Pirate Band Publications

Bb Trumpet / Cornet

Brass Tone Boosters

A Guide to a Stronger Brass Embouchure

Topics Include

Posture & Breathing

Long Tones

Pedal Tones

Lip Slurs

Range

AMERICAN BAND COLLEGE
OF
SAM HOUSTON STATE UNIVERSITY

Bb Trumpet / Cornet

Brass Tone Boosters

A Guide to a Stronger Brass Embouchure

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PIRATE BAND PUBLICATIONS

American Band College at Sam Houston State University
MUEN 5398 Ensemble Project Practical Application #2

Forward

Dear Student,

I am so excited that you have decided to join the Reedley High School band! This booklet was written for you, the trumpet players in our program, and we will be using it every brass rehearsal this fall during the marching band season. By implementing this booklet, we hope to help you learn to play with a mature, powerful trumpet sound. But fair warning: there are no magic bullets or short cuts! These exercises are great tools, and with daily repetition you will improve in several aspects of your playing: your tone, flexibility, range, endurance, and overall power! This booklet includes great reminders for what you may already know, and some effective new techniques that might be new to you!

Please remember when learning the techniques that these type of warm-up exercises have been around since these instruments were first made, so do not think that they are the only exercises that work for brass players. They are just a few examples of the limitless possibilities to play. What is most important are the key ideas behind the exercises and the purposeful application while playing. Take these examples and try them, find out which ones work best for you, and modify them and make them your own. Good luck and enjoy playing the trumpet!

Sincerely,

Daniel Paulsen

Reedley High School Band Director

High/Low Brass Instructor

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Introduction

What is an Embouchure?

An embouchure is something all wind instrument musicians have, whether they know it or not! It is all the physical parts of our face that go into blowing air into our instruments, including our lips, tongue, oral cavity, chin, teeth, etc. All trumpet players use it every time they play, and every single embouchure is unique.

Even though there are no two embouchures alike, proficient trumpet players have common characteristics that give them a mature sound. Some people have a natural great sound the first time they pick up the instrument, but the rest of us have to develop a great tone on our instrument. So how does an intermediate trumpet player get that beautiful sound?

The answer is more than just random playing your trumpet, though this will more likely help than not playing at all. The key is to develop your embouchure, just like an athlete works to make his or her body stronger, faster, or quicker. We can train our embouchure with specific exercises to target improvements in flexibility, range, endurance, and our overall tone or sound. Each musician has different strengths and areas for improvement, and these exercises can be tailored to the individual for maximum benefits. But what would this look like?

What is a Warm-up?

The best time to work on improving your own playing is through a routine every time you pull out the instrument. A warm-up is a routine that musicians go through to get ready to play their best. It is a time to get mentally and physically prepared, as well as a time to improve or develop your own playing. The possible parts of a warm-up are endless and each player has his or her own special way of doing one that fits best for him or herself. However there are common techniques that are unique to brass players which seem to bring the best results in a warm-up, for example long tones, lip slurs, tonguing exercises, etc. Each is a way to prepare and develop different parts of the playing process, such as the lips, the lungs, the tongue, the fingers, the ears, and most importantly the mind.

In this booklet you will find several examples of common parts of a brass warm-up that target different ways to improve your embouchure. By using this booklet you will learn more about how to build your embouchure for a better trumpet sound, but also why warming-up is important. You will learn some of the tricks of the trade for improving your playing every time you pull out the instrument.

What this booklet is *not* is the end-all of trumpet books or the answer to all your playing problems. It is a start for those players who are seeking to improve their sound and get serious about playing the trumpet. The exercises are just a sample of the infinite possibilities that can be played while warming-up, and at the back of the book there is a list of great materials for further study.

Target Embouchure Elements

According to David Bilger, trumpet player for the Philadelphia Orchestra, trumpet technique can be broken down into 6 main areas: **Sound** (tone production), **Flexibility**, **Endurance**, **Range**, **Articulation** and **Agility**. In this booklet we will focus on the first four elements. Good tone production on the trumpet is a combination of a functional embouchure and the proper use of air. Therefore, this booklet will focus on improving both. We will do this by using the various elements of a warm-up:

Sound:

- Breathing Exercises: As wind players we need to use our "fuel" efficiently and without tension. This can enable us to play longer, higher, lower, softer, with more power, etc.
- Long Tones: Playing sustained notes for longer durations, making sure that the tone is full and that the pitch is stable.
- Pedal tones and lip bends: Using both pedal tones and lip bends can strengthen the embouchure.
- Mouthpiece buzzing: Any playing that can be done on the trumpet can be done on the mouthpiece alone. Mouthpiece buzzing is an important part of sound development because if forces the player to focus the notes instead of relying on the trumpet to do it for you.

Flexibility:

Flexibility imparts all aspects of trumpet playing, especially endurance and range. This is the ability to change notes and intervals fluidly, quickly, and with good tone. The goal is to be able to move in all registers, low or high, with ease and control.

Range:

Range (both high and low) is a product of embouchure strength, tongue position, air flow, and efficiency. Many exercises that we have already discussed will increase range, such as pedal tones, lip bends, flexibility studies, etc. Most people only concentrate on playing higher in their range, but the key is actually learning to play lower as well! Remember, if you don't practice it, you can't do it! This applies to high and low notes.

Endurance:

As is the case with range, endurance is also a combination of many of the topics we have already touched on, and will benefit from many of the same exercises. The two other things that will most quickly improve endurance are strength training and avoiding bad habits that can actually make your playing more difficult..

Strength development is another aspect of playing that comes from many different settings, but can be targeted for fast improvement. Loud practice is one way to develop strength, and sustained playing is another. These will not only train your embouchure muscles but also your abdominal muscles too. To counter playing at loud volumes be sure to practice some amount of time on soft playing during your sessions.

Avoiding bad habits can be described as efficiency, and is necessary for any brass player. Playing the trumpet is extremely physical, and efficient playing will reduce the demands on the player. Efficiency can be achieved by taking care of the following:

1) A good use of air support in all aspects of playing.
2) Eliminating lip pressure while playing (as much as possible).
3) Knowing your playing limits and not damaging your embouchure.

Breathing and Posture

Nothing is more important than starting off correctly! Posture, breathing, and hand position should be taught and practiced correctly from the beginning. "Practice makes permanent!" Whatever we do in the rehearsal room or at home will be what we do in performances.

Breathing Technique

Starting each session with breathing exercises is imperative! We are wind players, and we must learn to use our "fuel" correctly for a more powerful sound.

- The student should sit or stand with his or her body in balance and without tension when playing or for breathing exercises. This can be found by:
- Stand up or sit up tall and find your center of balance where you are neither leaning forward or backward but relaxed. Your body without tension is the most efficient posture for breathing!
- Wind players should be striving for an "Oh" shape on inhalation and exhalation. An invigorated yawn is another way to gain a correct breath. There should be no tension in the lips, throat, or lungs: if it hurts, don't do it!
- The lungs will expand in all directions when you breathe. Not up into your shoulders, or down into your belly. It will feel like your front and back ribs will expand from the center of your body. Try putting your hands flat on your back ribs: are they expanding?
- Breathing should be done in time with the music. Make sure that the breath is exhaled immediately after inhalation (no hesitation).

Breathing Exercises

Patrick Sheridan and Sam Pilafian, two amazing tuba players, invented some great breathing exercises for wind players in their book, The Breathing Gym. We will use some of their exercises for our warm-ups to develop fuller, deeper, and more relaxed breathing habits.

Below are some examples of breathing exercises that should be used each day. These are done at approximately 60 beats per minute. Use these hand positions to help you monitor the right air flow as you do the exercises:

Flat hand sideways in front of your mouth breathing IN

- Open "Oh" shape, hand placement causing a rushing air sound.

Hand flat in front of your mouth 12" away breathing OUT

- Blow the air against your hand about 12" away.
- Breathing OUT will feel like blowing cold air with an "Oh" shape with the mouth.

There should be no space or pause between breathing in and out: keep the air flowing!

