# Groove armada

It can be difficult to find a dealer able to demonstrate a wide range of cartridges, especially when top-drawer m-cs are the order of the day. But don't despair: here we compare and lab-test six

Tested by Steve Harris Lab tests & reports by Paul Miller

vinyl-inclined audiophile succumbs to the lure of the moving-coil cartridge. There are plenty to choose from, whether you want to spend £500 or £5000, but for this month's group we chose six models ranging from £1200 to £2500. They run literally from A to Z!

A craftsman-builder based in Belgium, Jan Allaerts has been turning out exquisite pickups since the early 1980s. The Allaerts MC1B Mk II is not his most expensive model but is the priciest cartridge reviewed here, at £2500.

Famous also now for towering high-end turntables (see p24) that look like acrylic wedding-cakes, Clearaudio of Germany makes some of the world's very best cartridges. A relatively affordable addition to the range is the Concerto, at £1230.

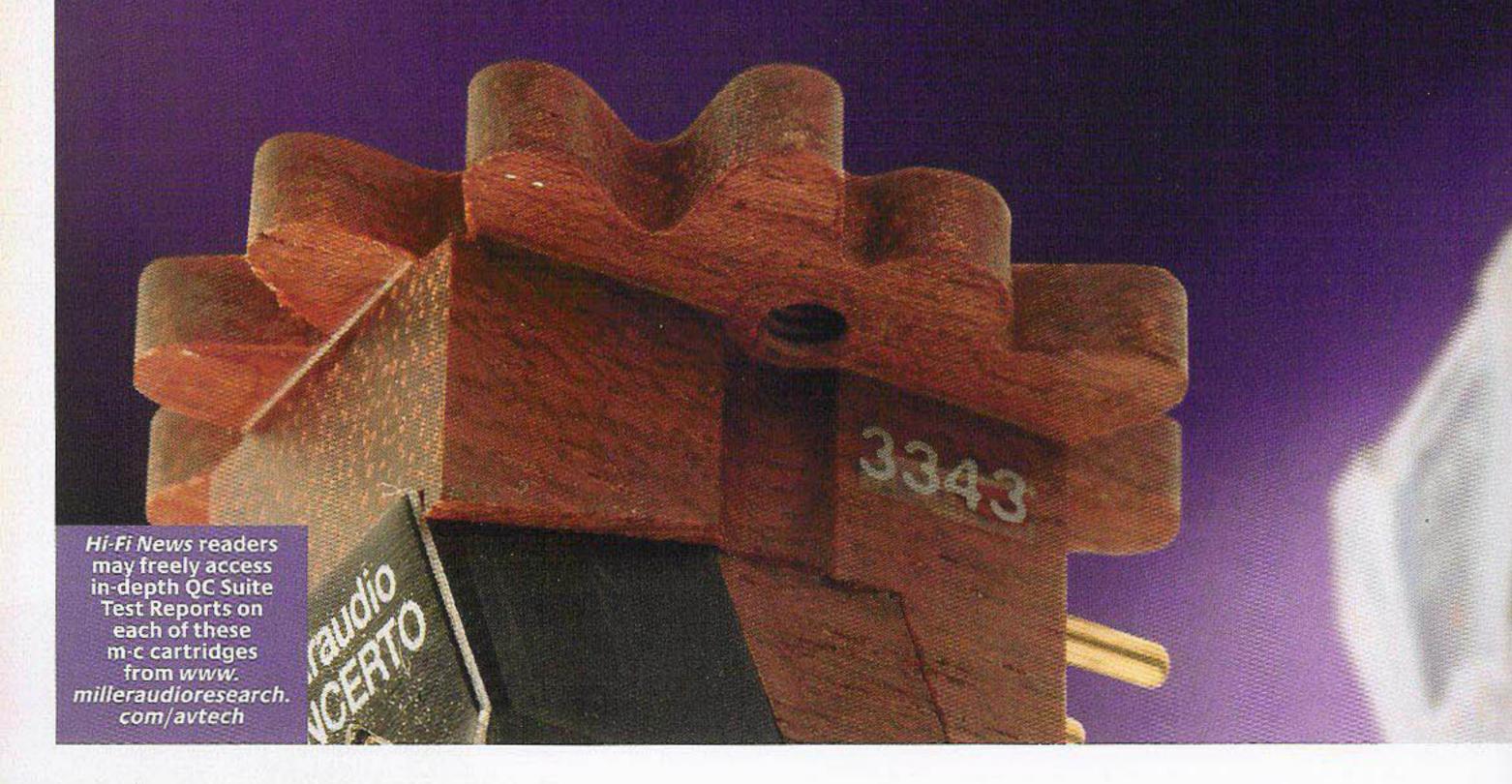
Epitomising the high-end cartridge as a mysterious, jewel-like work of art, Koetsu is the creation of Yoshiaki Sugano, who earlier had helped design the excellent Supex moving-coils. Sugano died in 2002 but the Koetsu tradition has been ably maintained by his sons. This review covers Koetsu's base model, the Black, which costs £1200.

