Ice Speed Skate Catalogue

Long Track Blades - Competition - Short Track - Ski Blades - Sharpening Equipment - Accessories

www.zandstrasport.nl
Zandstra Sports, founded in 1825, has been active in the iceskate business since 1931. Therefore, our company has almost 80 years of experience in developing, producing and assembling ice skates. In Holland, being the largest market for ice speed skates, the demand is completely unpredictable. Several so called “green winters” in a row are not unusual. This makes it very challenging for us.

In developing new skates and accessories safety and comfort are among the main aspects. Our philosophy is to make the hours skaters spend on the ice as pleasant as possible.

Thanks to new materials and new (production) technology many changes have taken place over the years.

Zandstra Sports introduced in recent years:

* Ving Clapskate
* Ballangrud Clapskate
* Joha Pro Sharpening Jig
* Cross Country blades
* Aluminium short track tube Big Bend
* 3M-Polishing System
* Beginner skate Easy Glider
* Nylon Speedskates
* Nylon Shorttrackskates
* Twin Guard (for clapskates)
* 5 Wheel In-line Skates (Skeelers)
* Adjustable Junior Speedskate and many more...
Below you will find the names of the various components of the speedskates. This is to avoid “confusion of the tongues”.

**Fixed Blade**
- Front support
- Sole plate
- Tube
- Runner
- Front cup
- Heel plate
- Heel cup
- Pivot point
- Upper plate
- Lower plate
- Spring

**Ving Clapskate**
- Pressed Spring
- Pivot point
- Tube
- Runner
- Stainless/Toolsteel
- Zytel
- Heel cone

**Ballangrud Clapskate**
- Heel cone (low noise)
- Pivot point
- Tube
- Runner
- Bi-Metal HSS and or Toolsteel

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### Specs of Steelrunner

<table>
<thead>
<tr>
<th>Quality Steel</th>
<th>Model</th>
<th>Page</th>
<th>Hardness Rc</th>
<th>Heigth MM</th>
<th>Thickness MM</th>
<th>Radius in mtrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bi Metal</td>
<td>Shorttrack</td>
<td>18</td>
<td>64</td>
<td>27</td>
<td>1.25 or 1.10</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Aluminium Clapskate</td>
<td>14</td>
<td>64</td>
<td>20</td>
<td>1.10</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Ballangrud</td>
<td>8-9</td>
<td>64</td>
<td>27</td>
<td>1.05</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Ski Blade</td>
<td>12</td>
<td>64</td>
<td>27</td>
<td>1.10</td>
<td>23</td>
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<tr>
<td>Stainless Toolsteel</td>
<td>Ving Klap</td>
<td>6-7</td>
<td>60</td>
<td>22</td>
<td>1.25</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Ballangrud</td>
<td>8-9</td>
<td>60</td>
<td>22</td>
<td>1.25</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Nylon H.C./L.C. (8000)</td>
<td>15</td>
<td>60</td>
<td>20</td>
<td>1.25</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Alu Shorttrack</td>
<td>18</td>
<td>60</td>
<td>25</td>
<td>1.25 and 1.40</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Cross Country</td>
<td>10-12</td>
<td>60</td>
<td>25</td>
<td>1.25</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Aluminium Clapskate</td>
<td>14-12</td>
<td>60</td>
<td>20</td>
<td>1.25</td>
<td>25</td>
</tr>
<tr>
<td>High Carbon Springsteel (H.C.S.)</td>
<td>Nylon H.C./L.C. (7000)</td>
<td>14-15</td>
<td>58</td>
<td>20</td>
<td>1.35</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>Nylon Shorttrack</td>
<td>18</td>
<td>58</td>
<td>22</td>
<td>1.35</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Alu Shorttrack</td>
<td>18</td>
<td>58</td>
<td>22</td>
<td>1.35</td>
<td>12</td>
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<tr>
<td></td>
<td>100% Steel Blades</td>
<td>14-16</td>
<td>58</td>
<td>24</td>
<td>1.35</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>Hamar</td>
<td>16</td>
<td>58</td>
<td>20</td>
<td>1.35</td>
<td>27</td>
</tr>
<tr>
<td>Stainless Springsteel</td>
<td>Easy Glider</td>
<td>19</td>
<td>45</td>
<td>25</td>
<td>1.70</td>
<td>35</td>
</tr>
</tbody>
</table>
**Boots Bolted-on**

