

## Guidelines for Measuring and Control Procedure (2023/24) autumn 2023 (update December 2024)

### Ski Jumping Suits

#### Measuring the Athlete

Athlete must be in a relaxed, upright position during both measuring and control.

Athletes must in all cases follow the instructions of the equipment controller.

In case an athlete fails to comply with the instructions of the controller during the body measurement, the measurement will be refused.

In case an athlete fails to comply with the instructions of the controller during control, this will be classified as “refusal of equipment control” (NPS – ICR 441 / ICR 441.5).

For basic body measurements athlete must be stripped down to underwear (bra, slips / swimming suit / swimming trunks) and barefoot. Only elastic, body-tight underwear is allowed.

For suit control athlete must be stripped down to underwear (bra, slips).

Circumference of the body and legs and arms will be measured in 90 degrees to the axis with the following exceptions:

- A) Arm length: 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 wrist bone (marked position at the end of the forearm – (processus styloideus unlae) (see picture #2).



Picture 1



Picture 2

B) body length and crotch height measurement

**manual, valid for maximum of two competition weekends** the athlete's body length as well as crotch height are measured with laser tool

### **BODY LENGHT**

- standing straight against the wall
- with his/her head, shoulder blades, buttocks, calves, and heels touching the wall
- feet 30 cm apart

### **SITTING BODY HEIGHT**

- sitting on the table, knees at 90 degrees hanging down at the edge of the table
- measurement rounding
  - o 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

### **3D body scan**

- performed with FIS approved 3D body scanner
- in presence of a doctor / medical personnel
- underwear – only elastic body-tight slips / swimming trunks / swimming suit
- posture control – the athlete must stand straight
- feet 30 cm apart
- arm straight resting on arm handles
- if the athlete does not take a required posture, the measurement will not be valid

Standard basic body measuring elements:

- Body length
- Crotch height (see B, C)
- Arm length (see A)
- Foot length

By an athlete's request a re-measuring may occur.

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

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

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

## Measuring the Suit

Suit is measured on the outer surface. The suit must be 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 position.

- A) Anterior arm length (AL) is measured from end of the sleeve to the intersection of the seams at the armpit, in a straight line along the seam. Measured length must be no greater than the length of the arm and no shorter than a maximal tolerance of -4 cm.
- B) Anterior crotch (leg) length (SL) is measured from the intersection of the seams at the crotch of the suit (SX) in a straight line along the seam to the hem of the leg part of the suit. Measured length must be no shorter than the measured crotch height of the athlete.
- C) Crotch: vertically from the ground to the crotch. 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. Measured crotch height must conform to the crotch height measured on the athlete's body for women and +3 cm for men.

Intersection of seams at the crotch (Sx) must be the lowest point of the suit.

This intersection must be positioned in the middle of the suit (front-to-back) with the maximum tolerance of 2 cm both ways.

The outside width of the legs cannot exceed the outside width of the shoulders while suit is lying on the table/flat surface.

## Competition equipment / suit control

Any point on the athlete's body can be measured and compared to the corresponding point on the suit. The reference point to decide for the measured place for both suit and body is the position of the waist seam. All body measurements are taken in private underwear.

When the athlete is wearing the suit – the athlete must stretch his/her arms so, that the elbows are 30 cm from the body, when the measurements are taken. Legs must be straight, feet/boot 30 cm apart. Athlete must stand up in an upright position.

The jumping suit must in all places and parts be tight-fitting the athlete's body.

The measurements of the suit must conform the measurement of the body in an upright position with a tolerance of at least 2 cm in addition and a maximum of 4 cm to the body at any part of the suit, with the exception of the torso/upper part of the body where the maximum allowed tolerance is +6 cm for men, +10 cm for women.

The measurement is taken around the torso from shoulder, along middle of the breast, down to crotch, around the buttocks back to shoulder.

An exception is the part around the boot: the jumping suit can be maximally 10 cm larger (beginning at the knee) than the value which is measured around the jumping and must cover the boot.

The suit must be made in such a way as to be able to move up and down along the length of the body. The suit cannot be fixed at any place of the body.

