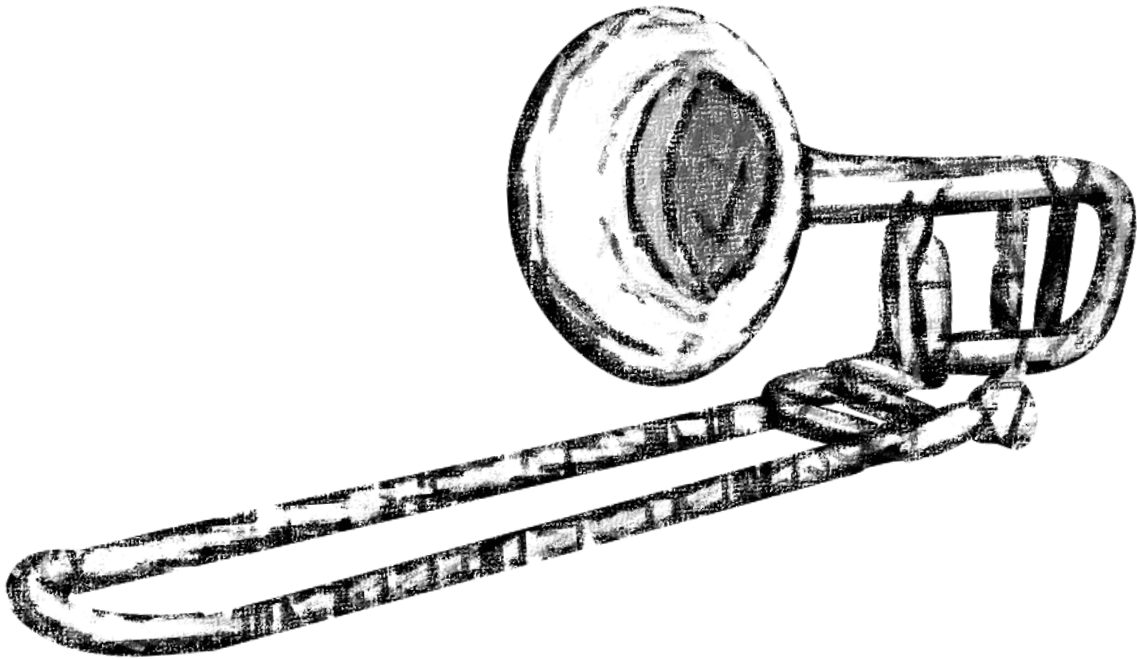


แบบฝึกปฏิบัติทรอมโบน

Trombone Method



## *H.L. Clarke - Technical studies for Trumpet*

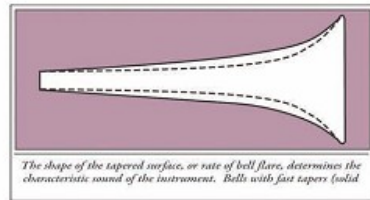
This page contains 12 staves of musical notation for trumpet technical studies. Each staff begins with a measure number (1, 6, 11, 16, 21, 26, 31, 36, 41, 46, 51, 56, 61) and ends with a fermata. The key signatures and melodic patterns vary across the staves:

- Staff 1: Key of B-flat major (two flats). Melody: Quarter notes G2, A2, B2, C3, D3, E3, F3, G3.
- Staff 2: Key of D major (two sharps). Melody: Quarter notes D3, E3, F#3, G#3, A3, B3, C4, D4.
- Staff 3: Key of B-flat major (two flats). Melody: Quarter notes G2, A2, B2, C3, D3, E3, F3, G3.
- Staff 4: Key of B-flat major (two flats). Melody: Quarter notes G2, A2, B2, C3, D3, E3, F3, G3.
- Staff 5: Key of D major (two sharps). Melody: Quarter notes D3, E3, F#3, G#3, A3, B3, C4, D4.
- Staff 6: Key of B-flat major (two flats). Melody: Quarter notes G2, A2, B2, C3, D3, E3, F3, G3.
- Staff 7: Key of D major (two sharps). Melody: Quarter notes D3, E3, F#3, G#3, A3, B3, C4, D4.
- Staff 8: Key of B-flat major (two flats). Melody: Quarter notes G2, A2, B2, C3, D3, E3, F3, G3.
- Staff 9: Key of D major (two sharps). Melody: Quarter notes D3, E3, F#3, G#3, A3, B3, C4, D4.
- Staff 10: Key of B-flat major (two flats). Melody: Quarter notes G2, A2, B2, C3, D3, E3, F3, G3.
- Staff 11: Key of D major (two sharps). Melody: Quarter notes D3, E3, F#3, G#3, A3, B3, C4, D4.
- Staff 12: Key of B-flat major (two flats). Melody: Quarter notes G2, A2, B2, C3, D3, E3, F3, G3.

