



**FEDERATION INTERNATIONALE DE SKI  
INTERNATIONAL SKI FEDERATION  
INTERNATIONALER SKI VERBAND**



**SPECIFICATIONS FOR  
COMPETITION EQUIPMENT AND  
COMMERICAL MARKINGS**

**Edition 2007  
(valid as from the season 2007/08)**



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# Specifications for Competition Ski Equipment

## A. Definition

### 1. Competition equipment

The term „competition equipment“ embraces all items of equipment used by the athletes in competition skiing, including clothing and implements that serve a technical function. The entire competition equipment forms a functional unit. In this connection the following points must be observed:

- a) the principal of safety
- b) the principal of fairness

#### 1.1 Competition implements

Competition implements refer to those parts of the equipment which fulfil essential functions for the competition and which are separable from the competition.

Examples: skis, bindings, boots, poles, clothing, helmets, ski goggles.

#### 1.2 Additional equipment (accessories)

Additional equipment (accessories) to competition equipment are those components or implements which have an influence on the technical function of the competition equipment and which are attached directly to the equipment by means of recognised fastenings. Accessories do not perform essential functions for the competitions.

Example: parablacks, plastic tip covers, additional weights, back protectors.

#### 1.3 Auxiliary equipment

Auxiliary equipment refers to those components of the competition equipment which do not fulfil an essential function, and which do not fall under the heading of additional equipment

Example: measuring instruments.

### 2. Commercial Marking on Equipment

Specifications on pages 29 to 32

## B. Alpine Competition Equipment Downhill, Slalom, Giant Slalom, Super G

Only measurements which are carried out by the appointed FIS equipment measurement experts using the official FIS measurement tools are valid.

The results of measurements carried out at the time are valid and final, irrespective of previous measurements.

## 1. Alpine racing ski

### 1.1 Definition

Skis, predominantly for Downhill, Slalom, Giant Slalom and Super G racing through gravitational force on suitable terrain. To guarantee the skier optimum use of the sides of the skis for steering, the edges of the running surface are made mainly of hard sealed materials.

### 1.2 Restrictions

#### 1.2.1 Geometric features

For MAS racers the following specifications in regard to ski length and radius (except Super-G) are recommendations. The Specifications for Super-G skis are compulsory also for MAS racers.

##### 1.2.1.1 Ski length

Minimum length "developed" length (unwound length) in accordance with ISO Norm including a measurement tolerance of +/- 1 cm. The ski length has to be marked on the ski.

#### Downhill

|                        |                          |
|------------------------|--------------------------|
| Ladies WC/WSC/OWG/COC: | 210 cm                   |
| Ladies FIS:            | 210 cm / -5 cm tolerance |
| Men WC/WSC/OWG/COC:    | 215 cm                   |
| Men FIS:               | 215 cm / -5 cm tolerance |

#### Super-G

|   |                            |
|---|----------------------------|
| Ladies WC/WSC/OWG:                      | 200 cm                     |
| Ladies COC/FIS:                         | 200 cm / -5 cm tolerance   |
| Ladies MAS (Giant Slalom Skis allowed): | 180 cm / without tolerance |
| Men WC/WSC/OWG:                         | 205 cm                     |
| Men COC/FIS:                            | 205 cm / -5 cm tolerance   |
| Men MAS (Giant Slalom Skis allowed):    | 185 cm / without tolerance |
| Children II:                            | 175 cm                     |

#### Giant Slalom

|                    |                          |
|--------------------|--------------------------|
| Ladies WC/WSC/OWG: | 180 cm                   |
| Ladies COC/FIS:    | 180 cm / -5 cm tolerance |
| Ladies MAS:        | 180 cm / -5 cm tolerance |
| Men WC/WSC/OWG:    | 185 cm                   |
| Men COC/FIS:       | 185 cm / -5 cm tolerance |
| Men MAS:           | 185 cm / -5 cm tolerance |

#### Slalom

|                                    |                           |
|------------------------------------|---------------------------|
| Ladies (all categories):           | 155 cm                    |
| Men:                               | 165 cm                    |
| Men Junior I at FIS and ENL races: | 165 cm / -10 cm tolerance |

|                  |        |
|------------------|--------|
| Children I & II: | 130 cm |
|------------------|--------|

#### MAS:

No length restriction for Ladies over 60 years and Men over 70 years.

*Precision for the length of Slalom Skis:*

When a ski tip different from the main ski part is used, the measurement will only be taken into account to the extent it covers a surface corresponding to the natural shape of the ski.

The manufacturer has to mark the tip showing the limit of the natural shape and therefore allow an easy measurement.

For the avoidance of doubt, specific designs of the ski tips as part of the main body of the skis are allowed.

**1.2.1.2** *Profile width*

Minimum width of the running surface at binding without any tolerance as from 1<sup>st</sup> of October 2007 for World and Continental Cups (for FIS and ENL events valid as from the season 2008/09):

|                                |               |
|--------------------------------|---------------|
| DH Ladies' & Men:              | minimum 67 mm |
| SG Ladies' & Men:              | minimum 65 mm |
| GS Ladies' & Men:              | minimum 65 mm |
| SL Ladies' & Men:              | minimum 63 mm |
| For FIS and ENL season 2007/08 | minimum 60 mm |

**1.2.1.3** *Radius*

The radius has to be marked on the ski.

Downhill

Ladies & Men: minimum 45 m

Radius measurement for DH skis with a preparation tolerance of -1 m.

Super-G

Ladies & Men: minimum 33 m

Children II: minimum 27 m

Giant Slalom

World & Continental Cup as from 1<sup>st</sup> October 2007

(For FIS and ENL events as from the season 2008/09):

Ladies: minimum 23 m

Men: minimum 27 m

Ladies & Men (FIS & ENL only for 2007/08): minimum 21 m

Children II: minimum 17 m

Children I: minimum 14 m

**1.2.1.4** *Overall height of sectional view*

No limitations.

**1.2.1.5** *Camber*

No limitations.

**1.2.1.6** *Contour, length and height of shovel*

Slalom and Giant Slalom: minimum height per ski: 50 mm

Downhill and Super G: minimum height per ski: 30 mm

- 1.2.1.7 *Contour of tail*  
Maximum height: 10 mm.
- 1.2.1.8 *Running surface*  
No limitations
- 1.2.1.9 *Running Groove*  
No limitations
- 1.2.2 *Flexibility*  
No limitations with regard to the rigidity in all grades of flex.
- 1.2.3 *Mass*  
No limitation with regard to weight and distribution of mass.
- 1.2.4 *Construction*
- 1.2.4.1 *Type*  
No limitation with regard to composite structure.
- 1.2.4.2 *Ski components*  
Running surface: no limitations with regard to material and dimensions.  
Torsion box: no limitations with regard to material and dimensions.  
Edges: no limitations with regard to material and dimensions.  
Top surface: no limitations with regard to material and dimensions.  
Core: no limitations with regard to material and dimensions.
- 1.2.5 *Durability*  
With regard to the mounting of bindings, national norms and at least the „Ö-Norm 4030“, that is the equivalent of DIN- and ISO-norms, must be fulfilled.
- 1.2.6 *Additional equipment*
- 1.2.6.1 *No additional equipment is permitted which*
- a) makes use of foreign energy (e.g. heaters, chemical energy accumulators, electric batteries, mechanical aids, etc.)
  - b) causes or intends to cause changes in the outer conditions of the competition to the disadvantage of fellow competitors (e.g. changes to piste or snow)
  - c) increase the risk for the users or other persons, when used for the purpose it was intended for.

## **2. Safety bindings**

Safety bindings function as strain limiters. That is, these devices transfer specific demands occurring during skiing to an acceptable limit, and when this limit is overstepped, they release their firm hold to the ski.

### **2.1 Anti-vibration plates**

Mounting of such plates is permitted under the following conditions:



suit. Outer tucks and darts are not allowed. The suits must be equally porous in all parts, both from the outside in and from the inside out. Minimum air permeability is established as follows:

The unstretched fabric must show a medium air permeability of a minimum of 30 litres per m<sup>2</sup>/sec under 10 mm of water pressure.

For Giant Slalom and Super G suits' shoulder and arm sections, as well as knees and shins may be specially protected. For Slalom suits shoulder and arm sections as well as legs may be specially protected.

The competitors are allowed to protect all parts of the body with so-called protectors. The anatomic body shape may not be changed. No plastified surfaces.

Protection that fulfils the 30 litre rule can be worn under a racing suit.

In Super-G and Giant Slalom (but not Downhill) in the areas shoulder and arm sections, protection that does not pass the 30 litre rule does not have to be integrated into the competition suit.

### **5.1 Examination of materials, suits**

The guidelines for minimum air permeability established by the Control Procedures/Equipment Working Groups in collaboration with the Federal Institute for Materials Control are valid. Multi-layered materials are accordingly permitted for alpine racing suits, as long as they conform to the air permeability requirements in question.

## **6. Crash helmets**

The use of crash helmets is compulsory for all events.

Only helmets are permitted whose shell and padding cover the head and ears. The National Ski Associations are advised to provide their teams only with crash helmets which satisfy the minimum requirements for the respective event and which have been certified by recognised institutes.

Helmets with spoilers or edges that stick out are not permitted.

Certain helmets must show a smooth top surface for safety reasons.

Helmets used in FIS Snowsports shall be specifically designed and manufactured for the respective discipline and shall bear a CE mark and conform to recognized and appropriate standards such as CEE 1077 or US 2040, ASTM F2040, SNELL S98 or RS 98, etc.

Soft ear protections are only allowed for SL events.

## **7. Ski goggles**

Ski goggles are devices protecting the eyes against weather and rays with optically correct lenses. Their aim is to guarantee good, contrast-free visibility in all weather conditions. The use of ski goggles is recommended. Reshaping the ski goggles in order to attain more aerodynamic features is not allowed.

## **8. Ski gloves**

Gloves offer protective covering against weather and external forces. The wearing of gloves is urgently recommended. Reshaping the glove, the application of a plastic coating on the outer surface, or the use of skai (imitation leather) with the aim of attaining more aerodynamic features, are not allowed. The glove must not reach beyond the elbow. Protective padding along the entire length of the glove is permitted. The use of

protective guards in the form of shields, which are pulled over the glove, is permitted.

## **9. Back protectors**

### **9.1 Definition**

The back protector is an additional item of equipment, which protects the athlete's back against weather and external forces.

### **9.2 Specifications**

The back protector must adapt to the anatomical bend of the athlete's spine and lay flat against the body. The top edge of the back protector has to be situated in the area of the spinal column and may not go above the 7th cervical vertebrae (C7). Fastening of the back protector may only take place with a stomach belt. The maximum thickness has to be in the middle part and may not exceed 45 mm; the thickness reduces at the edges of the back protector. All designs to improve aerodynamic properties are forbidden. The back protector may be worn exclusively under the competition suit.

## **C. Nordic Competition Equipment**

### **Cross-Country Skiing**

## **1. Cross-Country racing skis**

### **1.1 Definition**

The cross-country racing ski is a type of ski, whose features guarantee the best possible application of the gliding techniques to master cross-country pistes (uphills, bumpy terrain, downhill). The basic features of this type of ski are defined in these rules.

### **1.2 Restrictions**

#### *1.2.1 Geometric features*

##### *1.2.1.1 Ski length*

Minimum: height of skier minus 100 mm

##### *1.2.1.2 Ski width*

In the binding fixation area of the ski defined by ISO 9119 or Ö-Norm S4072  
Minimum 40 mm

##### *1.2.1.3 Tip*

The minimal shovel curvature is 30 mm.

##### *1.2.1.4 Tail*

The tail must not rise more than 30 mm on the unweighted ski when laying on a flat surface.

- 1.2.1.5** *Overall height of sectional view*  
Maximum 35 mm  
Minimum 20 mm
- 1.2.1.6** *Same construction*  
Both skis must be constructed in the same way, and must be the same length.
- 1.2.2** *Flexibility*  
No restrictions with regard to the rigidity in all grades of flex.
- 1.2.3** *Mass*  
Skis must weigh at least 750 g per pair. No limitations with regard to the distribution of mass.
- 1.2.4** *Construction*
- 1.2.4.1** *Type of construction*  
No limitations.
- 1.2.4.2** *Ski components*
- 1.2.4.2.1** *Running surface*  
The entire width of the running surface can be smooth or slightly grooved length-wise. With the exception of the running groove, however, the level must be constant in the entire length and width. Climbing aids in the form of scale patterns or step patterns are permitted. Models driven by means of foreign energy of any kind are not permitted.
- 1.2.4.2.2** *Top surface*  
No limitations
- 1.2.4.2.3** *Edges*  
The edges must not face up and outwards, making the running surface narrower than the top surface (no wedge shape).
- 1.2.5** *Durability*  
No limitations
- 1.2.6** *Additional equipment*
- 1.2.6.1** No additional equipment is permitted which
- a) makes use of foreign energy (e.g. heaters, chemical energy accumulators, electric batteries, mechanical aids, etc.)
  - b) causes or intends to cause changes in the outer conditions of the competition to the disadvantage of fellow competitors (e.g. changes to piste or snow)
  - c) increases the risk of injury to users or other persons, when used for the purpose it was intended for.

## **2. Cross-Country racing bindings**

No limitations with regard to material and make, subject to decisions 1.2.6 b) and c).

## **3. Cross-Country racing boots**

No limitations with regard to material and make.

## **4. Cross-Country racing poles**

### **4.1 Definition**

The cross-country racing pole is a pole, whose features guarantee the best possible application of the gliding techniques to master cross-country pistes (uphills, bumpy terrain, downhills).