### Start control

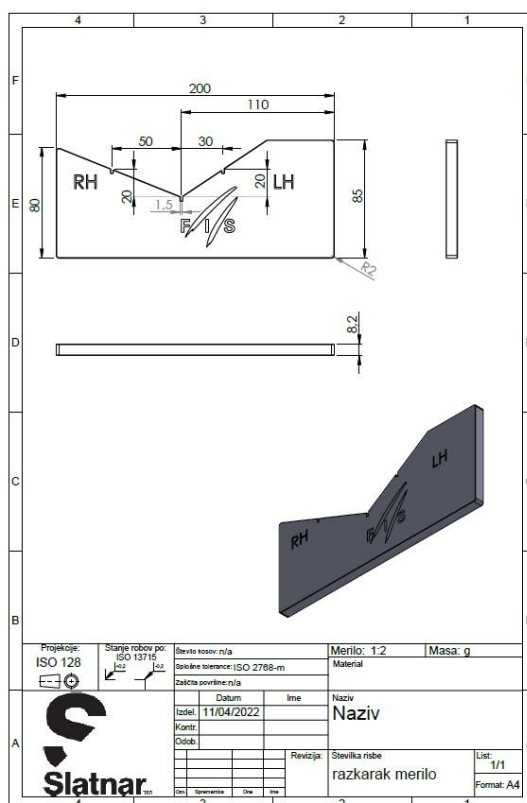
Athlete prepares for start control before designated virtual line.

Stretching and manipulating the suit is not allowed.

Athletes walks 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 body fitting in all parts.

Athletes must follow the instructions of the equipment controller, otherwise control might be refused (NPS – ICR 441.5 or ICR 441).



### Body weight control

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

### 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.

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.

