

Choosing Trumpet Mouthpieces

BY KEITH WINKING

Questions are frequently heard at virtually every trumpet clinic/master class concerning mouthpieces. It seems that many band directors and young students are confused as to when and why to switch mouthpieces. This article will address these questions as well as some of the myths floating around concerning what to look for in selecting a mouthpiece.

Today's trumpeters are fortunate to have a plethora of mouthpieces from which to choose. However, the lack of a universal sizing system has led to some confusion. Arguably, Bach mouthpieces are considered the industry standard. Most mouthpiece manufacturers compare their mouthpieces to Bach's and will have ads stating "similar in size to a Bach..." While Bach is the standard, Shilke and Yamaha are also major players who use their own numbering/lettering systems, which adds to the confusion. As various manufacturers commonly use Bach as a reference, I have chosen to follow suit in writing this article.

There are basically four components to a mouthpiece: rim, cup, throat and backbore (see diagram).

Most mouthpieces are referred to with a number and letter (e.g. 7C, 5B, 1E). The number refers to the diameter of the cup while the letter refers to the depth of cup. On Bach mouthpieces, the lower the number (e.g. 1, 2, 3), the

wider/larger the mouthpiece; whereas on Shilke/Yamaha, the higher the number (e.g. 18, 20) the wider/larger the mouthpiece. A Shilke 18, therefore, is comparable to a Bach 1C. There is a wide range of numbers/sizes available so it is recommended that students consult with a private teacher to find the size that works best.

Most beginners start on a Bach 7C, 5B or Yamaha 11C4, but after a few years of playing, and embouchure development, they might need to move to a larger mouthpiece. The larger the diameter, the stronger the embouchure needs to be. So if a student is playing a mouthpiece which is too large they might experience problems with endurance and range.

The choice in cup depth is very limited in comparison to cup width and is designated by letters A, B, C, D, E, and F. The sizes run from deep to shallow; thus a B cup is deeper than an E cup. The deeper the cup, the darker the tone and it will also generally lower the pitch.

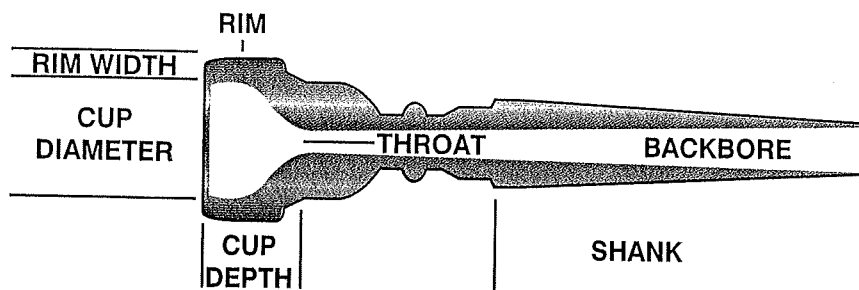


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Conversely, the smaller the cup the brighter the sound and the higher the pitch. The majority of Bach mouthpieces sold are C and B cups. Advanced players who play piccolo trumpet and who desire a more brilliant sound will often use a shallower cup (D or E). Players with thick lips will often need a somewhat deeper/larger cup to compensate for the extra space their lips take up inside the cup.

Although it is possible to customize order mouthpieces with specific rim, throat, and backbore sizes, they generally come in standard sizes. The standard throat size is a #27 (3.66mm), which refers to a ream size wherein #1 is the largest and #60 the smallest. The standard throat is fine for most students but as embouchure develops, a larger throat size might be explored. My mouthpiece is a Bach 1 1/4 C with a #25 (3.81mm) throat and I have been playing the same mouthpiece for so long I can't remember when or why I switched to a large throat. Oftentimes students who experience back pressure while playing will switch to a bigger cup whereas a more open throat can relieve the pressure. When I play a standard Bach 1 1/4 C

with a #27 throat I experience back pressure so I assume that is why I switched. Most reputable repair shops have special reams which can change the throat size, but be aware that once the metal has been drilled away there is no way to go back to the old throat size. If a student wants to experiment with throat sizes, I recommend finding an old mouthpiece to try it out prior to making the permanent adjustment on a mouthpiece.

