



SPECIFICATIONS FOR COMPETITION EQUIPMENT

CROSS-COUNTRY, SKI JUMPING, NORDIC COMBINED

EDITION 20254/20265

INTERNATIONAL SKI AND SNOWBOARD FEDERATION

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Specifications for Competition Equipment Cross-Country, Ski Jumping, Nordic Combined

A. Definition

General Principles

The FIS Council shall be the sole authority for determine whether the use of a name, designation, trademark, logo or any other distinguishing sign complies with the FIS Rules and Guidelines; and

The FIS reserves the right to further interpret and/or supplement these Rules and Guidelines in order to help ensure that their spirit and purpose are respected.

1. Competition Equipment

The term “competition equipment“ implies all items of equipment used by athletes in competitive 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 principle of safety
- b) The principle of fairness

1.1 Effective manufacturer

“Effective Manufacturer” means the enterprise which itself manufactures the Competition Equipment and/or effectively controls and manages the manufacturing of the Competition Equipment under its own responsibility through customary subcontracting processes, and whose Competition Equipment is effectively offered on the market to end users. If requested by FIS, the manufacturer shall provide documentary evidence of such commercial activities at retail level (such as manufacturing activity in the market of the relevant Competition Equipment, including control over the manufacturing process, retail activity and marketing expenditures linking the brand to the relevant piece of equipment) as a condition for the commercial markings to be accepted as a Manufacturer’s Identification as further defined in these Specifications.

1.2 Manufacturer’s identification

“Manufacturer’s Identification” means the trade name, brand, logo, or other designation of the Effective Manufacturer under which the particular Competition Equipment is manufactured and commercially offered to the market.

The Manufacturer’s Identification must be a sports equipment brand, which means that the Manufacturer’s Identification is principally used for Competition Equipment and is not principally used for non-sports equipment, and/or cannot be confused with a similar or identical article used in another line of business, unrelated to Competition Equipment.

1.3 Competition implements

Competition implements refer to equipment which fulfil essential functions during the competition but which can be separated from the actual competition.

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

1.4 Additional equipment (accessories)

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

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

1.5 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. Procedures for the Acceptance of New Developments in Competition Equipment

Article 222.4 of the ICR reads as follows:

New developments must be submitted by 1st May, at the latest, for the following season. During 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.

2.1 Eligible applicants

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

The FIS Technical representative from each FIS Committee is eligible to submit applications only for new developments to the Committee for Competition Equipment. Manufacturers, distributors and National Ski Associations have to submit their applications to the respective FIS Technical Committee in advance to be decided whether the item is a new development or a further development of an existing product.

2.2 Items for application

Any significant new developments which are to be used as equipment in competitive skiing, may be submitted for acceptance. It is solely the responsibility of the Committee for Competition Equipment to decide whether a new development conforms to the FIS „Competition Equipment Specifications“ taking into consideration the medical, legal and safety standpoints. The Committee can at any time, however, arrange the removal of an application with regard to items of equipment to be used in competition sport, in accordance with the decisions of these guidelines.

2.3 Prototype, samples

The application must include a detailed description of the innovation. A prototype or sample must be submitted with the application. Relevant reports by scientific experts, as well as reports of experiences made by trainers or participants are to be submitted.

2.4 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 recorded in a relevant decision.

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 further information from the FIS Technical Committees, such as reports by experts and technical data.
- b) Seeking reactions from 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 new developments
 2. Opinions with regard to the safety of the new developments
3. Assurance that in accepting the new developments, the principle of fairness will be guaranteed.c) Soliciting reports by experts and further information through the Committee for Competition Equipment itself. Should the new developments not conform to the principles of the FIS Specifications for Competition Equipment, either through the application itself, or during the course of the procedures, the use of the new developments in question will be banned in competition sport. This will also occur if, during the item's probation period, circumstances result which lead the Committee to decide that the new developments do not conform to the principles of the FIS Specifications for Competition Equipment. In such a case, the provisional approval will be rescinded, with immediate effect.

2.5 Proposals to the 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.

B. Cross-Country Skiing Competition Equipment

1. General Rules

The following rules apply to all type of Cross-Country competition equipment such as skis, bindings, boots, poles and any additional equipment.

1.1 Restrictions

No equipment is permitted which:

- a) Affect the natural push-off movement of competitors' feet and arms or those that enhance it (such as spring devices or other mechanisms in skis, poles, binding or boots).
- b) Makes use of energy not originating from the competitor, such as artificial heating devices, chemical energy accumulators, electric batteries, mechanical aids, etc.).
- c) Affect the external conditions of the competition to the detriment of other competitors, such as changing the track or snow conditions.
- d) Increase the risk of injury to competitors and other persons who are authorized to be present at the competition venue, when used normally.

1.2 Procedure and collaboration with IBU

Any new developments in equipment produced by the industry or the NSAs for the following season must be submitted to the FIS & IBU no later than the 1st of May of the year in which the season begins.

The submission must be accompanied by appropriate information material such as drawings, descriptions or test results.

Prototypes must be submitted without exception. New developments that are in compliance with the rules will be immediately approved by the FIS & IBU.

IBU and FIS shall update each other about prototypes for equipment used in both Federations' sports to ensure the same allowance process.

2. Cross-Country Racing Skis

2.1 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, downhills). The basic features of this type of ski are defined in these rules.

2.2 Restrictions

Cross-Country racing skis must have the same basic geometric features (ski width, overall height, height of the tail and height of the tip) than cross-skiing skis commercially available with the following restrictions:

2.2.1 *Ski length*

Minimum: height of skier minus 100 mm

2.2.2 *Same construction*

Both skis must be constructed in the same way and must be the same length.

2.2.3 *Mass*

Skis must weigh at least 750 g per pair (without bindings). No limitations with regard to the distribution of mass.

2.2.4 *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. Devices that are activated by any energy other than the competitor's own muscular power are not permitted.

2.2.5 *Edges*

The edges must not face up and outwards, making the running surface narrower than the top surface (no wedge shape).

3. **Cross-Country Racing Bindings**

As commercially available. No limitations with regard to material and make, subject to the restrictions described at article 1.

4. **Cross-Country Racing Boots**

As commercially available. No limitations with regard to material and make, subject to the restrictions described at article 1.

5. **Cross-Country Racing Poles**

5.1 **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).

5.2 **General rules**

5.2.1 *Poles of equal length*

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

5.2.2 *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)

In classical technique competitions, the maximum pole length must not exceed 83% of the competitor's body height. In free technique competitions, the maximum pole length must not exceed 100% of the competitor's height. The body height is measured with ski boots on from a flat surface, to the top of the uncovered head.

The pole length is measured from the bottom of the pole to the highest attachment of the strap.

All measurements will be rounded to the nearest centimetre as follows: less than 0.5 cm will be rounded down and 0.5 cm and above will be rounded up.

5.2.3 *Constant length*

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

5.2.4 *Foreign energy*

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

5.2.5 *Weight*

No limitations regarding the weight of the pole.

5.2.6 *Construction*

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

5.3 **Technical Specifications**

5.3.1 *Grip*

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

5.3.2 *Straps*

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

5.3.3 *Shaft*

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

5.3.4 *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.

5.3.5 *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.

C. Ski Jumping Competition Equipment

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/length relationship ($BMI = \text{body weight} / \text{body length}^2$ in kg/m^2). (see enclosure)

However, the maximum ski length is 145 % of the total body length of the competitor based on a minimum BMI of 21 for Women and 21 for Men. For athletes with less than minimum BMI a grading table of 0,125 BMI will be applied.

Exception: For Youth competitions, the maximum ski length is limited to 140 % from the body length only (no BMI formula will be applied).

1.2.1.1.1 Body weight control

The body weight control takes place in private underwear without helmet and goggles, gloves, ski jumping boots, wedges, jumping suit, bib.

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.

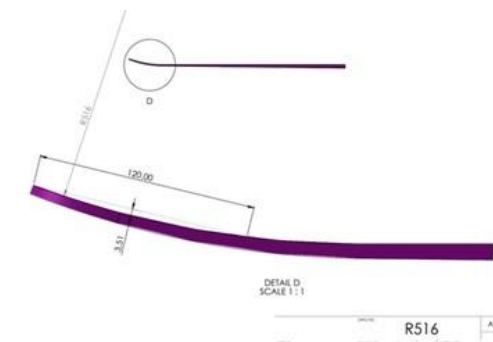
Rounded top-to-bottom edges must never be more than 2 mm.

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 surface of 40 mm is observed, when the ski is pushed to the surface at 57% of the ski length (whole surface of the ski must be placed on the flat surface).

Ski tip must be curved. The depth of the curve must be minimum 3.5 mm within 120 mm from the ski tip.



1.2.1.4 *Contour of tail*

According to the sketch (see page 26)

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.

1.2.1.6 *Top surface*

The top surface of the ski must be smooth, flat and straight over the entire width of the ski. The ski must have an even and regular surface, free from perceptible projections, lumps or indentations.

1.2.2 *Shape and Flexibility*

Aerodynamic coverings on the tips, as well as fins in the form of stabilizers on any 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 kg 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). The weight of the ski can be measured with bindings (whole binding system – front and back part including ski wedges and screws). In this case, the weight of the ski must show the weight of the ski (minimum weight conforming to ski length) with added weight of the bindings of minimum 200 ~~250~~ grams.

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 centre of gravity are permitted. If these are attached to the surface of the ski with scotch tape or similar the total surface of the tape cannot exceed 45 cm².

2. **Jumping Ski Bindings**

Safety bindings in Ski Jumping 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 on the ski.

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 boots are fixed to the skis symmetrically, along the axis of the ski, and parallel to the running direction. Bindings must be flat mounted on the ski. All mounting screws of the front part of the binding must be located in the front of the lock part of the binding. After fixing the front part of the jumping boot into the front part of the binding it must stay fixed and horizontal to the top surface of the ski. 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. Minimum weight of the whole binding system – front and back part including ski wedges and screw of the ski bindings is 200 250 grams.

The use of a safety strap connecting the boot with the binding/ski is mandatory, unless a binding with a locker system is used.

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 50 mm.

2.2 **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 centimetres).

2.3 Ski stopper

Ski stopper is a mechanism that prevents the ski from sliding down/away and lowers its speed when the boot is released from the binding.

2.4 Transponders and Motion Sensors

Transponders and Motion Sensors deliver live and recorded data that are provided by the official data and scoring provider and approved by FIS. They must be fastened to the front part of the bindings by the competitors in official trainings and competitions for some events. Transponders and Motion Sensors deliver external data from competitors such as speed and positioning. The service will be provided by the official timing and data provider, and the generated data must be provided to NSA's and FIS free of charge.

3. Ski Jumping Boots

3.1.1 Size and form

The boot size and form must equal the foot length and form. Maximum tolerance for boot size measurement (inside to outside) is + 2 cm.

3.1.2 Reshaping

Reshaping the boots in order to attain more aerodynamic features is not allowed.

3.1.3 Thickness of the sole

The boot sole may not exceed 40 mm measured from inside to outside at the lowest point of the heel.

The entire height of the boot sole and binding wedge must not exceed 50 mm.

