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REVIEW
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ACOUSTIC SIGNATURE TYPHOON NEO TURNTABLE & TA-5000 NEO TONEARM

REVIEW SEPTEMBER 12 2021,
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Does anyone really NEED a \$34,000 turntable/arm/cartridge setup like the Acoustic Signature Typhoon NEO, TA-5000 and Acoustical Systems Palladium?

Well, of course not!

Okay, let me qualify and rephrase that. If someone is a serious audiophile with a raging vinyl habit and the wallet to match, just how much better sounding is a vinyl source rig in that price range versus let's say something in the \$2K to 8K range? In other words, what kind of performance does \$34K really get you?

I'll just say that during my time with the Acoustic Signature Typhoon NEO turntable, TA-5000 arm, and that little number by Acoustical Systems called the Palladian cartridge, I frequently questioned my sanity—it was THAT good.

If I break it down and apply some advanced powers of audiophile justification—a game some of y'all are no doubt familiar with—things aren't quite as crazy as it first seems.

The Acoustic Signature Typhoon NEO retails for \$15,595. Their TA-5000 tonearm goes for \$7,895 and the Acoustical

Systems Palladian cartridge is a cool \$10,500. So really the turntable/arm combo is \$23,490 plus the cart of your choice. Pocket change compared to Acoustic Signature's top-line 'table, the Invictus, which will set you back \$189,995. (Alrighty, then. TechDas Air Force One Premium anyone? Might as well get it with the platinum platter option for \$162,000.)

Yet an Acoustic Signature Typhoon NEO with a TA-5000 arm at \$23,490 gets you near-perfect German engineering—direct off the Invictus lineage. Pfffft. Gimme a second one for the vacation house. And that is how you play the well-heeled audiophile justification game.

Now that I've gotten that out of the way, let's get down to bizness and find out what you vinyl fanatics get for all that hard-earned scratch. First off, if I could afford to consider something in this price range, I'd want three things: jaw-dropping sonic performance, a high level of technical innovation matched with build quality that feels commensurate with the price, plus some serious bling to the visuals. For me, the Acoustic Signature Typhoon NEO and TA-5000 exemplify this exact recipe.

When I first spoke with the American distributor for both Acoustic Signature and Acoustical Systems, Norm Stenke at Rutherford Audio, he asked if I wanted to review this stuff and of course I said yes—while having little knowledge of

the brands and what I was getting into. I just knew it looked hella cool and was expensive. I'm in!

Later, after doing the research, I came to have enormous respect for the tech, attention to detail, and CERN level of build quality that Acoustic Signature puts into their products.

Practically every part in the Acoustic Signature Typhoon and TA-5000 is built in-house at their factory in Suessen, right next to Stuttgart—the home of Mercedes, Porsche, and Bosch, among others. Acoustic Signature's investment in computer-operated CNC milling machines is massive. These machines ensure the tolerance of EVERY part made is within the spec range of 1 micron!

I found a video online of an Acoustic Signature factory tour and took away several key points: Co-CEO and head of design Gunther Frohnhofer is a man that knows and LOVES his mechanical engineering. The complex and mission-critical processes required to build his designs are not simply a means to an end for him. The organization and structure of the entire company from the CNC milling of huge aluminum blocks to the deluxe restaurant-level espresso machine in the employee kitchen is incredibly impressive.

Need a team of dexterously-gifted female workers to hand assemble tonearms? Check.

Want machines to do text engraving on metal parts and custom silk screen printing on other parts? Affirmative. You name it, they have it. And they do it with that famous German precision known the world over. Auch der Lieber!

THE ACOUSTIC SIGNATURE TYPHOON NEO IN USE

The boxes that arrived at my southern sonic paradise were huge, heavy, and well packed. The Acoustic Signature Typhoon NEO/TA-5000 weighs in at about 77 pounds, fully assembled. I'd definitely call that a high mass design.

Unpacking and assembly were ridiculously easy. I can be a real baby when it comes to this stuff, so if I say it's easy, it's easy.

The Typhoon NEO has three motors mounted internally under the platter. All you do is attach the bands to each motor spindle and around the sub-platter. This can sometimes be a real pain, but it wasn't on the Typhoon – owing to the clever design of the bands and paths they each encircle around the sub-platter. It's the little things, isn't it?