Bach mouthpieces come with standard backbores and every letter has a different backbore. A cups come with No. 24 backbore, C cups come with a No. 10 backbore, B cups have No. 7 (also known as Schmitt) backbores, etc. The tighter the backbore, the more brilliant the sound; the larger the backbore, the mellower the sound. As mentioned previously, most beginners start on either a 7C or 5B and a friend of mine who maintains a large private studio in Austin feels that the backbore on a 5B is too large for many beginners. Because of this, he advocates starting beginners on either a Bach 7C or Yamaha 11C4 though there are always exceptions.

Mouthpieces can be ordered with wider rims though I've only known one trumpet player in all these years who played something other than a standard rim. Although I have tried several mouthpieces through the years, I have basically been playing the same one for over 25 years. In the last 25 years I bought two mouthpieces whose rims I thought felt better than my 1 1/4 C but in both cases I felt that I was sacrificing sound for comfort so I went back to my old mouthpiece.

I attended a clinic many years ago by Lloyd Fillio, (Chief Bach brass technician) and I remember someone asking the difference between gold and silver plating. Mr. Fillio commented that gold felt warmer than silver and after most players try gold plated mouthpieces they usually switch. Gold is a softer metal than silver and does feel warmer which is especially comforting after a hard day of playing. After Mr. Fillio's clinic I tried a gold mouthpiece and had mine gold plated soon thereafter.

One Size Does Not Fit All

I have witnessed a frightening num-

ber of band directors who, after hearing a professional player and finding out what size mouthpiece they use, insisted that their students all play the same size as the professional. Their "thinking" is that they will all immediately sound like the pro. There are several problems with that "theory" the main one being of course that we are all unique so teachers must consider each student's uniqueness: teeth, jaw, shape of the lips (thickness and width) etc. when choosing a mouthpiece.

Why and When to Switch Mouthpieces

When contemplating a mouthpiece switch there are a few questions that should be addressed. What difficulties are being experienced with the current mouthpiece? What problems will a new mouthpiece eliminate? How will it affect tone color? Range? Intonation? Endurance?

