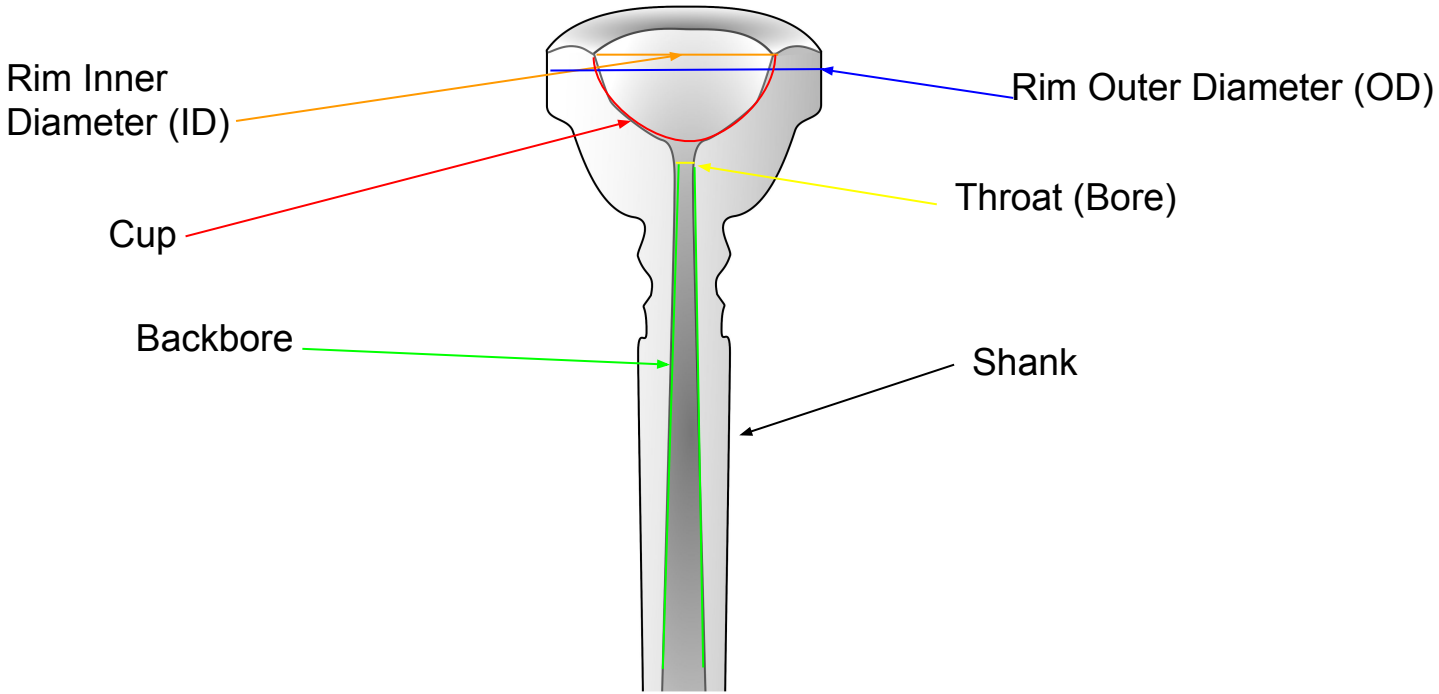
Trumpet Mouthpieces

And What They Can (and Can’t) Do for You

The Parts of a Mouthpiece



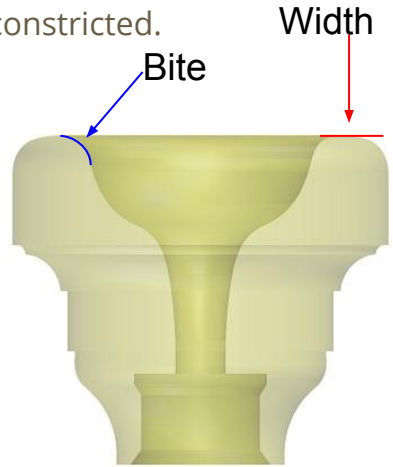
Why is any of this important?

- Besides the player, the mouthpiece is the most impactful determinator of sound.
- Using an appropriate tool makes the job significantly easier - it's very difficult to play in a concert setting using a specialized commercial setup, and vice-versa.

