

#### 1122

#### Zandstra Thermo



Boot model 1122 is a heat-mouldable boot perfect for matches. The low weight, the neoprene, gel lining and the soft padding at the achilles tendon ensure optimal comfort during long and short distances.

It closes with a combination of a lace and a micro buckle power strap. The mounting distance between the 2 holes is 6.5" (165 mm).

Sizes: 36 - 48

# **550**Zandstra Long Track III



This Long Track III boot is the low version of the popular Semi Soft boot. The boot has a comfortable and warm lining. It provides great freedom of movement for the ankle, making it easier to use the correct skating technique. The boot closes with a combination of a lace and power strap with micro buckle, which enables accurate adjustment.

The sole can be used for both mounting systems: bolt-on or riveted. \\

Sizes: 34 - 47

# **1166**Zandstra Long Track II



The boot (LTII) is constructed using a comfortable last that ensures a perfect ergonomic fit of the foot. The excellent fit in combination with the leather lining around the ankles provides optimal wearing comfort for long-distance skating. The anatomic insole contributes significantly to the vertical stability of the foot. The Thinsulate 3M material ensures that the shoe is well insulated and also has excellent breathability.

Thanks to its specially designed sole the boot can also be mounted directly on an In-line frame (bolted on). Mountings with traditional rivets are also possible.

Sizes: 36 - 51

**592** Zandstra Semi Soft



Most popular boot for motivated recreational skaters. The Zandstra Semi Soft boot produced in Italy is a comfortable, warm lightweight boot. Fatigue and blisters are a thing of the past and optimal ankle support is guaranteed. A combination of these specifications ensures optimal comfort for the recreational skater. The boot closes with a combination of a lace, velcro and a buckle.

The sole can be used for both mounting systems: bolt-on or riveted.

Sizes: 31 - 50

## **Ving Thermo**

Zandstra Liner



A newly developed inner shoe suitable for the popular high Semi soft shoe (0592). If your current inner shoe needs to be replaced, this inner shoe is the right choice.

Even more comfort through the use of high-quality materials such as the special synthetic outsole, memory foam for even more ankle support and, last but not least, the preformed orthopedic insole. By using 3M Thinsulate in the lining, your feet stay warm. Sizes: 37-47

# **Semi Soft**Zandstra Liner



A comfortable high liner which is standard in the Semi Soft shoe (0592). This liner is made up of different foam layers that automatically place your foot in a natural relaxed position, which in turn ensures comfort. The soft tongue ensures an easy entry. Sizes: 31 - 50

Long Track III
Zandstra Liner



A comfortable low liner which is standard in the long track III shoe (0550). This liner is made up of different foam layers that automatically place your foot in a natural relaxed position, which in turn ensures comfort. The soft tongue ensures an easy entry. Sizes: 34-47

Rental

Zandstra Liner



Available for both semi soft and basic (blue boot). Equipped with a stopper. This keeps the shoe in place.

Sizes: Semi Soft: 37 - 47 Basic: 28 - 47



## 9000 Bi-Metal/9100 Toolsteel

## Zandstra Speed Racer

- Available in two different iron hardnesses
- The Bi-metal model is 5 mm higher than the Toolsteel
- Standard bridge suitable for shoes with Long Track stitch
- Bracket with pitch 165 and 195 mm available on request
- Backlash-free pivot point
- Reliable and dampenns clap mechanism
- Bridge from 1 piece of aluminum milled. As a result, great lateral stiffness
- Sound-damping heel
- Stainless spring is available separately on request
  The proven Zandstra tube in combination with bridge provide many hours of skating fun



	Bi Metal	Toolsteel
Tube	Epoxy gloss	Epoxy gloss
Bracket	Anodized	Anodized
Quality aluminum	7000 alloy	7000 alloy
Thickness sliding steel	1.05 mms	1.25 mms
Steel hardness	64Rc (Bi-metal)	60Rc (Toolsteel)
Total height steel	27 mms	22 mms
Rounding ex factory	23 meters	25 meters

Size bridge	Length tube (mm)
36 - 37	375
38 - 39	395
40 - 41	415
42 - 43	435
44-45	455
46 +	455



## 9000 Bi-Metal

#### Zandstra Speed Racer



- New model clapskate
- More info at page 4
- Sizes: 375 455 (mms)



### 9100 Toolsteel

Zandstra Speed Racer



- New model clapskate
- More info at page 4
- Sizes: 375 455 (mms)





## 9800 Toolsteel/9900 Bi-Metaal

#### **Ballangrud Clapskate**

Some of the main aspects of the Ballangrud Clapskate are:

- The aluminium bridge of the Ballangrud can easily be fixed by means of the so called "locking pin". One then has a traditional semi high cup speed skate



#### In other words freedom of choice: Fixed or clap.

- Almost any boot used in ice skating or inline skating can be mounted on the aluminium frame of the Ballangrud
- 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
- 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
- With the Ballangrud it is possible to adjust the boot to the inside or the outside
- A specially moulded "low noise" heel cone
- The Ballangrud is 1,5 2 cms lower then most of the competition clapskates. Because of this skating is more relaxing.

