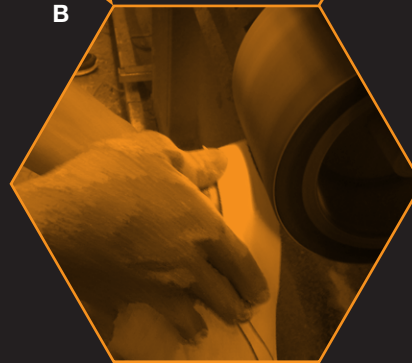


# 4 | BOTTOM

In this chapter we explain our standards and options in construction of the bottom of complete shoes, the inner soles and outer soles. We offer a wide range of different edges, welts, various options for heel types to ensure our shoes meet your needs. We also explain about heel modifications, how to measure heel height and also the rocker configurations. At the end of the chapter you will find all the different colours and types of edges, welts and soles which can be ordered, so our experienced team can carefully and skilfully complete your shoe.

## PRODUCTION OF BOTTOM



**A** | MOUNT THE UPPER

**B** | SAND THE SOLE

**C** | ATTACH THE OUT SOLE

## 4.1 | BOTTOM SPECIFICATIONS

### INNER SOLES

1. We use Biagioli (3 mm) inner soles / 5054
2. Our space soles are 3 mm or 5 mm thick. Space soles are 1 mm or 2 mm thinner at the toe part
3. Carbon sole stiffener consists of 4 layers or 6 layers (100% stiff)
4. Polypropylene sole stiffener : H2 (50% stiff from heel to ball) / 5055
5. Polypropylene sole stiffener : H5 (50% stiff from heel to toe)
6. Anti Penetration Insole / 5056

### OUT SOLES

1. Our standard EVA-materials have a shore value of: 35, 50 and 65A. Shore values varies from +/- 5A.
2. Standard sole thickness for women: Rubber 4 mm, EVA 6 mm
3. Standard sole thickness for men: Rubber 6 mm, EVA 8 mm
4. Neoprene and fabric upper material always include a leather mudguard around or +/- 12 mm high

