

**The Nordic Ultratune  
Hand Picked Ski Program  
for the 2010/2011 Season**

The hand-picked ski program continues for the 2010/11 season. You get the skis you want, picked from the best possible selection, and they arrive before the snow flies.

See the articles throughout this newsletter on the new skis. Atomic, Madshus, and Rossignol are all having significant upgrades to their skis (and new graphics, too).

**For the 2010-11 season, the following models are available:**

**Skate skis:**

- Atomic Featherlight Skate - **\$549**
- Madshus Nanosonic Skate - **\$599**
- Rossignol Xium WCS Skate - **\$599**

**Classic Skis:**

- Atomic WorldCup Classic - **\$549**
- Madshus Nanosonic Classic - **\$599**
- Rossignol Xium C2 Classic - **\$599**

**Specialty Classic Skis**

- Atomic WorldCup Multi/Rubber - **\$549**
- Madshus Nanosonic Zero - **\$599**
- Rossignol Xium C2 Rubber - **\$599**

**Other Special Skis**

- If it's available from Atomic, Madshus, or Rossignol, I can try to get it for you. Just ask!



**Precise  
tools for  
measuring  
camber and  
flex.**

I work closely with the ski companies,

knowledgeable world cup skiers, coaches, and servicemen to get the best possible information on ski fitting for each brand and model that Ultratune sells.

All skis are selected using the Ultratune Digital Flex Press in our shop. Some will be pre-

selected at the ski warehouse, but they'll always be tested and flex verified in our shop.

Whether you choose a ski from Atomic, Madshus, or Rossignol, the performance will depend on fit and finish. A well fitted ski with a fast base finish will result in great performance.

*(Continued on Page 2)*

**Send an email to [xcgrind@ultratune.net](mailto:xcgrind@ultratune.net) with information:**

**Your Name**

**Weight** – how much do you weigh with your ski clothes on?

**Height** – how tall are you?

**Ski type** – skate ski or classic ski?

**Which ski?** If you know the model and size that you want, tell me. If you have questions about the skis, ask. I usually reply to emails in less than a day, even in the summer.

**A short description of what you're looking for.** This can be as simple as "an all-around ski", or as specific as you can describe. Will the skis be your one-and-only pair, are the skis intended to fill in a specific purpose among many pairs of race skis. The more information you provide, the better able I am to choose the right skis for you.

**Stone Grinding.** If you know the base grind you'd like, then include that. Don't worry - I can help with the choices.

**A phone number.** At some point, we'll need to talk, so send a number.

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(continued from page 1)

You get a ski that's correctly flex picked for the intended use, with a great Ultratune base grind for the intended conditions. They're saturated with wax in our hotbox and delivered to you.

If you would like a pair of skis, send a request.

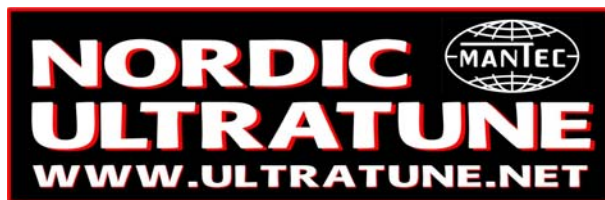


**Choose Your Ski  
Selected by Flex  
Pick Your Grind  
Hotbox Service  
Delivered!**

When the skis are picked we decide together which grind is best for the skis, which bindings are needed, and any other details.

Payment for the skis is needed before the skis get their grind and hotbox. Typically the skis are shipped a few days later – just long enough to get the skis prepped, packed, and shipped.

Shipping is handled via FedEx Express three day service in the USA. ■



The Mantec Grinder at Nordic Ultratune

**The Nordic Ultratune  
Hand Picked Ski Program**

**Skis that fit, with a racing grind, and hotbox service. Delivered before the snow flies!**

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## A Peek at the Rossignol WCS Skate Ski for the 2010/2011 Season

By Mark Waechter

I've had a pair of the 2010/11 Rossignol WCS skate skis in the shop and on the snow for the past couple of weeks.

The new version of the WCS skater has some changes.



First, the skis are trimmed down about 1cm. The new skis are 180, 186, and 192 (instead of 181, 187, 193). Also, the tip is cleaned up --- Rossignol has ditched the "window" in the tip and is instead using a thinner, cleaner looking flat shovel. I think this is a good thing. (Note that a 186cm Rossignol WCS is about the same length as the 190cm skate ski from Madshus for 2010/11).

