Wedge Mouthpiece Fitting Manual

This manual is based on my experience fitting thousands of players with a Wedge mouthpiece by email, fitting surveys, over the phone, and in person over the last 10 years. There are only so many reasons why most players go looking for a new mouthpiece. The strategies for helping players to get what they are looking for are described in this manual. You can use them to select the best mouthpiece.

Some of the strategies work for any brand of mouthpiece. However, some only work with the Wedge, because it is so different.

How to Get the Most out of This Manual

1. Review **Table A** below on how the Wedge works, and how that affects fitting.

2. Review **Table B** about how different options affect the way a mouthpiece plays.

3. Read the section "*What would you like to get from a new mouthpiece?"* that best describes your situation.

Just want the bottom line? Skip steps 1 and 2 above, but your choices will be better informed if you read sections **A** and **B** first.

Table A: Characteristics of the Wedge that influence fitting choices.

Wedge Characteristic	Advantage
Bigger sound from a smaller mouthpiece	Choose a smaller diameter for better range and endurance without compromising sound.
Better low register from a shallower cup	Choose a shallow cup and have a better, less nasal sounding low register.
Less swelling	Choose a smaller diameter for players who choose a large diameter to counter-act swelling.
Better flexibility	Choose a smaller diameter for better range and endurance without losing flexibility.
Quicker response	Choose a heavy backbore in order to gain stability and a darker sound, without having the loss of responsiveness that usually goes along with a heavier mouthpiece.

B: Effect of different Options

Throat Size	• Main factor determining how open or how stuffy a mouthpiece feels. • Larger throat will feel more open and produce a fatter low register and broader sound. • With good breath support larger throat make the upper and lower registers sound bigger. However, if a player does not have good breath support and "squeezes" as they go into the upper register a larger throat might make them go sharp or lose range.
Larger backbore	• Larger backbore produces a broader, more resonant sound. • Smaller backbore produces a more compact, focussed sound. • Very large backbore or very small backbore can contribute to a mouthpiece feeling more or less open, but that is still mostly determined by the throat, not the size of the backbore.
Adding mass with heavy backbore, blank, or tone modifier	• Dampens the brighter overtones and makes a mouthpiece sound darker. Reduces distortion at loud volumes and decreases the tendency to split notes. • Adds extra core to the sound. • Reduces brilliance and projection. • Makes the mouthpiece a little less responsive to very soft articulation. The Wedge increases responsiveness, so a Wedge with extra mass will still be more responsive than a conventional mouthpiece with less mass.
Delrin mouthpiece	• More grip than any other material. • Sound of delrin is a dark, almost dull. It can get loud, but it is hard to get much brilliance from it. • Attacks sound less well defined than on a brass mouthpiece. • Sound is greatly improved by adding a brass tone modifier or brass backbore.
Acrylic trumpet, cornet, or flugel top	• Acrylic tops sound and feel more like brass, but still sound a little darker. • Acrylic can break when dropped.
Tone modifier added to plastic mouthpiece	• Makes start of the note more defined, adds core to the sound, improves slotting, and make the sound a bit brighter.
Angled rim	• Angled rims on trumpet, cornet, and flugelhorn mouthpieces are sometimes a good option for players with an overbite or underbite. • If you have one of these dental patterns and find that you have horn angle that is too low or too high, TMJ problems from thrusting your jaw forward, or too much pressure on your top or bottom lip and angled rim, is an option to consider.

What would you like to get from a new mouthpiece?

1. More Range and Endurance with a Similar Sound

Most players can gain range and endurance simply by switching to a Wedge mouthpiece that is similar to their current mouthpiece in diameter and depth. Except for special cases you should choose a mouthpiece from the comparison tables that is the best match to your current mouthpiece.

Special Case 1. *Advanced amateur or beginner using a large mouthpiece.*

Larger mouthpieces are seductive in many ways (fat sound in the middle to low register, comfort, flexibility). However, you do pay a price in terms of range and endurance.

Examples of Larger Sizes	
Trumpet	Bach 1-1/2C, Schilke 16 or larger
Cornet	Bach 1-1/2C, Wick 3, Wick 3B, or larger
Flugel	Bach 1-1/2C, .670 inches or larger
Horn	18 mm or larger
Tenor Trombone	Larger than 5G, Schilke 51
Bass Trombone	Bach 1G, Schilke 60 or larger

There is an excellent video by Jens Lindeman where he talks about how many players are playing on bigger mouthpieces than they really should using. https://www.youtube.com/watch?v=2ktNxEX8Ggw

As Jens states it is usually possible to gain range and endurance by decreasing the rim inner diameter while getting the sound you want with a similar or slightly deeper cup.