## 4.2 | BOTTOM CONSTRUCTION OPTIONS



A. Closed Edge



B. Glued Edge from ball to ball



C. Glued Edge all around



D. Flexible Edge all around



E1. Mudguard all around



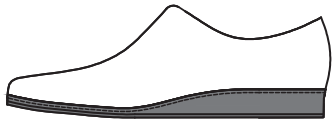
E2. Leather mudguard all around



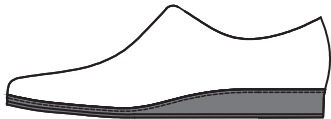
O1. Mudguard from ball to ball



O2. Leather mudguard from ball to ball



P1. Sport band all around  
extending over heel



P2. Leather band all around  
extending over heel



U1. Sport band all around equal height  
with or without heel

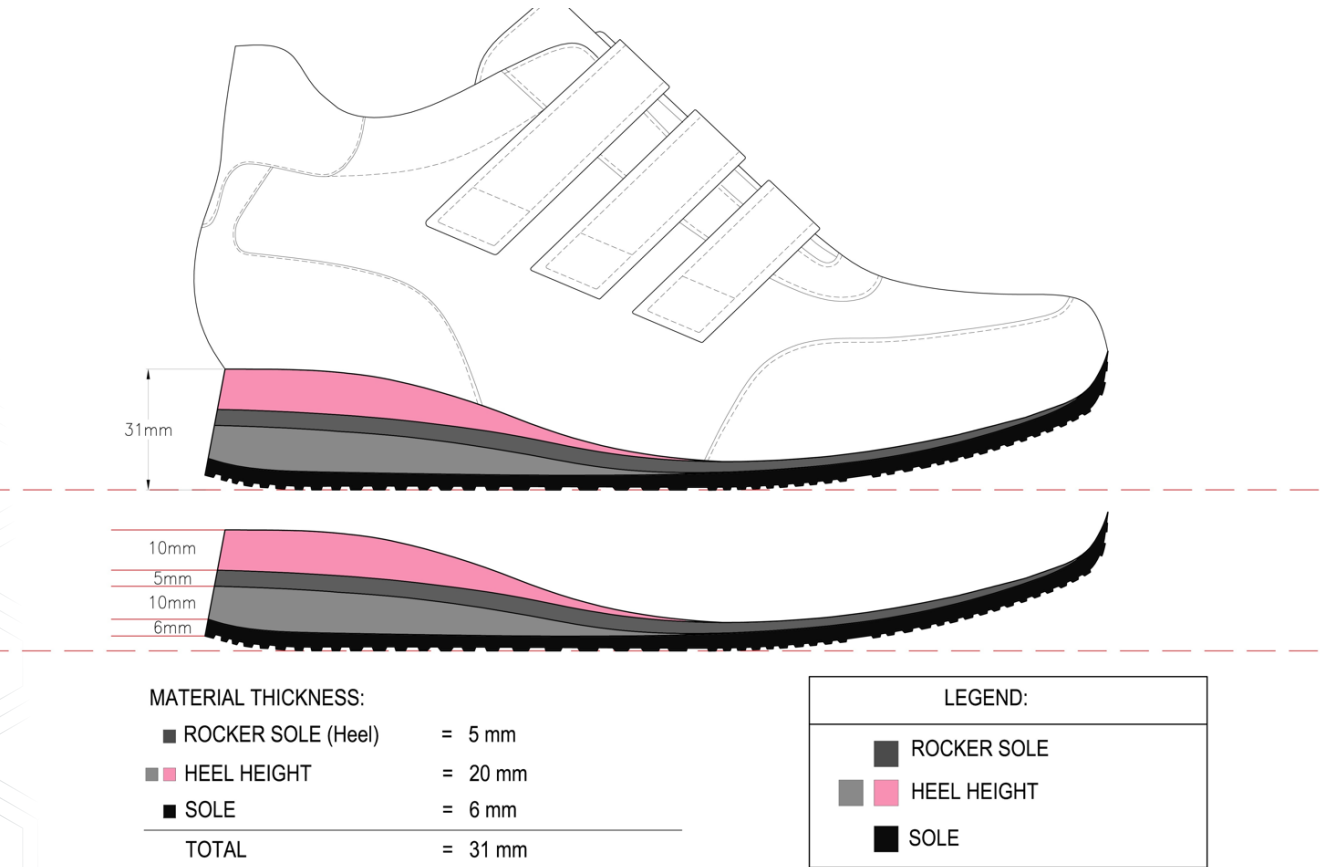


U2. Leather band all around equal height  
with or without heel

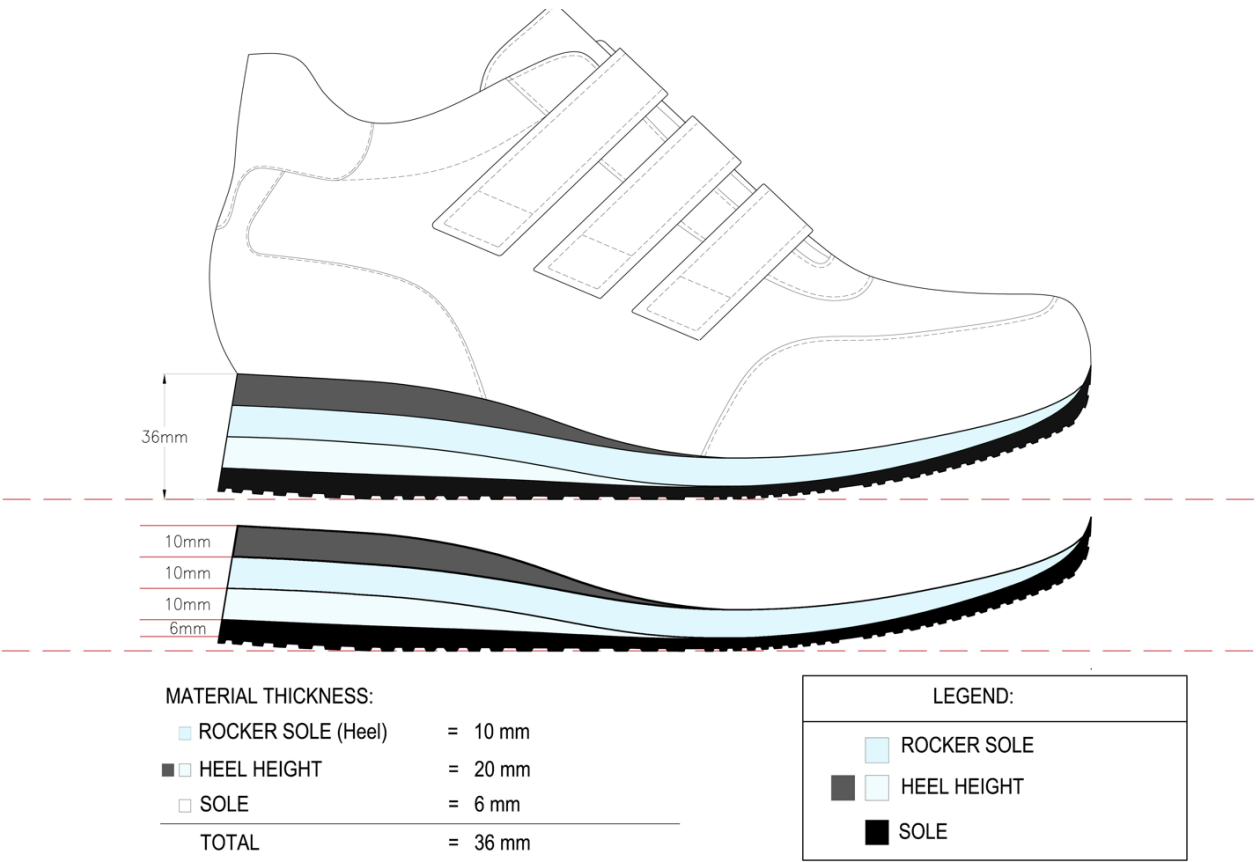
4.2.1 | ROCKER AND HEELHEIGHT MEASUREMENTS

