



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



**SPECIFICATIONS FOR
COMPETITION EQUIPMENT AND
COMMERICAL MARKINGS**

2004/2005



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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 23 to 26.

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

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

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 (all categories):	165 cm

Children I & II:	130 cm
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MAS:

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

1.2.1.2 Profile width

Minimum width of the running surface at binding without any tolerance:
60 mm.

1.2.1.3 Radius

The radius has to be marked on the ski.

Downhill

Ladies & Men WC/WSC/OWG: minimum 45 m

Ladies & Men COC/FIS/MAS 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

Ladies & Men: 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:

2.1.1 *Width of ski surface*

The plates may not exceed the width of the ski surface.

2.1.2 *Maximum height*

The maximum height (distance between the bottom of the running surface of the ski and the ski boot sole) is 55 mm (Ladies, Men & Freestyle Ski Cross). The maximum height for Children I and Children II is 50 mm.

2.2 **Ski stoppers**

The ski stopper is a catching apparatus for skis, whose function is to stop or bring to a standstill the loose ski following the release of the safety binding within the intermediate area of the skiers fall. In competitions and official training skis without ski stoppers are not permitted. The release may not be injured by the way of mounting. The manufacturer is responsible for a perfect function of the ski stoppers.

3. **Ski boots**

3.1 Ski boots are robust footwear developed especially for skiing, offering protection against jolts and bumps as well as injury from ski edges and other external causes. The ski boot encloses the foot firmly, while at the

same time allowing the movement necessary for skiing techniques, in that the ankle has the room it needs to move, but at the same time allowing the transfer of every steering movement completely to the ski.

The relevant national and international guidelines and norms establish the requirements.

3.2 Thickness of ski boot soles

Distance between the ski boot sole and the base of the heel including all hard and soft parts:

Ladies, Men & Freestyle Ski Cross: maximum 45 mm

Children I & II: maximum 45 mm

4. Ski poles

The ski pole is a sports article whose function should aid the skier, facilitate balance and, if necessary, enable stopping. The national and international guidelines and norms establish the minimum requirements for ski pole tips, grips, shaft, baskets, straps, length, etc. Due to risk of injury, metal baskets are not permitted.

5. Racing suits

Competition suits and any clothing worn beneath, such as underwear, etc., may not be plasticised or treated by any chemical means (gaseous, liquid or solid). Seams may only exist in order to join the portions of the 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 m²/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.

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

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 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.

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, downhill).

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 height² in Kg/m² - see the measurement table in the enclosure)

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

At the Junior World Ski Championships only the columns A, B, C and D will be applied. Athletes with a body weight below the column D may use the ski length of column D (140 % of the body height) as a maximum.

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 center 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 Overall height of the sectional view

No limitations

1.2.1.4 Camber

No limitations

1.2.1.5 Contour, length and height of shovel

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

1.2.1.6 Contour of tail

Maximum height 10 mm

1.2.1.7 Running surface

No limitations

1.2.1.8 Running groove

No limitations

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.

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 Type of construction

No limitations with regard to composite structure.

1.2.4.2 Ski components

Running surface: No limitations with regard to material.

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

Edges: see 1.2.1.2.

Top surface: Must be flat, even and smooth.

Core: No limitations with regard to material and dimensions.

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

No limitations with regard to material.

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

The complete binding system must be mounted 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 clamps

Clamps for the jumping ski binding (model 1997/80) with and without spring-back devices are permitted.

2.2 Binding wedges

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

2.3 Mounting of the bindings

The bindings must be mounted parallel to the run-direction. 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

No limitations with regard to material. 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.

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 at 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.

Additional restrictions

- Marking of the suit (for measuring and control) is allowed.
- Length of the sleeve maximally to the wrist (exception is a string for the attachment to the finger – for the safety).
- Only fixed (nonadjustable) strings are allowed for the attachment to the finger or to the boot.
- 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.
- Maximal number of parts of the material of which the suit consists is:
 - 3 for each sleeve (including shoulder)
 - 5 for upper body (above the waist)
 - 3 for each leg (under the waist)
- Parts of the suit, that are used for more body sections at the same time, count for each body section separately (see enclosure). Zipper, elastics and strings for the attachment do not count as a separate part of the suit.
- The limit of the collar circumference is maximum 50 cm.
- Seams may only exist in order to join the portions of the suit. Seams must be inside the suit. Maximal width of the seam is 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).
- Outer tucks and darts, folds and padding are not allowed.
- Only one fixed (non-adjustable) strap per sleeve or leg is allowed for fixing the suit around the thumb and ski boot. The strap is of one continuous piece and without clips, buckles or other means of fastening multiple pieces of material.
- Material for jumping suits and underwear may neither be plasticized nor rubberized.
- The thickness of the suit may not exceed 5,0 mm.

