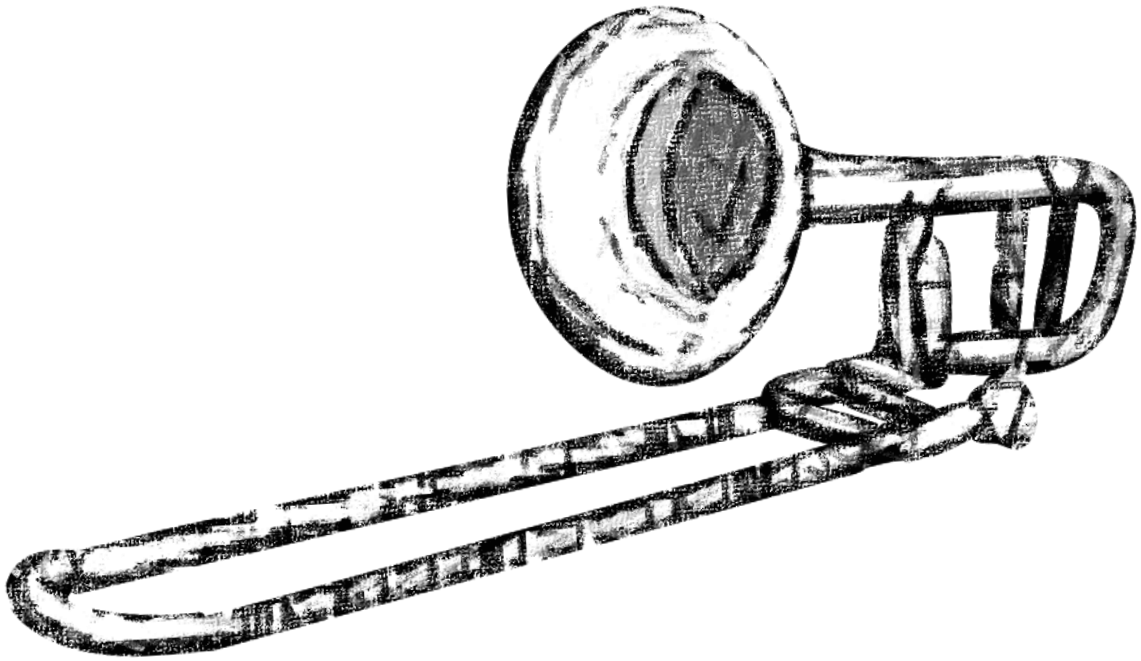
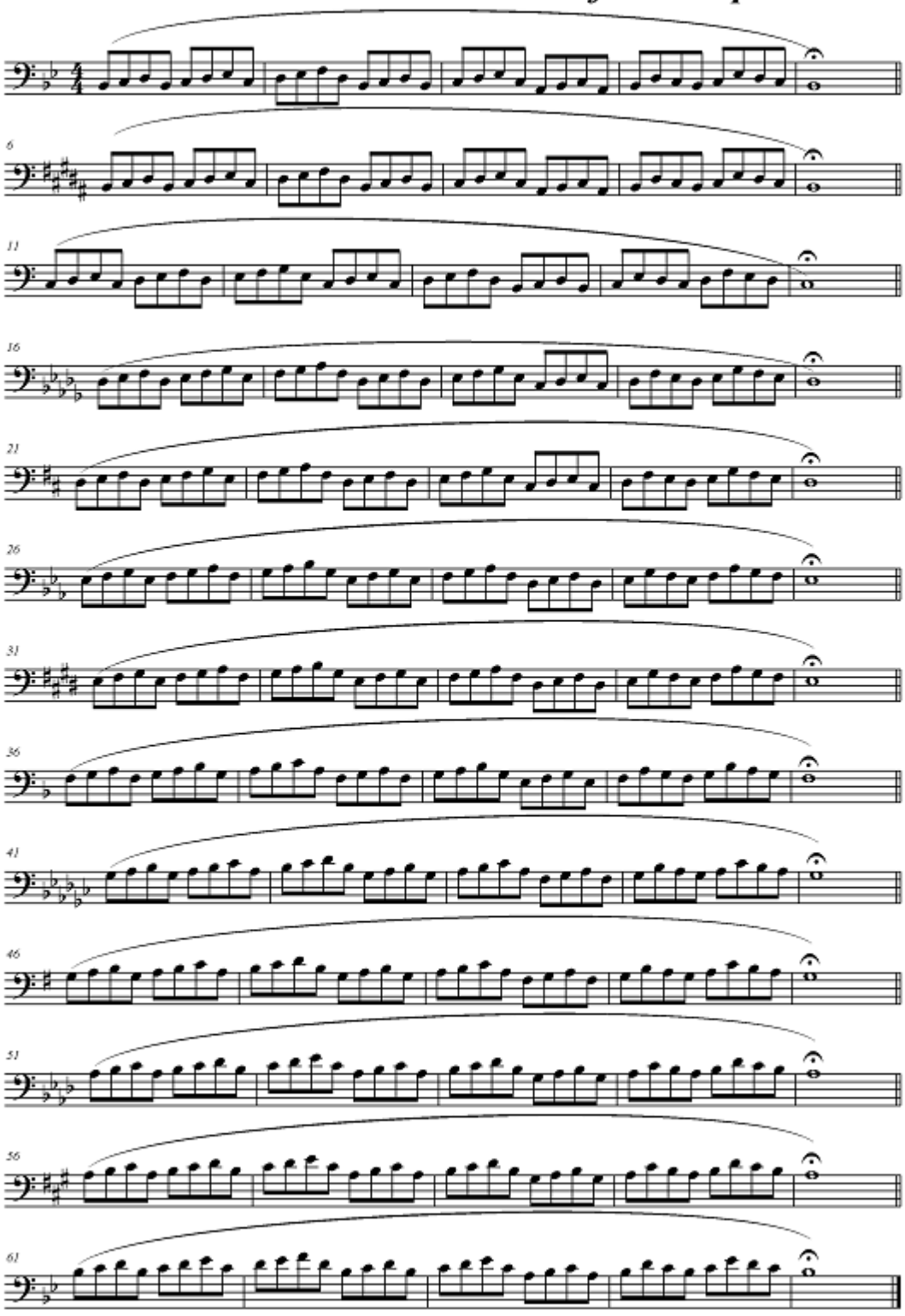
แบบฝึกปฏิบัติทรอมโบน

Trombone Method



H.L.Clarke - Technical studies for Trumpet

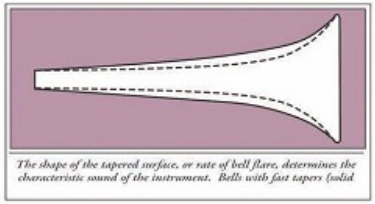


Suggestions For Choosing And Customizing Your Bach Trombones

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.

