Norm and Deviation –

To judge a firing position according to external factors is extraordinarily difficult. On the one hand, the build, mobility and proportions of an athlete limit the development of his firing position from the start. Before changes can be recommended, the entire range of factors must be realistically defined.

Small, immobile and short-winded athletes will rarely achieve elegant positions, especially when corpulence and a sensitive back set additional limits.

Further factors to consider are the personal development or training history of a shooter. Whoever has leaned way back while shooting over the years will find it difficult to adjust to a more favorable, upright position. It takes a while to adjust to any change. During this transition, results drop and become irregular.

But the development of an external firing position (and its consequences on internal tension) is nevertheless an essential training goal. Elite shooters always question their position, constantly test new variations and file out details. This is how a firing position is developed over the years which unmistakably matches the unique factors of a given individual.

Although judging a firing position is very problematic on paper, let’s nevertheless try to classify some positions into “recommendable” and “less recommendable” categories, using the sketches on this page.

On the upper right side, you will find four variations which although different are correct in their basic features. The first position correlates to our ideal concept; the other three are practicable and definitely competitive.

Problematic firing positions with serious impairments of the static structure and holding ability are pictured below. If your position displays one or more of these tendencies, you should think about making some changes.

It is by no means an easy task to classify your own firing position. Therefore, your training group could assist you in this task. Each group member should assume his firing position, one at a time on the range, and let the other members judge it with the help of this double page. Consult your practice manager as well. He has a trained eye. If you are a loner, you can compare various firing positions in front of a mirror or with the help of photos or video recordings.

After you have finished your comparisons, you should arrive at a clear decision. This could either be, “my firing position is okay, I don’t need to change anything”, or “my firing position has serious weaknesses; I have to tackle the problem with …”. In the latter case, write down the necessary changes in your training notebook. For example, “I will consequently place my hip in direct alignment with the target”. Immediately note down, how you plan to put your solution into practice. “I’ll chew on this position twice a week during dry training, and my trainer will check it, when I’m shooting with live ammunition.”

Heinz Reinkemeier

Fig. 1
Valentina Cherkasova, ISSF, demonstrates a firing position that has an extreme opening towards the target. Whether the 3x50 bronze medal winner from Seoul hits because or despite of this peculiar position is an open question.

Fig. 2a
A normal firing position such as we recommend to beginners with an average build. These basic proportions should be taken into consideration with each change, and you should strive for this “Ideal”. The posture is stable, balanced and economic. It should be comfortable to maintain.

Fig. 2b
The legs are opened wider here; the upper body is turned backwards; the head and neck are moderately dived into the sight line. Accordingly, these measures sink the center of gravity; the firing position appears correct; the gun is “present hard”. Many of the upper-class air rifle shooters come close to this position, although they place greater demands on mobility.

Fig. 2c
The curves are very strong here, and considerable curvature is especially demanded of the lumbar spine. The right arm “hangs” and would hardly offer any resistance behind the buttplate. The head and neck are turned very far forward. This firing position lacks tension altogether. The strain on the bones and tendons could become serious in the long run.

Fig. 2d
One of the most frequent mistakes; the hip turns, while assuming the firing position, and opens towards the target. This creates rotatory tension and considerable lateral deviations of the arm point. This mistake occurs when the gun is on the right side and then shifts to the left while turning.

Fig. 3a
A4 a
A further curved firing position with the rifle strongly canted. Such a stance creates greater tensions in the region of the lumbar vertebrae but also lowers the gun and thus achieves the favorable “forward position” of the total center of gravity, consisting of the body and gun.

Fig. 3b
An upright firing position, like the one preferred by Malek. The posterior position and inclination are slight; the rifle is seated relatively high on the belt. The disadvantage of the higher center of gravity allows a more comfortable and less firing position. This variation should especially accommodate taller shooters.

Fig. 3c
The firing position of Torsten Kots. The body is more strongly curved and leaned back and therefore sinks in itself. Placing the gun in the hand also sinks the center of gravity. This position places great demands on flexibility (tension thresholds) but achieves a somewhat steadier rifle position.

Fig. 3d
An upright firing position, like the one preferred by Malek. The posterior position and inclination are slight; the rifle is seated relatively high on the belt. The disadvantage of the higher center of gravity allows a more comfortable and less firing position. This variation should especially accommodate taller shooters.

Fig. 4a
Like a “tansen” firing position; if the muscles are relaxed too much, the position sinks together. Tension and deviations are greater. A little tension must be maintained. General muscle training prevents “vitalizing”.

Fig. 4b
The plumber’s line runs straight through the barrel’s axis in front of the center point of the supporting surface. The shooter is broad-shouldered and must constantly perform with tension in his thighs. The rest of the body is also in need of some additional, basic tension. Many shooters display minimal, hardly visible tendencies toward the front.