



SGT – javelin certification unit and SGT – javelin gauge

Note: A javelin consists of three parts: a metal head, a solid or hollow shaft, and a cord grip.

1. Inspection of the javelins' general condition

- a) The head as well as the shaft of the javelin have to show a circular cross section. The angle of the javelin's shaft must not be greater than 40°.
⇒ To check the javelin's shaft, take the SGT – javelin certification unit and move the triangle – shaped notch (which is placed on the top edge) above the javelin's shaft that is going to be checked. If the javelin's shaft fits into the notch, it is legal.
- b) The cord grip must be made from a sleek material. It must not display knots, indentations, or any other bumps.

2. Inspection of the javelin's weight

- a) To check the legal weight of the javelin weigh the javelin and prove if the javelin is allowed to be used according to the IWR rule 193.6 (weight specification).

3. Inspection of the diameter minimum/ maximum

- a) To check the legal minimum/ maximum diameter of the javelin prove at 'D0' the thickness of the javelin with the minimum/ maximum diameter gauge. If the diameter 'D0' is legal continue with further inspection.

4. Inspection of the javelin's center of gravity

To check the javelin's center of gravity open the SGT – analyzing unit and fold out both of the lateral sections (illustration: SGT – analyzing unit). Place the SGT – analyzing unit on an even and flat surface (e.g. desk). For the measuring process, please place yourself in a position that enables you to see the labeling and the measurement chart in the proper (right reading) way.

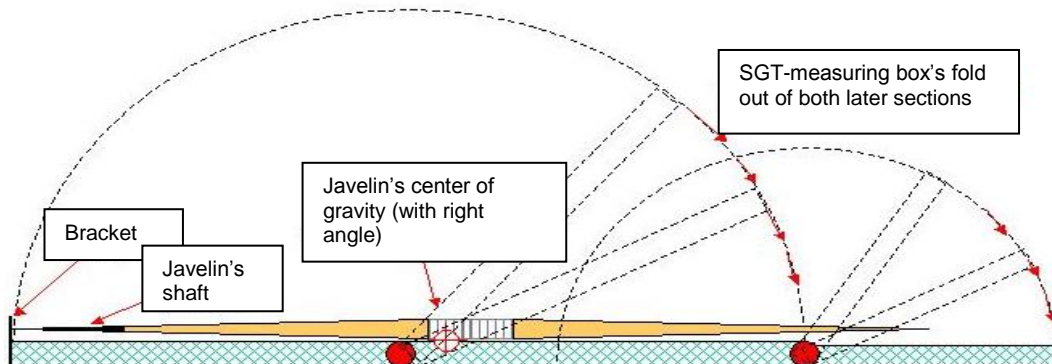


Abb.:SGT – javelin certification unit

Hold the javelin. The javelin's shaft points to the left. Place the javelin according to its weight categories (400g, 500g, 600g, 700g, 800g) on the respective support (at a right angle). Make sure that only the javelin's cord grip lies on the support. Next, move the javelin on the support to the left towards the bracket. The javelin has to slightly touch the bracket, but also has to be freely movable at the same time. In this position, the javelin must not be wedged under any circumstances. It must be able to float on the support. In this position, according to the IWR rule 193, **a legal javelin declines at its shaft or remains in a horizontal position. A non-legal javelin declines in this position at the metal head.**

5. Inspection of the javelin's length

- a) At the beginning of the length control, check that the attached metal head ends in the **green** specification area which is marked by the marking 'metal head's length'.
- b) Check if the right end of the javelin ends in the green marked area. It marks the specification area for the total length of the javelin on the right part of the SGT- javelin certification unit.

6. Inspection of the javelin's diameter ($\varnothing D$)

- a) First, the legal thickness directly in front of the winding has to be checked with the maximum/ minimum diameter's gauge. You must be able to move the gauge with its front notch (maximum thickness) over the javelin. You must not be able to move the inner notch (minimum thickness) over the javelin.

If this is legal continue the gauging process.



The javelin's diameter inspection focuses particularly on the areas of 90%, 80%, and 40%, and according to the IWR rule 193 is described as follows:

- b) To check the javelin, determine the digit of the green specified mark at which the javelin's end comes to rest. If the javelin comes to rest between two digits, please pick the closer digit. Now, adjust the determined digit using the red arrow at the L2 ½ - slider.
- c) Take the SGT- javelin gauge into your right hand. It is operated like a pair of scissors (illustration: SGT – javelin gauge).
- d) Open the lock screw with a slight rotation counter clockwise.
- e) Move the SGT- javelin gauge with the notch 'Ø D' directly in front of the cord grip over the javelin. Constrict the SGT- javelin gauge carefully by a slight compression. Fasten this position by tightening the lock screw. Next, determine the color code (red, green, black) for further gauging steps. Assess which area of the color codings is located at the same level as the fixated pliers. Remember that color code for further gauging steps. If the javelin comes to rest in between two colors you have to conduct further gauging steps in between those two colors as well. In this preset position, the SGT- javelin gauge offers the opportunity to check the javelin's diameter in the areas 90%, 80%, and 40%.

f) Inspection of the 90% diameter:

At the SGT- javelin certification unit's left part (between cord and javelin's shaft) you find the L1 ½ mark. Take the preset SGT- javelin certification unit and move the 90% notch exactly to the L1 ½ mark (right at the spot above the javelin's body where you previously determined the color code). If the javelin is inserted smoothly at this point, its 90% - diameter is legal. At the SGT- javelin certification unit's right part (between cord and metal head) you find the L2 ½ mark. Take the preset SGT- javelin certification unit and move the 90% notch exactly to the L2 ½ mark (right at the spot above the javelin's body where you previously determined the color code). If the javelin cannot be inserted or is inserted very tightly at this spot, its 90% - diameter is legal.

g) Inspection of the 80% diameter:

At the SGT- javelin certification unit's left part (15cm distant from the javelin's shaft) you find a red mark with the label 'S 150'; Move the preset SGT- javelin certification unit with the 80% notch exactly to this mark above the javelin's body. If the javelin is inserted smoothly at the 80% - notch, its 80% - diameter is legal.

h) Inspection of the 40% diameter:

At the beginning of the 40% diameter inspection is the determination of the 15cm – distance to the metal head. This is the spot at which the legal javelin has to measure 40% of the diameter 'Ø D' (according to the IWR rule 193). At the SGT- javelin certification unit's right part (between cord and the javelin's end) you find the white color markings with the label 'E 150' at a distance of 15cm from the green color markings.

Determine the digit at which the javelin ends in the green marked area. Search for that digit on the white color markings. Take the preset SGT- javelin certification unit and move the 40% notch exactly to that digit on the white color markings above the javelin's body. If the javelin **cannot be inserted or is inserted very tightly** at this spot at the 40% notch, its 40% - diameter is legal.

If the javelin fulfills all criteria, you can mark the javelin and allow it for competition. If the javelin does not fulfill all demanded criteria, turn the javelin around (which is positioned in a right angle of the SGT- javelin certification unit) at an angle of 90°. Then repeat all gauging steps in this position. There is the possibility that the javelin displays a cross section which is not exactly circular, but oval. If the re-checked javelin fulfills all criteria, now you can mark the javelin and allow it for competition.