This type of switch can be made with any mouthpiece brand. However, most players find that the Wedge rim makes such a change easier. They are able to switch to a slightly smaller Wedge and gain range and endurance without losing the comfort, sound, and flexibility of the larger mouthpiece the way they might on a conventional rim. The success rate in making such a change is over 90% with the Wedge rim.

If you are playing a large mouthpiece and would like to improve range and endurance you should be able to get a bigger boost in performance by choosing a Wedge mouthpiece one size smaller with the same cup depth you are using now.

Examples of Smaller Mouthpieces	
Conventional Mouthpiece	Wedge Model
Bach 1-1/2C, Schilke 16 or larger	Wedge 66MDV
Bach 4G	Wedge 5G
Bach 1G	Wedge S59
Wick 3, 3B	Wedge 66D or 66 British Cornet Mouthpiece

Special Case 2: *Needing more range and endurance for playing lead, jazz band, or other situation different than your usual playing.*

I get many requests for a mouthpiece that will allow a player to increase range and endurance for playing lead while still being equally suitable for orchestral playing. Some players choose to play the same mouthpiece for all types of playing, from legit to lead.

This works for a few people, but in dealing with thousands of players over the years it has been clear that most players actually do better by switching from a medium large or large diameter to a smaller diameter and shallower when more range and projection is required. This is simply a matter of using the right tool for the right job. You can drive a nail with a crescent wrench, but it is much easier to do it with a hammer. If you list the top brass players in the word, I can guarantee that almost all of them have specialized mouthpieces for different situations.

If you need range and endurance for a special playing situation and want to keep the same sound choose a Wedge that is similar to your current mouthpiece or that is one size smaller with the same cup.

For details on choosing a mouthpiece more suitable for playing lead see section 3 below.

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2. More Range and Endurance with Darker Sound, Bigger Low Register

Deeper Cup - A mouthpiece that provides more range and a darker sound is of course the holy Grail of brass mouthpieces. There are several ways to get a darker sound. The usual way is to use a deeper cup. However, the deeper cup usually decreases range to some extent. The Wedge rim often increases range, so some players can go to a deeper cup and not lose range with the Wedge, provided the change in cup depth is not too extreme.

Deeper Cup and Smaller Diameter - One way to counteract the effect of the deeper cup is to go with a slightly smaller diameter. Sound is mostly determined by cup depth and shape, not rim diameter, so going to a slightly smaller diameter with a deeper cup depth will usually produce a darker sound. Making such a change and adding a Wedge rim usually ensures a darker sound with improved range and endurance.

Add Mass - Another option for producing a darker sound is to add mass to the mouthpiece. This can be done by using a heavy weight backbore for trumpet or a tone modifier for most other instruments. The brass tone modifier adds mass to the mouthpiece, which reduces brighter overtones. Adding mass to a mouthpiece can sometimes make it less responsive. However, the Wedge rim makes mouthpieces more responsive, so a Wedge with added mass is usually more responsive than a comparable conventional mouthpiece with less mass.

In order to improve range and endurance and get a darker sound find your mouthpiece, or one similar to it, in the comparison table. Select the mouthpiece that is similar or one size smaller in diameter and one size deeper and cup depth. The other option is to choose a mouthpiece similar in size to your current mouthpiece and add mass with a heavy weight backbore (for trumpet) or a tone modifier.

Examples of Choices for More Range and Endurance, Darker Sound	
Conventional Mouthpiece	Wedge Mouthpiece
Bach 1-1/2C, Schilke 16	Wedge 66RT
Bach 3C, Yamaha 14B, Bobby Shew Jazz	Wedge 65MDV
Bach 5G	Wedge 5G with Tone Modifier

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3. More Range and Endurance with Brighter Sound

Smaller Diameter, Shallower Cup - Improved range and endurance can often be gained by using a smaller mouthpiece, especially when starting from a medium to large diameter. A brighter sound is usually provided by a shallower cup.

Tighter Backbore - Players may also want a more compact sound that spreads less, along with increased brilliance. This is provided by using a smaller backbore. Some trumpet players find that going to a shallower cup and smaller backbore increases back pressure. This can be avoided by choosing a slightly larger throat size. The combination of a larger throat size and small backbore produces a focused, compact sound with less resistance.