More subtle, but more important, Rossignol has reshaped the profile of the ski, making it wedge-shaped, with the heel a little lower than the toe. This is further accentuated by the NIS bindings (for those who use them) to give a pronounced wedge-shape under the foot. The intent is to help keep the weight back on the foot to improve performance. On the World Cup, skiers have been playing with wedge shaped shims for a couple years, and this is percolating through to consumer products now.



Also, the camber is slightly modified, with the half-weight camber open just a little further forward than the old WCS. The camber closes about another 10-12cm when progressing to full-weight, and this provides a great all-around front end camber, especially when combined with the somewhat more compliant tip flex than the old Xium.

And how do they ski? SUPER. All the previous detail would add up to zip if the skis weren't performers. As I've come to expect with Rossignol skate skis, they're very stable. But these skis are also fast and predictable and compliant. The WCS-2 skaters are really nice.

Finish on the skis is very nice as well. The shiny clear top is free of bubbles or cosmetic goobers. Maybe the pre-season skis are specially picked, or maybe these are a reflection of the standard production quality. I won't know that until autumn. Ummm, less orange and more black for next year. The tip graphics on the bottom have been changed. Very cool-looking white insert, and it's smooth when you feel it with your fingers; nicely done.

Finally, the bases are nice and flat. I was able to blank these skis with one pass through the Mantec grinder. That requires an almost perfectly flat ski edge-to-edge. This gets a big thumbs up from me!



The new Rossignol WCS skate ski is an incremental improvement from last year's ski. Evolution, rather than revolution. But definitely a step forward. Rossignol has done a really nice job. Everyone will want a couple pairs, right? ■

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## Trying the Atomic FeatherLight

By Mark Waechter

In early March a ski box arrived at the shop. Okay, so that's not particularly momentous at Nordic Ultratune. Ski boxes arrive daily.

But this small, "one pair" box, had a pair of the 2010/2011 Atomic skate skis. Atomic has made the name a bit more complicated since Atomic calls it the World Cup Red Cheetah FeatherLight. Most people are calling it the "FeatherLight" or "World Cup FL".

The naming might be confusing but there is no confusion about the skis. Maybe you saw some of these while watching the Olympics? New graphics? See the photo on the left!

Atomic keeps the bold, bright graphics. Lots of red and white, but they've added some darker-colored accents. Eye catching on the podium.

The FeatherLight keeps the camber characteristics of the Red Cheetah skis, but reduces weight a little bit by changing some internal sidewall material. The camber design, the layup, the base, the side-cut -- all those features remain the same.

The FeatherLight has been in use on the World Cup for over a year. I've worked on quite a few of them at Ultratune, but only a handful of skiers have had them. For 2010/11 they are entering the mainstream and are available to everyone.

The Atomic skate skis are fitted differently than other brands (each brand is fitted differently, so it's not just Atomic that's "different"), and care is needed to pick a good flex in order to get the best performance. From my experience, the error fitting Atomic skis is usually in picking them too stiff rather than picking them too soft.

As with any non-NIS ski, positioning the bindings has to be done with care. As a note, this pair of 190cm skate skis weigh in at 506 grams per ski, which is right where they're advertised (the smaller sizes weigh a bit less).



*I know that there are some of you who can't get enough of those bright yellow suits that Slovenia wears, so here's a picture of Barbara Jezeršek. She's rocking Atomic.*

On the snow, the skis feel like the 2009/10 version. They're quick, stable, and a blast to ski on. They're super on technical descents, and very nimble climbing. I think they're really great all around skate skis, handling sugar well and firmer conditions well, too. The test pair is running on an "i5" structure from the Ultratune Mantec grinder, and they're fast. When I'm picking the Atomic skaters, I usually recommend the "cold" version as having the best camber for an all-around ski.

Quality is very good – these skis are closely matched for both closing pressure and camber length. Also note that many skiers using SNS bindings/boots are using a binding wedge with these skis. The wedges are optional.

So, in total, the skis feel much like the current version. That's great! The graphics got an overhaul, and the skis are a little lighter. They're a winner. ■



## 2011 Madshus Nanosonic Tested

By Mark Waechter

In the days just prior to departing for the Olympics, I was able to test a few pairs of the 2010/2011 Madshus Nanosonic skate skis.

The 2010/2011 Nanosonic is all new. Only the name remains the same. The Madshus ski has a completely new shape - the entire design is changed. Yes, the graphics are updated too, of course, but the whole ski is new and that's worth discussing.

### The Design

Anyone who has seen the Madshus skis in the past ten years is familiar with the top-side shape - the curved hump/spine that runs lengthwise - it's the Madshus shape that has been constant throughout the Hypersonic and Nanosonic lifetime. But that's all changed now.