4.1 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 liters per m²/sec under 10 mm of 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 35 liters.

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

4.2 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 colors of the same material.

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/m²/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 % Elasthan (Lycra) dtex 44f1

Weight: 180/190 g/m² approx.

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

Finishing:

The quality is dyed in a classical piece dying 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 chinzed. 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.

4.3 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/m².

The size of underwear must tightly conform the size of the body.

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.

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

Letters and logos may not measure more than 10 cm in height (reference is also made to the "FIS advertising rules").

1.2 Numbers

Numbers must measure at least 8 cm in height (reference is also made to the "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:

Stretchability 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 trough.

(See enclosure 1)

2. FIS Specifications for Cross-Country starting bibs

2.1 Advertising

Letters and logos may not measure more than 8 cm in height (reference is also made to the "FIS advertising rules").

2.2 Numbers

Numbers must measure at least 12 cm in height (reference is also made to the "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:

Stretchability in the width 18,5 cm

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

Stretchability in the width: 24 cm

(See enclosure 1)

3. FIS Specifications for Ski-Jumping starting bibs

3.1 Advertising

Letters and logos may not measure more than 8 cm in height (reference is also made to the "FIS advertising rules").

3.2 Numbers

Numbers must measure at least 12 cm in height (reference is also made to the "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 m²/sec under 10 mm of water pressure.

3.5 Elasticity (stretch)

Measured on a piece of fabric 10 cm wide:

Stretchability 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 with an elastic band pulled trough.

(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 1st, 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

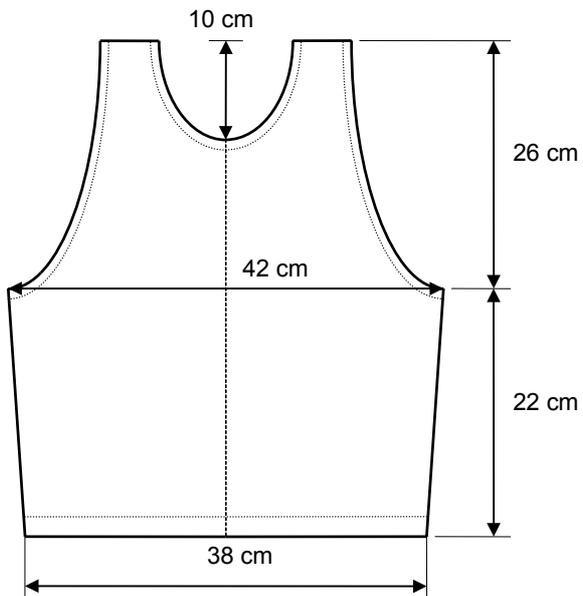
- b) seeking reactions of the FIS Technical Committees. These opinions must be submitted in writing and take the following factors into consideration:
 - 1. explanation with regard to the usefulness and necessity of the innovation
 - 2. opinions with regard to the safety of the innovation
 - 3. assurance 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.

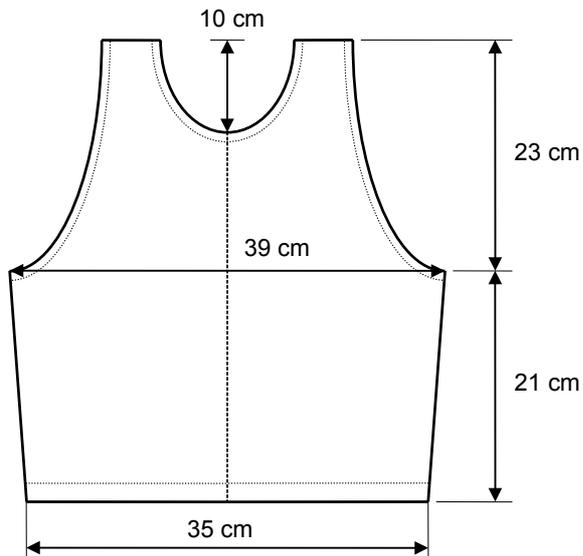
5. FIS Council

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.