You Might Need 2 Mouthpieces - If players are considering a 2nd mouthpiece to complement one for more symphonic playing a good strategy is often to choose diameter one size smaller than they would play on their large mouthpiece. This provides added range and endurance. Large, shallow mouthpieces do not work as well as ones that are medium in diameter. This might come up when selecting a mouthpiece for pit, pops, piccolo trumpet, or playing lead.

Why Not Use One Rim or One Mouthpiece? - Some players prefer to use the same diameter for all mouthpieces, changing only the cup depth when more upper register support is required for certain types of playing such as commercial lead, pit, pops, or for higher horns. Some players go a step further and chose to play the same mouthpiece for all types of playing, from legit to lead.

No Mouthpiece Can Be Ideal for Everything - This was covered in a previous section, but it bears repeating. Using one mouthpiece for everything works for some people, but in dealing with thousands of players over the years it has been clear that most players actually do better by switching from a medium large or large diameter to a smaller diameter and shallower when more range and projection is required. This is simply a matter of using the right tool for the right job. You can drive a nail with a crescent wrench, but it is much easier to do it with a hammer. If you list the top players in the word on your instrument, I can guarantee that almost all of them have specialized mouthpieces for different situations.

In order to get better range and endurance with a brighter sound, find that your current mouthpiece in the comparison table. If you are playing on a large diameter choose a shallower cup and a rim one size smaller than the one you are currently playing. If you are playing on a medium to small diameter you can choose a shallower cup and a rim size the same as your current mouthpiece.

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4. Young Player Wanting to "Graduate" to a Bigger "More Advanced" Mouthpiece

When Should You Increase Size? - Developing players often increase mouthpiece size as they improve their technique, range and endurance, which is good *up to a point*. Some players increase sizes too quickly and limit their range and endurance more than they should, which causes frustration, reduces practice time and can actually slow progress. The key is to increase mouthpiece size ***when there is a reason to do so***, and ***when you are ready***.

What Size to Choose? - Keep in mind that you should play the size that produces the sound you want with the range and endurance that lets you meet the demands of most of the playing you are required to do. It is good to stretch yourself, but you do NOT need to play the biggest mouthpiece possible in order to sound good and to be a good player. Keep a balance between the low register and ease of the upper register performance while you advance your size slowly to something that still works for you.

Is Bigger Better? - Many great players to not play on big equipment. There are two schools of thought on this. The old school says play the biggest mouthpiece you can handle. Fortunately, this approach is losing popularity, since people are thinking more critically and in practical terms about how to achieve peak performance. An opposite approach is the play the smallest mouthpiece you can get away with, which can also cause problems by compromising flexibility and sound in the low register.

Take a Balanced Approach - A more balanced approach is to recognize that choices in mouthpiece size involve a series of compromises, of maintaining a balance between upper and lower register performance and range, endurance, flexibility, and the type of sound required for the playing situation. In some circumstances, such as playing professionally in a large symphony orchestra, that might mean playing on large equipment. In many other cases, especially in the case of a player who is early in their development, playing on very large equipment should not be the goal.

If you have reasonable range and endurance **it may be time to go up in size. The reason to increase in size might be to gain a bigger, more resonant sound, a darker sound, or more flexibility. Increase diameter by one size. If you are playing in a shallow to medium cup and want a darker sound you might also change to a slightly deeper cup. Recognize that changes should be made gradually, and that it will take time to rebuild range and endurance.**

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5. Coping with Braces

Players who get braces often find that they have problems with discomfort, sound, range, and endurance. Some players, especially on trumpet, cornet, flugel, and horn, find that the mouthpiece feels too small.

The Wedge can help. Most players with braces find that they play much better, and with greater comfort, on a Wedge mouthpiece.

Find the Wedge mouthpiece from the comparison tables that is most similar to your current mouthpiece. If your rim diameter is medium to small, and it now feels too small, choose a rim diameter that is one size larger than your current mouthpiece. If your rim size feels OK you can choose the mouthpiece most similar to what you are using now.

Some players find that Delrin is more comfortable with braces because it has some give. Brass will sound better though. If comfort is a big problem choose Delrin. If comfort is OK choose silver plated brass. Players who choose Delrin can sometimes use a slightly shallower mouthpiece because of the dark sound. The shallower cup can help with range.

The mouthpiece you choose will still work well after the braces come off and you adjust to the new feel.