

The Headjoint Specialist

Introduction



Introducing Drelinger's UpRite® headjoint with Suspended Instrument Technology.™ It will miraculously transform your flute into an ergonomic instrument of extraordinary comfort. And thanks to the ParabolicWaveGuide™ acoustic you can produce beautiful sound effortlessly.*

*SIT™ is its acronym. Front Cover: Meet Poco, Drelinger's symbolic flutist merging whimsy, technology and music. The character was inspired by a fable about an owl who flew again after overcoming a spell.

The Evolving Flute

The prehistoric flute is often described mixing mythology with empiricism. While many divergent theories plausibly explain the flute's beginnings, most exclude the underlying practical issues driving its metamorphosis. Knowing that the flute's development is intimately interwoven with the principles of physics helps explain its changes throughout time. When we studied this evolutionary process, it was far more important to learn the why, rather than where, when and how.

Historically, the flute's evolution appears to be driven by a quest for improved sound and musical range. Until recently the general credo was if it sounds better, physical comfort notwithstanding, it is better. While the transverse flute's principle of sound production is superior to its early vertical predecessors, arguably it is less ergonomic. The concept of ergonomics or more simply put, player friendly instruments is a relatively new approach to flute design. Drelinger believes that player-friendly technology only makes sense if it doesn't compromise sound quality. As it turned out, our vertical design heartily equals the sound of its transverse counterpart, as beautifully demonstrated by world class flutists on recordings from the HomeCookedCD.comTM label.



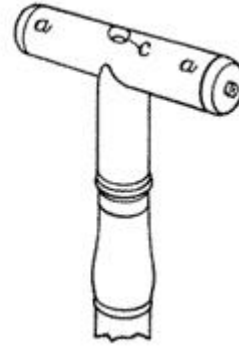
Drelinger's Research

All true flutes work basically the same. The blown air directed from the lips is divided and oscillates as it strikes the far edge of the blow hole. The molecules of the air column within the flute's tube are then set into a vigorous back motion sounding a fundamental note.

In transverse flutes this occurs when blown across a hole cut in the side wall of the tube. One end of the transverse flute's tube is stopped (closed) creating a virtual baffle. Also the inside tube wall immediately below the blow hole provides baffling critical to its function. A baffle holds air, like the bottle in figure one. When blowing into a baffled structure whether a bottle or a transverse flute, the jet stream and resulting note will be stable as expressed by straight lines originating from the lips in figure one and figure two.

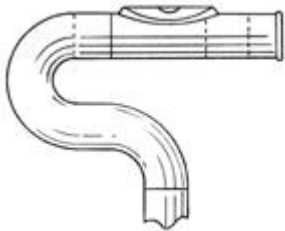
In vertical flutes, more commonly known as the end blown flute, sound begins the same as air is blown across one end of an open tube as illustrated in figure three. However, the vertical flute is essentially unbaffled as its tube is open throughout. This unbaffled acoustical environment allows the jet stream and resultant note to become intermittently unstable as expressed by tear dropped shaped lines in figure three.

Pictured here is a drawing excerpted from a vertical flute patent issued in the late 19th century. Even though its headjoint is stopped at both ends "a-a", its blow hole is located in the same position "c" (unbaffled) as an end blown flute and would exhibit jet stream instability if actually built.



The Headjoint Tube

In modern conventional transverse flutes the taper of the headjoint tube is critical. To maintain proper tuning and octave to octave uniformity, the taper must be calculated to baffle a precise volume of air at specific points throughout the headjoint's tube.



Over the years there have been attempts to design vertical headjoints using the transverse baffle principle. Drelinger's research concluded that even the most promising of these were unsuccessful because the designs relied on bend and curve construction. Pictured here is a drawing excerpted from a vertical headjoint patent issued in the early 20th century. If actually built, this design would have compromised tuning and octave uniformity. While bend and curve construction works perfectly for many musical applications, it is inappropriate for the modern vertical Boehm system concert "C" flute.

The UpRite's Heart

The acoustical design of the UpRite headjoint tube is central to its wonderful sound. Drelinger knew from the beginning that building a successful vertical headjoint demanded equaling the performance of its conventional transverse counterpart. Five years in the making, our research and development established that the ideal approach was to create a shape using mitered step-flow technology.

We named this design the **ParabolicWaveGuide(TM)**, and while it is unique to the vertical headjoint, it has been used in other wind instruments for centuries.

To appreciate why the **ParabolicWaveGuide(TM)** works so well, it is important to understand that when a note is sounded, it's not the air that moves fast, but molecules vibrating vigorously back and fourth one against the other within the air column. And while all this vigorous molecular action goes on, the air column itself moves at a very leisurely 1 to 2 feet per second, through the flute.