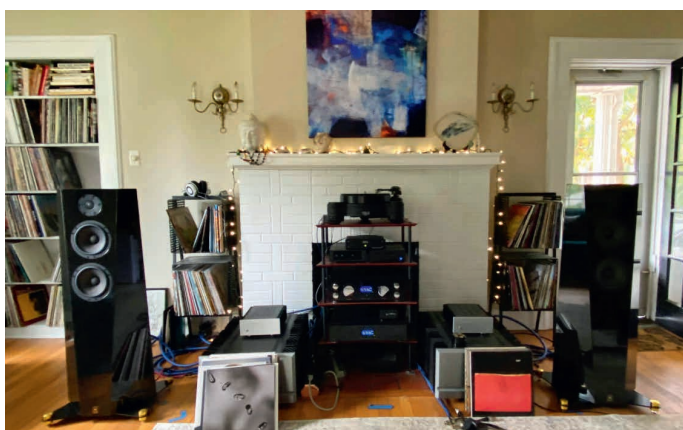
Uncover the tape protecting the pre-oiled bearing housing then guide the platter spindle into the shaft opening. Boom. Done. Attach the arm board to one of three arm pillars using the provided hex screws using a small hardware store's worth of provided tools, plug in the tonearm cable DIN plug inside the tonearm base, then screw the arm to the arm board. Ta da!

Oh, wait. Not so fast there, Sport. You have to put in that \$10,500 Acoustical Systems Paldian cartridge with its hand-hammered titanium alloy body. Then attach those it-sy-bitsy silver tonearm wires that you can barely even SEE. Oh, joy. What could go wrong? I started to get nervous, just thinking about all this.

"I think I need some moral support," I said to myself. Time to call The Audiophile Whisperer—my fellow PTA writer, North Carolina neighbor, road trip accomplice, and general 'Man On The Scene' Mr. Eric Franklin Shook. Fast forward a few days to when Eric made the trip to my spot. Why was I not surprised that after a few of my feeble attempts (complete with sweaty brow), Eric casually remarked as he watched, "You know I've done a fair amount of watch repair?" I said "Be my guest." then repaired to the kitchen to do what I do best, make a latte.

In short order, Eric had the beast properly mounted and sheathed with angel-hair tonearm wires. What can I say? He's a charmer.

We decided to give it a spin after a cursory alignment, although later on, I did a more rigorous setup aided by Richard Mak's brilliant AnalogMagik software-based cartridge alignment setup system.





I quickly grabbed a bedside table from my guest room and plopped the Acoustic Signature Typhoon down in front of my Quadraspire hifi rack. I wasn't ready just yet to remove my Rega P10, mainly cause I didn't know if the Quadraspire would support that much weight! Yep, the phono cables just reached the back of the VAC Master Preamplifier and the big moment was upon us.

I put on side one of my current crush album, *Petals for Armor* by Hayley Williams.

Wow.

It was almost sensory overload for me. The textures and grooves leaped out of the Acora SRC-2 speakers, powered by a pair of Pass Labs XA-200.8s being fed from the VAC preamp. Bubbling up from an astonishingly silent background (wait, is this on?) the first cut "Simmer" starts out small and grows into a huge, dramatically layered, yet nuanced AND pounding techno groove. Hayley had never until now, sounded this convincingly angry singing these lyrics.

Okay, a little bit bright on the very top but damn is this good. Eric said something like "Yeah, that SOUNDS expensive." As I listened, my mind was whispering to me about how we could afford this if we really wanted to...stop that. I thought back to my inner audio demon. Not today, Lucifer. Not today.

In the following weeks, the Palladian cartridge would break-in to mellow out that initial slight zizz I heard on top and blossom into a full, warm-yet-ultra-detailed thing of beauty. Alright. I get it. My Rega P10 is shockingly good but this is on a whole other level.

Ennnnd scene.

THE ACOUSTIC SIGNATURE TA-5000 TONEARM

Who even came up with that word? Tonearm. What about calling it the cartridge lever? Stylus controller? Oh, I don't know. I guess tonearm is cool in an old-timey kind of way since the whole record playing thing is basically a living

remnant of a time that doesn't really exist anymore. Maybe that's one reason I like playing records—for the time machine aspect of it. One thing is for sure, there is nothing old-timey about current cutting-edge tonearm design and the Acoustic Signature TA-5000 is no exception.