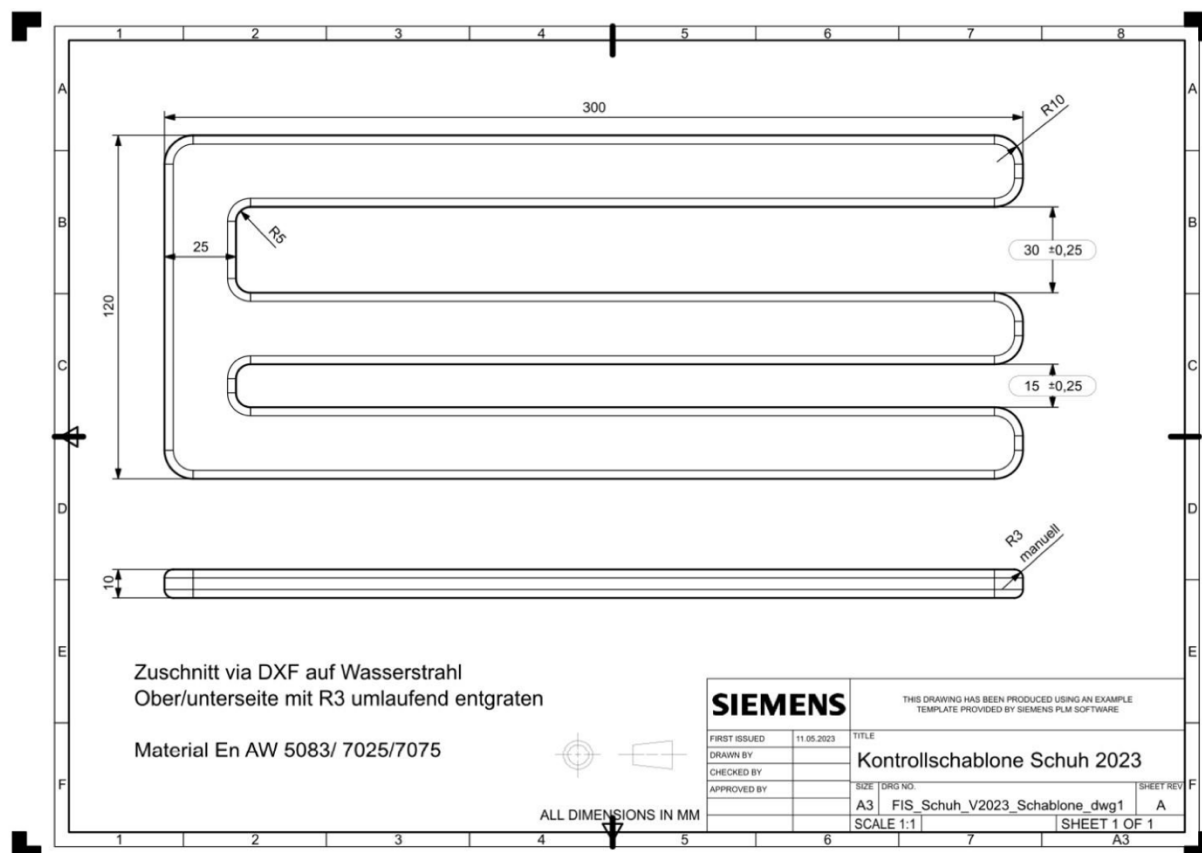
3.1.4 Angle of the rear part

Lean angle of the rear part of the boot must not be under 65 degrees measured inside.

3.1.5 Back part

Thickness of the back part of the boot edge must not exceed 30 mm. Thickness of the sides must be equal with a maximum thickness of 15 mm.

3.1.5.1 Back part templates



3.2 Shields/spoilors

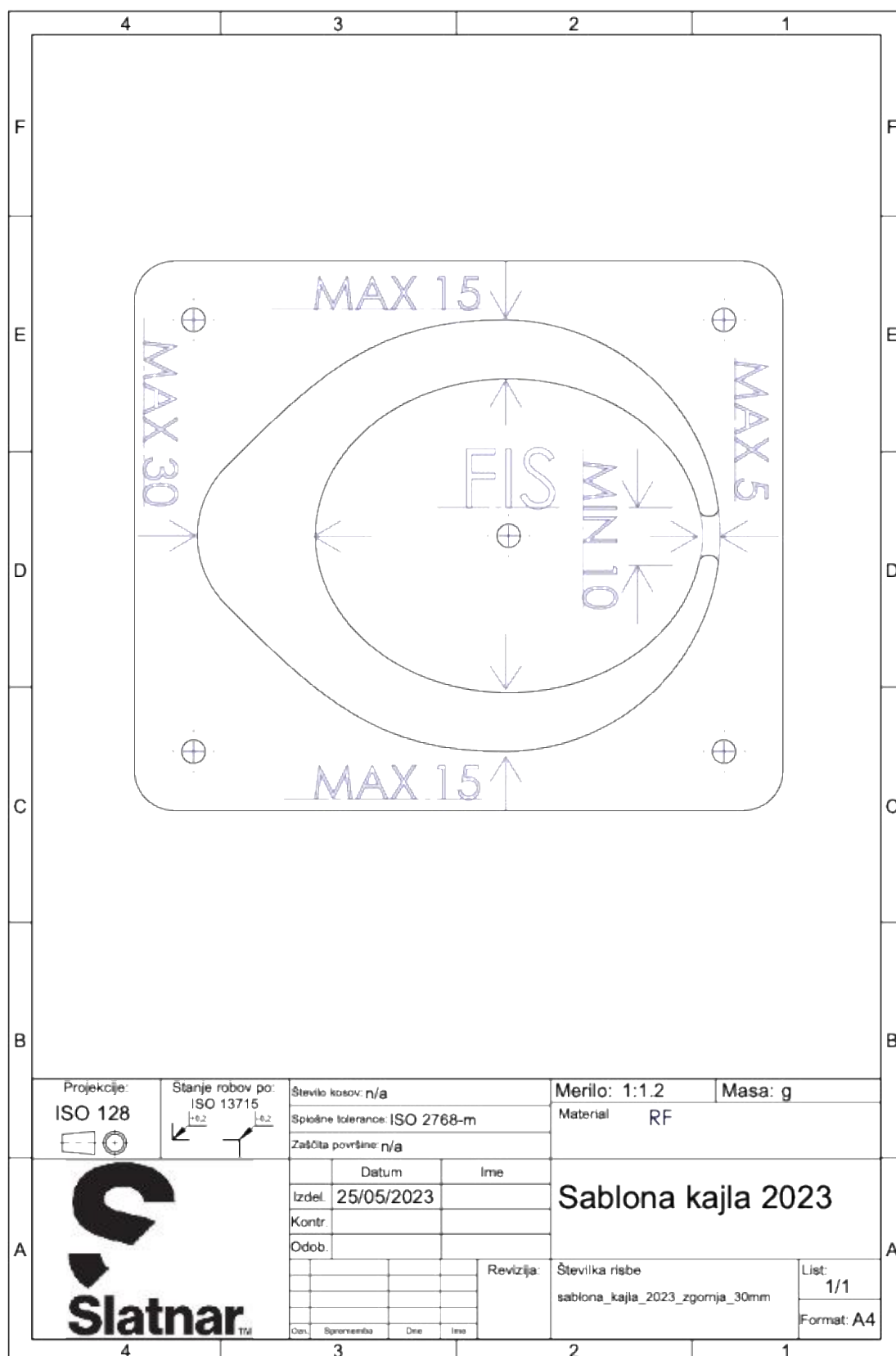
Carbon shields (spoilers) around the rear part of the boot are allowed, however, they must be attached to the boot surface over its entire area, must not extend beyond the surface of the boot and must be mounted symmetrically. If the spoiler does not cover the entire area, it must be mounted symmetrically.

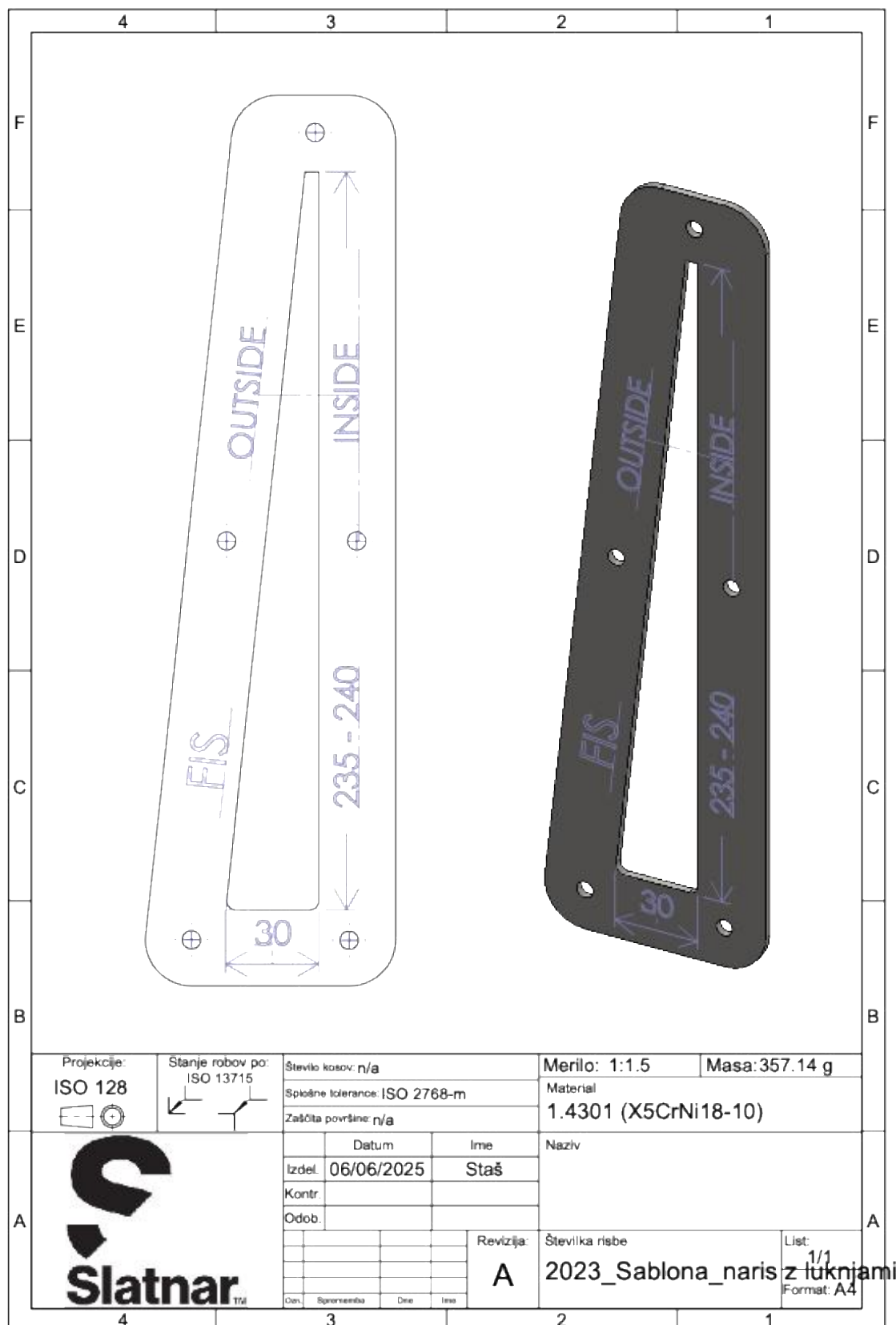
These shall be mounted to the surface of the boot in such a way that no fixation of the suit to the boot/shield is possible.

3.3 Wedges

Wedges inside athlete's boots might be worn during the jump. Wedges must be symmetric. The following maximum sizes are allowed - back part: 3 cm; side: 1.5 cm on each side; front part: 0.5 cm. Wedge opening might only be positioned in its central front part. Opening on either side is not allowed. The upper edge of wedges must be placed on the same level as that of the upper edge of jumping boots. The wedges must be placed inside the boots symmetrically (rotating wedges inside the boots is not allowed) and must fit into the inside of the boot closely.

3.3.1 Wedges templates





4. Ski Jumping Suit

- 4.1 Definition and General Rules

A ski jumping suit is a specialized competition garment designed for ski jumping.

- The enclosed suit illustrations are the authoritative basis for these written rules.
- The suit must be tailored in a way that allows measurements to be taken at all required points.
- The suit cannot be fixed at any point.
- Marking the suits is permitted for measuring purposes and checks.
- No additional chemical (gaseous, liquid or solid) or mechanical treatment of the material or suits is allowed.
- Outer tucks and darts, folds and padding are not allowed.
- It is not allowed to place one's hair inside the suit or underneath the starting bib. Hair must be left loose outside the suit or placed within the helmet.
- Exception for youth competitions (Youth Cup, FIS Schüler GP,): no limit on the number of parts and the cut of the suits.

4.2 Suit Construction

4.2.1 Suit parts men

The male jumping suit consists of nine parts:

- Two front part (1)
- Two front trousers (2)
- One back part (3)
- Two back trousers (4)
- Two sleeves (5)

The two front parts (1) and the back parts (3) are sewn together at the side seam to form the upper torso.

The sleeve (5) is sewn together along the sleeve seam and the sleeve cap is sewn together with the armhole of the upper part.

The two front trousers (2) are sewn together in the middle with the crotch seam.

The two back trousers (4) are sewn together in the middle with the seat seam.

The front trousers (2) and the back trousers (4) are sewn together at the side seam and the inner leg seam of each leg.

The upper part (1, 3, 5) and the trousers (2, 4) are sewn together at the waist seam.

The main zipper must be sewn in between the front piece (1) and the front trousers (2).

