

Here's the Pitch

Stan Garber

Playing a saxophone in tune starts—and ends—with the mouthpiece.

Q: What's the difference between a saxophone and a lawn mower?

A: You can tune a lawn mower.

Granted you won't be hearing that one anytime soon on Letterman, but as with the best humor there is at least a grain of truth to the point being made. When it comes to the saxophone, understanding and mastering the required fingerings is not all that difficult. Playing the instrument with good intonation and tone quality, however, presents an entirely different set of problems. This is why some band directors have been known to remark that their John Deere is more "in tune" than their saxophone section.

The secret to playing the saxophone in tune involves producing the right pitch or frequency with the mouthpiece alone. These pitches are concert high A for alto, concert high G for tenor, concert Eb for baritone and concert high C for soprano. Hitting them right on the money is not all that easy, however, because in terms of pitch a saxophone has the flexibility of a Russian gymnast. To prove this point, I frequently ask students to remove the mouthpiece from their saxophone and then have them play only the mouthpiece. It's not unusual to hear a wide range of pitches spanning the interval of a fifth or more. Think about it—

with such a broad range of pitches entering the saxophone, it logically follows that you'll hear a similarly broad range of pitches exiting the bell for the same-fingered note.

A common situation that exists involves students who play the saxophone with a tight embouchure and high voicing more appropriate for the Bb soprano clarinet. This results in a higher (sharper) pitch or frequency emanating from the mouthpiece.

To compensate for this sharpness, the student is told to pull out the mouthpiece until he or she is "in tune." At this point, however, the student will be in tune on that one particular note, but the instrument may be out of tune with itself. That's because pulling out the mouthpiece too far causes the instrument to be too long overall. How can you tell if this is the case? Ask a student who has the mouthpiece pulled way out to play a low Bb or B natural. More often than not those notes will gurgle and wobble, not necessarily because of a leak in the saxophone but because the

instrument is too long. The wave of the air column within the instrument does not properly match the bore and tone holes.

Occasionally I run into teachers and musicians who tune the saxophone based on how much neck cork is exposed. This is an irrelevant gauge of intonation.

Neck corks can be long or short in length; they simply function to hold the mouthpiece in place without leaking. It's the placement of the mouthpiece on the neck and the overall saxophone length—from the tip of its mouthpiece to the end of its bell—that are the important criteria for successfully playing the instrument in tune.

A saxophone mouthpiece that is pulled out too far. This can make the instrument too long overall and, as a result, be out of tune with itself.



A saxophone mouthpiece pushed in to the proper position.

Learning to play in tune will also result in a more agreeable quality of tone, which will certainly please band directors, even if it means dropping a few jokes from their act.

A 20-year veteran of The Selmer Company and Conn-Selmer, Inc., Stan Garber gives clinics and workshops for high school and college students, music educators and college professors on the design, manufacture, and performance of woodwind instruments throughout the U.S. and Europe.