UpRite Ergonomics

A totally successful vertical flute must possess more than the ideal acoustical design. To achieve its full potential it must also incorporate an advanced ergonomic holding system.

The UpRite® is accompanied by a complete selection of ergonomically engineered accessories. We named these attachments SIT™ which is the acronym for *Suspended Instrument Technology*.™ These easy-on-easy-off attachments quickly customize any flute to play vertically.



Photo one shows flutist seated with the UpRite supported at one end by her chin, and with the benefit of the Boot,™ supported at the other end by her leg. Photo two shows the same position with the instrument being played without the hands and arms bearing any weight. Supporting the instrument in this position gives maximum physical comfort.

Photo three shows flutist standing holding the Uprite with the benefit of SIT™ technology. Unlike the clarinet or oboe with only a thumb rest, the

UpRite has both a thumb rest and an advanced left hand support we named the Skyhook.™

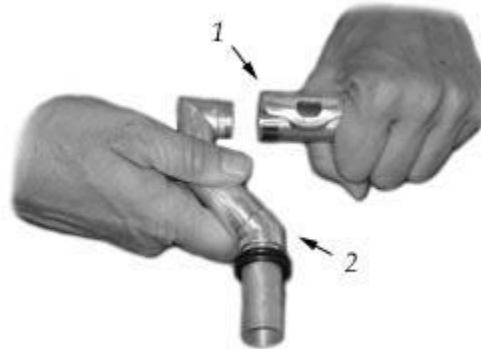
By using this dual support system, the vertical flute's weight is more evenly distributed making it easier to hold. Also, like the vertically held clarinet and oboe, the UpRite player hears equally in both ears, giving a balanced acoustical perception of his or her instrument.



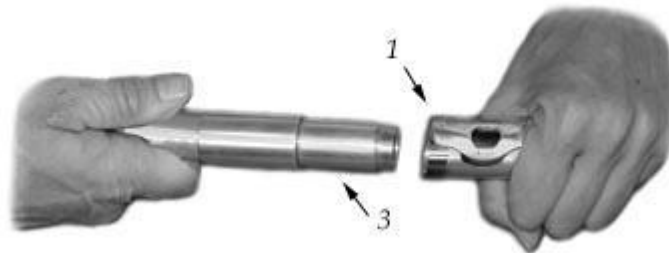
Three

The UpRite Is Also A Transverse Headjoint

The UpRite® doubles as a transverse headjoint should you want to play conventionally. It is easily configured transverse as pictured.



The lip plate tube 1 is clasped, while holding the vertical tube 2. Rotate the lip plate tube, in the same way as taking off a footjoint from its body, to free it from the vertical tube.



While clasping the lip plate tube 1 reassemble it by inserting the transverse tube 3. The UpRite now is a transverse headjoint 4.



FAQ

What made Drelinger want to design a vertical headjoint?

Drelinger Headjoint Company is continually working to develop new and innovative headjoints. We originally began work on the UpRite® for those having physical issues playing the transverse flute. As it turned out the UpRite not only heartily met this goal, but also filled other niches making it the flute of choice for many playing situations.

After many years of playing, I now have physical pain associated with holding my flute. I do not know if it is severe enough to consider playing vertically. We almost always see a better outcome with those who become immediately proactive after first experiencing this type of physical pain, as compared to those who put off doing anything until playing becomes unbearable.

In addition to SIT,[™] does Drelinger make custom accessories?

Yes. For most people the SIT[™] accessories are all that is needed to realize the full potential of the UpRite. However, from time to time we make custom engineered accessories for those with special requirements.

Does the UpRite sound the same to the listener as the transverse flute?

Yes, as beautifully demonstrated on HomecookedCD.com.

Does the UpRite sound the same to the player as the transverse flute?

Yes, after a few minutes. Players are conditioned to compensate perceptually for the way the transverse flute radiates sound. It's for this reason that when played for the very first time the UpRite's balanced sound can be startling. Thereafter it sounds normal to the player.



Transverse flute radiates so that more sound reaches the player's right ear.



UpRite radiates sound in perfect balance so the player hears it equally in both ears.

How easy is it to play vertically?

From our experience many will spontaneously master the virtues of the UpRite, while others will require time. We know that for most, playing flute vertically is physically less stressful and more natural than playing transverse. Letting go of the physical compensation required for the transverse flute may be the key to fully appreciating the comfort of the UpRite.

Feedback...

...never felt so physically comfortable playing the flute as with the UpRite.

Playing the UpRite and then going back to my regular headjoint was like returning my arms to a vise.

...always had neck, shoulder and hand problems playing my flute and finally after seeking a medical solution, the UpRite may prove the most promising approach...