The front parts of the suit (with zipper) must be equal with the back parts of the suit from the chest to the legs with the following exceptions:

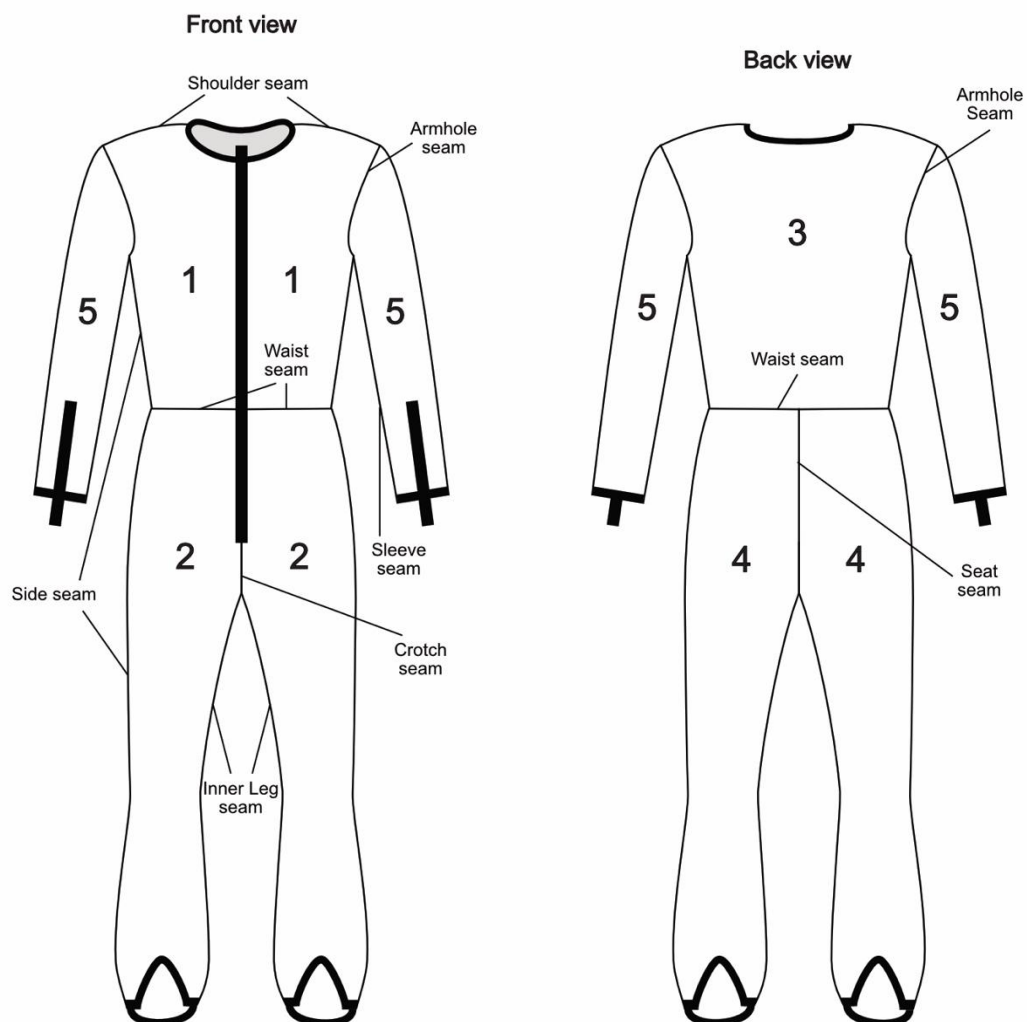
The back parts of the suit may be maximum 4 cm wider than the front parts at the crotch height. The tolerance decreases from the crotch to the waist seam and knee, reaching zero.

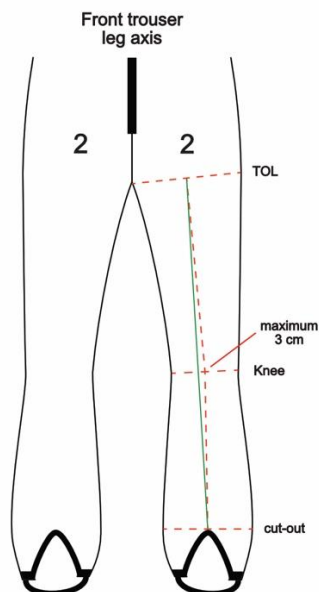
The legs of the jumping suit must be cut along the leg axis.

The side seam must run along the side of the body.

All parts of the suit must be made of fabric that conforms to the rules. (S.C.E 4.3).

Zippers, hem tapes and straps for attachments are not considered separate parts of the jumping suit.





4.2.1.1 Set-in sleeve

The sleeve seam begins at the sleeve hem and must not be positioned below the end of the ulna on the body. **The end of the sleeve seam crosses the armhole and must be the highest point of the sleeve seam (see illustration 1).** **At the same time, the end of the sleeve seam is the lowest point of the armhole and the sleeve cap (see illustration 2).** The sleeve seam meets the side seam of the front piece at the armpit. The armhole seam/shoulder cap **must run over the shoulder (see illustration 3).** It is not permitted to fix the sleeve to the body or the gloves.

Illustration 1

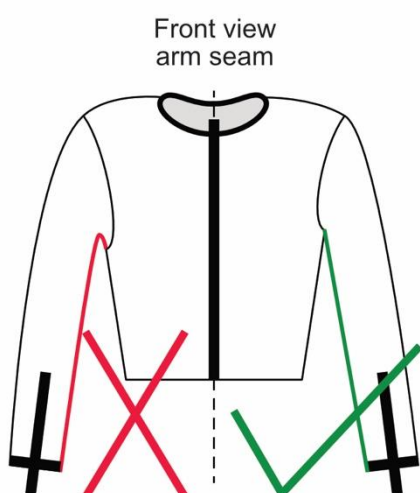


Illustration 2

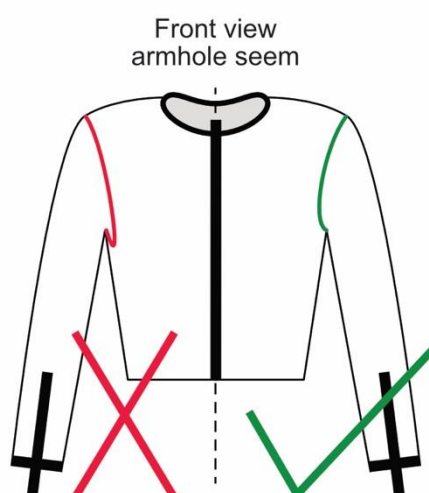
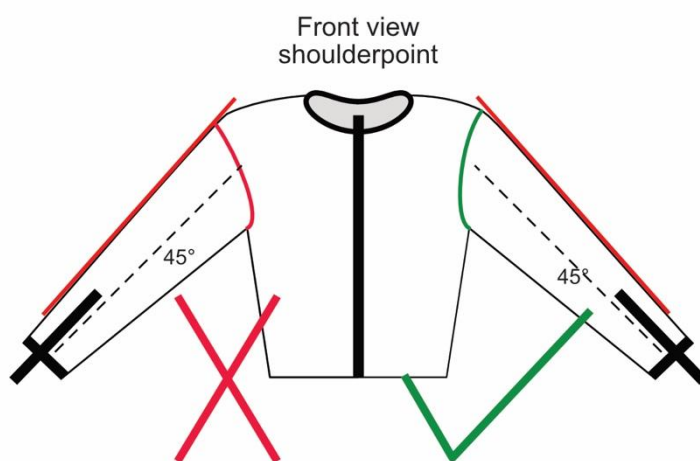


Illustration 3



4.2.2. Suit parts women

The female jumping suit consists of 13 parts:

- Two front parts middle (6)
- Two front parts outside (7)
- One back part (3)
- Two front sleeves (8)
- Two back sleeves (9)
- Two front trousers (2)
- Two back trousers (4)

The front middle part (6) and the front outside part (7) are stitched together at the Princess seam. These pieces (6, 7) are sewn together with the back part (3) on the side seam to form the upper torso.

The front sleeve (8) and the back sleeve (9) are sewn together on the outside sleeve seam and the inner sleeve seam.

The upper body and the sleeves are sewn together at the raglan seam.

The two front trousers (2) are sewn together in the middle with the crotch seam.

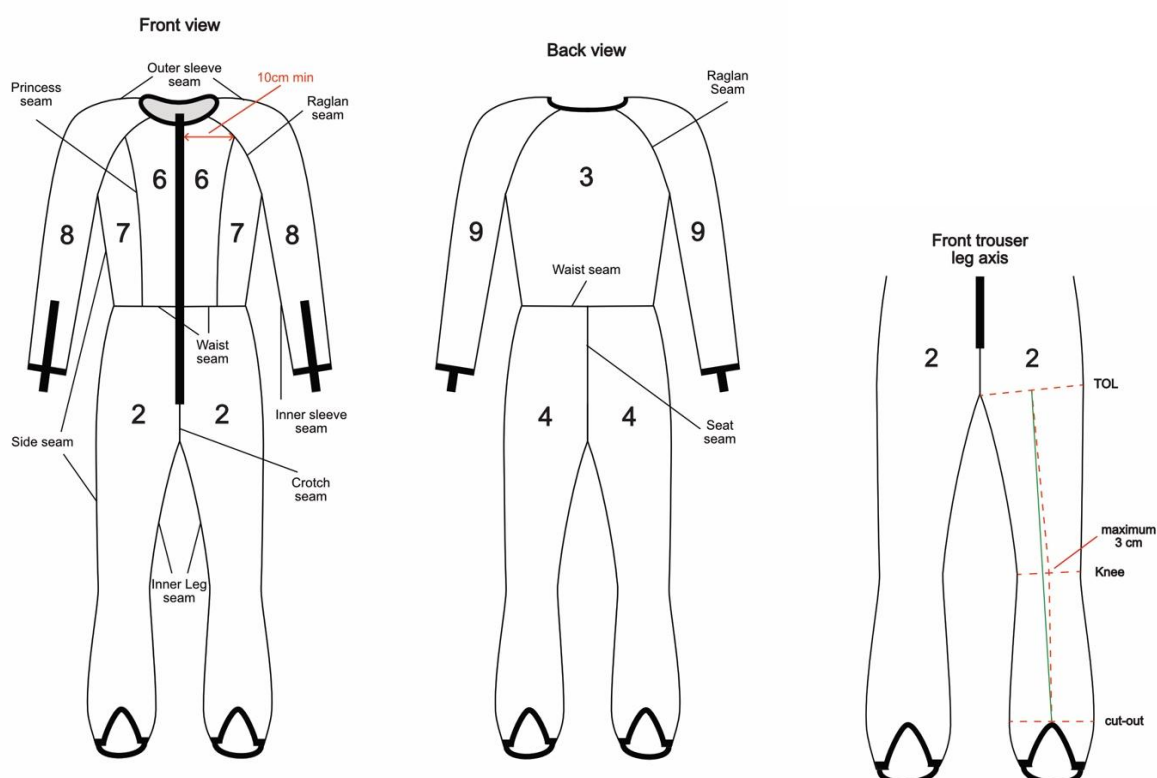
The two back trousers (4) are sewn together in the middle with the seat seam.

The front trousers (2) and the back trousers (4) are sewn together at the side seam and the inner leg seam of each leg.

The front upper body (6, 7) (left and right with the zipper) must be equal with the back part (3) from the waist seam to the highest chest circumference with the following exception:

At the highest point of the chest, the tolerance is 50 mm and should decrease to the waist seam to zero. Only the front part can be larger.

The lower part (of the suit, below waist seam) is identical with the men's cut (2 and 7)



4.2.2.1 Princess seam

The upper area of front part (1) must have a width of at least 10 cm. The princess seam must run over the highest point of the breast.

4.2.2.2 Raglan sleeve

Two parts (8, 9) for each sleeve including shoulder. The sleeves must be equal from the armpit down. The alignment of the posterior seam must be centered along the length of the sleeve and parallel to the torso seam.

The sleeve seam begins at the sleeve hem and must not be positioned below the end of the ulna on the body. The end of the sleeve seam (illustration 4) crosses the raglan seam and must be the highest point of the sleeve seam. At the same time, the end of the sleeve seam is the lowest point of the raglan seam (illustration 5). The inner sleeve seam meets the side seam of the front piece at the armpit. The raglan seam is connected with the collar. It is not permitted to fix the sleeve to the body or the glove.