The physics involved when you try and suspend a phono cartridge over a vinyl record to track the groove information may be the same but modern high-tech solutions to the problems of attempting this, are not. The stylus (I like saying needle) needs to sit in the groove with the least force necessary and follow the microscopic squiggles of said groove, while at the same time minimizing contamination to this stylus movement by other forces. That contamination occurs from all that micro inertia caused by the movement of the stylus coupled to the mass of the tonearm and friction of the bearings. Add in a pinch of centrifugal motion for an incredibly complex and intertwined system involving low mass and high acceleration, moments of inertia, and other things that would have given Sir Newton a hissy fit.

I was a mechanical engineering major for a New York minute and failed college physics partly because I could never remember the form for polynomial equations. Solving simple harmonic motion problems eluded me. But I could put away some pints of brew and put AC/DC on the turntable in my dorm, so there was at least that.

I'm a little awed by the fact that in 2021 there is enough demand for high-end turntables (and tonearms) that a company will use spacefaring 21st-century engineering and spend many hundreds of thousands of Euro to assemble a factory using the most sophisticated computer-guided machinery. All that for the manufacture of very expensive devices used to playback an archaic, analog, music storage medium. Then again, there is also enough demand that I get paid handsomely to make pop songs play loud on an iPhone, so what's weirder?

ACOUSTIC SIGNATURE SPECS AND FEATURES

The Acoustic Signature Typhoon is somewhere around the midpoint in their latest NEO series—which is quite an ex-

tensive line of turntables. All the turntables follow Acoustic Signatures principles of a "high-mass low-resonance system" for achieving best performance. As you move up the line, there are more motors, heavier platters, more silencers (resonance reducing brass inserts in the platter), the ability to attach more and longer tonearms and the like.

The Acoustic Signature website lists the Typhoon's special features:

- 3 integrated, completely insulated AC-motors
- External digital motor controller DMC-20 with super stable multi-voltage power supply and innovative AVC technology level 2 (Automatic Vibration Control)
- Ultraprecise, extremely rigid and robust DTD® bearing with diamond-coated spindle (Dura Turn Diamond® Bearing)
- Exclusive Silencer technology for effective reduction of platter vibration with 24 Silencer modules
- Massive aluminum chassis with CLD technology (Constraint Layer Damping) for significantly improved resonance behavior
- RPM-regulated double belt drive with speed fine adjustment for the subplatter
- 3-point setup with special gel-damped feet
- Prepared for up to 3 tonearms
- Up to 3 adjustable arm boards for 9 to 12 inch tonearms
- Flexible placeable control panel
- 15-year warranty (with registration)

Acoustic Signature also has an extensive line of NEO series tonearms, six to my count. I was sent the TA-5000 for my listening tests. The TA-5000 is third down from the flagship TA-9000.

The TA-5000 special features are listed as being:

- Tonearm with triple-layer carbon armtube
- Low resonance, rigid tube design
- Available as 9" and 12" version
- Optimal tracking results due to pre-tensioned high-precision hybrid ball bearings by SKF
- Better rigidity and smooth operation due to stainless steel tonearm axis design
- Internal high-purity silver wiring (4N)
- Supplied with external Audioquest 5-pin phono cable (RCA)
- Counterweight made of brass
- Adjustable VTA & azimuth
- Anti-skating knob
- SME-type mounting versions
- 5-year warranty (with registration)

SONIC IMPRESSIONS OF THE ACOUSTIC SIGNATURE TYPHOON NEO

After looking up the specs on my Quadraspire equipment stand, I found out it was safe to put my beastly German friend in his place of honor atop the rack. This was after I did an extensive fine tune of cartridge/tonearm parameters using Richard Mak's AnalogMagik setup tools. I was able to

get good numbers using the Acoustical Systems Palladian cartridge in the Acoustic Signature TA-5000 arm.

Norm from Rutherford Audio was very kind to basically toss in a \$10,500 MC cartridge so I could ostensibly hear the Acoustic Signature Typhoon NEO at its best. Later, I swapped the Palladian out for my own reference Charisma Audio Signature One MC cart and do another full round of setup using AnalogMagik.