## SUGGESTIONS FOR CHOOSING AND CUSTOMIZING YOUR BACH TROMBONES

### BORE

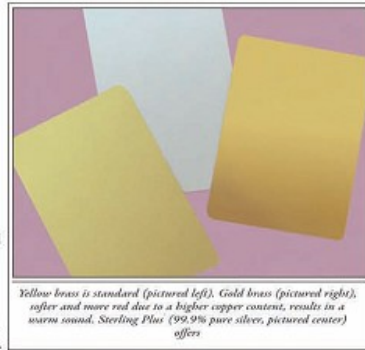
Trombone bores are a measurement of the inside diameter of the inner slide tubes. As the bore size changes so does the bell design. The shape of the tapered surface, or rate of flare, determines the characteristic sound of the instrument. Slow tapers yield bright tones, while fast tapers produce dark, warm sounds. Smaller bore trombones, having bells with slower rates of taper, produce a brighter jazz sound. Larger bore trombones, having bells with faster rates of taper, yield darker symphonic tone qualities.



The shape of the tapered surface, or rate of bell flare, determines the characteristic sound of the instrument. Bells with fast tapers (solid)

### BELLS

Bach Stradivarius trombones are famous for their fullness of sound and projection. This is achieved by the use of one-piece construction, allowing for unrestricted vibration of the bell. In addition to the shape of the bell flare (rate of taper), the type and thickness of the bell material also affect the sound. Gold brass, softer and more red than the standard yellow brass



Yellow brass is standard (pictured left). Gold brass (pictured right), softer and more red due to a higher copper content, results in a warm sound. Sterling Plus (99.9% pure silver, pictured center) offers

due to a higher copper content (85% as opposed to 70%), results in a warm tone. Sterling Plus bells (99.9% pure silver, seamless construction) create a full compliment of partials (overtones) in the tonal spectrum for a focused sound with great projection. For situations involving dark qualities or high dynamic levels without distortion, choose a heavyweight bell (in either yellow or gold brass).

### MOUTHPIPES AND GOOSENECKS

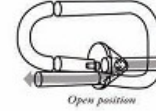
The venturi (constriction) and rate of taper in the mouthpipe affect the trombone's characteristic sound. Bach offers several mouthpipe options. Removable and interchangeable mouthpipes for 42 series large bore tenor trombones: standard – balanced resistance, focused sound; standard length/open venturi – less resistance, more flexible; long length/open venturi – very free blowing. Removable and interchangeable mouthpipes for Bach bass trombones: standard – balanced resistance, focused sound; short length/open venturi – less resistance, more flexible; mouthpiece holder only – most free blowing.

The gooseneck, a section of pipe located immediately after the handslide section, serves as a "choke" to further balance the blowing resistance. The model LT16M features a more open gooseneck (i.e., less constriction), creating less resistance and more flexibility. The optional open gooseneck for the 42 series tenor trombones also results in a more open instrument.

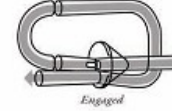
### HANDSLIDES

The prefix "LT" before any Bach Stradivarius model number (such as LT16M) indicates a lightweight handslide. Some musicians prefer the feel and quick response of the lightweight slide. The weight has been reduced by using nickel silver tubing for outer slides. In addition to the light weight, nickel silver tubing also resists corrosion. All Bach Stradivarius trombones not having an "LT" prefix feature regular weight slides made from brass tubing for outer slides. All models can be special ordered with lightweight nickel silver outer slides. Bach 42 series trombones can be customized with narrow handslides for playing comfort.

