

Schilke

MOUTHPIECES
FOR BRASS



the
mark
of excellence

HOW TO SELECT A BRASS MOUTHPIECE

RENOLD O. SCHILKE

The importance of a superior brass mouthpiece can scarcely be overstated. Many directors and teachers of brass, not to mention their students, have strong convictions about the brand name of the instrument used but tend to neglect the importance of the proper mouthpiece. One should bear in mind that the mouthpiece which comes with an instrument may or may not be suitable for a particular player. (It is for this reason that Schilke instruments come without a mouthpiece.) In truth, every player should use a mouthpiece specifically adapted to him, his needs, and his instrument. Proper embouchure development, correct breath control, and a good instrument are all important, but let us not neglect a most important variable – the mouthpiece.

In selecting the best mouthpiece one needs to consider the player's teeth, jaw, and shape of the lips (thickness and width), as well as the strength of the embouchure, the desired tone quality, ease of playing the upper and lower range, endurance, intonation, and the type of playing done most of the time.

Though a medium width cup diameter, rim thickness, rim control, backbore, cup depth, volume, and shape may be recommended for the average player, as a general rule it is desired to encourage the use of larger sizes as the embouchure develops. A larger cup diameter and cup volume allows more of the lip to vibrate which in turn produces a fuller and more resonant tone. This also encourages more lip control and endurance. The location of the high point of the contour is another variable that should be kept in mind; this changes the feel of the width of the cup.

The sharpness of the edge of the rim or the "bite" affects both flexibility and precision of attack and is an important variable. (See page 7 for nomenclature)

A small or shallow cup produces the brightest sound and aids in playing high notes while a larger deep cup aids in producing the lower tones and produces a richer darker sound. The Schilke "C" cup is a good standard size producing a good tone without unduly favoring either the very high or very low register. The high note craze of some students, especially when high notes are forced or squeezed and often produced on too small a mouthpiece, is to be discouraged. The player with thick lips should choose a somewhat deeper or larger cup to compensate for the extra space his lips take up inside the cup.

A player who needs some help in the upper range should experiment using a shallower first cup with a widened second cup. The shallow first cup facilitates the playing of the upper register while the widened second cup promotes a fuller and richer tone. As the bottom of the cup becomes flatter one's attack improves but the quality of the tone becomes somewhat coarser. The more the cup shape becomes conical the better is the quality of sound but as this is accentuated the tone may become too dark.

A round and narrow rim contour permits greater lip flexibility but tends to reduce endurance. (Obviously, the amount of pressure on the lips is an important consideration too.) A rather flat and wide rim contour feels the most comfortable but tends to hold the lips somewhat immobile, thereby reducing lip flexibility. For most players a judicious compromise in rim contour is suggested using a mouthpiece which has a reasonable rim curvature to provide flexibility but with sufficient surface to improve endurance.

An average size throat (the narrowest part of the mouthpiece opening) is also preferred for the average player. However, with added embouchure development a somewhat larger throat should be tried.

Many brass teachers, students, and mouthpiece manufacturers tend to neglect the importance of the backbore. It is not unusual to find mouthpieces which are superior in every respect except the backbore. Players frequently examine the mouthpiece with great care from the top but never really examine the backbore. Part of the trouble is that the backbore is not so readily visible to the naked eye, but probably the more important reason is a lack of understanding of the importance of the shape of the backbore. The tighter the backbore, the more brilliant is the sound; the larger the backbore, the mellower is the sound. Occasionally a change in the backbore will improve the inherent faulty intonation of an instrument. The largest trumpet/cornet backbore I use, often called the Schmidt backbore, gives the largest volume with control. However, should one wish more control, a backbore toward the "a" range would be desirable.

There is no substitute for the careful analysis of a player's needs, both physical and musical. Some experimentation in testing is encouraged. But the continuous seeking of the "perfect" mouthpiece is certain to produce only frustration.

All teachers and players of brass instruments, both professional and amateur will benefit much by understanding the various parts or surfaces of a brass mouthpiece and what function each has. Only then can one make intelligent and practical recom-

mendations as to which mouthpiece will produce the desired results with a particular player.