	Bi Metal	Toolsteel
Tube	Metallic	Powder cCoated Black
Beugel	Anodised	Anodised
Quality aluminum	7000 alloy	7000 alloy
Thickness of runner	1.05 mms	1.25 mms
Hardness of runner	64Rc (Bi metal)	60Rc (Toolsteel)
Total height of runner	27 mms	22 mms
Radius (ex factory)	23 meters	25 meters

Length tube	Boot (advised)
37 cms	34, 35, 36
39 cms	37, 38, 39, 40
41 cms	41, 42
43 cms	43, 44
45 cms	45 and up

### 9822 Ballangrud Clap Skate



9866 Ballangrud Clap Skate





Combination of boot 1122 thermoplastic with the 9800 Ballangrud clapskate Toolsteel

Also available with Bi-Metal runner Art. 9922

Sizes: 36 - 48



Combination of boot 1166 Long Track II with the 9800 Ballangrud clapskate Toolsteel

Also available with Bi-Metal runner Art. 9966

Sizes: 36 - 48

## 9850 Ballangrud Clap Skate



### 9877 Ballangrud Clap Skate





Combination of boot 550 Long Track III with the 9800 Ballangrud clapskate Toolsteel

Also available with Bi-Metal runner Art. 9950

Sizes: 34 - 47



Combination of boot 1177 Race H.H. with the 9800 Ballangrud clapskate Toolsteel

Also available with Bi-Metal runner Art. 9977

Sizes: 36 - 43



## Ving® Clap Skate

- 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 for artificial ice. Especially for long distance skating a semi high cup blade is a very comfortable and less tiring. Another aspect is that contrary to other clapskates, 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
- 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
- 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. The frame is made out of technical nylon 6.6 known as Zytel®. This polyamide is resistant up to low temperatures
- 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
- The skate has a price level that is acceptable to a large number of recreational skaters

Patent Ving clap: 1014140,1015248,1013912



## Ving Clap skate

Tube	Powder coated black
Quality aluminium	7000 quality
Thickness of runner	1.25 mms
Hardness of runner	60Rc (Toolsteel)
Total height of runner	22 mms
Radius (ex factory)	25 meters



3592 Ving Clap Skate



3166 Ving Clap Skate





Combination of comfort boot 592 Semi Soft with Ving Clap This is the most populair set for motivated recreational skaters Sizes: 34 - 47



Combination of boot 1166 Long Track II with Ving Clap Sizes: 36 - 47

**3550** Ving Clap Skate



3109 Ving Clap Skate





Combination of boot  $550 \, \text{Long Track III}$  with Ving Clap Sizes: 34 - 47



Combination of boot 1109 Cow leather with Ving Clap Sizes: 38 - 47

## **Ving® Touring/Fast**

In developing this new long distance skate we concentrated on the following aspects:  ${\bf Comfort}$ 

Reliability Affordable pricing



- Most important aspects of the Ving Fast and Ving Touring are:
   By using spacers and sides the tube is directly mounted to the sole of the boot
   The skate exists of only 3 parts. Boot, Tube and Spacers
- The traditional steel speedskate has been replaced by an aluminum tube
- This tube is rigid and light weight.

Patent Ving Touring/Fast: 2004430

	Ving Touring (1592)
Tube	Natural anodised
Quality aluminium	7000 quality
Thickness of runner	1.25 mms
Hardness of runner	55+Rc (High Carbon Steel)
Total height of runner	22 mms
Radius (ex works)	27 meters

	Ving Fast (1250/1292)
Tube	Powder coated black
Quality aluminium	7000 quality
Thickness of runner	1.25 mms
Hardness of runner	60Rc (Toolsteel)
Total height of runner	22 mms
Radius (ex works)	25 meters

#### 1592

Ving Touring





## 1292





## 1250

Ving Fast





## 1392







## 1383 Zandstra Comfort



8566 Zandstra Comfort





Combination of boot 583 Moulded with 3 buckles with Nylon Radius 27 meters

Sizes: 34 - 46



 $Combination \ of \ boot \ 1166 \ Long \ Track \ II \ with \ Nylon \ blade.$ Radius 27 meters

Sizes: 36 - 51

## 1663 Zandstra Junior





The skate itself is very safe, which makes it perfect for beginners.

See page 26 for more information.

