

MC Windfeld **ortofon**



# Ortofon introduces MC Windfeld cartridge

## Ortofon MC Windfeld

Ortofon is launching the MC Windfeld, a newly developed moving coil cartridge using state-of-the-art technology. This highly advanced design, which is the world's most hi-tech analogue cartridge, may be seen as a tribute to Ortofon's departing engineer Per Windfeld, who has for more than 30 years been a feature of the high-end culture as the head of development behind amazing cartridges such as the Ortofon MC 20, Concorde, Rohmann, Jubilee, Kontrapunkt, etc.

Historically, the hi-fi culture has offered several exciting products that will long stay in the memory. For example, it is hardly an exaggeration to refer to Ortofon's legendary SPU moving coil cartridges as state-of-the-art products and milestones in hi-fi-culture. Ortofon SPU and its successors with both MC and VMS technology will be remembered in the same spirit as products such as Quad's electrostatic loudspeakers, JBL's and KEF's studio monitors, turntables from Linn, Goldmund, Luxman and Thorens, tape recorders from Studer/Revox, Mark Levinson's colossal class A amplifiers and similar high-end products from near and far.

What these products share in common is that the designers behind them live and breathe "hi-fi" – the reproduction of music with the greatest possible degree of accuracy. These visionaries have accumulated an incredible wealth of knowledge through their work down the years. Which is why they will continue to feature in the development of hi-fi and high-end in the future.

Ortofon's 75-year-old engineer Per Windfeld falls into the category of true hi-fi visionaries. His massive contribution has been a feature of the development of cartridges all over the world ever since he emerged in the mid-1970s as head of development for the famous MC 20 cartridge, which became the modern successor of the SPU model. The last 30 years have seen an incredible number of successes. This is why Ortofon is now paying tribute to Per Windfeld with a newly developed, state-of-the-art, moving coil cartridge in the absolute high-end class. In terms of design technology, the Ortofon MC Windfeld is of

course based on many of the most important innovations and patents that Per Windfeld secured for Ortofon in the course of his work stretching back more than 30 years.

## Precision knowledge rather than voodoo and wishful thinking

Ortofon is a company that is built on ingenious innovations, proud traditions and incredible volumes of accumulated, precision knowledge of transducer technology. The foundations were built by the company Fonofilm Industri A/S, founded in 1918, which won international success and acclaim by synchronising

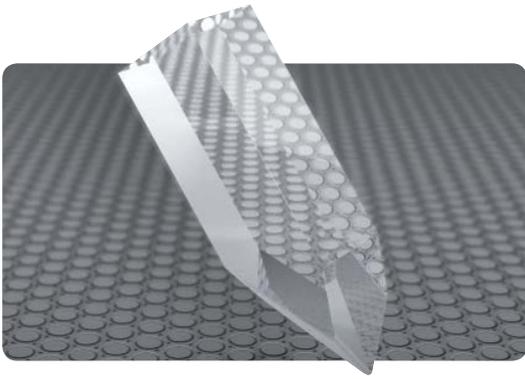
sound and pictures in the film industry. Nowadays Ortofon produces not only the best cartridges in the world, but also microscopic precision parts for industrial measuring instruments and tools that no one else in the world is able to compete with. You only gain the position as market leader when you base your business on know-how and precision knowledge rather than the voodoo and wishful thinking that characterises the high-end brands of others in the industry.

The Ortofon MC Windfeld combines the best of the innovations that Per Windfeld and his team developed in the years following the launch of the original MC 20 in 1977:

One of the important components is the patented WRD system (Wide Range Damping), in which a small, heavy disc of exotic metal is clamped between two rubber absorbers with different properties. This makes sure that the tracking performance is maintained simultaneously with the perfect damping in the whole frequency range, with the effect that distortion and resonance are avoided.

The WRD system, which was originally introduced in the MC 20 Mk II in 1979 and was also used in the MC Jubilee and many of Ortofon's other top-class cartridges, is one contributory reason why the MC Windfeld, 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 2.6 grams.





### The finest diamond in the world

Another precondition for linear reproduction with a wide frequency range and optimal tracking performance is a diamond, the shape of which is as close as possible to the original cutting needle. To achieve this, the Ortofon MC Windfeld uses an ultra-fine polished version of the unique Ortofon Replicant Stylus 100.