Breathing Exercise #1

4 beats in, 4 beats out (repeat)
3 beats in, 3 beats out (repeat)
2 beats in, 2 beats out (repeat)
1 beat in, 1 beat out (repeat)

1 beat in, 1 beat out (repeat)
2 beats in, 2 beats out (repeat)
3 beats in, 3 beats out (repeat)
4 beats in, 4 beats out (repeat)

Breathing Exercise #2

4 beats in, 4 beats out (steady air on exhalation or slight crescendo)
4 beats in, 8 beats out (steady air on exhalation or slight crescendo)
4 beats in, 12 beats out (steady air on exhalation or slight crescendo)
Rest 15 sec
2 beats in, 4 beats out (steady air on exhalation or slight crescendo)
2 beats in, 8 beats out (steady air on exhalation or slight crescendo)
2 beats in, 12 beats out (steady air on exhalation or slight crescendo)
Rest 15 sec
1 beat in, 4 beats out (steady air on exhalation or slight crescendo)
1 beat in, 8 beats out (steady air on exhalation or slight crescendo)
1 beat in, 12 beats out (steady air on exhalation or slight crescendo)

Breathing Exercise #3

4 beats in, 4 beats hold, 2 beats out loud, 1 beat hold, 2 beats out loud, hiss until empty
Repeat 3 times, each time breathing in deeper than before.

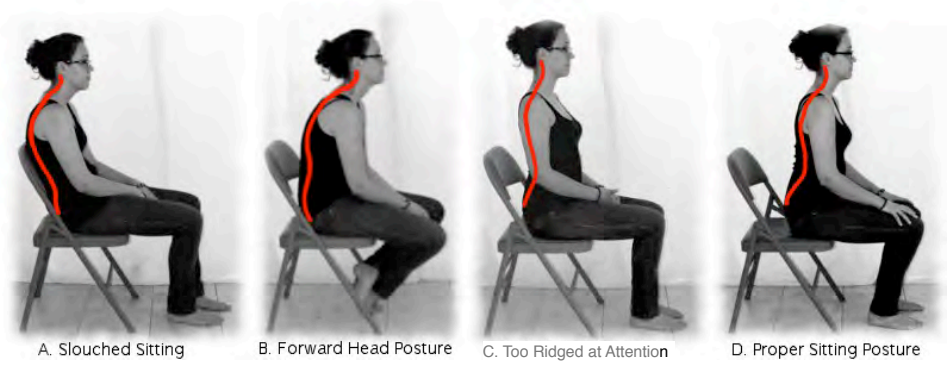
Breathing Exercise #4

16 beats in slowly & evenly, hold 4 beats, then blow out as fast as possible (open "Oh")
Repeat 3-4 times

Posture

Good posture while seated: the trumpet player's feet are flat against the floor and his back is straight. He is not leaning against the chair, even though he is seated towards the back (If you are taller, you might need to find a taller chair or you may need to sit more to the front of the chair and your feet more underneath to have proper balance). Notice that the shoulders are relaxed and the neck is not bent. Always keep the head up and looking straight forward, then bring the horn to your face. Some players will need to hold the trumpet at a lower angle because of their dental structure.

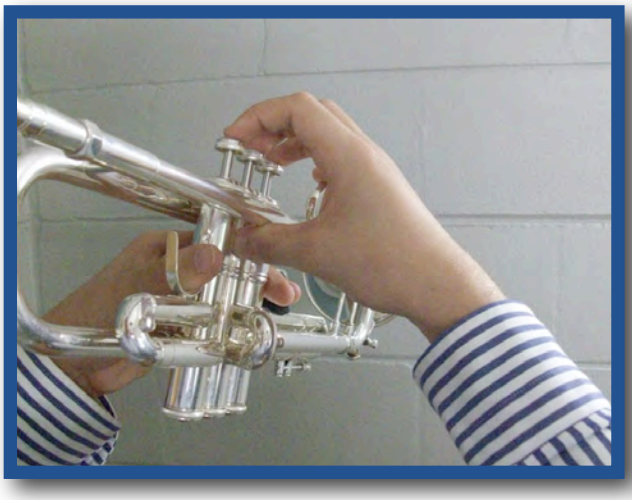
Arnold Jacobs, the great tuba player and master teacher, has good advice about the seated posture. He advises that you should sit in a way that you can stand up immediately. This sounds simple but will probably take some adjustment before you are able to do it. Try it, and if you have to lean forward before you stand, you do not have it quite right yet. Keep your back off the chair and sit on the front half of the chair.



A. Slouched Sitting B. Forward Head Posture C. Too Ridged at Attention D. Proper Sitting Posture

Good posture while standing: the trumpet player's upper body looks identical to his posture while seated; he does not need to lean back, or forward, or tense his neck muscles. Your feet should be slightly less than shoulder's width apart. Practicing while standing up is naturally helpful to healthy air support, as it eliminates the tendency to slouch.

Hand Position



Good hand position, option 1: In these pictures (above), the left hand supports the weight of the trumpet with the index finger. The ring finger is available to extend the third valve slide, and the thumb operates the first valve slide. Players with small hands may choose to place both the ring finger and the pinky in the third-slide ring so as to facilitate triggering, or in some cases the pinky alone. Notice that the fingers of the right hand are curved on top of the valves, and the pinky is out of the hook. Most band directors prefer this position for beginning students.

Good hand position, option 2 (left): In this variation, the right hand stays the same but the left hand has moved so that the ring finger and pinky finger grip the valve casings below the third valve slide. The weight of the instrument now rests upon the ring finger of the left hand, which can be preferable for students with large hands.

A common problem: This hand position (right) places the fingers of the right hand flat across the valves, which can lead to fingering errors during technical passages. In order for the fingers to move quickly, they must be arched atop the finger buttons. (I personally have found that rapid finger motion depends on the arch of the fingers more so than whether the pinky is in the hook.)

What the Buzz is About

Terms to Know

- Embouchure (AHM-ba-sher): The position and use of lips, tongue, and teeth when playing a wind instrument.
- Buzz: The sound made when air is forced through a brass player's embouchure.
- Aperture: The opening in your lips where the air escapes and the buzz happens. Aperture should not be too wide or two open.
- Chops: A cool word for "embouchure." Can also refer to one's ability on an instrument.

Making the Buzz

All sound is vibration. With the trumpet the vibration is provided by the lips and the air column. The "buzz" is the sound your lips make which is amplified by the trumpet into a gorgeous sound (with practice).

For trumpet players who have been playing for a while you can probably already make a good buzz sound. If you feel that you do not have a great sound or would like to see how to improve your tone, there are a few things you can check.

1. Start with just the mouthpiece, no horn.
2. Hold the mouthpiece with your left hand to your face. (One trick to try is to place your pinky finger over half the mouthpiece opening: the resistance makes it feel more like the real horn.)
3. Lick your lips, place them together as though you are saying "B" like the beginning of the word "B-eautiful." This will tighten the corners of your mouth, like you just had a big bite of lemon.
4. Place the mouthpiece directly over the center of your lips. Ideally this should be where the mouthpiece should go, but not crucial. Put the mouthpiece where you get the strongest buzz!
5. Take a deep breath.
6. Blow air through the middle of your lips. Use a lot of air! Use your stomach muscles to help push the air out.
7. Hold the sound of the buzz steady for as long as you can.

From the middle of your lips you should make a funny buzzing sound, similar to that of letting out the air from a balloon. When you get a buzz going, your lips might itch and tickle if you are doing it right. Strive for a clear, "fat" tone and a steady sound. Think "ten-pound bumblebee." *Mouthpiece buzzing will strengthen your lips more than almost anything else you can do!*

Embouchure Examples

It would be ideal that every trumpet player would naturally have a beautiful sound from the moment they first picked up the instrument. Most of us have to work for a good sound. Even seasoned players can benefit from viewing their placement of the mouthpiece or embouchure set-up to improve their tone. A music educator by the name of Cynthia Plank created a set of embouchure examples and identified the problems and solutions to each example. Here are a few of her examples to help you diagnose your own embouchure:

Good Embouchures

Good Embouchure 1

- Lips are firm, but not tight
- Excess pressure is not exerted by the mouthpiece on the lips

Good Embouchure 2

- Corners of the mouth are secure against the teeth
- Mouthpiece placement is good, not too high or low on the lips

Good Embouchure 3

- Center of lips are relaxed, chin is smooth.
- Angle of the trumpet is good.