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



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 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.

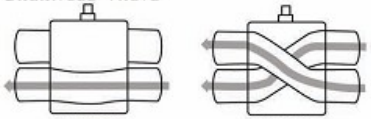
HANDSLIDES

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™

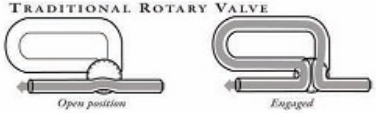


Open position *Engaged*

Hagmann Valve

Open position *Engaged*

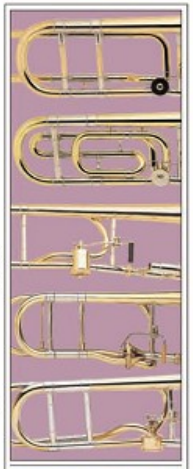
Traditional Rotary Valve



Open position *Engaged*

ROTOR SECTIONS

Many Bach Stradivarius trombones can be configured with traditional, Balanced-Thayer™ or Hagmann 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 Hagmann Valves systems eliminate sharp crook tube bends within the rotor itself. Combined with open wrap section tubing, Balanced, Thayer™ and Hagmann 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 Hagmann Valve (pictured bottom) allow for a free and unimpeded flow of the air column combined with

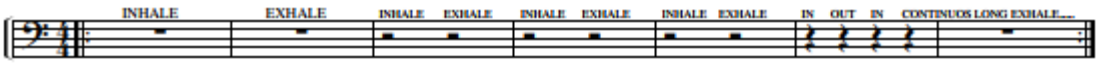
TROMBONE BASICS

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

I. Long Tones and Breathing Exercises

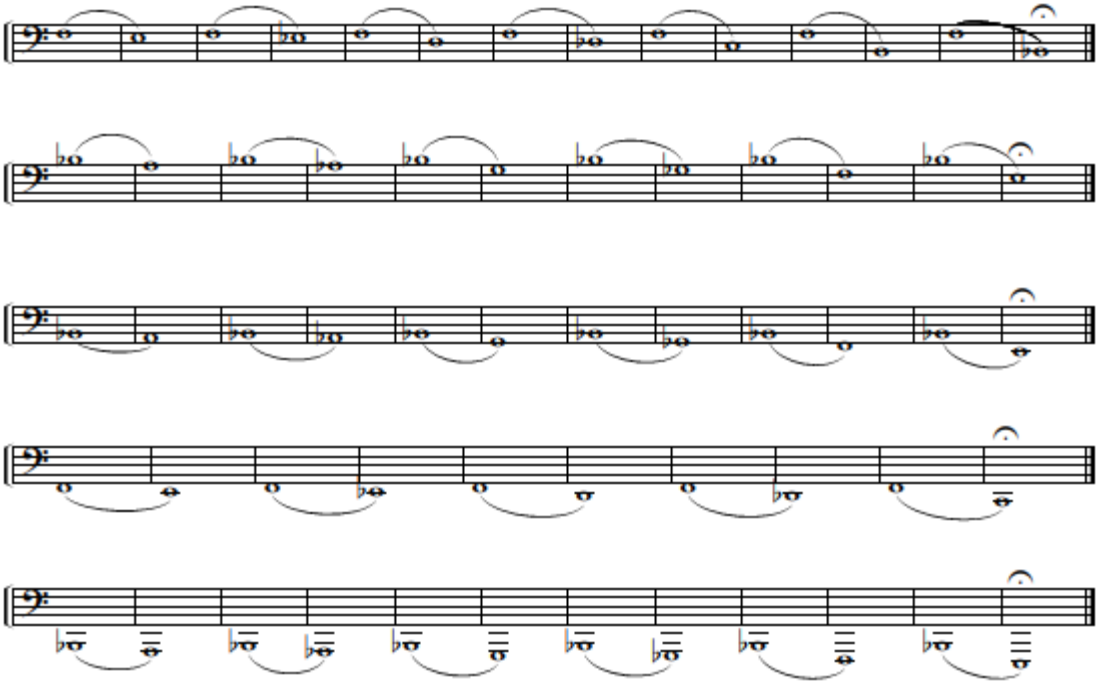
•Focus on deep low, FULL, relaxed inhale and a smooth, powerful, relaxed exhale

