

WSU Low Brass Class 2020
Euphonium/Tuba Handout

MEMORIZE THIS:

1ST POSITION = 0

2ND POSITION = 2

3RD POSITION = 1

4TH POSITION = 12

5TH POSITION = 23

6TH POSITION = 13

7TH POSITION = 123

TUBA IS AN OCTAVE LOWER

Types of Tubas
(stolen from Dr. Micah Everett)

Euphonium in Bb. The euphonium is essentially a tenor tuba, having a bore profile and sound similar to those of the tuba, but pitched an octave higher than the BBb tuba. The large, predominantly conical tubing of this instrument contributes to its warm, sonorous tone. Modern euphoniums can have three or four valves, and the best instruments employ the compensating system with fingerings including the fourth valve. Practically all American-made instruments, whether they are called baritone horns or euphoniums, are euphoniums. That said, a few of these instruments (such as the old Conn and King three-valve, bell front, small-bore “baritones”) have characteristics that are really in between what the British would classify as a euphonium or baritone horn. In German-speaking countries the euphonium is sometimes referred to as the baryton.

Baritone horn in Bb. While sharing the same fundamental pitch, range, and fingerings as the euphonium, the baritone horn is much smaller in bore, bell, and mouthpiece size, and has primarily cylindrical tubing. Its sound is much brighter and more trombone-like than that of the euphonium. This instrument is today almost exclusively found in European brass bands. In German-speaking countries this instrument is referred to as the tenorhorn. Although baritone horns were once almost universally three-valve instruments, four-valve models do exist today, including some compensating models.

Eb alto/tenor horn. Called alto horn in the US and tenor horn in Britain, this instrument is basically a smaller version of the baritone horn, pitched a fourth higher. It is found only in brass band music today, though early concert bands sometimes used this instrument instead of the French horn as the alto brass voice.

Marching instruments. Traditionally euphonium and baritone horn players have marched with the same instruments they use in concert settings, a situation which still prevails in most military

bands as well as brass bands and more traditional marching ensembles. As drum and bugle corps have developed and American school marching bands have taken on many characteristics of these groups, bell-front, bugle-shaped instruments have been predominantly used for marching purposes. A number of makes and models are available; typically manufacturers will label their largest marching instruments marching euphoniums and the smaller ones marching baritones, though both of these instruments typically have a primarily conical bore profile. Another three-valved bugle, sometimes labeled as a marching trombone, is more cylindrical in bore and thus more analogous to the baritone horn. All of these are Bb instruments with the same written notes and fingerings as their concert counterparts. For better or for worse, the distinctions that are so vital when considering concert instruments are less so for marching instruments.

Contrabass tuba in BBb or CC. These largest tubas are the standard bass instruments in bands and orchestras, with BBb instruments being most common in school bands. CC tubas are generally preferred by American professional tubists.

Bass tuba in Eb or F. Bass tubas are preferred for small chamber ensembles and for solo playing. F tubas are more common in America, though the Eb is perhaps a more versatile instrument.

Cimbasso, usually in F, though sometimes in Eb, CC, or BBb. This instrument is essentially a contrabass valve trombone. The “slide” section extends downward and rests on the floor, however, and the large mouthpiece combined with the valve system perhaps makes it best suited to being played by a tubist. The term cimbasso has long been misunderstood—it was applied to a number of instruments during the nineteenth century, but gradually came to refer to the contrabass trombone preferred by Verdi and his contemporaries in Italian opera instead of the tuba. The modern version of this instrument is an attempt to, in sound if not in physical appearance, obtain an authentic bass voice for the brass section in these works.

Marching instruments. While some concert tubas are fitted with rings for attaching harnesses to enable marching and playing, the need for an alternative instrument for marching purposes has been recognized almost from the beginning of the tuba’s existence. The first helicons, tubas designed to wrap around the player’s body, were developed in the mid- to late nineteenth century. The sousaphone, developed around the turn of the twentieth century, was a larger and more refined version of the earlier helicon. The earliest sousaphones were bell up, but later models were made bell front (the bell up is still an option on some models, and Sousa always preferred this type, which was affectionately known as the “raincatcher”). These instruments are usually in BBb, using the same fingerings as the BBb concert tubas. Eb sousaphones also existed but were discontinued for a long time before being reintroduced by the British/Chinese firm Wessex Tubas in recent years. In drum and bugle corps a contrabass bugle—in its modern version essentially a BBb concert tuba with the leadpipe placed to allow for playing with the instrument on the player’s shoulder—is the rule. While the sound of this instrument is arguably superior to the sound of the sousaphone, younger and smaller players tend to have more