CYS uses 3 standard rockermeasurements. The 2 standard rockermeasurements are without extra charge. The custom rocker-measurement is with an extra charge.

1. **Standard rocker 5 mm:** (Heel = 5 mm, Ball = 5 mm, Toe = 0 mm) See picture below.



2. **Standard rocker 10 mm:** (Heel = 10 mm, Ball = 10 mm, Toe = 2 mm) See picture below.



3. **Custom measurements defined by technician in mm** (Heel, Ball, Toe).

## 4.3 | HEEL TYPE OPTIONS



G. EVA Block heel



H. Leather Block heel on sole



I. Wooden block heel on sole



N. Wooden block heel



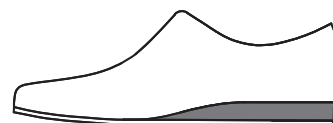
J. Wooden tail heel with sole extending up to the heel



K. EVA wedge heel, hollow with sole extending over heel



L. Wooden wedge heel hollow



M1. EVA wedge heel, flat with sole extending over heel



M2. EVA wedge heel flat, with sole around. Med + lat hollowing



F. Standard rocker sole flat  
Heel 5 mm, Ball 5 mm, Toe 0 mm



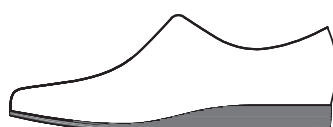
Q. Standard rocker sole hollow  
Heel 5 mm, Ball 5 mm, Toe 0 mm



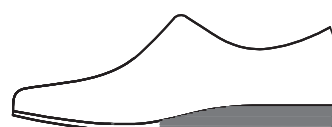
R1. Visible heel height compensation  
between shoe / sole



R2. Invisible heel height compensation  
between lining and upper leather



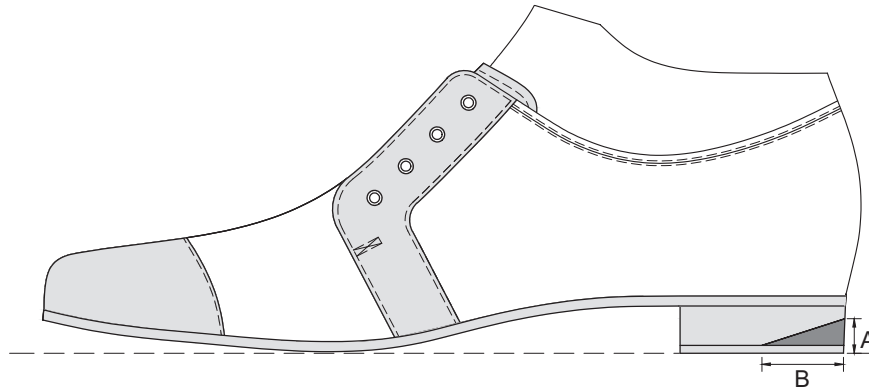
S. Ribble sole all around extending  
over heel