♩ = 50



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 ♩ = 50



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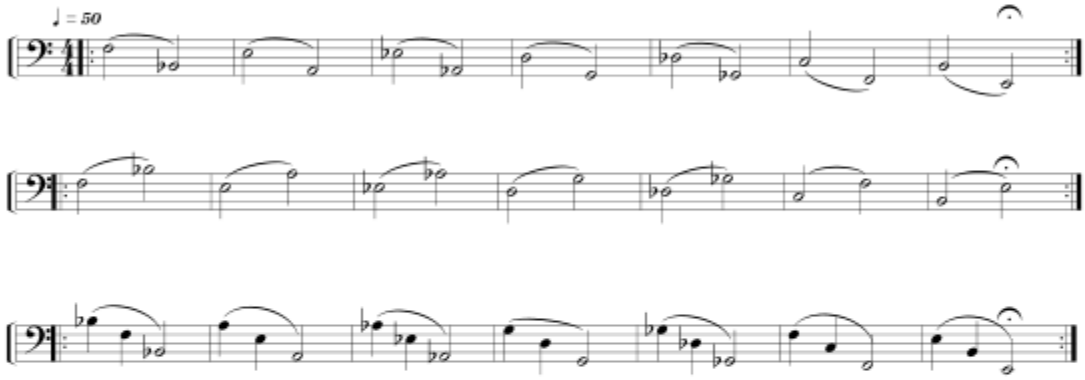
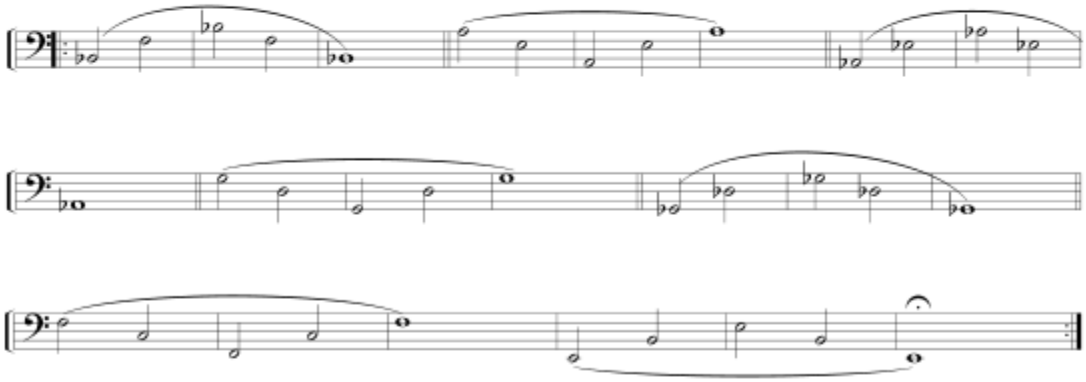
II. SLOW slurs