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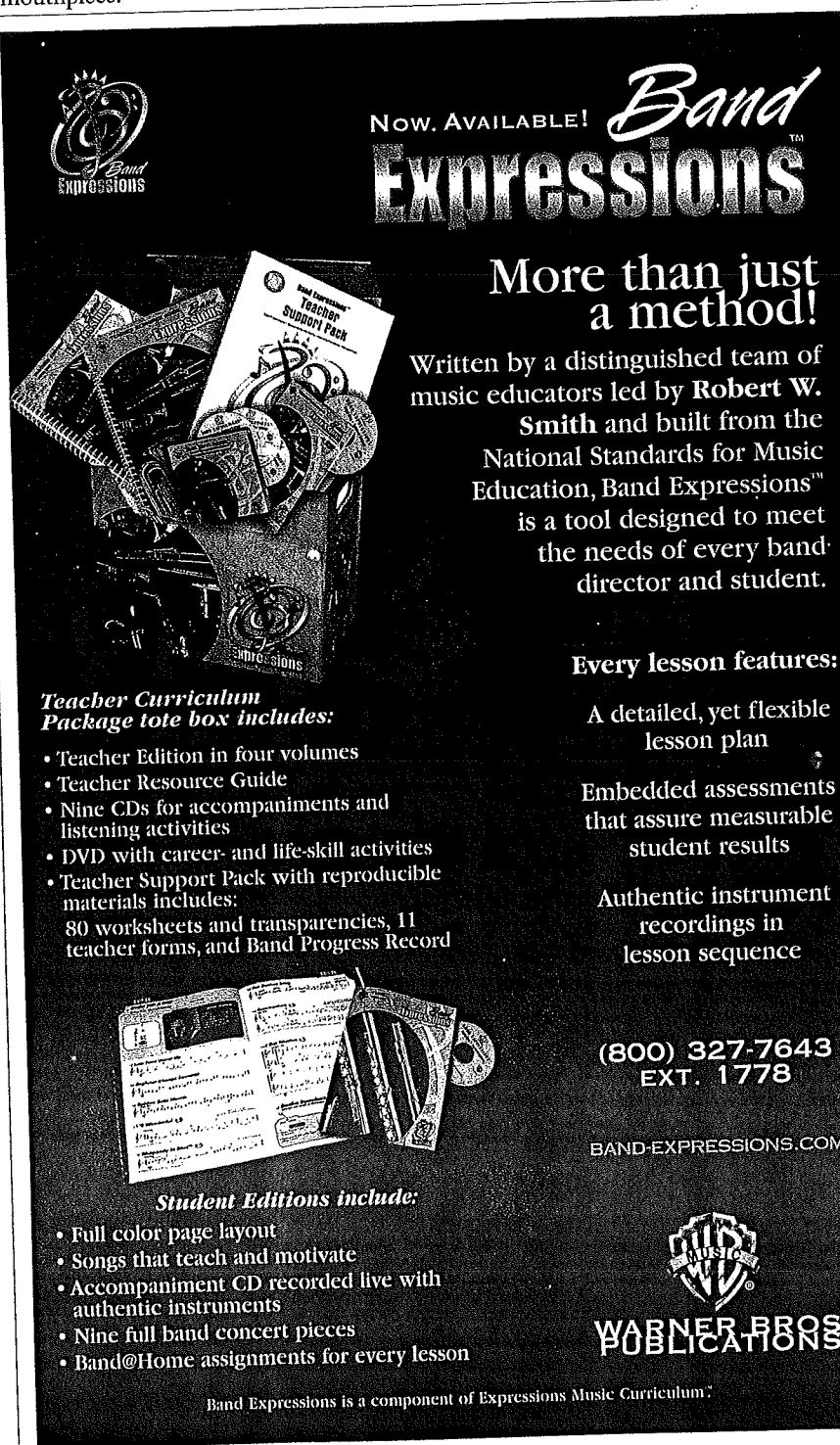
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One of the myths concerning mouthpieces is "the bigger the mouthpiece, the bigger the sound." In the 1970s there was a move to play bigger mouthpieces in order to help students develop a bigger sound. I was fortunate to have studied with two trumpet legends Raymond Crisara, and Don Jacoby, both of whom were known for having huge sounds and both played medium-smaller mouthpieces. In general, the bigger the mouthpiece,

the darker the sound. Many young players want to switch mouthpieces to improve their high range, but oftentimes by doing this their high notes sound forced or squeezed. Changing mouthpieces to increase high range can hurt low range, flexibility, and sound quality. Always stress tone quality over the ability to play high. Don "Jake" Jacoby commented, "High playing is the result of being a good trumpet player, not the reason to

play." I remember telling Mr. Crisara that I was contemplating switching mouthpieces and for every reason I gave for wanting to switch (better high range) he would counter with reasons not to (negative effect on low range). He said he never saw a mouthpiece make a bad player sound good nor a good player sound bad. The conversation ended with Mr. Crisara telling me to go practice, which was great advice.

Always examine practice habits before switching mouthpieces. Although it is important to analyze a player's physical and musical needs, continuously searching for the perfect mouthpiece is certain to produce frustration. A mouthpiece is not a magic wand. 

Keith Winking is a professor of Trumpet and Jazz at Texas State University. Dr. Winking is a voting member of the National Association of the Recording Arts and Sciences and a clinician for the Conn-Selmer Company.

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