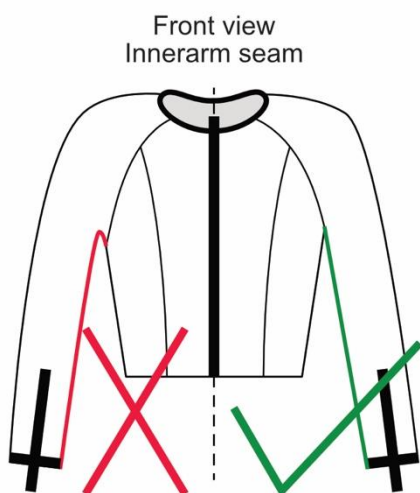


Illustration 4

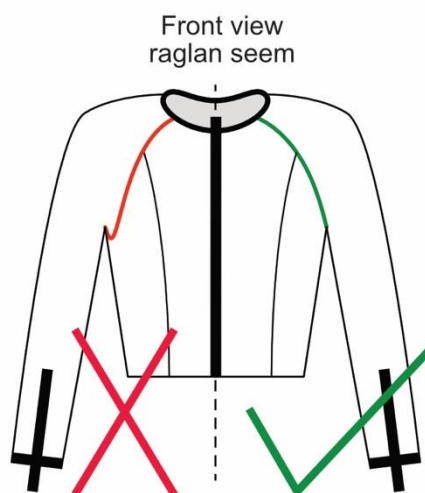
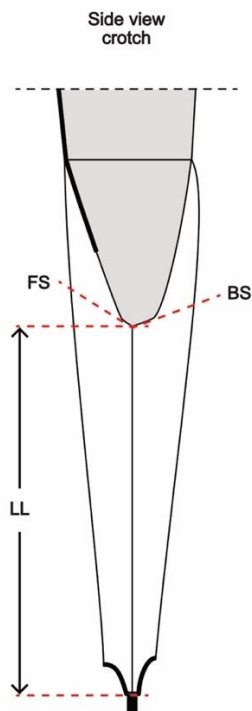


Illustration 5

4.2.3 Crotch

The crotch intersection is the point where the inner leg seams, crotch seam, and seat seam meet.

- This point must always be the lowest part of the crotch.
- The crotch seam and seat seam must run above the template angle (FS-BS) from the crotch intersection while the suit is laid inside out. Both seams may only contain a single curve each.
- The crotch seam from the zipper and the seat seam up to the waist seam at the back of the trousers must serve as the main seam or guiding seam and be sewn in a single line. The inner leg seams must be connected to this main seam.



4.2.4 Waist Seam

- The waist seam runs horizontally around the body and must be positioned at **hip bone level, with a tolerance of ± 5 cm up or down. (new for women)**
- The difference between the front and back center must not exceed **5 cm**.
- The waist seam on the front parts must be straight.

4.2.5 Seams/Stitches

- Seams are only allowed to join the suit parts, zippers, hem tapes, and straps.
- **Crotch seam, seat seam and the last 15 cm of the legs (boots) can be double sewn but only on top of each other and not next to each other.**
- The seams must be located inside the suit.
- It is not permitted to sew the ends of the fabric.
- The seam allowance (material behind the seam up to the edge) must not exceed **1 cm** and must not be connected.
- Additional seams or modifications to the seams, as well as cords, rods, pleats, bands, etc., inside or outside the suit, are not permitted.

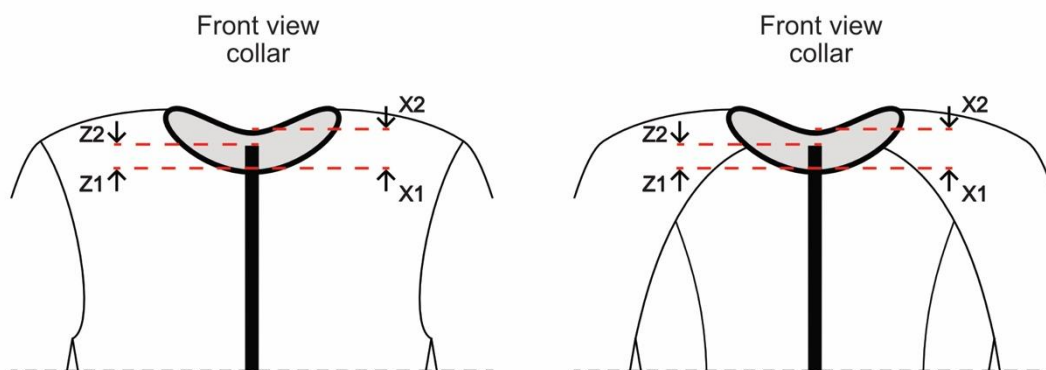
4.2.6 Hems/Cut outs

- The leg hem, arm hem, and collar must be edged with a continuous elastic band and have the same physical material properties.
- **The width of each hem must not exceed 1,5 cm.**
- **The hem tape must not create any creases/folds on the fabric.**

4.2.6.1 Collar/Neckline

- The collar must have a rounded shape and must be close-fitting to the body.
- The height difference between the front and back of the collar must not exceed 5 cm, with the front part always being lower. (X1 – X2)
- The zipper must extend between 1,5 cm - 5 cm beyond the hem tape. (Z1 – Z2)

Men/Women

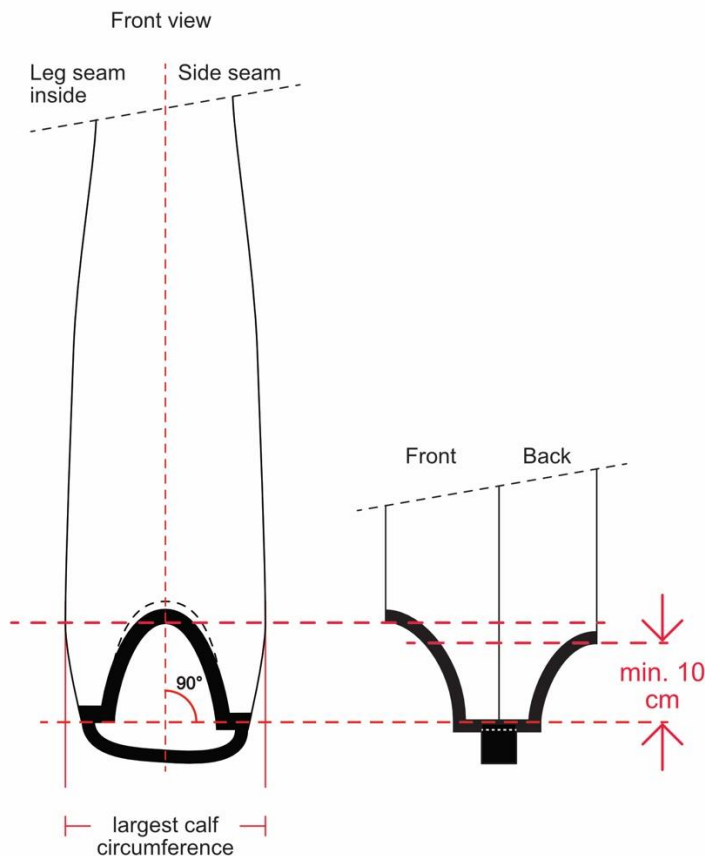


4.2.6.2 Sleeve hem

- The arm hem must be at a 90° angle to the arm axis and must not extend beyond the ulna.

4.2.6.3 Leg hem

- The leg hem must have a shoe cutout at the front and back.
- **The rear shoe cutout must be minimum 10 cm high.**
- The front shoe cutout must be positioned behind boot strap or buckle.
- One single strap must be sewn from the hem of the inner leg seam to the outer side seam to fix the suit to the boots (inside the suit).
- The leg hem, where the strap is attached, must be positioned at a 90° angle to the leg axis, **with the outer side always longer than the inner side.**
- The strap must be between 2 cm - 4 cm wide and maximum thickness of **2 mm.**
- The strap must be made of a single continuous piece and must not contain clips, buckles, or other fasteners to join multiple material pieces.
- The leg of the suit must only be fixed to the boot with the strap.
- The length of the leg hem must not extend beyond the sole of the ski jumping boot.
- **The largest circumference of the calves must be at the height of the front leg cut-out.**



4.2.7 Zipper

- Zippers must extend between 1,5 cm - 5 cm beyond the hem tape.
- The maximum width outside of a zipper is 1,5 cm.
- All zippers must remain closed throughout the entire jump.

4.2.7.1 Sleeve zipper

- One zipper may be sewn into each sleeve.
- **The zipper must end before the elbow.**
- The position (rear, front, side) can be selected as required.

4.2.7.2 Main zipper

- The front main zipper is to be sewn in between the front pieces (1) and the front trousers (2) and must be sewn in at least 5 cm below the waist seam and a maximum of 10 cm in front of the crotch cross.

4.2.8 Label

The suit must have a label with the following data

- **Name of the athlete**
- **Nation**

The label must be in the back part near to the collar.

The label can also be sewn into the back part hem of the collar.

The label can also be printed or written by hand with a waterproof Eddings.

The label must not be larger than 16 cm².

4.2.9 Sponsor Logos

Sponsor logos are exempt from air permeability.

Regulations regarding sponsor logos are set out in the SPECIFICATIONS FOR COMMERCIAL MARKINGS ON EQUIPMENT

4.3 Fabric for ski jumping suit

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.

The thickness of the suit may not exceed 6.0 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/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 % Elasthane (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 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 chinsed. 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.

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 m²/sec with 10 mm water pressure.

At controls in competitions, it must not be less than 40 litres. The maximum difference between various parts during the control must not exceed 12 litres.

4.3.1 Examination of materials

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.

4.4. Tolerance, Measurements

4.4.1 Body - Suit circumference

The suit must be between 2,0 cm – 4,0 cm larger than the athlete's body circumference at any point.

If an athlete wears a back protector, the body circumference must be measured while wearing the back protector.

Measuring device:

Tailor Measuring tape

Circumference of the body, legs and arms will be measured in 90 degrees to the axis.

Suit is measured on the outer surface where the suit is stretched flat, without any folds.

The suit will be marked and measured at the selected point; the athlete is then marked and measured at the corresponding body point.

Any point on the athlete's body can be measured and compared to the corresponding one on the suit. The reference point to decide for the

measured place for both suit and body is the position of the waist seam for torso and **hip bone for legs**.

All body measurements are taken in private underwear.

When the athlete is wearing the suit – the athlete must stretch the arms so, that the

elbows are 30 cm from the body, when the measurements are taken. Legs must be straight, feet 30 cm apart. Athlete must stand up in an upright position.

4.4.1.1 Measurement Armpit-Shoulder Part

The measurement of the circumference armpit-shoulder area is measured when the athlete is wearing the suit. The arms are extended at a 45° angle from the body. The athletes are also measured when they are not wearing the suit, with the circumference of the armpit-shoulder area measured with the arms stretched at an angle of 45° from the body.

4.4.1.2 Leg under Knee

The suit must be between 2 cm – **10 cm** larger than the **athlete's body size** from the knee to the ankle, when wearing boots and jets.

The transition starts from the knee to the lower hem of the leg section.

4.4.2 Waist Seam

Straight waist seam at the front part – tolerance of $\pm 1,0$ cm up or down. (suit on the table)

Difference of waist seam center front to back – tolerance of max 5,0 cm (suit on the table)

Measuring device:

Metal measuring tape

4.4.3 Armhole seam over shoulder

The armhole seam may not touch the digital level.

Measuring device:

Digital level with 45° measurement

The athlete must stand upright with arms extended at a 45-degree angle.

The spirit level must be positioned externally along the forearm and upper arm.

4.4.4 Leg axis

Tolerance of the leg axis is $\pm 3,0$ cm at knee height.

Measuring device:

Metal measuring tape

The axis midpoint is marked on the thigh, knee, and upper edge of the shoe cutout on the suit.

A straight line is drawn from the thigh marker to the shoe edge, and the deviation at the knee must not exceed 3 cm.

4.4.5 Sleeve length (SL)

No shorter than body arm length -3,0 cm

Measuring device:

Metal measuring tape

The measurement is taken from the end of the sleeve hem in a straight line to the intersection of the seams in the armpit. For this measurement, the suit is hung from the end of the sleeve.

4.4.6 Leg length (LL)

Men:

The minimum measured length must be at least 1,0 cm greater than the athlete's body crotch height.

Women:

The minimum measured length must be at least 1,0 cm greater than the athlete's body crotch height.

Measuring device:

Metal measuring tape

Inner leg length (LL) is measured from the intersection of the seams at the crotch of the suit (SX) in a straight line to the lowest seam where the strap is sewn on the hem.

The suit is hung from the leg for this measurement.

4.4.7 Crotch control

Men:

Not shorter than body crotch height +3,0 cm

Women:

Not shorter than body crotch height.