### **4.2 General rules**

#### *4.2.1 Poles of equal length*

Two poles of equal length must be used in competition, with one pole held in each hand.

#### *4.2.2 Pole length*

The maximum pole length must not exceed the competitor's height, nor measure below the hips (measurements are taken by placing the tip of the pole on the ski in front of the binding).

#### *4.2.3 Constant length*

The pole must have a constant length. It may not, for example, possess a telescopic system.

#### *4.2.4 Foreign energy*

The pole must not create a foreign energy to favour push-off (e.g. springs or mechanical devices).

#### *4.2.5 Weight*

No limitations regarding the weight of the pole.

#### *4.2.6 Construction*

The poles may be constructed asymmetrically (e.g. there may be a difference between left- and right-hand poles).

### **4.3 Technical Specifications**

#### *4.3.1 Grip*

The grip must be attached to the shaft. There are no limitations with regard to geometric features or material.

#### *4.3.2 Straps*

The straps must be joined to the grip or the shaft. They may be adjustable in length and width.

**4.3.3**     *Shaft*

There are no limitations with regard to material and make of the shaft or distribution of mass.

**4.3.4**     *Baskets*

Baskets with varying geometric features and materials are permitted to master various snow conditions. The baskets, however, must not change the condition of the track, so that other competitors suffer disadvantages.

**4.3.5**     *Tip*

Tips may be joined to the shaft at any angle. It is permitted to use one or more tips per pole. There are no limitations with regard to material.

**D.     Nordic Competition Equipment**

**Ski-Jumping**

**1.     Jumping skis**

**1.1    Definition**

Jumping Skis are manufactured especially for use on ski-jumping hills. Their construction is adapted to the requirements of ski-jumping.

**1.2    Restrictions**

**1.2.1   *Geometric features***

**1.2.1.1   *Ski length***

According to the body weight/height relationship (body weight / body height<sup>2</sup> in Kg/m<sup>2</sup> - see the measurement table in the enclosure).

However, the maximum ski length is 146 % of the total body height of the competitor.

Exception:

For Youth competitions, the maximum ski length is limited to 143 % from the body height only (no BMI formula will be applied)!

**1.2.1.2   *Profile width (see enclosure)***

The curvature from A through B to C indicates the shape of the ski side cut. This curvature must be equal on both sides and symmetrical to the ski centre line. As a maximum the line connection from A to B, as well as B to C should appear as a straight line.

Minimum width of the running surface at the point of balances 95 mm, maximum width 105 mm.

The edges must form a 90° angle to the running surface and the top surface along the entire length of the ski.

Rounded top-to-bottom edges must never be more than 2 mm.

The difference between the above-mentioned measurement of the width of the ski tip and the ski tail may not exceed 5 mm.

**1.2.1.3** *Contour, length and height of shovel*

The ski tip may be individually modified as long as it remains symmetric and centred to the middle part and that the minimum distance to the ground of 30 mm is observed.

**1.2.1.4** *Contour of tail*

Maximum height 10 mm

**1.2.1.5** *Running surface*

Running surface must be flat and may have a fine base structure in a longitudinal direction. With the exception of the grooves, the entire ski base cannot have any additional shapes. There can be one or more grooves; however the total of the measured surface area of all the grooves may not exceed 50% of the minimal width of the ski. The width of a single groove may not exceed 10 mm. The base must be of a polyethylene material.

**1.2.2** *Shape and Flexibility*

Aerodynamic coverings on the tips, as well as fins in the form of stabilizers on all sides are not allowed. A design, which makes a desired aerodynamic flex possible during flight, is not allowed. Otherwise there are no limitations with regard to rigidity in all grades of flex. The top surface of the ski must be smooth and flat.

**1.2.3** *Mass*

A single non-mounted ski must have a minimum weight conforming to its length (the weight in dkg results of the ski length in cm: e.g. 250 cm = 2,50 Kg, 262 cm = 2,62 Kg). Lead-weights used for balancing the centre of gravity are not considered (see 1.2.6.2).

**1.2.4** *Construction*

**1.2.4.1** *Ski components*

Torsion box: No limitations with regard to material and dimensions.  
Edges: see 1.2.1.2.

**1.2.5** *Durability*

The jumping ski must have screw retention strength of 1600 N in the area of the binding mounting.

**1.2.6** *Additional equipment*

**1.2.6.1** *No additional equipment is permitted which*

- a) makes use of foreign energy (e.g. heaters, chemical energy accumulators, electric batteries, mechanical aids, etc.).
- b) causes or intends to cause changes in the outer conditions of the competition to the disadvantage of fellow competitors (e.g. changes to piste or snow).
- c) increases the risk of injury to users or other persons, when used for the purpose it was intended for.

**1.2.6.2 Additional weights**

Additional weights for balancing the center of gravity are permitted.

**2. Jumping ski bindings**

Additional devices creating foreign energy of any kind as an aid to take-off are forbidden.

The complete binding system must be mounted so, that the ski-jumping shoes are fixed to the skis symmetrically, parallel and centrally to the running direction. The outline of the heel wedge of the shoe sole in its normal production form may not protrude over the side-walls of the Jumping ski.

**2.1 Binding wedges**

Binding wedges are permitted to improve the in run position. The entire height of the boot sole and binding wedge must not exceed 70 mm.

**2.3 Mounting of the bindings**

The binding must be mounted in such a way that maximum 57% of the entire ski length is used as the front part. Measured from the ski tip (with shovel curvature) to the shoe cap (leather part). (The 57% will be rounded up or down to full centimeters).

**3. Ski-Jumping boots**

The shoe size and form must equal the foot size and form. Reshaping the boots in order to attain more aerodynamic features is not allowed. The boot sole may not exceed 45 mm.

**4. Ski-Jumping suits**

All portions of the ski jumping suit must be made of the same material (see 4.2) and must show the same air permeability from the outside in and from the inside out.

The suit must close by means of a zipper placed at the centre of the front, which reaches to the collar. The width of this zipper may not exceed 10 mm. During the jump the zipper must be completely closed.

The suit must conform to the body shape in an upright position with a maximum tolerance of 6 cm to the body size at any part of the suit.

Exceptions are the anterior sleeve length where the maximum tolerance is 8 cm and the anterior crotch length where no tolerance is permitted..

**Additional restrictions**

- Marking of the suit (for measuring and control) is allowed.
- The thickness of all parts of the suit must be the same.
- No additional chemical (gaseous, liquid or solid) or mechanical treatment of the material or suits is allowed.
- The collar of the Jumping suit may have a tolerance and not exceed 8 cm in regarding the measurement of the throat. The collar of the suit must be ended by a non elastic seam band. The collar of the suit must be placed no higher than the joint of the collar bones (see the illustration - mark X). The height difference between the front and the back of the collar may not exceed 5 cm (see the illustration - mark X1 and X2).

- Outer tucks and darts, folds and padding are not allowed.
- Only one fixed (non-adjustable) strap per leg is allowed for fixing the suit around the ski boot. The strap is of one continuous piece and without clips, buckles or other means of fastening multiple pieces of material. The fixation of either strap must be made at the hem of the suit (see the illustration - mark S).
- Length of the sleeve maximally to the wrist joint. The lower hem of the sleeve is cut evenly and has no integrated hole for fingers.
- All hems must be sown by a singular piece and the entire piece must have the same physical material characteristics.
- Standardized measuring control points:
  - Anterior arm length (see the illustration - mark AL) is measured from the intersection of the seams at the armpit, following the seam to the end of the sleeve. Measured length must be no greater than the length of the arm and no shorter than a maximum tolerance of 8 cm.
  - Anterior crotch length (see the illustration - mark SL) is measured from the intersection of the seams at the crotch of the suit (see the illustration - mark SX) following the anterior seam to the hem of the leg part of the suit.  
Measured length of the suit must be no shorter than the measured length of the controlled crotch height.
- Number of parts of the material of which the suit consists is:
  - 2 for each sleeve including shoulder: front part of the sleeve (see the illustration - mark 3) and back part of the sleeve (see the illustration - mark 5). Each sleeve starts from the neck opening and extends over the shoulder to maximally the wrist joint. Starting from the armpit down the size of the panels must be equal front and back. The alignment of the posterior seam must be centered along the length of the sleeve and parallel to the torso seam. In addition, when the arm is extended from the torso, the anterior seam of the sleeve must be aligned with the torso seam.
  - 5 for the torso (upper body above the waist seam): left and right front panels (see the illustration - mark 1), left and right side panels (see the illustration - mark 7). Each side panel must be a minimum of 10 cm in width and no greater than 15 cm in width.
  - 2 for each leg (under the waist seam): the front leg panels (see the illustration - mark 2) and the back leg panels (see the illustration - mark 6). Starting from the crotch down, the size of the panels must be equal front and back. The alignment of the posterior and anterior seams is centered along the length of the leg. The front and back crotch seams must connect with the anterior leg seams at the lowest point of the crotch (see the illustration - mark SX).
- Zipper, elastics and strings for the attachments do not count as a separate part of the suit.
- The waist seam must be placed in relationship to the body within 10 cm above the hip bone (narrow part of the waist). The seam must go around the torso horizontally.
- The seam connecting the upper front and side panel must align vertically with the seam of the leg panels from the armpit to the posterior ankle bone, when the athlete is wearing it in an upright position.

- The bottom hem of the leg panels may be altered to accommodate the fixing of the binding at the heel of the boot.
- Seams may only exist in order to join the portions of the suit. Seams must be inside the suit. It is not allowed to edge-stitch (sew) the ends of the material; it is not allowed to join (sew) the maximum seam of 12 mm (material behind the seam to the edge). All seams must be straight or formed differently only to fit the form of the body. Any additional seams or transformation of the seams, any strings, rods, folds, tapes, etc., inside or outside the suit in order to attain greater volume or more aerodynamic features is not allowed (the same for the underwear).
- The enclosed suit illustrations are the determining bases for these written rules. Exception for Youth competitions: no limit for number of parts and cutting of the suits.

#### **4.1 Material, Fabric**

The structure of the surface of the material and the composition of the material for all parts of the suit must be the same. The only exceptions are different colours of the same material.

The thickness of the suit may not exceed 5.0 mm, nor be less than 4.0 mm.

Construction of the ski-jumping suit is a five-layer laminated fabric and consists of:

- outer fabric/ first layer
- foam
- elastic membrane
- foam
- lining fabric

The components are laminated together by either a hot-melt process or flame laminated, where 4 acts are necessary to laminate the fabric.

The controlled air permeability of 40 l/m<sup>2</sup>/sec. (FIS Rules) is reached by perforation and guarantees a constant value.

##### *Outer fabric / first layer*

The outer fabric for the ski jumper laminate is a bi-elastic warp-knit fabric, called Charmeuse (pattern notation). This material is produced on a 2-thread system warp knitting machine.

Material:            81 % Polyamid gloss dtex 44f12  
                          19 % Elasthane (Lycra) dtex 44f1

Weight:             180/190 g/m<sup>2</sup> approx.

Elasticity:         Length 150-160%  
                          Width approx. 85-95%

##### Finishing:

The quality is dyed in a classical piece dyeing method (acid dyestuff). Beside the dyestuff and eventual dyeing assistant there is no use of other chemical stuff allowed, which would change the characteristics of the surface.

Material has two different sides:

- a) Lengthwise stripe "rip fabric (even side)"
- b) Transverse thread connection, called satin-side

The satin side is the visible outside of the jumping suit. The satin side must be chinized. There are no other additional treatments like chemical or mechanic surface changes allowed (for example by aluminum steam, foil application, shaping or others).

### **Lining fabric**

Lining fabric is identical with the outer fabric (material and weight) but only white.

### **Inside fabric / foam and elastic membrane**

The inner life of the material is a three-layer laminate built up of a two 2,1 mm foam layers (volumetric weight ca. 55g) and with an elastic membrane in the middle. This laminate is perforated to reach the defined air permeability.

## **4.2 Air permeability of the suit material**

The material of a jumping suit must show a minimum air permeability which is the same from the outside in and from the inside out. Minimum air permeability is established as follows:

The unstretched fabric must show a medium air permeability of a minimum of 40 litres per m<sup>2</sup>/sec with 10 mm water pressure.

This value is compulsory at the time of distribution by the manufacturer that means at the moment of plumbing. At controls in competitions it must not be less than 40 litres.

Although usage may result in some stretching of the material, the back portion of the suit must show air permeability as high or higher than the other parts of the suits.

## **4.3 Underwear**

- The thickness of the underwear must not exceed 3,0 mm (cumulative - all layers and parts of the underwear together).
- Air permeability of the underwear must exceed 60 l/m<sup>2</sup>.
- The size, fit and form of underwear must conform the size and shape of the body. Up to a maximum over size tolerance of 10 cm at any measurable body part is permitted.
- No form of a hood is allowed.

## **4.4 Examination of materials, suits**

The guidelines for minimum air permeability established by the FIS Control Procedures/Equipment Working Group in collaboration with the Federal Institute for Materials Control are valid.

Multi-layered materials are accordingly permitted for ski-jumping suits, as long as they conform to the technical specifications and air permeability requirements and all portions of the suit are made from the same material.

## **5. Crash helmets**

Only helmets are permitted whose shell or padding covers the head and ears. The National Ski Associations are advised to provide their teams with only crash helmets, which satisfy the minimum requirements and

have been certified by recognized institutes. The shape of the helmet must conform to the shape of the head on all parts of the helmet. The diametrical size of the top surface of the helmet is not allowed to exceed the diameter of the head more than 7 cm.

All helmets must show a smooth top surface for safety reasons.

Visor or integrated, detachable face shields are not allowed.