Poor Embouchure Examples

Here are several examples of poor embouchures. There are trumpet players who have a great sound without a perfect embouchure, but generally the following examples typically could be improved with a little help:

Poor Embouchure 1

- Lips are too tight (too much "smile").
- Poor trumpet angle to lips caused by withdrawn lower lip.
- Student's range is limited and unpredictable.
- The student could work on re-forming the "B" embouchure and raising the trumpet playing angle.

Poor Embouchure 2

- This is an example of "biting".
- Squeezing the lips together is causing the chin to bunch.
- Also, this student is using pressure of the mouthpiece on the face in an attempt to increase range.
- The tone is thin and out of tune.
- The student could work on relaxing the embouchure, de-emphasizing pursing the lips and concentrating.

Poor Embouchure 3

- The trumpet is low on the face, too much lower lip.
- Exposure of the red part of the lips is uneven.
- The student should work on raising the mouthpiece on the face for more upper lip, and creating a stronger buzz with just the mouthpiece on a "B" shape.

Poor Embouchure 4

- Lips are too "pouty"
- Lower lip is folded over and not firm.
- This student's tone is harsh and "blatty."
- The student should work on re-forming the "B" shape with less pucker ("oo" shape).

Poor Embouchure 5

- The mouthpiece is placed too high on the lips.
- This student struggles with range and articulation.
- The student could bring the mouthpiece placement down.

Poor Embouchure 6

- The trumpet is placed too high on the mouth
- There is too much pressure against the lips.
- The tone sounds strained.
- The student should bring the mouthpiece lower on the face and relax with less pressure on the lips. This player would benefit also from practicing the "sigh breath."

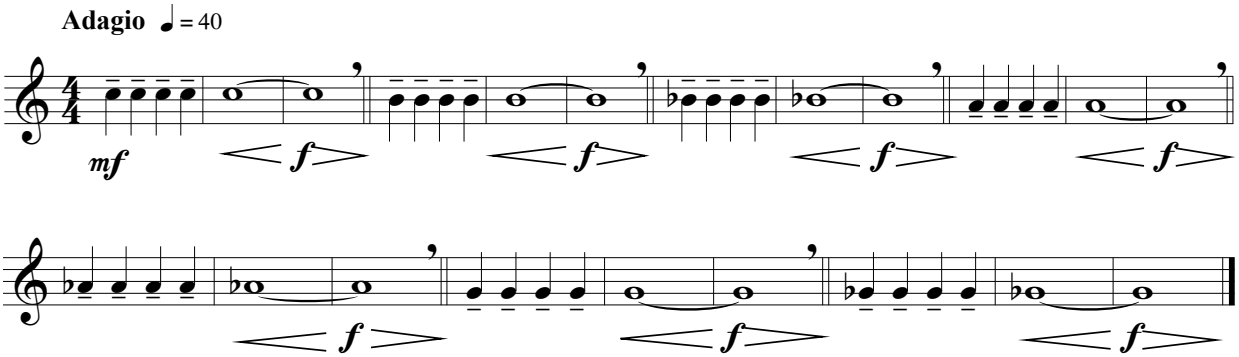
When working on your embouchure it is very helpful to check with a mirror how your lips and mouthpiece look while playing. You could also ask someone else to check these things, like another trumpet player or your music teacher. Any adjustments should be small, and realize that changes to your embouchure make take time to become natural. Long tones are a great way to practice a correct embouchure, as well as a good way to start any warm-up on your trumpet.

LONG TONES

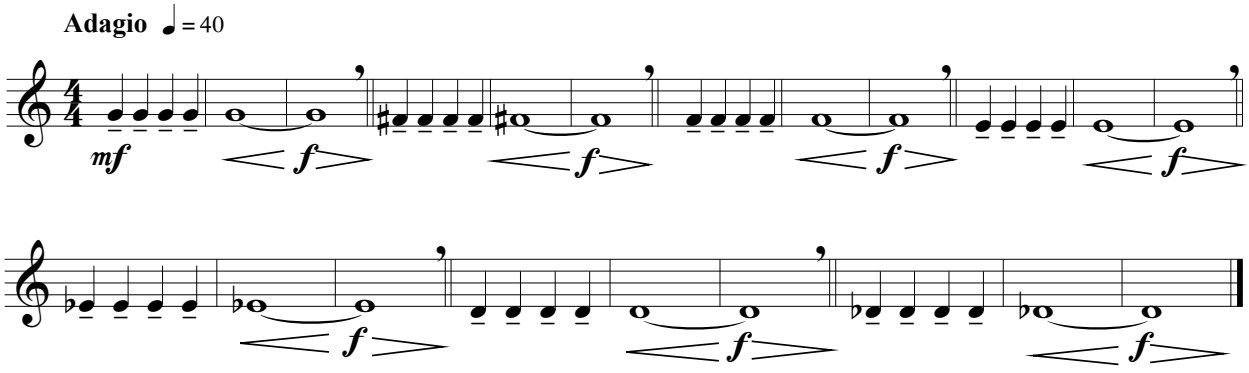
Playing long tones on brass instruments refer to playing the same note for an extended length, concentrating on any number of elements, and is not only a physical warm-up but also a mental warm-up. The goal of long tones is to make the most beautiful sound you can on every note. This takes control over your air, your lips, and having a clear example in your mind of what you are tying to sound like!

Hold each pitch as long as comfortable at a volume of *mf* to *f*. Hear the sound you desire in your mind before you play. Take a full relaxed breath and blow, accelerating the air through the horn. Keep your mind focused on the sound you desire and let your body adapt as it attempts to achieve your goal. When you reach the end of your air reserves, release while still playing with a solid tone.

