

Ortofon MC A90



Ortofon is proud to launch the MC A90, a world class moving coil cartridge to commemorate the 90th anniversary of Ortofon's technical leadership in the audio industry. This impeccably crafted design cartridge carries with it the culmination of decades of research in the field of analogue sound reproduction along with the world's best engineering, materials, and manufacturing techniques. Combined with the inspiration of the very best ears and minds in contemporary analogue technology, the A90 stands as a true contender for the best moving coil pickup of all-time.

Revolutionary manufacturing process

At the heart of the new A90 lies a revolutionary customized SLM (Selective Laser Melting) manufacturing procedure in which micro particles are laser-welded together, layer by layer. This high technology and high precision process eschews traditional techniques to provide increased rigidity and body density resulting in the further reduction of unwanted resonances while still maintaining exact figures for cartridge mass. SLM manufacturing also enables the consolidation of components to allow for a design devoid of unnecessary material. In this instance, all of the essential components are built directly into the one-piece body, including the magnetic system (including the moving parts), the terminal block, and the silicone rubber wire guard. The design was kept strictly to only the crucial parts, creating a

unique, distinctive aesthetic which is as functional as it is attractive.

Special features compliment a uniquely crafted marvel

The raw component coming out of the SLM-manufacturing process, are reworked to a high precision by skilled toolmakers. But even after this treatment the body will show an individual texture due to the customized process, meaning that each cartridge will be truly unique. So the listener will not only be awestruck by its best-in-class sound reproduction but also with one of a kind physical beauty and sheer elegance. In fact, the A90 will be limited to 400 units worldwide, in celebration of 90 years of the outstanding tenacity of one of the world's most revered organizations in the history of recorded sound.

Not only a celebration of history...

The A90 not only celebrates the past 90 years of Ortofon, first and foremost it also makes history by significantly raising the standards by which sound reproduction are measured, making it a celebration of sound itself. Those who choose to adopt the A90 will experience the lifelike, open sound, with exceedingly clear midrange for a presentation that is unparalleled. The A90 remains extremely musical while paying close attention to micro dynamic detail, with its delicate, but also analytical nature. Lovers of music will take note of a truly organic and encapsulating experience which transcends the limits of recording and undeniably blurs the distinction between what is live and what is recorded.

The magnet configuration that graces the A90 takes its inspiration from the acclaimed MC Windfeld, known throughout the world for its remarkably neutral and honest character. This superb generator system is not only lighter and more compact, but via the Field Stabilising Element (FSE) can ensure that the force field remains stable regardless of movement of the armature. The FSE consists of a small cylinder of silver plated copper placed inside of the magnetic system. FSE sonically has substantial benefits especially by reducing dynamic distortion and intermodulation to an absolute minimum. FSE plays a tremendous part in the A90's remarkable dynamics, ensuring that every

detail will be delivered with striking accuracy and plenty of space between each instrument in a recording. This simply results in more drama and greater breadth, height and depth of the sound and stereo image.

Wide Range Damping system

Adding to the list of important components is Ortofon's patented Wide Range Damping (WRD) system. In this system, a small, heavy platinum disc is sandwiched between two rubber absorbers, both with different properties. This not only makes sure that exceptional tracking performance is maintained, but also ensures perfect damping through the entire frequency spectrum. Because of this, distortion and resonance are virtually eliminated entirely.

The WRD system, which was originally introduced in the MC 30 in 1979 and was also used in the MC Windfeld and many of Ortofon's other top-tier cartridges, is one significant reason why the MC A90, while achieving the most linear frequency response and the highest upper frequency limit ever, at the same time tracks a fantastic 100 µm at a vertical tracking force of 2.3 grams.

The finest diamond ever created

Another precursor for linear sound reproduction, expansive frequency range and remarkable tracking performance is the diamond which graces the A90's boron cantilever – the unique Ortofon Replicant 100. This ultra-fine and now extra polished diamond first was introduced on the famous MC-3000 MkII and MC-5000 cartridges, and has also been used on the revered MC Windfeld. The Replicant 100 is incredibly thin and light, yet has an extraordinarily large contact surface despite a minimal radius of rounding. When correctly aligned, the Replicant 100 will track even the most demanding of groove modulations and will read musical information from the groove with a level of accuracy that is unparalleled by any other needle in existence.

Extremely high end materials benefit new coil technology

Using expensive Aucurum coils of gold-plated, 6NX oxygen free copper allows for zero-loss transmission of the diamonds movements via its

boron cantilever. This combination, which has also been employed for use in the by now legendary MC Windfeld, combines low moving mass with an extremely high degree of rigidity.

Of course, a specially designed armature had to be created to achieve extreme precision in each coil turn in many layers. This enables the A90 to achieve a higher degree of channel separation, while simultaneously offering lower distortion and better channel balance. A low output impedance of 4 ohm and a medium output voltage of 0.3 mV makes the Ortofon MC A90 a perfect partner for most step-up transformers as well as active MC pre-amps. With optimal weight and compliance to suit the vast majority of modern medium-mass tonearms, the A90 is easily compatible with a seemingly endless array of modern contemporary high end turntable equipment.

Technical Data	A90
Output voltage at 1 kHz 5cm/sec	270 µV
Channel balance	< 0,2 dB
Channel separation at 1 kHz	> 28 dB
Channel separation at 15 kHz	> 22 dB
Frequency range at -3dB	10 Hz - 80 kHz
Frequency response 20 Hz - 20 kHz	± 1 dB
Tracking ability at 315 Hz at recommended tracking force *)	100 µm
Compliance, dynamic, lateral	16 µm/mN
Stylus type	Special Polished Nude Ortofon Replicant Boron Cantilever
Stylus tip radius	r/R 5/100
Tracking force range	2,0-2,5g (20-25mN)
Tracking force recommended	2,3g (23mN)
Tracking angle	23°
Internal impedance, DC resistance	4 Ohm
Recommended load impedance	>10 Ohm
Cartridge body material	SLM
	Stainless steel
Cartridge colour	Black
Cartridge Weight	8 g
*) Typical value	