T. Ribble sole extending over heel

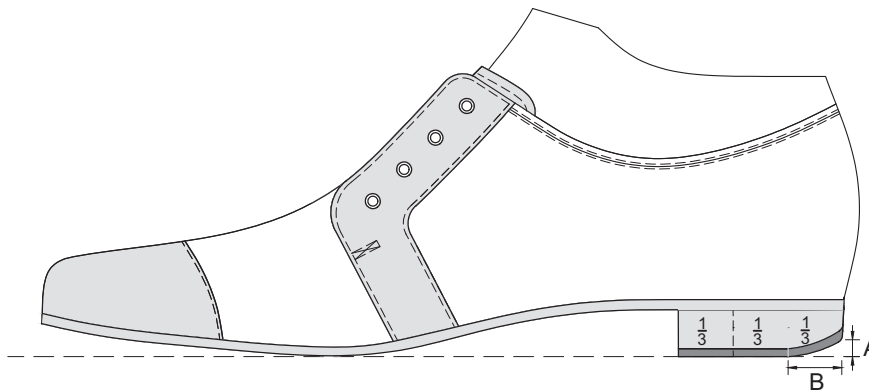
## 4.4 | HEEL MODIFICATIONS

### HEEL BUFFERING



A = 15 mm  
B = 45 mm

### HEEL ROUNDING



A = 8 mm  
B =  $\frac{1}{3}$  of the Heel Length



#### 4.4.1 | PREFAB SOLES

For prefab sole 596, we include the heel height compensation between lining and upper leather.

Example:

Heel height = 2.5 cm

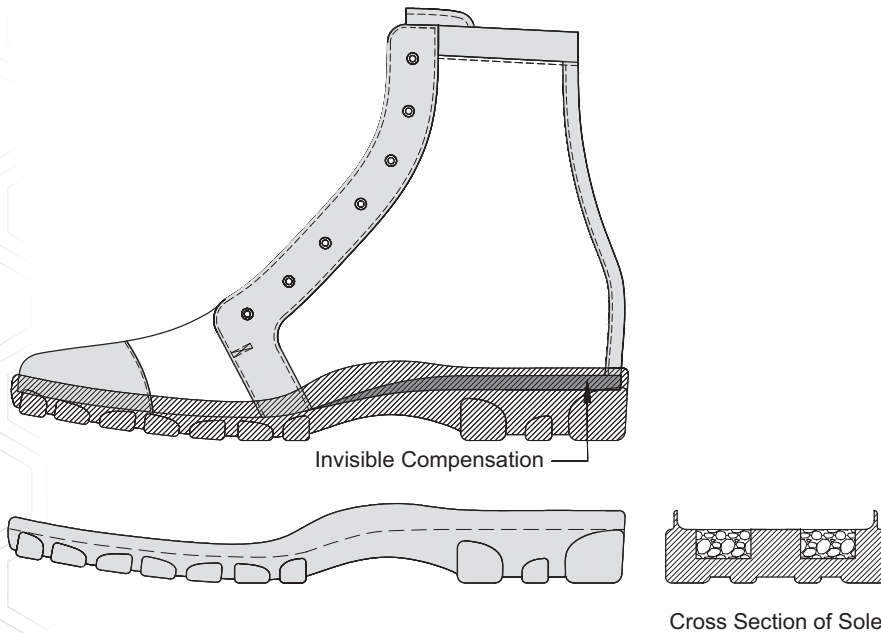
Prefab sole = 1.5 cm

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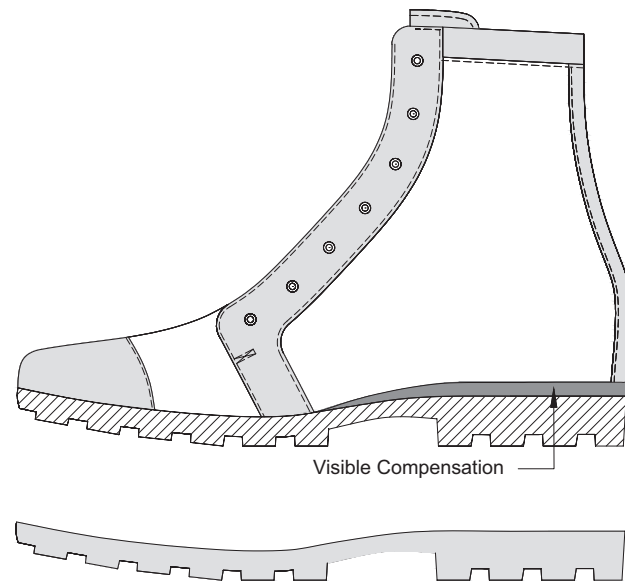
**Compensation in heel height between lining and upper leather is 1 cm**

In case of which the heel of the prefab sole is too low, we include the heel height compensation between the lining and upper leather.