#### THAYER VALVE

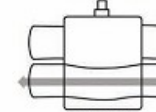


Open position

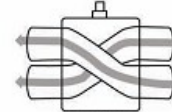


Engaged

#### BALANCED VALVE

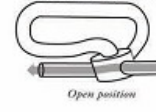


Open position



Engaged

#### HAGMANN VALVE

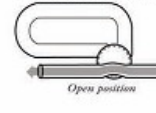


Open position



Engaged

#### TRADITIONAL ROTARY VALVE



Open position



Engaged

### ROTOR SECTIONS

Many Bach Stradivarius trombones can be configured with traditional, Balanced-Thayer or Haggmann Valves. Bach trombones with traditional rotor valve sections offer a choice of either open or traditional wrap. Open wrapping of the rotor section places fewer and larger bends in the tubing, resulting in less blowing resistance. Traditional wrapping provides compactness and protection. Traditional rotor sections can also be made from gold brass tubing. Combined with a gold brass bell, gold brass rotor section tubing creates a dark, warm sounding instrument. Balanced Valve, Thayer and Haggmann Valves systems eliminate sharp crook tube bends within the rotor itself. Combined with open wrap section tubing, Balanced, Thayer and Haggmann Valve systems allow for a free and unimpeded flow of the air column, regardless of whether the B or F sides of the trombone are being used.



The top two pictures highlight traditional rotor valves. Open wrapping of the rotor section (pictured top) places fewer and larger bends in the tubing, resulting in less blowing resistance. Traditional wrapping (pictured second from top) offers the advantages of compactness and protection. The Balanced Valve (pictured third from bottom), Thayer Valve (pictured second from bottom) and Haggmann Valve (pictured bottom) allow for a free and unimpeded flow of the air column combined with

# TROMBONE BASICS

Dr. Thomas Zegger  
Professor of Trombone and Euphonium  
Capital University Conservatory of Music

## I. Long Tones and Breathing Exercises

•Focus on deep low, FULL, relaxed inhale and a smooth, powerful, relaxed exhale

$\text{♩} = 50$



A single musical staff in bass clef with a 4/4 time signature. The staff is divided into measures with the following labels above them: INHALE, EXHALE, INHALE EXHALE, INHALE EXHALE, INHALE EXHALE, IN OUT IN, and CONTINUOUS LONG EXHALE... The notes are represented by small black squares on the staff lines.

### Ia. Long Tones

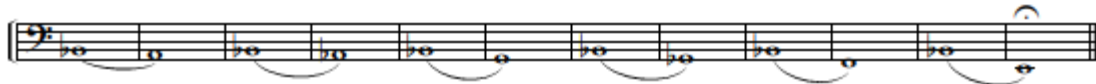
- Keep a steady tempo and a straight level tone
- Connect pitches under slurs, no spaces
- Practice at a variety of dynamic levels
- Breathe after each two measures  $\text{♩} = 50$



First line of musical notation in bass clef, 4/4 time. It contains two measures of music with slurs over the notes, indicating a continuous tone.



Second line of musical notation in bass clef, 4/4 time. It contains two measures of music with slurs over the notes, indicating a continuous tone.



Third line of musical notation in bass clef, 4/4 time. It contains two measures of music with slurs over the notes, indicating a continuous tone.



Fourth line of musical notation in bass clef, 4/4 time. It contains two measures of music with slurs over the notes, indicating a continuous tone.



Fifth line of musical notation in bass clef, 4/4 time. It contains two measures of music with slurs over the notes, indicating a continuous tone.