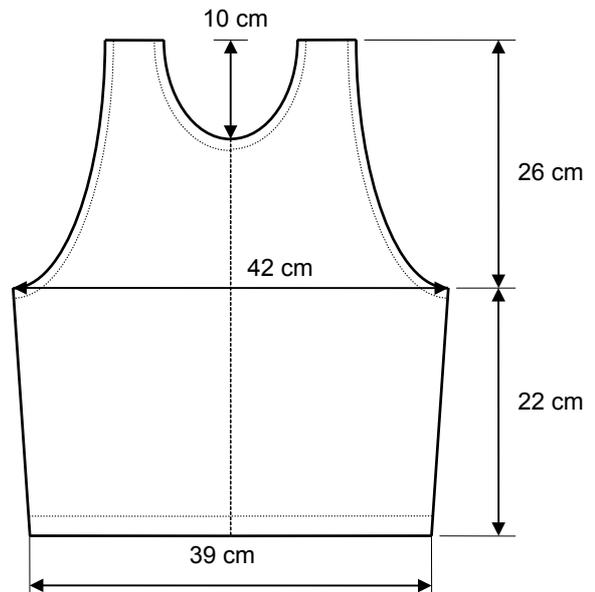
Ski Jumping: with elastic



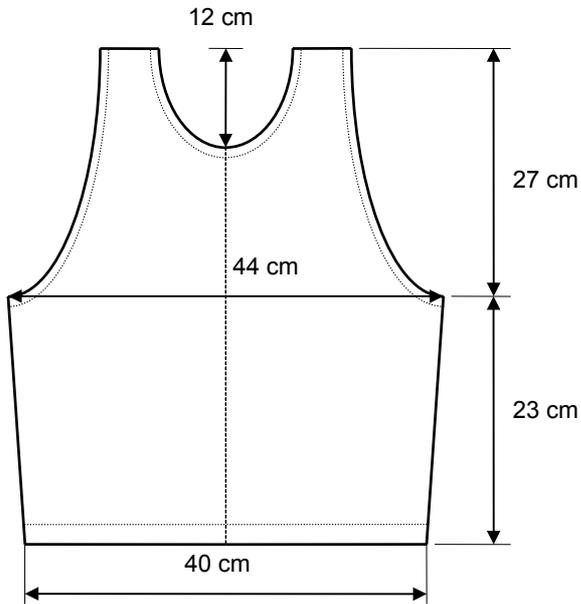
Alpine, women: with elastic



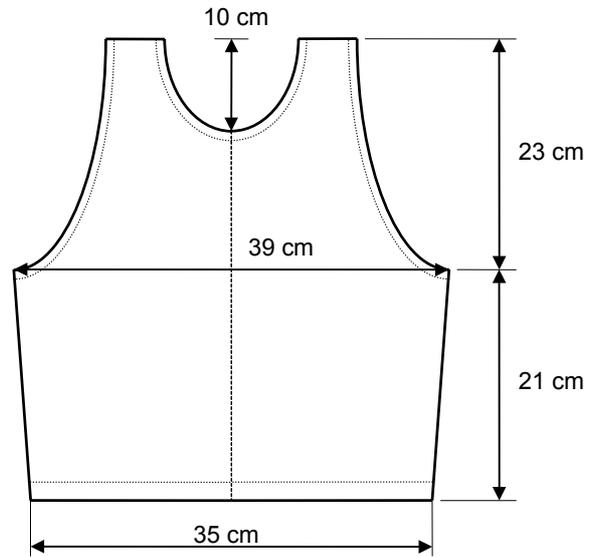
Alpine, men: with elastic



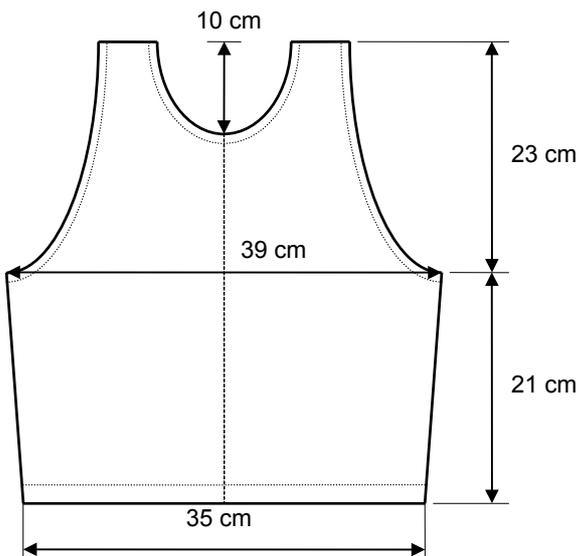
Cross-Country, men:
meshed without elastic