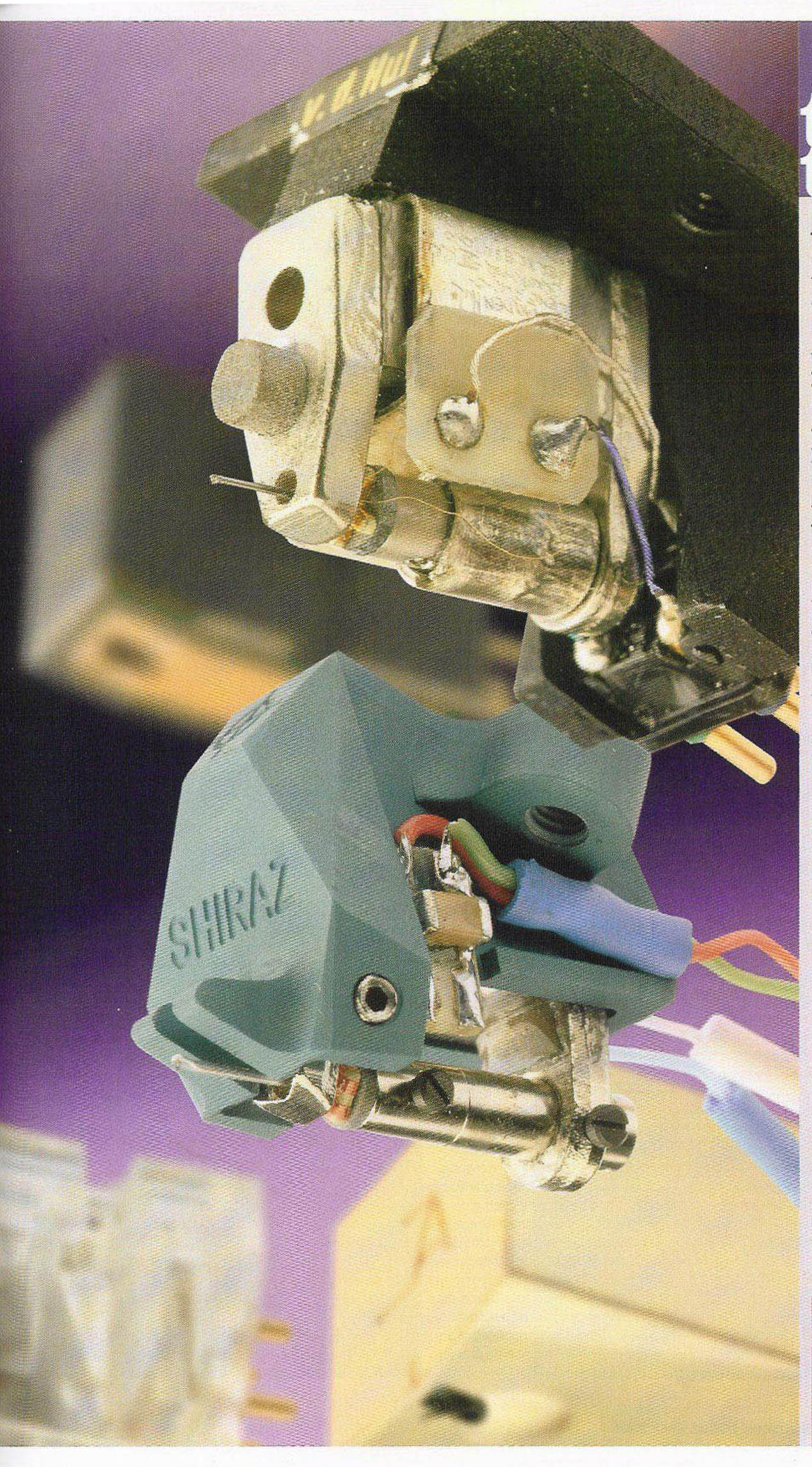
In 1985, a turntable from a new UK company called Roksan