## **6. Ski goggles**

Ski goggles are devices protecting the eyes against weather and rays with optically correct lenses. Their aim is to guarantee good, contrast-free visibility in all weather conditions. The use of goggles is recommended. Reshaping the ski goggles in order to attain more aerodynamic features is not allowed.

## **7. Ski gloves**

Gloves offer protective covering against weather and external forces. The use of gloves is urgently recommended.

The glove size must correspond to the hand size. Thickness of the material is maximally 5mm.

Only gloves with fingers (for all fingers) are allowed. The gloves may not be fin-shaped.

## **E. Starting Bibs**

Alpine: Downhill / Slalom / Giant Slalom / Super G

Nordic: Cross-Country / Ski Jumping

Examples: See Enclosure 1

### **1. FIS Specifications for Alpine starting bibs**

#### **1.1 Advertising**

According to "FIS Advertising Rules"

#### **1.2 Numbers**

According to "FIS Advertising Rules"

#### **1.3 Assignment**

Starting bibs must be assigned as follows:

Ladies sizes: with elastic band

Men's sizes: with elastic band

#### **1.4 Fabric, Material**

T-shirt starting bibs, 100% Polyester / Interlock

#### **1.5 Elasticity (stretch)**

Measured on a piece of material 10 cm wide:

Stretch ability in the width 24 cm.

#### **1.6 Seams, Sewing**

Side seams: Material is sewn together, hemmed and stitched - overlook.

Neckline and armholes are trimmed with edging and double-stitched.

Waistband with 2 cm wide seam, double-stitched with an elastic band pulled through.  
(See enclosure 1)

## **2. FIS Specifications for Cross-Country starting bibs**

### **2.1 Advertising**

According to "FIS Advertising Rules"

### **2.2 Numbers**

According to "FIS Advertising Rules"

### **2.3 Assignment**

Starting bibs must be assigned as follows and must be cut in such a way that the skier's shoulders are allowed free movement:

Ladies size: without elastic band

Men's size: without elastic band.

### **2.4 Fabric, material**

T-shirt starting bibs in smooth material quality 100% Polyester / Interlock or 100 % polyester knitwear (meshed or non-meshed).

### **2.5 Elasticity (stretch)**

Meshed starting bibs: measured on a piece of fabric 10 cm wide:

Stretch ability in the width 18,5 cm

None meshed starting bibs: measured on a piece of fabric 10 cm wide:

Stretch ability in the width: 24 cm

(See enclosure 1)

## **3. FIS Specifications for Ski-Jumping starting bibs**

### **3.1 Advertising**

According to "FIS Advertising Rules"

### **3.2 Numbers**

According to "FIS Advertising Rules"

### **3.3 Assignment**

Starting bibs are assigned to the men in men's sizes.

### **3.4 Fabric, material**

T-Shirt starting bibs 100 % Polyester with an air permeability of 40 litres per m<sup>2</sup>/sec under 10 mm of water pressure.

### **3.5 Elasticity (stretch)**

Measured on a piece of fabric 10 cm wide:

Stretch ability in the width 24 cm.

### **3.6. Seams, sewing**

Side seams: material is sewn together, hemmed and stitched - overlook.

Neckline and armholes are trimmed with edging and double-stitched.

Waistband with 2 cm wide seam, double-stitched (see enclosure 1).

## **Procedures for the Acceptance of Innovations in Competition Equipment**

### **Article 222.4 of the ICR reads as follows:**

New developments must be submitted by May 1<sup>st</sup>, at the latest, for the following season. The first year new developments can only be approved provisionally for the following season and must be finally confirmed prior to the subsequent competition season.

#### **1. Eligible applicants**

- a) Manufactures or distributors of the innovation
- b) National associations
- c) Members of the Committee for Competition Equipment

#### **2. Items for application**

Any fundamental innovation or further development, which is to be used as equipment in competition skiing, may be submitted for acceptance. It is solely the responsibility of the Committee for Competition Equipment to decide whether an innovation or further development conforms to the FIS „Competition Equipment Specifications“. The Committee can at any time, however, arrange the execution of an application with regard to items of equipment to be used in competition sport, in accordance with the decisions of these guidelines.

#### **3. Prototype, samples**

The application must be dealt with in such a way that the innovation is described in detail. A prototype or sample must be included with the application. Relevant reports by scientific experts, as well as reports of experiences made by trainers or participants are to be submitted.

#### **4. Decisions of the Committee for Competition Equipment**

The Committee for Competition Equipment deals with these applications at its next meeting. If the Committee is of the opinion that the item being presented conforms fully to the valid Specifications for Competition Equipment, this decision will be set down in a relevant solution.

If the Committee reaches the conclusion that the innovation could be accepted in accordance with the relevant principles and decisions of the FIS Specifications for Competition Equipment in competition sports, the innovation can be provisionally approved for testing for the duration of the following season.

This approval can, however, also be conditionally accepted. On the grounds of fairness, exceptions can be made for certain competitions (Olympic Winter Games, World Championships, etc.).

However, the Committee for Competition Equipment can also take the following measures before provisional approval. These can be dealt with individually or together:

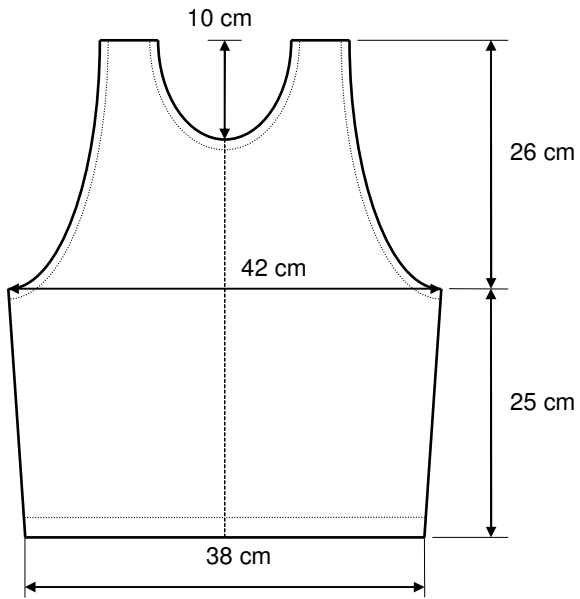
- a) requesting applicants for further information, such as reports by experts and technical data
- b) seeking reactions of the FIS Technical Committees. These opinions must be submitted in writing and take the following factors into consideration:
  - 1. explanation with regard to the usefulness and necessity of the innovation
  - 2. opinions with regard to the safety of the innovation
  - 3. assurance that in accepting the innovation, the principle of fairness will be guaranteed
- c) seeking reports by experts and other information through the Committee for Competition Equipment itself.

Should the innovation not conform to the principles of the FIS Specifications for Competition Equipment, either through the application itself, or in the course of the procedures, the use of the innovation in question will be forbidden for competition sport. This will also occur if, during the item's probation period, circumstances result which lead the Committee to decide that the innovation does not conform to the principles of the FIS Specifications for Competition Equipment. In such a case, the provisional approval will be rescinded, effective immediately.

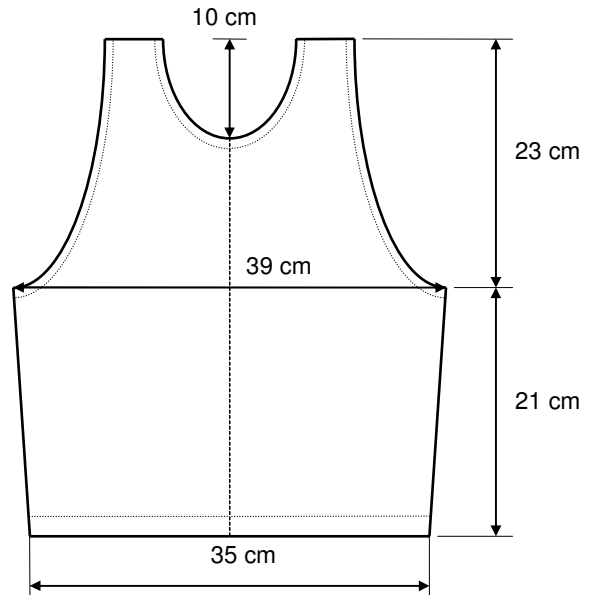
## **5. FIS Council**

Changes in the Specifications for Competition Equipment can be proposed to the FIS Council only through the Committee for Competition Equipment - either by means of an initiative from the Committee itself or through an application of one of the National Ski Associations or Technical Committees to the Committee for Competition Equipment.

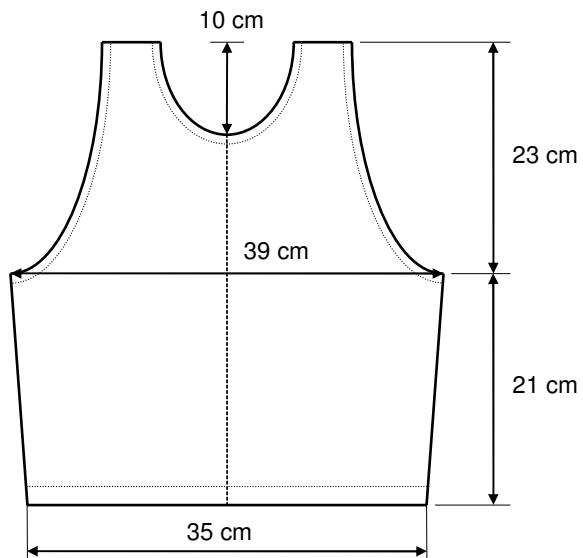
Ski Jumping - Men:  
without elastic band



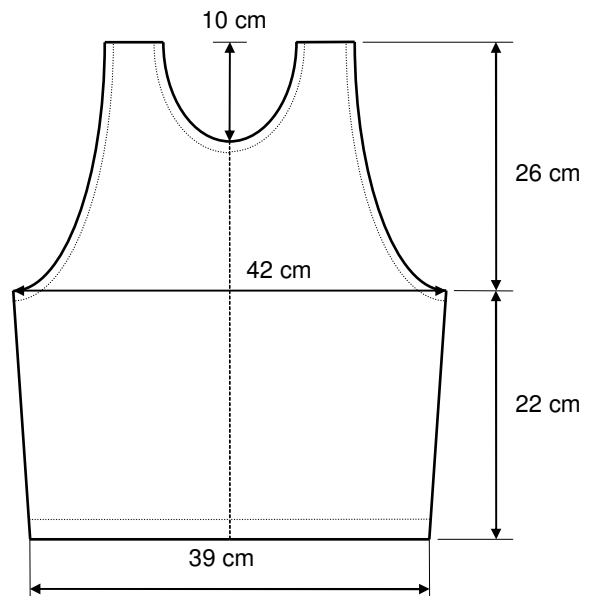
Ski Jumping - Ladies:  
Without elastic band