<table>
<thead>
<tr>
<th>Art. 1122</th>
<th>Zandstra Thermo L.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sizes: 36 - 48</td>
<td></td>
</tr>
<tr>
<td>This new light weight competition boot is fully heat mouldable. Boot is (handmade) made out of carbonfiber. Power Strap with micro buckle for optimum support. Mounting distance between the 2 bolts is 6.5” (16.5 cms). Comfortable lining.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Art. 1155</th>
<th>Zandstra Long Track I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sizes: 40 - 46</td>
<td></td>
</tr>
<tr>
<td>This Long Track I boot has proved its quality both in ice skating and In-line skating. It is a very comfortable boot for the technically good skater. The boot is heat mouldable at ankle height. This is for optimal fit. Via two bolts it can be mounted on the clapskate or on an aluminium In-line frame. The distance between the two fixing points in the boot is 6.5” (16.5 cms)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Art. 1177</th>
<th>Zandstra Race H.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sizes: 37 - 46</td>
<td></td>
</tr>
<tr>
<td>The shell of the Zandstra Race H.H. is made out of polyamide. This is reinforced with carbon fiber. The lining is made up of a combination of gel and neoprene. This results in a very good fit. The combination of the power strap (Micro Buckle) and the slightly higher shaft gives extra stability. This is very comfortable particulary during longer use. The distance between the two fixing points in the boot is 6.5” (16.5 cms)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Art. 1166</th>
<th>Zandstra Long Track II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sizes: 36 - 51</td>
<td></td>
</tr>
<tr>
<td>The excellent fit combined with the comfortable leather lining makes this an ideal boot for In-line as well as ice-skating. Especially by longer use. Soft padding around the achilles heel. Last: medium to wide. This boot is made with 3-M Thinsulate. Due to the specially designed sole, the boot can also be mounted directly on an In-line frame (Bolted on). Mounting with traditional rivets is also possible.</td>
<td></td>
</tr>
</tbody>
</table>
**Boots Riveted-on**

**Art. 1103  Zandstra Leather Blue Boot**

Sizes: 35 - 48
Ideal for long distance iceskating. The extended counter gives comfortable support. Leather lining. Padding along the upper rim. Last: medium to wide. A traditional 100% leather long distance boot.

**Art. 1109  Zandstra Cowhide Boot**

Sizes: 34 - 48
Long, continuous counter, padding at achilles heel. The ideal boot for long distance skaters who prefer a 100% leather boot.

Also available in High Heel. Item 1110.

**Art. 592  Zandstra Semi Soft**

Sizes: 31 - 50
The Zandstra Semi Soft boot combines light weight with warmth and comfort. Also the boot gives support in places where necessary. Blisters, cold feet and muscular pain are a thing of the past!
Closure: a combination of lace, velcro and buckle.
Specially designed for the recreational skater. With the Ving clapskate long distance skating will be more enjoyable and relaxed.

Due to the special design of this unique speedskate the advantages of the clapskate are for the active recreational skaters easier to achieve.

The Zandstra Ving clapskate comes very close to the competitive clapskate but eliminates the disadvantages. Moreover, the Zandstra Ving clapskate can be used as a traditional skate. Thanks to a special locking pin.

This means freedom of choice. **Traditional or clap.**

**The important specifications of the Ving clapskate:**

**Freedom of choice**
With the Ving skate one has freedom of choice. Clapskate or traditional skate. Securing is done by means of a “locking pin”. In addition one has the freedom of choice of boots. Almost any boot can be mounted on this clapskate. (Except the bolt-on type boots).

**Semi High Cup or Semi Low Cup**
The Ving clapskate is 1.5 to 2 cms. lower than the competition clapskate. Because of this the Ving Clapskate is excellent for natural ice as well as artificial ice. Especially by long distance skating a semi high cup blade is a very comfortable and less fatigue.

**Reliable**
The Ving has a limited number of parts. Because of this the skate is very dependable. The hinging occurs by means of a pressed spring (instead of a pulled spring). Extensive testing has proven that the chance of breaking is almost zero. The maximum angle between tube/shoe is 30°. Also here, extensive testing has shown that a larger angle is not necessary. Limiting the angle also makes skating safer.

**Weight**
In order to make long distance skating more enjoyable the weight of the Ving clapskate has been limited. The Ving clapskate is the lightest clapskate available.

**Comfort**
It has been proven that the ving clapskate is more relaxing than the traditional fixed blades. Also muscular pain is a thing of the past.

**Pricing**
The skate has a price level that is acceptable to a large number of recreational skaters.

**Main technical specifications of the Ving clapskate:**

**Tube**
The aluminium tube is made out of 7000 aluminium. This light weight tube has a good torsion stiffness.

**Heel and footplates**
The boots are mounted on a frame made out of technical nylon 6.6 known as Zytel®. This polyamide will stand up to low temperatures.

**Spring**
The only clapskate with a pressed spring. Intensive testing has shown that this construction is very reliable. Not only reliable but almost maintenance free.

**Hinging point**
Contrary to other claskskates the hinging point is not on the tube, but through the tube. This results in a slightly lower skate than the traditional high cup blades.

<table>
<thead>
<tr>
<th>Patents Ving</th>
</tr>
</thead>
<tbody>
<tr>
<td>1014140</td>
</tr>
<tr>
<td>1015248</td>
</tr>
<tr>
<td>1013912</td>
</tr>
</tbody>
</table>
For specifications of the steel please see page 3.

<table>
<thead>
<tr>
<th>Art. 3166</th>
<th>Zandstra Ving Long Track II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sizes: 36 - 51</td>
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</tr>
</tbody>
</table>

The specifications of the boot can be found on page 4.