Lack of controls in the manufacture of mouthpieces has been found through extensive testing of mouthpieces. Some manufactures do not hold tolerances very well. It is for this reason that marked differences can be found within the same mouthpiece category of the same manufacturer, so much so that often two mouthpieces labeled differently are more alike than two which are labeled the same. This variance is often particularly noticeable when comparing the same mouthpiece made in different years. (Shapers are sharpened, and to sharpen them some metal has to be removed. Thus, a change in dimensions. Shapers at the Schilke factory are replaced not sharpened.) It should be mentioned that small differences in dimensions, too small to be discerned by the naked eye, can be discerned by a discriminating player as well as with special measuring tools.

When a player wishes a better mouthpiece, I usually ask him several questions. What mouthpiece are you using now? What difficulty, if any, do you have with that mouthpiece? In what direction do you want to go? A change of tone color? Increased range? Better intonation? Increased endurance? The answers to these questions determine what new mouthpieces should be used. For example:

Now Plays: Bach 7C
Objective: More brilliance.
Solution: Schilke #12

Bach 3C
More endurance.
Schilke #15

Bach 3C
More volume and flexibility
Schilke #18

Bach 1C
More tone and flexibility
Schilke #20

Olds #3
More cup room and lip freedom.
Schilke #11

These are but a few examples of the many problems of trumpet players and the suggested solutions.

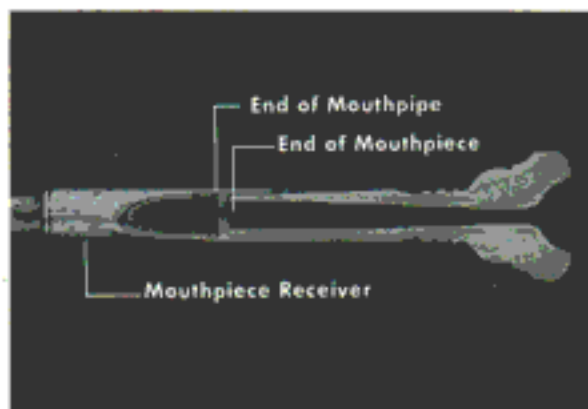
It is not unusual for a performer to be completely satisfied with

a particular rim and cup he is using but wishes a different tone quality. In this case it is a simple matter to duplicate the desired rim and cup exactly (regardless of make) and adjust the throat or backbore and provide him with a custom mouthpiece.

At times a player may have air escaping at the side of the mouthpiece. Usually this is not the fault of too little pressure, but stretching the lips (instead of contracting them); perhaps his teeth and jaw formation is too irregular. Mouthpiece pressure reduces endurance because the blood circulation in the lips is cut off and lip swelling results. On the other hand, widening and flattening the mouthpiece rim contour will compensate only in part for added pressure. Carrying this type of mouthpiece too far reduces lip flexibility and the desired exact point where the lips cannot and should not vibrate. Pinching the lips using too much mouthpiece pressure, and using too small a mouthpiece (unless absolutely essential) are no substitute for embouchure development.

Every teacher and player should recognize that a mouthpiece on an instrument will not sound the same to the player as to one standing distance away. A good tape recorder is very helpful. Furthermore, the same mouthpiece and instrument can actually sound different when played by two different people. Differences in the formation of lips, teeth, jaws, not to mention breath control and experience, all contribute to differences in the sound. Again, there's no substitute for adapting the best possible mouthpiece to the player's needs. This must be considered too when trying to have a perfectly blended brass section to produce the ultimate in uniform tone quality.

Two serious shortcomings are often overlooked by both teachers and players of brass instruments. The first is when a mouthpiece shank is a bit too large: a gap will exist between the end of the mouthpiece and the inside of the tubing, the mouthpipe as illustrated here.



When a nodal point of a vibration (sound) hits this gap or depression the result is the same as if the mouthpipe had a sudden bulge. Since the most crucial part of any brass instrument is the mouthpiece followed by the mouthpipe, one can see the seriousness when the mouthpiece does not butt against the end of the mouthpipe. This shortcoming can be corrected by turning down the shank a bit on a lathe. One should remember that when a mouthpiece is farther in the mouthpipe that the pitch of the instrument is raised, this requires pulling the tuning slide a bit.

Equally serious is the opposite of the foregoing, namely when the end of the mouthpiece is too small and goes inside of the mouthpipe. This can happen if the foregoing fault is over-corrected by turning down the shank too much. Both faults just mentioned are serious and occur frequently on all brass instruments. If you are a discriminating teacher, player, or music-merchant, it is most desirable that a particular mouthpiece fit the instrument **EXACTLY**.