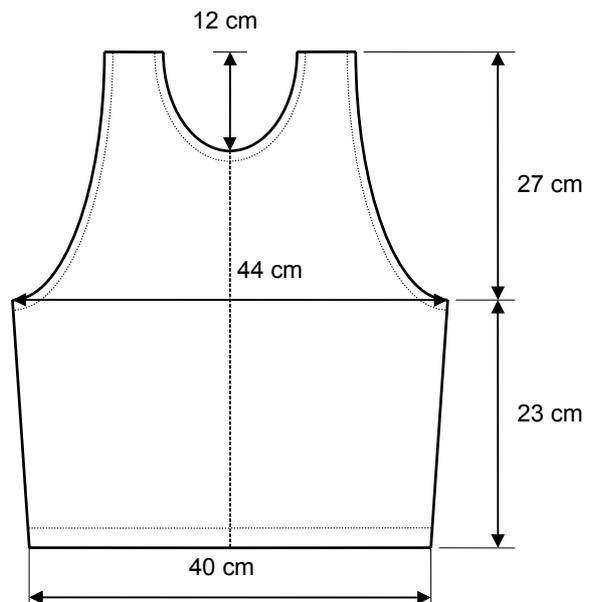
Cross-Country women:
meshed without elastic



Cross-Country,
women: without elastic



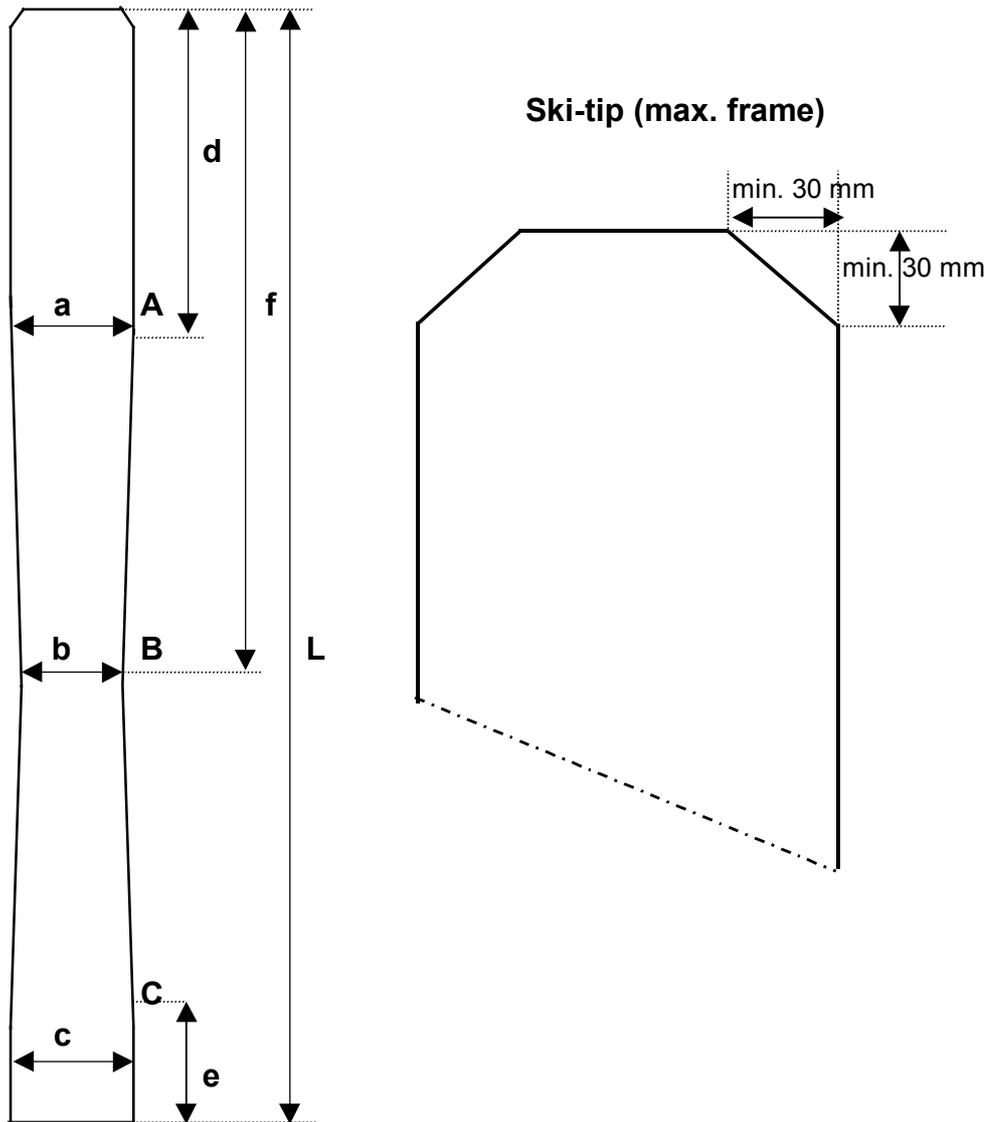
Cross-Country,
men: without elastic



Measurement table for ski length and weight										
	A		B		C		D		E	
Body	Weight with									
Height	suit and	Ski length								
cm	boots	146%	boots	144%	boots	142%	boots	140%	boots	138%
150	45	219	44	216	43	213	42	210	41	207
151	46	220	44	217	43	214	42	211	41	208
152	46	222	45	219	44	216	43	213	42	210
153	47	223	46	220	44	217	43	214	42	211
154	47	225	46	222	45	219	44	216	43	213
155	48	226	47	223	46	220	44	217	43	214
156	49	228	47	225	46	222	45	218	44	215
157	49	229	48	226	47	223	46	220	44	217
158	50	231	49	228	47	224	46	221	45	218
159	51	232	49	229	48	226	47	223	46	219
160	51	234	50	230	49	227	47	224	46	221
161	52	235	51	232	49	229	48	225	47	222
162	52	237	51	233	50	230	49	227	47	224
163	53	238	52	235	50	231	49	228	48	225
164	54	239	52	236	51	233	50	230	48	226
165	54	241	53	238	52	234	50	231	49	228
166	55	242	54	239	52	236	51	232	50	229
167	56	244	54	240	53	237	52	234	50	230
168	56	245	55	242	54	239	52	235	51	232
169	57	247	56	243	54	240	53	237	51	233
170	58	248	56	245	55	241	53	238	52	235
171	58	250	57	246	56	243	54	239	53	236
172	59	251	58	248	56	244	55	241	53	237
