

# Brinkmann Spyder

Sporting a unique modular design that accommodates multiple tonearms, a tube-based PSU for the motor and novel heated bearing, this super deck is far from run of the mill  
 Review: **Nick Tate** Lab: **Paul Miller**

Does the world *really* need another high-end turntable? That's the question Brinkmann's Spyder has to answer, because there's already a surfeit of fancy vinyl disc spinners sitting pretty in this high value market. This deck needs to be special in some way then, and so it proved. Costing £9795 in basic form, it's one of two belt-driven decks in the German company's range of hi-fi separates, sitting alongside the Balance 2 [*HFN* Jul '14]. Brinkmann also makes the Bardo and Oasis direct-drive turntables, which themselves are interesting and innovative things.

## FOREARMED

The Spyder is most assuredly not from the traditional 'Thorens TD150 school' of turntable design. True, its platter is spun by a rubber belt, but that's about all it has in common. First, it has a modular construction that accommodates up to four tonearms of up to 12in length by virtue of specially designed, bolt-on arm 'pods'. Our deck came configured for the £3895 Brinkmann 10.5 tonearm, but it should be pointed out that, with more than two arms fitted, the Spyder would be pretty crowded, making it hard to use.

Another fascination is its novel heated bearing. Brinkmann says that in order to smoothly rotate the heavy platter, the bearing has to have minimal play. With such fine tolerances, the different coefficients of expansion of the materials used becomes an issue. This is why the bearing is heated electronically to ensure that it is largely immune to a changing ambient temperature.

Brinkmann's so-called 'Sinus' motor is supplied, which is designed to reduce cogging. The arrangement of the driving coils and the neodymium magnets in combination with

the drive circuit delivers 12 pulses per revolution, and these power what is effectively a 500g flywheel, giving a smooth feed to the platter. This motor can be aspirated by Brinkmann's optional RÖNT II vacuum tube power supply [see PM's boxout, p39], again supplied here and costing £2995. Hence the Spyder, as tested, adds up to a cool £16,685.

The large 10kg alloy/crystal platter is driven around its edge by a thin rubber belt from the offboard motor. Its housing has to be placed 7.5cm (3in) from the edge of the platter to guarantee correct speed stability, with the deck sitting on a uniformly level surface. It sports the usual two speeds, with an LED indicator to show the motor is powered. Two top-mounted speed-trim pots sit either side of motor control buttons.

The arm pods bolt quickly to the main chassis, and contain detachable arm

mounting plates, plus rear-mounted RCA phono sockets (XLR or feed-through is also available) which – if they're specified for Brinkmann tonearms such as the 10.5 – come pre-wired to simply plug straight

into the base of the arm itself. This is a neat arrangement and makes setting-up the deck less fiddly. You start by bolting an arm pod to the main chassis, gently lowering that heavy platter down into place, then aligning