Since it is impossible to keep dirt from coagulating in a mouthpiece, and since any dirt especially in the throat and backbore interferes with intonation and playing ease, it is imperative to keep the mouthpiece clean. A mouthpiece brush should be used every week.

When a mouthpiece has the sliver plating worn or ground off, it can be replated. Please send it directly to the Schilke Company. However, if the mouthpiece has become nicked or badly corroded, it is best to replace it entirely.

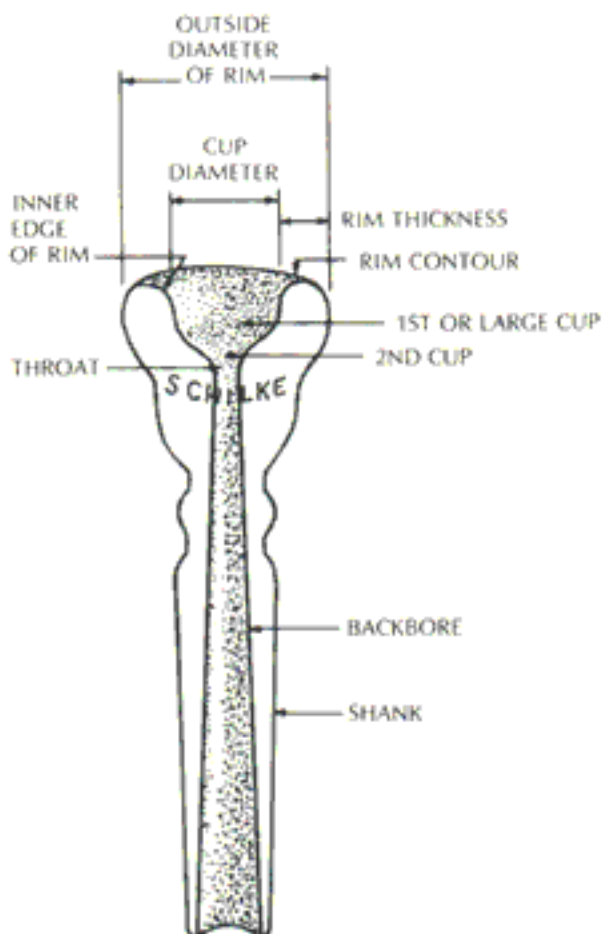
Be sure to write down or memorize the exact number of your Schilke mouthpiece so that if you should lose it, you can order an exact duplicate.

As every knowledgeable person in the brass world knows, it is undesirable to use too much mouthpiece pressure to hit the high tones. Instead, one needs to develop the embouchure muscles. This takes time. Also, it takes time to get used to a new mouthpiece, especially if the cup diameter is larger than the previous one a player used. However the high register will need to suffer only temporarily.

In selecting a brass mouthpiece one should strive for optimum tone quality and accurate intonation rather than ease of hitting the high notes, unless the latter is an absolute "must." Often the best possible mouthpiece is an intelligent compromise. Every teacher and player should strive for the optimum combination of the major variables. As with many things in life, there's more to a fine brass mouthpiece than what meets the eye.

SCHILKE MOUTHPIECE DESCRIPTIONS

The Schilke method of mouthpiece labeling has been designed to assist the student, teacher, amateur and professional in selecting a mouthpiece to meet the needs of the player. All mouthpieces come with standard rim shapes, cup volumes, and backbores unless shown otherwise on the mouthpieces.



Using this method it is possible for the player to know the characteristics of a mouthpieces in front of him.

SCHILKE MOUTHPIECE LABELING SYSTEMS

Example:

9C3c (trumpet mouthpiece)






9 refers to the CUP DIAMETER

Smallest numbers have smallest diameters

C refers to the CUP VOLUME

- A. Small Cup
- B. Medium-small
- C. Standard (medium size)
- D. Medium-large
- E. Large

3. refers to the RIM CONTOUR

- 1.  Roundest
- 2.  Semi-round
- 3.  Standard
- 4.  Semi-flat
- 5.  Only slightly rounded

c. refers to the BACKBORE



- a. Tight
- b. Straight
- c. Standard
- d. Slightly curved out
- e. Large

When a Schilke mouthpiece has a standard backbore, rim and cup, only the cup diameter (first number) is shown on the mouthpiece. In the example above only the #9 is necessary to identify the mouthpiece because the 'C' is the standard cup volume, '3' is the standard rim, and 'c' is the standard backbore. Whenever measurements differ from the standard sizes the alterations are shown on the mouthpiece.