173	60	253	58	249	57	246	55	242	54	239
174	61	254	59	251	58	247	56	244	54	240
175	61	256	60	252	58	249	57	245	55	242
176	62	257	60	253	59	250	57	246	56	243
177	63	258	61	255	60	251	58	248	56	244
178	63	260	62	256	60	253	59	249	57	246
179	64	261	62	258	61	254	59	251	58	247
180	65	263	63	259	62	256	60	252	58	248
181	66	264	64	261	62	257	61	253	59	250
182	66	266	65	262	63	258	61	255	60	251
183	67	267	65	264	64	260	62	256	60	253
184	68	269	66	265	64	261	63	258	61	254
185	68	270	67	266	65	263	63	259	62	255
186	69	272	67	268	66	264	64	260	62	257
187	70	273	68	269	66	266	65	262	63	258
188	71	274	69	271	67	267	65	263	64	259
189	71	276	70	272	68	268	66	265	64	261
190	72	277	70	274	69	270	67	266	65	262
191	73	279	71	275	69	271	67	267	66	264
192	74	280	72	276	70	273	68	269	66	265
193	74	282	73	278	71	274	69	270	67	266
194	75	283	73	279	72	275	70	272	68	268
195	76	285	74	281	72	277	70	273	68	269
196	77	286	75	282	73	278	71	274	69	270
197	78	288	76	284	74	280	72	276	70	272
198	78	289	76	285	74	281	73	277	71	273
199	79	291	77	287	75	283	73	279	71	275
200	80	292	78	288	76	284	74	280	72	276

Article 1.2.1.2: Precision of the Profile Width

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



Ski-Jumping Suits

Maximal number of parts of the material per body section, of which the suit consists is:

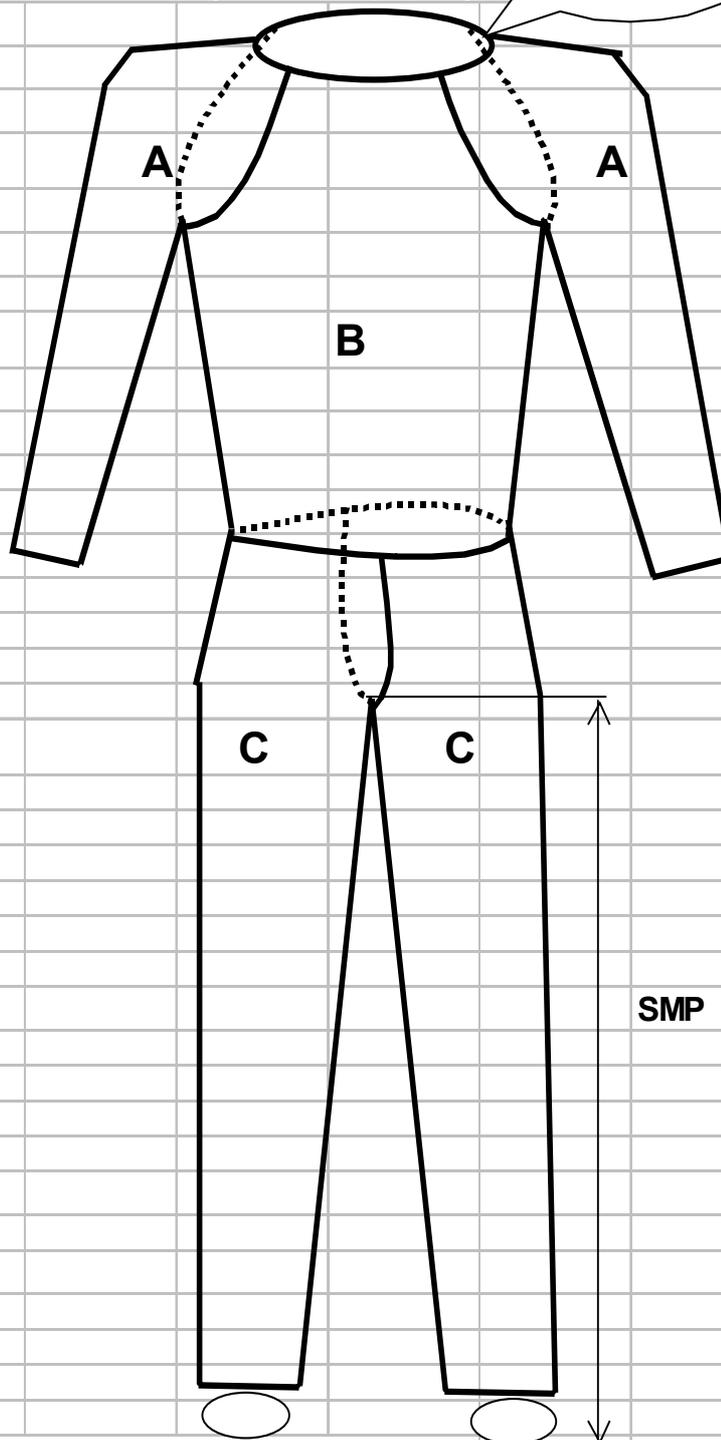
Body section A: 3 for each sleeve including shoulder

Body section B: 5 for upper body (above the waist)

Body section C: 3 for each leg (under the waist)

Parts of the suit, that are used for more body sections at the same time, count for each body section separately.

neck opening circumference max 50cm



SMP: Standard measuring place

Commercial Markings on Equipment

1. General Principles

Any kind of commercial markings (in letters or logos) on all items of the equipment shall be in the same form as on products sold to the public and shall only be those of the manufacturer of the product, subject to the actual specifications (art. 2.4).

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 cm² 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.

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 cm².

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 cm² 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 cm².
The maximum surface area for a single marking is 100 cm².
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 cm² display the manufacturers trademark and/or sponsor, which may also be divided into two parts, with a maximum total surface area of 20cm². Should the roll neck be used for sponsor logos, then it is not counted within the total of 300cm² 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 cm². This symbol is including within the 300cm² 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 cm², 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 cm².
A national association may sign sponsorship contracts for helmet/headwear advertising rights of up to a maximum of 50 cm² (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 cm².
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 cm²) 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 with 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 cm² 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 cm² per ski. Only one commercial making per ski is permitted and the marking must be identical on both skis.
- 2.7 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.**