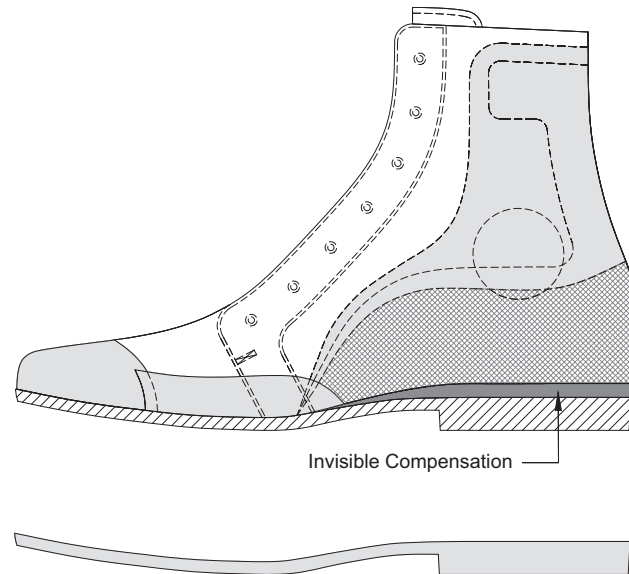
#### INVISIBLE COMPENSATION BETWEEN SHOE AND SOLE



## VISIBLE COMPENSATION BETWEEN SHOE AND SOLE



## INVISIBLE COMPENSATION BETWEEN LINING AND UPPER LEATHER



#### 4.4.2 | HEEL HEIGHT FOR SNEAKERS AND SHOE MODELS WITH SPORTS BAND

CYS can handle the heel height well up to 15 mm in sneakers and shoe models with a sports band. Up to this height the sports band can be stitched neatly by machine.

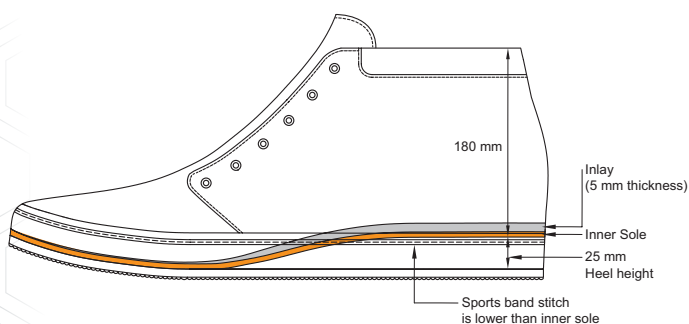
If a heel height is required *higher than 15 mm*:

1. By default, production will correct the excess heel height to the inlay. 15 mm Heel height will be processed in the heel of the sneaker, the rest of the heel height will be made in the inlay. The extra height will be made of the same material as the inlay. **Adjustment costs will be charged.** As usual, you can indicate the desired heel height in the order form for the bottom construction. The upper height will be adjusted automatically by production because of the new thickness of the inlay.
2. You may also adjust the inlay yourself, do not forget to adjust the upper height in the order in connection with the thicker inlay. Then indicate the heel height of 15 mm in the order form.

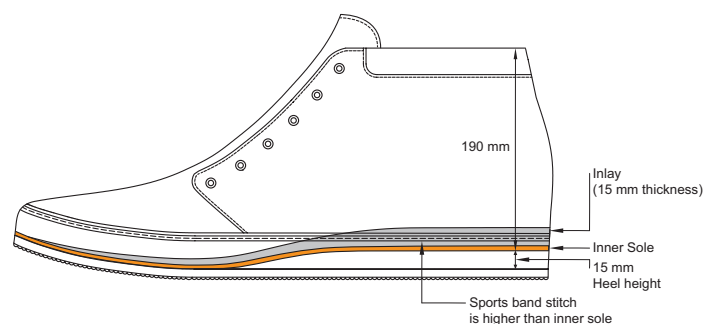
In certain cases our production will contact you.

To clarify the drawings, where a heel height of 25 mm is requested, with a inlay thickness of 5 mm and a upper height of 180 mm.

##### HEEL HEIGHT WITHOUT CORRECTION TO THE INLAY



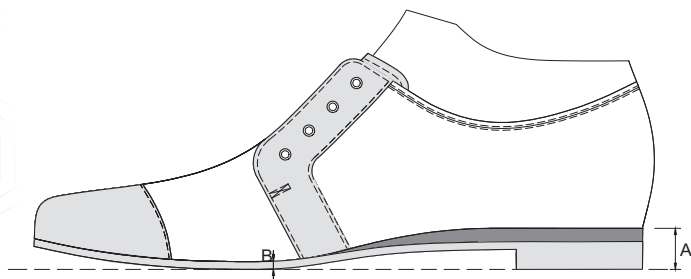
##### HEEL HEIGHT WITH CORRECTION TO THE INLAY