Measuring device:

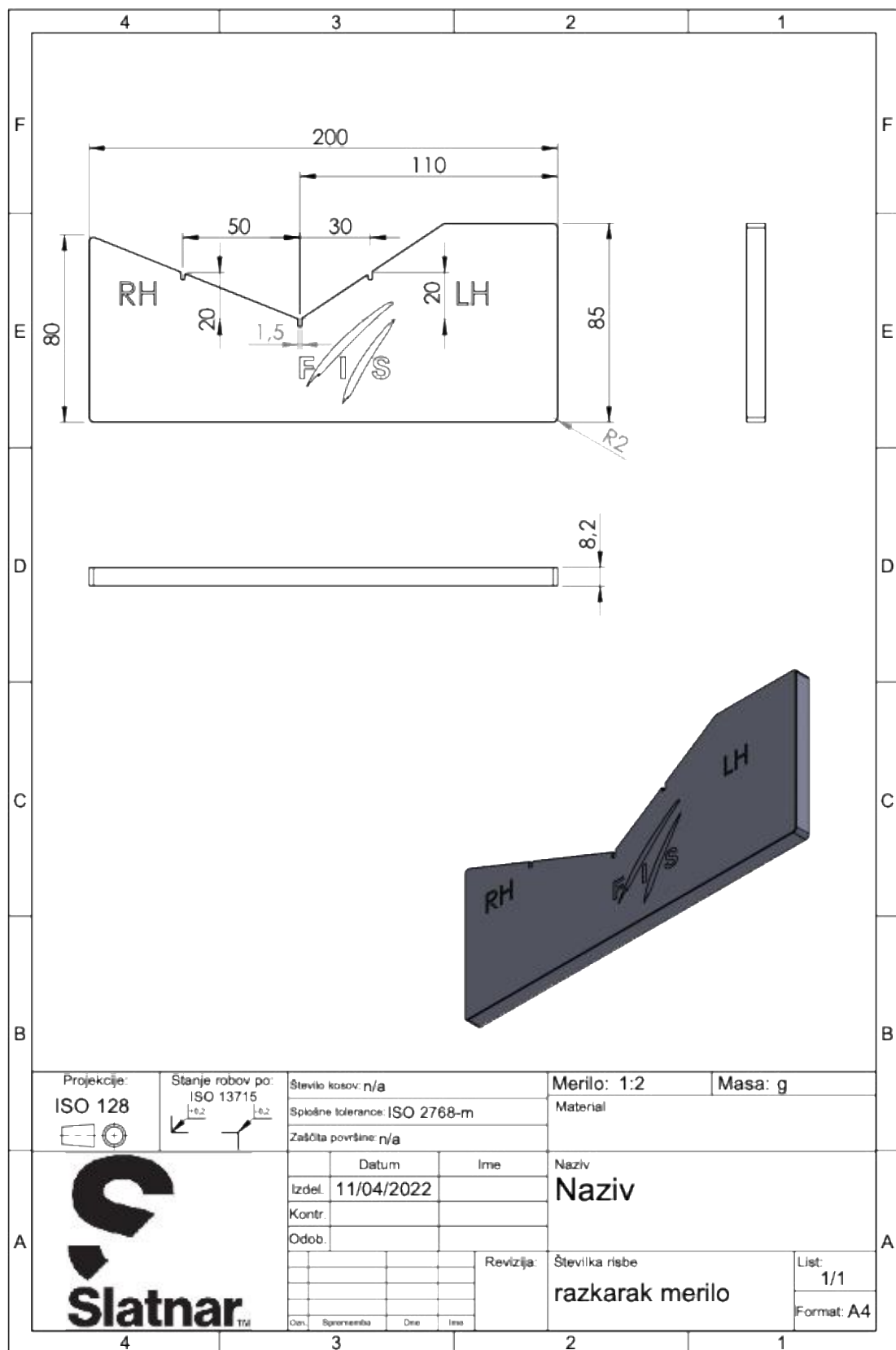
Crotch measuring device (Slatnar)

Vertically from the ground to the crotch. The athlete must wear the jumping suit, jumping boots and wedges. During the measuring feet must be 30 cm apart and the legs must be fully extended. The rear part of the boots must connect to the metal part of the crotch device. It is only permitted to stand with the flat middle sole on the wheel of the crotch device.

Crotch control can take place before and / or after jump.

4.4.8 Crotch template (FS – BS)

The crotch template must be positioned at a 90° angle to the inner leg seam, and the deepest point of the template angle must be at the crotch intersection. The seams must run above the template.



4.4.9 Air permeability of the ski jumping fabric

The minimum air permeability of the ski jumping fabric is 40 L/m²/sec.

The **difference in air permeability** between all parts of the suit must not exceed **12 L/m²/sec**.

The air permeability is measured at the fabric in the direction of the air flow during the jump.

Men:

Front parts – from the outside in

Back parts – from the inside out

Sleeve – from the outside in

Women:

Front parts – from the outside in

Back parts – from the inside out

Measuring device:

Steinel Porosimeter V01, V03, V03

4.4.9.1 Procedure in case of negative primary result

If one measurement is less than 40 litres per m²/sec the following procedure will be carried out:

- The competition suit will be re-tested at six different randomly selected spots at this part of the suit
- The two extreme values (highest and lowest) will not be taken into consideration
- The average value of the four valid measurements is built. The result is served with 0.1 l/m²/s graduation
- Thereafter a tolerance of 3 l/m²/s is added. This serves as the final value of the measurement
- The final value of the measurement will be compared against the specification.

4.5 Suit Marking

All suits used in Olympic Winter Games (OWG), FIS World Ski Championships (WSC), FIS Ski Flying World Championships (SFWSC), FIS World Cup (WC) and Grand Prix (GP) series must be marked with the FIS designated system prior to events to show that they have been checked and approved by the FIS Equipment Controller.

- Only suits that pass the technical approval are marked by the FIS Equipment Controller
- Suits will be marked with **5 (for men)** and **3 (for women)** unique encoded NFC chips applied to the inside suit surface with a thermo press in pre-defined positions
- Data for each marked suits – athlete name and suit number will be registered and recorded into designated FIS data base
- Only athletes participating in the competitions are allowed to submit suits for marking.
- Each athlete is allowed to register and use a limited number of suits per season.
- Athletes competing for the first time this season shall have a second suit (backup) marked.

- Any suits from summer period/s are allowed to be used also in winter season

4.5.1 Suit allocation periods 2025/2026 Ski Jumping Men

Summer Grand Prix	2 Suits
Lillehammer, Falun, Ruka, Wisla, Lake Placid	2 Suits
Engelberg, Oberstdorf, Garmisch-Partenkirchen, Innsbruck, Bischofshofen, Zakopane, Sapporo	1 Suit
SF WSC Oberstdorf, Willingen	1 Suit
Olympic Games	2 Suits
Kulm, Lahti, Oslo, Vikersund, Planica	1 Suit

4.5.2 Suit allocation periods 2025/2026 Ski Jumping Women

Summer Grand Prix	2 Suits
Lillehammer, Falun, Ruka, Wisla, Lake Placid	2 Suits
Engelberg, Garmisch-Partenkirchen, Oberstdorf, Villach, Ljubno,	1 Suit
Zhangjiakou, Zao, Sapporo, Willingen	1 Suit
Olympic Games	2 Suits
Hinzenbach, Lahti, Oslo, Vikersund, Planica	1 Suit

4.5.3 Suit allocation periods 2025/2026 Nordic Combined Men

Summer Grand Prix	1 Suit
WC Ruka / COC Ruka	1 Suit
WC Oberhof / COC Eisenerz	1 Suit
Olympic Games (only one will be chipped)	2(1) Suits
WC Kulm Lahti (only athletes are not in OWG) / JWSC Trondheim	1 Suit

4.5.4 Suit allocation periods 2025/2026 Nordic Combined Women

Summer Grand Prix	1 Suit
WC Trondheim / Lillehammer	1 Suit
WC Seefeld / COC Schonach	1 Suit
WC Lahti / JWSC Trondheim	1 Suit

4.5.5 Use of the suits for Ski Jumping

- One suit per competition day, two suits per event are allowed to be used in World Cup and Grand Prix events
- Two suits per OWG, WSC and SFWSC are allowed to be used, one per each competition day
- In case a suit is damaged during official jump (official training, trial round, qualification, competition) athlete is allowed to replace the damaged part after it had been inspected and approved by the EC, this must be reported to the respective FIS Equipment Controller without delay and recorded into the FIS Chip data base. **All teams are informed about such processes.**
- In specific cases, FIS Equipment Controller has a right to allow the use of a second suit during competition day (rainfall, snowfall, etc.).
- Suit marking control can be executed either before and / or after jump.

- In case where a marked suit has been manipulated (arm and inside leg lengths, cut of the suit, etc.) after being marked, the FIS Equipment Controller deactivates the chips, and the suit cannot be used anymore or replaced. Manipulation leads to disqualification of the athlete and any case of deliberate manipulation can be submitted to the appropriate FIS authority for assessment and may result in further consequences and penalties.
- A proposal of a provisional suspension will be/might be made and the case will be subject to “FIS Prevention against Competition Manipulation rules” and further investigation and thus possible sanction.

4.5.6 Use of the suits for Nordic Combined

- One suit per OWG and one for WSC are allowed to be used.
- One suit is allowed per NC Events World Cup, Summer Grand Prix and COC.

4.5.7 Other Series

- All suits used in COC, I-COC and JWSC will be manually marked; each athlete is allowed to use one suit per competition.
- In case a suit is damaged during official jump (official training, trial round, qualification, competition) this must be reported to the respective FIS Equipment Controller without delay, in such a case the FIS Equipment Controller can allow the use of a different suit for the second competition round.
- In specific cases, FIS Equipment Controller has a right to allow the use of a second suit during competition day (rainfall, snowfall, etc.)

4.6 Technical Approval

All suits used in Olympic Winter Games (OWG), FIS World Ski Championships (WSC), FIS Ski Flying World Championships (SFWSC), FIS World Cup (WC) and Grand Prix (GP) series must have a positive Technical Approval.

The suit remains with the FIS Equipment Controller after the positive technical approval for marking the suits. The athlete must always follow the instructions of the FIS Equipment Controller.

The FIS Equipment Controller is authorized to check all S.C.E. rules.

The following measurements must be carried out.

4.6.1 Suit without athlete:

Sleeve length (SL)
Inner leg length (LL)
Crotch template (FS-BS)
Shoulder
Leg hem

4.6.2 Suit with the athlete:

Crotch Control
Shoulder

In case of irregularities (suit size, suit cut, ...), the inspector is required to take measurements.

4.7 Equipment Control/Suit

The equipment control is a random check of the competition equipment.

Equipment controls can be carried out before or after the jump.

Athletes must in all cases follow the instructions of the FIS Equipment Controller. In case an athlete fails to comply with the instructions of the controller during control, this will be classified as “refusal of equipment control” (ICR 441).

4.7.1 Start Control

- Control of the marking of the suits
- Crotch control
- Arm hem
- Leg Hem
- Collar
- In case of irregularities (reporting and additional measurements in the equipment control room)

Crotch control begins at the virtual line. The athlete must prepare for crotch control before the designated virtual line. Stretching and manipulating of the suit is not allowed. Athletes must walk to the control box in a natural, relaxed body position, the suit cannot be fixed in any way in any part of the suit/body. When the control is taken, the suit must be within the rules.