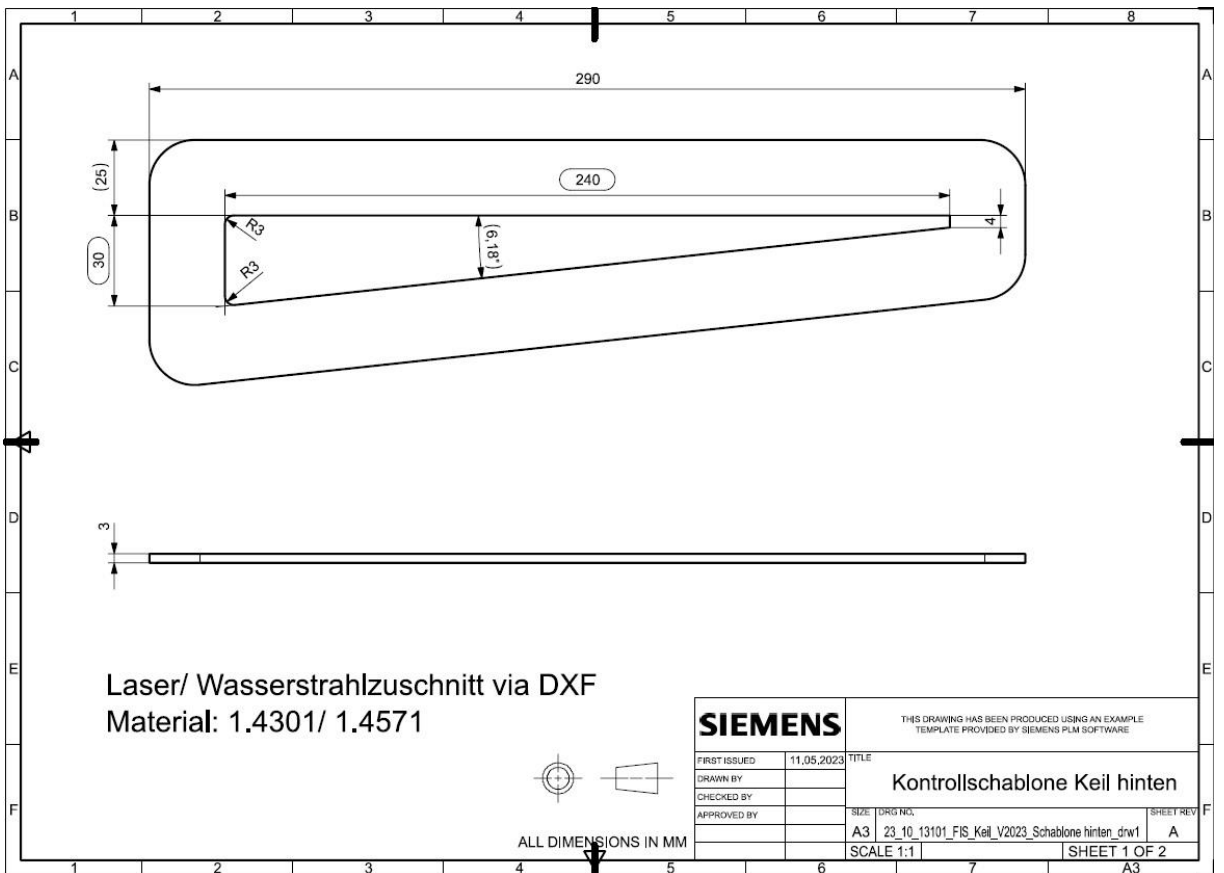
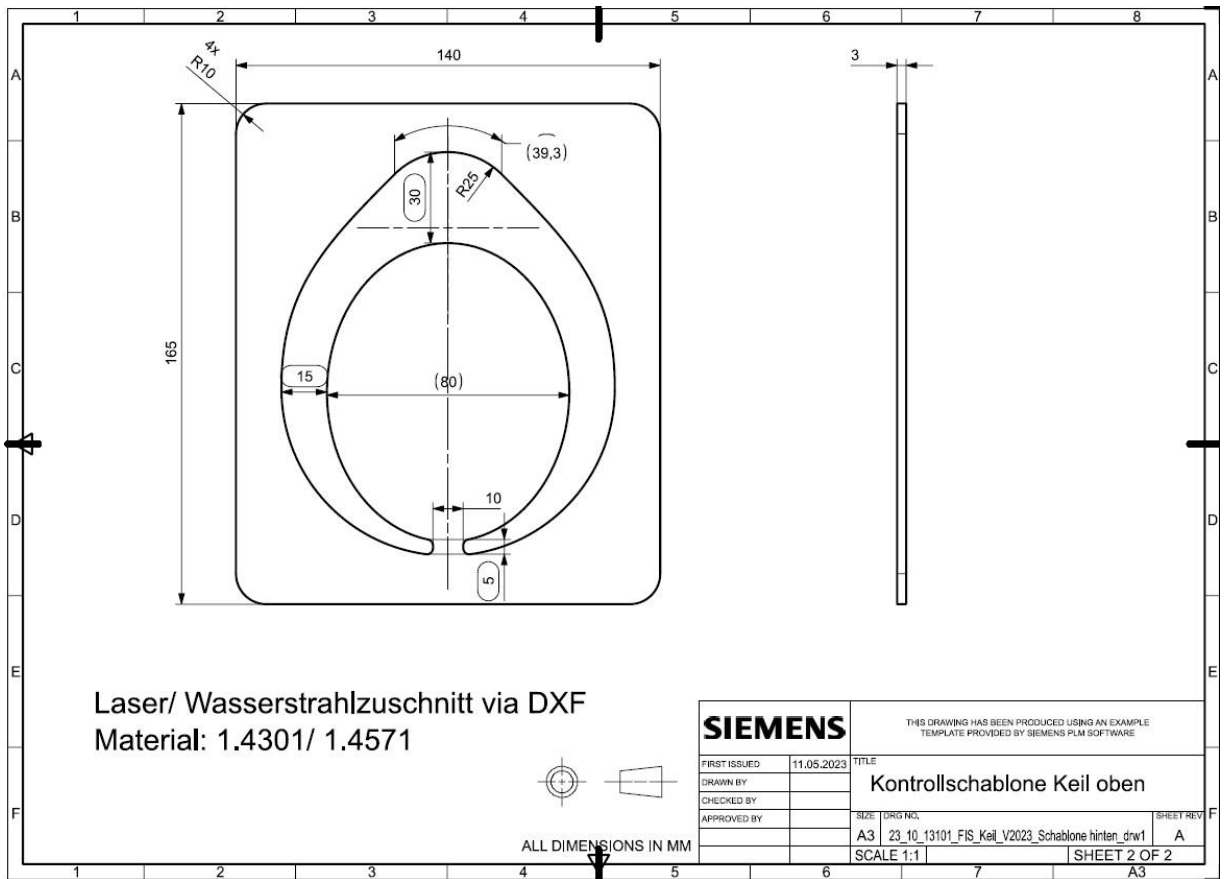




