

Carbon dating

The minimalist appearance of Pro-Ject's RPM 9 Carbon deck belies its high-tech design. **Neville Roberts** takes it for a spin



DETAILS

PRODUCT
Pro-Ject RPM 9 Carbon

ORIGIN
Austria/Czech Republic

TYPE
Belt-drive turntable

WEIGHT
16.7kg

DIMENSIONS
(WxHxD)
440 x 180 x 325mm

FEATURES

- 33 & 45rpm
- 9CC Evolution carbon-fibre tonearm
- Optional Ortofon Quintet Black cartridge (£400)

DISTRIBUTOR
Henley Designs

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Not wishing to rest on its laurels, Austrian-based audio specialist, Pro-Ject, has introduced another model to its comprehensive line of turntables that spans an impressive range of models to suit just about every budget. The RPM 9 Carbon sits towards the upper end of the range and makes use of modern materials combined with new manufacturing processes to produce a deck with an extra-heavy, mass-loaded sub-chassis that is decoupled from its support surface using magnetic feet. The teardrop-shaped plinth is manufactured from an advanced sandwich construction of MDF, carbon fibre and steel pellets that has all been subjected to a thermo treatment.

The polished 7.2kg aluminium platter has a vinyl top and is fitted with an inverted ceramic main bearing that has been designed to deliver stable speeds with very low rumble. The platter assembly achieves this by making use of TPE (ThermoPlastic Elastomer) damping and is topped with a hard vinyl mat while a heavy (0.8kg) record clamp is also supplied.

The RPM 9 Carbon is adept at extracting all of the subtle nuances from music

Spinning the platter is a precision DC-driven, AC generator used to electronically control the speed at 33 or 45rpm. The motor is a freestanding outboard design and there's a heavy steel base support for it to sit on. The drive is coupled to the platter via a circular cross section rubber belt.

The deck is partnered with Pro-Ject's 9CC Evolution tonearm, which employs a conical carbon-fibre arm tube fitted with very flexible high-quality copper internal wiring. The conical design is said to minimise standing wave reflections within the arm and the arm tube is held in place with a single screw to allow rotation for easy adjustment of stylus azimuth, despite having a fixed headshell. The headshell itself is a continuous part of the moulding of the armtube and also has a finger lift moulded on the outer side. The solid arm base permits accurate height adjustment of the tonearm and so the VTA (Vertical Tracking Angle) of the cartridge. A minor niggle is the obtrusive earth connection behind the cartridge that might touch a warped record if the arm is fitted with a small cartridge. ▶

The freestanding outboard motor and speed control give the RPM 9 Carbon a touch of class



HOW IT COMPARES

It would seem appropriate to sit the Pro-Ject RPM 9 Carbon next to a Rega RP8, which is a similar price. Both turntables are fitted with a DC-powered, AC motor with electronic speed control. The Pro-Ject is fitted with a 9CC Evolution carbon fibre tonearm and the Rega sports an RB808 black metal arm. The Pro-Ject's plinth is a special sandwich construction of MDF, carbon fibre and steel pellets, while the Rega uses a combination of magnesium and phenolic resin in a dual-braced construction. The Rega makes use of a three-piece laminated glass platter, while the Pro-Ject is fitted with a weighty TPE-damped aluminium platter. Although the Rega is stylish, the minimalist carbon fibre look of the Pro-Ject is just a touch more modern in design.

A Connect-IT 5P-CC phono cable with RCA plugs is fitted and an XLR option is also available to special order at no additional cost. This is an electrically shielded cable made with pure Oxygen Free Copper conductors with an additional layer of carbon fibre, making it very flexible with low capacitance and good screening.

Henley Designs can fit an Ortofon Quintet Black medium-compliance moving-coil cartridge for an extra £400, but for this test I install a Lyra Clavis DC moving-coil cartridge, costing £1,500.

Four counterweights are supplied to enable the arm to work with a wide variety of cartridges. I have no trouble in setting up the 1.75g stylus force recommended for the Lyra Clavis DC cartridge. The nylon thread of the bias weight is passed over the support and looped onto the middle groove of the arm pillar for the 17mN (or 1.75g) tracking force. I then check the VTA and azimuth as per the deck's instructions. We're then good to go.

I always like to check out the basic parameters of a turntable and arm before commencing any listening tests using a Vinyl Essentials test record.

With the Lyra I find that the tracking ability of the cartridge is a very satisfactory 80 microns. The tonearm/cartridge resonant frequency is checked using an audible tone that is modulated with sub-sonic tones ranging from 6Hz to 16Hz in 2Hz steps. When the arm goes into resonance, the audible tone warbles and this test shows that the resonance is 12Hz, which is ideal.

Sound quality

I waste no time in slipping onto the platter an amazing recording of Vivaldi's *The Four Seasons* performed by Interpreti Veneziani and recorded direct to vinyl. This recording is about as high as it gets from a technical point of view from vinyl and this, combined with a first-rate performance makes it the perfect test record. The first thing that strikes me is the incredible realism of the recording. The RPM 9 Carbon is adept at extracting all of the subtle nuances from the music. I can even hear the players moving their fingers on the fingerboards of the violins as they

play. Instruments are well positioned in a soundstage that is both wide and extends a long way back, and enables me to focus on a particular instrument of the orchestra, almost as if each instrument is being reproduced individually. The playing is harmonious and deeply enjoyable and a massive credit to the Pro-Ject's refined abilities of reproduction.