## 4.5 | HOW TO MEASURE

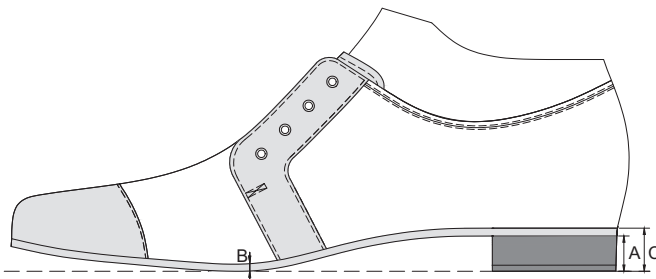
### 4.5.1 | MEASURE HEEL HEIGHT

#### PREFAB SOLE WITH WEDGE IN BETWEEN



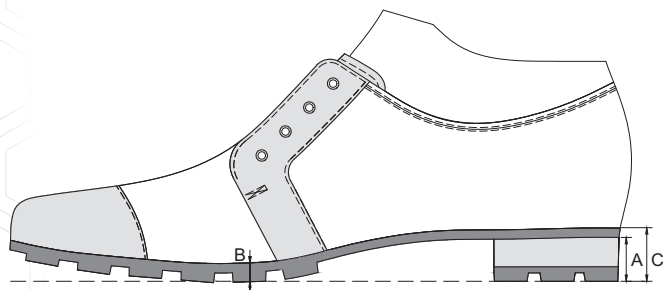
Heel height =  $A - B$   
(measured at the back; overall height minus thickness on the ball).  
The thickness of the wedge need therefore not be specified.

#### EVA BLOCK HEEL



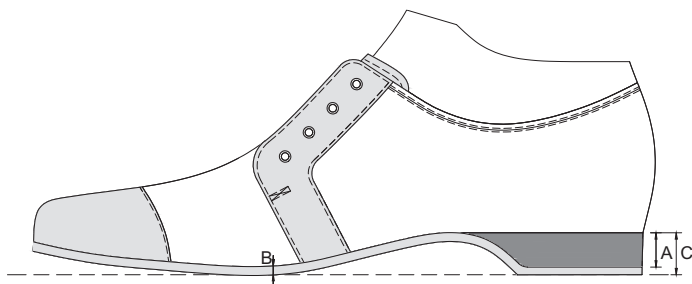
Heel height =  $A$  or  $C - B$   
(measured at the back; excluding the sole thickness)

#### PROFILE SOLE



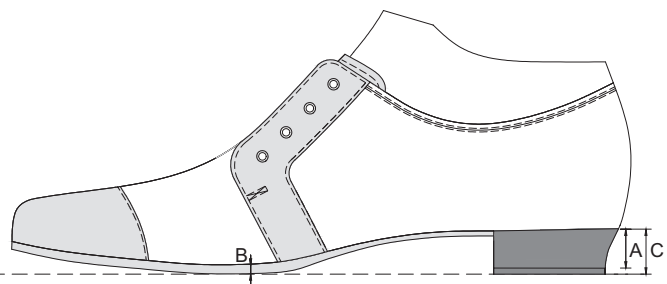
Heel height =  $A$  or  $C - B$   
(measured at the back; excluding the sole thickness)

### EVA / WOODEN WEDGE HEEL



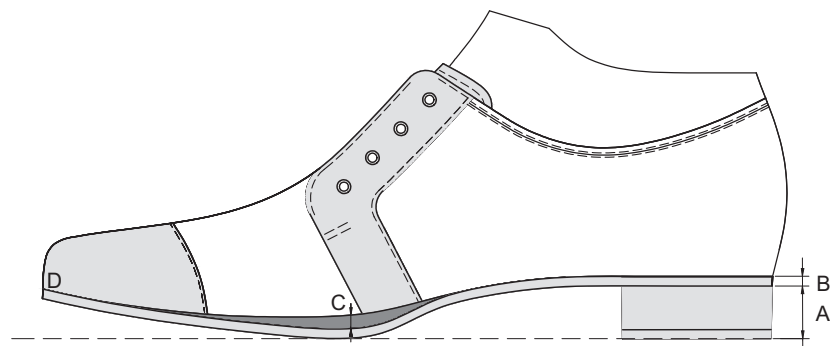
Heel height = A or C - B  
(measured at the back; over all height minus the sole thickness)

### WOODEN BLOCK HEEL



Heel height = A or C - B  
(measured at the back; Overall height minus sole thickness on the ball)