- 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



IIa. Longer Slow Slurs

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



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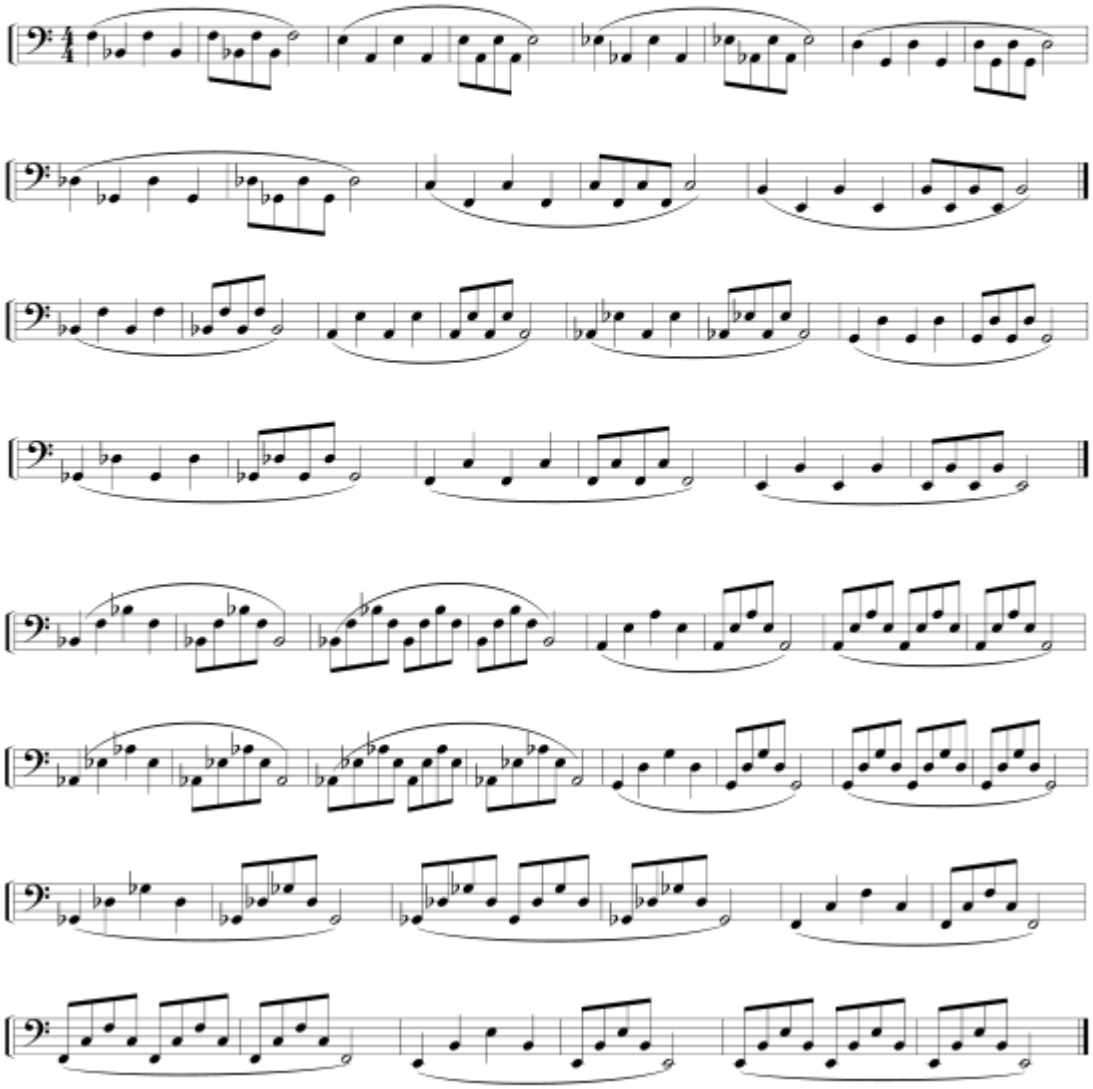
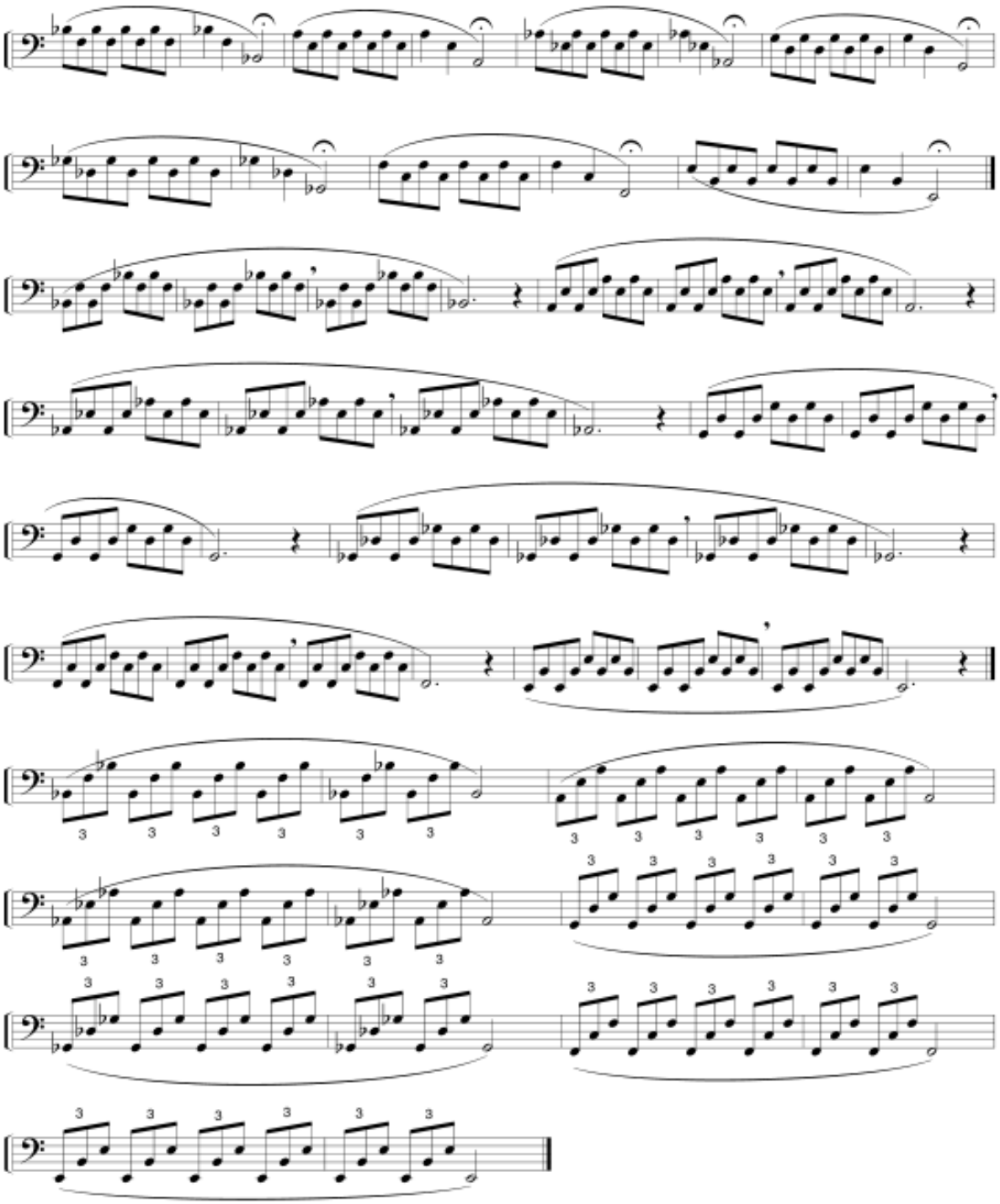
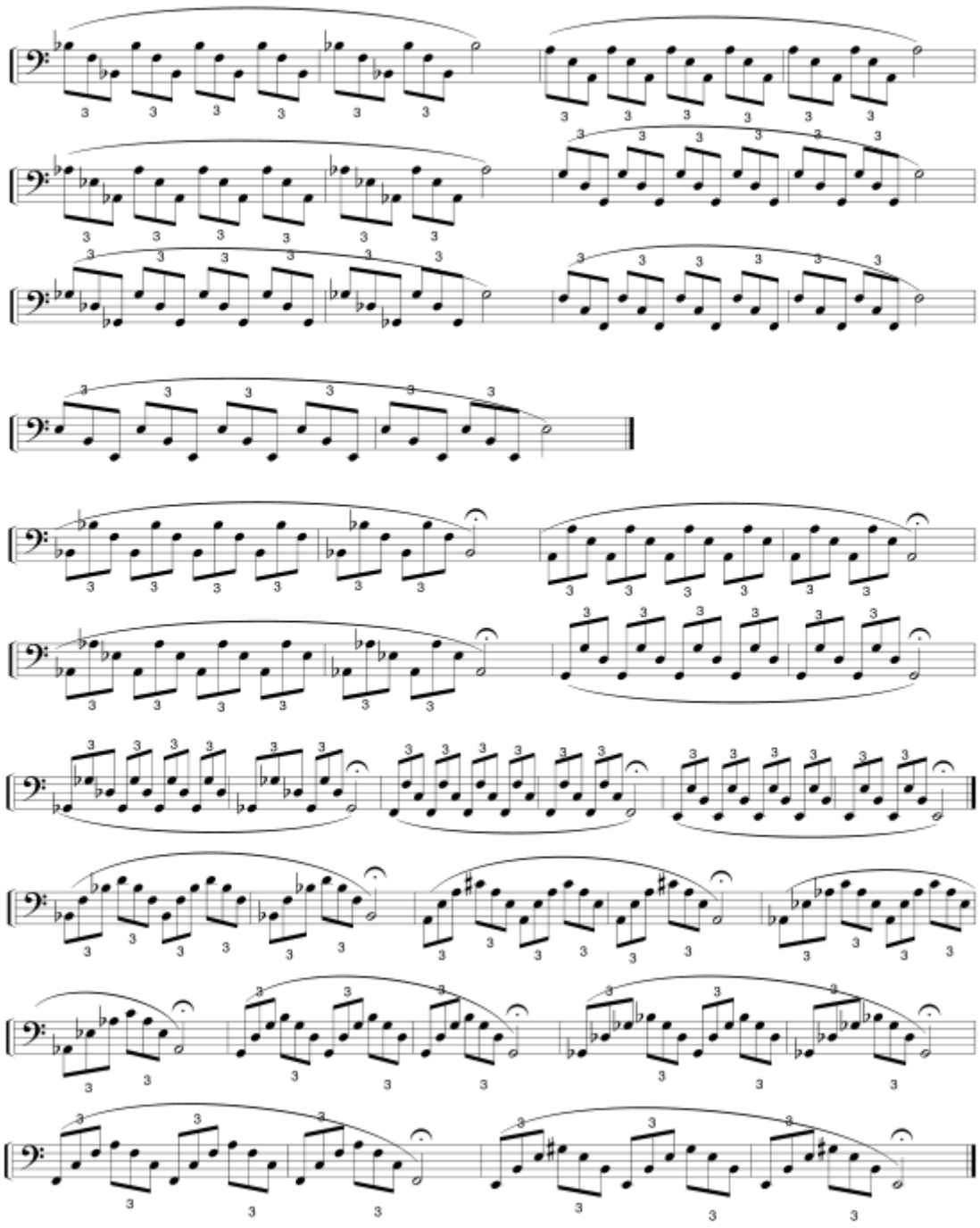
III. FLEXIBILITY STUDIES