CUP DIAMETER (First number in label)

Most trumpet and cornet mouthpieces have a cup diameter that falls between .600" and .725". Nos. 1 to 25 in the Schilke system represent sections of .005" each between these two mea-

surements. Cup diameters for mouthpieces other than trumpet and cornet are relative to each other with the smallest numbers representing the smallest diameters.

CUP VOLUME (First letter in label)

In general the deep cup mouthpieces produce the darkest sounds. In reverse the shallow cup mouthpieces produce the brightest sounds and also aid in the production of the high register. The Schilke "C" cup is a compromise which offers both full tone and ease of production.

In switching from one instrument to another i.e., B \flat trumpet to D trumpet, it is usually good to use a mouth piece that is .025" shallower in the cup volume with all other dimensions remaining the same. The higher the instrument is, the shallower the cup should be.

A player who needs primarily a good range without sacrificing much tone can consider a hollow mouthpiece with a widened 2nd cup. The shallow 1st cup affords support in the top register and the widened 2nd cup allows a full tone.

RIM CONTOUR (Second number in label)

The #3 Schilke rim has the feel that most players prefer in a rim. It has flat enough contour to distribute the slight pressure needed to provide an air seal but is rounded slightly to offer increased flexibility. Generally a rounder rim will allow greater flexibility but sometimes tires the player sooner. A flat rim often feels the most comfortable but tends to hold the lips in a fixed position, thereby reducing flexibility.

BACKBORE (Last letter in label)

Schilke mouthpieces all come with standard backbores (letter C) which permit the maximum in tone and range. Other backbores are available (Letters a, b, d, e) which might suit particular needs of players. The tighter backbores tend to make the sound more brilliant while the larger backbores tend to make the sound more mellow. Occasionally a change in backbores will cause an alteration in intonation which often can correct faulty intonation on an instrument.

THE FIT OF THE MOUTHPIECE

The shank of every brass mouthpiece when in the instrument should touch the end of the mouthpipe to insure an even taper from the backbore of the mouthpiece to the inside of the mouthpipe.

DIRT IN A MOUTHPIECE

Dirt inside the throat or backbore of a mouthpiece can greatly alter the intonation of the instrument on which it is used. Mouthpieces can only be kept clean with a mouthpiece brush used every week.

TRUMPET AND CORNET MOUTHPIECES

Trumpet/Cornet Mouthpieces: As is generally known, the diameter of the shank of a cornet is smaller than that of a trumpet. Any Schilke mouthpiece can be purchased for either the trumpet or cornet. In general, a slightly larger cup and throat favors the cornet tone. A cornet backbore automatically is supplied with all cornet mouthpieces.

When ordering Schilke mouthpieces please indicate Model nomenclature and whether a trumpet or cornet mouthpiece is desired. If this information is omitted, a trumpet mouthpiece will automatically be supplied.

<i>Model</i>	<i>Description</i>
5A4	Small cup diameter, aids the upper register. A popular piccolo mouthpiece, and available <i>only</i> in cornet shank.
*6A4a	ARTIST MODEL — Developed for Bill Chase. A small shallow "A" cup with cushion #4 rim for extremely high register work.
7B4	(Formerly Model "K") Excellent for the player with thin lips. A #4 rim provides good endurance with a brilliant tone.
8A4	The slightly funnel-shaped cup at the entrance to the throat provides a good tone and the #4 semi-flat rim gives superior endurance.
8E2	A deep funnel-shaped cup provides a mellow sound, very flexible in all registers.
9	(Formerly Model "B") Designed for Edward B. Lewellyn, former principal trumpet player of the Chicago Symphony. Standard characteristics allow for full penetrating tone quality.
9C4	Like the #9, however the #4 semi-flat rim provides excellent endurance.
*10A4a	ARTIST MODEL — The combination of the shallow "A" cup, semi-flat #4 rim and tight "a" backbore aids an extremely high register. An ideal piccolo mouthpiece.
*10A4	ARTIST MODEL — Same as above #10A4a, but with a standard "c" backbore.
10B4	A medium-small, funnel-shaped "B" cup makes for a good sound and additional support in the upper register.
11A	An excellent piccolo trumpet mouthpiece. Rim size and contour similar to the #11, but with a shallow "A" cup.
11Ax	This model has been developed for the Schilke piccolo trumpet. The 'x' backbore both improves the ease of playing and opens up the sound for our piccolo trumpets. This model is available as a standard mouthpiece <i>only</i> in cornet shank.