<table>
<thead>
<tr>
<th>Art. 3592</th>
<th>Zandstra Ving Semi Soft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sizes: 34 - 50</td>
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</tr>
</tbody>
</table>

The specifications of the boot can be found on page 5.

<table>
<thead>
<tr>
<th>Art. 3109</th>
<th>Zandstra Ving Cowhide Boot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sizes: 36 - 48</td>
<td></td>
</tr>
</tbody>
</table>

The specifications of the boot can be found on page 5.

<table>
<thead>
<tr>
<th>Art. 3103</th>
<th>Zandstra Ving Blue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sizes: 35 - 48</td>
<td></td>
</tr>
</tbody>
</table>

The specifications of the boot can be found on page 5.
Ballangrud Clap

Boots
Almost any boot used in ice skating or inline skating can be mounted on the aluminium frame of the Ballangrud. These are the so called bolt-on type boots. If the distance between the 2 bolts differs from the standard 6,5“ (16,5 cms) one can mill an additional slot in the front of the aluminium frame.

Tube size
The boot can be used in combination with a tube size of your choice. (4 sizes available)

Street / Ice
Many skaters ask the question “Can I use my inline boots also on ice skates ?” With the new Ballangrud this question has been answered.

Fixed or Clap
The aluminium frame of the Ballangrud can easily be fixed by means of the so called ‘locking pin’. One has then a traditional semi high cup speed skate. **In other words freedom of choice: Fixed or clap.**

Positioning
With the Ballangrud it is possible to adjust the boot to the inside or the outside.

Reliable
The Ballangrud has very few parts. Because of this the skate is very dependable. The maximum angle between tube and boot is 30 °. Extensive tests have shown that a larger angle is not necessary. Limiting the angle also makes skating safer.

Springs
The specially developed stainless steel springs consists of 3 parts. These parts function independent from each other. There is no torsion and less chance of breakage.

Heel Cone
A special moulded “low noise” heel cone.

Height
The Ballangrud is 1,5 - 2 cms lower then most of the competition clapskates. Because of this skating is more relaxing. Especially with marathon skating or long distance skating.

Hinging
Contrary to other clapskates the pivot point is mounted through the tube and not on the tube. Because of this the reliability of the skate is significantly increased.

Pricing
Although the quality of the Ballangrud clapskate is excellent, pricing is still very attractive.

Some technical specifications of the Ballangrud clapskate:

<table>
<thead>
<tr>
<th>Part</th>
<th>Sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium frame</td>
<td>1 size</td>
</tr>
<tr>
<td>Tubes</td>
<td>4 sizes 39, 41, 43 and 45 cms</td>
</tr>
</tbody>
</table>

The **Ballangrud** clapskate is available in 2 qualities steel
1. Toolsteel (Stainless)
2. High Speed Steel in Bi-Metal

<table>
<thead>
<tr>
<th>Patents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1014140</td>
</tr>
<tr>
<td>1015248</td>
</tr>
<tr>
<td>1013912</td>
</tr>
</tbody>
</table>

Some technical specifications of the Ballangrud clapskate:

<table>
<thead>
<tr>
<th>Suggested sizing:</th>
<th>Tube</th>
<th>Boot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>39 cms</td>
<td>up to 39</td>
</tr>
<tr>
<td>M</td>
<td>41 cms</td>
<td>40 - 41</td>
</tr>
<tr>
<td>L</td>
<td>43 cms</td>
<td>42 - 43</td>
</tr>
<tr>
<td>XL</td>
<td>45 cms</td>
<td>44 and up</td>
</tr>
</tbody>
</table>
 Specifications of the different parts

<table>
<thead>
<tr>
<th></th>
<th>Toolsteel (Stainless) 9800 series</th>
<th>High Speed Steel (Bi-Metal) 9900 series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finish</td>
<td>Black powder painted</td>
<td>Metallic</td>
</tr>
<tr>
<td>Aluminium Tube</td>
<td>7000 quality</td>
<td>7000 quality</td>
</tr>
<tr>
<td>Thickness of runner</td>
<td>1.25 MM</td>
<td>1.05 MM</td>
</tr>
<tr>
<td>Hardness of runner</td>
<td>60 Rc</td>
<td>64 Rc</td>
</tr>
<tr>
<td>Total height of runner</td>
<td>22 MM</td>
<td>27 MM (Sprint)</td>
</tr>
<tr>
<td>Radius in meters</td>
<td>25 Meters</td>
<td>23 Meters</td>
</tr>
<tr>
<td>ex factory</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Art. 9822  Zandstra Ballangrud Thermo**

Sizes: 37 - 48

The specifications of the boot can be found on page 4.

Also available with Bi-Metal runner (Art. 9922)

**Art. 9866  Zandstra Ballangrud Long Track II**

Sizes: 36 - 51

The specifications of the boot can be found on page 4.

Also available with Bi-Metal runner (Art. 9966)

**Art. 9877  Zandstra Ballangrud Race H.H.**

Sizes: 37 - 46

The specifications of the boot can be found on page 4.