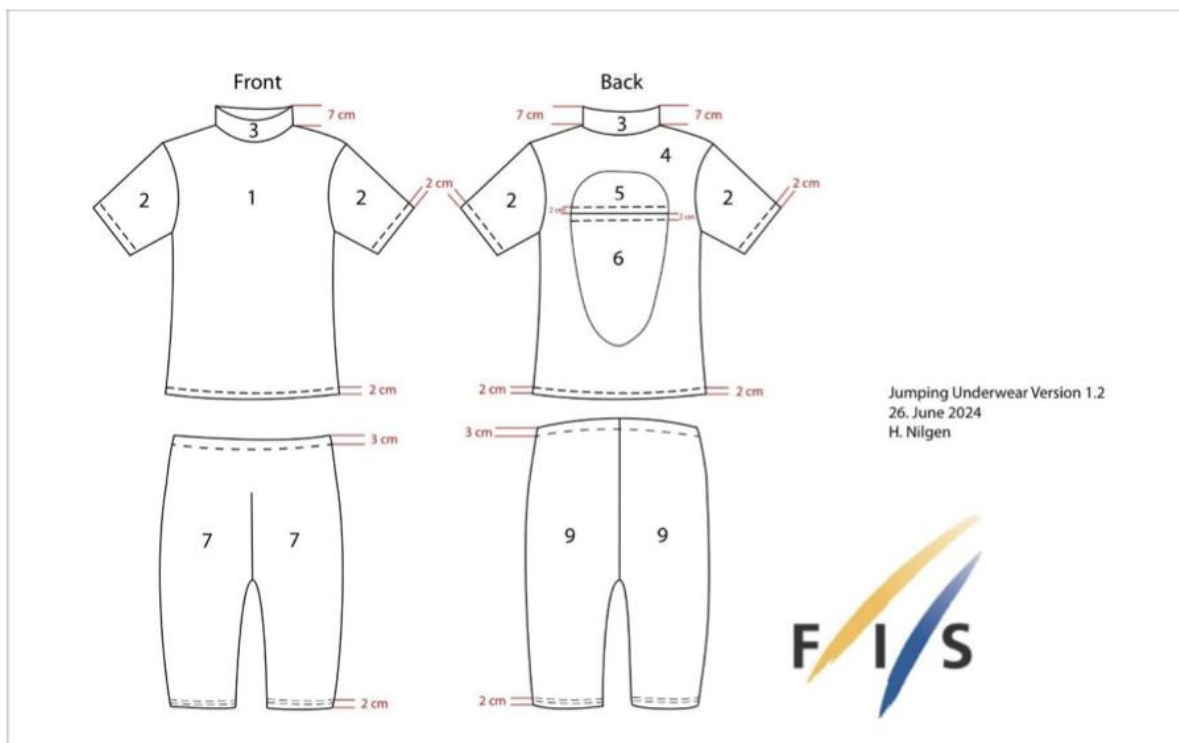
Athletes must follow the instructions of the FIS Equipment Controller, otherwise control can be refused.

Athlete is not allowed to manipulate any equipment before the jump after the control, nor after the jump before the control.

5 Ski Jumping Underwear

5.1 Restrictions

- Ski jumping underwear shall be made of elastane type of fabric which is a combination of polyester and polyurethane (Lycra, Spandex, etc.).
- The underwear shall consist of two parts (shirt and pants). The arm sleeve must end before the elbow. The leg of the pants must end before the knee. Overlapping of the stockings/socks and the pants is not allowed.
- All portions of the ski jumping underwear must be made of the same material and must show the same air permeability from the outside in and from the inside out.
- Outer tucks and darts, folds and padding are not allowed.
- The thickness of all parts of the underwear must be the same and must not exceed 1.5 mm. Cumulative thickness at seams, all layers and parts of the underwear together must not exceed 3 mm.
- All hems must be sewn by a singular piece and the entire piece must have the same physical material characteristics.
- Seams may only exist in order to join the portions of the underwear.
- 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 underwear is not allowed.
- Only one layer of fabric is allowed over the whole area of both underwear pieces.
- The fabric must have an even and regular surface, free from perceptible projections, lumps or indentations.
- Air permeability of the underwear must exceed 60 l/m².
- The size, fit and form of underwear must conform the size and shape of the body.
- No zipper, buttons, Velcro or similar on the T-shirt are allowed.
- It is not allowed to attach or fix the underwear to any part of the body or the suit (straps, hooks, tapes, or other fixing or helping material, etc.).
- No fixations (i.e. integrated holes for fingers) are allowed.
- No silicon lining/taping of any kind is allowed.
- A rubber band around waist of the shorts seam of maximum 3 cm width is allowed.
- No form of a hood is allowed.
- The cut of both parts of the underwear must be made according to the below drawings (while parts 3, 5 and 6 are optional)
- If an athlete is not using a back protector, they are not allowed to use a T-shirt with a pocket.



5.2 Back protector

One back protector can be placed in the underwear at the back of the T-shirt.

5.2.1 Sizes of back protectors

S for body size 120 - 140 cm
M for body size 135 - 155 cm
ML for body size 150 - 170 cm
L for body size 165 - 185 cm
XL for body size 180 - 205 cm

Upper



Lower

6 Standardized body measuring points

6.1 Definition and General Rules

An athlete needs to provide the following body measurements to be able to take part in a competition.

- Body Height
- Crotch Height
- Arm length
- Feet length

Once an athlete is scanned, no manual re-measurements are allowed.

Athletes up to junior age, 20 years of age, will be remeasured on an annual basis.

However, only a larger value (height, length) will be considered.

Measurements taken are valid from the upcoming event, except for the JWSC, which are valid immediately.

When measuring, all the measurements must always be measured.

The athlete must always follow the instructions of the FIS Equipment Controller.

Failure to comply with the FIS Equipment Controller will be sanctioned.

Double measurements within a calendar year are not permitted.

However, in case of irregularities, the FIS Equipment Controller has the right to request a re-measurement.

6.2 3D Body Scan

The 3D body scan is conducted using the Scaneca scanner, capturing the following measurements:

- Body height
- Crotch height

6.2.1 3D Body Scan Procedure

- The scan must be conducted in the presence of measurement controllers, a doctor/medical personnel (verified staff), and a responsible coach or a parent (optional).
- Before the scan, the athlete must verify their identity and sign the Consent Note.
- The athlete must wear standardized slips (provided by FIS).
- Long hair must be tied up so that the athlete's ears are visible.
- The doctor/medical personnel (verified staff) will check the athlete for any irregularities in the genital area and head.
- Any form of manipulation of the athlete's body to gain advantage in measurement is strictly prohibited, including any attempt.
- The athlete must always follow the instructions of the FIS Equipment Controller and the doctor/medical personnel (verified staff).

Body Posture Requirements

- Legs must be 30 cm apart.
- Upright posture – the lateral body axis (head, shoulders, hips, knees, and ankles) must be aligned in a straight line.
- Legs must remain extended.
- Arms must be fully extended and hold the designated support.

6.2.2 Crotch height

Crotch height is the measurement taken from the ground to the athlete's genital area.

The knees angle must not exceed **172 degrees (8° in the software)**.

6.2.3 Body height

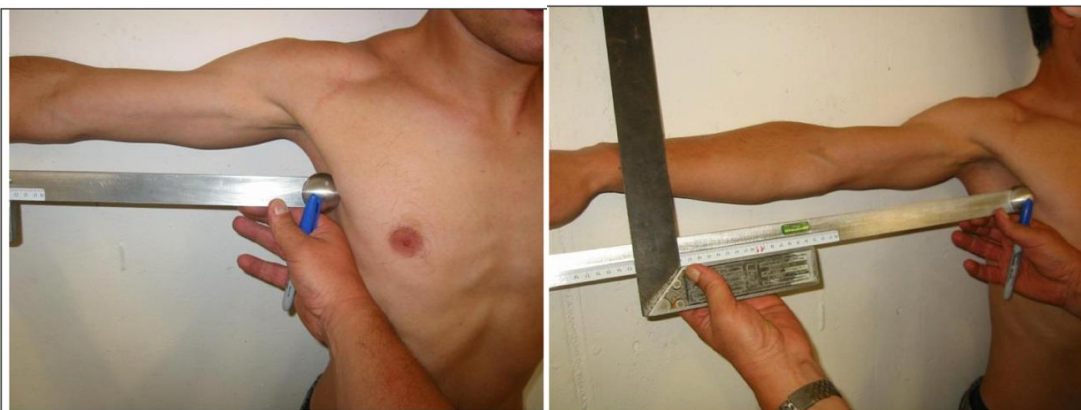
Body height is the measurement taken from the ground to the highest point of the head.

It is determined using a calculated line through various body reference points.

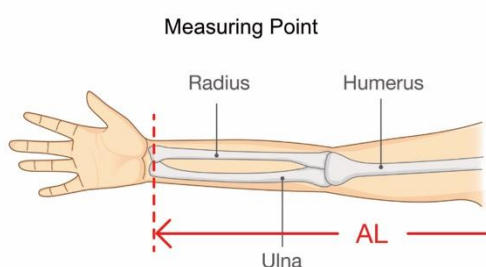
6.3 Body arm length (AL)

In a standing position, measured in an extended horizontal position of both arms from the torso. Length will be measured on the anterior side from the point between the chest muscle and rib cage (see picture #1) to the ulna (marked position at the end of the forearm – (processus styloideus unlae) (see picture #2). Measurement of both arm lengths will be taken, the shorter measurement will be recorded.

Picture #1



Picture #2



6.4 Foot length

The foot length is measured with the FIS foot length measuring tool. The athlete stands barefoot in the foot length measuring device and is allowed to lengthen the foot.

Both feet are measured. The higher value counts.

The measurement is accurate to 0.5 cm.

6.5 Manual Measurement for Body Height and Crotch Height

Manual measurement does not apply in the OWG, WSC, SFWSC, World Cup, GP and JWSC.

The athlete's body length as well as crotch height are measured with a laser tool.

6.5.1 Body Height:

- Standing straight against the wall
- Head, shoulder blades, buttocks, calves, and heels touching the wall
- Feet 30 cm apart

6.5.2 Sitting Body Height:

- Sitting on the table, knees at 90 degrees hanging down at the edge of the table
- Measurement rounding - mathematical rule applies
e.g. – up to 170.4 cm to 170 cm; from 170.5 cm included – to 171 cm
- For calculating crotch height, we use net values – 171.4 cm minus 89,7 cm = 81,7 cm rounded to 82 cm

7. Crash Helmets

The use of crash helmets is compulsory for all events. The shape of the helmet must conform to the shape of the head. The distance measured at any point between the outside surface of the helmet and the head shall not exceed 7 cm.

It is not allowed to attach anything to the helmet surface incl. cameras and holding/fixing systems, unless approved by FIS Race Director / Coordinator. The crash helmets used for international FIS competitions shall comply with the standards applicable for crash helmets for Alpine ski competitions (crash helmets to be used in Ski Jumping).

Compliance with the standards is to be attested by the corresponding specific standardised conformity label affixed in a non-removable way at the back of the helmet in a location which is and shall remain visible. The label shall in particular not be covered by the goggle strap. The conformity label (Label "RH2013") confirming compliance with the standard applicable to helmets to be used for international FIS competitions is shown in attachment. The labels affixed by manufacturers shall comply with the specifications set forth in the enclosure (page 3 7).

8. 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 mandatory.

9. Ski Gloves

Gloves offer protective covering against weather and external forces. The use of gloves is compulsory for all events.

The glove size must correspond to the hand size. Thickness of the material including all layers cumulative cannot exceed 7 mm.

The glove ends 7 cm after the end of the ulna bone towards the shoulder.

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

It is not allowed to fix the sleeve/suit around the gloves in anyway.

The seams of the gloves must be inside the gloves.

D. Bibs

- Nordic: Cross-Country / Ski Jumping

Examples: See enclosure.

1. FIS Specifications for Cross-Country 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 and must be cut in such a way that the skier's shoulders are allowed free movement:

Women size: without elastic band

Men's size: without elastic band

1.4 Fabric, material

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

1.5 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)

2. FIS Specifications for Ski Jumping Starting Bibs

2.1 Advertising

According to "FIS Advertising Rules"

2.2 Numbers

According to "FIS Advertising Rules"

2.3 Assignment

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

2.4 Fabric, material

T-Shirt starting bibs 100 % Polyester with an air permeability of 40 litres per m²/sec under 10 mm of water pressure.

2.5 Elasticity (stretch)

Measured on a piece of fabric 10 cm wide:

Stretch ability in the width 24 cm.

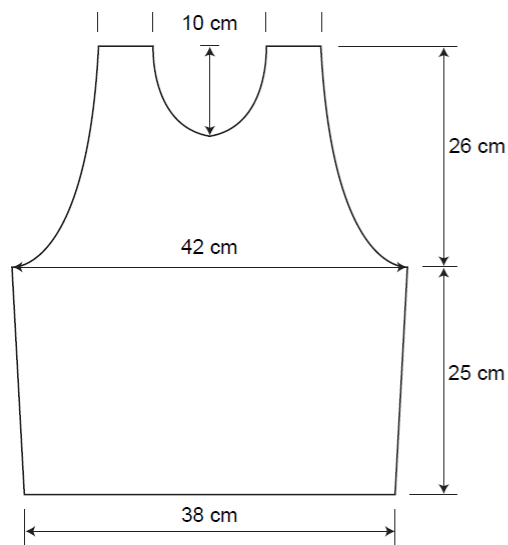
2.6 Seams, sewing

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

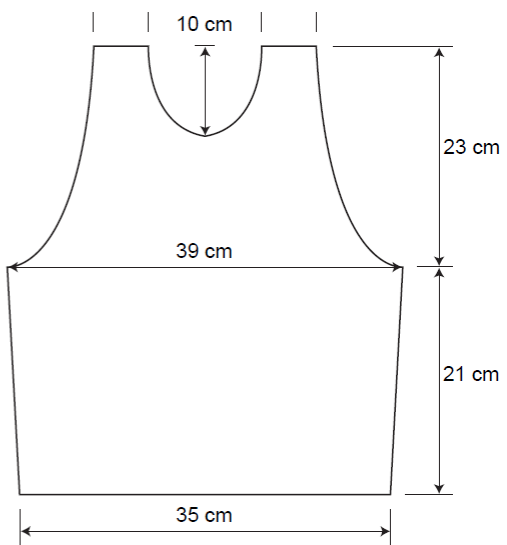
Neckline and armholes are trimmed with edging and double-stitched.