The Rim

Rim ID has everything to do with endurance, articulation, and tone.

- A larger ID will often times play more freely with a “fuller” sound, but could adversely affect endurance.
- A smaller ID will normally play more “brilliantly” and aid endurance, but may feel more constricted.



Rim Width deals with comfort and flexibility

- Wider rims can hurt flexibility, but will feel more comfortable.
- Narrower rims may help flexibility, but could feel less comfortable.

Rim Bite (inside) deals with comfort and articulation.

- Sharper bite may aid more direct articulation, softer (rounder) bite will feel more comfortable and flexible. A softer bit will also make a cup feel larger than if it had a sharper bite.

The Cup

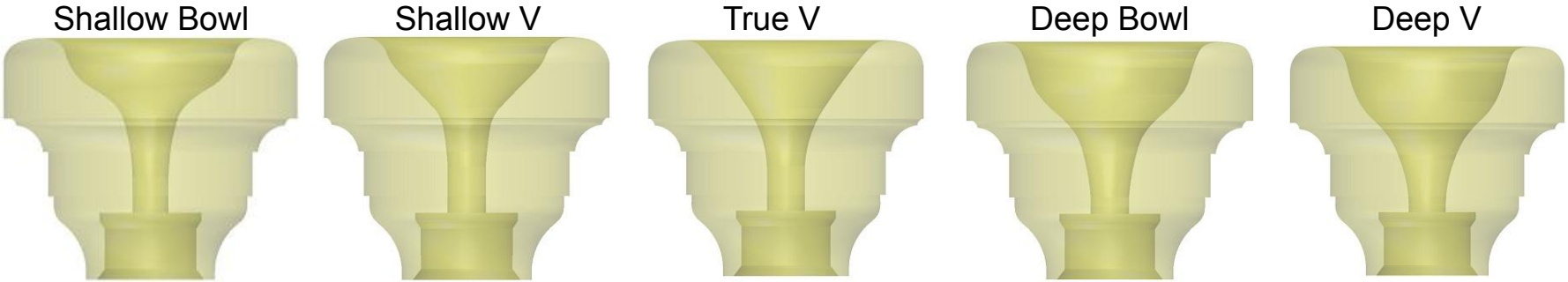
Cup depth and shape deal with tone color and range accessibility.

Cup Depth:

- Deeper cups will play more “covered/dark,” but can be unwieldy in the upper register.
- Shallower cups will play more “brilliantly,” but will play more direct in the upper register.

Cup Shape:

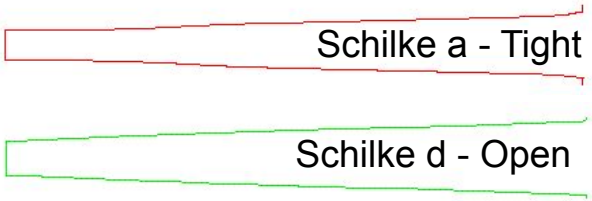
- V-Cups are often used when projection or diffuse playing are top priority. Flugelhorns and cornets primarily use v-shaped cups, as well as some commercial players.
- Bowl-shaped cups (“C” or “U” shaped cups) are the most popular cup shape as they can provide even, reliable response across the registers.



The Backbore

Backbore controls airflow and compression.

- Smaller backbores add more compression and can magnify higher overtones, but can feel tight.
- Larger backbores often play more freely and with a more “covered” sound, but can make the tone seem unsupported.
- It is important to balance your cup and backbore to fit your desired sound and airflow.



Mouthpiece Manufacturers

High Production - Precision and Component - Premium Custom

High-Production Mouthpieces

- **Vincent Bach** - decent quality high-production mouthpieces. Great for beginners and pros alike. Known to sponsor big name classical artists such as Chris Coletti and Phil Smith. **$35-120**
- **Schilke** - founded by Renold Schilke, their reputation is consistent through both classical and jazz worlds. Known for their comfort and flexibility. **$35-120**
- **Yamaha** - use the Schilke labelling system, but have Bach-like mouthpieces. Fairly consistent quality, have sponsored artists like Allen Vizzutti and Eric Aubier. **$40-100**
- **Marcinkiewicz** - Known for their introductory commercial mouthpieces, they've done custom work for tons of professionals and sell their custom mouthpieces in their "Endorsee" line. **$68+**