Also available with Bi-Metal runner (Art. 9977)
Introduction
A combination of Cross Country skiing and ice skating. The boot with a special sole is locked (clicked) into the binding. The heel is not secured. The boot is hinged to the blade (in the front). As a result long strides can be made. The principle is the same as the clap skate.

The advantages of the Zandstra Ski Blades are:
* Very easy to put on and take off.
* It is possible to walk to the ice with this boot. Guards are not necessary.
* The same boots can be used during XC Skiing.
* There is no left or right blade so it is easy to carry a spare blade.
* All three parts are separately available.
* Low weight.
* Stable.

The Ski Blades consists 3 main parts:
* Blades
* Bindings
* Boots

The 2 most common brands used in Cross Country and Back Country are:
* Rottefella (NNN)
* Salomon

All models of both brands can be mounted to the Zandstra Ski Blades.

Please keep in mind that the soles of Back Country and Cross Country are not interchangeable. (different bindings and soles). Also the soles of Rottefella and Salomon are not interchangeable. Zandstra Sports carries the Rottefella (NNN) bindings.
For more information, please consult the sets shown on page 12.
Zandstra Sports offers 3 types of aluminium ski blades:

**Delta**

Sizes: 40, 43, 45 and 48 cms.
Steel: Stainless Toolsteel 1.25MM
Hardness: 60 Rc
Radius: 35 Meters
Mounting system: Fit All

A strong triangular shaped aluminium profile. The Delta has a unique mounting system called Delta Fit All. By using slots instead of holes any binding fits on this ski blade.

**Tango**

Sizes: 40, 43, 45 and 48 cms.
Steel: Stainless Toolsteel 1.25MM
Hardness: 60 Rc
Radius: 35 Meters
Mounting system: By mounting holes directly to the skate

The Tango is milled out of a reinforced T shaped aluminium profile.

**Competition**

Sizes: 40, 42, 44 and 46 cms.
Steel: High Speed Steel Bi-Metal 1.1 MM
Hardness: 64 Rc
Radius: 23 Meters
Mounting system: Fit All

The Competition blade uses the same profile as the Delta Fit All. The front of the runner is blunt. The reason for this is to make turns on the 400 meter oval easier. The quality of the runner is the same as used in top competition skates. Cross Country bindings as well as Back Country bindings can be mounted on the Competition blade. Consult for steel specifications page 3.

One skate fits ALL bindings !!! No more drilling.
Delta Fit All

Cross Section Delta Fit All
A Special dot nut
B “Tunnel” in profile to position nuts A
C Bolt to fasten binding to frame

Patented mounting system.
Patent 1031965

Cross Section Tango

Courtesy of nordicskater.com
Two types (models) of boots can be used with the Ski Blades (XC and BC). Please keep in mind that the sole of the Back Country is more sturdy than the Cross Country. The boots and bindings of the XC and BC are not interchangeable. More information on the boots can be found below. (Combi SE and Combi SKS)

XC and BC boots made by

<table>
<thead>
<tr>
<th>Combi SKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sizes: 36 - 46</td>
</tr>
<tr>
<td>Boot: SKS</td>
</tr>
<tr>
<td>Binding: NNN R-3</td>
</tr>
<tr>
<td>Blade: Delta Fit All</td>
</tr>
<tr>
<td>A very comfortable boot. Well insulated and gives excellent support to the ankles. This boot meets all the demands to enjoy comfortable ice skating for many hours. There is a protection over the instep against damp and cold.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Combi SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sizes: 36 - 49</td>
</tr>
<tr>
<td>Boot: 1550</td>
</tr>
<tr>
<td>Binding: Back Country</td>
</tr>
<tr>
<td>Blade: Delta Fit All</td>
</tr>
<tr>
<td>A combination of B.C. Boot item 1550 and the new designed Delta Blade. The Back Country Boots are made by Alpina. Model BC 1550 has a more sturdy sole than the regular Cross Country boot. The boot has a comfortable cuff and heel counter for increased side and ankle stability. 3M Thinsulate for insulation and more comfort.</td>
</tr>
</tbody>
</table>

Rottefella has developed a revolutionary new system to attach the binding to a ski (or skate). It is called the Nordic Integrated System. We are currently developing a new profile in which the N.I.S. can be used. Zandstra Sports is licenced by Rottefella to produce a N.I.S. blade for ice skaters.

Courtesy of nordicskater.com
**Accessories**

**Dynema® protective equipment**

**Knee/Shin protector (Tube)**
The protector is worn as a sock. The knee is protected by a layer of foam rubber.
Sizes: Small and Large

**Gloves**
Gloves not for warmth but for protection. Gloves are mandatory during competitions.
Sizes: Small, Medium and Large

**Shin protector**
The shin protector is worn under the skating suit. (No picture shown)
1 Size

**Art. 1950 Bootcover neoprene**
In very cold conditions these boot covers give excellent protection.

<table>
<thead>
<tr>
<th>Bootsize</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>36 - 39</td>
</tr>
<tr>
<td>Medium</td>
<td>40 - 45</td>
</tr>
<tr>
<td>Large</td>
<td>46 and up</td>
</tr>
</tbody>
</table>

**Ice Spike ISDUBB**
The ISDUBB is available in two sizes (Small-Child and Medium-Adult). It has two foam handles, a wide collar and a whistle.
For example; in Sweden an icespike is required for skating on natural ice.

