Climbing skins come as long, thin strips of material with an adhesive on one side. The skins are carefully adhered to the bottom of the skis or split boards (a snowboard split vertically to allow climbing) and fastened at the ends with binders. But traditional binders are clumsy to use. So Arnold developed a new kind of fastener using Cobalt™, Graphite™ and 3D printing. Instead of a clip, a hole is drilled in the tip of each ski and a piercing is screwed in, making the skins fast and convenient to attach.

Arnold liked the work flow of modelling in Cobalt, selecting the best designs to print in 3D, making design modifications, then using Graphite to create the technical production drawings from the Cobalt geometry. Arnold tells us:

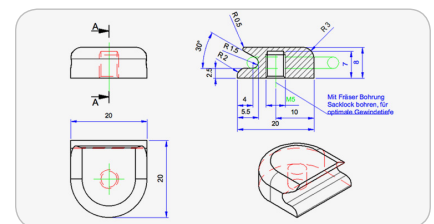
***“For modelling and 3D printing I use only Cobalt, of course, because I need to make the STL files and I can only do it in Cobalt. And then when it comes to detailing I use Graphite. I still like the 2D part of Graphite. I’m an old Vellum® user. The flexibility for me is the best part.”***



Montana International's new ski piercing fasteners easily secure climbing skins to any shape of ski or splitboard tip.



Arnold modelled the ski piercing in Cobalt and printed it in 3D (**above**). Deciding upon the design, he brought the geometry into Graphite for production drawings (**below**).



### Background/Contact

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