## 4.5.2 | MEASURE ROCKER AND HEEL HEIGHT



Rocker under the ball is specified by desired thickness on:

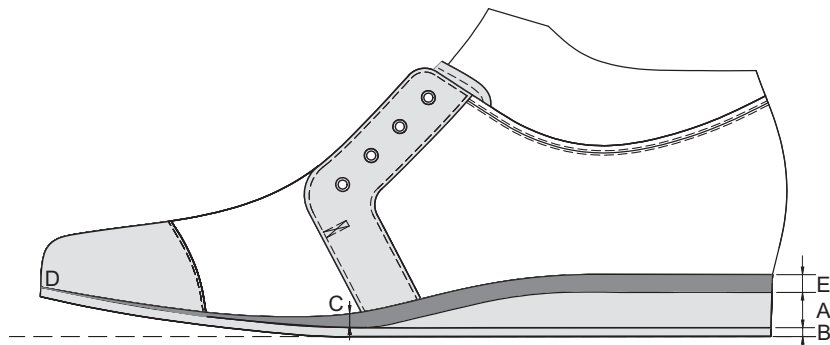
Toe = D ( 0 cm )

Ball = C ( 1 cm )

Heel height = A ( 2 cm )

Total Heel height = A ( 2 cm ) + C ( 1 cm ) = 3 cm

Final Heel height = A ( 2 cm ) + C ( 1 cm ) + B = Total = 3,8 cm



Rocker in general is specified by desired thickness on:

Toe = D ( 0 cm )

Ball = C ( 1 cm )

Heel height = A ( 2 cm )

Total Heel height = A ( 2 cm ) + C/E ( 1 cm ) = 3 cm

Final Heel height = A ( 2 cm ) + C/E ( 1 cm ) + B = Total = 3,8cm

## 4.6 | SANDALS & OPEN TOE MODELS

Sandals & open toe models are an addition to the orthopedic shoes of your client, ideal for the summer or inside the house. The shoe is partially open and has no closed toepart, which offers cooling but no protection to the toes.

### TECHNICAL SPECIFICATIONS

#### Inlay

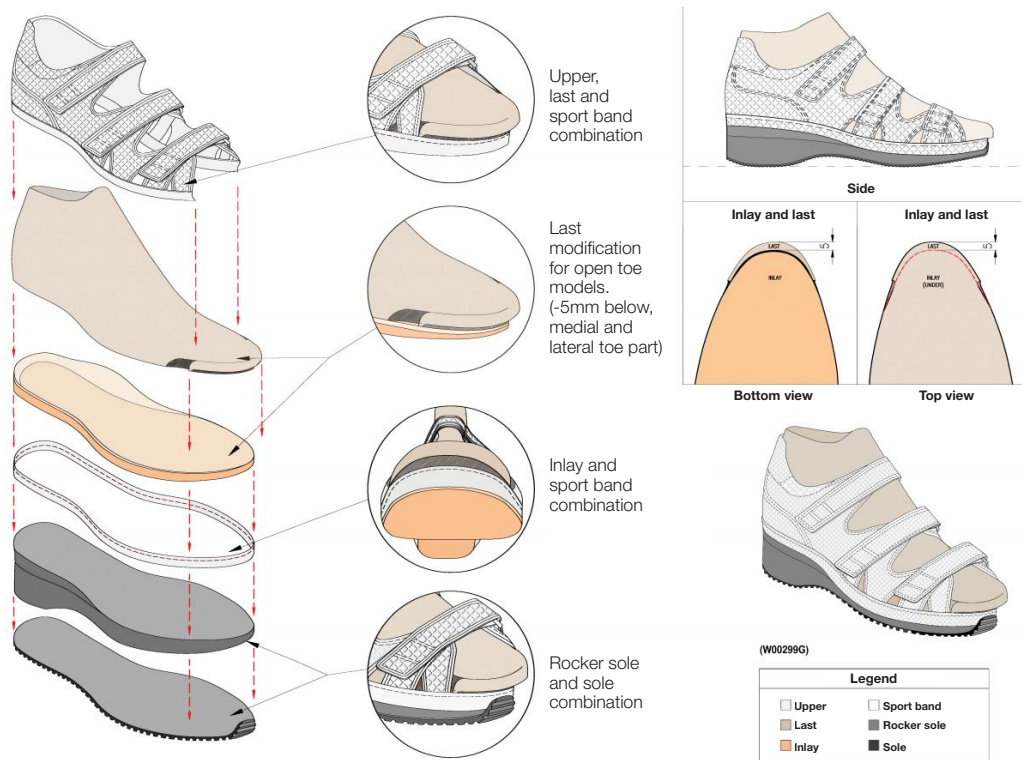
For sandals and open toe models the inlay should be shortened for proper fitting. For CYS to shorten the inlays, the clinician needs to specify this on the orderform or with a clear line on the last. The length of the innersole will be adjusted to the same length of the inlay.