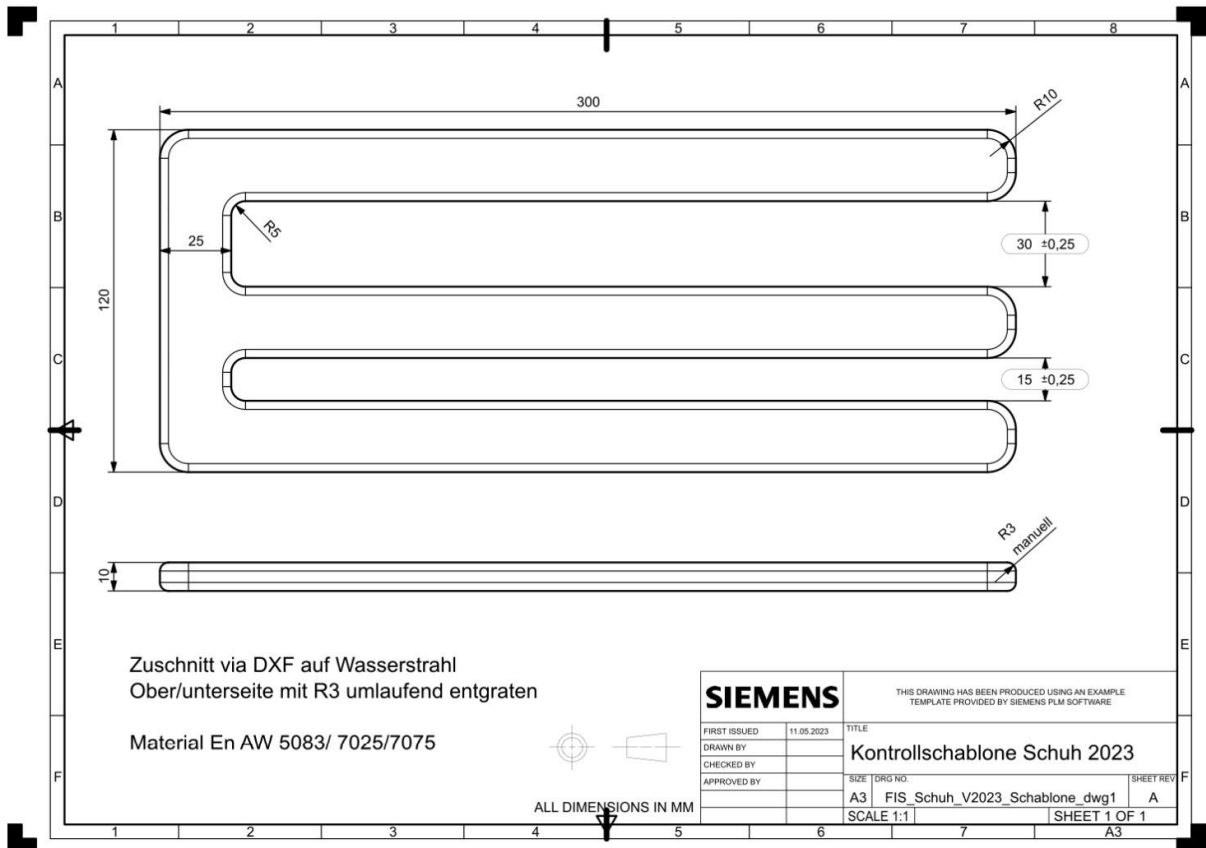
### **Transponders and Motion Sensors**

Transponders and Motion Sensor delivering 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.

### Wedges



## Jumping boots



## Back protector

### Sizes of back protectors

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



upper



lower