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

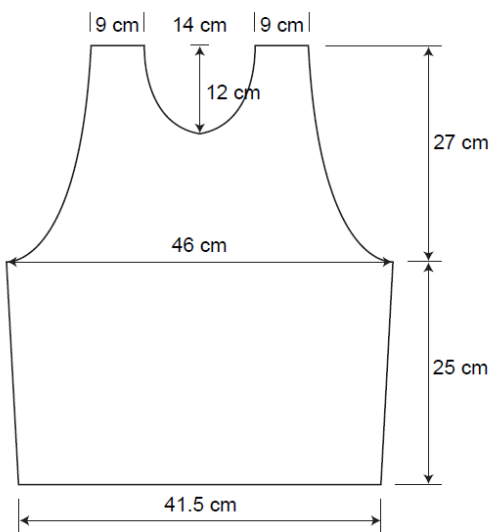
Ski Jumping Men
Without elastic band



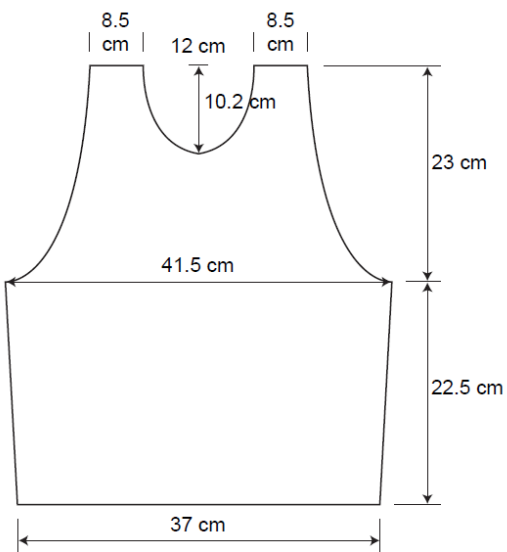
Ski Jumping Women
Without elastic band



Cross-Country Men



Cross-Country Women



Measurement table for mounting of Ski Jumping Bindings

Masstabelle für Montage der Skisprungbindung						Masstabelle für Montage der Skisprungbindung					
Measuring table for mounting of jumping bindings						Measuring table for mounting of jumping bindings					
ab Saison 2010/2011 - as from Season 2010/2011						ab Saison 2010/2011 - as from Season 2010/2011					
Body Height Körpergröße	Ski length 145% Skilänge 145%	Front ski = 57% Vorderski = 57%		Body Height Körpergröße	Ski length 145% Skilänge 145%	Front ski = 57% Vorderski = 57%		Body Height Körpergröße	Ski length 145% Skilänge 145%	Front ski = 57% Vorderski = 57%	
cm	cm	cm		cm	cm	cm		cm	cm	cm	
140	203	116		155	225	128		185	268	153	
141	204	116		156	226	129			269	153	
	205	117			227	129		186	270	154	
142	206	117		157	228	130		187	271	154	
143	207	118		158	229	131			272	155	
	208	119			230	131		188	273	156	
144	209	119		159	231	132		189	274	156	
145	210	120		160	232	132			275	157	
	211	120		161	233	133		190	276	157	
146	212	121			234	133		191	277	158	
147	213	121		162	235	134		192	278	158	
	214	122		163	236	135			279	159	
148	215	123			237	135		193	280	160	
149	216	123		164	238	136		194	281	160	
	217	124		165	239	136			282	161	
150	218	124			240	137		195	283	161	
151	219	125		166	241	137		196	284	162	
152	220	125		167	242	138			285	162	
	221	126			243	139		197	286	163	
153	222	127		168	244	139		198	287	164	
154	223	127		169	245	140			288	164	
	224	128						199	289	165	
								200	290	165	

Measurement table for mounting of Ski Jumping Bindings

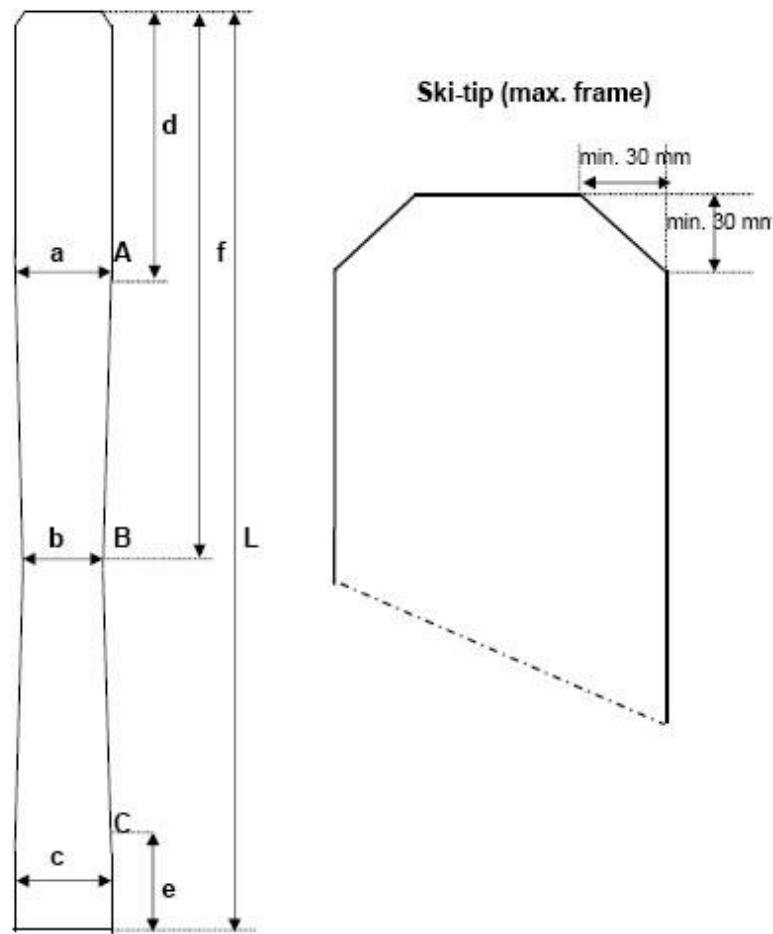
Jugend Cup - Masstabelle für Skilänge und Bindungsmontage						
Youth Cup - Measuring table for Ski length and mounting of the bindings						
ab Saison 2010/2011 - as from Season 2010/2011						
Body Height Körpergrösse	Ski length = 140% Skilänge = 140%	Front ski = 57% Vorderski = 57%		Body Height Körpergrösse	Ski length = 140% Skilänge = 140%	Front ski = 57% Vorderski = 57%
cm	cm	cm		cm	cm	cm
125	175	100		156	218	124
126	176	100			219	125
	177	101		157	220	125
127	178	101		158	221	126
128	179	102			222	127
	180	103		159	223	127
129	181	103		160	224	128
130	182	104		161	225	128
131	183	104			226	129
	184	105		162	227	129
132	185	105		163	228	130
133	186	106			229	131
	187	107		164	230	131
134	188	107		165	231	132
135	189	108		166	232	132
136	190	108			233	133
	191	109		167	234	133
137	192	109		168	235	134
138	193	110			236	135
	194	111		169	237	135
139	195	111		170	238	136
140	196	112		171	239	136
141	197	112			240	137
	198	113		172	241	137
142	199	113		173	242	138
143	200	114			243	139
	201	115		174	244	139
144	202	115		175	245	140
145	203	116		176	246	140
146	204	116			247	141

	205	117	177	248	141
147	206	117	178	249	142
148	207	118		250	143
	208	119	179	251	143
149	209	119	180	252	144
150	210	120	181	253	144
151	211	120		254	145
	212	121	182	255	145
152	213	121	183	256	146
153	214	122		257	146
	215	123	184	258	147
154	216	123	185	259	148
155	217	124	186	260	148

Jumping Skis

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



Label attesting conformity with FIS specifications for helmets.



