

## Tuning Exercises

Tuning in a wind section presents a number of challenges. A preparation tactic will assist the player recognizing and sorting out tuning challenges.

1. *Most Importantly, Know The Tendencies On Your Own Instrument*

On the soprano clarinet we know things that are common to most instruments and most players:

- a. low E and F can be quite flat, especially at louder dynamics;
  - b. upper hand chalumeau can blow flat when louder, or be sharper when softer, especially in the throat register;
  - c. Long C is invariably sharp as is C# and D;
  - d. A flat – E flat is almost always a brighter sounding note and often sharp
  - e. E and F in the clarion range can be sharp, the E more so than the F, especially when the note is started with the tongue;
  - f. Upper clarion will be sharp if you are not using the air correctly and overcompensating with the embouchure;
  - g. Altissimo D is generally sharp, the F# (both short and long fingerings) are flat, the high G can be in a multitude of places depending on the fingering
  - h. On bass clarinet, the low B flat is sharp at lower dynamic levels;
  - i. The long B and C are very sharp, especially if the air is not used correctly
- And the list go on....

2. *Get Your Own House In Order*

I found that I needed to know where the pitches are on my instruments, both in a general way, and in a detailed way just before playing with someone else or in a performance. The road to knowing your pitches is spending lots of time with a tuner. More on that below...

3. *Know What The Tendencies Are Of Other Instruments*

It is important to know that, for example, low flutes tend to be flat, low oboes the same, low bassoon can be quite sharp, low horn (a regular companion of second clarinet) can get very sharp down low; trumpets tend to play sharp; trombones almost always play sharp unless they are very good and experienced players; low tuba can be sharp...

It is important to know what is happening with other instruments so that, if possible, you can move to where their pitches are. Sometimes someone is sharp, the other flat, and there is nowhere to go but to politely say “can we try this”, and if necessary, use the tuner to arbitrate.

4. *The Way You Make Your Sound Is A Factor In Tuning*

All instruments make multiple pitches by shortening or lengthening a tube to one degree or another. All wind instruments use the harmonic series to extend the range of an instrument, so the same basic fingering can be used for multiple notes.

The way the harmonics line up in any given note will allow you to clearly hear if you are sharp or flat, and more importantly will allow other players to “find” your pitch. For example, if you are playing a low B with the middle finger, chances are the harmonics are not lined up – do you notice when you use the better fingering for the B with the silver key how the note sounds clearer? This latter fingering lines the harmonics up better.

Sometimes, on certain notes, the harmonics do not line up in the note (i.e., the overtones are not exactly where they should be in the natural harmonic series) and this “clash” makes the note sound “dirty”. Have you ever noticed that it can be really tough to play in tune with some players? In my career, I have found this to be common with some flute players. If you listen really carefully to the harmonic series in a given note, you may hear that the 3<sup>rd</sup> partial is a little flat, or the 5<sup>th</sup> partial is sharp. The ideal sound “living” in a note is a pure major chord – you can hear this very clearly on low notes on the bass clarinet. Play a

low E – the 12<sup>th</sup> B will sound and also there will be a hint of a perfectly in tune G#, the major third in that chord.

## Tuning Drills

1. Have the tuner play a concert B flat. Listen to it first – get that pitch in your head for 10 seconds. On the B flat clarinet, play unisons, octaves, 4<sup>th</sup> and 5<sup>th</sup> s against the tuner. Listen for perfect intervals – no beats. Sometimes it is easier to hear where you are by listening to the tuner starting the note, joining in, then dropping out. You may have luck hearing where your note is with the tuner, then you can join back in and eliminate the beats.
2. Repeat this process with the tuner singing a concert F and then a concert E flat. By the time you are through all three drones, you have covered most of the notes on your clarinet, and you now know where they lie and what you have to do to them to pitch them correctly.
3. If you have a reasonably good instrument, you should be able to tune and voice the pitches by altering space in your oral cavity and possibly loosening the lower lip, using more top lip...If the pitches are really wonky, a different barrel (or even mouthpiece – old Kaspars were notoriously sharp) may help. I have also put tape on the top side of tone holes to lower pitch, and I have gone to a very qualified technician and have him undercut the tone hole to make the pitch higher (less stuffy too).
4. The next step is to take the knowledge you have gleaned from playing perfect intervals and apply them without the tuner drone. Place the tuner on the stand and have it in “listening” mode. Play a concert B flat scale starting on chalumeau C. Check to make the pitch of the low C accurate. Slowly play up the scale. Do not look at the tuner until you play the thumb F. Where is the pitch? Play the open G. Where is the pitch? Play to the long C. Where is the pitch?
5. Continue this exercise in the next octave. When you are through this process, start on a low F and repeat the process. Check the F, play up to the B flat – check again – play the c – check again, etc.
6. Play the G major scale the same way.

7. Try the three basic scales at different dynamic levels and keep the pitch correct. You can do this by listening to the drone, or peeking at the tuner on certain notes.
8. Try the drill in other keys – one sharp, then one flat – two sharps the two flats etc.
9. Go back to the three basic keys and have the tuner drone. Play again for no beats. Try adding the major third and major sixth in the drill. Listen for no beats. You will be shocked how low you may need to play the major third.
10. Repeat all of these tuning exercises with your A clarinet, your bass, your bassethorn, your contra.

These exercises with the tuner are just that – exercises. I am in no way advocating that you use the tuner's listening skills to always judge your pitch. The tuner is *not* contextual – there are no other pitches about to match. In a wind section, you are matching with many players, you are working in a context, and you need your ears, not a tuner's dial to do that.

That being said, I have found myself in a bind on occasion. Reeds not right, brought the wrong barrel. I will put the tuner up on the stand and have it in listening mode. Every once and a while, when I land on a note that I am holding for a few beats, I will glance at the tuner to see what's up. If I am off base, I will check that same note again the next time I pass it and make the corrective change and check that. Tuners that clip on your bell or have clips that plug into a tuner are very useful in this regard.

I found that doing these exercises on a daily basis when I was a student, then young professional, helped me figure out where my pitches are. Hey, if I can play a bassethorn in tune, I must have done something right! I still do these drills on a regular basis to keep my ears attuned and to keep up my knowledge of the pitches on the various instruments I play.

I hope that you will find these ideas useful.