I have taught many young students who want to play the flute but find the instrument too much to handle. By experimenting with the UpRite some of these same kids now had no trouble...

...the UpRite improved my technique once I learned that I didn't have to fight the physical aches I normally contended with.

After playing flute for almost 70 years, I almost gave up because it had become physically painful to play. When I tried the UpRite, the pleasure of flute playing returned and...

The choice of playing vertical or horizontal is really important ... there are times that listeners just don't want to contend with looking at a strange flute...

Every teacher should have an UpRite to get students started on the flute. Its the most valuable teaching aid I've seen. I wish this thing didn't cost so much.

I don't know about you but seeing your fingers when you play is really something I find of great value.

The UpRite is the only wind instrument I've ever played that you didn't have to support with your hands. Its like playing my piano.

As a sax and clarinet player the UpRite fit my hands so much more natural than my old combo. Having all my instruments play vertically suits me just fine ... in the dark and crowded orchestra pit, for quick changes ... the UpRite makes it possible to go from flute to clarinet in a fraction of the time it normally takes.

When I learn to relax and back off a little it seems shamefully easy ... I feel guilty working so little.

...I can see that the UpRite would make the flute the ideal instrument for the marching band. Its easier to hold than a clarinet. Give it five years and every marching band in the world will want them.

I got a real kick out of all those attachments that come with the UpRite. They go on in a flash and come off just as easy. I like the idea of not permanently altering my flute body to accommodate the UpRite.

The tone the UpRite produces is colorful and interesting and in some ways I like it better than my regular flute...

Specifications & Price

All accessories shown included in price. These items also included at no additional cost:

- Instructional DVD video • Left hand index finger rest • Cleaning swab
- Vertical flute stand • O ring tuning indexers • Neck Strap
- Carrying case for UpRite and completely assembled flute, with accessories.

Tenon size supplied to fit purchaser's flute. Tenons can be changed for a different size if customer later decides to use another flute.

The UpRite® shown here is an all sterling silver Max™ style with Platinum-Air-Reed®. All other Optikut® lip plate styles available in place of the Max at the same price. During the first year of ownership the lip plate tube can be exchanged at no charge.

All UpRites are custom made to order. Delivery at present takes from two to three months from date the order and deposit are received.

Price \$5000.*

*Plus shipping. Prices and specifications subject to change without notice. Price for gold upon request.

All artwork within the brochure (with exception of historic patent drawings) are original and protected by applicable laws. The following U.S. patents 4550637, 4800635 and 5105705 have been issued as of this printing.

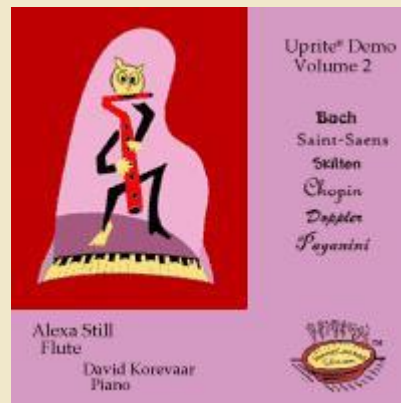
HomeCookedCD.com

The HomeCookedCD.com recording label is a non-profit entity. Our mission is to provide exposure for emerging musical instrument technologies. Our ongoing recording series features leading musicians playing musical instruments incorporating significant innovations.

The first CD series focuses on the modern Boehm vertical flute. Future projects will encompass a variety of musical instrument categories.



UpRite® Demo Vol 1
Moshe A. Epstein, Vertical Flute



UpRite® Demo Vol 2
Alexa Still, Vertical Flute



UpRite® Demo Vol 3
Aralee Dorough, Vertical Flute



UpRite® Demo Vol 4



UpRite® Demo Vol 5

The following CDs are available for free within the United States and will be sent to you for the following postage and handling fee:

1 Disc	\$2.25
2 Discs	\$3.90
3 Discs	\$4.60

Please send orders via US Mail, and include payment in the form of a personal check or postal money order. No credit cards, please. Please note, only one of each title per customer.

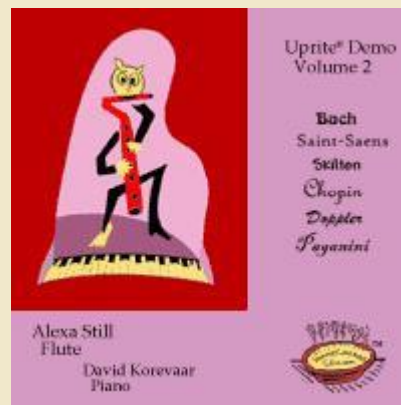
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