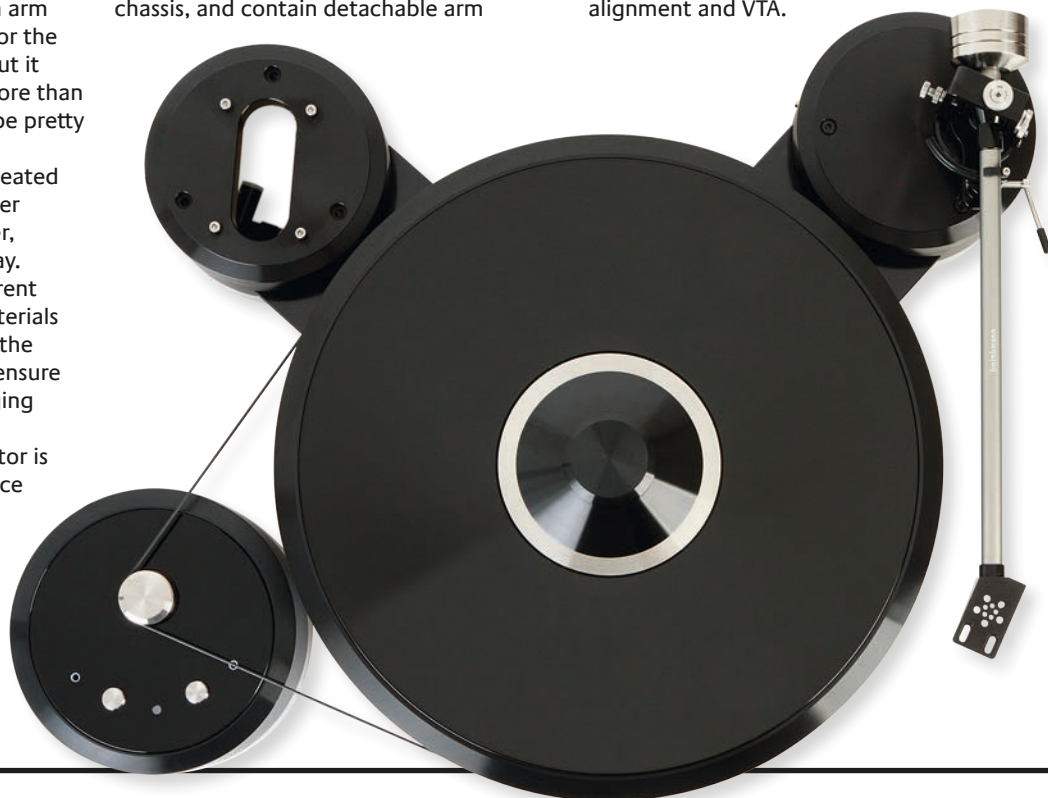
the motor housing. Then you connect up both the motor and bearing power supplies before installing the tonearm.

*'It's fun to kick off the audition period with a poor recording'*

## OOZING QUALITY

The Brinkmann 10.5 went on very smoothly with the appropriate arm plate that came with the deck, so it became a question of mounting the cartridge, balancing the arm, adjusting the cartridge alignment and VTA.

**RIGHT:** Freestanding motor sits to the left of the chassis and drives the 10kg alloy platter via a groove around its edge. Up to three 'quick release' arm positions may be accommodated





The tonearm itself is a beautifully finished design. It has a claimed dynamic mass of 12g so will work well with most modern cartridges [see PM's Lab Report, p41]. The tube is made from aluminium and stainless steel, with a so-called 'high tech synthetic material' also used, while the headshell has an anodised finish and is not easily detachable. Double gimbals with precision ball-bearings are used in the bearing, and there are adjustments for VTF, VTA and headshell azimuth – additionally, magnetic antiskating is fitted.

In use, this turntable feels lovely. It oozes quality and gives no impression that engineering corners have been cut. There are no creaks or groans from the belt as the deck spins up to the correct speed, although it does take a quite long time (seven seconds) to reach 33rpm, and slightly more for 45rpm – during this time the motor remains absolutely silent and

never protests. The 10.5 tonearm is equally classy, with a beautifully silky feel when you hand-cue your LP tracks.

### **STRONG AND STABLE**

There are some turntables that fly their analogue flags high, so to speak. They deliver a highly partisan view of the recording, one that's rich, euphonic and romantic – the idea is to beguile the listener. There are others that are so forensic and analytical that it seems they secretly want to be measuring instruments. It's as if they'd be happier working as seismographs, monitoring minute ground tremors, than playing music.

The Brinkmann Spyder is neither of these, treading a carefully judged path between the two extremes to offer a well-rounded, neutral reading of the recording. Indeed, it is very even, measured and detailed, without being in any way a killjoy.

**ABOVE:** Simple, but elegant, the Spyder's modular construction confers a high degree of flexibility and 'upgradability'. The glass platter surface must be kept scrupulously clean...


In the great analogue scheme of things, that's surely what most people want.

It's always fun to kick off the auditioning period with a particularly poor recording, and so it was that my well-campaigned pressing of 10cc's *How Dare You!* [Mercury 9102 501] was deployed – scratches, crackles and all. 'I'm Mandy, Fly Me' proved an unexpected treat via my reference Lyra Dorian MC, delivering a powerful sound that had something of a master-tape feel to it. So while the Spyder takes a tempered view of what it's being asked to play, it's still clearly detailed enough to capture the recording's natural energy.

