

2.0 SKI MAINTENANCE



Skis should be regularly maintained to perform the way the manufacturer intended they should. Bases and edges require maintenance and a basic rule of thumb is that skis should be tuned after 8–10 days on snow because edges dull and wax scrapes off.

BASE STRUCTURE

As a ski slides over snow crystals, heat is created due to friction. The heat melts the snow crystals and creates a thin layer of water, which reduces friction and allows the skis to slide. Water is the key to bases that are fast and easy to turn, but only if the correct amount is present under the skis. If the snow and humidity is very dry there may not be enough water present to help improve glide. In this case water may need to be produced through greater friction between the snow and the ski base. This is created by a smooth or fine structured finish.

When snow is warm or wet, however, excess water can be generated underfoot that creates suction and slows glide. In this situation, the base should be structured with a pattern, which, similar to tire tread breaks up suction and helps channel water away. In general, a finer structure is best for cold, dry snow and a coarser structure is best for warmer wet snow.

WAXING

Wax is important for two reasons. It improves glide and protects the ski's base from oxidation that will degrade its properties and shorten its useful life. The ski's base is like a sponge, and soaks up wax. The wax will bleed out of the base during skiing and lubricate the surface to enhance glide and protect the ski bases against frictional forces that can contribute to oxidation.

TEMPERATURE SPECIFIC WAXES

These waxes serve as the foundation for greater performance and should be the first wax layer applied, preferably by hot waxing. The waxes are mixes of high-grade paraffins and other additives that offer greater speed in specific temperature ranges and snow conditions. There are three to five different temperature-range waxes offered by most wax companies including:

Cold wax – for snow temperatures approximately 10°F/–12°C and below. This is a hard wax mix of paraffin and synthetic paraffins which are hardening additives that make wax more durable, abrasion-resistant and immune to scratching by sharp snow crystals (dry friction).

Midrange wax – for snow temperatures between 10°F/–12°C and 28°F/–2°C. This is a medium wax formulated to counteract the effects of both moderate dry and wet friction.

Warm wax – for snow temperatures 28°F/–2°C and above. This is a soft wax mix of paraffin and silicone (or similar) which are hydrophobic additives that make wax more water-repellent to combat wet friction.

EDGES

There are two edges that need to be maintained - the base edge and the side edge. Both of these edges are normally bevelled and the degree of bevel used will affect the ski's performance:

Base Edge – The amount of bevel will affect the ability of the ski to turn on the snow. The more base edge bevel, the easier it will be to pivot or slide from side to side. With a new pair of skis the base bevel will likely be 0.5 degree, if the edges are locking in to a turn too soon, change the bevel to 0.75 or 1 degree. To go back to a lower bevel angle will require resurfacing the base, so beginning with smaller angles is recommended. Once the base edge bevel is set it can be maintained using diamond, ceramic and gumi stones.

Side Edge – Side edge bevelling will give the skis more grip on the snow surface. Typical angles are 1.0 to 3.0 degrees. Less angle equals less grip. A 0.5 or 1 degree base angle and a 1 degree side edge bevel is a typical starting point. A 1-degree-base/2-degree-side is more suitable for hard pack or icy conditions.