difficulty marching and playing with these instruments than with sousaphones. Many band directors therefore eschew the use of “contras” in their ensembles, despite their increasing popularity. Very few fourteen-year-old kids will be able to march and play well with a contra. If budgets will simply not allow for the purchase of separate marching and concert instruments convertible instruments are available. These have a leadpipe which can be repositioned so that the instrument can be played either upright (like a concert tuba) or on the shoulder (like a “contra”). This is not an ideal solution (partly due to the aforementioned difficulties with “contras”) but it does exist.

Equipment Buying Guide

Recommended Instruments (in Everett’s Order of Preference)

- Beginner (3-valve, non-compensating)
 - Yamaha YEP-201
 - John Packer JP074
- Intermediate (4-valve, non-compensating **start here even with beginners if funds permit**)
 - Yamaha YEP-321
 - King 2280
 - John Packer JP174
- Advanced/Professional (4-valve, compensating)
 - “Below-Budget”-Priced
 - Mack Brass EU1150
 - “Budget”-Priced
 - John Packer JP274
 - Moderately-Priced
 - John Packer JP374
 - Yamaha YEP-642II
 - Besson Sovereign 967, 968
 - High-Priced
 - Miraphone M5050
 - Besson Prestige 2051, 2052
 - Willson 2900, 2950
 - Adams E1, E2, E3
 - Yamaha YEP-842
 - Sterling Virtuoso
- Marching Baritones
 - Yamaha YBH-301M

- King 1127
 - Jupiter JBR-1100M
- Marching Euphoniums
 - Yamaha YEP-202M
 - King 1129
 - Jupiter JEP-1100M
- Recommended Euphonium Mouthpieces
 - Schilke 46D*, 51D, 52E2
 - Wick/Steven Mead SM Series
 - DEG/Brian Bowman BB1, BB2, BB3

- Beginner Tuba (BBb, 3 valves, small 3/4 size, accessible to young players)
 - Yamaha YBB-105
 - John Packer JP078
 - Eastman EBB231
- Intermediate Tuba (BBb, 4 top-mounted piston valves—more durable due to protected placement, medium 4/4 size)
 - Yamaha YBB-321
 - Eastman EBB431
- Advanced (BBb, 4 front-mounted valves; some piston, some rotary—accessible slides improve tuning, but valves are more vulnerable to damage, medium 4/4 size)
 - “Bargain”-Priced
 - St. Petersburg 202, 203
 - Mack Brass TU200, TU210
 - Moderately-Priced
 - Eastman EBB534
 - Jupiter JTU-1110
 - John Packer JP379BB
 - High-Priced
 - Miraphone 186, 1291, 191
 - King 2341
 - Meinl-Weston 25, 195
 - Willson 3100
- Sousaphones (BBb, brass; if budget constraints demand it seek fiberglass models from the same manufacturers)
 - Yamaha YSH-411
 - Conn 20K
 - King 2350
 - Jupiter JSP-1100
- Convertible Tubas (BBb, single instrument with marching and concert configurations)
 - Yamaha YBB-201M
 - Jupiter JTU-1030M

- Recommended Mouthpieces
 - Bach 18, 22, 24AW**, 25**
 - Conn Helleberg, Helleberg 7B
 - Schilke Helleberg, 66, 67, 69C4**
 - Wick 4L**, 3L**, 2L, 1L
 - Perantucci PT50, PT88,

*The Schilke 46D is a relatively unknown but good “beginner” euphonium mouthpiece. It has a small cup diameter like many beginner trombone mouthpieces, but a deeper, fuller cup that is more conducive to a good euphonium sound than the Bach 7C and 6.5AL mouthpieces that make good beginning trombone mouthpieces and are unfortunately often given to beginning euphoniumists, as well. Students with larger facial structures might be able to start on the Schilke 51D.

**Any of these marked with an asterisk will make acceptable beginner mouthpieces. Try not to go too big— many band directors use the Conn Helleberg as a “standard” tuba mouthpiece, but while it is a good mouthpiece it is too large for many players. The Bach 18 or other similar-sized mouthpieces make better “basic” mouthpieces for high school players.