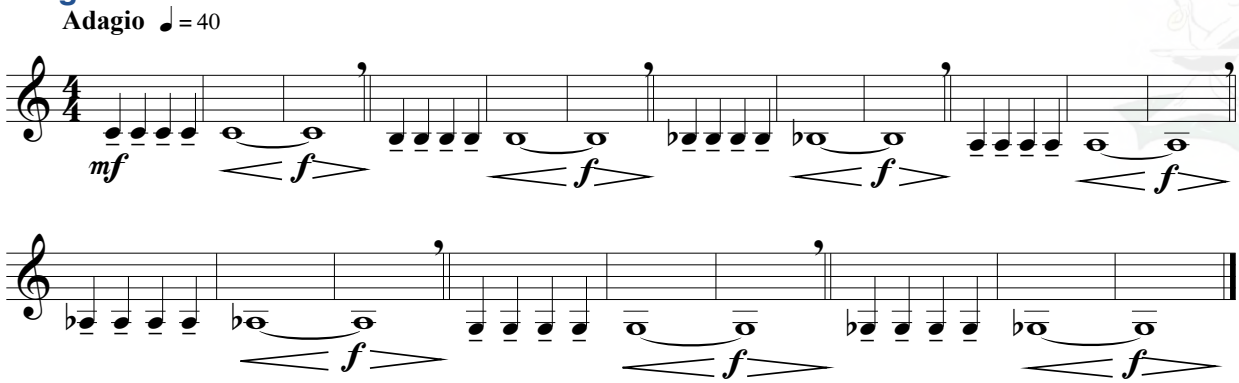
Long Tone #1



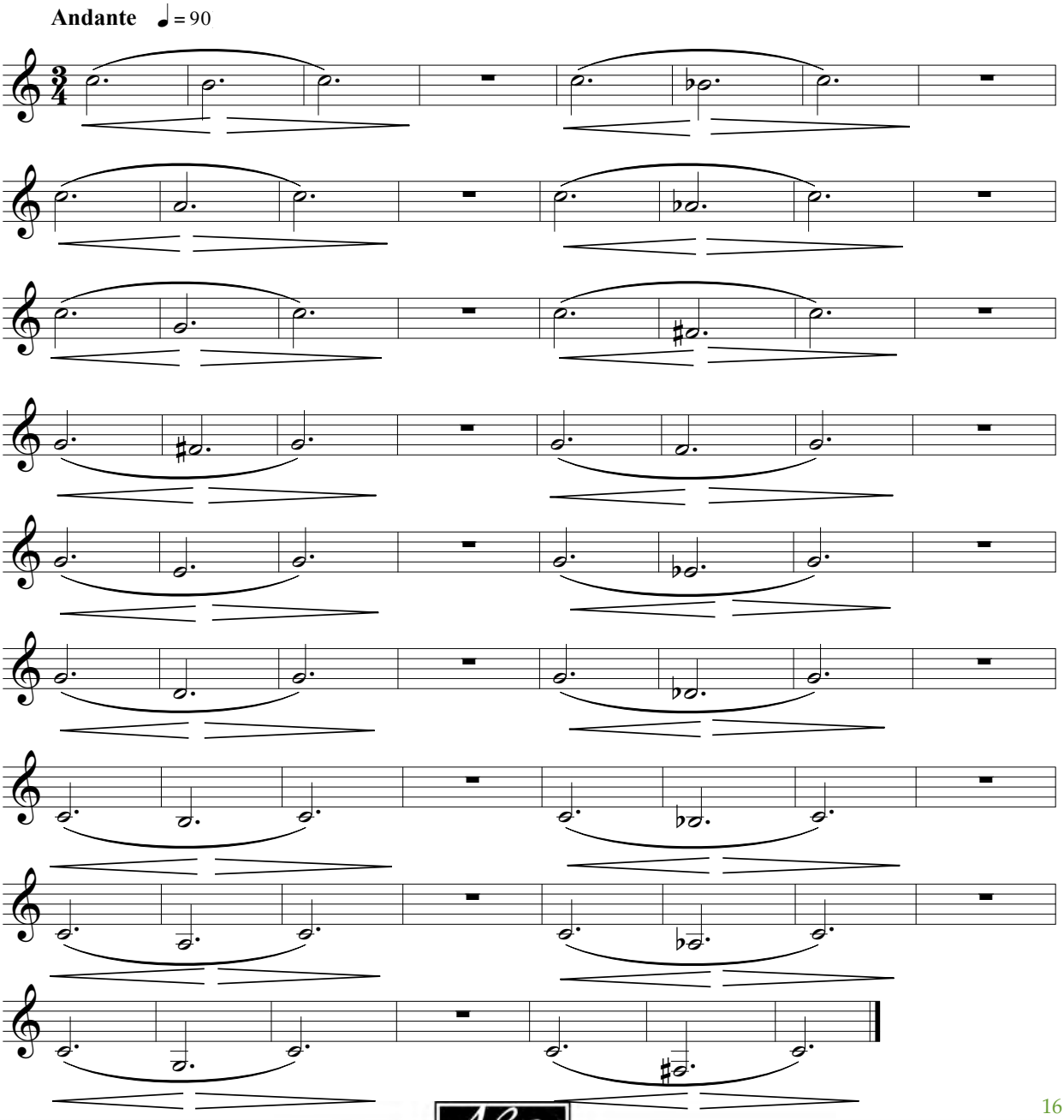
Long Tone #2



Long Tone #3



Long Tone #4



Mouthpiece Buzzing

Brass players must work on mouthpiece buzzing everyday. The better the buzz, the better the tone, intonation, and pitch accuracy on the instrument. Our lips make the pitch or the sound; our mouthpiece is the microphone; our instrument is the speaker! When we only use the mouthpiece we hear what pitches and what sound we are really making, without the valves or instrument to help or get in the way. Here are a few techniques to try:

- Play a "siren" buzz on the mouthpiece starting very low and glissing or slurring as high as you can and then back down. Be sure to stress a strong vibration at all times in the buzz.
- Do not press the mouthpiece into your lips very hard. Press just hard enough to make a seal so the air does not escape out the sides. (As you play higher, you will want to press harder but resist this.)
- Play simple songs on your mouthpiece, and listen to yourself to make sure you are playing the right pitches. You need to hear it in your head to be able to play it right!

Buzzing the Lead-Pipe

To buzz the lead-pipe remove the tuning slide. On a Bb trumpet, the mouthpiece/lead-pipe should resonate at approximately an F (Eb concert) at the bottom space on the staff. Cornets and higher keyed trumpets will resonate at different pitches as the pitch is determined by the length of the tube. Hear the pitch in your mind (*can you sing the pitch?*), take a full, relaxed breath, place the mouthpiece to your lips and blow. The sound should be a resonant, reedy buzz. Focus on creating a resonant buzz, not an airy sound.

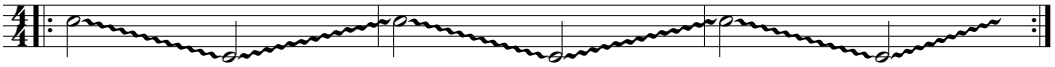
Buzzing During Practices

One good use of mouthpiece buzzing is to use it as part of your warm-up. On a regular basis play some of your warm-up on your mouthpiece, such as lip slurs, pedal tones, range exercises, etc. Remember not to use lots of pressure or strain for your high notes! Keep the air flow smooth and your buzz vibrant. It will force you to make the pitches with only your lips and not the valves, and also train you ears to hear in your head what notes you are trying to play.

Here are a few exercises to do on the mouthpiece:

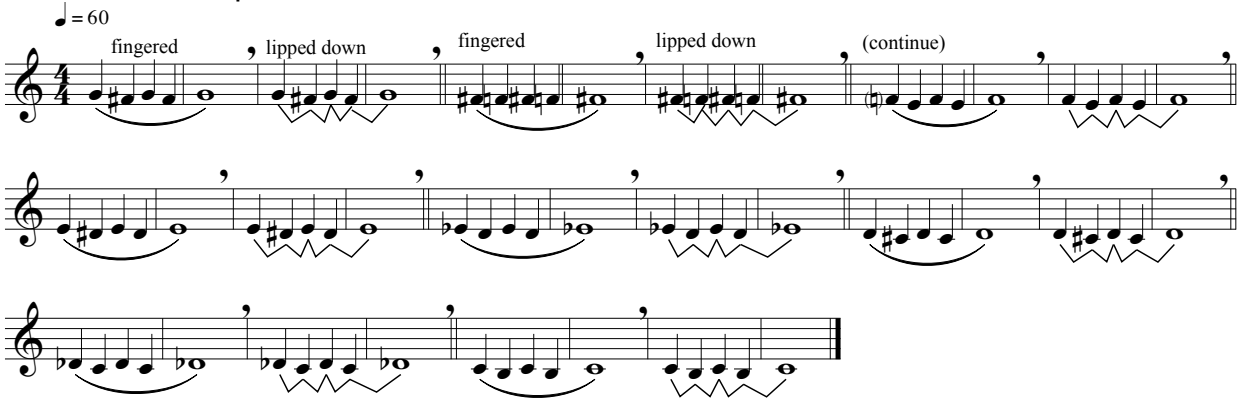
Mouthpiece #1: Siren (30 sec to 1 min)

Start at a high but comfortable pitch and go as low as you can and still maintain a pitch, go back up and try to get as high as your original note. Repeat this over and over.



Mouthpiece #2: Lip Bends

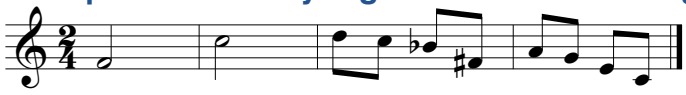
This exercise uses the mouthpiece and the horn. Play the first two bars to get the sound in your ear, then the second two bars without changing the fingering. Bend the pitch down to make the different notes.



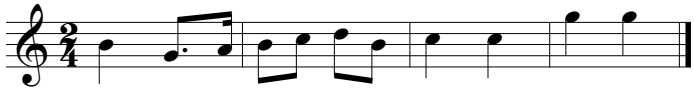
Another good mouthpiece exercise is to play any of your performance literature on the mouthpiece. This is especially helpful for passages that require large interval jumps or sections where you have a hard time hitting the right partials.

1. Hum or sing the passage to yourself so you hear the pitches you will play.
2. Play the passage with only the mouthpiece, in your left hand, with correct tonguing and dynamic levels.
3. Now play the passage on the mouthpiece again, but with your right hand finger the notes on the trumpet valves as you play them.
4. Put it all together and play the passage. If you still struggle with hitting the right notes, go back to step 2 and repeat.