Sizes: Medium (31-35), Large (36-39) and Extra Large (40-43)

Patent: 2004430

## **Nordic Ice Skating**

Some of the main aspects of the Zandstra Nordic are:

- Combination with the new race/semi soft/long track III boot
- This skate give a lot of stability, comfort and skating pleasure
- The position of all bindings can be adjusted according to personal preference so that the right balance
- The tip of the blade curves up, allowing you to skate safely across bumps, cracks and even snow covered ice
- The extremely strong binding is normally used for roller skiing
- It is a wide and stable binding, ensuring you feel safe during skating
- In cooperation with Rottefella the extra hard flex is designed
- This extra hard flex ensures optimum power transfer
- Suitable for both artificial and natural ice



Skate	Boot
40 cms	38 and down
43 cms	37 / 40
45 cms	41/43
48 cms	44 and up

#### 4163

#### **Nordic Race**

This new XC boot is specially designed for skating. The boot has become stiffer. This complete set comes with a Delta profile.

Most important shoe specifications are:

- An extra stiff sole for maximum stability while skating
- The TPU sole has a low weight
- NNN compatible sole with anti-slip profile
- Special lacing braid angle of 45° improves torsional stiffness
- Supplied as standard with an anatomical Alpina Ortholite insole
- The protective cover is lightweight, elastic, breathable and waterproof
- Special cuff for optimal lateral stabilty
- Plastic parts reinforced with fiberglass Reinforced inner lining provides maximum thermal support







## 4562

#### Nordic Comfort





#### 4560

#### Nordic Comfort





#### Combi SE

#### **Nordic Back Country**

The Combi SE is the most widely used ice skate in Scandinavia!

#### **Boot**

The Back Country Combi SE offers good side support, while the use of 3M Thinsulate makes cold feet a thing of the past. The shoe features a Velcro strap over the instep and is available in both a women's and a men's model. The Back Country is aimed at offering optimal comfort, support and warmth, making it ideal for the recreational skater.

Skate

The Back Country comes with a Delta skate with a patented attachment of the binding to the skate. In addition, the skate's aluminium frame makes it very lightweight. The torsional stiffness in combination with the highquality Stainless steel (60Rc) blade makes this skate ideal for you, if you plan to skate long distances, even the Eleven Cities Tour!

This skate comes with the Ski Skate Holder, which allows you to carry your skates awith ease.

Sizes: 36 - 49



#### Combi SKS

**Nordic Cross Country** 

This Cross Country boot has a cuff which provides both side support to the ankle and freedom of movement. The boot closes with a lace which is covered over the instep, protecting your feet from cold and humidity. Together with the use of 3M Thinsulate, this ensures that cold feet are a thing of the past.

The complete set is delivered with a Delta skate.

The torsional stiffness of the blade in combination with the high-quality stainless tool steel (60Rc) blade makes this skate ideal if you plan to make long-distance trips, even the Eleven Cities Tour!

This skate comes with a Ski Skate Holder, which allows you to carry your skates anywhere with ease.

Sizes: 36 - 48





## **Binding Zandstra Nordic**

Rottefella Sport Screw Binding

 $These \ are \ extremely \ strong \ bindings.$ 

They are wide and stable, ensuring you feel safe when you go skating. The binding is easy to mount on all types of Nordic skates with the screws provided. The binding is lightweight and ensures optimum power transfer, which enhances pleasure. The hard flex "especially made for Zandstra" is designed for use on Nordic Ice Skates.

The extra hard flex is also available separately.



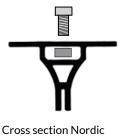
#### **Nordic**

#### Zandstra Nordic



Nordic ice blade for cross-country touring on frozen lakes, canals and even indoor rinks. The Nordic is made out of a strong triangular aluminium profile. The blade's patented attachment uses slots instead of holes, so that any binding fits on this skate blade. The position of all bindings can be adjusted according to personal preference so that the right balance can be found. Mounting hardware kit is included.

The tip of the blade curves up, allowing you to skate safely across bumps, cracks, and even snow-covered ice. The blade is made out of stainless tool steel with a hardness of 60Rc, a thickness of 1.25 mm and a radius of 27 meters.



The Nordic is available in sizes: 40, 43, 45 and 48 cms



#### NIS

#### Zandstra Nordic



This redesigned platform of the Delta skate now lets you mount any NIS binding - Xcelerator, Exercise, or Performance models - quickly and easily at home without any tools. Plus you still get the legendary quality tool steel that stays sharp for a long time. Mounting hardware kit is not included.

If you do not want NIS slide-on bindings, purchase the Zandstra Hardware Kit and attach any binding you like, NNN, SNS, or even a Rottefella NNN-BC Manual Back Country. The position of all bindings can be adjusted according to personal preference, so that the right balance can be found.

The NIS is available in sizes: 40, 43, 45 and 48 cms.





