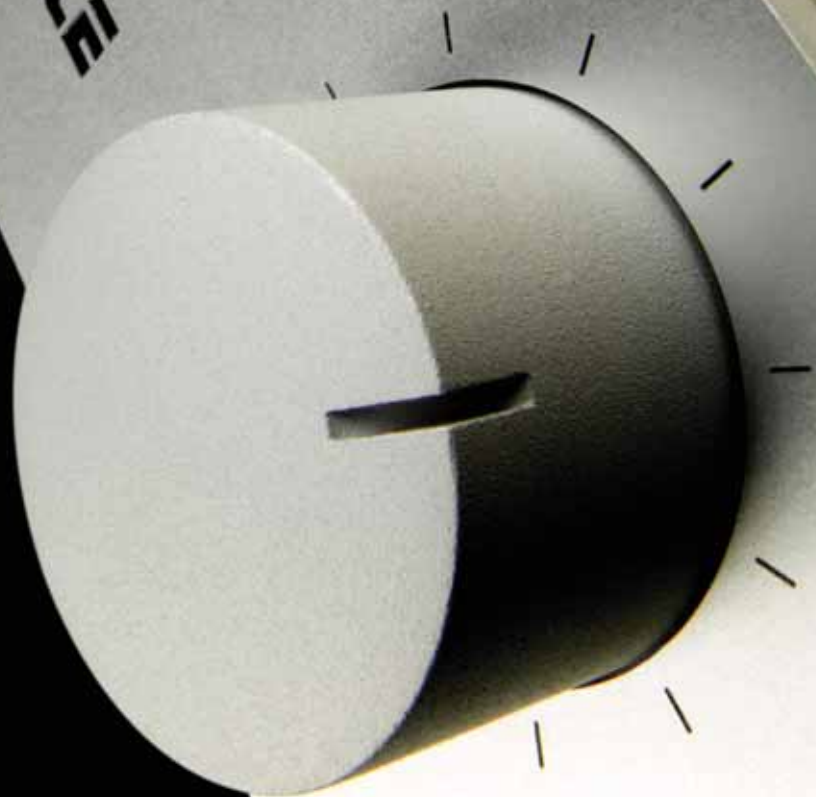




input

VACUUM STATE
svp2



hi-fi+

Vacuum State SVP-2 Pre-amplifier

by Roy Gregory

Take a quick look at the SVP-2 pre-amp and you'll probably conclude that it's not much to look at, both a physical and an aesthetic judgment. Factor in the cost of ownership and your next conclusion will be that it's over-priced too. Indeed, this simple, lightweight box seems almost old fashioned in these days of CNC'd casework on even the most affordable products, touch screen controls and multi-functional versatility.

But that's because it is.

The Vacuum State designs represent a category, a type of product that has all but disappeared from hi-fi shops these days. This is a carefully honed and hand-crafted, purpose built unit, manufactured in tiny quantities with one aim and one aim alone; to sound as good as it possibly can. Of course, there are many that make such claims, and "hand-crafted" is an imprecise term. But in the case of Vacuum State we don't just have to take the manufacturer's word for it. In fact, we have words on words, extensive documentary evidence of the thinking and philosophy behind the SVP-2, published in the shape of designer Allen Wright's Tube Pre-amp Cookbook, a mix of theory, schematics and kits for advanced DIY projects. And just like his cables (reviewed on page XX) he encourages an enquiring and experimental mindset and the free exchange of information. The SVP-2 is a commercial product, but it wears its purist credentials well and truly on its sleeve.

So what has all this effort wrought?

Here we have a beautifully executed, minimalist circuit constructed from components selected, item by item, with an almost obsessive zeal. Nor is this just a regurgitation of established practice, gilded with a few little tweaks – just witness the company's differential 300B mono-blocs if you want to see a novel circuit! Likewise the heavily shunt regulated, current sourced power supply used here. The SVP-2 is designed

to deliver state of the art performance



from a single-ended (non differential) topology, employing a hybrid J-fet/6922 valve MC phono-stage along with an all-tube line section. The phono-sockets might look low-rent but have been selected specifically for their superior sonic performance, while you also have a choice of a variable resistor or stepped attenuator volume control. Components within the circuit are matched to exacting standards, particularly in the RIAA equalization, where any imbalance will be magnified dramatically.

