

# REED MAKING SHORT CUTS

By following the steps below you can quickly identify the most promising reeds, thereby saving time and guesswork.

## Prerequisites:

1. Dial indicator (English measurements below)
2. Properly shaped and profiled piece of cane
3. Properly constructed reed blank, dimensions accurate to within a 64<sup>th</sup>,
4. Properly aged on drying rack (at least one week)
5. Tip cut to 2 1/8"

## Short Cuts:

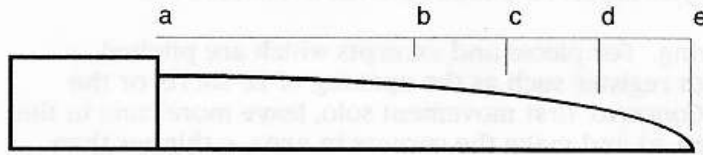
1. Soak reed and adjust tip opening with pliers so that tip is 1mm open at center.
2. *Assuming my profile\**, remove cane from area 1/4" in front of collar to collar, bringing spine (center) measurement at collar to .035" or a little thinner. 1/4" area in front of collar should taper slightly or measure no thicker than collar. Work on sides of 1/4" area, removing more from these areas than the spine. Extend work in these areas into middle rails (to about 3/4" from collar). Finish with sandpaper. Area of work should be smooth and blend into heart without ridges or bumps.
3. Begin work on tip area, removing more cane as knife approaches tip. Every stroke should end at plaque. Bring center measurement to within .002" of finished reed measurements (see below). Make "thumbnail" shaped silhouette at tip, removing cane up to 1/4" behind tip at center to 3/8" at rails. Always blend work into heart, leaving no ridges.
4. Reed should crow an "F" or "F#" at this point. If pitch is higher, discard. If pitch is lower than "E", discard.

5. If reed is bright and response is rough, remove more cane from rails, starting at the back and working towards tip until tone mellows and refines. Make sure that corners of the tip are thinner than the center. Adjust wires to improve tone quality and response.
6. Tip measurements should be within .002” of finished reed measurements, heart should be at finished reed measurements at all points, area in front of collar .005” or less of finished measurements.
7. Make sure that measurements match for both blades at all points along spine.
8. Test reed using long tones and broken arpeggios. Do not test in high register yet. Reed should have a controllable “*pp*” and a good “*ff*”. It should slur easily in broken arpeggios.

**Reeds that do not perform well at this stage should be discarded. Do not waste time tweaking them! Few if any will turn out well. Remember, given high standards, 1 good reed out of 5 is a pretty good average.**

*\*I use a single barrel profiler. It is set so that no work needs to be done in the heart area of the reed. Since this leaves a good amount of cane surrounding the heart, much work needs to be done in the tip, rails, channels and in front of the collar. Using the dial indicator, bring the spine measurements close to those in the diagram and make the surrounding areas thinner.*

## REED BLADE IN PROFILE



a=collar  
 b=3/8" from tip  
 c=1/4" from tip  
 d=1/8" from tip  
 e=tip

### Dial Indicator Measurements for Points on the Reed

<u>Point</u>	<u>Distance from tip</u>	<u>New Reed</u>	<u>Finished Reed</u>
a	collar	.035"	.030 - .028"
b	3/8 from tip	.028"	.025 - .024"
c	1/4 from tip	.025"	.021 - .020"
d	1/8 from tip	.020"	.016 - .015"
e	tip	.010"	.008 - .006"