GROUP TEST became one of two that could challenge the then-all-conquering Linn. (The other was the Pink Triangle.) Roksan soon sourced its first moving-coil cartridge too, and called it the Shiraz. It's still current at £1250.

Although he's spent more time recently developing and marketing cables, Dr A J van den Hul still hand-builds van den Hul Grasshopper cartridges to individual order in Holland. Many options are available, but we tried the Grasshopper III SLA, at £2000.

Last only in alphabetical terms,
Zyx cartridges are the work of
Hisayoshi Nakatsuka, who many
years ago developed the Alpha
Genesis range of cartridges for
Monster. For this review we
received another sample of the Zyx
R-1000 Airy 3 X [reviewed in June],
priced at £1250. ⊕





## the test

ALLAERTS MC1B MK II £2500

CLEARAUDIO CONCERTO £1230

KOETSU BLACK £1200

ROKSAN SHIRAZ £1250

VAN DEN HUL GRASSHOPPER III SLA £2000

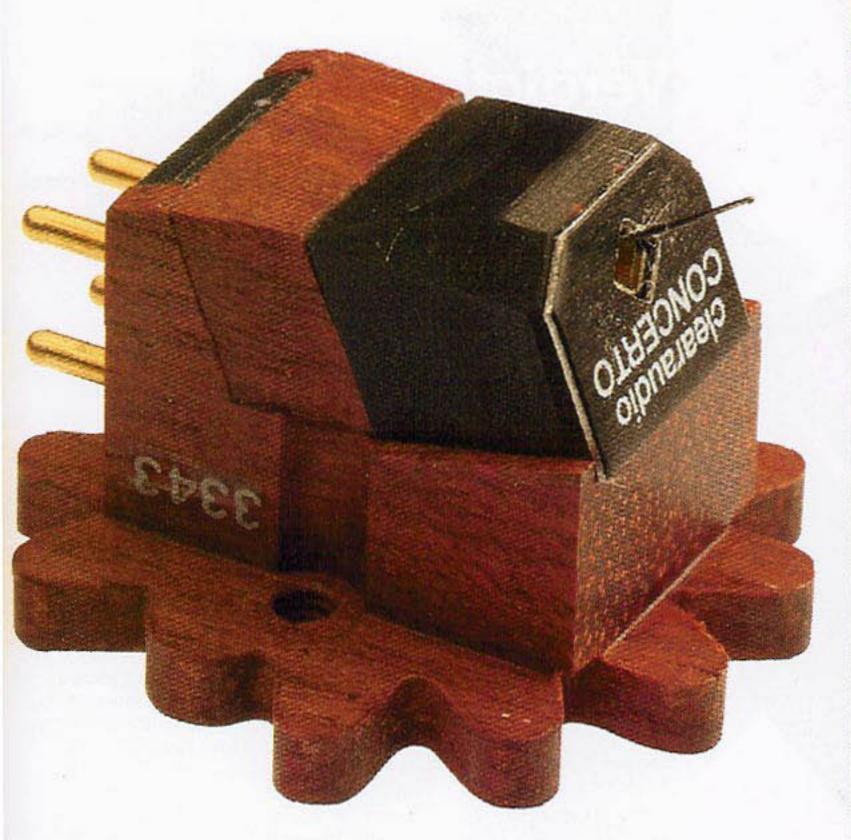
**ZYX**R-1000 AIRY 3
XH
£1500

### Equipment used

SOURCE SME Model 10 turntable and tonearm, Musical Fidelity kW Phono phono stage **AMPLIFIER Musical** Fidelity kW Pre pre-amplifier, Musical Fidelity kW750 power amplifier, GRAAF GM50B stereo integrated amplifier SPEAKERS Final 600i loudspeakers, Dali Ikon 6 loudspeakers CABLES Chord, PY and Marantz MusicLink interconnects, Chord Odyssey and Triangle Silver Ghost loudspeaker cables