## Tango

#### Zandstra Nordic



The Tango is made out of a reinforced aluminium T-profile and is suitable for the brands Rotefella and Salomon Cross and Back Country bindings. The reinforced angles ensure that it is a light but very strong skate, which makes it very pleasant to use. The tip of the blade curves up, allowing you to skate safely across bumps, cracks and even snow-covered ice. Mounting hardware kit is included.

The blade is made out of stainless tool steel with a hardness of 60Rc, a thickness of 1.25 mm and a radius of 35 meters.

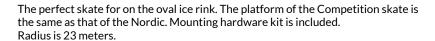
The Tango is available in sizes 40, 43, 45 and 48 cms.





## Competition

#### Zandstra Nordic



The only differences are:

- a blunt front
- shorter blade length
- super sharp bimetal steel for perfect traction.

These adaptations make this type of blade more suitable for the 400-metre oval.

The Competition is available in sizes 40, 42, 44 and 46 cms.



**Cross section Competition** 



## Ice Spike Red

Nordic Accessories



Experience in Scandinavia has shown that ice spikes are an excellent tool to get yourself out of an opening in the ice. These ice spikes are easy to carry and have stainless-steel spikes. The handles are made of a strong nylon.

## **Zandstra Ice Spike**

Nordic Accessories



In Sweden ice spikes are mandatory for skating on natural ice! Experience in Scandinavia has shown that ice spikes are an excellent tool to get out of an ice hole on your own. They consist of foam handles, a wide collar and a whistle. The ISDUBB is available in two sizes: medium for large hands and small for small hands.

#### Zandstra Ski Skate Holder

Nordic Accessories



This compact skate holder ensures that you can safely and easily carry the long blades with you to and from the ice. The holder comes with a velcro strap, which ensures optimal ease of use.

#### **Zandstra Knee Protector**

Nordic Accessories



Comfortable simple knee pads with Velcro straps for skating. Convenient, easy protection for the knees. For all activities on ice.

## **Zandstra Safety line**

**Nordic Accessories** 



25 meters floating line. Bag that slides easily on ice and snow. Clear instruction picture on the bag. Foam handle with very good grip even with wet gloves.

Weight: 750 grams.

## **Zandstra Skating Poles**



These dual lightweight aluminium ice poles with hardened steel pointsprovide extra support during skating or walking on the ice. It can also be used as an additional tool in detecting thin ice.

Features long handles made of soft insulating foam that ensures a good grip.

Available in the following lengths: 135, 145, 155 and 165 cms.

## Zandstra Back Pack

Nordic Accessories



A well-equipped backpack that contains everything that you need for a day of Nordic skating. The digestible straps make the backpack comfortable and safe to carry. The lock of the top prevents leaking of water, but the backpack is not waterproof. The backpack is equipped with side pockets and a fastener for a lifeline.

The capacity is about 25 liters.

## **7125 Sharpening Jig**

Upp



Ice skating on Nordic blades is becoming increasingly popular. Justlike traditional speed blades these long blades need maintenance such as sharpening and polishing. Zandstra has developed a special sharpening jig for Nordic skates, called "VING UPP".

See page 40 for more information.

#### **Laces Wax Canada**

Packed per pair



Length 213 cms 183 cms 160 cms 160 cms ColorQuantityYellow and White36 pairYellow, Black, White36 pairYellow and White36 pairPink, Green, Orange36 pairBlue, Yellow and Red

#### **Laces Wax Canada**

Packed as bundle



Length 213 cms 183 cms 160 cms

**Color** Yellow and White Yellow and White Yellow and White **Quantity**72 pair
72 pair
72 pair

## **Laces Wax Ving**

Packed per pair



LengteColorQuantity180 cmsWhite/black36 pair160 cmsWhite/black36 pair

#### **Laces Other**

Packed per pair

Material Cotton Nylon Polyamide (Semi Soft) Length 200 cms 183 cms 110 cms ColorQuantityWhite72 pairWhite72 prs bundleBlack/Red24 prs bundle

#### **Lace Hooks**

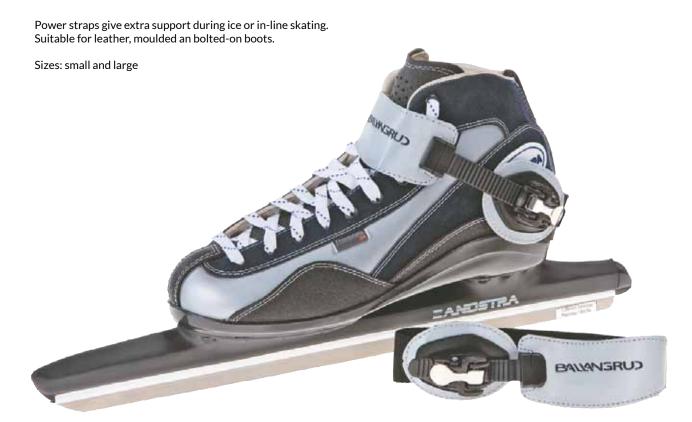
Accessories



- Tool for tightening laces
- Easy to carry
- Packed per pair

## **Powerstrap MB**

Accessories



## 1950 Neoprene Bootcover





## Zandstra® Helmet

### Protection

Color: black and carbon Sizes: S/M (54-58 cm) and L/XL (60-64 cm) Approved: CE EN1078 (Bike - Skate) Approved: ASTM F1819 (Ice Skate - Short Track)