Put to the test

For a greater workout, I turn to a half-speed Mobile Fidelity Sound Lab master recording of Carl Orff's *Carmina Burana* performed by the London Symphony Orchestra and Chorus conducted by André Previn. The huge dynamic range is very evident from the powerful opening of *O Fortuna*, which then breaks into quieter choral singing accompanied by the plucked strings and the bass drum, all of which builds throughout the piece to a climactic conclusion. The chorus is conveyed as a well-defined group of singers and not simply a blur of sound, which can so often be the case with choral pieces.

Moving back to *The Four Seasons* but completely changing the genre, I listen to Raymond Fol's Big Band jazz version. The aggressive drum solos in the third movement from *Concerto No.2 Summer* are both tuneful and musical and the plucking of the double bass leads beautifully to the crisp trumpet blasts. It's crystal clear and not overly harsh, and the jazzy interpretation swings along throughout. The performance really impresses with the complexity of the

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music, and it digs deep into the groove and mines every ounce of detail from this LP.

Next up I try Branford Marsalis playing Stravinsky's *Serenata* from *Pulcinella* on his saxophone. The gentle rapid bowing of the strings playing behind the saxophone during the introduction is very clear and the pace of this beautiful piece is well maintained throughout. Once again, I am impressed with the vast amounts of detail, as well as emotion, that the RPM 9 Carbon manages to extract from this recording.

For a complete change of style, I play Arctic Monkeys *Do I Wanna Know?*. The heavy thumping bass, which kicks in at the start and then

IN SIGHT



ONE FOR ALL

Founded in 1990, Austrian-based Pro-Ject has become one of the leading turntable manufacturers and is challenging some of the more established names from the turntable's heyday in the seventies. The fact that a relative newcomer has focussed on turntables as a major part of its range supports the view that the upsurge in interest in vinyl is not just a flash in the pan.

Pro-Ject offers a comprehensive range of turntables to suit all budgets and requirements. It even produces a handy guide for people wishing to play 78s and there are conversion kits for select models to cater for the faster

playing speed as well as replacement styli for some Ortofon MM cartridges.

The RPM 9 Carbon is a development of the RPM 9.2 Evolution, which had the same 9CC Evolution carbon-fibre tonearm, but a medium-density fibre plinth and Perspex platter. Although the 9.2's outboard motor was fed from a low-voltage power supply, this was a 16V AC feed and a two-step pulley drive was employed to change speeds. Pro-Ject now incorporates an electronic speed control as standard in its new models, along with more high-tech manufacturing materials.

keeps pace throughout the record is tight and well controlled. It's a complex sound, yet the vocals are clear and intelligible.

Finally, I turn to the Sheffield Labs direct-to-vinyl recording of *Lincoln Mayorga & Distinguished Colleagues Vol. 3. You Are The Sunshine Of My Life* is fast, clean and incredibly energetic. After the prolonged silence that follows the words "Alright, stand by!", which somehow made it onto the lead-in groove, the players explode into action with all the adrenaline that comes from a live performance. The bass is meaty, tight and beautifully controlled. The saxophone is throaty and tuneful. Then the triangle kicks in and is crystal clear and perfectly positioned at the back of the group of musicians, adding a sparkle to the performance during the electric piano solo. This is a highly commendable rendition from an impressive turntable.

Conclusion

The Pro-Ject RPM 9 Carbon is undoubtedly a highly sophisticated turntable and its minimalist style combines well with the modern

materials that are used in its construction. The carbon-fibre structure of the 9CC Evolution tonearm matches well with the plinth but important as looks are, if you're shelling out this sort of cash for a turntable and tonearm you want it to perform exceptionally well and here the decks doesn't disappoint either.

The Pro-Ject RPM 9 Carbon turns in a highly polished performance with every bit of vinyl placed onto its sumptuous platter, and is one deck I'll be very sad to say goodbye to ●

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OUR VERDICT

SOUND QUALITY ★★★★★ **LIKE:** Contemporary styling; sophisticated sound with all material
VALUE FOR MONEY ★★★★★ **DISLIKE:** Obtrusive earth connection behind cartridge
BUILD QUALITY ★★★★★ **WESAY:** Modern-looking high-quality design that produces a very refined sound
FEATURES ★★★★★

OVERALL



Q&A

Laurence Armstrong
MD, Henley Designs Ltd



NR: The RPM 9 uses MDF, carbon fibre and steel in the construction of the plinth. What do the steel pellets contribute to the design?

LA: MDF is acoustically dead, which is why you find it used so often in turntable design. With the RPM 9 Carbon, the carbon-fibre layer adds rigidity to the structure. The chassis is packed with steel pellets to add mass and further combat unwanted resonance.

Can you explain how TPE damping is used in the platter assembly?

A layer of ThermoPlastic Elastomer (TPE) is located on the underside of the platter, adding mass and greatly reducing resonance. This implementation was inspired by the success of the Xtension 9 turntable.

What are the benefits of the fitted 9CC Evolution tonearm over the lower-cost 9CC tonearm?

The 9CC Evolution benefits from a more rigid carbon fibre tube, superior bearings, a TPE-damped counterweight and more rigid gimble assembly with high-mass block. It comes from the same basic philosophy of the 9CC, but offers a far more high-end solution.

If someone wanted to use the turntable with a moving-magnet cartridge, what would you suggest in place of the recommended Ortofon Quintet Black?

The Quintet Black is our recommended cartridge because together they produce a phenomenal sound. However, there are many great cartridges out there that would also work well. The Ortofon 2M Black, for example, is an excellent moving-magnet solution.