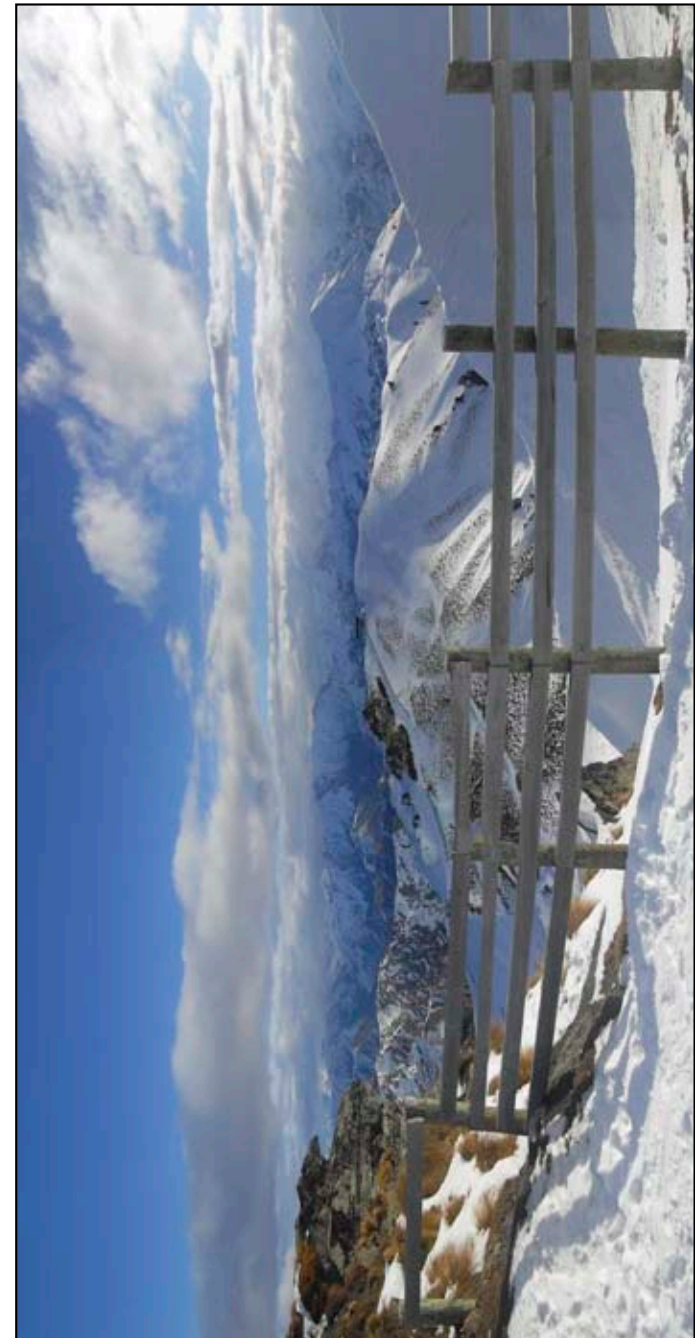
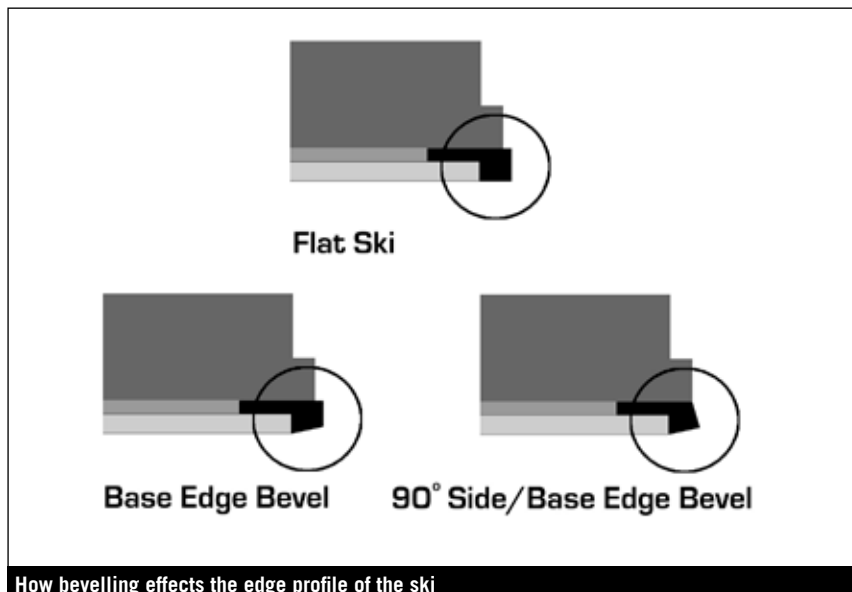


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