But the design also recognizes that optimum performance depends on more than just the circuit and the components in it. System interfacing is critical to achieving the best possible sound, so the SVP-2 offers a range of

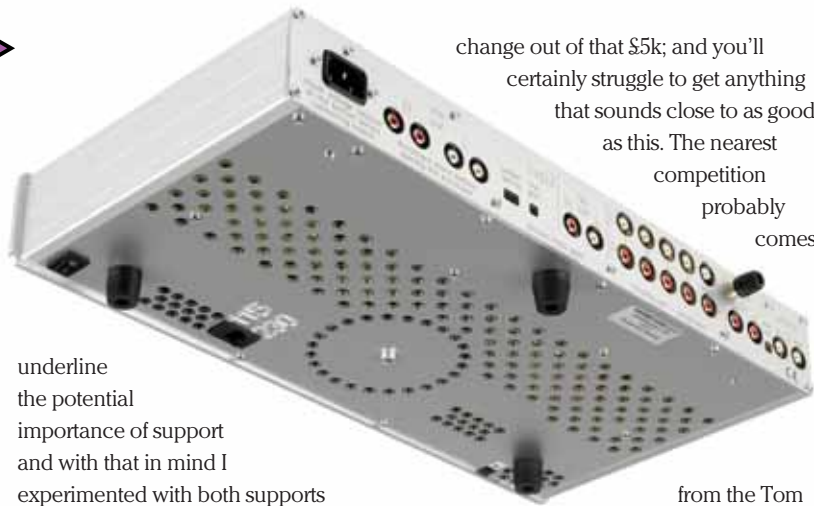
adjustment that's unusual except in the most sophisticated valve pre-amps these days. The phono-stage can be configured for MC (65dB of gain) or MM (50dB of gain) sensitivity, with parallel loading plugs to optimize input impedance.

The standard value for both settings is 47kOhms, with 1 kOhm and 100 Ohm loading plugs supplied. Specific values are also available if necessary. The line stage can be adjusted to provide either 12 or 18dB of gain (raising both MM and MC sensitivity by a further 6dB), while an attenuated input (labeled D) reduces all

those values by 12dB. All these

settings are available on the rear panel, and in combination, they allow you to configure the gain profile of the unit to ideally match your system.

Whilst Vacuum State suggest that they've done everything they can to extract performance from the circuit, short of spending vastly more money, they also point out that external factors will affect performance, and are keen for users to try decent cables (including their own), power cords and equipment supports. Naturally, I wholeheartedly agree, but especially when it comes to isolation. The SVP-2's casework is far from the most substantial I've come across. When cold, switching the input or volume control made the top-plate of the review sample ring, a reaction that's reduced but not eliminated as the unit warms up. Whilst I'm assured that this isn't typical, it does ▶



change out of that \$5k; and you'll certainly struggle to get anything that sounds close to as good as this. The nearest competition probably comes

underline the potential importance of support and with that in mind I experimented with both supports and damping the lid, ending up with a combination of a finite-elemente Resonator on the front edge of the top-plate and either Stillpoints or a Vertex kinibalu underneath. Of the supports, the most cost effective solution proved to be a trio of Stillpoints cones and risers, whose separation, dynamic definition and clarity of purpose really raised the SVP-2's game.

Without the attention paid to support first impressions of the Vacuum State pre-amp can come across as a shade blurred and indistinct. But listen a little closer and the degree of instrumental texture and the tactile quality to the playing suggests otherwise. Sure enough, once you go to work on the casework, the dividends in transparency, focus and clarity are pretty dramatic. Always intimate and immediate, its rich and vivid mid-band underpinned by weighty, emphatic low frequencies, the Stillpoints rip away a haze between players, adding depth to the soundstage and focus to images, a lively crispness to dynamics that puts a spring in the music's step, a sense of forward momentum when required, restraint when needed.