There's a surprising amount of dynamic scale to its sound that is notably less compressed than with other decks. When the music gets loud, the Spyder happily conveys this without breaking into a sweat, yet it can eke its way deep down into the spaces between the notes to capture the subtleties of the music. This is an authoritative-

sounding turntable that takes everything effortlessly in its stride.

### **A FOG CLEARS...**

The Spyder has great technical ability: it is an extremely stable-sounding device, devoid of the speed issues that plague lesser turntables. This brings great focus to the sound, which lets it excavate masses 

### **RÖNT II 'TUBED PSU'**

As standard, the Spyder turntable comes with a compact outboard supply [far right] that provides the 24V for Brinkmann's proprietary 'Sinus' motor and a secondary supply for the heated bearing assembly. An upgrade for the motor is available in the form of the £2795 Rönt II power supply [main inset photo] which employs tubes for both rectification and regulation. In this case, the valve lineup includes one 5AR4 full-wave rectifier feeding two high current, low resistance PL36 tetrodes – sufficient to deliver the 500mA required momentarily to overcome the platter's inertia. Incidentally, the PL36 was originally released in 1956 and was designed for driving the line timebase output of CRT television sets, so its duties here are well within its compass. Indeed, Brinkmann even goes so far as to claim 'the tetrodes are good for 10,000 hours under full load...'. Users will need to take care with the heat generated by the Rönt II however, and Brinkmann supplies an optional marble plinth by way of cooling. In all instances, the original PSU is still used to heat the main bearing. PM



## BRINKMANN SPYDER



**ABOVE:** The PSU for the heated bearing connects via an umbilical [centre]. Each 'quick release' tonearm outrigger has captive leads that connect into the underside of the chosen arm and are terminated in gold-plated RCAs to the outside world

of low-level detail. Things snap into place and one feels like the fog has lifted from the recording. The effect is clear everywhere, from its deep, extended bass – which starts and stops snappily – to the treble, which is finely etched, spacious and crisp.

In the midband you find yourself fixating on the beauty of vocal harmonies, for example, or the purity of aggressively struck steel guitar strings. Cue up a classic rock track like Kate Bush's 'Babooshka' [Never For Ever; EMI EMA 794] and you're greeted with an impressively deft rendition of those opening arpeggios with their stinging attack transients – which lesser turntables invariably slur. Only a few select direct-drive turntables do better on this particular song, which is really saying something.

### SCALE AND STATURE

Indeed the Spyder is devoid of any nasties that distract the listener – disc surface noise seems very low, the deck's 'drive train' keeps vanishingly quiet and the tonearm tracks most securely. Another enjoyable aspect of its character is its particularly fine soundstaging.

For example, Steely Dan's classic 'Rikki Don't Lose That Number' [Greatest Hits; ABC Records AK-1107/2] almost seemed as if it had been electronically enhanced. What is a good but pretty unremarkable recording suddenly assumed a scale and stature that I rarely hear, pushing far left and right, with excellent depth perspective too.

It was as if the studio had somehow been magically beamed into my listening room, giving an almost ethereal quality thanks to all that space around the various instruments in the mix. This meant I could easily discern each individual player, and enjoy hearing every one

of the talented session musicians playing along with one another in a sympathetic and organic way. Everything was located accurately inside the soundstage, staying 'nailed down to the floor' even on dynamic crescendos.

### A SUBTLE LILT

The Brinkmann Spyder's superb soundstaging certainly made Handel's *Messiah* [Dunedin Consort & Players; Linn Records CKH 312] a delight, but there was more to it than that. It's perfectly possible to have technically adept turntables that still end up making the music sound rather uninteresting, but the Spyder is not one of them.