Alpine, women: with elastic

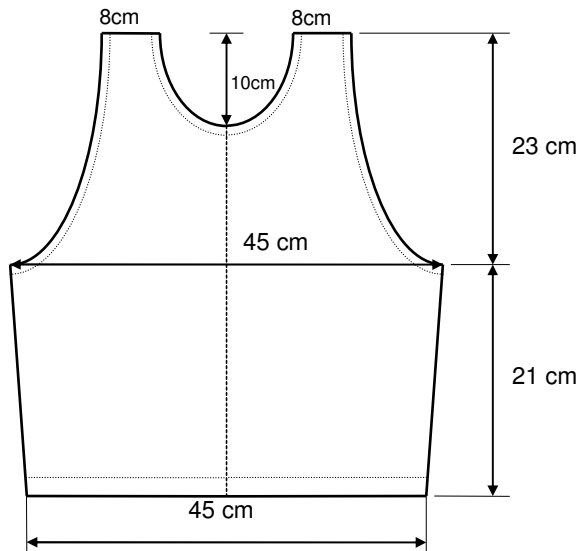


Alpine, men: with elastic

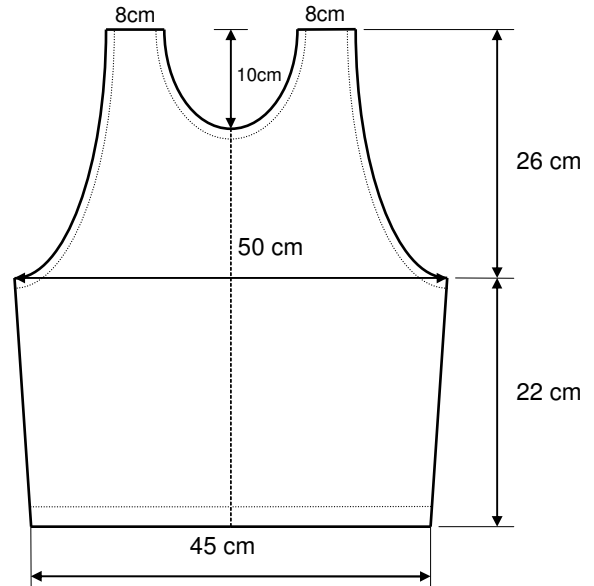


## Freestyle Bibs

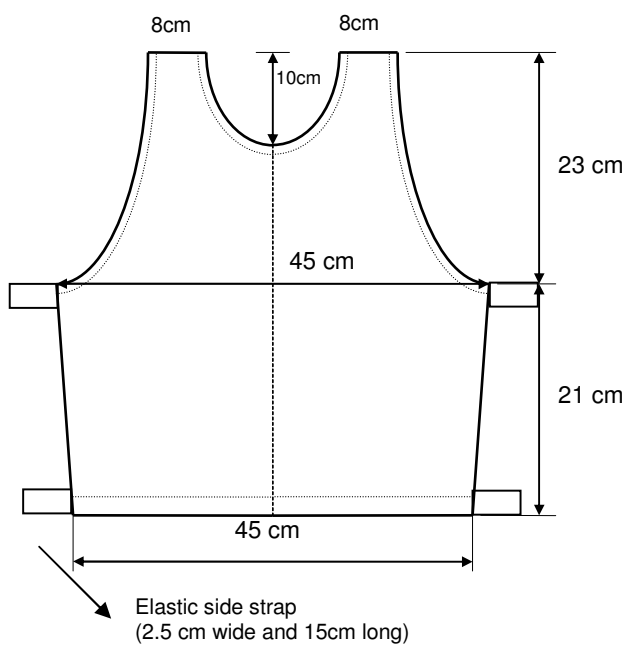
Aerials – Ladies  
with elastic band



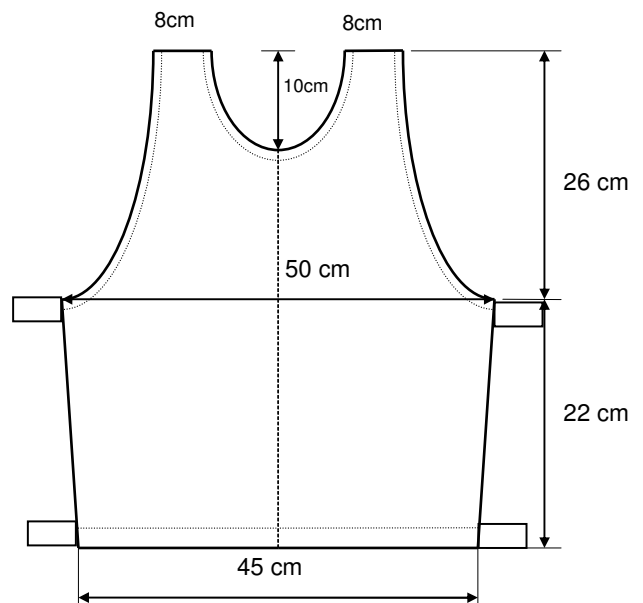
Aerials – Men  
with elastic band



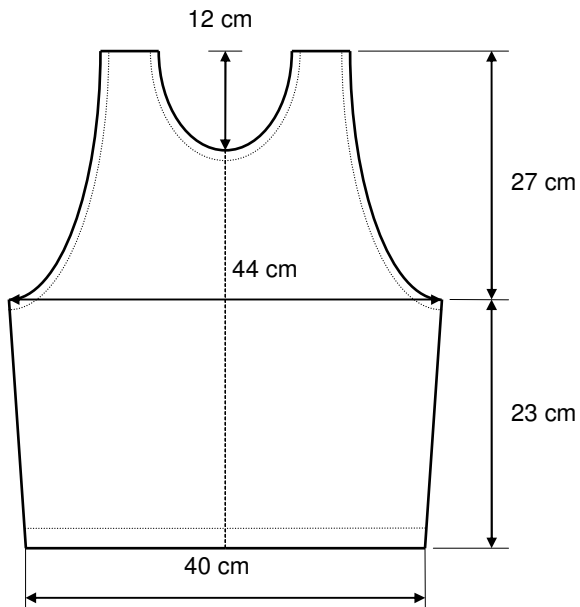
Moguls, Halfpipe, Ski Cross – Ladies  
open sides and 4 elastic straps



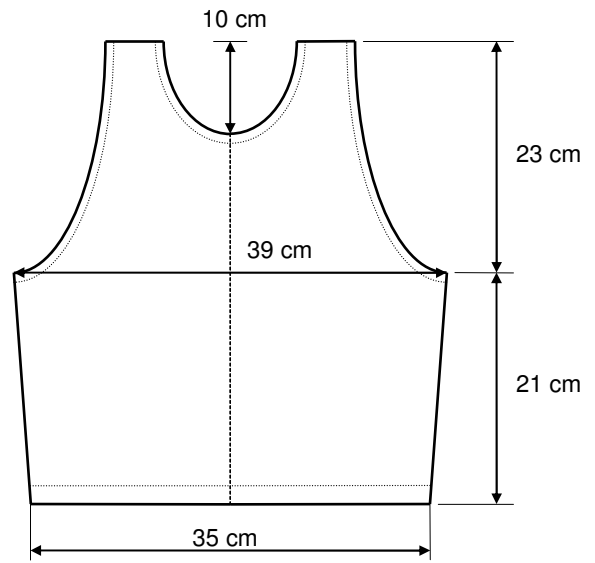
Moguls, HalfPipe, Ski Cross – Men  
open sides and 4 elastic straps



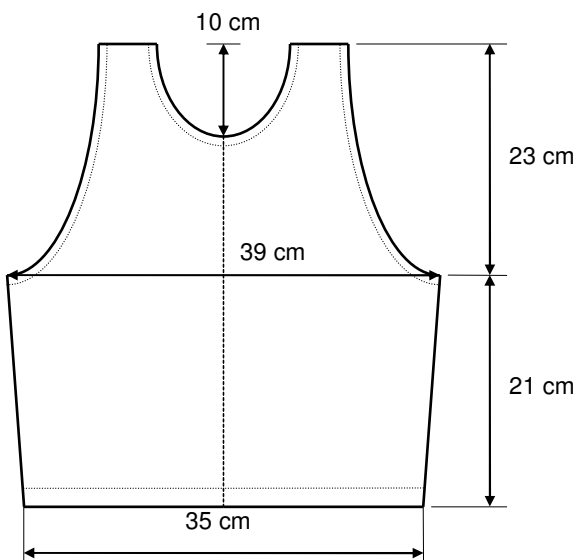
Cross-Country, men:  
Meshed without elastic



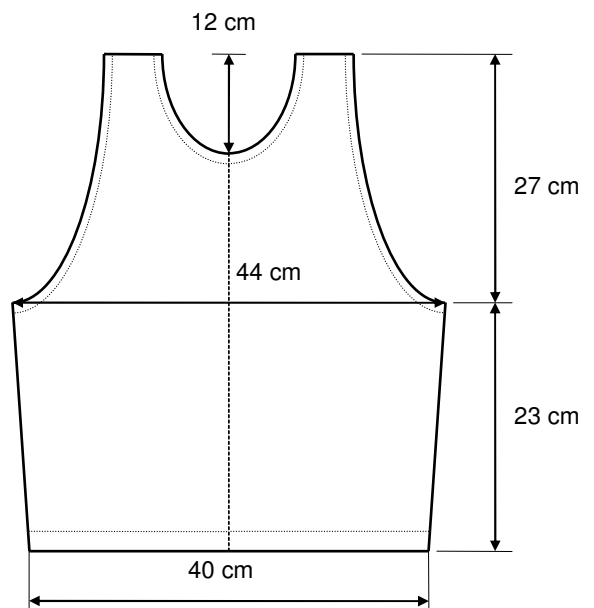
Cross-Country women:  
Meshed without elastic



Cross-Country,  
Women: without elastic



Cross-Country,  
Men: without elastic



| Measurement table for ski length and weight - Season 2006/07 |                            |            |                               |            |                            |            |                            |            |                            |            |                            |            |
|--|----------------------------|------------|-------------------------------|------------|----------------------------|------------|----------------------------|------------|----------------------------|------------|----------------------------|------------|
|  | A                          |            | B                             |            | C                          |            | D                          |            | E                          |            | F                          |            |
| Körpergröße  | Gewicht mit Anzug und      | Skilänge   | Gewicht mit Anzug und Schuhen | Skilänge   | Gewicht mit Anzug und      | Skilänge   | Gewicht mit Anzug und      | Skilänge   | Gewicht mit Anzug und      | Skilänge   | Gewicht mit Anzug und      | Skilänge   |
| Body Height  | Weight with suit and boots | Ski length | Weight with suit and boots    | Ski length | Weight with suit and boots | Ski length | Weight with suit and boots | Ski length | Weight with suit and boots | Ski length | Weight with suit and boots | Ski length |
| BMI / %  | 20.000                     | 146.0      | 19.875                        | 145.5      | 19.750                     | 145.0      | 19.625                     | 144.5      | 19.500                     | 144.0      | 19.375                     | 143.5      |
| cm   | kg                         | cm         | kg                            | cm         | kg                         | cm         | kg                         | cm         | kg                         | cm         | kg                         | cm         |
| 140  | 39.2                       | 204        | 39.0                          | 204        | 38.7                       | 203        | 38.5                       | 202        | 38.2                       | 202        | 38.0                       | 201        |
| 141  | 39.8                       | 206        | 39.5                          | 205        | 39.3                       | 204        | 39.0                       | 204        | 38.8                       | 203        | 38.5                       | 202        |
| 142  | 40.3                       | 207        | 40.1                          | 207        | 39.8                       | 206        | 39.6                       | 205        | 39.3                       | 204        | 39.1                       | 204        |
| 143  | 40.9                       | 209        | 40.6                          | 208        | 40.4                       | 207        | 40.1                       | 207        | 39.9                       | 206        | 39.6                       | 205        |
| 144  | 41.5                       | 210        | 41.2                          | 210        | 41.0                       | 209        | 40.7                       | 208        | 40.4                       | 207        | 40.2                       | 207        |
| 145  | 42.1                       | 212        | 41.8                          | 211        | 41.5                       | 210        | 41.3                       | 210        | 41.0                       | 209        | 40.7                       | 208        |
| 146  | 42.6                       | 213        | 42.4                          | 212        | 42.1                       | 212        | 41.8                       | 211        | 41.6                       | 210        | 41.3                       | 210        |
| 147  | 43.2                       | 215        | 42.9                          | 214        | 42.7                       | 213        | 42.4                       | 212        | 42.1                       | 212        | 41.9                       | 211        |
| 148  | 43.8                       | 216        | 43.5                          | 215        | 43.3                       | 215        | 43.0                       | 214        | 42.7                       | 213        | 42.4                       | 212        |
| 149  | 44.4                       | 218        | 44.1                          | 217        | 43.8                       | 216        | 43.6                       | 215        | 43.3                       | 215        | 43.0                       | 214        |
| 150  | 45.0                       | 219        | 44.7                          | 218        | 44.4                       | 218        | 44.2                       | 217        | 43.9                       | 216        | 43.6                       | 215        |
| 151  | 45.6                       | 220        | 45.3                          | 220        | 45.0                       | 219        | 44.7                       | 218        | 44.5                       | 217        | 44.2                       | 217        |
| 152  | 46.2                       | 222        | 45.9                          | 221        | 45.6                       | 220        | 45.3                       | 220        | 45.1                       | 219        | 44.8                       | 218        |
| 153  | 46.8                       | 223        | 46.5                          | 223        | 46.2                       | 222        | 45.9                       | 221        | 45.6                       | 220        | 45.4                       | 220        |
| 154  | 47.4                       | 225        | 47.1                          | 224        | 46.8                       | 223        | 46.5                       | 223        | 46.2                       | 222        | 45.9                       | 221        |
| 155  | 48.1                       | 226        | 47.7                          | 226        | 47.4                       | 225        | 47.1                       | 224        | 46.8                       | 223        | 46.5                       | 222        |
| 156  | 48.7                       | 228        | 48.4                          | 227        | 48.1                       | 226        | 47.8                       | 225        | 47.5                       | 225        | 47.2                       | 224        |
| 157  | 49.3                       | 229        | 49.0                          | 228        | 48.7                       | 228        | 48.4                       | 227        | 48.1                       | 226        | 47.8                       | 225        |
| 158  | 49.9                       | 231        | 49.6                          | 230        | 49.3                       | 229        | 49.0                       | 228        | 48.7                       | 228        | 48.4                       | 227        |
| 159  | 50.6                       | 232        | 50.2                          | 231        | 49.9                       | 231        | 49.6                       | 230        | 49.3                       | 229        | 49.0                       | 228        |
| 160  | 51.2                       | 234        | 50.9                          | 233        | 50.6                       | 232        | 50.2                       | 231        | 49.9                       | 230        | 49.6                       | 230        |
| 161  | 51.8                       | 235        | 51.5                          | 234        | 51.2                       | 233        | 50.9                       | 233        | 50.5                       | 232        | 50.2                       | 231        |
| 162  | 52.5                       | 237        | 52.2                          | 236        | 51.8                       | 235        | 51.5                       | 234        | 51.2                       | 233        | 50.8                       | 232        |
| 163  | 53.1                       | 238        | 52.8                          | 237        | 52.5                       | 236        | 52.1                       | 236        | 51.8                       | 235        | 51.5                       | 234        |
| 164  | 53.8                       | 239        | 53.5                          | 239        | 53.1                       | 238        | 52.8                       | 237        | 52.4                       | 236        | 52.1                       | 235        |
| 165  | 54.5                       | 241        | 54.1                          | 240        | 53.8                       | 239        | 53.4                       | 238        | 53.1                       | 238        | 52.7                       | 237        |
| 166  | 55.1                       | 242        | 54.8                          | 242        | 54.4                       | 241        | 54.1                       | 240        | 53.7                       | 239        | 53.4                       | 238        |
| 167  | 55.8                       | 244        | 55.4                          | 243        | 55.1                       | 242        | 54.7                       | 241        | 54.4                       | 240        | 54.0                       | 240        |
| 168  | 56.4                       | 245        | 56.1                          | 244        | 55.7                       | 244        | 55.4                       | 243        | 55.0                       | 242        | 54.7                       | 241        |
| 169  | 57.1                       | 247        | 56.8                          | 246        | 56.4                       | 245        | 56.1                       | 244        | 55.7                       | 243        | 55.3                       | 243        |
| 170  | 57.8                       | 248        | 57.4                          | 247        | 57.1                       | 247        | 56.7                       | 246        | 56.4                       | 245        | 56.0                       | 244        |
| 171  | 58.5                       | 250        | 58.1                          | 249        | 57.8                       | 248        | 57.4                       | 247        | 57.0                       | 246        | 56.7                       | 245        |
| 172  | 59.2                       | 251        | 58.8                          | 250        | 58.4                       | 249        | 58.1                       | 249        | 57.7                       | 248        | 57.3                       | 247        |
| 173  | 59.9                       | 253        | 59.5                          | 252        | 59.1                       | 251        | 58.7                       | 250        | 58.4                       | 249        | 58.0                       | 248        |
| 174  | 60.6                       | 254        | 60.2                          | 253        | 59.8                       | 252        | 59.4                       | 251        | 59.0                       | 251        | 58.7                       | 250        |
| 175  | 61.3                       | 256        | 60.9                          | 255        | 60.5                       | 254        | 60.1                       | 253        | 59.7                       | 252        | 59.3                       | 251        |
| 176  | 62.0                       | 257        | 61.6                          | 256        | 61.2                       | 255        | 60.8                       | 254        | 60.4                       | 253        | 60.0                       | 253        |
| 177  | 62.7                       | 258        | 62.3                          | 258        | 61.9                       | 257        | 61.5                       | 256        | 61.1                       | 255        | 60.7                       | 254        |
| 178  | 63.4                       | 260        | 63.0                          | 259        | 62.6                       | 258        | 62.2                       | 257        | 61.8                       | 256        | 61.4                       | 255        |
| 179  | 64.1                       | 261        | 63.7                          | 260        | 63.3                       | 260        | 62.9                       | 259        | 62.5                       | 258        | 62.1                       | 257        |
| 180  | 64.8                       | 263        | 64.4                          | 262        | 64.0                       | 261        | 63.6                       | 260        | 63.2                       | 259        | 62.8                       | 258        |
| 181  | 65.5                       | 264        | 65.1                          | 263        | 64.7                       | 262        | 64.3                       | 262        | 63.9                       | 261        | 63.5                       | 260        |
| 182  | 66.2                       | 266        | 65.8                          | 265        | 65.4                       | 264        | 65.0                       | 263        | 64.6                       | 262        | 64.2                       | 261        |
| 183  | 67.0                       | 267        | 66.6                          | 266        | 66.1                       | 265        | 65.7                       | 264        | 65.3                       | 264        | 64.9                       | 263        |
| 184  | 67.7                       | 269        | 67.3                          | 268        | 66.9                       | 267        | 66.4                       | 266        | 66.0                       | 265        | 65.6                       | 264        |
| 185  | 68.5                       | 270        | 68.0                          | 269        | 67.6                       | 268        | 67.2                       | 267        | 66.7                       | 266        | 66.3                       | 265        |
| 186  | 69.2                       | 272        | 68.8                          | 271        | 68.3                       | 270        | 67.9                       | 269        | 67.5                       | 268        | 67.0                       | 267        |
| 187  | 69.9                       | 273        | 69.5                          | 272        | 69.1                       | 271        | 68.6                       | 270        | 68.2                       | 269        | 67.8                       | 268        |
| 188  | 70.7                       | 274        | 70.2                          | 274        | 69.8                       | 273        | 69.4                       | 272        | 68.9                       | 271        | 68.5                       | 270        |
| 189  | 71.4                       | 276        | 71.0                          | 275        | 70.5                       | 274        | 70.1                       | 273        | 69.7                       | 272        | 69.2                       | 271        |
| 190  | 72.2                       | 277        | 71.7                          | 276        | 71.3                       | 276        | 70.8                       | 275        | 70.4                       | 274        | 69.9                       | 273        |
| 191  | 73.0                       | 279        | 72.5                          | 278        | 72.0                       | 277        | 71.6                       | 276        | 71.1                       | 275        | 70.7                       | 274        |
| 192  | 73.7                       | 280        | 73.3                          | 279        | 72.8                       | 278        | 72.3                       | 277        | 71.9                       | 276        | 71.4                       | 276        |
| 193  | 74.5                       | 282        | 74.0                          | 281        | 73.6                       | 280        | 73.1                       | 279        | 72.6                       | 278        | 72.2                       | 277        |
| 194  | 75.3                       | 283        | 74.8                          | 282        | 74.3                       | 281        | 73.9                       | 280        | 73.4                       | 279        | 72.9                       | 278        |
| 195  | 76.1                       | 285        | 75.6                          | 284        | 75.1                       | 283        | 74.6                       | 282        | 74.1                       | 281        | 73.7                       | 280        |
| 196  | 76.8                       | 286        | 76.4                          | 285        | 75.9                       | 284        | 75.4                       | 283        | 74.9                       | 282        | 74.4                       | 281        |
| 197  | 77.6                       | 288        | 77.1                          | 287        | 76.6                       | 286        | 76.2                       | 285        | 75.7                       | 284        | 75.2                       | 283        |
| 198  | 78.4                       | 289        | 77.9                          | 288        | 77.4                       | 287        | 76.9                       | 286        | 76.4                       | 285        | 76.0                       | 284        |
| 199  | 79.2                       | 291        | 78.7                          | 290        | 78.2                       | 289        | 77.7                       | 288        | 77.2                       | 287        | 76.7                       | 286        |
| 200  | 80.0                       | 292        | 79.5                          | 291        | 79.0                       | 290        | 78.5                       | 289        | 78.0                       | 288        | 77.5                       | 287        |