Now, around £5k might seem like a lot for a unit that demands this level of remedial care, but let's not forget that this is a full facilities pre-amp aimed squarely at audiophile end-users with a heavy penchant for vinyl replay. Go looking for a serious phono-stage and line-stage combination and you won't get much

from the Tom Evans Groove and Vibe combination, a similarly hair-shirt pairing but one that sounds very different indeed.

Perhaps the most impressive thing about the SVP-2 is just how quiet – actually, make that near silent – the phono-stage is. With the volume wicked right up all that emerges from the speakers is a very low hum, audible only with your ear pressed against the baffle, and no hiss at all. Gain is perfectly sufficient to accommodate cartridges as diverse as the Lyra Skala and vdH Condor that I used, although I might want to increase the internal gain if venturing below the realms of 0.3mV – something that can be accomplished by the factory or a trained technician. Even loading the cartridges down to 100 Ohms failed to rob the sound

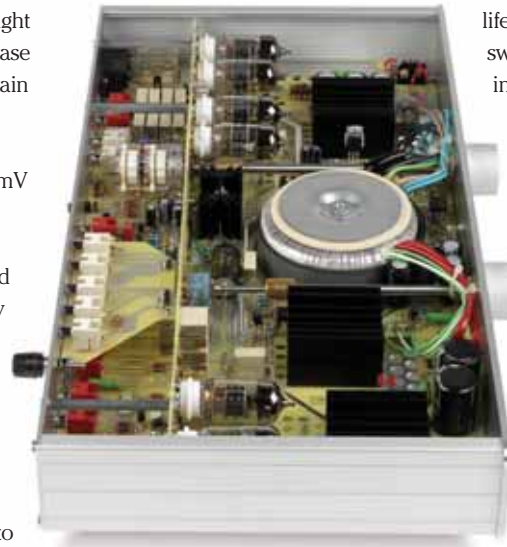
of life and energy, leaving the system with ample headroom and dynamic range, even with the 18 Watt Vacuum State mono-blocs driving the Martin Logan CLXs. In fact, this combination proved so

successful that it dominated the listening, although the SVP-2 proved equally at home with the solid-state Belles MB-200s.

How does it sound? This pre-amp will breathe a gust of fresh air into just about every system it comes across. Majoring on immediacy and presence, it is musically direct and bubbling with energy. Whereas most pre-amps seem to variously constrict or sit on the sound, the Vacuum State propels it into your listening room on a wave of sheer enthusiasm. And it's not a case of "never mind the quality" either... The SVP-2 is plenty careful with its musical Ps and Qs – it just doesn't let them get in the way. So, if you play the Cisco re-issue of the Heifetz *Kreutzer* recording, you'll hear the subtle slips in technique, the atonality as he accidentally brushes a second string on the sustained note at the end of his first, fast phrase. But, it's the pace of the bowing, the rich harmonics, the power of the instrument that will capture your attention, along with the poised stability and sonority of the carefully weighted piano part. The musical balance is superb in this performance; the SVP-2

conjures it vividly to life, capturing the swagger of Heifetz in his pomp.

Swap to my favourite Martzy performance on *Coup D'Archet* and the music speaks with a clearer voice as the egos take a back seat. But the really impressive thing is how this pre-amp highlights the



contrast betwixt and between without belittling either.

At the opposite end of the intellectual scale, the B52s' 'Dance This Mess Around' is a riotously over the top slab of high- ▶

► energy rock. Yet the SVP-2 never loses its grip on the beautifully tactile bottom end, never diminishes the instrumental and vocal contrasts that make this track so engaging – and so difficult to reproduce. Instead it gives it to you full-bore, with dramatically impressive results. When Kate Pierson states that, “I’m just askin’...” there’s no doubting the disdain.