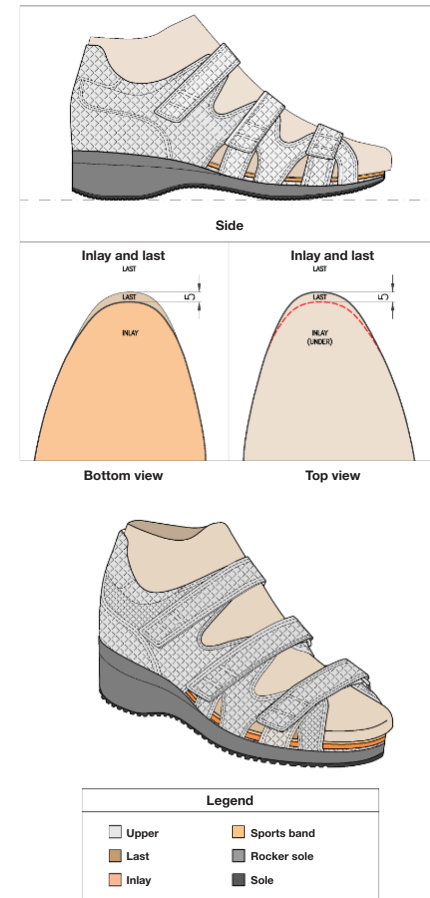
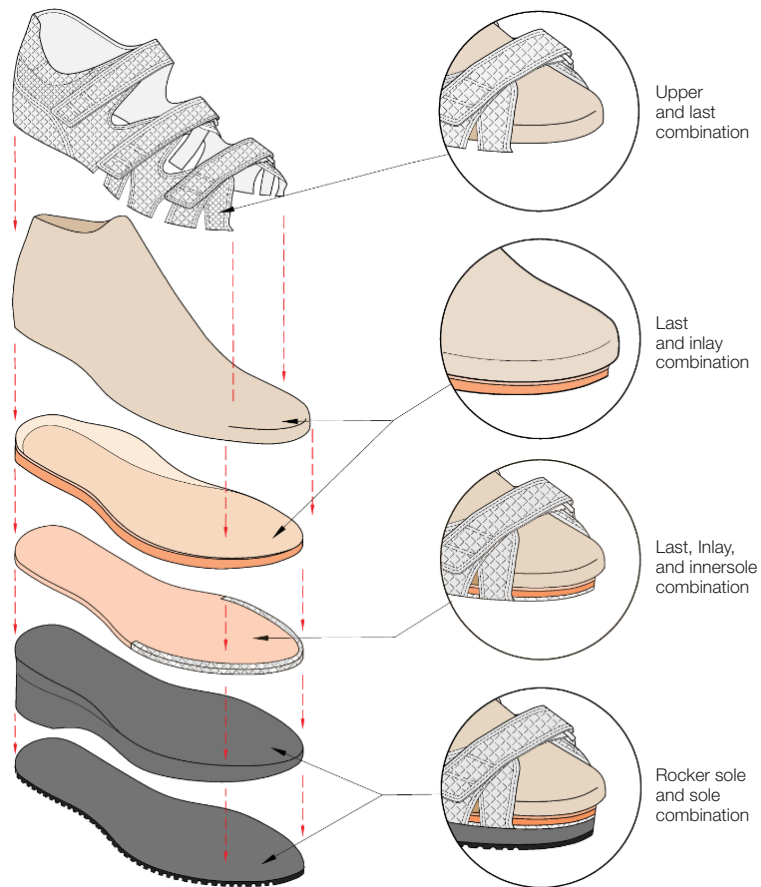
Remark: Do not forget to mention a shortened workinginlay when ordering a new (closed) pair of shoes.

#### Mudguards/sport band

For adding a mudguard or sport band, the provided last will be adjusted on the medial and lateral side of the toepart. To prevent collapsing, the mudguard or sport band will be reinforced with renoflex at the toepart.

For model with a closed edge there is no adjustment to the last needed. The toepart of the innersole will be covered with the same leather as the upper. This will also be applied to the inlay at the open parts of the shoe.





Remark: 2 extra pieces of leather (40x250mm) will be added to the order for any covering needed afterwards.