# Well Tempered Versalex



It's probably safe to assume that Bill Firebaugh is a Bach fan. It was 1985 when he designed his first turntable and named it for one of Johann Sebastian's most famous keyboard pieces. His company never did climb into the exalted heights occupied by the best-known turntable makers, but he has endured...which is more than can be said of some once famous companies we all know.

The Versalex model name has a less obvious origin, though anyone with some notion of Latin will recall that "lex" means "law," and is therefore likely to conclude that the name means "against the law." That seems fitting because, throughout his career, Firebaugh has maintained that "the law" (i.e. what is considered obvious by his competitors, and thus mandatory) is wrong.

Let us then examine the problem of a turntable platter's bearing. We've known since the 1970's that the major source of noise and vibration in a turntable is likely to be not the motor, as was once assumed, but the bearing. Most turntable designers, therefore, concentrate on establishing a friction-free contact between the platter spindle and the shaft, with as little play as possible. The ways of doing this are well established. Typically, that means tapering the shaft of the platter that rests against a ball bearing at the bottom of the well, soaked in light oil. Tapering the shaft means its rotating surface is small, and one can expect minimal noise if the machining is of good quality. However, Firebaugh long ago pointed to a problem with such bearings. The belt from the motor to the platter pulls the platter *laterally*, and therefore the shaft will rub against the side of the well. Problem!

To make matters worse, the tight tolerances leave little room for even light oil to find its way between spindle and well.

Others have noticed the same problems. On some turntables the belt goes from the motor to the sides of the platter, then on to a second pulley on the other side. That eliminates the side thrust, but the second pulley adds a new source of vibration, thus swapping one problem for another. Tiny holes may be drilled into the spindle to let oil circulate, but Bill Firebaugh found that measure unsatisfactory.

Firebaugh's solution is to use the side of the well as the bearing, reducing noise and vibration as much as possible, but there's more to it than that. His spindle is much smaller than the well in which it spins, leaving room for lubricant, and it is supported at five points: from underneath, and at each of four lateral points. The supports are nitrite rubber, the material used for engine piston seals. The lubricant is not oil but silicone, which also provides damping of vibrations.

The Versalex comes with Firebaugh's own LTD arm, and that's not of conventional design either. Like a turntable, a tone arm must be made according to requirements that conflict. Make the bearings too tight and you have excessive friction. Make them too loose and they will "chatter," adding spurious vibrations to the *desired* vibrations you need to recover from the record groove. What's more, excessive play will hamper the arm and cartridge's ability to recover subtle information from the groove. His solution was to suspend the centre of the arm (actually a black golf ball) from an overhead support with a twisted monofilament thread. The ball bathes

in silicone, which damps out vibration and keeps the arm centred. By twisting the filament loop, you apply antiskating force, all without resorting to the usual Rube Goldberg weights and pulleys.

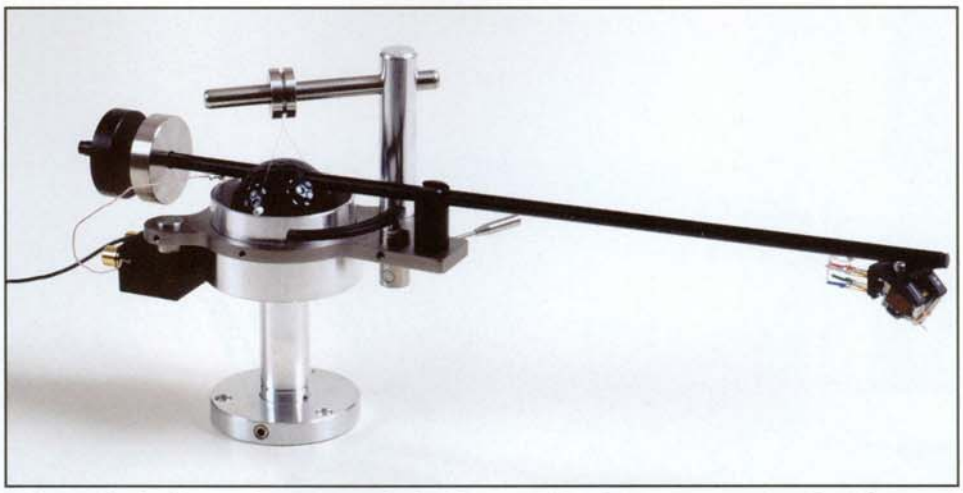
The plinth of the Versalex is made of a slab of Baltic plywood, with a decorative walnut veneer glued to the top. The rubber feet are hollow so they can absorb vibrations. There is an outboard power supply to run the single-speed motor — you select the desired platter speed by looping the monofilament drive thread around the appropriate pulley.

