



## **FIS EQUIPMENT OVERVIEW 2024-2025**

**Goal:** To create an understanding on the equipment needs of a FIS athlete.

As athletes grow and progress through their careers, networking with current and past members of the club can be a great resource for high quality used equipment

**Skis:** Skis are expected to be in great shape and FIS legal

### **Tech skis**

- Tech skis can be used for multiple years only if they are very well cared for.
- 2 pairs of skis for each technical discipline is highly recommended.
- Ski lengths are often very limited by FIS rules and likely should be discussed with coaches.

**Speed skis** - While the SG and DH training opportunities are limited through the season, we feel that athletes should be prepared to train SG even if they do not want to compete in the speed disciplines.

- Speed skis can be used for many years
- We have a very limited pool of speed skis for FIS athletes in the club. Priority goes to first year athletes
- Used speed skis are often an excellent option

**Free Skis-** Athletes need to have free skis of appropriate length and width.

- We recommend free skis to be long enough that an athlete can ski Gs like radius turn comfortably. In broad strokes, our female athletes should have free skis that are no shorter than 170cm and males 180cm. Free skis should be approximately 100mm wide.

**Boots:** Possibly the most important single piece of equipment for ski racers.

- Fit and flex is critical to an athlete's chances for success and boots should be checked by staff members
- Race boots are tight out of necessity. Athletes need to manage bone spurs, in grown nails, and sore spots very actively- do not wait to discuss issues with your boots!
- We live in a cold climate. Multiple pairs of high quality ski socks are required. The best way to keep feet warm is to keep them dry and to use clean, dry, high quality socks.
  - Heating systems are recommended but will only be effective if feet and socks are dry.

**Bindings:** Athlete Bindings should be of the highest quality. Many manufacturers produce different model bindings with similar DIN settings. Often the difference in these models are the

use of materials which effect the elasticity of the mechanisms, the response to the skier and the robustness and longevity of the bindings.

- We highly recommend athletes use adult race bindings.
- High quality bindings can be used for multiple years.
  - Each summer or during long periods where the bindings are not being used, DINs should be turned down to below the minimum value. This helps preserve the life of the binding and ensures safety for longer.

**Boot & Binding lifts:** Often over looked but tremendously impactful. Don't forget to order these!

- Boot Sole Lifts- Boot lifts wear down and should be replaced annually.
- Cat tracks- Athletes should have and consistently use "cat tracks" or other sole protection products
- Binding Lifts- Binding lifts allow athletes to adjust the character of the skis. Each pair of skis should have a lift kit and applicable screws. Coaches will help to determine the proper ramp angles for each discipline.

**Helmets:**

- BAR athletes are required to wear helmets during all team events and programing
- FIS approved helmets are mandatory for all disciplines except SL.
- BAR FIS athletes are required to use chin guards for SL training and races.

**Goggles:**

- Scratch free lenses are critical to success. Having multiple lenses can drastically affect athlete's ability to adjust to changing conditions.
- A second pair of goggles can allow an athlete to keep one dry when conditions are adverse and will be more effective when needed. The second pair doesn't have to be nice or new, just allow the athlete to keep a good pair dry.

**Speed Suit:** Some of the rules regarding speed suits change when competing at the FIS level.

- FIS stamped plumbed suits: Requirements on the permeability of the suits become enforced at Nor-Am competitions as well as major international events. Suits need to be certified by the manufacturer and will have a graphic to indicate their certification.
  - What this means for us: for most our races this has little effect.
  - If we are to pursue Nor-Ams, athletes will need to have a plumbed suit, indicating that the suits meet the permeability requirements.
  - Plumbed suits are suits that have a graphic on the calf of the suit that indicates FIS certification.
- GS VS. DH suits: some suits have built in pads on the knees, hips and arms of the suits and some do not. Suits with the sown in padding, for our purposes, is a better option than the DH specific suit. These suits are sometimes more robust than the DH suit counterparts, are warmer because of the padding and the majority of our training and racing are in the technical events.

- As suits do wear out with use, Athletes with older suits that still fit should use the older suit for training and keep newer suits for competitions

**Poles:** Athletes need to have GS and SL specific poles

- Speed poles are not necessary but can be useful in achieving good aero dynamics in Sg or Downhill
- Pole lengths- before buying poles, check with coaches. SI poles are usually the shortest pole, Gs slightly longer and speed poles are longer.

**Safety gear and protection:**

- **Back Protectors:** Back protectors are required for BAR FIS athletes in GS, speed events and training and are HIGHLY recommended for SL
  - It is highly recommended that athletes use back protectors- Back protectors should fit from the top of the thoracic spine or bottom of the neck to the tail bone.
  - Back protectors are very warm, protect from minor bumps and bruises as well can help in major crashes.
  - Used back protectors are totally acceptable, but fit is crucial- athletes don't wear gear that doesn't fit.
- **Shin Guards:** Shin guards come in an array of styles and materials. If the straps function well and the shins and knees are protected, we are happy. If athletes are shopping for new shin guards, ideally, they would be sized to go over the boot cuffs and all the way to the knees, straps height adjustability can be very useful for customizing fit.
- Arm padding is required and "stealth" tops are more useful than forearm guards
- Chin guards (as mentioned above) are required for SI racing and training
- Mouth guards are recommended and can be used for all disciplines
  - Custom fit guards are more comfortable and much easier to breathe with

**Training clothing:** Highly recommended

- Tight training shorts- the single most useful piece of training apparel. Provide warmth to legs and core without adding a lot of drag or reducing mobility. Athletes can use tight shorts during almost every training session
- Tight softshell or vest- highly flexible but tight, a good training jacket can provide a huge amount of warmth without tremendous drag

**Tuning equipment:** \*\*Please see Tuning kit doc\*\*

properly tuned skis are an absolute **necessity** for all ski sessions- competition and training

- Well-tuned skis are safer, and are critical to an athlete's ability to learn and develop.
- Good tuning equipment is critical for fast and effective ski tuning- Athletes that are concerned about time need to have good kits and knowledge. While these tools are expensive, hopefully your kits have been accruing tools over time and athletes are caring for them.

- Good equipment will allow an athlete to use skis much longer, as edges can be preserved much longer

\*Please note that some items in tuning kits wear out and rarely last more than a season. Athletes that are diligent in cleaning files and stones will be able to use those items much longer.

**BAR Race Wax policy:**

We will supply race wax on the road so athletes do not have to purchase a variety of race wax. At home, our race wax can be used, however, the skis will need to be waxed in a central place in Banff. In the past, most athletes use their own wax due to logistics.

**BOTTOM LINE:** Proper equipment and safety gear is crucial to safety and success. Athletes who take responsibility of their gear and maintenance

**\*\*A FEW NOTES\*\***

- ❖ If you have questions about anything on this list or would like help in sourcing any of these items- please reach out to either Wade or myself.
- ❖ It is not acceptable to assume that one of your teammates has a tool that you can use. Athletes need to communicate if they need to use any items.

Please, Please Please ask for help if you have any questions at all.