# TROMBONE BASICS

Dr. Thomas Zegger  
Professor of Trombone and Euphonium  
Capital University Conservatory of Music

## II. SLOW slurs

- Connect the slurs with AIR
- First time play on mouthpiece(balance mthpc on thumb, no fingers), gliss smoothly from one pitch to the next
- Play on horn second time, very smooth and connected
- Practice at a variety of dynamic levels
- Even tone on each pitch, mouthpiece or horn

♩ = 50

Three staves of musical notation in bass clef, 4/4 time. The first staff begins with a tempo marking of a quarter note equal to 50 (♩ = 50). Each staff contains a sequence of notes with slurs, including some with accidentals (flats and naturals). The notes are: Staff 1: G2, A2, B2, C3, D3, E3, F3, G3. Staff 2: G2, A2, B2, C3, D3, E3, F3, G3. Staff 3: G2, A2, B2, C3, D3, E3, F3, G3.

## IIa. Longer Slow Slurs

- Connect with AIR
- Play on horn both times
- First time as written
- Second time reverse direction of each group

Three staves of musical notation in bass clef, 4/4 time. Each staff contains a sequence of notes with long slurs, including some with accidentals (flats and naturals). The notes are: Staff 1: G2, A2, B2, C3, D3, E3, F3, G3. Staff 2: G2, A2, B2, C3, D3, E3, F3, G3. Staff 3: G2, A2, B2, C3, D3, E3, F3, G3.

# TROMBONE BASICS

Dr. Thomas Zegger  
Professor of Trombone and Euphonium  
Capital University Conservatory of Music

## III. FLEXIBILITY STUDIES

- Practice slowly and correctly then speed up
- Practice on mouthpiece at least one exercise per day
- Focus on making slurs smooth and rhythmically even, not fast

The image contains eight staves of music for flexibility studies. Each staff begins with a bass clef, a 4/4 time signature, and a key signature of one flat (B-flat major). The exercises are as follows:

- Staff 1: A sequence of eighth notes with slurs, starting on B-flat and moving up and down the scale.
- Staff 2: A sequence of eighth notes with slurs, starting on B-flat and moving up and down the scale.
- Staff 3: A sequence of eighth notes with slurs, starting on B-flat and moving up and down the scale.
- Staff 4: A sequence of eighth notes with slurs, starting on B-flat and moving up and down the scale.
- Staff 5: A sequence of eighth notes with slurs, starting on B-flat and moving up and down the scale.
- Staff 6: A sequence of eighth notes with slurs, starting on B-flat and moving up and down the scale.
- Staff 7: A sequence of eighth notes with slurs, starting on B-flat and moving up and down the scale.
- Staff 8: A sequence of eighth notes with slurs, starting on B-flat and moving up and down the scale.

This page of musical notation consists of ten staves, all in bass clef. The music is written in a key signature of one flat (B-flat). The notation includes various rhythmic patterns and phrasing:

- Staff 1:** Features a series of eighth-note chords and single notes, with slurs grouping the first four measures and the last two measures.
- Staff 2:** Continues the eighth-note patterns, with a slur over the final two measures.
- Staff 3:** Shows a change in rhythm with sixteenth-note chords, followed by a whole rest and then eighth-note chords.
- Staff 4:** Features sixteenth-note chords, a whole rest, and eighth-note chords.
- Staff 5:** Continues with sixteenth-note chords, a whole rest, and eighth-note chords.
- Staff 6:** Features sixteenth-note chords, a whole rest, eighth-note chords, and a final eighth-note chord.
- Staff 7:** Introduces triplet eighth-note chords, with slurs over the first six and last six measures.
- Staff 8:** Continues with triplet eighth-note chords, with a slur over the final six measures.
- Staff 9:** Features triplet eighth-note chords, with a slur over the final six measures.
- Staff 10:** Ends with six triplet eighth-note chords.

The first system consists of three staves of music in bass clef. Each staff contains a sequence of eighth notes grouped into triplets, indicated by a '3' below the notes. The notes are slurred across the staves, and there are rests at the end of each staff.

The second system is a single staff of music in bass clef, continuing the triplet pattern from the first system. It ends with a double bar line.

The third system consists of two staves of music in bass clef. The first staff continues the triplet pattern, and the second staff features a more complex rhythmic pattern with slurs and accents.

