

Bassoon Reed Tuning Basics

- Posted June 8th, 2007 by [meubanks](#) in [Reed Help](#)
- What are the basics of tuning a bassoon reed?
- In the simplest terms you manipulate the length, strength and scrape of the reed blade. The reed blade being defined as the distance from the tip of the reed to the front of the first wire. The design of the reed is also a huge factor, the gouge, blade profile and reed shape, but that's another subject for more advanced players to consider.
- What is the correct blade length?
- What often determines the correct blade length is stability on key notes such as one finger E (3rd space bass clef) with proper pitch on all the other notes. Blades that are too long or reeds that lack sufficient strength often go flat on this E if played loudly.
- There is no correct length but blade length can range from 27 to 30 mm to the wire. This depends largely on the style of reed and the amount of force the player uses in blowing. Generally if you use strong breath support with thicker blades you can use longer lengths. My reeds range from 28-28.5 mm and if my reeds don't work for me at that length I set them aside. I know that my embouchure will tire or I will play out of tune if I'm way off from my blade length preference.
- Some teachers insist on using a set length. This dogma makes for difficulties. When I first started making reeds my teacher told me to make all my blades exactly 1 inch in length. How wrong he was. He had me measuring from the tip of the blade to the ledge where the scrape ends sloping up to the bark, not to the wire. The space between the 1st wire varied

- from reed to reed (we call that space the collar), so my reeds all played quite differently. I had to reinvent my embouchure with every reed. Bummer.
- So if my reeds all go flat on E what do I do? You mentioned both length and strength.
 - Yes, the blade needs more strength to support the E. So, you can try reshaping the wires somewhat with pliers to make the inside of the reed's tube more rounded giving the blade more arch and structural strength. Squeeze the second wire from the sides and then follow by squeezing the 1st wire from the sides. Check that the tip opening doesn't get too wide or close up completely when you're done.
 - If that doesn't do it, then the length of the reed blade from the tip to the wire must now be manipulated. If the 1st wire near the blade has slipped back toward the 2nd it should be repositioned. If it's so loose that it won't stay the wire must be tightened with small pliers. Sometimes that's enough to fix the sagging E. If not, you have a choice of moving the wire closer to the tip if the collar is wide or clip some of the tip of the reed away. A third choice is to narrow the width of the reed shape at the tip by sanding or filing the "rails" where the two blade halves come together. If a reed is extremely wide across the tip you may need to do this along with clipping.
 - By clipping the reed tip back or narrow the reed tip blade you are giving the blade more strength because it is thicker at the tip. If you keep clipping and clipping but the E keeps sagging, the cane is probably too soft. Also the design of the reed may not be right for you with a throat diameter that is too big around. So you might want to try different reed makers. Many reeds purchased from music

stores are poorly constructed. I recently purchased three reeds made by three different manufacturers with all labeled medium hard. All three reeds failed to play a stable E and the blades weren't too long! No wonder so many of you are suffering with your reeds making it difficult to enjoy your bassooning..

- Do store reeds come in different lengths as well as strengths?
- No. If you buy from a reed maker who sells them directly to you it's possible. The company that I started called Arundo Reeds and Cane will do that. Reeds purchased from music stores can't offer you lengths and apparently don't really control the strength either. However, there is at least one music store reed that has a strong blade. But this might cause frustration for a beginning player who has to work too hard to blow it. In this case sanding it down until it blows freely is easier than clipping and then having to reshape for other notes that go out if you clip a lot off.
- How should I approach clipping the tip? Is there an easy way to do it?
- The easiest way is to buy an expensive reed clipper which are available from double reed supply specialty shops. There are clipping devices and nippers sometimes referred to as precision end cutters. That's what I use, but the really good jewelers end nippers cost about \$75.00. The old fashioned way to cut tips was to purchase a billot made of wood and take your reed scraping knife and cut through the reed tip as it laid across the billot. Big problem with these though, is that the top of the billot is curved and it's way, way hard to cut a straight tip. Some will file or sand the billot top until it's flat and wide enough for the tip of the

reed. That's better, but I don't recommend using a billot and knife.

- The poor man's version of the reed tip clip is very effective and cheap. Buy a large thick guitar pick with a smooth surface on both sides and a single edge razor blade. Place the guitar pick on a flat surface, lay the reed tip on the guitar pick, align the razor blade with the tip with the amount of tip you want to cut off and press the razor blade straight down into the guitar pick. It's always best to take very small amounts off the tip and test your results than take too much off in one shot and have a reed now too strong needing scrapes or sanding of the reed's blade.
- How much does the scrape of the reed's blade need to be manipulated?
- That depends on your needs. Do the low notes speak, do the middle notes croak, do you tire or play out of tune, are other notes unstable?
- At the very least the reed should be stable and the note next to the one finger E, the forked Eb, should not be sharp if fingered with only the first and third finger of the left hand with the whisper key. No added keys in either hand.
- If you are having problems you'll need to know how to fix these things if you want to advance as a bassoonist. I tell my students that it's more important to know how to adjust a reed than to make one. Find a good reed maker whose reed style and reed shape works for you. Check out my reed tuning publications which are available from double reed specialty shops and Arundo Reeds and cane. Good luck with all your reeds.