The LTD arm, which is also available separately, does not have its own output cable. Instead, it is fitted with a pair of good quality output jacks, into which you plug the interconnect cable of your choice. That adds to the cost, to be sure, but considering the mediocre cables supplied with all too many turntables, we can only applaud.

Now we come to the Achilles heel of the Versalex and especially the LTD tone arm. It would be difficult to assemble them properly even if the instructions were adequate, but they are not. The text is sketchy in the extreme, and the few illustrations are dark and murky. Even adjusting the stylus pressure is maddeningly difficult. Worse, with our Goldring Excel cartridge (the LTD arm is supplied without cartridge), we could not achieve exact lateral alignment. We were close, but we wished we had been right on (your experience with another cartridge may be different). We think you'll want to have a dealer whose dexterity you trust do the heavy lifting.

We listened to the Well Tempered in our Alpha system, comparing it to our Audiomeca J-1 turntable and SL-5 tone arm, equipped with the same Goldring Excel MC cartridge. Both were connected to the usual chain: a Bryston transformer, Copland CTA-305 tube preamplifier, Moon W-5LE amplifier and Living Voice Avatar speakers. We used the same Atlas Navigator All-Cu cable to connect our reference arm and the Well Tempered LTD.

We began the session with one of Reference Recordings' original LPs, *Holst* (RR-39), from which we selected the *March* from the *Suite No. 2*. This is lively, dynamic music, with percussion that will challenge the entire playback chain.



We were off to a good start, with clean highs and midrange, and very good definition in the woodwinds. The bass drum was less powerful and the highs were more discreet, which might actually be a good thing. Rhythm was well maintained. "For me," said Toby, "it was easier to 'see' the orchestra in a 3D field. I kind of liked it."

We continued with a long-discontinued choral recording, *Laudate!* (Proprius 7800). This once famous recording has a magnificent image you could walk into, projecting a sense of space about as good as you can hope to hear from a mere electronic reproduction. It remained magnificent with the Well Tempered. The sound stage was huge, even larger than with our own table, with a hint of reverberation. The illusion of depth was palpable. Voices were gorgeous, with fully natural sibilance. The singers were well separated and easy to pick out. Steve especially admired the delicate soprano voices.

## SUMMING IT UP...

**Brand/model:** Well Tempered Versalex turntable and LTD arm
**Price:** C$4975
**Size (WDH):** 48 x 41.5 x 18.2 cm
**Most liked:** Superb clarity, spacious reproduction.
**Least liked:** Finicky adjustments, terrible instruction manual.
**Verdict:** Bill Firebaugh's magnum opus

Was there an occasional midrange roughness in some louder passages? Two of us noted it, and we wondered whether the small error in lateral alignment (whose magnitude of course varies over the radius of the record) might be to blame. We must emphasize, however, that it *was* minor, and that the recording was entirely enjoyable.

We had two female voices we wanted to hear, and the first was going to be a challenge. Thelma Houston's *I've Got the Music in Me* is the title song from one of Sheffield's original direct-cut LPs, numbered LAB-2. The grooves on this recording are huge, and it sounds astonishingly realistic...if, that is, everything is working well.