Minimum Width : **10 Mm**

Minimum height : **15 Mm**

Measurement table for ski length and weight - BMI 21																																										
BMI / % cm	1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21	
	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm
140	41,2	203	40,9	202	40,7	202	40,4	201	40,2	200	39,9	200	39,7	199	39,4	198	39,2	197	39,0	197	38,7	196	38,5	195	38,2	195	38,0	194	37,7	193	37,5	193	37,2	192	37,0	191	36,8	190	36,5	190	36,3	189
141	41,8	204	41,5	204	41,3	203	41,0	202	40,8	202	40,5	201	40,3	200	40,0	200	39,8	199	39,5	198	39,3	197	39,0	197	38,8	196	38,5	195	38,3	195	38,0	194	37,8	193	37,5	192	37,3	192	37,0	191	36,8	190
142	42,3	206	42,1	205	41,8	204	41,6	204	41,3	203	41,1	202	40,8	202	40,6	201	40,3	200	40,1	200	39,8	199	39,6	198	39,3	197	39,1	197	38,8	196	38,6	195	38,3	195	38,1	194	37,8	193	37,6	192	37,3	192
143	42,9	207	42,7	207	42,4	206	42,2	205	41,9	204	41,7	204	41,4	203	41,2	202	40,9	202	40,6	201	40,4	200	40,1	199	39,9	199	39,6	198	39,4	197	39,1	197	38,9	196	38,6	195	38,3	194	38,1	194	37,8	193
144	43,5	209	43,3	208	43,0	207	42,8	207	42,5	206	42,2	205	42,0	204	41,7	204	41,5	203	41,2	202	41,0	202	40,7	201	40,4	200	40,2	199	39,9	199	39,7	198	39,4	197	39,1	197	38,9	196	38,6	195	38,4	194
145	44,2	210	43,9	210	43,6	209	43,4	208	43,1	207	42,8	207	42,6	206	42,3	205	42,1	204	41,8	204	41,5	203	41,3	202	41,0	202	40,7	201	40,5	200	40,2	199	39,9	199	39,7	198	39,4	197	39,2	196	38,9	196
146	44,8	212	44,5	211	44,2	210	44,0	210	43,7	209	43,4	208	43,2	207	42,9	207	42,6	206	42,4	205	42,1	204	41,8	204	41,6	203	41,3	202	41,0	201	40,8	201	40,5	200	40,2	199	40,0	199	39,7	198	39,4	197
147	45,4	213	45,1	212	44,8	212	44,6	211	44,3	210	44,0	209	43,8	209	43,5	208	43,2	207	42,9	207	42,7	206	42,4	205	42,1	204	41,9	204	41,6	203	41,3	202	41,1	201	40,8	201	40,5	200	40,2	199	40,0	198
148	46,0	215	45,7	214	45,5	213	45,2	212	44,9	212	44,6	211	44,4	210	44,1	209	43,8	209	43,5	208	43,3	207	43,0	206	42,7	206	42,4	205	42,2	204	41,9	204	41,6	203	41,3	202	41,1	201	40,8	201	40,5	200
149	46,6	216	46,3	215	46,1	215	45,8	214	45,5	213	45,2	212	45,0	212	44,7	211	44,4	210	44,1	209	43,8	209	43,6	208	43,3	207	43,0	206	42,7	206	42,5	205	42,2	204	41,9	203	41,6	203	41,3	202	41,1	201
150	47,3	218	47,0	217	46,7	216	46,4	215	46,1	215	45,8	214	45,6	213	45,3	212	45,0	212	44,7	211	44,4	210	44,2	209	43,9	209	43,6	208	43,3	207	43,0	206	42,8	206	42,5	205	42,2	204	41,9	203	41,6	203
151	47,9	219	47,6	218	47,3	217	47,0	217	46,7	216	46,5	215	46,2	214	45,9	214	45,6	213	45,3	212	45,0	211	44,7	211	44,5	210	44,2	209	43,9	208	43,6	208	43,3	207	43,0	206	42,8	205	42,5	205	42,2	204
152	48,5	220	48,2	220	47,9	219	47,7	218	47,4	217	47,1	217	46,8	216	46,5	215	46,2	214	45,9	214	45,6	213	45,3	212	45,1	211	44,8	211	44,5	210	44,2	209	43,9	208	43,6	207	43,3	207	43,0	206	42,7	205
153	49,2	222	48,9	221	48,6	220	48,3	220	48,0	219	47,7	218	47,4	217	47,1	216	46,8	216	46,5	215	46,2	214	45,9	213	45,6	213	45,4	212	45,1	211	44,8	210	44,5	210	44,2	209	43,9	208	43,6	207	43,3	207
154	49,8	223	49,5	223	49,2	222	48,9	221	48,6	220	48,3	219	48,0	219	47,7	218	47,4	217	47,1	216	46,8	216	46,5	215	46,2	214	45,9	213	45,7	213	45,4	212	45,1	211	44,8	210	44,5	209	44,2	209	43,9	208
155	50,5	225	50,2	224	49,9	223	49,6	222	49,3	222	49,0	221	48,7	220	48,4	219	48,1	219	47,7	218	47,4	217	47,1	216	46,8	215	46,5	215	46,2	214	45,9	213	45,6	212	45,3	212	45,0	211	44,7	210	44,4	209
156	51,1	226	50,8	225	50,5	225	50,2	224	49,9	223	49,6	222	49,3	222	49,0	221	48,7	220	48,4	219	48,1	218	47,8	217	47,5	217	47,2	216	46,8	215	46,5	215	46,2	214	45,9	213	45,6	212	45,3	211	45,0	211
157	51,8	228	51,5	227	51,1	226	50,8	225	50,5	225	50,2	224	49,9	223	49,6	222	49,3	221	48,9	221	48,7	220	48,4	219	48,1	218	47,8	217	47,4	217	47,1	216	46,8	215	46,5	214	46,2	214	45,9	213	45,6	212
158	52,4	229	52,1	228	51,8	228	51,5	227	51,2	226	50,9	225	50,6	224	50,2	224	49,9	223	49,6	222	49,3	221	48,9	220	48,7	220	48,4	219	48,1	218	47,7	217	47,4	216	46,8	215	46,5	214	46,2	213		
159	53,1	231	52,8	230	52,5	229	52,1	228	51,8	227	51,5	227	51,2	226	50,9	225	50,6	224	50,2	223	49,9	223	49,6	222	49,3	221	49,0	220	48,7	219	48,3	219	48,0	218	47,7	217	47,4	216	47,1	215	46,8	215
160	53,8	232	53,4	231	53,1	230	52,8	230	52,5	229	52,2	228	51,8	227	51,5	226	51,2	226	50,9	225	50,6	224	50,2	223	49,9	222	49,6	222	49,3	221	48,9	220	48,6	219	48,3	218	48,0	218	47,7	217	47,4	216
161	54,4	233	54,1	233	53,8	232	53,5	231	53,1	230	52,8	229	52,5	229	52,2	228	51,8	227	51,5	226	51,2	225	50,9	225	50,5	224	50,2	223	49,9	222	49,6	221	49,2	221	48,9	220	48,6	219	48,3	218	48,0	217
162	55,1	235	54,8	234	54,5	233	54,1	232	53,8	232	53,5	231	53,1	230	52,8	229	52,5	228	52,2	228	51,8	227	51,5	226	51,2	225	50,8	224	50,5	224	50,2	223	49,9	222	49,5	221	49,2	220	48,9	220	48,6	219
163	55,8	236	55,5	236	55,1	235	54,8	234	54,5	233	54,1	232	53,8	231	53,5	231	53,1	230	52,8	229	52,5	228	52,1	227	51,8	227	51,5	226	51,1	225	50,8	224	50,5	223	50,1	222	49,8	222	49,5	221	49,2	220
164	56,5	238	56,1	237	55,8	236	55,5	235	55,1	235	54,8	234	54,5	233	54,1	232	53,8	231	53,5	230	53,1	230	52,8	229	52,4	228	52,1	227	51,8	226	51,4	226	51,1	225	50,8	224	50,4	223	50,1	222	49,8	221
165	57,2	239	56,8	238	56,5	238	56,2	237	55,8	236	55,5	235	55,1	234	54,8	233	54,5	233	54,1	232	53,8	231	53,4	230	53,1	229	52,7	229	52,4	228	52,1	227	51,7	226	51,4	225	51,0	224	50,7	224	50,4	223
166	57,9	241	57,5	240	57,2	239	56,8	238	56,5	237	56,1	237	55,8	236	55,5	235	55,1	234	54,8	233	54,4	232	54,1	232	5																	

	22		23		24		25		26		27		28		29		30		31		32		33		34		35		36		37		38		39		40		41	
Body Fat %	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm	kg	cm
140	36.0	188	35.8	188	35.5	187	35.3	186	35.0	186	34.8	185	34.5	184	34.3	183	34.1	183	33.8	182	33.6	181	33.3	181	33.1	180	32.8	179	32.6	179	32.3	178	32.1	177	31.9	176	31.6	176	31.4	175
141	36.5	190	36.3	189	36.0	188	35.8	188	35.5	187	35.3	186	35.0	185	34.8	185	34.5	184	34.3	183	34.0	183	33.8	182	33.5	181	33.3	180	33.1	180	32.8	179	32.6	178	32.3	178	32.1	177	31.8	176
142	37.1	191	36.8	190	36.5	190	36.3	189	36.0	188	35.8	187	35.5	187	35.3	186	35.0	185	34.8	185	34.5	184	34.3	183	34.0	182	33.8	182	33.5	181	33.3	180	33.0	180	32.8	179	32.5	178	32.3	178
143	37.6	192	37.3	192	37.1	191	36.8	190	36.6	189	36.3	189	36.0	188	35.8	187	35.5	187	35.3	186	35.0	185	34.8	184	34.5	184	34.3	183	34.0	182	33.7	182	33.5	181	33.2	180	33.0	179	32.7	179
144	38.1	194	37.8	193	37.6	192	37.3	192	37.1	191	36.8	190	36.5	189	36.3	189	36.0	188	35.8	187	35.5	186	35.3	186	35.0	185	34.7	184	34.5	184	34.2	183	34.0	182	33.7	181	33.4	181	33.2	180
145	38.6	195	38.4	194	38.1	194	37.8	193	37.6	192	37.3	191	37.1	191	36.8	190	36.5	189	36.3	189	36.0	188	35.7	187	35.5	186	35.2	186	35.0	185	34.7	184	34.4	183	34.2	183	33.9	182	33.6	181
146	39.2	196	38.9	196	38.6	195	38.4	194	38.1	193	37.8	193	37.6	192	37.3	191	37.0	191	36.8	190	36.5	189	36.2	188	36.0	188	35.7	187	35.4	186	35.2	185	34.9	185	34.6	184	34.4	183	34.1	183
147	39.7	198	39.4	197	39.2	196	38.9	196	38.6	195	38.4	194	38.1	193	37.8	193	37.5	192	37.3	191	37.0	190	36.7	190	36.5	189	36.2	188	35.9	187	35.7	187	35.4	186	35.1	185	34.8	184	34.6	184
148	40.2	199	40.0	198	39.7	198	39.4	197	39.2	196	38.9	195	38.6	195	38.3	194	38.1	193	37.8	192	37.5	192	37.2	191	37.0	190	36.7	189	36.4	189	36.1	188	35.9	187	35.6	186	35.3	186	35.0	185
149	40.8	200	40.5	200	40.2	199	40.0	198	39.7	197	39.4	197	39.1	196	38.9	195	38.6	194	38.3	194	38.0	193	37.7	192	37.5	191	37.2	191	36.9	190	36.6	189	36.4	188	36.1	188	35.8	187	35.5	186
150	41.3	202	41.1	201	40.8	200	40.5	200	40.2	199	39.9	198	39.7	197	39.4	197	39.1	196	38.8	195	38.5	194	38.3	194	38.0	193	37.7	192	37.4	191	37.1	191	36.8	190	36.6	189	36.3	188	36.0	188
151	41.9	203	41.6	202	41.3	202	41.0	201	40.8	200	40.5	199	40.2	199	39.9	198	39.6	197	39.3	196	39.0	196	38.8	195	38.5	194	38.2	193	37.9	193	37.6	192	37.3	191	37.1	190	36.8	190	36.5	189
152	42.5	204	42.2	204	41.9	203	41.6	202	41.3	201	41.0	201	40.7	200	40.4	199	40.1	198	39.9	198	39.6	197	39.3	196	39.0	195	38.7	195	38.4	194	38.1	193	37.8	192	37.5	192	37.3	191	37.0	190
153	43.0	206	42.7	205	42.4	204	42.1	203	41.8	203	41.6	202	41.3	201	41.0	200	40.7	200	40.4	199	40.1	198	39.8	197	39.5	197	39.2	196	38.9	195	38.6	194	38.3	194	38.0	193	37.7	192	37.5	191
154	43.6	207	43.3	206	43.0	206	42.7	205	42.4	204	42.1	203	41.8	203	41.5	202	41.2	201	40.9	200	40.6	199	40.3	199	40.0	198	39.7	197	39.4	196	39.1	196	38.8	195	38.5	194	38.2	193	37.9	193
155	44.1	208	43.8	208	43.5	207	43.2	206	42.9	205	42.6	205	42.3	204	42.0	203	41.7	202	41.4	202	41.1	201	40.8	200	40.5	199	40.2	198	39.9	198	39.6	197	39.3	196	39.0	195	38.7	195	38.4	194
156	44.7	210	44.4	209	44.1	208	43.8	207	43.5	207	43.2	206	42.9	205	42.6	204	42.3	204	42.0	203	41.7	202	41.4	201	41.1	200	40.8	200	40.5	199	40.2	198	39.9	197	39.5	197	39.2	196	38.9	195
157	45.3	211	45.0	210	44.7	210	44.4	209	44.1	208	43.8	207	43.4	206	43.1	206	42.8	205	42.5	204	42.2	203	41.9	203	41.6	202	41.3	201	41.0	200	40.7	199	40.4	199	40.1	198	39.7	197	39.4	196
158	45.9	213	45.6	212	45.2	211	44.9	210	44.6	209	44.3	209	44.0	208	43.7	207	43.4	206	43.1	205	42.8	205	42.4	204	42.1	203	41.8	202	41.5	201	41.2	201	40.9	200	40.6	199	40.3	198	39.9	198
159	46.5	214	46.1	213	45.8	212	45.5	211	45.2	211	44.9	210	44.6	209	44.2	208	43.9	207	43.6	207	43.3	206	43.0	205	42.7	204	42.3	204	42.0	203	41.7	202	41.4	201	41.1	200	40.8	200	40.4	199
160	47.0	215	46.7	214	46.4	214	46.1	213	45.8	212	45.4	211	45.1	210	44.8	210	44.5	209	44.2	208	43.8	207	43.5	206	43.2	206	42.9	205	42.6	204	42.2	203	41.9	202	41.6	202	41.3	201	41.0	200
161	47.6	217	47.3	216	47.0	215	46.7	214	46.3	213	46.0	213	45.7	212	45.4	211	45.0	210	44.7	209	44.4	208	44.1	208	43.7	207	43.4	206	43.1	205	42.8	204	42.4	204	42.1	203	41.8	202	41.5	201
162	48.2	218	47.9	217	47.6	216	47.2	215	46.9	215	46.6	214	46.3	213	45.9	212	45.6	211	45.3	211	44.9	210	44.6	209	44.3	208	44.0	207	43.6	207	43.3	206	43.0	205	42.6	204	42.3	203	42.0	203
163	48.8	219	48.5	218	48.2	218	47.8	217	47.5	216	47.2	215	46.8	214	46.5	214	46.2	213	45.8	212	45.5	211	45.2	210	44.8	209	44.5	209	44.2	208	43.8	207	43.5	206	43.2	205	42.8	205	42.5	204
164	49.4	221	49.1	220	48.7	219	48.4	218	48.1	217	47.7	216	47.4	216	47.1	215	46.7	214	46.4	213	46.1	212	45.7	212	45.4	211	45.1	210	44.7	209	44.4	208	44.0	207	43.7	207	43.4	206	43.0	205
165	50.0	222	49.7	221	49.3	220	49.0	219	48.7	219	48.3	218	48.0	217	47.6	216	47.3	215	47.0	215	46.6	214	46.3	213	45.9	212	45.6	211	45.3	210	44.9	210	44.6	209	44.2	208	43.9	207	43.6	206
166	50.6	223	50.3	222	49.9	222	49.6	221	49.3	220	48.9	219	48.6	218	48.2	217	47.9	217	47.5	216	47.2	215	46.8	214	46.5	213	46.2	212	45.8	212	45.5	211	45.1	210	44.8	209	44.4	208	44.1	208
167	51.2	225	50.9	224	50.5	223	50.2	222	49.9	221																														