#### NEXT MONTH

We reveal Europe's best hi-fi



#### CLEARAUDIO CONCERTO £1230

ou might think the gearwheel-shaped top plate on Clearaudio' New Dynamic series was just some kind of German engineer's eccentricity, but it has a serious purpose - it is intended to control mechanical resonances. Otherwise, although the Concerto is the 'introductory model' in this range, its specification and description seems to tick all the high-end boxes. It comes with Clearaudio's Micro HD stylus, described as a hybrid parabolic, with lower tip mass than previous types. This is mounted on a solid boron cantilever, while the coils are 24 carat gold.

These new-generation cartridges are rather inexplicably claimed to be capable of a '100dB dynamic range' (!), while a doubled-up eight-piece magnet system is said to give 30% greater efficiency and an output of up to 0.9mV at 5cm/sec. Accordingly, Clearaudio suggests that a moving-coil head amp is not necessary and may even degrade the sound. Recommended tracking force is 2.8g.

#### SOUND QUALITY

From the start the Concerto demonstrated great clarity and dynamic punch. On a Mozart

'The string tuttis were harsh but still realistic - they sounded like strings!'

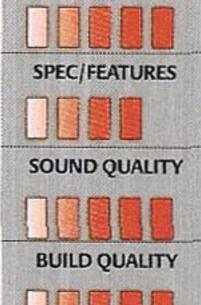
piano concerto disc, the bass wasn't thought to be especially well-defined, but had a nicely breathy quality, while this recording's upfront and often-too-steely string tuttis were harsh but still realistic - in other words, they still sounded like strings!

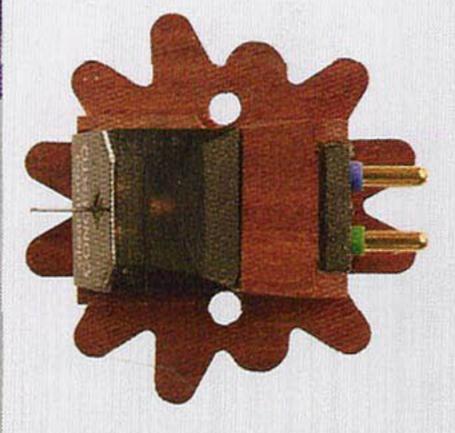
Imaging was solid, if with only moderate depth, but this cartridge did not have quite the 'hear-through' transparency and spaciousness demonstrated by some others in the group.

Turning to a classic of another kind, the King James Version, the big-band brass section had a realistic 'crackle'. On the Warnes Wasserman 'Runaway Horse' vocal/bass duet, the Concerto sounded fine, though perhaps better described as punchy rather than intimate. Overall, a detailed and at the same time very dynamic sound. €

#### **Verdict**

With a high-tech specification (gold coils, for example) the Concerto also has easily enough output to work comfortably into moving-magnet amplifier inputs. Clearaudio says that this range (unlike earlier ones) was voiced to suit rock as well as classical listeners and indeed the Concerto sound is punchy, dynamic and exciting.