The new "3-D shape" is simpler and cleaner. The use of varying depth features extends all the way up into the tip of the ski to reinforce the perimeter of the shovel, allowing a light tip with some engineered control of the tip flex and tip strength. Through the middle fore-body of the ski, the profile is smoothly continuous, and avoids any discontinuities that would create "hinge-points". The effect is visually very clean and simple and elegant. It looks great, and it is a smart design.

The middle section is squared-off and has the standard black NIS plate. This is nothing new - most of the ski world is now using these plates on the skis. Adjustable bindings and NO SCREWS are both a great idea.

I spent a lot of time discussing the top side of the skis because the Madshus design actually uses the shape for structural purposes (not a new thing with skis - Atomic also relies on topside shape in the ski design).

The tips of the skis are trimmed down compared to the past Nanosonics, and the length has been reduced. They're still calling the skis "185, 190, 195cm" because the running surface length hasn't changed, but they measure about 3.5cm (1.5 inches) shorter than before. There's also a noticeable up-turn in the tail that makes these skis the easiest skate ski to ski backwards on! Weight for a single 190cm ski is just a few grams either side of 500 grams on the six skis I weighed. So, weight per pair is about 1000 grams. That's good; lighter than most.



The bottoms are different. There is no colored graphical insert at all. Just plain black continuous p-tex over the whole length of the ski. I gotta tell you, I really like this. It's just simple and "no baloney". Easy to work on, and simply better engineering. Lets hope that they keep the all-black bottoms. Plus, the new skis seem to stay flat better than in the past. I discussed this with Per Wiik from Madshus/Norway, and he told me that some changes were made to the layup of the ski to improve the flatness. I spent a week intentionally waxing the crap out of the demo skaters with LF6 (over and over again), and then stone ground the skis at the end of my testing, and based on my sample of 3 pairs (not a significant sample size, but more significant than "none"), I'll tell you that I'm really happy with the way they stayed flat. Thank you Madshus!

Madshus designed different versions of the Nanosonic skate ski, and it's best to describe the three different camber versions with respect to the on-snow testing.

### On Snow

On snow you'll recognize the smooth neutral feel of the skis. The Madshus camber design concept remains the same on the new ski, so they still have that familiar Madshus glide. Smooth and solid.

I was testing the 3 versions of the new Nano skaters that will be available. Madshus designates them as the R, the HP, and the SC. They've tweaked the camber characteristics for these

*(Continued on Page 6)*

(Continued from Page 5)

designations (especially the HP and the SC), so it's probably easiest if you toss out your old ideas about what they mean. I think Madshus should have used new names for these skis, but...

- The "Nanosonic R" skate ski has a high and active camber, and it also has some side-cut. I thought this ski felt very lively and quick through the turns.
- The "HP" has a medium-high camber and nearly straight sides. This is the ski that I think is the "all-around best". Personally, I like the way these move on the flats, since they roll inside-edge-to-outside-edge without carving away from me while doing a field skate and get a very long controlled and smooth glide. And in softer conditions they've got a little more platform in the mid foot and track nicely through the length of the ski while climbing. The fore body camber extends a little further forward than past models (this seems to be a trend in the industry; Rossignol is doing this, too), and the contact pressure area in the front of the ski closes progressively while transferring weight onto one ski. It's a good all-around camber in the front, with progressive tip flex that isn't board-stiff and it's not floppy. If these skis are picked at 5-10kg above body weight (closing pressure at -8cm), then they'll have some pop and feel pretty lively. A slightly softer pair, around 100% body weight, will be a bit more compliant in cold and soft conditions. (as a note, Madshus uses what they call the "U+" camber on this ski) If you're filling a quiver you might get a couple different flexes, or similar flexes with different grinds.
- Finally, they're calling the ski with the lowest and stiffest camber the "SC". They intend this ski for wet/soft conditions. (Madshus has referred to this camber as the "U++" in their past world cup models) Personally, I consider this a more specialized ski. The difference between this ski and the HP are subtle. The camber firms considerably just before final closure, and the ski sits lower to the ground at rest. Also, there's more of a "hot spot" in the contact area in the front (good for wet stuff), and a little bit more noticeable tip-splay. This ski will have to be selected at about 120-130% of body weight (pressure to close to 0.05mm at 8cm behind balance point) for a good fit. As a note, this is also a nearly straight-sided ski (same side cut as the HP).

All three models ski well. The ski is a worthy successor to the old Nanosonic. Madshus has retained their overall ski design concept - these skis still feel very much like Madshus skate skis. They glide smoothly, and control is excellent.

I think it will be critical to get these skis fitted appropriately -- it would be a mistake to fit these versions with the same closing pressure. The models are distinctly different, even if those differences are subtle.