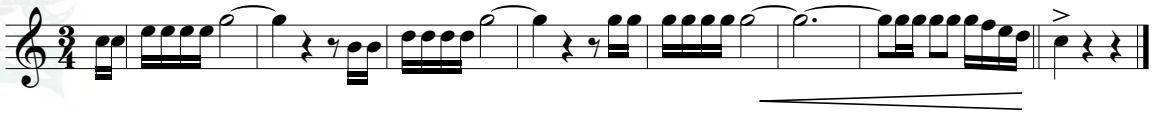
Example #1: Reedley High School “Fite” Song Opening



Example #2: Reedley High School “Fite” Song Excerpt



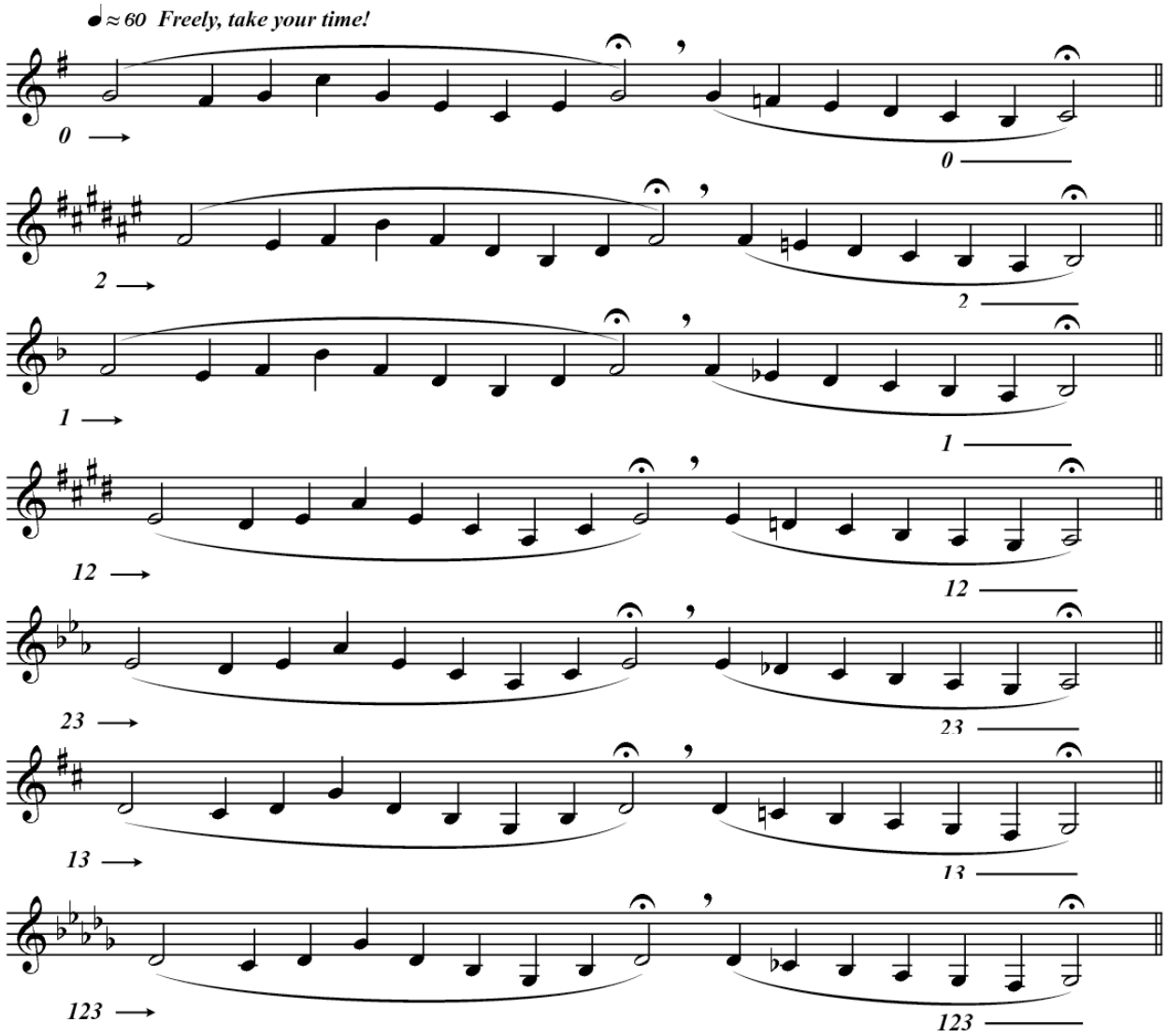
Example #3: Star Spangled Banner Fanfare



Mouthpiece #3: Lip Bends 2

Try this exercise on your mouthpiece in these steps:

1. Mouthpiece only
2. On the trumpet, normal fingerings (bend 2nd to last note)
3. On the Trumpet, using only the fingering listed at the beginning of each line



Flexibility

What is a Lip Slur?

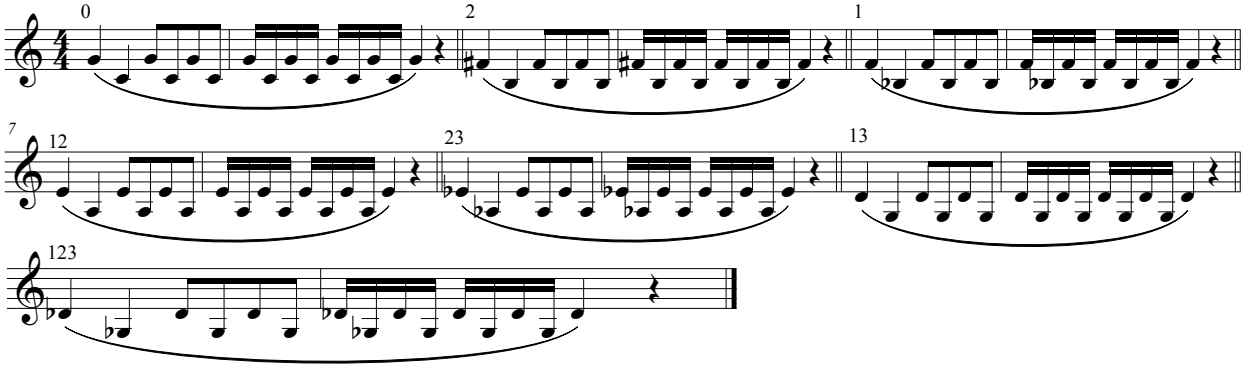
A lip slur is the technique of moving from one note to another using the same fingering without tonguing between notes. This is an essential skill of a brass player, and one that takes development over time to do well. However the work in lip slurs pays off in increased flexibility, endurance, range, tone, and note accuracy.

There are two basic forms of lips slurs: multiple note exercises and two note exercises, otherwise known as “shakes”. Lip shakes are used a lot in jazz or pop music and they consist of rapidly moving between two notes. To do them the air speed must change with the lip muscles rapidly flexing back and forth. Concentrate on air speed: blow faster air for moving up, relax for lower notes. Your embouchure will flex more along with the faster air, relax with the slower air.

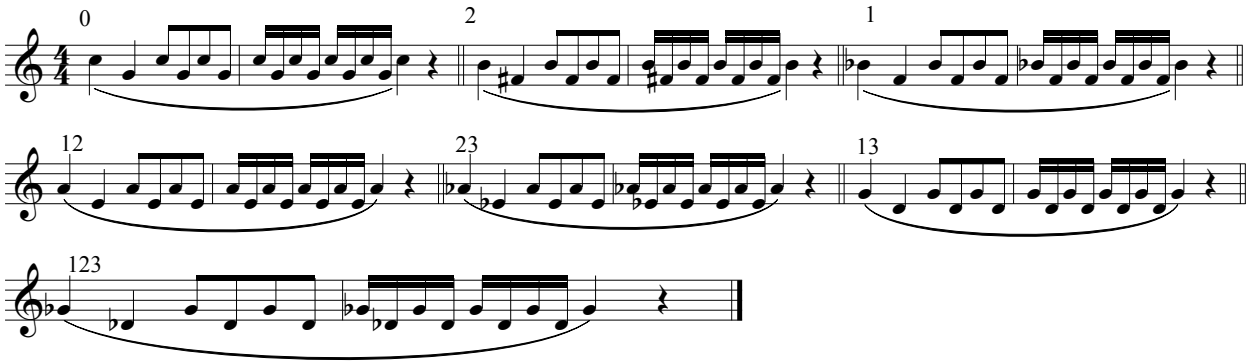
Keys to Lip Slurs:

1) Do not move your jaw! It should be stable and consistent.
2) Play these with a metronome and start slow! Always play with control.
3) With your tongue think “Ah” for your lower notes and “Ee” for your upper notes
4) Play each note with an even volume and full tone: always try for a beautiful sound!