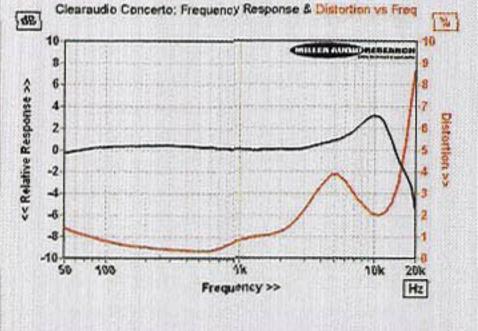


#### LAB REPORT

Excellent tracking marks out the Concerto which is capable of handling the very highest (~90um) modulations ever pressed onto vinyl, thanks to the symmetrical 17cu compliance and substantial 2.8g downforce. At 65um modulation, distortion is as low as 0.75% through bass and lower midrange but this increases quite steeply at HF, reaching as high as ~8% for peak velocities some -8dB below the 5cm/sec reference. Some misalignment in the mounting of the 'Micro HD' diamond has pushed the VTA up some 10 degrees from the anticipated 20°, and this might be sufficient to bring some vagueness to the perceived stereo imagery. Stereo separation is also far better on the left (-35dB) than the right (-20dB) channel across the midrange. The channel balance also deteriorates at HF where the response of the Concerto peaks around 10-12kHz (+2.6dB) before falling away to -5.5dB at 20kHz (or -7dB, L/R lateral sweep). This is entirely consistent with Steve's description of its sound as dynamic but lacking in (high treble) airiness. Otherwise, the measured response was not entirely comparable with Clearaudio's literature, but then I'm bound to point out that the serial number of the documentation (3306) did not match that of the cartridge itself (3343).

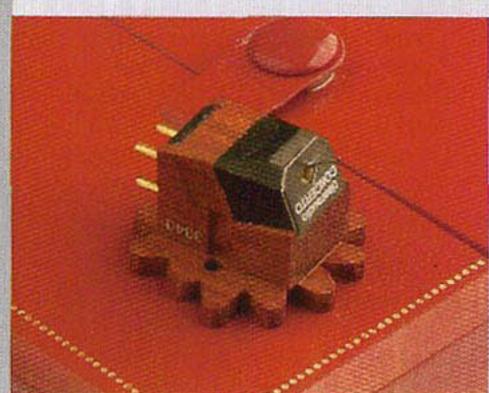
FOR: Punch, dynamics, clarity

**AGAINST:** Not the most airy



24 Carat gold coils with a Micro HD stylus mounted on a solid boron cantilever

- that's the Clearaudio



ho wouldn't enjoy the chance to try out six good-quality movingcoil cartridges at once? Less enviable was the task of ranking them and picking a 'best buy' - which proved almost impossible.

All the cartridges here have their own distinct sonic personality, which can't really be pinned down in a series of blobs and scores out of five, 10 or 20. So you need to look beyond the blobs and, we hope, glean a feeling from the review text for what each cartridge is likely to do for you.

What's more, all cartridges will work better in some systems than in others. To keep the project within reasonable bounds of time, we assessed all the cartridges using a standard front-end. We chose the SME 10, mainly for the consistency of set-up which is guaranteed by SME's fantastic precision engineering. SME kindly provided six detachable M2-type headshells, and once fitted to these, cartridges could be changed and set up very quickly

Most moving-coils will actually work satisfactorily and sometimes even well into an m-m input. But for fair comparison, we needed a very high-quality m-c phono stage. We chose the Musical Fidelity kW Phono, which offers exceptional technical performance, incredibly low noise and straightforward load impedance switching by plug-in resistors. With typical generosity, Antony Michaelson loaned the kW Pre and kW750 Power amplifier to go with it!

Early moving-coils had a very low compliance, or in other words, a very stiff suspension for the cantilever/ stylus assembly. This in turn meant that a high tracking force was needed, and even then the tracking of high-level signals would be poor. Most of today's m-c cartridges do track well enough, though only two of the manufacturers here seem to have published claimed compliance figures. For the Grasshopper III SLA, vdH quotes a static compliance of 35 micron/mN (or 35cu, 'compliance units') For the R-1000 Airy 3 XH 7vx



gives figures of 15 x 10-6 cm/dyne lateral, 12 x 10-6 cm/dyne vertical (or 15cu and 12cu respectively). Zyx also specifies stylus life as 2000 hours at 2g tracking force, more, I think, than some would claim.