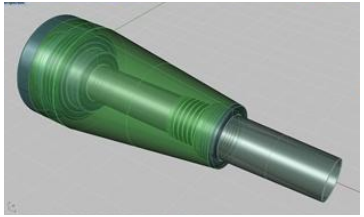



Precision and Component Mouthpieces

- **Kanstul** - Known for custom work and mouthpiece duplication, Kanstul is a good way to get a well-designed mouthpiece cheaply. A good way to get your feet wet in components, as well as to start venturing out into custom work. **$130+**
- **Pickett Brass** - regarded as one of the finest precision mouthpiece makers. Their mouthpieces come in a wide variety, and the component system allows you to dial in the sound you are looking for. Endorsing artists include Allen Vizzutti, Rex Richardson, and Jens Lindemann. **$120-180+**
- **Warburton** - The first major precision producer of component mouthpieces, this system works on stability and ease of projection. Standard series typically has a more direct sound than a comparable Pickett. **$160+**

Premium/Custom Mouthpieces

- **Bob Reeves** - Known for commercial lead, jazz, and even classical artists in the LA region. Each mouthpiece has been hand-worked by Bob Reeves himself. His mouthpieces use a rim/underpart two piece design. **$165+**
- **Harrelson** - Maker of highly modular mouthpieces with the ability to customize every component. He's an engineering madman, but the components are incompatible with other mouthpiece systems. **$300+**
- **Monette** - World-renowned mouthpiece maker. Their mouthpieces are known for massive trial and error design, large throats and backbores, and a specific relaxation technique required to acclimate to the mouthpiece. **$252-350+**
- **Stomvi (Flex)** - A no-nonsense approach to custom component mouthpieces, they use other maker's rims matched with their underparts and shanks in order to make an easily customizable and resonant piece. **$225+**
- **Gary Radke (GR)** - a keen analyzer of trumpet mechanics and fluid dynamics, GR has created a line of mouthpieces that manipulate the alpha angle (steepness of wall immediately after bite) in order to personalize each mouthpiece to the performer's specific chops. **$205+**

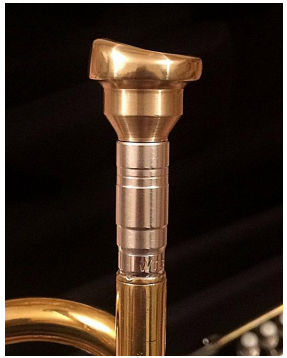


Unconventional/Novelty Mouthpieces

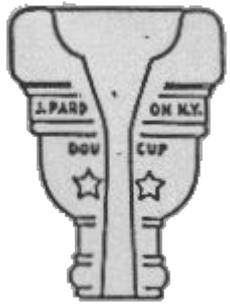
Wedge

Hyperbolic

Tilted Rim



Double Cup



Asymmetric

Hydro-Dampening

Other Notable Manufacturers

High-Production

Faxx - Entry level copies. $20+

Rudy Muck - specializes in comfortable and wide rims. $63

Kelly - All-plastic mouthpieces. $13-25

King - Surprisingly good quality, all-around pieces. Parent company for System Blue and other smaller names. $40-80

Precision/Handmade

Stork - Highly custom one-pieces, commercial and classical. $80+

Greg Black - Handmade tradition of Bob Giardinelli, great core of sound. $135+

Hammond - well-regarded by the classical community; somewhat popular in DCI. $95

Laskey - Student of Schilke, comfortable rims with a good core of sound. $100+

Curry Precision - very consistent, precision machined pieces in Bach style. All musical facets covered. $86+

Premium/Custom

Taylor - fit specifically for Taylor Trumpets. $210+

AR - High-resonance Italian mouthpieces. $190+

Schagerl - beautifully designed, innovative trumpet mouthpieces - endorsed by James Morrison and Hans Gansch. $200+

Appropriate Equipment Use

Selecting the Most Efficient Equipment to Achieve an Ideal Sound

Ensemble Work - Know Your Role

Solo Chairs/Principal Work/Lead Parts

- Typically a more brilliant and dominant sound is needed.
- Usually higher and more independent than section parts.
- Depending on the idiom, a greater deal of agility and endurance will be required.

For these reasons, somewhat **smaller** equipment may be preferred to achieve the desired sound with the least amount of extra work. Using **larger** equipment may be detrimental by being too tiresome, unwieldy (uncentered), or could risk a poor sound when coming out of a texture is required.

