

# MC Anna Moving Coil Cartridges



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## Benefits of high-end materials and advancements in technology

The housing of the cartridge is made of Titanium, using our famed SLM manufacturing technique which was pioneered by Ortofon during the manufacturing of the MC A90, SPU 90<sup>th</sup> Anniversary and Xpression cartridges.



Considered an engineering breakthrough, the Selective Laser Melting process welds fine particles of Titanium together, layer-by-layer, to construct a single piece body devoid of extraneous material. This technique allows for precise control of the density of the body material, allowing for extremely

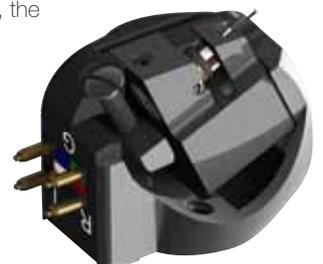
high internal damping. The final result provides freedom over vibrations within the cartridge body material. The use of Titanium has provided a further improvement to the internal damping capabilities as well as to the overall rigidity of the structure.

Arguably one of the most significant advancements in the MC Anna is our dramatically higher efficiency magnet system, for which Ortofon has a patent pending. This greatly optimized geometry combined with choice materials like neodymium and iron-cobalt

offers an unprecedented consistency of the flux density within the system's air gap. Due to an increase of active material inside of the magnet system, the magnetic field strength is delivered more uniformly, allowing each coil to sense identical flux density regardless of its position. Because of this, dynamics and impulse linearity are preserved to an overwhelming extent.

The use of this new optimized magnet system allows for the use of a lightweight, non-magnetic armature, which also provides noteworthy benefit to the dynamic capability of the MC Anna.

The reason for this is that our high-tech polymer-based armature does not alter the magnetic field during movement. Hence when combined with ultrapure oxygen-free copper coil wire, it delivers perfect reproduction of the cantilever movements without compromise. Because the new magnet system delivers a tremendous magnetic flux density, the need for design compromises is effectively eliminated. It is due to this aspect that the amount of coil windings required to achieve significant output voltages is reduced to a minimum, resulting in a further reduction in moving mass.



## The Story about MC Anna

Ortofon's MC Anna represents the highest echelon of Moving Coil cartridges. This state of the art product, representative of numerous Ortofon design elements and ideals, is truly exemplary of the highest degree of performance possible in contemporary analogue playback technology.

Historically Ortofon has a long tradition of paying tribute to persons who have been highly influential within the high-end audio culture and in music culture and history in general. In honor of these remarkable persons, Ortofon has introduced numerous products throughout the years, including the SPU Meister, MC Rohmann, Kontrapunkt and Windfeld cartridges.

Continuing this tradition with the MC Anna, Ortofon dedicates this new flagship cartridge to the opera singer Anna Netrebko, a virtuoso whose performance displays a formidable technical arsenal of endless versatility. With the dedication of the MC Anna, Ortofon once again emphasizes the company's unchanging commitment and devotion to the music and to the purest delivery of recorded sound.

Much like Anna Netrebko, Ortofon aspires to provide the ultimate musical experience through a mixture of innovation and technical expertise, combined with inspiration that goes beyond mere thought to reveal true inner emotion.

The new magnet system has also allowed for more spaciousness within the air gap, allowing for coil windings to be done completely independent of each other, without any overlap or interaction between them. The cumulative result of these improvements simply delivers more lifelike reproduction, with nearly boundless imaging, dimensionality, and dynamics.

### Enhanced damping capabilities

Finally, the MC Anna also introduces a new degree of control over vibrations by a way of a newly-improved wide-range armature damping system (WRD). By extending the armature beyond the coils, it can interface directly with the rubber dampers, which sandwich a small heavy disc of platinum. This offers more consistent movement, and thereby better stereo perspective and transient delineation. System resonances are also damped by the use of TPE (Thermo Plastic Elastomer) compound which comprises the bottom cover assembly.

As in the former MC A90, Windfeld and Xpression cartridges, the MC Anna makes use of Ortofon's Replicant 100 diamond, known for its thin and light profile and extraordinarily large contact surface. Since the Replicant 100 is closest to the shape of the cutting

stylus, it can trace with accuracy unparalleled by any other needle in existence. Special polishing of the diamond along with the use of a Boron cantilever offer remarkable transparency, speed, and responsiveness beyond that of any other combination.

### Flexibility and performance with a range of compatibility

Output impedance of 6 ohm and a low-to-medium output voltage of 0.2 mV make MC Anna a perfect partner for most MC phono preamps and step-up transformers, including the new Ortofon ST-80 SE.