## **Black Tactil**

Protection



This glove is made of Zirnium  $^{\text{TM}}$ . It is elastic and has a comfortable fit.

Color: black

Sizes: XXS, XS, S, M, L and XL

#### **White Tactil**

Protection



This glove is made of Zirnium  $^{\text{TM}}$ . It is elastic and has a comfortable fit.

Color: White

Sizes: XS, S, M, L and XL

## Dyneema® Glove

Protection



Gloves not for warmth but for protection. Gloves are mandatory during competition skating. Gloves are made out of Dyneema®

Sizes: XS, S, M, L and XL.

## Dyneema® Schin-Knee

Protection



The protector is worn as a sock. The knee is protected by a layer of foam rubber. Material Dyneema®

Sizes: S, L and XL



#### 1663 Oslo

Zandstra Adjustable

The ideal skate for younger children.

#### Boot

This adjustable skate has the ideal boot for younger feet. It is designed with special care to match the anatomy of children's feet perfectly, mainly focusing on comfort and stability during skating.

#### Skate

The special attachment of the blade to the boot, which makes it extra stable and low, ensures a lot of skating pleasure. The boot closes with a lace and 2 Velcro straps, has a narrow fit and a reliable adjustment mechanism.

The skate itself is very safe, which makes it perfect for beginners.

Sizes: Medium (31-35), Large (36-39) and Extra Large (40-43)

Patent: 2004430



#### Combo

#### Zandstra Adjustable

#### Adjustable semi soft boot

Closure is a combination of: lace, buckle en velcro strap Supplied as standard as an in-line skate. Interchangeable hockey iron included Sizes: Extra Small (29-32), Small (33-36) en Medium (37-40)













203 Lake Placid Zandstra Adjustable









The Hockey Lake Placid has a semi soft shoe with a very comfortable fit and is adjustable in 4 different sizes. The closure is a combination of lace, buckle and velcro strap, which gives the shoe support where it is needed. The plastic skate is integrated in the shoe, which ensures a reliable skate for many hours of skating fun.

Sizes: Small (31 - 34), Medium (35 - 39)



This molded shoe has two buckles so that the shoe offers very good support and is easy to put on and take off. You no longer have to take off your gloves for this! The Ontario is adjustable in three different size groups, so you can have fun for more than 1 season. The plastic skate is integrated into the shoe itself, which ensures a reliable skate for many hours of skating fun.

Sizes: Small (25-28), Medium (29-32) en Large (33-36)



#### 180

#### Easy Glider

Most popular beginner skate.

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 thick 1.7MM
- 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





## **Easy Glider Assist**

Easy Glider

Converts the Easy Glider (temporarely) in a "triple blade" skate.

There is no better "tool" to learn skating with.



## **Enlargement Straps**

Easy Glider



Some boots are rather wide. In that case these straps lengthen the straps on the skate.

## **Buckle Protector**

Easy Glider



 $Provides\ extra\ comfort\ and\ protection.\ Specially\ for\ the\ front.$ 



## 88 Bob Skate De Luxe

**Bob Skate** 

This stable double runner is perfect for the youngest skating enthusiasts! The skate is adjustable in length and the luxurious plastic straps with adjustable easy lock system ensure fast and trouble-free binding of the boot. In addition, it has a higher heel, so that the heel sits much more firmly in the shoe and cannot come out.

The Zandstra Bobskate Deluxe is adjustable in the sizes 24-30.

Skate: Black coated Straps: Red nylon





## 70 Bob Skate

#### **Bob Skate**

This strong double blade is ideal for the youngest skating enthusiasts! The skate is adjustable in length and has 4 special plastic straps, ensuring fast and trouble-free binding of the boot. The belts are also available separately.



## 282 Quebec

Zandstra Hockey



The semi-soft shoe is a very comfortable shoe that provides many hours of skating pleasure. The thermo liner provides optimal warmth and comfort while skating. The shoe closes by means of a buckle, velcro strap and lace, so that the ankles have sufficient support. The hardened steel skate is integrated into the shoe and is ideal for natural ice!