- 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







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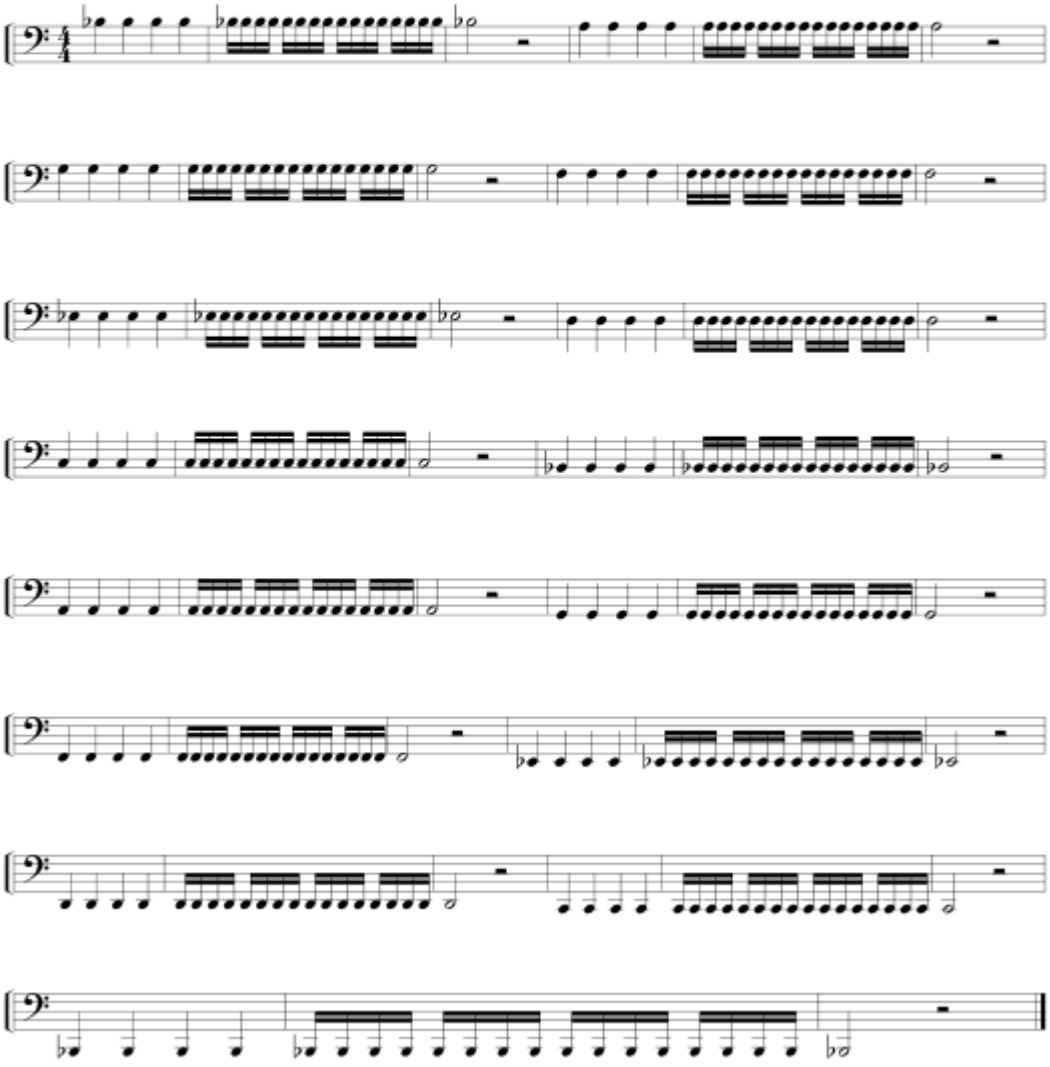
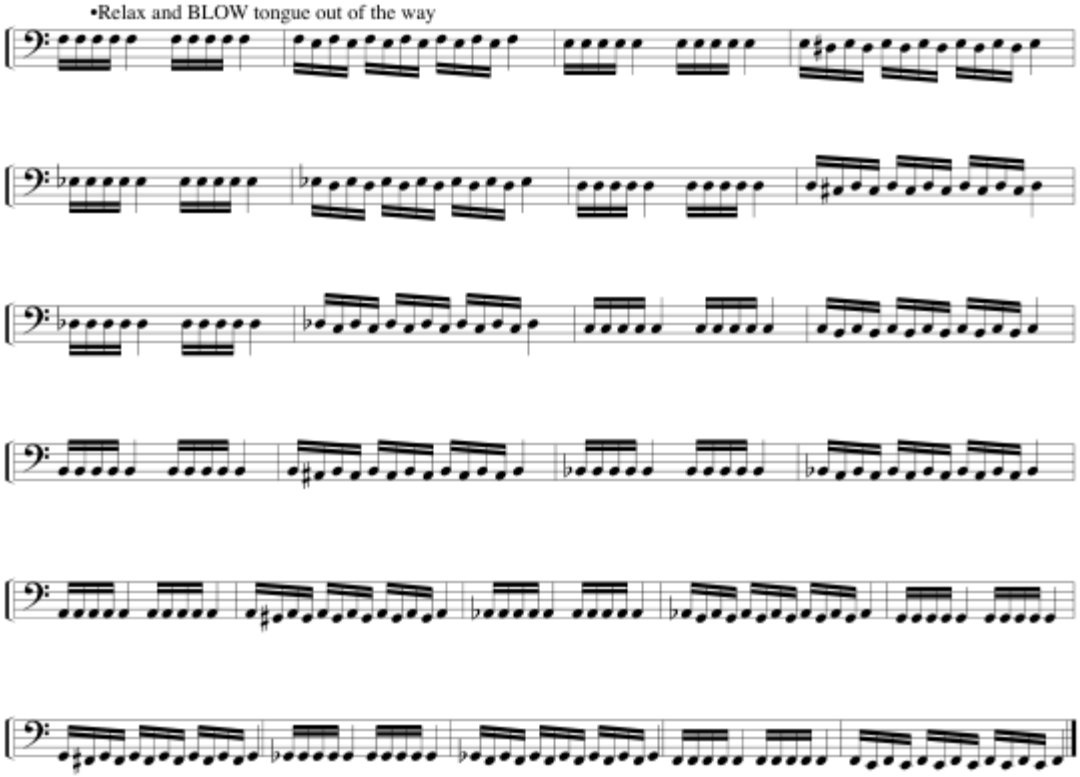
IV. ARTICULATION EXERCISES