| Körper-<br>grösse | G                                      |            | H                                      |            | I   |            | J                                      |            | K                                      |            | L   |            |
|-------------------|--|------------|--|------------|---|------------|--|------------|--|------------|---|------------|
|                   | Gewicht<br>mit<br>Anzug<br>und         | Skilänge   | Gewicht<br>mit<br>Anzug<br>und         | Skilänge   | Gewicht<br>mit<br>Anzug<br>und<br>Schuhen | Skilänge   | Gewicht<br>mit<br>Anzug<br>und         | Skilänge   | Gewicht<br>mit<br>Anzug<br>und         | Skilänge   | Gewicht<br>mit<br>Anzug<br>und<br>Schuhen | Skilänge   |
| Body<br>Height    | Weight<br>with<br>suit<br>and<br>boots | Ski length | Weight<br>with<br>suit<br>and<br>boots | Ski length | Weight<br>with<br>suit<br>and<br>boots    | Ski length | Weight<br>with<br>suit<br>and<br>boots | Ski length | Weight<br>with<br>suit<br>and<br>boots | Ski length | Weight<br>with<br>suit<br>and<br>boots    | Ski length |
| BMI / %           | 19.250                                 | 143.0      | 19.125                                 | 142.5      | 19.000                                    | 142.0      | 18.875                                 | 141.5      | 18.750                                 | 141.0      | 18.625                                    | 140.5      |
| cm                | kg                                     | cm         | kg                                     | cm         | kg  | cm         | kg                                     | cm         | kg                                     | cm         | kg  | cm         |
| 140               | 37.7                                   | 200        | 37.5                                   | 200        | 37.2                                      | 199        | 37.0                                   | 198        | 36.8                                   | 197        | 36.5                                      | 197        |
| 141               | 38.3                                   | 202        | 38.0                                   | 201        | 37.8                                      | 200        | 37.5                                   | 200        | 37.3                                   | 199        | 37.0                                      | 198        |
| 142               | 38.8                                   | 203        | 38.6                                   | 202        | 38.3                                      | 202        | 38.1                                   | 201        | 37.8                                   | 200        | 37.6                                      | 200        |
| 143               | 39.4                                   | 204        | 39.1                                   | 204        | 38.9                                      | 203        | 38.6                                   | 202        | 38.3                                   | 202        | 38.1                                      | 201        |
| 144               | 39.9                                   | 206        | 39.7                                   | 205        | 39.4                                      | 204        | 39.1                                   | 204        | 38.9                                   | 203        | 38.6                                      | 202        |
| 145               | 40.5                                   | 207        | 40.2                                   | 207        | 39.9                                      | 206        | 39.7                                   | 205        | 39.4                                   | 204        | 39.2                                      | 204        |
| 146               | 41.0                                   | 209        | 40.8                                   | 208        | 40.5                                      | 207        | 40.2                                   | 207        | 40.0                                   | 206        | 39.7                                      | 205        |
| 147               | 41.6                                   | 210        | 41.3                                   | 209        | 41.1                                      | 209        | 40.8                                   | 208        | 40.5                                   | 207        | 40.2                                      | 207        |
| 148               | 42.2                                   | 212        | 41.9                                   | 211        | 41.6                                      | 210        | 41.3                                   | 209        | 41.1                                   | 209        | 40.8                                      | 208        |
| 149               | 42.7                                   | 213        | 42.5                                   | 212        | 42.2                                      | 212        | 41.9                                   | 211        | 41.6                                   | 210        | 41.3                                      | 209        |
| 150               | 43.3                                   | 215        | 43.0                                   | 214        | 42.8                                      | 213        | 42.5                                   | 212        | 42.2                                   | 212        | 41.9                                      | 211        |
| 151               | 43.9                                   | 216        | 43.6                                   | 215        | 43.3                                      | 214        | 43.0                                   | 214        | 42.8                                   | 213        | 42.5                                      | 212        |
| 152               | 44.5                                   | 217        | 44.2                                   | 217        | 43.9                                      | 216        | 43.6                                   | 215        | 43.3                                   | 214        | 43.0                                      | 214        |
| 153               | 45.1                                   | 219        | 44.8                                   | 218        | 44.5                                      | 217        | 44.2                                   | 216        | 43.9                                   | 216        | 43.6                                      | 215        |
| 154               | 45.7                                   | 220        | 45.4                                   | 219        | 45.1                                      | 219        | 44.8                                   | 218        | 44.5                                   | 217        | 44.2                                      | 216        |
| 155               | 46.2                                   | 222        | 45.9                                   | 221        | 45.6                                      | 220        | 45.3                                   | 219        | 45.0                                   | 219        | 44.7                                      | 218        |
| 156               | 46.8                                   | 223        | 46.5                                   | 222        | 46.2                                      | 222        | 45.9                                   | 221        | 45.6                                   | 220        | 45.3                                      | 219        |
| 157               | 47.4                                   | 225        | 47.1                                   | 224        | 46.8                                      | 223        | 46.5                                   | 222        | 46.2                                   | 221        | 45.9                                      | 221        |
| 158               | 48.1                                   | 226        | 47.7                                   | 225        | 47.4                                      | 224        | 47.1                                   | 224        | 46.8                                   | 223        | 46.5                                      | 222        |
| 159               | 48.7                                   | 227        | 48.3                                   | 227        | 48.0                                      | 226        | 47.7                                   | 225        | 47.4                                   | 224        | 47.1                                      | 223        |
| 160               | 49.3                                   | 229        | 49.0                                   | 228        | 48.6                                      | 227        | 48.3                                   | 226        | 48.0                                   | 226        | 47.7                                      | 225        |
| 161               | 49.9                                   | 230        | 49.6                                   | 229        | 49.2                                      | 229        | 48.9                                   | 228        | 48.6                                   | 227        | 48.3                                      | 226        |
| 162               | 50.5                                   | 232        | 50.2                                   | 231        | 49.9                                      | 230        | 49.5                                   | 229        | 49.2                                   | 228        | 48.9                                      | 228        |
| 163               | 51.1                                   | 233        | 50.8                                   | 232        | 50.5                                      | 231        | 50.1                                   | 231        | 49.8                                   | 230        | 49.5                                      | 229        |
| 164               | 51.8                                   | 235        | 51.4                                   | 234        | 51.1                                      | 233        | 50.8                                   | 232        | 50.4                                   | 231        | 50.1                                      | 230        |
| 165               | 52.4                                   | 236        | 52.1                                   | 235        | 51.7                                      | 234        | 51.4                                   | 233        | 51.0                                   | 233        | 50.7                                      | 232        |
| 166               | 53.0                                   | 237        | 52.7                                   | 237        | 52.4                                      | 236        | 52.0                                   | 235        | 51.7                                   | 234        | 51.3                                      | 233        |
| 167               | 53.7                                   | 239        | 53.3                                   | 238        | 53.0                                      | 237        | 52.6                                   | 236        | 52.3                                   | 235        | 51.9                                      | 235        |
| 168               | 54.3                                   | 240        | 54.0                                   | 239        | 53.6                                      | 239        | 53.3                                   | 238        | 52.9                                   | 237        | 52.6                                      | 236        |
| 169               | 55.0                                   | 242        | 54.6                                   | 241        | 54.3                                      | 240        | 53.9                                   | 239        | 53.6                                   | 238        | 53.2                                      | 237        |
| 170               | 55.6                                   | 243        | 55.3                                   | 242        | 54.9                                      | 241        | 54.5                                   | 241        | 54.2                                   | 240        | 53.8                                      | 239        |
| 171               | 56.3                                   | 245        | 55.9                                   | 244        | 55.6                                      | 243        | 55.2                                   | 242        | 54.8                                   | 241        | 54.5                                      | 240        |
| 172               | 56.9                                   | 246        | 56.6                                   | 245        | 56.2                                      | 244        | 55.8                                   | 243        | 55.5                                   | 243        | 55.1                                      | 242        |
| 173               | 57.6                                   | 247        | 57.2                                   | 247        | 56.9                                      | 246        | 56.5                                   | 245        | 56.1                                   | 244        | 55.7                                      | 243        |
| 174               | 58.3                                   | 249        | 57.9                                   | 248        | 57.5                                      | 247        | 57.1                                   | 246        | 56.8                                   | 245        | 56.4                                      | 244        |
| 175               | 59.0                                   | 250        | 58.6                                   | 249        | 58.2                                      | 249        | 57.8                                   | 248        | 57.4                                   | 247        | 57.0                                      | 246        |
| 176               | 59.6                                   | 252        | 59.2                                   | 251        | 58.9                                      | 250        | 58.5                                   | 249        | 58.1                                   | 248        | 57.7                                      | 247        |
| 177               | 60.3                                   | 253        | 59.9                                   | 252        | 59.5                                      | 251        | 59.1                                   | 250        | 58.7                                   | 250        | 58.4                                      | 249        |
| 178               | 61.0                                   | 255        | 60.6                                   | 254        | 60.2                                      | 253        | 59.8                                   | 252        | 59.4                                   | 251        | 59.0                                      | 250        |
| 179               | 61.7                                   | 256        | 61.3                                   | 255        | 60.9                                      | 254        | 60.5                                   | 253        | 60.1                                   | 252        | 59.7                                      | 251        |
| 180               | 62.4                                   | 257        | 62.0                                   | 257        | 61.6                                      | 256        | 61.2                                   | 255        | 60.8                                   | 254        | 60.3                                      | 253        |
| 181               | 63.1                                   | 259        | 62.7                                   | 258        | 62.2                                      | 257        | 61.8                                   | 256        | 61.4                                   | 255        | 61.0                                      | 254        |
| 182               | 63.8                                   | 260        | 63.3                                   | 259        | 62.9                                      | 258        | 62.5                                   | 258        | 62.1                                   | 257        | 61.7                                      | 256        |
| 183               | 64.5                                   | 262        | 64.0                                   | 261        | 63.6                                      | 260        | 63.2                                   | 259        | 62.8                                   | 258        | 62.4                                      | 257        |
| 184               | 65.2                                   | 263        | 64.7                                   | 262        | 64.3                                      | 261        | 63.9                                   | 260        | 63.5                                   | 259        | 63.1                                      | 259        |
| 185               | 65.9                                   | 265        | 65.5                                   | 264        | 65.0                                      | 263        | 64.6                                   | 262        | 64.2                                   | 261        | 63.7                                      | 260        |
| 186               | 66.6                                   | 266        | 66.2                                   | 265        | 65.7                                      | 264        | 65.3                                   | 263        | 64.9                                   | 262        | 64.4                                      | 261        |
| 187               | 67.3                                   | 267        | 66.9                                   | 266        | 66.4                                      | 266        | 66.0                                   | 265        | 65.6                                   | 264        | 65.1                                      | 263        |
| 188               | 68.0                                   | 269        | 67.6                                   | 268        | 67.2                                      | 267        | 66.7                                   | 266        | 66.3                                   | 265        | 65.8                                      | 264        |
| 189               | 68.8                                   | 270        | 68.3                                   | 269        | 67.9                                      | 268        | 67.4                                   | 267        | 67.0                                   | 266        | 66.5                                      | 266        |
| 190               | 69.5                                   | 272        | 69.0                                   | 271        | 68.6                                      | 270        | 68.1                                   | 269        | 67.7                                   | 268        | 67.2                                      | 267        |
| 191               | 70.2                                   | 273        | 69.8                                   | 272        | 69.3                                      | 271        | 68.9                                   | 270        | 68.4                                   | 269        | 67.9                                      | 268        |
| 192               | 71.0                                   | 275        | 70.5                                   | 274        | 70.0                                      | 273        | 69.6                                   | 272        | 69.1                                   | 271        | 68.7                                      | 270        |
| 193               | 71.7                                   | 276        | 71.2                                   | 275        | 70.8                                      | 274        | 70.3                                   | 273        | 69.8                                   | 272        | 69.4                                      | 271        |
| 194               | 72.4                                   | 277        | 72.0                                   | 276        | 71.5                                      | 275        | 71.0                                   | 275        | 70.6                                   | 274        | 70.1                                      | 273        |
| 195               | 73.2                                   | 279        | 72.7                                   | 278        | 72.2                                      | 277        | 71.8                                   | 276        | 71.3                                   | 275        | 70.8                                      | 274        |
| 196               | 74.0                                   | 280        | 73.5                                   | 279        | 73.0                                      | 278        | 72.5                                   | 277        | 72.0                                   | 276        | 71.5                                      | 275        |
| 197               | 74.7                                   | 282        | 74.2                                   | 281        | 73.7                                      | 280        | 73.3                                   | 279        | 72.8                                   | 278        | 72.3                                      | 277        |
| 198               | 75.5                                   | 283        | 75.0                                   | 282        | 74.5                                      | 281        | 74.0                                   | 280        | 73.5                                   | 279        | 73.0                                      | 278        |
| 199               | 76.2                                   | 285        | 75.7                                   | 284        | 75.2                                      | 283        | 74.7                                   | 282        | 74.3                                   | 281        | 73.8                                      | 280        |
| 200               | 77.0                                   | 286        | 76.5                                   | 285        | 76.0                                      | 284        | 75.5                                   | 283        | 75.0                                   | 282        | 74.5                                      | 281        |
|                   |  |            |  |            |   |            |  |            |  |            |   |            |
|                   |  |            |  |            |   |            |  |            |  |            |   |            |