The ISDUBB is a luxe version of the wellknown Ice Spike Art. S01.

**Art. S01 Ice Spikes**
Experience in Scandinavia has shown that the ice spikes are a great help to get oneself out of an opening in the ice. The ice spikes are easy to carry and have a stainless steel spike. The handles are made of strong nylon.
CE: 23165501

**Power strap Micro Buckle**
Sizes: Small and Large

Power Straps gives extra support during ice or in-line skating. Suitable for leather, moulded and bolted-on boots.

**Power strap Velcro**
This inexpensive power strap gives extra support during ice or in-line skating. Suitable for leather, moulded and bolted-on boots.

One size fits all.
Some special aspects and specifications of the Nylon Speedblades:
- No rusting from the inside and no cold bridges.
- The back of the skate is rounded for safety, thereby avoiding injury when falling.
- There is no nickel or chrome plating, and hence no peeling, and less burr during sharpening.
- Aerodynamic design; wind-tunnel tested.
- Less chance of falling due to special design of the front of the blade.
- Strong and more elastic, and hence less chance of permanent deformation.

8000 H.C. / 8500 L.C. Stainless Toolsteel runner

7000 H.C. / 7500 L.C. High Carbon Springsteel runner
Available in black and white nylon.

For specifications of the steel runners please see page 3.

500 H.C. / 525 L.C. Zandstra 100% Steel
Sizes: 19 - 31 cms

1650 L.C. Zandstra Black Powder Painted
Sizes: 23 - 31 cms
The advantages of a powder painted blade are:
1. No rust from inside.
2. Optically more attractive.

Art. 1642 Adjustable Junior Long Track Blade Hamar
A comfortable semi soft boot. The closure of the boot is a combination of laces, buckle and velcro. The lace has a special "lace closure". The boot is adjustable by pushing a button on the rear of the boot. The blade, tube and cups are made by Zandstra Sports Holland.

Sizes:

<table>
<thead>
<tr>
<th>Size</th>
<th>Small</th>
<th>Medium</th>
<th>Large</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>27 - 30</td>
<td>31 - 34</td>
<td>35 - 39</td>
</tr>
</tbody>
</table>
To make long-distance skating more relaxing and comfortable for the recreational skaters, Zandstra Sports has introduced several years ago a line of so called Comfort Skates. The main aspects are:

* Support

* Comfort

* Warmth

* Safety

Many recreational skaters have switched to the comfort skates. At last no more blisters and no more cold feet. But support where one needs it!

<table>
<thead>
<tr>
<th>Art. 8566</th>
<th>L.C. Zandstra Long Track II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sizes     : 36 - 51</td>
<td></td>
</tr>
<tr>
<td>Boot      : Long Track II (Art. 1166)</td>
<td></td>
</tr>
<tr>
<td>Blade     : Zandstra Nylon 8500 Series</td>
<td></td>
</tr>
</tbody>
</table>

The specifications of the boot can be found on page 4.

<table>
<thead>
<tr>
<th>Art. 1392</th>
<th>L.C. Zandstra Semi Soft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sizes     : 34 - 50</td>
<td></td>
</tr>
<tr>
<td>Boot      : Zandstra Semi Soft (Art. 592)</td>
<td></td>
</tr>
<tr>
<td>Blade     : Zandstra Nylon 7500 Series</td>
<td></td>
</tr>
</tbody>
</table>

The specifications of the boot can be found on page 5.

<table>
<thead>
<tr>
<th>Art. 1383</th>
<th>L.C. Zandstra Comfort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sizes     : 34 - 47</td>
<td></td>
</tr>
<tr>
<td>Boot      : Moulded 3 Buckle (Art. 583)</td>
<td></td>
</tr>
<tr>
<td>Blade     : Zandstra Nylon 7500 Series</td>
<td></td>
</tr>
</tbody>
</table>

This moulded boot has a 100% buckle closure. Two buckles at the lower part, and one on the heel cap. Removable liner. This type of moulded boot is still populair among skaters who prefer excellent support.

<table>
<thead>
<tr>
<th>Art. 1692</th>
<th>L.C. Zandstra Semi Soft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sizes     : 34 - 50</td>
<td></td>
</tr>
<tr>
<td>Boot      : Zandstra Semi Soft (Art. 592)</td>
<td></td>
</tr>
<tr>
<td>Blade     : Zandstra 100% Steel 1650 Series</td>
<td></td>
</tr>
</tbody>
</table>

The specifications of the boot can be found on page 5.
Nylon long distance with Leather boots

**Art. 8566**  L.C. Zandstra Long Track II

Sizes: 36 - 51
Boot: Long Track II (Art. 1166)
Blade: Zandstra Nylon 8500 Series

The specifications of the boot can be found on page 5.