This diamond, which is already known from products such as the MC 3000 Mk II and MC 5000, is incredibly small and light, but has an extraordinarily large vertical contact surface despite its minimal radius of rounding. Correctly fitted at a vertical angle of 23 degrees, an Ortofon Replicant Stylus 100 will read the musical information in the grooves of a record with a greater degree of accuracy than any other kind of needle.

### New coil technology and expensive materials

Zero-loss transmission of the diamond's movements to the expensive Aucurum coils of gold-plated, 99.999999% oxygen-free, monocrystalline copper is achieved in the Ortofon MC Windfeld via a cantilever in boron (just as in the MC Jubilee), which combines a low moving mass with a very high degree of mechanical rigidity.

A special design of armature makes it possible to position the coil turns extremely precisely in several layers. This technology achieves higher channel separation, 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 Windfeld a perfect partner for most step-up transformers as well as active MC pre-amps.

### Neodymium magnet with FSE

The magnet system combines Per Windfeld's designs for the much-admired Kontrapunkt series and the MC Jubilee. It is based on an extremely strong, compact neodymium magnet, which makes the generator system both compact and through its minimal dimensions also lighter.

A so-called Field Stabilising Element, a small cylinder of conductive material strategically placed inside the magnet system, guarantees that the force field remains stable regardless of the movement of the armature. FSE improves the channel separation, while at the same time minimising dynamic distortion and intermodulation. The result: fantastic dynamics and even more elbow room between the musicians. You simply experience more drama and greater breadth, height and depth in the sound scenario between the high-end system's loudspeakers!

### Zero resonance cartridge housing with "spikes"

Historically, Ortofon has always followed its own path with regard to the mechanical design of the cartridge housing, because mechanical rigidity and total freedom from resonance in the audible range is a precondition for optimal sound quality. In the MC Windfeld, Ortofon continues to build on the structure of the Kontrapunkt range, in which the cartridge housing's contact with the pick-up arm takes place through three hard, well-defined points, i.e. a kind of spikes. This means that the mechanical integration of the cartridge and the pick-up arm are always absolutely perfect.

We have reinforced the construction by allowing one central structure, made in a special alloy, to reach from the 2.5 mm threaded holes at the top all the way down around the motor system at the bottom. This makes the MC Windfeld Ortofon's strongest and most resonance-free cartridge yet, with a direct mechanical connection between the motor and the tonearm. What this means for the dynamics, resolution and richness of detail in the sound simply has to be experienced.

But the Ortofon MC Windfeld is also unique in cosmetic terms: the parts of the cartridge housing are produced with matt and polished black surfaces. The underside facing the record is covered by a new shield, which reinforces the mechanical structure. Per Windfeld's characteristic initials in gold, which decorate the sides of the cartridge housing, stand as a signal to the outside world that this technologically advanced cartridge is Ortofon's finest, most accurate and in our own opinion also best-sounding design.

We recommend a thorough listening test using the best equipment, and invite serious audiophiles to pay tribute to Per Windfeld with this serious candidate for "the world's best cartridge"...

## Ortofon MC Windfeld

TECHNICAL DATA	MC PW
Output voltage at 1000 Hz, 5cm/sec.	0,3 mV
Channel balance at 1 kHz	< 0,2 dB
Channel separation at 1 kHz	> 28 dB
Channel separation at 15 kHz	> 22 dB
Frequency range at - 3dB	10-80.000 Hz
Frequency response	20-20.000 Hz + / - 1 dB
Tracking ability at 315-Hz at recommended tracking force	100 µm
Compliance, dynamic, lateral	16 µm/mN
Stylus type	Nude Ortofon Replicant 100, special polished
Stylus tip radius	r/R 5/100 µm
Tracking force range	2,3-2,8 g (23-28 mN)
Tracking force, recommended	2,6 g (26 mN)
Tracking angle	23°
Internal impedance, DC resistance	4 Ohm
Recommended load impedance	> 10 Ohm
Cartridge body material	Stainless steel/special alloy
Cartridge colour	Black/Black
Cartridge weight	13,0 g



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accuracy in sound