Section Parts

- Greater emphasis on blend and texture.
- Lower parts that need a more robust sound, as well as greater emphasis on tutti sections.
- Depending on the idiom, a greater deal of volume and core will be needed in the sound in order to balance.

For these reasons, somewhat **larger** equipment may be preferred to achieve the desired sound with the least amount of extra work. Using **smaller** equipment could cause a brittle sound, bottoming-out in the lower register, or could risk poor balance within the ensemble.

Typical Principal /Classical/Solo Setup

The ideal sound is a well-rounded, full, and agile. Strident sounds are avoided, but brilliance is often required. For these reasons, a larger rim ID is often paired with a medium to medium-large sized cup and a larger throat and backbore.

Typical Setup:

Rim ID: .640”-.680”
Rim Shape: Medium-Round to Medium-Flat
Cup Depth: Medium-Large to Medium-Shallow bowl.
Throat Size: 22-27. 24 is typical.
Backbore: Medium-Large to Large.

Examples:
Bach 1C or 1 ½C, 24 throat
Schilke 15
Warburton 4MC top, 9 backbore
Pickett 2C top, 2 Backbore

Typical Lead / Commercial Setup

The ideal “modern lead” sound is certainly more strident than its classical counterpart. Emphasis is placed on upper register, agility, and a sound capable of leading a big band. Smaller rims, cups, and backbores are often preferred in order to maintain an ideal sound due to sustained upper register playing.

Typical Setup:

Rim ID: .590”-.660”
Rim Shape: Medium-Round to Flat, typically medium to wide
Cup Depth: Medium-Shallow to Extra-Shallow bowl or v
Throat Size: 25-31. 27 to 29 is typical.
Backbore: Small to Medium-Large

Examples:
Bach 7E
Schilke 6A4a
Warburton 8ESV top, 4 backbore
Pickett 7F top, C4 backbore

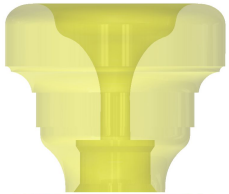
Exceptions

There are exceptions to every rule and trend. In the end, select your equipment based on desired sound, not solely on what other people use. These guidelines are intended to aid in search, not be an end-all.

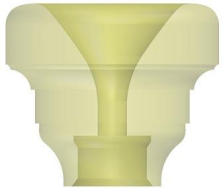
What Tops Some of the Pros Use

Commercial / Jazz

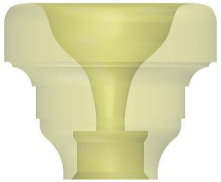
Augie Haas



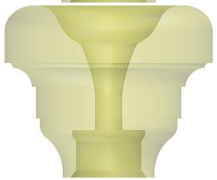
Maynard Ferguson



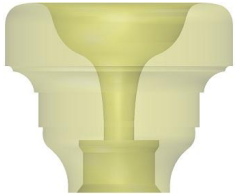
Arturo Sandoval



Chad Shoopman

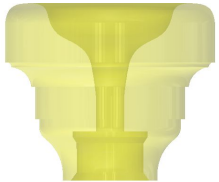


(Warburton 4MC for reference)



Classical

Hakan Hardenberger



Timofei Dokshizer

Jose Sibaja

Ronald Romm

Further Topics:

- ❑ Mouthpiece Materials and Plating
- ❑ Mouthpiece Weight
- ❑ Throat and Venturi
- ❑ Alterations
- ❑ Using Multiple Mouthpieces
- ❑ Shape - how much does it matter?
- ❑ What makes precision-made mouthpieces so different?
- ❑ Custom mouthpieces and their cost-effectiveness
- ❑ Variable breakdown - how everything plays together.

Final Comments

- When trying new mouthpieces, the sound should be the top priority.
- You will naturally gravitate towards your ideal sound concept - it is wise to use equipment that allows you to achieve your ideal sound with the least amount of extra work.
- Always seriously test mouthpieces with a friend or teacher near by - their input will be in your best interest.
- Everyone has different chops, facial structures, and practice regimens. Just because a setup works for someone else does not necessarily mean it will work for you.
- The best artists didn’t get where they are by buying a new mouthpiece, but through hours spent in the practice room.