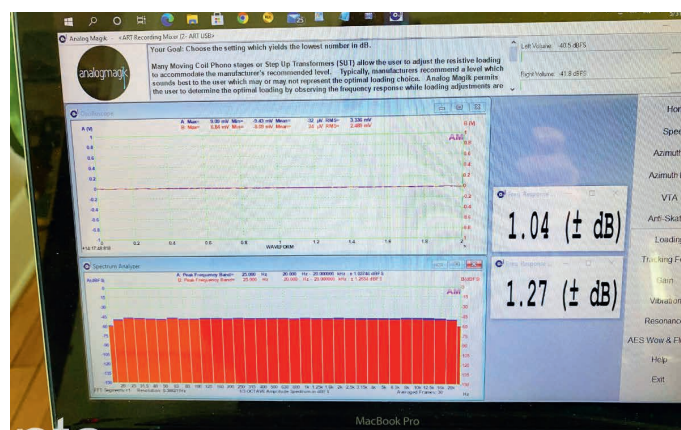
Some of the numbers were marginally better on the Charisma cart, but wow, the Palladian sounded incredible. Obviously, the numbers alone don't tell the whole story. I spent the majority of my time using the Palladian on the Acoustic Signature Typhoon, which was an absolute joy.

On a side note, I couldn't find anything in the Acoustic Signature TA-5000 tonearm manual to indicate azimuth adjustability. I was later informed that the 2 gold screws near where the arm tube attaches to the bearing assembly do in fact allow for azimuth adjustment. The arm is also equipped for VTA adjustment, which I found effective but I wished for calibration marks on the base tube or some other kind of visual aid.

TITANIUM, BABY

Most readers will know Acoustical Systems for making what is my favored cartridge alignment protractor, their Smart-Tractor. Some readers may even know Acoustical Systems for their two highly regarded tonearms but I'll confess that I had no knowledge of their cartridge line—with the titanium alloy bodied Palladian, sitting at the top.

After maybe 40 or 50 hours, the Palladian morphed into the most delicious sounding transducer I've yet heard in my system. The first thing I noticed during the virgin sonic reveal was the incredibly low level of any noise associated with a needle on a record. Shockingly quiet. Nearing digital quiet when playing a clean, carefully pressed record. After a full alignment it was even better. The VAC Master Preamp section is also impressively quiet—I still can't figure



out how Kevin Hayes of VAC can make a fixed high-gain, vacuum tube phono circuit sound this quiet—in addition to its beautiful overall sonics.

So with the absolutely silent Acoustic Signature Typhoon and its three-motor, German perfection level bearing, hermia inducing amount of mass, and equally precise TA-5000 tonearm shepherding a beauty pageant winning titanium cartridge around my record collection, it was all enough to make me lose my grasp on reality.

This combo of table, arm, and cart was supremely special.

I did a fair amount of comparing back and forth between the Acoustic Signature Typhoon/TA-5000/Palladian setup and my Rega P10 with the Charisma cart. Going to the P10 produced more angsty sense of excitement or aliveness on any given record. Swapping back to the Acoustic Signature Typhoon setup was always an ahhhhhhhhhhh, sigh of relief kind of moment.

The Acoustic Signature Typhoon setup does that thing that only a handful of components do. I heard a dramatic portrayal of dynamic contrasts. All those dynamic moments portrayed in a highly damped but never dry sounding way, combined with an absence of any added texture or detectable distortion and tiny resonances, leaves just the music to spring forth from the speakers.

CONCLUSION ON THE ACOUSTIC SIGNATURE TYPHOON NEO AND TA-5000

I've written before about my love of vinyl and how that it's not nearly as faithful to the source as the digital counterpart. I've found that I can definitely enjoy the sound of records without having to have a mega-expensive analog playback setup.

Some readers might even think what can possibly be gained past the point of the many fine sounding turntables available in the sub \$4k or so range. If vinyl is such an imperfect medium then why obsess about one micron tolerances for tonearm bearings and such?

It turns out that much in the same way that some very clean electronic components and summit level loudspeaker systems can imbue music playback with a special excitement and musical engagement just by virtue of what colorations are missing as opposed to colorations being a signature part of the sound, the same holds true for turntables. And just as interesting is the notion that even when super clean vinyl playback starts to get close to digital clarity, that vinyl record still has an inherent something extra that I like hearing.

I heard a whole lot more of what I love about playing records when I played them on the Acoustic Signature Typhoon NEO/TA-5000 setup. Enough said.





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