



## MADSHUS INTELLIGRIP (ZERO) SKI MANUAL

### Equipment

#### Madshus Classic [IntelliGrip \(Zero\)](#) skis-

Nanosonic	<a href="#">Classic IntelliGrip</a> mod. 158
Birkebeiner	<a href="#">Classic IntelliGrip</a> mod. 468
Terrasonic	<a href="#">Classic IntelliGrip</a> mod. 298
Metis	<a href="#">Classic IntelliGrip</a> mod. 338

Sandpaper            60, 80, 100, 120 grade  
Scraper                (5mm thick), or cork  
Liquid silicone,    liquid fluoro ( SWIX FC 8A , SWIX N 2  
(new 2009) or F4 80) or fluoro powders ( SWIX FC 8X or FC  
10): to enhance glide and eliminate icing in the roughed-up  
kick zone.

### Overview

**Madshus Classic IntelliGrip Zero skis** – now available in four ski models – are a breakthrough in cross country skiing, enabling skiers to successfully cope with the most difficult wax conditions for classic skiing: humid, changing snow conditions, especially at or near zero degrees Celsius.

All skiers, from elite racers to fitness and recreational skiers, are benefitting from this new technology. Madshus' new IntelliGrip base material, combined with Madshus IntelliGrip Zero-degree camber design and new base treatment techniques, opens the doors to effective classic ski performance in a wider range of conditions than ever before thought possible.

Once used mostly by elite racers in a relatively narrow range of snow conditions at 0 degrees C, the newest developments in Madshus Classic IntelliGrip Zero models enable effective and enjoyable classic skiing well outside these conditions, from relatively dry snow in soft conditions to heavy coarse-grained corn snow in T-shirt weather.

The solution is the unique Madshus IntelliGrip base material, which reacts easily and quickly to simple rubbing techniques, and carefully designed cambers that optimize Madshus classic ski performance in a wide range of conditions.

Rubbing the **Madshus IntelliGrip** base material creates hairs, which stand up on the base surface. These standing hairs provide the grip needed for all snow conditions.

### **General guidelines:**

Rubbed skis are optimal in wet and heavy snow and when there are large fluctuations in temperature, especially with rising temperatures. In these conditions the zero skis provide kick while normal kick-waxes ice up, resulting in slippery skis, or bases with thick clumps of snow stuck underneath. Simple changes in sanding techniques produce more or less kick as needed, according to the snow conditions.

Coarser rubbing or sanding is most effective for more humid conditions including wet, heavy snow. Finer rubbing or sanding is used for aggressive or colder snow, i.e. snow with lower humidity.

Important: Apply a "coating" for the hairs. The rubbed area stays ice free by quickly spraying or corking in liquid silicone, liquid fluoro waxes, or fluoro powders.

### **Instructions**

**Madshus IntelliGrip** ski models are pre-treated at the factory to provide good performance in most snow conditions from the start. To customize each skis' performance to the conditions and the individual skier, start with these simple suggestions:

#### 1. Rub or sand the bases to increase the effect:

Wrap a piece of coarse sandpaper (60 or 80 grain) around a scraper or cork. Place the scraper or cork on its edge and angle it 45 degrees to the special base material in the kick zone. Rub the center part of the camber (under the binding) and continue rubbing 15-20 cm forwards and backwards from this point at 45 degrees to the ski.

Linear rubbing, or "scrubbing" up and down the desired kickzone is quick and effective.

Important: Make sure to stay in the centre of the ski with the coarsest sand paper, not rubbing too far towards the tip or the tail. Rubbing too long from the centre will damage the glide zone and result in slower skis. Generally it is not necessary to extend the sanded or rubbed zone past the back of the boot heel on the ski. Rub the kick zone area of the ski several times to force the hairs to stand up. Repeat rubbing from both sides at 45 degrees to create a cross pattern.

#### 2. Switch to a finer sandpaper (80-100 grain). Wrap the sand paper around the scraper or cork and work as described above. Start rubbing at the end of the coarse rubbing zone and work towards the

ends of the special base material. Rub backward and forward at 45-degree angles.

Work the final 5-10cm on each end of the kick zone (special base material) with fine sandpaper, 100-120 grain.

3. Spray or rub silicone or fluoro powder by cork or by hand in the rubbing zone, making sure to cover the entire kick zone. For fitness and recreational skiing, a wide variety of liquid waxes can be used; rub these in well, to coat the hairs only, and avoid any thick buildup of wax on the base. This will help eliminate any tendency of snow to stick to the hairs created, and will help enhance ski glide.

If, when you try your skis on snow, they feel draggy or "catchy", the kick can be mellowed by using a finer sandpaper (4 or 5 light passes). If you need more kick, use slightly coarser sandpaper in the centre of the kick zone.

This method allows you to adjust your kick as you would with traditional kick wax.

These are general guidelines. Results will vary with snow conditions, skiers' technique and the relative stiffness of the ski to the skier's weight. Feel free to experiment with finer and coarser sandpapers, and to experiment with various sanding techniques – tail to tip; tip to tail; or 45- or 90-degree angles (back & forth), circles to the ski base, etc. (And remember there are classic winter conditions, especially colder and dry snow, where normal kick waxes will remain the first choice.)

Finally, enjoy classic skiing in all kinds of weather and snow!!