<i>Model</i>	<i>Description</i>
11C2	Similar to the #11 featuring a slightly rounded #2 rim contour.
11	(Formerly Model "H") A superior mouthpiece with average standard characteristics for free blowing.
11D4	Slightly deeper than the #11 with a #4 semi-flat rim, providing a definite cushion feel for endurance.
11E	The large funnel-shaped cup encourages a big round tone, ideal for cornet.
*12A4a	ARTIST MODEL — Similar to the #12B4 but with a shallow "A" cup, tight "a" backbore, adding both endurance and range.
*12A4	ARTIST MODEL — Same as above, but with a larger standard "c" backbore.
12B4	The medium-small conical "B" cup provides a full tone and the #4 semi-flat rim allows for more endurance. Excellent for modern jazz.
12	(Formerly Model "J") With the standard medium characteristics of "C" cup, #3 rim and "C" backbore, this mouthpiece produces a brilliance sought by the studio player.
*13A4a	ARTIST MODEL — Shallow "A" cup, semi-flat #4 rim and tight "a" backbore. An ideal trumpet mouthpiece for playing lead.
*13A4	ARTIST MODEL — Same as above, except for the standard "c" backbore that makes it a freer blowing mouthpiece.
*13B	ARTIST MODEL — Has a "B" cup slightly deeper than the above and a narrow rounded rim, used by Frank Lisanti.
13C4	A somewhat sharp inner-edge combined with a funnel-shaped "C" cup insures good clear tone and the #4 semi-flat rim adds to endurance.
*14A4a	ARTIST MODEL — Developed for Forrest Buchtel, formerly with the Woody Herman Band, The shallow "A" cup, semi-flat #4 rim and tight "a" backbore permits a good upper register with large tone.
*14A4	ARTIST MODEL — Same as above except for a more open standard "c" backbore.
14A4x	Based on the popular 14A4a and 14A4, this mouthpiece was also developed for use with our piccolo trumpets. The 'x' backbore both improves the ease of playing and opens up the sound for our piccolo trumpets. This also is available as a standard mouthpiece <i>only</i> with the cornet shank.
*14B	ARTIST MODEL — Similar to the #14 but with a "B" medium-small, shallow cup.

<i>Model</i>	<i>Description</i>
14C2	(Formerly the Model "V") With a standard "C" cup and a semi-rounded #2 rim. This mouthpiece produces a rather large tone with a good center.
14	All the Schilke standard characteristics make this an excellent mouthpiece for the legitimate musician to produce a full orchestral quality.
*15A4a	ARTIST MODEL — Corresponds to the #15C4 but with a shallow "A" Cup and tight "a" backbore for extreme upper register playing.
*15A4	ARTIST MODEL — Same as above but with a more open free blowing "c" backbore.
15B	Same as the #15 except the shallower medium-small "B" cup produces a brighter quality of sound.
15	An excellent mouthpiece with Schilke average standard characteristics for free blowing and all-around playing.
15C4	Similar to the above #15. The semi-flat #4 rim provides for greater endurance.
16C2	(Formerly Model "S") Has a definite "bite" on the inner edge of the #2 semi-round rim, permitting greater flexibility.
16	(Formerly Model "W") With all the standard characteristics, this medium-large diameter mouthpiece produces a full free blowing quality.
17	A compromise of all the medium characteristics, this is an excellent medium-large diameter mouthpiece.
17D4	Similar to the #17 with a "D" medium-large cup and #4 semi-flat cushion rim.
17D4d	Same as above, with a slight curved-out "d" backbore.
18	(Formerly Model "R") The high point of the rim being nearer the center makes this mouthpiece feel much smaller. The standard characteristics produce a rich brilliant tone.
18C3d	Similar to the #18 model but with a large "d" backbore, producing an even larger more "teutonic" sound.
19	The "C" cup, #3 rim and standard "c" backbore are similar to the #20 model but has slightly smaller diameter.
20	(Formerly Model "R10") This large diameter is for the robust embouchure. Used by the symphony orchestra player.