Sizes: 36 - 50





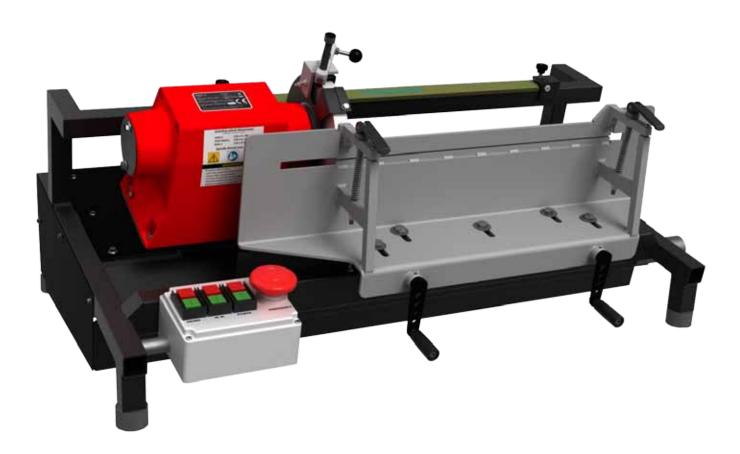
## 482 Elena

## Zandstra Figure

The semi-soft shoe is a very comfortable shoe that provides many hours of skating pleasure. The thermo liner provides optimal warmth and comfort while skating. The shoe closes by means of a buckle, velcro strap and lace, so that the ankles have sufficient support. The hardened steel skate is integrated into the shoe and is ideal for natural ice!

Sizes: 36 - 44





#### **RSM Machine**

**Radius Sharpening** 

These days skaters (competition and recreational) prefer to have a specific radius in the blades. In order to meet this demand the Radius Sharpening Machine has been developed. Reliable, accurate and relatively easy to operate. Over the years Zandstra Sport has installed many of these machines worldwide. During the last 5 Olympic Games the R.S.M. has been used by many participants.

With this machine short track, long track and ski blades can be given the desired and correct radius. The most important specifications of this machine are:

- 1. The radius is achieved by use of templates. The radius in the template is the same as the radius given to the blade.
- 2. There is no limit to the radius desired. This applies to short track as well as long track.
- 3. The machine has a diamond dresser. This means that the stone can be easily cleaned. A clean and open stone provides an accurate radius.
- 4. There is a vibration damper on the motor. Thus making stable sharpening possible.
- 5. On the machine is a provision to connect the hose of a dust collector.
- 6. The machine meets CE requirements.
- 7. Because of the accurate sharpening, polishing is kept to a minumum.
- 8. The machine works on 220V. Transformer to 110V are available (USA, Japan etc.)
- 9. New on the R.S.M. IV is the safety button.

The machine has an extra long holder. So it is possible to get the desired radius in almost any blade. The R.S.M. IV gives the required radius to the blade. It is not designed to sharpening blades quickly. For this we would draw your attention to the S.S.M. machines from Sweden.

It is advised to polish the blade by hand after sharpening.

On request we will send you an "Instruction of use" by e-mail.

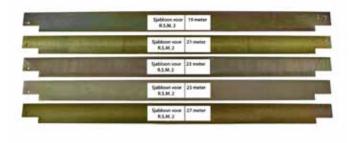
## **RSM Checking Devices**

**RSM Accessories** 



## **RSM Templates**

**RSM** Accessories



Aluminium Checking Device are available in 8,9,10,11,12,15,17,18,19,20,21,22,23,24,25,27 30 and 35 meters

Templates are available in

: 4, 6, 7, 8, 9, 10, 11, 12, 13 and 15 meters : 17, 18, 19, 20, 21, 22, 23, 24, 25 and 27 meters Short track Long track

Cross country: 30, 35 and 40 meters

## **Stone RSM**

**RSM** Accessories



Size: 150 x 20 x 20 mms

#### Diamond Dresser 5 cms

**RSM Accessories** 



For cleaning the sharpening stone. Length 5 cms





#### 7150 JOHA

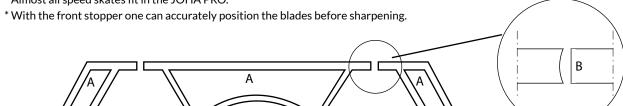
JOHA Pro Sharpening jig

For many years the JOHA brand has been famous among competition skaters.

A 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 positioned 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 in the JOHA PRO.



Because of the specially designed profiles the blades are accurately and securely clamped. This contrary to existing sharpening jigs.



# **JOHA PRO Stand**

**JOHA PRO Accessories** 

Some speedskates like Comfort and Short track 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.