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



•Quick slide

•Relax and BLOW tongue out of the way



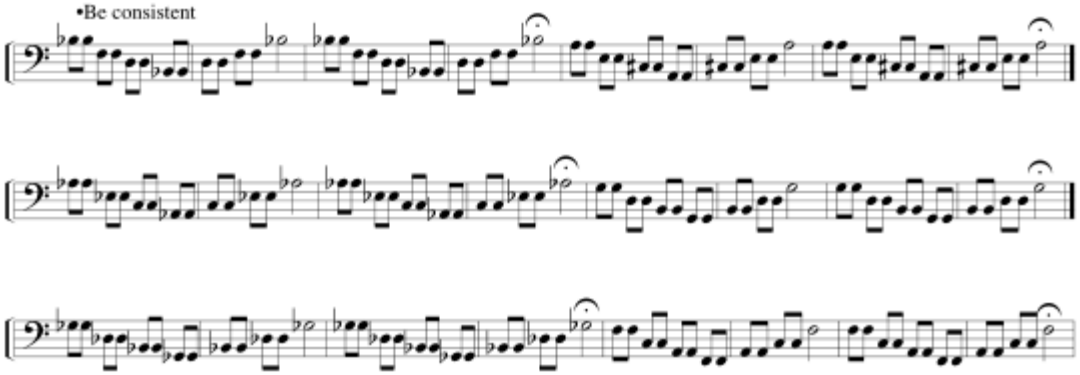
IVa Triad Exercise

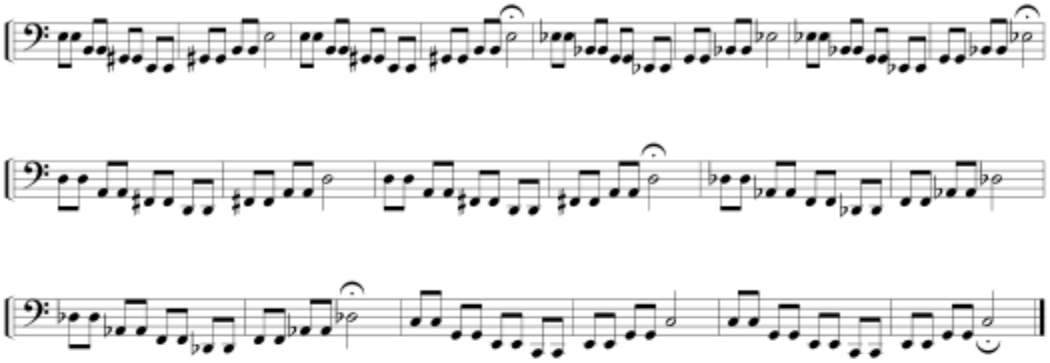
•LONG BUT ARTICULATED

•Tune each triad as you play

•Make every articulation identical

•Be consistent





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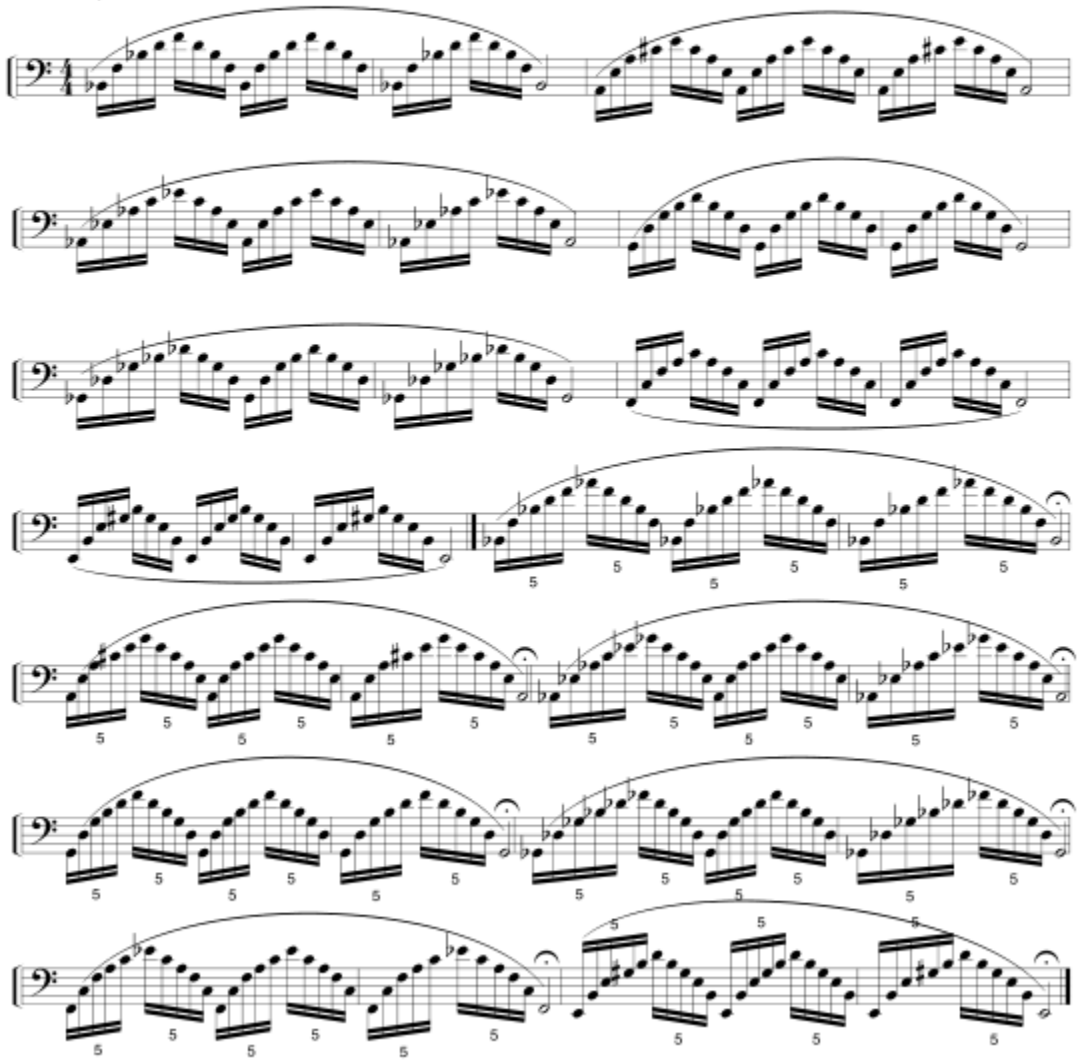
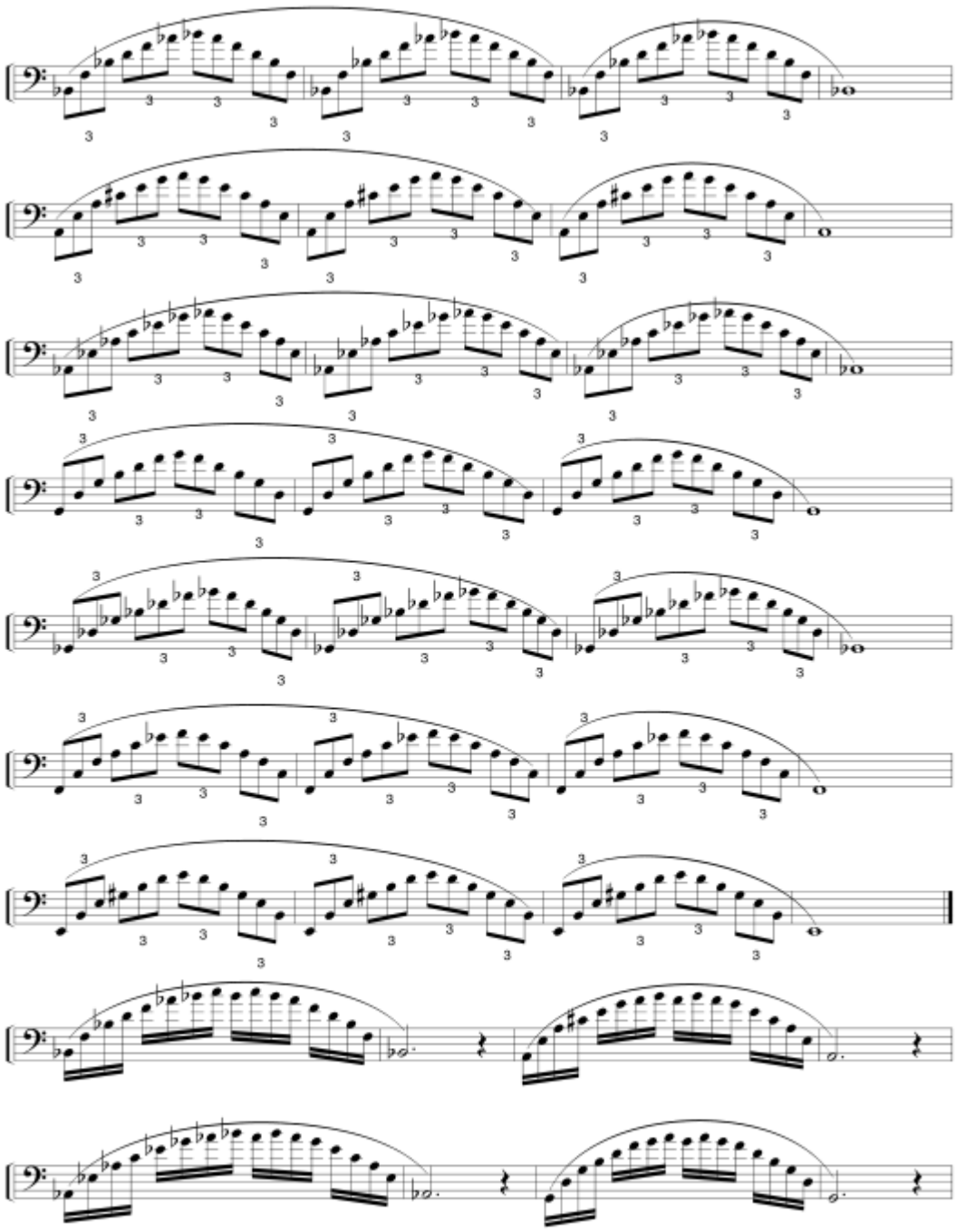
V. Range Exercises

