Presented by [Odisei Music]

Your guide to sax & clarinet reeds

Your reed is your first step to great tone. Care for it, know it, and let your music speak.

REED OPTIMIZATION GUIDE FOR SAXOPHONE AND CLARINET

01. THE CHAOS VARIABLE

If you play a woodwind instrument, you know the feeling: you open a new box, take out a reed, put it on... and it sounds like wet cardboard. You try the next one it sounds like a strangled duck. You try the third, and suddenly the heavens open and you sound like a god.

Why does this happen?

Your instrument is a precision machine. Your mouthpiece has an exact geometry calculated by CNC.
But your reed... your reed is a piece of plant (Arundo Donax) that grew in a field, exposed to wind, sun, and rain. It's organic material. It is imperfect by nature.

The mission of this manual

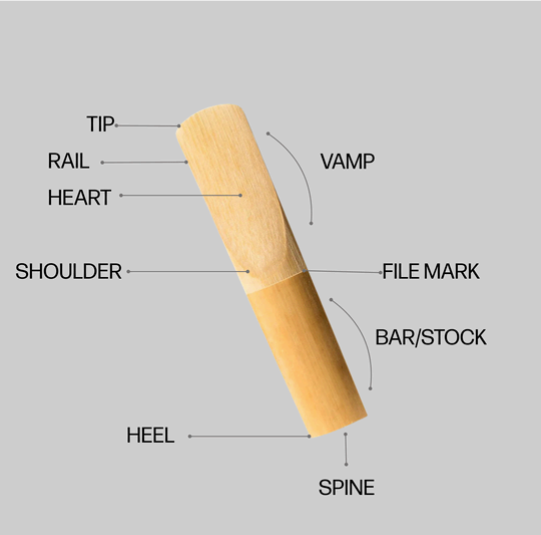
Most musicians are victims of their reeds. They let chance decide whether today they will play well or badly. This document is designed to help you take back control. Here you will not find superstitions. You will find a logical system to: Understand the physics of vibration.

- Select the real strength (not the one printed on the box)
- Diagnose problems before you even blow
- Adjust and recover reeds you thought were dead
- Stop fighting your equipment. Start making music

02. ANATOMY OF VIBRATION

Before adjusting anything, you must understand which parts of the reed affect which aspects of your sound.
Tip: The thinnest and most delicate part. Responsible for attack, initial response, and higher frequencies. If the tip is too thin, the sound will be shrill; if it's too thick, the attack will be heavy and dull.

- **Heart:** The center of the scraped area. This is the "engine." It provides body, darkness, and support to the sound. A strong heart allows you to play forte without the sound breaking or closing.
- **Rails:** The lateral edges of the scraped area. They must be symmetrical. If one rail is thicker than the other, the reed will vibrate unevenly, causing squeaks or unwanted subtones.
- **Vamp:** The entire worked surface. Its length determines flexibility. A long vamp is usually more flexible (Jazz); a short vamp offers more resistance (Classical).
- **Heel (Stock):** The base with bark, where the ligature sits. It must be perfectly flat to seal against the mouthpiece.



03. THE STRENGTH MAP: SAXOPHONE

The number one mistake is thinking that a "3" is the same everywhere. Brands use different scales. Use this table to find equivalencies when switching models.

Note: This table is an approximation based on perceived resistance.

BRAND / MODEL	SOFT	MEDIUM-SOFT	MEDIUM	MEDIUM-HARD	HARD
Vandoren Traditional (Blue)	1.5	2	2.5	3	3.5
Vandoren V16 / Java Green	2	2.5	3	3.5	4
Vandoren Java Red (Filed)	2.5	3	3.5	4	4.5
Vandoren ZZ	2	2.5	3	3.5	4
D'Addario Jazz Select	2S	2M	2H / 3S	3M	3H+
D'Addario Reserve	2	2.5	3	3.0+	3.5
Rico / Rico Royal	2	2.5	3	3.5	4
La Voz	Soft	Med-Soft	Medium	Med-Hard	Hard
Légère Signature (Synthetic)	2	2.25	2.5 / 2.75	3	3.25 / 3.5
Rigotti Gold	2.5 Light	2.5 Strong	3 Light	3 Strong	3.5 Med

How to read this

If you play comfortably on a Vandoren Blue 2.5 and want to try a jazz reed like the D'Addario Jazz Select, don't buy a 2.5 (2M). It will likely feel too soft. According to the table, you should try a 3S or 3M for similar resistance.

04. THE STRENGTH MAP: CLARINET

On clarinet, resistance is critical to maintain tuning in the upper (clarion) register. “Premium” reeds usually have a thicker heart.