### Aluminum Sharpening jig High

This jig has been specially designed for speedskates with moulded boots or semi soft boots. It is 10 cms. higher than the jig "Medium". Also Short Track sets fits in

Jig comes with 2 "top stoppers"



### 7135

### Aluminum Sharpening jig Medium

This aluminum jig fits all speed blades with leather boots. The jig is natural anodised. Jig comes with 2 "top stoppers"



### Aluminum Sharpening jig Low

This extra low and long jig is made for manual sharpening of skates such as Easy Gliders, Nordic Ice Skates and odd sizes skates. In other words; all blades that do not fit in a "Medium" jig. Jig comes with 2 "top stoppers"



### 7129

### Sharpening jig Ski Skate

A special tool has been made for sharpening the Cross Country and Back Country Blades. This tool has 4 anti-slip buttons. The large knobs make it easy to fasten the skate. Handy portable jig.





# 7125 Ving Upp

XC en BC Sharpening jig Ving Upp

Skating with the so called Ski Blades or Nordic Blades is rapidly gaining popularity. Both in the USA and Europe.

These long blades need, just like the traditional speed blades, maintenance. Sharpening and polishing. This to enjoy the hours spend on the ice even more. Zandstra Sports has developed a special sharpening jig for the Nordic blades. The jig is called VING UPP. It has a unique system which will bring the blades in a proper position for sharpening.

All types, models, brands with or without bindings fit in the UPP. By this we mean Rottefella (NNN) and Salomon (SNS) both with XC and BC bindings.

With the traditional jigs the steel blades are clamped (locked). With the UPP the frame is clamped against the upper part of the UPP. This is achieved by turning the bolt (A) which will move the bar (B) upp. The bolt should be turned firm but not too firm.

The most important specs of the UPP are:

- \* Compact
- \* Low weight
- \* Blades are clamped easily and firmly
- \* Easy to carry
- $\ensuremath{^*}$  The bindings can stay on the frame. This is an important advantage.
- \* Few parts. The UPP is a one piece aluminium
- $^{\ast}$  Also skates with just a few mm of steel left can be sharpened
- \* All sizes fit in the UPP
- \* 8 Bumptons makes the UPP nonskid



### **7514 Foss Diamond Stone**

### **Diamond Stone**

Foss Duo Diamond stones offer the ultimate in sharpening your speed skate blades. The stone features multiple layers of the hardest micron-sized diamonds. The diamonds are bonded in nickel and attached to a flat metal surface. The overlapping hole design of the diamond stone collects and holds the metal shavings during the sharpening process. These features will enable you to sharpen the highest quality speed blades quickly and easily. Thanks to two small holes on the side of the plastic base one can easily remove the diamond plates. This to clean or replace. Size:  $250 \times 70 \times 100 \text{ mm}$ .

#### Some advantages:

- Quickly and easy sharpening
- The stone always stays flat
- Less burr on the sides of the blade of the skate
- Last longer
- Suitable for all qualities of steel (carbon, stainless, bi-metal, PM etc)
- Easy to clean
- $\hbox{-} Almost \, unbreakable, low weight, easy to carry \\$

Made up  $\,$  : - Extra Fine diamond plate, 1200 grit and Fine diamond plate, 400 grit

- Reinforced plastic base with 6 magnets

#### Care and use:

Use water as lubricant. The diamond ston will then last longer. Use light pressure. Let the diamond do its work. It is advised to dry the plates after use and before you put the stone away. Occasionally clean your stone with soapy water and a mild brush, then wipe clean.

#### **Durabilty information:**

The innitial aggressive cutting speed of all diamond sharpening stones will slow with use. At the same time the abrasive finish will improve. Do not be confused by this process, it is normal and should be expected. Your diamond stone is wearing in, it is not wearing out !!!



#### **Smith Diamond Stone**

Only available in Yellow 45 mlcron



### 7205

### Foss Sharpening Stone

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.



### Norton India Polishing Stone

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.

Size: 29 x 6 x 2,5 cms



### 7210

### Sharpening Stone Middle

Reasonably priced combination stone.

Quality: Silicon Carbide

Size: 25 x 5 x 2,5 cms





# 7800 Foss PDD

Foss Pocket Duo Diamond

An accurate deburring block with 2 coarse diamond sides.



# 7400 DMT

### Pocketstone Diamond DMT

The stones have 3 different grades:

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

Size : 7,5 x 2,5 x 0,4 cms.