<i>Model</i>	<i>Description</i>
*20D2d	ARTIST MODEL — Designed for Georges Mager, formerly principal trumpet with Boston Symphony. Like the #20 except a medium large deep cup, #2 semi-round rim and a “d” slightly curved backbore.
22	(Formerly Model “R20”) Like the model #20 with a slightly larger cup diameter, producing somewhat greater potential in sound.
24	(Formerly Model “R30”) Extra large cup diameter for the well trained trumpeter. Provides a huge volume of tone

FRENCH HORN MOUTHPIECES

*27	ARTIST MODEL — Adapted for Dale Clevenger, principal French Horn player of the Chicago Symphony. A narrow diameter and thin rim — a special mouthpiece for the first horn player.
28	A true “French” model mouthpiece having a small cup and throat that definitely favors the high register, and is an ideal mouthpiece for Descant Horn.
29	(Formerly Model “W”) Similar to #28. This shallow cup and small bore mouthpiece is excellent for high horn playing.
30B	This is a Tankersley model — has a small “B” cup and a thin flat rim.
30	The original Farkas model — the wide rounded rim and fairly deep cup makes this a superb mouthpiece for the experienced player.
*31B	ARTIST MODEL — Created for Frank Brouk, formerly of the Chicago Symphony. A wide rim with a high center point and a large bowl cup produces a rich dark tone.
*31C2	ARTIST MODEL — Developed for David Sprung of the San Francisco Opera Orchestra. A very thin rim and medium-large cup develops a great volume of tone.
31	A slightly larger cup diameter and V-shaped cup volume produces much greater volume of sound.
32	The extra large cup diameter, cup volume, and backbore produces a rich, dark, beautiful tone color.

ALTO HORN MOUTHPIECES

<i>Model</i>	<i>Description</i>
38D	Fairly large in size, the choice of one of the country's greatest alto horn soloist, Brig. Chesham (retired) of the Salvation Army (Chicago).

TENOR TROMBONE and BARITONE/EUPHONIUM

European (Besson, Boosey & Hawkes, etc.) baritone/euphonium mouthpiece receivers differ as to dimensions of mouthpiece stems required, therefore, PLEASE INDICATE THE MAKE AND MODEL (also OLD or NEW) when ordering. There is an additional charge for stem alteration.

- 40B. Extremely small inner rim diameter and a "B" shallow cup. has a wide-rounded rim contour. For the trumpet player who doubles on trombone.
- 40 Since the cup diameter is small, the upper register is favored. In addition, the tone has considerable projection. It is excellent also for the bass trumpet and valve trombone.
- *42B ARTIST MODEL — An adaptation for Tommy Dorsey, particularly suited to the small tenor trombone.
- 42 Has the advantage of a small mouthpiece, but the cup diameter and volume are increased a bit.
- *43A ARTIST MODEL — (Formerly Cimera-Sares #3) Designed for the modern tenor trombone lead player desiring an easy high register.
- 44E4 Though a small cup diameter, this mouthpiece has a very deep "E" cup and semi-flat rim.
- *45B ARTIST MODEL — (Formerly Cimera-Sares #2). Designed for the modern lead tenor trombone player. Larger in cup volume than the #43A.
- 45 The semi-flat rim has a high point close to the center of the mouthpiece, allowing a great deal of flexibility.
- 46 Slightly on the small side, this is a good beginners mouthpiece with all the standard characteristics.
- 46D The cup diameter and volume is somewhat larger than the #46, producing a full, more robust tone. Recommended for the baritone/euphonium.