BRAND / MODEL	SOFT	MED-SOFT	MEDIUM	MED-HARD	HARD
Vandoren Traditional (Blue)	1.5 / 2	2.5	3	3.5	3.5+ / 4
Vandoren V12 (Silver Box)	2.5	3	3.5	3.5+	4
Vandoren 56 Rue Lepic	2.5	3	3.5	3.5+	4
D’Addario Reserve / Classic	2	2.5	3	3.5	4 / 4.5
D’Addario Evolution	2.5	3	3.5	3.5+	4
Rico Royal / Orange	2.5	3	3.5	4	5
Légère European (Synthetic)	2.25 / 2.5	2.75 / 3	3.25 / 3.5	3.75	4
Pilgerstorfer	2.5	3	3.5	4	4.5

The thickness trap

Notice the difference between Vandoren Blue and V12. Many clarinetists who play a Blue 3 must drop to a 3 or even 2.5 when switching to V12, because V12 has much more wood in the heart.

05. MOUNTING GEOMETRY

Reed placement is the fastest and most effective adjustment you can make.
Forget placing it “right at the tip” by default. Use physics.

Vertical axis: your gear shift

Moving the reed up or down changes its effective vibrating length. If the reed feels too soft, producing a nasal tone or closing up when you play loudly, try adjusting its position by pushing it slightly upward so that it extends just a hair above the tip of the mouthpiece. This makes the reed virtually harder, giving you more stability, especially in the high register.

On the other hand, if the reed feels too hard, resulting in an airy, fatiguing sound, lower it slightly so a thin line of the mouthpiece is visible above the tip. This adjustment makes the reed virtually softer and much easier to play.

06. DIAGNOSIS: THE VACUUM TEST (POP TEST)

On clarinet, resistance is critical to maintain tuning in the upper (clarion) register. “Premium” reeds usually have a thicker heart.

Before saying “this reed is useless,” perform the definitive sealing test. A reed may be good, but if it doesn’t seal, it won’t play.

HOW TO DO IT

1. Mount the reed and ligature on the mouthpiece (no instrument needed).
2. Seal the shank end completely with your palm.
3. Put the mouthpiece in your mouth and suck the air in, creating a vacuum. Remove the mouthpiece quickly.
4. Results: STRONG “POP” SOUND: Success. The reed seals perfectly and is ready to play. WEAK OR NO “POP”: Air leak.

If the reed does not produce a clear “POP,” it is likely due to one of several issues. It may be misaligned on the mouthpiece, warped from improper storage, or the mouthpiece table itself might be uneven a more serious problem. In any case, if the reed fails the test, don’t force it. Try hydrating it a little more, but if it still doesn’t seal properly, it’s best to discard it.

07. THE BREAK-IN PROTOCOL

A new reed is like a new leather shoe: if you push it too hard on the first day, it will get damaged. The fibers need time to adapt to vibration and moisture.

The three week system

- **Week 1:** Hydrate the reed with water (preferable to saliva at first). Play only 5 minutes a day, focusing on the middle register. Dry and store the reed after each session.
- **Week 2:** Increase playing time to 10–15 minutes per day. Lightly explore dynamics, avoiding extreme fortissimo. Continue to dry and store the reed after use.
- **Week 3:** The reed should begin to stabilize. You can integrate it into your normal rotation, but do not exceed 45 minutes of playing per day.

Rotation Rule

Always keep 4-5 active reeds and number them to organize usage: Monday: Reed #1, Tuesday: Reed #2, Wednesday: Reed #3, Thursday: Reed #4. Continue rotating in this pattern to extend each reed's lifespan and maintain a consistent sound.

08. MICRO-SURGERY: SAVING DEAD REEDS

Warning: Practice these techniques on old reeds first.

Sometimes a reed is almost perfect

TOOLS

- Very fine wet sandpaper (600–1000 grit)
- Flat surface (glass or mirror)
- Reed clipper (instrument-specific)

Too soft (or old)

Use the reed clipper. Clip a tiny fraction of a millimeter (hair thickness) off the tip. You return to thicker cane, making the reed harder and more responsive.

Too hard / dull

Base sanding: sand the flat heel gently on glass. Improves sealing (Pop Test).
Shoulder sanding: lightly sand the vamp shoulders (not the heart). Frees vibration without losing core.

You now have the knowledge that separates the student from the professional.Remember:

- The number on the box is only a suggestion
- Placement is everything
- Rotation saves money
- Manual adjustment saves concerts

The search for the perfect sound is endless, but with your reeds under control, the journey becomes far more enjoyable!

"Music is your own experience, your thoughts, your wisdom. If you don't live it, it won't come out of your horn."

[Charlie Parker]

[Odisei Music]

Turn time in to music

Play wind instruments

anytime, anywhere, silently