# 7201

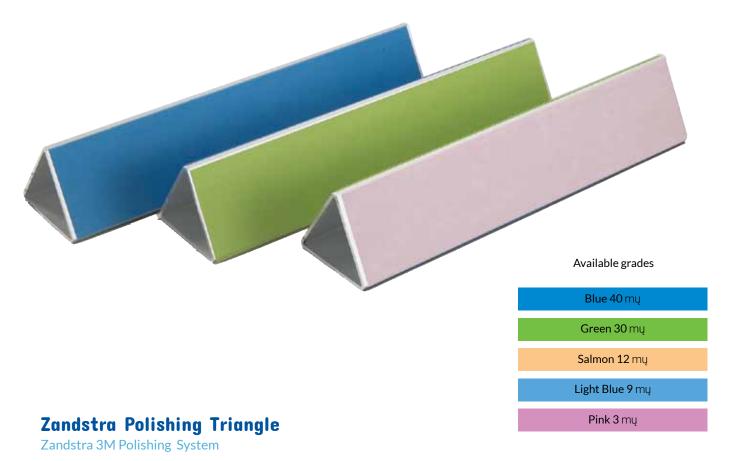
Zandstra Pocket Stone

Quality: Silicon Carbide

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





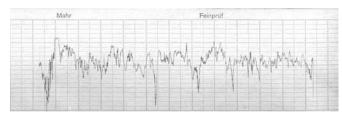


For an optimal sharpening result there are 5 different grades of self-adhesive lapp film on a specially extruded aluminium triangle. The length of the triangle is 25 cms. The micro aluminium oxide gives the edge a very shiny surface. The aluminium triangle comes complete with 3 different polishing strips. The strips can be reordered separately or in a set of 3 (blue, green, pink). 3 Grades are glued to the triangle. These are 40 (blue), 30 (green) and 3 (pink) Micron. 2 Additional grades are available. 9 (light blue) and 12 (salmon) Micron.

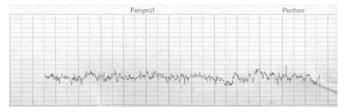
#### Directions of use:

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 friction decreases 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 approxomatily 3 to 5 minutes in total.

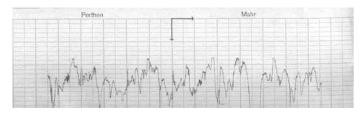
To make sure that the result is optimal you have to look at the gliding surface of the skate. If you see a "mirror" the result is optimal. If not, repeat the last (pink) or the second last (green) treatment.



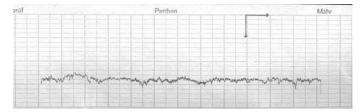
Result after sharpening with the fine side of the stone



Result after polishing with 30 mų (green).



Result after polishing with 40 mų (blue).



Result after polishing with 3 mų (pink).

### Foss Sharpening Oil



Foss oil gives you a smooth and sharp edge. It prevents the stone becoming clogged.

Bottle: 100 ml

### 7316

### Foss Sharpening Stone Cleaner



Foss Sharpening Stone Cleaner is ideal to clean the stone from  $\,$ small steel parts which "pile up" in the stone.

Bottle: 250 ml

### 7319 **Foss Ensis**



The grease called Ensis is ideal to prevent rust on the blade. Bottle: 250 ml

Ensis is a Trade Mark of Shell.

# 7425



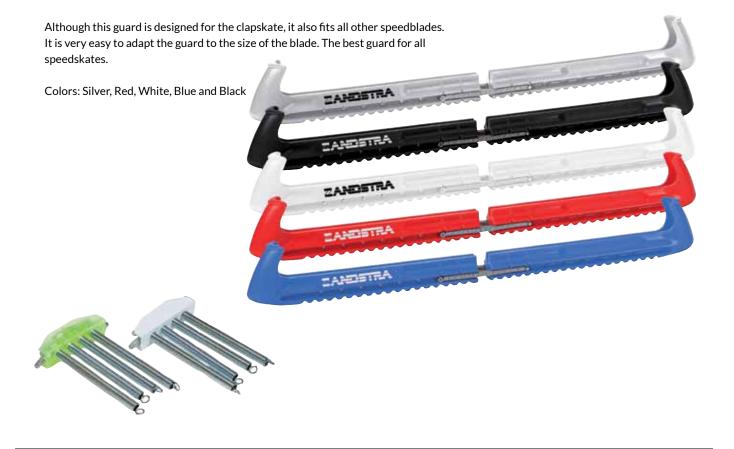


Sometimes it is necessary to "recondition" the surface of the sharpening stones. Sharpening grain is the best way to make your stone flat again. The quality CG60 gives the best results. A plastic container holds 250 grams.

Also available in containers of 5 kgs.



#### Twin Guard



### 8140

### **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 guard for fixed blades.

Colors: Red, White, Blue and Black

### Terry Blade Cover

The blade cover is made of the Terry fabric. This absorbing blade cover protects the blade when you are off the ice.

The bottom is made of wear resistant material.





### **Blade Bender**

Accessories



With this device it is possible to straighten a crooked skate. You can also use this device to make a curve in the skate so that the skate gets more grip in the curves on the ice.

Long track, short track, hockey and figure skates can be aimed with this targeting device.

# **Lindbergh Cap**

Accessories



The classic skating cap

Available in 3 versions: navy, red or white.