The fourth system is a single staff of music in bass clef, featuring a complex rhythmic pattern with slurs and accents, continuing the piece's development.

The fifth system is a single staff of music in bass clef, showing further rhythmic complexity with slurs and accents.

The sixth system is a single staff of music in bass clef, continuing the intricate rhythmic patterns with slurs and accents.

The seventh system is a single staff of music in bass clef, concluding the piece with a final triplet pattern and a double bar line.



# TROMBONE BASICS

Dr. Thomas Zugger  
Professor of Trombone and Euphonium  
Capital University Conservatory of Music

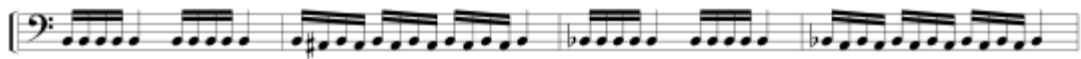
## IV. ARTICULATION EXERCISES

- Stay relaxed and BLOW the tongue out of the way
- Practice DAILY to build speed and endurance

The image contains eight staves of music for trombone articulation exercises. Each staff is in bass clef and 4/4 time. The exercises consist of various rhythmic patterns, including quarter notes, eighth notes, and sixteenth notes, often grouped with slurs. The exercises are designed to improve articulation and endurance.

•Quick slide

•Relax and BLOW tongue out of the way



### IVa Triad Exercise

•LONG BUT ARTICULATED

•Tune each triad as you play

•Make every articulation identical

•Be consistent





# TROMBONE BASICS

Dr. Thomas Zegger  
Professor of Trombone and Euphonium  
Capital University Conservatory of Music

## V. Range Exercises

- Slurs MUST be smooth, rhythmic and even
- Keep relaxed. Rest mouthpiece against lips, do not push
- Fast, full air stream

The image displays seven staves of musical notation for trombone range exercises. Each staff is written in bass clef with a 4/4 time signature. The exercises consist of slurred eighth-note patterns across various registers. The first staff starts on a low note and moves up. The second staff continues the upward motion. The third staff includes a change in rhythm to sixteenth notes. The fourth staff features a descending pattern. The fifth staff includes fingering numbers (5, 6, 5) under the notes. The sixth and seventh staves continue with descending and ascending patterns, also including fingering numbers. The exercises are designed to improve range, slurring, and fingering technique.

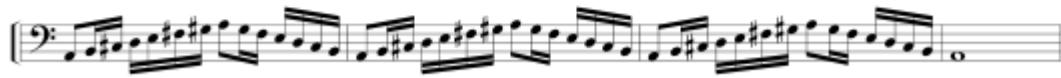
This image displays a page of musical notation for a bass line, consisting of nine staves. Each staff contains a sequence of eighth notes grouped into triplets, with a slur over each group and a '3' below it. The notes are mostly eighth notes with various accidentals (flats and naturals). The first seven staves end with a whole note, while the last two staves end with a half note. The notation is in bass clef with a key signature of two flats.

# TROMBONE BASICS

Dr. Thomas Zugger  
Professor of Trombone and Euphonium  
Capital University Conservatory of Music

## VI. Scale Exercises

- Scales MUST be in tune
- Practice SLOWLY until pitch and rhythm are correct
- Vary the articulation
  - 1st measure gliss
  - 2nd measure legato
  - 3rd measure normal articulation



Five staves of musical notation for a two-octave scale exercise. Each staff shows a different key signature: Staff 1: C major; Staff 2: D major; Staff 3: E major; Staff 4: F major; Staff 5: G major. The notation consists of eighth-note runs across two octaves, starting from a half note on the first line of the staff.

### Via. Two Octave Scales

- Same embouchure for all notes
- Fast air
- No pressure playing

Four staves of musical notation for a two-octave scale exercise. Each staff shows a different key signature: Staff 1: A major; Staff 2: B major; Staff 3: C major; Staff 4: D major. The notation consists of eighth-note runs across two octaves, starting from a half note on the first line of the staff.