KAB-sourced Ortofon Concorde Pro / Stylus 40

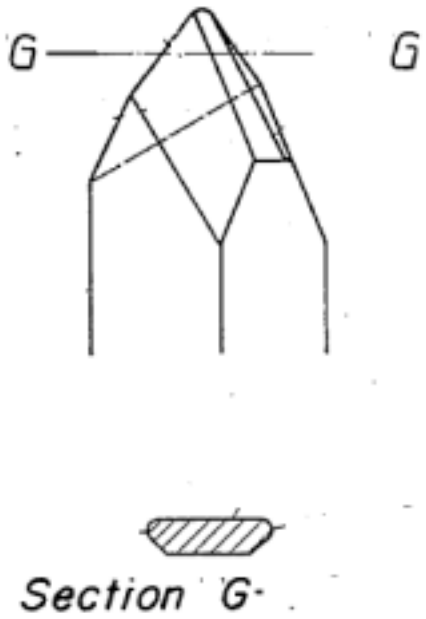
Integrated mount with alignment guaranteed for Technics S-shaped arms only
Moving magnet
Output 4mV at 1 kHz: 5 cm/sec
Channel balance at 1 kHz: 1dB
Channel separation at 1 kHz: 25 dB
Channel separation at 1 kHz: 15 dB
Frequency response: 20Hz - 29kHz
Frequency response: 20Hz-20kHz:+2 -0 dB
Lateral compliance: 25 uM/mN
Stylus type: Fritz Gieger model 70
Stylus dimensions: 5/70 uM
Stylus construction: nude
Stylus tip mass: 0.30 mG
Cantilever: aluminum
Tracking force: 1.25-1.75 Gr
Internal DC resistance: 750 Ohm
Internal inductance: 450 mH
Recommended load capacitance: 200-600 pF
Recommended load resistance: 47 kOhm
Cartridge weight: 18.5 grams
List Price: $330

This hybrid cartridge from KAB combines Ortofon's top of the line Fritz Geiger stylus (Stylus 40) with Ortofon Concorde Pro body. The Ortofon Concorde Pro is an integrated mount with an alignment guaranteed for Technics S-shaped arms only. The mount obviates any alignment of the stylus. Azimuth should also be locked in. In theory, the cartridge should offer better performance owing to its reduced surface area and better mechanical contact between the cartridge and the arm. KAB also offers the Ortofon Concorde Pro / Stylus 30, which has a simpler line contact stylus and costs $240.

Good azimuth is critical to achieving sharp channel separation and the lack of a headshell reduces the area on which acoustic coupling can occur to the arm. Perhaps, the neatest aspect is that the stylus is clearly visible, making cueing a snap. No surprise why the DJs love these integrated bodies.

Ortofon makes two standard-mount moving-magnet cartridges with the Fritz Geiger stylus: the Ortofon Super OM 40 Phono Cartridge ($350 price-controlled) and the Ortofon 540 MkII ($289 price-controlled). While different in appearance, these standard-mount Ortofon's have similar specifications. The cartridge magnetic system in the KAB Ortofon Concorde Pro / Stylus 40 hybrid is not the same as the one in the Super OM 40 and 540. It is instead the one used in the Ortofon Concorde Disco cartridge and the lower-priced Ortofon standard-mount and p-mount models. The standard magnetic system has lower inductance and resistance than the Super OM and 540 series. To qualify (based on Ortofon's own literature): "Ortofon has succeeded in developing a technique by which to slit the less than 1 mm diameter hollow pole pins, thus significantly reducing eddy current losses caused by magnetic hysteresis." The precise tradeoff of the improvements gained with an integrated mount versus the loss of the modified pole pins is not clear. I only had access to the KAB Ortofon Concorde Pro / Stylus 40.

More significant are the differences in styluses. As stated above, I believe both the Micro Ridge stylus used by Shure and the Micro Line stylus used by Audio Technica appear to be sourced from a third party company in Japan called Namiki. The Ortofon Concorde Pro / Stylus 40 is a patented Fritz Geiger design. The patented Van den Hul stylus is often confused with the Geiger, but it is totally unrelated as a patent search on all three designs showed. In passing, I note that Goldring also uses the Geiger stylus. The remaining high-end stylus with a patented shape is a product of *Ogura* Jewel Industry (August 1978 4,105,212) in Japan. I did not test any cartridge with this stylus, so cannot comment on its performance relative to the other designs that I have tested here. As an aside, one of the first methods to manufacture an elliptical stylus was patented by Joseph Grado in December 1966 (3,292,936) and the manufacturing method was refined by Puleston October 1970 (3534968). Other approaches to stylus design are not patented so our discussion is by no means complete. One thinks of the paper by Ernist Weinz, *Latest Developments in Diamond Stylus Design and Performance* AES Convention: 65 (January 1980) Preprint Number:



Both Lyra, which also uses the Micro Ridge, and Audio Technica claim that the Micro Ridge stylus shape "greatly reduces the audibility of groove damage" and I have confirmed this for both Audio Technica cartridges and the Shure. The Geiger tip has a very different shape and makes no such claim; my tests with used vinyl show it was not tracking much better than an elliptical stylus. Since the Geiger stylus shape appears to be designed to perform optimally with new vinyl, a detailed analysis of the cartridges sound with used vinyl is not productive.

U.S. patent 4855989 (August 1989) illustrates the shape of the Geiger stylus:

This is the most modern stylus design I found in my patent search, even though it is fifteen years old. The stylus appears to be designed for new records because, on older records, it sits in the area of the groove with the most damage. At least that is my conjecture as to why it is doing so poorly in tracking my old records. Look at how different the stylus is cut compared to the Micro Ridge shown in the Audio Technica AT150Mlx review above. Remember, the objective of this review is to assemble a phono system to archive used records to CD and not to identify the best way to listen to new audiophile vinyl. Geiger likely designed this stylus as his ultimate statement to track high velocity grooves in audiophile vinyl.

In hindsight, I should have tested the KAB Ortofon Concorde Pro / Stylus 30 that uses a less radical stylus shape that may be similar to the contemporary Stanton Stereohedron but I have no documentation from Ortofon to confirm this (I could find no patent for an Ortofon stylus). KAB offered to pull this stylus from inventory for this review, but I accepted their word that the cartridge has a similar tonal balance and some customers have reported it produces less groove noise in used records.

The measured results I have come from the September 1984 issue of *High Fidelity* and refer to the original OM body with the Stylus 30 line contact stylus. This report corresponds to how a KAB Ortofon Concorde Pro / Stylus 30 would perform. The cartridge tested by *High Fidelity* was aptly known as an OM 30. I compared the test results with the Audio Technica AT-160ML (*High Fidelity*, October 1984) and the Shure Ultra 500, which was a high-end derivative of the V15-5MR (*High Fidelity*, January 1986). The highlight of the Ortofon's test was its worst-case frequency response deviation of 2dB. That was 1 dB less than the competition. The Ortofon lifts up a little above 10kHz while the competitive units come down in level. Channel separation was a couple of dB worse than the Audio Technica and a couple of dB better than that of the Shure. *High Fidelity* cited the Audio Technica as having "exceptionally low" inter-modulation distortion numbers, although no absolute values are provided to give us an idea how exceptional it was relative to the Ortofon. The square wave response shows a cycle of ringing. The AT and Shure come down a little at the top.

While the *High Fidelity* measurements would indicate the cartridge might have a hot high-end, it is in fact balanced more closely to the Shure V15-5MR On matched level CD-R tests the MR lacks some air and, perhaps, has an upper midrange edge. I hedge because the cartridges sound similar and thus it is hard to get a really good feel for the difference. The Shure was the clear winner on heavily *used* vinyl. I can only extrapolate from comments made by KAB and the *High Fidelity* measurements with respect to the performance of the Stylus 30 on such heavily used recordings. I expect the KAB Ortofon Concorde Pro / Stylus 30 to track somewhat better than the Pickering D11 stylus given its lower mass cantilever and nude stylus.

The Audio Technica is much easer to distinguish from the Ortofon and appears, to me, more faithful to the master tape; hence, it sounds like a CD which transfers the master tape sound without degradation. The Stanton leans further to what many think is vinyl sound. I find the Stanton's rich romantic sound to be more fun than the Ortofon - if I want a cartridge to provide a voicing for "vinyl sound", then I am going all the way. For some readers, the fact that the Ortofon splits the difference and the fact that its tonal balance is similar to that of the Shure V15-VMR will make it the preferred choice.

The concept of an integrated-mount cartridge is hard not to get excited about. No headshell, no alignment, no blocked the view of the stylus. Wow! Unfortunately, I get a bigger wow out of the Micro Ridge stylus adopted by Audio Technica since it plays used vinyl so well. As I have repeatedly said in this article, the balance of the Audio Technica will sound forward to some ears, especially the less expensive AT440MLa. For them, the KAB Ortofon Concorde Pro / Stylus 30 is a better choice. This hybrid is also the only long-term alternative to the Audio Technica after KAB sells its stash of one hundred or so Stereohedrons based Stanton cartridges.

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