On the evidence it was. Houston's powerful clarion-like voice emerged from our Living Voice speakers with a force that pushed us back into our chairs. Yet the voices and orchestra were clear, not merely loud. The energy of the song filled the room. "There are buckets of excitement!" enthused Steve. "Super duper," he added. The piano and the backup singers sounded clear and strong. Toby praised the percussion and the bass guitar.

Had we expected less? Can you really get this sort of performance from a tone arm made from a golf ball and fishing line? Yes you can — we had just confirmed it. We were at once surprised and impressed.

The other female voice we had on hand was that of country singer Dolly Parton. We listened to *Here You Come Again* from the album of the same name (RCA APL1-2544). Though Dolly's voice is very different from Thelma


Houston's, it also has plenty of power, with a good-sized orchestra playing along.

The Well Tempered did it justice, and then some. Her voice was clear and gorgeous, and we could hear everything in both the high-energy and quieter passages. Rhythm was rock-steady. "It's like training a magnifying glass on every nuance of the music," said Steve. Added Toby, "Toward the end she sings some ornamentations, and I could feel her joy in singing them."

Was there a flaw? Yes, but it was hardly the fault of the turntable and arm. This is a commercial recording, after all, and the engineers did use compression to keep the loudest peaks from overloading the record cutter. We could hear even the compression more clearly with this remarkable turntable.

As noted, the Versalex is the flagship in the Well Tempered line. We know what flagship turntables and arms usually cost, and by comparison this one looks like a bargain. We wish it were easier to set up, and we wish Bill Firebaugh would hire someone to write and illustrate his instruction manual. Having online help wouldn't exactly hurt either.

We have to admit that we were initially worried, uncertain whether we had set the Versalex up the way it should be, and whether we could expect optimum performance from it. Listening reassured us. This is the way a top turntable and arm should sound.

Which is to say that they sound like... music.



## CROSSTALK

I like to imagine words and music at the same time. So when I saw the name Versalex and then heard it perform, the concept of versatility felt like a good fit.

It got to the heart of every piece. It was light and transparent when needed, deep and rich when the music called for it. Rhythm and pace were always absolutely excellent, and detailed sounds of every variety were spread through the entire sound stage. All in all, this table went head-to-head with the reference and came out shining.

Serious vinyl lovers should give this table an even more serious consideration.

*—Steve Bourke*

This turntable and arm have a disconcertingly home-made look, and the instruction manual, which is nothing short of essential with such a product, isn't even *that* good. If I hadn't heard, and even reviewed, Bill Firebaugh's products before, I would have feared the worst right there.

But if you stick your nose to the grindstone, or at least if your dealer does, you'll be rewarded. Bill thinks this is the best turntable he has ever made, and I'm prepared to agree wholeheartedly. Never mind the small details, some of which could be rethought; what you want to know is whether this device makes music.

It does. Using the same cartridge as on our Alpha reference turntable, we got superior results. This is a wonderful table and arm for music lovers. Does that include you? I suspected as much.

*—Gerard Rejskind*

I can't find a better word than Gerard's for the special sonic signature of this turntable. The word is "clean." I haven't heard them all by any means, but this is the one that had the least sonic fudge, mistiness around vocals, clouds in the highs, turgid bass. Bill Firebaugh has created something wonderful. According to my notes, where the reference provided some depth on *Laudate*, the Versalex provided an actual room space. The "s" sounds were clearer and silkier, more like the real thing.

Also, the table is stable. The rhythm on Dolly Parton's song just wouldn't quit. And the long, carolling ornament she sings had a joy that I hadn't heard the first time. I'd like to think that joy is *why* she sings.

If you can get past the setup stage — and you have every interest in having a dealer do that for you — you will be rewarded not merely with sound, but with music.

*—Toby Earp*