**Art. 8003**  H.C. Zandstra Blue boot
**Art. 8503**  L.C. Zandstra Blue boot

Sizes: 35 - 48
Boot: Zandstra Blue Boot (Art. 1103)
Blade: Zandstra Nylon 8000 Series

The specifications of the boot can be found on page 5.

**Art. 8009**  H.C. Zandstra Cowhide

Sizes: 35 - 48
Boot: Zandstra Cowhide (Art. 1109)
Blade: Zandstra Nylon 8000 Series

The specifications of the boot can be found on page 5.

**Art. 7545**  L.C. Zandstra Leather Comfort

Sizes: 35 - 48
Boot: Leather Comfort (Art. 1145)
Blade: Zandstra Nylon 7500 Series

The leather boot is made with 3M thinsulate. This provides a good insulation. The lacing part of the boot can be closed so that one does not need a boot cover. The soft padding around the heel in combination with the heel counter makes a technically correct stride possible.

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Skate Tips

* Any combination of boot/blade can be mounted on request. However, to keep the number of combinations to a minimum you will find a number of “advised” sets on these pages. It is our intention to have the “advised” sets in stock.

* Guards should be worn when you are off the ice. Remove the guards from the blade if stored away for some time. It will prevent the runner getting rusty.

* We would advise the skaters not to sharpen the blades too often. The runner will last longer. Please keep in mind that there is a difference between sharpening (making a dull blade sharp) and polishing (or honing). Very little steel is removed by polishing. To check if a blade is sharp: run your nail along the blade. If some white surface of the nail remains on the blade, the edge is sharp.
Steel Speedskates with Leather boots

**Art. 1603** L.C. Zandstra Blue boot/Silver Powder painted

Sizes : 35 - 48  
Boot : Zandstra Blue Boot (Art. 1103)  
Blade : Zandstra Steel 1600 Series Silver

Blue boot. The specifications of the boot can be found on page 5.

**Art. 525** L.C. Zandstra

Sizes: 32 - 48  


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**Laces**

Zandstra Sports offers you a line of strong waxed laces in different sizes and colours. Also Nylon (Polyamid) and 100% cotton are available.

<table>
<thead>
<tr>
<th>Quality</th>
<th>Size</th>
<th>Color</th>
<th>Packing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wax</td>
<td>213 Cms</td>
<td>Yellow/White</td>
<td>Banded per pair</td>
</tr>
<tr>
<td>Wax</td>
<td>183 Cms</td>
<td>Yellow/White</td>
<td>Banded per pair</td>
</tr>
<tr>
<td>Wax</td>
<td>160 Cms</td>
<td>Yellow/White</td>
<td>Banded per pair</td>
</tr>
<tr>
<td>Wax</td>
<td>213 Cms</td>
<td>Yellow/White</td>
<td>Bundle of 72 prs.</td>
</tr>
<tr>
<td>Wax</td>
<td>183 Cms</td>
<td>Yellow/White</td>
<td>Bundle of 72 prs.</td>
</tr>
<tr>
<td>Wax</td>
<td>160 Cms</td>
<td>Yellow/White</td>
<td>Bundle of 72 prs.</td>
</tr>
<tr>
<td>Nylon</td>
<td>183 Cms</td>
<td>White</td>
<td>Bundle of 72 prs.</td>
</tr>
<tr>
<td>Nylon</td>
<td>213 Cms</td>
<td>White</td>
<td>Banded per pair</td>
</tr>
<tr>
<td>Cotton</td>
<td>200 Cms</td>
<td>White</td>
<td>Banded per pair</td>
</tr>
</tbody>
</table>

**Lacehooks**

Lace hooks
Art. 1100  High Carbon Springsteel   30 - 45,5 cms
Art. 1150  Stainless Toolsteel   34 - 45,5 cms
Art. 1175  Bi-Metal High Speed Steel   34 - 45,5 cms
For specifications for steel: see page 3.

Brackets/Cups  L shaped (M6 or M8)

Bolts and nuts/sets of tools.

Art. 11581  Short track with Alu Tube and Lace/Buckle Boot
Sizes : 35 - 47
An excellent combination for beginners. The boot gives support and selfconfidence to the skater. The runner is available in the 3 qualities steel mentioned above.

Art. 7781  Nylon Short Track with Lace/Buckle boot
Sizes : 31 - 46
This boot has a combination of lace/buckle closure. The heel cap is fastened with an adjustable buckle. This blade makes it possible for many to experience the spectacular sport of short track skating. The safety aspects (rear of the blade) and also the attractive pricing makes this a most attractive product with the beginner as well as with recreational skaters. Blades only are also available.

Art. 11777  Short track with Alu Tube and with boot 1177
Sizes : 37 - 46
Runner : One has a choice of 3 qualities steel. For a specification please see upper part of this page. (Aluminium Short Track Tubes)

The specifications of the boot can be found on page 4

Big Bend

The Big Bend is a short track blade with an integrated bending system in the tube. Because of this it is possible to easily give the tube the desired bend.