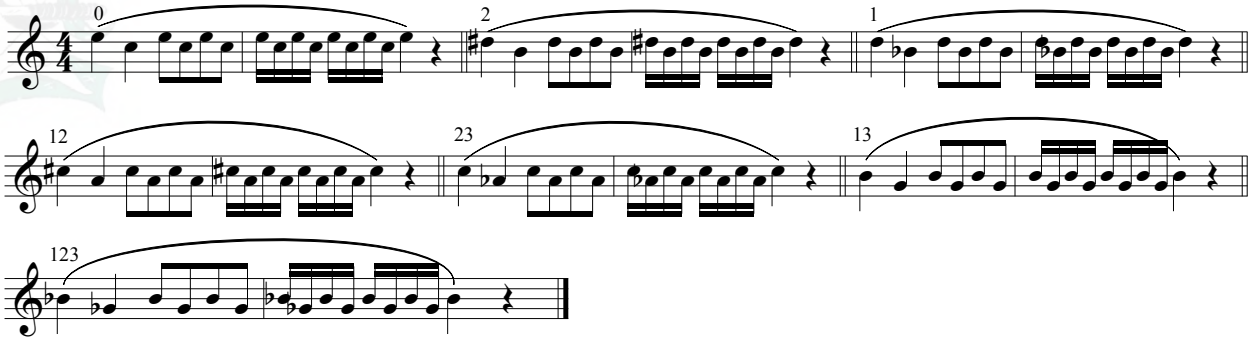
Lip Slur #1: Beginning Level



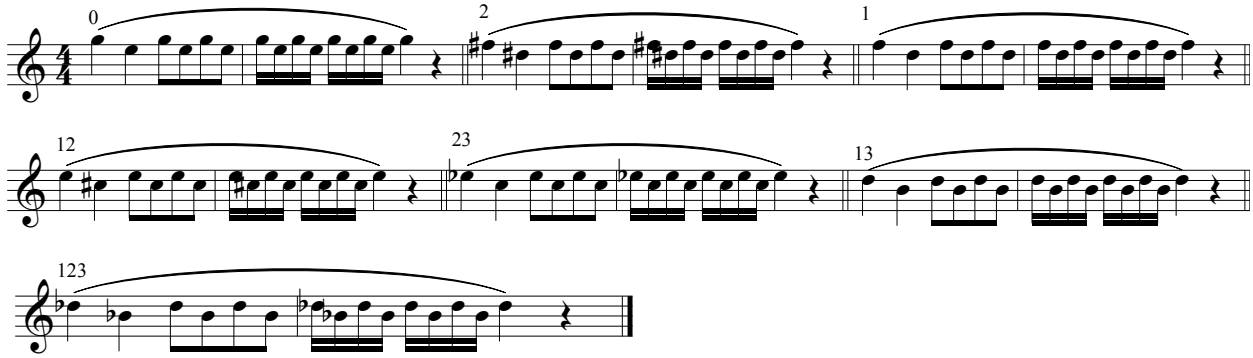
Lip Slur #2



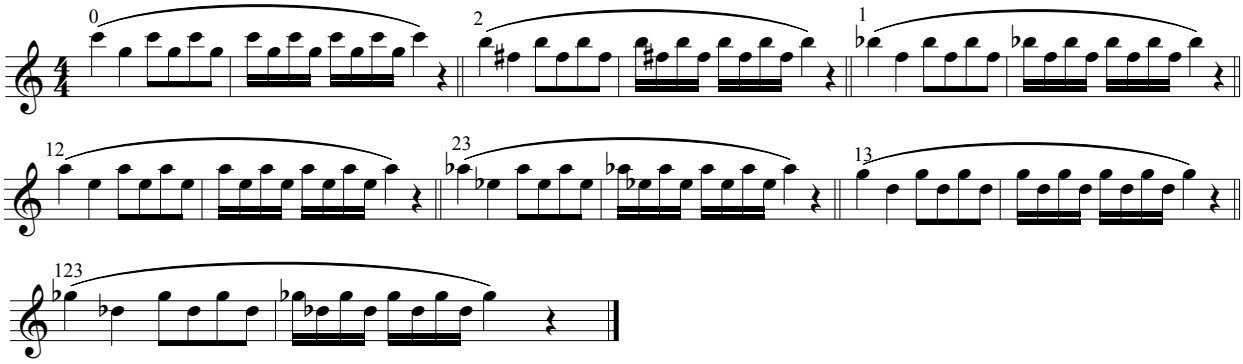
Lip Slur #3: Intermediate



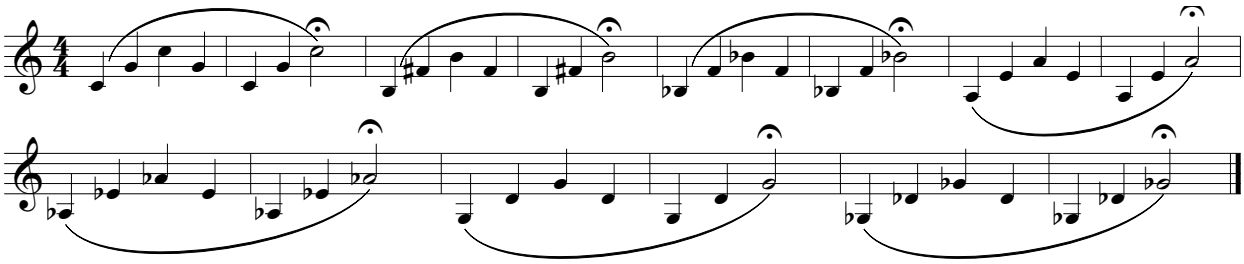
Lip Slur #4



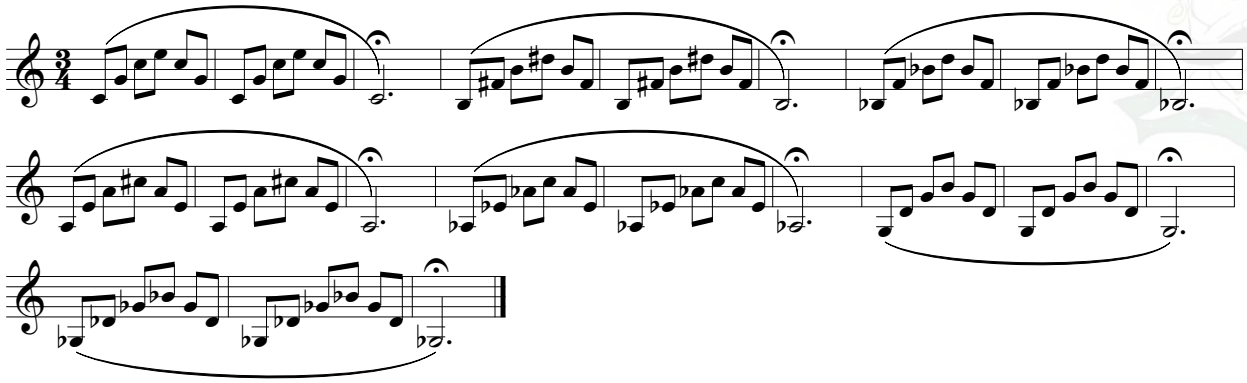
Lip Slur #5: Advanced



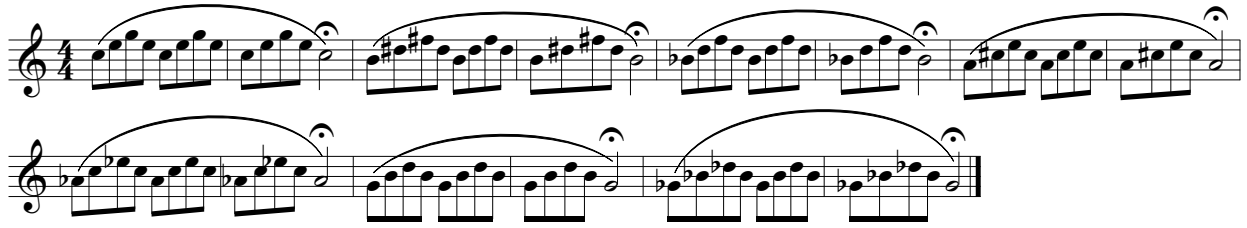
Lip Slur #6: Multiple Note Changes



Lip Slur #7

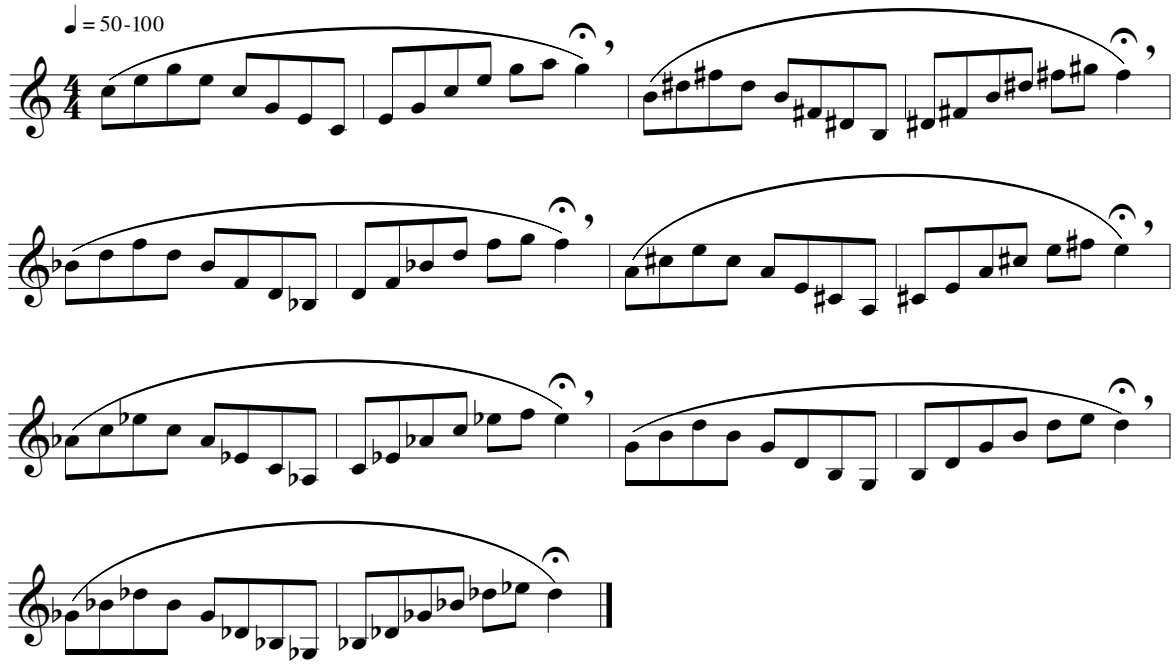


Lip Slur #8



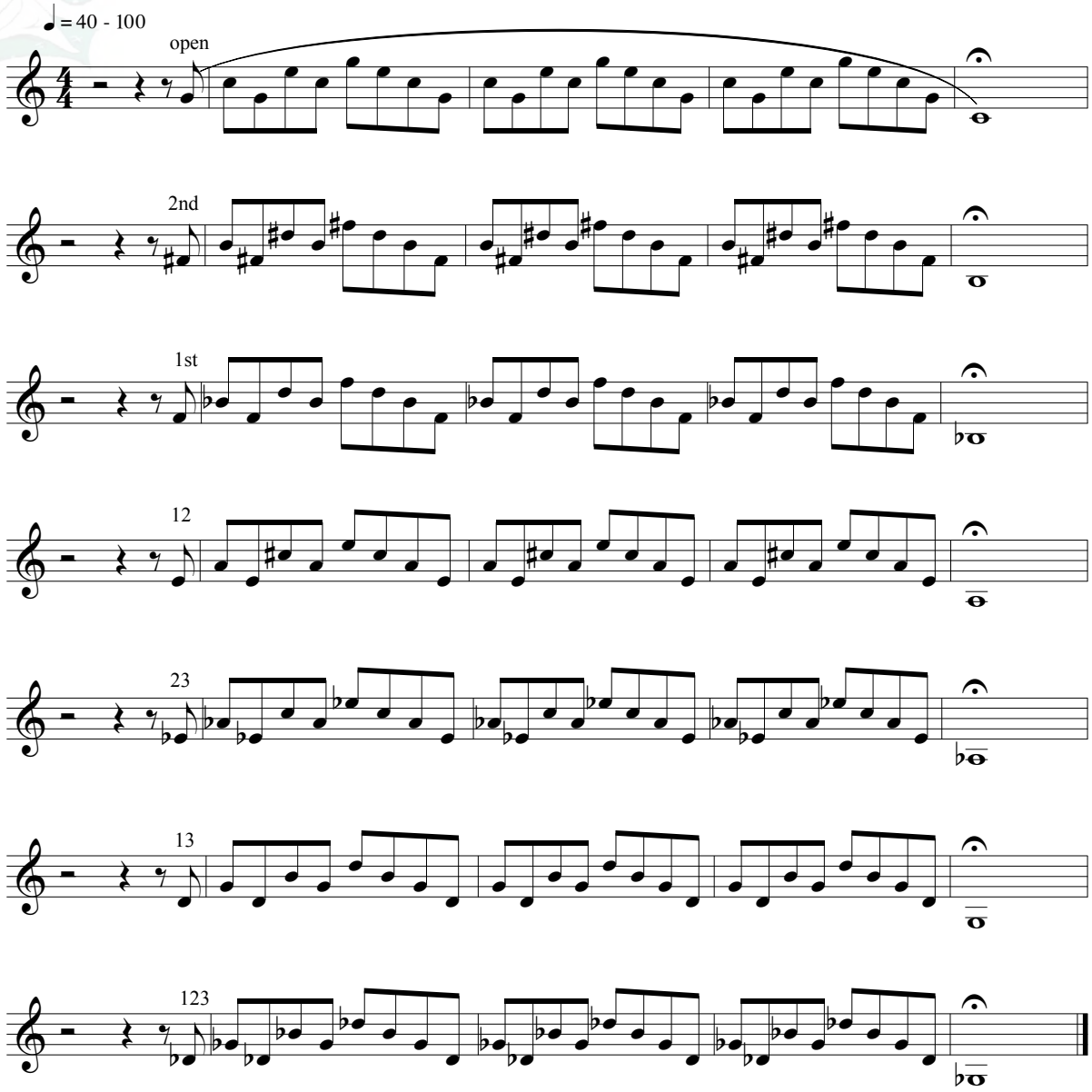
Lip Slur #9

Use a combination of lip slurs and normal fingerings.



Lip Slur #10

Try this one on the mouthpiece first: don't use pressure for the upper notes!



Low Tone Exercises

When most people think of the sound a trumpet they think of a brilliant high sound, not low notes. So why practice low notes on a trumpet? There are actually some really good reasons for any brass player to play really low notes. For instance:

- They allow your embouchure to relax and help get the blood flowing to your muscles used for playing.
- They take a lot of air and train you to use lots of air along with deep breaths.
- They train your ear to create the correct pitch with your embouchure.
- They increase your high range by exercising your embouchure without excessive pressure.

Playing slowly and softly in the low register requires extreme control. As the volume of air increases in the low register, the embouchure must resist it. Low register practice also demands breath control and capacity. We use much more air in the low register than in the upper register. It is necessary to breathe deeply in order to play for any length of time in the low register.

Most students are taught to expand their range incorrectly. Young trumpet players are told to loosen the embouchure to play low and tighten to play high. This simply results in a tubby, unfocussed low register and pinched high register. It also causes the low notes to play flat and the upper notes to play sharp.

Producing a focused low register demands embouchure strength and aperture control.