Although one would never say it was emotionally exuberant, it boasts a pleasing wholesomeness as the rhythmic aspects of the music are pieced together in a clear and enjoyable way. On this excellent recording, the Spyder proved able to let the orchestra breathe, serving up a subtle, lilting quality. Even on big crescendos it remained calm and collected at all times. Overall then, it's a pretty flawless performer. ☺

### HI-FI NEWS VERDICT

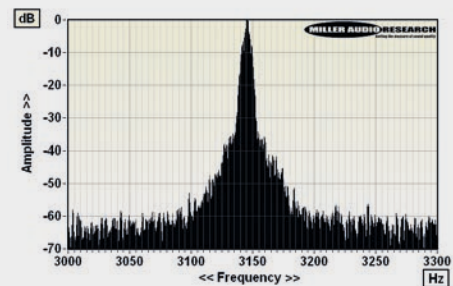
In the great scheme of high-end turntables, Brinkmann's Spyder is a redoubtable device. It offers rhythmic ease, great clarity, a smooth tonal balance and expansive soundstaging – making it a highly enjoyable listen. Factor in its excellent finish, flexible design and overall engineering, and even at this price it is fine value. Those fortunate enough to aspire to such a thing should consider it an essential audition.

Sound Quality: 87%

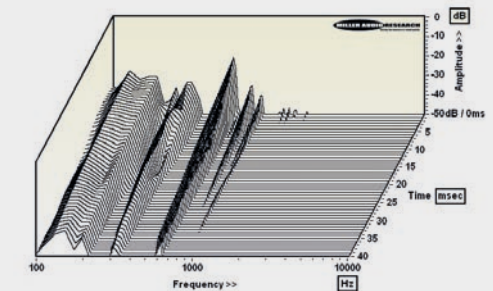


The Spyder turntable's heated bearing assembly claims to maintain the tolerances of its stainless steel spindle and brass sleeve despite rotational friction and variations in environmental temperature. Left to run-in over a 12-hour period the Spyder achieved almost precisely the same performance I had measured for the Brinkmann Balance [HFN Jul '14] with a fine DIN B-wtd rumble of  $-71.5\text{dB}$  via the bearing and  $-68.3\text{dB}$  via the LP groove. The 10kg alloy platter, with integral glass 'mat', is up to speed within 7secs and while there's a small  $\sim 0.5\text{dB}$  reduction in groove noise with the clamp in use, the hard glass surface must be kept scrupulously clean. Excellent speed accuracy is possible via the 33.3/45rpm trimpots, the deck offering a low peak wow (0.02%) and flutter (0.03%) [see Graph 1, below].

The partnering Brinkmann 10.5 tonearm features a hard-anodised alloy tube with semi-permanent headshell (it is held in place by an allen bolt, permitting some adjustment of azimuth) and offers an effective mass of 12.5g, making it suitable for a wide range of top-flight MCs. The cumulative resonance spectrum shows a series of moderate-to-high Q modes [see Graph 2] with the main tube bending resonance deferred to a very respectable 140Hz, and what is presumably a twisting mode at 180Hz. Harmonics appear at 300Hz and 600Hz, the latter, again, a fairly high-Q (sharp) mode with only moderate damping. The minor higher frequency modes are related to the headshell and two U-section gimbal yokes. Bearing friction/stiction is extremely low at  $<10\text{mg}$  in both planes while the gimbals are perfectly adjusted to ensure zero detectable free play. This is precision engineering, from top to bottom. PM



**ABOVE:** Wow and flutter re. 3150Hz tone at 5cm/sec (plotted  $\pm 150\text{Hz}$ , 5Hz per minor division)



**ABOVE:** Cumulative tonearm resonant decay spectrum, illustrating various bearing, pillar and 'tube' vibration modes spanning 100Hz-10kHz over 40msec

### HI-FI NEWS SPECIFICATIONS

Turntable speed error at 33.33rpm	33.28rpm ( $-0.16\%$ )
Time to audible stabilisation	7 seconds
Peak Wow/Flutter	0.02% / 0.03%
Rumble (silent groove, DIN B wtd)	$-68.3\text{dB}$
Rumble (through bearing, DIN B wtd)	$-71.5\text{dB}$
Hum & Noise (unwtd, rel. to 5cm/sec)	$-59.9\text{dB}$
Power Consumption (with R0Nt II)	75W (65W idle)
Dimensions (WHD) / Weight	500x160x400mm / 21kg