### Odds and Ends

I brought a pile of these new Madshus skis back from Whistler during the middle of the Olympics to grind for the prevailing conditions, and I noticed that they were all the HP and SC versions (nearly straight sides). It appears that those versions are prevalent among the World Cup skiers.



Graphics! They've made the ski brighter and bolder. Less black and dark accents, and instead the new color is more of a "lipstick red". The skis look great, though the graphic details and lettering are a little bit grainy in the print resolution (...talk about nit-picking!). As in the past, the top-sheet is a glossy smooth finish. Madshus does the best job in the industry with finish on the skis, I think, and this new ski continues that trend. Very nice. ■



## The New NNN/NIS Xcelerator Bindings

By Mark Waechter

More than any other single piece of equipment that I've seen for the coming (2010/2011) season, I'm really stoked to see the updated NNN/NIS bindings.

They're called the NIS Xcelerator Bindings. Made by Rottafella of Norway, these will be seen with Rottafella, Rossignol, Madshus, etc. labels, but they're all the new bindings with different labels.



I've been using this set of bindings for a couple weeks. Moving them from one pair of skis to another (aha, yes, let us not forget about *that* benefit of the NIS system), trying them on different skis, in different locations (fore/aft). They seem really reliable and I've had no problems at all.

The new binding are great for a few reasons:

First, they've got a new clamp mechanism that grabs the boot's bar in two places, out on the edges, for great clamping security. Holding on to the bar on both edges makes a lot of sense. Compared with the old NNN and existing Salomon bindings which hold on to the boot with one big tooth in the middle, the new system bites on to the bar tightly on the far ends of the bar. This minimizes the packing-in of snow, and it makes a very secure engagement. This isn't art - it's science and engineering.

Second, they save a lot of weight. The new NNN/NIS Xcelerator bindings are 150 grams per pair lighter (measured!) than the current Pilot skate bindings! That's over 5 ounces! That's just a crazy weight savings, and it's done without performance sacrifice. In a funny juxtaposition, Rottafella has used some metal parts in high stress places to simplify the design (the clamp lever) and allow a more solid engagement without the linkages that are required to make things work

when similar assemblies are made of plastic. A simpler, more heavy duty design results in a lighter final product.

(As a note, yes that *is* a pizza box under the binding in the photo -- a kitchen table photo shoot while packing for Whistler.)

Third, the bumper. The elastomer bumpers provide all the flex control, and do it with a one-piece interchangeable elastomer. Simple to replace, but not something that's going to pop out. It's really clever and smartly done. And **NO MOVING PARTS!**

Finally, it all looks great. They pared down the extra weight and made it simple, but it remains sleek and nice looking. As has been the rule with the NNN iterations, there

aren't any boot compatibility issues. You can use your oldest pair of NNN rollerski boots with the new bindings, no problem.

Hey, these are really new. The date-code that's embedded in the molded plastic parts show that the mold date is Dec 2009, which means that these bindings were born just over a month ago. I'm not positive that this is a production version, or if it's a pre-production delivery (for the trade shows, and to get some feedback, etc...).

What would I change? I think I'd make the metal clamp mechanism a little more polished and clean, and maybe even fabricate it from stainless steel. Other than that? Nada. These bindings are very very good and very light as delivered.



Right now it seems that more than half of the World Cup skiers are on NNN/NIS bindings. With this new NIS Xcelerator model, the balance of power is likely to swing even further in that direction. It's not just a home run, this binding is a grand slam. ■

## New SNS Propulse Classic Bindings

By Mark Waechter



Okay, so it's not exactly *stop-the-press* news that Salomon has a new classic binding for the 2010/2011 season. The new SNS Propulse binding is a greatly improved version of the old Profil classic binding. That's right - a single bar and an elastomer return spring.

Depending on who you talk to, this new classic binding is either a replacement for the Pilot Classic, or simply an alternative. I can tell you that while I was working at the Olympics in Whistler, I saw very few skiers using the Pilot Classic bindings... ..most skiers who are still on SNS bindings were using the new SNS Propulse. And for good reason.

I had a little bit of trouble getting my hands on a set for testing, but thanks to Rick Halling at Atomic, I got a set of the Atomic version (same binding, with Atomic labels and colors). I received them mid-week, and did some quick tests and mounted them on a set of Atomic WorldCup classic skis for some weekend klister skiing.

First of all, you should know that the new SNS Propulse binding comes in two versions (RC1 & RC2). The RC2 is the "normal looking" version, while the RC1 has a very minimal design that ditches the heel plate and just has the central ridge screwed down to the ski. I was testing the RC2 version as shown in the photos.