When your m-c cartridge wears out, you can expect to pay 80 or 90% of the original price for a re-tip or exchange replacement. But once you're used to conjuring up real music from vinyl, this may be a small price to pay to ensure the magical m-c genie keens appearing at your command (1)

# Listened to...

DIZZY GILLESPIE, The Greatest Trumpet Of Them All

[Verve recording on HMV

HARRY JAMES,

CLP 1381, monol

The King James Version [Sheffield Lab LAB-3]

MOZART

Piano concerto No 21 in C major Daniel Barenboim/ ECO 1967 [EMI ASD 2465]

ROB WASSERMAN, Duets [GRP 97 121]

and set up very quickly	units'). For the R-1000 Airy 3 XH, Zyx				keeps appearing at your command. ()			
Verdict	Output at 1kHz (5cm/sec = 0dB)	Channel Balance at 1kHz	Compliance (Vertical/ Lateral)	Tracking Ability (Left/Right)	THD at 1kHz (OdB) / 1kHz/20kHz (-8dB)	IM Distortion at 370Hz/ 630Hz (-6dB)	Stereo Separation at 1kHz/ 20kHz	Frequency Response (20Hz-20kHz)
ALLAERTS MC1B MK I	0.70mV	0.6dB	18.8cu / 19cu	>85um / >85um	3.0% / 1.3% / 8.7%	1.20%	30dB / 25dB	+0.9dB to 2.0dB
	A finely-balanced sound, great resolution and realistic presentation of musical detail just won the day in this group. It would have been nice to try the Alnico-magnet MC1B too!							OVERALL RATING
	CONTACT: GT Audio TEL: 01895 833099 WEB: www.gtaudio.com							19/20
CLEARAUDIO CONCERTO	0.86mV	0.1dB	16.5cu / 17cu	>80um / >80um	3.3%   0.9%   8.5%	1.00%	20dB / 22dB	+3.1dB to 5.5dB
	Voiced with rock in mind, the Concerto sounds punchy and dynamic. An inevitable 'Best Buy', even though (like me) you may well prefer its more laid-back rivals.							OVERALL RATING
	CONTACT: A	udio Reference 1	EL: 01252 70270	5 WEB: www.a	udioreference.co	.uk		19/20
KOETSU BLACK	0.42mV	0.3dB	19cu / 19cu	75um / 70um	2.5%   0.5%   7%	1.00%	30dB / 25dB	+0.3dB to -0.9dB
	Still a satisfying classic, the Black's characteristic warm, inviting balance and sense of energetic communication can outweigh its 'hi-fi' shortcomings. Like all Koetsus, superbly built and finished.							OVERALL RATING
	CONTACT: A	bsolute Sounds Lt	d TEL: 020 8971	909 WEB: ww	w.absolutesound	ls.com		10/20
ROKSAN SHIRAZ	0.68mV	0.2dB	13cu / 13cu	>85um / >85um	2.8%   0.7%   3.4%	1.20%	35dB / 26dB	-0.2dB to +2.2dB
	Smooth rather than sparkling, the Shiraz is a fine all-rounder. It inspires confidence and works consistently and very well on all kinds of music. Good value for money.							OVERALL RATING
	CONTACT: Roksan TEL: 020 8900 6801 WEB: www.roksan.co.uk							11/20
VAN DEN HUL GRASSHOPPER III SLA	0.50mV	0.25dB	13.5cu / 17cu	72um / 70um	1.8% / 0.6% / 4%	0.35%	34dB / 22dB	-0.2dB to +2.4dB
	Living up to its 'Airy' name, a cartridge of outstanding qualities, with obvious transparency and revelation of inner detail in the soundstage – enough to win many audiophile hearts.							OVERALL RATING
	CONTACT: Henley Designs Ltd TEL: 01235 511166 WEB: www.henleydesigns.co.uk							18/20
ZYX R-1000 AIRY 3 X	0.61mV	0.25dB	11cu / 15.8cu	80um / 75um	2.7%   0.7%   4.5%	1.00%	30dB / 16dB	-0.1dB to +2.0dB
	Tubes do what tubes do at their very best in the all-valve GRAAF. Rich, warm, yet delicate with high percussion, this is one integrated you must hear.							OVERALL RATING
	CONTACT: GT Audio TEL: 01895 833099 WEB: www.gtaudio.com							18/20