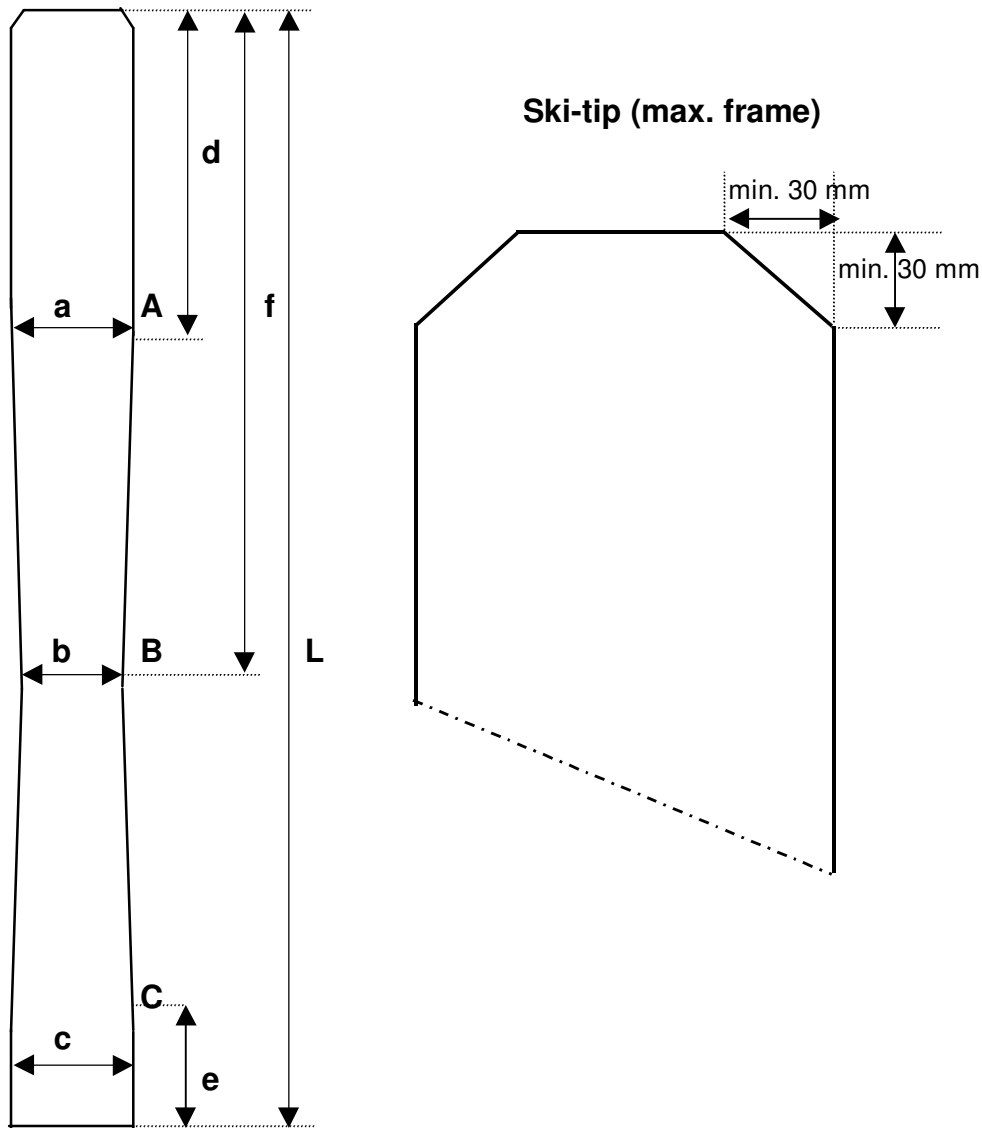
| Körpergröße<br>Body Height | M                           |          |  | N                           |          |  | O                           |          |  | P                           |          |  | R                           |          |  | S                           |          |  | T                           |          |  |
|----------------------------|-----------------------------|----------|--|-----------------------------|----------|--|-----------------------------|----------|--|-----------------------------|----------|--|-----------------------------|----------|--|-----------------------------|----------|--|-----------------------------|----------|--|
|                            | Gewicht mit Anzug und boots | Skilänge |  | Gewicht mit Anzug und boots | Skilänge |  | Gewicht mit Anzug und boots | Skilänge |  | Gewicht mit Anzug und boots | Skilänge |  | Gewicht mit Anzug und boots | Skilänge |  | Gewicht mit Anzug und boots | Skilänge |  | Gewicht mit Anzug und boots | Skilänge |  |
| BMI / %                    | 18.500                      | 140.0    |  | 18.375                      | 139.5    |  | 18.250                      | 139.0    |  | 18.125                      | 138.5    |  | 18.000                      | 138.0    |  | 17.875                      | 137.5    |  | 17.750                      | 137.0    |  |
| cm                         | kg                          | cm       |  | kg                          | cm       |  | kg                          | cm       |  | kg                          | cm       |  | kg                          | cm       |  | kg                          | cm       |  | kg                          | cm       |  |
| 140                        | 36.3                        | 196      |  | 36.0                        | 195      |  | 35.8                        | 195      |  | 35.5                        | 194      |  | 35.3                        | 193      |  | 35.0                        | 193      |  | 34.8                        | 192      |  |
| 141                        | 36.8                        | 197      |  | 36.5                        | 197      |  | 36.3                        | 196      |  | 36.0                        | 195      |  | 35.8                        | 195      |  | 35.5                        | 194      |  | 35.3                        | 193      |  |
| 142                        | 37.3                        | 199      |  | 37.1                        | 198      |  | 36.8                        | 197      |  | 36.5                        | 197      |  | 36.3                        | 196      |  | 36.0                        | 195      |  | 35.8                        | 195      |  |
| 143                        | 37.8                        | 200      |  | 37.6                        | 199      |  | 37.3                        | 199      |  | 37.1                        | 198      |  | 36.8                        | 197      |  | 36.6                        | 197      |  | 36.3                        | 196      |  |
| 144                        | 38.4                        | 202      |  | 38.1                        | 201      |  | 37.8                        | 200      |  | 37.6                        | 199      |  | 37.3                        | 199      |  | 37.1                        | 198      |  | 36.8                        | 197      |  |
| 145                        | 38.9                        | 203      |  | 38.6                        | 202      |  | 38.4                        | 202      |  | 38.1                        | 201      |  | 37.8                        | 200      |  | 37.6                        | 199      |  | 37.3                        | 199      |  |
| 146                        | 39.4                        | 204      |  | 39.2                        | 204      |  | 38.9                        | 203      |  | 38.6                        | 202      |  | 38.4                        | 201      |  | 38.1                        | 201      |  | 37.8                        | 200      |  |
| 147                        | 40.0                        | 206      |  | 39.7                        | 205      |  | 39.4                        | 204      |  | 39.2                        | 204      |  | 38.9                        | 203      |  | 38.6                        | 202      |  | 38.4                        | 201      |  |
| 148                        | 40.5                        | 207      |  | 40.2                        | 206      |  | 40.0                        | 206      |  | 39.7                        | 205      |  | 39.4                        | 204      |  | 39.2                        | 204      |  | 38.9                        | 203      |  |
| 149                        | 41.1                        | 209      |  | 40.8                        | 208      |  | 40.5                        | 207      |  | 40.2                        | 206      |  | 40.0                        | 206      |  | 39.7                        | 205      |  | 39.4                        | 204      |  |
| 150                        | 41.6                        | 210      |  | 41.3                        | 209      |  | 41.1                        | 209      |  | 40.8                        | 208      |  | 40.5                        | 207      |  | 40.2                        | 206      |  | 39.9                        | 206      |  |
| 151                        | 42.2                        | 211      |  | 41.9                        | 211      |  | 41.6                        | 210      |  | 41.3                        | 209      |  | 41.0                        | 208      |  | 40.8                        | 208      |  | 40.5                        | 207      |  |
| 152                        | 42.7                        | 213      |  | 42.5                        | 212      |  | 42.2                        | 211      |  | 41.9                        | 211      |  | 41.6                        | 210      |  | 41.3                        | 209      |  | 41.0                        | 208      |  |
| 153                        | 43.3                        | 214      |  | 43.0                        | 213      |  | 42.7                        | 213      |  | 42.4                        | 212      |  | 42.1                        | 211      |  | 41.8                        | 210      |  | 41.6                        | 210      |  |
| 154                        | 43.9                        | 216      |  | 43.6                        | 215      |  | 43.3                        | 214      |  | 43.0                        | 213      |  | 42.7                        | 213      |  | 42.4                        | 212      |  | 42.1                        | 211      |  |
| 155                        | 44.4                        | 217      |  | 44.1                        | 216      |  | 43.8                        | 215      |  | 43.5                        | 215      |  | 43.2                        | 214      |  | 42.9                        | 213      |  | 42.6                        | 212      |  |
| 156                        | 45.0                        | 218      |  | 44.7                        | 218      |  | 44.4                        | 217      |  | 44.1                        | 216      |  | 43.8                        | 215      |  | 43.5                        | 215      |  | 43.2                        | 214      |  |
| 157                        | 45.6                        | 220      |  | 45.3                        | 219      |  | 45.0                        | 218      |  | 44.7                        | 217      |  | 44.4                        | 217      |  | 44.1                        | 216      |  | 43.8                        | 215      |  |
| 158                        | 46.2                        | 221      |  | 45.9                        | 220      |  | 45.6                        | 220      |  | 45.2                        | 219      |  | 44.9                        | 218      |  | 44.6                        | 217      |  | 44.3                        | 216      |  |
| 159                        | 46.8                        | 223      |  | 46.5                        | 222      |  | 46.1                        | 221      |  | 45.8                        | 220      |  | 45.5                        | 219      |  | 45.2                        | 219      |  | 44.9                        | 218      |  |
| 160                        | 47.4                        | 224      |  | 47.0                        | 223      |  | 46.7                        | 222      |  | 46.4                        | 222      |  | 46.1                        | 221      |  | 45.8                        | 220      |  | 45.4                        | 219      |  |
| 161                        | 48.0                        | 225      |  | 47.6                        | 225      |  | 47.3                        | 224      |  | 47.0                        | 223      |  | 46.7                        | 222      |  | 46.3                        | 221      |  | 46.0                        | 221      |  |
| 162                        | 48.6                        | 227      |  | 48.2                        | 226      |  | 47.9                        | 225      |  | 47.6                        | 224      |  | 47.2                        | 224      |  | 46.9                        | 223      |  | 46.6                        | 222      |  |
| 163                        | 49.2                        | 228      |  | 48.8                        | 227      |  | 48.5                        | 227      |  | 48.2                        | 226      |  | 47.8                        | 225      |  | 47.5                        | 224      |  | 47.2                        | 223      |  |
| 164                        | 49.8                        | 230      |  | 49.4                        | 229      |  | 49.1                        | 228      |  | 48.7                        | 227      |  | 48.4                        | 226      |  | 48.1                        | 226      |  | 47.7                        | 225      |  |
| 165                        | 50.4                        | 231      |  | 50.0                        | 230      |  | 49.7                        | 229      |  | 49.3                        | 229      |  | 49.0                        | 228      |  | 48.7                        | 227      |  | 48.3                        | 226      |  |
| 166                        | 51.0                        | 232      |  | 50.6                        | 232      |  | 50.3                        | 231      |  | 49.9                        | 230      |  | 49.6                        | 229      |  | 49.3                        | 228      |  | 48.9                        | 227      |  |
| 167                        | 51.6                        | 234      |  | 51.2                        | 233      |  | 50.9                        | 232      |  | 50.5                        | 231      |  | 50.2                        | 230      |  | 49.9                        | 230      |  | 49.5                        | 229      |  |
| 168                        | 52.2                        | 235      |  | 51.9                        | 234      |  | 51.5                        | 234      |  | 51.2                        | 233      |  | 50.8                        | 232      |  | 50.5                        | 231      |  | 50.1                        | 230      |  |
| 169                        | 52.8                        | 237      |  | 52.5                        | 236      |  | 52.1                        | 235      |  | 51.8                        | 234      |  | 51.4                        | 233      |  | 51.1                        | 232      |  | 50.7                        | 232      |  |
| 170                        | 53.5                        | 238      |  | 53.1                        | 237      |  | 52.7                        | 236      |  | 52.4                        | 235      |  | 52.0                        | 235      |  | 51.7                        | 234      |  | 51.3                        | 233      |  |
| 171                        | 54.1                        | 239      |  | 53.7                        | 239      |  | 53.4                        | 238      |  | 53.0                        | 237      |  | 52.6                        | 236      |  | 52.3                        | 235      |  | 51.9                        | 234      |  |
| 172                        | 54.7                        | 241      |  | 54.4                        | 240      |  | 54.0                        | 239      |  | 53.6                        | 238      |  | 53.3                        | 237      |  | 52.9                        | 237      |  | 52.5                        | 236      |  |
| 173                        | 55.4                        | 242      |  | 55.0                        | 241      |  | 54.6                        | 240      |  | 54.2                        | 240      |  | 53.9                        | 239      |  | 53.5                        | 238      |  | 53.1                        | 237      |  |
| 174                        | 56.0                        | 244      |  | 55.6                        | 243      |  | 55.3                        | 242      |  | 54.9                        | 241      |  | 54.5                        | 240      |  | 54.1                        | 239      |  | 53.7                        | 238      |  |
| 175                        | 56.7                        | 245      |  | 56.3                        | 244      |  | 55.9                        | 243      |  | 55.5                        | 242      |  | 55.1                        | 242      |  | 54.7                        | 241      |  | 54.4                        | 240      |  |
| 176                        | 57.3                        | 246      |  | 56.9                        | 246      |  | 56.5                        | 245      |  | 56.1                        | 244      |  | 55.8                        | 243      |  | 55.4                        | 242      |  | 55.0                        | 241      |  |
| 177                        | 58.0                        | 248      |  | 57.6                        | 247      |  | 57.2                        | 246      |  | 56.8                        | 245      |  | 56.4                        | 244      |  | 56.0                        | 243      |  | 55.6                        | 242      |  |
| 178                        | 58.6                        | 249      |  | 58.2                        | 248      |  | 57.8                        | 247      |  | 57.4                        | 247      |  | 57.0                        | 246      |  | 56.6                        | 245      |  | 56.2                        | 244      |  |
| 179                        | 59.3                        | 251      |  | 58.9                        | 250      |  | 58.5                        | 249      |  | 58.1                        | 248      |  | 57.7                        | 247      |  | 57.3                        | 246      |  | 56.9                        | 245      |  |
| 180                        | 59.9                        | 252      |  | 59.5                        | 251      |  | 59.1                        | 250      |  | 58.7                        | 249      |  | 58.3                        | 248      |  | 57.9                        | 248      |  | 57.5                        | 247      |  |
| 181                        | 60.6                        | 253      |  | 60.2                        | 252      |  | 59.8                        | 252      |  | 59.4                        | 251      |  | 59.0                        | 250      |  | 58.6                        | 249      |  | 58.2                        | 248      |  |
| 182                        | 61.3                        | 255      |  | 60.9                        | 254      |  | 60.5                        | 253      |  | 60.0                        | 252      |  | 59.6                        | 251      |  | 59.2                        | 250      |  | 58.8                        | 249      |  |
| 183                        | 62.0                        | 256      |  | 61.5                        | 255      |  | 61.1                        | 254      |  | 60.7                        | 253      |  | 60.3                        | 253      |  | 59.9                        | 252      |  | 59.4                        | 251      |  |
| 184                        | 62.6                        | 258      |  | 62.2                        | 257      |  | 61.8                        | 256      |  | 61.4                        | 255      |  | 60.9                        | 254      |  | 60.5                        | 253      |  | 60.1                        | 252      |  |
| 185                        | 63.3                        | 259      |  | 62.9                        | 258      |  | 62.5                        | 257      |  | 62.0                        | 256      |  | 61.6                        | 255      |  | 61.2                        | 254      |  | 60.7                        | 253      |  |
| 186                        | 64.0                        | 260      |  | 63.6                        | 259      |  | 63.1                        | 259      |  | 62.7                        | 258      |  | 62.3                        | 257      |  | 61.8                        | 256      |  | 61.4                        | 255      |  |
| 187                        | 64.7                        | 262      |  | 64.3                        | 261      |  | 63.8                        | 260      |  | 63.4                        | 259      |  | 62.9                        | 258      |  | 62.5                        | 257      |  | 62.1                        | 256      |  |
| 188                        | 65.4                        | 263      |  | 64.9                        | 262      |  | 64.5                        | 261      |  | 64.1                        | 260      |  | 63.6                        | 259      |  | 63.2                        | 259      |  | 62.7                        | 258      |  |
| 189                        | 66.1                        | 265      |  | 65.6                        | 264      |  | 65.2                        | 263      |  | 64.7                        | 262      |  | 64.3                        | 261      |  | 63.9                        | 260      |  | 63.4                        | 259      |  |
| 190                        | 66.8                        | 266      |  | 66.3                        | 265      |  | 65.9                        | 264      |  | 65.4                        | 263      |  | 65.0                        | 262      |  | 64.5                        | 261      |  | 64.1                        | 260      |  |
| 191                        | 67.5                        | 267      |  | 67.0                        | 266      |  | 66.6                        | 265      |  | 66.1                        | 265      |  | 65.7                        | 264      |  | 65.2                        | 263      |  | 64.8                        | 262      |  |
| 192                        | 68.2                        | 269      |  | 67.7                        | 268      |  | 67.3                        | 267      |  | 66.8                        | 266      |  | 66.4                        | 265      |  | 65.9                        | 264      |  | 65.4                        | 263      |  |
| 193                        | 68.9                        | 270      |  | 68.4                        | 269      |  | 68.0                        | 268      |  | 67.5                        | 267      |  | 67.0                        | 266      |  | 66.6                        | 265      |  | 66.1                        | 264      |  |
| 194                        | 69.6                        | 272      |  | 69.2                        | 271      |  | 68.7                        | 270      |  | 68.2                        | 269      |  | 67.7                        | 268      |  | 67.3                        | 267      |  | 66.8                        | 266      |  |
| 195                        | 70.3                        | 273      |  | 69.9                        | 272      |  | 69.4                        | 271      |  | 68.9                        | 270      |  | 68.4                        | 269      |  | 68.0                        | 268      |  | 67.5                        | 267      |  |
| 196                        | 71.1                        | 274      |  | 70.6                        | 273      |  | 70.1                        | 272      |  | 69.6                        | 271      |  | 69.1                        | 270      |  | 68.7                        | 270      |  | 68.2                        | 269      |  |
| 197                        | 71.8                        | 276      |  | 71.3                        | 275      |  | 70.8                        | 274      |  | 70.3                        | 273      |  | 69.9                        | 272      |  | 69.4                        | 271      |  | 68.9                        | 270      |  |
| 198                        | 72.5                        | 277      |  | 72.0                        | 276      |  | 71.5                        | 275      |  | 71.1                        | 274      |  | 70.6                        | 273      |  | 70.1                        | 272      |  | 69.6                        | 271      |  |
| 199                        | 73.3                        | 279      |  | 72.8                        | 278      |  | 72.3                        | 277      |  | 71.8                        | 276      |  | 71.3                        | 275      |  | 70.8                        | 274      |  | 70.3                        | 273      |  |
| 200                        | 74.0                        | 280      |  | 73.5                        | 279      |  | 73.0                        | 278      |  | 72.5                        | 277      |  | 72.0                        | 276      |  | 71.5                        | 275      |  | 71.0                        | 274      |  |

