New Ski Preparation

New, factory tuned racing skis are not quite ready to be skied on. There are a few things that should be done to a new ski before it touches snow. It is important for athletes to do this before the first training session begins so that skis can be easily and properly tuned during the season and so that the ski functions properly. This step is a little more advanced than in season daily tuning in that it requires removing a moderate amount of material, several different tools and the ability to accurately modify the geometry of the ski. It is not recommended for beginning tuners to try this for the first time on a new, expensive racing ski. There are ski shops and tuners in the area who can perform a new ski prep quite well but be aware that most shops do not perform this service the proper way that a professional race serviceman(woman) would. The following is an overview of the process and what to look for if this is beyond one’s skill level at this point in time.

Inspect skis

Bases should be looked at with a true bar to ensure the ski is flat. Base bevel should also be assessed to ensure the ski is not over beveled. Base material should be inspected for an appropriate gliding pattern and damage. The entire ski should be inspected for defects such as delamination, voids, bent skis or anything else that would inhibit performance.

Sidewall preparation

Sidewalls need to be planed so that the side edge can be shaped and tuned without the sidewall getting in the way. It is important that this is continued through the tip and tail. It is not good to take away so much sidewall that the structural integrity of the ski is compromised. After planning, the sidewalls should be sanded smooth. A finer polish is desired for GS than SL.

This step can be tricky for those who have never tried it. It may take some practice to become proficient at this step.
Setting the side edge bevel

Most factory side edge tuning is quite accurate but often the bevel angle is far less in the tip and tail. Also, the factory bevel may not be what is best for an athlete’s skill level. After the sidewalls are planed, the side edge should be shaped and sharpened from tip to tail, to the desired edge angle. After shaping, the edge should be polished. GS should be polished more than SL skis.

Setting the base edge bevel

Factory base edge tuning is also very accurate these days but it is done by machine and those machines do not typically complete the bevel all the way through the tip and tail. It is very important to shape the base edge so that the bevel is smooth and continuous throughout the whole contact length of the edge. After the contact portion of the edge, a slight flare to a bit more bevel is desirable for smooth entry into turns. Base edges should also be polished after filing.

Edge tuning

After the above steps are completed, the resulting burr or hanger should be removed from the corner of the edge with a fine diamond stone, not a gummi stone. The gummi stone should be used later as a detuning or dulling tool for the tips and tails of skis if they became too sharp and also for the running length of the edges if snow conditions and/or athlete skill level necessitates it.

Wax

New skis should be waxed often with a soft hydrocarbon basecare wax and then brushed out with a soft brass or stainless and horsehair brush. This soft wax will penetrate deeply and help saturate the bases. After several cycles of basecare wax, a slightly harder hydrocarbon wax should be used. Do not use Fluorocarbon wax until race day.
Pete Lewis - Diamond Peak Ski Team Coach & Tuning Expert, New Heights Tuning Co.

Pete began tuning skis in his basement at age 14 and went on to work for a few different ski shops in Lake Tahoe between 1998 and 2002. He then bought some equipment and converted his garage into a tuning shop and New Heights Tuning Company was born (2002). Pete has tuned for racers and masters in the North Lake area, and was mentored by Doug Willis. Working for the US Team with Peter Lange and tuning for Brian McLaughlin and Tanner Farrow furthered his knowledge and how to work with high-level athletes.

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