The Propulse RC2 is a bit lighter than the Pilot Classic. The Propulse RC2 weighs in at 251 grams per pair (measured), which is a little lighter than the Pilot Classic. A savings of about 10 grams.

It was noticeable to me that the new Propulse bindings are a bit wider than the old Profil (or Pilot) bindings. The new bindings are 46mm wide, which is about 15% wider under the ball of the foot than the old bindings.



The new SNS Propulse has an improved rubber bumper that seems less likely to pop out of place over time, compared to the old Profil bindings. And the new latch mechanism is low profile, easy to grab, and also latches securely.

These new bindings also have a spacious notch in them to allow plenty of room for that unused 2nd bar on the newer generations of SNS classic boots

that were originally designed for Pilot Classic bindings. Even with lots of sticky snow, there won't be a problem with it clogging up. Nice. I think it's really great that Salomon made the new Propulse classic binding backward compatible.

I got these out on snow on Friday, March 26th, at Stevens Pass Nordic Center. The bindings were on a pair of 206cm Atomic



WorldCup classic skis, and I was skiing with Start Red klister. It was wonderful to be out skiing in late March with a big snowpack there at Stevens and great grooming!

The SNS Propulse bindings felt comfortable right away. I've never been a fan of the Pilot Classic bindings - to me they always felt like there was something going on under my foot and I didn't like the way it felt. The new Propulse bindings have a good feel on the snow; a good feel on the ski. In my opinion, this should be *the* classic binding for skiers using SNS boots. (Continued on Page 9)



(continued from page 8)

I was also using a pair of the 2010/2011 Atomic World Cup classic boots with the -17mm setback. I think these brand new classic boots are the most comfortable SNS boot that I've ever used. They



have a sock construction and a nice snug fit in the heel - no slipping or blisters at all even on the first day out in them. They get a big thumbs up as well.

Any dislikes? The SNS Propulse

bindings are still screwed down to the skis, so you don't get the adjustability that NIS/NNN bindings have. If you're counting grams, these new bindings are the lightest offering from Salomon but they're still 80 grams per pair heavier than the new NIS Xcelerator bindings from Rottafella.

Overall, I think the new SNS Propulse will be the "go-to" classic binding for SNS boot users. They are very good - a big improvement over the old Profil bindings, and a big improvement over the Pilot Classic bindings.

Now... I wonder if you can get some firm bumpers for these and use them with skate skis? ■

## Team Service

If your team or club wants to save some money, you can get a **team discount** at Ultratune.

### Who Qualifies?

Your group can be considered a "team" if you can gather 15 pairs of skis or more. If you and your training buddies can gather 15 pairs, you're a team!

The skis should all be sent (or delivered) as a single group, and return shipping will be to a single address. Typically, with team service, work is done at a flat package rate, with all grinds at the same price for simplicity.

Call or email for further details. 509.996.4145 or email [xcgrind@ultratune.net](mailto:xcgrind@ultratune.net) ■



## Updated Grind Menu

With the addition of the new Mantec grinding machine, and also as a result of collaboration with serviceman Stefano Vuerich of Val di Fiemme, Italy, the grind menu was updated with new offerings at the beginning of the 2009/2010 season.

I've been working at World Cup events since 2005. Through these channels I first became familiar with the quality of the base structures produced by the Mantec equipment. It was Gianluca Marcolini who suggested that I get in touch with Stefano Vuerich, the leading World Cup ski serviceman who grinds a big percentage of all the skis on the World Cup circuit.

The Mantec Ski Numericontrol 140 arrived in October 2009, and along with the machine are some of the successful World Cup grinds from Europe. The grinds are super!

### Updated World Cup Structures:

- M1D - warm, wet, transformed conditions. Skate or classic klistar grind.
- D5 - universal layered cross structure; typically 0C to -5C
- i5 - angle-biased structure for medium conditions, typically -2C to -10C
- S2 - fine, symmetrical pattern for cold conditions; typically -5C to -20C

### Linear Structures from Ultratune will remain unchanged:

- LJ03 - linear grind for temperatures near 0C.
- MVL - general purpose linear grind for classic skis, finer than LJ03
- XC02 - for cold & dry snow; linear grind with a secondary polishing stage

The grinds on the standard menu are proven structures that are fast and very versatile. The new World Cup structures are good on classic skis as well as skate skis. These structures are all grinds that I've used and tested on the World Cup and at the Olympics, and the performance data and race results attest to their quality.

Download a [workorder form](#), and send some skis! Spring and summer is a great time to get the skis prepared for the coming season. ■