### Measurement table for mounting of Ski Jumping Bindings

| <b>Körpergr. in cm</b> | <b>146%</b> | <b>57% der Gesamtlänge</b> | <b>Körpergr. in cm</b> | <b>146%</b> | <b>57% der Gesamtlänge</b> |
|------------------------|-------------|----------------------------|------------------------|-------------|----------------------------|
| <i>Body size in cm</i> | <i>146%</i> | <i>57% of total length</i> | <i>Body size in cm</i> | <i>146%</i> | <i>57% of total length</i> |
| 145                    | 212         | 121                        | 173                    | 253         | 144                        |
| 146                    | 213         | 121                        | 174                    | 254         | 145                        |
|                        | 214         | 122                        |                        | 255         | 145                        |
| 147                    | 215         | 123                        | 175                    | 256         | 146                        |
| 148                    | 216         | 123                        | 176                    | 257         | 146                        |
|                        | 217         | 124                        | 177                    | 258         | 147                        |
| 149                    | 218         | 124                        |                        | 259         | 148                        |
| 150                    | 219         | 125                        | 178                    | 260         | 148                        |
| 151                    | 220         | 125                        | 179                    | 261         | 149                        |
|                        | 221         | 126                        |                        | 262         | 149                        |
| 152                    | 222         | 127                        | 180                    | 263         | 150                        |
| 153                    | 223         | 127                        | 181                    | 264         | 150                        |
|                        | 224         | 128                        |                        | 265         | 151                        |
| 154                    | 225         | 128                        | 182                    | 266         | 152                        |
| 155                    | 226         | 129                        | 183                    | 267         | 152                        |
|                        | 227         | 129                        |                        | 268         | 153                        |
| 156                    | 228         | 130                        | 184                    | 269         | 153                        |
| 157                    | 229         | 131                        | 185                    | 270         | 154                        |
|                        | 230         | 132                        |                        | 271         | 154                        |
| 158                    | 231         | 132                        | 186                    | 272         | 155                        |
| 159                    | 232         | 132                        | 187                    | 273         | 156                        |
|                        | 233         | 133                        | 188                    | 274         | 156                        |
| 160                    | 234         | 133                        |                        | 275         | 157                        |
| 161                    | 235         | 134                        | 189                    | 276         | 157                        |
|                        | 236         | 135                        | 190                    | 277         | 158                        |
| 162                    | 237         | 135                        |                        | 278         | 158                        |
| 163                    | 238         | 136                        | 191                    | 279         | 159                        |
| 164                    | 239         | 136                        | 192                    | 280         | 160                        |
|                        | 240         | 137                        |                        | 281         | 160                        |
| 165                    | 241         | 137                        | 193                    | 282         | 161                        |
| 166                    | 242         | 138                        | 194                    | 283         | 161                        |
|                        | 243         | 139                        |                        | 284         | 162                        |
| 167                    | 244         | 139                        | 195                    | 285         | 162                        |
| 168                    | 245         | 140                        | 196                    | 286         | 163                        |
|                        | 246         | 140                        |                        | 287         | 164                        |
| 169                    | 247         | 141                        | 197                    | 288         | 164                        |
| 170                    | 248         | 141                        | 198                    | 289         | 165                        |
|                        | 249         | 142                        |                        | 290         | 165                        |
| 171                    | 250         | 143                        | 199                    | 291         | 166                        |
| 172                    | 251         | 143                        | 200                    | 292         | 166                        |
|                        | 252         | 144                        |                        |             |                            |