Looking for shortcomings you’ll need to compare the SVP-2 to the very best (and most expensive) units out there. Do that and you’ll find it lacks a degree of rhythmic dexterity; changes of pace it handles beautifully, but the shorter duration hesitations and stutters that punctuate musical phrases and demarcate a player’s sentences are less distinct, glossed over by the feeling of fluid momentum. So, the staccato, off-beat piano chords that set up the easy smooch of the Count’s ‘Beaver Junction’ lack that sense of hesitant anticipation – although that dirty, dirty groove makes it perfectly clear that we’re not talking amphibians here.

Likewise, absolute levels of resolution and transparency are lacking, especially when compared to the more etched presentation of something like The Groove, which picks the tiniest details out of the mix that much more readily. It also means that images rest more on the performers, less than the overarching acoustic space. But this is where taste comes in. You want detail uber alles or ultimate dimensionality, look elsewhere; you want that elusive sense of flow and musical expression then look no further. Ohh... You want them both? Be prepared to spend Connoisseur type money – or rather more than three times the price of the SVP-2 for the line-stage alone.

Of course, there are plenty of (far more impressive looking) valve pre-amps out there, boasting lusciously warm tonal colours and thunderous dynamics. But the SVP-2 is in a class apart from the majority of them. Essentially neutral, it achieves a

Singing a different tune...

Whilst genuinely new valve topologies might be thin on the ground, the different building blocks can be stacked in many different ways, as demonstrated by the SVP-2. Developed after extensive listening and technical research into most of the ‘known’ configurations, the result is an interesting combination of topologies. The output stage consists of an ‘enhanced’ cathode follower, where two further triodes are used to provide a current source and cascode operation, improving performance with high capacitance or longer cables. I suspect it also ameliorates the slightly vague, hazy presentation that often accompanies standard cathode follower outputs.

The power supply has undergone a similar degree of refinement; having analysed the shortcomings of series type regulation the designer has opted for a ‘shunt’ based circuit augmented by a constant current source. This provides a fast, clean supply with more effective absorption of stored energy that could otherwise be reflected back into the amplifier via the signal cable.

But by far the most radical product in the Vacuum State range has to be the dpa300B mono-bloc, a fully differential 300B based circuit delivering 18 of the sturdiest Watts this side of the Lamm ML2.1. These amps belie their modest power rating with an ability to drive and control speakers with an astonishing combination of authority and subtlety that places them firmly in the front rank – where they clearly need to be given their elevated price. “But what sort of speaker can you drive with 18 Watts?” I hear you scoff. You might be surprised – you might be very surprised...



remarkable level of balance and musical coherence. It’s sense of flow and expressive range rests on its timbral and textural continuity, its overall control of the musical bandwidth as a whole. That’s what allows it to go slow as well as fast, to give performers a physical presence without resorting to cranking up the second order harmonics – and slugging the dynamics and immediacy as a result. This coherence and innate sense of stability also allow the Vacuum State to make the most of differences between formats; SACD’s superiority over red-book discs is manifest, but vinyl still rules the roost.

Above all, playing music through the SVP-2 allows it to breathe, allows it to move. That rumbling bass intro on the Gorecki 3rd is beautifully floated and never lags, cranking up the musical tension with each stacked phrase. The power and energy of a good rock

recording will have more than just your feet tapping and orchestral tuttis will have you conducting with gusto. As the inimitable Ms. Pierson might say, “Hippy, hippy forward, hippy, hippy, hippy shake”!



TECHNICAL SPECIFICATIONS

Type:	Full facilities valve pre-amp
Valve Complement:	6x 6DJ8/6922
Inputs:	1x phono (MM/MC) 4x line 1x attenuated
Outputs:	2 pr main out 1 pr tape
Output Impedance:	100 kOhms
Dimensions (WxHxD):	442 x 74 x 270mm
Weight:	4.3kg
Prices -	
Potentiometer volume	£4995
Stepped attenuator	£5450

Manufacturer:

Vacuum State GmbH
Net. www.vacuumstate.com