Front Sight Sizes in the Light – Post Foresights, Diaphragms, Example

The size of the front sight aperture is significant and is often a topic of extensive discussion among shooters. Unfortunately, it is of little help to simply adopt the diameter used by a model shooter. Your eye is different. And your holding ability may not be as great. Your front sight should be large enough, that it does not touch the bull's eye during the sighting phase. When you sway more, as is in the standing position, the aperture must be wider. With less movement, as with an excellent air rifle shooter, the aperture may be relatively narrow. With little or decreasing light, the front sight should also be larger, as well as for tired eyes or during critical phases, such as in a final. A variable front sight is advisable here, since it can be adjusted during the series without risk of shifting your point of impact.

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Picture 1: An ample front sight aperture can also sustain turbulent movements without the inside target touching the edge. You remain in the picture and keep your movement in sight.

The same fluctuations constantly "kick" in the center row. This leads to reflex-like counter-movements and strengthens the basic fluctuations: open up your aperture!

A front sight that is too large will hardly enable you to recognize the existing fluctuations. In such a case, you should narrow the aperture, so you can see your movement more clearly.

Apart from your fluctuations, the light conditions are also a decisive factor in selecting the front sight aperture. The rule says: the less light, the more diameter. If you practice in a relevancy weighted air rifle basement, you may, upon reasonable suspicion, reach for a larger front sight. However when the sky clears up during a smallbore competition, you should stick to the opposite and narrow your front sight.

Naturally, changes of light can also be compensated for with the dioptric optics. Opening the iris diaphragm or selecting one less shade of gray in the filter can also compensate for less light. Now with a little mathematical arithmetic, a three dimensional equation can be formulated, using the supply of light, the sighting brightness and individual fluctuations. Unfortunately, we lack the capabilities for this.

But with feeling, it works faster anyway. What it all boils down is that you yourself must determine the actual width of your front sight each time you shot. Get yourself a variable front sight, which is easy to handle. Always take a little time before you start shooting to establish the ideal "width of the day". By doing so, you will develop a feeling that will soon be your safest guide.

Picture 2: An unusual method of changing the front sight diameter is to shift the tunnel. If you have a gun carriage under your front sight tunnel, you can move it by 8 to 13 centimeters. When it is closer to the eye, the front sight becomes larger, and when it is shifted towards the muzzle, the ring becomes smaller. Misalignments of the front sight tunnel also reveal fluctuations in a varied relation. The closer the tunnel is to the eye, the more clearly it shows you the fluctuations. A type of game for experts.

Picture 3: The same front sight aperture and the identical bull's eye diameter with decreasing light and thus fading contrast. The front sight appears to be smaller (or the bull's eye larger), an optical illusion. Since the ring of light between the two disk bodies is less reflective and no longer outlines its borders, it appears to lose thickness. This is pure theory for you. You simply continue to turn your aperture iris and your front sight wider, until you can adequately see again. Knowledge is nice, but only action leads to success. Seasoned shooters react intuitively, at the right time and correctly.

Picture 4: The post foresight is "out." If Raymond Debevec of all people - world record holder in 3x40 and air rifle - did not still use the spike, it would no longer be worth mentioning. The post foresight enables faster and easier sighting with somewhat less accuracy. With fluctuating light, however, the correct height is difficult to determine. Whereas the slit of the front sight aperture changes căntically, the post foresight causes variations in the intervals between its upper edge and the bull's eye.

If you enjoy experiments, you should give this one a try. This test with the post foresight could bring positive results, especially if you have weak eyes which cause round bodies to appear deformed.

Picture 5: With a front sight aperture of 4 millimeters, which is supported by a sighting cross. He opens the short iris diaphragm under normal light conditions at 10 meters by about 1.5 mm. The aperture sight can be turned and is exactly adjusted to the slight right canting of the front sight tunnel, so that precise vertical and horizontal corrections can be made. Galley's adjustments are practically the same, although they did "insulate" each other.

The choice of the front sight diameter is varied before a competition to adapt the sighting picture to the fluctuations and the light conditions. Mark stressed that a tenth millimeter variation is decisive in finding the perfect feeling for his fluctuations. A systematic search for the right adjustment is not possible without a variable front sight. Fixed front sights, which can be exchanged, are too complicated, and it takes too much time to exchange them.

Picture 6: Selecting the right screen depends upon the situation and your personal preference. Extremely bright light from the front and a darker viewpoint sometimes require special adjustments which can only be solved by immediate improvisation. A peaked cap with a long visor and thick blinders offers protection. In return, it restricts the freedom of movement, and you have to guide each turn of your head. Screens unquestionably contribute to your concentration, since they block out surrounding occurrences when you are aiming.

Picture series 6: A small strip of paper, that can be easily and accurately adjusted, is slipped in front of the left eye. Only the target should be foiled out of the visual field of the non-sighting eye, so that no disturbing double picture emerges. The left eye should however receive sufficient light. Furthermore, the view into the rifle range must be unobstructed, so that wind waves and other occurrences can be recognized. The view into the observation lens must also be possible without wrenching. During air rifle and smallbore shooting in the standing position, the left eye is largely responsible for balance. It must therefore be able to clearly and distinctly aim at the lines in the room and especially at the tripod of the observation lens. The light from above is screened by a peaked cap. A blind made of thin cardboard is slipped under your headband. It protects your right eye from light at the side. It also covers the movements of your neighbor or in the back of the room. The cardboard blind can be shifted almost any way you like and can thus be comfortably adjusted at any time.