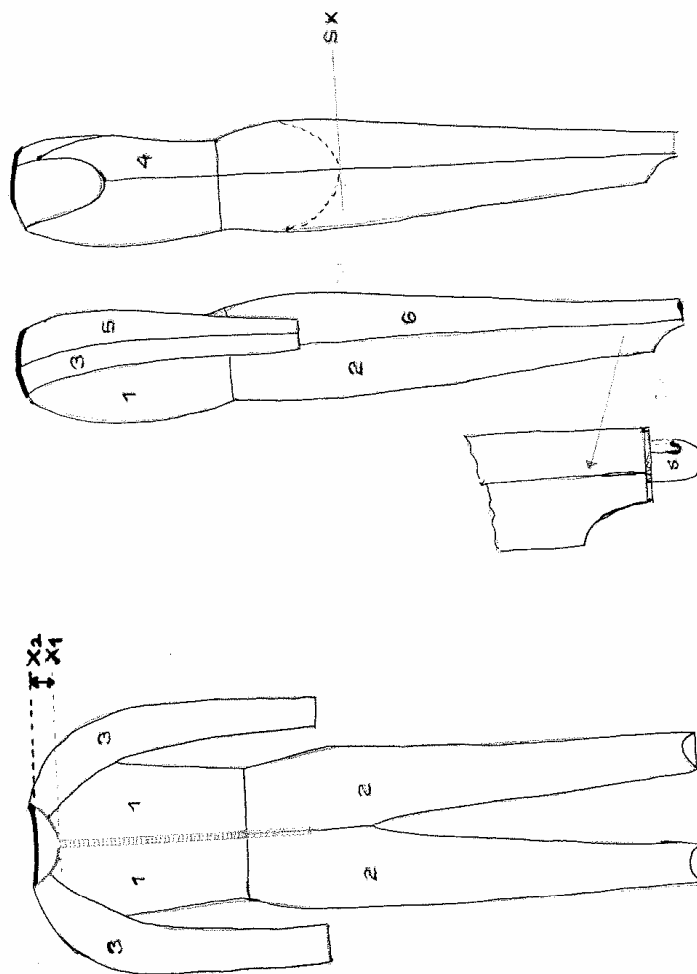
### Article 1.2.1.2: Precision of the Profile Width

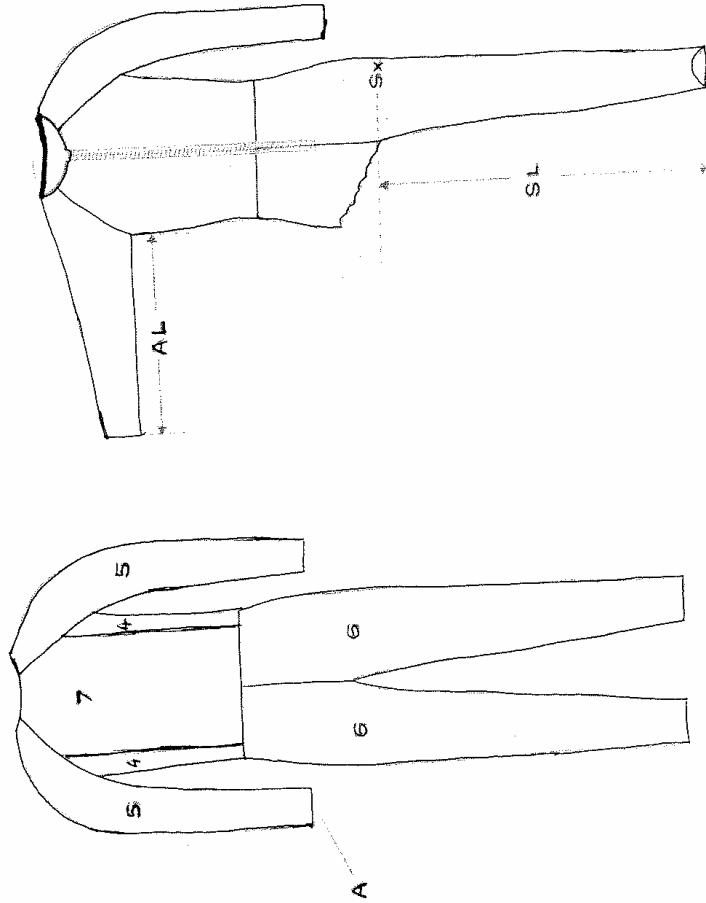
|          |  |
|----------|--|
| <b>L</b> | Ski length   |
| <b>a</b> | max. width at front portion = 115 mm                   |
| <b>b</b> | max. width at 57% of front portion (f) = 105 mm        |
| <b>c</b> | max. width at tail portion = 115 mm                    |
| <b>d</b> | max. length between tip and begin of sidecut = 300 mm  |
| <b>e</b> | max. length between tail and begin of sidecut = 150 mm |
| <b>f</b> | control point of <b>b</b>                              |



## Ski-Jumping Suits

Standardized measuring control points and number of parts of material of which the suits consist





## Commercial Markings on Equipment

### 1. General Principles

Athletes may display on their clothing or equipment a commercial marking (wording or logo) specifically permitted by the rule articles 2.1 to 2.6 per product.

All other forms of commercial markings or advertising are not permitted if they are not explicitly mentioned.

Specifications concerning the size, the form and the number of commercial markings have to be decided by the FIS Council.

FIS recognises as a manufacturer of ski equipment only those enterprises which effectively produce the ski equipment concerned.

No brand or model names which appear on hardware products (skis, poles, bindings, boots, helmet, etc.) can be shown on starting bibs or on clothing unless the name represents that of an effective producer of the clothing in question.

### 2. Actual specifications

#### 2.1 *Skis, boots, bindings, ski poles, arm and leg protection, etc.*

2.1.1 Skis, ski boots, bindings, ski poles, separate arm and leg protection and other hardware in their commercially available designs are permitted and may only carry the recognised commercial markings of the effective producers.

2.1.2 The size of the commercial markings on the arm and leg protection is limited to one marking of 12 cm<sup>2</sup> on each piece.

Other sponsor markings on arm and leg protection are permitted, if those protections are part of the clothing and within the specifications of art. 2.4 (3 - 4 parts).

There is an exception for jumping skis: Please see art. 2.6.3.

A commercial marking of the effective producer on the hand protector of ski poles is permitted. The marking may be divided into two parts per single hand protector. The total surface area of the commercial markings per hand protector is limited to 15 cm<sup>2</sup>.

#### 2.1.3 Ski straps

Only hardware (skis, ski boots, bindings, ski poles) and wax suppliers are permitted to have advertising on ski straps.

No commercial advertising is permitted. Maximum 2 ski straps per pair of skis, for example one hardware and one wax supplier.

#### 2.2 *Gloves*

A commercial marking of the effective producer on the glove is permitted. The marking may be divided into two parts per single glove. The total surface area of the commercial markings per glove is limited to 15 cm<sup>2</sup>.

#### 2.3 *Goggles*

Goggles straps shall be as on products sold to the public and may carry two commercial markings of the effective producer, not larger than 15 cm<sup>2</sup> each.

Straps shall not measure more than 4 cm in width. In case of double straps only one strap may carry the commercial markings. Lenses must be free of advertising.

Straps (without goggles) with commercial markings of goggle suppliers may not be worn.

## 2.4 *Clothing*

2.4.1 Articles of clothing may carry commercial markings belonging to the manufacturer and/or to other sponsors (as defined in art. 2.6)

2.4.2 The total surface area of all commercial markings on the clothing of one person shall not exceed 300 cm<sup>2</sup>.

The maximum surface area for a single marking is 100 cm<sup>2</sup>.

Commercial markings of the same sponsor may not appear one above the other or one beside the other.

The national association may decide on the placing of the commercial markings.

2.4.3 Roll necks may in additionally to the 300 cm<sup>2</sup> display the manufacturers trademark and/or sponsor, which may also be divided into two parts, with a maximum total surface area of 20cm<sup>2</sup>. Should the roll neck be used for sponsor logos, then it is not counted within the total of 300cm<sup>2</sup> for commercial marking.

2.4.4 A military symbol (emblem), indicating the national military organisation may be displayed (not on headgear or race suits), with a maximum size of 20 cm<sup>2</sup>. This symbol is including within the 300cm<sup>2</sup> total surface area of the commercial markings.

## 2.5 *Helmets and Headgear*

2.5.1 Helmets and headwear may carry two commercial markings of the manufacturer with a maximum size of 15 cm<sup>2</sup>, one on each side, placed over the ears. The front of helmets and headwear may only be used for the emblems of national teams, and sponsors, subject to art. 2.5.2.

2.5.2 The front (in the middle) of helmets and all headwear worn in competition and within the competition area including for flower and prize-giving ceremonies, interviews etc. must carry the identification of the national ski association with a minimum size of 9 cm<sup>2</sup>.

A national association may sign sponsorship contracts for helmet/headwear advertising rights of up to a maximum of 50 cm<sup>2</sup> (which may be divided between 2 identical - same size - logos) with firms who are not suppliers of ski equipment (hardware or software), subject to the regulations of each national association. In such a case, the front of helmets and headwear must carry the identification of the national ski association with a minimum size of 9 cm<sup>2</sup>.

The relevant advertising must be placed either to the side of or above the identification of the national ski association. The free space between the national ski association identification in the middle of the front of the headgear and the sponsor advertising (50 cm<sup>2</sup>) must be at least 1,5 cm.

For headbands the relevant advertising may be placed at the front of the headband, with the identification of the national ski association to the side.

No advertising is allowed on the movable or integrated chin straps of helmets.

Additionally it is not permitted to affix a website address which refers directly to the athlete, either on headgear or other clothing.

## 2.6 *Other sponsors*

2.6.1 A national association may sign sponsorship contracts with firms which are not suppliers of ski equipment (hardware and software) See also ICR art. 206.

2.6.2 The dimensions of commercial markings of such sponsors must conform to the specifications in art. 2.1., art. 2.4. or art. 2.5.

2.6.3 Jumping skis: The dimensions of commercial markings of such a sponsor on jumping skis are limited to a total surface area of 160 cm<sup>2</sup> per ski. Only one commercial marking per ski is permitted, and the marking must be identical on both skis.

2.6.4 Aerial skis: The dimensions of commercial markings of such a sponsor on aerial skis are limited to a total surface of 120 cm<sup>2</sup> per ski. Only one commercial making per ski is permitted and the marking must be identical on both skis.

2.6.5 Snowboards: the base bottom of snowboards may only carry the recognized commercial markings of the effective producer. The top of snowboards may carry the commercial markings of the effective producer and up to five (5) other sponsors within a total size of 250 cm<sup>2</sup>, according to the regulations of the relevant National Association.

## 2.7 *Accessories*

### 2.7.1 Fanny packs

The commercial markings belong to the NSA.

The size of commercial markings is limited to a maximum of 50 cm<sup>2</sup>. The space can be used by the effective producer of the product or a commercial sponsor of the National Ski Association.

Waist bags with commercial markings may not be worn on the podium during the winners' presentation and/or the award ceremony.

### 2.7.2 Mobile phones with large neckband / use of drinking bottles

In order to avoid that the visibility of the starting bib sponsor during the winners' presentation and/or award ceremony is hindered, large neckbands with mobile phones and drinking bottles are prohibited on the podium.

2.8 All specifications also apply for officials, coaches, technicians, support personnel and forerunners.

## **II. By-laws for commercial markings and for advertising**

### **A. Commercial markings**

A.1 Trade names, brand names and logos of other products cannot be used as model names or be shown on ski equipment, except jumping skis and freestyle aerial skis.

A.2 The clothing or helmet shall not represent or simulate the logo or product of a manufacturer or sponsor.

#### *A.3 Measuring*

A.3.1 The size of the commercial marking is the surface area within a line that follows the actual outline of the full marking. The measuring is done in an unstretched state.

A.3.2 If the marking is contained within an area of different colour, the total surface area of the different colour is to be measured.

A.3.3 The accuracy of measurement of all markings will be the responsibility of the respective national association.

A.3.4 For approval of commercial markings, it is strongly recommended to send a copy of all the commercial markings in their original size, form and colour to the FIS before use. This should be done if possible before October 1st or before the corresponding season begins in the southern hemisphere.

### **B. Advertising with athletes**

B.1 Advertising with athletes is allowed subject to the permission of the national association.

B.2 Names, titles and illustrations of particular athletes can only be used in advertising with the permission of the national association.

#### *B.3 Not allowed in advertising with athletes:*

B.3.1 Any kind of advertising with alcohol, tobacco, and narcotics.

B.3.2 The use of names, illustrations and titles of skiers for product names or product designs.

B.3.3 Any direct statement or active product presentation.

B.3.4 Any religious or racial discrimination

### **C. The above rules also apply in connection with press information or PR activities.**