For the complete technical information regarding the bending system of this short track tube, we kindly ask you to look at

www.zandstrasport.nl/eng/schaatsen/bigbend.html

Runner Stainless (Toolsteel)  34 - 45,5 cms.
Runner Bi Metal (High Speed Steel)  34 - 45,5 cms.
Beginner Skates

**The Easy Glider:** The ideal skate for beginners.

Some specifications of the Easy Glider are:
1. Stainless Spring Steel with a hardness of 45 Rc.
2. Standard radius of 35 M. Ideal for beginners.
3. Blade is 1.7MM thick.
4. Nylon frame is 50% wider than other strap-on skates.
5. The straps make it easier to fasten the skates quickly.
6. The straps can be tightened after a few minutes of skating.
7. The heel binding has a soft protection strap.
8. The back of the Easy Glider is safe. No injuries by falling.
9. The frame is made of technical Nylon. Zytel 501 S.T.

**Art. 180** Zandstra Easy Glider

Sizes: Small  Medium  Large  Extra Large

<table>
<thead>
<tr>
<th></th>
<th>26-30</th>
<th>31-35</th>
<th>35-39</th>
<th>40-43/44</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extra Large</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Easy Glider in short:
- Comfortable
- Safe
- Stable
- Easy fastening

**Art. 185** Zandstra Easy Glider Enlargement Strap

Some boots are wide. In that case the enlargement straps make it possible to close the straps.

**Art. 190** Zandstra Easy Glider Assist

Converts the Easy Glider (temporarily) in a “triple blade” skate. There is no better “tool” to learn skating with. It gives the youngsters selfconfidence.

**Art. 70** Zandstra Bob Skate

Sizes: 24 - 30 (Adjustable)
Strong double runner. Special Nylon straps. The straps make it easy to fasten the skates. Skates are adjustable.

Skate: Black powder coated
Straps: Red nylon

**Art. 88** Zandstra Bob Skate “De Luxe”

Sizes: 24 - 30 (Adjustable)
Strong double runner. Special Nylon straps with padded instep. The straps make it easy to fasten the skates. Skates are adjustable.

Skate: Black powder coated
Straps: Red nylon
For many years the JOHA brand has been famous with competition skaters. A completely new JOHA PRO jig has been designed for the professional skater. The new design meets all requirements. JOHA jig comes with the 3M Polishing Triangle.

JOHA PRO specifications are:

* Because of the special design of the three aluminium profiles, the blades are exactly 90° degrees in relation to the sharpening stone. (See drawing)
* The design in combination with modern technique of high pressure casting has resulted in a very stable sharpening jig. The two sides are unique in shape and strength.
* The 2 top stoppers, the so-called precision spacers can be set in 3 places.
* Because of the large knobs the jig is quickly ready for use. This is a great advantage if several pairs have to be sharpened.
* Special anti slip rubbers. Although many skaters secure their sharpening jig to the work bench, others bring the jig with them to competitions.
* Almost all speed skates fit into the JOHA PRO.
* With the front stopper one can accurately position the blades before sharpening.

Some speedskates like Short track and Comfort are slightly higher than competition skates. In order to accommodate these skates a stand is available. It adds 8 cms. to the height of the JOHA PRO.

Please consult our website for instructions for sharpening in 9 steps. www.zandstrasport.nl
Sharpening Jigs

The three jigs (High Art. 7130, Medium Art. 7135 and Low Art. 7139) are made out of one piece of special extruded aluminium profile. The jig is stable and has two precision spacers.

Art. 7130  Alu Sharpening Jig  High stand

This jig has been specially designed for the speedskates with moulded boots. It is 10 cms. higher than the jig “standard”.

Art. 7135  Alu Sharpening Jig  Medium stand

This aluminium jig fits all speed blades with leather boots. The jig is natural anodised.

Art. 7139  Alu Sharpening Jig  Low stand

This extra low and long jig is made for handsharpening of skates such as Easy Gliders, Cross Country and odd sizes skates. In other words; all blades that do not fit in a “normal” jig.

Art. 7129  Sharpening tool for ski blades

A special tool has been made for sharpening the Cross Country and Back Country Tango Blades. (and all other T shaped blades.) This tool has 4 anti slip rubbers. The large knobs make it easy to fasten the skate. This tool fits all length sizes of blades.
### Sharpening Stones

**Art. 7205 | Zandstra Foss Stone**

Size: 25 x 7,5 x 2,5 Cms

Zandstra Foss sharpening stones are of excellent quality. The stone has a rough side for sharpening and a smooth side for polishing. An ideal stone for skaters who expect the best sharpening result.

**Art. 7215 | Norton India Polishing Stone**

Size: 29 x 6 x 2,5 Cms

Aluminium oxide is used to make this one of the best honing stones. Especially with High Speed Steel the polishing result is very smooth. The extra length (29 cms) gives a better grip during sharpening.

**Art. 7210 | Zandstra Stone Medium**

Size: 25 x 5 x 2,5 Cms

Combination stone for a reasonable price.