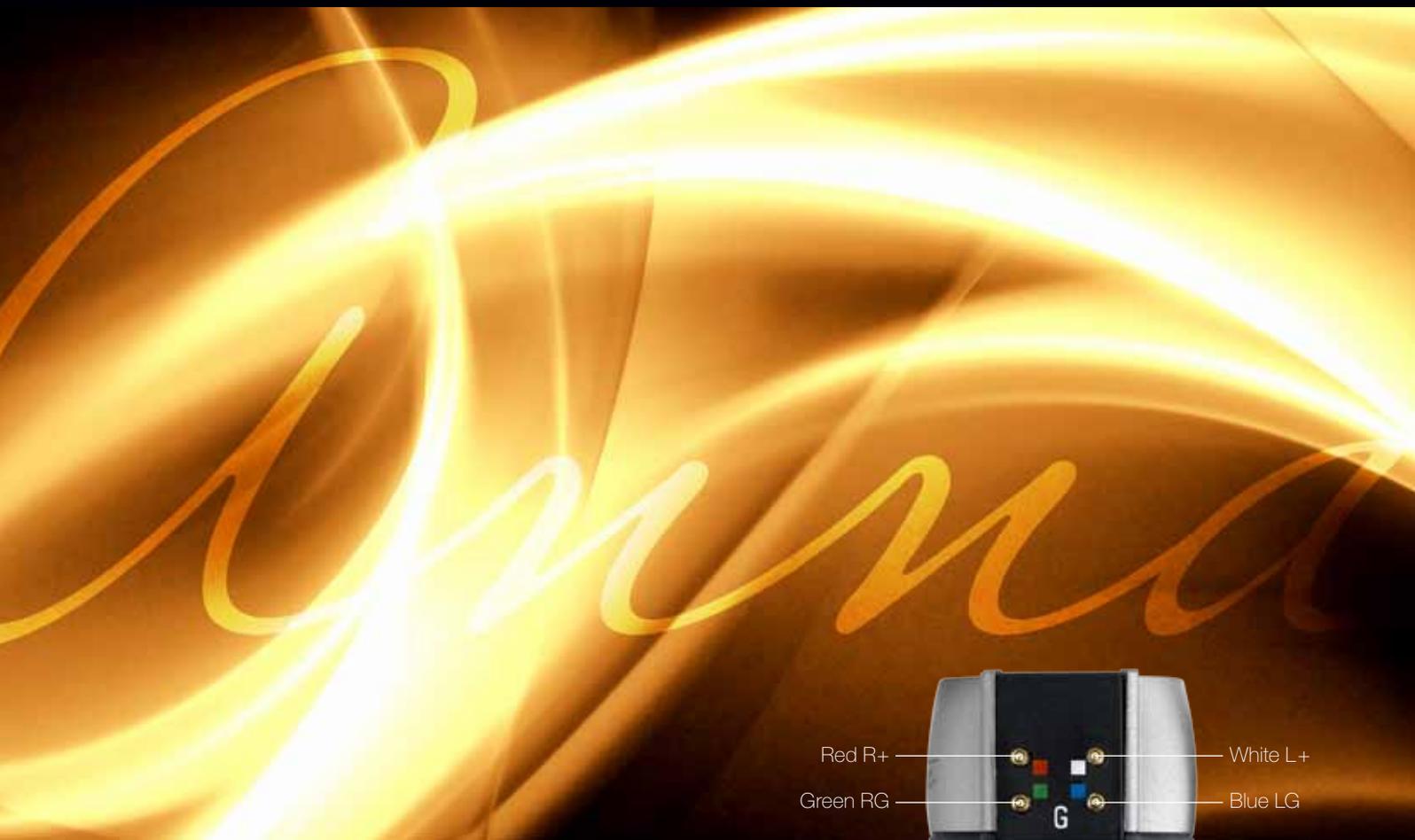
Ortofon's MC Anna focuses on providing music in its entirety without compromise, offering an ideal balance of precision and musicality to provide an engaging experience on a whole new level. With fine attention to both micro and macro dynamics combined with fluid tonality and texture, the MC Anna will shatter the boundaries of recorded music forever.

Considering Ortofon's world-class knowledge in analogue sound reproduction, the new MC Anna will undoubtedly provide sound which is literally unsurpassed and simply has to be experienced.



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## Technical Data

Output voltage at 1 kHz, 5cm/sec.	0.2 mV
Channel balance at 1 kHz	0.5 dB
Channel separation at 1 kHz	25 dB
Channel separation at 15 kHz	22 dB
Frequency response	20 Hz - 20 kHz + / - 1.5 dB
Tracking ability at 315 Hz at recommended tracking force:	80 $\mu$ m
Compliance, dynamic, lateral	9 $\mu$ m/mN
Stylus type	Special polished Nude Ortofon Replicant 100 on Boron Cantilever
Stylus tip radius	r/R 5/100 $\mu$ m
Tracking force, recommended	2.6 g (26 mN)
Tracking angle	23°
Internal impedance, DC resistance	6 Ohm
Recommended load impedance	> 10 Ohm
Cartridge body material	SLM Titanium
Cartridge colour	Silver/Black
Cartridge weight	16 g