* *Special Artist Model*

<i>Model</i>	<i>Description</i>
*47B	ARTIST MODEL — (Formerly Cimera-Sares #1) A good all around mouthpiece for the lead player. Produces rich high register.
47	(Formerly Model "R") For both professionals and students, this is an outstanding mouthpiece combining good response with superior quality and intonation.
47C4	Like #47 but a slightly wider #4 rim, some what flatter contour favoring cushioned rim comfort.
50	Particularly adapted to the large-bore tenor trombones. The Schilke standard characteristics make this a fine all around mouthpiece.
*51B	ARTIST MODEL — Developed for Jay Friedman, principal trombonist of the Chicago Symphony. Has a medium-small "B" cup with a smaller throat.
*51	ARTIST MODEL — A large bowl producing a rich tone quality...the basic trombone mouthpiece used by Ralph Sauer, of the Los Angeles Philharmonic.
*51C4	ARTIST MODEL — Similar to the #51 with a slightly shallower cup and a #4 semi-flat rim. Developed for Byron Peebles, trombonist of the Los Angeles Philharmonic.
51D	The extremely large "D" cup volume is excellent for the powerful player. It is particularly suited to the euphonium, producing a full dark tone.
52	Well suited to the first trombone orchestra player. Leans toward a brighter sound due to the shallower cup shape.
*52D	ARTIST MODEL — Created for Joe Owens at Indiana State University. Terre Haute, Indiana. Deep "D" cup makes it ideal for symphonic or solo trombone playing.
*52E2	ARTIST MODEL — Created for Thomas Beversdorf of Indiana University. The very deep "E" cup and narrower #2 rim makes this an ideal symphonic mouthpiece.
53	(Formerly Model "G") This combination of large cup diameter and bowl is widely favored by those who desire a rich full sound.

Most Tenor Trombone Mouthpieces also available with bass trombone stem.

** Special Artist Model*

BASS TROMBONE MOUTHPIECES

Model	Description
57	For those who play both tenor and bass trombone, this mouthpiece is an excellent choice.
58	The best bass trombone mouthpiece for the full-time bass trombonist, combining both a good lower and upper register as well as good intonation.
59	This mouthpiece produces a full large tone, so essential in symphony orchestras and in bands where a large, powerful deep tone is essential.
60	Larger than the #59, this mouthpiece is for those desiring an extremely large bass trombone mouthpiece. (More Teutonic)

TUBA/SOUSAPHONE MOUTHPIECES

The tuba mouthpieces listed below are specially design for BB, CC, E \flat and F tubas (sousaphones). Please specify if the mouthpiece is to fit a European make.

- 62 (Formerly Model "A") A superior standard mouthpiece with a good centered sound, easy response, both high and low, and good intonation. Also good for the E \flat or F tuba.
- 66 Designed from the original Helleberg in our collections. It has excellent rich tone quality of enormous volume, preferred by the professional artist.
- 67 (Formerly Model "H") Similar to the foregoing Helleberg model, but a bit larger. The contours are the same as #66 — excellent rich tone, sonorous low register.
- 69C4 This mouthpiece was developed for a prominent West Coast tuba player. It has a very comfortable rim with a cup that is not too deep. The results of this combination form a mouthpiece that has an excellent characteristic sound, and facilitates all registers of the instrument.
- S-H This model is an adaptation of another original Helleberg with a rim contours slightly different from the one that was used for our #66. This mouthpiece has a sound that is both clear and dark.

SPECIAL and CUSTOM MOUTHPIECES

It is possible to make hundreds of variations of mouthpieces in addition to those listed herein: these can be ordered, as desired, in three different ways:

1. We can duplicate any mouthpiece which you may have and guarantee that we hold the dimensions identical to your within \pm one thousandth of an inch. Thus a true duplicate can be assured.
2. We can modify your mouthpiece in any manner you wish. Obviously, metal can only be taken off, not added.
3. We can modify any of the mouthpieces listed herein as you wish.

CUSTOM-BUILT TO ORDER mouthpieces, including any variations of the above listed Schilke, can be made for trumpet, fluegelhorn, piccolo, French horn, tenor trombone, bass trombone, euphonium and tuba.

Please indicate the MAKE and MODEL of your instrument.

TARR MODEL-Baroque mouthpiece can be custom-built to fit the Meinl Lauber baroque trumpet. This can be made up with any rim and adjustments desired.

FLUEGELHORN MOUTHPIECES

The fluegelhorn requires a deeper cup and larger throat than the trumpet or cornet mouthpiece. A special fluegelhorn backbore is also required. One should not use a trumpet or cornet mouthpiece on a fluegelhorn. Since most fluegelhorns are played by trumpet or cornet players, it is most desirable to have a fluegelhorn mouthpiece with the same rim diameter and contour used by the player. These mouthpieces can be made up in any of our standard rims.

Fluegelhorn mouthpiece receivers differ greatly as to dimensions of mouthpieces stem required. Therefore, FLUEGELHORN MOUTHPIECES MUST BE CUSTOM-BUILT TO ORDER.

When ORDERING — please indicate the MAKE and NUMBER of your trumpet mouthpiece — also the MAKE and MODEL of your fluegelhorn.

