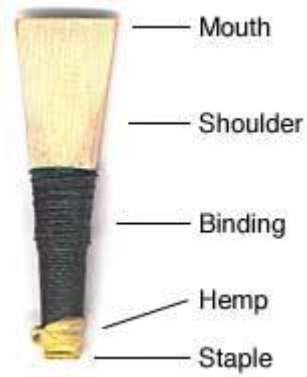
Chanter Reed Basics

Let me preface by reminding you, **DO NOT TOUCH THE BAND CHANTER REED**. The reed you play in a band setting is the responsibility of whoever is tuning the band. If you fiddle with the reed, it will take longer to tune the band. Most pipers have a separate chanter for solo/non-band playing. The reed you have in your solo chanter is yours to do what you choose.

Anatomy of a Reed



Mouth. The mouth of the reed is the opening located at the top of the reed and is formed by the two opposing pieces of cane, the "blades," sometimes also called "tongues." The very top of the cane portion of the reed is called the "lips" or "tip" of the reed.

Shoulder. This is the area across the central portion of the exposed cane. On a ridge cut reed, the shoulder is fairly pronounced.

Binding. To hold the two pieces of cane to the staple, they are wrapped with black hemp. This is called the binding. *If the binding starts coming loose, clear finger nail polish will provide for a good repair.*

Hemp. The hemp is not technically part of the reed itself, but facilitates positioning the reed correctly and snugly in the "reed seat" which is the hole located at the very top of the chanter. The hemp should not even partially block the hole at the base of the staple as this will affect the reed's performance.

Staple. At the base of the reed is a cylindrical/conical piece of metal, typically copper or brass that provides a support for the rest of the reed. (If you are lucky, might get to see an old reed with a staple made of silver.) The staple opening is round at the bottom and elliptical at the top. The staple is a soft metal because sometimes it is desirable to alter its shape and, consequently, also the reed's sound. This alteration is accomplished with a tool known as a mandrel.

There are two basic reed shapes or cuts:

A "Molded" Reed

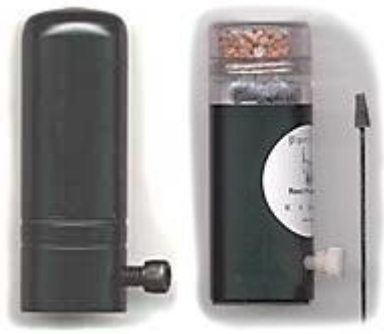
This is an example of a "molded" reed. Notice the gradual taper from the binding to the top of the reed. Due to their shape, a molded reed's blades get most of their support from the staple.

A "Ridge Cut" Reed

This is an example of a "ridge cut" reed, rarely also referred to as "french cut" reed. Notice the distinct step at the shoulder, though not all ridge cut reeds are quite this obvious. The blades of ridge cut reeds get the most of their support from their thick base.

Effects of Moisture on Reeds

As a chanter reed is played, it will absorb moisture. This moisture will soften the cane, which normally would lower the pitch, however there's a second effect on the reed. When played, a reed experiences air pressure upon it, forcing it to close up, which raises pitch. This means that if a piper picks up a set of bagpipes and tunes the drones to a relatively dry/unused chanter reed, the drones will be out of tune after a brief time (5-10 minutes usually) as the chanter reed pitch rises.



One might think that it would be advantageous to keep the reed very moist—eliminate one variable, so to speak—perhaps by leaving the chanter attached to the bagpipe bag. However, moisture is a catalyst for mold growth. Mold breaks down a reed and will greatly reduce its life span. Consequently, most pipers remove their chanters from the bag and use a "reed cap" (sometimes called a "chanter cap" or "dry stock") to protect the reed while it is seated in the chanter. On the other hand, if your reed is still developing mold while in the reed cap, more air circulation would be wise. Drill a few holes in your reed cap. Later if your reed is drying out, some or all of these holes can be sealed with tape.

Setting up a Reed

In short: *"In/up, out/down."* Lowering the chanter reed into the chanter shortens the distance between it and the holes in the chanter and raises the pitch. Raising the reed lowers the pitch. Changing the quantity and position of the hemp on the binding will affect where the reed seats. If the bottom of the staple is in direct contact with the reed seat—with no hemp acting as a cushion—the pitch of the reed will be raised even more than you may expect. Whatever you do, you want the reed seated very firmly as a loose reed will be flat and erratic.

The top hand notes' pitches are more greatly affected by raising or lowering the reed. This means that if the lower notes are in tune and the top hand is flat, it may very well be corrected by pushing the reed slightly deeper into the chanter. This also means that the scale is stretched as the reed is seated deeper.

This relationship is useful when setting up a solo chanter with a new reed. Here's the basic procedure:

How to Set-up a New Reed in a Chanter for Solo:

1. Place your reed in the chanter.
2. Tune a single tenor drone to low-A.
3. Check high-A to see if it's in tune.

4. If high-A is sharp, raise the reed in the chanter. If high-A is flat, lower the reed in the chanter.
5. Go back to step 2 and repeat until low-A and high-A are in tune.
6. Check each note on the chanter, if none are flat then tape any sharp notes,* you're done! (At this point you can read the Low-A note with a tuning meter to determine the chanter's natural pitch in Hertz for future reference.) Otherwise you either sacrifice the chanter & reed's natural pitch and push the reed in to sharpen the flat note, you modify the reed (see below), or if you really know what you are doing and it's a consistent problem, you might consider carving that hole on your chanter.

**Sharp notes can be made flatter by placing a piece of tape (I recommend pin striping tape) over the top portion of the corresponding hole.*

Some notes are easy to tune, High A and E for instance. Many pipers have the most trouble with F. Tune as best as you can against a tuned tenor drone then play a tune that you know well and hear how it sounds. If a note sounds out of whack, then it probably is. If you are not sure if a note is sharp or flat, put your finger a little over the top of that hole and listen. If it sounds better, then the note is sharp and needs tape, but if it sounds worse, it's flat and you'll probably have to either sink the reed to sharpen that note and tape the holes above *or* perhaps carving top of that hole of your chanter.