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





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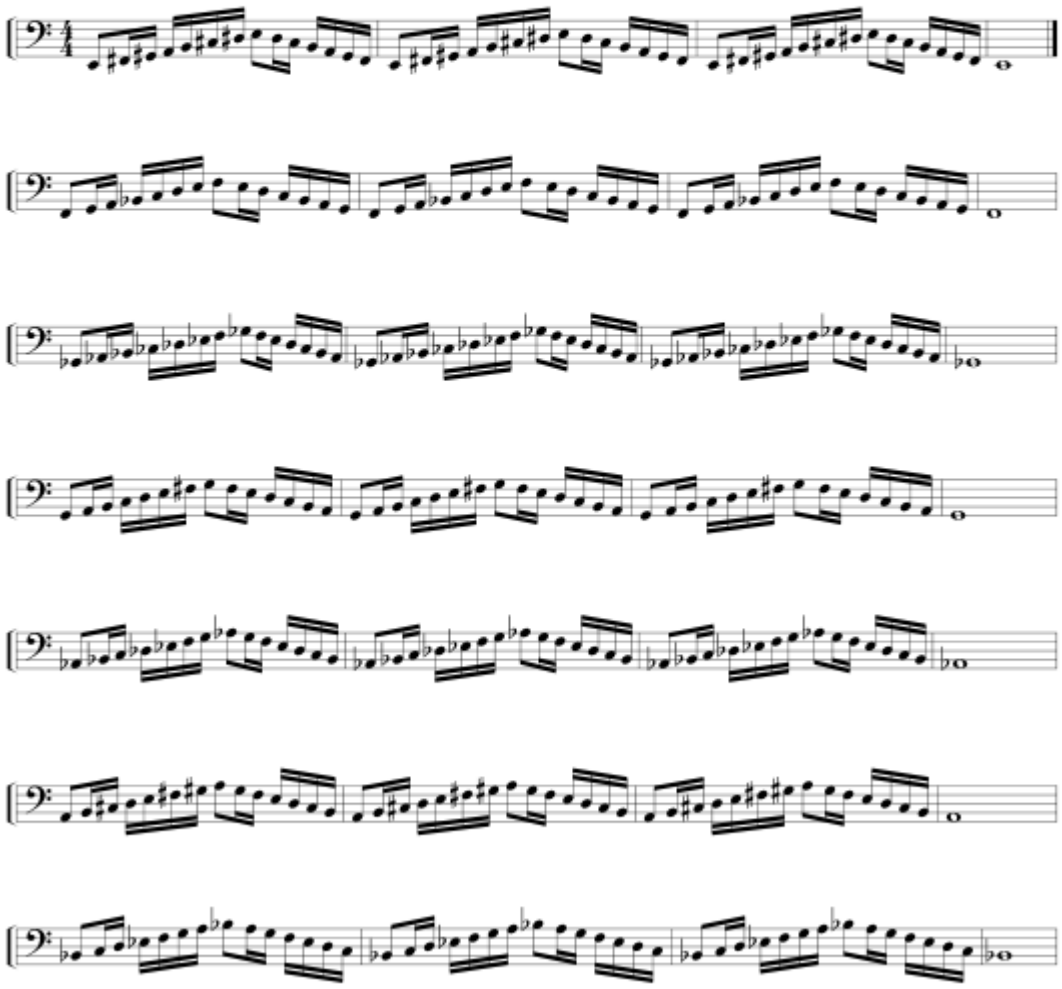
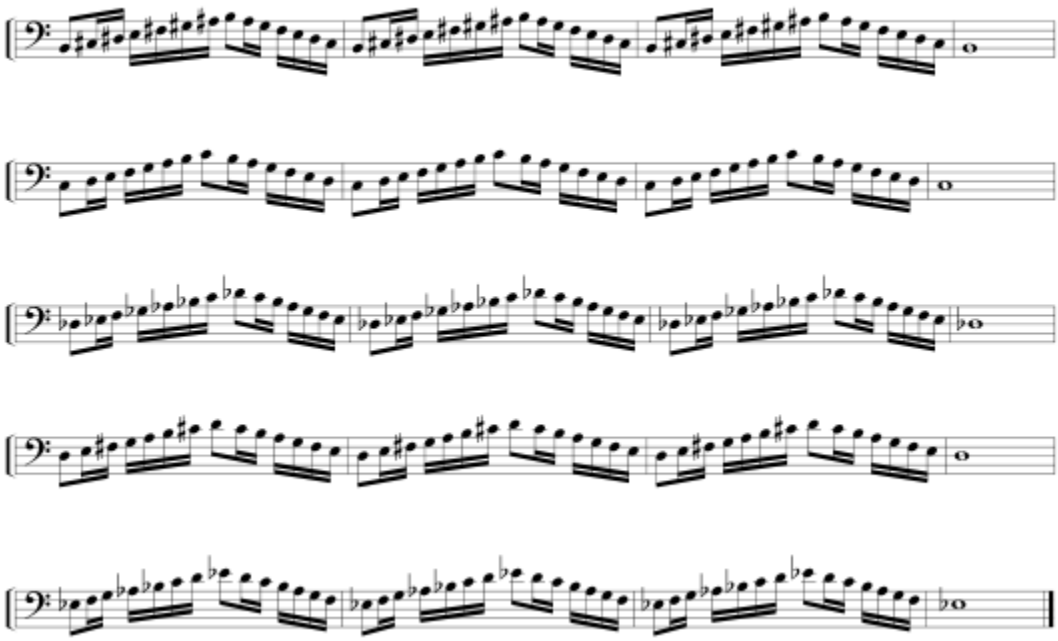
VI. Scale Exercises

- 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





VIa. Two Octave Scales

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