Guarantee: Though we will guarantee holding tolerances in mouthpiece duplication within one thousandth of an inch, and though our craftsmen are superbly skilled in modifying any desired mouthpiece, the subsequent playing results will have to be the responsibility of the customer.

Mouthpieces may not be returned for credit.

CUP DIAMETERS OF SCHILKE MOUTHPIECES

For those discriminating teachers and players interested in the exact measurements of the cup diameters in either millimeters, or inches (hundreds or fractions), the following table will be useful

TRUMPET & CORNET

Model	Millim.	Inches	
		Decimal	Fraction
5A4	15.84	.624	40/64
6A4A	15.99	.630	40/64
7B4	16.08	.633	41/64
8A4	16.25	.640	41/64
8E2	16.15	.636	41/64
9	16.33	.643	41/64
9C4	16.36	.644	41/64
10A4A	16.43	.647	41/64
10A4	16.43	.647	41/64
10B4	16.43	.647	41/64
11A	16.51	.650	21/32
11C2	16.51	.650	21/32
11	16.53	.651	21/32
11D4	16.58	.653	21/32
11E	16.58	.653	21/32
12A4A	16.71	.658	21/32
12A4	16.71	.658	21/32
12B4	16.71	.658	21/32
12	16.69	.657	21/32
13A4a	16.76	.660	21/32
13A4	16.76	.660	21/32
13B	16.77	.660	21/32
13C4	16.89	.665	43/64
14A4a	17.09	.673	43/64
14A4	17.09	.673	43/64
14B	17.02	.670	43/64
14C2	17.02	.670	43/64
14	17.02	.670	43/64
15A4A	17.14	.675	43/64
15A4	17.14	.675	43/64
15B	17.12	.674	43/64
15	17.12	.674	43/64
15C4	17.14	.675	43/64
16C2	17.20	.677	43/64
16	17.20	.677	43/64
16C4	17.20	.677	43/64
17	17.33	.682	22/32
17D4	17.33	.682	22/32
17D4d	17.33	.682	22/32
18	17.52	.690	22/32
18C3d	17.52	.690	22/32
19	17.65	.695	43/64
20	17.78	.700	45/64
20D2d	17.73	.698	45/64
22	18.03	.710	45/64
24	18.29	.720	23/32

FRENCH HORN

Model	Millim.	Inches	
		Decimal	Fraction
27	12.25	.640	41/64
28	16.15	.636	41/64
29	17.53	.690	11/16
30B	16.92	.666	43/64
30	17.03	.670	43/64
31	17.14	.675	43/64
31B	17.40	.687	11/16
31C2	17.43	.688	43/64
32	17.83	.702	45/64

ALTO HORN

38D	19.73	.777	25/32
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**TROMBONE and
BARITONE/EUPHONIUM**

40B	22.51	.886	57/64
40	22.53	.887	57/64
42B	22.99	.921	29/32
42	23/22	.914	59/64
43A	23.57	.924	15/16
44E4	24.28	.956	31/32
45B	24.30	.953	61/64
45	24.38	.960	31/32
46	24.54	.966	31/32
46D	24.76	.975	31/32
47B	24.87	.975	63/64
47	24.99	.984	64/64
47C4	25.10	.988	1.000
50	25.40	1.000	1.000
51B	25.63	1.010	1 1/64
1	25.63	1.010	1 1/64
51C4	25.63	1.010	1 1/64
51D	25.55	1.005	1 1/64
52	25.78	1.015	1 1/64
52E2	25.91	1.020	1 1/64
53	16.24	1.033	1 1/32

BASS TROMBONE

57	26.52	1.044	1 3/64
58	27.68	1.090	1 3/32
59	28.52	1.123	1 1/8
60	29.03	1.143	1 9/64

TUBA/SOUSAPHONE

62	31.85	1.254	1 7/32
66	31.52	1.241	1 15/16
67	32.41	1.276	1 9/32
69C4	32.76	1.290	1 19/64
S-H	31.84	1.253	1 1/4

GUARANTEE

All SCHILKE products are guaranteed against defects in materials and workmanship

PLATING

which is the best that we can obtain, in not included in the guarantee.

**MOUTHPIECES MAY NOT BE
RETURNED FOR CREDIT.**

Schilke Music Products, Inc.

4520 James Place

Melrose Park, Illinois 60160-1007

(708) 343-8858 Fax: (708) 343-8912