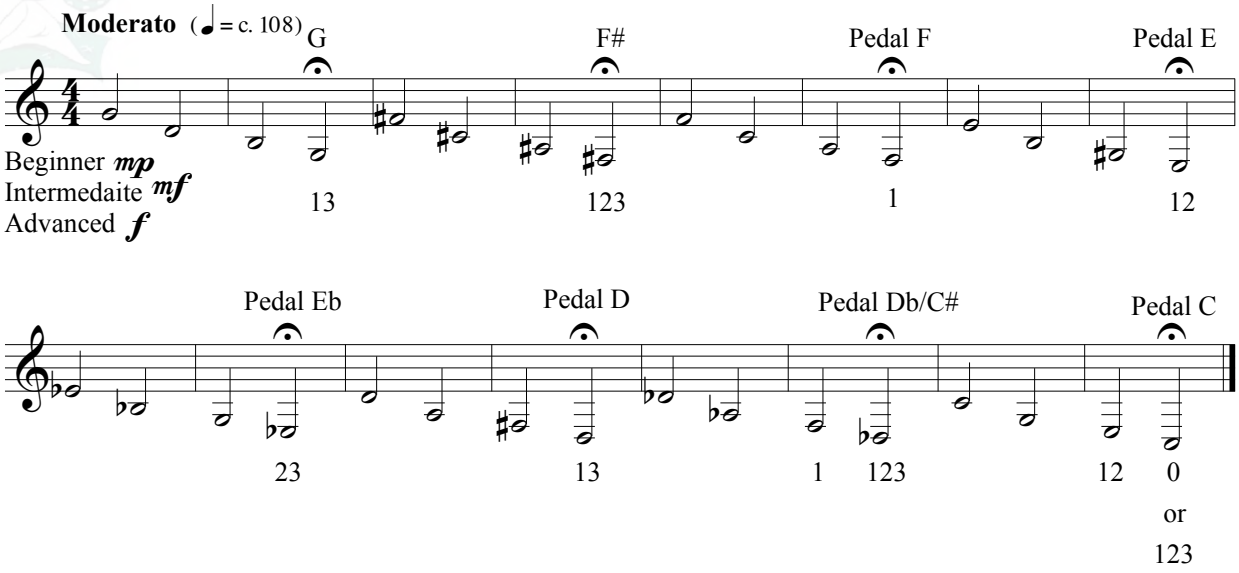
- If the air speed is too great, the embouchure will be blown open.
- If the aperture is not firm and focused, the sound is airy or fuzzy.

PEDAL TONES

These low notes are called “pedal tones,” and get their name from the lowest notes on an organ played by the musician’s feet. They are actually not real notes in the trumpet playing range, but are forced out by bending the pitch down using your embouchure and slower air speed. To get the right feeling try playing as low as you can with just your mouthpiece: you are probably playing a pedal tone! Now all you need to add is the horn!

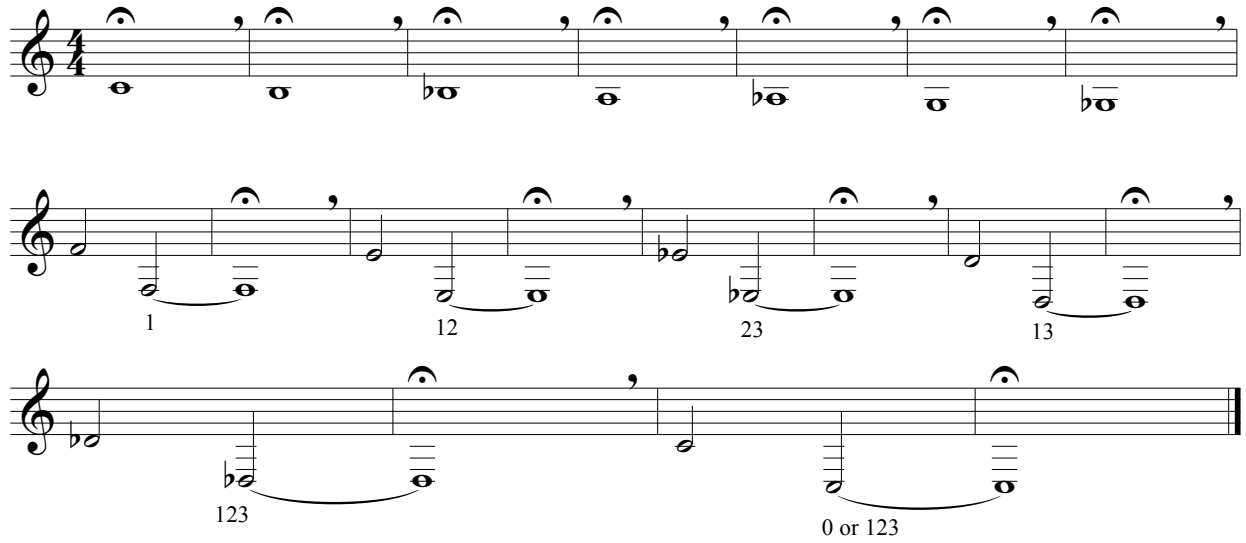
The following example should be played taking a HUGE breath each time you breathe! Play each fermata note for as long as possible. If you have trouble finding the right pedal tone pitch just get as close as you can. As you become more proficient in your pedal tones you can increase your volume to work your embouchure even more!

Pedal Tones #1

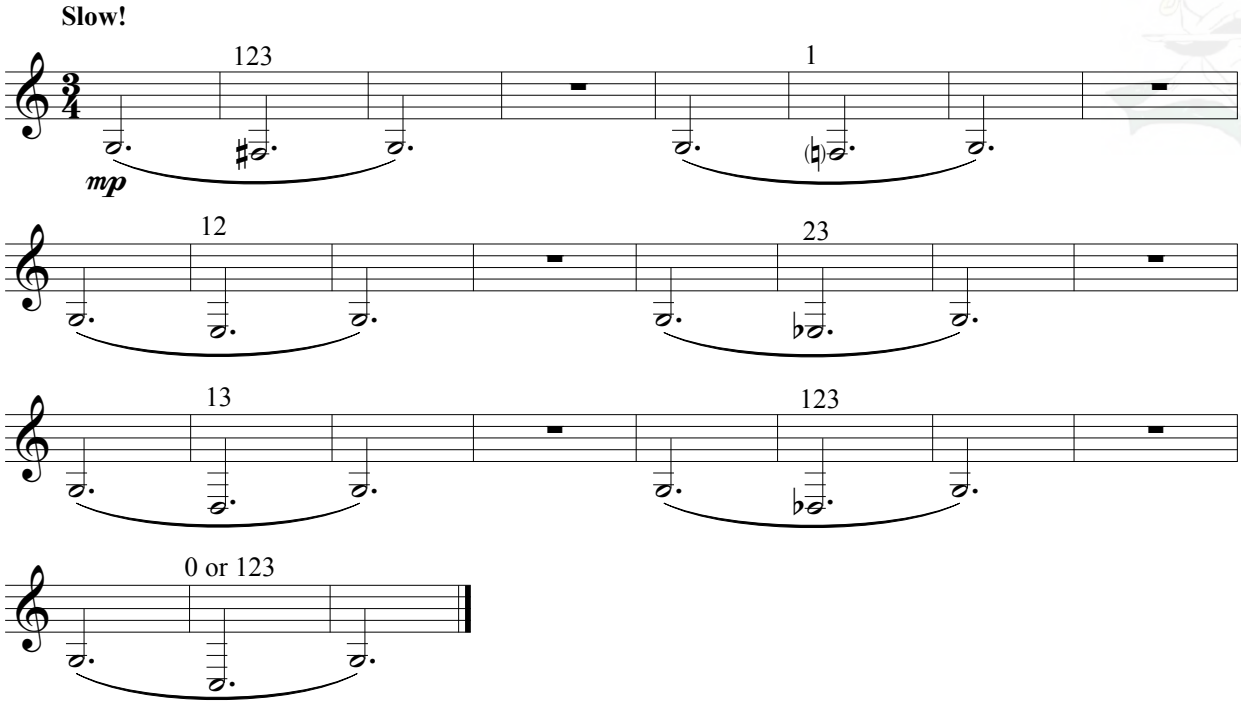


Pedal Tone #2

The second line uses upper notes to give your ear a reference pitch to find the right sound in the lower octave. Do not worry about getting the pitch exactly right.



Pedal Tone #3



Another good source of material for low register playing is to take simple songs or your easier material and play it down an octave using pedal tones. Just read the same notes and use the fingerings from the previous page. For instance, example A becomes example B:

Pedal Tone #4: Reedley High School Alma Mater