Quality: Sillicium Carbide

**Art. 7300 | Pocketstone Sillicium Carbide**

Size: 7,5 x 2,5 x 0,7 Cms

**Art. 7300 | Pocketstone Arkansas**

Size: 7,5 x 2,5 x 0,7 Cms

Quality: Arkansas Natural Stone

**Art. 7500 | Pocketstone Diamond**

Size: 7,5 x 2,5 x 0,4 Cms

Set of 3 pocketstone’s. The stones have 3 different of grades:

- Green: 9 Micron
- Red: 25 Micron
- Blue: 45 Micron

**Art. 7309 | Honing Oil**

Prevents the stone becoming clogged. It also gives a better sharpening result. New formula.

**Art. 7425 | Sharpening Grain**

Sometimes it is necessary to “recondition” the surface of the sharpening stones. Sharpening grain is the best way to make your stone flat again. The quality CG60 gives the best results. A plastic container holds 250 grams.
For an optimal sharpening result there are 3 different grades of self-adhesive lapp film on a specially extruded aluminium triangle. The length of the triangle is 25 cms.

The micro aluminium oxide gives the edge a very shiny surface. The aluminium triangle comes complete with 3 different polishing strips. The strips can be reordered separately.

3 Grades are standard glued to the triangle. Namely 40 (blue), 30 (green) and 3 (pink) Micron.
3 Additional grades are available. 9 (light blue), 12 (yellow) and 0,3 (white) Micron.

Directions of use:
Put the skates in a jig. Start with moving the blue side of the triangle backwards and forwards slowly over the runners. Use the entire surface of the 3M abrasive strip during this action. When the resistance declines during the polishing (after approx. 1 minute) change over to the green side. When the resistance declines again after 1 minute, end with the pink side. When there is no friction one is ready. This process will take approximately 3 to 5 minutes in total.

To make sure that the result is optimal you have to look at the gliding surface of the skate. If you see a “mirror” the result is optimal. If not, do the last (pink) or the second last (green) treatment again.

The shown graphics reflect a finish image (30.000x enlarged) as achieved after polishing with the Zandstra Sports 3M Polishing System. Graphic 1 and 2 are more or less the same. This means that you can start with the blue abrasive (polishing) strip instead of using the fine part of the traditional grindstone.
Art. 1204  **Blade straightner or Bender**

The excentric mounted bearing makes it possible to bend the tube accurately.

Bending Ice skates is very popular among top skaters. Both allround and shorttrack. This tool makes it very simple to bend the skates in the desired bending.

**Please note:** Always straighten the tube, not the runner. Breakage will then be avoided.

---

**Riveting Machine**

Height : 160 Cms

The riveting machine is complete with mounting and de-mounting tools. Because the machine is foot operated one has two hands free to hold the skate.

The dé-mounting tools are so designed that they do not damage the boot or the blade.

The machine can also be equipped with tools for eyelets, large hinge rivets etc.

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**Lindbergh Cap**

Colour combinations:
White (with red and marine in front)
Marine (with red and white in front)

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**Miniature Skates**

Wood Skate (Key chain) per pair

Figure (White) per pair
Guards

Art. 8140  Zandstra Universal Guard

This guard fits all types of blades. Carbon, Nylon, Aluminium, Short Track and also the traditional 100% Steel. Adjustable for all sizes.

The universal guard is the most popular speedskate guard for fixed blades.

Colors: Red, White, Blue and Black

Art. 8180  Zandstra Twin Guard

Although this guard is designed for the clap skate, it also fits all other speedblades. It is very easy to adapt the guard to the size of the blade. The best guard for clapskates.

Color: Silver

Art. 8120  Zandstra Speed Guard

Made from recycled synthetic material. Will fit all traditional steel speedblades. One size.

Color: Black

Printing of the guards

The Universal (Item 8140) and Twin Guard (Item 8180) can be printed with your brand or logo of your organisation. Our sales department will be happy to give you details regarding the costs, volume etc. The internet addresses have been used by several of our dealers.

For service purpose the black rubber straps (universal) and the special steel springs (Twin guards) are available.

Art. 8600  Terry Speed

New is the Terry Speed. A blade cover made of the Terry fabric. This absorbing blade cover protects the blade when you are off the ice. The bottom is made of wear resistance material.

Sizing:
Small - 39,5 cms, Medium - 42 cms, Large - 44,5 cms and X Large - 47 cms.

Color: Black

Radius Sharpening Machine

At the moment we are developing a new Zandstra Radius Sharpening Machine. We will inform you through our website when a new sharpening machine is available. www.zandstrasport.nl

However, spareparts of the R.S.M. I and R.S.M. II are still available.
In-Line 100MM Frame

* Professional 4-wheel competition frame
* Wheels up to 100MM will fit in this frame
* Boots with mounting provisions of 16, 25 and 19 cms can be mounted on this frame
* Length: 35 cms
* Developed with the special Super Arch
* Wheels: Zandstra 100MM 85A
* Bearings: Zandstra ABEC-7
* All boots shown on page 4 can be mounted on the 100MM Frame

Our complete line of frames, wheels, bearings etc. can be found on: www.zandstrasport.nl

Bolded on boots used on in-line skates can also be attached to the Ballangrud clapskate.